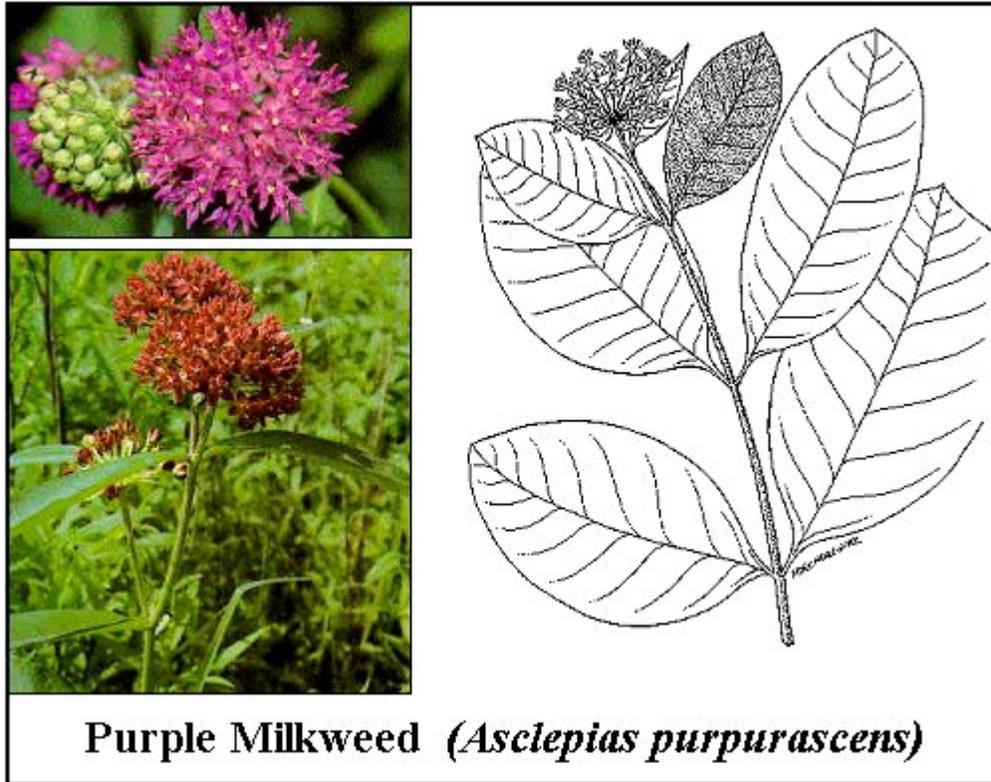


# Midwestern Wetland Flora

## *Field Office Guide to Plant Species*



USDA - Soil Conservation Service  
Midwest National Technical Center  
Lincoln, Nebraska

The swampbuster provision of the Food Security Act of 1985 requires the Soil Conservation Service to make wetland/converted wetland determinations based on the presence of hydric soils and hydrophytic vegetation. This is necessary to assist the United States Department of Agriculture program agencies in determining producer eligibility for USDA program benefits. The material contained in this illustrated wetland guide will enable persons, regardless of their botanical background, to identify the plants included in this guide.

Three hundred species of vascular plants were chosen for inclusion in this guide after consultation with the Ecological Science and Planning Staff of the Soil Conservation Service Midwest Regional Technical Center in Lincoln, Nebraska. A decision was made to exclude all species that are true aquatics that live in water, because they are obvious wetland species. Also excluded were those species that most people readily recognize, such as cattail, lizard's tail, and others.

**This resource is based on the following source:**

U.S. Department of Agriculture. No date. Midwestern wetland flora: Field office guide to plant species. U.S.D.A. Soil Conservation Service, Midwest National Technical Center, Lincoln, Nebraska. Unpaginated.

**This resource should be cited as:**

U.S. Department of Agriculture. No date. Midwestern wetland flora: Field office guide to plant species. U.S.D.A. Soil Conservation Service, Midwest National Technical Center, Lincoln, Nebraska. Jamestown, ND: Northern Prairie Wildlife Research Center Online.  
<http://www.npwrc.usgs.gov/resource/plants/floramw/index.htm> (Version 16JUL1997).

## **Organization and Use of this Guide**

The 300 plant species in this guide are arranged by groups. Within each group they are further arranged alphabetically by genus, and then alphabetically by species within each genus. The common and scientific name given for each plant follow the National Wetland Plant List prepared by the United States Fish and Wildlife Service in 1987. The scientific name consists of two Latin names. The first is called the genus name, the second is the species.

The name is followed by a photograph of the plant. Following the photograph is information about the plant, including characteristics of the growth form, stems, leaves, flowers (sepals, petals, stamens, pistils), fruits and seeds. Useful information or other features of the plant are included under Notes. This is followed by a black-and-white illustration of the entire plant along with a close-up illustration of one of the parts of the plant.

To use the guide, one identifies the plant to group, either with the key or from experience and prior knowledge, and then refers to the plant description. If the plant is not encountered in the descriptions, it is obviously not covered by this guide, and the investigator must consult other references.

Printed copies of this guide are available through:

Hoosier Heartland, 5995  
Lakeside Blvd. Suite 5,  
Indianapolis, IN 46278-1996  
Phone 317-290-3250.

Cost is \$52.50 plus \$4.00 shipping.

### **[Illustrated Glossary of Floral Terms](#)**

### **[Species List and Identification Key](#)**

### **[Credits](#)**

# Midwestern Wetland Flora

## *Illustrated Glossary of Floral Terms*

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### **Achene**

A one-seeded, dry, indehiscent fruit with the seed coat not attached to the mature ovary wall.



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### **Alternate**

In reference to leaves: occurring at different levels successively on opposite sides of stem.



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### **Annual**

Living only for one year.

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### **Auricle**

An ear-shaped appendage to a leaf or stipule.

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### **Awn**

A bristle-like process.

---

### **Berry**

A fruit with the seeds surrounded only by fleshy material.

---

### **Biennial**

Living for two years.

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### **Bract**

An accessory structure at the base of some flowers, usually appearing leaflike.

---

### **Bracteole**

A secondary bract.

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### **Bristle**

A stiff hair.

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**Capsule**

A dry, dehiscent fruit splitting into 3 or more parts.

**Ciliate**

Bearing marginal hairs.

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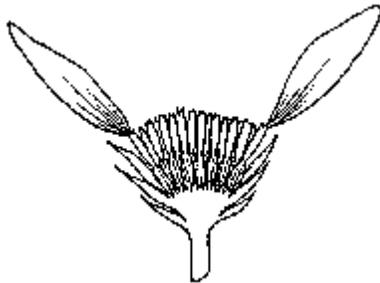
**Clasping**

Said of leaves that partially encircle the stem at the base.

---

**Composite**

Referring to an inflorescence that is made up of many tiny florets crowded together on a receptacle.

**Corm**

An enlarged, solid, rounded, underground stem, which is covered with a few thin scales or leaves.

---

**Corolla**

All the petals of a flower.

---

**Cyme**

A type of inflorescence in which the central flowers open first.

---

**Dehiscent**

Splitting at maturity.

---

**Drupe**

A fruit with the seed surrounded by a hard, dry covering which, in turn, is surrounded by fleshy material.

---

**Ellipsoid**

Referring to a solid object that is broadest at the middle, gradually tapering to both ends.

---

**Elliptic**

Broadest at the middle, gradually tapering to both ends.



---

**Fibrous**

Referring to a cluster of slender roots, all with the same diameter.

---

**Filament**

The stalk of a stamen.

---

**Follicle**

A dry, dehiscent fruit that splits along one side at maturity.



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**Glaucous**

Having a bluish appearance.

---

**Glume**

A sterile scale found in grasses

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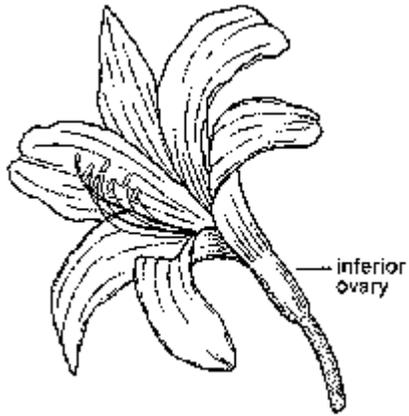
**Indehiscent**

Not splitting open at maturity.

---

**Inferior**

Referring to the position of the ovary when it is below the point of attachment of the sepals and petals.

**Inflorescence**

A cluster of flowers.

---

**Lanceolate**

Lance-shaped; broadest near the base, gradually tapering to the narrower apex.

**Lanceoloid**

Referring to a solid object that is broadest near the base, gradually tapering to the narrower apex.

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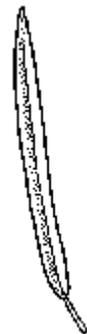
**Lemma**

A fertile scale found in grasses.

---

**Linear**

Elongated and uniform in width throughout.

**Mucro**

A sharp point at termination of an organ or other structure.

---

**Nutlet**

A small nut.

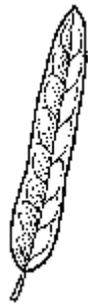
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**Oblanceolate**

Reverse lance-shaped; broadest at the apex, gradually tapering to the narrower base.

**Oblong**

Broadest at the middle, and tapering to both ends, but broader than elliptic.

**Oblongoid**

Referring to a solid object that, in side view, is nearly the same width throughout.

---

**Obovate**

Broadly rounded at the apex, becoming narrowed below.

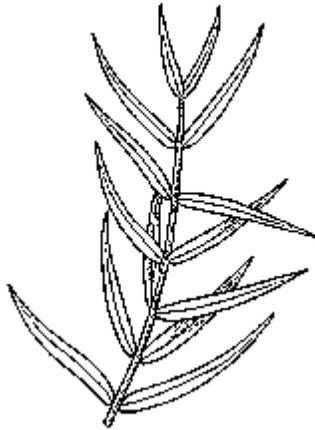
**Obovoid**

Referring to a solid object that is broadly rounded at the apex, becoming narrowed below.

---

**Opposite**

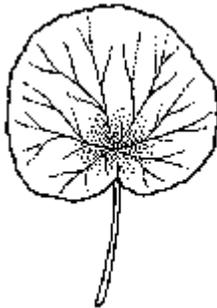
In reference to leaves: forming a pair opposite each other on the stem.



---

**Orbicular**

Round.



---

**Ovary**

That part of the pistil that contains the ovules.

---

**Ovate**

Broadly rounded at the base, becoming narrowed above; broader than lanceolate.



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**Ovoid**

Referring to a solid object that is broadly rounded at the base, becoming narrowed above.

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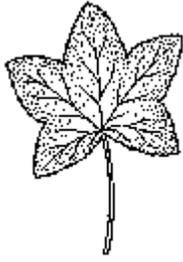
**Ovule**

Immature seed.

---

**Palmate**

Divided radiately, like the fingers of a hand.

**Panicle**

An arrangement of flowers consisting of several racemes.

**Perennial**

Living for 3 or more years.

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**Perianth**

All the sepals and petals of a flower.

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**Perigynium**

A sac-like structure enclosing the pistil in Carex.

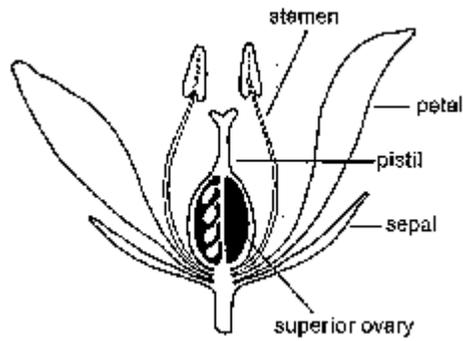
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**Pinnate**

Divided once along an elongated axis into distinct segments.

**Pistil**

The ovule-producing part of the flower.



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**Prostrate**

Lying flat on the ground.

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**Raceme**

A grouping of flowers along an elongated axis where each flower has its own stalk.



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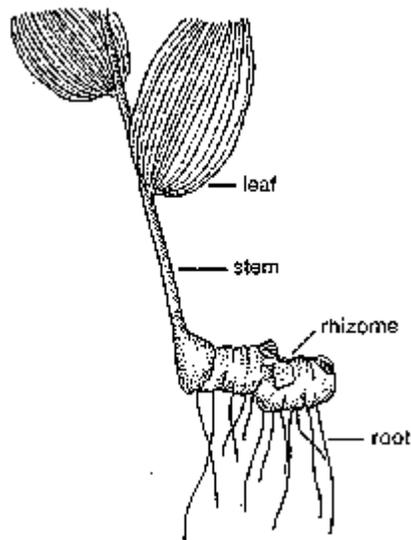
**Receptacle**

That part of the flower to which the sepals, petals, stamens, and pistils are usually attached.

---

**Rhizome**

An underground, horizontal stem.

**Samara**

An indehiscent winged fruit.

**Scale**

A tiny, leaflike structure; the structure that subtends each flower in a grass or sedge.

**Spadix**

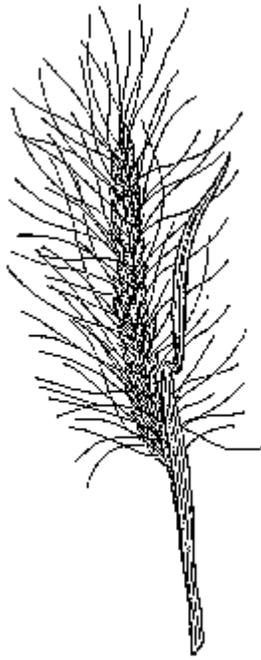
A fleshy axis in which flowers are embedded.

**Spathe**

A large bract subtending or sometimes enclosing a cluster of flowers.

**Spike**

A grouping of flowers along an elongated axis where each flower lacks a stalk.




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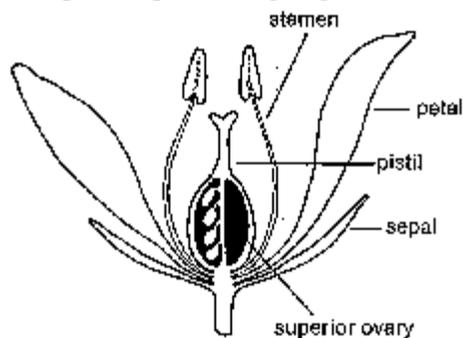
**Spikelet**

A small spike.

---

**Stamen**

The pollen-producing organ of a flower.




---

**Stigma**

The terminal part of a pistil.

---

**Stipule**

A leaflike outgrowth at the base of a leaf stalk.

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**Stolon**

A horizontal stem lying on the surface of the soil.

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**Style**

That part of the pistil between the ovary and the stigma.

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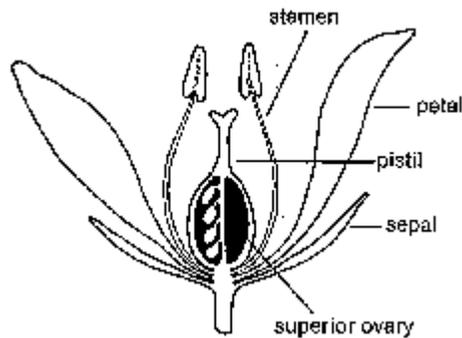
**Succulent**

Fleshy.

---

**Superior**

Referring to the position of the ovary when it is above the point of attachment of sepals, petals, stamens, and pistils.

**Terete**

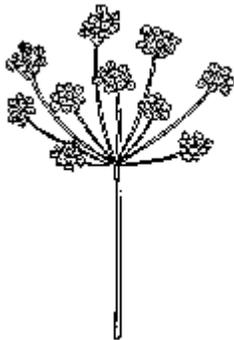
Nearly cylindrical in section.

**Tubercle**

A wart-like process.

**Umbel**

A cluster of flowers in which the flower stalks arise from the same level.

**Valve**

The wing of the fruit in Rumex.

**Whorl**

The arrangement of 3 or more structures at a point on the stem.



# Midwestern Wetland Flora

## *Species List and Identification Key*

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The 300 Midwestern wetland plants selected for this project are given in the following list. The list is arranged by groups as found in the key to groups. Within each group the plants are arranged alphabetically first by the scientific name of the genus, then alphabetically by species within the genus. The scientific and common names are those given in the **Wetland Inventory List** by the US Fish and Wildlife Service, 1987.

**Instructions:** If the group of a desired species is known from experience and prior knowledge, select it from the list below. To use the **Identification Key**, start at criterium 1 below and follow the key until a group is found.

---

## Contents

- [Group 1](#) -- Ferns and Horsetails
  - [Group 2](#) -- Grasses
  - [Group 3](#) -- Sedges
  - [Group 4](#) -- Other Monocots
  - [Group 5](#) -- Trees or Shrubs
  - [Group 6](#) -- Dicot Herbs with Some Leaves Compound
  - [Group 7](#) -- Dicot Herbs with Most Leaves Simple and Opposite
  - [Group 8](#) -- Dicot Herbs with Most Leaves Simple and Alternate
- 

## Identification Key

1. Ferns or horsetails, reproducing by spores, not seeds -- [Group 1](#)
1. Plants reproducing by flowers and seeds -- **Go to 2.**
  2. Monocots; leaves usually with parallel veins; flower parts usually in 3's or multiples -- **Go to 3.**
  2. Dicots; leaves usually with net veins; flower parts usually in 4's or 5's or multiples -- **Go to 5.**
3. Flowers without sepals and petals, each flower subtended by a scale, with all the flowers arranged in spikelets -- **Go to 4.**
3. Flowers with sepals and petals (green or brown in *Juncus*), or borne on a spadix, but not arranged in spikelets -- [Group 4](#)
  4. At least one or more scales at the base of each spikelet not subtending a flower; stems never triangular -- [Group 2](#)
  4. All the scales of a spikelet subtending a flower; stems sometimes triangular -- [Group 3](#)
5. Trees or shrubs; stems woody -- [Group 5](#)
5. Herbs; stems not woody -- **Go to 6.**
  6. At least some of the leaves compound; that is, divided into distinct leaflets -- [Group 6](#)
  6. None of the leaves compound -- **Go to 7.**

7. Most or all the leaves opposite or whorled -- [Group 7](#)  
7. Most or all the leaves alternate -- [Group 8](#)

## Group 1. Ferns and Horsetails

[Berry Bladderfern](#) (*Cystopteris bulbifera*)  
[Field Horsetail](#) (*Equisetum arvense*)  
[Scouringrush Horsetail](#) (*Equisetum hyemale*)  
[Smooth Horsetail](#) (*Equisetum laevigatum*)  
[Royal Fern](#) (*Osmunda regalis*)  
[Marsh Fern](#) (*Thelypteris thelypteroides*)

## Group 2. Grasses

[Quackgrass](#) (*Agropyron repens*)  
[Western Wheatgrass](#) (*Agropyron smithii*)  
[Redtop](#) (*Agrostis alba*)  
[Carolina Foxtail](#) (*Alopecurus carolinianus*)  
[Giant Cane](#) (*Arundinaria gigantea*)  
[Bluejoint](#) (*Calamagrostis canadensis*)  
[Broadleaf Uniola](#) (*Chasmanthium latifolium*)  
[Stout Woodreed](#) (*Cinna arundinacea*)  
[Woolly Panicum](#) (*Dichanthelium acuminatum*)  
[Deertongue Dichanthelium](#) (*Dichanthelium clandestinum*)  
[Barnyard Grass](#) (*Echinochloa crusgalli*)  
[Wild Millet](#) (*Echinochloa muricata*)  
[Canada Wildrye](#) (*Elymus canadensis*)  
[Virginia Wildrye](#) (*Elymus virginicus*)  
[Teal Lovegrass](#) (*Eragrostis hypnoides*)  
[Tall Fescue](#) (*Festuca arundinacea*)  
[Meadow Fescue](#) (*Festuca pratensis*)  
[Fowl Mannagrass](#) (*Glyceria striata*)  
[Foxtail Barley](#) (*Hordeum jubatum*)  
[Little Barley](#) (*Hordeum pusillum*)  
[Rice Cutgrass](#) (*Leersia oryzoides*)  
[Whitegrass](#) (*Leersia virginica*)  
[Redtop Panicum](#) (*Panicum rigidulum*)  
[Florida Paspalum](#) (*Paspalum floridanum*)  
[Water Paspalum](#) (*Paspalum fluitans*)  
[Field Paspalum](#) (*Paspalum laeve*)  
[Reed Canarygrass](#) (*Phalaris arundinacea*)  
[Common Reed](#) (*Phragmites australis*)  
[Annual Bluegrass](#) (*Poa annua*)  
[Canada Bluegrass](#) (*Poa compressa*)  
[Kentucky Bluegrass](#) (*Poa pratensis*)  
[Faber Bristlegrass](#) (*Setaria faberi*)

[Yellow Foxtail](#) (*Setaria glauca*)  
[Prairie Cordgrass](#) (*Spartina pectinata*)  
[Prairie Wedgegrass](#) (*Sphenopholis obtusata*)

### Group 3. Sedges

[Slough Sedge](#) (*Carex atherodes*)  
[Woodland Sedge](#) (*Carex blanda*)  
[Bush Sedge](#) (*Carex bushii*)  
[Longhair Sedge](#) (*Carex comosa*)  
[Fringed Sedge](#) (*Carex crinita*)  
[Crested Sedge](#) (*Carex cristatella*)  
[Crowfoot Sedge](#) (*Carex crus-corvi*)  
[Fescue Sedge](#) (*Carex festucacea*)  
[Thin-fruited Sedge](#) (*Carex flaccosperma*)  
[Frank's Sedge](#) (*Carex frankii*)  
[Meadow Sedge](#) (*Carex granularis*)  
[Gray's Sedge](#) (*Carex grayi*)  
[Thinscale Sedge](#) (*Carex hyalinolepis*)  
[Inland Sedge](#) (*Carex interior*)  
[Bull Sedge](#) (*Carex lanuginosa*)  
[Hop Sedge](#) (*Carex lupulina*)  
[Lurid Sedge](#) (*Carex lurida*)  
[Troublesome Sedge](#) (*Carex molesta*)  
[Muskingum Sedge](#) (*Carex muskingumensis*)  
[Larger Straw Sedge](#) (*Carex normalis*)  
[Beaded Broom Sedge](#) (*Carex projecta*)  
[Broom Sedge](#) (*Carex scoparia*)  
[Short's Sedge](#) (*Carex shortiana*)  
[Squarrose Sedge](#) (*Carex squarrosa*)  
[Sawbeak Sedge](#) (*Carex stipata*)  
[Slender Sedge](#) (*Carex tenera*)  
[Bristlebract Sedge](#) (*Carex tribuloides*)  
[Cattail Sedge](#) (*Carex typhina*)  
[Fox Sedge](#) (*Carex vulpinoidea*)  
[Taperleaf Flatsedge](#) (*Cyperus acuminatus*)  
[Redroot Flatsedge](#) (*Cyperus erythrorhizos*)  
[Chufa Flatsedge](#) (*Cyperus esculentus*)  
[Rusty Flatsedge](#) (*Cyperus ferruginescens*)  
[Yellow Flatsedge](#) (*Cyperus flavescens*)  
[Fragrant Flatsedge](#) (*Cyperus odoratus*)  
[Green Flatsedge](#) (*Cyperus pseudovegetus*)  
[Slender Flatsedge](#) (*Cyperus rivularis*)  
[Strawcolored Nutsedge](#) (*Cyperus strigosus*)  
[Three-way Sedge](#) (*Dulichium arundinaceum*)  
[Needle Spikerush](#) (*Eleocharis acicularis*)  
[Flat-stemmed Spikerush](#) (*Eleocharis compressa*)

[Blunt Spikerush](#) (*Eleocharis obtusa*)  
[Creeping Spikerush](#) (*Eleocharis palustris*)  
[Squarestem Spikerush](#) (*Eleocharis quadrangulata*)  
[Small's Spikerush](#) (*Eleocharis smallii*)  
[Common Hemicarpha](#) (*Hemicarpha micrantha*)  
[Hardstem Bulrush](#) (*Scirpus acutus*)  
[Olney's Bulrush](#) (*Scirpus americanus*)  
[Green Bulrush](#) (*Scirpus atrovirens*)  
[Woolgrass](#) (*Scirpus cyperinus*)  
[River Bulrush](#) (*Scirpus fluviatilis*)  
[Reddish Bulrush](#) (*Scirpus pendulus*)  
[Softstem Bulrush](#) (*Scirpus validus*)

#### Group 4. Other Monocots

[Common Waterplantain](#) (*Alisma plantago-aquatica*)  
[Atlantic Camass](#) (*Camassia scilloides*)  
[Common Dayflower](#) (*Commelina communis*)  
[Spreading Dayflower](#) (*Commelina diffusa*)  
[Virginia Dayflower](#) (*Commelina virginica*)  
[Northern Spiderlily](#) (*Hymenocallis occidentalis*)  
[Common Goldstargrass](#) (*Hypoxis hirsuta*)  
[Tapertip Rush](#) (*Juncus acuminatus*)  
[Twinflower Rush](#) (*Juncus biflorus*)  
[Short-fruited Rush](#) (*Juncus brachycarpus*)  
[Soft Rush](#) (*Juncus effusus*)  
[Inland Rush](#) (*Juncus interior*)  
[Jointed Rush](#) (*Juncus nodosus*)  
[Slender Rush](#) (*Juncus tenuis*)  
[Torrey Rush](#) (*Juncus torreyi*)  
[Nodding Ladies' Tresses](#) (*Spiranthes cernua*)  
[Skunk Cabbage](#) (*Symplocarpus foetidus*)

#### Group 5. Trees or Shrubs

[Hazel Alder](#) (*Alnus serrulata*)  
[Dull-leaf Indigo](#) (*Amorpha fruticosa*)  
[River Birch](#) (*Betula nigra*)  
[Low Birch](#) (*Betula pumila*)  
[American Hornbeam](#) (*Carpinus caroliniana*)  
[Common Pecan](#) (*Carya illinoensis*)  
[Shellbark Hickory](#) (*Carya laciniosa*)  
[Shagbark Hickory](#) (*Carya ovata*)  
[Sugarberry](#) (*Celtis laevigata*)

[Common Hackberry](#) (*Celtis occidentalis*)  
[Button Bush](#) (*Cephalanthus occidentalis*)  
[Leatherleaf](#) (*Chamaedaphne calyculata*)  
[Gray Dogwood](#) (*Cornus foemina*)  
[Red-osier Dogwood](#) (*Cornus stolonifera*)  
[Water Willow](#) (*Decodon verticillatus*)  
[Swamp Privet](#) (*Forestiera acuminata*)  
[Green Ash](#) (*Fraxinus pennsylvanica*)  
[Possumhaw Holly](#) (*Ilex decidua*)  
[Winterberry](#) (*Ilex verticillata*)  
[Shrubby Cinquefoil](#) (*Potentilla fruticosa*)  
[Common Chokecherry](#) (*Prunus virginiana*)  
[Swamp White Oak](#) (*Quercus bicolor*)  
[Bur Oak](#) (*Quercus macrocarpa*)  
[Swamp Chestnut Oak](#) (*Quercus michauxii*)  
[Shumard Oak](#) (*Quercus shumardii*)  
[Swamp Rose](#) (*Rosa palustris*)  
[Peachleaf Willow](#) (*Salix amygdaloides*)  
[Hoary Willow](#) (*Salix candida*)  
[Pussy Willow](#) (*Salix discolor*)  
[Sandbar Willow](#) (*Salix exigua*)  
[Black Willow](#) (*Salix nigra*)  
[American Elder](#) (*Sambucus canadensis*)  
[Nannyberry](#) (*Viburnum lentago*)  
[Black Haw](#) (*Viburnum prunifolium*)  
[Arrow-wood](#) (*Viburnum recognitum*)

## Group 6. Dicot Herbs with Some Leaves Compound

[Small-flowered Agrimony](#) (*Agrimonia parviflora*)  
[American Potatobean](#) (*Apios americana*)  
[Bitter Wintercress](#) (*Barbarea vulgaris*)  
[Tickseed Sunflower](#) (*Bidens aristosa*)  
[Devils Beggarticks](#) (*Bidens frondosa*)  
[Pennsylvania Bittercress](#) (*Cardamine pensylvanica*)  
[Maryland Senna](#) (*Cassia marilandica*)  
[Spreading Chervil](#) (*Chaerophyllum procumbens*)  
[Spotted Waterhemlock](#) (*Cicuta maculata*)  
[Yellow Corydalis](#) (*Corydalis flavula*)  
[Spring Avens](#) (*Geum vernum*)  
[Narrow-leaved Paleseed](#) (*Leucospora multifida*)  
[Birdsfoot Trefoil](#) (*Lotus corniculatus*)  
[Cowbane](#) (*Oxypolis rigidior*)  
[Subalpine Buttercup](#) (*Ranunculus abortivus*)  
[Swamp Buttercup](#) (*Ranunculus septentrionalis*)  
[Butterweed](#) (*Senecio glabellus*)  
[Waterparsnip](#) (*Sium suave*)

## Group 7. Dicot Herbs with Most Leaves Simple and Opposite

[Purple Gerardia](#) (*Agalinis purpurea*)  
[Common Ragweed](#) (*Ambrosia artemisiifolia*)  
[Giant Ragweed](#) (*Ambrosia trifida*)  
[Purple Ammannia](#) (*Ammannia coccinea*)  
[Indianhemp Dogbane](#) (*Apocynum cannabinum*)  
[Swamp Milkweed](#) (*Asclepias incarnata*)  
[Purple Milkweed](#) (*Asclepias purpurascens*)  
[Showy Milkweed](#) (*Asclepias speciosa*)  
[Disk Water Hyssop](#) (*Bacopa rotundifolia*)  
[Nodding Beggarticks](#) (*Bidens cernua*)  
[False Nettle](#) (*Boehmeria cylindrica*)  
[White Turtlehead](#) (*Chelone glabra*)  
[Mistflower](#) (*Conoclinium coelestinum*)  
[Virginia Buttonweed](#) (*Diodia virginiana*)  
[Yerba de Tajo](#) (*Eclipta alba*)  
[Purplestem Joepyeweed](#) (*Eupatoriadelphus fistulosus*)  
[Boneset](#) (*Eupatorium perfoliatum*)  
[Bluntleaf Bedstraw](#) (*Galium obtusum*)  
[Dye Bedstraw](#) (*Galium tinctorium*)  
[Small Bedstraw](#) (*Galium trifidum*)  
[Fringed Gentian](#) (*Gentianopsis crinita*)  
[Clammy Hedge-hyssop](#) (*Gratiola neglecta*)  
[Sawtooth Sunflower](#) (*Helianthus grosseserratus*)  
[Rough Sumpweed](#) (*Iva annua*)  
[Dwarf Dandelion](#) (*Krigia cespitosa*)  
[False Pimpernel](#) (*Lindernia anagallidea*)  
[Moistbank Pimpernel](#) (*Lindernia dubia*)  
[Marsh Purslane](#) (*Ludwigia palustris*)  
[American Bugleweed](#) (*Lycopus americanus*)  
[Rough Bugleweed](#) (*Lycopus asper*)  
[Stalked Water Horehound](#) (*Lycopus rubellus*)  
[Virginia Bugleweed](#) (*Lycopus virginicus*)  
[Fringed Loosestrife](#) (*Lysimachia ciliata*)  
[Lanceleaf Loosestrife](#) (*Lysimachia lanceolata*)  
[Moneywort Loosestrife](#) (*Lysimachia nummularia*)  
[Water Loosestrife](#) (*Lysimachia thyrsiflora*)  
[Purple Loosestrife](#) (*Lythrum salicaria*)  
[Field Mint](#) (*Mentha arvensis*)  
[Sharp-winged Monkey-flower](#) (*Mimulus alatus*)  
[Carpetweed](#) (*Mollugo verticillata*)  
[Foxglove Beardtongue](#) (*Penstemon digitalis*)  
[Beafsteak Plant](#) (*Perilla frutescens*)  
[Smooth Phlox](#) (*Phlox glaberrima*)  
[Garden Phlox](#) (*Phlox paniculata*)

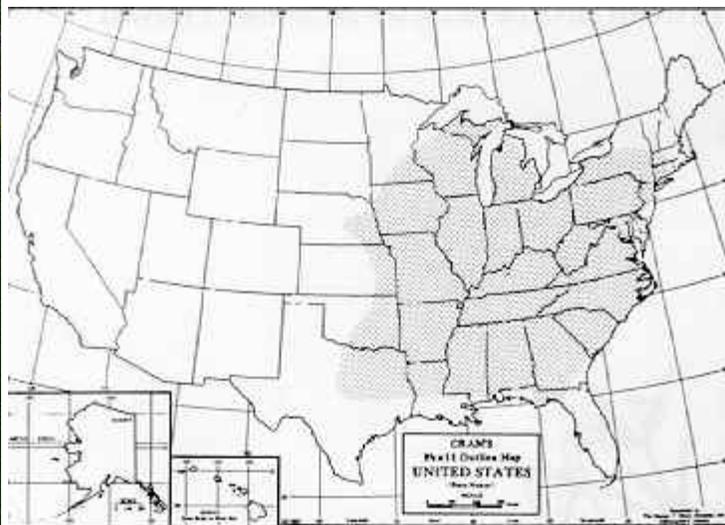
[Fog-fruit](#) (*Phyla lanceolata*)  
[False Dragon-head](#) (*Physostegia virginiana*)  
[Clearweed](#) (*Pilea pumila*)  
[Common Selfheal](#) (*Prunella vulgaris*)  
[Slender Mountain-mint](#) (*Pycnanthemum tenuifolium*)  
[Maryland Meadow Beauty](#) (*Rhexia mariana*)  
[Tooth-cup](#) (*Rotala ramosior*)  
[Smooth Ruellia](#) (*Ruellia strepens*)  
[Rose-pink](#) (*Sabatia angularis*)  
[Blue Skullcap](#) (*Scutellaria lateriflora*)  
[Cup-plant](#) (*Silphium perfoliatum*)  
[Smooth Buttonweed](#) (*Spermacoce glabra*)  
[Woundwort](#) (*Stachys palustris*)  
[Smooth Hedge Nettle](#) (*Stachys tenuifolia*)  
[Canada Germander](#) (*Teucrium canadense*)  
[Marsh St. Johnswort](#) (*Triadenum walteri*)  
[Blue Vervain](#) (*Verbena hastata*)  
[Purslane Speedwell](#) (*Veronica peregrina*)  
[Culver's-root](#) (*Veronicastrum virginicum*)

## Group 8. Dicot Herbs with Most Leaves Simple and Alternate

[Amaranth Tumbleweed](#) (*Amaranthus albus*)  
[Redroot Amaranth](#) (*Amaranthus retroflexus*)  
[Nuttall's Waterhemp](#) (*Amaranthus rudis*)  
[Willow Amsonia](#) (*Amsonia tabernaemontana*)  
[Rush Aster](#) (*Aster junciformis*)  
[Calico Aster](#) (*Aster lateriflorus*)  
[New England Aster](#) (*Aster novae-angliae*)  
[Whitefield Aster](#) (*Aster simplex*)  
[Fairy Aster](#) (*Aster vimineus*)  
[Marsh Boltonia](#) (*Boltonia asteroides*)  
[Hedge Bindweed](#) (*Calystegia sepium*)  
[American Bellflower](#) (*Campanula americana*)  
[Spring Cress](#) (*Cardamine bulbosa*)  
[Purple Cress](#) (*Cardamine douglassii*)  
[Lambsquarter](#) (*Chenopodium album*)  
[Winged Pigweed](#) (*Cycloloma atriplicifolium*)  
[Purpleleaf Willowweed](#) (*Epilobium coloratum*)  
[Annual Fleabane](#) (*Erigeron annuus*)  
[Philadelphia Fleabane](#) (*Erigeron philadelphicus*)  
[Robin's Plantain](#) (*Erigeron pulchellus*)  
[Rough Fleabane](#) (*Erigeron strigosus*)  
[Narrowleaf Cottonsedge](#) (*Eriophorum angustifolium*)  
[Grass-leaved Goldenrod](#) (*Euthamia graminifolia*)  
[Sneezeweed](#) (*Helenium autumnale*)  
[Purple-headed Sneezeweed](#) (*Helenium flexosum*)

[Cowparsnip](#) (*Heracleum lanatum*)  
[Halberd-leaved Rosemallow](#) (*Hibiscus laevis*)  
[Spotted Touch-me-not](#) (*Impatiens capensis*)  
[Small White Morning-glory](#) (*Ipomoea lacunosa*)  
[Canada Woodnettle](#) (*Loportea canadensis*)  
[Cardinalflower](#) (*Lobelia cardinalis*)  
[Bigblue Lobelia](#) (*Lobelia siphilitica*)  
[Seedbox](#) (*Ludwigia alternifolia*)  
[Winged Lythrum](#) (*Lythrum alatum*)  
[Tiny Mouse-tail](#) (*Myosurus minimus*)  
[Common Evening Primrose](#) (*Oenothera biennis*)  
[Prairie Sundrops](#) (*Oenothera pilosella*)  
[Pennsylvania Pellitory](#) (*Parietaria pensylvanica*)  
[Ditch-stonecrop](#) (*Penthorum sedoides*)  
[Coville's Phacelia](#) (*Phacelia ranunculacea*)  
[Heartleaf Plantain](#) (*Plantago cordata*)  
[Stinkweed](#) (*Pluchea camphorata*)  
[Water Smartweed](#) (*Polygonum amphibium*)  
[Scarlet Smartweed](#) (*Polygonum amphibium* var. *coccineum*)  
[Cespitose Knotweed](#) (*Polygonum cespitosum*)  
[Mild Water Pepper](#) (*Polygonum hydropiperoides*)  
[Pinkweed](#) (*Polygonum pensylvanicum*)  
[Arrow-leaved Tear-thumb](#) (*Polygonum sagittatum*)  
[Climbing False Buckwheat](#) (*Polygonum scandens*)  
[Bristly Smartweed](#) (*Polygonum setaceum*)  
[Mermaid Weed](#) (*Proserpinaca palustris*)  
[Spearwort](#) (*Ranunculus laxicaulis*)  
[Low Spearwort](#) (*Ranunculus pusillus*)  
[Hooked Buttercup](#) (*Ranunculus recurvatus*)  
[Celeryleaf Buttercup](#) (*Ranunculus sceleratus*)  
[Sessile-flowered Cress](#) (*Rorippa sessiliflora*)  
[Creeping Yellow-cress](#) (*Rorippa sylvestris*)  
[Tall Coneflower](#) (*Rudbeckia laciniata*)  
[Pale Dock](#) (*Rumex altissimus*)  
[Curly Dock](#) (*Rumex crispus*)  
[Great Water Dock](#) (*Rumex orbiculatus*)  
[Swamp Dock](#) (*Rumex verticillatus*)  
[Pennsylvania Saxifrage](#) (*Saxifraga pensylvanica*)  
[Golden Ragwort](#) (*Senecio aureus*)  
[Bur Cucumber](#) (*Sicyos angulatus*)  
[Zigzag Goldenrod](#) (*Solidago flexicaulis*)  
[Late Goldenrod](#) (*Solidago gigantea*)  
[Roughleaf Goldenrod](#) (*Solidago patula*)  
[Bog Goldenrod](#) (*Solidago uliginosa*)  
[Prickly Sowthistle](#) (*Sonchus asper*)  
[Yellow Ironweed](#) (*Verbesina alternifolia*)  
[Ironweed](#) (*Vernonia missurica*)  
[Cocklebur](#) (*Xanthium strumarium*)

## Purple Gerardia (*Agalinis purpurea*)



- **Family:** Figwort (Scrophulariaceae)
- **Flowering:** July-October.
- **Field Marks:** All species of *Agalinis* have narrow, opposite leaves and showy purple flowers with 5 petals united into an inflated tube. The purple gerardia differs from all others by its very short flower stalks and its slightly rough stems.
- **Habitat:** Wet woods, marshes, wet meadows, edges of ponds and lakes.
- **Habit:** Annual herb from tufted roots.
- **Stems:** 1-several, erect, slightly rough to the touch, up to 3 feet tall, with many spreading branches.
- **Leaves:** Opposite, simple, linear to linear-lanceolate, pointed at the tip, tapering to the base, somewhat rough on the upper surface, without teeth, up to 1/6 inch wide.
- **Flowers:** Several in the axils of the upper leaves, bright pink-purple, up to 1 1/2 inches long, bilaterally symmetrical.
- **Sepals:** 5, green, united to form a tube 1/6 inch long.
- **Petals:** 5, pink-purple, united below to form a tube up to 1 1/2 inches long.
- **Stamens:** 4, not exerted beyond the corolla tube.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules spherical, about 1/6 inch diameter, with numerous small seeds.
- **Notes:** This showy species grows in a variety of wetland habitats. It is grazed upon by deer.



# Midwestern Wetland Flora

## *Credits*

This field guide was prepared by **Biotic Consultants, Incorporated**, of Carbondale, Illinois, under Contract #54-6526-8-303.

Descriptions written by: **Robert H. Mohlenbrock**

Line drawings by: **Mark Mohlenbrock** except:

*Glyceria striata*, *Poa annua*, *Ranunculus abortivus* by **Miriam Meyer**

*Rorippa sessiliflora*, *Salix discolor*, and *Salix exigua*. by **Paul Nelson**

Maps prepared by: **Trent Mohlenbrock**

Photos by: **Robert H. Mohlenbrock** except:

*Ilex decidua* by **Rex Hamilton**

*Carex atherodes* by **Gary Larson**

*Plantago cordata* by **Steve Olson**

*Polygonum amphibium* [left] by **Ray Schulenberg**

*Chenopodium album*, *Helianthus grosseserratus*, *Physostegia virginiana*, *Pilea pumila* by **Bill Summers**

*Asclepias speciosa*, *Lycopus asper*, *Mentha arvensis*, *Polygonum scandens*, *Stachys palustris* by **Robert Tatina**

*Asclepias purpurascens* [left], *Cardamine douglassii*, *Symplocarpus foetida* by **William C. Taylor**

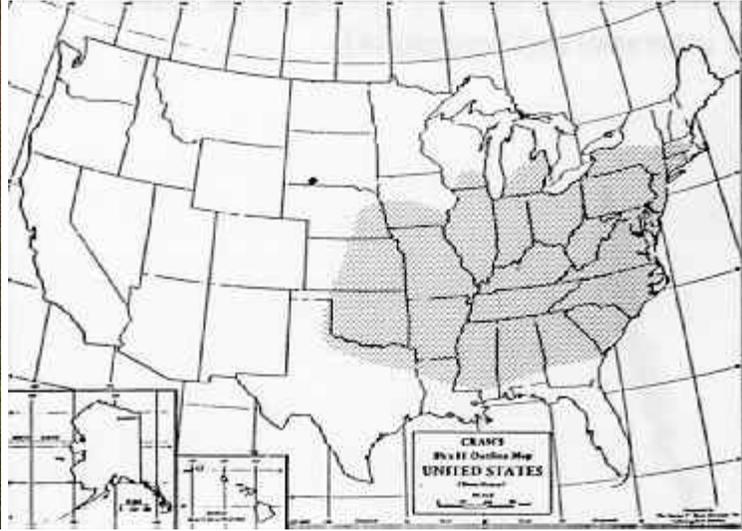
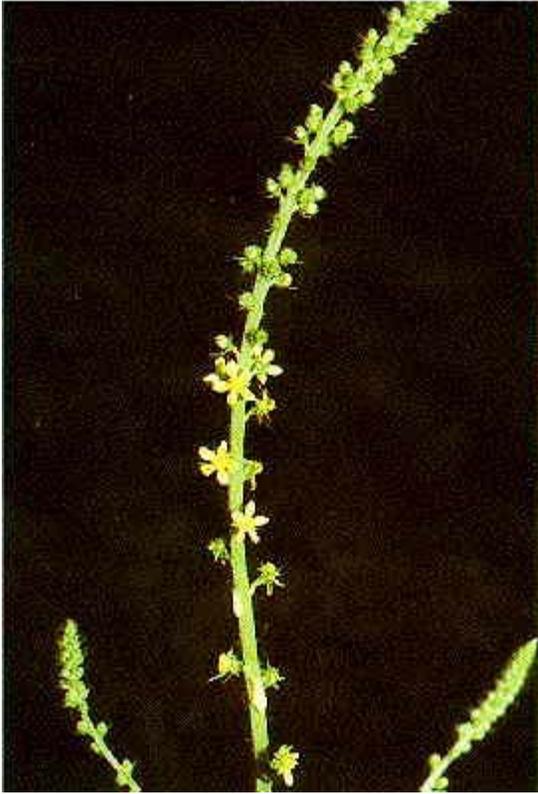
*Agropyron repens*, *Perilla frutescens*, *Rudbeckia laciniata*, *Rumex orbiculatus* [left], *Silphium perfoliatum*, *Spiranthes cernua*, *Viburnum lentago* by **Douglas Ladd**

**Beverly Mohlenbrock** typed all the drafts of the manuscript and assisted with the photography.

**Sayers Printing Company** of St. Louis prepared the camera-ready copy for the entire guide.

Base map of the United states provided by **The Cram Map Company** of Indianapolis.

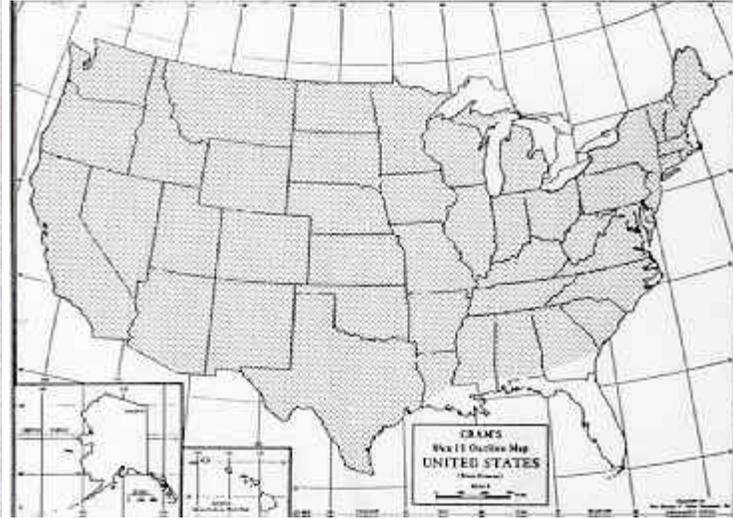
## Small-flowered Agrimony (*Agrimonia parviflora*)



- **Family:** Rose (Rosaceae)
- **Flowering:** August-September.
- **Field Marks:** Agrimonias are distinguished by having small leaflet-like segments interspersed among the regular leaflets. The small-flowered agrimony is further recognized by having some leaves with 11 or more regular leaflets per leaf (excluding the tiny interspersed segments).
- **Habitat:** Along streams, wet prairies, wet meadows, swamps, roadside ditches.
- **Habit:** Perennial herb with tuberous rhizomes.
- **Stems:** Erect, densely hairy with some of the hairs longer than the others, up to 3 feet tall.
- **Leaves:** Alternate, pinnately compound, with some leaves with at least 11-19 large leaflets and several small leaflet-like segments interspersed; the larger leaflets oblanceolate, pointed at the tip, tapering to the base, coarsely toothed, hairy, up to 4 inches long, up to 1 inch broad.
- **Flowers:** Yellow, numerous, borne in a terminal, elongated raceme, each flower up to 1/4 inch in diameter.
- **Sepals:** 5, united, green.
- **Petals:** 5, free from each other, yellow, up to 1/10 inch long.
- **Stamens:** Usually 5, sometimes 6 or 7.
- **Pistils:** Ovary superior.
- **Fruits:** Bristly with hooked hairs, containing spherical nutlets about 1/10 inch in diameter.



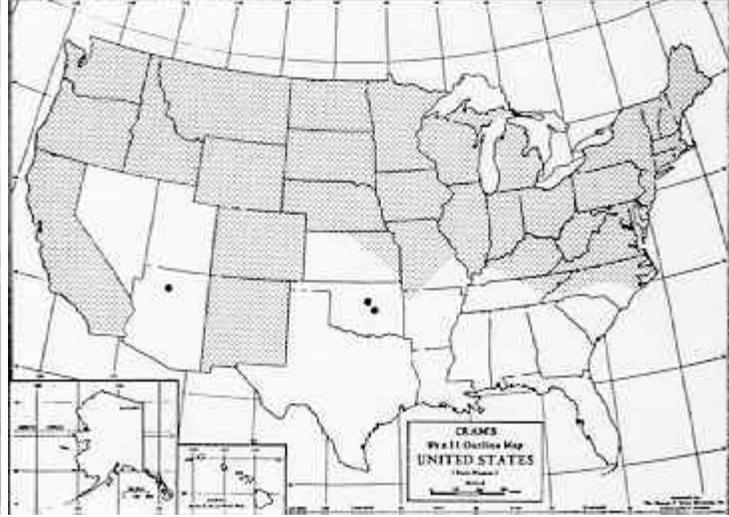
## Redtop (*Agrostis alba*)



- **Family:** Grass (Poaceae)
- **Flowering:** June-August
- **Field Marks:** Species of *Agrostis* are distinguished by their 1-flowered spikelets borne on thread-like branches. This species is further distinguished by its leaves at least 1/8 inch broad and its slender rhizomes.
- **Habitat:** Wet meadows, wet prairies, along streams, roadside ditches.
- **Habit:** Perennial grass with extensive slender rhizomes.
- **Stems:** Erect or spreading, usually unbranched, smooth, up to 2 feet tall.
- **Leaves:** Elongated, narrow, rough to the touch, 1/8 to 1/4 inch broad.
- **Flowers:** Borne in 1-flowered spikelets, with many spikelets on thread-like branches in panicles up to 10 inches long; each spikelet up to 1/2 inch long, green or purplish.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Grains:** Ellipsoid, reddish, about 1/20 inch long.
- **Notes:** The dense network of rhizomes enables this species to be a good soil binder.



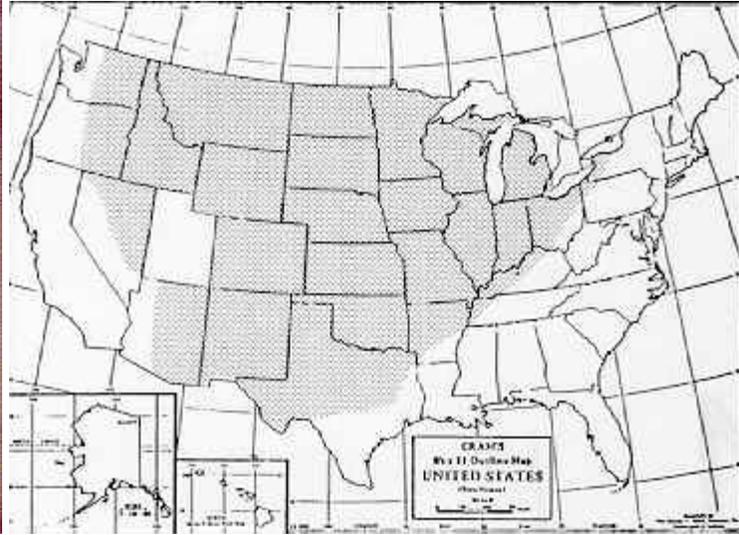
## Quackgrass (*Agropyron repens*)



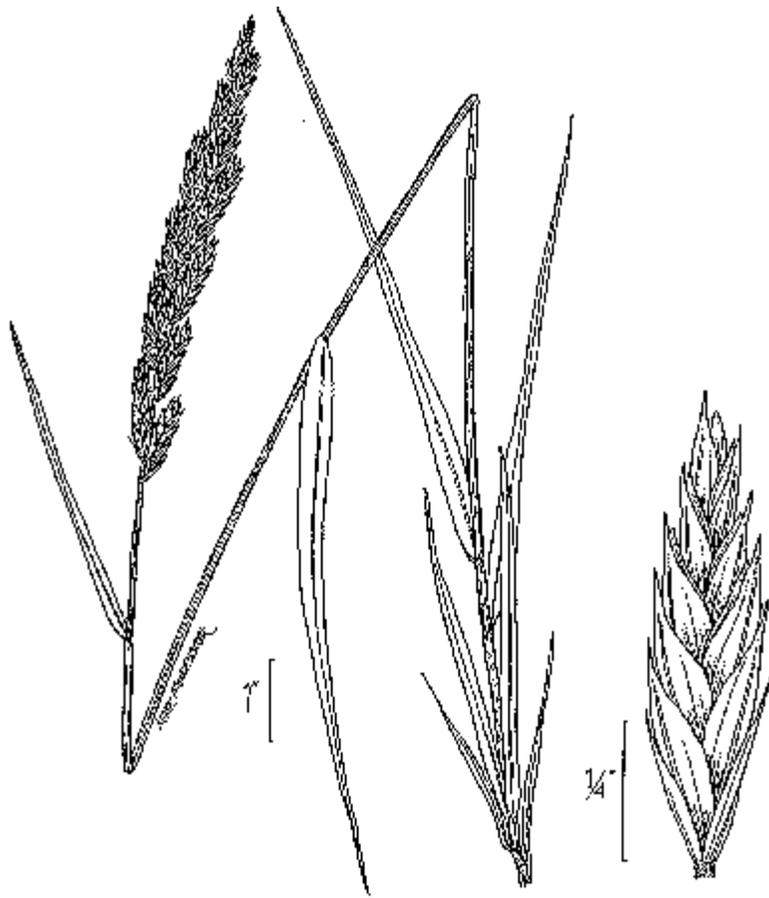
- **Family:** Grass (Poaceae)
- **Flowering:** May-September
- **Field Marks:** Quackgrass is distinguished from other species of *Agropyron* by having creeping underground rootstocks and by its spikelets that have only 3-6 flowers.
- **Habitat:** Fields, roadsides, disturbed areas.
- **Habit:** Perennial herb with whitish, creeping underground rootstocks.
- **Stems:** Erect, smooth, up to 4 feet tall.
- **Leaves:** Up to 12 inches long, up to 1/2 inch broad, smooth on the upper surface, rough on the lower surface, with smooth sheaths.
- **Flowers:** 3-6 per spikelet, with several spikelets forming erect spikes up to 8 inches long; spikelets up to 3/4 inch long, with pointed or short-awned scales that have 5 or 7 conspicuous veins.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Grains:** Hairy at the tip.



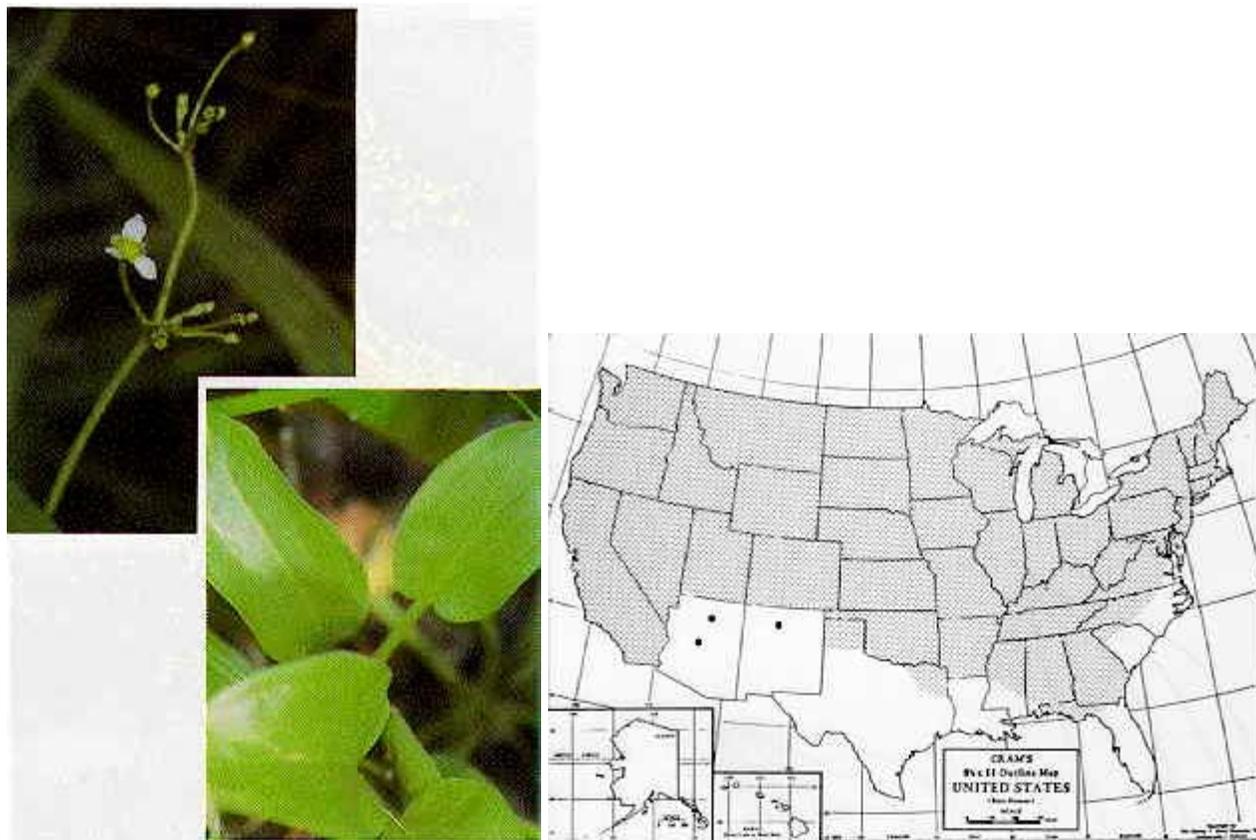
## Western Wheatgrass (*Agropyron smithii*)



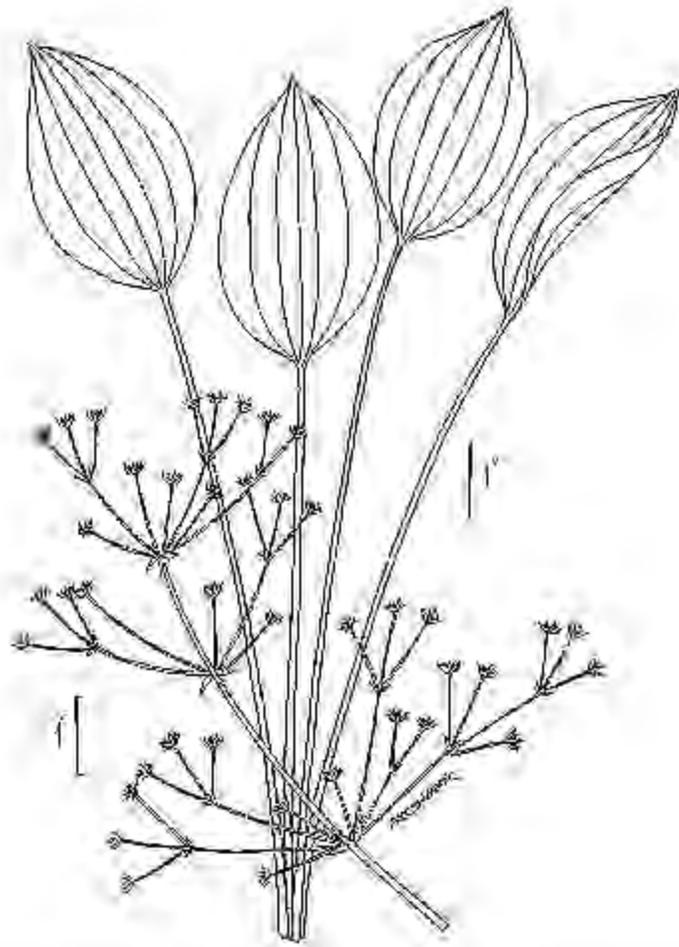
- **Family:** Grass (Poaceae)
- **Flowering:** May-August
- **Field Marks:** *Agropyron smithii* has rhizomes and blue-green leaves, some of which have inrolled margins. The spikelets usually have 6 or more flowers.
- **Habitat:** Fields, prairies; along railroads.
- **Habit:** Perennial grass with extensive creeping rhizomes.
- **Stems:** Erect, up to 4 feet tall, pale green to bluish, smooth.
- **Leaves:** Elongated, narrow, erect, up to 1/3 inch broad, rough to the touch on the upper surface, without hairs, the edges rolling inward as they dry.
- **Flowers:** Several in spikelets, with numerous spikelets crowded along either side of the main axis and placed sideways along the axis, up to 1 inch long, 6- to 12-flowered, the lemmas up to 1/2 inch long, pointed or even short-awned at the tip, smooth or slightly hairy.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Grains:** Grains slightly hairy at the tip.
- **Notes:** This is a heavily grazed grass in the Great Plains. It is an important hay plant.



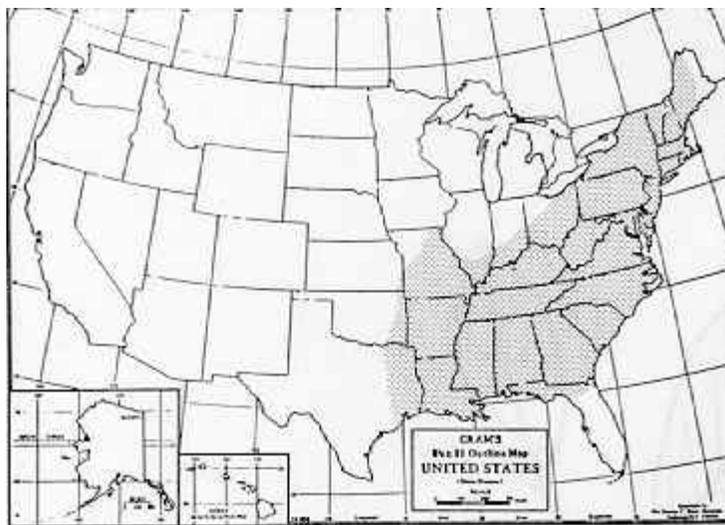
## Common Waterplantain (*Alisma plantago-aquatica*)



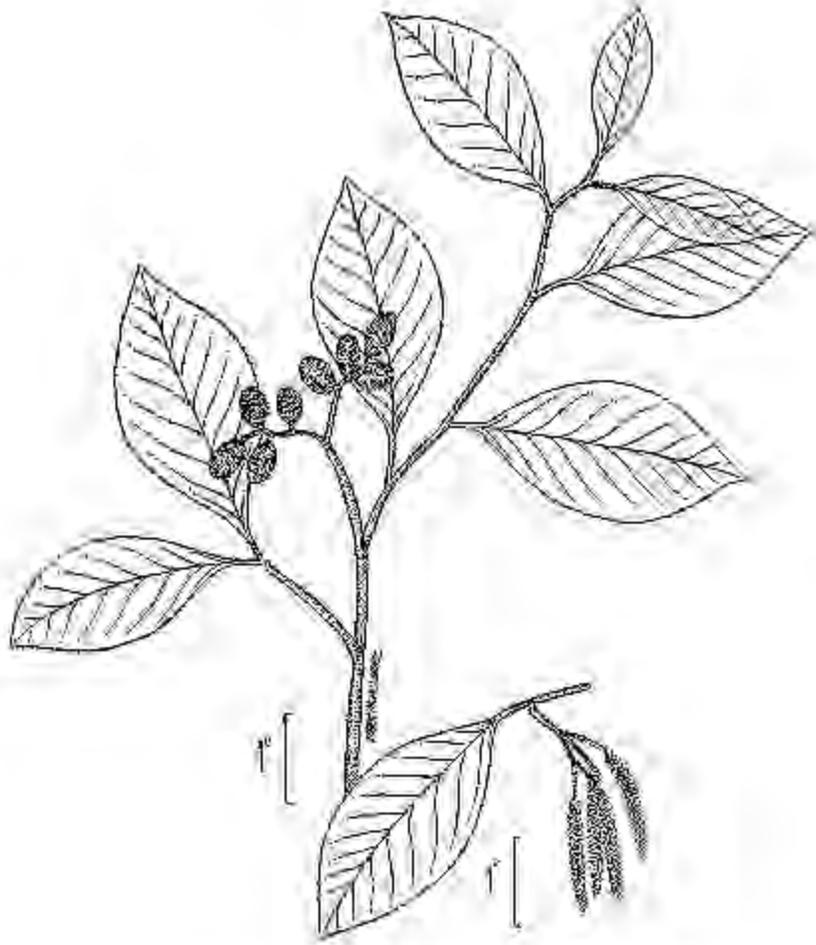
- **Family:** Waterplantain (Alismaceae)
- **Flowering:** May-September.
- **Field Marks:** This species is distinguished by its large, plantain-like leaves in a basal rosette and by its small, white flowers in clusters on a stout flowering stem.
- **Habitat:** Along streams, around ponds, marshes.
- **Habit:** Perennial herb with thickened roots.
- **Stems:** Erect, smooth, up to 3 feet tall, bearing only whorls of flowers.
- **Leaves:** All basal, elliptic to ovate, pointed at the tip, rounded or sometimes heart-shaped at the base, smooth, up to 8 inches long.
- **Flowers:** Borne in whorls on the stem, white, up to 1/6 inch across.
- **Sepals:** 3, green, ovate, rounded at the tip, up to 1/8 inch long.
- **Petals:** 3, white, free from each other, up to 1/12 inch long.
- **Stamens:** 6-9.
- **Pistils:** Several in a ring, the ovaries superior.
- **Fruits:** Achenes borne in circular heads up to 1/6 inch in diameter; each achene obovate, about 1/8 inch long, with a minute beak.
- **Notes:** The achenes are eaten by waterfowl.



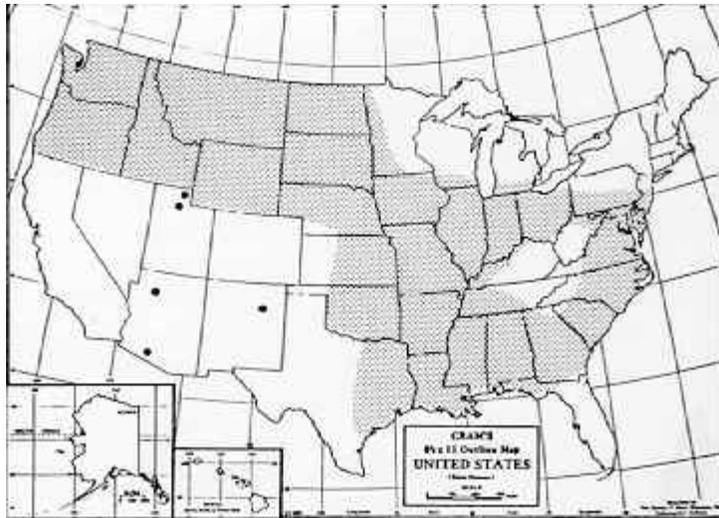
## Hazel Alder (*Alnus serrulata*)



- **Family:** Birch (Betulaceae)
- **Flowering:** March-April.
- **Field Marks:** This alder has woody "cones" up to 1 inch long and wingless seeds.
- **Habitat:** Along streams, wet meadows.
- **Habit:** Shrub with several stems.
- **Stems:** Dark gray to black, up to 15 feet tall; the twigs usually rusty-hairy early in the season.
- **Leaves:** Alternate, simple, ovate to obovate, pointed or rounded at the tip, rounded or nearly heart-shaped at the base, sharply toothed, hairy on the veins on the lower surface of the leaves.
- **Flowers:** Male and female flowers borne separately but on the same plant, appearing before the leaves unfold; the male in slender, drooping spikes up to 3 inches long; the female in erect, oblong "cones" less than 1 inch long.
- **Sepals:** 4, minute, present only in the male flowers.
- **Petals:** 0.
- **Stamens:** 4.
- **Pistils:** Styles 2.
- **Fruits:** Woody, cone-like, up to 1 inch long, containing several nut-like seeds; the seeds shiny, obovoid, up to 1/8 inch long, wingless.



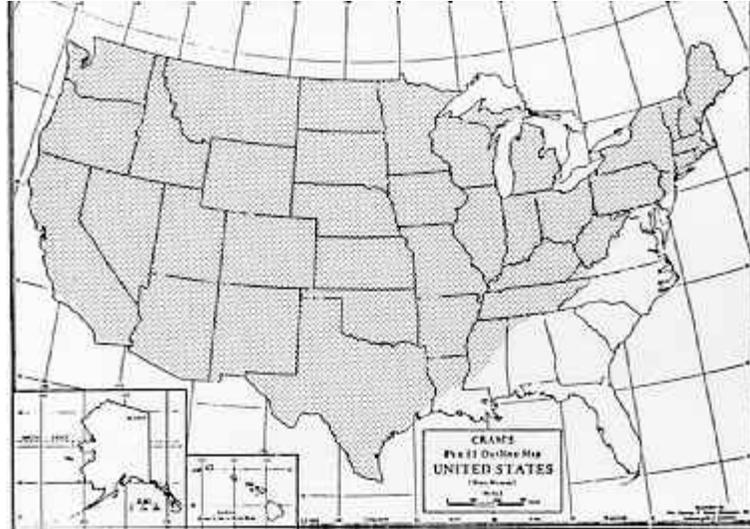
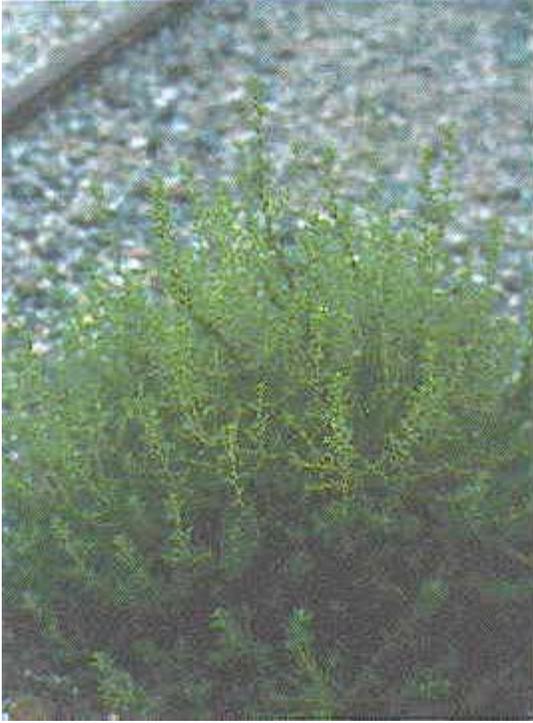
## Carolina Foxtail (*Alopecurus carolinianus*)



- **Family:** Grass (Poaceae)
- **Flowering:** April-August
- **Field Marks:** This small grass is distinguished by its soft, erect, unbranched spikes and its annual habit.
- **Habitat:** Fallow fields, roadside ditches, around ponds, wet meadows, in sloughs.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Spreading or erect, sometimes branched, smooth or nearly so, up to 1 foot tall.
- **Leaves:** Narrow but rather short, up to 3 inches long, up to 1/10 inch broad, rough to the touch.
- **Flowers:** Borne in 1-flowered spikelets, with many spikelets crowded into a rather soft spike at the tip of the stem, the spikes up to 3 inches long, spikelets about 1/12 inch long, the scales rounded or somewhat pointed at the tip, smooth, with a slender awn arising near the base of the scale and protruding out of the spike.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Ovary superior; styles 2.
- **Grains:** Very tiny, elongated, smooth.



# Amaranth Tumbleweed (*Amaranthus albus*)

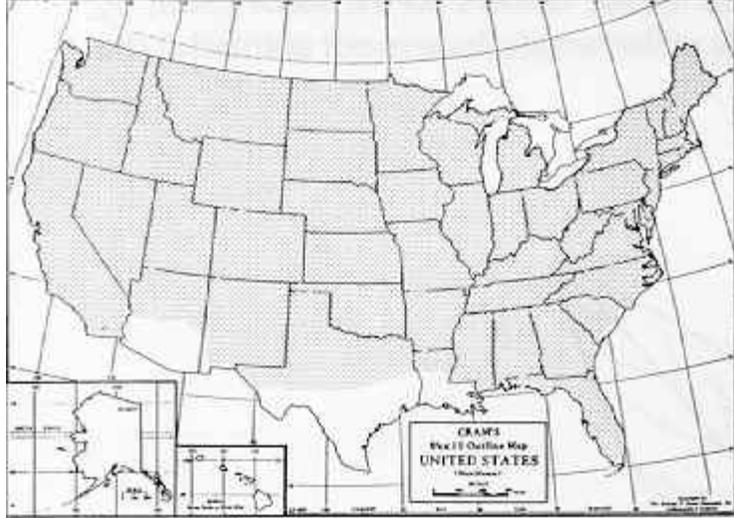
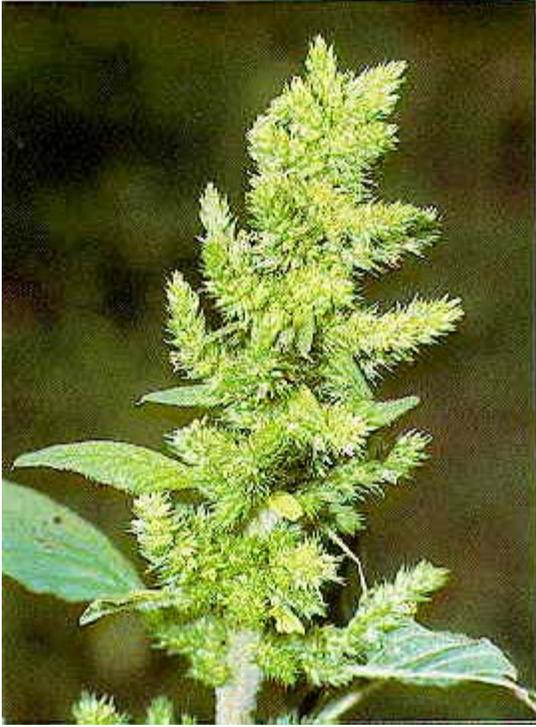


- **Family:** Pigweed (Amaranthaceae)
- **Flowering:** July-October.
- **Field Marks:** The flowers of this species are borne in small clusters in the axils of the leaves. The stems are usually whitish and the seeds less than 1/20 inch broad.
- **Habitat:** Fallow fields, along streams, disturbed soil.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect or arching upward, eventually often forming a spherical clump, smooth, usually whitish.
- **Leaves:** Alternate, simple, obovate to oblong, usually rounded at the tip except sometimes with a short point, tapering to the base, smooth, without teeth, up to 3 inches long.
- **Flowers:** Male and female flowers borne separately on the same plant, in small clusters in the axils of the leaves, green; each flower usually subtended by small, often sharp-pointed bracts.
- **Sepals:** Usually 5, free, persisting on the fruit.
- **Petals:** 0.
- **Stamens:** 2-3.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules opening at the top, with seeds less than 1/20 inch broad.
- **Notes:** After maturity, the spherical plants are blown about by the wind, often being seen caught in fences.



*Handwritten signature or artist's mark.*

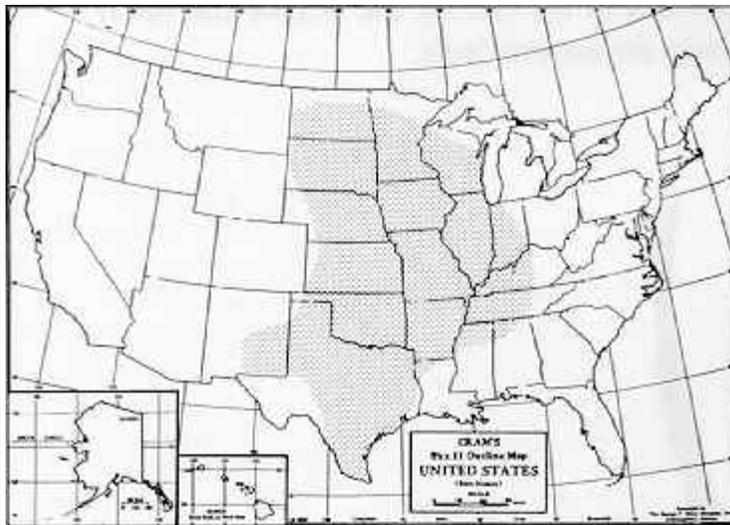
## Redroot Amaranth (*Amaranthus retroflexus*)



- **Family:** Pigweed (Amaranthaceae)
- **Flowering:** July-October.
- **Field Marks:** All amaranths have obscure, crowded, green flowers. The green amaranth differs from all others by lacking spines, by having both male and female flowers on the same plant, by having spikes much longer than broad, and by having sepals of the female flowers not pointed at the tip and about 1/5 inch long.
- **Habitat:** Cultivated fields, roadsides, disturbed areas.
- **Habit:** Coarse annual with fibrous roots.
- **Stems:** Erect, often branched, hairy, green or sometimes reddish near the base, up to 6 feet tall.
- **Leaves:** Alternate, simple, elliptic to ovate, usually somewhat toothed, hairy, pointed at the tip, tapering to the base, up to 4 inches long.
- **Flowers:** Borne in short, dense, sometimes branched spikes up to 8 inches long, green, each flower unisexual but with both the male and female flowers on the same plant, with bracts about 1/3 inch long, longer than the sepals.
- **Male Flowers:** Sepals 5, green, about 1/6 inch long; petals 0; stamens 5.
- **Female Flowers:** Sepals 5, green, about 1/5 inch long, not pointed at the tip; petals 0; ovary superior.
- **Fruits:** 1-seeded, dry, smooth, 1/6 inch long, the seeds dark red-brown.
- **Notes:** This aggressive weed is native to tropical America, but is found throughout the United States in disturbed areas. Young plants can be cooked and eaten as a vegetable. Seeds can be made into bread. Pigs are particularly fond of this species as a food. There are reports of this plant when growing in fertilizer-rich soils as being harmful to livestock. This species may cause hay fever in certain individuals.



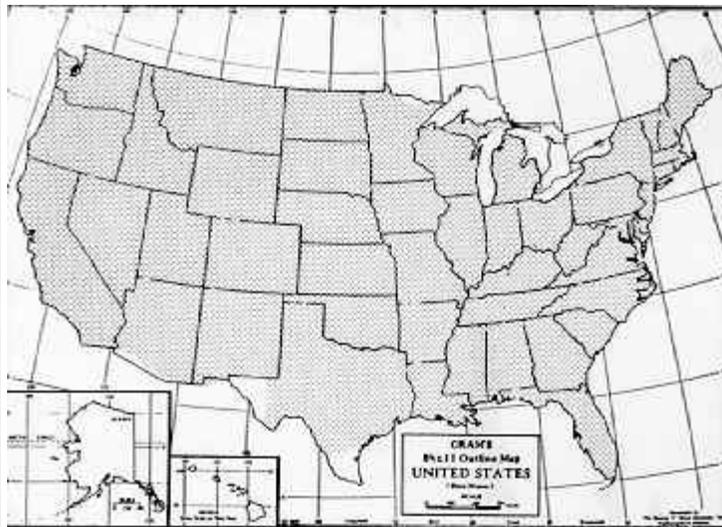
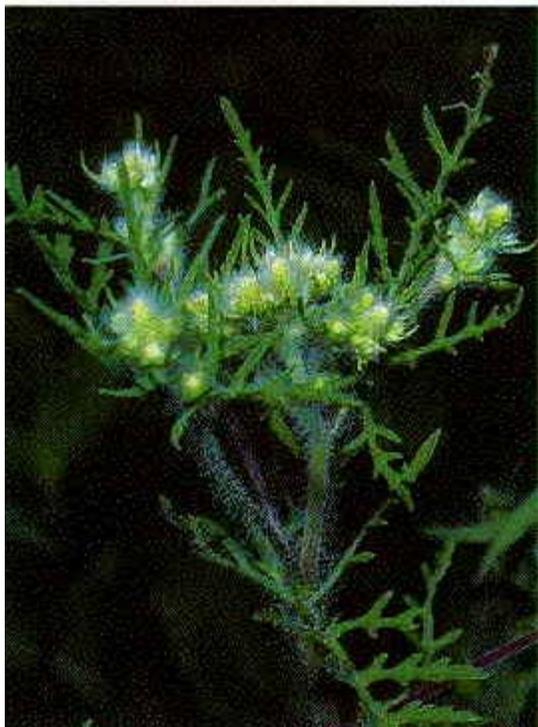
## Nuttall's Waterhemp (*Amaranthus rudis*)



- **Family:** Pigweed (Amaranthaceae)
- **Flowering:** July-October.
- **Field Marks:** Species known as water hems differ from all other species of *Amaranthus* by having the male and female flowers borne on different plants and by having 0-2 sepals for each female flower. This is the only water hemp with a completely dehiscent fruit.
- **Habitat:** Cultivated fields, banks of streams, edges of ponds and lakes, mud flats, sloughs.
- **Habit:** Stout annual herbs with fibrous roots.
- **Stems:** Erect, sometimes branched, smooth, up to 4 1/2 feet tall.
- **Leaves:** Alternate, simple, oblong to oval, rounded at the tip, tapering to the base, smooth, without teeth, up to 4 inches long; leaf stalks slender.
- **Flowers:** Crowded into slender, terminal spikes, green, the male and female flowers on separate plants.
- **Male Flowers:** Sepals 5, green, up to 1/6 inch long; pointed at the tip; petals 0; stamens 5.
- **Female Flowers:** Sepals 0-2, green, pointed; petals 0; ovary superior.
- **Fruits:** Ovoid, greenish, smooth, subtended by a shorter bract, dehiscent, with small spherical seeds.
- **Notes:** Waterfowl eat the seeds of this species. This water hemp can be the cause of hay fever in late summer. This species has been known as *A. tamariscinus*.



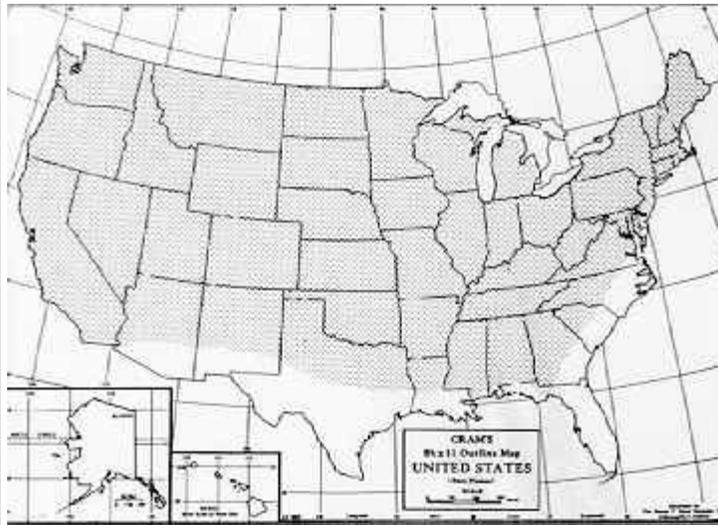
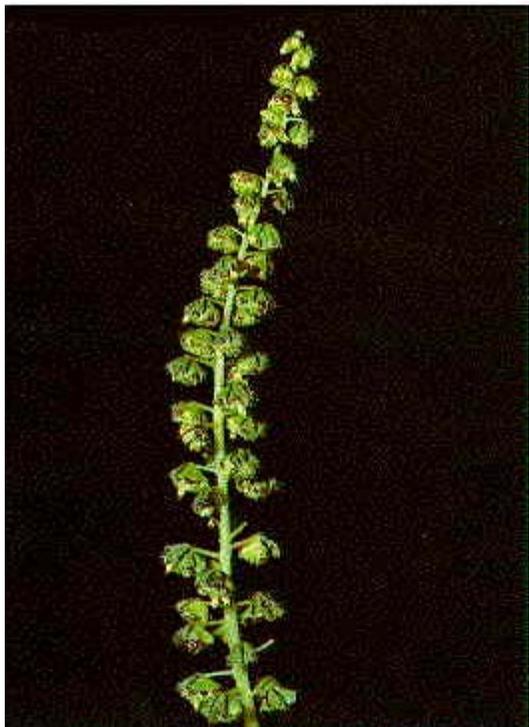
## Common Ragweed (*Ambrosia artemisiifolia*)



- **Family:** Aster (Asteraceae)
- **Flowering:** July-November.
- **Field Marks:** Most ragweeds have opposite, coarsely hairy leaves. Male and female flowers are greenish, without petals, and borne in separate heads usually on the same plant. The common ragweed differs from all others by its much divided leaves.
- **Habitat:** Cultivated fields, fallow fields, roadsides, disturbed areas.
- **Habit:** Coarse annual with fibrous roots.
- **Stems:** Upright, usually much branched, smooth or hairy, up to 7 feet tall.
- **Leaves:** Opposite, up to 8 inches long, divided into many narrow, toothed segments, each segment pointed at the tip, smooth or hairy.
- **Flowers:** Crowded into small green heads in slender, elongated spikes, the heads either sterile or composed of only male or female flowers, but both sexes usually found on the same plant.
- **Male Flowers:** Up to 1/4 inch long, 5- or 6-lobed; stamens 5.
- **Female Flowers:** Borne in ellipsoid heads up to 1/3 inch long, with 4-7 projections; ovary inferior.
- **Fruits:** Nutlets beaked, up to 1/4 inch long, brown, with short, sharp spines.
- **Notes:** The uppermost leaves may sometimes be alternate. The fruits are an important food of the bobwhite quail throughout its range, but cattle have adverse effects after eating the stems and leaves. This species causes hay fever in many people.



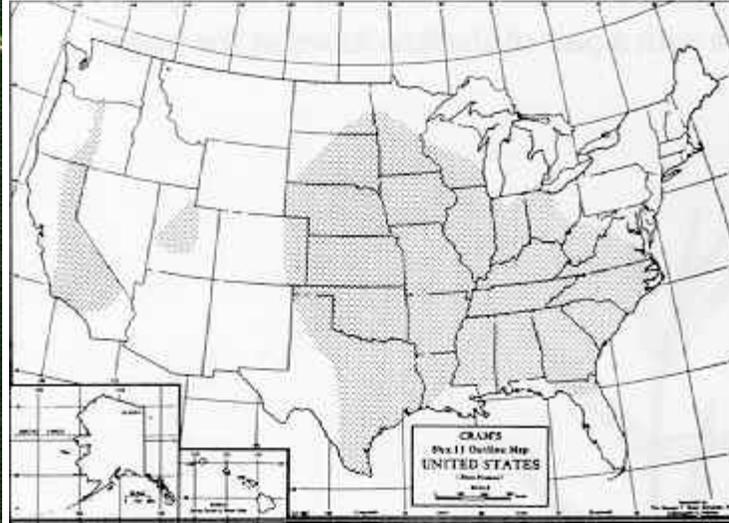
## Giant Ragweed (*Ambrosia trifida*)



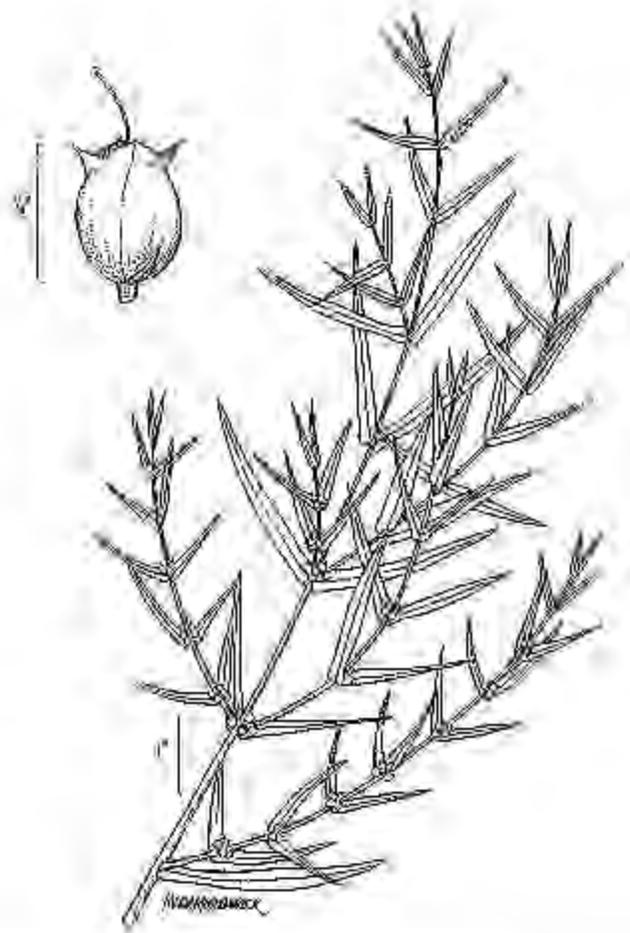
- **Family:** Aster (Asteraceae)
- **Flowering:** July-October.
- **Field Marks:** This coarse, rough-hairy plant is recognized by its large, 3-lobed, opposite leaves and its terminal spikes of greenish flowers.
- **Habitat:** Alluvial soil in fields, along streams, around ponds and lakes, low woods, roadside ditches, disturbed soil.
- **Habit:** Very robust annual with fibrous roots.
- **Stems:** Erect, up to 15 feet tall, much branched, rough-hairy.
- **Leaves:** Opposite, simple, deeply 3- (or 5-) lobed, the lobes toothed, rough-hairy on both sides, up to 10 inches long; leaf stalks hairy.
- **Flowers:** Crowded into small green heads in elongated spikes, the heads either composed of only male or female flowers, but both sexes found on the same plant.
- **Male Flowers:** Up to 1/4 inch across, 5- or 6-lobed; stamens 5.
- **Female Flowers:** Borne in ellipsoid heads up to 1/2 inch long, each with 4-6 sharp, spine-like projections; ovary inferior.
- **Fruits:** Nutlets ellipsoid, beaked, black, shiny, 1/4-1/2 inch long.
- **Notes:** This species is a primary cause of hay fever. The leaves are browsed by deer.



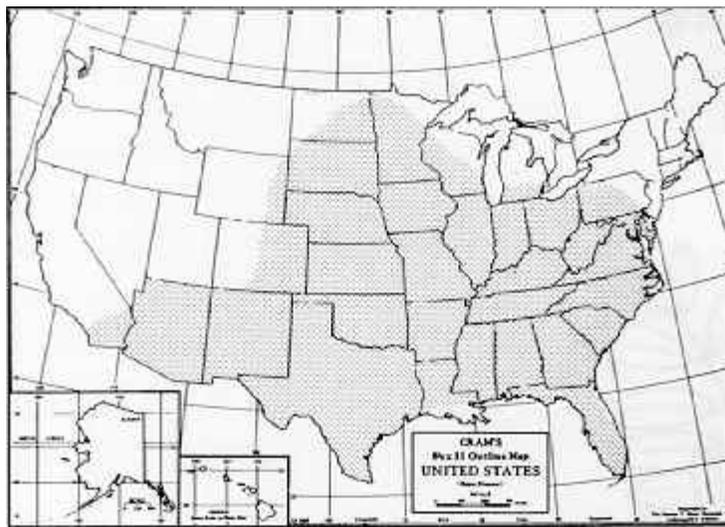
## Purple Ammannia (*Ammannia coccinea*)



- **Family:** Loosestrife (Lythraceae)
- **Flowering:** July-September.
- **Field Marks:** *Ammannia* has more than one flower in the axils of leaves, while *Rotala*, a very similar genus in the family, has only one flower. Purple ammannia lacks flower stalks and has 4 pink-purple petals less than 1/4 inch long. The leaves are opposite with a pair of shallow lobes at the base.
- **Habitat:** Wet, open soil, often along the margins of ponds and lakes; wet meadows.
- **Habit:** Annual herb from a tuft of roots.
- **Stems:** Usually solitary, erect, smooth, sometimes branched, usually 4-angled, up to 1 1/2 feet tall, often turning reddish.
- **Leaves:** Opposite, simple, linear to narrowly lanceolate, pointed at the tip, usually with a pair of shallow lobes at the base, without teeth, up to 3 inches long, up to 1/2 inch wide.
- **Flowers:** 2-5 in the axils of the leaves, each about 1/4 inch long, usually without a stalk.
- **Sepals:** 4, very short, forming a small cup.
- **Petals:** 4, pink to pink-purple, up to 1/4 inch long, falling away early.
- **Stamens:** 4 or 8.
- **Pistils:** Ovary superior.
- **Fruits:** Rounded capsules 1/4-1/2 inch in diameter, with minute shiny, yellow seeds.
- **Notes:** The tiny seeds are eaten by waterfowl. This species is sometimes called Tooth-cup.



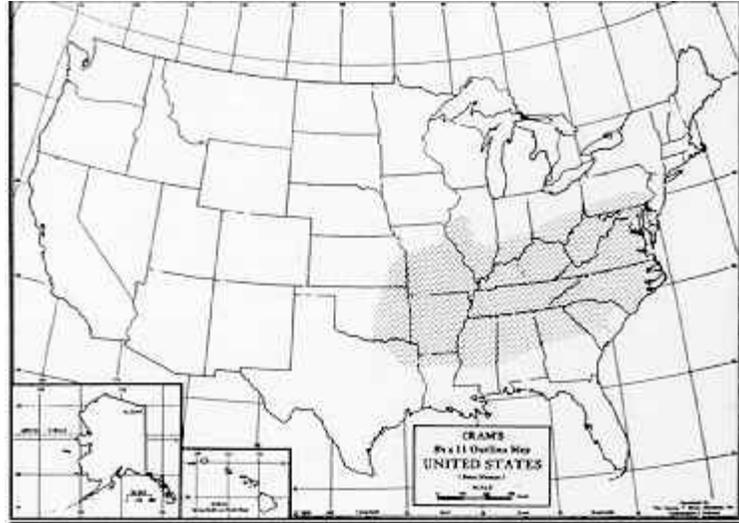
## Dull-leaf Indigo (*Amorpha fruticosa*)



- **Family:** Pea (Fabaceae)
- **Flowering:** April-June.
- **Field Marks:** This shrub is distinguished by its leaves with 11-27 leaflets, its dense spikes of small, deep purple flowers, and its curved, glandular pods about 1/3 inch long.
- **Habitat:** Along rivers and streams, wet woods, around ponds.
- **Habit:** Shrub.
- **Stems:** Erect, much branched, smooth or somewhat hairy, up to 12 feet tall.
- **Leaves:** Alternate, pinnately divided into 11-27 leaflets, the leaflets oblong to elliptic, rounded at the tip except for a short mucro, rounded or tapering to the base, smooth or hairy, without teeth, up to 2 inches long.
- **Flowers:** Many crowded into erect racemes up to 8 inches long, dark purple.
- **Sepals:** 5, unequal in size, green, united to form a short, usually hairy cup.
- **Petals:** 1, purple, about 1/4 inch long.
- **Stamens:** 10, protruding above the petals.
- **Pistils:** Ovary superior.
- **Fruits:** Pods about 1/3 inch long, curved, smooth, glandular-dotted, containing 1-2 seeds.



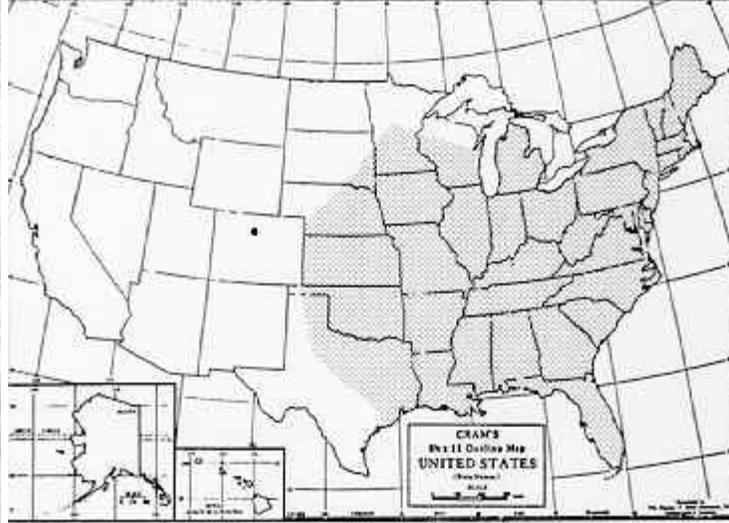
## Willow Amsonia (*Amsonia tabernaemontana*)



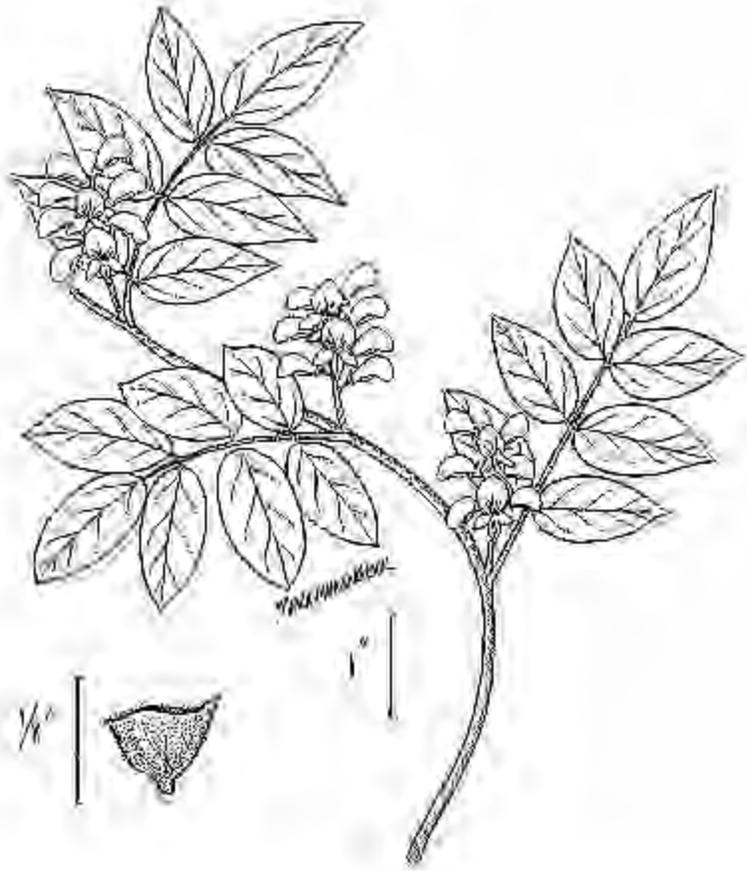
- **Family:** Dogbane (Apocynaceae)
- **Flowering:** May-June.
- **Field Marks:** Members of the dogbane family usually have milky sap and 5-parted flowers. Blue star differs from all the others by having alternate, non-shiny leaves, erect fruits, and pale blue star-shaped flowers.
- **Habitat:** Bottomland forests, mesic woods, damp roadside ditches, river banks.
- **Habit:** Perennial herbs.
- **Stems:** Erect, usually several together, unbranched, smooth or less commonly hairy, up to 3 feet tall.
- **Leaves:** Alternate, simple, lanceolate to ovate, pointed at the tip, tapering or rounded at the base, smooth or sometimes hairy, without teeth, not shiny, up to 5 inches long, up to 2 1/2 inches wide.
- **Flowers:** Several in a terminal cyme, pale blue.
- **Sepals:** 5, united below, smooth.
- **Petals:** 5, united below into a slender, hairy tube 1/4-1/3 inch long, the lobes pointed, spreading, 1/4-1/3 inch long.
- **Stamens:** 5, attached to the tube of the petals.
- **Pistils:** Ovaries 2, superior.
- **Fruits:** Paired follicles, erect, cylindrical, smooth, up to 4 1/2 inches long.



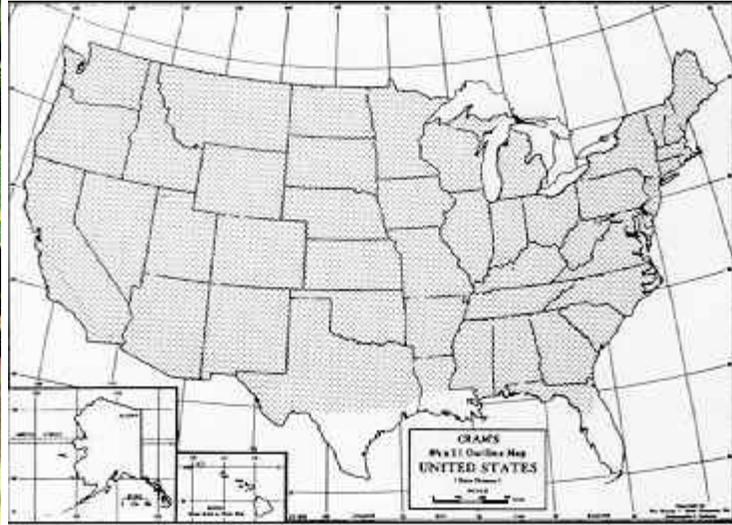
## American Potatobean (*Apios americana*)



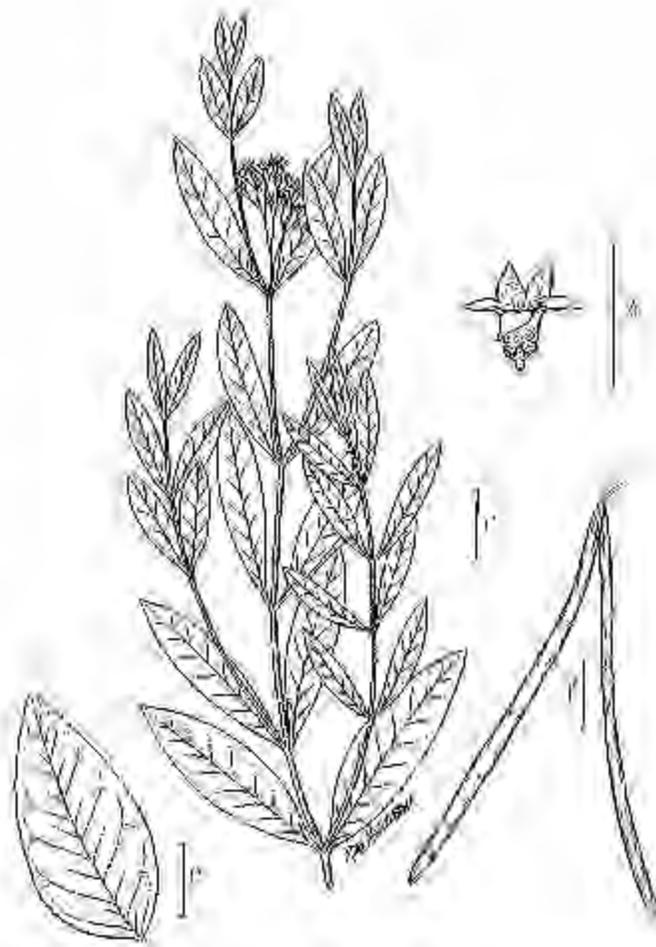
- **Family:** Pea (Fabaceae)
- **Flowering:** June-September.
- **Field Marks:** This viny member of the pea family has 5 or 7 leaflets and maroon or brown-purple flowers.
- **Habitat:** Along streams, wet meadows, wet woods, around ponds and lakes, in sloughs.
- **Habit:** Perennial, herbaceous, twining vine with fleshy tubers.
- **Stems:** Twining, smooth or with short hairs, up to 10 feet long.
- **Leaves:** Alternate, pinnately divided into 5 or 7 leaflets, each leaflet lanceolate to ovate, pointed at the tip, rounded or tapering to the base, without teeth, smooth or with short hairs, up to 3 inches long.
- **Flowers:** Several in short racemes in the axils of the leaves, maroon or brown-purple, up to 2/3 inch long.
- **Sepals:** 5, united below, green, smooth or hairy.
- **Petals:** 5, the parts arranged like those in a sweet pea, maroon or brown-purple, up to 2/3 inch long.
- **Stamens:** 10.
- **Pistils:** Ovary superior.
- **Fruits:** Pods linear, up to 5 inches long, up to 1/3 inch broad.
- **Notes:** This species is also known as groundnut. The tubers are edible by humans.



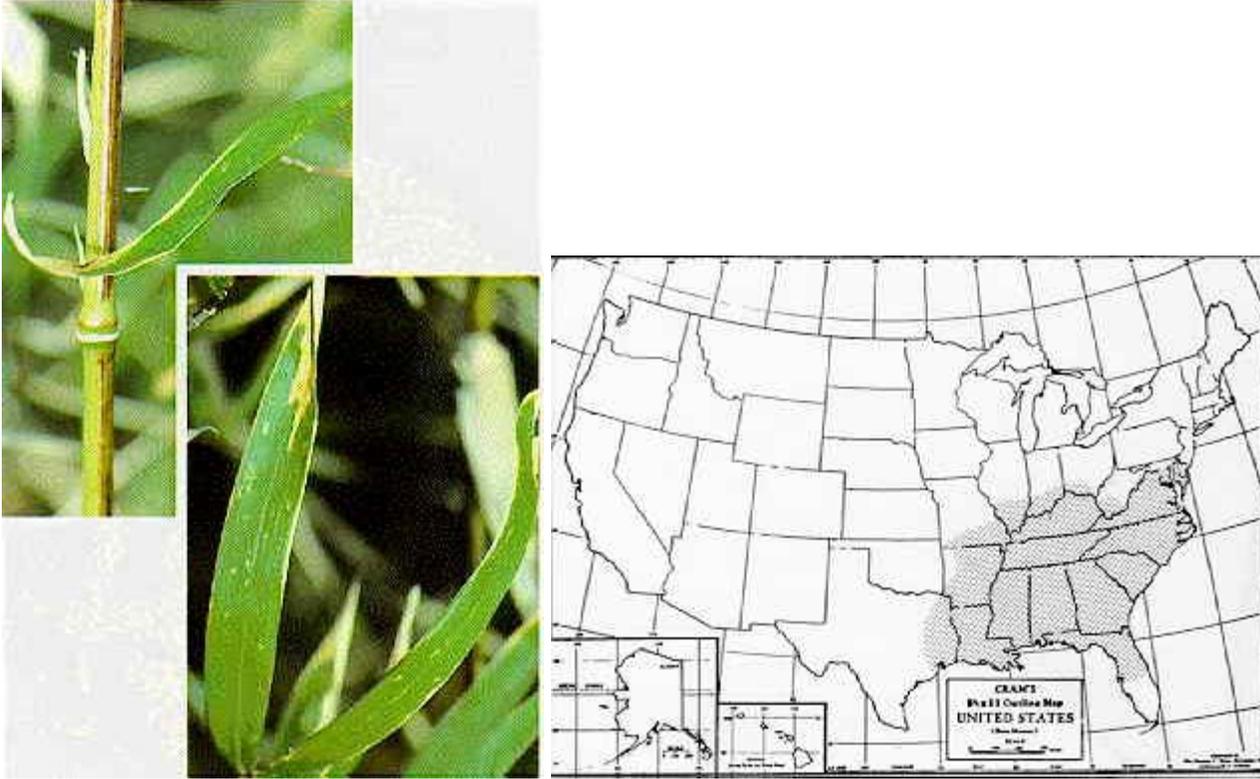
## Indianhemp Dogbane (*Apocynum cannabinum*)



- **Family:** Dogbane (Apocynaceae)
- **Flowering:** June-September.
- **Field Marks:** This common species is distinguished by its milky sap, opposite leaves, small white flowers, and pairs of slender fruits.
- **Habitat:** Fields, roadsides, edge of woods, prairies, thickets, in both moist and dry situations.
- **Habit:** Perennial herbs.
- **Stems:** Erect, branched, smooth or hairy, up to 4 1/2 feet tall.
- **Leaves:** Opposite, simple, lanceolate to ovate, pointed at the tip, rounded or tapering to the base, without teeth, smooth or hairy, up to 6 inches long.
- **Flowers:** Several in terminal cymes, white or greenish white, each flower up to 1/4 inch long.
- **Sepals:** 5, green, very small, free nearly to the base.
- **Petals:** 5, white or greenish white, united below to form a short tube, up to 1/4 inch long.
- **Stamens:** 5, not protruding beyond the petals.
- **Pistils:** Ovaries 2, superior.
- **Fruits:** Pair of slender follicles up to 6 inches long, with seeds bearing a tuft of white hairs.
- **Notes:** This highly variable species grows in a variety of moist and dry habitats. It contains poisonous properties.



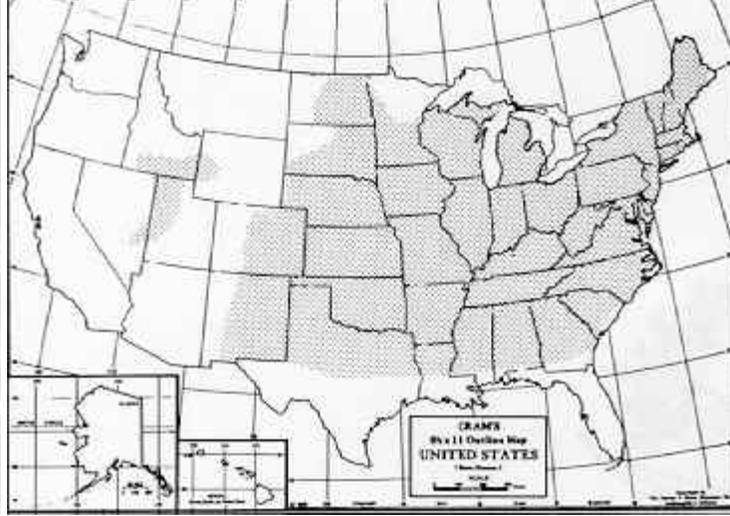
# Giant Cane (*Arundinaria gigantea*)



- **Family:** Grass (Poaceae)
- **Flowering:** April-May
- **Field Marks:** This is the only grass with woody stems, these sometimes attaining a height of 14 feet.
- **Habitat:** Along streams.
- **Habit:** Woody-stemmed grass with rhizomes.
- **Stems:** Erect, woody, unbranched, smooth, hollow, up to 14 feet tall.
- **Leaves:** Alternate, simple, lanceolate, pointed at the tip, tapering to the base, smooth or rough to the touch, up to 12 inches long, up to 3/4 inch broad.
- **Flowers:** 7 or more borne in spikelets, the spikelets up to 2 1/2 inches long; scales smooth or hairy, sometimes awn-tipped.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Ovary superior; styles 2-3.
- **Grains:** Elongated, with tiny grooves.
- **Notes:** Most plants do not flower every year. Young parts of the plant can be eaten. The stems are used for fishing poles, and can be made into baskets and mats.



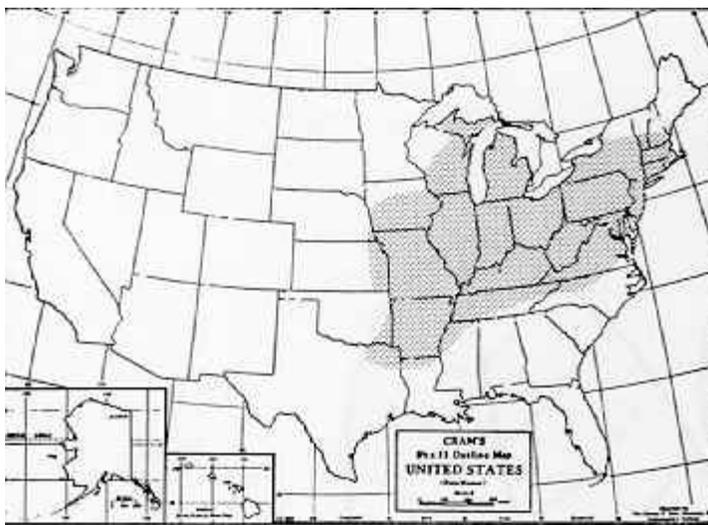
## Swamp Milkweed (*Asclepias incarnata*)



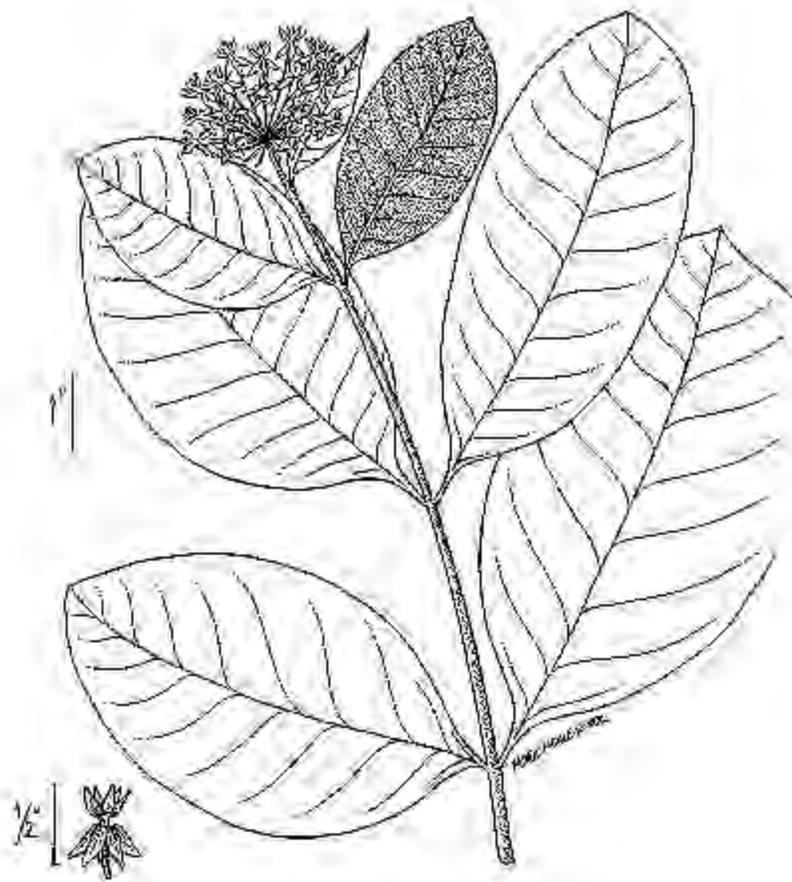
- **Family:** Milkweed (Asclepiadaceae)
- **Flowering:** July-October.
- **Field Marks:** This is the only wetland milkweed with lanceolate opposite leaves, pink or pinkish red hour-glass-shaped flowers, and milky sap.
- **Habitat:** Swamps, wet ditches, wet prairies, streambanks, marshes.
- **Habit:** Perennial herb.
- **Stems:** Erect, branched, smooth, rarely hairy, with milky sap, up to 5 feet tall.
- **Leaves:** Opposite, simple, lanceolate to oblanceolate, pointed at the tip, narrowed or rounded at the base, without teeth, smooth or hairy on the lower surface, with milky sap, up to 4 inches long, up to 1 inch wide, with short stalks.
- **Flowers:** Several borne in umbels, pink to pinkish red, hour-glass-shaped, up to 1/3 inch long, borne on smooth stalks.
- **Sepals:** 5, greenish, turned downward.
- **Petals:** 5, pink to pinkish red, associated with a 5-parted central column.
- **Stamens:** 5, associated with the central column.
- **Pistils:** Ovaries 2, superior.
- **Fruits:** Follicles smooth, up to 5 inches long, containing several seeds with silky hairs at one end.
- **Notes:** The leaves, when gathered young, can be cooked and eaten as a vegetable. The roots are eaten by muskrats.



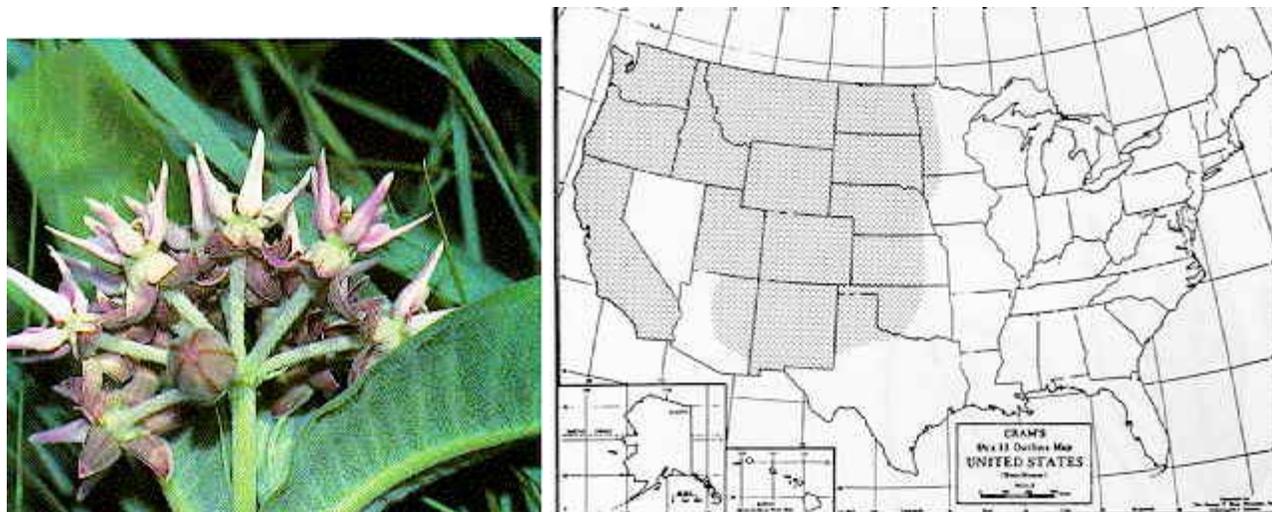
## Purple Milkweed (*Asclepias purpurascens*)



- **Family:** Milkweed (Asclepiadaceae)
- **Flowering:** May-July.
- **Field Marks:** This is the only milkweed with completely red-purple flowers and stalked leaves.
- **Habitat:** Along streams, wet meadows; sometimes in drier habitats.
- **Habit:** Perennial herb with rhizomes.
- **Stems:** Erect, usually unbranched, short-hairy, up to 3 feet tall.
- **Leaves:** Opposite, simple, elliptic to oblong, rounded or pointed at the tip, tapering to the base, without teeth, short-hairy on the lower surface, up to 6 inches long, up to 1 1/2 inches broad.
- **Flowers:** Several borne in umbels, red-purple, hour-glass-shaped, up to 1/2 inch long.
- **Sepals:** 5, green, united at base, turning downward.
- **Petals:** 5, red-purple, united, turning downward, associated with a 5-parted central column.
- **Stamens:** 5.
- **Pistils:** Ovary superior.
- **Fruits:** Follicles hairy, not prickly, up to 5 inches long.



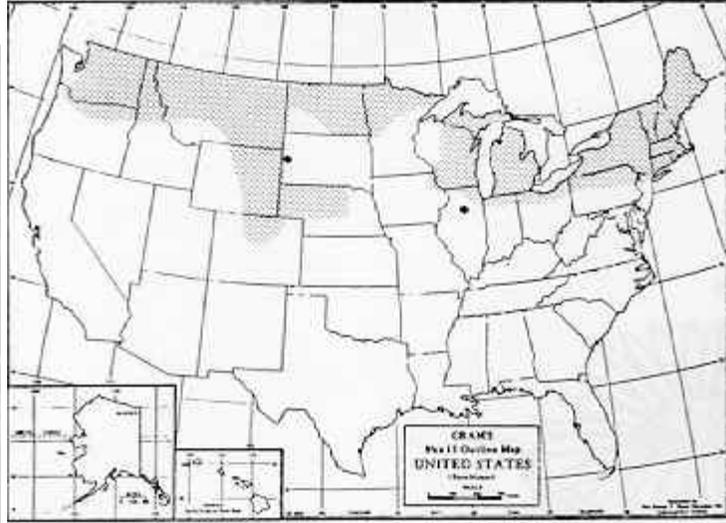
## Showy Milkweed (*Asclepias speciosa*)



- **Family:** Milkweed (Asclepiadaceae)
- **Flowering:** July-August.
- **Field Marks:** This species, with greenish purple petals, is larger than the common milkweed, *Asclepias syriaca*, in all respects.
- **Habitat:** Wet prairies.
- **Habit:** Stout perennial herb with rhizomes.
- **Stems:** Erect, branched or unbranched, hairy, up to 6 feet tall, with milky sap.
- **Leaves:** Opposite, simple, ovate to ovate-lanceolate to oval, pointed at the tip, tapering or rounded at the base, hairy on the lower surface, up to 6 inches long, up to 3 inches broad, with milky sap.
- **Flowers:** Several borne in umbels, each flower greenish purple, hour-glass-shaped, up to 3/4 inch long.
- **Sepals:** 5, nearly free from each other, green, turned downward.
- **Petals:** 5, greenish purple, turned downward, associated with a 5-parted central column.
- **Stamens:** 5.
- **Pistils:** Ovary superior.
- **Fruits:** Follicles ovoid, white-woolly, with soft spines, up to 5 inches long.



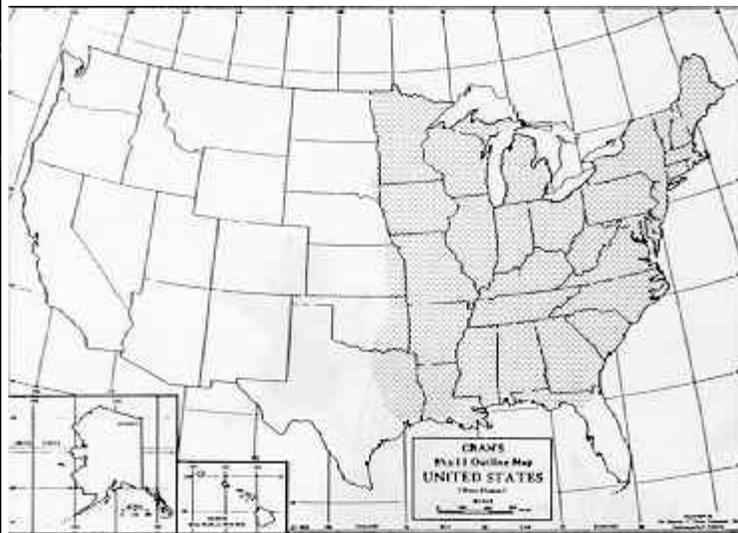
## Rush Aster (*Aster junciformis*)



- **Family:** Aster (Asteraceae)
- **Flowering:** August-October.
- **Field Marks:** This white-rayed aster is distinguished by its usually smooth stem and its smooth, linear leaves up to 1/4 inch broad.
- **Habitat:** Bogs, fens.
- **Habit:** Perennial herb with slender rhizomes.
- **Stems:** Erect, sparsely branched, smooth or with short hairs, up to 2 feet tall.
- **Leaves:** Alternate, simple, linear to linear-lanceolate, pointed at the tip, tapering or rounded at the base, smooth, usually without teeth, up to 6 inches long, up to 1/4 inch broad.
- **Flowers:** Many, crowded into a head, with several heads per plant, each head up to 1 1/2 inches across, subtended by many green bracts; flowers of 2 kinds: the outer white and ray-like, up to 50 in number; the inner tubular, yellow, forming a disk.
- **Sepals:** 0.
- **Petals:** Some white, very narrow, ray-like; others yellow, 5-lobed, united below into a tube.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes elongated, usually slightly hairy, with a tuft of hairs at the tip.



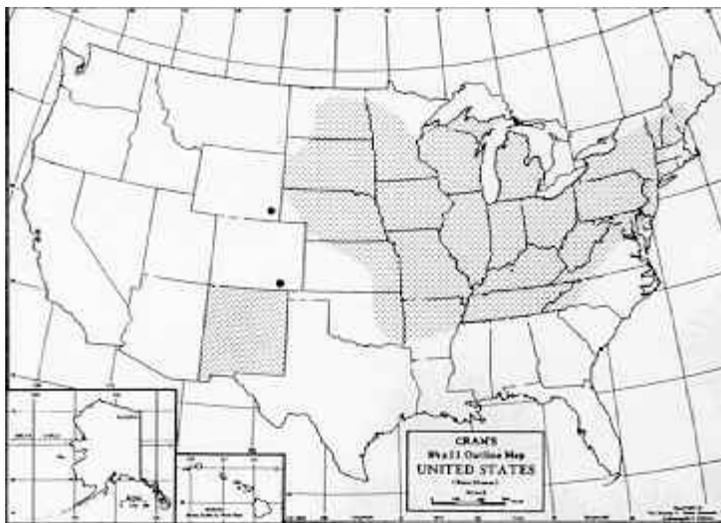
## Calico Aster (*Aster lateriflorus*)



- **Family:** Aster (Asteraceae)
- **Flowering:** August-November.
- **Field Marks:** This species differs from other white-flowered asters by having the midvein on the lower surface of the leaf hairy while the rest of the leaf is smooth.
- **Habitat:** Low woods, wet prairies, swamps, sloughs, edges of streams, borders of ponds and lakes.
- **Habit:** Perennial herb with slender rhizomes.
- **Stems:** Erect, slender, branched or unbranched, smooth or hairy, green or purple, up to 3 1/2 feet tall.
- **Leaves:** Alternate, simple, linear-lanceolate to elliptic, pointed at the tip, tapering to the base, with or without teeth, sometimes rough to the touch but not hairy on the upper surface, smooth on the lower surface except for the hairy midvein, up to 6 inches long, up to 1 1/2 inches wide.
- **Flowers:** Many crowded into a head, with many heads per plant, each head up to 3/4 inch across, composed of 2 kinds of flowers, the outer flowers white and ray-like, the inner yellow, tubular, forming a disk.
- **Sepals:** Absent.
- **Petals:** Some white, very narrow, ray-like, about 10-50 in number, others yellow, 5-parted, forming a short tube.
- **Stamens:** 5.
- **Pistils:** Ovary inferior, hairy.
- **Fruits:** Achenes elongated, hairy, light brown, about 1/10 inch long.
- **Notes:** The leaves are eaten by white-tailed deer, while the fruits are eaten by waterfowl.



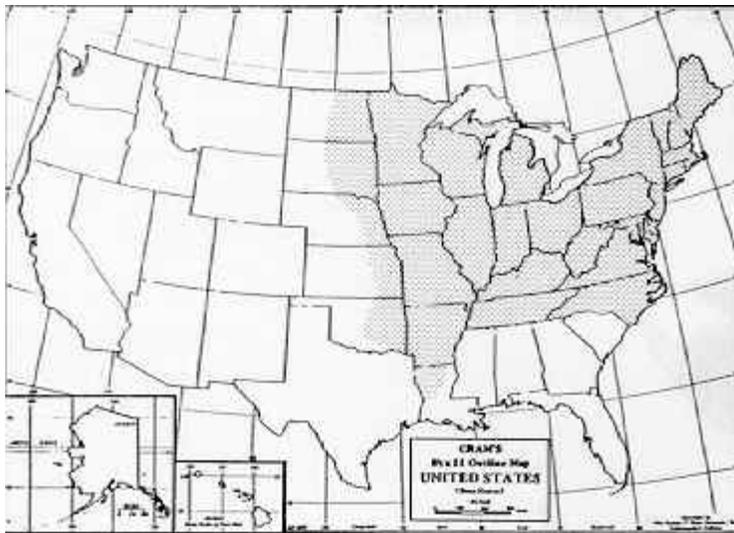
## New England Aster (*Aster novae-angliae*)



- **Family:** Aster (Asteraceae)
- **Flowering:** August-October.
- **Field Marks:** This aster is distinguished by its 40-80 violet-purple rays per flowerhead, and its toothless clasping leaves on the stem.
- **Habitat:** Wet prairies, wet meadows, low fields, along streams, marshes, bogs.
- **Habit:** Perennial herbs with short, thick rhizomes.
- **Stems:** Erect, solitary or several in clumps, hairy, up to 7 feet tall.
- **Leaves:** Alternate, simple, lanceolate, pointed at the tip, without teeth, heart-shaped and clasping the stem at the base, hairy, up to 4 inches long, less than 1 inch wide.
- **Flowers:** Many crowded into a head, the outer violet purple and ray-like, the inner tubular, yellow, forming a disk, with several heads per plant, each head up to 1 1/2 inches across, subtended by many narrow green bracts.
- **Sepals:** 0.
- **Petals:** Some violet-purple, narrow, united to form rays, up to 3/4 inch long, others yellow, 5-lobed, united below into a tube.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes dark brown, ellipsoid, hairy, up to 1/6 inch long.
- **Notes:** This is a very showy species that is sometimes transplanted into flower gardens.



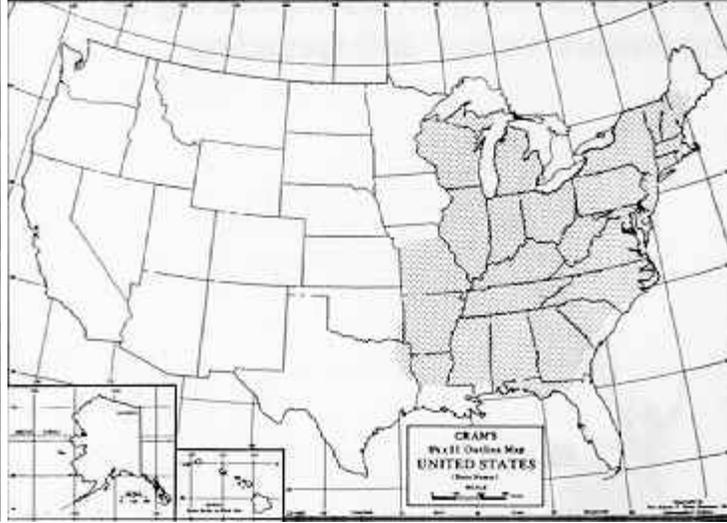
## Whitefield Aster (*Aster simplex*)



- **Family:** Aster (Asteraceae)
- **Flowering:** August-October.
- **Field Marks:** This usually white-rayed aster differs from other white-rayed species by its nearly smooth leaves and by its flower heads that are not arranged in 1-sided clusters.
- **Habitat:** Wet prairies, wet meadows, low woods, edges of streams, wet roadside ditches, sloughs, borders of ponds and lakes.
- **Habit:** Perennial herb with long rhizomes.
- **Stems:** Erect, rather stout, branched or unbranched, green, smooth or nearly so, up to 6 feet tall.
- **Leaves:** Alternate, simple, elliptic to oblanceolate, pointed at the tip, tapering to the base, toothed, smooth on both surfaces, up to 8 inches long, up to 1 1/4 inches wide.
- **Flowers:** Many crowded into a head with many heads per plant, each head up to 3/4 inch across and subtended by many narrow whitish bracts with a green midvein, the outer flowers white and ray-like, the inner yellow, tubular, forming a disk.
- **Sepals:** Absent.
- **Petals:** Some white, very narrow, ray-like, 20-50 in number, others yellow, 5-parted, forming a short tube.
- **Stamens:** 5.
- **Pistils:** Ovary inferior, hairy.
- **Fruits:** Achenes elongated, hairy, light brown, about 1/10 inch long.
- **Notes:** The fruits of this species are eaten by waterfowl.



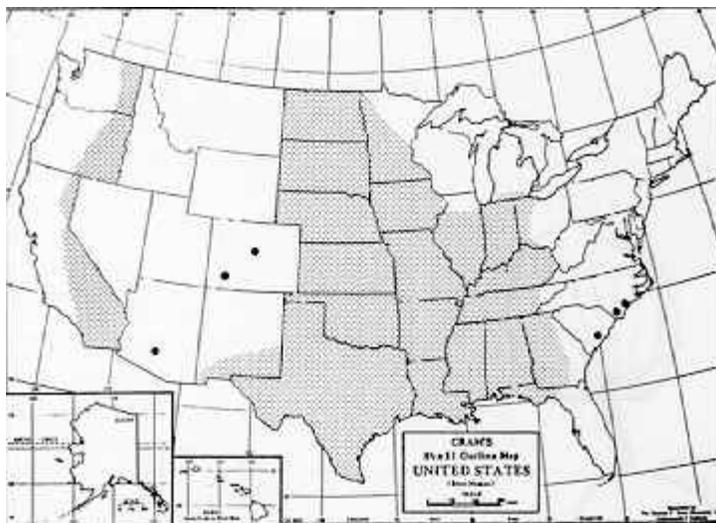
## Fairy Aster (*Aster vimineus*)



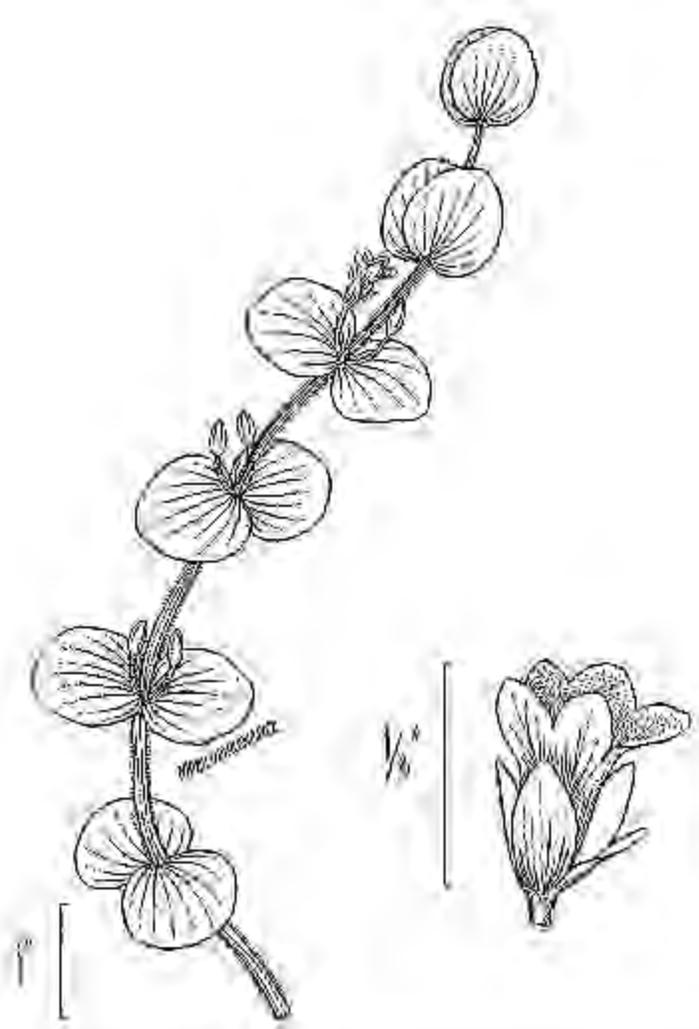
- **Family:** Aster (Asteraceae)
- **Flowering:** August-October.
- **Field Marks:** Among all the asters with white rays, the fairy aster is the only one with flat, green bracts that are not spiny tipped, heads less than 2/3 inch long, and the branches bearing the flowers arched and spreading.
- **Habitat:** Wet prairies, wet meadows, along streams, roadside ditches, around ponds and lakes.
- **Habit:** Perennial herb with creeping rhizomes.
- **Stems:** Erect, branched, smooth or somewhat hairy, sometimes purplish, up to 4 feet tall.
- **Leaves:** Alternate, simple, linear to lanceolate, pointed at the tip, tapering to the sessile base, with or without teeth, smooth except for the roughened margins, up to 4 inches long, up to 1/2 inch wide.
- **Flowers:** Many crowded into a head, the outer white and ray-like, the inner tubular, yellow, forming a disk, with several heads per plant, each head up to 1/2 inch across, subtended by several flat, pointed, green bracts.
- **Sepals:** 0.
- **Petals:** Some white, narrow, united to form rays, up to 1/4 inch long, others yellow, 5-lobed, united below into a tube.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes dark, sparsely hairy, 1/12 inch long.
- **Notes:** The fruits of this species are eaten by waterfowl.



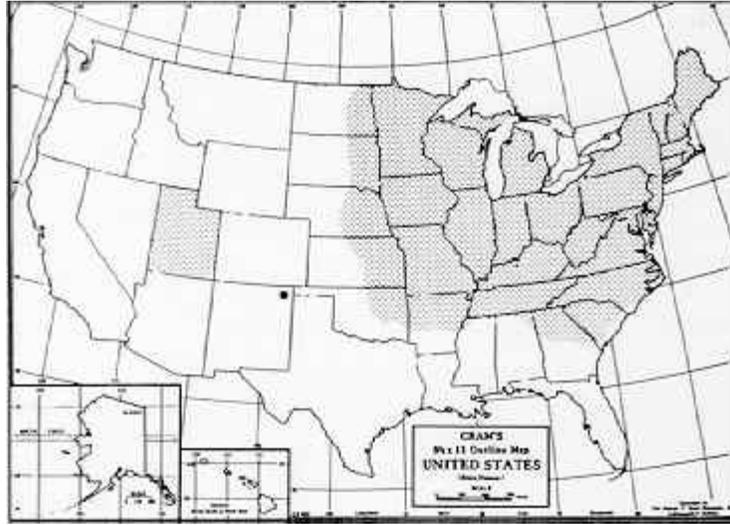
## Disk Water Hyssop (*Bacopa rotundifolia*)



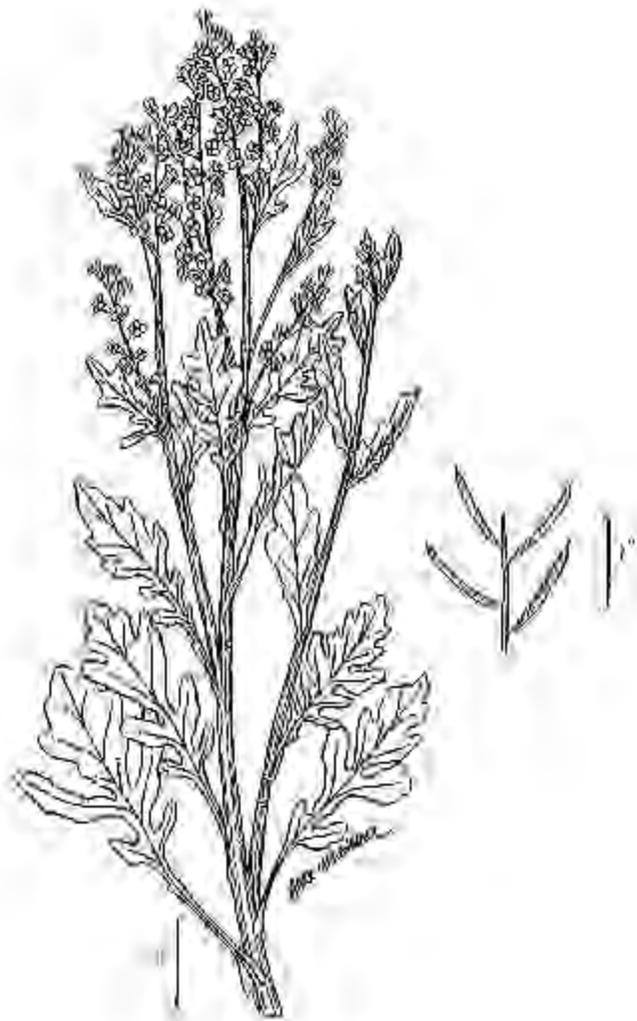
- **Family:** Figwort (Scrophulariaceae)
- **Flowering:** May-September.
- **Field Marks:** This species, with small bluish flowers, has spherical, toothless leaves.
- **Habitat:** Around ponds and lakes, along streams, low woods.
- **Habit:** Perennial herb with creeping stolons.
- **Stems:** Creeping or floating if in water, branched or unbranched, usually hairy, up to 2 feet long.
- **Leaves:** Opposite, simple, spherical to obovate, rounded at the tip and at the base, sometimes clasping at the base, usually without teeth, smooth, up to 1 inch long and broad.
- **Flowers:** Blue, 1 or 2 in the axils of the leaves, up to 1/3 inch long.
- **Sepals:** 5, green, united below, asymmetrical.
- **Petals:** 5, bluish, united, 2-lipped, up to 1/3 inch long.
- **Stamens:** 4, shorter than the petals.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules oblongoid, rounded at the tip, up to 1/4 inch long.



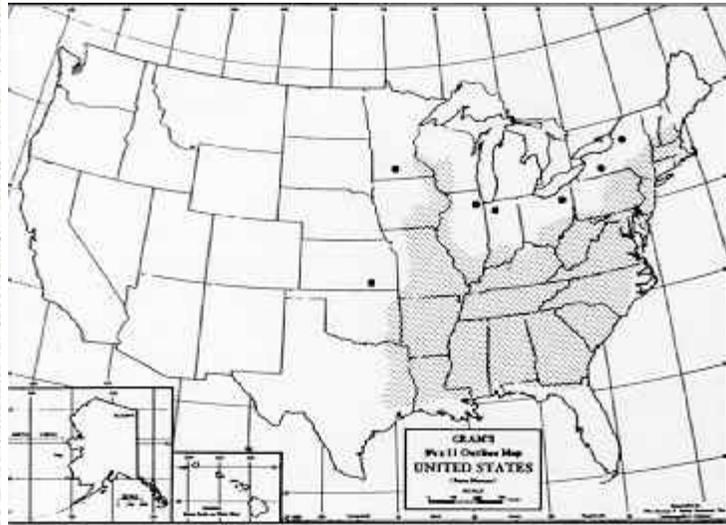
## Bitter Wintercress (*Barbarea vulgaris*)



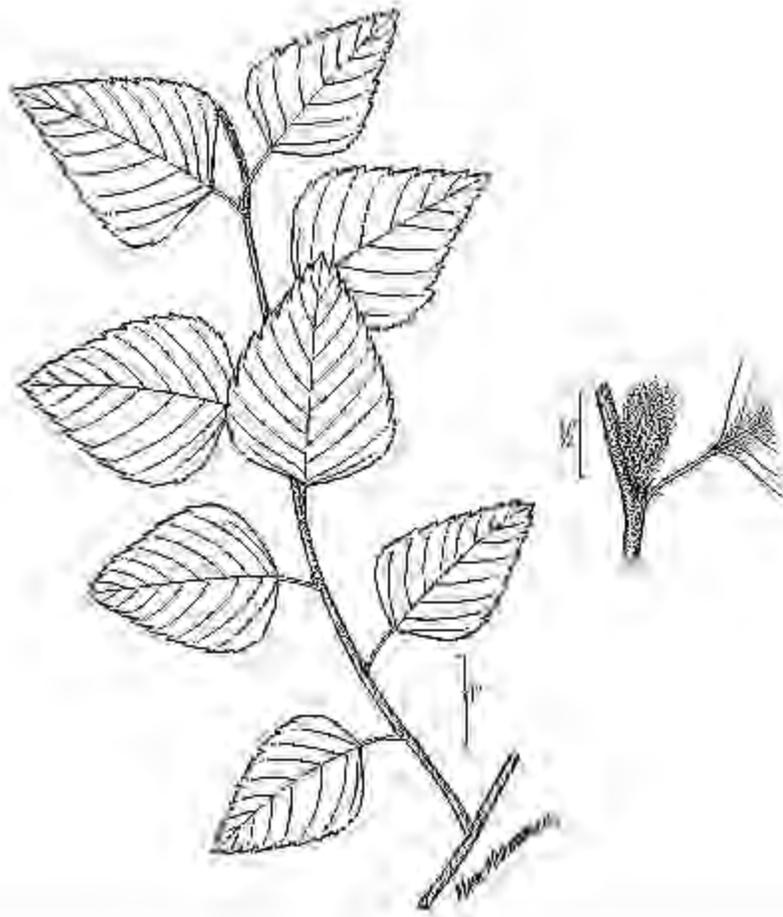
- **Family:** Mustard (Brassicaceae)
- **Flowering:** April-June.
- **Field Marks:** This is the only yellow-flowered mustard with completely smooth pinnately lobed leaves and long, cylindrical fruits with a short terminal beak.
- **Habitat:** Wet meadows, roadsides, cultivated fields, fallow fields.
- **Habit:** Annual or biennial herbs with a taproot.
- **Stems:** Erect, branched, smooth, up to 2 1/2 feet tall.
- **Leaves:** Alternate and basal, deeply pinnately divided into 3-9 lobes, smooth with wavy edges, up to 8 inches long.
- **Flowers:** Several in racemes, yellow, up to 1/2 inch wide, on slender stalks.
- **Sepals:** 4, green.
- **Petals:** 4, free, yellow, about 1/3 inch long.
- **Stamens:** 6.
- **Pistils:** Ovary superior.
- **Fruits:** Pods cylindrical, smooth, up to 1 1/2 inches long, with a sterile beak about 1/8 inch long, on slender stalks about 1/4 inch long.
- **Notes:** The young stems and leaves of this species can be cooked and eaten as a vegetable.



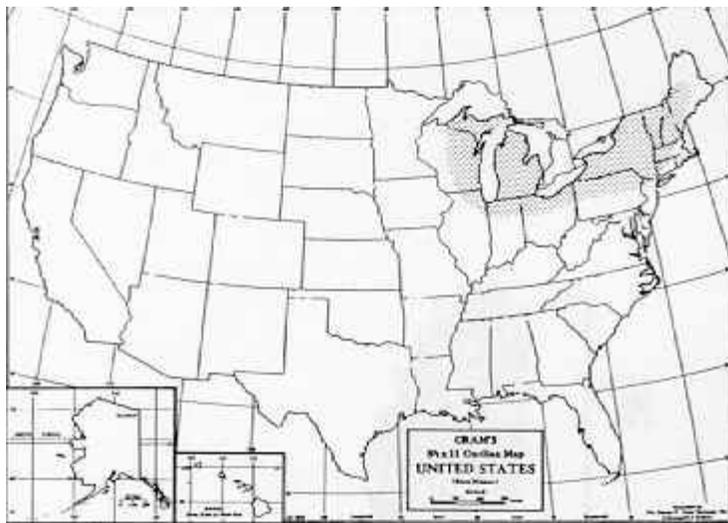
## River Birch (*Betula nigra*)



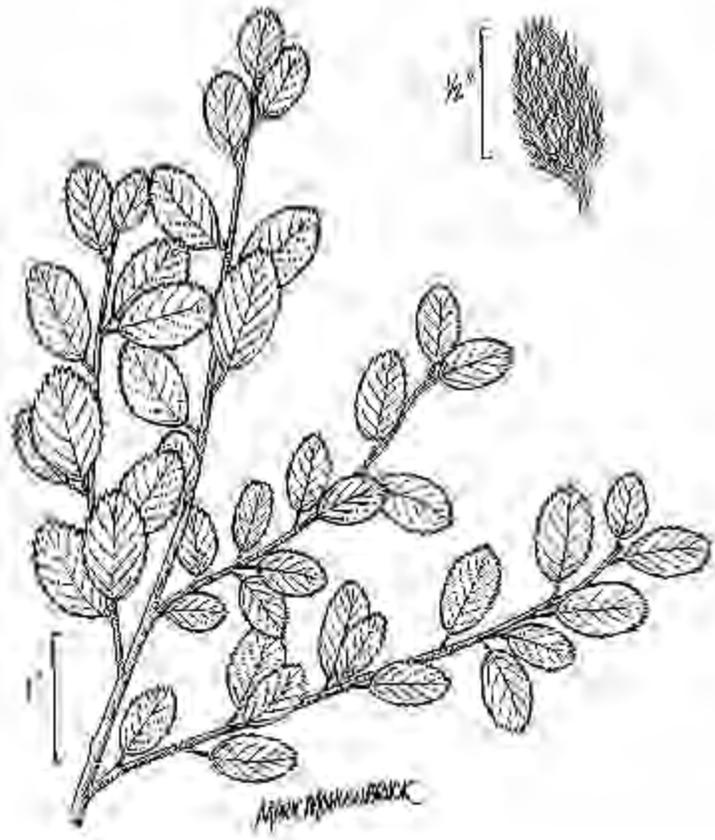
- **Family:** Birch (Betulaceae)
- **Flowering:** April-May.
- **Field Marks:** The river birch is distinguished by its bark that curls and shreds into papery sections revealing a pinkish brown underbark.
- **Habitat:** Along rivers and streams, bottomland woods.
- **Habit:** Trees up to 75 feet tall, with a trunk diameter up to 2 feet; crown irregularly rounded.
- **Bark:** Curling and shredding into papery shreds, revealing a pinkish brown underbark.
- **Buds:** Up to 1/4 inch long, pointed, hairy.
- **Leaves:** Alternate, simple, broadly triangular to ovate, coarsely doubly toothed, pointed at the tip, more or less cut straight across the base, paler and densely hairy on the lower surface, up to 3 inches long.
- **Flowers:** Male and female flowers borne separately but on the same tree, the male in slender, drooping clusters, the female in short, conelike, woolly clusters.
- **Fruits:** Tiny, hairy nutlets, each with a 3-lobed wing, crowded together in a cylindrical cone up to 1 1/2 inches long and up to 1/2 inch thick.
- **Notes:** This species is often planted as an ornamental. The wood is used in making furniture. The leaves turn yellow in autumn.



## Low Birch (*Betula pumila*)



- **Family:** Birch (Betulaceae)
- **Flowering:** May.
- **Field Marks:** This is the only shrubby birch in the midwest. Its bark does not peel or shred.
- **Habitat:** Bogs.
- **Habit:** Shrub to 9 feet tall, with slender brown twigs.
- **Buds:** Up to 1/4 inch long, pointed, more or less hairy.
- **Leaves:** Alternate, simple, obovate to ovate to orbicular, rounded or pointed at the tip, rounded or tapering at the base, coarsely toothed, usually smooth on the upper surface, paler and smooth or hairy on the lower surface, up to 1 1/2 inches long, up to 1 inch wide; leaf-stalks about 1/4 inch long, smooth or hairy.
- **Flowers:** Male and female flowers born separately but on the same plant, the male in drooping clusters, the female in erect clusters up to 1 inch long.
- **Fruits:** Tiny nutlets with broad wings, each subtended by a 3-lobed bract, crowded together in a cylindrical cone up to 1 1/2 inches long and up to 1/2 inch thick.



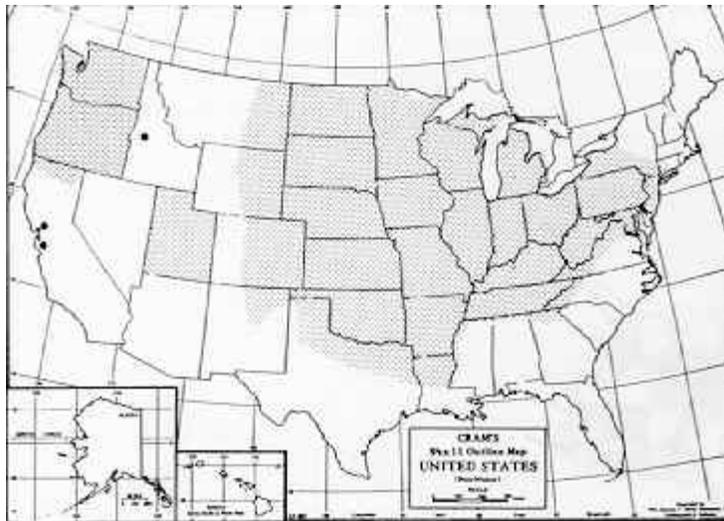
## Tickseed Sunflower (*Bidens aristosa*)



- **Family:** Aster (Asteraceae)
- **Flowering:** August-October.
- **Field Marks:** *Bidens* are recognized by their flat fruits with a pair of barbed awns at the tip. *Bidens aristosa* differs from all other species of the genus with yellow rays by its coarsely toothed or lobed leaflets, its ciliate fruits and the presence of 8-12 outer bracts subtending each head.
- **Habitat:** Wet meadows, wet prairies, marshes, roadside ditches, cultivated fields, fallow fields.
- **Habit:** Annual herbs with a taproot.
- **Stems:** Erect, smooth or slightly hairy, up to 4 feet tall.
- **Leaves:** Opposite, pinnately divided into 5 or 7 lobes or leaflets, each segment coarsely toothed or lobed, up to 3 inches long, up to 1 inch wide, usually hairy on the lower surface.
- **Flowers:** Many crowded together into a head, the outer yellow and flat, the inner yellow and tubular, forming a disk, with several heads per plant, each head subtended by 8-12 leafy bracts.
- **Sepals:** 0.
- **Petals:** Some yellow, united to form flat rays up to 1 inch long and up to 1/2 inch wide, others yellow, 5-lobed, united below into a tube.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes flat, ciliate, black or yellow-black, and 1/4 inch long, with two small, stiff barbed awns at the upper end.
- **Notes:** The fruits of this species adhere to the coats of animals and to clothing and are dispersed in this manner.



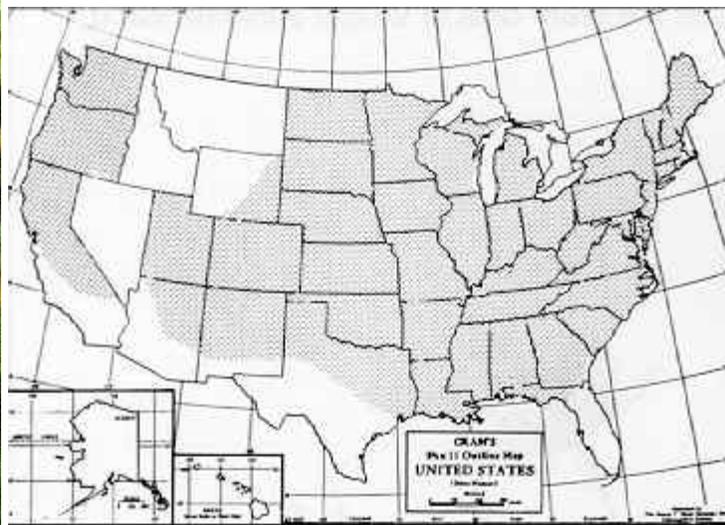
## Nodding Beggarsticks (*Bidens cernua*)



- **Family:** Aster (Asteraceae)
- **Flowering:** August-October.
- **Field Marks:** This *Bidens* differs from other species with showy rays by its undivided simple leaves, its nodding heads, and its somewhat winged fruits.
- **Habitat:** Around ponds and lakes, along streams, swamps, wet meadows, roadside ditches, marshes, bogs.
- **Habit:** Annual herbs with a taproot.
- **Stems:** Erect or sometimes growing along the ground and rooting at the nodes, smooth or hairy, often branched, up to 5 feet tall.
- **Leaves:** Opposite, simple, linear to lanceolate, pointed at the tip, more or less rounded at the sessile or slightly clasping base, with or without teeth, smooth or hairy, up to 6 inches long, up to 1 1/2 inches wide.
- **Flowers:** Many crowded together into a head, the outer yellow and flat, the inner yellow and tubular, forming a disk, with several heads per plant, each head subtended by 5-8 narrow, leafy bracts.
- **Sepals:** 0.
- **Petals:** Some yellow, united to form flat rays up to 2/3 inch long and up to 1/3 inch wide, others yellow, 5-lobed, united below into a tube.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes mostly flat, broadest at top, tapering to a narrow base, green-black, barbed along the edge, up to 1/3 inch long, about 1/10 inch broad, with four stiff barbed awns at the upper end.
- **Notes:** The fruits of this species are eaten by ducks.



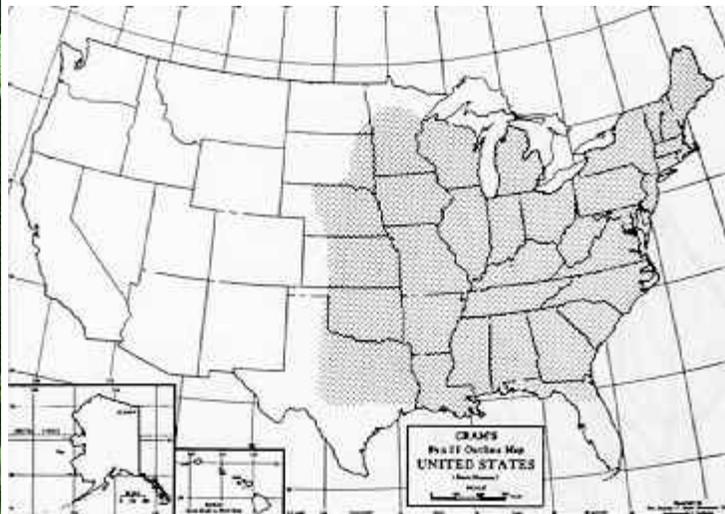
## Devils Beggarsticks (*Bidens frondosa*)



- **Family:** Aster (Asteraceae)
- **Flowering:** August-October.
- **Field Marks:** *Bidens frondosa* is one of the *Bidens* without ray flowers. It differs from other rayless species by its pinnately divided leaf segments and the 5-8 leafy bracts which subtend each flowering head.
- **Habitat:** Low woods, wet meadows, swamps, marshes, roadside ditches, along streams, around lakes and ponds, fields.
- **Habit:** Annual herbs with a taproot.
- **Stems:** Erect, smooth, up to 4 feet tall.
- **Leaves:** Opposite, pinnately divided into 3-7 segments, each segment up to 4 inches long, up to 2 inches wide, smooth.
- **Flowers:** Many crowded together into a head, tubular and forming a disk, without ray flowers present, each head subtended by 5-8 leafy, ciliate bracts.
- **Sepals:** 0.
- **Petals:** Yellow, united to form a tube, about 1/6 inch long.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes flat, tapering to a narrower base, dark brown to black, smooth or hairy, about 1/3 inch long, with a pair of barbed awns at the upper end.
- **Notes:** The fruits are eaten by ducks. Muskrats will eat the entire plant.



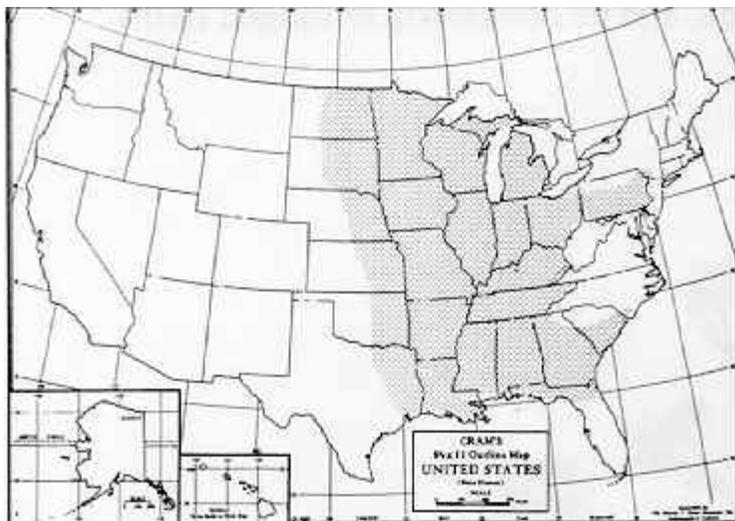
## False Nettle (*Boehmeria cylindrica*)



- **Family:** Nettle (Urticaceae)
- **Flowering:** June-October.
- **Field Marks:** This nettle is distinguished by its opposite leaves and the absence of stinging hairs.
- **Habitat:** Low woods, along streams, wet meadows, bogs, marshes.
- **Habit:** Perennial herbs from thickened rootstocks.
- **Stems:** Erect, unbranched, smooth, more or less 4-angled, up to 2 1/2 feet tall.
- **Leaves:** Opposite, simple, ovate to ovate-lanceolate, pointed at the tip, rounded at the base, with 3 main veins, coarsely toothed, smooth, up to 3 inches long.
- **Flowers:** Many tiny flowers crowded into slender spikes borne from the axils of the leaves, the male flowers usually on separate plants from the female flowers, each flower greenish white, about 1/12 inches long.
- **Sepals:** 4, united.
- **Petals:** 0.
- **Stamens:** 4.
- **Pistils:** Ovary superior.
- **Fruits:** Achenes ovoid, narrowly winged, up to 1/10 inch long.



## Marsh Boltonia (*Boltonia asteroides*)



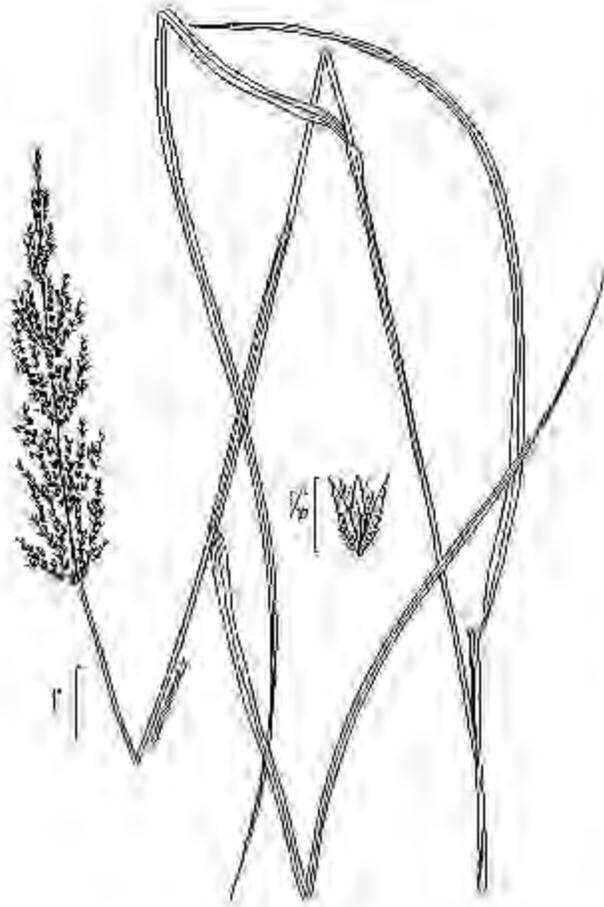
- **Family:** Aster (Asteraceae)
- **Flowering:** July-October.
- **Field Marks:** This white-rayed species is distinguished by its completely unwinged stems.
- **Habitat:** Wet prairies, wet meadows, along streams, roadside ditches, around ponds and lakes, marshes.
- **Habit:** Perennial herb with slender rhizomes.
- **Stems:** Erect, branched or unbranched, smooth, up to 7 feet tall.
- **Leaves:** Alternate, simple, lanceolate, pointed at the tip, tapering to the base, blue-green, smooth, up to 4 inches long, up to 2/3 inch wide.
- **Flowers:** Many crowded into a head, the outer white and ray-like, the inner tubular, yellow, forming a disk, each head subtended by numerous small, green bracts.
- **Sepals:** 0.
- **Petals:** Some white to pale lilac, united to form rays, up to 2/3 inch long, others yellow, united to form a tube.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes flattened winged, ciliate, about 1/10 inch long, with 2 small awns at the upper end.
- **Notes:** The small fruits of this species are eaten by waterfowl.



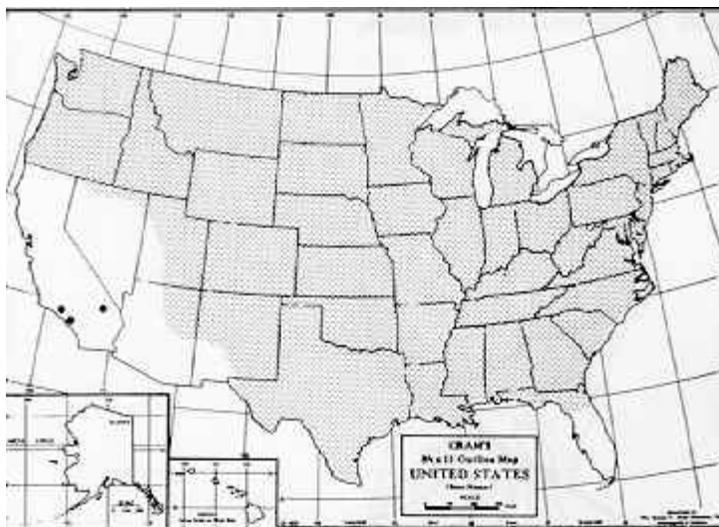
## Bluejoint (*Calamagrostis canadensis*)



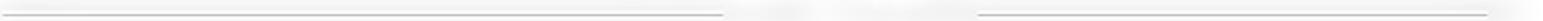
- **Family:** Grass (Poaceae)
- **Flowering:** May-August
- **Field Marks:** This distinctive grass differs from all other grasses that have 1-flowered spikelets by its narrow bluish leaves not more than 1/3 inch broad and its delicate, open panicle.
- **Habitat:** Wet meadows, wet prairies.
- **Habit:** Perennial grass with rhizomes.
- **Stems:** Erect, unbranched, smooth, up to 5 feet tall.
- **Leaves:** Elongated, very narrow, bluish, up to 1/3 inch broad, not hairy but rough to the touch.
- **Flowers:** Borne singly in spikelets, with many spikelets on slender stalks, forming an open panicle; each spikelet up to 1/6 inch long; glumes narrow, pointed; lemma with a delicate awn not exerted beyond the entire spikelet.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Ovary superior; stigmas 3-cleft.
- **Grains:** Ellipsoid, yellow-brown, smooth, about 1/16 inch long.



## Hedge Bindweed (*Calystegia sepium*)



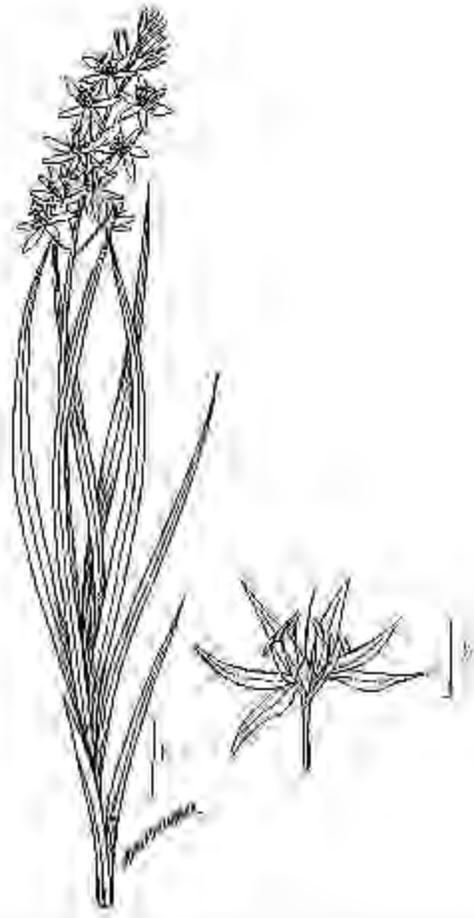
- **Family:** Morning-glory (Convolvulaceae)
- **Flowering:** May-September.
- **Field Marks:** This is the only large-flowered, white, viny bindweed or morning-glory that does not have a reddish purple center and that has large bracts that conceal the sepals.
- **Habitat:** Old fields, wet meadows, along streams, roadside ditches, around ponds and lakes.
- **Habit:** Trailing, twining, or climbing vine from coarse rootstocks.
- **Stems:** Slender, usually twining, much branched, smooth or hairy, sometimes up to 8 feet long.
- **Leaves:** Alternate, simple, triangular, pointed at the tip, arrowhead-shaped at the base, smooth or hairy, without teeth, up to 4 inches long, up to 2 inches wide; leaf stalk as long as the blade.
- **Flowers:** Solitary from the axils of the leaves, on stalks at least as long as the leaves, each flower with a pair of green, ovate bracts that conceal the sepals.
- **Sepals:** 5, green.
- **Petals:** White, rarely pinkish, united to form a funnel-shaped corolla up to 3 inches long, without a reddish purple center.
- **Stamens:** 5, attached near the base of the corolla.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules green, nearly spherical.
- **Notes:** There are reports that this species may be poisonous when eaten by some animals.



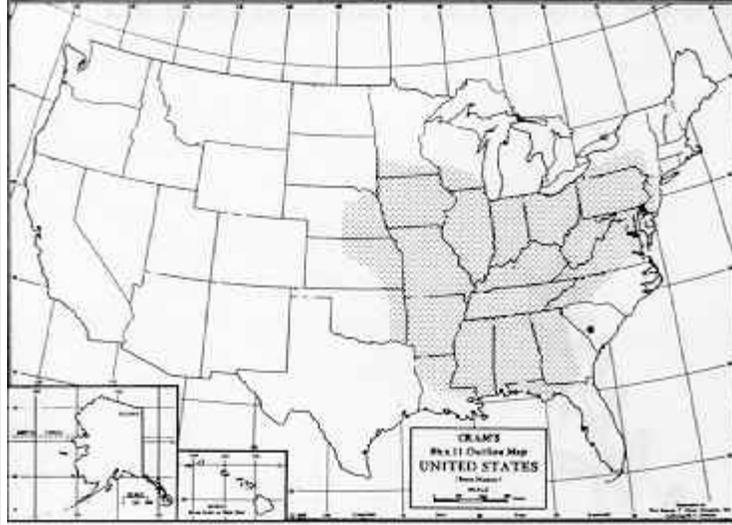
## Atlantic Camass (*Camassia scilloides*)



- **Family:** Lily (Liliaceae)
- **Flowering:** April-May.
- **Field Marks:** The distinguishing features of this species are the long, narrow leaves that are all basal and the raceme of pale blue flowers with the six petal-like parts barely united at the base.
- **Habitat:** Wet woods, along streams, damp prairies.
- **Habit:** Perennial herb with a bulb.
- **Stems:** Leafless, except for 1 or 2 reduced leaves near the cluster of flowers at the tip of the stem.
- **Leaves:** All basal, long and narrow, smooth without teeth, up to 2 feet long, up to 3/4 inch wide.
- **Flowers:** Several in a terminal raceme up to 10 inches long, each flower up to 3/4 inch across.
- **Sepals and Petals:** 6, undifferentiated, pale blue, united at the base, each segment up to 3/4 inch long.
- **Stamens:** 6.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules triangular to nearly spherical, smooth, 3-parted, up to 1/2 inch long, sometimes about as broad.
- **Notes:** The bulbs of this species are said to be edible.



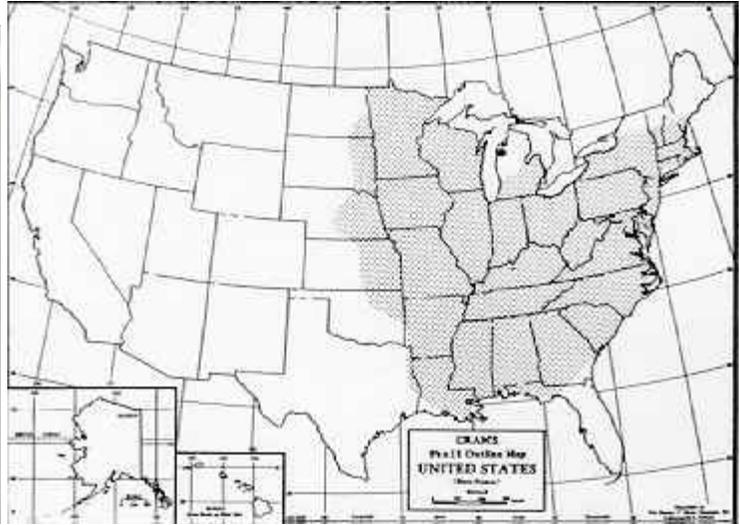
# Bellflower (*Campanula americana*)



- **Family:** Bellflower (Campanulaceae)
- **Flowering:** June-October.
- **Field Marks:** Members of the genus *Campanula* have 5 sepals, 5 united petals, 5 stamens, an inferior ovary, and alternate leaves. *Campanula americana* is the only species that has a flattened instead of a bell-shaped corolla.
- **Habitat:** Moist woods, damp thickets.
- **Habit:** Annual or biennial herbs with a taproot, usually with milky sap.
- **Stems:** Erect, branched or unbranched, smooth or hairy, up to 6 feet tall.
- **Leaves:** Alternate, simple, lanceolate to narrowly ovate, pointed at the tip, tapering to the base, smooth or hairy, toothed, up to 6 inches long, up to 2 inches wide.
- **Flowers:** Several in racemes up to 1 1/2 feet long, blue, each flower about 1 inch across.
- **Sepals:** 5, green, united at base, up to 1/2 inch long.
- **Petals:** 5, blue, united near the base.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Capsules club-shaped, about 1/2 inch long, opening by pores near the top; seeds brown, flat.
- **Notes:** White-tailed deer browse on the leaves of this species.



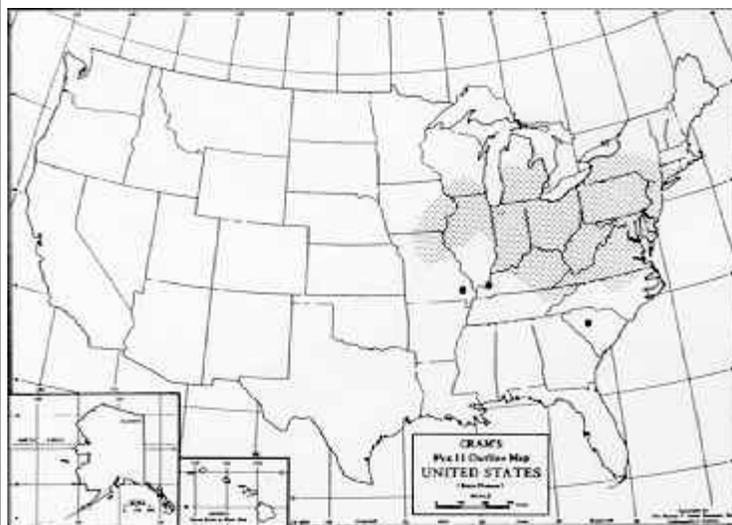
## Spring Cress (*Cardamine bulbosa*)



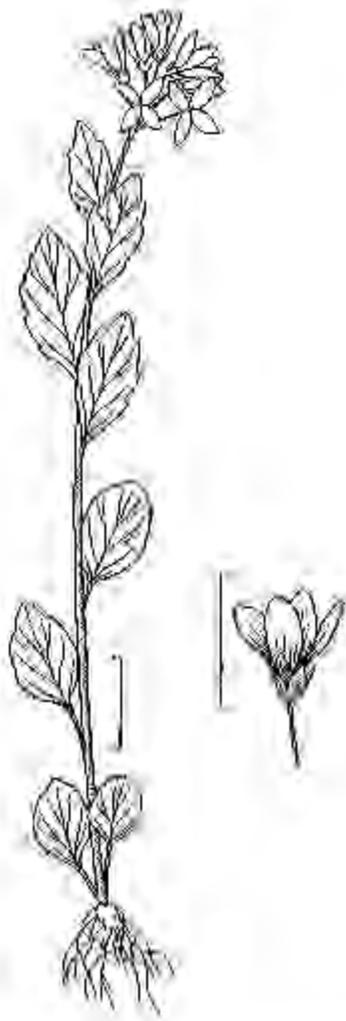
- **Family:** Mustard (Brassicaceae)
- **Flowering:** March-June.
- **Field Marks:** This is the only bittercress with large flowers and untoothed or merely toothed, not deeply divided leaves.
- **Habitat:** Low woods, wet meadows, along streams, marshes.
- **Habit:** Perennial herbs with short, thick tubers.
- **Stems:** Erect, usually unbranched, smooth, up to 15 inches tall.
- **Leaves:** Of 2 kinds, the basal oblong to ovate, usually heart-shaped at base, on long leaf stalks, the leaves of the stem alternate, simple, ovate to lanceolate, pointed at the tip, tapering to the base, without teeth or with sparse teeth, smooth, up to 2 inches long, usually without leaf stalks.
- **Flowers:** Several in terminal racemes, white, with slender stalks.
- **Sepals:** 4, green, smooth.
- **Petals:** 4, white, free from each other, 1/2-2/3 inch long.
- **Stamens:** 6.
- **Pistils:** Ovary superior.
- **Fruits:** Pods linear, very slender, up to 1 inch long, with a sterile beak up to 1/4 inch long; seeds dark brown, about 1/10 inch long.
- **Notes:** The tuber of this species can be used as a substitute for horseradish. The young stems and leaves can be used fresh in salads.



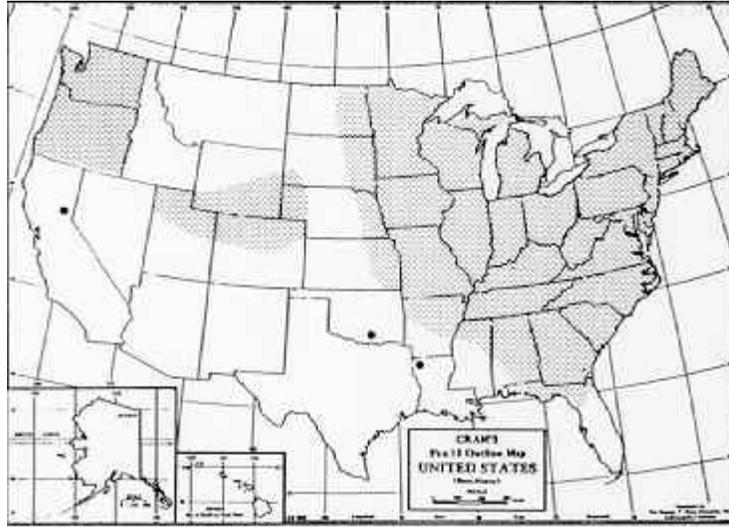
## Purple Cress (*Cardamine douglassii*)



- **Family:** Mustard (Brassicaceae)
- **Flowering:** March-April.
- **Field Marks:** Purple cress is the only *Cardamine* that has large pink-purple flowers and merely toothed, never deeply lobed leaves.
- **Habitat:** Low woods, marshes.
- **Habit:** Perennial herbs with short, thick tubers.
- **Stems:** Erect, usually unbranched, hairy or rarely smooth.
- **Leaves:** Of 2 kinds, the basal nearly orbicular, on long leaf stalks, the leaves of the stem alternate, simple, lanceolate, pointed at the tip, tapering, rounded, or even clasping at the sessile base, usually toothed, smooth or slightly hairy, up to 2 inches long.
- **Flowers:** Several in terminal racemes, pink-purple, with slender leaf stalks.
- **Sepals:** 4, green, tinged with purple.
- **Petals:** 4, pink-purple, free from each other, 1/3-1 inch long.
- **Stamens:** 6.
- **Pistils:** Ovary superior.
- **Fruits:** Pods linear, slender, up to 1 inch long, with a sterile beak up to 1/5 inch long; seeds dark brown, about 1/12 inch long.



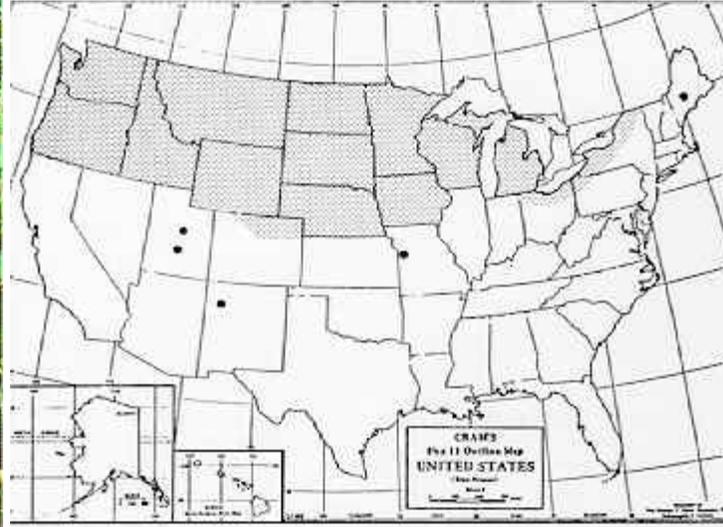
## Pennsylvania Bittercress (*Cardamine pensylvanica*)



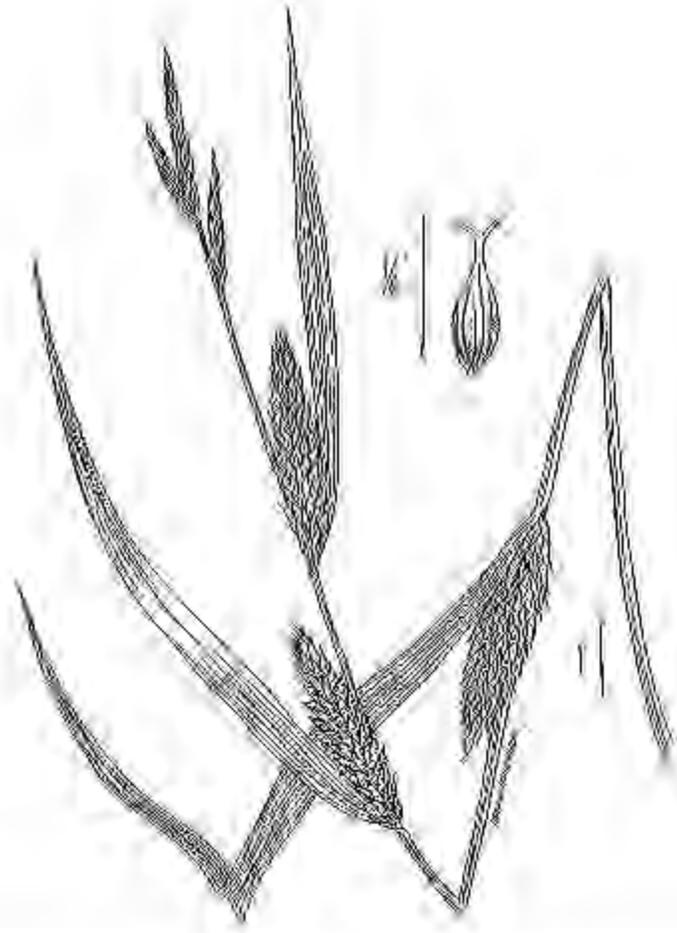
- **Family:** Mustard (Brassicaceae)
- **Flowering:** March-July.
- **Field Marks:** This small white-flowered *Cardamine* differs from similar species by its terminal leaflets which are as large as or larger than the lateral leaflets.
- **Habitat:** Wet woods, along streams.
- **Habit:** Biennial or perennial herbs from a thickened rootstock.
- **Stems:** Erect, smooth or slightly hairy near the base, sometimes branched, up to 15 inches tall.
- **Leaves:** Alternate, pinnately compound with 5-13 leaflets, smooth, the terminal leaflet as large or larger than the lateral leaflets, up to 1/2 inch long, nearly as broad, all leaflets oblong to oval, without teeth, toothed, or sometimes shallowly lobed.
- **Flowers:** Several in terminal racemes, white, 1/6 to 1/4 inch across.
- **Sepals:** 4, green, smooth.
- **Petals:** 4, white, free from each other.
- **Stamens:** 6.
- **Pistils:** Ovary superior.
- **Fruits:** Pods slender, cylindrical, ascending, up to 1 1/4 inches long, with a sterile beak about 1/10 inch long; seeds pale brown.
- **Notes:** The young stems and leaves can be used in salads.



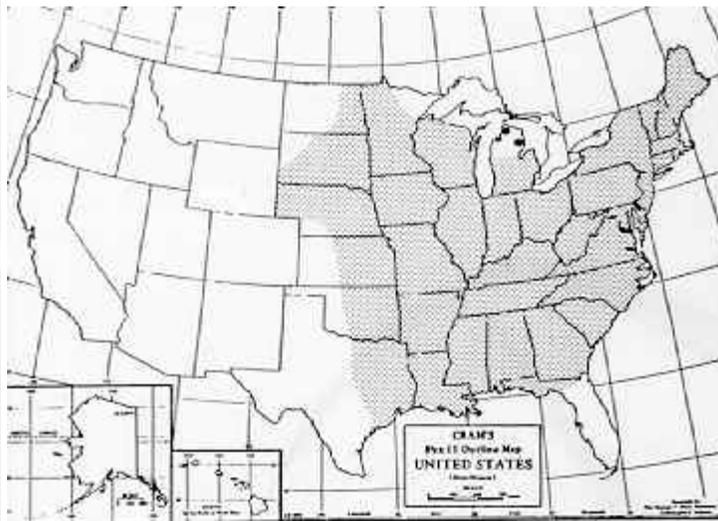
## Slough Sedge (*Carex atherodes*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-July.
- **Field Marks:** The distinguishing features of this species are the separate male and female spikes, the sharply 2-toothed beak of the perigynium, and the hairy leaves.
- **Habitat:** Swamps, wet meadows.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect, smooth or sometimes rough to the touch, sharply triangular, up to 5 feet tall.
- **Leaves:** Elongated, rough to the touch, usually hairy at least on the lower surface, up to 1/2 inch broad.
- **Flowers:** Male and female flowers borne in separate spikes; the male spikes 2-6 in number, usually on long stalks; the female spikes 3-5, cylindrical, on very short stalks or on no stalks at all, up to 4 inches long.
- **Scales:** Broadly lanceolate, awn-tipped, shorter than the perigynia.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; each perigynium broadly lanceoloid, smooth, many-nerved, gradually tapering to a slender, 2-toothed beak, up to 1/6 inch long.
- **Fruits:** Achenes triangular, smooth.
- **Notes:** The achenes are eaten by waterfowl. *Flora of the Pacific Northwest* by Hitchcock and Cronquist (1973) does not attribute this species to California, although the National Wetlands Inventory lists it for area 10.



## Woodland Sedge (*Carex blanda*)



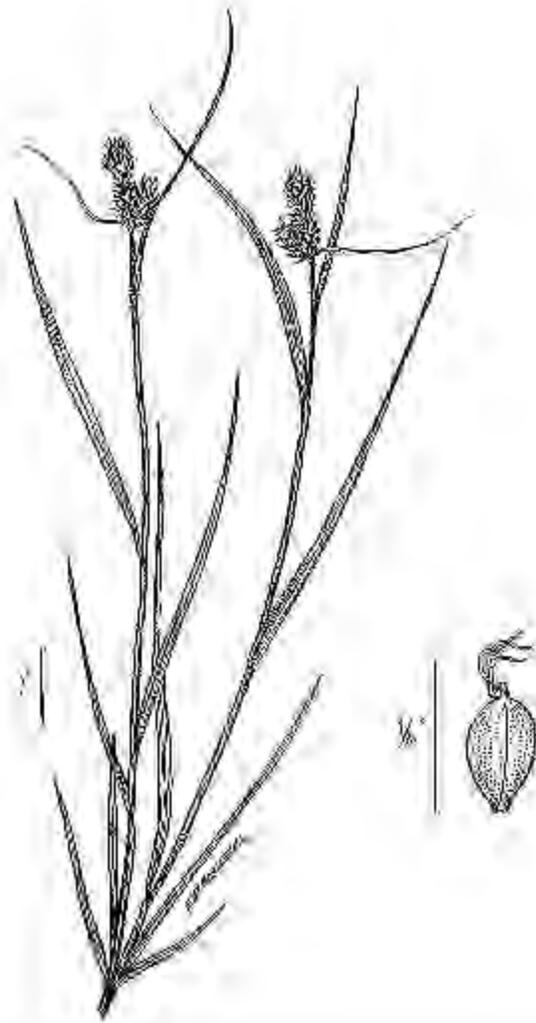
- **Family:** Sedge (Cyperaceae)
- **Flowering:** April-July.
- **Field Marks:** The male flowers are borne in separate spikes from the female. The short beak of the perigynium, which is not 2-cleft, is bent to one side.
- **Habitat:** Wet woods, along rivers and streams.
- **Habit:** Perennial herb with slightly thickened rootstocks.
- **Stems:** Erect, smooth pale green, up to 15 inches tall, not purplish at the base.
- **Leaves:** Elongated, narrow, usually shorter than the flowering stem, pale green, smooth, up to 1/2 inch broad.
- **Flowers:** Male and female flowers borne in separate spikelets; the male flowers in separate narrow spikes up to 1 inch long and borne on a very short stalk; the female flowers crowded in 2-4 spikes, the upper ones sessile, the lower 1-2 on slender stalks.
- **Scales:** Ovate, white along the edges, green down the middle, pointed at the tip or even awned, shorter than the perigynia.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; the perigynium obovoid, tapering to a short, bent, toothless tip. smooth, veiny, up to 1/8 inch long.
- **Fruits:** Achenes triangular, smooth.
- **Notes:** The achenes are sometimes eaten by waterfowl. The leaves may be grazed by deer.



## Bush Sedge (*Carex bushii*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** April-July.
- **Field Marks:** The male flowers are located below the short, thickened female spike. This species differs from similar species by its hairy leaves and hairy perigynia.
- **Habitat:** Wet prairies, wet meadows, along rivers and streams around ponds and lakes, moist woods, as well as several drier habitats.
- **Habit:** Perennial herb with slender rootstocks.
- **Stems:** Erect, slender, usually hairy, rough to the touch, up to 2 feet tall.
- **Leaves:** Elongated, narrow, usually hairy, up to 1/8 inch broad.
- **Flowers:** Male and female flowers in the same spike, the male flowers below the female flowers; spikes usually 2-3 per stem, oblongoid to oblong-cylindric, up to 3/4 inch long, up to 1/3 inch broad, erect.
- **Scales:** Lanceolate, pointed or with a short, toothed awn, longer than the perigynia.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; the perigynium obovoid, up to 1/8 inch long, ribbed, hairy, rounded or pointed at the tip but not beaked.
- **Fruits:** Achenes obovoid, smooth.
- **Notes:** The achenes are eaten by waterfowl.



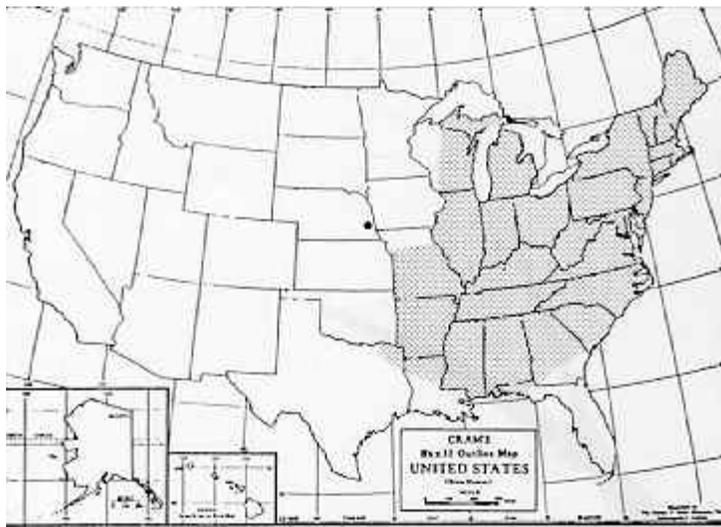
## Longhair Sedge (*Carex comosa*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** July-August.
- **Field Marks:** This *Carex* is recognized by the male and female flowers in separate spikes, the perigynia less than 1/2 inch long and with a prominent beak with 2 teeth, and the lowermost perigynia in a spike pointing downward.
- **Habitat:** Swamps, around lakes.
- **Habit:** Perennial herb with slender rhizomes.
- **Stems:** Erect, smooth, up to 5 feet tall.
- **Leaves:** Long, narrow, rough along the edges, up to 1/3 inch broad.
- **Flowers:** Many in spikelets, each flower subtended by a scale; the male flowers in separate spikes from the female flowers, only 1 male spike per stem, long and slender; the female spikes usually 2-6 per stem, up to 3 inches long, up to 1/3 inch across, on slender stalks that droop at maturity.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** One per scale, the scales with a slender, toothed awn, each perigynium lanceoloid, smooth, up to 1/4 inch long, with a slender beak with 2 teeth at the tip, the lowermost perigynia usually pointing downward; stigmas 3.
- **Fruits:** Achenes triangular.
- **Notes:** The fruits are eaten by waterfowl.



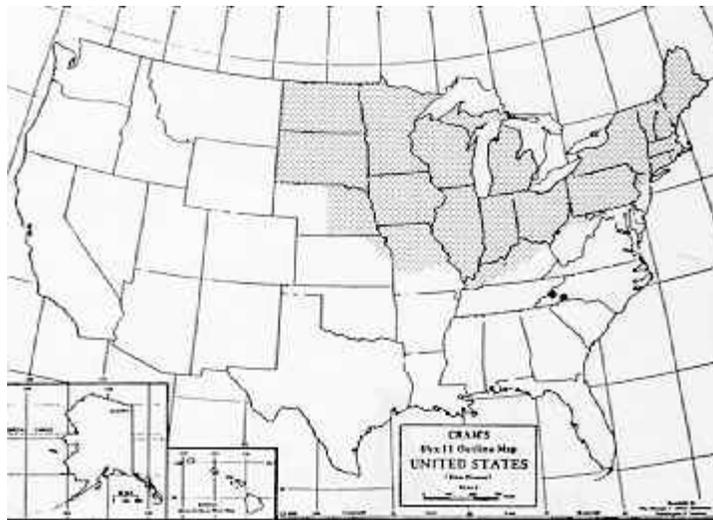
## Fringed Sedge (*Carex crinita*)



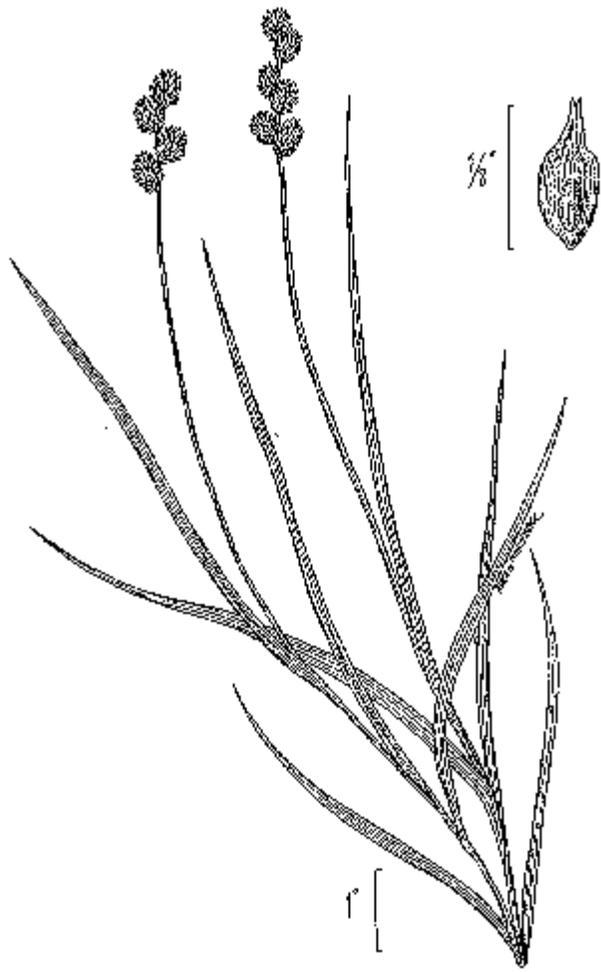
- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-July.
- **Field Marks:** This distinctive sedge has long, drooping, narrow spikes with slender, projecting scales subtending each perigynium.
- **Habitat:** Wet meadows, wet prairies, swamps, sloughs.
- **Habit:** Perennial herb with thickened rootstocks, growing in dense clumps.
- **Stems:** Erect, triangular, rough to the touch or smooth, up to 4 feet tall.
- **Leaves:** Elongated, narrow, rough to the touch along the margins, up to 1/2 inch broad.
- **Flowers:** Male and female flowers borne separately; the male usually in slender, erect spikes up to 2 1/2 inches long; the female in drooping spikes up to 4 inches long, with projecting scales subtending each perigynium.
- **Scales:** Narrow, tapering to a slender, toothed awn 2 or more times longer than the perigynium.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; the perigynium ellipsoid to ovoid to nearly spherical, up to 1/6 inch long, with a minute, toothless beak.
- **Fruits:** Achenes obovoid, granular, up to 1/8 inch long.
- **Notes:** The seeds are eaten by waterfowl.



## Crested Sedge (*Carex cristatella*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-July.
- **Field Marks:** This species has spikelets more or less spherical, and perigynia broadly lanceolate.
- **Habitat:** Wet meadows, wet prairies, swamps, along streams, around ponds, roadside ditches.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect, rough to the touch, up to 3 feet tall.
- **Leaves:** Elongated, narrow, shorter than the stems, smooth, up to 1/4 inch broad.
- **Flowers:** Male and female borne separately; the male few at the base of the female spikelets; the spikelets crowded, spherical or nearly so, up to 1/3 inch in diameter.
- **Scales:** Lanceolate, pointed or rounded at the tip, shorter than the perigynia.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; the perigynium flat, wing-margined, broadly lanceolate, minutely toothed near the tip, up to 1/16 inch broad.
- **Fruits:** Achenes triangular, smooth.
- **Notes:** The achenes are eaten by waterfowl. *Aquatic and Wetland Plants of Southwestern United States* by Correll and Correll (1975) does not attribute this species to Oklahoma or Texas.



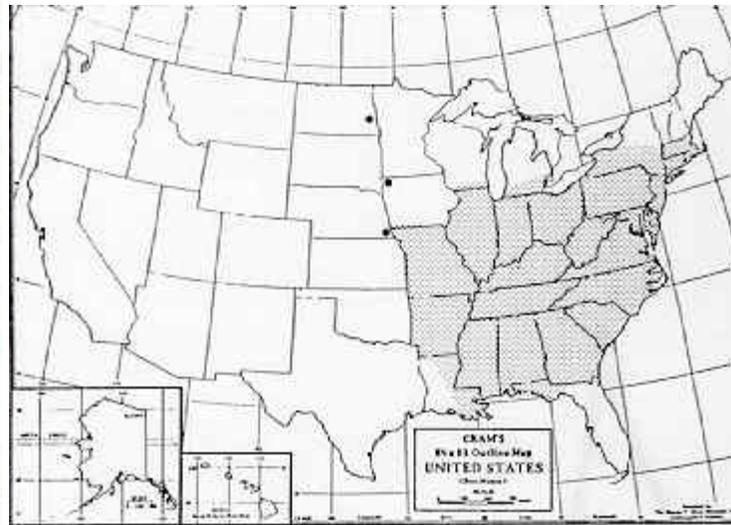
## Crowfoot Sedge (*Carex crus-corvi*)



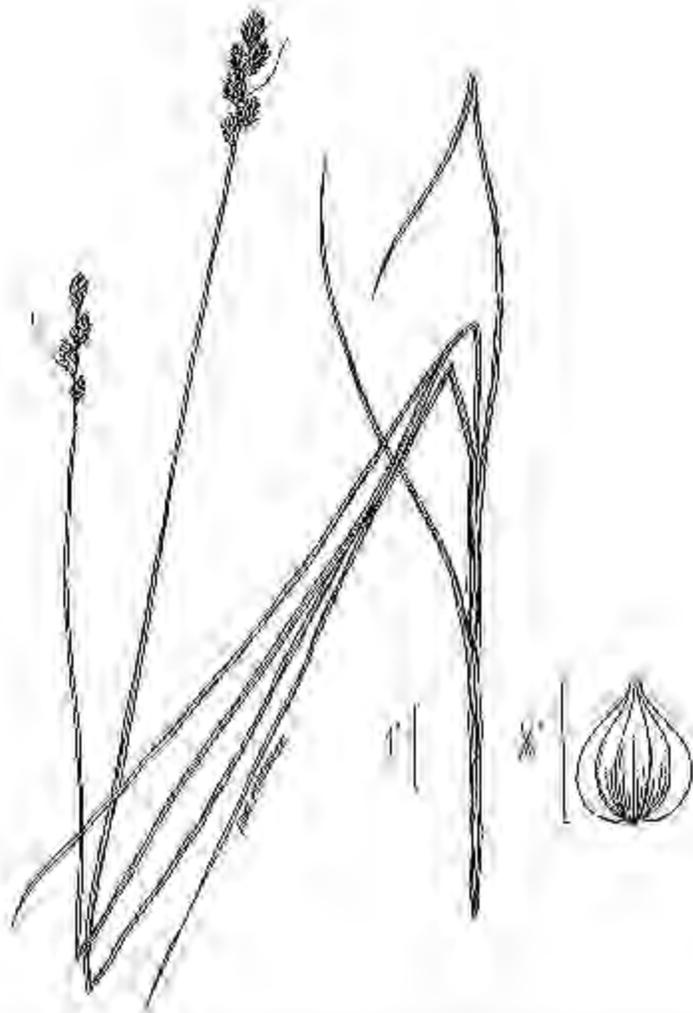
- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-July.
- **Field Marks:** This well-marked sedge is distinguished by its large spikes and the large perigynium with the beak at least twice as long as the rest of the perigynium.
- **Habitat:** Wet meadows, wet prairies, swamps, floodplain woods.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect, several in a clump, strongly triangular, rough to the touch, bluish to dark green, up to 2 1/2 feet tall.
- **Leaves:** Elongated, narrow, bluish to dark green, rough along the edges to the touch, up to 1/2 inch broad.
- **Flowers:** Male and female borne separately but in the same spike; the male flowers above the female flowers; the spikes up to 10 inches long, up to 2 inches broad.
- **Scales:** Ovate to lanceolate, pointed at the tip, shorter than the perigynia.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; each perigynium lanceolate, spongy at the base, tapering to a long, minutely toothed beak at least twice as long as the rest of the perigynium, the entire perigynium up to 1/2 inch long.
- **Fruits:** Achenes brownish, more or less triangular, up to 1/10 inch long.
- **Notes:** The color of the leaves varies from bluish to dark green. The achenes are eaten by waterfowl.



## Fescue Sedge (*Carex festucacea*)



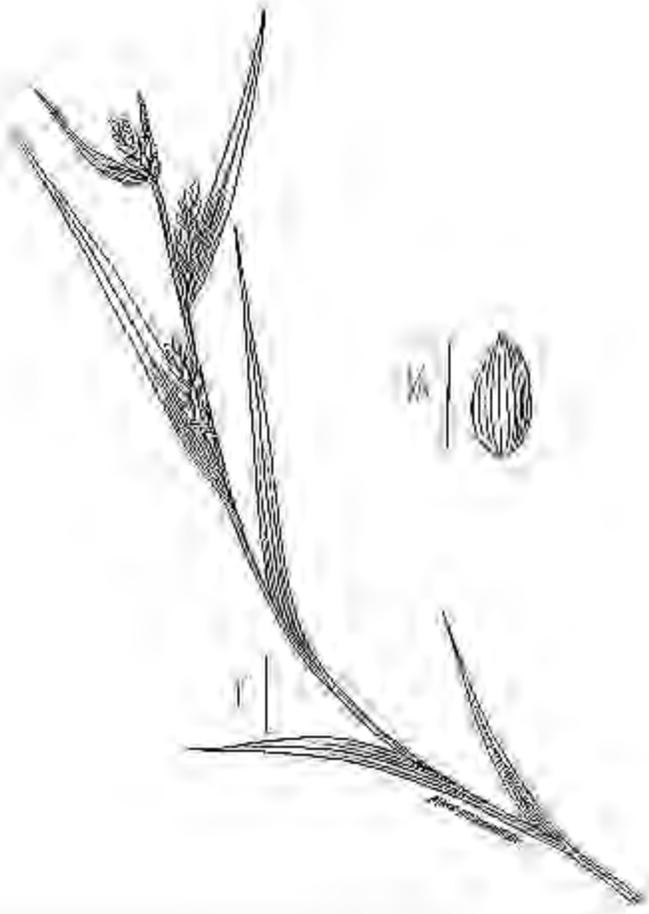
- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-July.
- **Field Marks:** The spikes of this species overlap only slightly or not at all. The perigynia are broadly ovate or nearly round.
- **Habitat:** Wet woods, wet prairies, around lakes and ponds.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect, smooth or sometimes rough to the touch, up to 3 feet tall.
- **Leaves:** Elongated, narrow, shorter than the stem, smooth, up to 1/6 inch broad.
- **Flowers:** Male and female borne separately; the male crowded at the base of the female spikelets; the female spikelets barely overlapping or separate, up to 1/2 inch long.
- **Scales:** Lanceolate to broadly lanceolate, rounded or pointed at the tip, up to 1/8 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; the perigynium flat, ovate to nearly round, up to 1/6 inch long with a small beak.
- **Fruits:** Achenes smooth, 1/16 inch long.



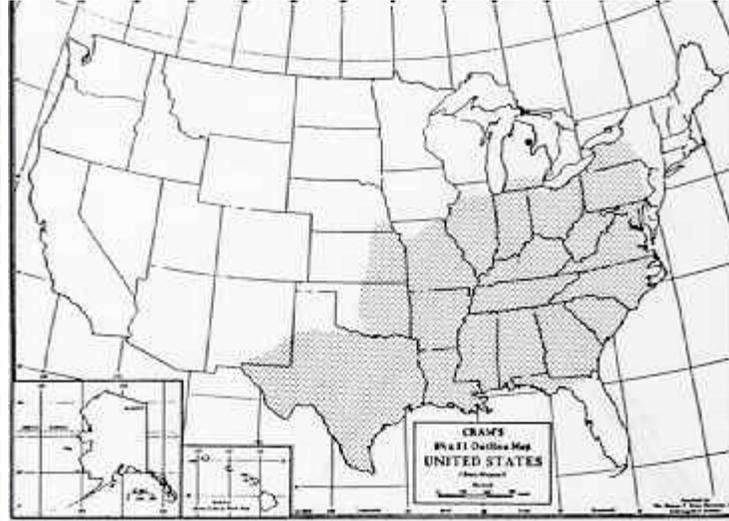
## Thin-fruited Sedge (*Carex flaccosperma*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-June.
- **Field Marks:** This species differs from the other sedges with bluish or pale green leaves by its beakless perigynia at least 1/6 inch long.
- **Habitat:** Wet woods, swamps.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Sprawling or erect, smooth, bluish or pale green, up to 1 foot long.
- **Leaves:** Elongated, narrow, smooth, bluish or pale green, up to 1/2 inch broad.
- **Flowers:** Male and female borne separately; the male in a separate erect spike up to 1 inch long, the female crowded into short, cylindrical spikes, up to 1 inch long.
- **Scales:** Narrow, short-awned, shorter than the perigynia.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; the perigynium ellipsoid, without a beak, up to 1/4 inch long.
- **Fruits:** Achenes ellipsoid, about 1/12 inch long.
- **Notes:** The achenes are eaten by waterfowl. *Atlas of the Flora of the Great Plains* by McGregor, *et al.* (1977) does not attribute this plant to region 5.



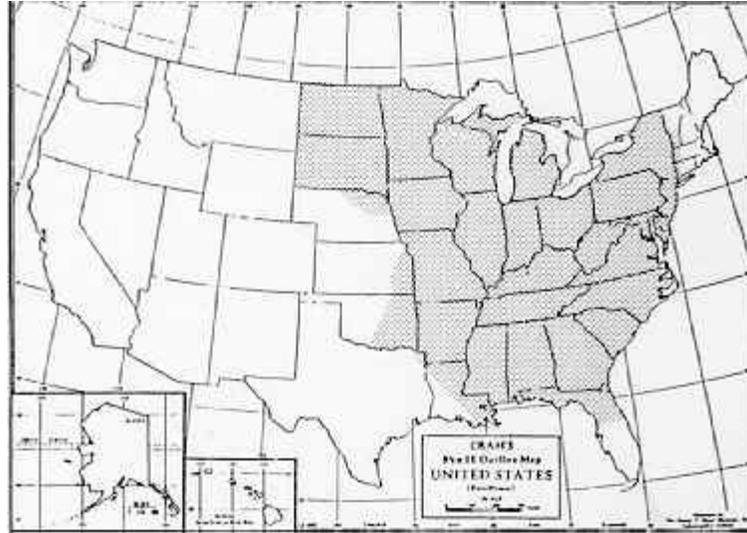
## Frank's Sedge (*Carex frankii*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-September.
- **Field Marks:** This sedge has its cylindrical spikes nestled down among leafy bracts that are 2-4 times longer than the spikes. The male flowers are borne in a separate spike.
- **Habitat:** Swamps, floodplain woods, wet meadows, wet prairies, along rivers and streams, roadside ditches, around ponds and lakes.
- **Habit:** Perennial herb with rhizomes.
- **Stems:** Erect, smooth, up to 2 feet tall.
- **Leaves:** Elongated, narrow, rough to the touch, up to 1/3 inch broad.
- **Flowers:** Male and female borne separately; the male flowers in a narrow, cylindrical spike up to 1 1/4 inches long; the female flowers in 3-6 dense, cylindrical spikes up to 1 1/2 inches long, much surpassed by leafy bracts.
- **Scales:** Very narrow, minutely toothed, awn-like, longer than the perigynia.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; each perigynium reversely cone-shaped, tapering to the base, conspicuously nerved, depressed at the summit where the conspicuous 2-toothed beak arises; the entire perigynium up to 1/4 inch long.
- **Fruits:** Achenes obovoid, about 1/10 inch long.
- **Notes:** The achenes are eaten by waterfowl.



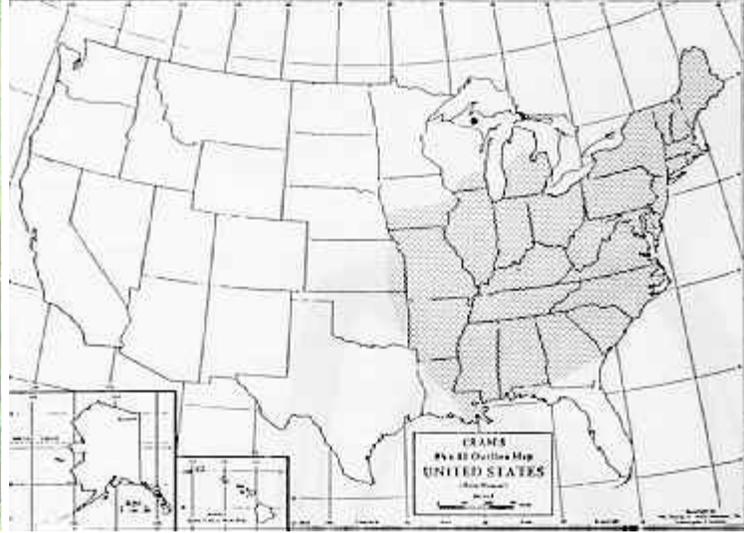
## Meadow Sedge (*Carex granularis*)



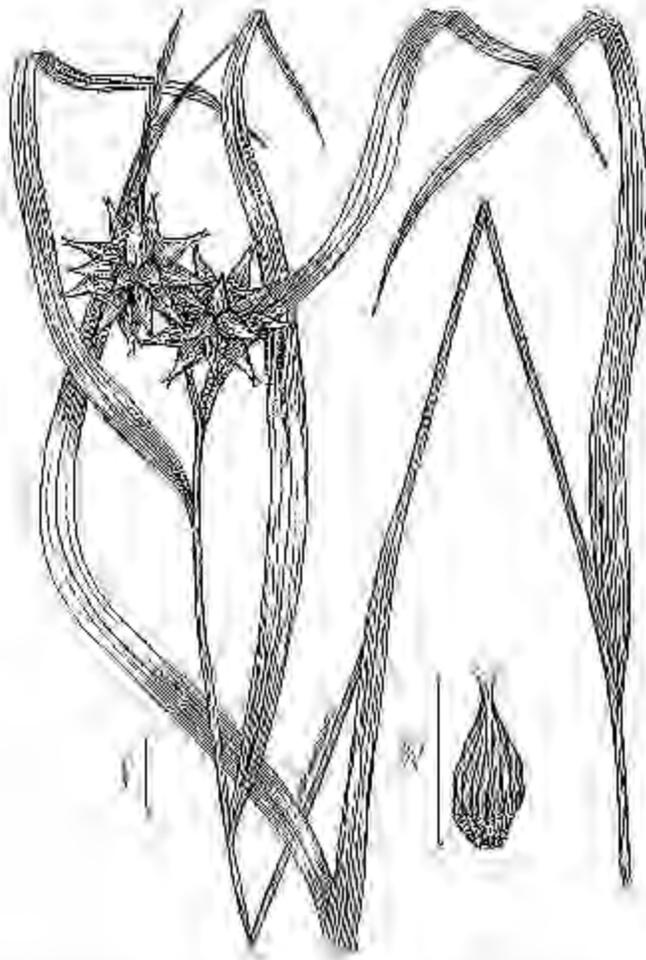
- **Family:** Sedge (Cyperaceae)
- **Flowering:** April-July.
- **Field Marks:** This species has male spikes separate from the female spikes and beakless perigynia about 1/8 inch long.
- **Habitat:** Wet woods, swamps, along streams, wet meadows, wet prairies.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect, smooth, pale green to bluish, up to 2 1/2 feet tall.
- **Leaves:** Elongated, narrow, usually rough along the edges, up to 1/3 inch broad.
- **Flowers:** Male and female borne separately; the male flowers in slender, solitary spikes up to 1 1/4 inches long; the pistillate flowers in 2-4 narrow cylindrical spikes up to 1 inch long.
- **Scales:** Narrowly ovate, tapering to a short point.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; the perigynium ovoid to obovoid, up to 1/8 inch long, tapering to a very short beak.
- **Fruits:** Achenes smooth, obovoid, about 1/10 inch long.



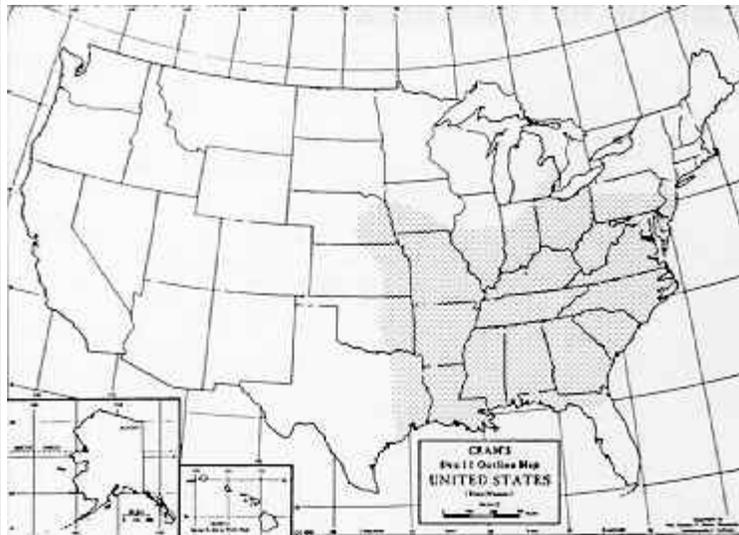
## Gray's Sedge (*Carex grayii*)



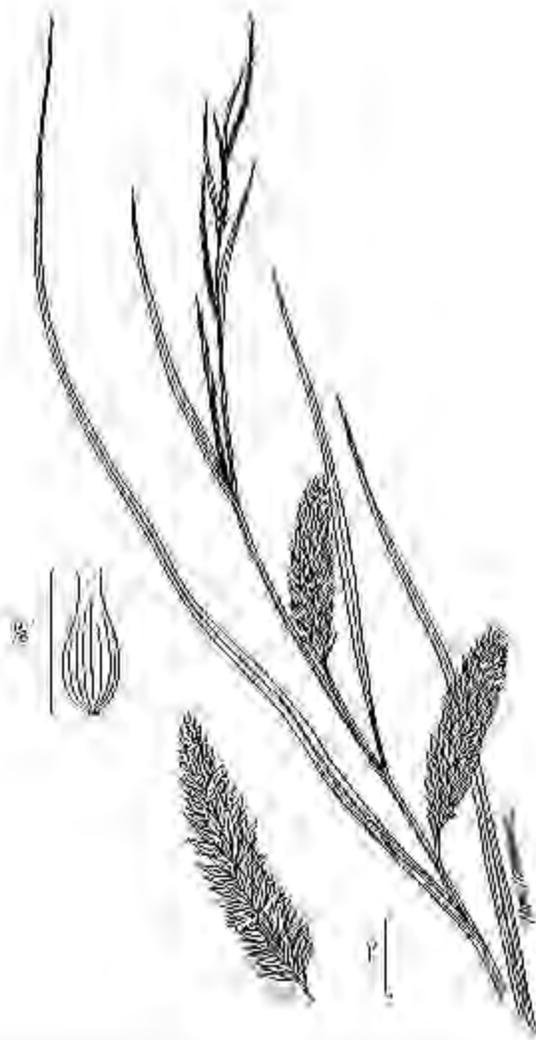
- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-October.
- **Field Marks:** The large, spherical female spikes that resemble a mace from the knights of old easily distinguish this sedge.
- **Habitat:** Wet woods, swamps, floodplain woods.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect, smooth, 3-angled, up to 3 feet tall.
- **Leaves:** Elongated, narrow, often longer than the flowering stem, dark green, smooth, up to 1/2 inch broad.
- **Flowers:** Male and female flowers borne in separate spikes; the male flowers in a single narrow spike up to 2 inches long; the female flowers crowded into 1-2 dense, spherical heads resembling a mace from the knights of old, up to 1 1/4 inches in diameter, containing 6-30 perigynia.
- **Scales:** Ovate, rounded but usually with a short mucro at the tip, pale along the edges, about 1/3 as long as the perigynia.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; the perigynium ovoid, smooth or short-hairy, up to 3/4 inch long, ribbed, abruptly contracted into a long beak 2-toothed at the tip.
- **Fruits:** Achenes triangular, smooth.
- **Notes:** Although most specimens are completely smooth, others may have slightly hairy leaves and perigynia. The achenes are eaten by waterfowl.



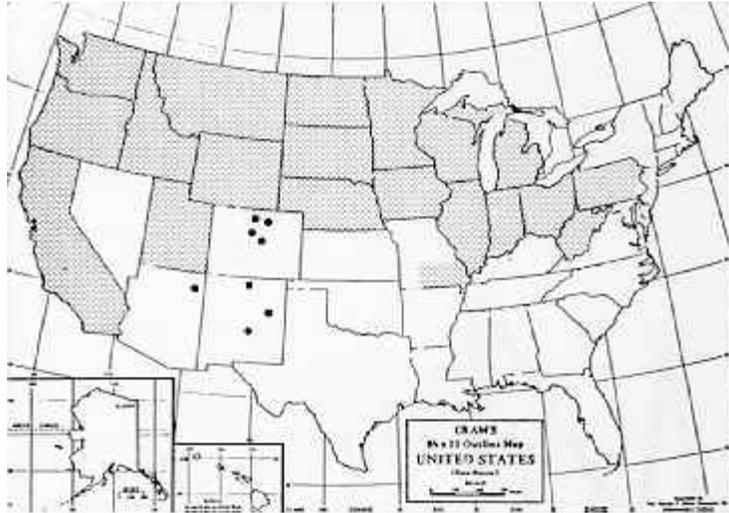
## Thinscale Sedge (*Carex hyalinolepis*)



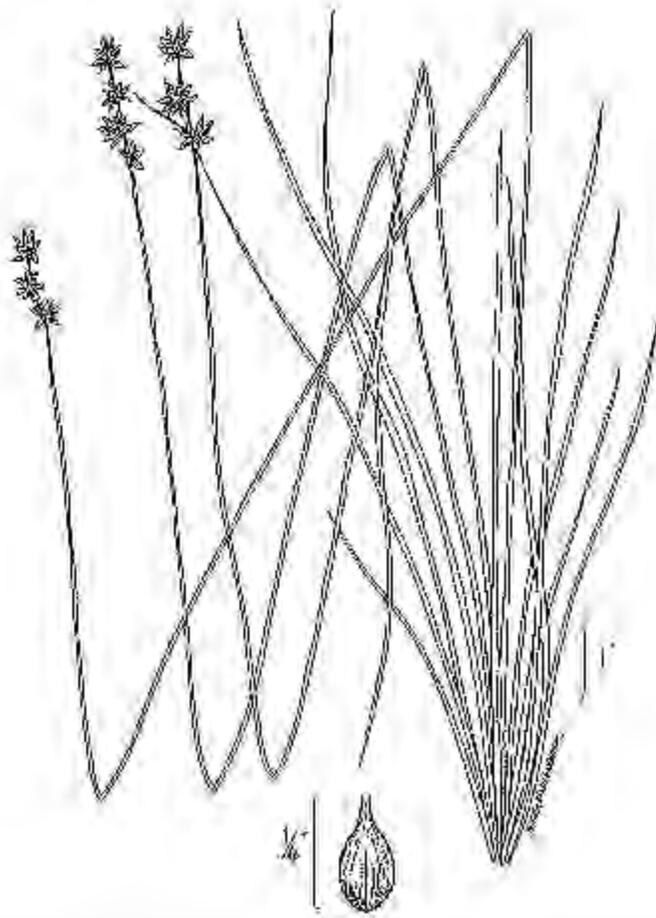
- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-July.
- **Field Marks:** This *Carex* differs from all others by its bluish color, the presence of 2-6 slender male spikes, and its 2-4 female spikes up to 4 inches long and up to 1 inch thick.
- **Habitat:** Swampy woods, wet roadside ditches, wet meadows, wet prairies, in sloughs.
- **Habit:** Stout, tufted perennial with extensive creeping rhizomes.
- **Stems:** Erect, up to 4 feet tall, smooth.
- **Leaves:** Long, narrow, blue-green, up to 1/2 inch broad, sometimes with cross-veins.
- **Flowers:** One per spikelet, with many spikelets in a spike and both male and female spikes present. Male spikes 2-6, very slender, terminal, up to 2 1/2 inches long, Female spikes 2-4, erect or drooping, up to 4 inches long and up to 1 inch thick.
- **Scales:** One per flower, brown to purple-brown, shiny, slightly shorter or slightly longer than the perigynium, pointed at the tip.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Styles:** 3.
- **Pistils:** Enclosed by a sac-like perigynium; perigynium ovoid, 1/4-1/3 inch long, with conspicuous veins and a slender terminal beak with 2 short teeth, smooth.
- **Fruits:** Achenes enclosed by the perigynium, obovoid, 1/10 inch long.
- **Notes:** The achenes of this species are eaten by waterfowl. This sedge can withstand inundation for long periods of time.



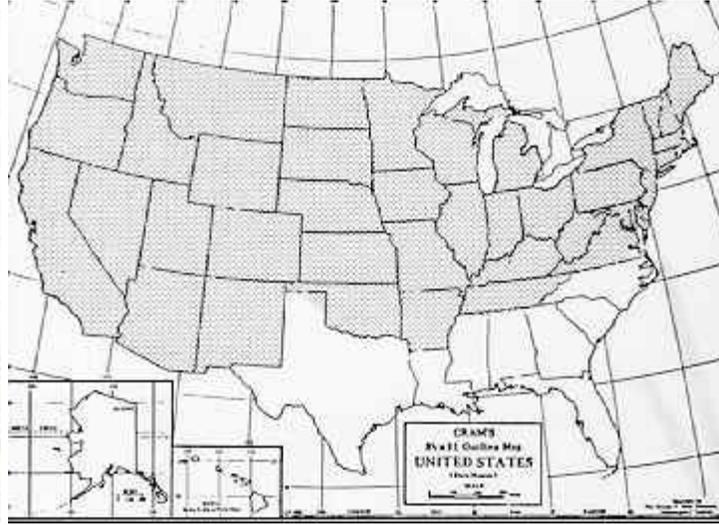
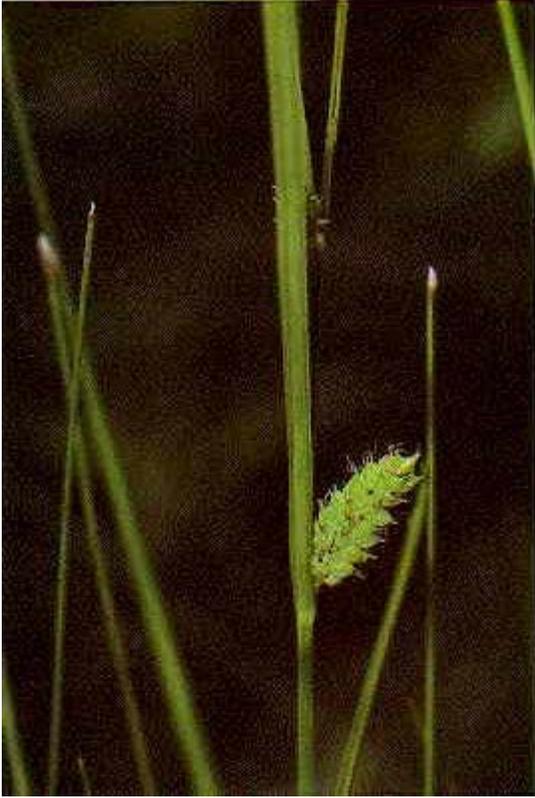
## Inland Sedge (*Carex interior*)



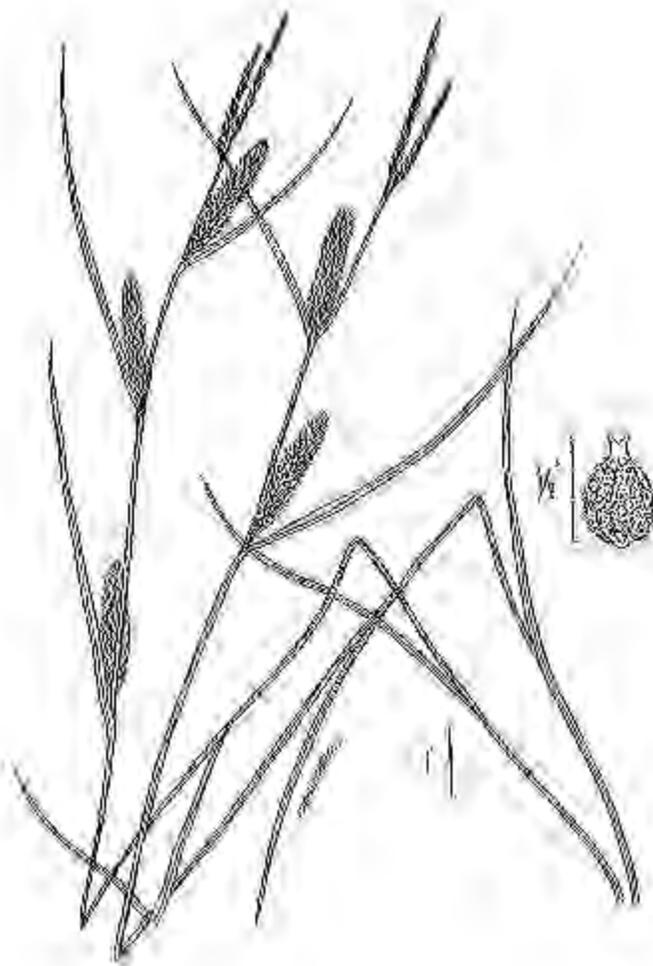
- **Family:** Sedge (Cyperaceae)
- **Flowering:** April-June.
- **Field Marks:** The small cluster of female spikes is widely separated on the stem. The tips of the perigynia radiate to resemble a tiny star. The male flowers are borne below the female spikes. The leaves are very narrow.
- **Habitat:** Swamps, wet meadows.
- **Habit:** Tufted annual with fibrous roots.
- **Stems:** Erect, very slender, wiry, smooth, up to 1 1/2 feet tall.
- **Leaves:** Elongated, very slender, smooth, about 1/12 inch broad, shorter than the flowering stem.
- **Flowers:** Male and female flowers borne separately; the male flowers sparse, usually below the pistillate spikes; the pistillate spikes 2-4, widely separated, each consisting of 1-10 spreading perigynia.
- **Scales:** Ovate, obtuse, shorter than the perigynia.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; the perigynium narrowly ovate, flattened, sparsely veined, somewhat spongy near the base, up to 1/6 inch long, narrowed to a short, toothed beak.
- **Fruits:** Achenes ovate, flattened, smooth.
- **Notes:** The achenes are eaten by waterfowl. Although the National Wetlands Inventory lists area 2 in the range of this species, there is no evidence that it occurs in the southeastern United States.



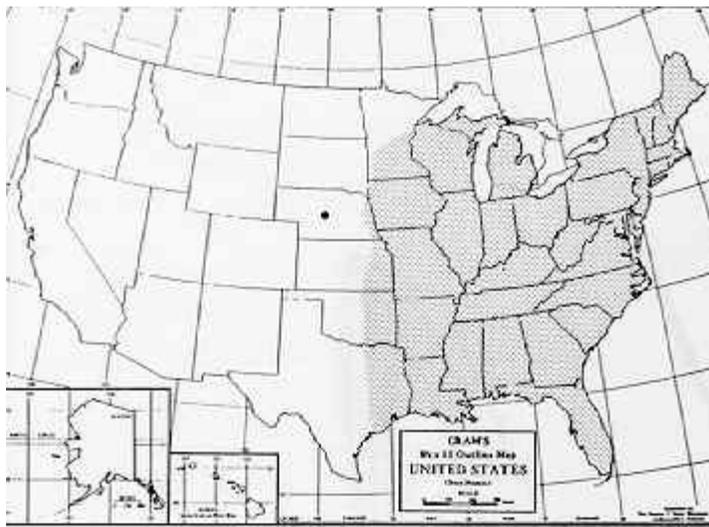
## Bull Sedge (*Carex lanuginosa*)



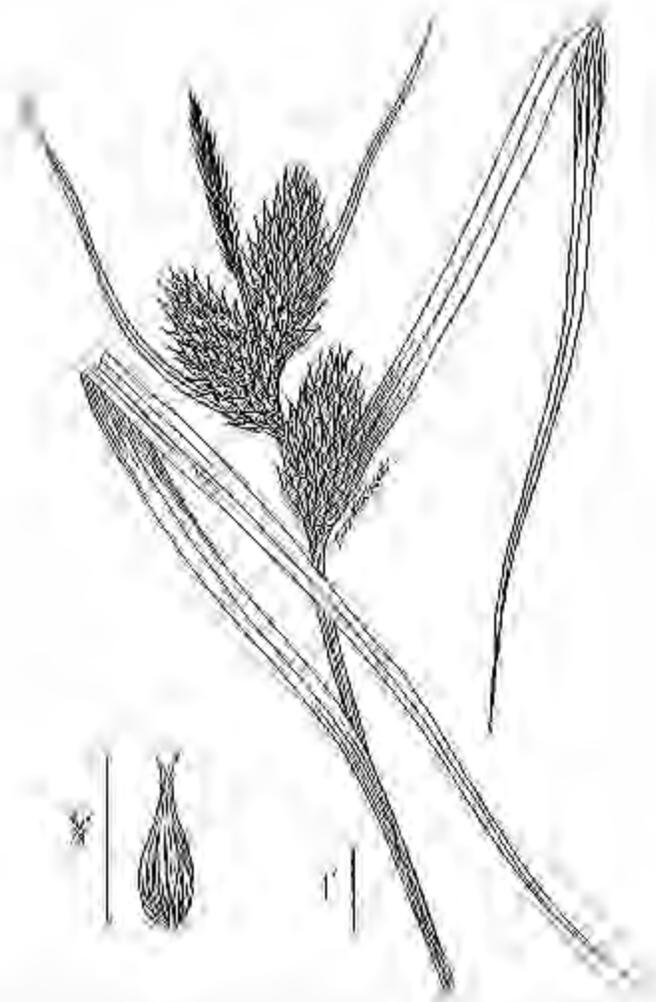
- **Family:** Sedge (Cyperaceae)
- **Flowering:** April-July.
- **Field Marks:** This sedge has separate male and female spikes and hairy perigynia up to 1/8 inch long.
- **Habitat:** Wet meadows, wet prairies, swampy woods.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect, rough to the touch, sharply triangular, up to 3 feet tall.
- **Leaves:** Elongated, narrow, smooth except along the edges, up to 1/4 inch broad.
- **Flowers:** Male and female borne in separate spikes; the male spikes 1-3 in number, more or less erect; the pistillate spikes 1-3, cylindrical, up to 2 inches long, erect.
- **Scales:** Ovate, pointed or short-awned at the tip, shorter than or about as long as the perigynia.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; the perigynium oval to ovoid, hairy, with a short, 2-toothed beak, up to 1/8 inch long.
- **Fruits:** Achenes triangular, smooth.
- **Notes:** The achenes are eaten by waterfowl.



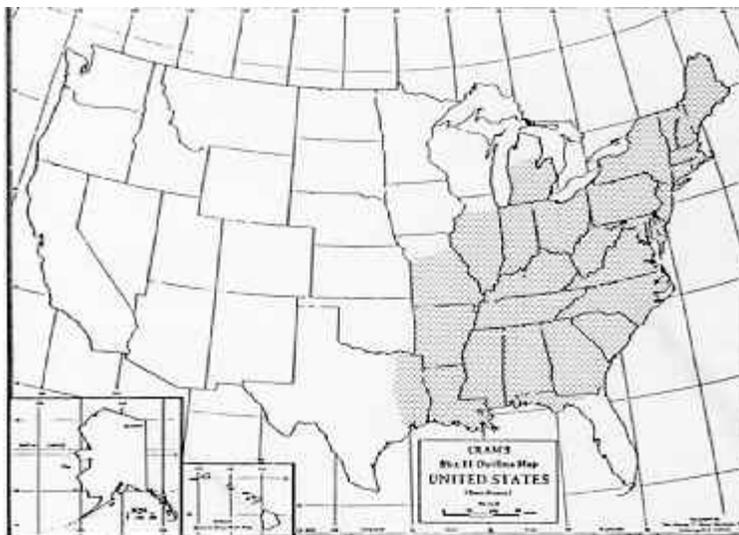
## Hop Sedge (*Carex lupulina*)



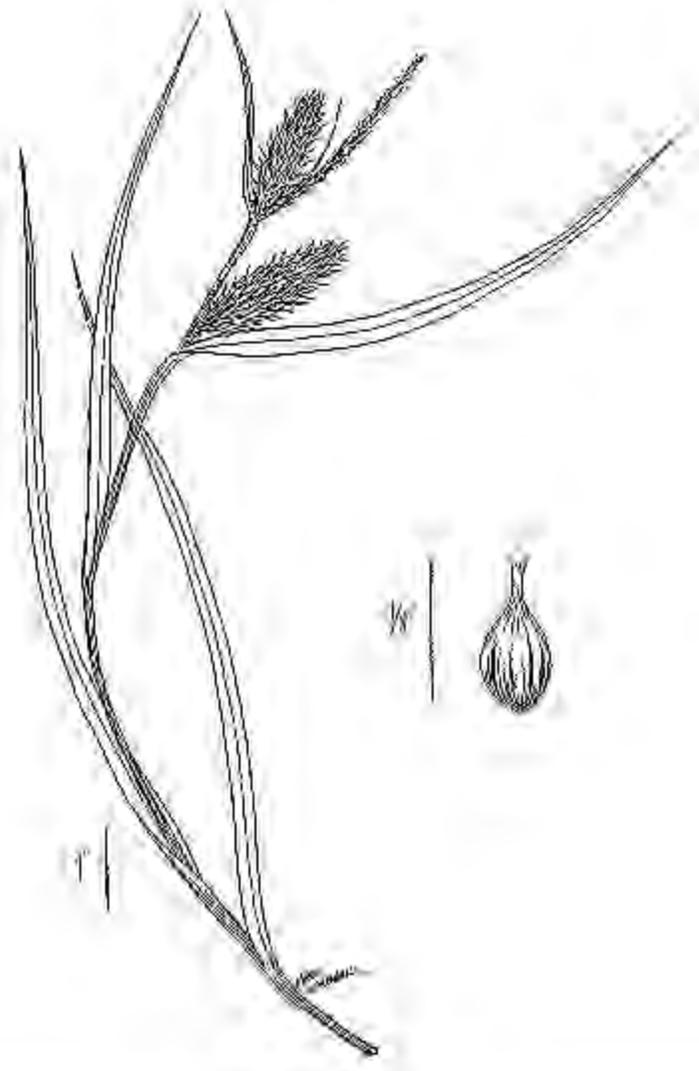
- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-September.
- **Field Marks:** The large, cylindrical female spikes up to 2 1/2 inches long readily distinguish this species.
- **Habitat:** Wet woods, wet prairies, roadside ditches.
- **Habit:** Perennial herb with a short rhizome.
- **Stems:** Erect, smooth, up to 4 feet tall.
- **Leaves:** Elongated, narrow, longer than the stems, up to 2/3 inch broad.
- **Flowers:** Male and female borne in separate spikes; the male spike single, slender, up to 3 inches long; female spikes 2-5 per stem, cylindrical, up to 2 1/2 inches long.
- **Scales:** Lanceolate, pointed or short-awned at tip, shorter than the perigynia.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; each perigynium ovoid, inflated at the base, abruptly tapering to a narrow beak sharply 2-toothed at the tip, smooth, up to 3/4 inch long.
- **Fruits:** Achenes triangular, smooth, up to 1/6 inch long.
- **Notes:** The achenes are eaten by waterfowl.



## Lurid Sedge (*Carex lurida*)



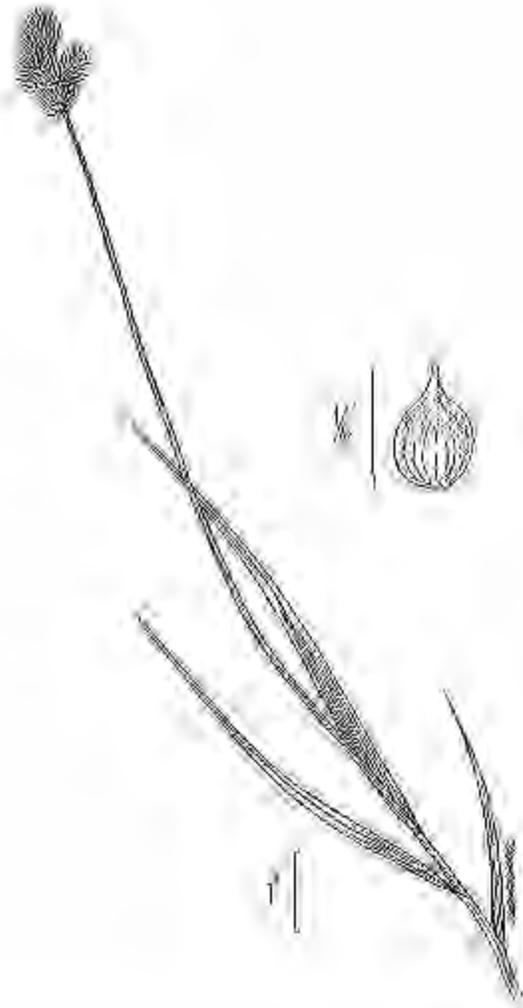
- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-September.
- **Field Marks:** This species has slender male spikes and short, thick female spikes. The perigynia are inflated at the base and taper abruptly to a slender, 2-toothed beak.
- **Habitat:** Around lakes and ponds, along streams, wet meadows, wet prairies.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect, usually smooth, up to 2 1/2 feet tall.
- **Leaves:** Elongated, narrow, rough to the touch, up to 1/2 inch broad.
- **Flowers:** Male and female borne separately; the male in a single, slender spike up to 3 inches long; the female in 1-4 oblong-cylindric spikes up to 2 inches long and up to 1 inch thick.
- **Scales:** Broadly lanceolate, tapering to a slender awn; the scale shorter than the perigynium.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; each perigynium ovoid, inflated, strongly ribbed, up to 1/2 inch long, tapering to a beak about as long as the body.
- **Fruits:** Achenes slightly granular, triangular, obovoid, up to 1/8 inch long.
- **Notes:** The achenes are eaten by waterfowl. *Atlas of the Flora of the Great Plains* by McGregor, *et al.* (1981) does not attribute this species to areas 4 or 5, although the National Wetlands Inventory lists it from there.



## Troublesome Sedge (*Carex molesta*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-July.
- **Field Marks:** This species usually has crowded heads and ovate perigynia usually at least 1/6 inch long and at least 1/10 inch broad.
- **Habitat:** Wet prairies, floodplain forests; also in drier habitats.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect, not hairy, up to 3 feet tall.
- **Leaves:** Elongated, narrow, up to 1/6 inch broad.
- **Flowers:** Male and female borne separately; the male at the base of each spike; the spikes rounded at the tip, crowded, up to 1/3 inch long.
- **Scales:** Lanceolate, tapering to the tip, shorter than the perigynia.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; each perigynium ovate, at least 1/6 inch long and at least 1/10 inch broad.
- **Fruits:** Achenes smooth, about 1/8 inch long.
- **Notes:** The achenes are eaten by waterfowl. Although the National Wetlands Inventory lists this species from areas 6 and 10, it is not attributed to Oklahoma or Texas by Correll and Correll in *Aquatic and Wetland Flora of Southwestern United States* (1975) or to California by Hitchcock and Cronquist in *Flora of the Pacific Northwest* (1973).



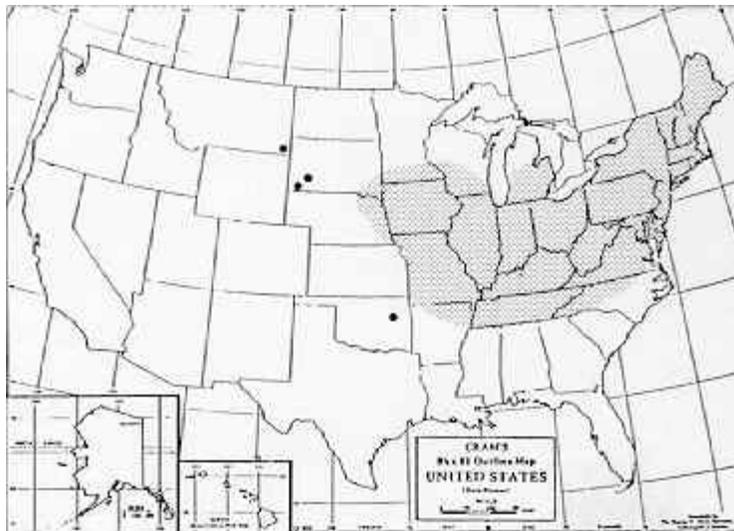
## Muskingum Sedge (*Carex muskingumensis*)



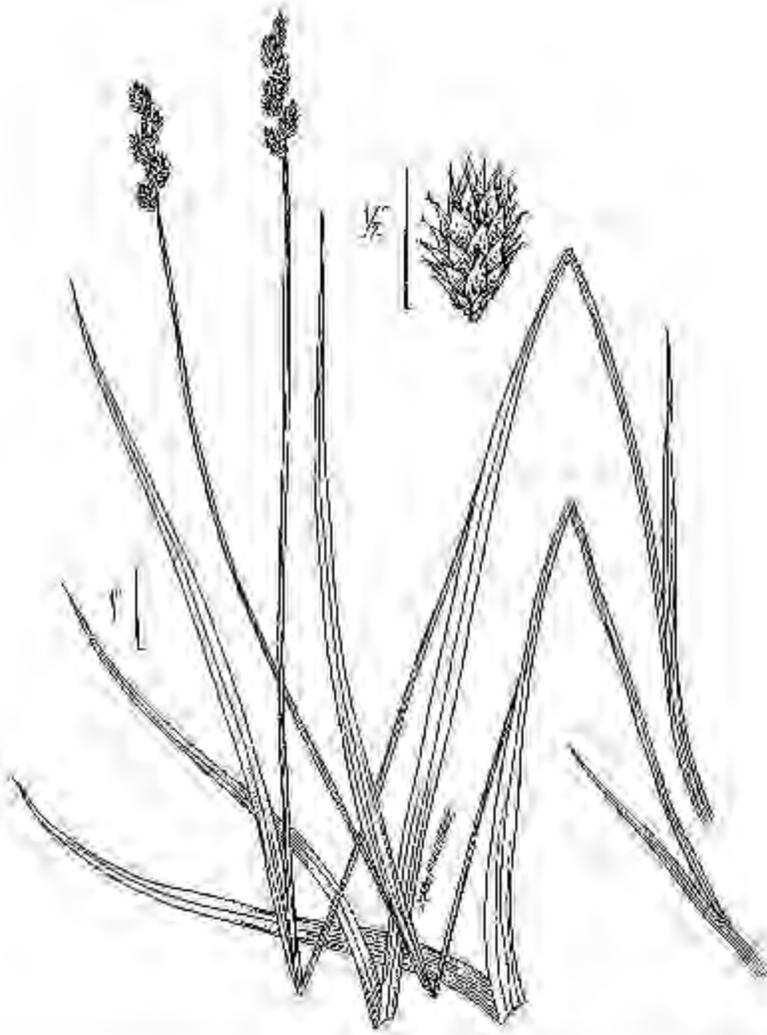
- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-October.
- **Field Marks:** This species is readily distinguished by its long, pointed, narrowly elliptical spikes. The perigynia are long and narrow.
- **Habitat:** Swamps, floodplain woods, bottomland hardwood forests.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect, rough to the touch, up to 3 feet tall.
- **Leaves:** Elongated, narrow, shorter than the stems, smooth, up to 1/4 inch broad.
- **Flowers:** Male and female borne separately; the male flowers crowded at the base of the female spikelets; each female spikelet narrowly elliptic, pointed at the tip, up to 1 inch long.
- **Scales:** Lanceolate to ovate, pointed or rounded at the tip, up to 1/6 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; the perigynium flat, lanceolate, up to 1/2 inch long, finely toothed along the margins and 2-toothed at the tip.
- **Fruits:** Achenes smooth, narrowly oblong, about 1/16 inch long.
- **Notes:** The achenes are eaten by waterfowl.



## Larger Straw Sedge (*Carex normalis*)



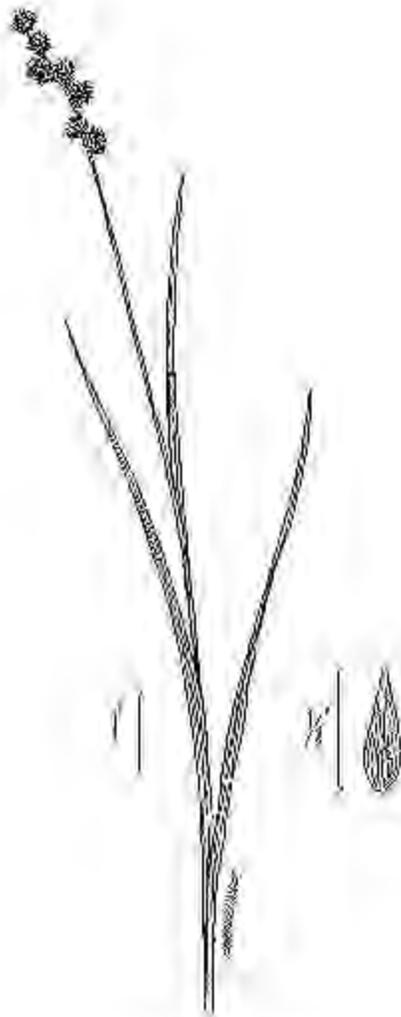
- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-July.
- **Field Marks:** The male flowers are located below the female flowers. This species has spikelets one above the other and barely overlapping. The perigynia are ovate.
- **Habitat:** Wet woods, swamps, along streams, around ponds, wet prairies.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect or spreading, triangular, rough to the touch, up to 3 1/2 feet tall.
- **Leaves:** Elongated, narrow, shorter than the stems, smooth, up to 1/6 inch broad.
- **Flowers:** Male and female borne separately; the male flowers crowded at the base of the female spikelets; each female spikelet usually one above the other and barely overlapping, up to 1/2 inch long.
- **Scales:** Ovate, more or less rounded at the tip, up to 1/8 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; the perigynium flat, ovate, up to 1/4 inch long, with a short 2-toothed beak.
- **Fruits:** Achenes smooth, about 1/16 inch long.
- **Notes:** The achenes are eaten by waterfowl.



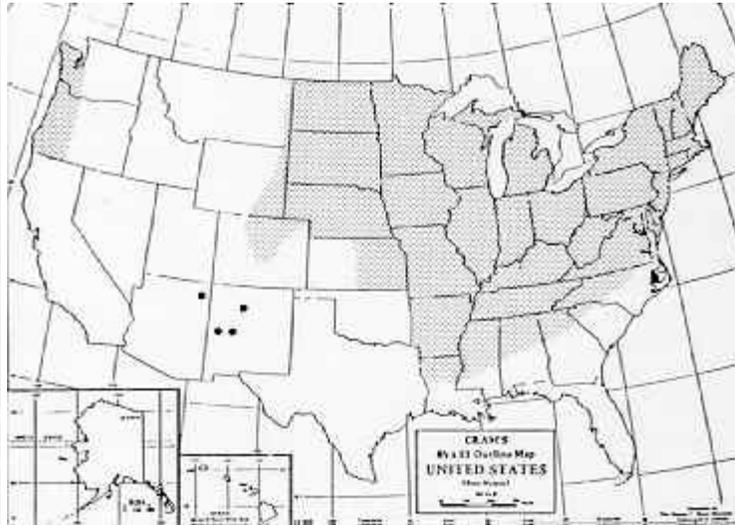
## Beaded-broom Sedge (*Carex projecta*)



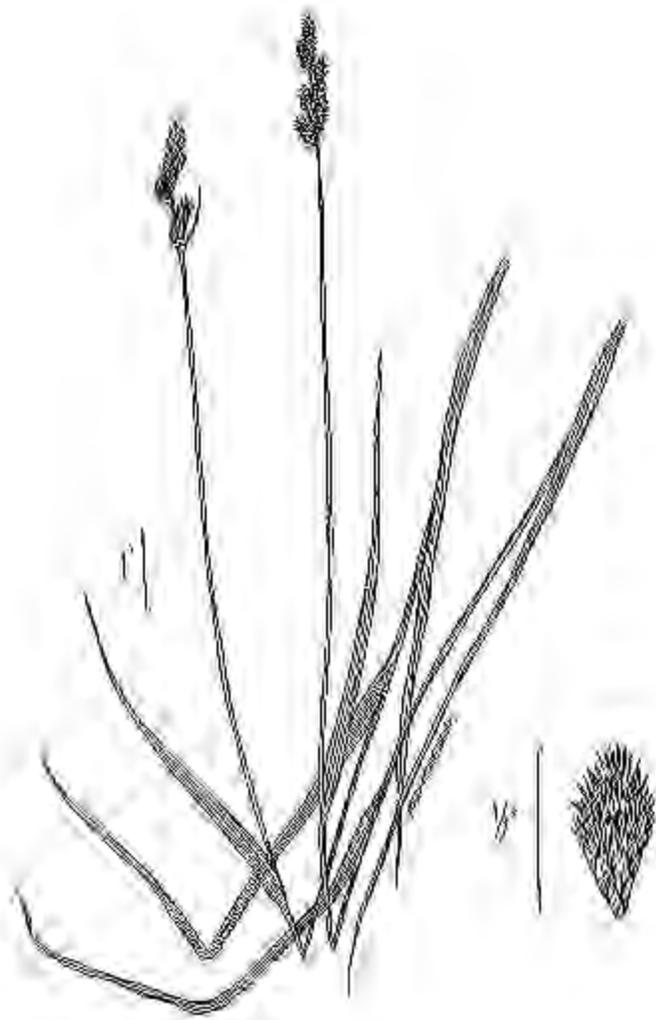
- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-October.
- **Field Marks:** This sedge is distinguished by its narrowly lanceolate perigynia and its spikes not overlapping. The few male flowers are borne below the female flowers.
- **Habitat:** Wet prairies, swamps, floodplain woods.
- **Habit:** Perennial herb with a thickened rootstock.
- **Stems:** Erect, rough to the touch, up to 2 feet tall, some of the stems not bearing spikelets.
- **Leaves:** Elongated, narrow, up to 1/6 inch broad.
- **Flowers:** Male and female borne separately but in the same spikelet; the male flowers below the female; the spikelets not overlapping but separated, up to 1/3 inch long.
- **Scales:** Ovate to lanceolate, rounded or pointed at the tip, shorter than the perigynia.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; each perigynium lanceolate, spreading, up to 1/8 inch long.
- **Fruits:** Achenes about 1/16 inch long.
- **Notes:** The achenes are eaten by waterfowl.



## Broom Sedge (*Carex scoparia*)



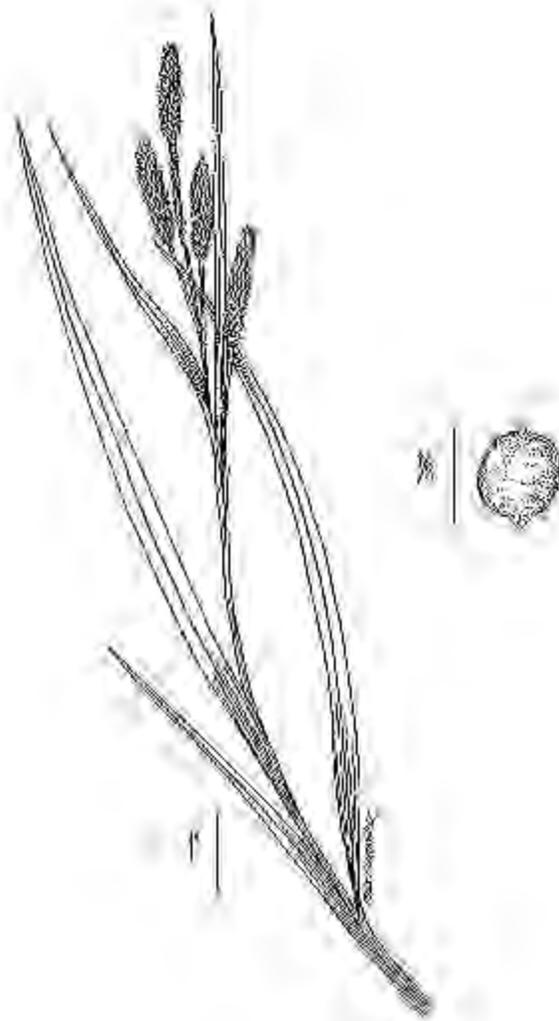
- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-July.
- **Field Marks:** This sedge is characterized by its lanceolate perigynia with a narrow, whitish margin and its partially overlapping, pointed spikelets.
- **Habitat:** Wet prairies, roadside ditches, around ponds.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect, slender, rough to the touch, up to 2 1/2 feet tall.
- **Leaves:** Elongated, narrow, smooth, up to 1/8 inch broad.
- **Flowers:** Male and female borne separately; the male at the base of the female spikelets; the female spikelets partially overlapping, oblongoid, pointed at the tip, up to 2/3 inch long.
- **Scales:** Lanceolate, pointed at the tip, smooth, shorter than the perigynia.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; each perigynium lanceolate, narrowed to a finely toothed tip, with a narrow, whitish margin, up to 1/4 inch long.
- **Fruits:** Achenes flat, about 1/16 inch long.
- **Notes:** The choice of the common name, broom sedge, is an extremely poor one, since this plant is totally unrelated to the common broom sedge grass.



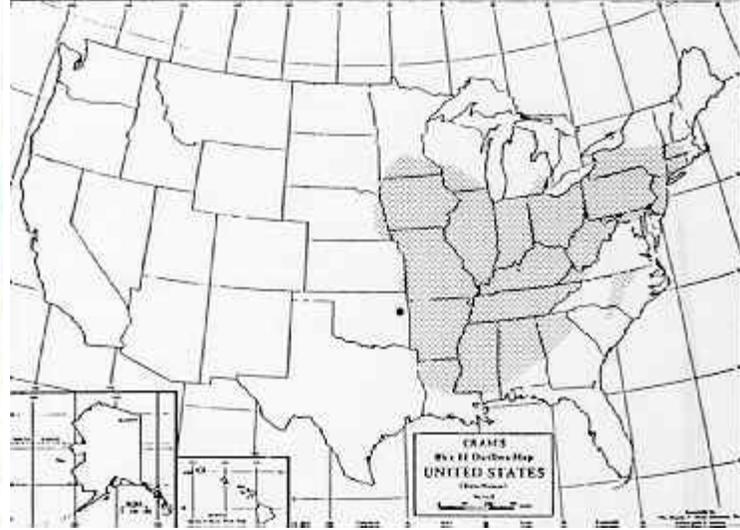
## Short's Sedge (*Carex shortiana*)



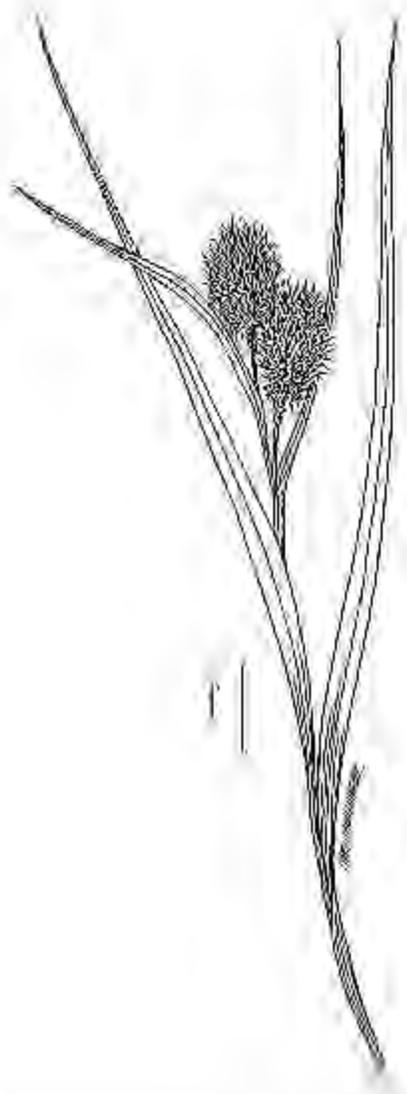
- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-July.
- **Field Marks:** This sedge has the male flowers below the female flowers. The perigynia quickly turn brown and are tightly packed together vertically.
- **Habitat:** Wet prairies, swamps, roadside ditches, around ponds and lakes.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect, rough to the touch but not hairy, up to 3 feet tall.
- **Leaves:** Elongated, narrow, overtopping the flowering stem, rough along the edges, up to 1/3 inch broad.
- **Flowers:** Male and female borne separately; the male borne below the female; both in narrow, cylindrical spikes up to 1 1/2 inches long.
- **Scales:** Broadly lanceolate, tapering to the tip and with a short awn, longer than the perigynia.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; each perigynium obovate, flattened, minutely beaked, quickly turning brown; all the perigynia in a spike tightly packed together vertically.
- **Fruits:** Achenes smooth, about 1/16 inch long.
- **Notes:** The achenes are eaten by waterfowl.



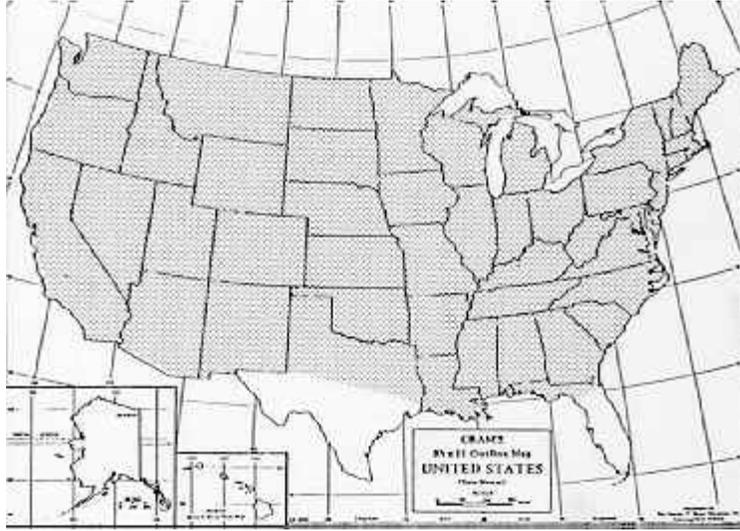
## Squarrose Sedge (*Carex squarrosa*)



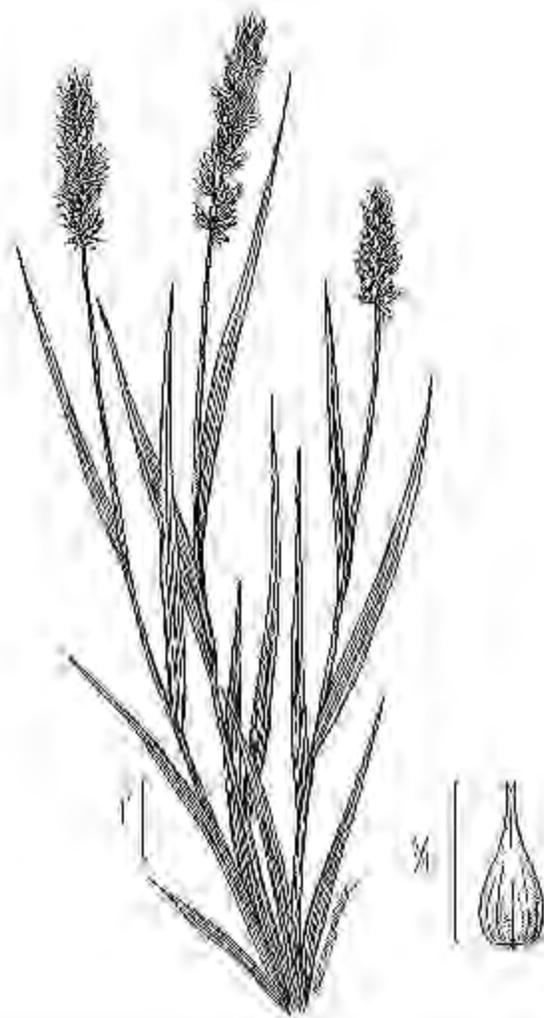
- **Family:** Sedge (Cyperaceae)
- **Flowering:** April-September.
- **Field Marks:** This species has male flowers below the female flowers. The female spikes are ovoid, with some of the lower perigynia pointing downward.
- **Habitat:** Wet prairies, swamps, wet woods, wet meadows.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect, triangular, rough to the touch, up to 3 feet tall.
- **Leaves:** Elongated, narrow, usually a little longer than the stems, up to 1/4 inch broad.
- **Flowers:** Male and female borne separately; the male borne below the female; the spikes 1-3, oblongoid to nearly spherical, up to 1 1/2 inches long, up to 3/4 inch broad; the lowermost perigynia pointing downward.
- **Scales:** Lanceolate, tapering to a point or a short awn, shorter than the perigynia.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; each perigynium obovoid, somewhat inflated, up to 1/3 inch long, tapering to a finely toothed beak.
- **Fruits:** Achenes smooth, ellipsoid, about 1/8 inch long.
- **Notes:** The achenes are eaten by waterfowl.



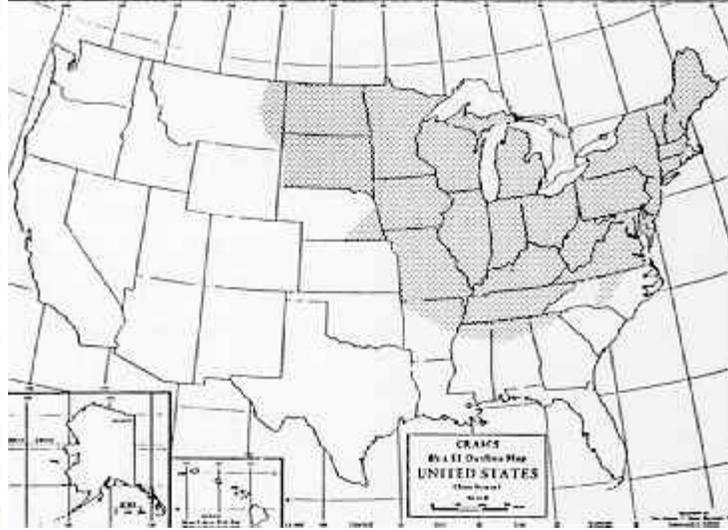
## Sawbeak Sedge (*Carex stipata*)



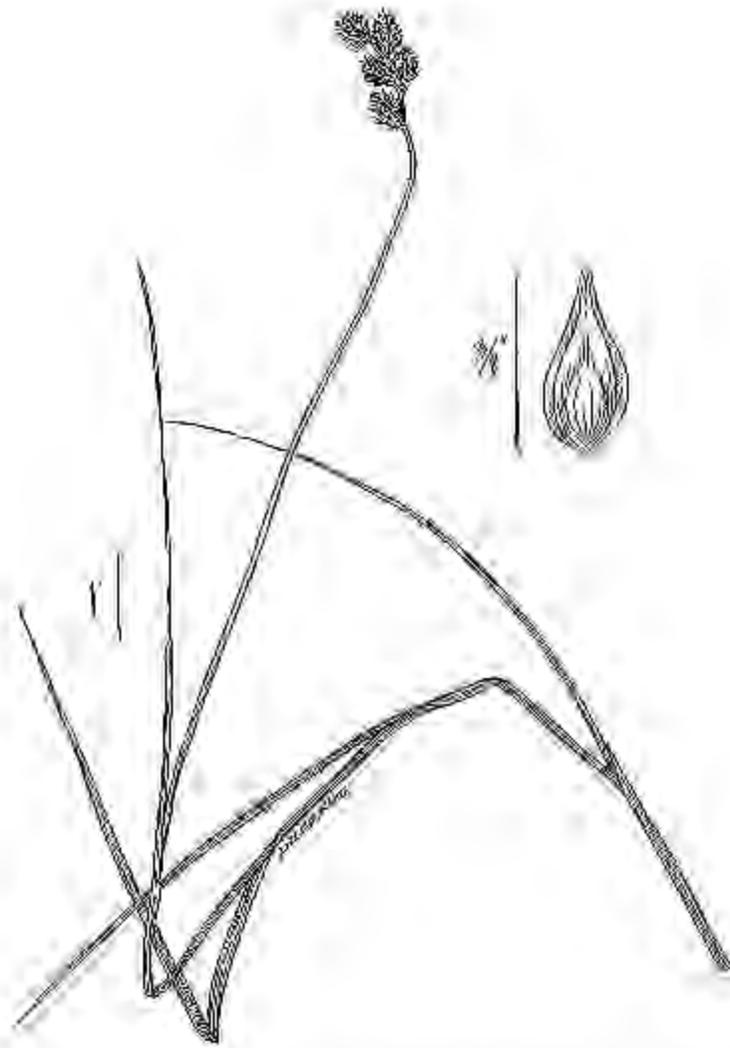
- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-July.
- **Field Marks:** This species has male flowers below the female flowers. The female spikes are ovoid, with some of the lower perigynia pointing downward.
- **Habitat:** Wet prairies, swamps, wet woods, along rivers and streams.
- **Habit:** Perennial herb with a thickened rootstock.
- **Stems:** Erect, strongly triangular and somewhat spongy, often narrowly winged, up to 3 1/2 feet tall.
- **Leaves:** Elongated, shorter than the flowering stem, up to 1/3 inch broad.
- **Flowers:** Male and female borne separately; the male flowers few in number and situated at the tip of the pistillate spikes; the pistillate spikes numerous and crowded into elongated heads up to 4 inches long.
- **Scales:** Lanceolate to ovate, tapering to a narrow, toothed tip, much shorter than the perigynia.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; each perigynium lanceoloid, rounded and spongy at the base, strongly ribbed, up to 1/6 inch long, narrowed above into a slender, minutely toothed beak.
- **Fruits:** Achenes flattened, smooth.
- **Notes:** The common name, sawtooth sedge, is extremely inappropriate for this species.



## Slender Sedge (*Carex tenera*)



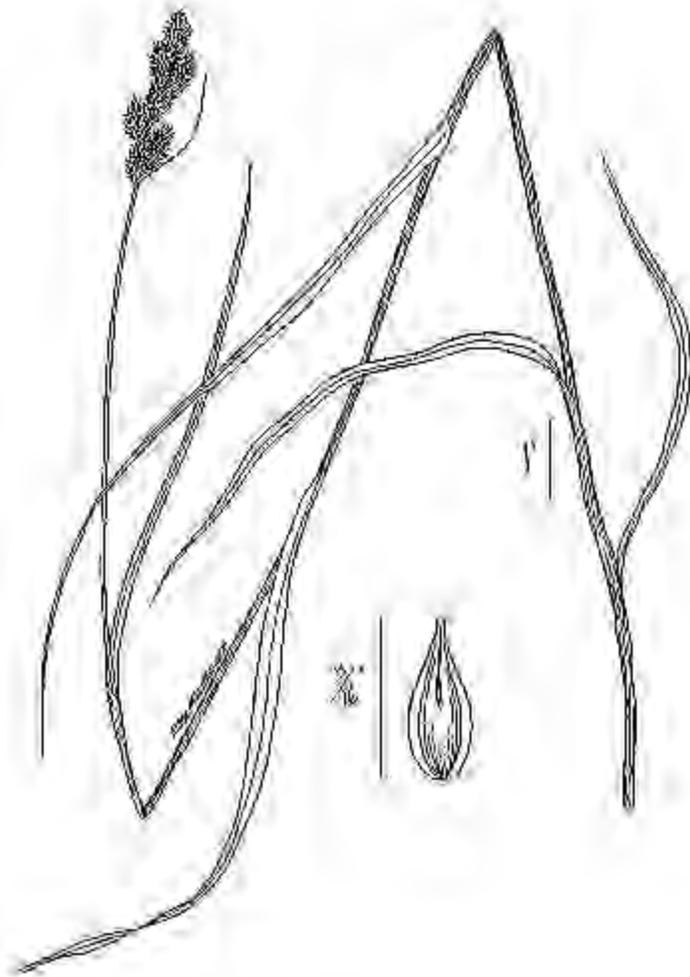
- **Family:** Sedge (Cyperaceae)
- **Flowering:** April-June.
- **Field Marks:** The spikes of this species are not overlapping, the perigynia are ovate to narrowly ovate.
- **Habitat:** Wet woods, around ponds and lakes, roadside ditches.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect, smooth, up to 2 1/2 feet tall.
- **Leaves:** Elongated, narrow, smooth, up to 1/10 inch broad.
- **Flowers:** Male and female borne separately; the male crowded at the base of the female spikelets; the spikelets rounded or somewhat pointed, usually not overlapping and sometimes widely separated, up to 2/5 inch long.
- **Scales:** Broadly lanceolate, rounded or pointed at the tip, about 1/10 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; each perigynium flat, narrowly ovate to ovate, up to 1/6 inch long.
- **Fruits:** Achenes smooth, 1/16 inch long.



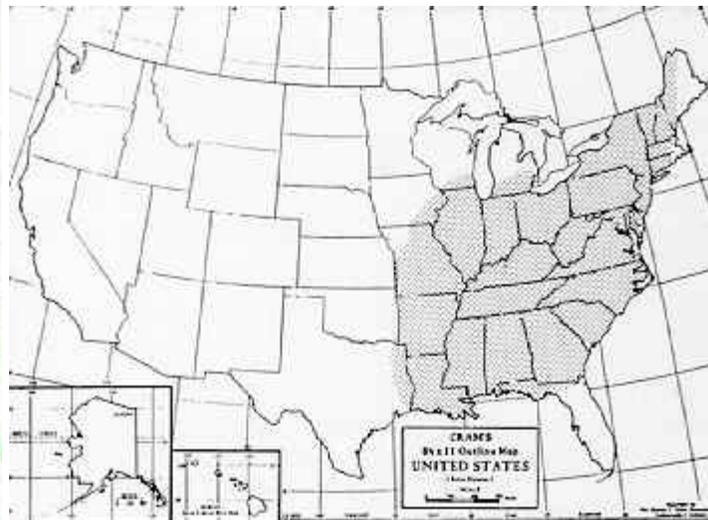
## Bristlebract Sedge (*Carex tribuloides*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-August.
- **Field Marks:** This species has crowded heads and thin, lanceolate perigynia about 1/16 inch broad.
- **Habitat:** Wet woods, around ponds and lakes, swamps, wet prairies, along streams, wet meadows.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect, rough to the touch, up to 2 1/2 feet tall.
- **Leaves:** Elongated, narrow, usually shorter than the stems, up to 1/3 inch broad.
- **Flowers:** Male and female borne separately; the male flowers crowded at the base of the female spikelets; the female spikelets crowded in terminal clusters, obovoid, about 1/2 inch long.
- **Scales:** Lanceolate, pointed at the tip, about 1/8 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; each perigynium flat, broadly lanceolate, up to 1/6 inch long, with a finely toothed beak 2-toothed at the tip.
- **Fruits:** Achenes smooth, 1/16 inch long.
- **Notes:** Waterfowl eat the seeds of this species.



## Cattail Sedge (*Carex typhina*)



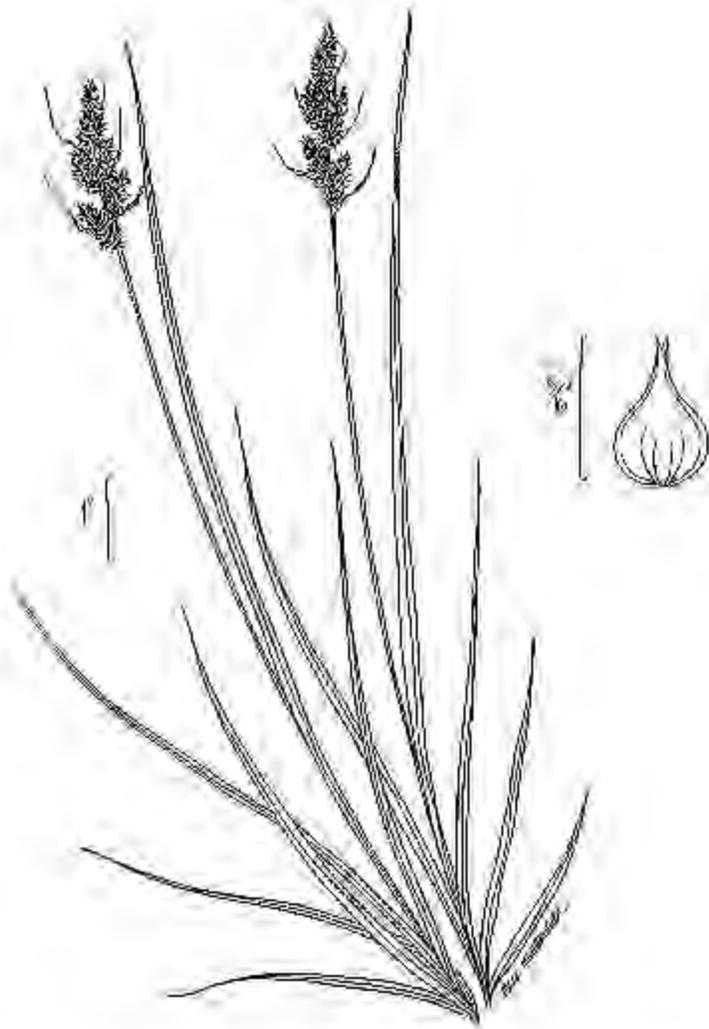
- **Family:** Sedge (Cyperaceae)
- **Flowering:** April-September.
- **Field Marks:** This species is recognized by its thick, cylindrical female heads with the male flowers below. The beaks of the perigynia point outward or upward, not downward.
- **Habitat:** Wet woods, swamps, wet prairies.
- **Habit:** Tufted perennial herb with thickened rootstocks.
- **Stems:** Erect, slender, rough to the touch, up to 2 feet tall.
- **Leaves:** Elongated, narrow, longer than the stem, up to 1/4 inch broad.
- **Flowers:** Male and female borne separately; the male flowers at the base of some of the female spikes; the female spikes 1-6 per stem, cylindric, up to 2 inches long, up to 1 inch broad.
- **Scales:** Oblong to lanceolate, rounded or pointed at the tip.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; each perigynium obovoid, inflated at the base, abruptly tapering to a 2-toothed beak, up to 1/3 inch long.
- **Fruits:** Achenes triangular, obovoid, up to 1/10 inch long.
- **Notes:** The achenes are eaten by waterfowl.



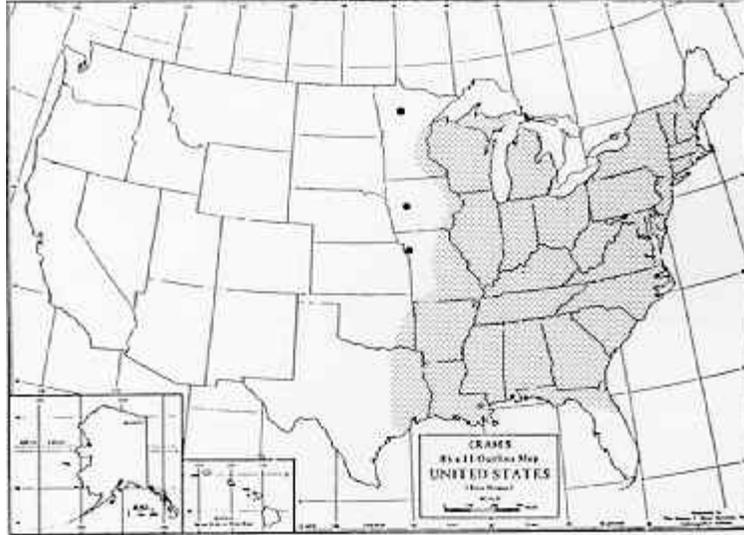
## Fox Sedge (*Carex vulpinoidea*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-July.
- **Field Marks:** Fox sedge has elongated spikes containing 10 or more spikelets, the lowest of which is subtended by a slender, long bract.
- **Habitat:** Wet woods, swamps, wet prairies, along rivers and streams, around lakes and ponds.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect, slender, sharply triangular, rough to the touch, up to 3 feet tall.
- **Leaves:** Elongated, narrow, longer than the stems, smooth, up to 1/6 inch broad.
- **Flowers:** Male and female borne separately; the male flowers at the tips of the female spikelets, with 10 or more female spikelets in a terminal spike up to 5 inches long; the lowermost spikelet subtended by a long, narrow bract.
- **Scales:** Lanceolate, usually tapering to an awn at the tip, smooth.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Enclosed in a perigynium; each perigynium ovoid or suborbicular below, abruptly tapering to a slender beak about half the length of the perigynium, yellowish, without nerves.
- **Fruits:** Achenes flat, up to 1/16 inch long.
- **Notes:** The achenes are eaten by waterfowl.



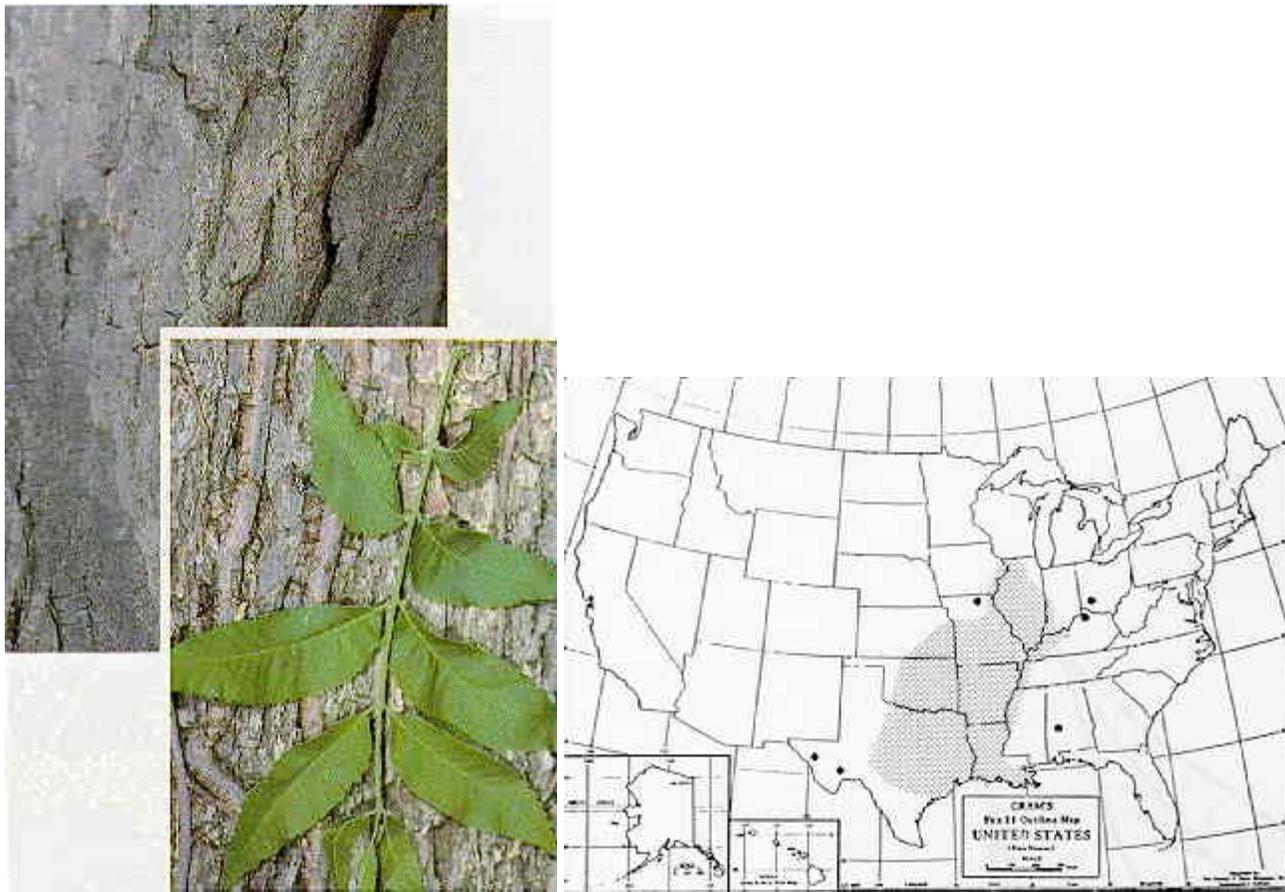
## American Hornbeam (*Carpinus caroliniana*)



- **Family:** Hazelnut (Corylaceae)
- **Flowering:** April-May.
- **Field Marks:** The smooth bark with vertical "muscular" ridges distinguishes this species. Each seed is attached to a smooth, 3-lobed bract.
- **Habitat:** Along streams, low woods, rich mesic woods.
- **Habit:** Tree up to 30 feet tall, with a rounded crown.
- **Bark:** Smooth, blue-gray, ridged, appearing "muscular."
- **Leaves:** Alternate, simple, broadly lanceolate, pointed at the tip, usually rounded at the base, up to 4 inches long, about half as wide, finely doubly toothed, the upper surface smooth, the lower surface smooth or hairy.
- **Flowers:** Male and female flowers on same tree but in different spikes.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3-12.
- **Pistils:** Subtended by a bract, with 2 stigmas.
- **Fruits:** Nutlets borne at the base of a 3-lobed green bract, crowded together into a fruiting cluster.
- **Notes:** Other common names for this tree are ironwood, blue beech, and musclewood. Although the National Wetlands Inventory lists this species from area 5, no tree manual nor the *Atlas of the Flora of the Great Plains* by McGregor, *et al.* (1981) report it for there.



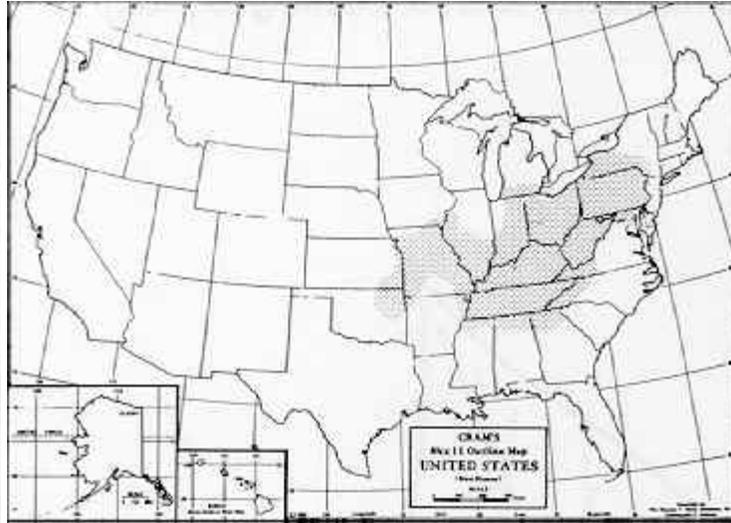
## Common Pecan (*Carya illinoensis*)



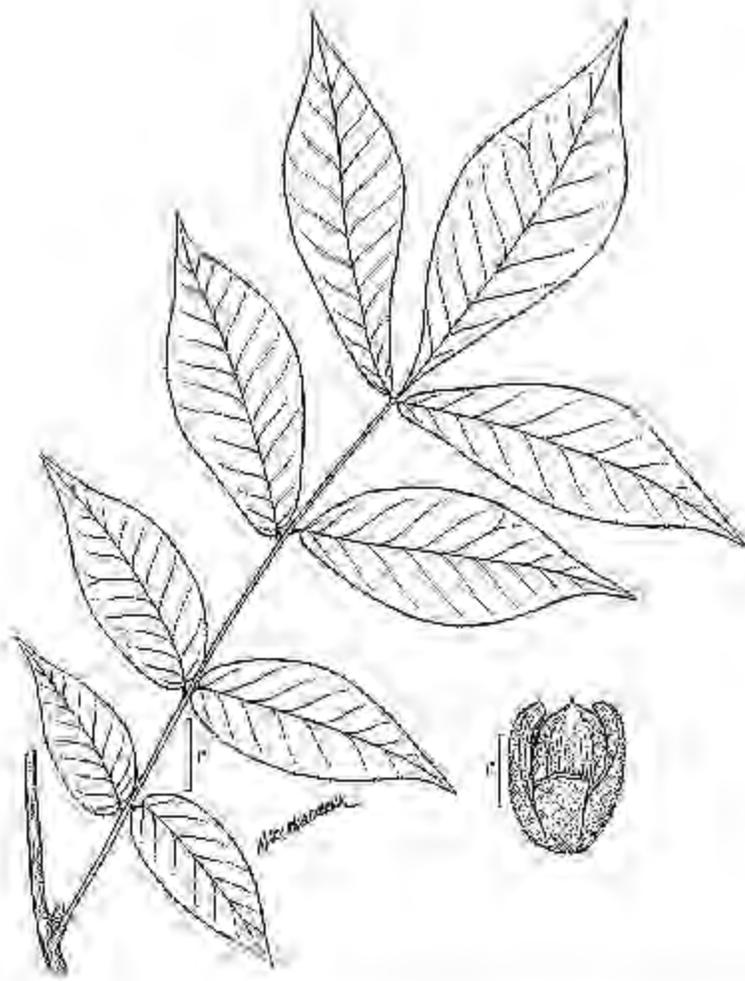
- **Family:** Walnut (Juglandaceae)
- **Flowering:** April-May.
- **Field Marks:** Pecan is distinguished by its pinnately compound leaves with 9-19 leaflets and its elongated nuts with sweet kernels.
- **Habitat:** Bottomland forests, along rivers.
- **Habit:** Tree up to 150 feet tall, with a rounded and widely spreading crown.
- **Bark:** Red-brown, becoming roughened into small scales.
- **Leaves:** Alternate, pinnately compound, with 9-19 leaflets; the leaflets lanceolate, curved, tapering to a long point at the tip, rounded or tapering to the asymmetrical base, finely toothed, smooth or sometimes hairy, up to 8 inches long, up to 3 inches broad.
- **Flowers:** Male and female flowers borne separately but on the same tree; the male flowers in long, drooping spikes; the female flowers fewer and in small clusters.
- **Sepals:** 4, minute.
- **Petals:** 0.
- **Stamens:** 8-40.
- **Pistils:** Ovary inferior.
- **Fruits:** Ellipsoid, pointed at the tip, up to 2 inches broad; the husk narrowly 4-winged, dark brown with yellow scales, thin, usually splitting to the base; the nut red-brown; the kernel sweet.
- **Notes:** The kernels are extremely tasty.



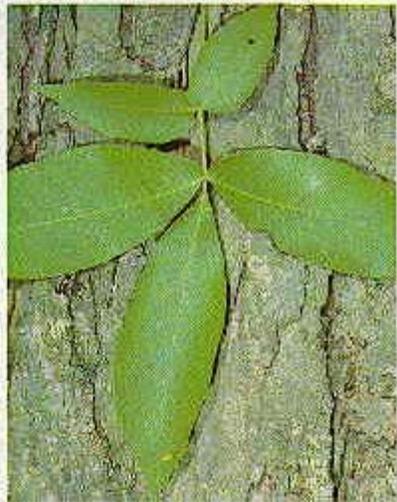
## Shellbark Hickory (*Carya laciniosa*)



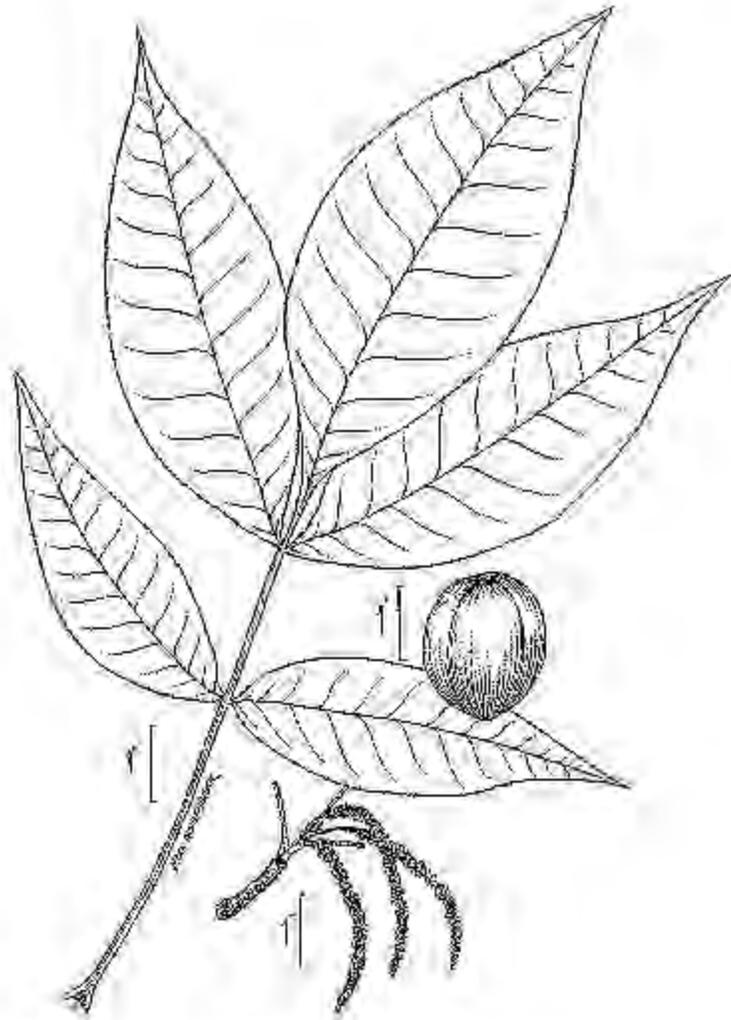
- **Family:** Walnut (Juglandaceae)
- **Flowering:** April-May.
- **Field Marks:** This is the only shaggy barked hickory that usually has 7 or 9 leaflets and a fruit at least 2 inches in diameter. The axis that bears the leaflets usually persists on the tree until the following summer.
- **Habitat:** Low woods, along streams.
- **Habit:** Tree up to 100 feet tall, with trunk diameter up to 3 feet; crown oblong to ovoid, with drooping lower branches.
- **Bark:** Light gray, separating into long, thick vertical plates which curve away from the trunk.
- **Buds:** Dark brown, hairy, up to 3/4 inch long, the outer scales with a long, stiff point.
- **Leaves:** Alternate, pinnately compound, with 5, 7, or 9 leaflets; the leaflets lanceolate to ovate, pointed at the tip, tapering or rounded at the base, finely toothed, dark green and mostly smooth on the upper surface, paler and softly hairy on the lower surface, up to 10 inches long, about 1/2 as wide.
- **Flowers:** Male and female flowers borne separately but on the same tree, appearing after the leaves have begun to unfold, without petals, the male flowers in slender, drooping spikes; the female flowers in clusters of 2-5.
- **Fruits:** Spherical, often slightly sunken at the top, up to 1 1/4 inches in diameter, the husk divided all the way to the base into four sections, minutely orange-speckled and sometimes hairy, the nut with conspicuous ridges, the kernel very sweet.
- **Notes:** The nuts are eaten by a variety of animals, including man. The wood of the shellbark hickory is used for tool handles and fuel.



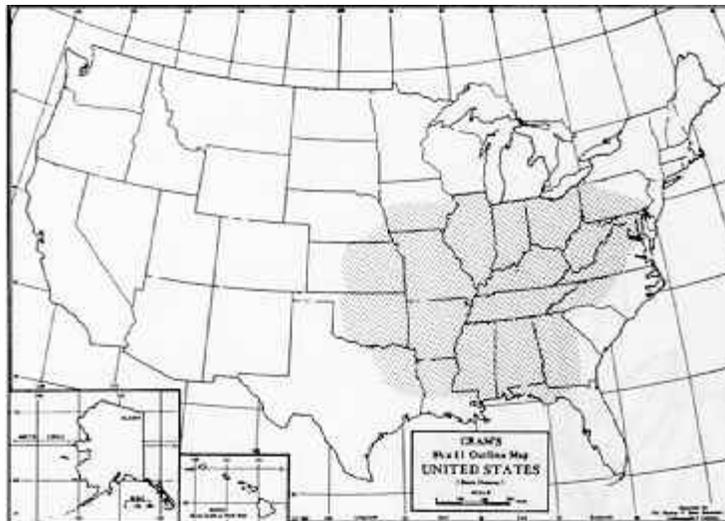
## Shagbark Hickory (*Carya ovata*)



- **Family:** Walnut (Juglandaceae)
- **Flowering:** April-May.
- **Field Marks:** This hickory differs from all others by its shaggy bark and usually 5 leaflets per leaf.
- **Habitat:** Woods, both moist and dry, along streams.
- **Habit:** Tree up to 80 feet tall, with a rounded crown.
- **Bark:** Gray, separating into long, shreddy scales, giving the trunk a shaggy appearance.
- **Leaves:** Alternate, pinnately compound, with 5, or sometimes 7 leaflets; the leaflets ovate or obovate, tapering to a short point at the tip, tapering to the base, finely toothed, smooth or hairy, up to 10 inches long, and up to 5 inches broad.
- **Flowers:** Male and female flowers borne separately but on the same plant, appearing after the leaves have begun to unfold; the male flowers in slender, drooping spikes; the female flowers in clusters of 2-5.
- **Sepals:** 4, minute.
- **Petals:** 0.
- **Stamens:** 3-10.
- **Pistils:** Styles usually 4.
- **Fruits:** Usually spherical, up to 2 inches across; the husk yellow-green to red-brown, up to 1/2 inch thick, splitting all the way to the base; the nut 4-angled.
- **Notes:** The kernels of the nuts are extremely tasty.



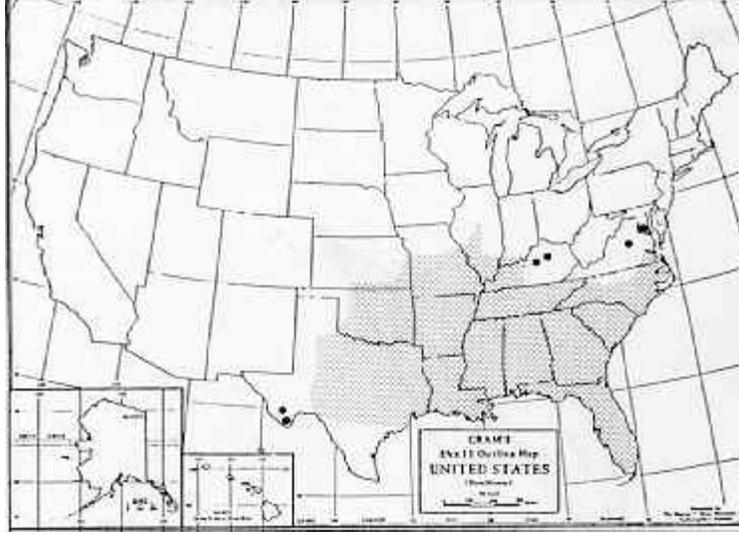
## Maryland Senna (*Cassia marilandica*)



- **Family:** Caesalpinia (Caesalpiaceae)
- **Flowering:** July-August.
- **Field Marks:** This *Cassia* differs from other species with large leaflets by its usually short-hairy fruits and its sessile dark gland on the leaf stalk.
- **Habitat:** Wet meadows, roadside ditches.
- **Habit:** Perennial herbs with a thickened root.
- **Stems:** Upright, branched or unbranched, usually smooth, up to 4 feet tall.
- **Leaves:** Alternate, pinnately compound with 4-10 pairs of leaflets, the leaflets oblong to elliptic, rounded or pointed at the tip, rounded at the base, smooth, up to 2 inches long, up to 1/2 inch wide; leaf stalks bearing a dark, sessile gland near its base.
- **Flowers:** Several in short, axillary racemes, yellow, up to 1 inch across.
- **Sepals:** 5, united below into a short tube, up to 1/3 inch across.
- **Petals:** 5, free from each other, slightly unequal in size, about 1/2 inch long.
- **Stamens:** 10, but only 7 of them fertile, producing pollen.
- **Pistils:** Ovary superior, hairy.
- **Fruits:** Pods slightly curved, smooth or usually short-hairy, up to 4 inches long, up to 1/2 inch wide; seeds thick.



# Sugarberry (*Celtis laevigata*)



- **Family:** Elm (Ulmaceae)
- **Flowering:** April-May.
- **Field Marks:** Species of *Celtis* have alternate, simple leaves. They differ from elms by their warty bark and presence of berries. Sugarberry usually differs from other species by its mostly narrower leaves, absence or scarcity of teeth, and smooth leaf surfaces.
- **Habitat:** Along streams, floodplain woods; less commonly in dry soil.
- **Habit:** Tree up to 75 feet tall, with an open, broad crown and drooping branches.
- **Bark:** Gray, with many conspicuous warts.
- **Leaves:** Alternate, simple, lanceolate, long-pointed at the tip, tapering or rounded at the base, with few or no teeth along the edges, usually smooth to the touch, up to 6 inches long, less than half as broad.
- **Flowers:** 1 to several in drooping clusters, appearing after the leaves are partly grown, greenish yellow.
- **Sepals:** 4-6.
- **Petals:** 0.
- **Stamens:** Usually 5.
- **Pistils:** Ovary superior, with 2 stigmas.
- **Fruits:** Fleshy, ellipsoid to nearly round, reddish orange to yellowish, about 1/4 inch in diameter, 1-seeded, borne on long, drooping stalks.
- **Notes:** The fruits are eaten and the seeds are dispersed by birds.

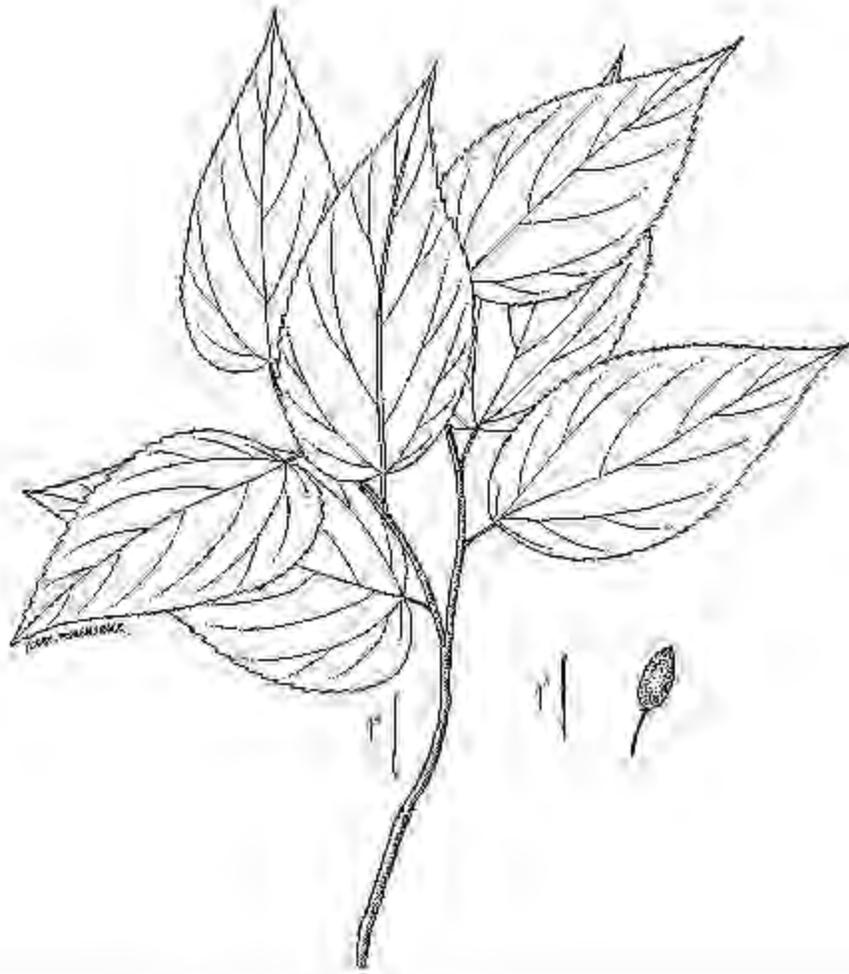


*Castanopsis indica*

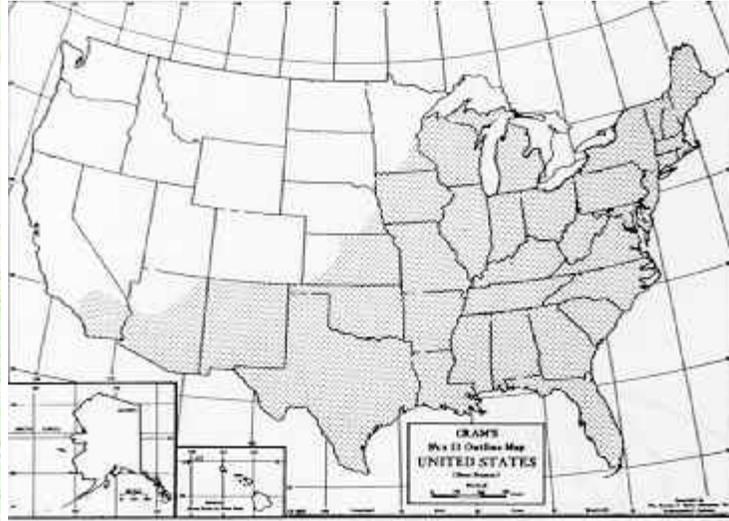
## Common Hackberry (*Celtis occidentalis*)



- **Family:** Elm (Ulmaceae)
- **Flowering:** April-May.
- **Field Marks:** Although common hackberry is extremely variable, it usually has broad, coarsely toothed leaves that are rough to the touch.
- **Habitat:** Along streams, wet woods, and in drier sites.
- **Habit:** Tree up to 80 feet tall, with many small branchlets and an oblong crown.
- **Bark:** Gray, smooth on young trees, soon becoming warty and even scaly on old trees.
- **Leaves:** Alternate, simple, ovate to broadly lanceolate, long-pointed at the tip, tapering or rounded at the asymmetrical base, usually coarsely toothed along the edges except sometimes near the base, usually rough-hairy to the touch on the upper surface, up to 6 inches long, up to half as broad.
- **Flowers:** Arranged in drooping clusters, or sometimes solitary, appearing after the leaves are partly grown, greenish yellow.
- **Sepals:** 4-6.
- **Petals:** 0.
- **Stamens:** Usually 5.
- **Pistils:** Ovary superior, with 2 stigmas.
- **Fruits:** Fleshy, elongated to nearly round, dark purple, about 1/3 inch in diameter, 1-seeded, borne on slender, drooping stalks.
- **Notes:** The fruits are eaten and the seeds are dispersed by birds.



## Buttonbush (*Cephalanthus occidentalis*)



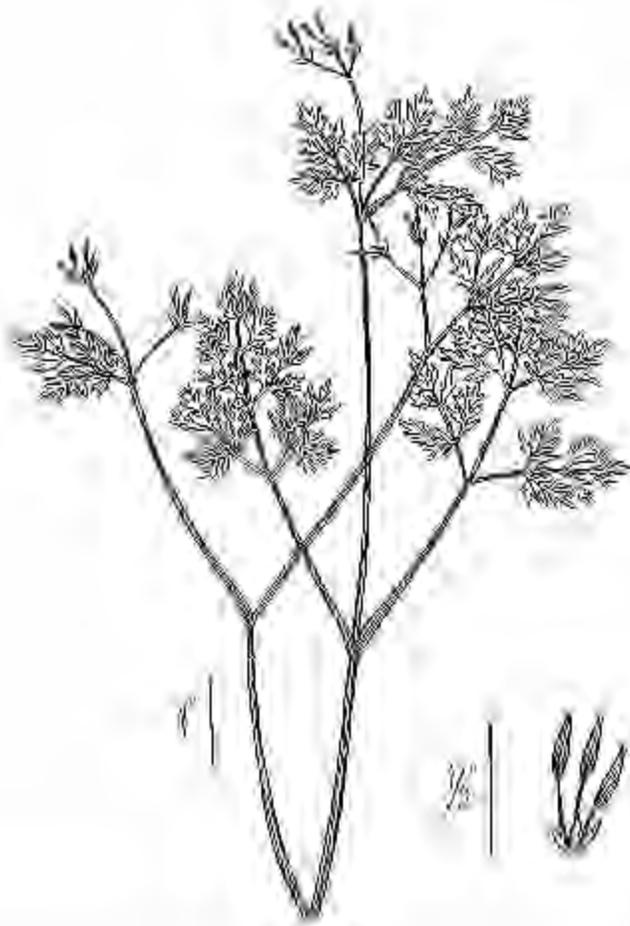
- **Family:** Madder (Rubiaceae)
- **Flowering:** June-August.
- **Field Marks:** Buttonbush is the only shrub that has whorled leaves and flowers and fruits in spherical heads.
- **Habitat:** Swamps, lakes, ponds, low woods, marshes.
- **Habit:** Shrubs, up to 10 feet tall.
- **Stems:** Much branched, smooth or less commonly hairy.
- **Leaves:** Opposite and/or whorled, oblong to ovate, pointed at the tip, tapering to the base, without teeth, smooth, up to 6 inches long, up to 4 inches wide.
- **Flowers:** Many, crowded into spherical heads up to 1 1/4 inches in diameter, white.
- **Sepals:** 4, green, united into a short tube.
- **Petals:** 4, white, united into a slender tube 1/4-1/3 inch long.
- **Stamens:** 4, attached to the corolla tube and not exerted beyond it.
- **Pistils:** Ovary inferior; styles protruding beyond the corolla tube.
- **Fruits:** Many nutlets crowded into a spherical head, each nutlet 1/4-1/3 inch long, broadest at the top.
- **Notes:** It is reported that the leaves are poisonous if eaten by most animals.



## Spreading Chervil (*Chaerophyllum procumbens*)



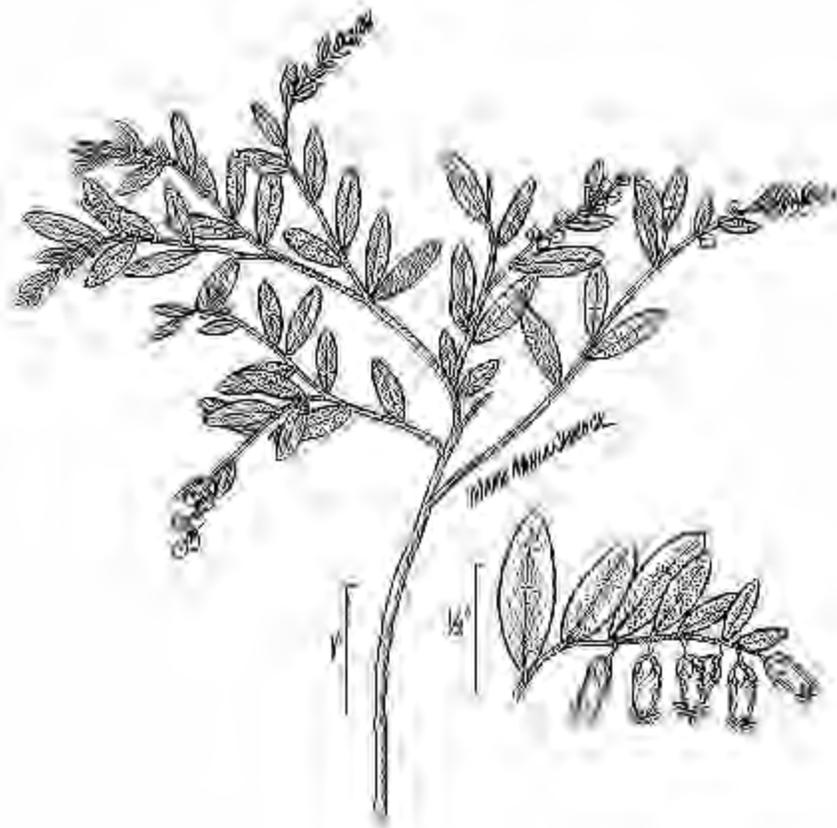
- **Family:** Carrot (Apiaceae)
- **Flowering:** April-June.
- **Field Marks:** This species is distinguished by its small umbels of white flowers and its fruits that are broadest near the middle.
- **Habitat:** Along streams, roadside ditches, alluvial fields.
- **Habit:** Annual herbs with fibrous roots.
- **Stems:** Spreading to erect, much branched, smooth or somewhat hairy.
- **Leaves:** Alternate, twice-pinnate, smooth or somewhat hairy, the leaflets oblong to ovate.
- **Flowers:** White, borne in small, few-flowered umbels, on very slender, smooth stalks, subtended by small bracts.
- **Sepals:** Minute or seemingly absent.
- **Petals:** 5, free, white, up to 1/12 inch long.
- **Stamens:** 5.
- **Pistils:** Ovary inferior, elongated, usually smooth.
- **Fruits:** Narrowly oblong to elliptic, somewhat flattened, up to 1/2 inch long, about 1/10 inch wide, broadest near the middle, with strong vertical ribs.



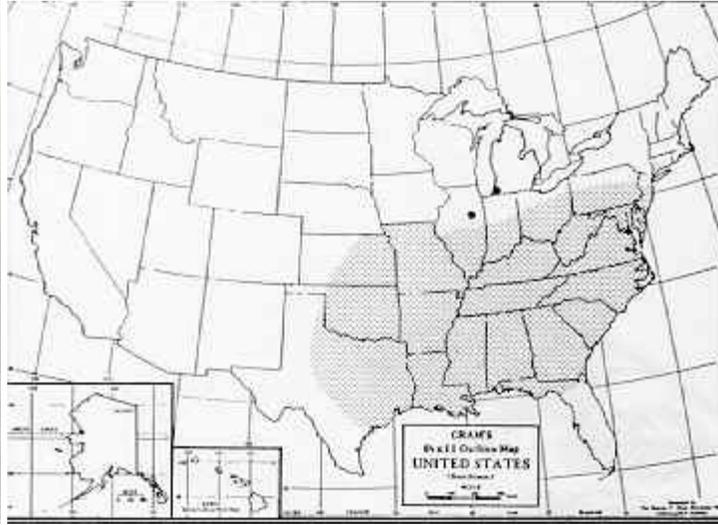
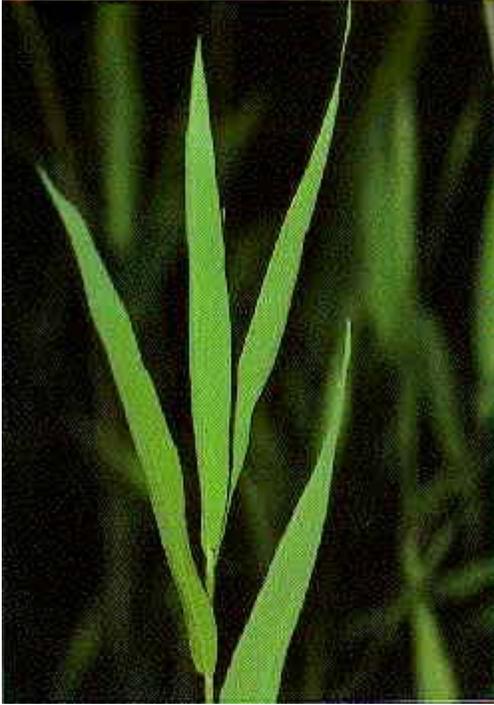
## Leatherleaf (*Chamaedaphne calyculata*)



- **Family:** Heath (Ericaceae)
- **Flowering:** April-May.
- **Field Marks:** This evergreen shrub differs from all other members of the heath family by its elongated tubular white corolla, its solitary flowers in the axils of the leaves, and its leaves that have tiny scales on the lower surface.
- **Habitat:** Bogs.
- **Habit:** Evergreen shrubs up to 4 feet tall.
- **Stems:** Upright, much branched, usually scaly and/or hairy.
- **Leaves:** Alternate, simple, evergreen, elliptic to oblong, rounded or pointed at the tip, tapering to the base, minutely round-toothed, smooth or somewhat hairy and with tiny scales on the lower surface, up to 2 inches long.
- **Flowers:** Solitary in the axils of the upper leaves, white, 1/4-1/3 inch long.
- **Sepals:** 5, green, united only at the base.
- **Petals:** 5, white, united into an elongated tube 1/4-1/3 inch long.
- **Stamens:** 10, not exerted beyond the corolla.
- **Pistils:** Ovary inferior.
- **Fruits:** Capsules 5-lobed, smooth, about 1/6 inch long, subtended by the persistent sepals.



## Broadleaf Uniola (*Chasmanthium latifolium*)



- **Family:** Grass (Poaceae)
- **Flowering:** June-October.
- **Field Marks:** The large, flat spikelets bearing 6-20 flowers and the leaves at least 1/3 inch broad characterize this plant.
- **Habitat:** Along streams, in moist woods.
- **Habit:** Perennial grass with short rhizomes.
- **Stems:** Upright, unbranched, smooth, up to 4 feet tall.
- **Leaves:** Elongated, up to 1 inch broad, usually ciliate at the base, somewhat roughened along the edges.
- **Flowers:** Borne in flat spikelets, with several spikelets pendulous in a raceme; each spikelet with 3 or more flowers and up to 1 1/4 inches long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 1.
- **Pistils:** Ovary superior.
- **Grains:** Dark red, ellipsoid, up to 1/4 inch long.



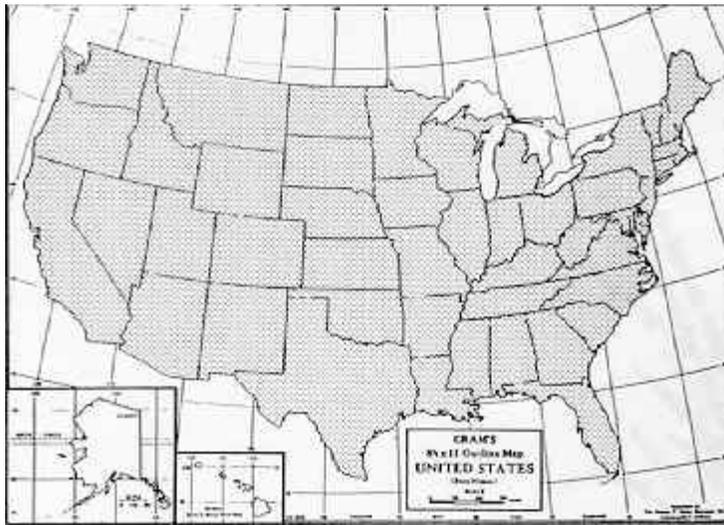
## White Turtlehead (*Chelone glabra*)



- **Family:** Figwort (Scrophulariaceae)
- **Flowering:** July-October.
- **Field Marks:** The large, white, nearly closed corolla and the narrow, opposite, toothed leaves distinguish this species.
- **Habitat:** Along streams, wet meadows, swamps, fens, marshes.
- **Habit:** Perennial herbs from thickened rootstocks.
- **Stems:** Erect, branched or unbranched, smooth, up to 4 1/2 feet tall.
- **Leaves:** Opposite, simple, linear to lanceolate, pointed at the tip, tapering to the base, toothed, smooth, up to 6 inches long, up to 2 inches wide.
- **Flowers:** Crowded into terminal spikes up to 4 inches long, each flower white, up to 1 1/2 inches long.
- **Sepals:** 5, green, free from each other.
- **Petals:** 5, white, united to form a nearly closed, bilaterally symmetrical corolla, up to 1 1/2 inches long.
- **Stamens:** 4.
- **Pistils:** Ovary superior.
- **Fruits:** Capsule nearly spherical, up to 2/3 inch in diameter, with many seeds.



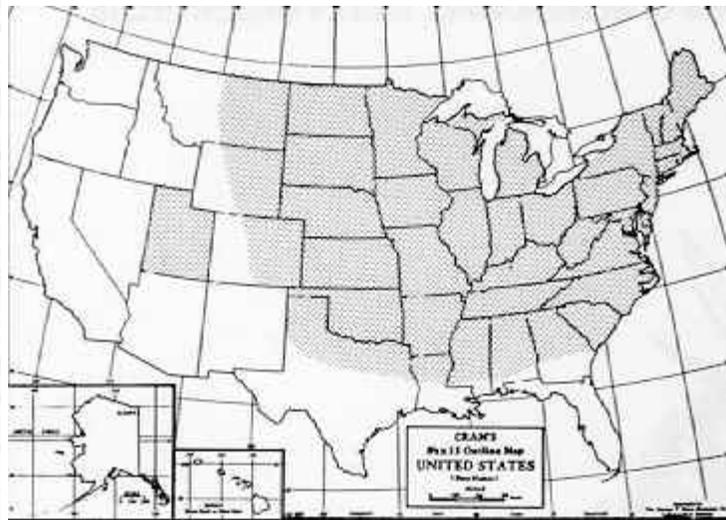
## Lambsquarters (*Chenopodium album*)



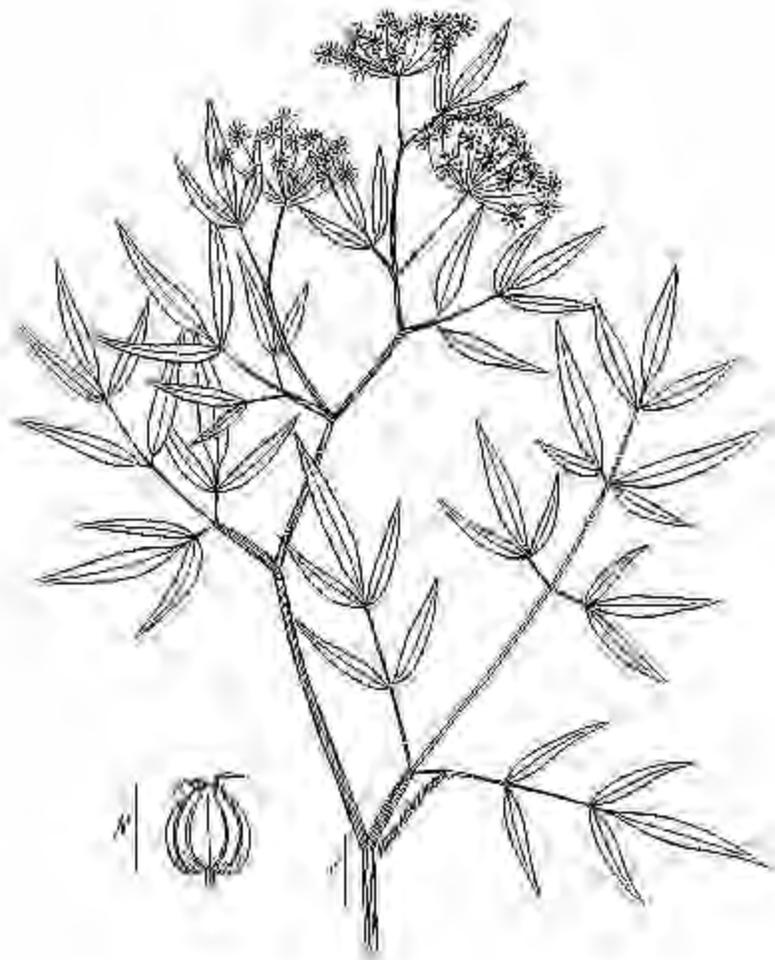
- **Family:** Goosefoot (Chenopodiaceae)
- **Flowering:** May-October.
- **Field Marks:** The distinguishing features of this species are the white lower leaf surfaces and the seeds lacking a honeycomb appearance.
- **Habitat:** Disturbed soil, frequently in moist areas.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect, often branched, smooth or with short hairs, up to 4 feet tall.
- **Leaves:** Alternate, simple, broadly lanceolate to ovate, coarsely and irregularly toothed, whitish on the lower surface, up to 5 inches long.
- **Flowers:** Minute, crowded in several spikes that form a panicle.
- **Sepals:** 5, whitish, very tiny.
- **Petals:** 0.
- **Stamens:** 5.
- **Pistils:** Ovary superior.
- **Fruits:** Seeds smooth, black, shiny, about 1/20 inch long.
- **Notes:** The young parts of this plant can be cooked and eaten as a vegetable.



## Spotted Water Hemlock (*Cicuta maculata*)



- **Family:** Carrot (Apiaceae)
- **Flowering:** June-September.
- **Field Marks:** This tall perennial differs from all other similar species by its compound leaves divided into leaflets more than 1/2 inch broad, its large umbels of white flowers, and its smooth fruits.
- **Habitat:** Swamps, marshes, along streams, wet meadows, roadside ditches.
- **Habit:** Coarse perennial with a tuber-like base.
- **Stems:** Erect, branched, hairy, up to 7 feet tall.
- **Leaves:** Alternate, pinnately divided into numerous leaflets, the leaflets linear to broadly lanceolate, pointed at the tip, rounded or tapering to the base, usually sharply toothed, hairy, up to 3 inches long, more than 1/2 inch broad.
- **Flowers:** Many flowers borne in small umbels which, in turn, make up a large umbel up to 4 inches across, white.
- **Sepals:** 5, green, triangular.
- **Petals:** 5, free, white, about 1/10 inch long.
- **Pistils:** Ovary inferior.
- **Fruits:** Nearly spherical, smooth but with prominent, vertical ribs, up to 1/4 inch long.
- **Notes:** All parts of this species are considered to be poisonous to most animals.



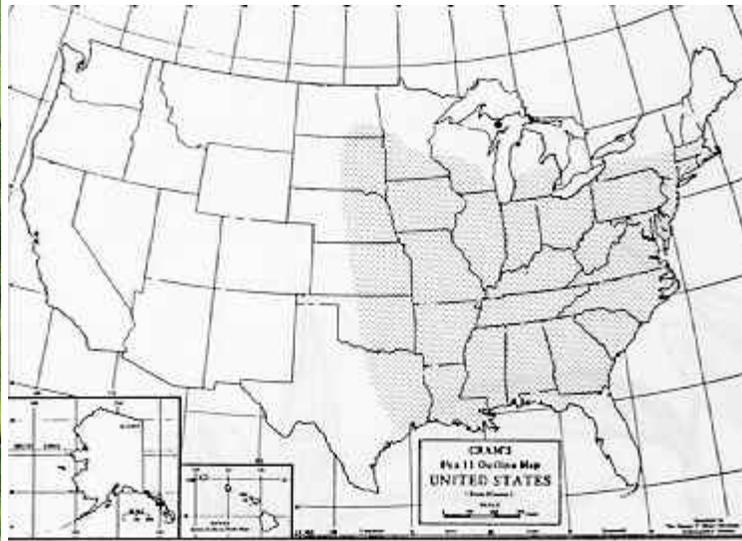
## Stout Woodreed (*Cinna arundinacea*)



- **Family:** Grass (Poaceae)
- **Flowering:** July-September.
- **Field Marks:** This is the only perennial grass that may grow 5 feet tall and have foot long gray-green panicles composed of 1-flowered spikelets up to 1/6-1/4 inch long with a 3-nerved short-awned lemma.
- **Habitat:** Moist woods, meadows, damp thickets, along streams, particularly abundant in shaded habitats.
- **Habit:** Herbaceous perennial with short rhizomes.
- **Stems:** 1-several, erect, smooth, up to 5 feet tall.
- **Leaves:** Alternate, very long and narrow, up to 2/3 inch broad, slightly rough to the touch; sheaths smooth; ligules up to 1/3 inch long.
- **Flowers:** 1 per spikelet, with many spikelets on ascending branches in a gray-green panicle up to 1 foot long; spikelets 1/6-1/4 inch long; glumes lanceolate, pointed; lemma 3-nerved, with a very short awn.
- **Grains:** Yellow, ellipsoid.
- **Notes:** The tiny grains formed by this grass are eaten by waterfowl.



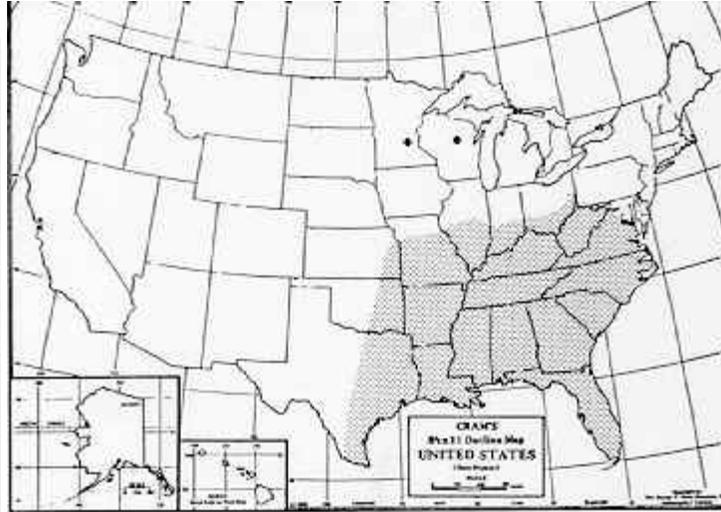
## Common Dayflower (*Commelina communis*)



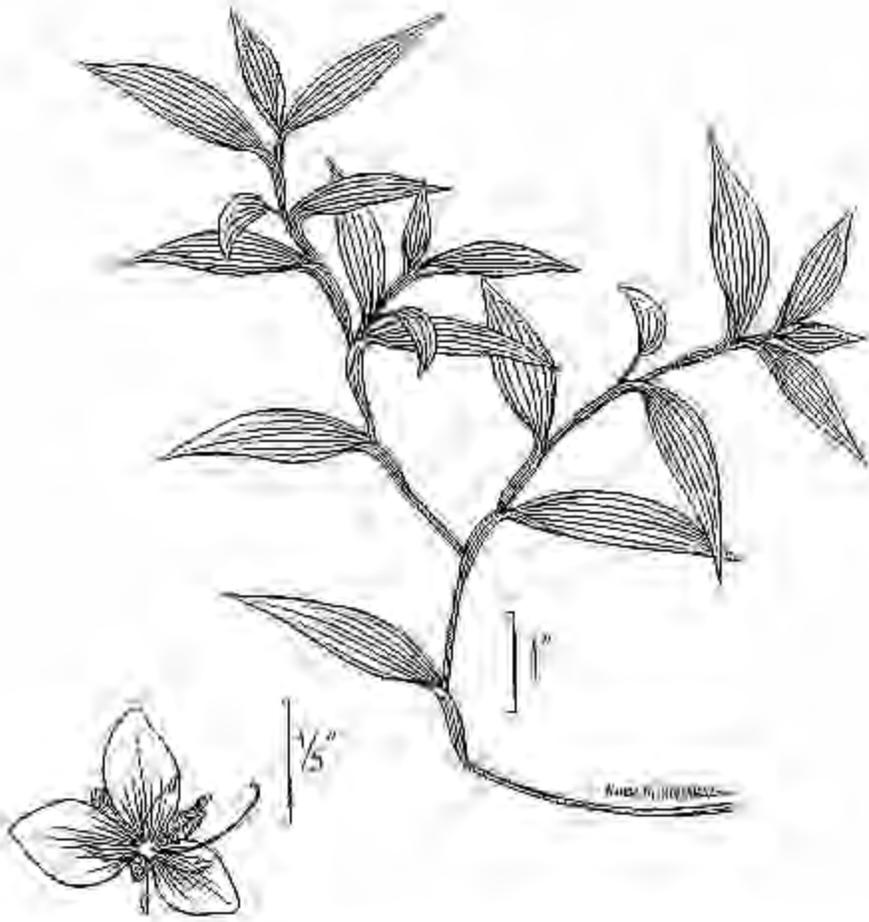
- **Family:** Dayflower (Commelinaceae)
- **Flowering:** May-October.
- **Field Marks:** This is the only annual dayflower with fibrous root that has 2 blue petals and 1 smaller white petal.
- **Habitat:** Wet soil in old fields, thickets, and bottomland woods.
- **Habit:** Erect or creeping, smooth, branched, to 1 1/2 feet long.
- **Stems:** Leafless, except for 1 or 2 reduced leaves near the cluster of flowers at the tip of the stem.
- **Leaves:** Alternate, simple, lanceolate to lance-ovate, pointed at the tip, more or less rounded at the base, without teeth, smooth, to 5 inches long and to 1 inch broad, with a conspicuous sheath.
- **Flowers:** Few in a boat-shaped spathe, the spathe about 1 inch long, with free edges, the flowers symmetrical and blooming only for a single morning.
- **Sepals:** 3, but 2 of them partly united, green or bluish, unequal in size (1 of them concealed in the drawing by the spathe).
- **Petals:** 3, free from each other, 2 of them blue, 1/2-1/3 inch long, the third one white and much smaller (smaller petal not drawn so that pistil may be seen).
- **Stamens:** 6, 3 of them not fertile and bright yellow.
- **Pistils:** 1; style 1; ovary superior.
- **Fruits:** Capsule smooth, 1/3 inch long, with 4 dark brown, roughened seeds about 1/6 inch long.
- **Notes:** This native of Asia has now spread into disturbed wetland habitats.



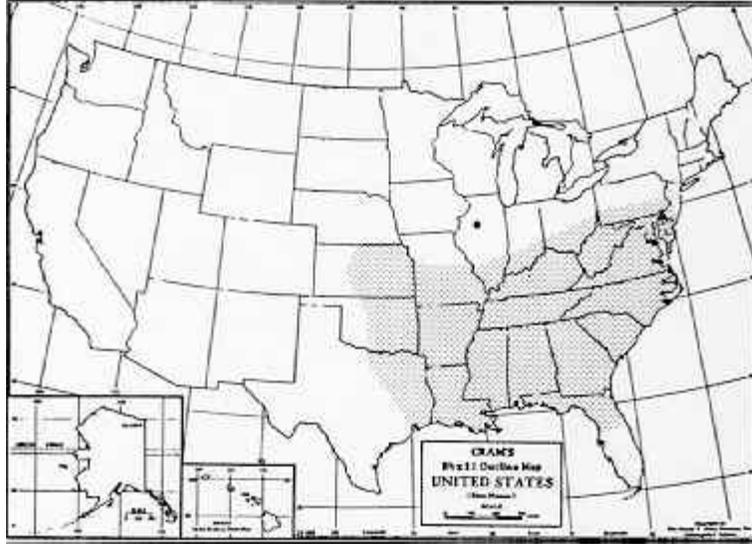
## Spreading Dayflower (*Commelina diffusa*)



- **Family:** Dayflower (Commelinaceae)
- **Flowering:** July-October.
- **Field Marks:** This dayflower has creeping stems, all 3 petals blue, and 5 anthers.
- **Habitat:** Wet ground, sometimes in fields.
- **Habit:** Creeping annual, rooting at the nodes, with fibrous roots.
- **Stems:** Creeping, smooth, up to 2 feet long.
- **Leaves:** Alternate, simple, lanceolate to ovate-lanceolate, pointed at the tip, rounded or tapering to the base, without teeth, smooth, up to 3 inches long and up to 2/3 inch broad.
- **Flowers:** 1-3 together, arising from a leaf-like, folded spathe that is not united, blue.
- **Sepals:** 3, green, unequal in size.
- **Petals:** 3, all blue, two of them larger than the third one.
- **Stamens:** 5.
- **Pistils:** Ovary superior, smooth.
- **Fruits:** Capsule containing 5 seeds; seeds oblong, black veiny, 1/10 inch long.



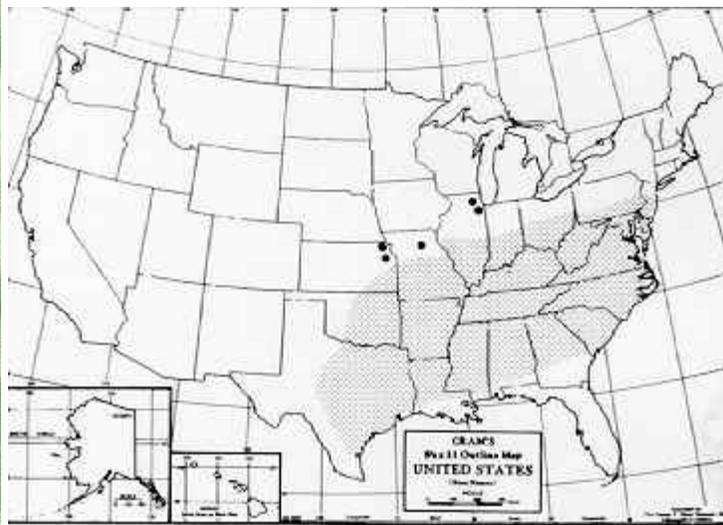
## Virginia Dayflower (*Commelina virginica*)



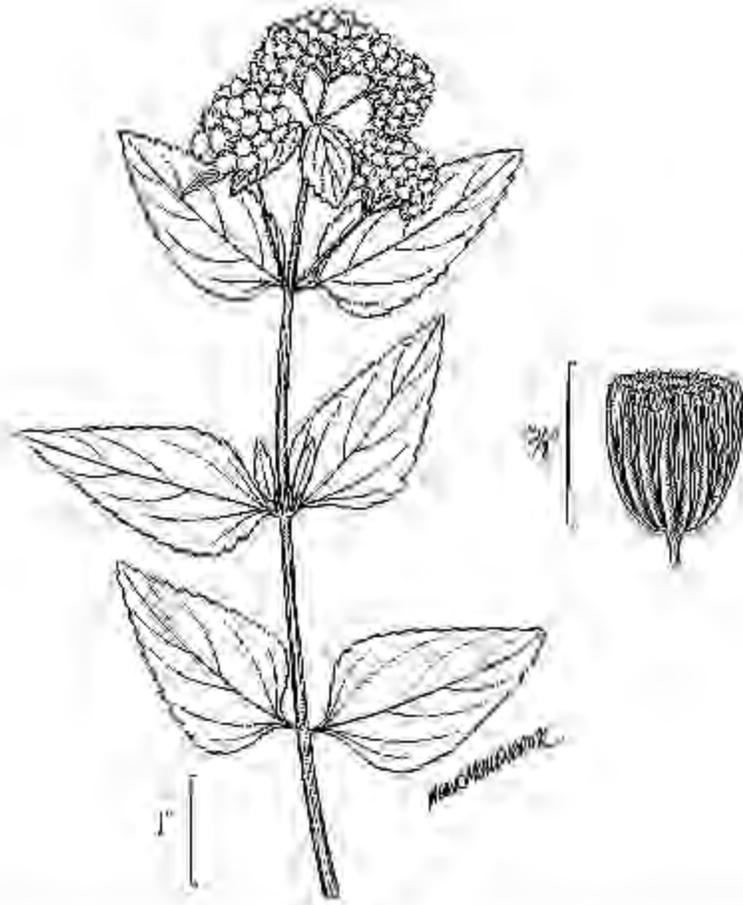
- **Family:** Dayflower (Commelinaceae)
- **Flowering:** July-October.
- **Field Marks:** Virginia dayflower is the only perennial member of this genus with all 3 petals blue and with rhizomes.
- **Habitat:** Swamps, sloughs, wet woods.
- **Habit:** Perennial herbs with rhizomes.
- **Stems:** Erect or seldom lying on the ground, usually hairy, to 2 1/2 feet long.
- **Leaves:** Alternate, simple, lanceolate, pointed at the tip, tapering to the base, without teeth, tough to the touch on the upper surface, up to 5 inches long and up to 2 inches broad, with a conspicuous sheath.
- **Flowers:** Few in a boat-shaped spathe, the spathe about 1 inch long, with united edges, the flowers nearly symmetrical, about 1 inch across.
- **Sepals:** 3, but 2 of them partly united, green or bluish, unequal in size.
- **Petals:** 3, free from each other, all blue and nearly all the same size, about 1/2 inch long.
- **Stamens:** 6, 3 of them not fertile and bright yellow.
- **Pistils:** 1; style 1; ovary superior.
- **Fruits:** Capsule about 1/2 inch long, with 3 smooth or slightly roughened seeds about 1/4 inch long.



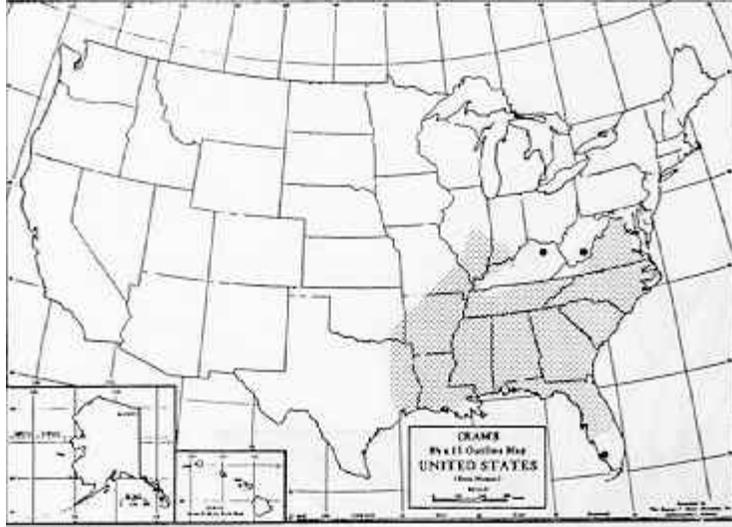
## Mistflower (*Conoclinium coelestinum*)



- **Family:** Aster (Asteraceae)
- **Flowering:** July-October.
- **Field Marks:** This species is distinguished by its many heads of blue or violet flowers and its opposite, generally triangular, toothed leaves.
- **Habitat:** Along streams, wet meadows, low woods, wet ditches, around lakes and ponds.
- **Habit:** Perennial herb with slender rhizomes.
- **Stems:** Erect, branched or unbranched, smooth or hairy, up to 2 1/2 feet tall.
- **Leaves:** Opposite, simple, ovate to lance-ovate to generally triangular, pointed at the tip, rounded or heart-shaped at the base, usually somewhat hairy, toothed, up to 3 1/2 inches long, up to 2 1/2 inches broad, usually with short stalks.
- **Flowers:** Many crowded into a head, with many heads per plant, each head up to 1/2 inch across and subtended by narrow, pointed, green bracts up to 3/8 inch long, all flowers blue or violet, forming a tube.
- **Sepals:** 0.
- **Petals:** 5, united to form a tube, blue or violet.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes about 1/10 inch long, with several white, thread-like hairs up to 1/4 inch long.
- **Notes:** This species is often known as *Eupatorium coelestinum*. It is sometimes grown as an ornamental.



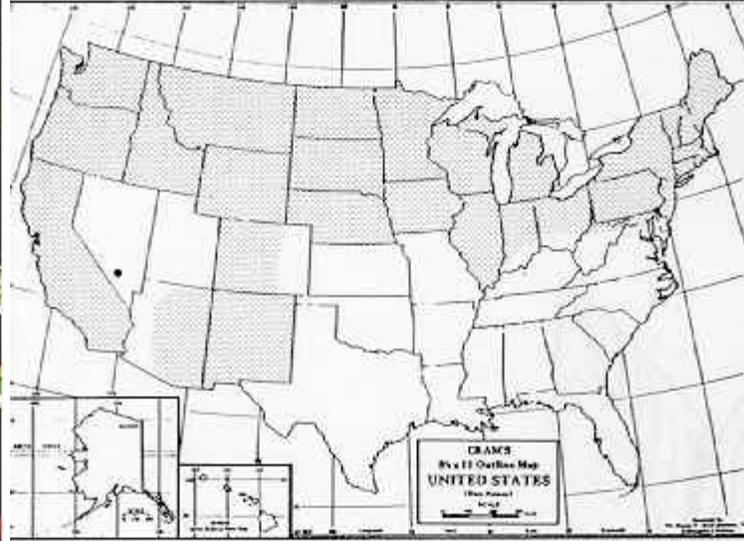
## Gray Dogwood (*Cornus foemina*)



- **Family:** Dogwood (Cornaceae)
- **Flowering:** May-June.
- **Field Marks:** This is the only wetland dogwood with gray branchlets and blue fruits. The lower surface of the leaves is green and without hairs.
- **Habitat:** Swamps, low woods, wet open ground.
- **Habit:** Shrub up to 8 feet tall, much branched.
- **Stems:** Gray, smooth.
- **Leaves:** Opposite, simple, lanceolate to elliptic to ovate, pointed at the tip, tapering to the base, without teeth, smooth and green on both surfaces, up to 3 inches long, up to 1 1/4 inches broad.
- **Flowers:** Several in a round-topped cluster, white.
- **Sepals:** 4, united, green.
- **Petals:** 4, free from each other, white.
- **Stamens:** 4.
- **Pistils:** 1; style 1; ovary inferior.
- **Fruits:** Drupes blue, spherical, 1/6-1/4 inch in diameter.
- **Notes:** This species is usually called stiff dogwood. This species has been confused with *C. racemosa* and does not occur in the Great Plains.



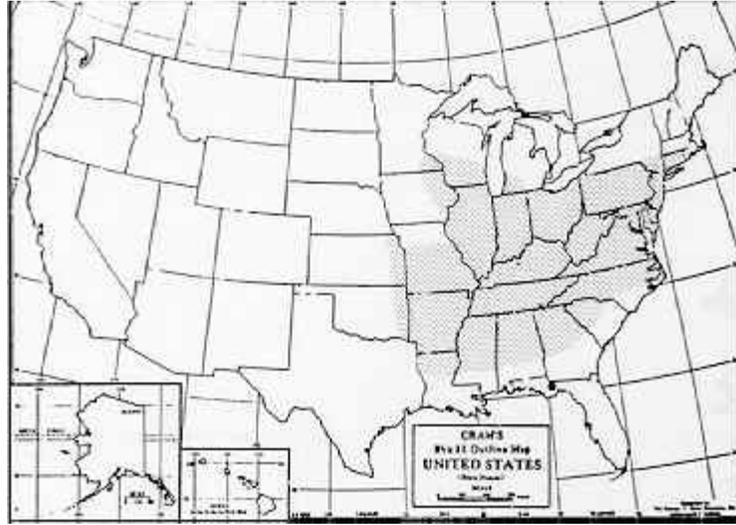
## Red-osier Dogwood (*Cornus stolonifera*)



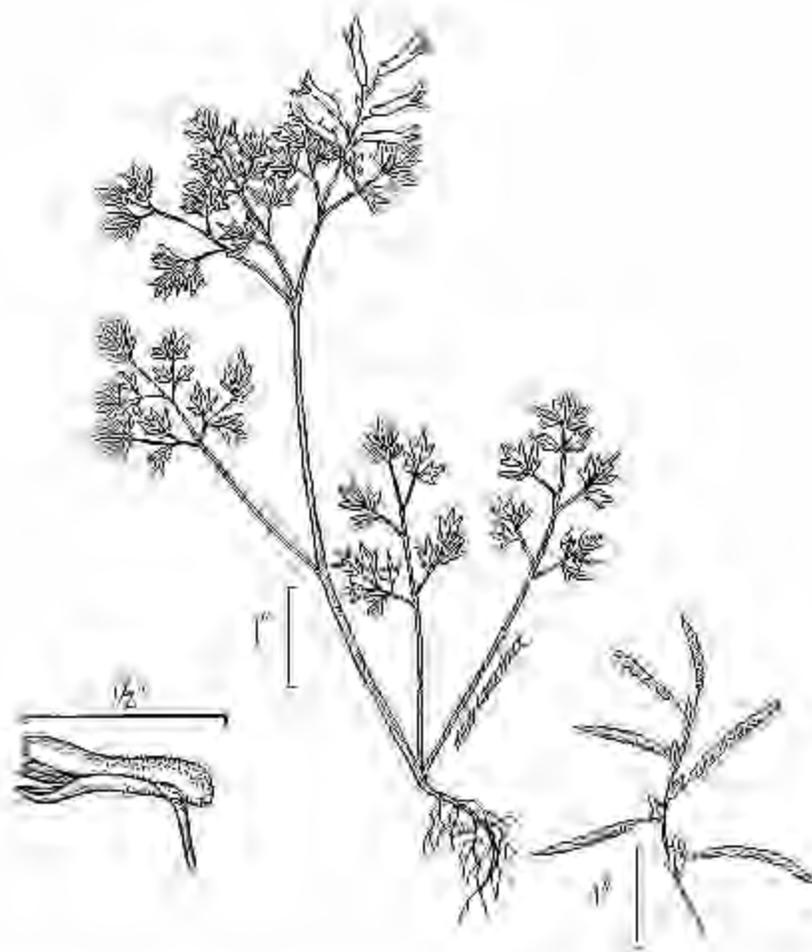
- **Family:** Dogwood (Cornaceae)
- **Flowering:** May-August.
- **Field Marks:** The bright red twigs and the white fruits readily distinguish this handsome dogwood.
- **Habitat:** Wet soil along streams, around ponds and lakes, in bogs.
- **Habit:** Shrub up to 8 feet tall, spreading by stolons.
- **Stems:** Young branches bright red, smooth or less commonly hairy.
- **Leaves:** Opposite, simple, lanceolate to ovate, pointed at the tip, rounded or tapering to the base, without teeth, usually mostly or slightly hairy on both surfaces, up to 4 inches long, up to 3 inches broad.
- **Flowers:** Several in a round-topped or flat-topped cluster, white.
- **Sepals:** 4, united, green.
- **Petals:** 4, free, white.
- **Stamens:** 4.
- **Pistils:** 1; style 1; ovary inferior.
- **Fruits:** Drupes white, spherical, 1/3 inch in diameter.
- **Notes:** This species often forms dense thickets due to its stoloniferous growth form.



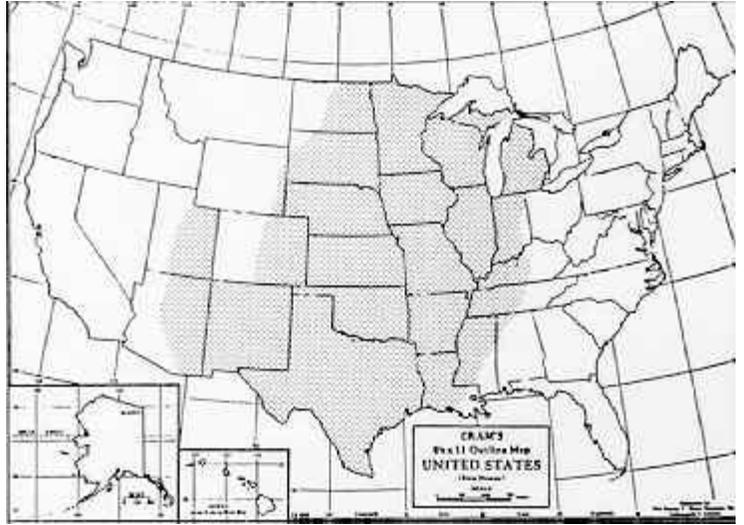
## Yellow Corydalis (*Corydalis flavula*)



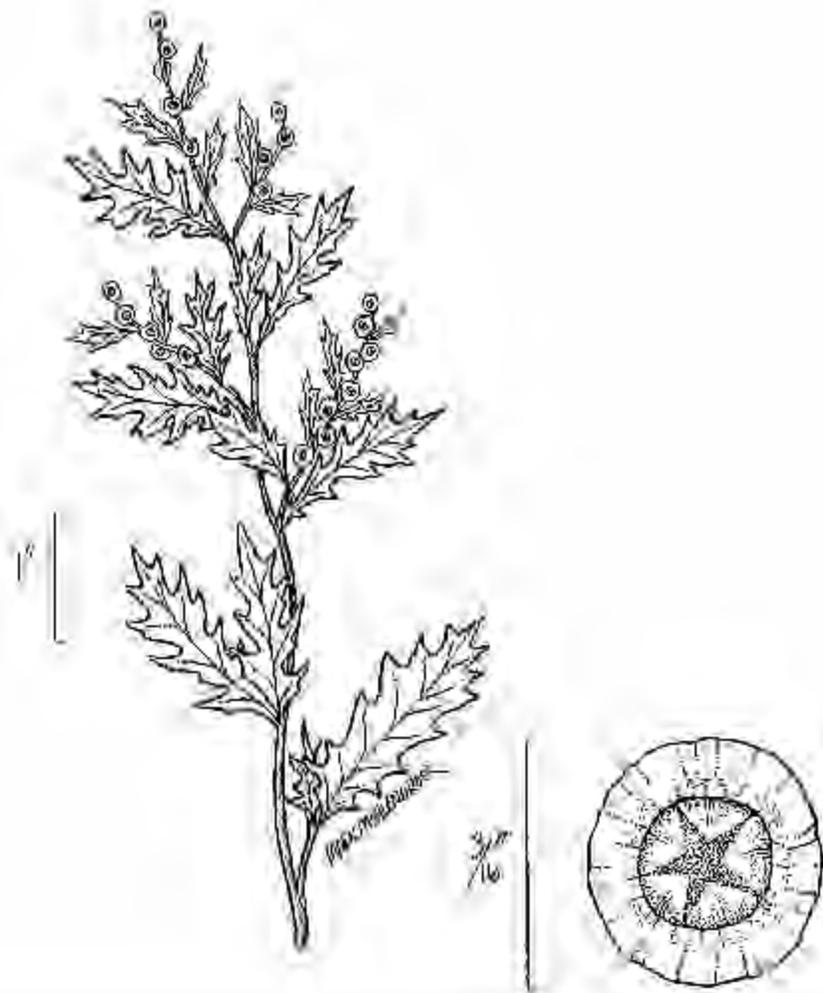
- **Family:** Poppy (Papaveraceae)
- **Flowering:** April-May.
- **Field Marks:** *Corydalis flavula* is the only species in the genus that has a tiny spur at the base of the corolla that points inward.
- **Habitat:** Low woods, along streams.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Spreading to more or less erect, much branched, smooth, slender, up to 10 inches long.
- **Leaves:** Alternate, much divided and almost "fern-like," gray-green, smooth, the lowermost on long stalks, the uppermost with short or no stalks.
- **Flowers:** Several in racemes, each flower yellow, 1/3-1/4 inch long.
- **Sepals:** 2, green, small, falling off early.
- **Petals:** 4, yellow, one of them protruding at the base into a very short, incurved spur, the inner petals with a toothed ridge down their back.
- **Stamens:** 6, in 2 sets of 3.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules elongated, smooth, up to 1 1/2 inches long, constricted between the seeds.



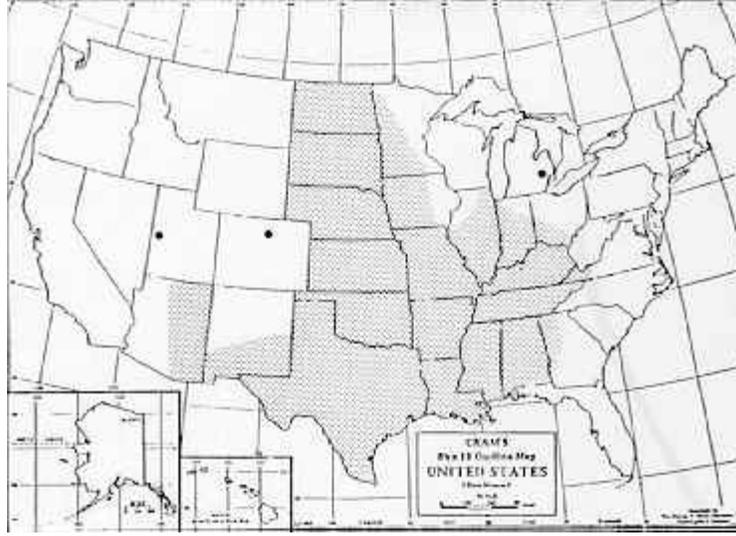
## Winged Pigweed (*Cycloloma atriplicifolium*)



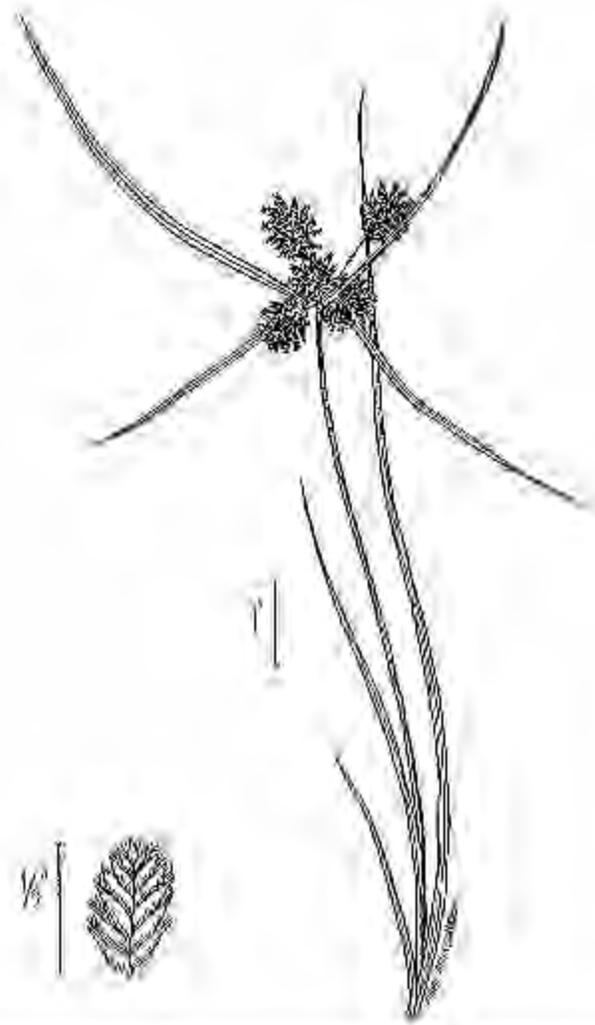
- **Family:** Goosefoot (Chenopodiaceae)
- **Flowering:** June-October.
- **Field Marks:** The distinguishing feature of this sand-loving species is the fruits surrounded by circular wings.
- **Habitat:** Along major rivers, around large lakes, often in sand.
- **Habit:** Annual herb often forming rounded tumbleweed-like mounds.
- **Stems:** Spreading, much branched, up to 2 feet long.
- **Leaves:** Alternate, simple, lanceolate to elliptic, pointed at the tip, tapering to the base, smooth or hairy, irregularly and coarsely toothed, up to 3 inches long, up to 3/4 inch broad.
- **Flowers:** Several in short, interrupted spikes, each flower greenish, about 1/6 inch across, without a stalk.
- **Sepals:** 5, greenish.
- **Petals:** 0.
- **Stamens:** 5.
- **Pistils:** Ovary superior; styles 3.
- **Fruits:** 1-seeded, surrounded by a flat, circular, nearly transparent wing about 1/6 inch across.



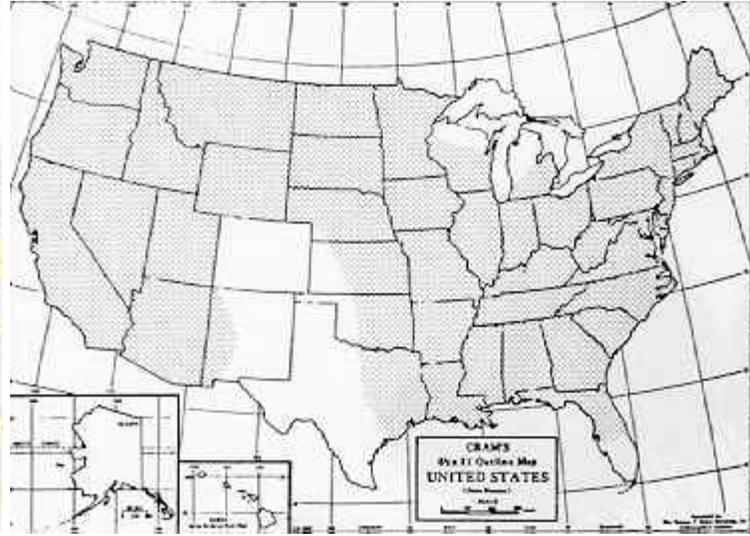
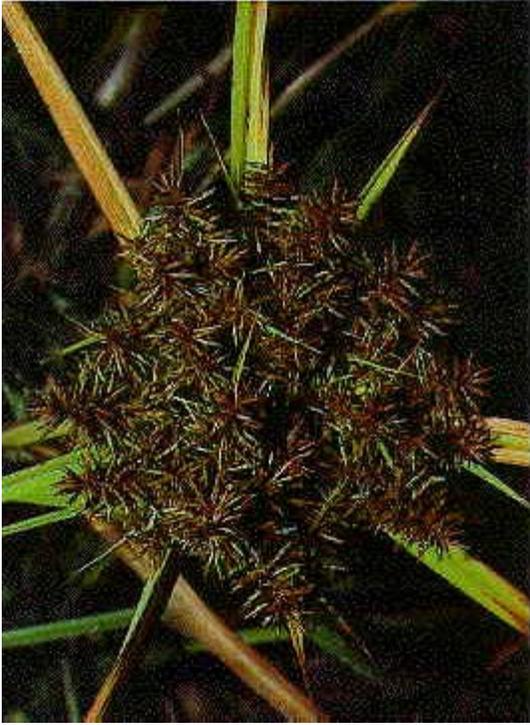
## Taperleaf Flatsedge (*Cyperus acuminatus*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** June-October.
- **Field Marks:** This species is distinguished by its spikelets, which are in compact, spherical masses, by its flat spikelets, its annual growth form, and its generally short stature.
- **Habitat:** Along rivers and streams, around lakes and ponds, fallow fields, sandy banks.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect, slender, smooth, usually longer than the leaves, up to 15 inches tall.
- **Leaves:** Elongated, narrow, smooth, usually pale green, up to 1/12 inch broad.
- **Flowers:** Borne in spikelets, each flower subtended by a scale; spikelets several in a compact, spherical mass, flat, oblong, up to 1/3 inch long.
- **Scales:** Oblong, straw-colored to pale green, pointed at the slightly recurved tip.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 1.
- **Pistils:** Ovary superior; style 3-cleft.
- **Fruits:** Achenes triangular, oblong, tapering to each end, gray, half as long as the scale.
- **Notes:** The achenes are eaten by waterfowl.



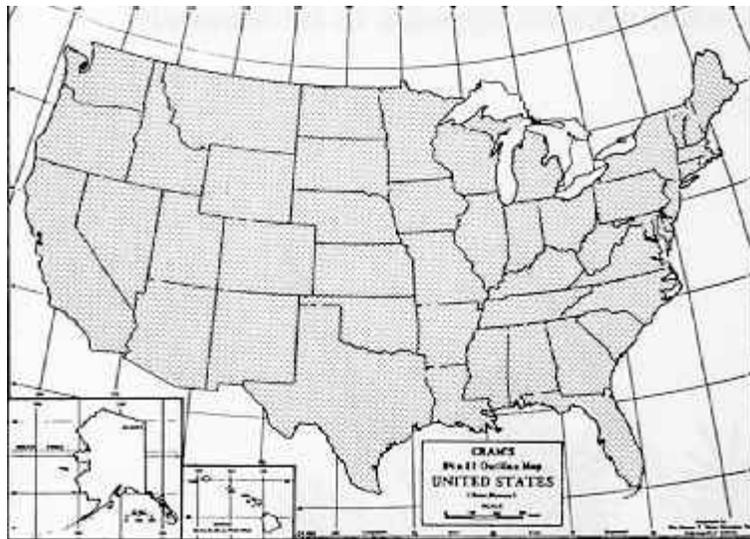
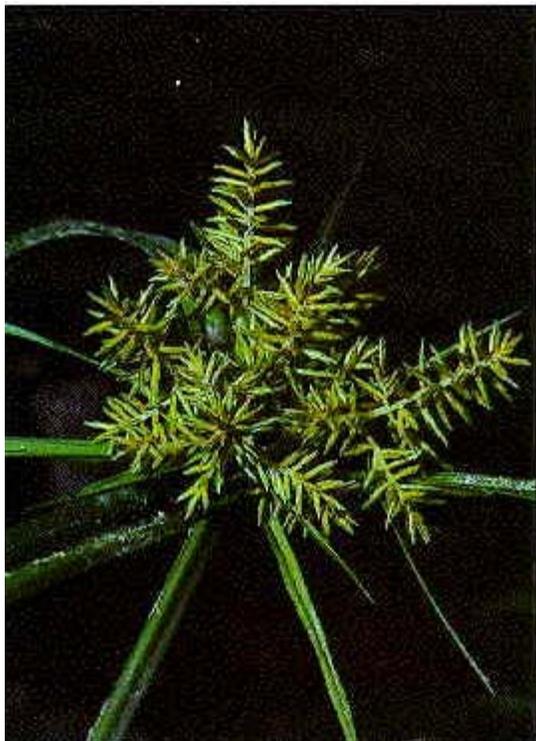
## Redroot Flatsedge (*Cyperus erythrorhizos*)



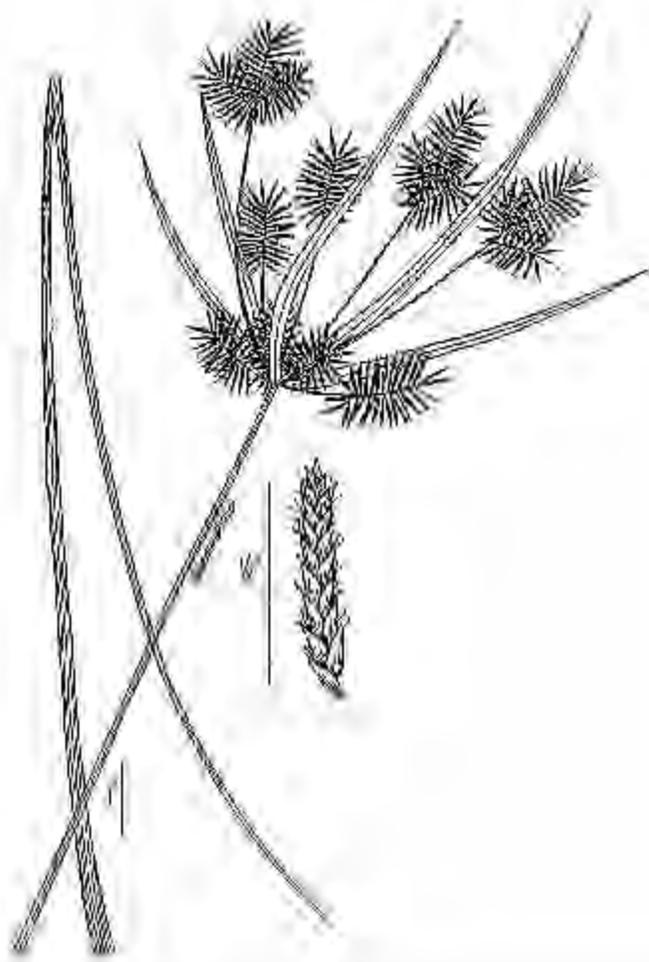
- **Family:** Sedge (Cyperaceae)
- **Flowering:** July-October.
- **Field Marks:** This flatsedge differs from all similar species by the extremely tiny, reddish brown scales of the spikelets and by its very small, ivory-colored achenes.
- **Habitat:** Along rivers and streams, around lakes and ponds, in sloughs.
- **Habit:** Tufted annual with reddish roots.
- **Stems:** Erect, smooth, obscurely triangular, up to 2 1/2 feet tall.
- **Leaves:** Long, narrow, rough along the edges, up to 1/12 inch broad.
- **Flowers:** One per scale, with many scales per spikelet, the entire cluster of flat spikelets subtended by 3-7 leaflike bracts.
- **Scales:** Lanceolate, pointed, red-brown, shiny, about 1/10 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** 1; styles 3; ovary superior.
- **Fruits:** Achenes ivory-colored, shiny, about 1/20 inch long.
- **Notes:** The achenes are eaten by waterfowl. Dwarf plants only one inch tall have been known to flower.



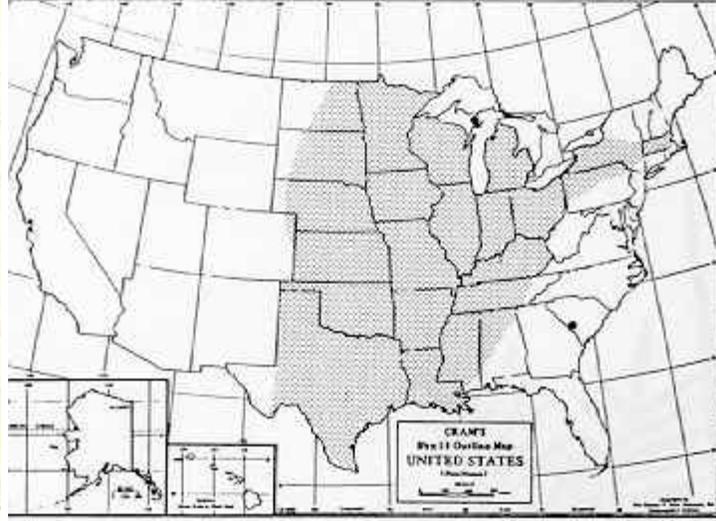
## Chufa Flatsedge (*Cyperus esculentus*)



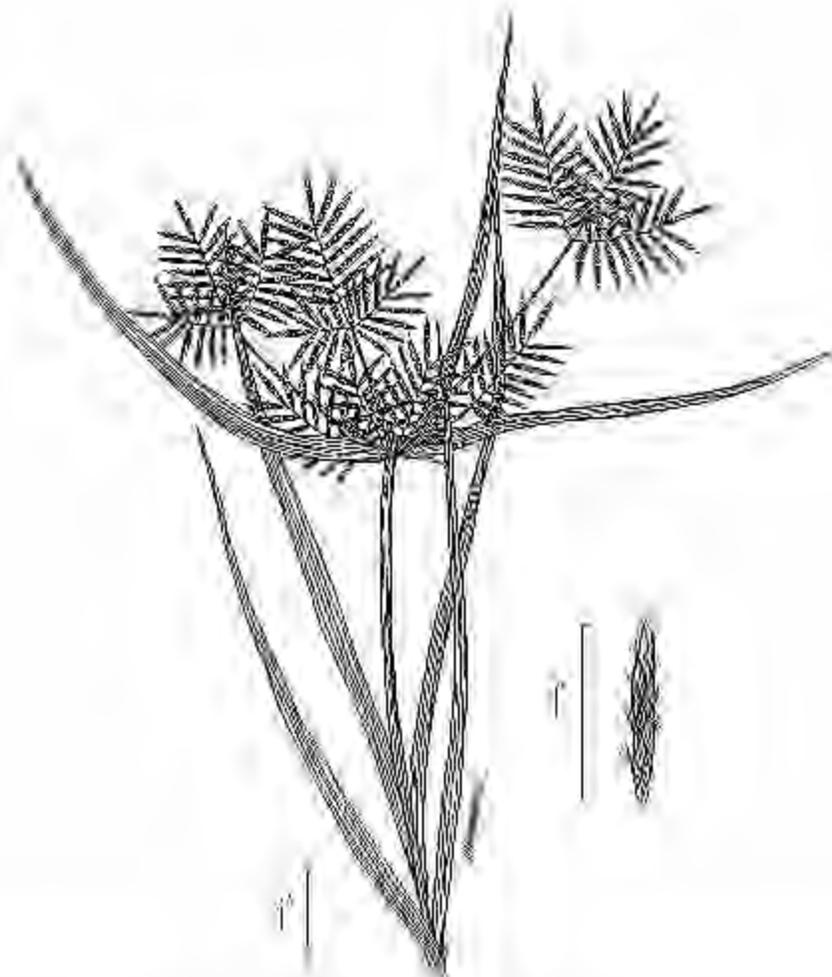
- **Family:** Sedge (Cyperaceae)
- **Flowering:** July-October.
- **Field Marks:** This is the only flatsedge which produces underground tubers at the ends of slender rhizomes. Because the scales of the spikelets do not lie flat, each spikelet appears to be minutely toothed.
- **Habitat:** Along streams, around lakes and ponds, wet fallow fields, old fields, wet prairies.
- **Habit:** Coarse perennial with slender rhizomes and tubers.
- **Stems:** Erect, smooth, triangular, up to 2 1/2 feet tall.
- **Leaves:** Long, narrow, smooth or rough along the edges, 1/3-1/2 inch broad.
- **Flowers:** One per scale, with many scales per spikelet, the entire cluster of flat spikelets subtended by 3-9 leaflike bracts.
- **Scales:** Oblong, yellow or brown, pointed at the tip, 1/8-1/6 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** 1; styles 3; ovary superior.
- **Fruits:** Achenes yellowish, triangular, oblong, about 1/10 inch long.
- **Notes:** This species is also called Nutgrass. The tubers are edible by humans, domesticated animals, and wildlife. The achenes are eaten by waterfowl.



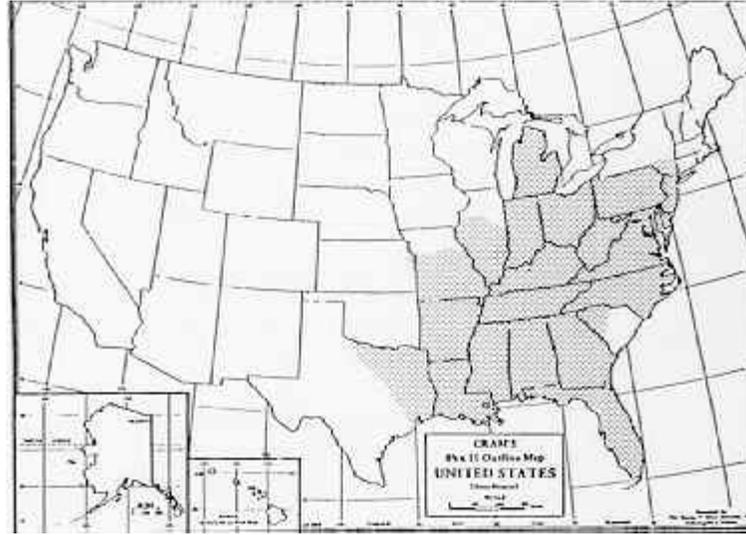
## Rusty Flatsedge (*Cyperus ferruginescens*)



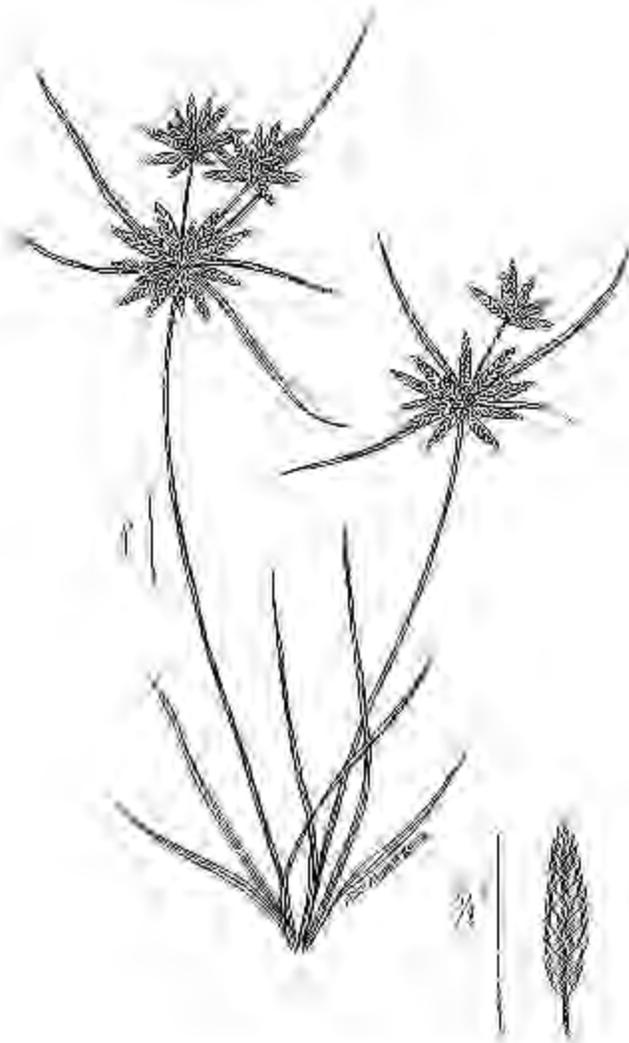
- **Family:** Sedge (Cyperaceae)
- **Flowering:** August-October.
- **Field Marks:** This *Cyperus* differs by its red-brown spikelets and its orange-brown achenes. It lacks underground rhizomes.
- **Habitat:** Along rivers and streams, around lakes and ponds, in roadside ditches, mud flats.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect, unbranched, smooth, up to 2 feet tall.
- **Leaves:** Mostly near the base of the plant, elongated, narrow, smooth, up to 1/2 inch broad.
- **Flowers:** One per scale, with many scales crowded into flat spikelets; the spikelets red-brown, linear, up to 1 inch long.
- **Scales:** Ovate to oblong, red-brown, rounded or pointed at the tip.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Styles 3; ovary superior.
- **Fruits:** Achenes triangular, obovoid, smooth, orange-brown.
- **Notes:** The achenes are eaten by waterfowl. The plant sometimes flowers when it is only 6 inches tall.



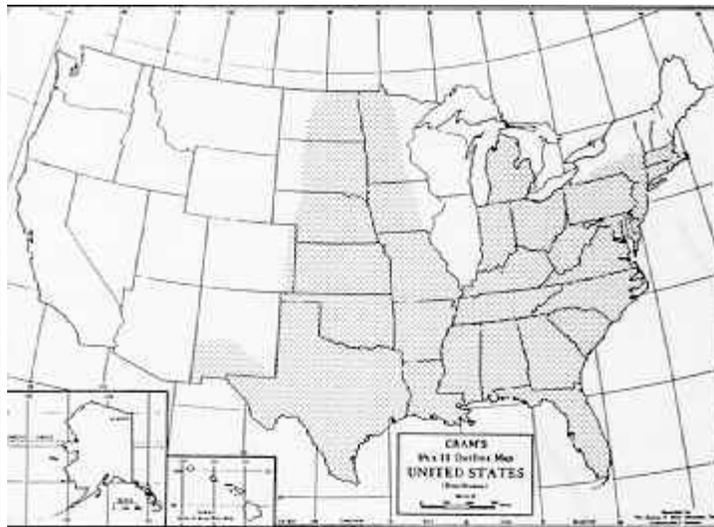
## Yellow Flatsedge (*Cyperus flavescens*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** July-October.
- **Field Marks:** This species is distinguished by its straw-colored scales, its 2 styles, and its black achenes.
- **Habitat:** Moist, sandy soil along rivers and streams.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect, slender, smooth, usually longer than the leaves, up to 1 foot tall.
- **Leaves:** Elongated, narrow, smooth, up to 1/10 inch broad.
- **Flowers:** Borne in spikelets, each flower subtended by a scale; spikelets several in radiating clusters; some clusters on stalks, others sessile; each spikelet straw-colored, flat, up to 1 inch long, about 1/10 inch broad.
- **Scales:** Ovate, obtuse but with a short mucro, straw-colored, smooth, up to 1/8 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Stigmas 2-cleft; ovary superior.
- **Fruits:** Achenes obovoid, flat, black, shiny, about 1/20 inch long.
- **Notes:** The achenes are eaten by waterfowl.



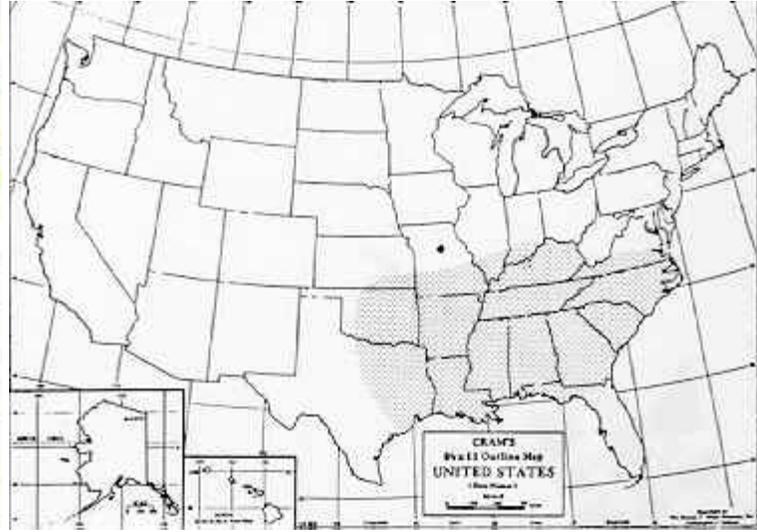
## Fragrant Flatsedge (*Cyperus odoratus*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** August-October.
- **Field Marks:** This flatsedge has spikelets that arise from an elongated axis, brown scales, and gray or black achenes about 1/10 inch long.
- **Habitat:** Muddy or sandy soil along rivers and streams.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect, smooth, sharply triangular, up to 2 feet tall.
- **Leaves:** Elongated, narrow, smooth, up to 1/3 inch broad.
- **Flowers:** Borne in spikelets, each flower subtended by a scale; spikelets arising from an elongated axis more or less cylindrical, brown to red-brown, up to 1 1/4 inches long.
- **Scales:** Ovate to oblong, rounded or short-pointed at the tip, red-brown, smooth, up to 1/8 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Style 3-cleft; ovary superior.
- **Fruits:** Achenes triangular, obovoid, gray or black, up to 1/10 inch long.



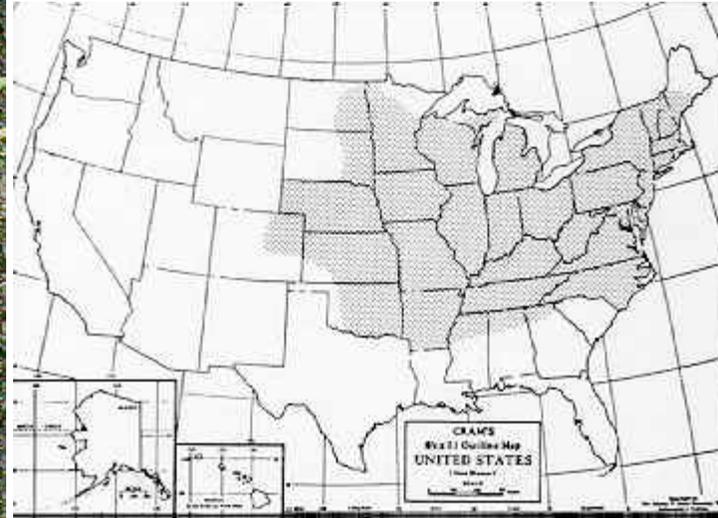
## Green Flatsedge (*Cyperus pseudovegetus*)



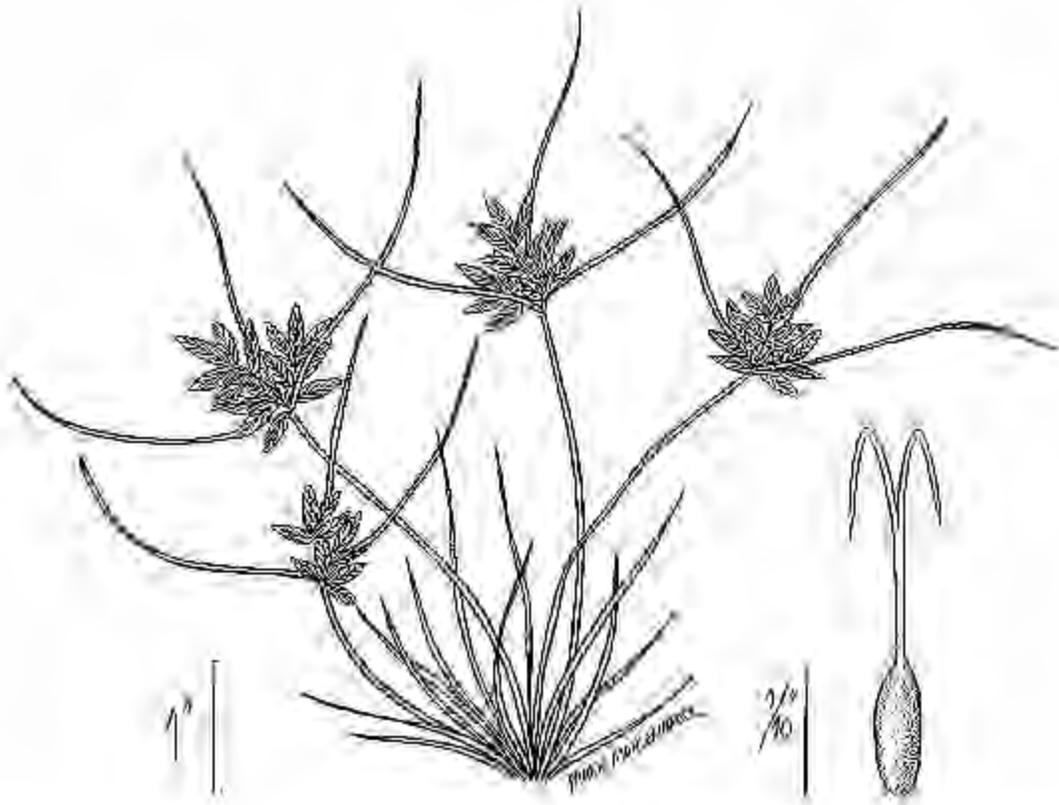
- **Family:** Sedge (Cyperaceae)
- **Flowering:** June-October.
- **Field Marks:** This flatsedge can be distinguished by its short, ovate, green spikelets with curved scales and the presence of only 1 stamen in each flower.
- **Habitat:** Marshes, roadside ditches, wet prairies, swamps, around ponds and lakes.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect, smooth, obscurely triangular, up to 2 1/2 feet tall.
- **Leaves:** Long, narrow, smooth along the edges, up to 1/4 inch broad.
- **Flowers:** One per scale, with many scales per spikelet, each spikelet 1/8-1/4 inch long, ovate, green, the entire cluster of spikelets subtended by 4-6 leaflike bracts.
- **Scales:** Elongated, folded, curved, pale green, pointed at the tip, 1/10 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 1.
- **Pistils:** 1; styles 3; ovary superior.
- **Fruits:** Achenes linear, curved, 1/20 inch long.



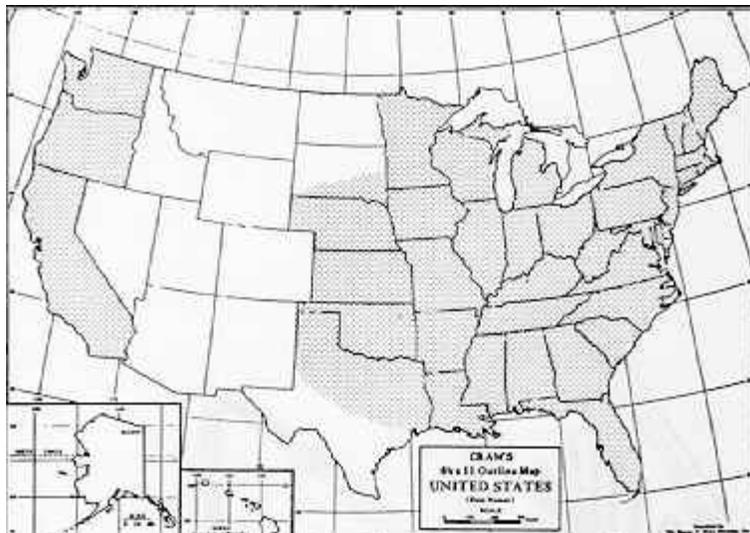
## Slender Flatsedge (*Cyperus rivularis*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** July-October.
- **Field Marks:** This flatsedge differs by its 2 styles cleft only to about the middle and its reddish scales. The spikelets are less than 1/8 inch wide.
- **Habitat:** Sandy soil along rivers, wet meadows, along streams.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Tufted, erect, slender, unbranched, smooth, up to 15 inches long.
- **Leaves:** Mostly at the base of the plant, elongated, up to 1/10 inch broad.
- **Flowers:** One per scale, with several scales comprising a spikelet, each spikelet up to 3/4 inch long and up to 1/8 inch wide, reddish; the cluster of spikelets subtended by 3 leaflike bracts.
- **Scales:** Ovate, rounded at the tip, reddish.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 2.
- **Pistils:** Styles 2-cleft to about the middle; ovary superior.
- **Fruits:** Achenes oblong, more or less flattened, dull, up to 1/10 inch long.



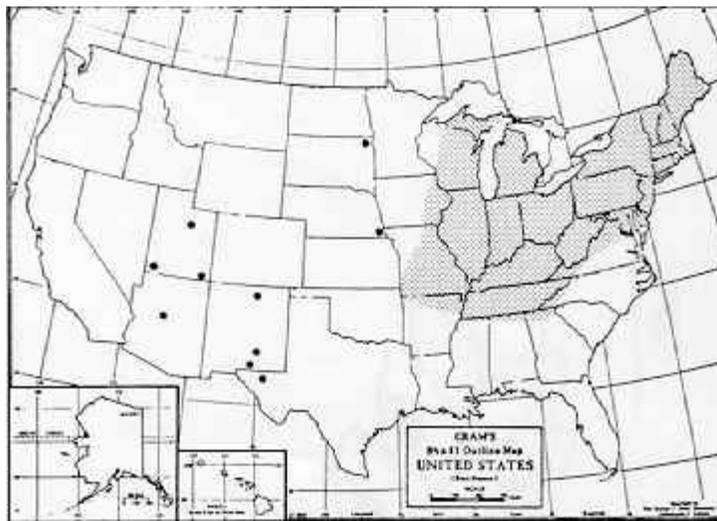
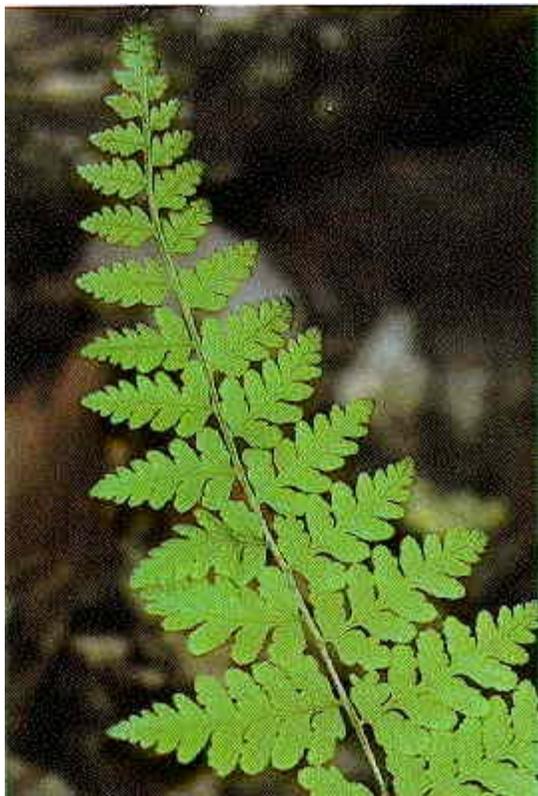
## Strawcolored Nutsedge (*Cyperus strigosus*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** July-October.
- **Field Marks:** This sedge is distinguished by its slender-pointed, straw-colored spikelets with pointed scales.
- **Habitat:** Moist fallow fields, wet prairies, along streams, around ponds and lakes.
- **Habit:** Usually stout perennial with short, thick rhizomes.
- **Stems:** Erect, smooth, triangular, up to 3 feet tall.
- **Leaves:** Long, narrow, somewhat rough along the edges, up to 1/3 inch broad.
- **Flowers:** One per scale, with many scales per spikelet, each spikelet narrowed to a slender point, straw-colored, up to 1 inch long, the entire cluster of spikelets subtended by 3-8 leaflike bracts.
- **Scales:** Broadly lanceolate, pointed at the tip, yellow to straw-colored, 1/8-1/4 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** 1; styles 3; ovary superior.
- **Fruits:** Achenes narrowly oblong, 3-angled, reddish, 1/20-1/10 inch long.



## Berry Bladderfern (*Cystopteris bulbifera*)



- **Family:** Fern (Polypodiaceae)
- **Spores:** June-September
- **Field Marks:** This fern possesses asexual bulblets on the under surface of the leaves, in addition to the rounded sori.
- **Habitat:** Moist, rocky woods, usually in limestone areas.
- **Habit:** Herbaceous fern with thickened rootstocks.
- **Stems:** The only stems are underground.
- **Leaves:** Pale green, 2 1/2 times pinnately compound, up to 2 feet long, each segment toothed, hairy; small bulblets sometimes formed on the lower leaf surface which fall to the ground and may develop into a new plant.
- **Leaf stalks:** Straw-colored, with transparent scales, up to 6 inches long.
- **Reproductive Bodies:** Round, scattered over the lower leaf surface.



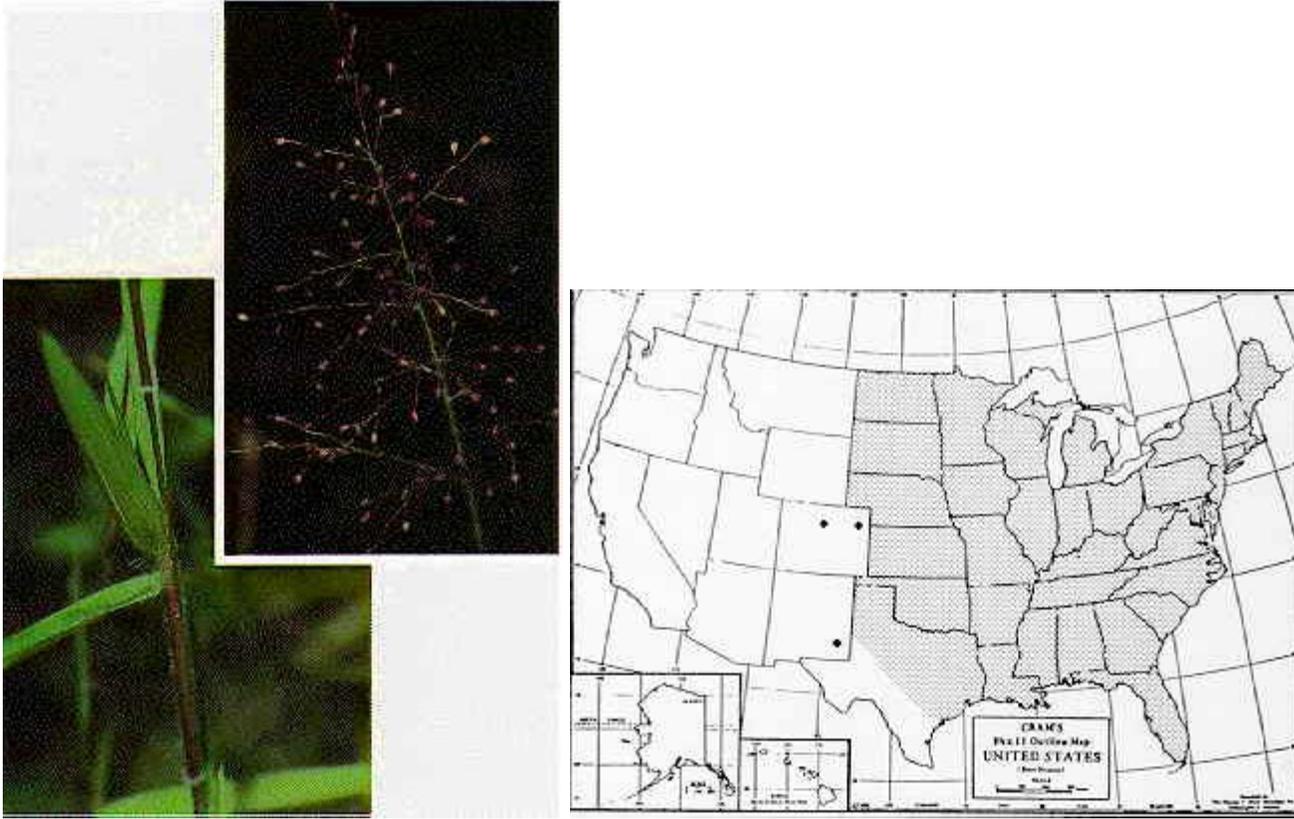
## Water Willow (*Decodon verticillatus*)



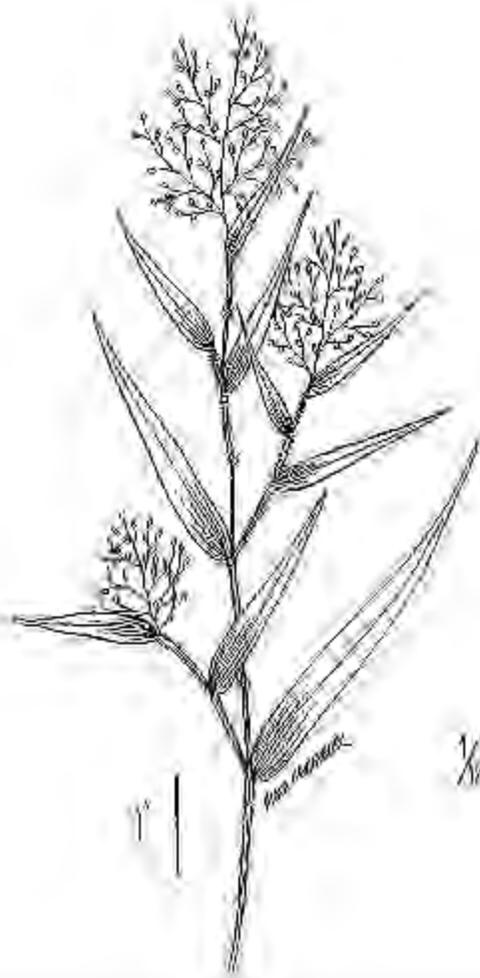
- **Family:** Loosestrife (Lythraceae)
- **Flowering:** July-September.
- **Field Marks:** This shrub is recognized by its opposite or sometimes whorled leaves, its pink-rose flowers in dense axillary clusters, and its spherical, dark brown capsules.
- **Habitat:** Swamps and sink-hole ponds, often in standing water; marshes; streams.
- **Habit:** Perennial herb or shrub but with a woody base, the tip of the stem capable of rooting and forming dense beds.
- **Stems:** Erect to arching, woody at least below, smooth to hairy, angular, up to 8 feet tall.
- **Leaves:** Opposite or sometimes in whorls of 3 or 4, simple, elliptic to lanceolate, pointed at the tip, tapering to the base, without teeth, smooth or hairy, up to 6 inches long, up to 1 1/2 inches wide, without stalks.
- **Flowers:** Several crowded in dense clusters in the axils of the uppermost leaves, up to 1 inch across, pink-rose, borne on stalks.
- **Sepals:** 5-7, united to form a cup, green, to 1/4 inch long.
- **Petals:** Usually 5, free, pink-rose, up to 1/2 inch long.
- **Stamens:** 10, with 5 of them longer than the other 5.
- **Pistils:** 1; style 1; ovary superior.
- **Fruits:** Capsules nearly spherical, dark brown, up to 1/3 inch in diameter; seeds numerous, reddish.
- **Notes:** Seeds of this plant are eaten by waterfowl. Muskrats sometimes eat the stems.



## Woolly Panicum (*Dichanthelium acuminatum*)

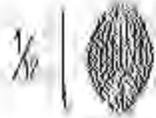


- **Family:** Grass (Poaceae)
- **Flowering:** May-September.
- **Field Marks:** This species is distinguished by its hairy spikelets less than 1/8 inch long and the ligules which are tufts of white hairs.
- **Habitat:** Along streams, wet meadows, wet prairies.
- **Habit:** Perennial grass with short rhizomes.
- **Stems:** Erect, usually branched, usually hairy, up to 2 feet tall.
- **Leaves:** Elongated, narrow, up to 1/3 inch broad, densely hairy to nearly smooth; ligule a tuft of white hairs.
- **Flowers:** Borne in 1-flowered spikelets, with many spikelets in a panicle, each spikelet obovoid, usually hairy, about 1/12 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Grains:** Ellipsoid, about 1/20 inch long.
- **Note:** This species does not occur in the western United States despite the listing in the National Wetlands Inventory.

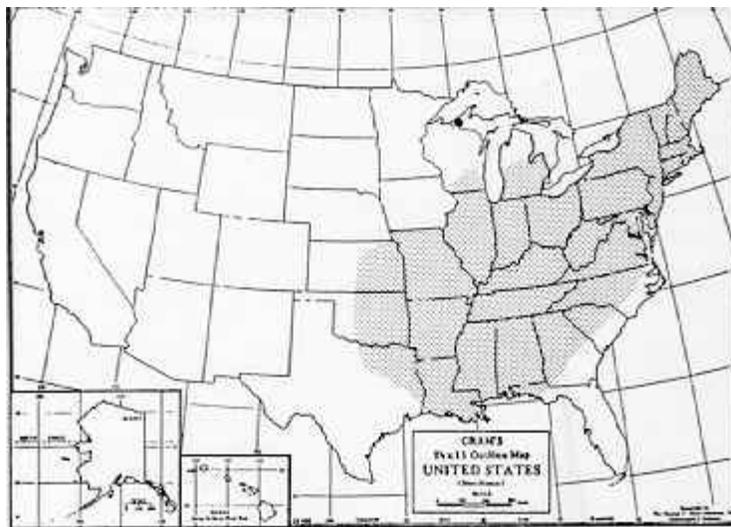
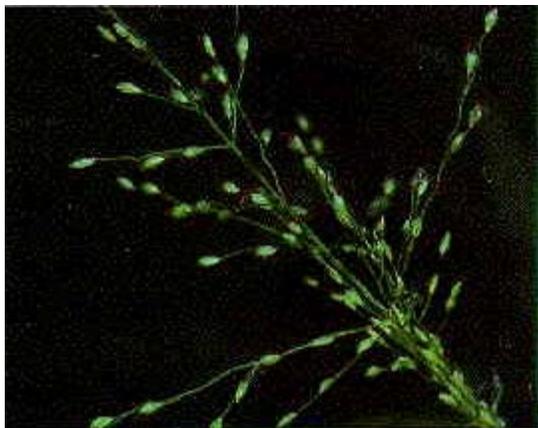


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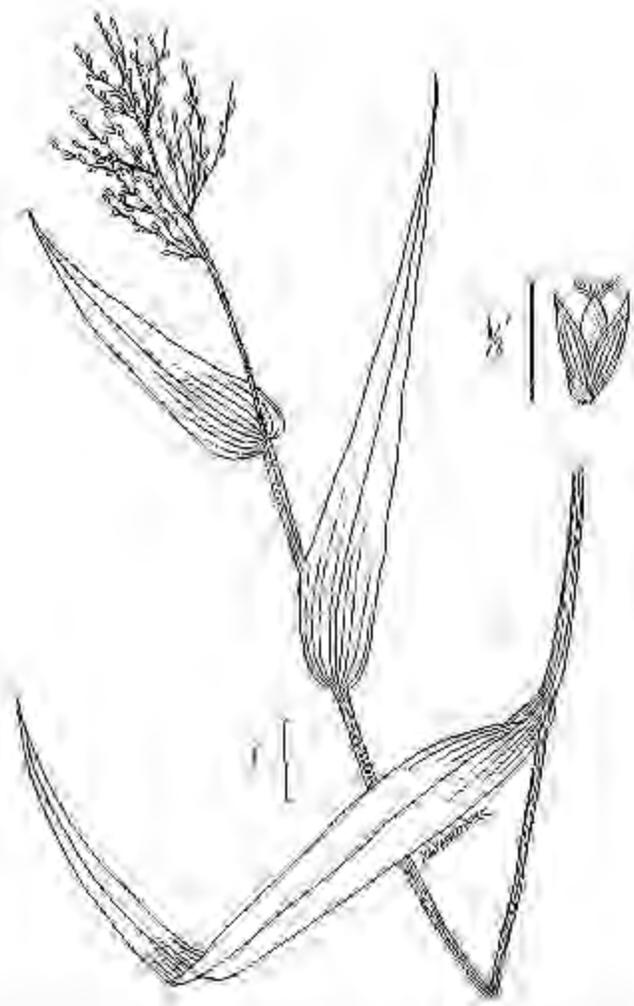
*Panicum capillare*



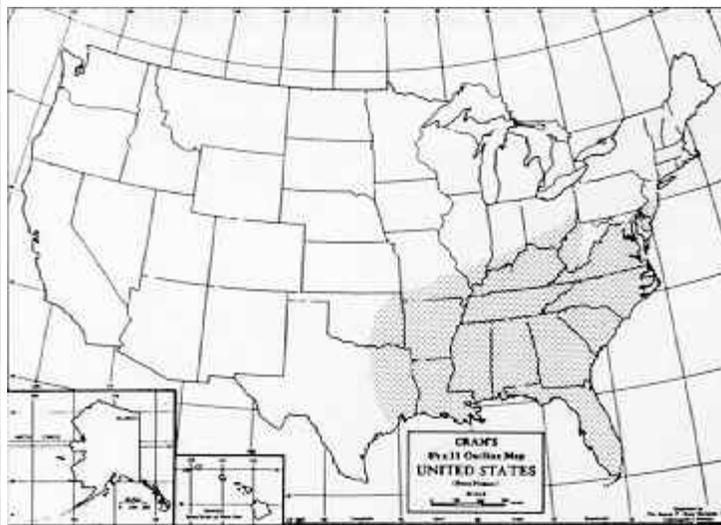
## Deertongue *Dichanthelium* (*Dichanthelium clandestinum*)



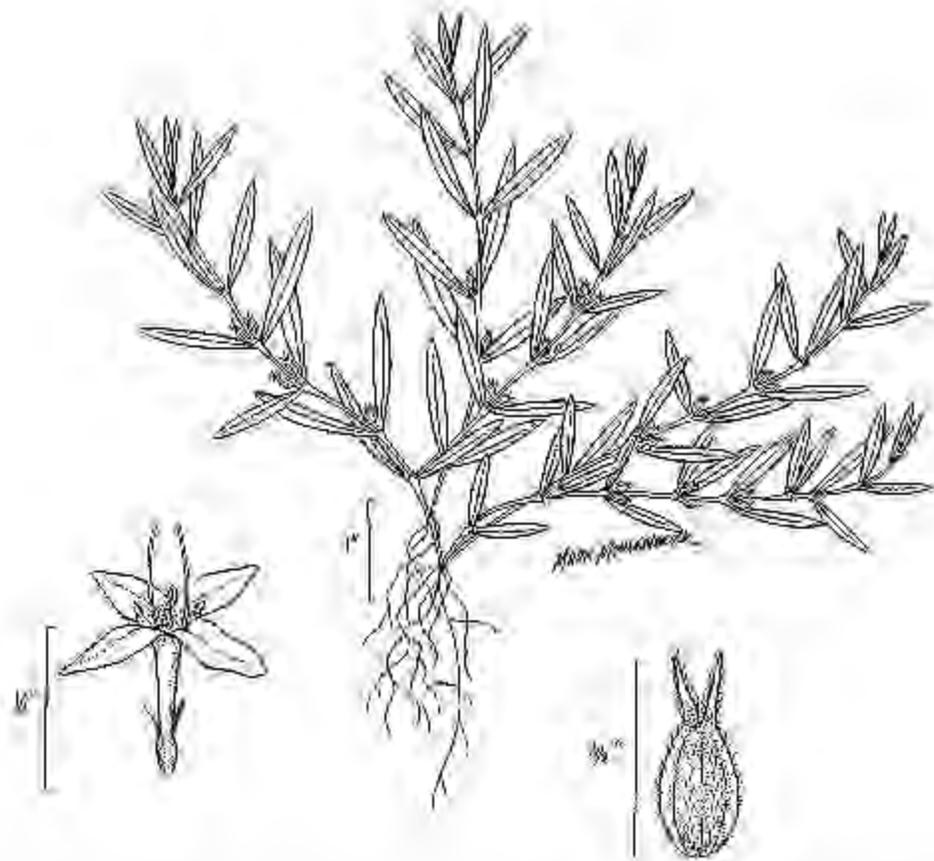
- **Family:** Grass (Poaceae)
- **Flowering:** May-July.
- **Field Marks:** This species is distinguished from all species of *Panicum* and *Dichanthelium* by its broad leaves at least 3/4 inch broad and its hairy spikelets at least 1/8 inch long. The sheaths of the leaf are covered with short, stiff hairs.
- **Habitat:** Along streams, wet prairies; also in drier habitats.
- **Habit:** Perennial grass with thickened rootstocks.
- **Stems:** Erect, branched or unbranched, usually smooth, up to 4 feet tall.
- **Leaves:** Alternate, simple, broadly lanceolate, acute at the tip, heart-shaped at the base, smooth on both surfaces but rough along the edges, up to 8 inches long, up to 1 1/4 inches broad, with sheaths covered with short, stiff hairs.
- **Flowers:** Borne singly in spikelets, with many spikelets in a panicle; each spikelet ellipsoid, at least 1/8 inch long, hairy.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Grains:** Smooth, about 1/10 inch long.
- **Notes:** This grass is sometimes known as *Panicum clandestinum*



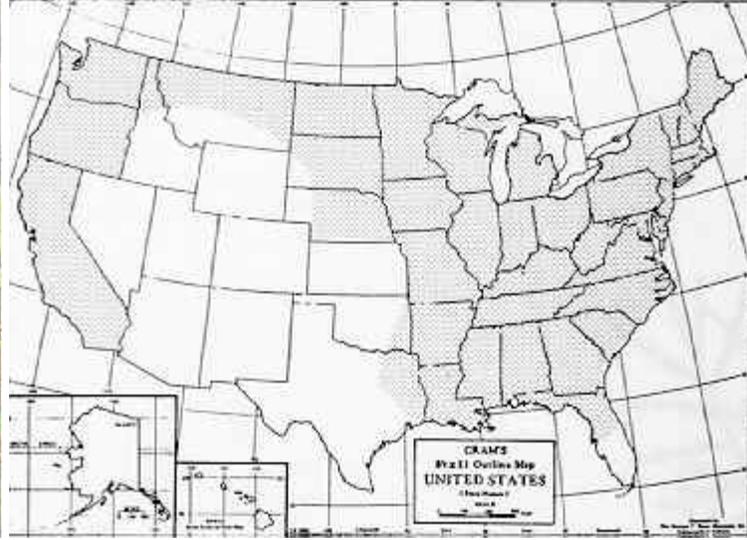
## Virginia Buttonweed (*Diodia virginiana*)



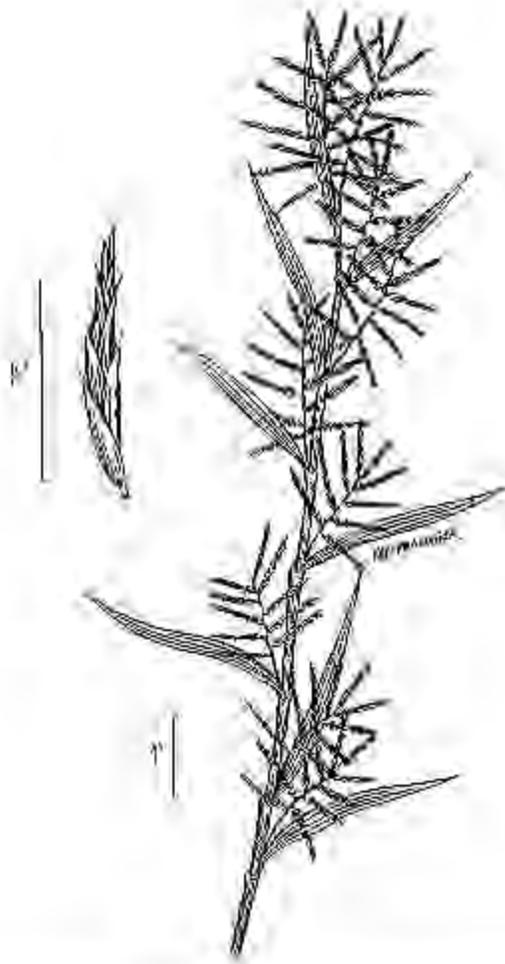
- **Family:** Madder (Rubiaceae)
- **Flowering:** June-September.
- **Field Marks:** Members of the genus *Diodia* are recognized by their bristle-like stipules at the base of the leaves and only 1-3 flowers in the axils of the leaves. Virginia buttonweed is further distinguished by having only 2 sepals.
- **Habitat:** Along streams, wet meadows, low woods, wet ditches, around ponds, swamps, damp fields, marshes.
- **Habit:** Annual herbs from fibrous roots.
- **Stems:** Spreading or sprawling, much branched, 4-angled, usually smooth or hairy on the angles, up to 2 feet long.
- **Leaves:** Opposite, simple, elliptic to lanceolate, pointed at the tip, tapering to the base, without teeth, smooth, up to 2 inches long, up to 1/2 inch wide.
- **Flowers:** 1-3 in the axils of the leaves, white, about 1/3 inch across.
- **Sepals:** 2, green, united below.
- **Petals:** 4, white, united to form a tube 1/3 inch long, the lobes spreading.
- **Stamens:** 4, attached to the corolla tube and usually just barely protruding above it.
- **Pistils:** Ovary inferior.
- **Fruits:** Leathery, hairy, ellipsoid, 1/4-1/3 inch long, splitting into two 1-seeded segments.
- **Notes:** The fruits of this species are eaten by waterfowl.



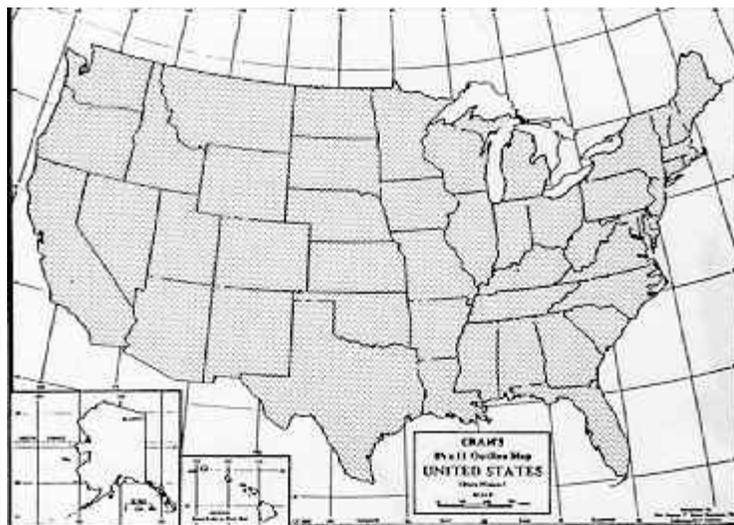
## Three-way Sedge (*Dulichium arundinaceum*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** July-September.
- **Field Marks:** This is one of the easiest sedges to recognize, even if not flowering, because of the perfect three ranks in which the leaves are arranged. (Look straight down on the plant to observe this.) The stems are hollow.
- **Habitat:** Swamps, bogs, sink-hole ponds.
- **Habit:** Perennial herb with extensive rhizomes.
- **Stems:** Erect, jointed, smooth, round or only obscurely triangular, hollow, up to 3 feet tall.
- **Leaves:** Alternate, simple, linear, perfectly 3-ranked, pointed at the tip, smooth or slightly rough along the edge, up to 3 inches long, about 1/4 inch broad.
- **Flowers:** One per scale, with many scales per spikelet, each spikelet pointed at the tip, up to 1 inch long.
- **Scales:** Brownish green, pointed, up to 1/3 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** 1; styles 2; ovary superior.
- **Fruits:** Achenes are eaten by waterfowl.



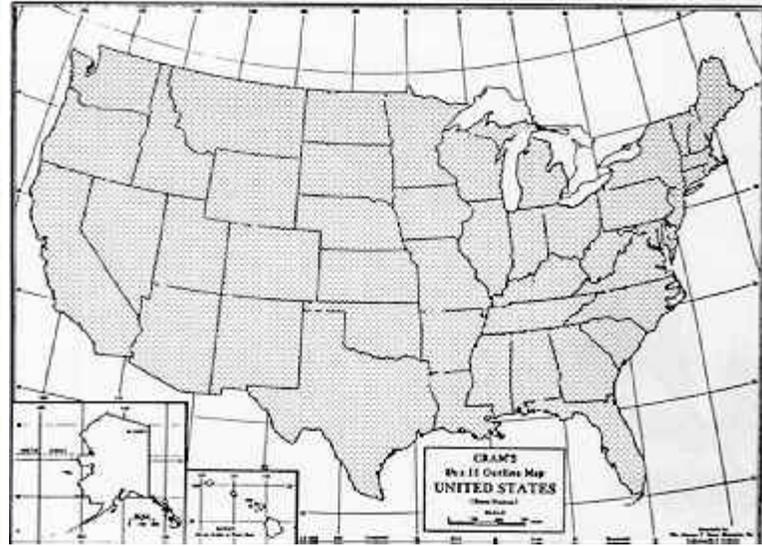
## Barnyard Grass (*Echinochloa crusgalli*)



- **Family:** Grass (Poaceae)
- **Flowering:** June-November.
- **Field Marks:** This grass differs from the very similar wild millet by its soft-tipped lemmas.
- **Habitat:** Wet ground, usually in disturbed areas.
- **Habit:** Perennial herb with tufts of fibrous roots.
- **Stems:** Erect, smooth, branched or unbranched, up to 6 feet tall.
- **Leaves:** Long and narrow, up to 1 1/2 inches broad, usually slightly rough to the touch; sheaths smooth or with broad-based hairs.
- **Flowers:** 1 per spikelet, with many spikelets grouped to form spikes, the spikes in turn forming a panicle up to 1 foot long; spikelets ovoid, 1/6-1/4 inch long; lemmas with a soft tip, with or without a terminal awn.
- **Grains:** About 1/10 inch long.
- **Notes:** The grains are eaten by waterfowl.



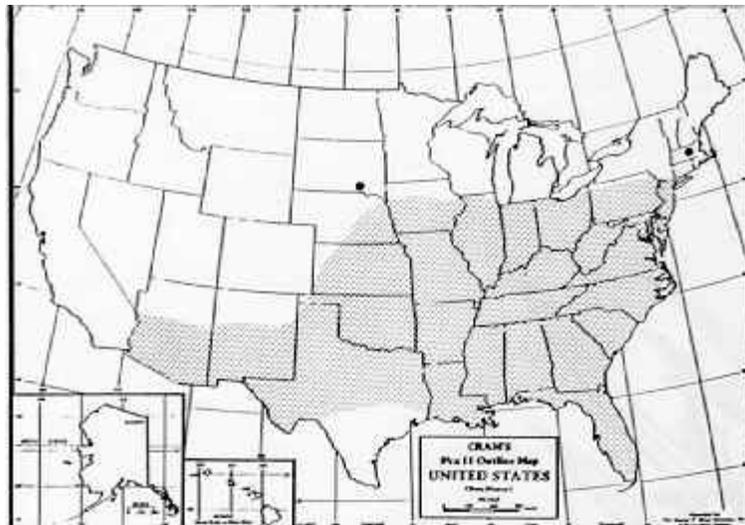
## Wild Millet (*Echinochloa muricata*)



- **Family:** Grass (Poaceae)
- **Flowering:** July-October.
- **Field Marks:** This grass is recognized by its usually awned, 1-flowered spikelets. It differs from the very similar barnyard grass by the firm tip on its lemmas.
- **Habitat:** Fallow fields, in sloughs, along rivers and streams, around lakes and ponds.
- **Habit:** Coarse perennial with tufts of fibrous roots.
- **Stems:** Erect, smooth, branched or unbranched, up to 6 feet tall.
- **Leaves:** Alternate, long and narrow, up to 1 1/4 inches broad, sometimes slightly rough to the touch; sheaths smooth or with broad-based hairs.
- **Flowers:** 1 per spikelet, with many spikelets grouped to form spikes, the spikes in turn forming a panicle up to 1 foot long; spikelets ovoid, 1/6-1/4 inch long; lemmas with a firm tip, some of the lemmas usually with a terminal awn.
- **Grains:** About 1/10 inch long.
- **Notes:** The grains are eaten by waterfowl.



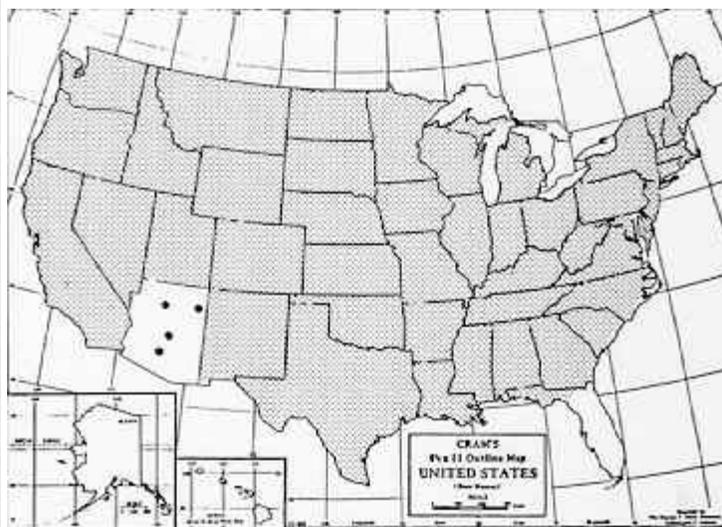
## Yerba de Tajo (*Eclipta alba*)



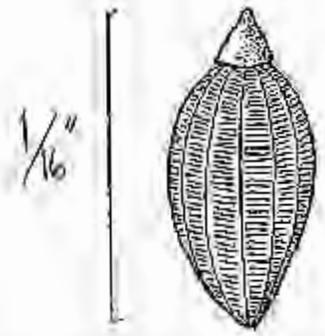
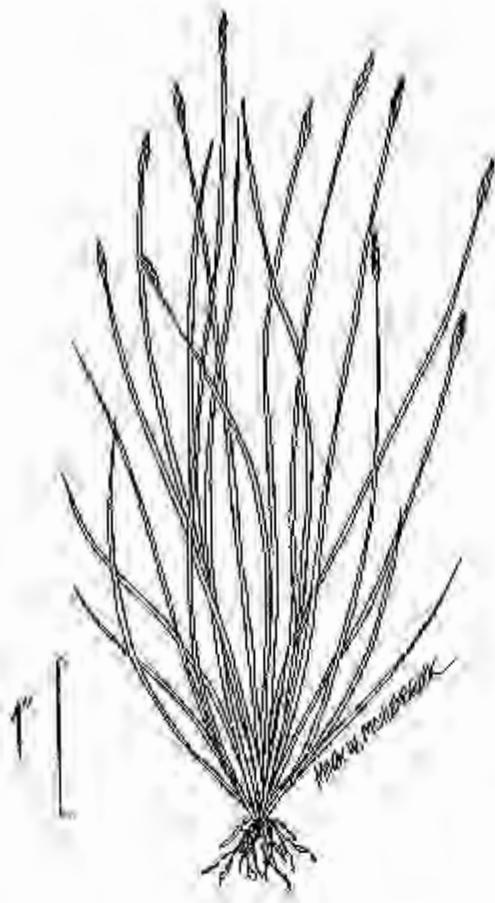
- **Family:** Aster (Asteraceae)
- **Flowering:** June-October.
- **Field Marks:** This member of the aster family is distinguished by its opposite leaves and small heads of white flowers containing both ray and disk flowers.
- **Habitat:** Wet, often disturbed soil; fallow fields, old fields, bogs, along streams, meadows, around ponds and lakes, marshes.
- **Habit:** Erect or spreading annual herbs with fibrous roots.
- **Stems:** Erect or spreading, hairy, to 3 feet long, often rooting at the nodes.
- **Leaves:** Opposite, simple, elliptic to linear-lanceolate, pointed at the tip, tapering to the base, with or without a few small teeth, hairy, up to 5 inches long, up to 1 1/4 inches broad; leaf stalks short or absent.
- **Flowers:** Many crowded into a head, each head up to 1/2 inch across and subtended by 10-12 narrow, hairy, green bracts, the outer flowers white and ray-like, the inner white and tubular, forming a disk.
- **Sepals:** 0.
- **Petals:** Some white, short, ray-like, others white, 4-parted, forming a short tube.
- **Stamens:** 5.
- **Pistils:** Ovary inferior, hairy.
- **Fruits:** Achenes obovoid, brown, hairy at the tip, about 1/10 inch long.
- **Notes:** Recently this plant has been called *E. prostrata* by some.



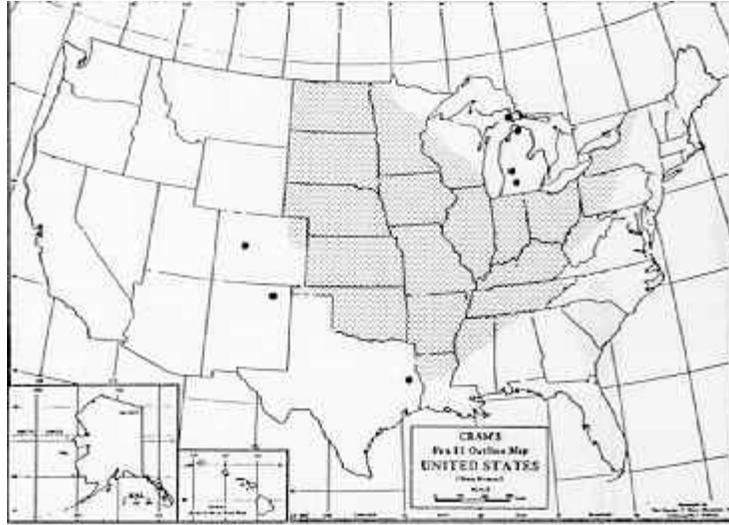
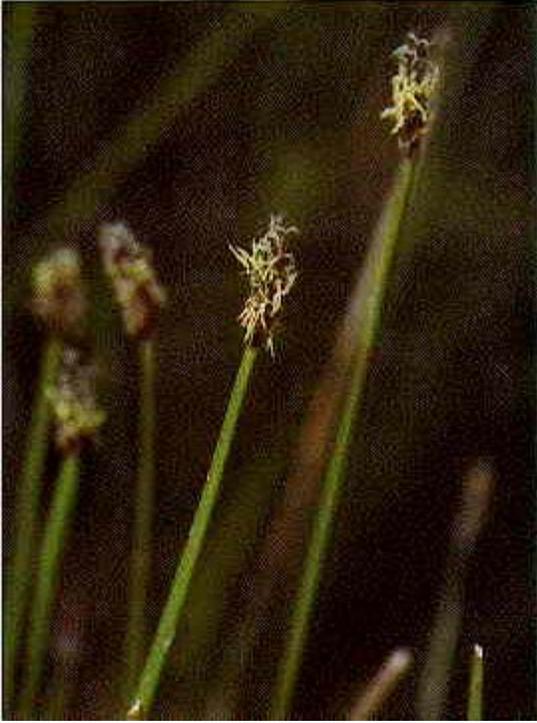
## Needle Spikerush (*Eleocharis acicularis*)



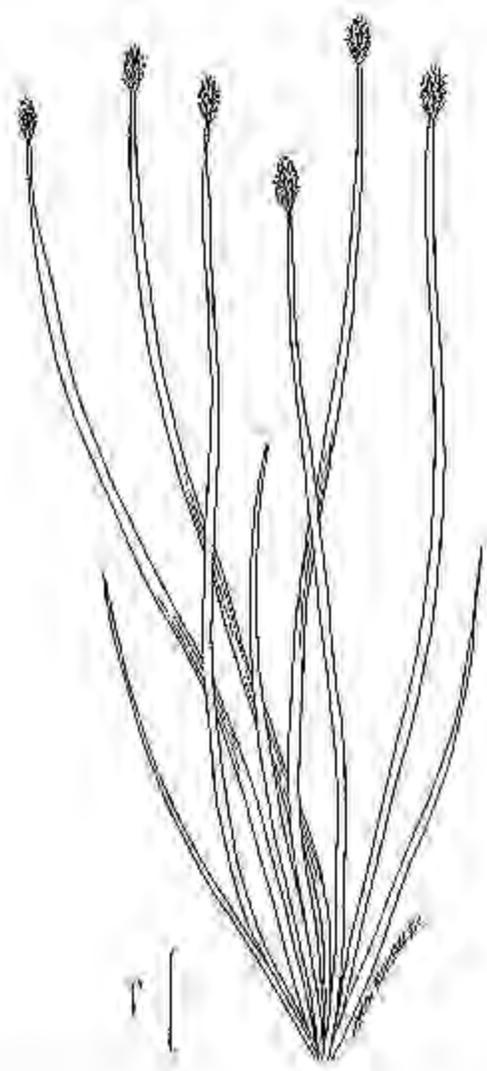
- **Family:** Sedge (Cyperaceae)
- **Flowering:** June-October.
- **Field Marks:** This species is readily distinguished from other spikerushes by its thread-like stems and tiny, sharply pointed spikelets.
- **Habitat:** Around ponds and lakes, edge of marshes.
- **Habit:** Perennial herb with slender stolons.
- **Stems:** Erect or usually matted, thread-like, smooth, up to 6 inches long.
- **Leaves:** 0.
- **Flowers:** Borne in single spikelets at the tip of each stem; the spikelets lanceoloid, sharply pointed at the tip, up to 1/4 inch long.
- **Scales:** Oblong, rounded or slightly pointed at the tip, up to 1/10 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Style 3-cleft; ovary superior.
- **Fruits:** Achenes obovoid, yellowish, shiny, with a network pattern on the surface, up to 1/16 inch long, with a cone-shaped tubercle on the top.



## Flat-stemmed Spikerush (*Eleocharis compressa*)



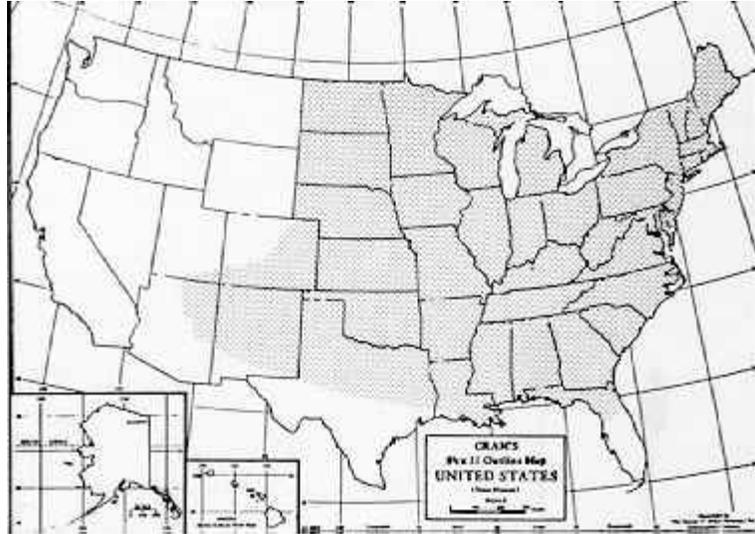
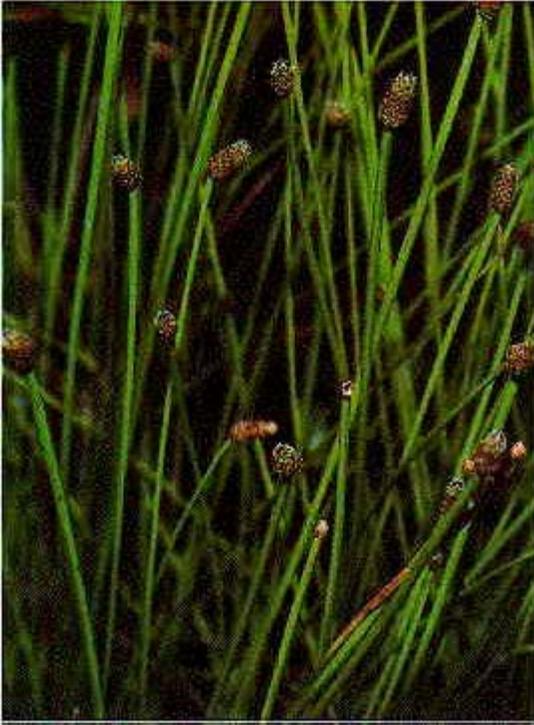
- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-July.
- **Field Marks:** The stems, which are flattened just beneath the spikelets, distinguish this species.
- **Habitat:** Wet prairies, roadside ditches.
- **Habit:** Perennial herb with stout rootstocks.
- **Stems:** Erect, flattened at least just below the spikelet, smooth, up to 2 feet tall.
- **Leaves:** 0.
- **Flowers:** Crowded into a solitary, terminal spikelet; the spikelet ovoid to oblongoid, pointed at the tip, up to 1/2 inch long.
- **Scales:** Oblong to narrowly ovate.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Style 3-cleft; ovary superior.
- **Fruits:** Achenes obovoid, 3-angled, pale yellow-brown, slightly warty, with a short, flat, pointed tubercle, subtended by 1-5 slender bristles.



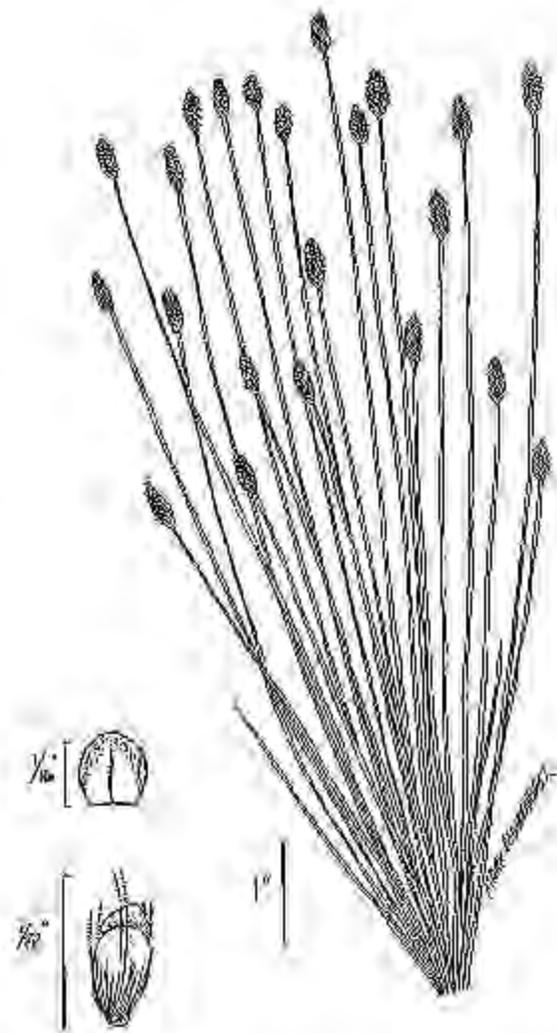
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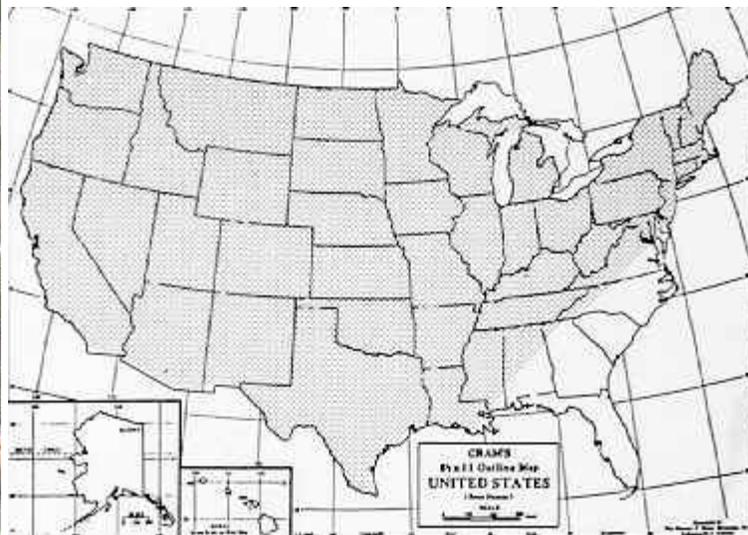
## Blunt Spikerush (*Eleocharis obtusa*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** June-October.
- **Field Marks:** The distinguishing features of this spikerush are the very blunt spikelets up to 1/2 inch long.
- **Habitat:** Roadside ditches, along streams and rivers, around ponds and lakes.
- **Habit:** Tufted annual from fibrous roots.
- **Stems:** Erect, smooth, unbranched, up to 18 inches long.
- **Leaves:** Reduced to sheaths.
- **Flowers:** One per scale, with several scales per spikelet, each spikelet ovoid to ellipsoid, rounded or slightly pointed at the tip, up to 1/2 inch long.
- **Scales:** Ovate to obovate, usually rounded at the tip, brown, 1/16-1/10 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** 1; styles 2 or 3; ovary superior.
- **Fruits:** Achenes yellow to brown, shiny, obovoid, about 1/20 inch long, capped by a small, flat tubercle, subtended by 6 barbed bristles.
- **Notes:** The achenes are eaten by waterfowl.



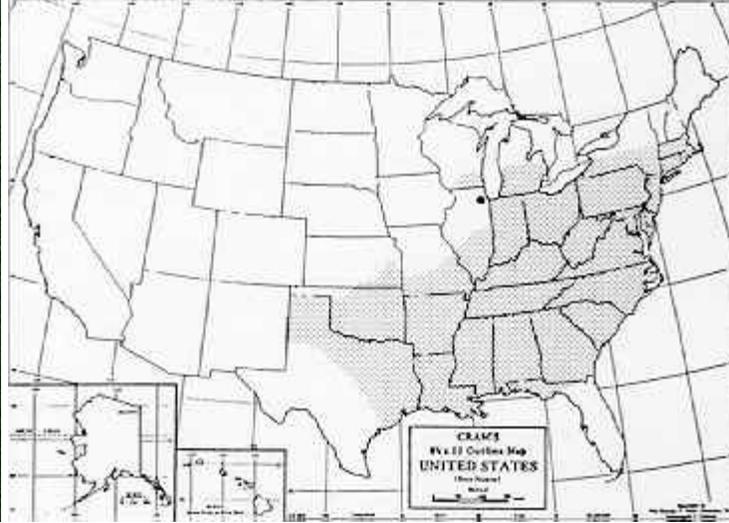
## Creeping Spikerush (*Eleocharis palustris*)



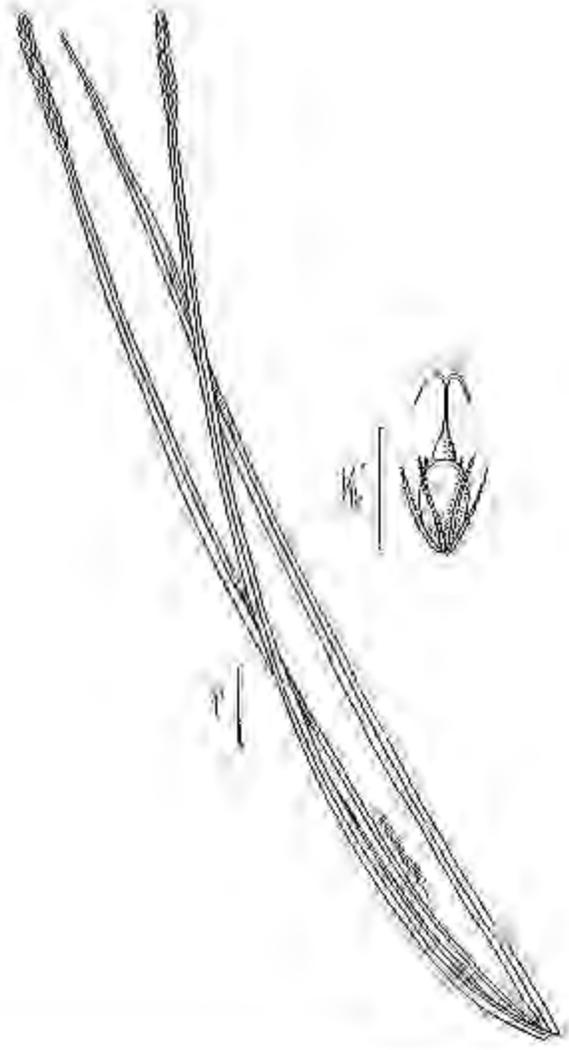
- **Family:** Sedge (Cyperaceae)
- **Flowering:** June-August.
- **Field Marks:** This spikerush may be recognized by the presence of rhizomes and its flat achenes with a conspicuous tubercle.
- **Habitat:** Roadside ditches, along streams and rivers, around ponds and lakes.
- **Habit:** Perennial herb with creeping rhizomes.
- **Stems:** Upright, smooth, unbranched, up to 2 feet tall.
- **Leaves:** Reduced to sheaths.
- **Flowers:** One per scale, with several scales per spikelet, each spikelet lanceoloid to ovoid, usually pointed at the tip, up to 1 1/2 inches long.
- **Scales:** Ovate to obovate, usually rounded at the tip, brown, 1/16-1/10 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 2 or 3.
- **Pistils:** 1; styles 2 or 3; ovary superior.
- **Fruits:** Achenes yellow, not triangular, obovoid, about 1/20 inch long, capped by a small, conspicuous tubercle, subtended by 3-6 barbed bristles.
- **Notes:** The achenes are eaten by waterfowl.



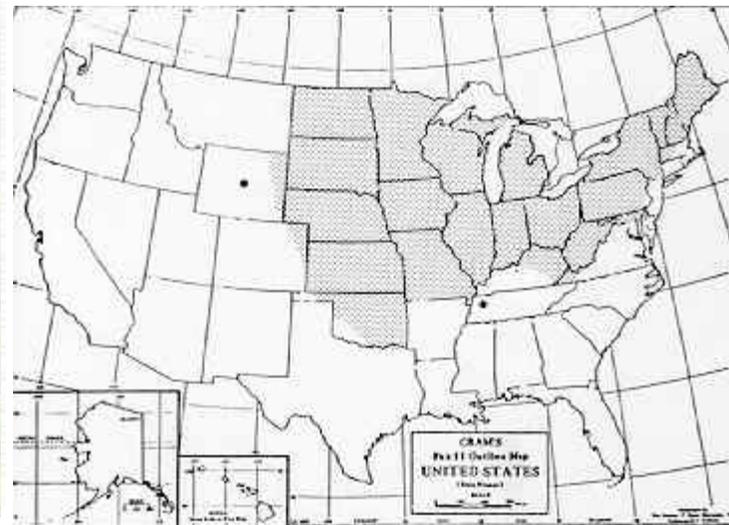
## Squarestem Spikerush (*Eleocharis quadrangulata*)



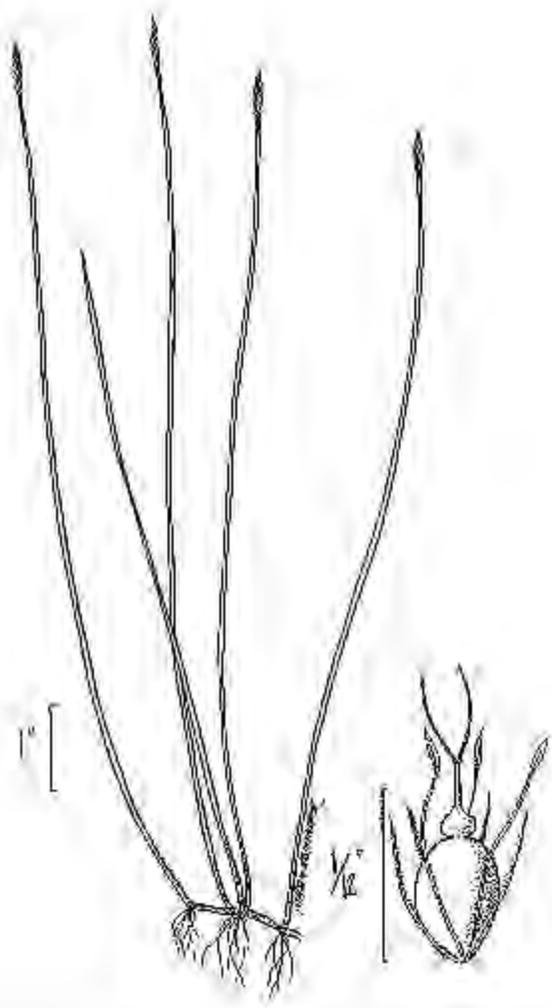
- **Family:** Sedge (Cyperaceae)
- **Flowering:** June-October.
- **Field Marks:** The square stems and the spike usually no broader than the stem are the distinguishing features.
- **Habitat:** Along streams, around ponds and lakes.
- **Habit:** Perennial herb with stout rootstocks.
- **Stems:** Erect, smooth, 4-sided, up to 4 feet tall.
- **Leaves:** 0.
- **Flowers:** Borne in a single spikelet at the tip of each stem, the spikelets not much broader than the stem, cylindrical, up to 2 inches long.
- **Scales:** Broadly ovate, rounded or somewhat pointed at the tip.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Style 3-cleft; ovary superior.
- **Fruits:** Achenes obovoid, up to 1/16 inch long, with a narrow, cone-shaped tubercle on the top.
- **Notes:** The achenes are eaten by waterfowl. This species is listed for region 10 in the National Wetlands Inventory list, but *Flora of the Pacific Northwest* by Hitchcock and Cronquist (1973) does not record it for California.



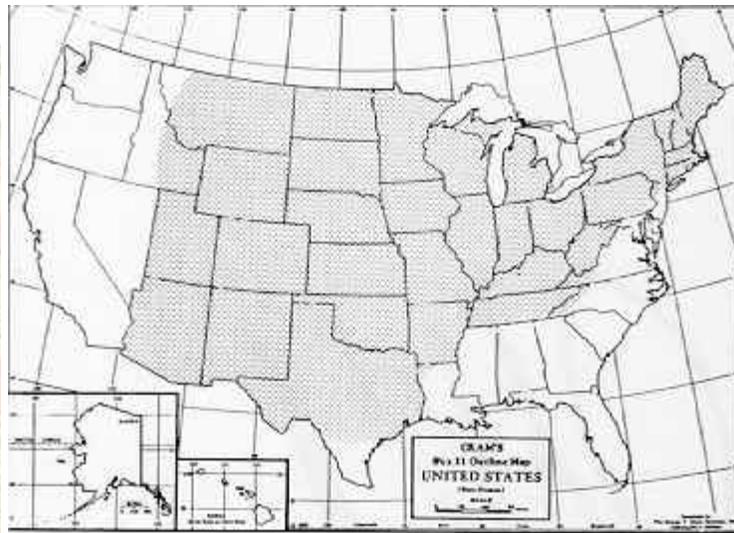
## Small's Spikerush (*Eleocharis smallii*)



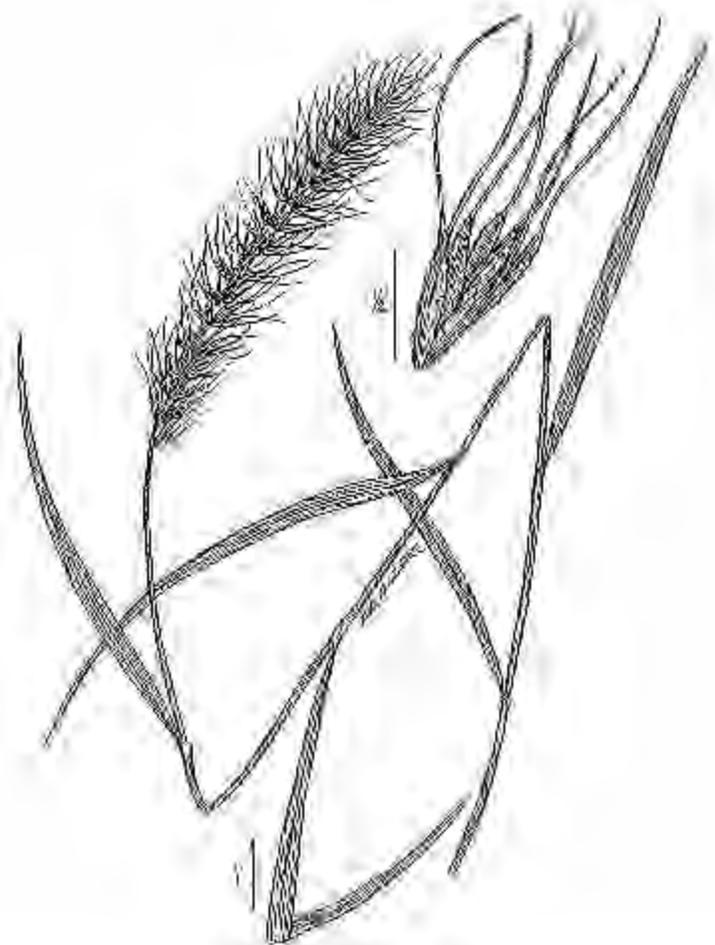
- **Family:** Sedge (Cyperaceae)
- **Flowering:** June-September.
- **Field Marks:** This species differs by its creeping rhizomes, its pointed spikelets, and its very slender stems.
- **Habitat:** Swamps, around ponds and lakes, wet meadows, wet prairies, roadside ditches.
- **Habit:** Perennial herb with extensive creeping rhizomes.
- **Stems:** Erect, very slender, smooth, up to 2 feet tall.
- **Leaves:** 0.
- **Flowers:** Crowded into a solitary, terminal spikelet; the spikelet lanceoloid, pointed at the tip, up to 2/3 inch long.
- **Scales:** Broadly lanceolate, tapering to a slender tip.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Ovary superior, usually 2-cleft.
- **Fruits:** Achenes obovoid, dark brown, shiny, up to 1/12 inch long, with a spherical tubercle at the tip about half as wide as the achene.
- **Notes:** The achenes are eaten by waterfowl.



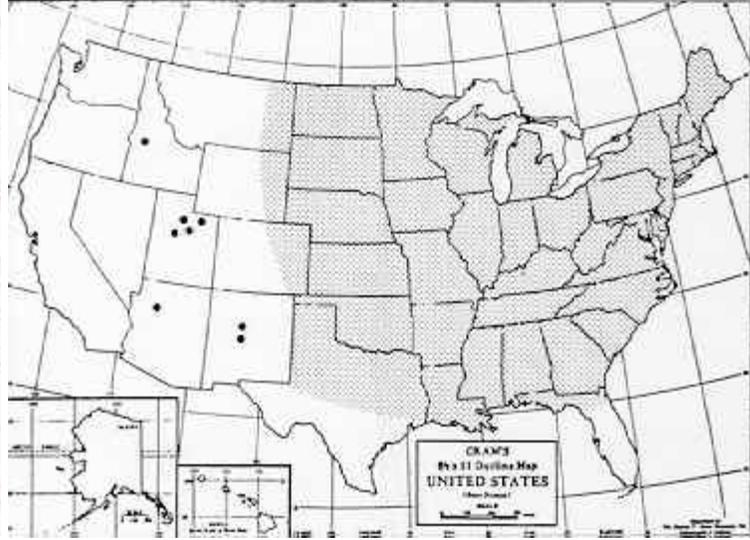
## Canada Wildrye (*Elymus canadensis*)



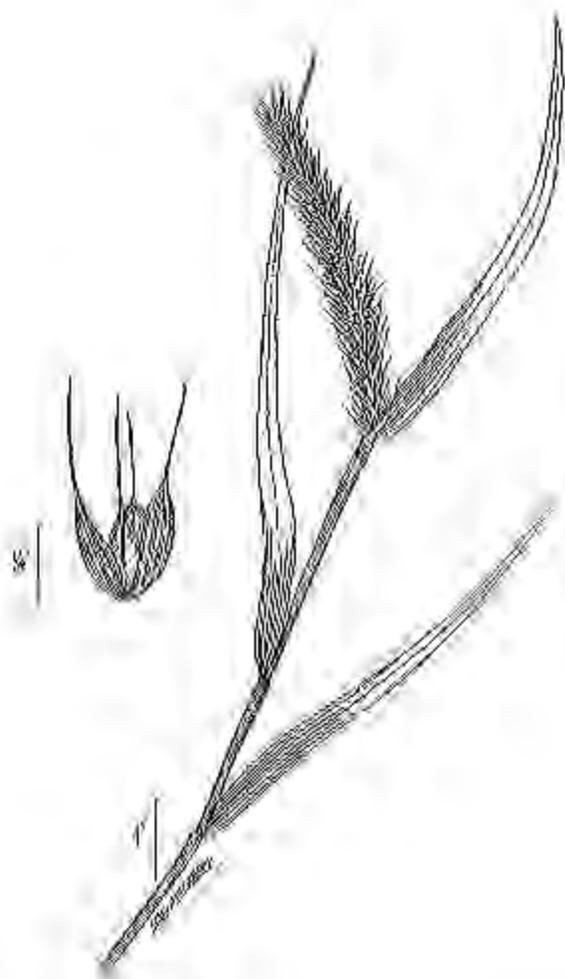
- **Family:** Grass (Poaceae)
- **Flowering:** July-October.
- **Field Marks:** The Canada wild rye differs from other wild ryes by its arching spikes and its long awns which tend to twist at maturity.
- **Habitat:** Alluvial woods; banks of rivers; sandy beaches; also in many dry habitats.
- **Habit:** Perennial tufted herb with short rhizomes.
- **Stems:** Erect, smooth, branched, up to 5 feet tall.
- **Leaves:** Long, narrow, smooth or rough on both surfaces, pointed and mostly inrolled at the tip, up to 2/3 inch broad.
- **Flowers:** 2-4 per spikelet, the spikelets several in dense, arching spikes, each spike up to 6 inches long; glumes slightly roughened, very narrow, each with an awn up to 1 1/2 inches long; lemmas roughened, up to 1/2 inch long, each with a curved awn up to 2 inches long.
- **Grains:** Sparsely hairy at the tip.
- **Notes:** This species is sometimes called nodding wild rye. The vegetative parts of this grass are palatable to livestock.



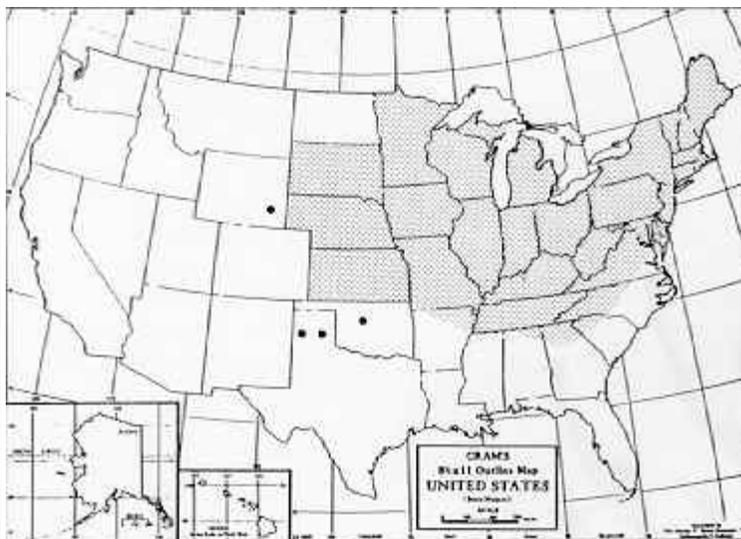
## Virginia Wildrye (*Elymus virginicus*)



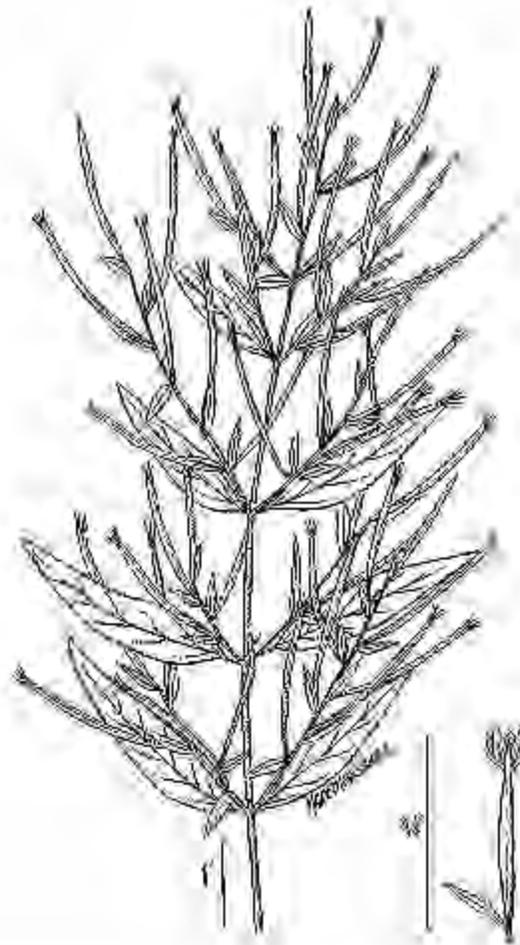
- **Family:** Grass (Poaceae)
- **Flowering:** June-October.
- **Field Marks:** Virginia wildrye is distinguished by its relatively stiff, erect spikes, many of which are enclosed at the base by the subtending sheath.
- **Habitat:** Low woods, along streams, and in many dry habitats.
- **Habit:** Perennial tufted herb with short rhizomes.
- **Stems:** Erect, smooth, unbranched, up to 3 feet tall.
- **Leaves:** Long, narrow, smooth or hairy on the upper surface, rough on the lower surface, up to 1/2 inch wide.
- **Flowers:** 2-6 per spikelet, the spikelets several in dense, stiff, erect spikes, the spikes up to 5 inches long, the lower part of the spike often enclosed by the sheath; glumes smooth or hairy, up to 1 1/2 inches long; lemmas smooth or hairy, up to 1/2 inch long, each with a straight awn up to 1 1/2 inches long.
- **Grains:** Sparsely hairy at the tip.
- **Notes:** This species is palatable to livestock.



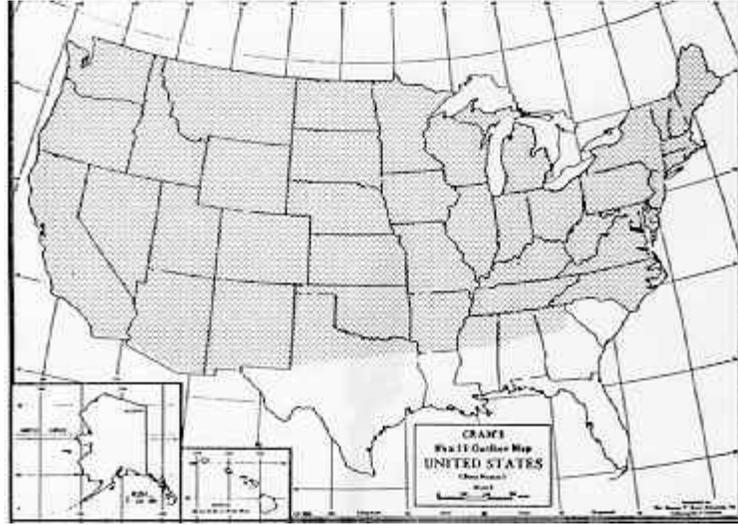
## Purpleleaf Willowweed (*Epilobium coloratum*)



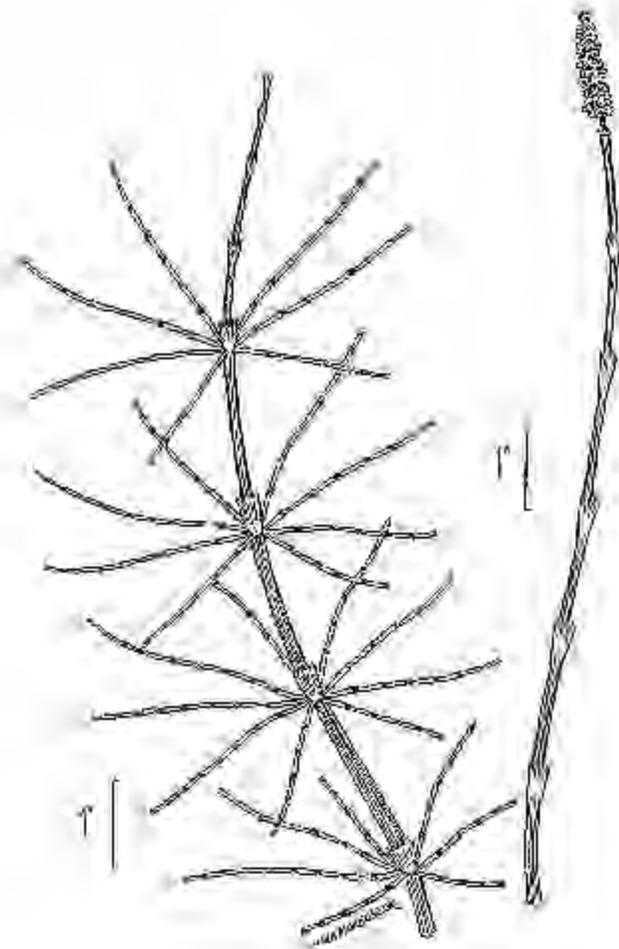
- **Family:** Evening Primrose (Onagraceae)
- **Flowering:** June-October.
- **Field Marks:** This willowweed is distinguished by its uncleft stigmas, its leaves with stalks, and the cinnamon-brown hairs attached to its seeds.
- **Habitat:** Wet meadows, along streams, in wet ditches.
- **Habit:** Perennial herb with fibrous roots.
- **Stems:** Erect, branched, hairy at least in the upper half, up to 3 feet tall.
- **Leaves:** Opposite or a few upper ones sometimes alternate, simple, lanceolate to elliptic-lanceolate, pointed at the tip, rounded or tapering to the base, shallowly toothed, smooth or hairy, up to 3 1/2 inches long, up to 2/3 inch broad; leaf stalk very short.
- **Flowers:** Several to numerous, borne in panicles, up to 3/4 inch long.
- **Sepals:** 4, united below, ovate, hairy, up to 1/6 inch long.
- **Petals:** 4, free from each other, pink or white, up to 1/6 inch long.
- **Stamens:** 8.
- **Pistils:** 1; ovary inferior.
- **Fruits:** Capsules linear, up to 2 inches long, about 1/20 inch wide, hairy, brown, on stalks up to 1/2 inch long; seeds numerous, with a tuft of cinnamon-brown hairs at the tip.



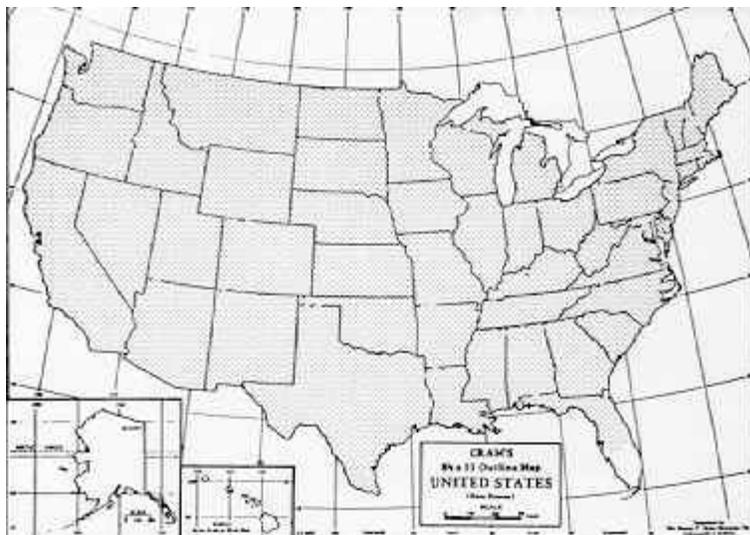
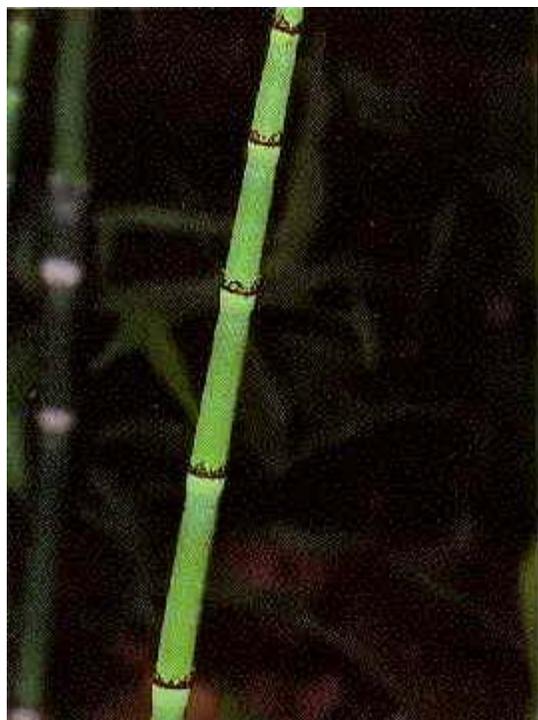
## Field Horsetail (*Equisetum arvense*)



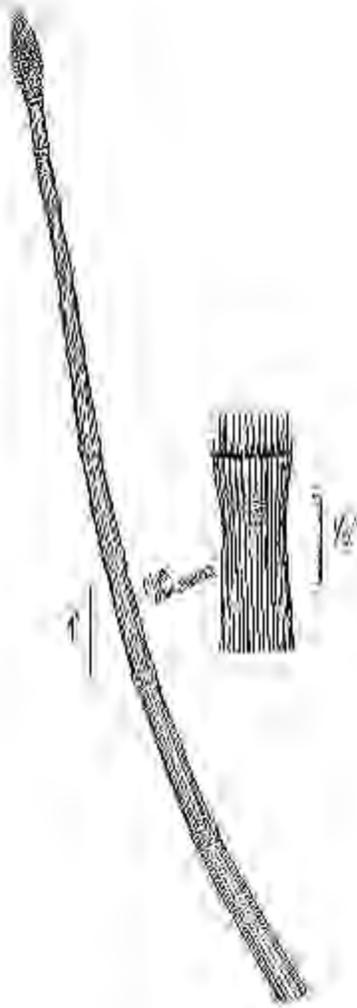
- **Family:** Horsetail (Equisetaceae)
- **Spores:** May
- **Field Marks:** This *Equisetum* has many slender stems arising from the main stem in whorls.
- **Habitat:** Along streams, wet ground; common in railroad ballast.
- **Habit:** Annual herb.
- **Stems:** Of 2 kinds: the cone-bearing stem unbranched, brownish to 10 inches tall; the sterile stems up to 2 feet tall, green, with whorls of slender branches.
- **Leaves:** Reduced to whorls of slender teeth at each joint on the stem.
- **Cones:** Borne at the tips of unbranched stems, narrowly ovoid, up to 1 inch long.



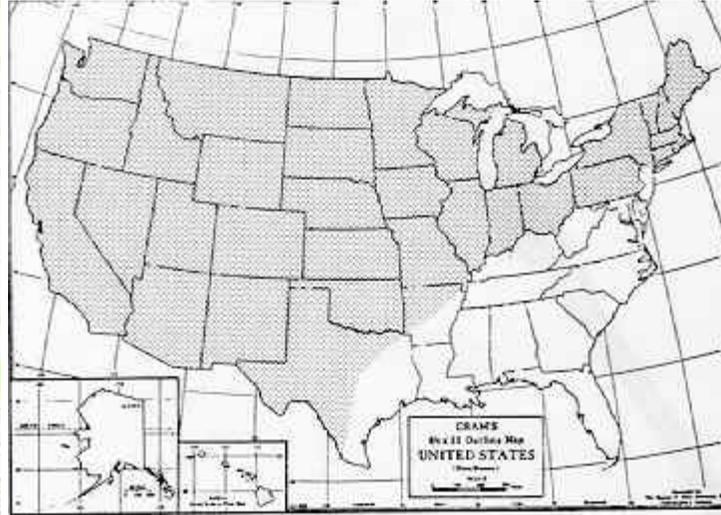
## Scouringrush Horsetail (*Equisetum hyemale*)



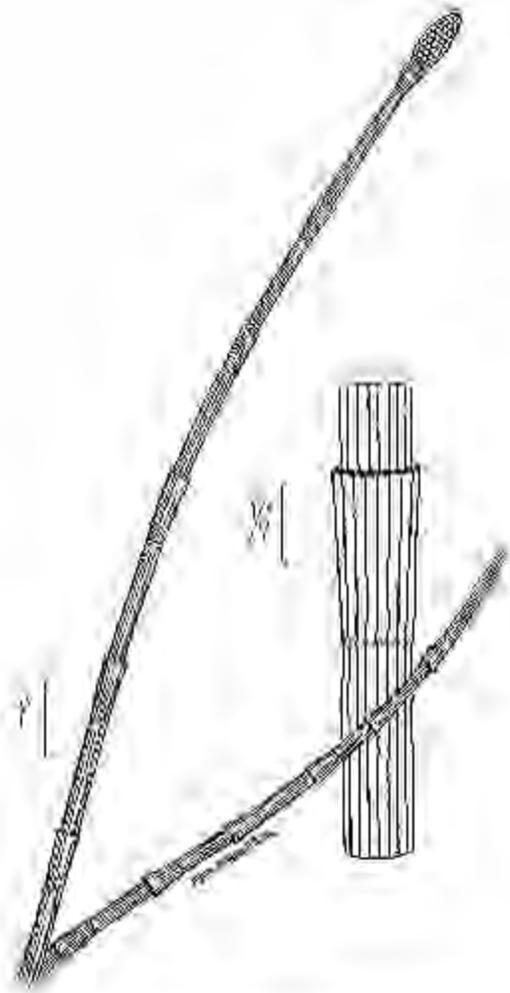
- **Family:** Horsetail (Equisetaceae)
- **"Cones":** May-September
- **Field Marks:** This *Equisetum* lacks lateral branches, sheds its tiny scale-like teeth on the sheaths during the growing season, and has a "cone" usually at least 1/2 inch long.
- **Habitat:** Along streams, roadsides and railroads, alluvial soil.
- **Habit:** Perennial with black rhizomes.
- **Stems:** Erect, usually unbranched, jointed, green, grooved, slightly rough to the touch, up to 4 feet tall, evergreen.
- **Leaves:** Reduced to a ring of teeth at each joint on the stem, the teeth black and falling away during the growing season.
- **Fruits:** Spores borne in terminal "cones" 1/2-1 inch long, pointed at the tip.
- **Notes:** This species was used by the early settlers to scour and clean pots and pans.



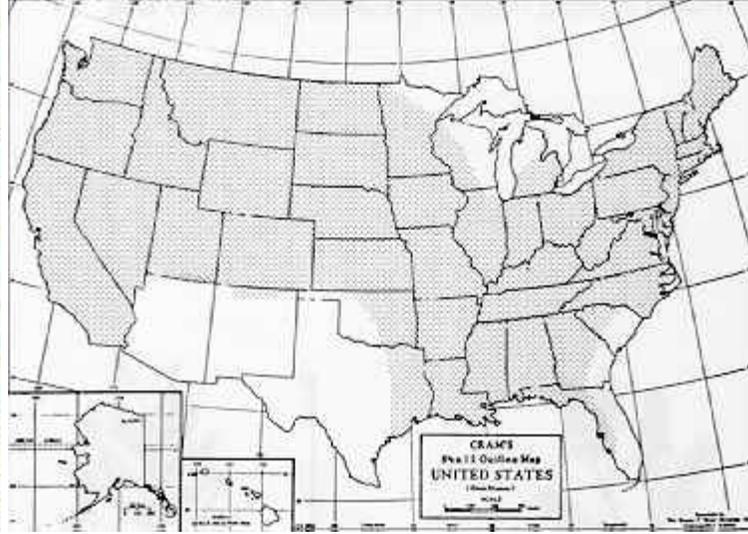
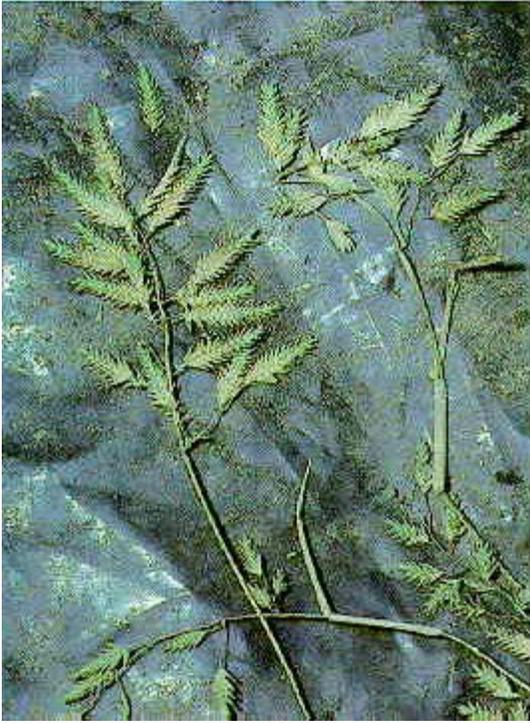
## Smooth Horsetail (*Equisetum laevigatum*)



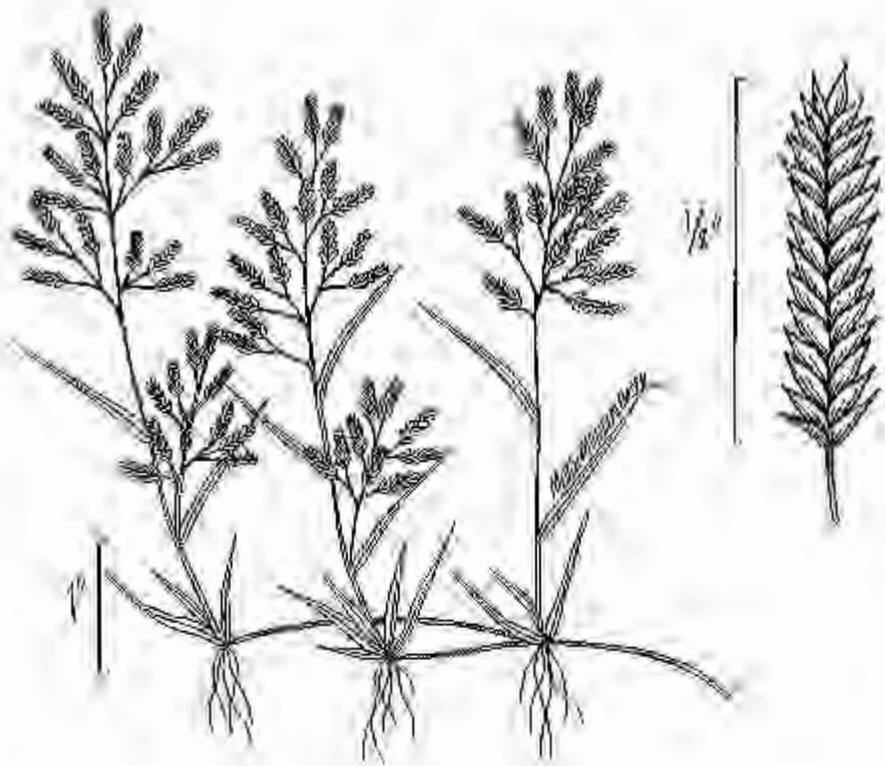
- **Family:** Horsetail (Equisetaceae)
- **Spores:** March-July
- **Field Marks:** This horsetail is distinguished by its nearly smooth stems and its pointed cones.
- **Habitat:** Along streams.
- **Habit:** Perennial herb.
- **Stems:** Erect, green, jointed, grooved, smooth, up to 5 feet tall.
- **Leaves:** Reduced to tiny, black teeth with white borders, triangular scales encircling the stem at each joint.
- **Reproductive Bodies:** Arranged in solitary cones at the tip of each stem, the cones up to 1 inch long, pointed at the tip.



## Teal Lovegrass (*Eragrostis hypnoides*)



- **Family:** Grass (Poaceae)
- **Flowering:** July-November.
- **Field Marks:** The genus *Eragrostis* is recognized by its several-flowered spikelets without awns. Teal lovegrass is distinguished from the others by its growth habit where it forms a dense mat on the wet soil. Its stems and leaves are not hairy.
- **Habitat:** Borders of streams and rivers, edge of ponds and lakes; in sloughs.
- **Habit:** Creeping annual forming dense mats on the wet soil.
- **Stems:** Slender, creeping, branched, smooth, up to 1 foot long.
- **Leaves:** Leaves short and narrow, up to 1 1/2 inches long, 1/20-1/10 inch broad, smooth, rough along the edges.
- **Flowers:** 6-40 per spikelet, with several spikelets arranged in small open panicles, the panicles up to 3 inches long, each spikelet flattened, up to 2/3 inch long, about 1/10 inch wide; glumes pointed, 1/20 inch long; lemmas pointed, hairy, 1/10 inch long.
- **Grains:** Flat, reddish, about 1/40 inch long.
- **Notes:** This species is sometimes known as pony grass.



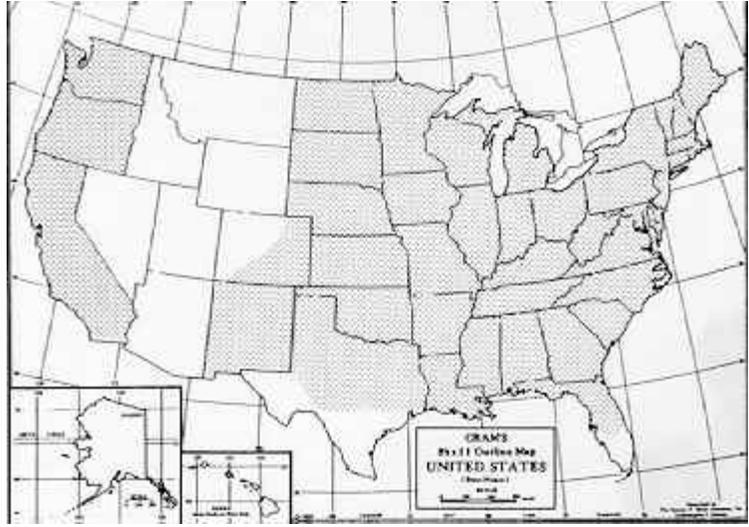
## Annual Fleabane (*Erigeron annuus*)



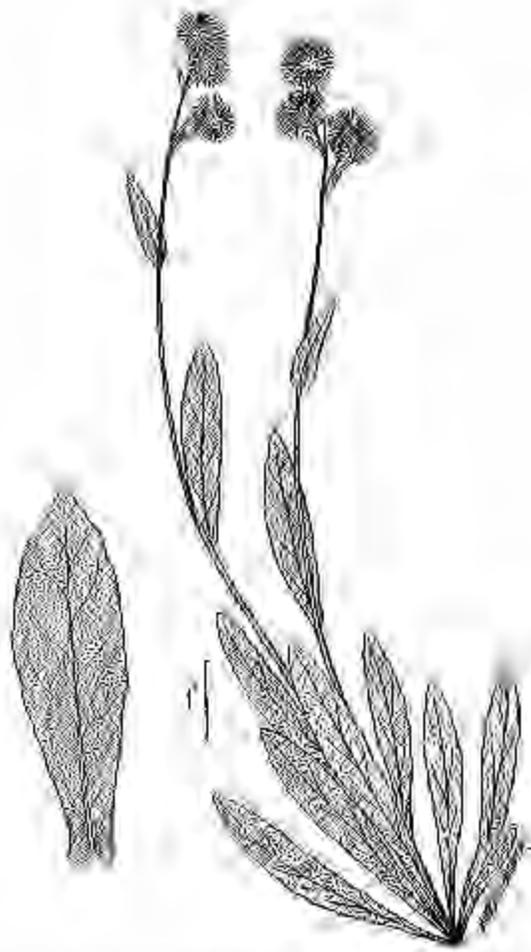
- **Family:** Aster (Asteraceae)
- **Flowering:** May-October.
- **Field Marks:** This fleabane is distinguished by its non-clasping leaves, some of which are coarsely toothed, the spreading hairs on the stem, and its head less than 1 inch wide with numerous white rays around a yellow center.
- **Habitat:** Old fields, roadsides.
- **Habit:** Coarse annual herb with fibrous roots.
- **Stems:** Erect, branched, up to 5 feet tall, usually with spreading hairs.
- **Leaves:** Alternate, simple, elliptic to lanceolate to narrowly ovate, pointed at the tip, tapering to the base, the lower ones coarsely toothed, the upper ones usually not toothed, hairy, up to 4 inches long, up to 2 inches broad, never clasping the stem.
- **Flowers:** Many crowded into a head with several heads per plant, each head up to 3/4 inch across and subtended by many narrow, hairy, green bracts; the outer flowers 80-125, white, ray-like; the inner yellow, tubular, forming a disk.
- **Sepals:** 0.
- **Petals:** Some white, very narrow, ray-like, others yellow, 5-parted, forming a disk.
- **Stamens:** 5.
- **Pistils:** Ovary inferior, hairy.
- **Fruits:** Achenes pale brown, shiny, about 1/20 inch long, with a tuft of white bristles.
- **Notes:** The vegetative parts of this species are eaten by white-tailed deer.



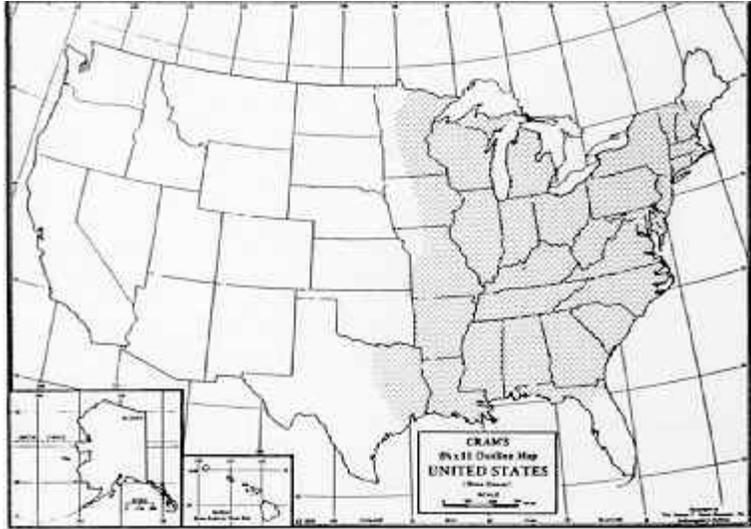
## Philadelphia Fleabane (*Erigeron philadelphicus*)



- **Family:** Aster (Asteraceae)
- **Flowering:** April-June.
- **Field Marks:** Philadelphia fleabane has some of its leaves clasping and about 100 very narrow pinkish or white rays per head.
- **Habitat:** Meadows, along streams, roadsides, ditches.
- **Habit:** Perennial herb with creeping stolons.
- **Stems:** Erect, sometimes branched, usually hairy, up to 2 feet tall.
- **Leaves:** Alternate and basal, simple, hairy, the basal leaves elliptic to oblanceolate, rounded or pointed at the tip, tapering to the base, toothed, up to 6 inches long, up to 2 inches broad, the leaves on the stem similar but smaller and some of them clasping the stem.
- **Flowers:** Many crowded into a head with several heads per plant, each head up to 1 1/2 inches across and subtended by many narrow, hairy, green bracts; the outer flowers about 100, pink or sometimes white and ray-like; the inner yellow, tubular, forming a disk.
- **Sepals:** 0.
- **Petals:** Some pink or white, narrow, ray-like, others yellow, 5-parted, forming a disk.
- **Stamens:** 5.
- **Pistils:** Ovary inferior, hairy.
- **Fruits:** Achenes 1/20 inch long, with a tuft of white bristles.
- **Notes:** The vegetative parts of this species are eaten by white-tailed deer.



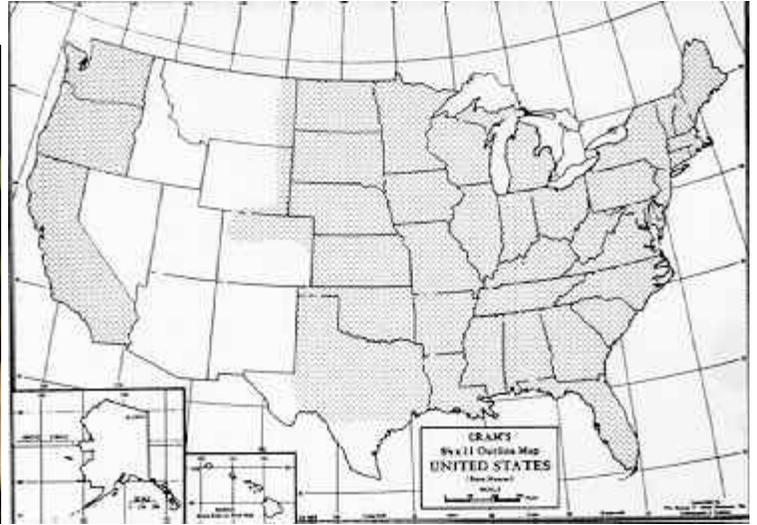
## Robin's Plantain (*Erigeron pulchellus*)



- **Family:** Aster (Asteraceae)
- **Flowering:** April-June.
- **Field Marks:** This fleabane differs from others by its fewer rays (about 50-60) per head which are longer than the rays of other species.
- **Habitat:** Along streams.
- **Habit:** Perennial herb with creeping stolons.
- **Stems:** Erect, sometimes branched, hairy, up to 1 1/2 feet tall.
- **Leaves:** Alternate and basal, simple, hairy, the basal leaves oblanceolate to obovate, rounded to short-pointed at the tip, tapering to the base, toothed, up to 6 inches long, up to 2 1/2 inches broad, the leaves on the stem lanceolate, pointed at the tip, rounded or tapering to the base, toothed, smaller than the basal leaves.
- **Flowers:** Many crowded into a head with 1 to a few heads per plant, each head up to 2 1/2 inches across and subtended by narrow, hairy, green bracts; the outer flowers about 50-60, white and ray-like; the inner yellow, tubular, forming a disk.
- **Sepals:** 0.
- **Petals:** Some white, narrow, ray-like, up to 1 inch long, others yellow, 5-parted, forming a disk.
- **Stamens:** 5.
- **Pistils:** Ovary inferior, hairy.
- **Fruits:** Achenes greenish-brown, shiny, 1/20-1/10 inch long, with a tuft of white hairs.



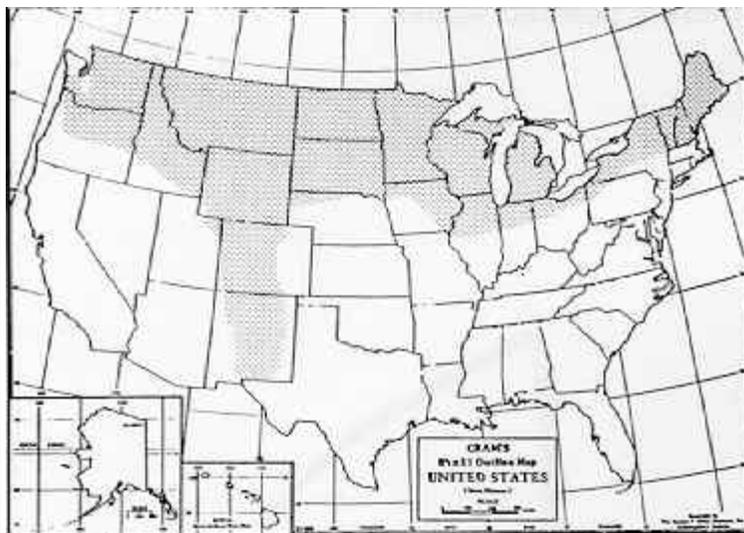
## Rough Fleabane (*Erigeron strigosus*)



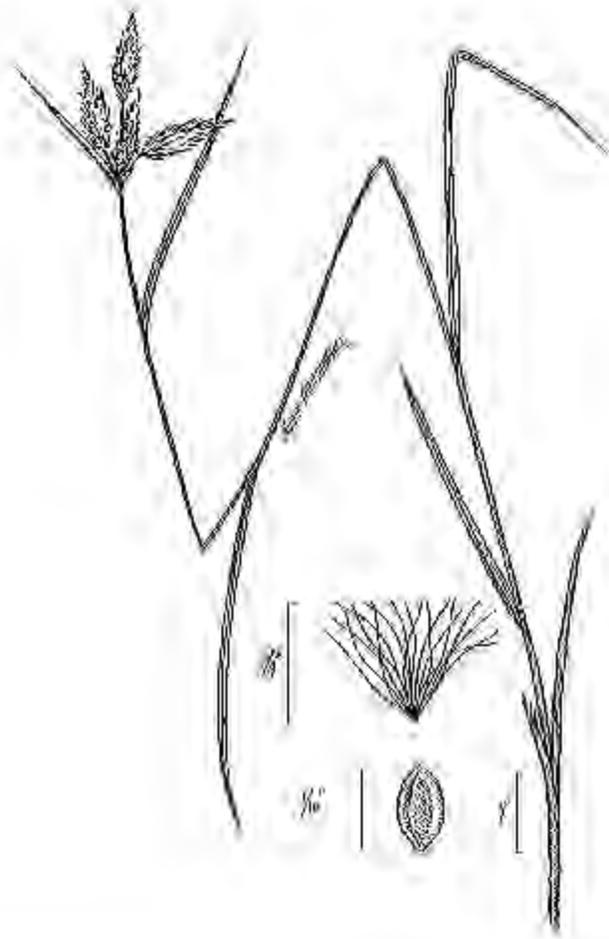
- **Family:** Aster (Asteraceae)
- **Flowering:** April-October.
- **Field Marks:** This fleabane is distinguished by its non-clasping leaves, the lack of spreading hairs on the stem, and its heads less than 1 inch wide with numerous white rays around a central disk.
- **Habitat:** Old fields, roadsides.
- **Habit:** Coarse annual herb with fibrous roots.
- **Stems:** Erect, branched, up to 5 feet tall, with appressed hairs or smooth.
- **Leaves:** Alternate, simple, linear-lanceolate to elliptic, pointed at the tip, tapering to the base, sparingly toothed, or the upper ones without teeth, usually somewhat hairy, less than 1 inch broad.
- **Flowers:** Many crowded into a head with several heads per plant, each head up to 3/4 inch across and subtended by many narrow, usually hairy, green bracts; the outer flowers about 90- 110, white and ray-like; the inner yellow, tubular, forming a disk.
- **Sepals:** 0.
- **Petals:** Some white, very narrow, ray-like, others yellow, 5-parted, forming a disk.
- **Stamens:** 5.
- **Pistils:** Ovary inferior, hairy.
- **Fruits:** Achenes pale brown, shiny, hairy, about 1/20 inch long, with a tuft of white bristles.
- **Notes:** White-tailed deer browse on this species.



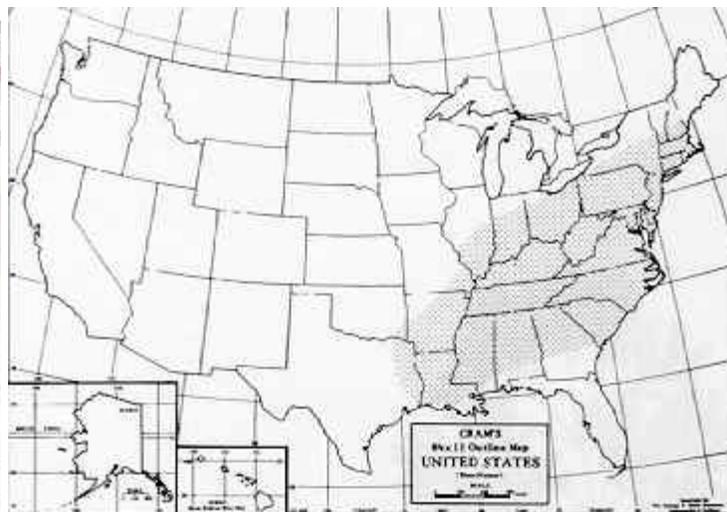
## Narrowleaved Cottonsedge (*Eriophorum angustifolium*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** June-August.
- **Field Marks:** Cottonsedges are distinguished by their cottony fruiting heads. Narrowleaved cottonsedge has several heads per plant, flat leaves, and merely pointed scales.
- **Habitat:** Bogs.
- **Habit:** Perennial herb.
- **Stems:** Erect, stiff, smooth, somewhat triangular, up to 2 feet tall.
- **Leaves:** Long, narrow, flat, rough along the edges, up to 1/6 inch broad.
- **Flowers:** 1 per spikelet, with many spikelets forming a head and several heads per plant; scales ovate-lanceolate, pointed, green or brown; bristles numerous, white, appearing cottony, up to 1 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** Usually 3.
- **Pistils:** 1; styles 3; ovary superior.
- **Fruits:** Achenes obovoid, pale brown, 1/10-1/6 inch long.



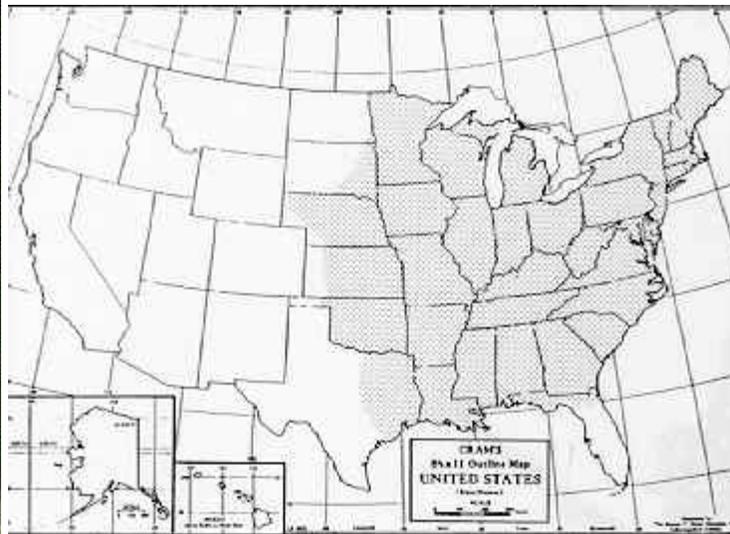
## Purplestem Joepyeweed (*Eupatoriadelphus fistulosus*)



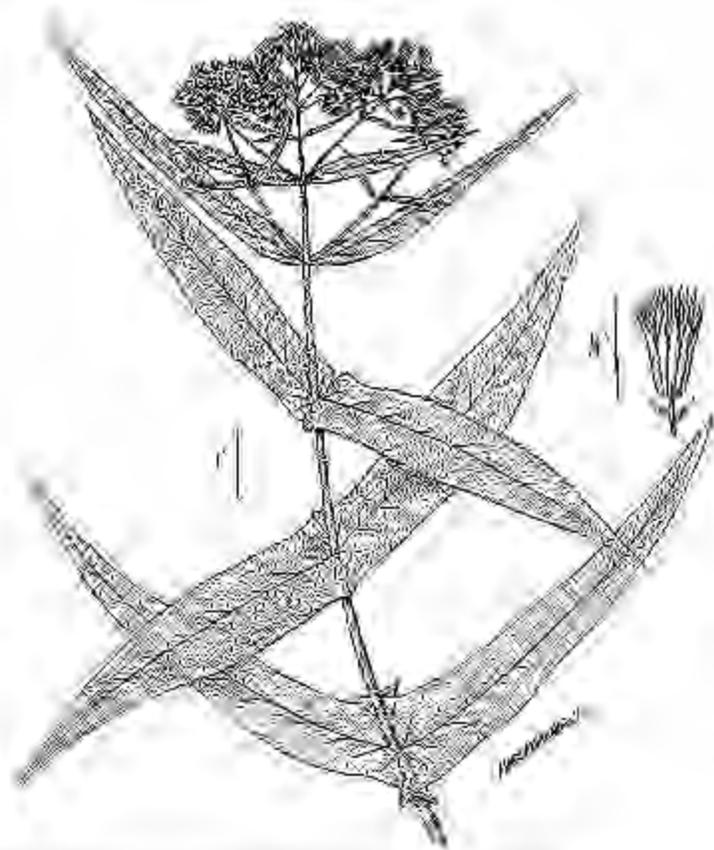
- **Family:** Aster (Asteraceae)
- **Flowering:** July-October.
- **Field Marks:** Joepyeweeds are coarse perennials with whorled leaves. This one differs from all the rest by having hollow, purple stems.
- **Habitat:** Wet meadows, along streams.
- **Habit:** Coarse perennial with fibrous roots.
- **Stems:** Erect, sometimes branched, glaucous, smooth, usually purplish, hollow, up to 8 feet tall.
- **Leaves:** Whorled, simple, lanceolate, pointed at the tip, tapering to the base, toothed, hairy or smooth, up to 9 inches long, up to 3 inches broad.
- **Flowers:** Several crowded in small heads arranged in a large round-topped cluster, each head up to 1/2 inch across and subtended by a few small, ovate bracts, all flowers tubular.
- **Sepals:** 0.
- **Petals:** 5, united to form a tube, pink-purple, 1/6-1/4 inch long.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes 1/6-1/4 inch long.
- **Notes:** This species traditionally has been placed in the genus *Eupatorium*.



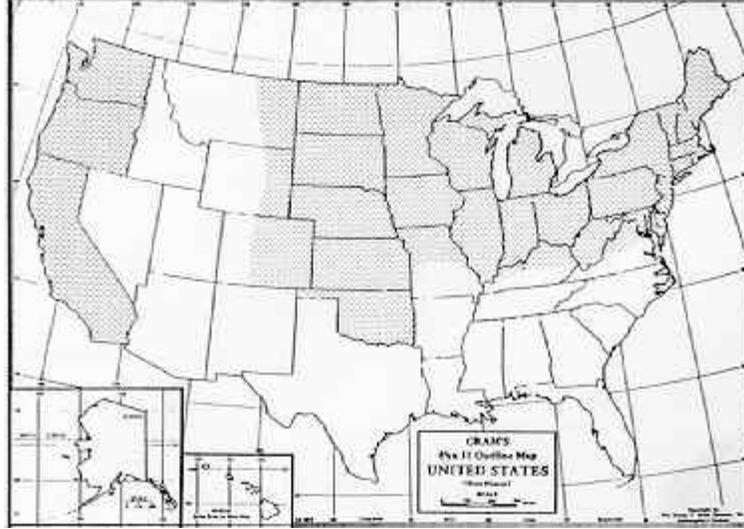
## Boneset (*Eupatorium perfoliatum*)



- **Family:** Aster (Asteraceae)
- **Flowering:** August-October.
- **Field Marks:** This is the only Eupatorium with strongly connate (clasping) leaves (see illustration).
- **Habitat:** Wet meadows, swamps, wet prairies, around ponds and lakes, in sloughs, along streams.
- **Habit:** Perennial herb, sometimes with rhizomes.
- **Stems:** Erect, usually branched, white-hairy, up to 5 feet tall.
- **Leaves:** Opposite, simple, lanceolate, pointed at the tip, strongly connate at the base, toothed, white-hairy, up to 6 inches long, up to 2 inches broad.
- **Flowers:** Several crowded into small white heads, with many heads forming a much branched inflorescence, each head 1/6-1/4 inch across and subtended by several narrow, green, hairy bracts, all flowers tubular.
- **Sepals:** 0.
- **Petals:** 5, united to form a tube, white.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes 1/10 inch long, with a tuft of white bristles.
- **Notes:** The achenes of this species are eaten by waterfowl.



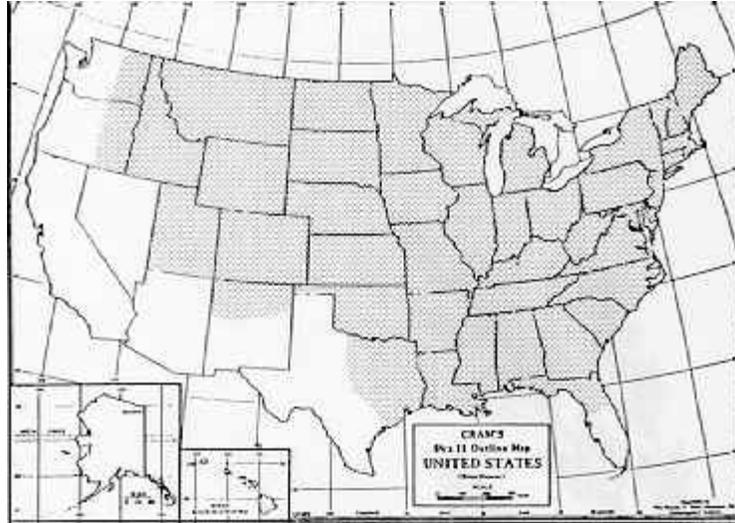
## Grass-leaved Goldenrod (*Euthamia graminifolia*)



- **Family:** Aster (Asteraceae)
- **Flowering:** July-October.
- **Field Marks:** This is one of the narrow-leaved goldenrods with more or less flat-topped flower clusters. It differs from other similar species by having three main veins in the leaves.
- **Habitat:** Fallow fields, wet prairies.
- **Habit:** Perennial herb with long, slender rhizomes.
- **Stems:** Erect, branched, hairy, up to 5 feet tall.
- **Leaves:** Alternate, simple, linear to elliptic, pointed at the tip, tapering to the base, without teeth, smooth or rough on the upper surface, hairy on the lower surface, up to 4 inches long, up to 1/4 inch wide, with 3 main veins.
- **Flowers:** Several crowded into a head with many heads forming a branched, more or less flat-topped inflorescence, each head up to 1/4 inch across, subtended by several narrow, green, somewhat sticky bracts, the outer flowers 15-25, yellow, ray-like, the inner flowers yellow and tubular.
- **Sepals:** 0.
- **Petals:** The outer yellow, ray-like, about 1/8 inch long, the inner yellow, tubular, 5-parted.
- **Stamens:** 5.
- **Pistils:** Ovary inferior, hairy.
- **Fruits:** Achenes 1/30 inch long, hairy, with a tuft of very short bristles.



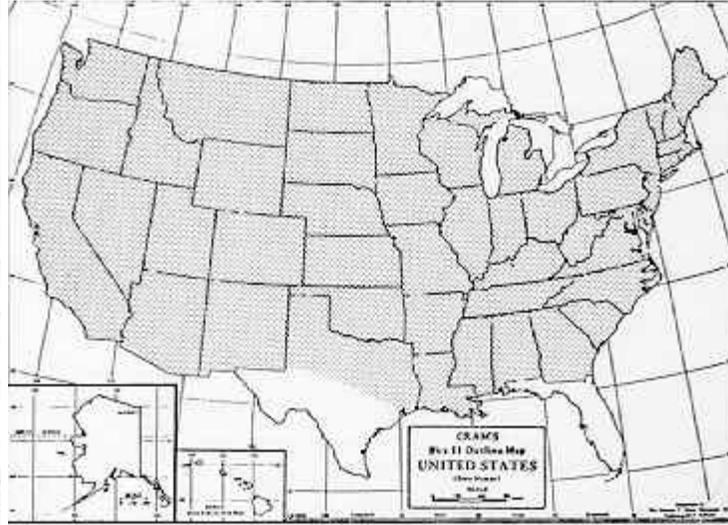
## Tall Fescue (*Festuca arundinacea*)



- **Family:** Grass (Poaceae)
- **Flowering:** April-July.
- **Field Marks:** Fescues are distinguished from other grasses by their many-flowered spikelets and their usually awnless lemmas minutely 2-toothed at the tip. Tall fescue has 3-5 flowers per spikelet.
- **Habitat:** Roadsides, fields, disturbed areas.
- **Habit:** Perennial grass in tufts, with fibrous roots.
- **Stems:** Erect, unbranched, smooth, up to 5 feet tall.
- **Leaves:** Elongated, narrow, slightly rough to the touch, up to 1/2 inch broad.
- **Flowers:** 3-5 in a spikelet; each spikelet up to 2/3 inch long, borne in panicles.
- **Sepals:** 0.
- **Petals:** 0.
- **Lemmas:** Pointed and minutely 2-toothed at the tip, usually smooth, up to 1/3 inch long, usually without an awn.
- **Stamens:** Usually 3.
- **Pistils:** Ovary superior.
- **Grains:** Oblong, reddish, about 1/8 inch long.
- **Notes:** This is an abundant grass often planted for forage and for soil stabilization.



## Meadow Fescue (*Festuca pratensis*)



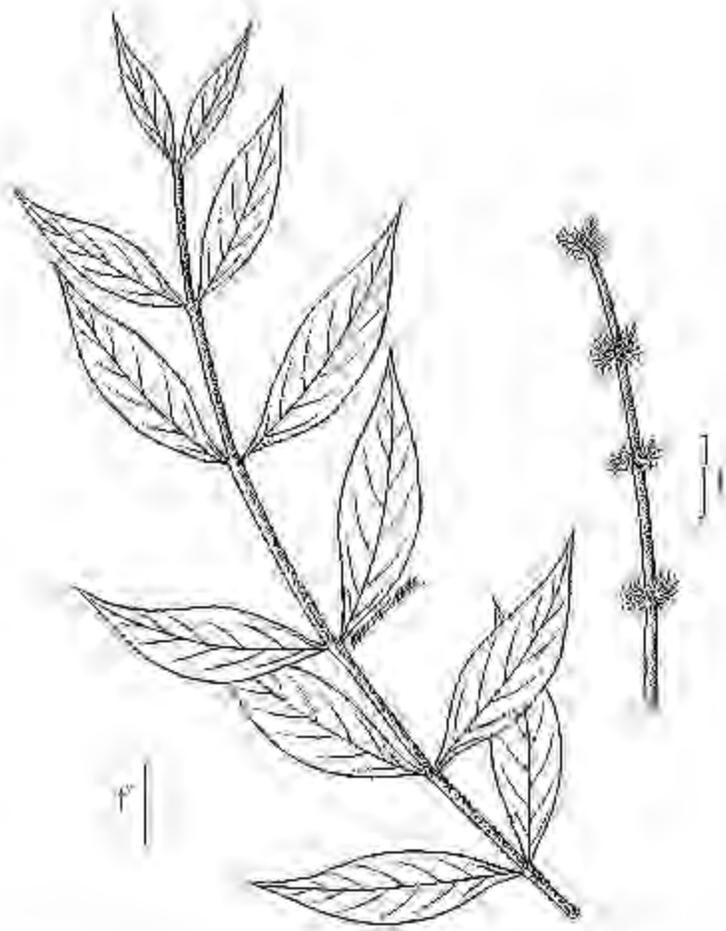
- **Family:** Grass (Poaceae)
- **Flowering:** April-July.
- **Field Marks:** Meadow fescue is very similar to tall fescue, but differs by having 6 or more flowers per spikelet.
- **Habitat:** Roadsides, fields, disturbed areas.
- **Habit:** Perennial grass in tufts, with fibrous roots.
- **Stems:** Erect, unbranched, smooth, up to 5 feet tall.
- **Leaves:** Elongated, narrow, slightly rough to the touch, up to 1/2 inch broad.
- **Flowers:** 6 or more in a spikelet; each spikelet up to 1 inch long, borne in panicles.
- **Sepals:** 0.
- **Petals:** 0.
- **Lemmas:** Pointed at the tip, usually smooth, up to 1/2 inch long, usually without an awn.
- **Stamens:** Usually 3.
- **Pistils:** Ovary superior.
- **Grains:** Oblong, reddish, about 1/8 inch long.
- **Notes:** This grass is a good grass for forage and for stabilizing the soil.



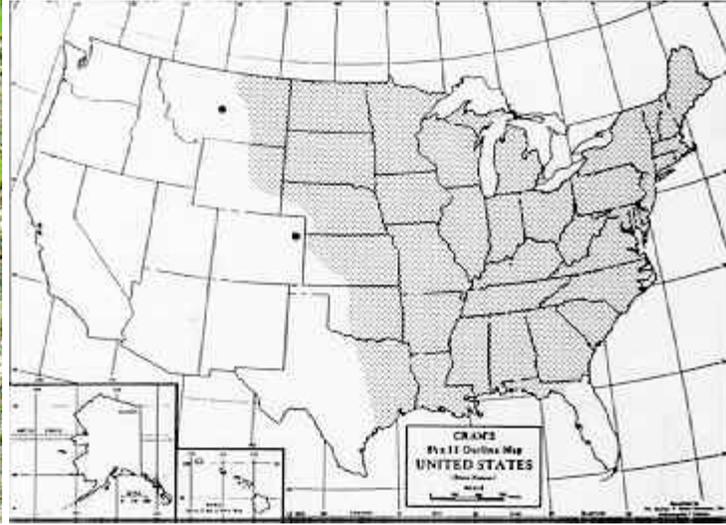
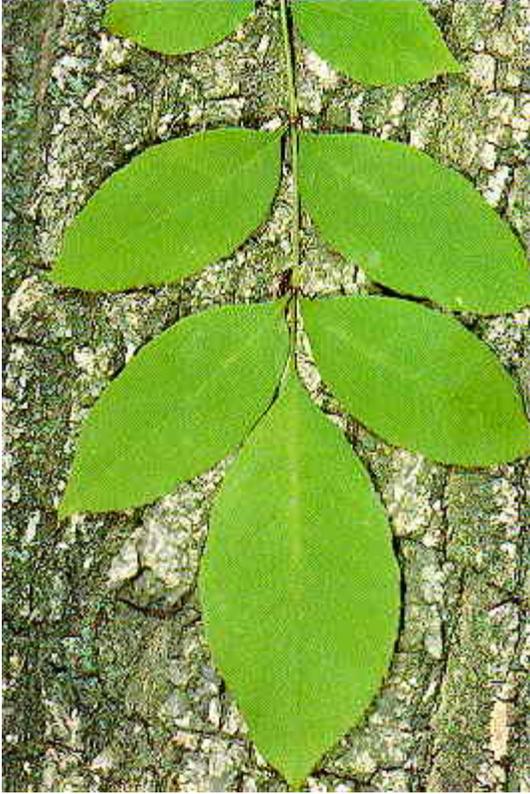
## Swamp Privet (*Forestiera acuminata*)



- **Family:** Ash (Oleaceae)
- **Flowering:** March-April.
- **Field Marks:** This species differs by its opposite, simple leaves that taper to a long point at the tip and by its yellow flowers that bloom before the leaves appear. The trunks are smooth and gray or brown.
- **Habitat:** Swamps, wet woods, along streams, around ponds, in sloughs.
- **Habit:** Small tree up to 30 feet tall; crown spreading and irregular.
- **Bark:** Gray or brown, smooth.
- **Buds:** Spherical, up to 1/8 inch in diameter, smooth.
- **Leaves:** Opposite, simple, elliptic, long-pointed at the tip, tapering to the base, finely toothed, usually smooth, up to 4 inches long, up to 1 1/2 inches broad.
- **Flowers:** Male and female flowers borne on different trees, appearing before the leaves begin to unfold, yellow.
- **Sepals:** Minute or absent.
- **Petals:** 0.
- **Stamens:** 2 or 4.
- **Pistils:** Ovary superior.
- **Fruits:** Drupes slender, oblongoid, slightly curved, dark purple, up to 1 inch long, 1-seeded.



## Green Ash (*Fraxinus pennsylvanica*)



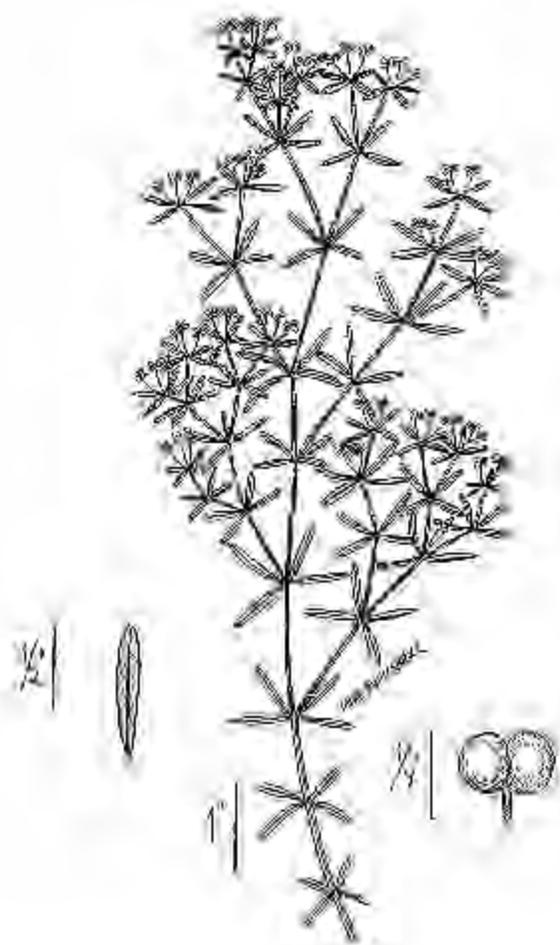
- **Family:** Ash (Oleaceae)
- **Flowering:** April-May.
- **Field Marks:** The green ash has leaflets not decidedly paler on the lower surface and usually at least partially toothed. The young, expanding leaves are purplish.
- **Habitat:** Swamps, floodplain woods, along streams, around ponds.
- **Habit:** Tree up to 60 feet tall with a pyramidal to broadly rounded crown.
- **Bark:** Light or dark gray, with diamond-shaped furrows between flat-topped, sometimes scaly ridges.
- **Leaves:** Opposite, pinnately compound, with 7-9 leaflets; each leaflet lanceolate to elliptic to elliptic-ovate, pointed at the tip, tapering to the base, toothed along the edges, green and either smooth or hairy on both surfaces, up to 6 inches long, up to 2 inches broad.
- **Flowers:** Male and female flowers borne on separate trees, in branched clusters, green or purplish.
- **Sepals:** Minute.
- **Petals:** 0.
- **Stamens:** 2.
- **Pistils:** Ovary superior.
- **Fruits:** Samaras lance-shaped, up to 2 1/2 inches long, up to 1/2 inch broad, with the wing not extending to the base of the seed.



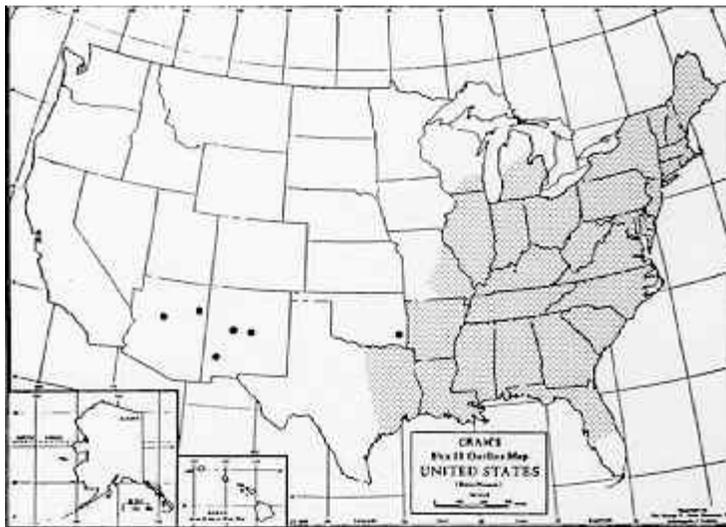
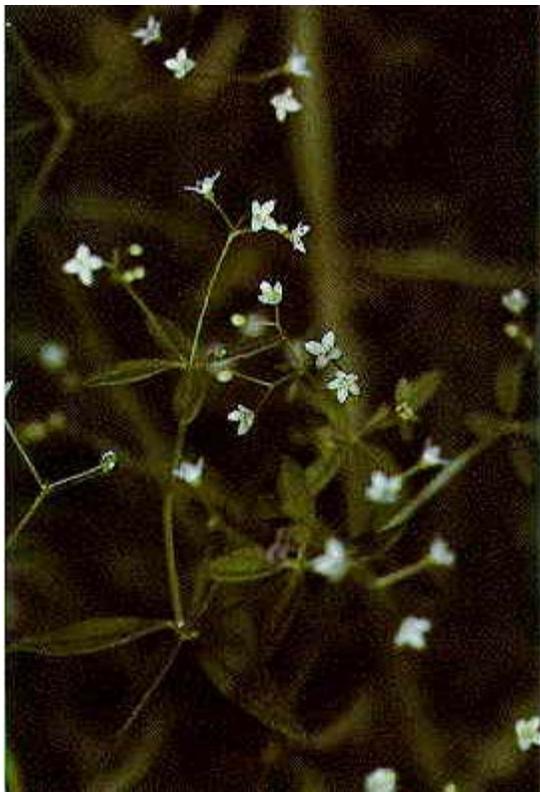
## Bluntleaf Bedstraw (*Galium obtusum*)



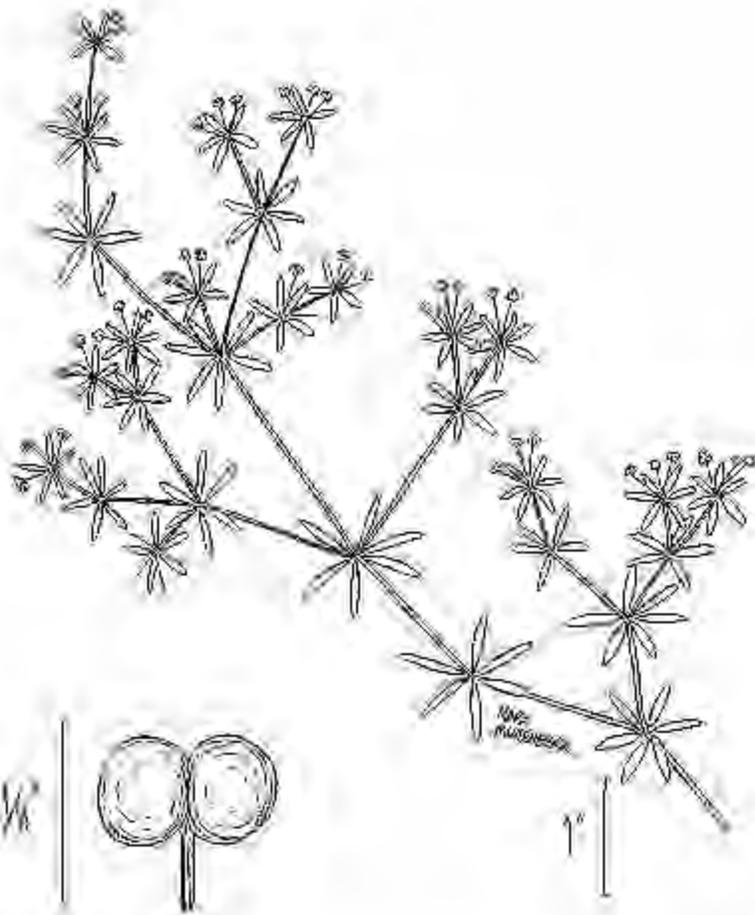
- **Family:** Madder (Rubiaceae)
- **Flowering:** May-July.
- **Field Marks:** This bedstraw is characterized by its 1-veined leaves in whorls of 4 and its tiny white flowers.
- **Habitat:** Swamps, wet prairies, low woods, roadside ditches.
- **Habit:** Perennial herb with fibrous roots.
- **Stems:** Matted or erect, smooth or rough-hairy, 4-sided, up to 2 feet long.
- **Leaves:** In whorls of 4, simple, linear to lanceolate, rounded at the tip, tapering to the base, rough to the touch, up to 1 1/2 inches long, up to 1/3 inch broad.
- **Flowers:** 2-4 in short, terminal clusters, white, up to 1/4 inch broad.
- **Sepals:** Minute, not differentiated into lobes.
- **Petals:** 4, white, united.
- **Stamens:** 4.
- **Pistils:** Ovary inferior, smooth.
- **Fruits:** Dry, spherical, smooth, 1-seeded.



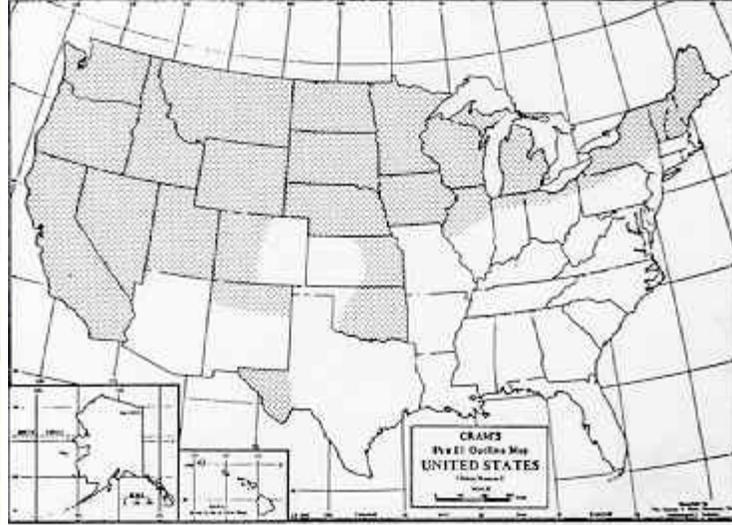
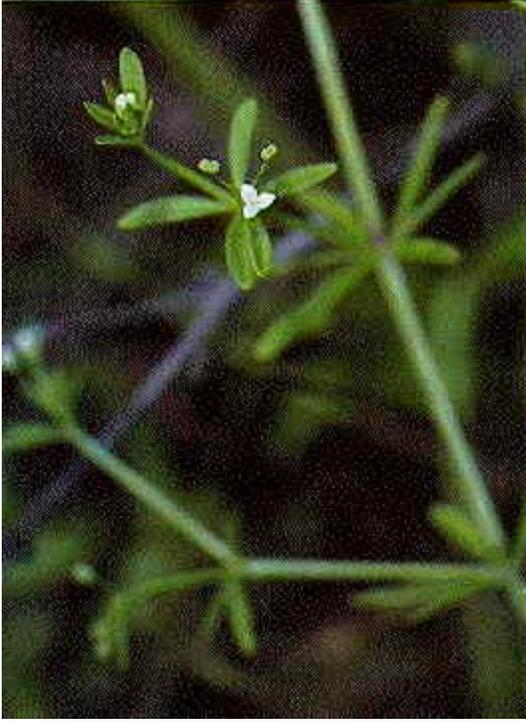
## Dye Bedstraw (*Galium tinctorium*)



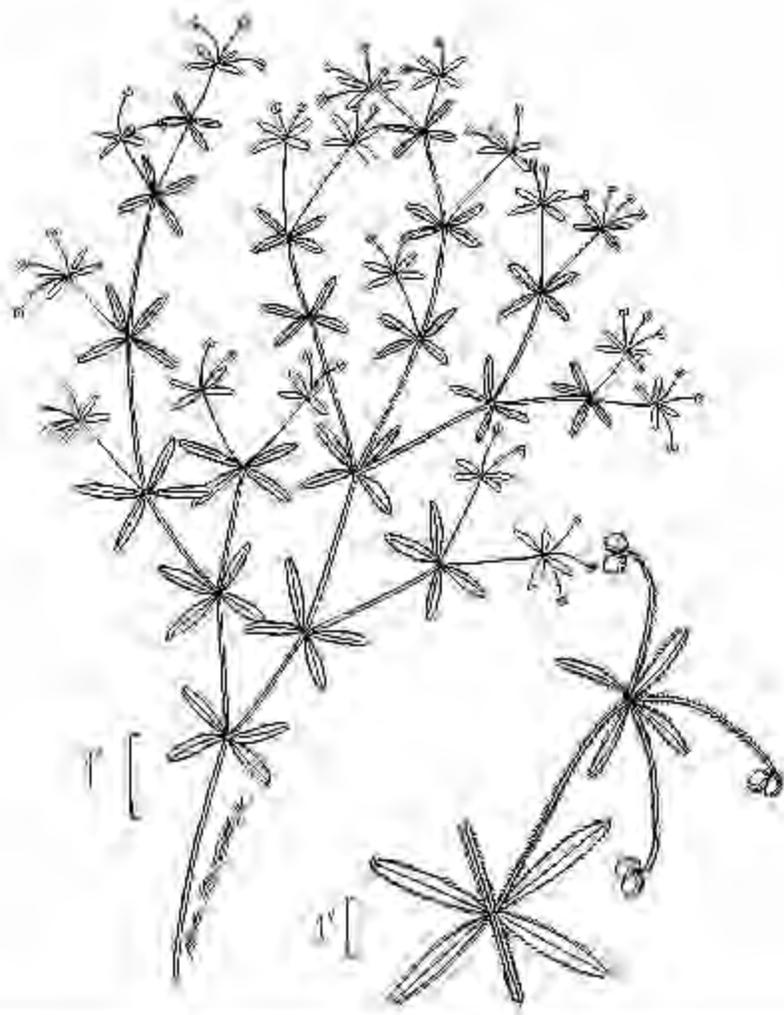
- **Family:** Madder (Rubiaceae)
- **Flowering:** May-September.
- **Field Marks:** This is the only slender-leaved bedstraw that has leaves in whorls of 5 or 6, often on the same plant.
- **Habitat:** Swamps, wet meadows, wet woods, roadside ditches.
- **Habit:** Perennial herb with fibrous roots.
- **Stems:** Spreading, often matted, much branched, somewhat rough to the touch, up to 1 1/2 feet long.
- **Leaves:** Simple, in whorls of 5 or 6, linear to oblanceolate, rounded at the tip, tapering to the base, smooth except on the veins and the margin, up to 1 inch long.
- **Flowers:** White, often in clusters of 3, with many clusters at the ends of the branches.
- **Sepals:** Reduced to a small green cup without lobes.
- **Petals:** 3-4, rarely 5, white, united below.
- **Stamens:** 3-4, rarely 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Borne in pairs, smooth, black at maturity, about 1/16 inch in diameter.



## Small Bedstraw (*Galium trifidum*)



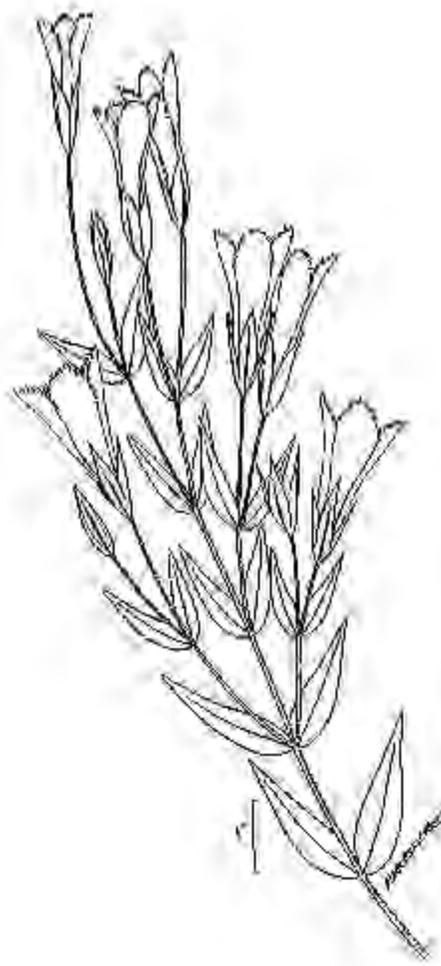
- **Family:** Madder (Rubiaceae)
- **Flowering:** May-July.
- **Field Marks:** The leaves of this bedstraw are in whorls of 4, the stems and leaves are rough to the touch, the flowers usually have 3 petals, and the fruits are smooth.
- **Habitat:** Swamps, wet meadows, wet prairies, roadside ditches.
- **Habit:** Perennial herb, often forming mats.
- **Stems:** Much branched, spreading or ascending, rough to the touch, up to 4 feet long.
- **Leaves:** In whorls of 4, simple, linear or narrowly elliptic, rounded at the tip, tapering to the base, rough on the margins and on the veins, up to 3/4 inch long.
- **Flowers:** White, several, born in cymes, on long, slender stalks; each flower up to 1/12 inch across.
- **Sepals:** Not divided into distinct segments.
- **Petals:** 3, white, united below.
- **Stamens:** Usually 3.
- **Pistils:** Ovary inferior, smooth.
- **Fruits:** Borne in pairs, spherical, smooth, up to 1/10 inch in diameter.



## Fringed Gentian (*Gentianopsis crinita*)



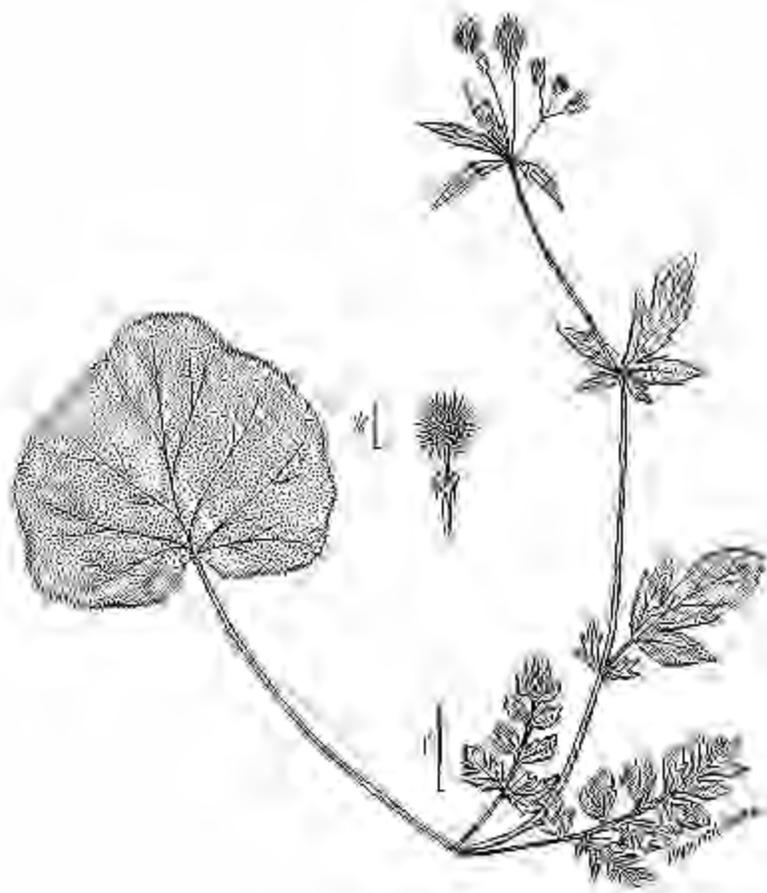
- **Family:** Gentian (Gentianaceae)
- **Flowering:** August-October.
- **Field Marks:** All gentians have opposite, toothless leaves and symmetrical flowers with petals united below. Fringed gentian differs from all other gentians by its 4 densely fringed petals.
- **Habitat:** Marshes, sand flats, wet meadows, low woods.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** 1-several, erect, usually branched, smooth, up to 2 1/2 feet tall.
- **Leaves:** Opposite, simple, lanceolate to lance-ovate, pointed at the tip, rounded at the base, smooth, without teeth, sessile, up to 2 inches long.
- **Flowers:** Solitary in the axils of the uppermost leaves, bright blue, up to 2 1/2 inches long on a smooth stalk up to 6 inches long.
- **Sepals:** 4, green, up to 1 1/2 inches long, united below into a tube.
- **Petals:** 4, bright blue, densely fringed across the tip, up to 2 1/2 inches long, united below into a tube.
- **Stamens:** 4, attached to the corolla tube, not protruding above the tube.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules ellipsoid, up to 1 1/2 inches long, with brown seeds.



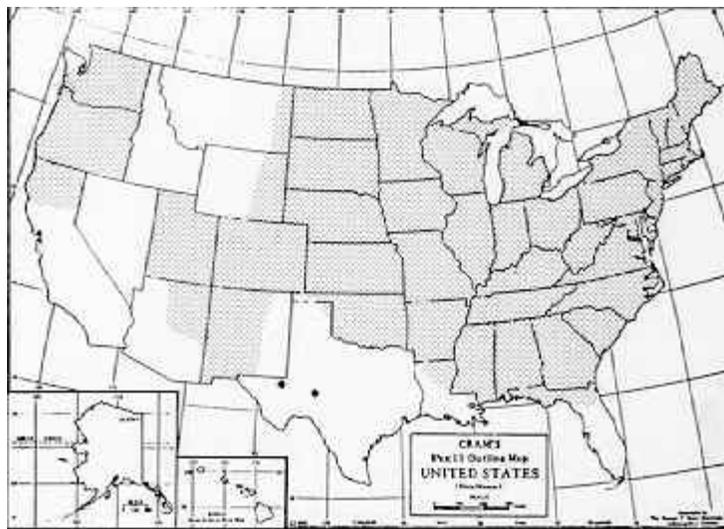
## Spring Avens (*Geum vernum*)



- **Family:** Rose (Rosaceae)
- **Flowering:** April-May.
- **Field Marks:** Species of *Geum* have basal leaves different from the leaves on the stem. Spring avens has yellow flowers, and the bristly fruit is elevated on a stalk.
- **Habitat:** Wet woods, along streams, damp thickets.
- **Habit:** Perennial herb with rhizomes.
- **Stems:** Spreading to erect, smooth or slightly hairy, up to 1 1/2 feet tall.
- **Leaves:** Basal and alternate, smooth or slightly hairy, toothed, the basal usually only palmately lobed, the leaves on the stem pinnately divided into 3-11 segments.
- **Flowers:** Born in cymes, yellow, each flower about 1/4 inch across.
- **Sepals:** 5, free from each other, green, about 1/8 inch long.
- **Petals:** 5, free from each other, yellow, shorter than the sepals.
- **Stamens:** 25-35, free.
- **Pistils:** Several, free; ovary superior.
- **Fruits:** A cluster of achenes forming a bristly head 1/4-1/3 inch in diameter, each achene with the persistent hooked style.



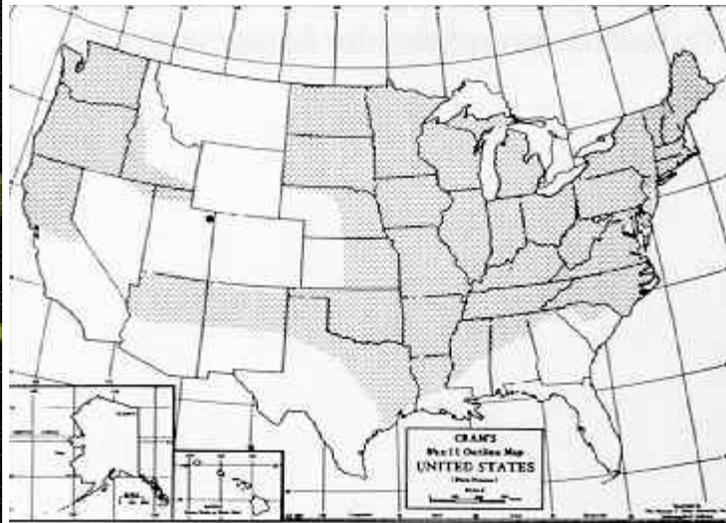
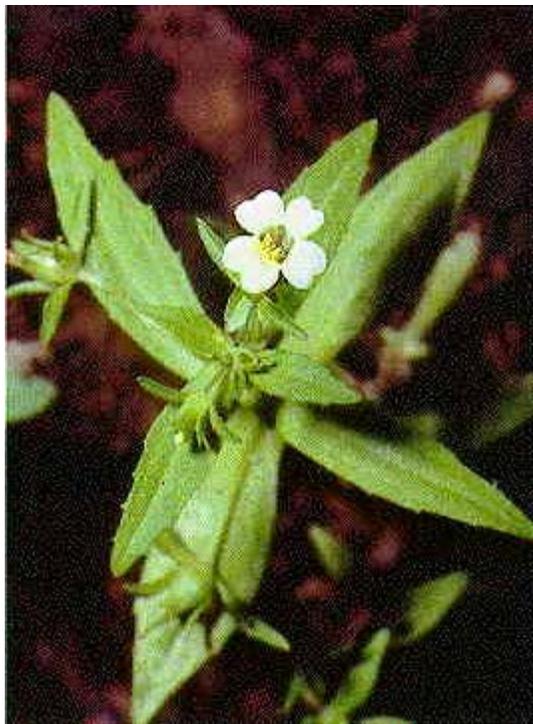
## Fowl Mannagrass (*Glyceria striata*)



- **Family:** Grass (Poaceae)
- **Flowering:** May-August.
- **Field Marks:** This grass is distinguished by its many-flowered, awnless spikelets less than 1/4 inch long.
- **Habitat:** Wet meadows, low woods, bogs, roadside ditches, swamps.
- **Habit:** Tufted perennial herb with fibrous roots or short rhizomes.
- **Stems:** Erect, smooth, up to 4 feet tall.
- **Leaves:** Flat or sometimes folded lengthwise, somewhat rough to the touch, up to 1/3 inch wide.
- **Flowers:** 3-7 per spikelet, with many spikelets in slender panicles up to 1 foot long; spikelets less than 1/4 inch long.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Grains:** Shiny, reddish, 1/20 inch long.



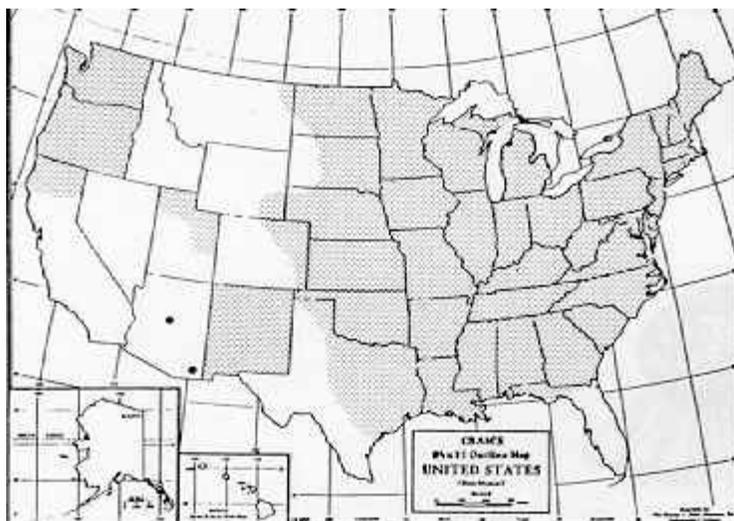
## Clammy Hedge-hyssop (*Gratiola neglecta*)



- **Family:** Figwort (Scrophulariaceae)
- **Flowering:** May-October.
- **Field Marks:** The distinguishing features of the hedge-hyssops are the low growth form, the opposite leaves, and the small flowers with 2 tiny bracts near the calyx, and 2 stamens. The clammy hedge-hyssop differs from other hedge-hyssops by its tapering leaf bases and slender flower stalks at least 1/2 inch long.
- **Habitat:** Marshes, wet woods, roadside ditches, along streams, ponds, and lakes, wet fields.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect or spreading, branched or unbranched, hairy, less than 1 foot long.
- **Leaves:** Opposite, simple, lanceolate to oblanceolate, short-pointed at the tip, tapering to the base, somewhat hairy, up to 1 1/2 inches long.
- **Flowers:** Solitary in the axils of the leaves, white or yellowish, up to 1/2 inch long, on slender stalks at least 1/2 inch long.
- **Sepals:** 5, free or nearly so, green.
- **Petals:** 5, united below into a yellowish tube, the lobes white.
- **Stamens:** 2.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules ovoid, up to 1/4 inch long, containing many seeds.



## Sneezeweed (*Helenium autumnale*)



- **Family:** Aster (Asteraceae)
- **Flowering:** August-November.
- **Field Marks:** This sneezeweed differs by its flower heads with yellow centers and its lanceolate to elliptic leaves.
- **Habitat:** Along streams, around ponds and lakes, roadside ditches, wet meadows, prairies, low woods.
- **Habit:** Perennial herb with fibrous roots.
- **Stems:** Erect, branched or unbranched, smooth, slightly winged, up to 4 feet tall.
- **Leaves:** Alternate, simple, elliptic to lanceolate, pointed at the tip, tapering to the base, with or without fine teeth, smooth, up to 6 inches long, up to 1 1/2 inches broad; basal leaves absent at flowering time.
- **Flowers:** Many crowded into a head with several heads per plant, each head up to 2 1/2 inches across, subtended by numerous very narrow, pointed, hairy bracts; the outer flowers yellow and ray-like, often pointing downward; the inner flowers yellow, tubular, forming a round disk up to 3/4 inch across.
- **Sepals:** 0.
- **Petals:** Some yellow, 3-notched at the tip, ray-like, 10-22 in number; others purple, 5, united to form a short tube.
- **Stamens:** 5.
- **Pistils:** Ovary inferior, hairy.
- **Fruits:** Achenes hairy with short brown bristles at the tip.
- **Notes:** The flower heads of this species are reported to be poisonous to livestock.



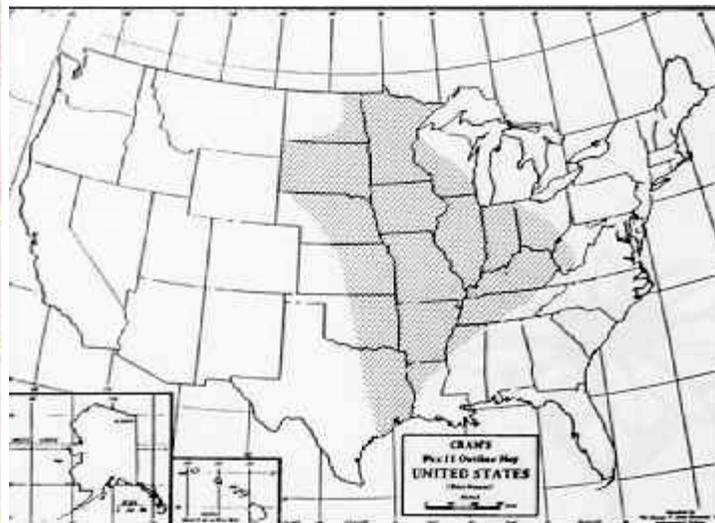
## Purple-headed Sneezeweed (*Helenium flexuosum*)



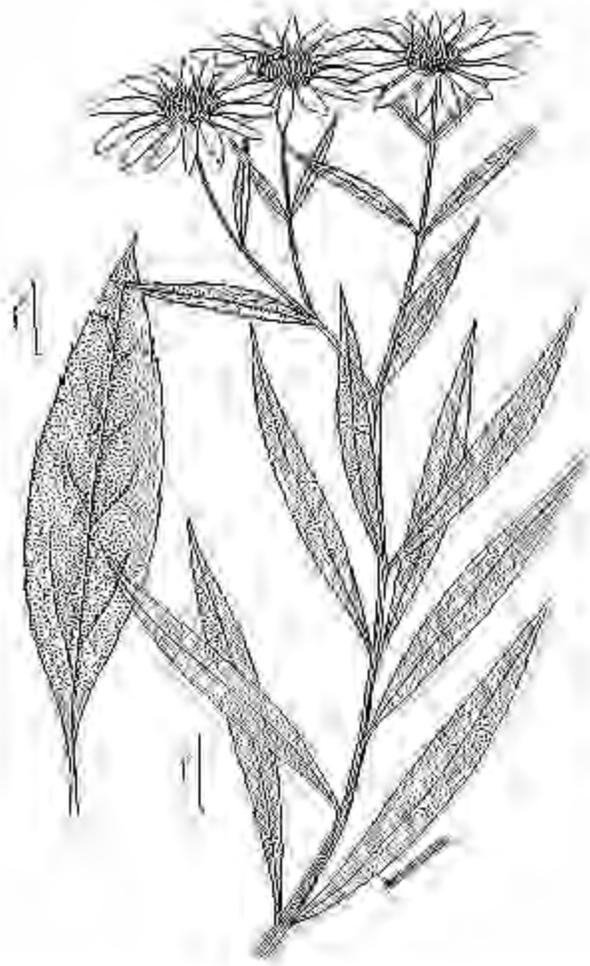
- **Family:** Aster (Asteraceae)
- **Flowering:** May-August.
- **Field Marks:** *Helenium flexuosum* is distinguished by its yellow heads with a purple center and its winged stems.
- **Habitat:** Roadside ditches, wet meadows, fallow fields.
- **Habit:** Perennial herb with fibrous roots.
- **Stems:** Erect, branched or unbranched, smooth or hairy, winged, up to 3 feet tall.
- **Leaves:** Alternate and basal, simple, the basal elliptic, pointed at the tip, tapering to the base, usually sparsely toothed, smooth or hairy, up to 3 inches long, up to 1 inch broad; the stem leaves similar but smaller.
- **Flowers:** Many crowded into a head with several heads per plant, each head up to 2 inches across, subtended by narrow, pointed, hairy bracts; the outer flowers yellow and ray-like, often pointing downward; the inner flowers purple, tubular, forming a round disk up to 1/2 inch across.
- **Sepals:** 0.
- **Petals:** Some yellow, 3-notched at the tip, ray-like, 15-25 in number; others purple, 5, united to form a short tube.
- **Stamens:** 5.
- **Pistils:** Ovary inferior, hairy.
- **Fruits:** Achenes hairy, with a few scale-like teeth at the tip.
- **Notes:** The achenes are eaten by wildlife.



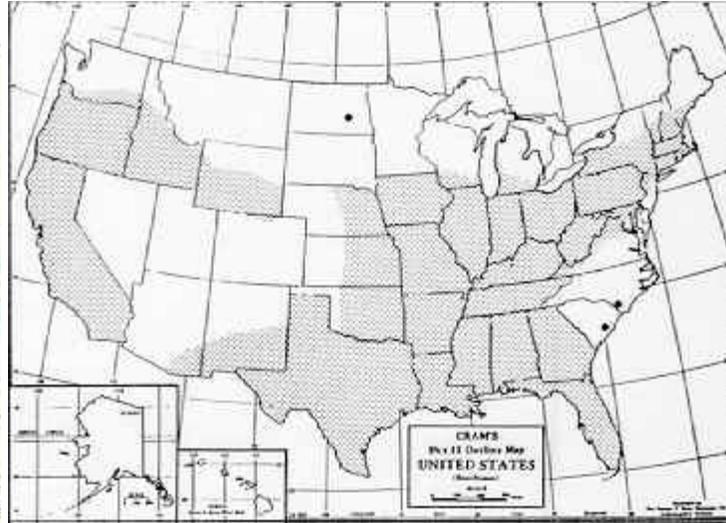
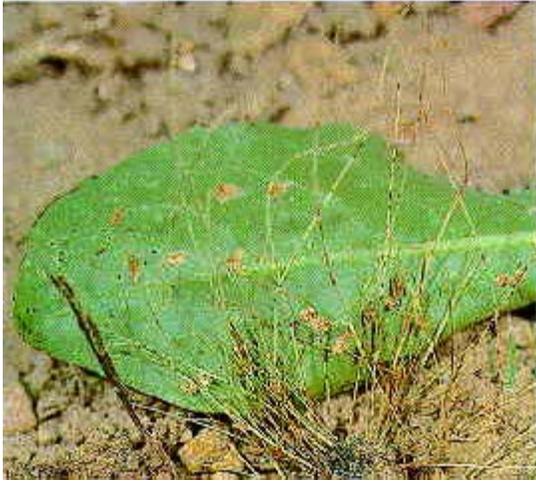
## Sawtooth Sunflower (*Helianthus grosseserratus*)



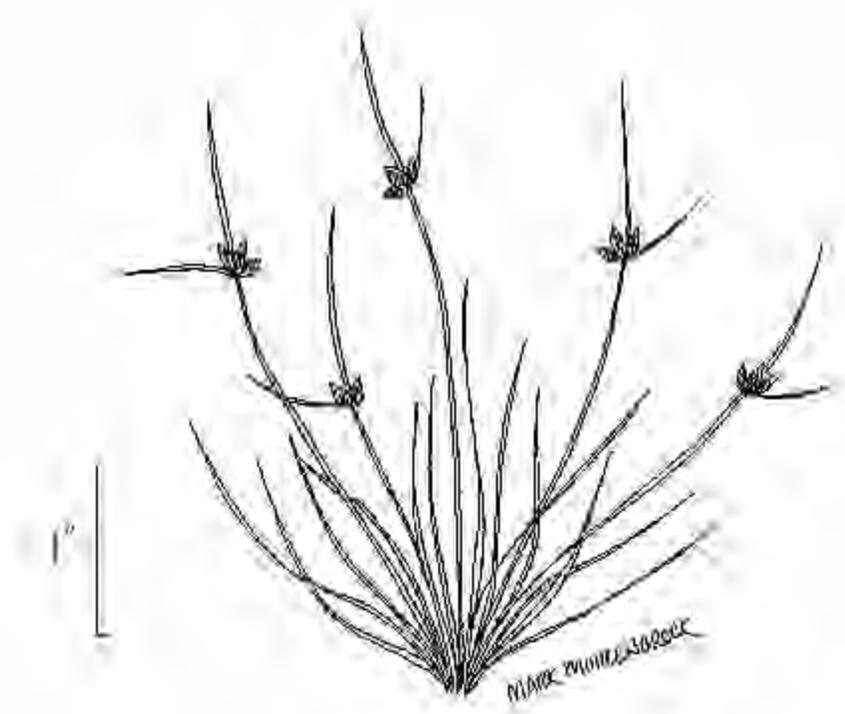
- **Family:** Aster (Asteraceae)
- **Flowering:** July-October.
- **Field Marks:** This sunflower usually has several leaves alternate and usually at least 20 leaves per stem.
- **Habitat:** Wet meadows, along streams, around ponds; also in drier habitats.
- **Habit:** Perennial herb with extensive rhizomes.
- **Stems:** Erect, branched or unbranched, smooth and glaucous except for short hairs near the flowers, up to 12 feet tall.
- **Leaves:** Alternate or opposite, simple, lanceolate, pointed at the tip, tapering to the base, with or without teeth, usually somewhat hairy, up to 8 inches long, up to 2 inches broad.
- **Flowers:** Several crowded together into a head, with several heads per plant; each head up to 3 inches across, subtended by very narrow, pointed bracts, with 10-20 yellow rays and a central yellow disk.
- **Sepals:** 0.
- **Petals:** Some united to form yellow rays, others united to form yellow tubular flowers in a central disk.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes usually short-hairy.
- **Notes:** Martin and Hutchins in *A Flora of New Mexico* (1981) note that specimens from New Mexico called *H. grosseserratus* are actually *H. nuttallii*.



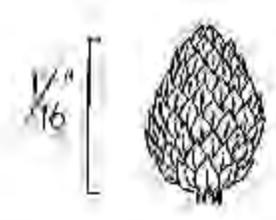
## Common Hemicarpha (*Hemicarpha micrantha*)



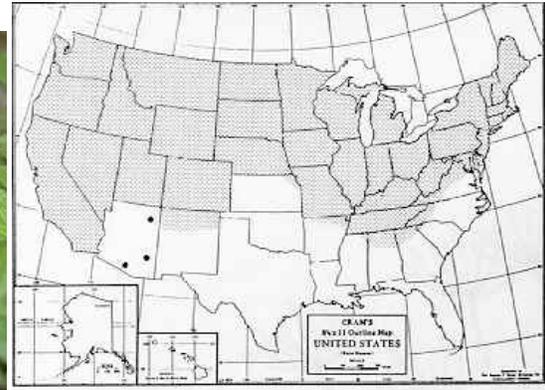
- **Family:** Sedge (Cyperaceae)
- **Flowering:** July-October.
- **Field Marks:** This is one of the tiniest sedges in the region, usually growing no more than 3 inches tall. There are usually 2-3 spikelets borne on each stem.
- **Habitat:** Sandy banks of rivers, around ponds, in sloughs.
- **Habit:** Tiny annual herb with fibrous roots.
- **Stems:** Slender, smooth, up to 3 inches tall.
- **Leaves:** Very narrow, near the base of the plant, smooth, much shorter than the stems.
- **Flowers:** 1 per scale, with many scales per spikelet, with 1-4 spikelets per stem, borne near the top of the stem but with the stem extending past them; spikelets ovoid, more or less rounded at the tip; scales brown, obovate.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 1.
- **Pistils:** Ovary superior, style 2-cleft.
- **Fruits:** Achenes oblong, rounded at the tip, pale brown.



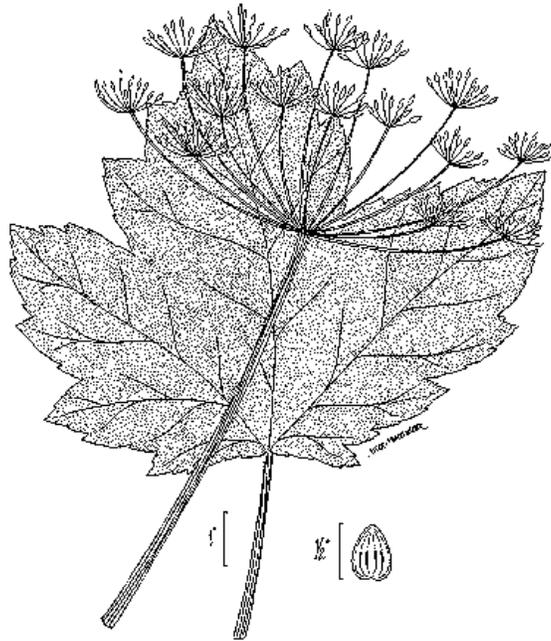
*MADE BY MISS S. B. B. B.*



## Cowparsnip (*Heracleum lanatum*)



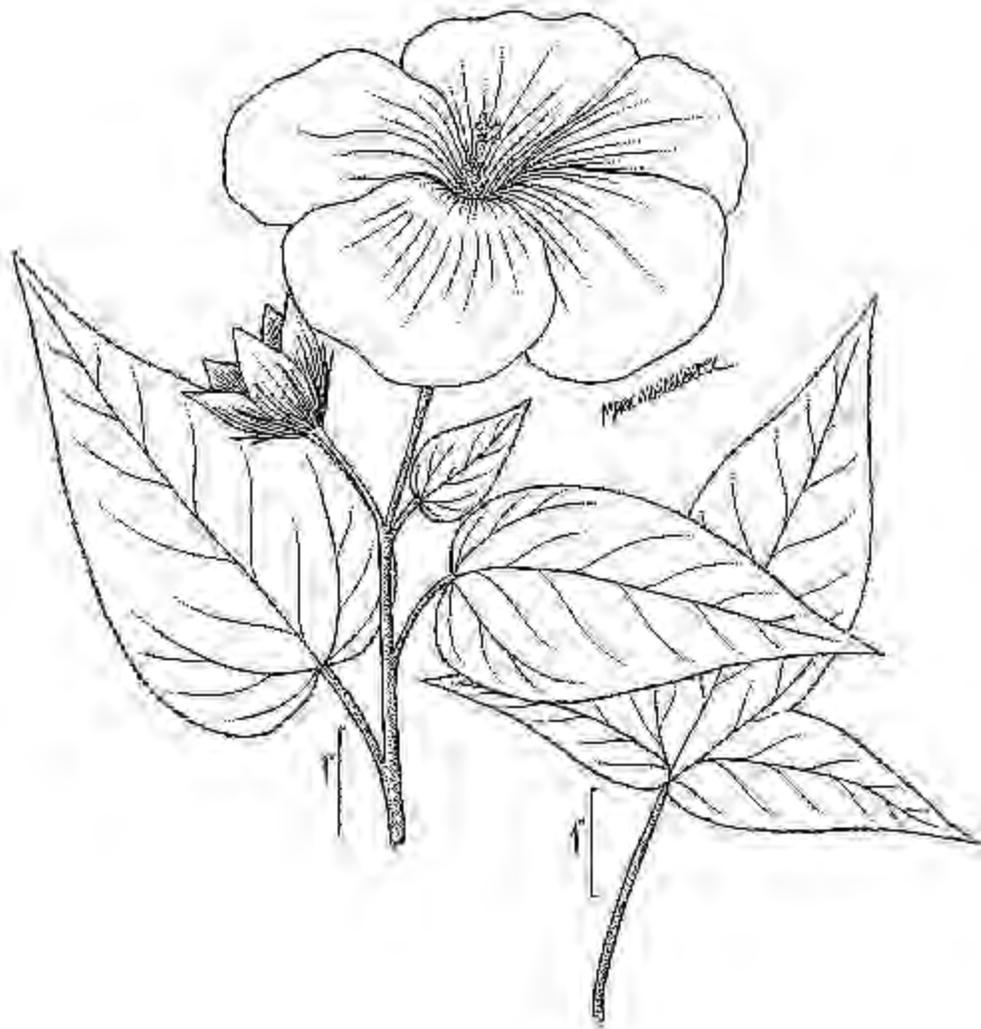
- **Family:** Carrot (Apiaceae)
- **Flowering:** May-July.
- **Field Marks:** This species is distinguished from all other white-flowered members of the family by its stout growth form and its huge, hairy, palmately lobed leaves. The seeds are marked with 4 vertical purple lines.
- **Habitat:** Along streams, lowland woods.
- **Habit:** Coarse biennial herb with a taproot.
- **Stems:** Erect, branched, rough-hairy, hollow, up to 8 feet tall.
- **Leaves:** Pinnately divided or palmately cleft, alternate, ovate, rough-hairy, coarsely toothed, up to 1 1/2 feet long, with a broad wing at the base of the leaf stalk.
- **Flowers:** Many borne in large, many-rayed umbels; each umbel subtended by very narrow bracts up to 1 inch long; some of the flowers with stamens only.
- **Sepals:** 5, green, minute.
- **Petals:** 5, white, free from each other, not all the same size, up to 1/3 inch long.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Flat, obovate, smooth or nearly so, with 4 conspicuous vertical purple lines.



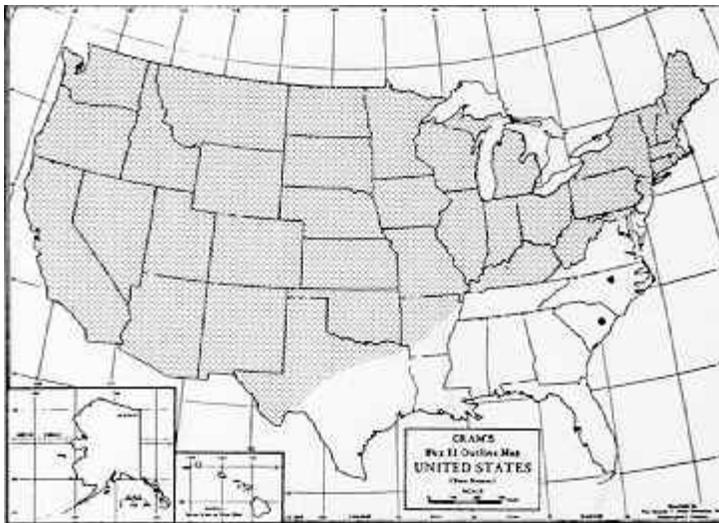
## Halberd-leaved Rosemallow (*Hibiscus laevis*)



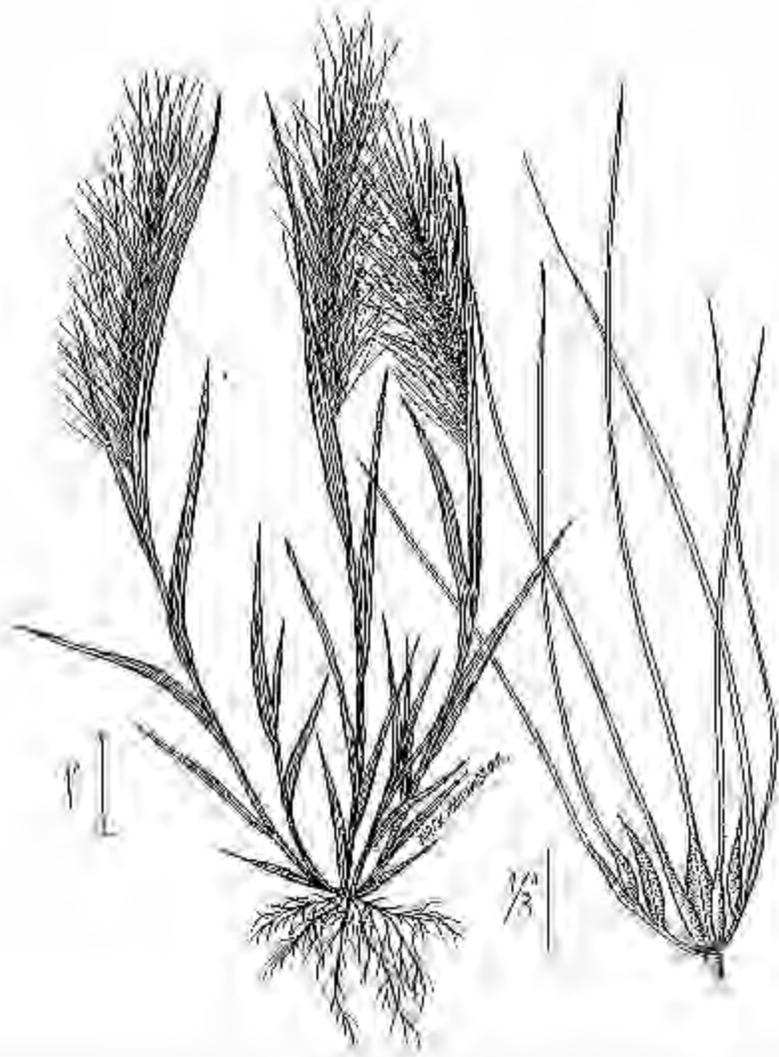
- **Family:** Mallow (Malvaceae)
- **Flowering:** July-September.
- **Field Marks:** This large-flowered rosemallow has some of its leaves lobed near the base.
- **Habitat:** Along streams, around ponds and lakes, in sloughs, roadside ditches, sometimes in shallow standing water.
- **Habit:** Robust perennial herb.
- **Stems:** Erect, unbranched, smooth to hairy, up to 6 feet tall.
- **Leaves:** Alternate, simple, ovate, pointed at the tip, sometimes with a pair of lobes at the base, toothed, hairy on the lower surface, up to 10 inches long.
- **Flowers:** Solitary from the axils of the leaves, usually white with a dark rose center, up to 4 inches long, borne on a stalk up to 6 inches long.
- **Sepals:** 5, green.
- **Petals:** 5, white with a dark rose base, free from each other.
- **Stamens:** Numerous, attached to a central column in the flower.
- **Pistils:** Ovary superior; stigmas 5, protruding from the central column in the flower.
- **Fruits:** Capsule ovoid, containing many seeds.
- **Notes:** This species used to be known as *H. militaris*. The seeds are eaten by waterfowl and bobwhite quail.



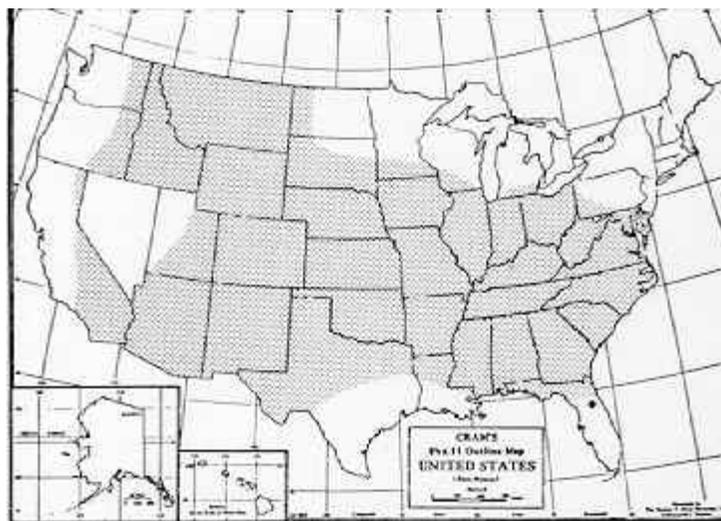
## Foxtail Barley (*Hordeum jubatum*)



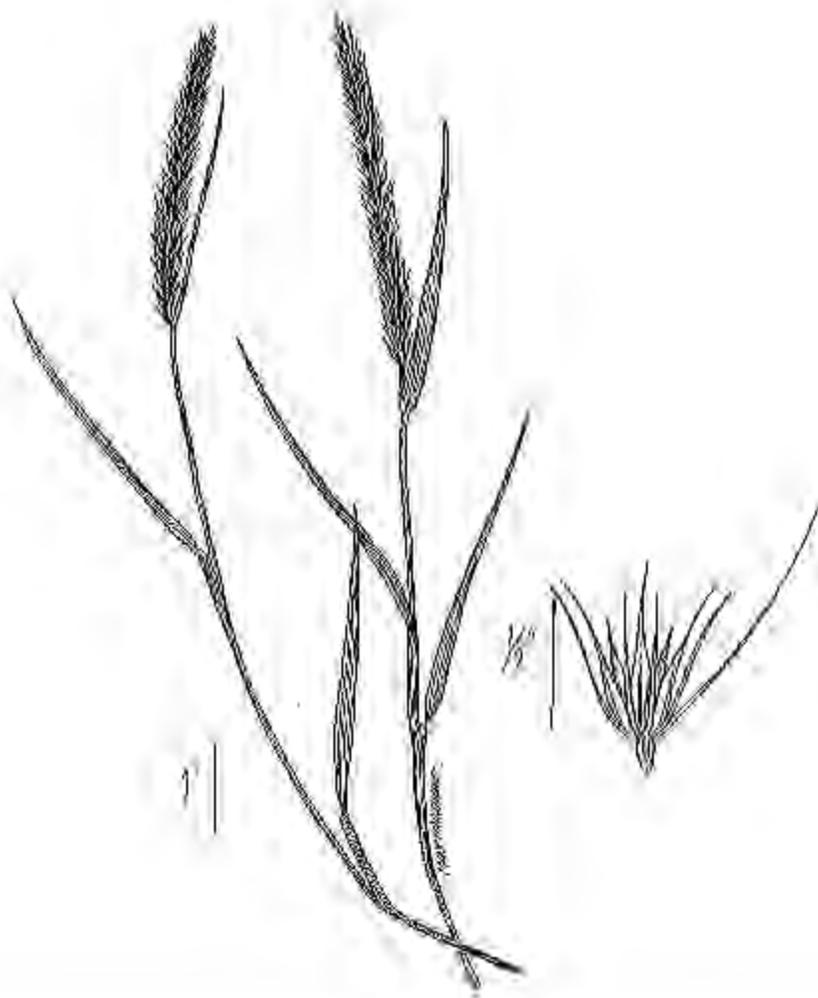
- **Family:** Grass (Poaceae)
- **Flowering:** May-October.
- **Field Marks:** This grass is distinguished by its soft, nodding spikes with awns up to 2 1/2 inches long.
- **Habitat:** Along roads, disturbed soil.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect, smooth, up to 2 feet tall.
- **Leaves:** Up to 5 inches long, up to 1/4 inch broad, smooth or finely hairy on both surfaces, with usually smooth sheaths.
- **Flowers:** Borne in spikelets, with 3 spikelets in a group; the middle spikelet without a stalk and bearing both stamens and pistils; the outer spikelets with a short stalk and usually sterile; awns up to 2 1/2 inches long.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Grains:** Hairy at the tip.
- **Notes:** This is a good pasture grass before the flowering heads mature.



## Little Barley (*Hordeum pusillum*)



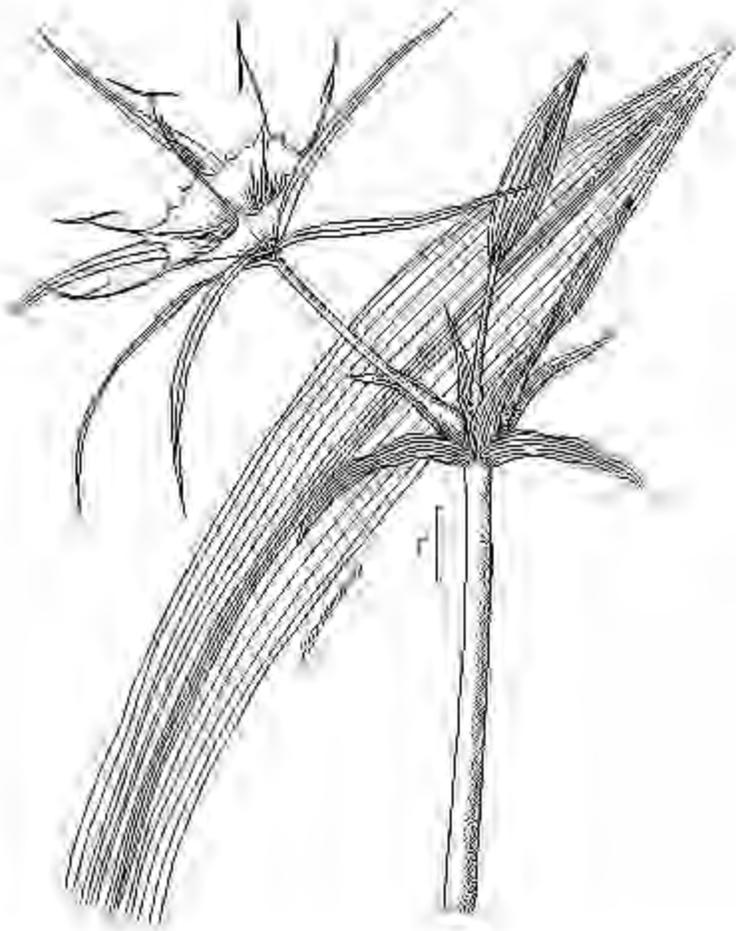
- **Family:** Grass (Poaceae)
- **Flowering:** April-June.
- **Field Marks:** The distinguishing features of this grass are its short stature and its small, erect spikes with straight awns.
- **Habitat:** Roadside ditches and many other habitats.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Usually erect, smooth, up to 6 inches tall.
- **Leaves:** Elongated and narrow, up to 3 inches long, up to 1/10 inch broad, smooth.
- **Flowers:** Borne in spikelets, with 3 spikelets in a group and all the spikelets forming a single, unbranched spike at the tip of the stem, the spike up to 3 inches long; central spikelet in each group of 3 forming pollen and grains, the 2 lateral spikelets sterile; central spikelet up to 1/6 inch long; all spikelets awned.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Ovary superior; styles 2.
- **Grains:** Hairy at the tip, attached to a small scale.
- **Notes:** Although this species is eaten by livestock, the awns on the spikelets may cause injury to the mouths of the animals.



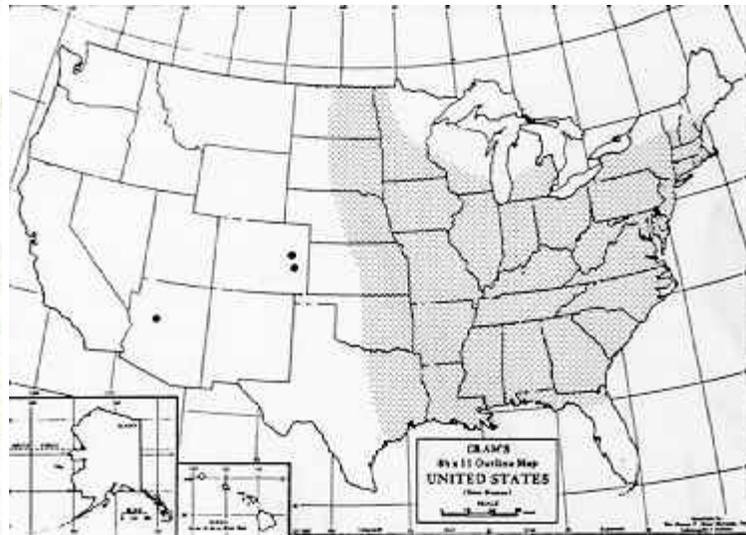
## Northern Spiderlily (*Hymenocallis occidentalis*)



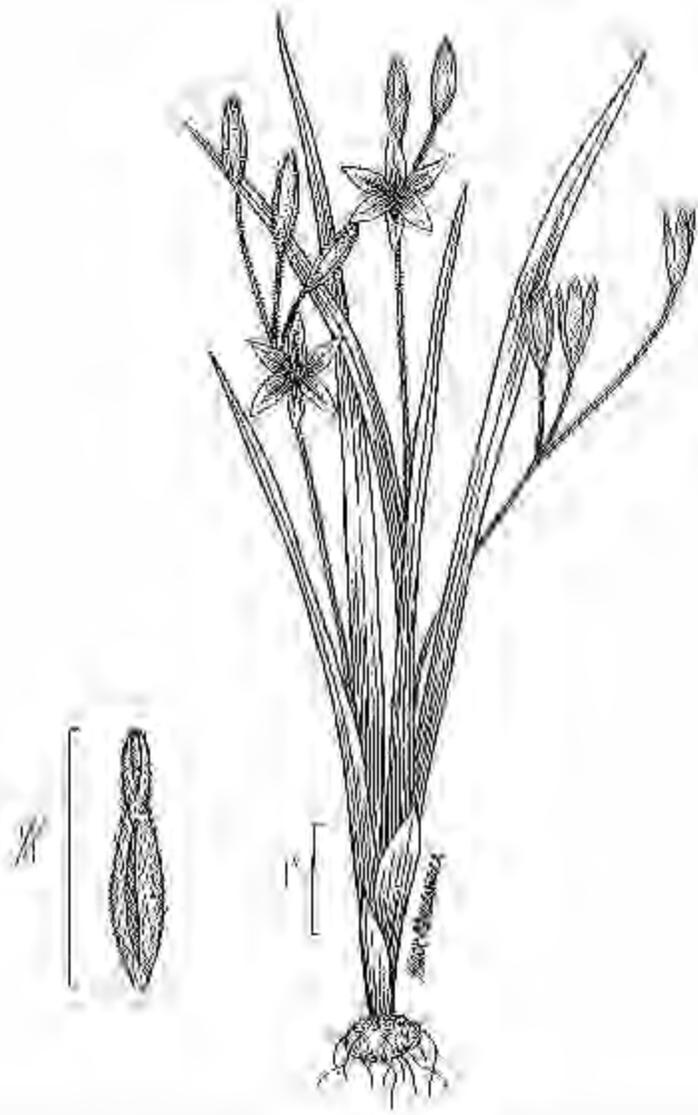
- **Family:** Lily (Liliaceae)
- **Flowering:** July-September.
- **Field Marks:** This species is distinguished by its large, strap-shaped, toothless basal leaves and its large, white flowers with 6 petal-like structures and a white membranaceous "cup" between the petals and the stamens.
- **Habitat:** Swamps, wet woods.
- **Habit:** Perennial herb with bulbs.
- **Stems:** Bearing flowers only, smooth, as long as or longer than the leaves, up to 3 feet long.
- **Leaves:** Basal, strap-shaped, pointed at the tip, tapering to the base, without teeth, smooth, somewhat fleshy, up to 2 feet long and up to 2 inches broad.
- **Flowers:** Solitary or few in a terminal umbel, white, up to 6 inches across.
- **Sepals and Petals:** Similar, 6, white, spreading or curved downward, long and narrow, up to 3 inches long, united below to form a slender tube up to 5 inches long.
- **Stamens:** 6, attached to the top of the perianth tube, the filaments connected at their base by a membranaceous, white "cup."
- **Pistils:** Style 1; ovary inferior.
- **Fruits:** Capsules ovoid to spherical, fleshy, up to 3/4 inch in diameter.



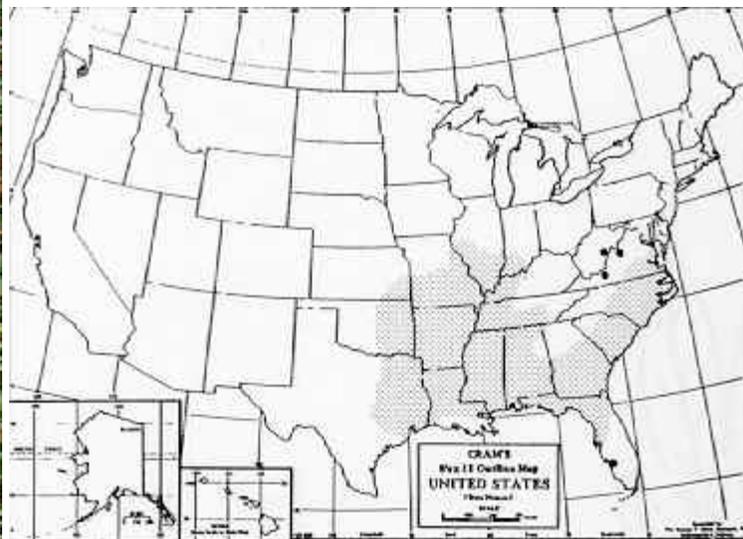
## Common Goldstargrass (*Hypoxis hirsuta*)



- **Family:** Lily (Liliaceae)
- **Flowering:** April-June.
- **Field Marks:** This species is readily distinguished by its hairy, grass-like leaves and its bright yellow, 6-parted flowers.
- **Habitat:** Wet meadows, but usually in drier habitats.
- **Habit:** Perennial herb with an underground corm.
- **Stems:** Absent except for the flowering stalk, hairy, up to 8 inches tall.
- **Leaves:** Tufted at the base of the plant, linear, pointed at the tip, tapering to the base, without teeth, hairy, up to 1/3 inch broad.
- **Flowers:** 3 or more on a leafless stalk, bright yellow, up to 1 1/4 inches across.
- **Sepals and Petals:** 6, united only at base, not distinguishable into sepals and petals, bright yellow, up to 1/3 inch long.
- **Stamens:** 6, shorter than the sepals and petals.
- **Pistils:** 1; ovary inferior.
- **Fruits:** Capsules narrowly ellipsoid, hairy, dark brown to black, 1/4-1/3 inch long; seeds numerous, black, shiny, covered with minute warts, 1/10 inch long.



## Possumhaw Holly (*Ilex decidua*)



- **Family:** Holly (Aquifoliaceae)
- **Flowering:** April-May.
- **Field Marks:** This deciduous holly differs from all others by its shallower round-toothed leaves, its completely smooth sepals, and its flower parts usually in 4's.
- **Habitat:** Swamps, sloughs, wet woods, along streams, around ponds and lakes.
- **Habit:** Shrub or small tree up to 20 feet tall.
- **Stems:** Branchlets gray, smooth or hairy.
- **Leaves:** Alternate, simple, elliptic to obovate, pointed at the tip, tapering to the base, round-toothed, usually hairy, up to 3 inches long, deciduous.
- **Flowers:** Small, white, less than 1/4 inch long, the male parts sometimes separate from the female parts; male flowers 1-2 in stalkless clusters from the axils of the leaves; female flowers usually solitary in the axils of the leaves.
- **Sepals:** 4-6, green, smooth.
- **Petals:** 4-6, white, free from each other.
- **Stamens:** 4-6, exserted beyond the petals.
- **Pistils:** 1; ovary superior.
- **Fruits:** Drupes spherical, usually red, 1/6-1/3 inch in diameter; seeds 5-10, smooth but grooved, 1/6-1/4 inch long.



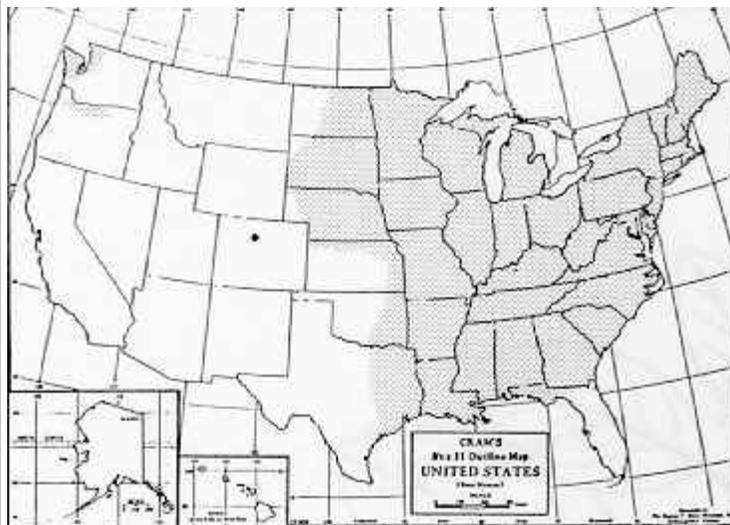
## Winterberry (*Ilex verticillata*)



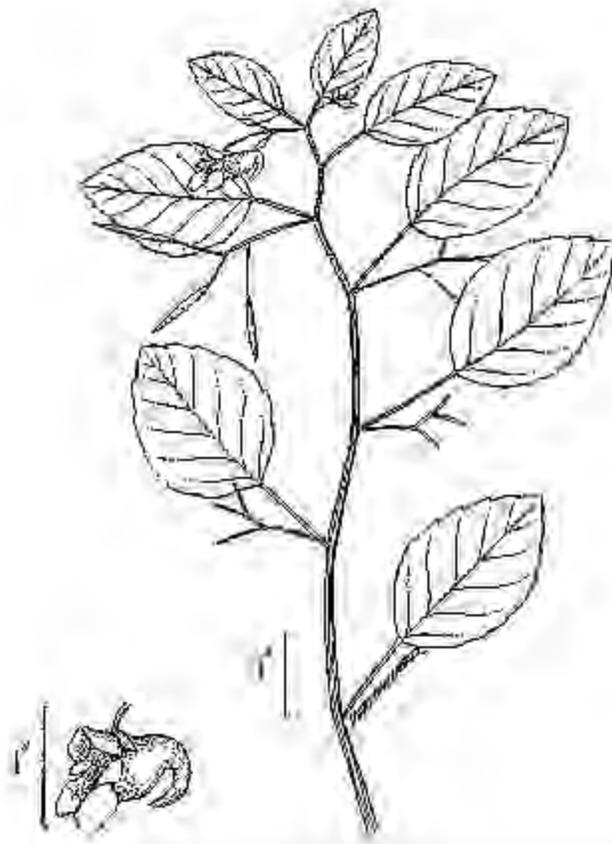
- **Family:** Holly (Aquifoliaceae)
- **Flowering:** May-June.
- **Field Marks:** This holly differs from the similar possumhaw holly by slightly larger teeth of the leaves and by usually having more than 4 sepals and petals.
- **Habitat:** Bogs; low woods; along streams.
- **Habit:** Shrub or small tree up to 25 feet tall.
- **Stems:** Branchlets usually gray, smooth or hairy.
- **Leaves:** Alternate, simple, broadly elliptic, pointed at the tip, tapering to the base, finely toothed, smooth or sometimes slightly hairy, up to 3 inches long, deciduous.
- **Flowers:** Small, white, less than 1/4 inch long, the male parts sometimes separate from the female parts; male flowers up to 25 in a stalked cluster from the axils of the leaves; female flowers 1-3 in stalkless clusters from the axils of the leaves; flowers with both stamens and pistils also present.
- **Sepals:** 5-6, green, ciliate.
- **Petals:** 5-8, white, free from each other.
- **Stamens:** 5-8, exerted beyond the petals.
- **Pistils:** 1; ovary superior.
- **Fruits:** Drupes spherical, bright red, up to 1/4 inch in diameter; seeds 5-10, smooth, 1/8-1/6 inch long.
- **Notes:** The berries are eaten by birds.



## Spotted Touch-me-not (*Impatiens capensis*)



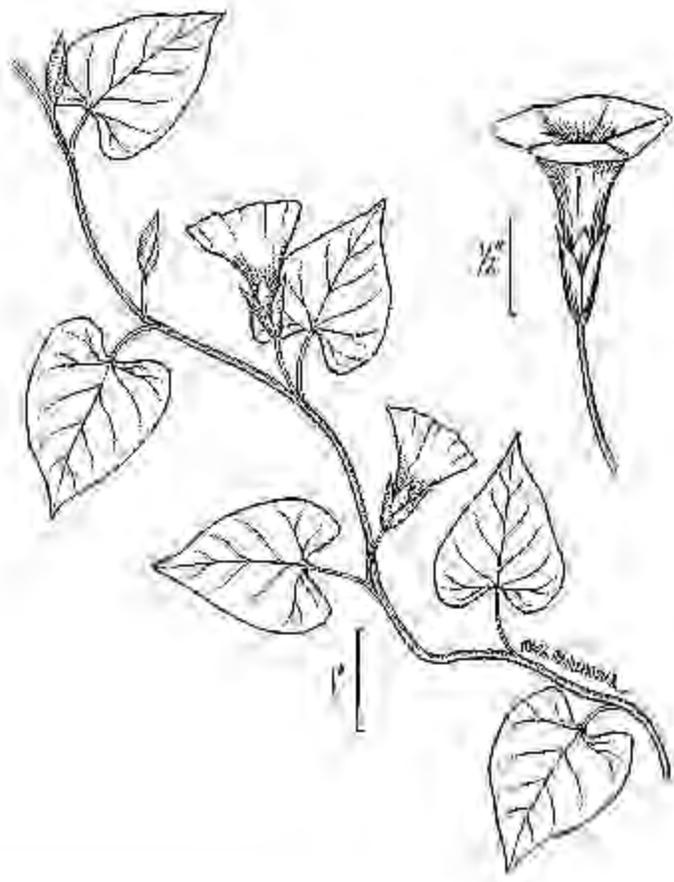
- **Family:** Jewelweed (Balsaminaceae)
- **Flowering:** May-October.
- **Field Marks:** The orange, spotted flowers serve to distinguish this species from others in the genus.
- **Habitat:** Along streams, low woods.
- **Habit:** Annual succulent herbs with fibrous roots.
- **Stems:** Erect, branched, smooth, up to 8 feet tall.
- **Leaves:** Alternate, simple, ovate to elliptic, smooth, toothed, up to 3 inches long, sometimes on stalks longer than the blades.
- **Flowers:** 1-few from the axils of the leaves, orange and spotted with red-brown, on slender, drooping stalks.
- **Sepals:** 3, two of them small and green, the other one orange and projected backward into a curved spur up to 1/3 inch long.
- **Petals:** Orange spotted with red-brown, apparently 3 in number.
- **Stamens:** 5.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules up to 1 inch long, splitting open elastically and expelling the seeds.
- **Notes:** The juice from this species counteracts the effect of poison ivy in some persons. The flowers are very attractive to hummingbirds.



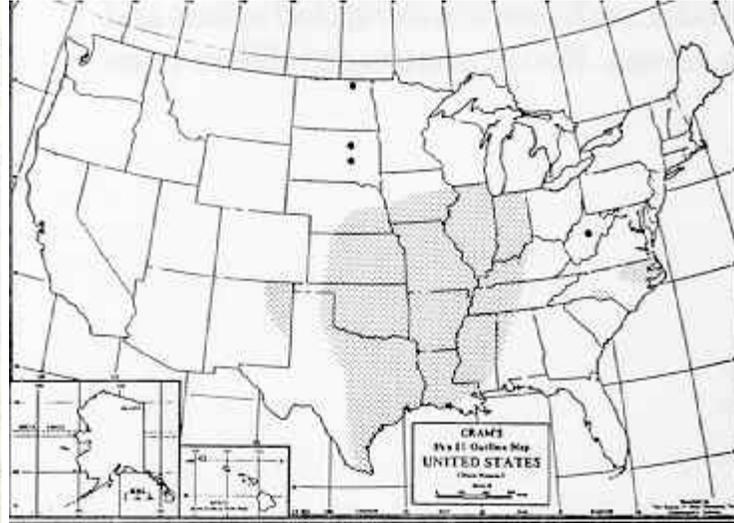
## Small White Morning-glory (*Ipomoea lacunosa*)



- **Family:** Morning-glory (Convolvulaceae)
- **Flowering:** July-October.
- **Field Marks:** This morning-glory has small, white flowers less than 1 inch long and usually smooth leaf and flower stalks, and leaves with a narrow maroon border.
- **Habitat:** Along streams, wet prairies, wet meadows, roadsides.
- **Habit:** Annual vine with slender roots.
- **Stems:** Trailing or climbing, smooth or sparsely hairy, up to 10 feet long.
- **Leaves:** Alternate, simple, ovate, pointed at the tip, heart-shaped at the base, smooth or sparsely hairy, without teeth, with a narrow maroon border, up to 4 inches long, up to 3 inches broad.
- **Flowers:** 1-3 on long, usually smooth stalks, each flower white, up to 1 inch across.
- **Sepals:** 5, green, lanceolate to ovate, up to 1/2 inch long, with ciliate margins.
- **Petals:** 5, united to form a bell-shaped corolla, white, up to 1 1/4 inches long.
- **Stamens:** 5, not exerted beyond the corolla.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules nearly spherical, 1/3-1/2 inch long, sparsely hairy at the top.



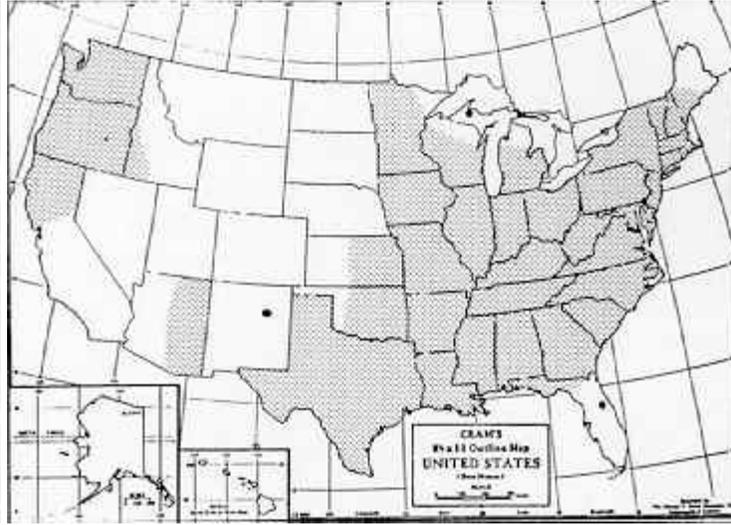
## Rough Sumpweed (*Iva annua*)



- **Family:** Aster (Asteraceae)
- **Flowering:** July-October.
- **Field Marks:** Species of *Iva* differ from species of *Ambrosia*, the ragweeds, by having all the flowers the same, as opposed to ragweeds that have pollen-producing flowers in elongated spikes and pistil-producing flowers in short clusters in the axils of the leaves. Rough sumpweed differs from other species in the genus by its rough-hairy leaves.
- **Habitat:** Wet meadows, along streams, around ponds and lakes, fallow fields, wet prairies, roadsides.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect, branched, hairy, up to 6 feet tall.
- **Leaves:** Opposite, simple, ovate, pointed at the tip, tapering to the base or truncate, toothed, hairy, up to 5 inches long, up to 3 1/2 inches broad.
- **Flowers:** Many in small heads with several heads arranged in a group of crowded racemes up to 6 inches long, each head up to 1/6 inch long, subtended by narrow bracts.
- **Sepals:** 0.
- **Petals:** 5, united below into short tubes, cream-colored.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes dark brown, somewhat triangular, flattened, about 1/10 inch long.



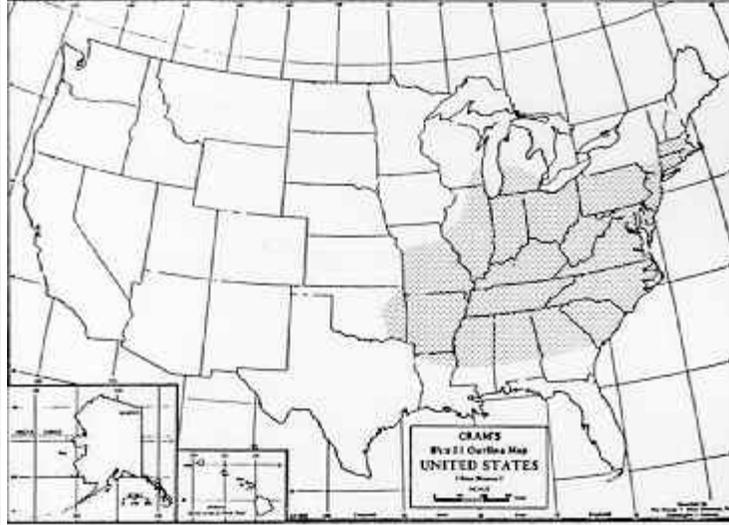
## Tapertip Rush (*Juncus acuminatus*)



- **Family:** Rush (Juncaceae)
- **Flowering:** May-August.
- **Field Marks:** This rush, with hollow, cylindrical leaves, has flower heads each with 8 or more flowers and capsules about as long as the pointed sepals and petals.
- **Habitat:** Wet meadows, around ponds, along streams, wet prairies, roadside ditches.
- **Habit:** Perennial herb with short rootstocks.
- **Stems:** Erect, smooth, up to 3 feet tall, bearing 1-3 leaves.
- **Leaves:** Elongated, cylindrical, hollow, bearing conspicuous cross partitions, up to 8 inches long.
- **Flowers:** Several in hemispherical heads, with several heads in a branched cluster.
- **Sepals:** 3, green, lanceolate, pointed at the tip, shorter than or about as long as the capsule.
- **Petals:** 3, green, lanceolate, pointed at the tip, shorter than or about as long as the capsule.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules narrowly ovoid, pale brown, up to 1/8 inch long.
- **Notes:** Some flowering heads also bear leafy outgrowths.



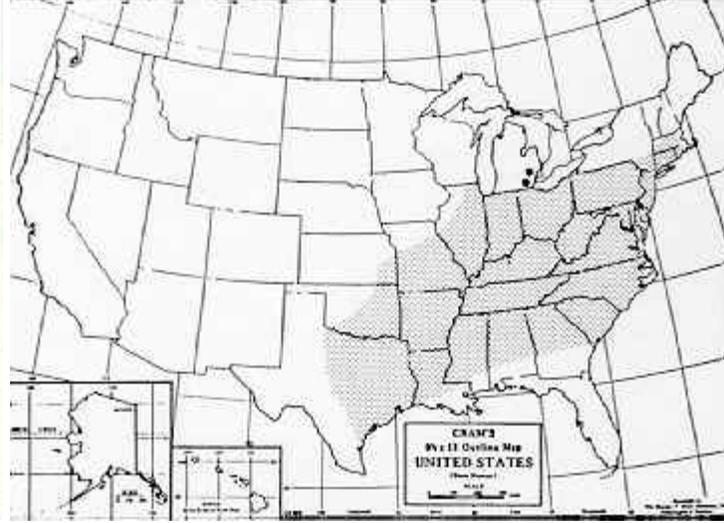
## Twinflower Rush (*Juncus biflorus*)



- **Family:** Rush (Juncaceae)
- **Flowering:** May-September.
- **Field Marks:** This rush differs from others by its red-brown flowers and capsules arranged 2-12 in a group.
- **Habitat:** Wet meadows, wet prairies, roadside ditches.
- **Habit:** Tufted perennial herb with short rhizomes.
- **Stems:** Erect, smooth, up to 3 1/2 feet tall.
- **Leaves:** Long, narrow, flat, smooth, up to 1/4 inch broad.
- **Flowers:** 2-12 in small clusters, with many clusters in an open, branched inflorescence.
- **Sepals:** 3, narrow, pointed, about 1/10 inch long.
- **Petals:** 3, narrow, pointed, slightly longer than the sepals.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules obovoid, red-brown, smooth, shiny, about 1/10 inch long.
- **Notes:** The fruits are eaten by waterfowl.



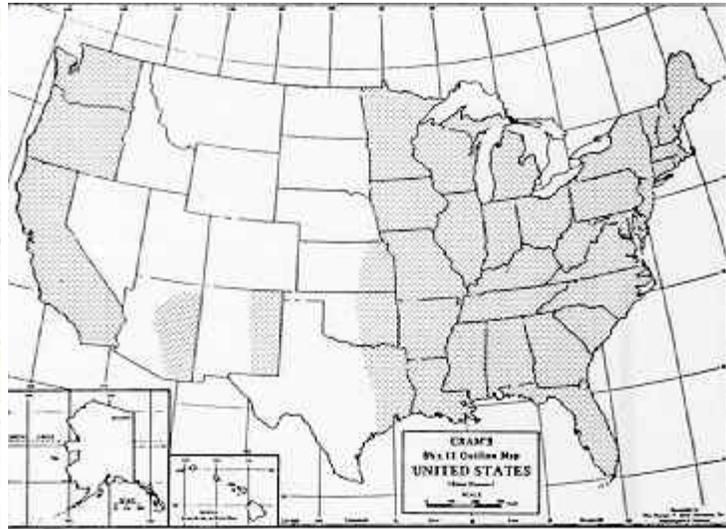
## Short-fruited Rush (*Juncus brachycarpus*)



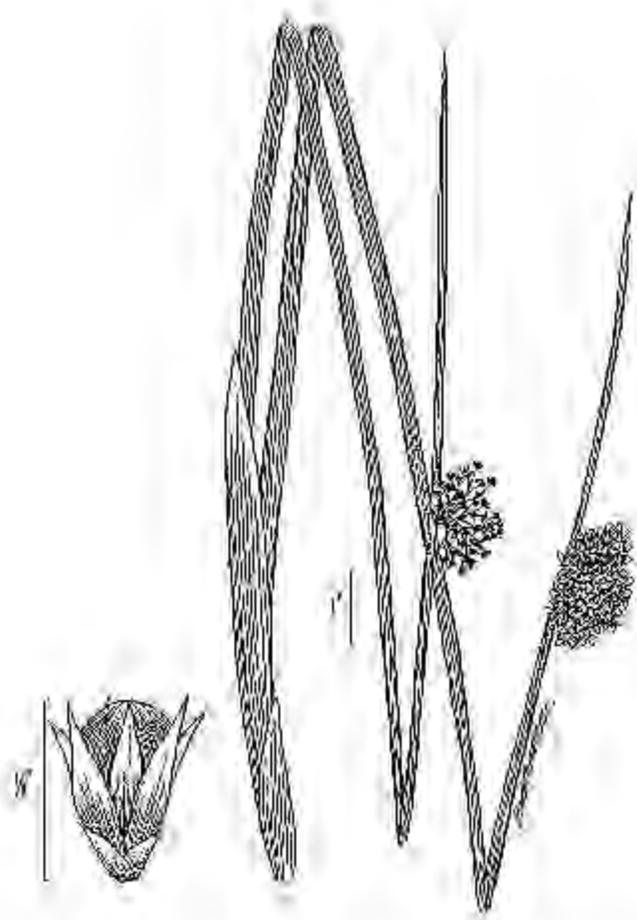
- **Family:** Rush (Juncaceae)
- **Flowering:** May-September.
- **Field Marks:** This rush differs from all other rushes by its cylindrical leaves, rounded flower heads, and capsules much shorter than the sepals and petals.
- **Habitat:** Wet meadows, wet prairies, roadside ditches.
- **Habit:** Perennial herb with thickened rootstocks.
- **Stems:** Erect, smooth, up to 3 feet tall.
- **Leaves:** Elongate, cylindrical, with conspicuous cross-markings, smooth, up to 6 inches long.
- **Flowers:** Borne in 1-20 spherical heads; each head up to 1/2 inch in diameter.
- **Sepals:** 3, green, very slender and pointed at the tip.
- **Petals:** 3, green, very slender and pointed at the tip.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules oblongoid, much shorter than the sepals and petals; seeds with a network pattern.
- **Notes:** The seeds are eaten by waterfowl.



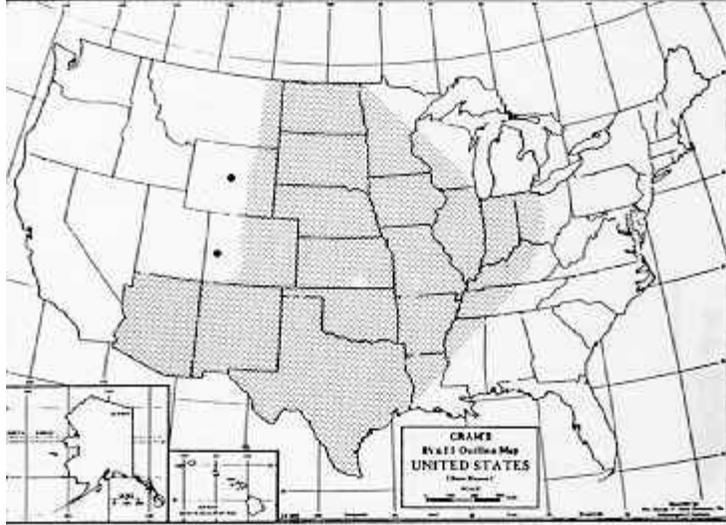
## Soft Rush (*Juncus effusus*)



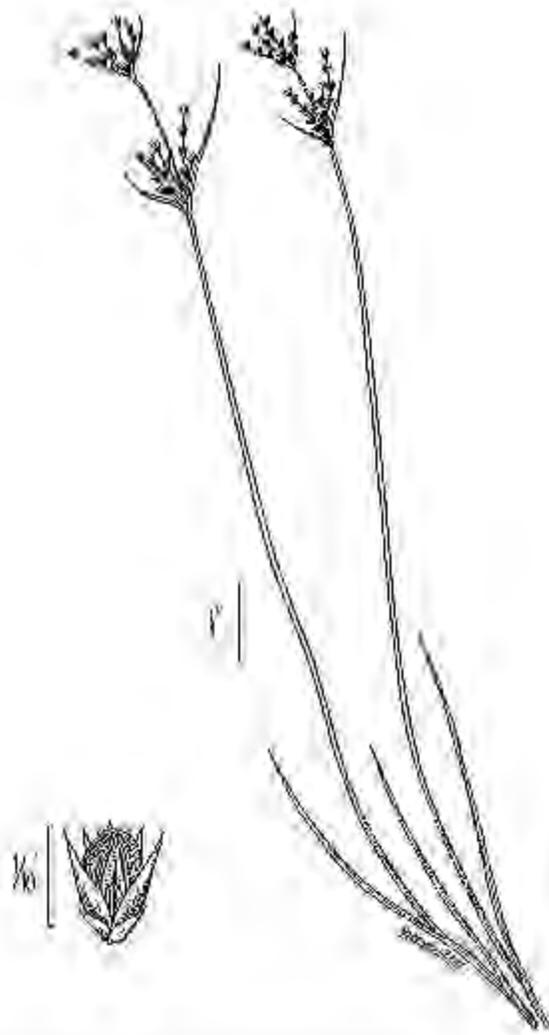
- **Family:** Rush (Juncaceae)
- **Flowering:** May-September.
- **Field Marks:** This is the only *Juncus* with the flowers appearing lateral on the stem and no leaves.
- **Habitat:** Wet ground, in ditches, swamps, marshes, around ponds and lakes.
- **Habit:** Tufted perennial herb with rhizomes.
- **Stems:** Erect, hollow, smooth, up to 4 1/2 feet tall.
- **Leaves:** None.
- **Flowers:** Several in a cluster, arising from the stem a few inches below the top, each flower green or brown, about 1/6 inch long.
- **Sepals:** 3, free from each other, narrow, tapering to a point.
- **Petals:** 3, free from each other, narrow, tapering to a point.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules obovoid, brown, smooth, about 1/6 inch long; seeds numerous, straw-colored, 1/40 inch long.
- **Notes:** Muskrats sometimes eat the stems of this rush; the seeds are eaten by waterfowl.



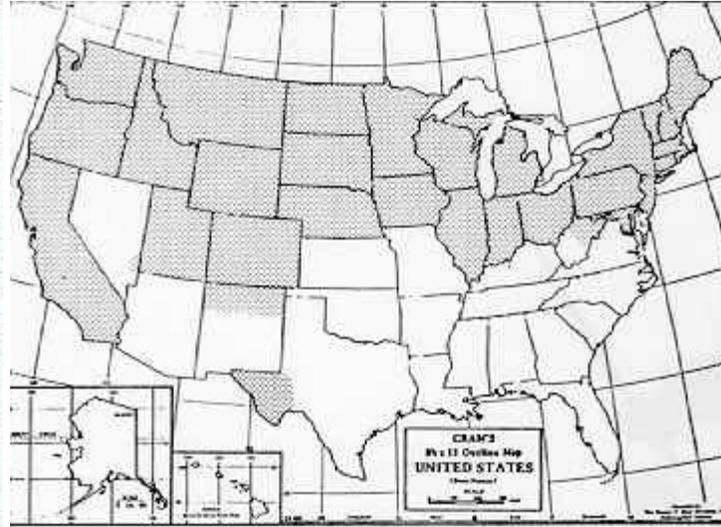
## Inland Rush (*Juncus interior*)



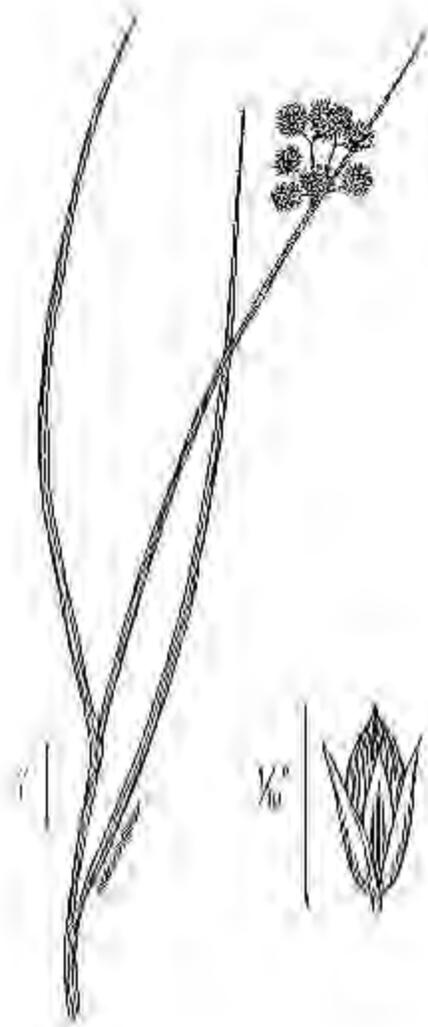
- **Family:** Rush (Juncaceae)
- **Flowering:** May-August.
- **Field Marks:** Inland rush has flat leaves and leaf sheaths with short, rounded auricles. The achenes are usually pale brown.
- **Habitat:** Wet prairies, wet meadows, fallow fields; also in drier habitats.
- **Habit:** Perennial herb with tufted roots.
- **Stems:** Erect, smooth, up to 3 feet tall.
- **Leaves:** Elongated, very narrow, flat, all near the base of the plant, smooth.
- **Flowers:** Several, scattered, borne along ascending branchlets and not overlapping.
- **Sepals:** 3, green, very narrowly lanceolate, tapering to a long point, about 1/6 inch long.
- **Petals:** 3, green, very narrowly lanceolate, tapering to a long point, about 1/6 inch long.
- **Stamens:** 6.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules oblongoid, rounded at the tip, about as long as the sepals and petals.
- **Notes:** The seeds are eaten by waterfowl.



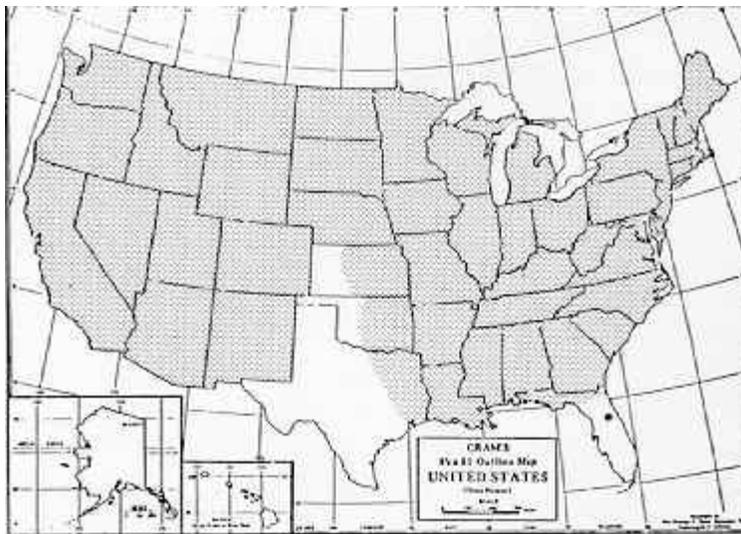
## Jointed Rush (*Juncus nodosus*)



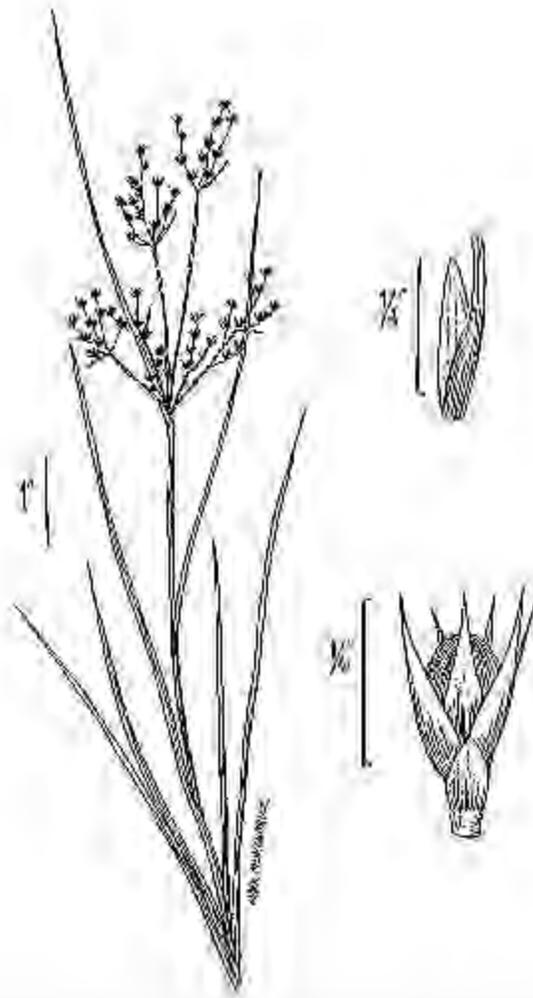
- **Family:** Rush (Juncaceae)
- **Flowering:** July-August.
- **Field Marks:** Jointed rush has terete, hollow leaves and flowers borne in spherical heads up to 1/4 inch in diameter with the sepals about as long as the petals.
- **Habitat:** Sandy banks of rivers and streams.
- **Habit:** Perennial herb with rhizomes.
- **Stems:** Erect, smooth, unbranched, up to 2 feet tall.
- **Leaves:** Elongated, terete, hollow, the uppermost leaves overtopping the clusters of flowers.
- **Flowers:** Borne in spherical heads up to 1/4 inch in diameter, with up to 30 heads per stem.
- **Sepals:** 3, greenish brown, tapering to a slender point, up to 1/6\10 inch long.
- **Petals:** 3, greenish brown, tapering to a slender point, up to 1/6\10 inch long.
- **Stamens:** 6.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules lanceoloid, tapering to a narrow point, longer than the sepals and petals.



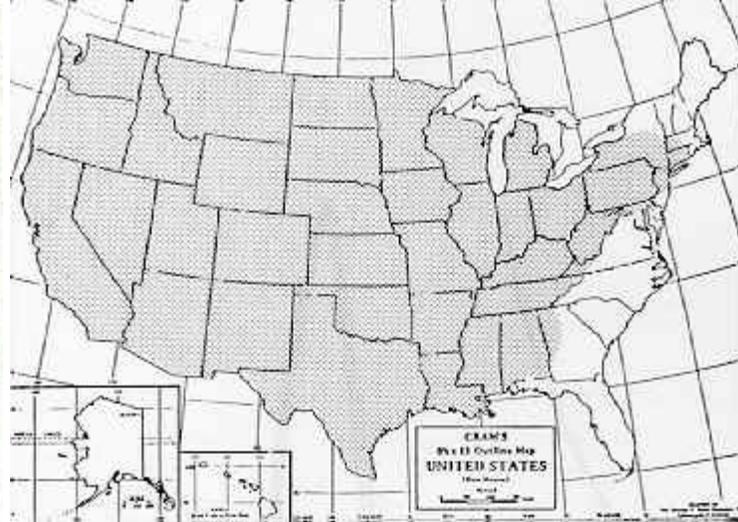
## Slender Rush (*Juncus tenuis*)



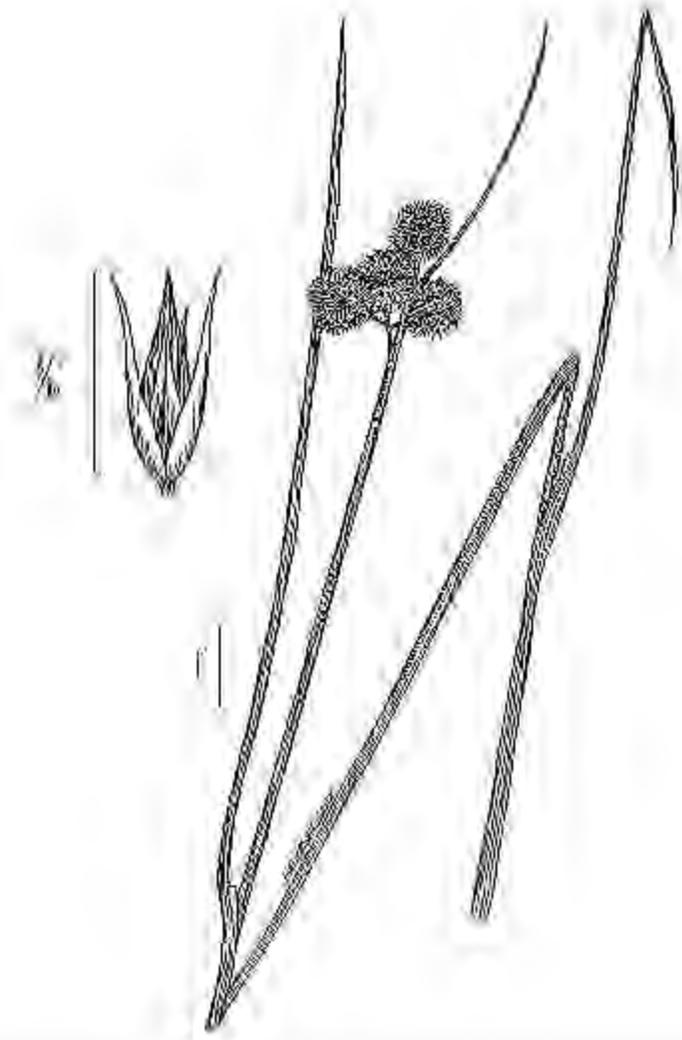
- **Family:** Rush (Juncaceae)
- **Flowering:** May-September.
- **Field Marks:** This rush has slender, flat leaves and leaf sheaths with white, transparent teeth.
- **Habitat:** Wet ground, along streams, in pathways.
- **Habit:** Tufted perennial herbs.
- **Stems:** Erect, wiry, smooth, slender, up to 1 1/2 feet tall.
- **Leaves:** Elongated, narrow, flat, shorter than the flowering stem, up to 1/12 inch broad; the sheath of the leaf with white, transparent teeth.
- **Flowers:** Several on branches of unequal length, all subtended by at least the lowest bract.
- **Sepals:** 3, green or green-brown, narrowly lanceolate, up to 1/6 inch long.
- **Petals:** 3, green or green-brown, narrowly lanceolate, up to 1/6 inch long.
- **Stamens:** 6.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules oblongoid to obovoid, rounded at the tip, shorter than the sepals and petals; seeds minute.
- **Notes:** This species is usually called path rush.



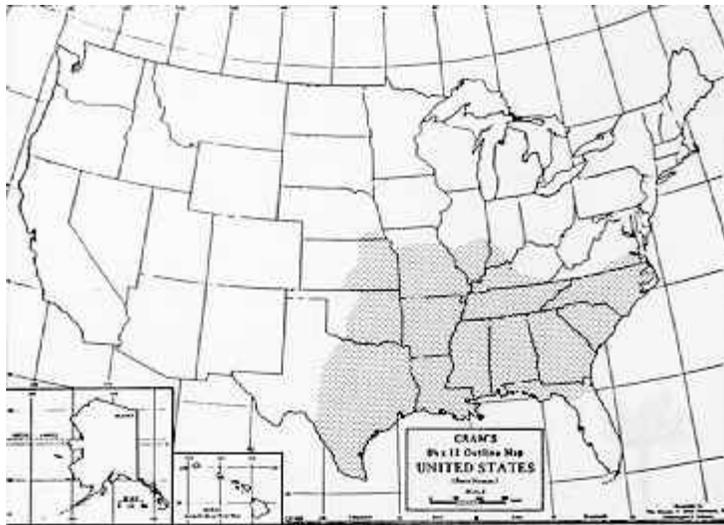
## Torrey Rush (*Juncus torreyi*)



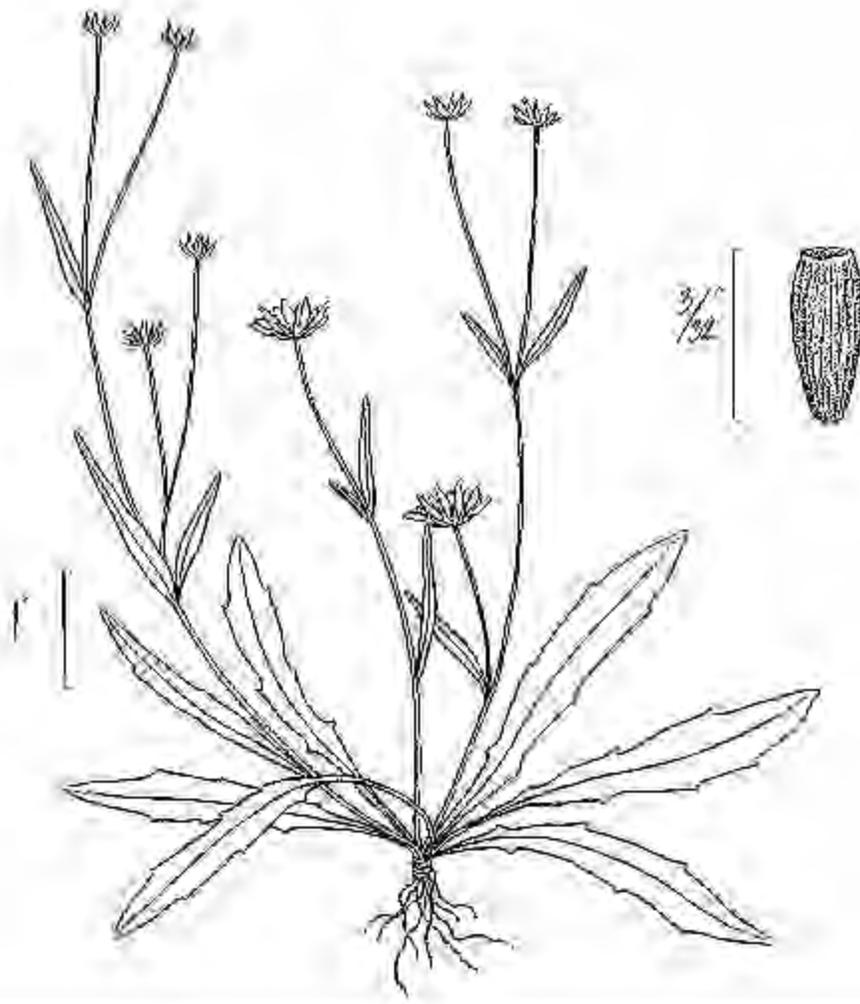
- **Family:** Rush (Juncaceae)
- **Flowering:** July-October.
- **Field Marks:** Torrey rush, with spherical heads up to 1/2 inch in diameter, has the largest heads of any rush.
- **Habitat:** Sandy or muddy banks of rivers and streams, around ponds and lakes, wet prairies, wet meadows roadside ditches.
- **Habit:** Perennial herb with rhizomes.
- **Stems:** Erect, smooth, unbranched, up to 3 feet tall.
- **Leaves:** Elongated, terete, hollow.
- **Flowers:** Borne in spherical heads up to 1/2 inch in diameter, with up to 20 heads per stem.
- **Sepals:** 3, greenish brown, tapering to a slender point, up to 1/8 inch long.
- **Petals:** 3, greenish brown, tapering to a slender point, up to 1/8 inch long.
- **Stamens:** 6.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules narrowly lanceoid, tapering to a point, as long as or longer than the sepals and petals.



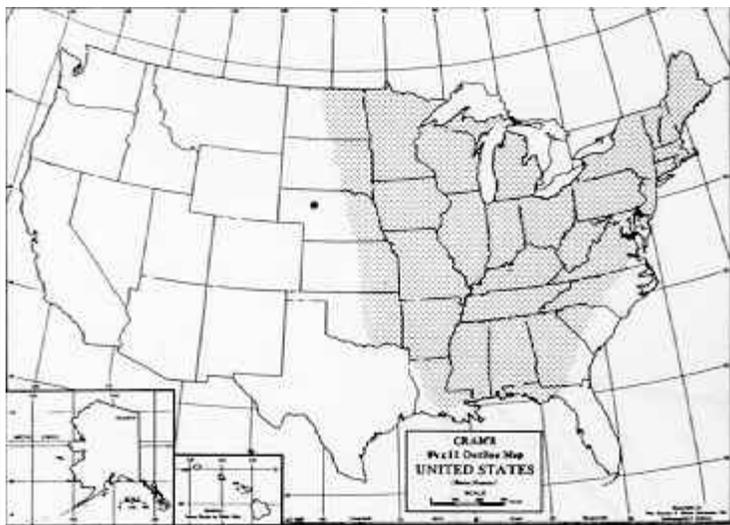
## Dwarf Dandelion (*Krigia cespitosa*)



- **Family:** Aster (Asteraceae)
- **Flowering:** April-June.
- **Field Marks:** This is the only dandelion-like plant that has opposite leaves. It also lacks the silky bristles on the achenes.
- **Habitat:** Wet meadows, along streams, fallow fields.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect, smooth, sometimes bluish, up to 15 inches tall; latex present.
- **Leaves:** Basal and opposite, linear to oblong, without teeth or with occasional lobes, pointed at the tip, tapering to the base, smooth, up to 6 inches long, less than 1 inch broad; latex present.
- **Flowers:** Several borne in heads; the heads yellow or yellow-orange, up to 1 inch across, subtended by 5-8 smooth, lanceolate bracts.
- **Sepals:** 0.
- **Petals:** United to form yellow or yellow-orange rays up to 1/2 inch long.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes red-brown, minutely spiny, up to 1/16 inch long, without a tuft of silky hairs at the tip.



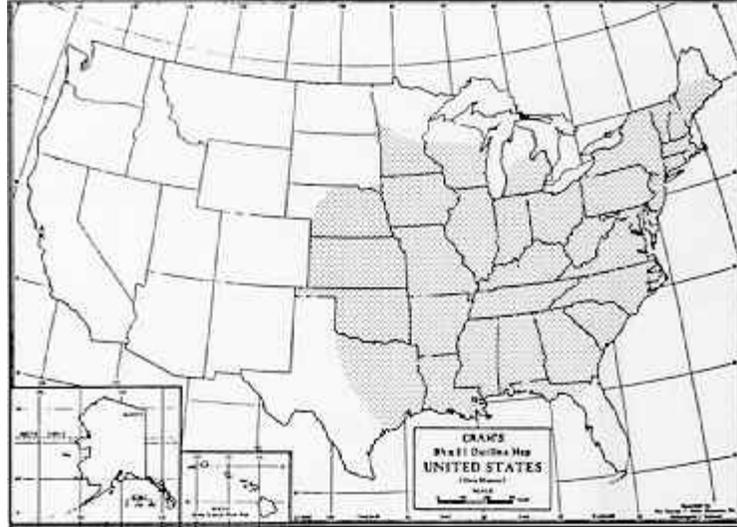
## Canada Woodnettle (*Laportea canadensis*)



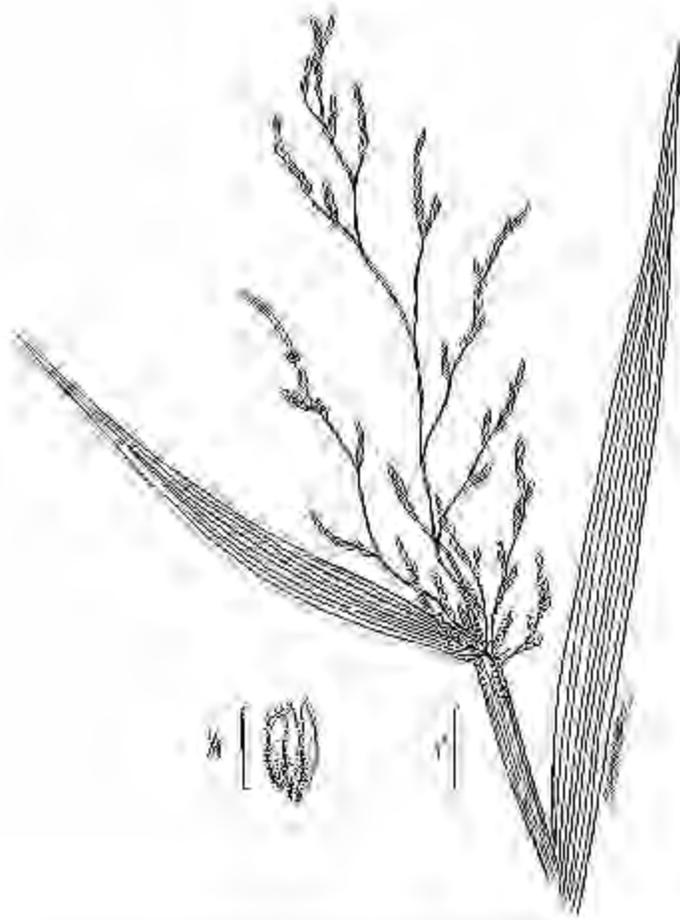
- **Family:** Nettle (Urticaceae)
- **Flowering:** May-August.
- **Field Marks:** This nettle is distinguished by its stinging hairs and alternate leaves.
- **Habitat:** Along streams, low woods.
- **Habit:** Perennial herbs from thickened rootstocks.
- **Stems:** Erect, branched or unbranched, with stinging hairs, up to 2 1/2 feet tall.
- **Leaves:** Alternate, simple, ovate, pointed at the tip, rounded at the base, coarsely toothed, hairy, up to 6 inches long.
- **Flowers:** Many tiny flowers crowded into branched clusters, the male flowers separate from the female flowers, but usually on the same plant, each flower greenish white, up to 1/12 inch long.
- **Sepals:** 4-5, green, free from each other.
- **Petals:** 0.
- **Stamens:** Usually 4.
- **Pistils:** Ovary superior.
- **Fruits:** Achenes flat, asymmetrical, nodding on a winged stalk, up to 1/6 inch long.



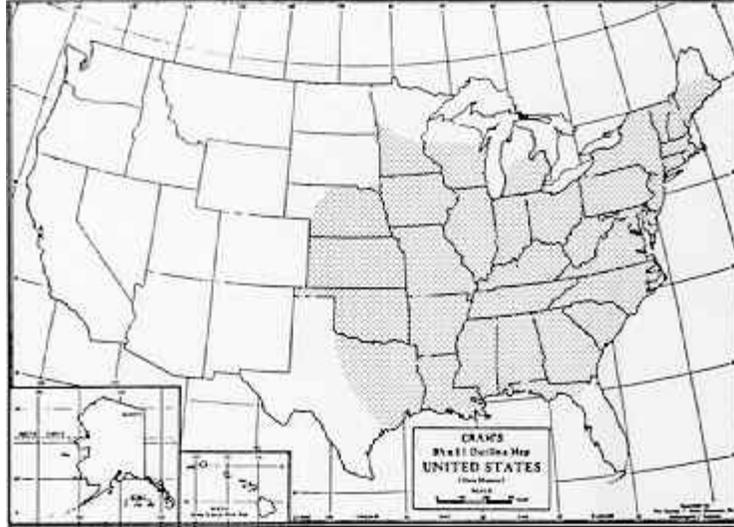
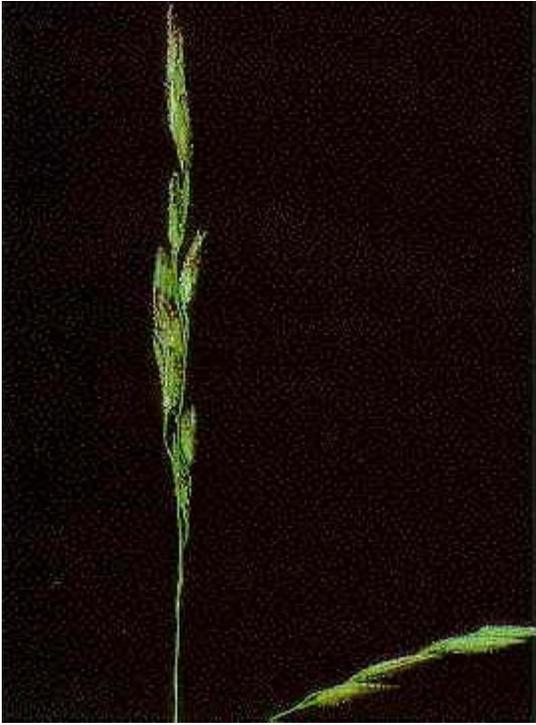
## Rice Cutgrass (*Leersia oryzoides*)



- **Family:** Grass (Poaceae)
- **Flowering:** June-October.
- **Field Marks:** This species is recognized by its rough, saw-toothed leaf edges and its spikelets 1/6-1/4 inch long.
- **Habitat:** Swamps, sloughs, around ponds and lakes, wet meadows, roadside ditches.
- **Habit:** Perennial herbs from slender rhizomes.
- **Stems:** Ascending to erect, branched, usually smooth, up to 5 feet tall.
- **Leaves:** Flat, elongated, up to 1/2 inch wide, with small but sharp-cutting teeth along the edges.
- **Flowers:** 1 per spikelet, with many spikelets arranged in a panicle up to 8 inches long; each spikelet greenish-white, oblong, 1/6-1/4 inch long.
- **Stamens:** 3.
- **Pistils:** Ovary superior; styles 3.
- **Grains:** Red-brown, ellipsoid, 1/8 inch long.
- **Notes:** The saw-toothed leaf edges can readily tear the flesh.



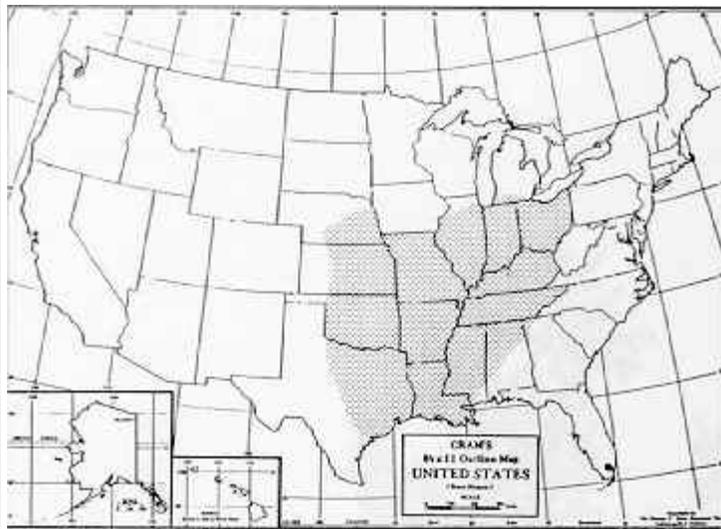
## Whitegrass (*Leersia virginica*)



- **Family:** Grass (Poaceae)
- **Flowering:** June-October.
- **Field Marks:** Whitegrass differs from all other species of *Leersia* by its tiny spikelets only about 1/6 inch long and 1/20 inch across.
- **Habitat:** Moist woods, swamps, sloughs.
- **Habit:** Perennial herbs with very slender rhizomes.
- **Stems:** Spreading or ascending, branched, smooth or slightly hairy, very slender, up to 3 feet long.
- **Leaves:** Slender, smooth or hairy, up to 6 inches long, up to 1/2 inch broad.
- **Flowers:** 1 per spikelet, with several spikelets forming a slender panicle, each spikelet flattened, about 1/6 inch long and 1/20 inch across, rounded at the tip, hairy.
- **Stamens:** 1-2.
- **Pistils:** Ovary superior; styles 3.
- **Grains:** Red-brown, ellipsoid, 1/10 inch long.
- **Notes:** The saw-toothed leaf edges can readily tear the flesh.



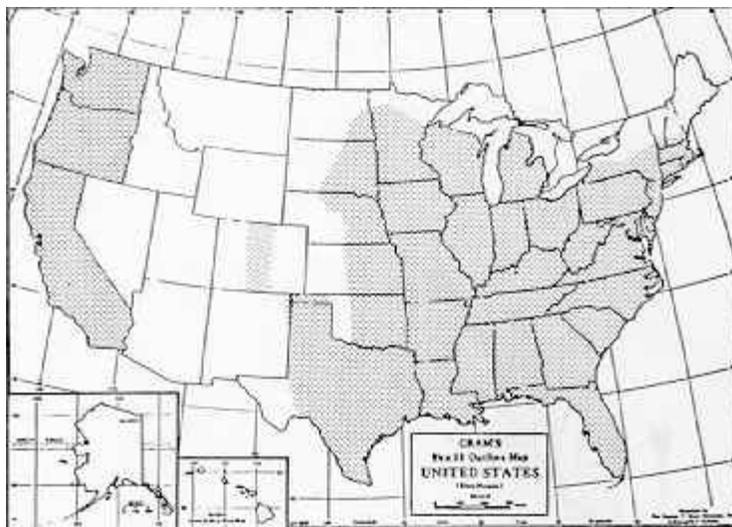
## Narrow-leaved Paleseed (*Leucospora multifida*)



- **Family:** Figwort (Scrophulariaceae)
- **Flowering:** May-October.
- **Field Marks:** The tiny, pale blue flowers and the opposite, pinnately divided leaves distinguish this species.
- **Habitat:** Wet woods, along streams, wet prairies.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect, much branched, up to 8 inches tall, with spreading hairs.
- **Leaves:** Opposite, pinnately divided into 3-7 narrowly oblong segments, hairy, up to 1 1/4 inches long.
- **Flowers:** 1 or 2 in the axils of the leaves, borne on slender stalks longer than the flowers.
- **Sepals:** 5, green, very narrow, united below.
- **Petals:** 5, pale blue, united below, 2-lipped, about 1/3 inch long.
- **Stamens:** 4, not exerted beyond the petals.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules ovoid, containing many seeds.



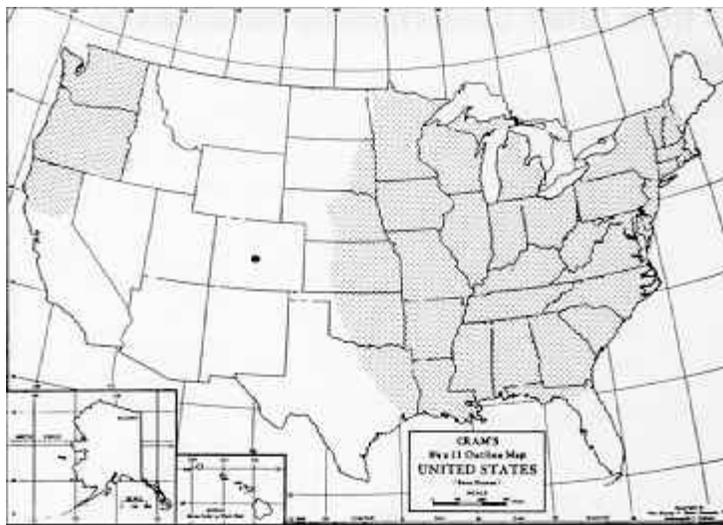
## False Pimpernel (*Lindernia anagallidea*)



- **Family:** Figwort (Scrophulariaceae)
- **Flowering:** May-October.
- **Field Marks:** *Lindernia* differs from *Gratiola* by lacking a pair of small leaf-like bracts just below the sepals. *Lindernia anagallidea* is distinguished from *L. dubia* by having flowers on stalks longer than the subtending leaves.
- **Habitat:** Around ponds and lakes, roadside ditches, along streams.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect or spreading, branched, 4-sided, smooth, up to 8 inches tall.
- **Leaves:** Opposite, simple, elliptic to ovate, pointed or rounded at the tip, rounded or tapering to the sessile base, with or without teeth, smooth, up to 1 inch long, up to 1/3 inch broad.
- **Flowers:** Solitary in the axils of the upper leaves, white or pale lavender on slender stalks as long as or longer than the subtending leaves.
- **Sepals:** 5, green, free from each other.
- **Petals:** 5, united into 2 lips, white or pale lavender.
- **Stamens:** 2.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules ellipsoid, up to 1/6 inch long, with a persistent style.



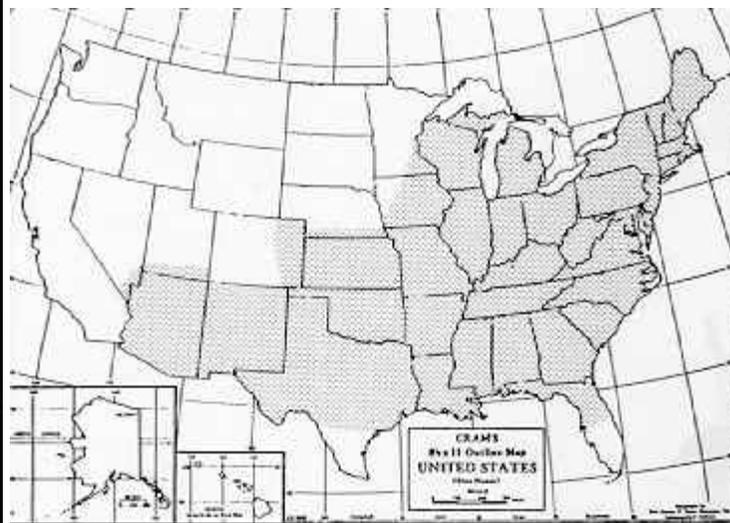
## Moistbank Pimpernel (*Lindernia dubia*)



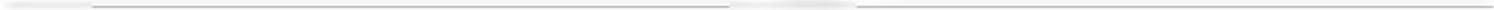
- **Family:** Figwort (Scrophulariaceae)
- **Flowering:** June-October.
- **Field Marks:** The genus *Lindernia* differs from the similar genus *Gratiola* by lacking the pair of tiny bracts near the calyx. The moistbank pimpernel differs from other *Lindernias* by the stalks of the lowermost flowers shorter than their subtending leaves.
- **Habitat:** Around ponds and lakes, wet ditches, along streams, marshes, low woods.
- **Habit:** Erect or sprawling annual herb with fibrous roots.
- **Stems:** Mostly spreading, much branched, up to 10 inches long.
- **Leaves:** Opposite, simple, oblanceolate to elliptic, more or less pointed at the tip, tapering to the base, with or without a few teeth, smooth, up to 1 inch long.
- **Flowers:** Solitary in the axils of the leaves, white to pale lavender, the lowermost flower stalks shorter than their subtending leaves.
- **Sepals:** 5, green, free, or nearly so.
- **Petals:** 5, somewhat 2-lipped, white to pale lavender, less than 1/2 inch long.
- **Stamens:** 4, only 2 of them fertile.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules ovoid, smooth, 1/4-1/5 inch long, with many seeds.



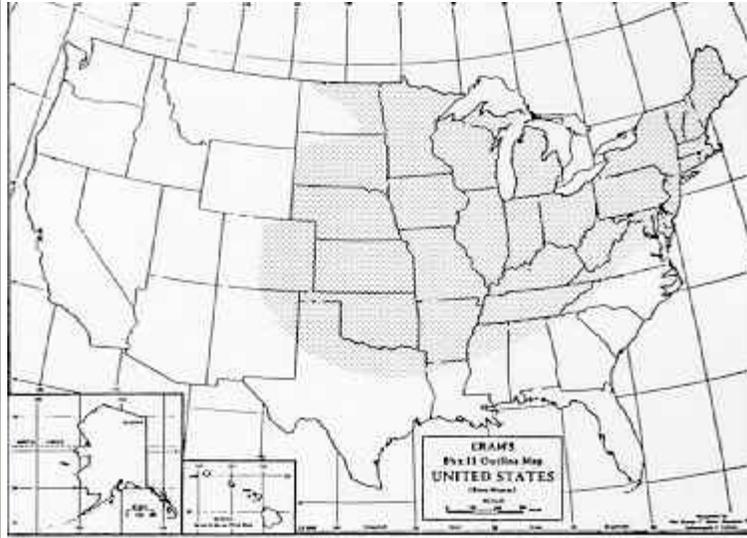
## Cardinal Flower (*Lobelia cardinalis*)



- **Family:** Bellwort (Campanulaceae)
- **Flowering:** July-October.
- **Field Marks:** This species is readily recognized by its bright red, 2-lipped flowers.
- **Habitat:** Along streams, low woods, marshes, wet meadows, around ponds and lakes, wet prairies.
- **Habit:** Perennial herb from fibrous roots.
- **Stems:** Erect, branched or unbranched, usually hairy, up to 6 feet tall, with milky sap.
- **Leaves:** Alternate, simple, elliptic to lanceolate, pointed at the tip, tapering to the base, toothed, usually hairy, up to 8 inches long, up to 2 1/2 inches broad.
- **Flowers:** Several crowded into racemes up to 15 inches long; each flower bright red, up to 2 inches long, on short stalks.
- **Sepals:** 5, green, very narrow, up to 1 inch long.
- **Petals:** 5, bright red, 2-lipped; the upper lip 2-lobed; the lower lip 3-lobed.
- **Stamens:** 5, united.
- **Pistils:** Ovary inferior.
- **Fruits:** Capsules ovoid to spherical, up to 1/2 inch across, opening at the tip; seeds yellow-brown, warty, 1/20 inch long.



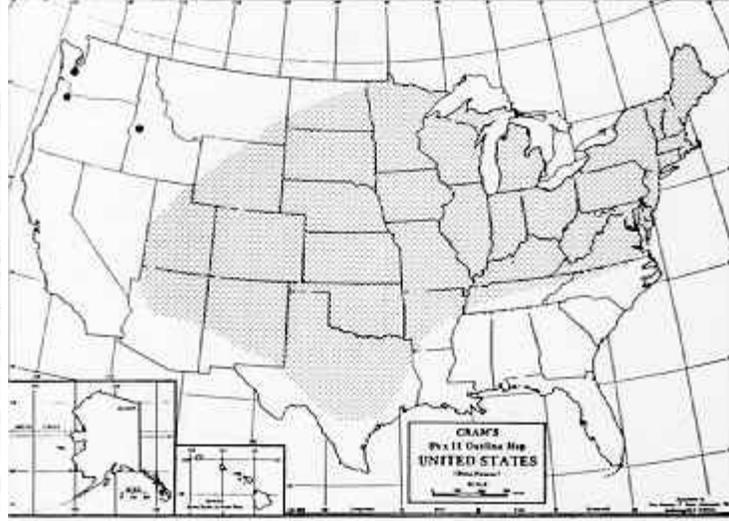
## Bigblue Lobelia (*Lobelia siphilitica*)



- **Family:** Bellwort (Campanulaceae)
- **Flowering:** August-September.
- **Field Marks:** This *Lobelia* differs by its inch long blue flowers and its sepals cleft about halfway down the cup.
- **Habitat:** Along streams, wet meadows, around ponds and lakes, wet prairies, in sloughs, roadside ditches.
- **Habit:** Perennial herb from fibrous roots.
- **Stems:** Erect, usually branched, smooth or hairy, up to 4 feet tall, with milky sap.
- **Leaves:** Alternate, simple, oblong to elliptic, pointed at the tip, tapering to the base, toothed, smooth or hairy, up to 5 inches long.
- **Flowers:** Several crowded into racemes up to 10 inches long, blue, up to 1 inch long, on short stalks.
- **Sepals:** 5, green, united below for about half their length.
- **Petals:** 5, blue, 2-lipped; the upper lip 2-lobed; the lower lip 3-lobed.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Capsules opening at the top.
- **Notes:** The leaves and stems are browsed upon by white-tailed deer.



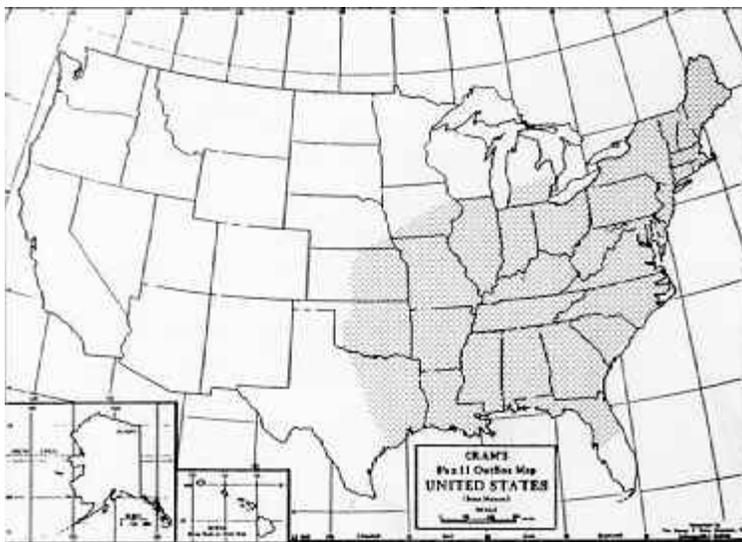
## Birdsfoot Trefoil (*Lotus corniculatus*)



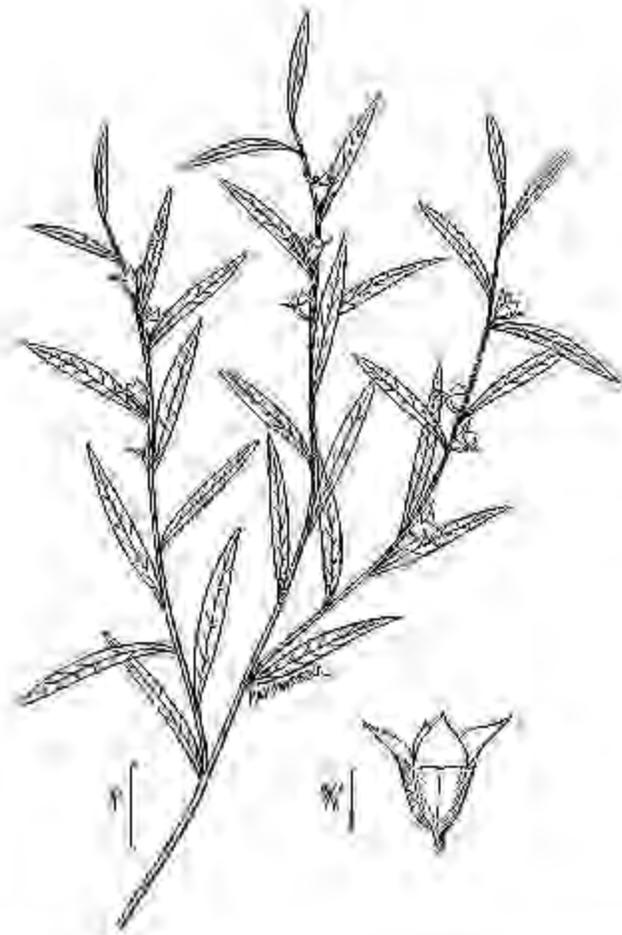
- **Family:** Pea (Fabaceae)
- **Flowering:** May-September.
- **Field Marks:** This species differs from all members of the pea family by its 5 leaflets and head-like umbels of bright yellow flowers.
- **Habitat:** Roadsides, old fields, disturbed soil.
- **Habit:** Perennial herbs.
- **Stems:** Erect or sprawling on the ground, branched, smooth or sparsely hairy, up to 1 1/2 feet long.
- **Leaves:** Alternate, pinnately compound with 5 leaflets, the leaflets elliptic, rounded or pointed at the tip, tapering to the base, without teeth, somewhat hairy, up to 2/3 inch long, up to 1/3 inch wide, without leaflet stalks.
- **Flowers:** Several in head-like umbels, bright yellow, up to 2/3 inch long.
- **Sepals:** 5, green, united into a tube.
- **Petals:** 5, sweet pea-shaped, bright yellow, up to 2/3 inch long.
- **Stamens:** 10.
- **Pistils:** Ovary superior.
- **Fruits:** Pods cylindric, smooth, up to 1 3/4 inches long.



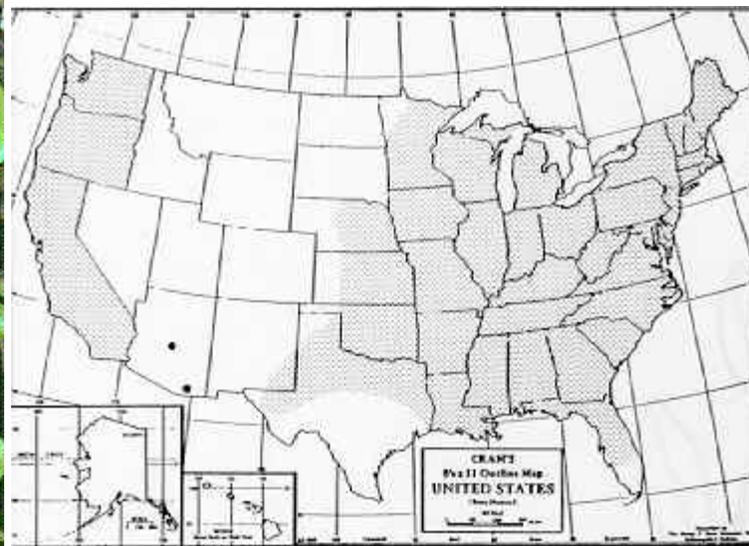
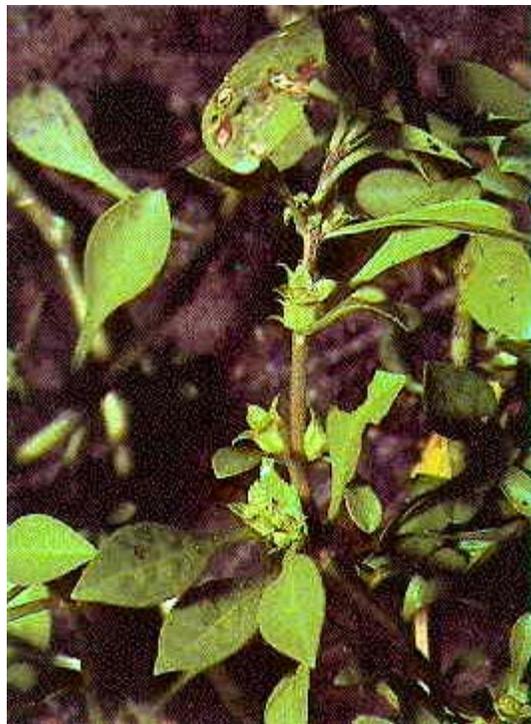
## Seedbox (*Ludwigia alternifolia*)



- **Family:** Evening Primrose (Onagraceae)
- **Flowering:** June-August.
- **Field Marks:** This erect *Ludwigia* is distinguished by its alternate leaves and short-stalked square capsules.
- **Habitat:** Along streams, wet meadows, around ponds, wet prairies, fallow fields, roadside ditches.
- **Habit:** Perennial herb with a cluster of thickened roots.
- **Stems:** Erect, branched, smooth, up to 3 feet tall.
- **Leaves:** Alternate, simple, lanceolate, pointed at the tip, tapering to the base, without teeth, smooth or hairy, up to 4 inches long.
- **Flowers:** Yellow, about 1/2 inch across, solitary in the axils of the leaves.
- **Sepals:** 4, green, united to form a cup.
- **Petals:** 4, yellow, free from each other
- **Stamens:** 4.
- **Pistils:** Ovary inferior.
- **Fruits:** Capsule more or less square, up to 1/4 inch across, angled or narrowly winged, containing many seeds.
- **Notes:** The plants are browsed by wildlife.



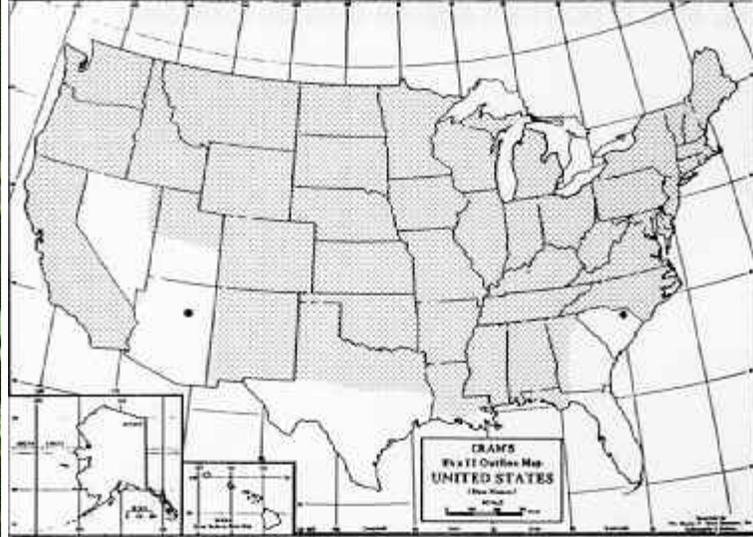
## Marsh Purslane (*Ludwigia palustris*)



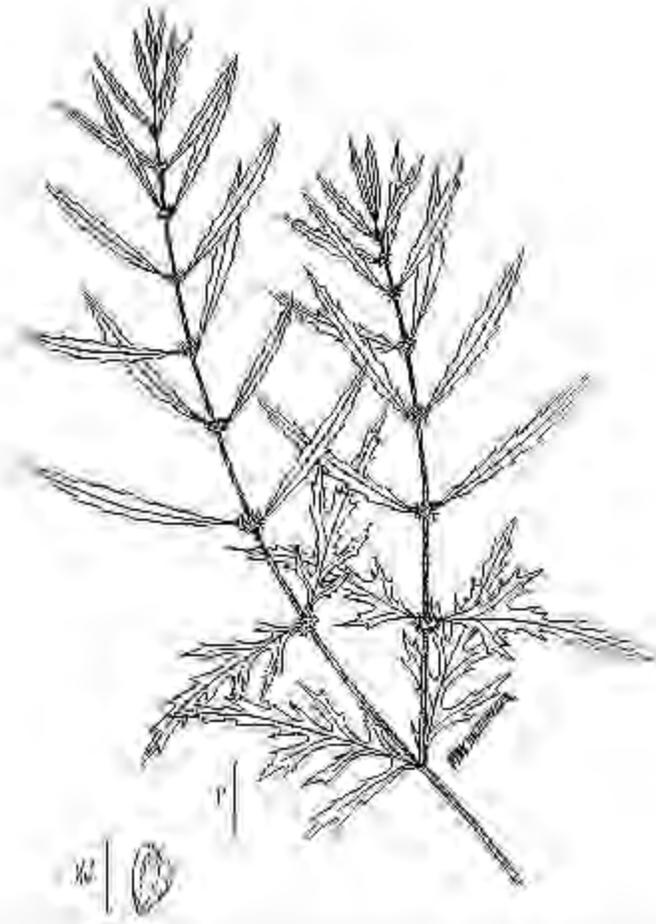
- **Family:** Evening Primrose (Onagraceae)
- **Flowering:** May-September.
- **Field Marks:** This is a prostrate, smooth *Ludwigia*, sometimes rooting at the nodes, and with opposite leaves and tiny axillary flowers without petals.
- **Habitat:** Around ponds and lakes, in roadside ditches, in mud along streams, in sloughs, in swamps, sometimes in shallow water.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Floating in water or lying flat on the ground, smooth, up to 1 1/2 feet long.
- **Leaves:** Opposite, simple, lanceolate to lance-ovate, pointed or rounded at the tip, tapering to the base, without teeth, smooth, up to 1 1/4 inches long.
- **Flowers:** Solitary in the axils of the leaves, green, up to 1/6 inch long, without a stalk.
- **Sepals:** 4, green, united below to form a cup.
- **Petals:** 0.
- **Stamens:** 4.
- **Pistils:** Ovary inferior.
- **Fruits:** Capsules 4-sided, longer than broad, up to 1/6 inch long, containing many seeds.
- **Notes:** The stems are eaten by muskrats.



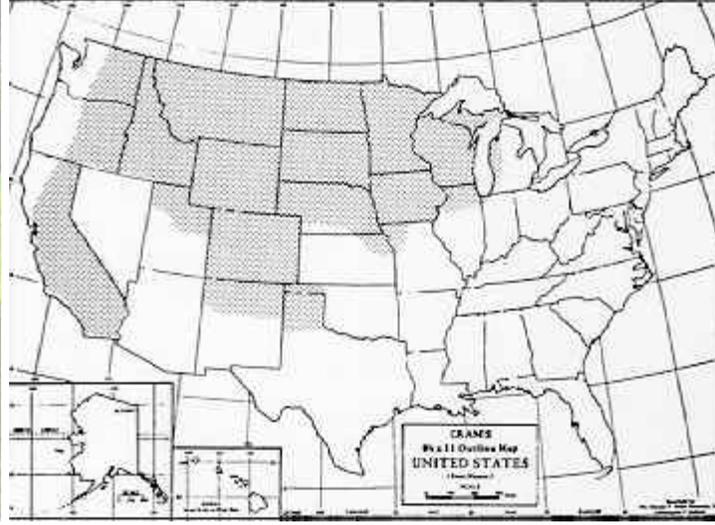
## American Bugleweed (*Lycopus americanus*)



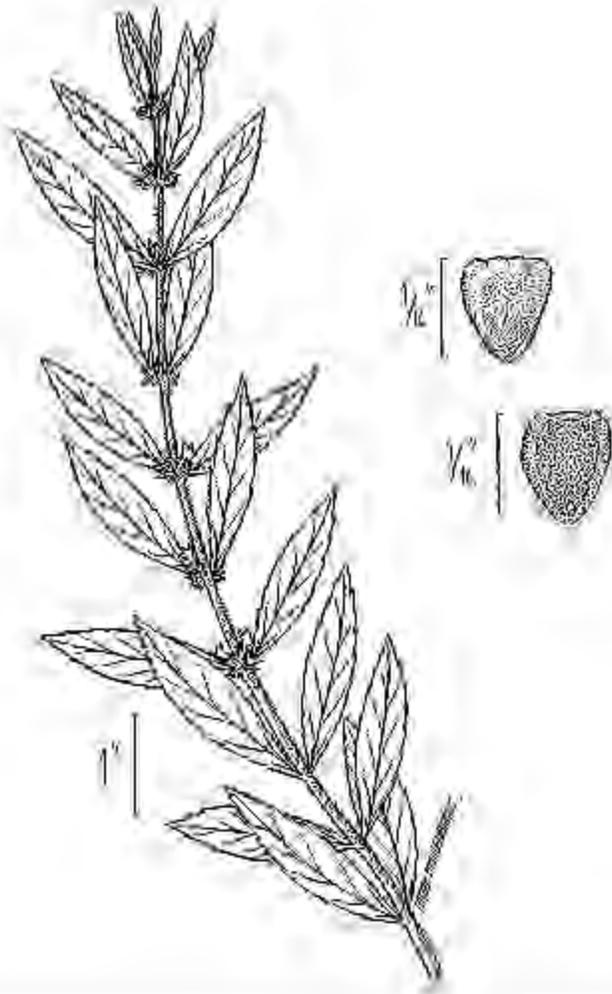
- **Family:** Mint (Lamiaceae)
- **Flowering:** July-October.
- **Field Marks:** Species of *Lycopus* have axillary clusters of tiny white flowers. The American bugleweed differs from other species in the genus by its long, sharp-pointed sepals and its coarsely toothed or deeply pinnate leaves.
- **Habitat:** Around ponds and lakes, wet roadside ditches, along streams, in sloughs, low woods, wet meadows.
- **Habit:** Perennial herb without tuberous roots.
- **Stems:** Erect, unbranched, smooth, 4-sided, up to 1 foot tall.
- **Leaves:** Opposite, simple, lanceolate to lance-linear, usually coarsely toothed or even pinnately divided, smooth, up to 3 1/2 inches long.
- **Flowers:** Several crowded in the axils of the leaves, white, about 1/8 inch long.
- **Sepals:** 5, green, united below, narrowly triangular, with a sharp-pointed tip.
- **Petals:** Apparently 4, white, united below to form a short tube.
- **Stamens:** 2.
- **Pistils:** Ovary superior, 4-parted.
- **Fruits:** Nutlets about 1/12 inch long.
- **Notes:** The nutlets are eaten by waterfowl.



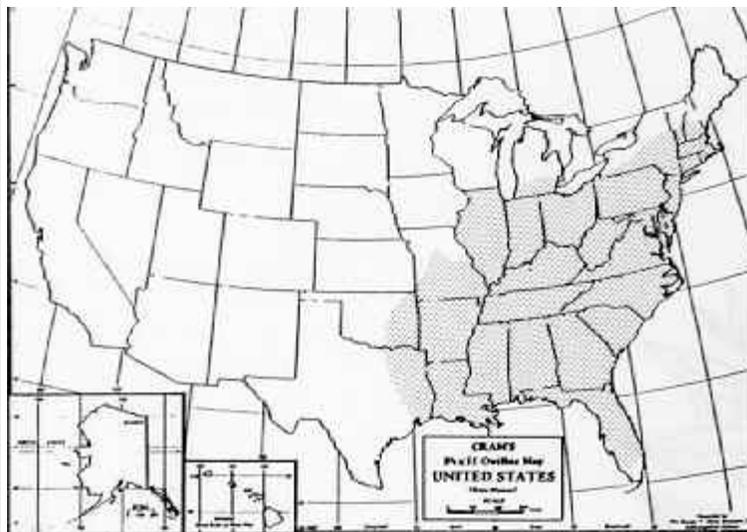
## Rough Bugleweed (*Lycopus asper*)



- **Family:** Mint (Lamiaceae)
- **Flowering:** July-August.
- **Field Marks:** This *Lycopus* is distinguished by its toothed leaves which have no stalks and its long-pointed calyx lobes.
- **Habitat:** Low woods, marshes, wet shores.
- **Habit:** Perennial herb with thickened tubers.
- **Stems:** Erect, usually unbranched, hairy, up to 2 foot tall.
- **Leaves:** Opposite, simple, lanceolate to oblong, pointed at the tip, tapering to the base, toothed, hairy, up to 3 inches long, without stalks.
- **Flowers:** Several in clusters in the axils of the leaves, white, without a stalk.
- **Sepals:** 4, green, united, hairy, the lobes long-pointed.
- **Petals:** 4, white, united, up to 1/6 inch long.
- **Stamens:** 2, attached to the corolla, not exerted.
- **Pistils:** Ovary superior, 4-parted.
- **Fruits:** 4 nutlets, warty at the tip, less than 1/10 inch long.
- **Notes:** The thickened tubers are a source of food for muskrats.



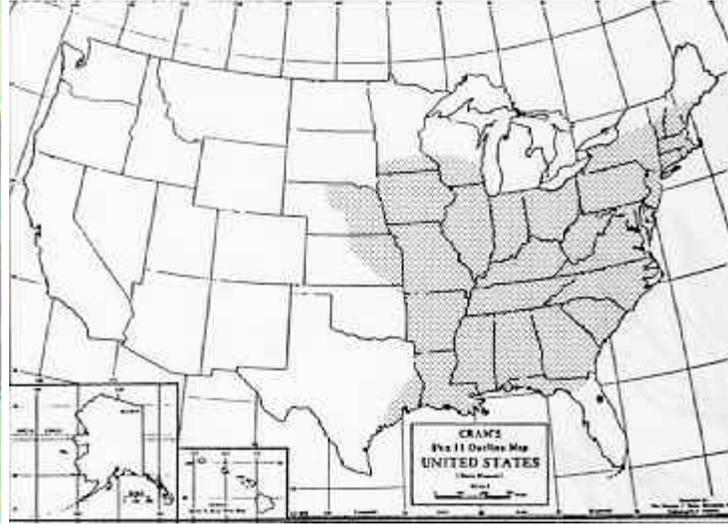
## Stalked Water Horehound (*Lycopus rubellus*)



- **Family:** Mint (Lamiaceae)
- **Flowering:** July-September.
- **Field Marks:** The distinguishing characters of this *Lycopus* are the sharp-pointed sepals and the unlobed leaves with small teeth.
- **Habitat:** Low woods, swamps, in sloughs, along streams, around ponds and lakes.
- **Habit:** Perennial herb with tuberous roots.
- **Stems:** Erect, unbranched, smooth, 4-sided, up to 1 foot tall.
- **Leaves:** Opposite, simple, lanceolate to elliptic, toothed, not lobed, smooth, up to 3 inches long.
- **Flowers:** Several crowded in the axils of the leaves, white, up to 1/4 inch long.
- **Sepals:** 5, green, united below, the lobes sharp-pointed, about 1/10 inch long.
- **Petals:** Apparently 4, white, united below to form a short tube.
- **Stamens:** 2.
- **Pistils:** Ovary superior, 4-parted.
- **Fruits:** Nutlets about 1/12 inch long.
- **Notes:** The fleshy roots are eaten by muskrats, the nutlets are eaten by waterfowl.



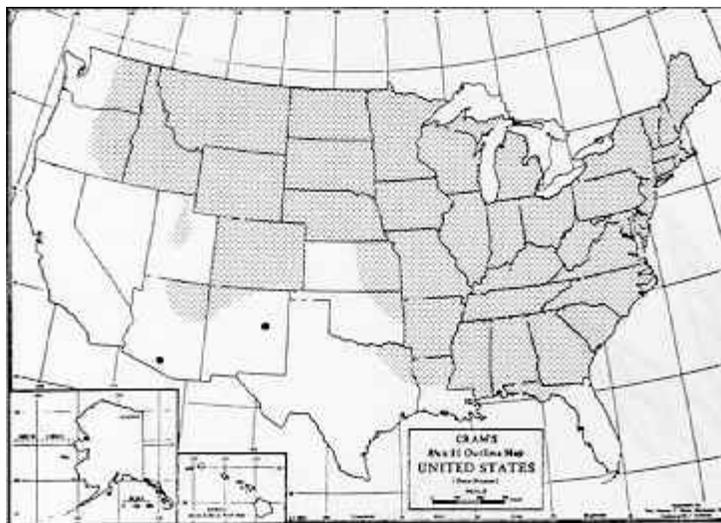
## Virginia Bugleweed (*Lycopus virginicus*)



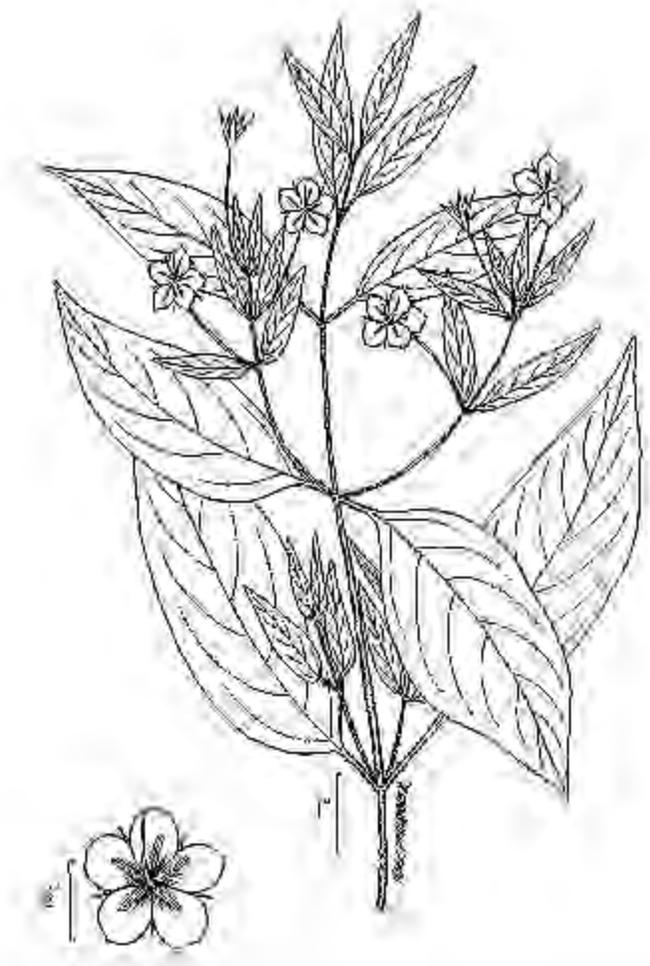
- **Family:** Mint (Lamiaceae)
- **Flowering:** July-October.
- **Field Marks:** This *Lycopus* differs from all others by its toothed, sessile or short-stalked leaves and its broadly triangular sepals about 1/20 inch long.
- **Habitat:** Wet woods, wet meadows, along streams, roadside ditches.
- **Habit:** Perennial herb with slender stolons and occasional tuberous swellings.
- **Stems:** Erect, smooth or minutely hairy, up to 1 foot tall.
- **Leaves:** Opposite, simple, lanceolate to elliptic, pointed at the tip, tapering to the sessile or short-stalked base, coarsely toothed, minutely hairy, up to 5 inches long, up to 2 inches broad.
- **Flowers:** Several crowded in the axils of the leaves, white.
- **Sepals:** 5, green, united below, the broad lobes triangular, about 1/10 inch long.
- **Petals:** 4, white, united below, up to 1/8 inch long.
- **Stamens:** 2, not protruding above the petals.
- **Pistils:** Ovary superior, 4-parted.
- **Fruits:** Nutlets 4, longer than the sepals, up to 1/10 inch long.
- **Notes:** The nutlets are eaten by waterfowl.



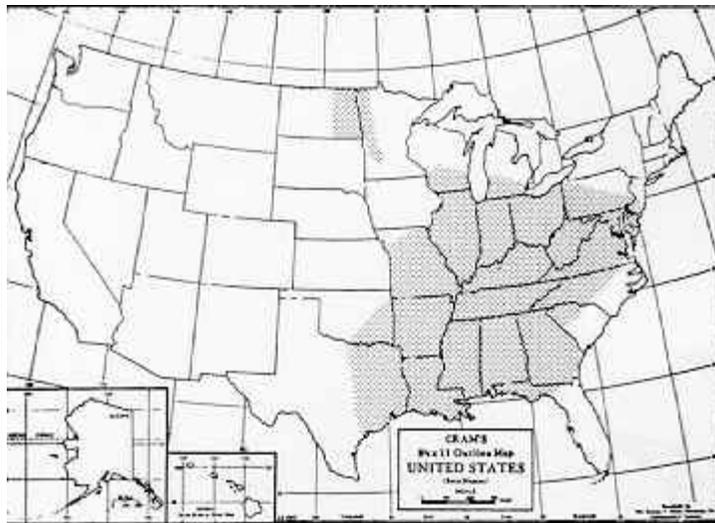
## Fringed Loosestrife (*Lysimachia ciliata*)



- **Family:** Primrose (Primulaceae)
- **Flowering:** May-July.
- **Field Marks:** This species is distinguished by its leaves that are rounded or heart-shaped at the base and by its ciliate leaf stalks.
- **Habitat:** Low woods, wet prairies, along streams, around ponds, damp thickets.
- **Habit:** Perennial herb with slender rhizomes.
- **Stems:** Erect, branched or unbranched, usually smooth, up to 3 feet tall.
- **Leaves:** Opposite, simple, ovate to ovate-lanceolate, pointed at the tip, rounded or heart-shaped at the base, without teeth, usually smooth, up to 4 1/2 inches long, up to 1 1/2 inches broad; leaf stalks conspicuously ciliate.
- **Flowers:** Several on long stalks from the axils of the uppermost leaves, yellow.
- **Sepals:** 5, green, nearly free from each other, lanceolate, up to 2/5 inch long.
- **Petals:** 5, yellow, short-pointed at the tip, nearly free from each other, up to 3/5 inch long.
- **Stamens:** 5, not attached to the petals.
- **Pistils:** Ovary superior, smooth.
- **Fruits:** Capsules up to 1/2 inch long, smooth.



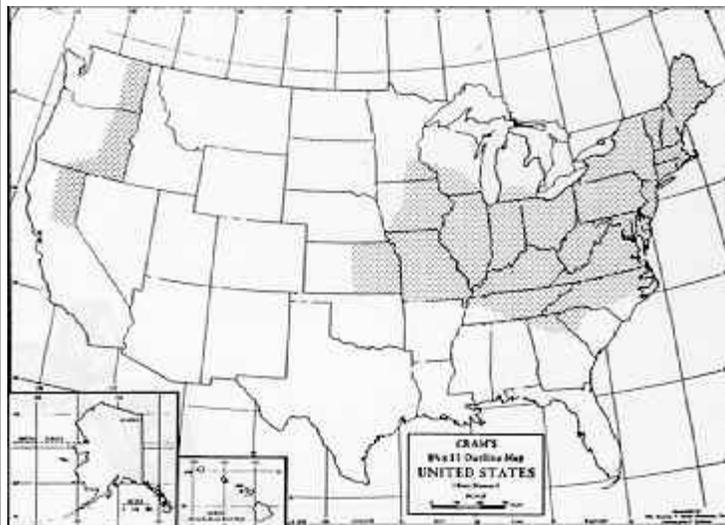
## Lanceleaf Loosestrife (*Lysimachia lanceolata*)



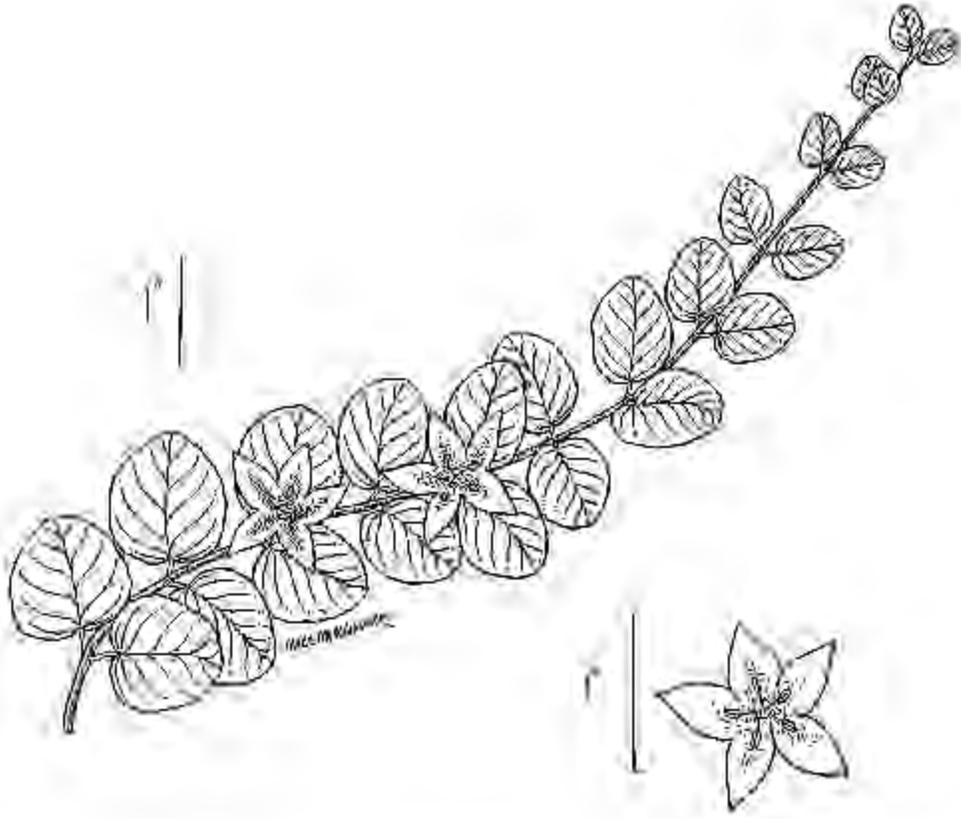
- **Family:** Primrose (Primulaceae)
- **Flowering:** May-August.
- **Field Marks:** This loosestrife is recognized by its linear-lanceolate or lanceolate leaves and its elongated stolons.
- **Habitat:** Wet woods, wet prairies, along rivers, around lakes and ponds, swamps.
- **Habit:** Perennial herb with creeping stolons.
- **Stems:** Erect, often branched, smooth, up to 2 feet tall.
- **Leaves:** Opposite, simple, the middle and upper ones linear-lanceolate to lanceolate, more or less pointed at the tip, tapering to a short-ciliate base, without teeth, ciliate along the edges, usually roughened on the lower surface, up to 4 inches long, up to 1/2 inch broad.
- **Flowers:** Yellow, on slender stalks from the axils of the uppermost leaves.
- **Sepals:** 5, green, free from each other, up to 1/3 inch long.
- **Petals:** 5, yellow, attached only at the base, up to 1/2 inch long, minutely toothed.
- **Stamens:** 5.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules nearly spherical, smooth, with many seeds.



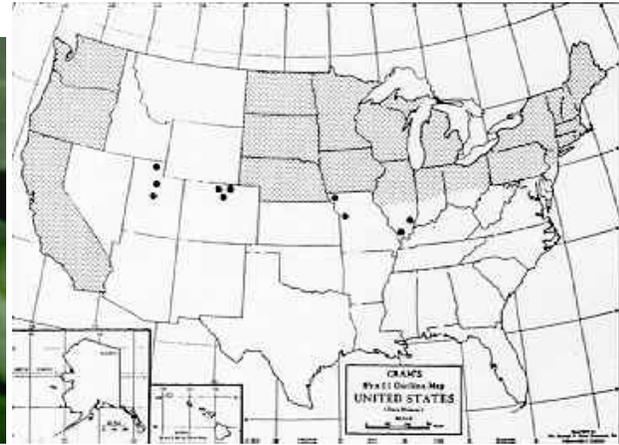
## Moneywort Loosestrife (*Lysimachia nummularia*)



- **Family:** Primrose (Primulaceae)
- **Flowering:** May-August.
- **Field Marks:** This species creeps along the ground and has nearly spherical, opposite leaves.
- **Habitat:** Wet soil along streams, around ponds, and in roadside ditches.
- **Habit:** Perennial herb, rooting at the nodes.
- **Stems:** Creeping, smooth, up to 2 feet long.
- **Leaves:** Opposite, simple, spherical to ovate, rounded at each end, smooth, sometimes evergreen, up to 1 1/2 inches long, usually as broad.
- **Flowers:** Solitary in the axils of the leaves, yellow, up to 1 inch across.
- **Sepals:** 5, green, united at the base, up to 1/3 inch long.
- **Petals:** 5, yellow, usually black-speckled, united at base.
- **Stamens:** 5, united into a tube.
- **Pistils:** Ovary superior.
- **Fruits:** Usually not formed.



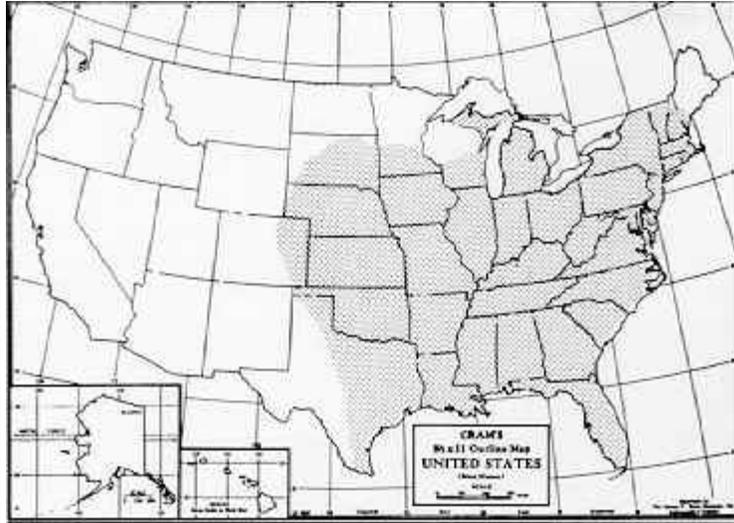
## Water Loosestrife (*Lysimachia thyrsiflora*)



- **Family:** Primrose (Primulaceae)
- **Flowering:** May-July.
- **Field Marks:** This loosestrife lacks cilia near the base of the leaves. There are small leaves at the base of the normal leaves. The flowers and fruits are borne in short clusters.
- **Habitat:** Swamps, wet prairies.
- **Habit:** Perennial herb with slender rootstocks.
- **Stems:** Erect, usually unbranched, smooth, up to 2 feet tall.
- **Leaves:** Opposite, simple, elliptic to lanceolate, pointed at the tip, tapering to the base, without teeth, smooth, up to 4 inches long, less than 1 inch broad.
- **Flowers:** Several in small, axillary, spike-like clusters up to 1 1/2 inches long; each flower yellow, to 1/4 inch across.
- **Sepals:** 6, green, very narrow, united at the base.
- **Petals:** 6, yellow, black-spotted, very narrow, united only at the base, up to 1/4 inch long.
- **Stamens:** 6.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules spherical, black-dotted, up to 1/4 inch in diameter.



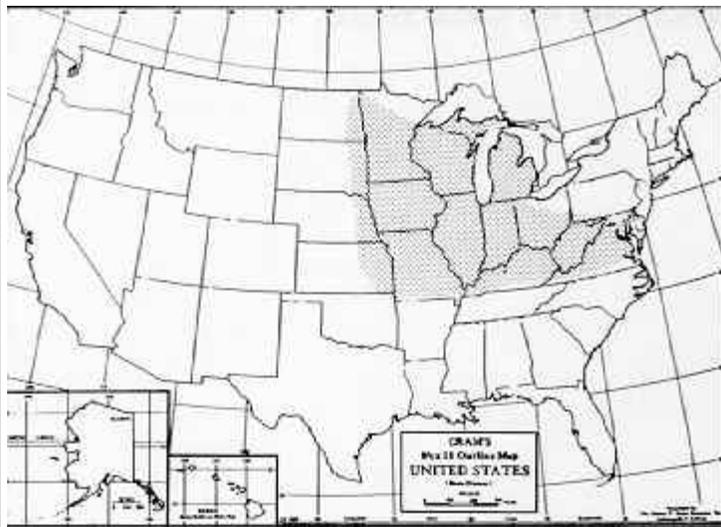
## Winged Lythrum (*Lythrum alatum*)



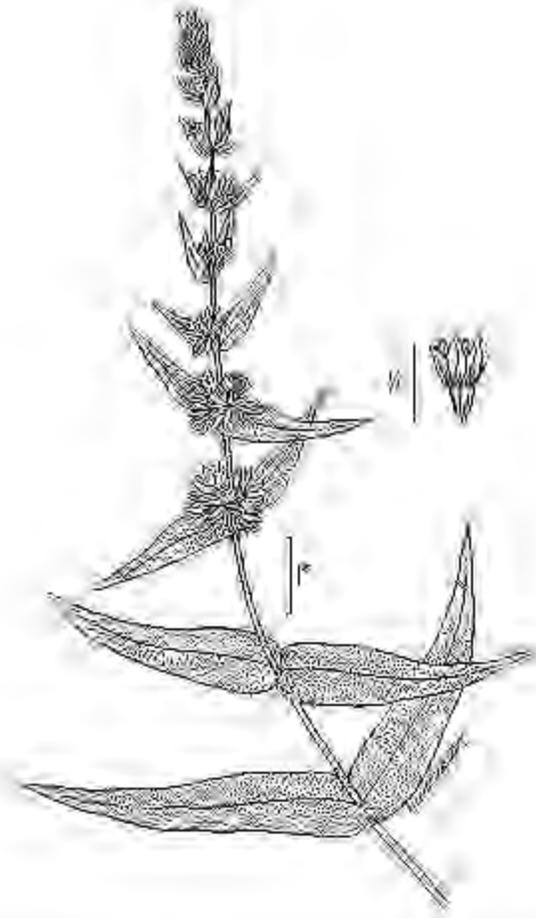
- **Family:** Loosestrife (Lythraceae)
- **Flowering:** June-September.
- **Field Marks:** Purple flowers with usually 6 free petals, a 4-angled stem, and leaves alternate, opposite, or even whorled distinguish this species from all others.
- **Habitat:** Margins of streams, wet meadows, ponds and ditches, wet prairies, marshes, damp areas in rocky glades.
- **Habit:** Herbaceous perennials from tufted roots.
- **Stems:** 1-several, erect, stiffly branching, smooth, 4-angled, up to 3 1/2 feet tall.
- **Leaves:** Upper usually alternate, lower usually opposite or even whorled, simple, linear to broadly lanceolate, pointed at the tip, more or less rounded at the base, the largest up to 2 inches long, without teeth, smooth.
- **Flowers:** Solitary in the axils of the upper leaves, purple, with very short stalks.
- **Sepals:** Usually 6, green, united below to form a tube as long as or longer than the petals.
- **Petals:** Usually 6, purple, free from each other, up to 1/4 inch long.
- **Stamens:** Usually 6, sometimes protruding above the petals, sometimes not.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules somewhat longer than broad, with numerous minute seeds.
- **Notes:** The seeds may be eaten by waterfowl.



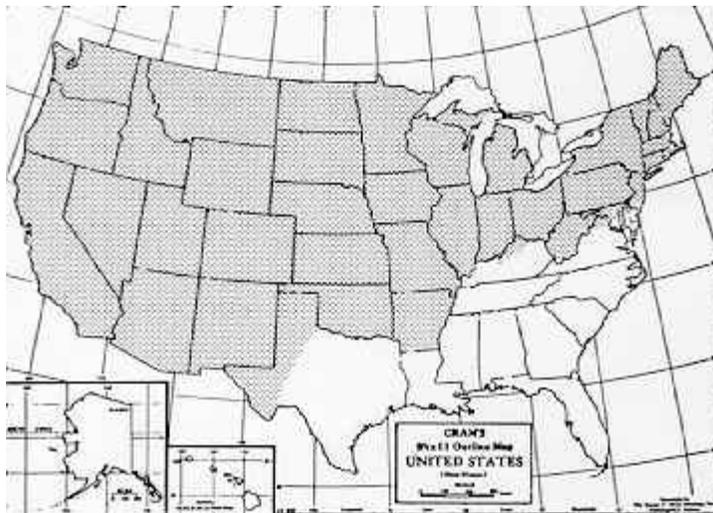
## Purple Loosestrife (*Lythrum salicaria*)



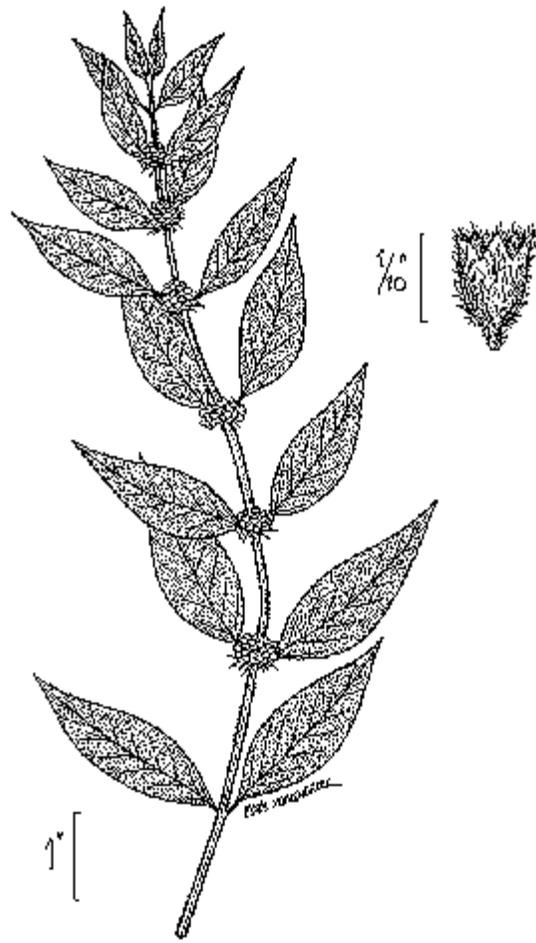
- **Family:** Loosestrife (Lythraceae)
- **Flowering:** June-September.
- **Field Marks:** This tall, coarse perennial is distinguished by its densely flowered terminal purple spikes, its flowers with 6 free petals, its opposite hairy leaves, and its hairy stems.
- **Habitat:** Marshes, margins of ponds, lakes, rivers, and streams.
- **Habit:** Coarse perennial from a thickened rootstock.
- **Stems:** 1-several erect, branched or unbranched, usually hairy, up to 3 1/2 feet tall.
- **Leaves:** Opposite or sometimes in whorls of 3, simple, linear to lanceolate to oblong, pointed at the tip, rounded at the sessile base, without teeth, usually hairy, the largest up to 4 inches long.
- **Flowers:** Crowded in terminal spikes up to 15 inches long, purple, the flowers subtended by green, leafy bracts.
- **Sepals:** Usually 6, green, united below to form a tube that is usually shorter than the petals, usually somewhat hairy.
- **Petals:** Usually 6, purple, free from each other, up to 1/2 inch long.
- **Stamens:** Usually 6.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules slightly longer than broad, containing numerous minute seeds.
- **Notes:** This species, a native of Europe, has become a very aggressive invader of wetlands, eventually choking out much of the native vegetation.



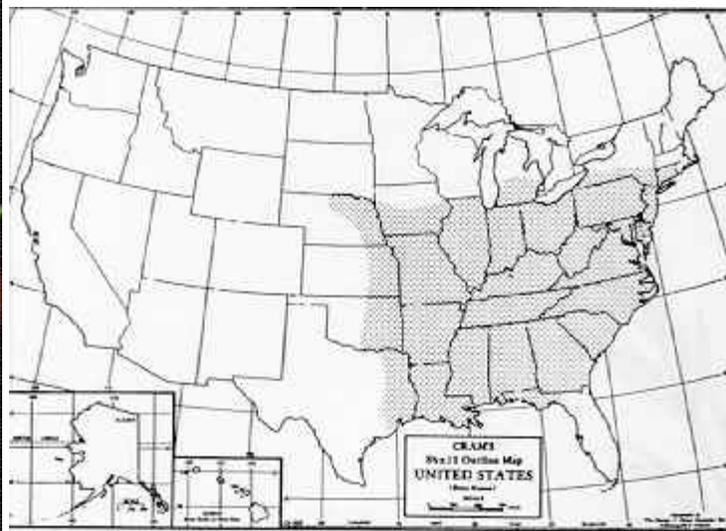
## Field Mint (*Mentha arvensis*)



- **Family:** Mint (Lamiaceae)
- **Flowering:** July-September.
- **Field Marks:** This mint is distinguished by its hairy sepals and its small flowers in the axils of the leaves.
- **Habitat:** Along streams, wet woods, around ponds.
- **Habit:** Perennial herb with rhizomes.
- **Stems:** Erect, branched or unbranched, usually with downward-pointing hairs, up to 2 feet tall.
- **Leaves:** Opposite, simple, lanceolate to ovate, rounded or pointed at the tip, rounded or tapering to the base, toothed, hairy, up to 3 inches long.
- **Flowers:** Borne in clusters in the axils of the leaves, purplish, up to 1/3 inch long.
- **Sepals:** 4, green, united to form a cup or short tube, hairy, the lobes more or less equal.
- **Petals:** 4, purplish, united to form a tube.
- **Stamens:** 4, surpassing the corolla and attached to it.
- **Pistils:** Ovary superior, 4-parted.
- **Fruits:** 4 nutlets, longer than the calyx lobes, about 1/10 inch long.
- **Notes:** The minty leaves can be made into a tea.



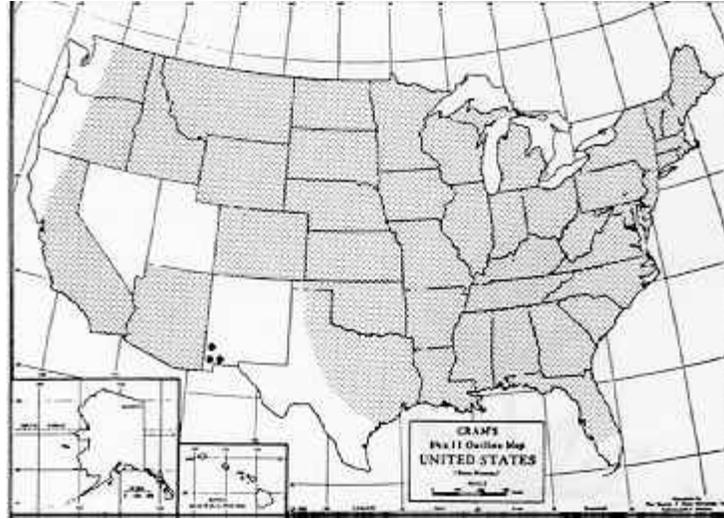
## Sharp-winged Monkey-Flower (*Mimulus alatus*)



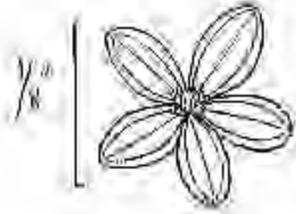
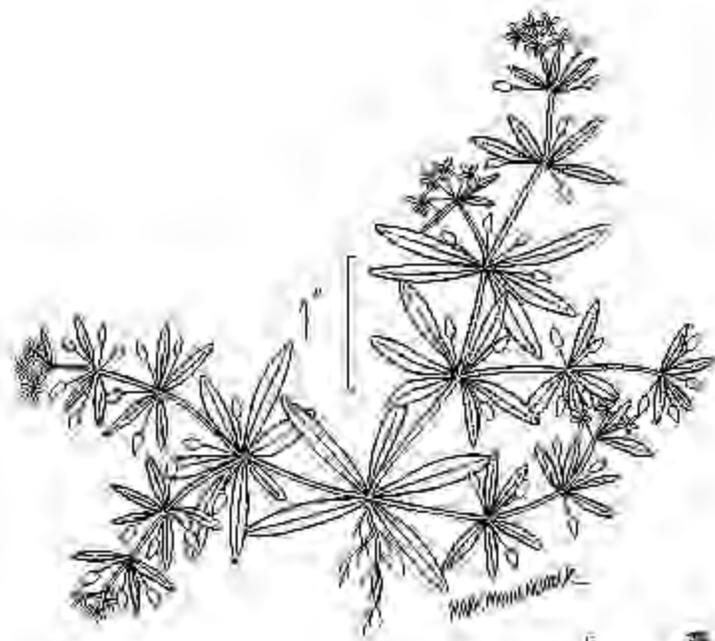
- **Family:** Figwort (Scrophulariaceae)
- **Flowering:** June-September.
- **Field Marks:** This species is recognized by its blue-violet flowers, winged, 4-sided stems, and leaves with distinct stalks.
- **Habitat:** Along streams, low woods, swamps, marshes, around lakes and ponds.
- **Habit:** Perennial herb with slender rhizomes.
- **Stems:** Erect, branched or unbranched, 4-angled and winged, smooth, up to 4 feet tall.
- **Leaves:** Opposite, simple, lanceolate to ovate, pointed at the tip, tapering to the base, toothed, smooth, up to 4 inches long, up to 2 inches wide.
- **Flowers:** Solitary in the axils of the leaves, violet-purple, up to 1 inch long, on stalks.
- **Sepals:** 5, green, united below.
- **Petals:** 5, 2-lipped, violet-purple, united below into a tube.
- **Stamens:** 4, attached to the corolla tube.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules ellipsoid, up to 1/2 inch long, containing many yellow seeds.



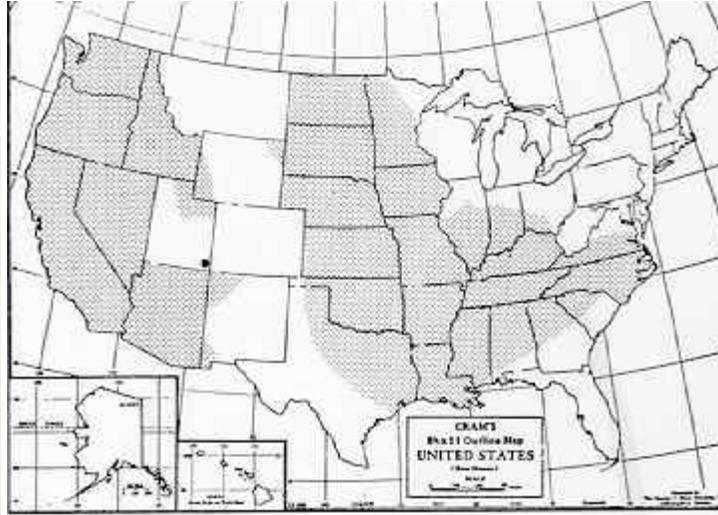
## Carpetweed (*Mollugo verticillata*)



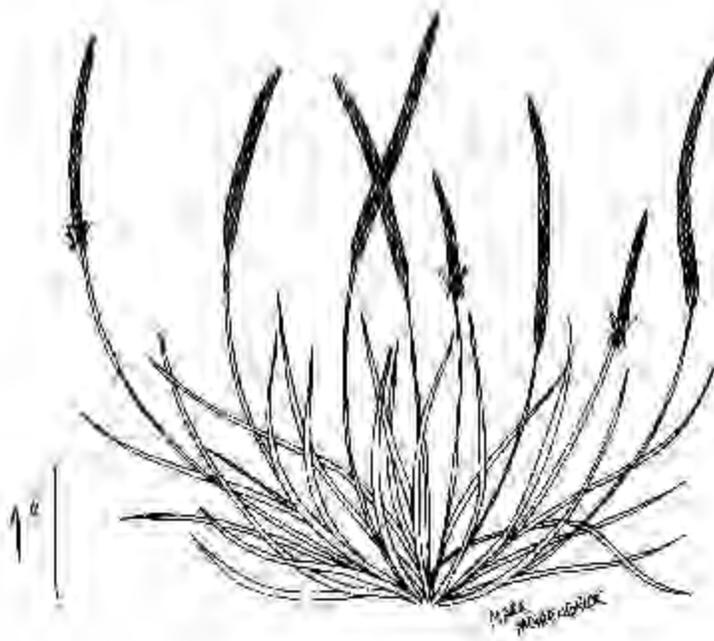
- **Family:** Carpetweed (Molluginaceae)
- **Flowering:** June-September.
- **Field Marks:** The whorl of leaves that lies flat on the ground readily distinguishes this species.
- **Habitat:** Disturbed soil.
- **Habit:** Annual herb with slender taproot.
- **Stems:** Mostly lying flat on the soil, much branched, smooth, forming mats.
- **Leaves:** In whorls of 3-8, simple, oblanceolate, without teeth, smooth, up to 1 1/4 inches long.
- **Flowers:** 2-5 in small clusters, white, up to 1/6 inch broad, on slender stalks up to 2/3 inch long.
- **Sepals:** 5, free, green, persistent on the fruit.
- **Petals:** 5, free, white.
- **Stamens:** 3 or 4.
- **Pistils:** Ovary superior; styles 3-5.
- **Fruits:** Capsule 3-parted.



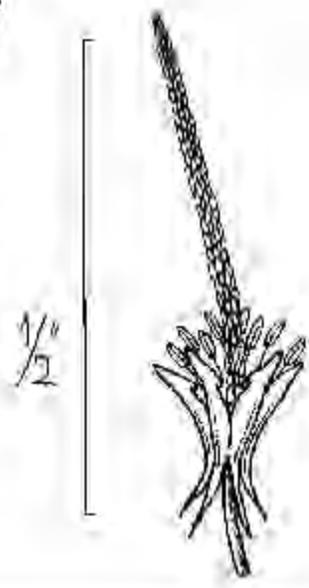
## Tiny Mouse-tail (*Myosurus minimus*)



- **Family:** Buttercup (Ranunculaceae)
- **Flowering:** March-May.
- **Field Marks:** This easily recognized tiny annual has five pale yellow petals at the base of an elongated green receptacle that bears the pistils.
- **Habitat:** Fallow fields, pastures, disturbed soil.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect, smooth, up to 6 inches tall, bearing only a single flower.
- **Leaves:** All basal, linear, smooth, rounded at the tip, about 1/10 inch broad.
- **Flowers:** Solitary on a leafless stalk.
- **Sepals:** 5, greenish, free from each other, up to 1/6 inch long, with a tiny prolonged spur.
- **Petals:** 5, yellow, free from each other, up to 1/6 inch long.
- **Stamens:** 5-20.
- **Pistils:** Several on an elongated receptacle, the receptacle becoming up to 2 1/2 inches long at maturity; ovary superior.
- **Fruits:** Achenes flat, smooth, 1/20-1/12 inch long, with a short beak.



*Stipa pulcherrima*



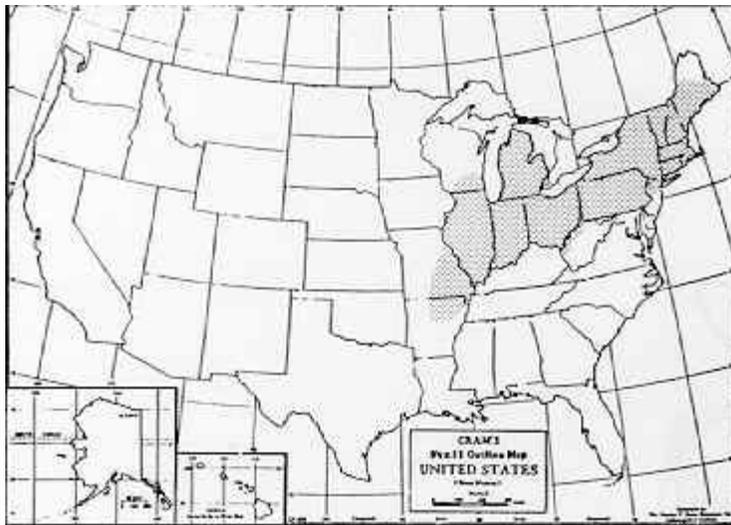
## Common Evening Primrose (*Oenothera biennis*)



- **Family:** Evening Primrose (Onagraceae)
- **Flowering:** June-October.
- **Field Marks:** Common evening primrose lacks a 4-sided ovary and capsule, has angular seeds, and calyx lobes adhering to each other.
- **Habitat:** Old fields, roadside ditches.
- **Habit:** Coarse perennial herb with a taproot.
- **Stems:** Erect, branched, hairy, up to 5 feet tall.
- **Leaves:** Alternate, simple, lanceolate to oblong, pointed at the tip, tapering to the base, with or without small teeth, hairy, up to 6 inches long, up to 2 inches broad.
- **Flowers:** Several in terminal clusters, yellow, up to 2 inches across.
- **Sepals:** 4, green, hairy, usually adhering to each other and forming a long tube.
- **Petals:** 4, free, yellow, up to 1 1/4 inches long, opening in the evening.
- **Stamens:** 8.
- **Pistils:** Ovary inferior; stigmas 4.
- **Fruits:** Capsules cylindrical, not winged, usually hairy, up to 2 inches long; seeds reddish, 1/12-1/10 inch long.
- **Notes:** Roots and leaves of the young plants are eaten by wildlife and may be eaten by humans.



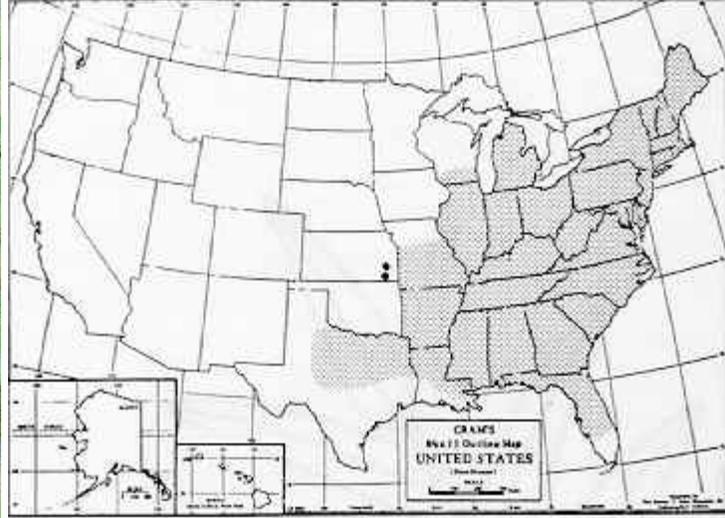
## Prairie Sundrops (*Oenothera pilosella*)



- **Family:** Evening Primrose (Onagraceae)
- **Flowering:** May-July.
- **Field Marks:** This species has a 4-sided ovary, a 4-sided capsule, large yellow flowers, and spreading hairs on the sepals.
- **Habitat:** Fallow fields, wet prairies, roadside ditches.
- **Habit:** Perennial herb with fibrous roots.
- **Stems:** Erect, sometimes branched, with spreading hairs, up to 2 feet tall.
- **Leaves:** Alternate, simple, lanceolate to elliptic, pointed at the tip, tapering to the base, with minute teeth or toothless, hairy, up to 4 inches long, up to 1 1/2 inches broad.
- **Flowers:** Several in terminal clusters, bright yellow, showy, up to 2 1/2 inches across.
- **Sepals:** 4, green, hairy, up to 3/4 inch long, united below to form a long tube.
- **Petals:** 4, yellow, free from each other, up to 1 1/4 inches long.
- **Stamens:** 8.
- **Pistils:** Ovary inferior; stigmas 4.
- **Fruits:** Capsules 4-angled, usually hairy, up to 2/3 inch long.



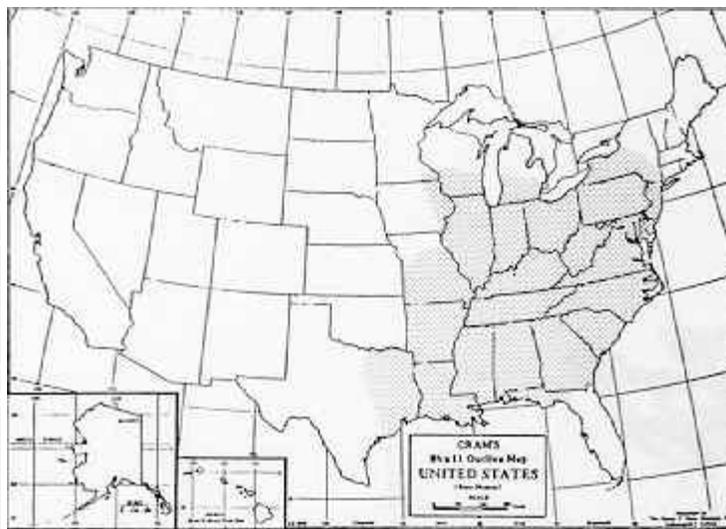
## Royal Fern (*Osmunda regalis*)



- **Family:** Osmunda (Osmundaceae)
- **Spores:** July-September
- **Field Marks:** This fern is recognized by its smooth, twice-pinnate, finely toothed leaves and its reproductive structures borne on separate branches from the leaves.
- **Habitat:** In springs, along creeks, in bogs; also on sandstone ledges.
- **Habit:** Perennial, evergreen herb with stout rootstocks.
- **Stems:** Entirely underground.
- **Leaves:** Twice pinnately divided, up to 3 feet long, smooth; the individual leaflets oblong, finely toothed, at least near the tip, often somewhat asymmetrical at the base.
- **Reproductive Bodies:** Borne on branches separate from the leaves but arising at the base of the leaves.



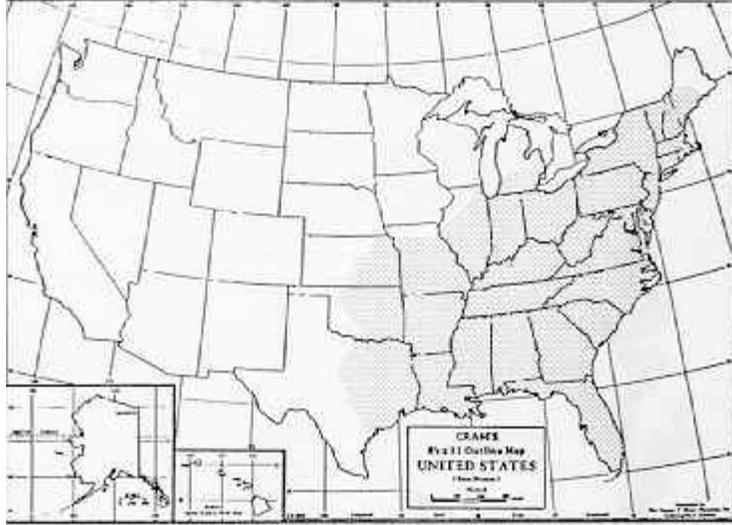
## Cowbane (*Oxypolis rigidior*)



- **Family:** Carrot (Apiaceae)
- **Flowering:** July-September.
- **Field Marks:** Cowbane differs from other species with large umbels of white flowers by its toothless leaf segments in some leaflets.
- **Habitat:** Along streams, wet prairies, wet meadows.
- **Habit:** Robust perennial herb with clusters of tuberous roots.
- **Stems:** Erect, usually unbranched, smooth, up to 6 feet tall.
- **Leaves:** Alternate, once pinnate into 7-13 leaflets; the leaflets linear to lanceolate, pointed at the tip, tapering to the base, with or without a few coarse teeth, smooth, up to 5 inches long, up to 2 inches broad, without stalks.
- **Flowers:** Several in an umbel, with several umbels forming a compound umbel, white, each flower about 1/6 inch across.
- **Sepals:** 5, green, minute.
- **Petals:** 5, white, free from each other.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Ellipsoid to oblongoid, flattened, with lateral wings, up to 1/4 inch long.



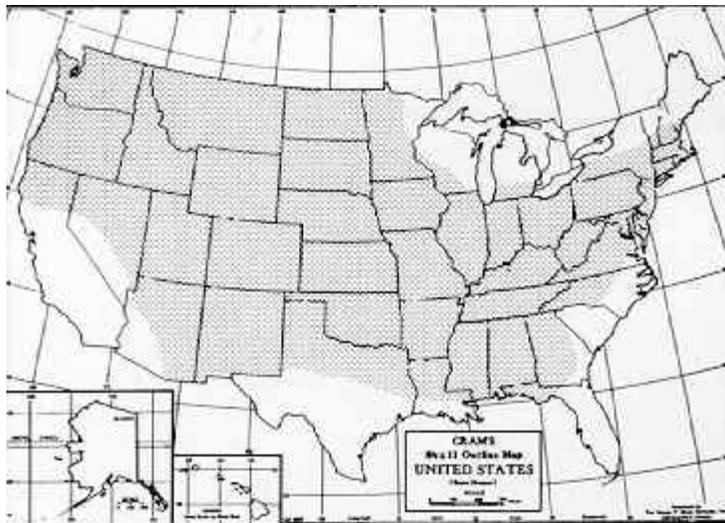
## Redtop Panicum (*Panicum rigidulum*)



- **Family:** Grass (Poaceae)
- **Flowering:** July-October.
- **Field Marks:** This *Panicum* differs by its very tiny straight spikelets, its smooth stems and leaves, and its leaves at least 1/4 inch broad.
- **Habitat:** Wet meadows, wet prairies, damp woods, in roadside ditches, along streams, around ponds and lakes.
- **Habit:** Tufted perennial herbs.
- **Stems:** Erect, branched, smooth, up to 3 feet tall.
- **Leaves:** Long and narrow, rough, up to 15 inches long, 1/4-1/2 inch broad.
- **Flowers:** One per spikelet, with many spikelets forming a panicle up to 1 1/2 feet long; spikelets 1/12 inch long, pointed at the tip, smooth.
- **Stamens:** 3.
- **Pistils:** Ovary superior; styles 3.
- **Grains:** 1/20 inch long.
- **Notes:** This species used to be known as *P. agrostoides*.



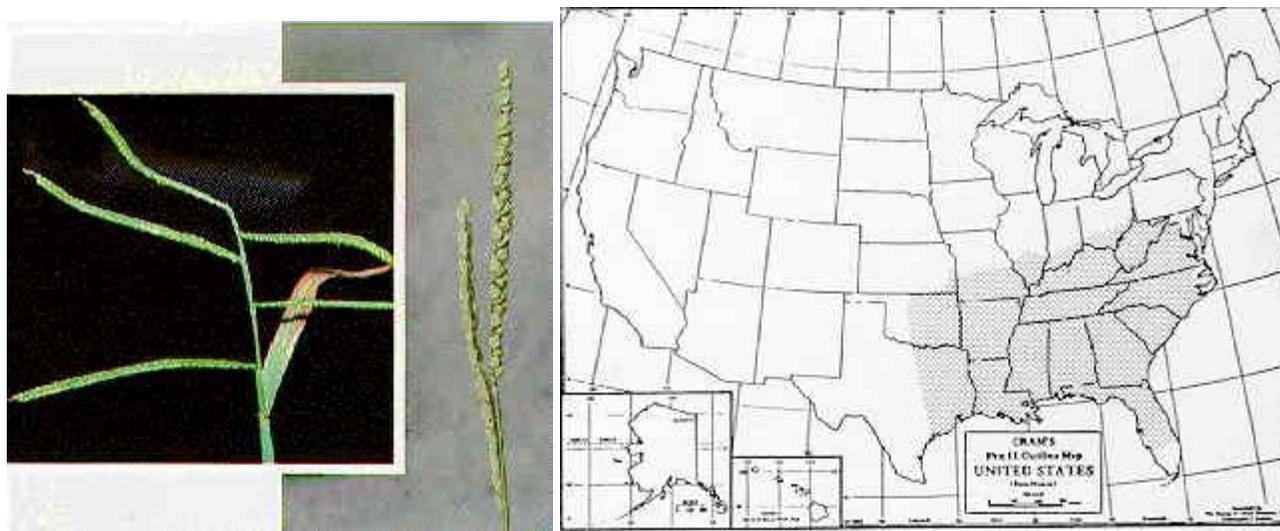
## Pennsylvania Pellitory (*Parietaria pensylvanica*)



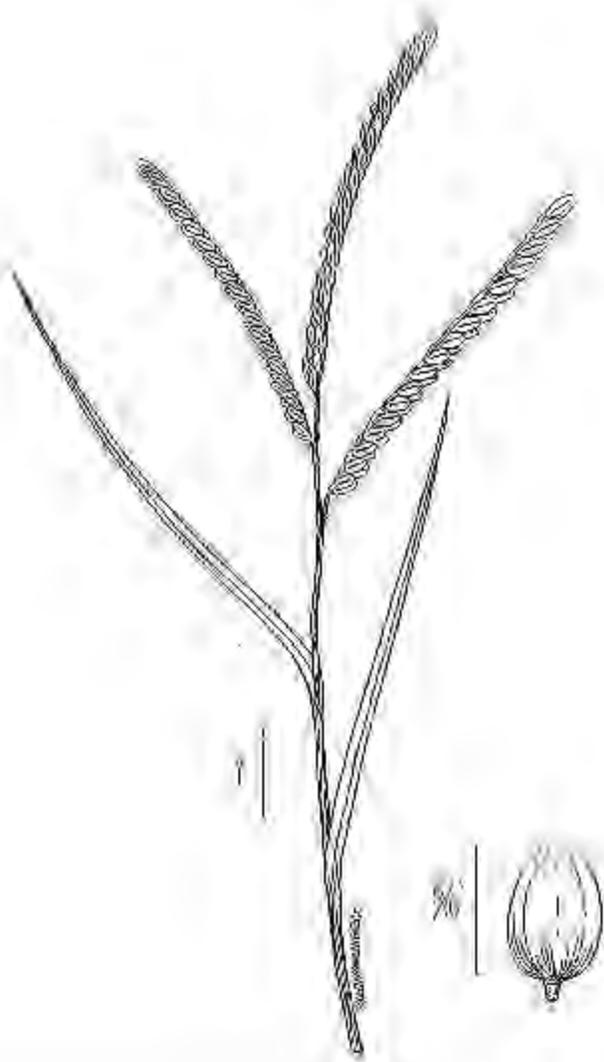
- **Family:** Nettle (Urticaceae)
- **Flowering:** May-October.
- **Field Marks:** Pellitory is recognized by its long-tapering alternate leaves, the lack of stinging hairs on the stems, and the small axillary clusters of green flowers.
- **Habitat:** Moist soil in woods, under overhanging bluffs.
- **Habit:** Annual herb with a tuft of roots.
- **Stems:** Erect or sprawling, branched or unbranched, hairy, up to 15 inches tall.
- **Leaves:** Alternate, simple, lanceolate to oblong-lanceolate, long-tapering to a rounded tip, tapering to the base, without teeth, hairy, very thin, up to 2 1/2 inches long.
- **Flowers:** Several flowers crowded into small axillary clusters, some of the flowers perfect, some male only, some female only, all often in the same cluster on the same plant, each flower green, about 1/12 inch long, surpassed by bracts.
- **Sepals:** 4, green, united below.
- **Petals:** 0.
- **Stamens:** 4.
- **Pistils:** Ovary superior.
- **Fruits:** Achenes ovoid, smooth, shiny, about 1/20 inch long.



## Florida Paspalum (*Paspalum floridanum*)



- **Family:** Grass (Poaceae)
- **Flowering:** August-October.
- **Field Marks:** This is the only beadgrass with paired spikelets at least 1/6 inch long.
- **Habitat:** Wet meadows, wet prairies, along streams, around ponds and lakes, roadside ditches.
- **Habit:** Perennial grass with thick rhizomes.
- **Stems:** Erect, smooth, up to 4 feet tall.
- **Leaves:** Elongated, narrow, usually smooth, up to 15 inches long, up to 3/4 inch broad.
- **Flowers:** One per spikelet, with several spikelets in 3-6 racemes; the racemes up to 6 inches long; spikelets usually borne in pairs; each spikelet oval to spherical, smooth, up to 1/6 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Grains:** Dark red, broadly ellipsoid, up to 1/6 inch long.
- **Notes:** The grains are eaten by waterfowl.



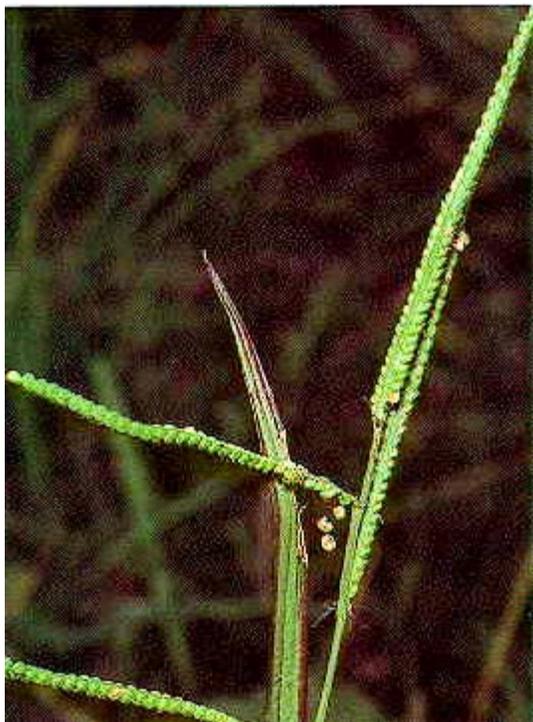
## Water Paspalum (*Paspalum fluitans*)



- **Family:** Grass (Poaceae)
- **Flowering:** July-October.
- **Field Marks:** This is one of the few species of *Paspalum* that has the rachis to which the spikelets are attached broader and wider than the spikelets themselves. It has at least 5 spikes per plant, and each spikelet is less than 1/12 inch long.
- **Habitat:** Sloughs, bayous, along streams, around lakes and ponds, sometimes in standing water.
- **Habit:** Floating or creeping perennial herb.
- **Stems:** Floating or creeping, much branched, smooth, up to 3 feet long.
- **Leaves:** Up to 12 inches long, up to 1 inch wide, long-pointed at the tip, rough to the touch, with roughened sheaths.
- **Flowers:** One per spikelet, with many spikelets forming a spike; each spikelet hairy, less than 1/12 inch long, elliptic, in 2 rows; all spikelets borne on a rachis that is broader than the spikelets; spikes 5 or more per stem.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Grains:** Ovoid, smooth.



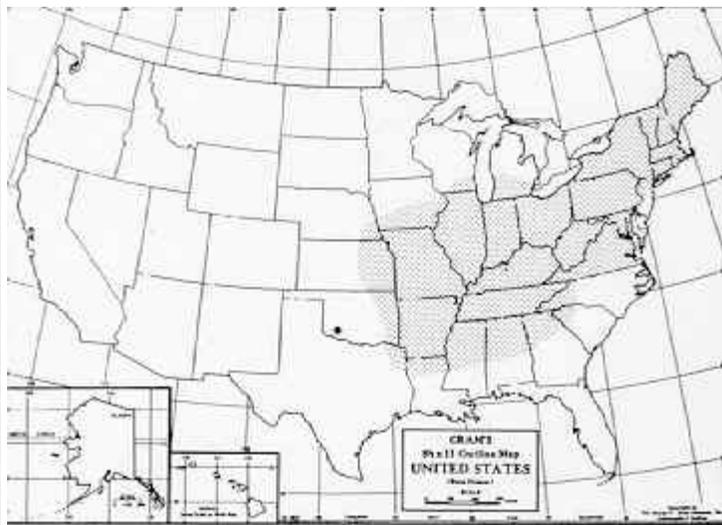
## Field Paspalum (*Paspalum laeve*)



- **Family:** Grass (Poaceae)
- **Flowering:** July-October.
- **Field Marks:** This species differs from other species of *Paspalum* by its smooth spikelets in 1 or 2 rows and less than 1/6 inch in diameter.
- **Habitat:** Wet prairies, old fields, around ponds and lakes, in roadside ditches.
- **Habit:** Perennial herb with short rhizomes.
- **Stems:** Erect, usually smooth, up to 2 1/2 feet tall.
- **Leaves:** Long, narrow, flat, smooth or sometimes ciliate along the margins, up to 1/2 inch wide.
- **Flowers:** One flower per spikelet, with several spikelets in 1-2 rows in elongated, slender racemes; each spikelet smooth, circular in outline, about 1/6 inch broad, smooth.
- **Stamens:** 3.
- **Pistils:** Ovary superior; styles 3.
- **Grains:** Yellow, spherical, 1/10 inch in diameter.
- **Notes:** The grains are eaten by waterfowl.



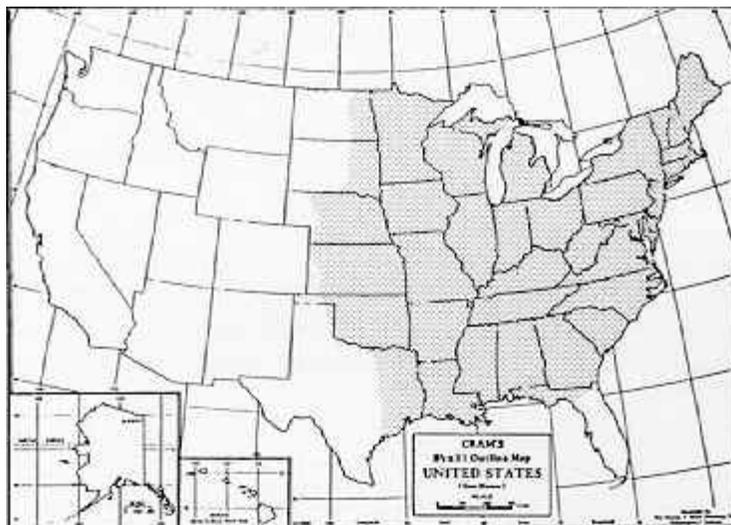
## Foxglove Beardtongue (*Penstemon digitalis*)



- **Family:** Figwort (Scrophulariaceae)
- **Flowering:** May-July.
- **Field Marks:** Penstemons are recognized by their tubular flowers and 5 stamens, one of which is sterile and densely hairy.
- **Habitat:** Low woods, wet meadows, wet prairies, fallow fields, roadside ditches.
- **Habit:** Perennial herbs with thickened rootstocks.
- **Stems:** Erect, branched or unbranched, usually smooth, up to 4 feet tall.
- **Leaves:** Opposite, simple, lanceolate to elliptic, pointed at the tip, tapering to the base, with or without a few teeth, smooth, up to 7 inches long, up to 2 1/2 inches wide.
- **Flowers:** Several in terminal racemes, white, up to 1 1/2 inches long.
- **Sepals:** 5, green, free to the base.
- **Petals:** 5, white, 2-lipped, united into a tube with purple stripes inside, up to 1 1/2 inches long.
- **Stamens:** 5, one of which is sterile and densely hairy.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules brown, smooth, up to 1/2 inch long.



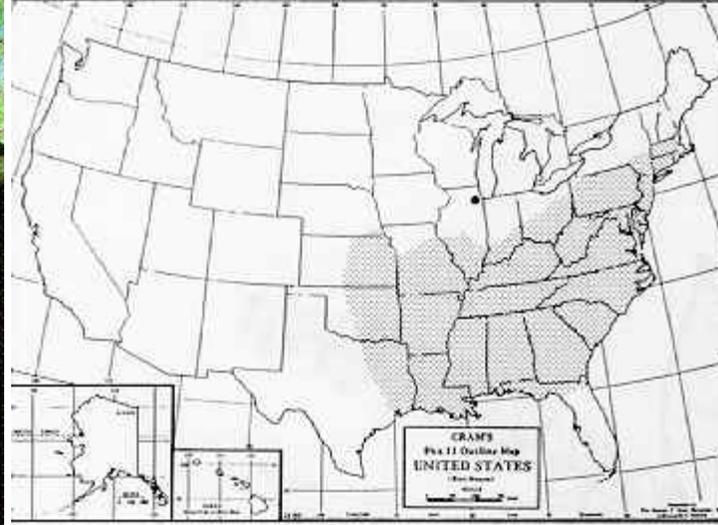
## Ditch-stonecrop (*Penthorum sedoides*)



- **Family:** Sedum (Crassulaceae)
- **Flowering:** July-September.
- **Field Marks:** This species is recognized by its 5 pistils united halfway to the middle, 10 stamens, and the absence of petals.
- **Habitat:** Fallow fields, along streams, around ponds and lakes, sloughs, swamps, ditches.
- **Habit:** Perennial herb with slender rhizomes.
- **Stems:** Erect, branched or unbranched, smooth except for some hairs near the flowers, up to 1 foot tall.
- **Leaves:** Alternate, simple, lanceolate, pointed at the tip, tapering to the base, toothed, usually smooth, up to 3 inches long.
- **Flowers:** Several in terminal clusters, greenish, up to 1/4 inch long.
- **Sepals:** 5, greenish.
- **Petals:** 0.
- **Stamens:** 10.
- **Pistils:** 5, united from about the middle to the base, the ovaries superior.
- **Fruits:** A cluster of 5 spreading follicles, up to 1/4 inch long, becoming reddish at maturity.
- **Notes:** The follicles are eaten by waterfowl.



## Beefsteak Plant (*Perilla frutescens*)



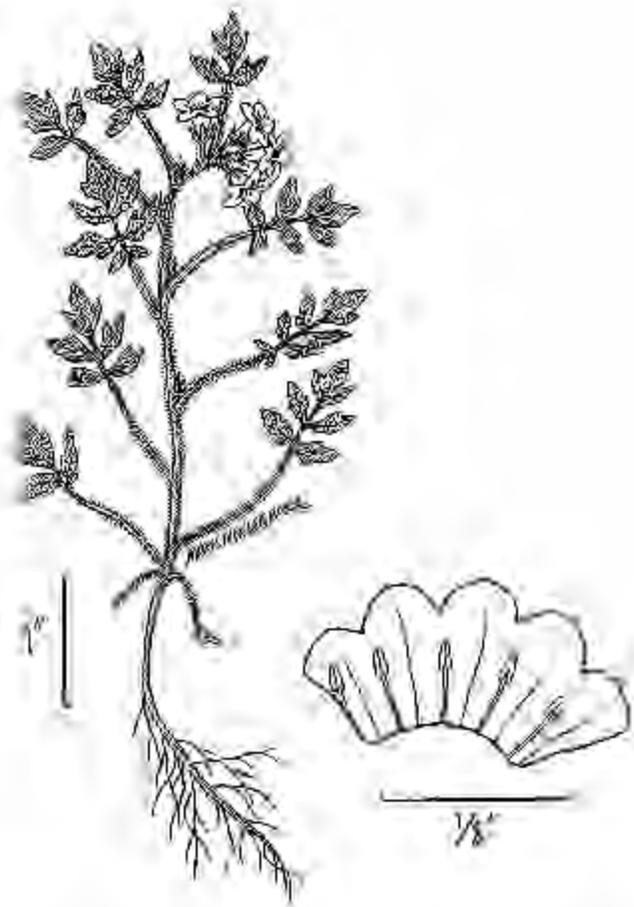
- **Family:** Mint (Lamiaceae)
- **Flowering:** August-October.
- **Field Marks:** The leaves are purplish on the lower surface.
- **Habitat:** Along streams, disturbed soil.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect, branched, smooth or hairy, up to 2 feet tall.
- **Leaves:** Opposite, simple, ovate, pointed at the tip, tapering or rounded at the base, smooth or hairy, usually purplish on the lower surface, up to 5 inches long.
- **Flowers:** Crowded into erect racemes up to 6 inches long; each flower subtended by oval bracts.
- **Sepals:** 5, green, united below, asymmetrical, 2-lipped, hairy.
- **Petals:** 5, purple, united, 2-lipped, usually with equal lobes, up to 1/4 inch long.
- **Stamens:** 4, about as long as the petals.
- **Pistils:** Ovary superior, 4-parted.
- **Fruits:** Nutlets 4, red-brown, veiny, up to 1/12 inch long.
- **Notes:** The leaves have the odor of licorice when crushed.



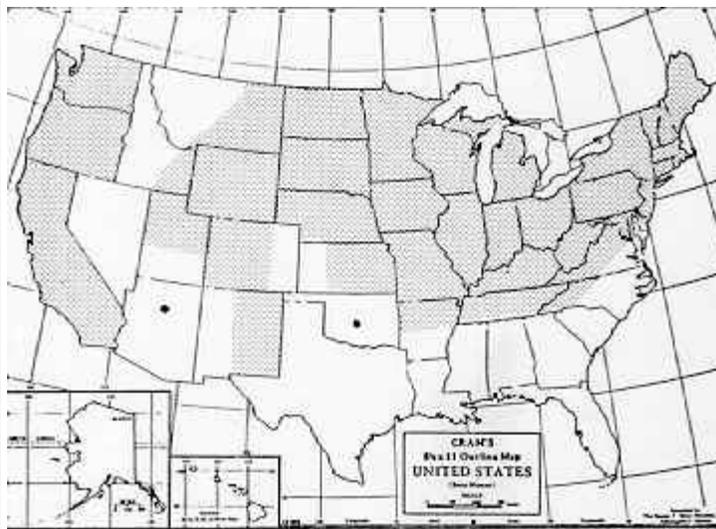
## Coville's Phacelia (*Phacelia ranunculacea*)



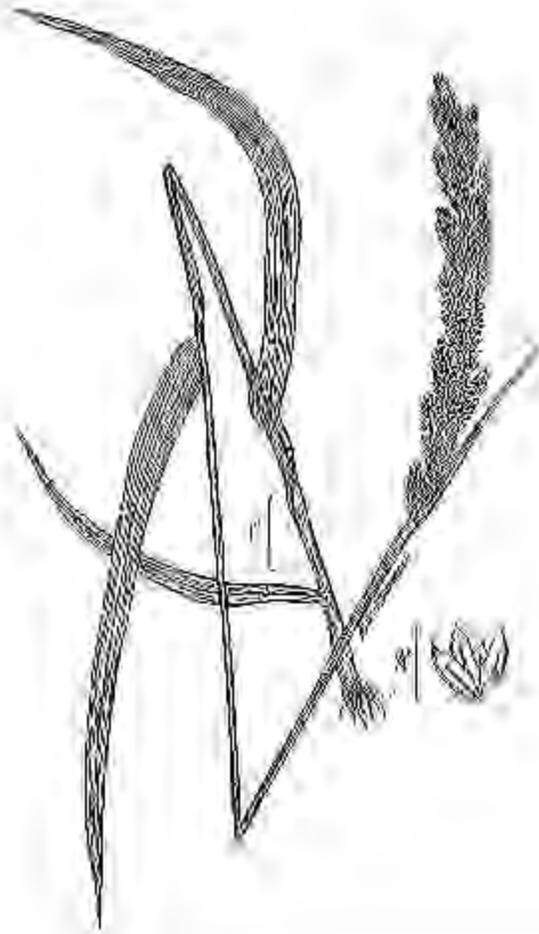
- **Family:** Waterleaf (Hydrophyllaceae)
- **Flowering:** April-May.
- **Field Marks:** This small wetland annual has tiny flowers only 1/16 inch across and leaf stalks as long as the leaf blades.
- **Habitat:** Low woods, along streams.
- **Habit:** Annual with fibrous roots.
- **Stems:** Spreading to ascending, hairy, very slender, branched or unbranched, up to 10 inches tall.
- **Leaves:** Alternate, oblong, pinnately divided into 3-7 lobes, hairy, up to 1 inch long; basal leaves sometimes present and undivided; all leaves on long, slender, hairy leaf stalks.
- **Flowers:** 2-6 in small clusters, white to bluish, up to 1/6 inch across.
- **Sepals:** 5, green, linear, hairy, nearly free from each other.
- **Petals:** 5, white or bluish, united to form a short tube.
- **Stamens:** 5, not exerted beyond the petals.
- **Pistils:** Ovary superior; style 2-cleft.
- **Fruits:** Capsules spherical, 4-seeded; seeds about 1/8 inch long.



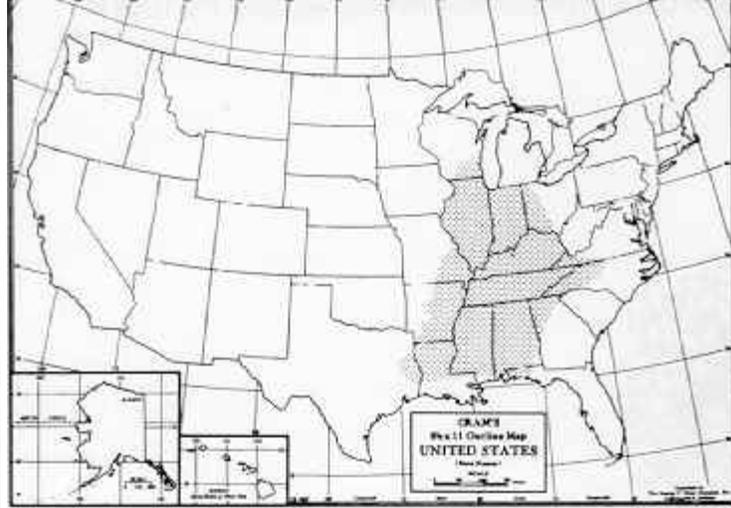
## Reed Canarygrass (*Phalaris arundinacea*)



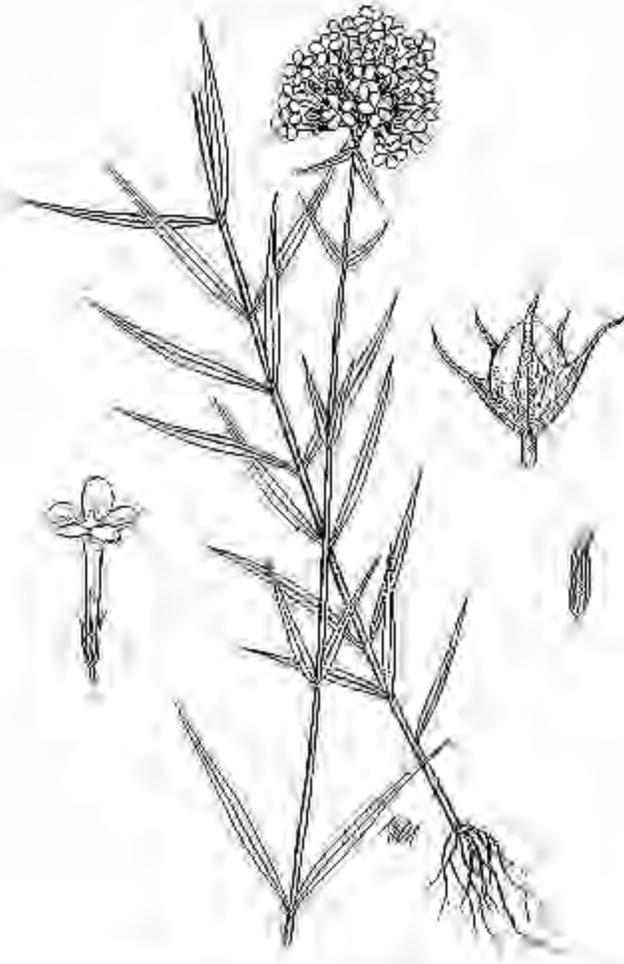
- **Family:** Grass (Poaceae)
- **Flowering:** April-August.
- **Field Marks:** This grass has spikelets with 1 flower and 3 or 4 empty scales, rather than 2 empty scales. The leaves may be 1 inch broad.
- **Habitat:** Marshes, along streams, wet meadows.
- **Habit:** Perennial herb with scaly, creeping rhizomes.
- **Stems:** Erect, smooth, up to 4 feet tall.
- **Leaves:** Flat, elongated, up to nearly 1 inch broad.
- **Flowers:** Borne in spikelets with many spikelets arranged in a spike-like panicle up to 1 foot long; each spikelet 1-flowered, with 3 or 4 empty scales.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Grains:** Ellipsoid, about 1/10 inch long.



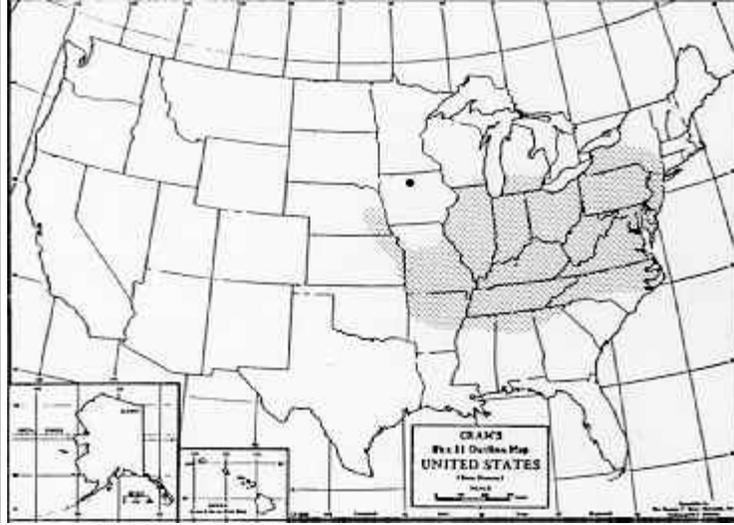
## Smooth Phlox (*Phlox glaberrima*)



- **Family:** Phlox (Polemoniaceae)
- **Flowering:** May-June.
- **Field Marks:** All species of *Phlox* have opposite, toothless leaves on the stem. In addition, this is the only *Phlox* with 12 or more pairs of narrow, pointed leaves on a smooth stem and sepals no more than 1/3 inch long. The flowers are bright reddish purple.
- **Habitat:** Low wet areas in prairies, low areas in swampy woods, wet roadside ditches, on stream banks, depressions in wet meadows.
- **Habit:** Herbaceous perennial.
- **Stems:** 1-several, erect, up to 4 feet tall, green, nearly always smooth, bearing 12 or more pairs of leaves.
- **Leaves:** Opposite, simple, toothless, narrowly lanceolate, long-pointed at tip, tapering to base, usually smooth on both surfaces, without conspicuous lateral veins, mostly up to 3 inches long and up to 1/2 inch broad.
- **Flowers:** Several, in a round-topped panicle.
- **Sepals:** 5, green, united, up to 1/3 inch long, the lobes about as long as the tube.
- **Petals:** 5, bright reddish purple, the lobes about 1/2 inch long, the long narrow tube about 1 inch long.
- **Stamens:** 5, not exerted beyond the tube.
- **Pistils:** Ovary superior; styles 3.
- **Fruits:** Rounded capsule shorter than the subtending persistent sepals, containing several narrow, wrinkled seeds.
- **Notes:** The leaves and stems are sometimes browsed by deer. The seeds have minimal value as wildlife food.



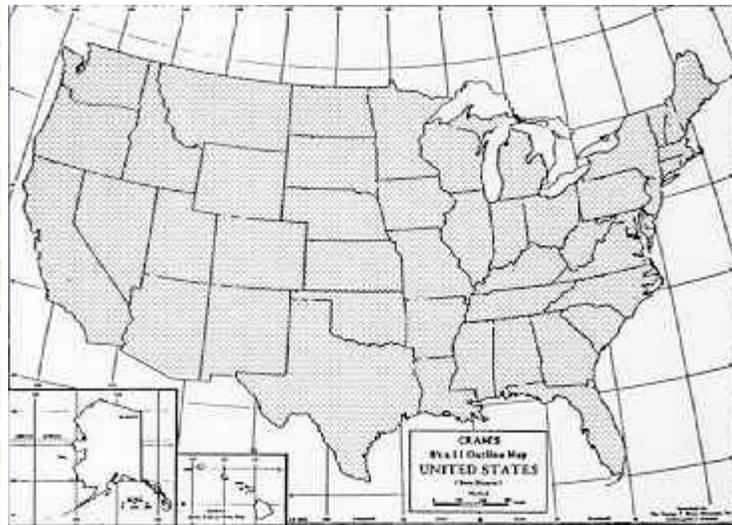
## Garden Phlox (*Phlox paniculata*)



- **Family:** Phlox (Polemoniaceae)
- **Flowering:** July-October.
- **Field Marks:** This phlox has large terminal panicles of pink flowers, and leaves of at least 1/2 inch broad with conspicuous veins.
- **Habitat:** Low woods, along streams.
- **Habit:** Perennial herb with fibrous roots.
- **Stems:** Erect, branched or unbranched, usually smooth, up to 5 feet tall.
- **Leaves:** Opposite, simple, toothless, lanceolate to ovate, pointed at the tip, rounded or tapering to the base, usually hairy on the lower surface, up to 5 inches long and up to 2 1/4 inches broad.
- **Flowers:** Several, in a compact terminal panicle, each flower pink, up to 1 inch across.
- **Sepals:** 5, green, united below, smooth or hairy.
- **Petals:** 5, pink, united below to form a narrow tube; the lobes up to 1/2 inch long, the tube up to 1 inch long, usually hairy.
- **Stamens:** 5, protruding beyond the petals.
- **Pistils:** Ovary superior; styles 3.
- **Fruits:** Capsules spherical, smooth.



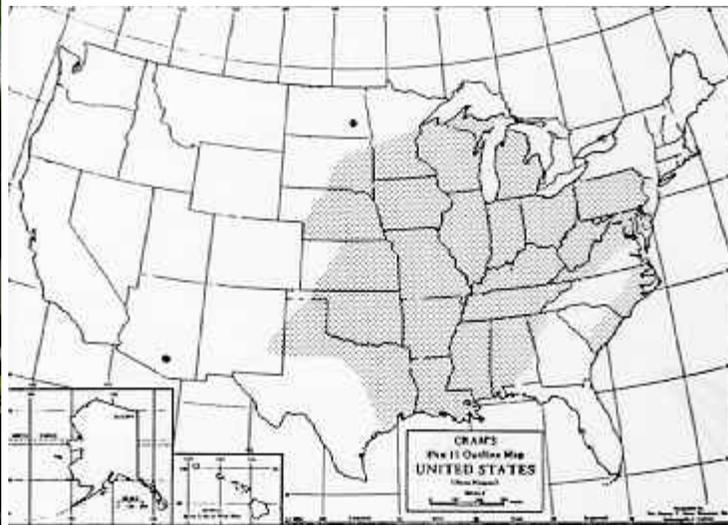
## Common Reed (*Phragmites australis*)



- **Family:** Grass (Poaceae)
- **Flowering:** July-September.
- **Field Marks:** This grass is distinguished by its huge stature, up to 12 feet tall, and its large panicle of spikelets.
- **Habitat:** Along streams, around ponds, sloughs, reclaimed stripmine areas.
- **Habit:** Robust perennial herb with stout, creeping rhizomes, forming dense colonies.
- **Stems:** Erect, smooth, up to 12 feet tall.
- **Leaves:** Flat, elongated, smooth, up to 2 1/2 inches broad.
- **Flowers:** 3-7 flowers per spikelet, with many spikelets arranged in a large, dense, much-branched panicle up to 1 1/4 feet long; spikelets 3/4 inch long, bearing numerous silky hairs.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Notes:** This species is frequently planted for stripmine reclamation.



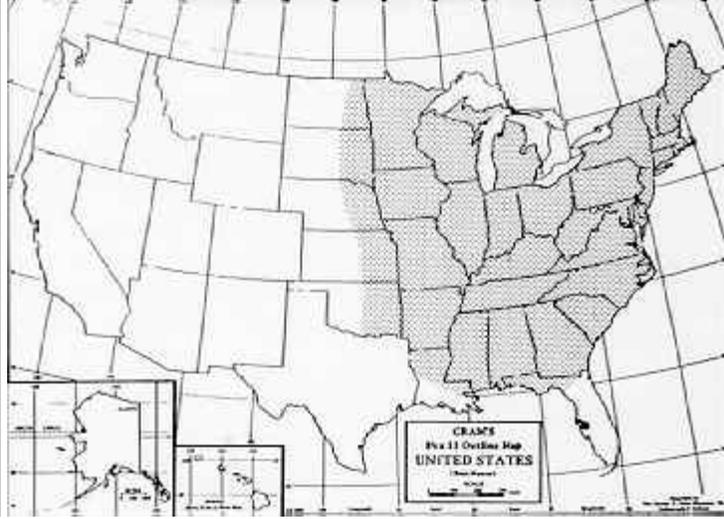
## Fog-fruit (*Phyla lanceolata*)



- **Family:** Vervain (Verbenaceae)
- **Flowering:** May-September.
- **Field Marks:** This species is distinguished by its small purple heads consisting of tiny white or pinkish flowers with 4 petals borne on a leafless stalk.
- **Habitat:** Along streams, around ponds and lakes, roadside ditches, wet prairies, marshes, sloughs.
- **Habit:** Perennial herb with fibrous roots.
- **Stems:** Creeping or sometimes ascending, often rooting at the nodes, smooth or sparsely hairy, up to 1 1/2 feet long.
- **Leaves:** Opposite, simple, lanceolate to narrowly ovate, pointed at the tip, tapering to the base, coarsely toothed, sparsely hairy on both surfaces, up to 2 inches long.
- **Flowers:** Several in short heads on long leafless stalks from the axils of the leaves, white or purplish, less than 1/4 inch long.
- **Sepals:** 4, green, united below to form a tiny cup.
- **Petals:** 4, white or purplish, more or less united into 2 2-lipped lobes.
- **Stamens:** 4.
- **Pistils:** Ovary superior.
- **Fruits:** Small, dry, spherical, 2-parted.



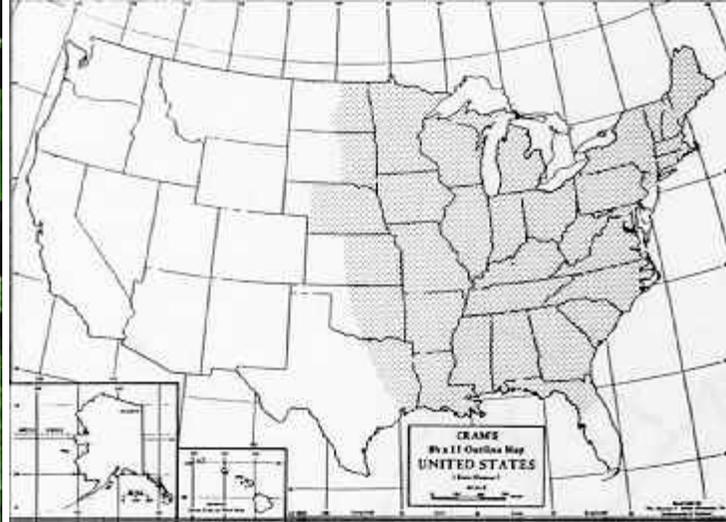
## False Dragon-head (*Physostegia virginiana*)



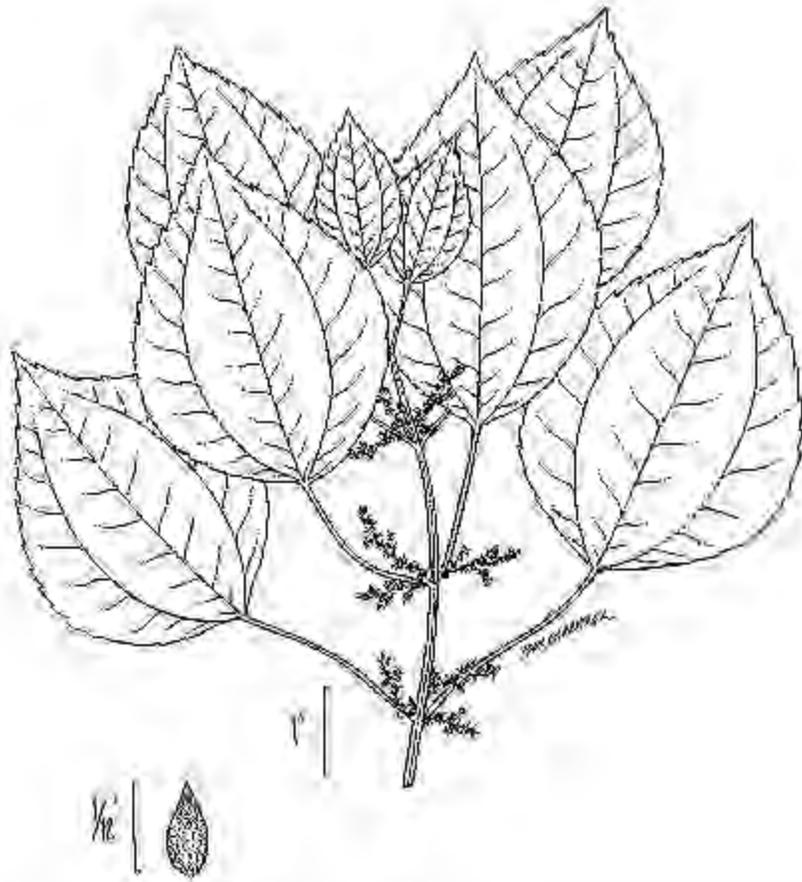
- **Family:** Mint (Lamiaceae)
- **Flowering:** May-September.
- **Field Marks:** Species of *Physostegia* have clusters of large, pink flowers. *Physostegia virginiana* differs from others in the genus by its sharply toothed leaves, which are at least 1/2 inch broad.
- **Habitat:** Along streams, wet prairies.
- **Habit:** Perennial herb with long, slender rhizomes.
- **Stems:** Erect, usually unbranched, smooth, up to 3 feet long.
- **Leaves:** Opposite, simple, narrowly elliptic to lanceolate, pointed at the tip, tapering to the base, sharply toothed, smooth, up to 6 inches long, up to 2 inches broad.
- **Flowers:** Numerous in terminal racemes; each flower bright pink, up to 1 1/2 inches long, subtended by a bract.
- **Sepals:** 5, green, united below.
- **Petals:** 5, bright pink, united below, 2-lipped, up to 1 1/4 inches long.
- **Stamens:** 4.
- **Pistils:** Ovary superior, 4-parted.
- **Fruits:** Nutlets 4, smooth, obovoid, up to 1/6 inch long.



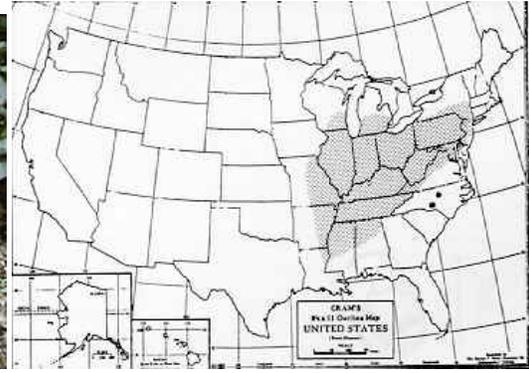
## Clearweed (*Pilea pumila*)



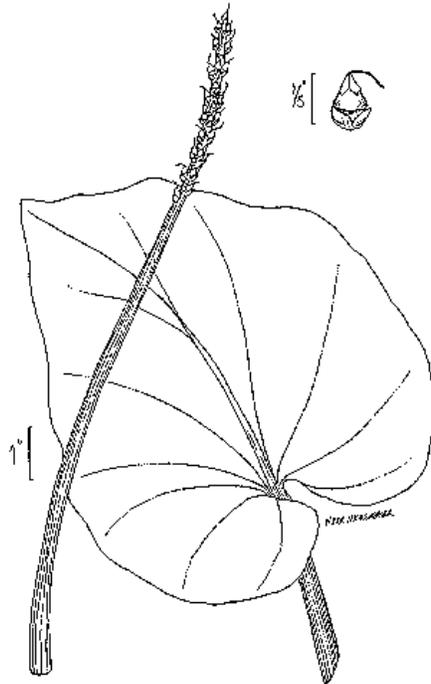
- **Family:** Nettle (Urticaceae)
- **Flowering:** July-October.
- **Field Marks:** The clear, translucent stems and the opposite leaves with 3 strong main veins distinguish this species.
- **Habitat:** Low woods, along streams, around ponds.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect, usually unbranched, translucent, smooth, up to 2 feet tall.
- **Leaves:** Opposite, simple, ovate, tapering to a long point at the tip, rounded or tapering to the base, conspicuously 3-veined, coarsely toothed, smooth, up to 4 inches long.
- **Flowers:** Male and female flowers borne separately in the same axillary spikes, greenish.
- **Sepals:** Green, minute, usually 4 in the male flowers, usually 3 in the female flowers.
- **Petals:** 0.
- **Stamens:** 4.
- **Pistils:** Ovary superior.
- **Fruits:** Achenes ovoid, flattened, green but often marked with purple, up to 1/12 inch long.



## Heartleaf Plantain (*Plantago cordata*)



- **Family:** Plantain (Plantaginaceae)
- **Flowering:** April-June.
- **Field Marks:** This native plantain is easily recognized by the heart-shaped leaves with distinct veins that arise from the midvein and by its hollow flowering stalk.
- **Habitat:** Rocky streams, sloughs, wet woods.
- **Habit:** Aquatic perennial herbs with fleshy roots.
- **Stems:** Up to 15 inches tall, smooth, hollow, bearing only flowers.
- **Leaves:** All basal, ovate to oval, pointed at the tip, heart-shaped at the base, with or without a few teeth, smooth, with distinct lateral veins, up to 10 inches long, usually with a purple leaf stalk.
- **Flowers:** Several in a slender spike, each flower subtended by a bract.
- **Sepals:** 4, united at base, rounded or pointed at tip, 1/10-1/8 inch long.
- **Petals:** 4, united below, papery, up to 1/6 inch long.
- **Stamens:** 4, exerted beyond the petals.
- **Pistils:** Ovary superior; stigmas 2-parted.
- **Fruits:** Capsules ovoid, smooth, about 1/6 inch long, with 4 seeds.



## Stinkweed (*Pluchea camphorata*)



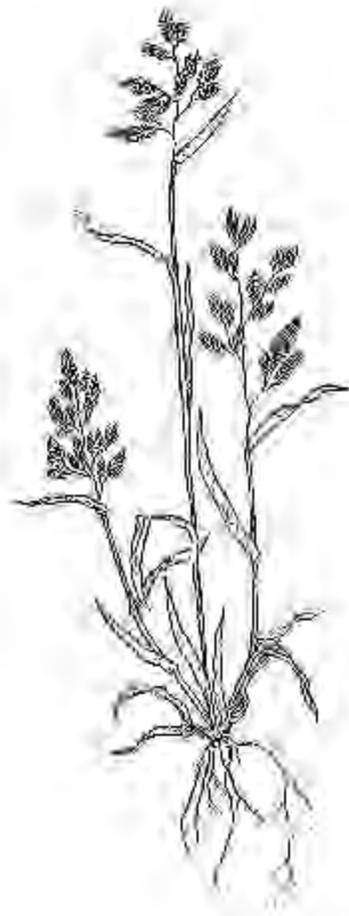
- **Family:** Aster (Asteraceae)
- **Flowering:** July-September.
- **Field Marks:** This member of the aster family has purple or pink heads that consist only of tubular flowers. The leaves of this plant have a bad odor when bruised.
- **Habitat:** Along streams, sloughs, wet meadows, wet prairies, swamps.
- **Habit:** Annual or perennial herb with fibrous roots.
- **Stems:** Erect, branched, smooth or sparsely hairy, up to 6 feet tall.
- **Leaves:** Alternate, simple, lanceolate to elliptic, pointed at the tip, tapering to the base, toothed, smooth or sparsely hairy, producing a bad odor when bruised, up to 5 inches long, up to 3 inches broad.
- **Flowers:** Many crowded into a head, with numerous heads forming branched, round-topped clusters; each head purple or pink, 1/6-1/4 inch long, subtended by narrow, pointed bracts, all the flowers tubular.
- **Sepals:** 0.
- **Petals:** 5, united below to form a short tube, purple or pink.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes pale brown or even pinkish, hairy, up to 1/20 inch long.
- **Notes:** This species is also known as marsh fleabane.



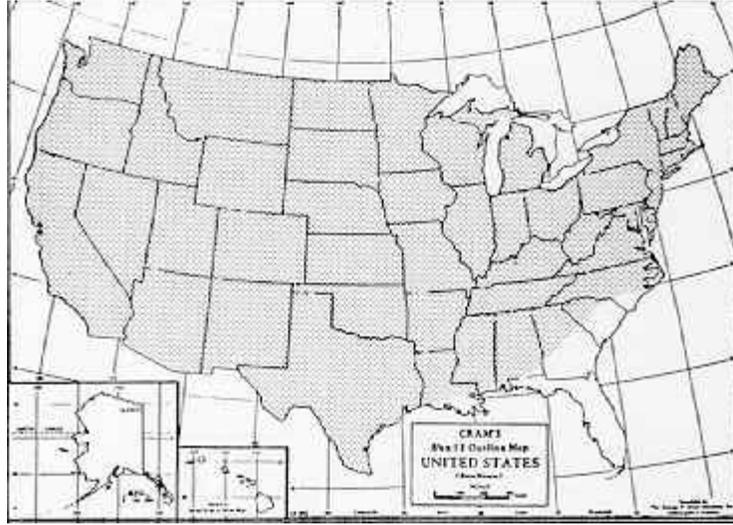
## Annual Bluegrass (*Poa annua*)



- **Family:** Grass (Poaceae)
- **Flowering:** March-October.
- **Field Marks:** Bluegrasses have 2 or more flowers in a spikelet. Annual bluegrass is the only wetland *Poa* that lacks the tuft of cobwebby hairs at the base of the fertile scales. It is the first bluegrass to bloom in the spring.
- **Habitat:** Fallow fields and in most disturbed areas.
- **Habit:** Annual herbs with fibrous roots.
- **Stems:** Sprawling or occasionally erect, smooth, usually less than 8 inches long.
- **Leaves:** Up to 3 1/2 inches long, up to 1/10 inch broad, smooth.
- **Flowers:** 4-5 borne in spikelets up to 1/6 inch long, with several spikelets forming small panicles; each flower subtended by a scale that lacks a tuft of cobwebby hairs near its base.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Grains:** Yellow-brown, about 1/20 inch long.



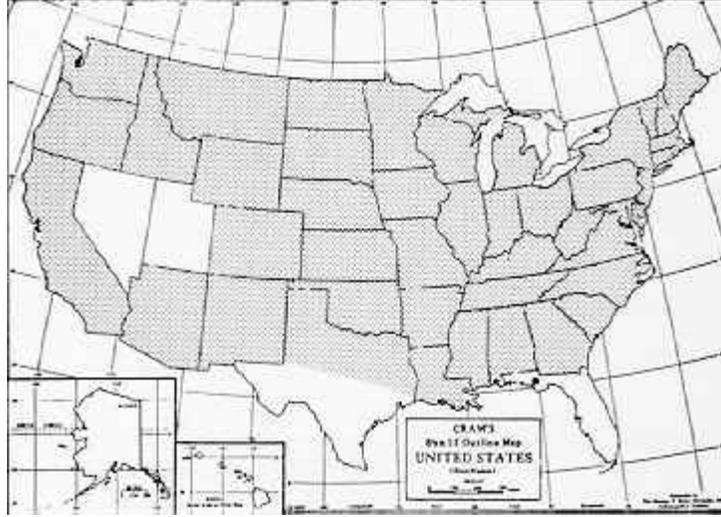
## Canada Bluegrass (*Poa compressa*)



- **Family:** Grass (Poaceae)
- **Flowering:** May-August.
- **Field Marks:** This perennial bluegrass differs by its slender inflorescence and its stems that are flattened near the base.
- **Habitat:** Pastures, roadsides, most disturbed habitats.
- **Habit:** Perennial grass with slender rhizomes.
- **Stems:** Erect or spreading from the base, smooth, blue-green, flat near the base, up to 2 feet tall.
- **Leaves:** Elongated, narrow, rough on the upper surface, up to 1/6 inch broad.
- **Flowers:** Arranged in spikelets; the spikelets in slender panicles; each spikelet up to 1/6 inch long, with 4-5 flowers.
- **Lemmas:** Pointed at the tip, usually 3-nerved, sparsely hairy.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Grains:** Lanceoloid, yellowish, up to 1/12 inch long.



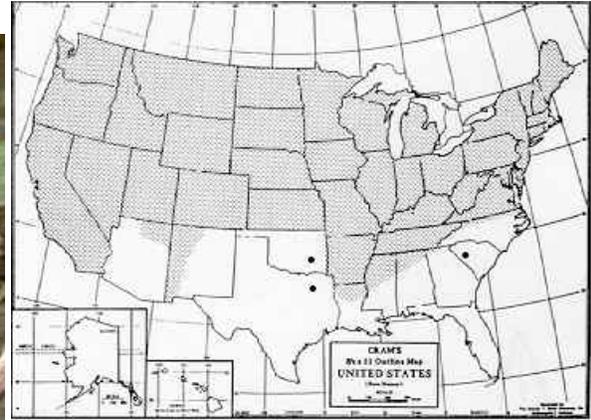
## Kentucky Bluegrass (*Poa pratensis*)



- **Family:** Grass (Poaceae)
- **Flowering:** April-July.
- **Field Marks:** Kentucky bluegrass has creeping rhizomes and pointed scales that subtend each flower.
- **Habitat:** Along rivers, damp meadows, pastures, and many other habitats.
- **Habit:** Perennial herb with extensive rhizomes.
- **Stems:** Erect, unbranched, smooth, up to 3 feet tall.
- **Leaves:** Leaves long and narrow, up to 6 inches long, up to 1/4 inch broad, smooth or somewhat rough to the touch.
- **Flowers:** Borne in spikelets, with 3-5 flowers per spikelet; each spikelet up to 1/4 inch long, on short, slender stalks; scales pointed at the tip, sometimes silky-hairy on the veins and with a tuft of cobwebby hairs at the base, up to 1/8 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Ovary superior; styles usually 2.
- **Grains:** Elongated, smooth.
- **Notes:** The pollen of this species may cause hay fever.



## Water Smartweed (*Polygonum amphibium*)



- **Family:** Smartweed (Polygonaceae)
- **Flowering:** June-August.
- **Field Marks:** Water smartweed has ovoid spikes less than 2 inches long, composed of red or pinkish red flowers. The leaves are usually rounded or heart-shaped at the base.
- **Habitat:** Marshes, around ponds and lakes.
- **Habit:** Perennial herb with rhizomes.
- **Stems:** Erect, branched or unbranched, smooth or hairy, up to 3 feet tall.
- **Leaves:** Alternate, simple, broadly lanceolate to oblong, pointed or rounded at the tip, usually rounded or heart-shaped at the base, without teeth, smooth or hairy, up to 8 inches long, 1 3/4-4 inches broad, with a sheath sometimes bearing bristles.
- **Sepals:** Usually 5, red or pinkish red, united at the base.
- **Petals:** 0.
- **Stamens:** Usually 8.
- **Pistils:** Ovary superior.
- **Fruits:** Achenes pale brown, not shiny, not triangular, 1/10-1/8 inch long.
- **Notes:** Waterfowl eat the achenes of this plant.



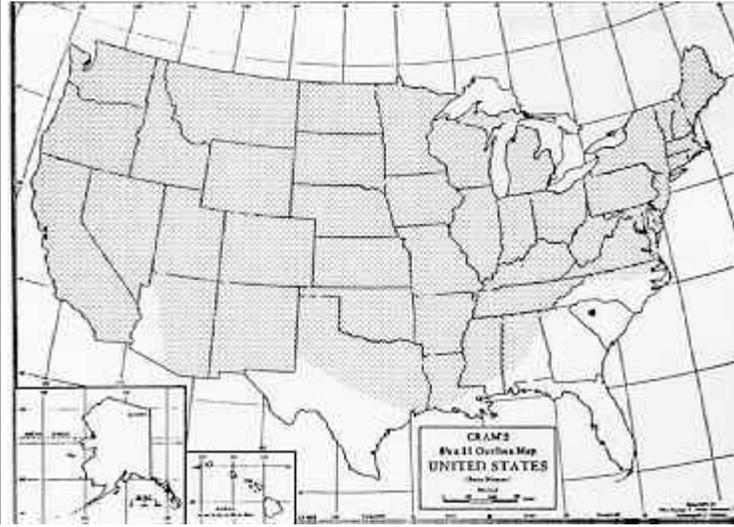
## Cespitose Knotweed (*Polygonum cespitosum*)



- **Family:** Smartweed (Polygonaceae)
- **Flowering:** June-October.
- **Field Marks:** This species has a smaller stature than any of the other smartweeds. It also has short, slender spikes of rose-pink flowers.
- **Habitat:** Open area in moist soil.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Usually erect, branched or unbranched, slender, usually smooth, up to 10 inches tall.
- **Leaves:** Alternate, simple, lanceolate to ovate, pointed at the tip, tapering to the base, hairy along the edges and on the veins of the lower surface, without teeth, up to 1 1/2 inches long; sheath with fine bristles at the tip.
- **Flowers:** Borne in short, cylindrical spikes up to 1 1/2 inches long, rose-pink.
- **Sepals:** 5, rose-pink, petal-like.
- **Petals:** 0.
- **Stamens:** 3-9.
- **Pistils:** Ovary superior.
- **Fruits:** Achenes triangular, shiny, up to 1/8 inch long.



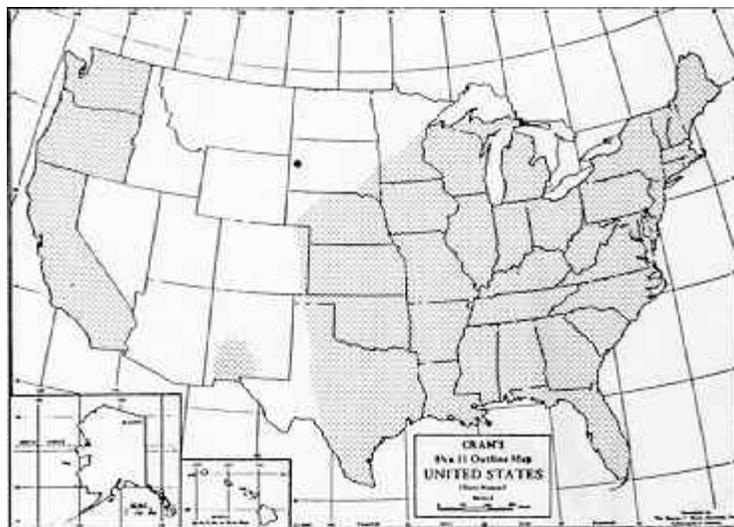
## Scarlet Smartweed (*Polygonum amphibium* var. *coccineum*)



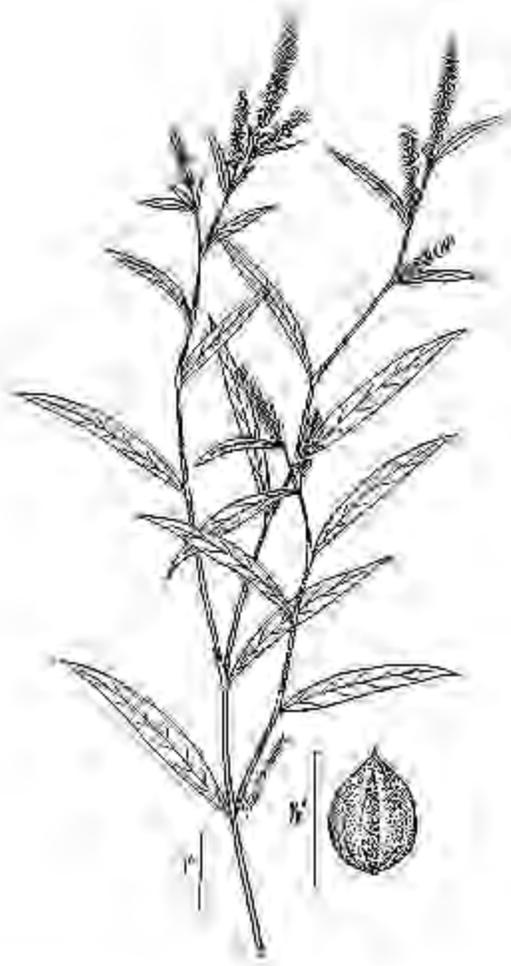
- **Family:** Smartweed (Polygonaceae)
- **Flowering:** June-August.
- **Field Marks:** Scarlet smartweed has thick, 2-inch long racemes of red or pinkish-red flowers, sheaths that lack bristles, and leaves that are usually rounded at the base.
- **Habitat:** Marshes, around ponds and lakes.
- **Habit:** Perennial herb with rhizomes.
- **Stems:** Erect, branched or unbranched, smooth except near base, up to 3 feet tall.
- **Leaves:** Alternate, simple, broadly lanceolate to oblong, pointed or rounded at the tip, usually rounded at the base, without teeth, smooth or slightly hairy, up to 8 inches long, 1 3/4-4 inches broad, with a sheath not bearing bristles.
- **Flowers:** Several densely crowded into a raceme usually at least 2 inches long; each flower red or pinkish-red, about 1/4 inch long.
- **Sepals:** Usually 5, red or pinkish red, united at the base.
- **Petals:** 0.
- **Stamens:** Usually 8.
- **Pistils:** Ovary superior.
- **Fruits:** Achenes pale brown, not shiny, not triangular, 1/10-1/8 inch long.
- **Notes:** Waterfowl eat the achenes of this plant. Some botanists do not consider the scarlet smartweed to be distinct from the water smartweed.



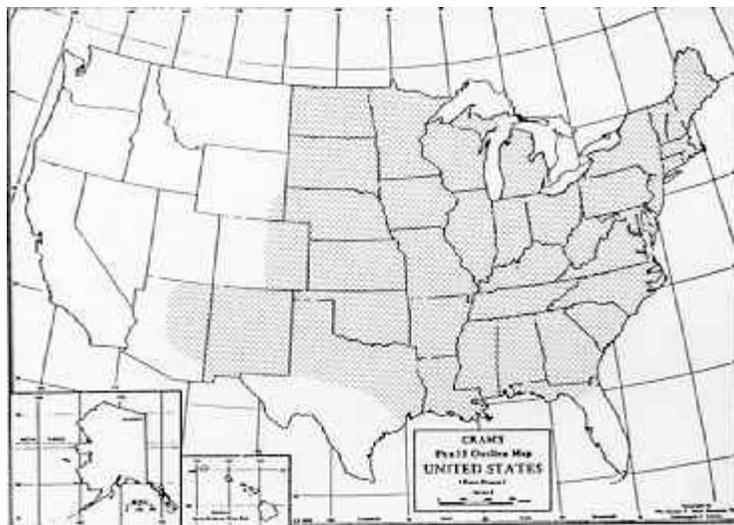
## Mild Water Pepper (*Polygonum hydropiperoides*)



- **Family:** Smartweed (Polygonaceae)
- **Flowering:** July-October.
- **Field Marks:** This *Polygonum* differs from all others by its bristly sheaths, nearly smooth stems, leaves less than 3/4 inch broad, and non-dotted sepals.
- **Habitat:** Swamps, along streams, around ponds and lakes, in ditches.
- **Habit:** Perennial herb with rhizomes, often forming mats.
- **Stems:** Erect, usually branched, smooth or slightly hairy, up to 2 feet long.
- **Leaves:** Alternate, simple, linear-lanceolate to lanceolate, pointed at the tip, tapering to the base, without teeth, smooth or with appressed hairs, up to 4 inches long, less than 3/4 inch broad, with a sheath bearing bristles at the base of the leaf stalk.
- **Flowers:** Several crowded in racemes up to 2 inches long; each flower white to pinkish, up to 1/4 inch long.
- **Sepals:** Usually 5, white to pinkish, not black-dotted, united at the base.
- **Petals:** 0.
- **Stamens:** Usually 8.
- **Pistils:** Ovary superior.
- **Fruits:** Achenes more or less triangular, black or brown, shiny, about 1/8 inch long.
- **Notes:** The achenes are eaten by waterfowl.



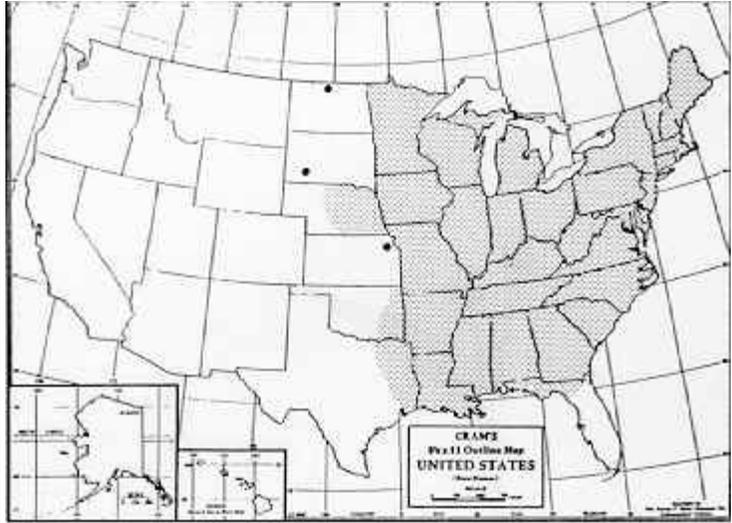
## Pinkweed (*Polygonum pensylvanicum*)



- **Family:** Smartweed (Polygonaceae)
- **Flowering:** July-October.
- **Field Marks:** Pinkweed differs by the lack of bristles on its leaf sheaths, by its pink flowers, and the short, stiff bristles on the stem just below the cluster of flowers.
- **Habitat:** Swamps, along streams, around ponds and lakes, fallow fields, marshes, wet meadows, in ditches.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect, smooth or slightly hairy, up to 6 feet tall.
- **Leaves:** Alternate, simple, lanceolate, pointed at the tip, tapering to the base, without teeth, smooth or with slightly hairy, up to 6 inches long, up to 2 1/4 inches broad, with a sheath not bearing bristles.
- **Flowers:** Several crowded in racemes up to 1 1/2 inches long; each flower pink, 1/6 inch long, on a stalk that has short, stiff hairs.
- **Sepals:** Usually 5, pink, united at the base.
- **Petals:** 0.
- **Stamens:** Usually 8.
- **Pistils:** Ovary superior.
- **Fruits:** Achenes not triangular, black or brown, shiny, 1/6 inch long.
- **Notes:** The achenes are eaten by waterfowl.



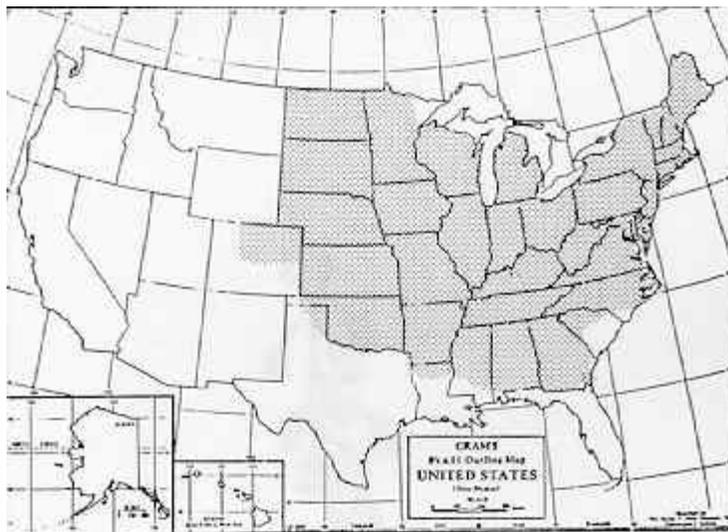
## Arrow-leaved Tear-thumb (*Polygonum sagittatum*)



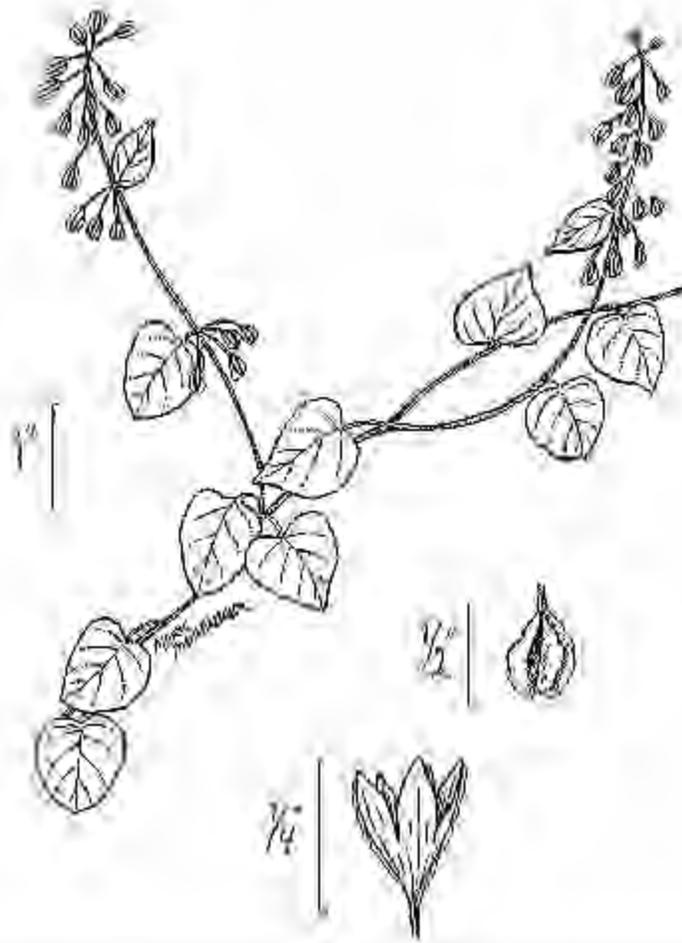
- **Family:** Smartweed (Polygonaceae)
- **Flowering:** June-October.
- **Field Marks:** This climbing *Polygonum* has arrowhead-shaped leaves and downward-pointing prickles on its stem.
- **Habitat:** Swamps, along streams, marshes.
- **Habit:** Annual climber with fibrous roots.
- **Stems:** Sprawling or climbing, with numerous stiff, downward-pointing hairs.
- **Leaves:** Alternate, simple, narrowly arrowhead-shaped, pointed at the tip, with a pair of pointed lobes at the base, smooth, up to 3 inches long.
- **Flowers:** Up to 12 in small, rounded clusters, pink or white.
- **Sepals:** 5, pink or white, free from each other.
- **Petals:** 0.
- **Stamens:** Usually 5.
- **Pistils:** Ovary superior.
- **Fruits:** Achenes triangular, black-brown, shiny.
- **Notes:** The downward-pointing hairs on the stem are stiff enough to break the skin. This species does not occur in region 8, despite the listing in the National Wetlands Inventory list.



## Climbing False Buckwheat (*Polygonum scandens*)



- **Family:** Smartweed (Polygonaceae)
- **Flowering:** July-November.
- **Field Marks:** This species differs from the other viny species of *Polygonum* by its smooth, shiny achenes and its winged fruits usually 1/2-3/4 inch long.
- **Habitat:** Wet woods, damp thickets, around ponds and lakes, in sloughs, along streams; also in drier habitats.
- **Habit:** Twining, perennial herb with thickened roots and no tendrils.
- **Stems:** Stems twining, branched, smooth, up to 20 feet long.
- **Leaves:** Alternate, simple, ovate, pointed at the tip, heart-shaped at the base, without teeth but rough to the touch along the edges, without hairs, up to 6 inches long, usually much smaller.
- **Flowers:** Several in racemes, not overlapping, up to 1/3 inch long, yellow-green.
- **Sepals:** 5, united, unequal in size.
- **Petals:** 0.
- **Stamens:** 8.
- **Pistils:** Ovary superior; stigmas free.
- **Fruits:** Achenes triangular, smooth, shiny, attached to the enlarged winged calyx, 1/2-3/4 inch long.
- **Notes:** The achenes can be ground and made into flour.



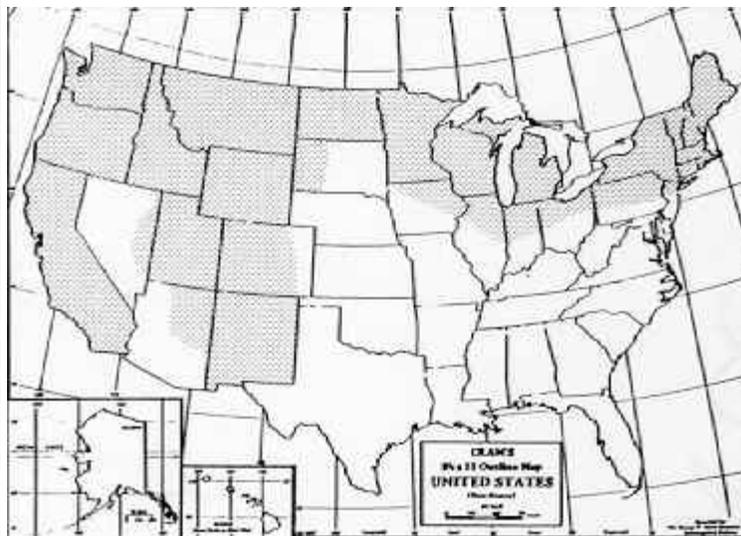
## Bristly Smartweed (*Polygonum setaceum*)



- **Family:** Smartweed (Polygonaceae)
- **Flowering:** July-October.
- **Field Marks:** The bristly smartweed differs from all other smartweeds by its bristly sheaths, nearly smooth stems, and non-dotted sepals, and from the mild water pepper by its broader leaves, more than 3/4 inch wide.
- **Habitat:** Wet woods, swamps, around ponds and lakes, in ditches.
- **Habit:** Perennial herb with rhizomes, often forming mats.
- **Stems:** Erect or ascending, usually branched, smooth or slightly hairy, up to 2 feet tall.
- **Leaves:** Alternate, simple, lanceolate, pointed at the tip, tapering to the base, without teeth, smooth or with appressed hairs, up to 6 inches long, 3/4-1 1/2 inches broad, with a sheath bearing bristles at the base of the leaf stalk.
- **Flowers:** Several crowded in racemes up to 2 inches long; each flower white or pinkish or greenish, up to 1/4 inch long.
- **Sepals:** Usually 5, white to pinkish to greenish, not black-dotted, united at the base.
- **Petals:** 0.
- **Stamens:** Usually 8.
- **Pistils:** Ovary superior.
- **Fruits:** Achenes triangular, black, shiny, 1/10 inch long.
- **Notes:** The achenes are eaten by waterfowl.



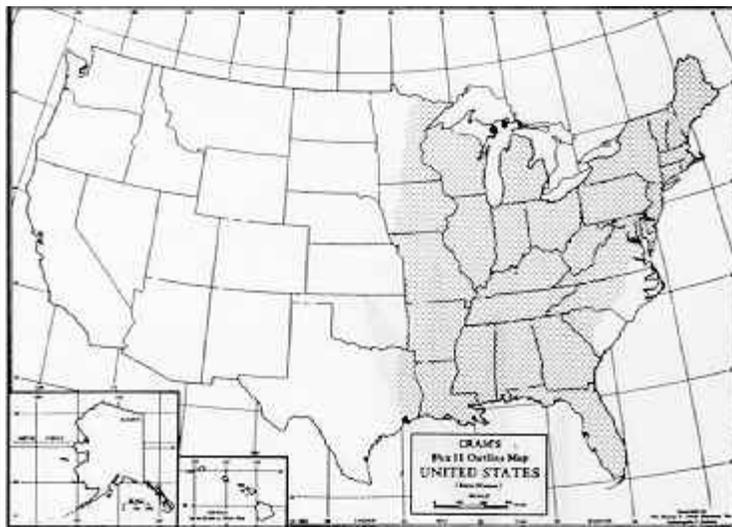
## Shrubby Cinquefoil (*Potentilla fruticosa*)



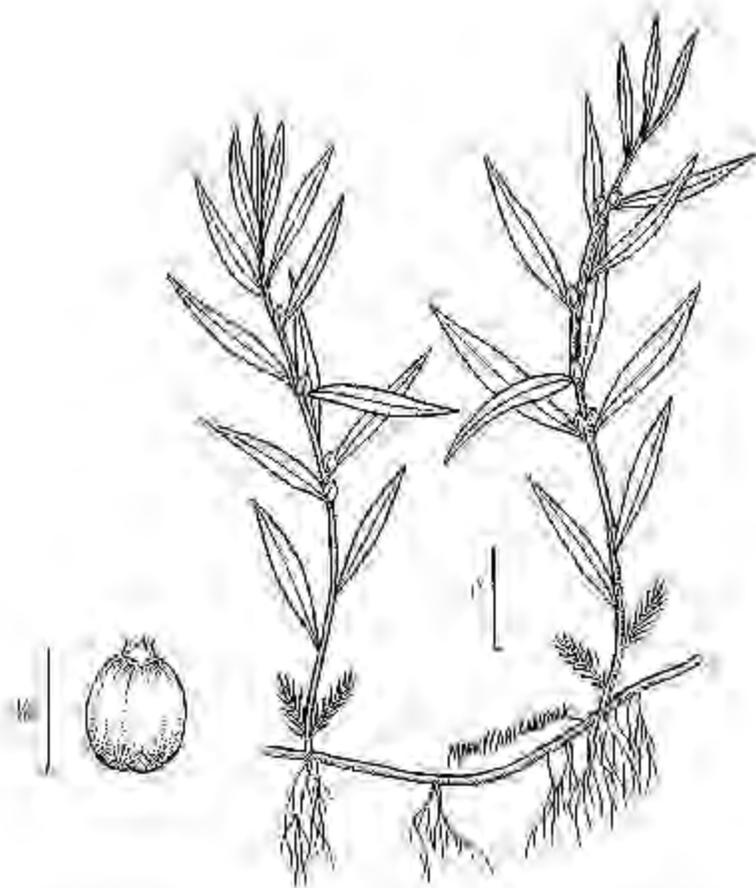
- **Family:** Rose (Rosaceae)
- **Flowering:** June-September.
- **Field Marks:** This shrubby *Potentilla* is further distinguished by its leaves, which are pinnately divided usually into 5 leaflets.
- **Habitat:** Bogs, fens, around interdunal ponds.
- **Habit:** Much branched shrub up to 3 feet tall.
- **Stems:** Bark brown, coming off in shreds.
- **Leaves:** Alternate, pinnately divided into 5 or less commonly 7 leaflets, the leaflets narrowly oblong, pointed at the tip, tapering to the base, without teeth, hairy, up to 1 inch long.
- **Flowers:** Solitary or few in a cluster at the end of the branches, yellow, up to 1 1/4 inches across.
- **Sepals:** 5, green.
- **Petals:** 5, yellow, free from each other.
- **Stamens:** Numerous.
- **Pistils:** Several, hairy, each with a superior ovary.
- **Fruits:** A cluster of achenes.



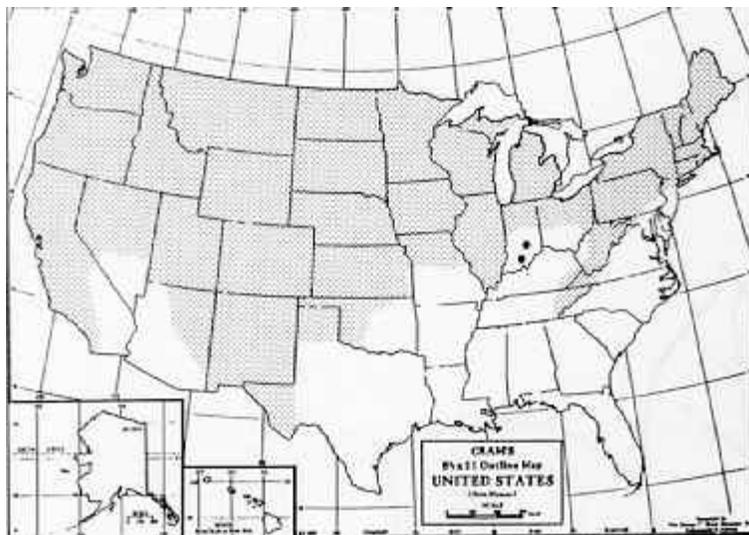
## Marsh Mermaidweed (*Proserpinaca palustris*)



- **Family:** Water Milfoil (Haloragidaceae)
- **Flowering:** June-October.
- **Field Marks:** This species differs by usually having two kinds of leaves, three sepals, no petals, three stamens, and an inferior ovary.
- **Habitat:** Swamps, floodplain woods, wet roadside ditches, marshes, sometimes in standing water.
- **Habit:** Perennial herbs, often rooting at the nodes.
- **Stems:** Erect or sprawling, smooth, up to 2 feet long.
- **Leaves:** Alternate, those not in water simple, linear-lanceolate to lanceolate to ovate, toothed, smooth, up to 2 inches long; those submersed in water deeply pinnately divided, smooth.
- **Flowers:** 1-3 in the axils of the leaves, green.
- **Sepals:** 3, green, free from each other.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Ovary inferior.
- **Fruits:** Nutlets hard, sometimes winged, up to 1/4 inch long, containing 3 seeds.
- **Notes:** The seeds are eaten by waterfowl.



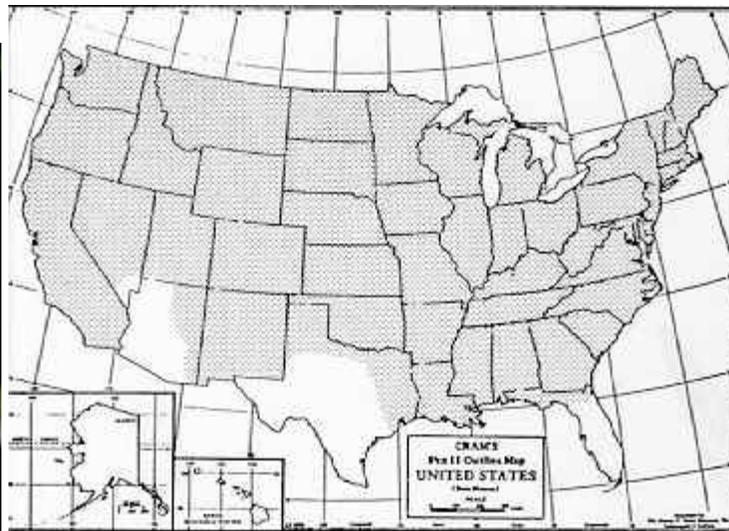
## Common Chokecherry (*Prunus virginiana*)



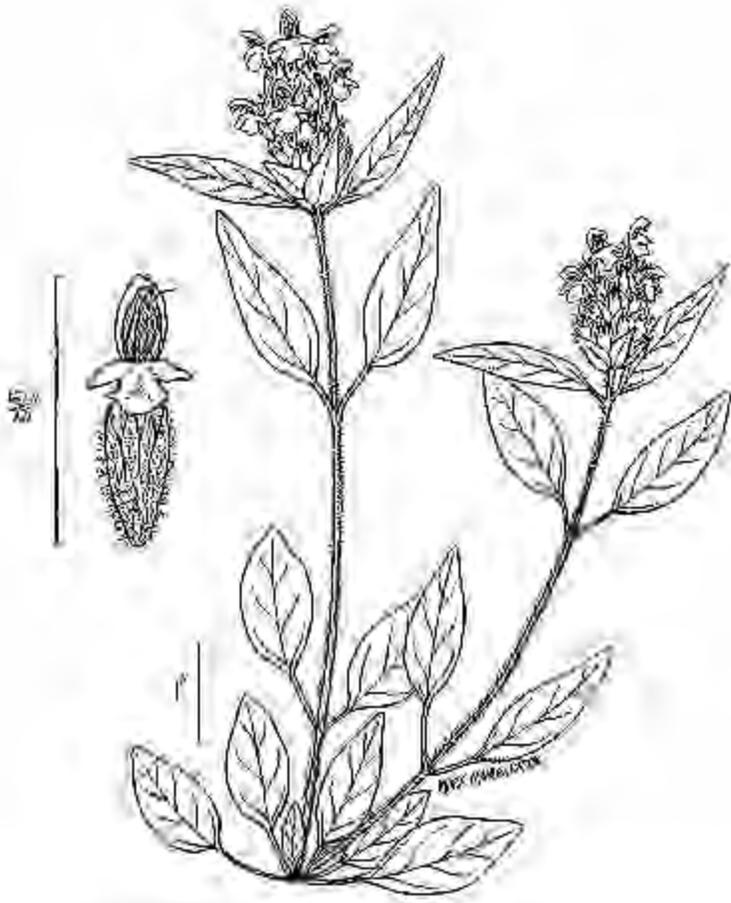
- **Family:** Rose (Rosaceae)
- **Flowering:** April-July.
- **Field Marks:** The combination of flowers in a raceme, leaves elliptic, flowers on short stalks, and red fruits distinguishes this species.
- **Habitat:** Sandy woods along large lakes, along streams.
- **Habit:** Shrub or small tree to 25 feet tall, with extensive rhizomes.
- **Stems:** Bark smooth, black.
- **Leaves:** Alternate, simple, elliptic to obovate, pointed at the tip, rounded at the base, finely toothed, smooth, up to 3 inches long, up to 2 inches broad.
- **Flowers:** Several in elongated racemes, white, up to 1/2 inch across, on stalks up to 1/2 inch long.
- **Sepals:** 5, green, free from each other, 1/20 inch long.
- **Petals:** 5, white, free from each other, 1/4-1/3 inch long.
- **Stamens:** Numerous.
- **Pistils:** 1; styles 1; ovary superior.
- **Fruits:** Drupes spherical, dark red, up to 1/2 inch in diameter.
- **Notes:** The fruits are eaten by wildlife.



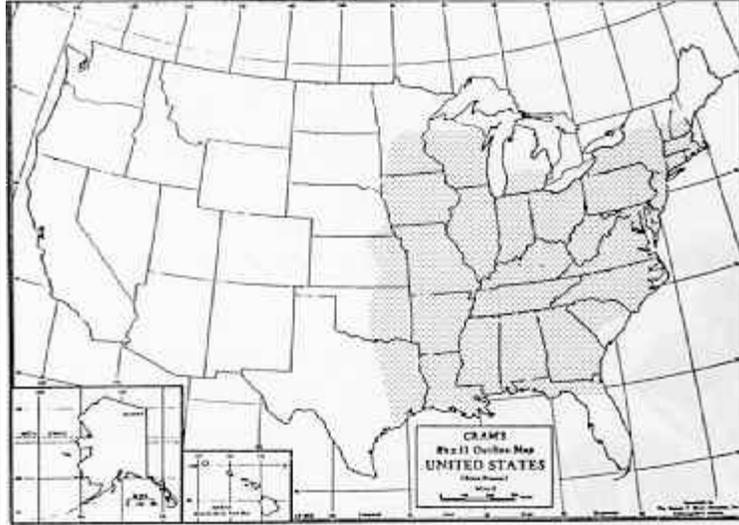
## Common Selfheal (*Prunella vulgaris*)



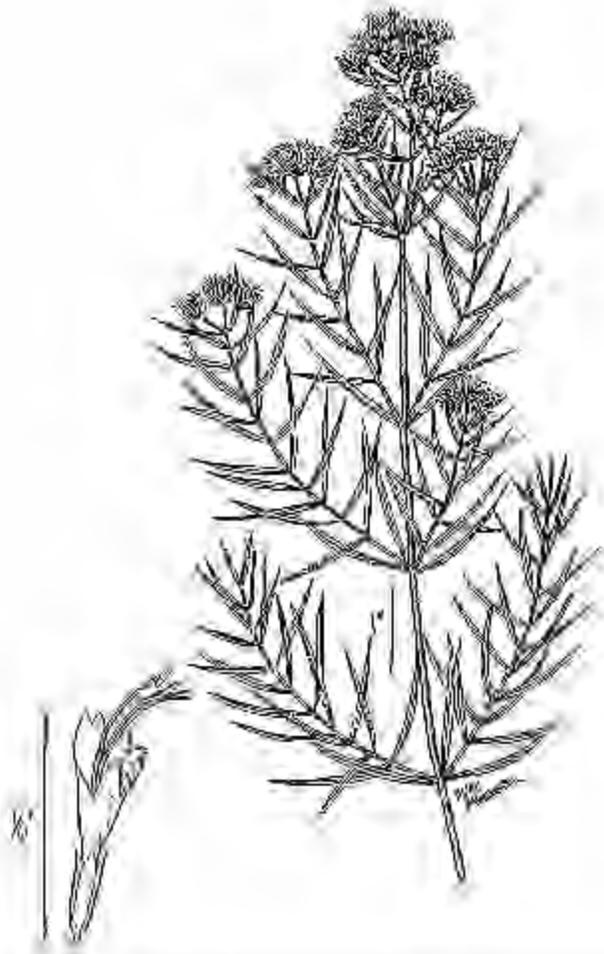
- **Family:** Mint (Lamiaceae)
- **Flowering:** May-September.
- **Field Marks:** Distinguishing features of this species are the crowded spikes consisting of many flowers subtended by many overlapping bracts.
- **Habitat:** Low woods, along streams, around ponds and lakes, in roadside ditches, wet prairies, as well as in drier habitats.
- **Habit:** Perennial herb with basal offshoots.
- **Stems:** Spreading to erect, 4-sided, hairy, up to 2 feet tall.
- **Leaves:** Opposite, simple, lanceolate to elliptic to narrowly ovate, rounded or pointed at the tip, rounded or tapering to the base, with or without teeth, usually hairy, up to 3 1/2 inches long, up to 1 1/2 inches broad; leaf stalks present.
- **Flowers:** Several crowded into cylindrical spikes; each flower 1/2 to 1 inch long, subtended by a ciliate bract.
- **Sepals:** 2-lipped, green or purple, hairy; the upper lip 3-toothed; the lower lip 2-lobed.
- **Petals:** 2-lipped, purple or white, up to 1 inch long; the upper lip unlobed; the lower lip 2-lobed.
- **Stamens:** 4, curved under the upper lip of the corolla.
- **Pistils:** Ovary superior, 4-parted; stigmas 2-cleft.
- **Fruits:** Nutlets 4, dark brown, ribbed, shiny, about 1/10 inch long.
- **Notes:** This plant is also known as heal-all.



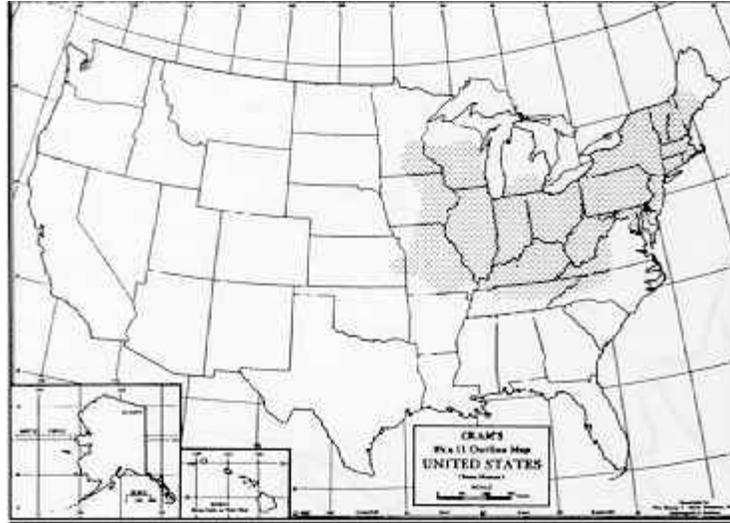
## Slender Mountain Mint (*Pycnanthemum tenuifolium*)



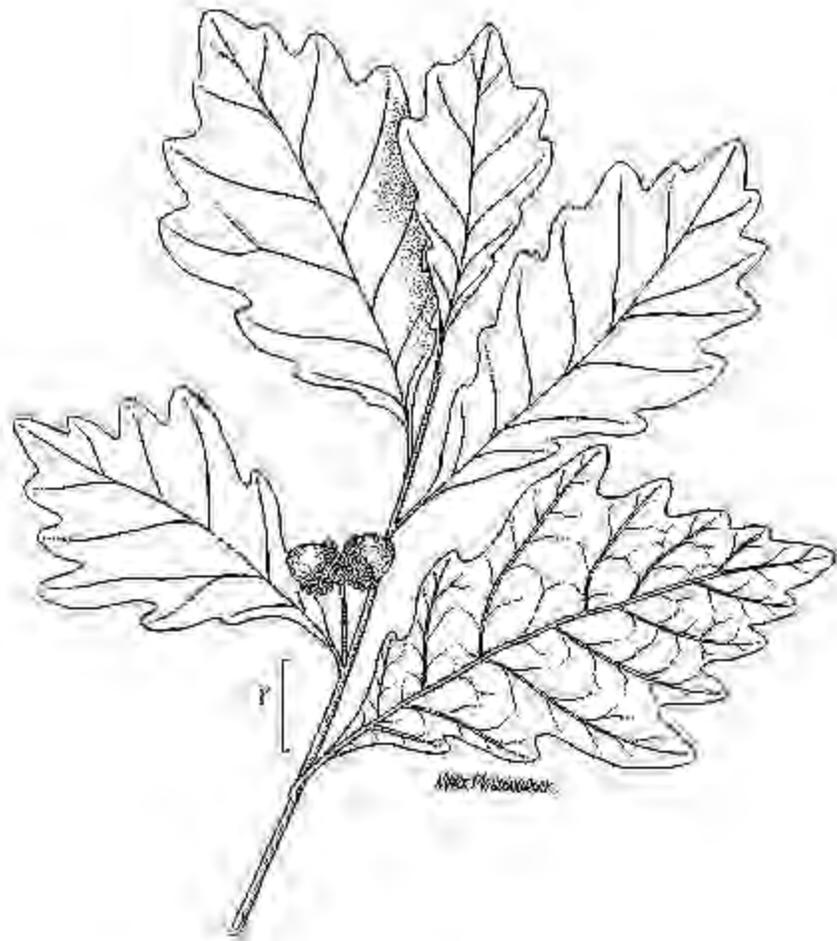
- **Family:** Mint (Lamiaceae)
- **Flowering:** June-September.
- **Field Marks:** This mountain mint has narrow leaves up to 1/6 inch broad and smooth stems.
- **Habitat:** Wet meadows, along streams, more often in drier habitats.
- **Habit:** Perennial herbs with slender rhizomes.
- **Stems:** Erect, branched, 4-sided, smooth, up to 4 feet tall.
- **Leaves:** Opposite, simple, linear, pointed at the tip, tapering to the base, without teeth, smooth, up to 2 1/4 inches long, 1/6 inch broad.
- **Flowers:** Several in usually flat-topped clusters, each flower 1/8-1/6 inch long.
- **Sepals:** 5, united below, green.
- **Petals:** 5, 2-lipped; the upper lip usually 2-lobed; the lower lip 3-lobed, white with purple dots, hairy.
- **Stamens:** 4.
- **Pistils:** Ovary superior, 4-parted; stigmas 2-cleft.
- **Fruits:** Nutlets black, oblong, about 1/20 inch long.



## Swamp White Oak (*Quercus bicolor*)

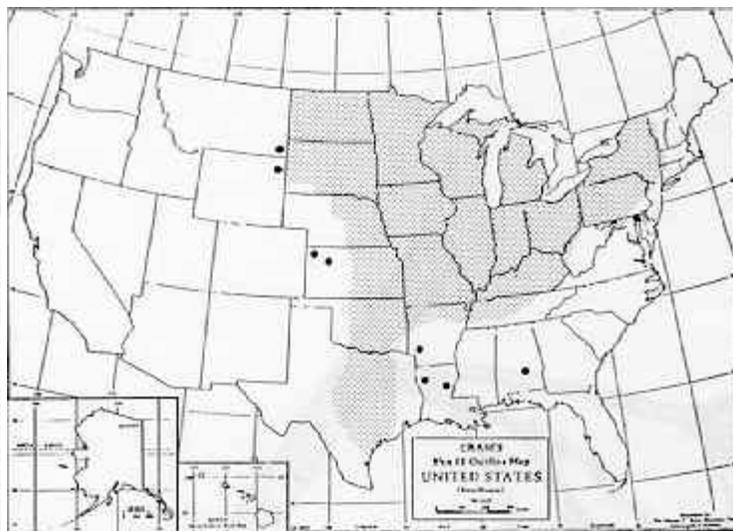


- **Family:** Beech (Fagaceae)
- **Flowering:** April-May.
- **Field Marks:** This is the only coarsely toothed oak in the white oak group that has the acorns borne on stalks at least one inch long.
- **Habitat:** Bottomland woods, swamps, along streams.
- **Habit:** Tree to 70 feet tall, with a trunk diameter up to 3 feet; crown rounded and broad.
- **Bark:** Gray-brown, deeply furrowed, becoming flaky.
- **Buds:** Clustered at the tips of the twigs, ellipsoid to spherical, yellow-brown, smooth or with a few hairs at the tip, up to 1/8 inch long.
- **Leaves:** Alternate, simple, usually broadest above the middle, coarsely round-toothed or sometimes with a few shallow lobes, smooth and somewhat hairy on the upper surface, white and softly hairy on the lower surface, up to 6 inches long, up to 4 inches broad; leaf stalks up to 1 inch long, smooth or slightly hairy.
- **Flowers:** Male and female borne separately, but on the same tree, appearing when the leaves begin to unfold, minute, without petals, the male flowers in slender, drooping spikes, the female flowers in groups of 2-4.
- **Fruits:** Acorns in pairs, on stalks 1 inch long or longer, the nut ovoid, pale brown, 1-1 1/2 inches long, enclosed about 1/3 its length by the cup, the cup thick, light brown, hairy, roughened.
- **Notes:** The wood of this species is used for interior finishing, cabinets, fuel, and fence posts.

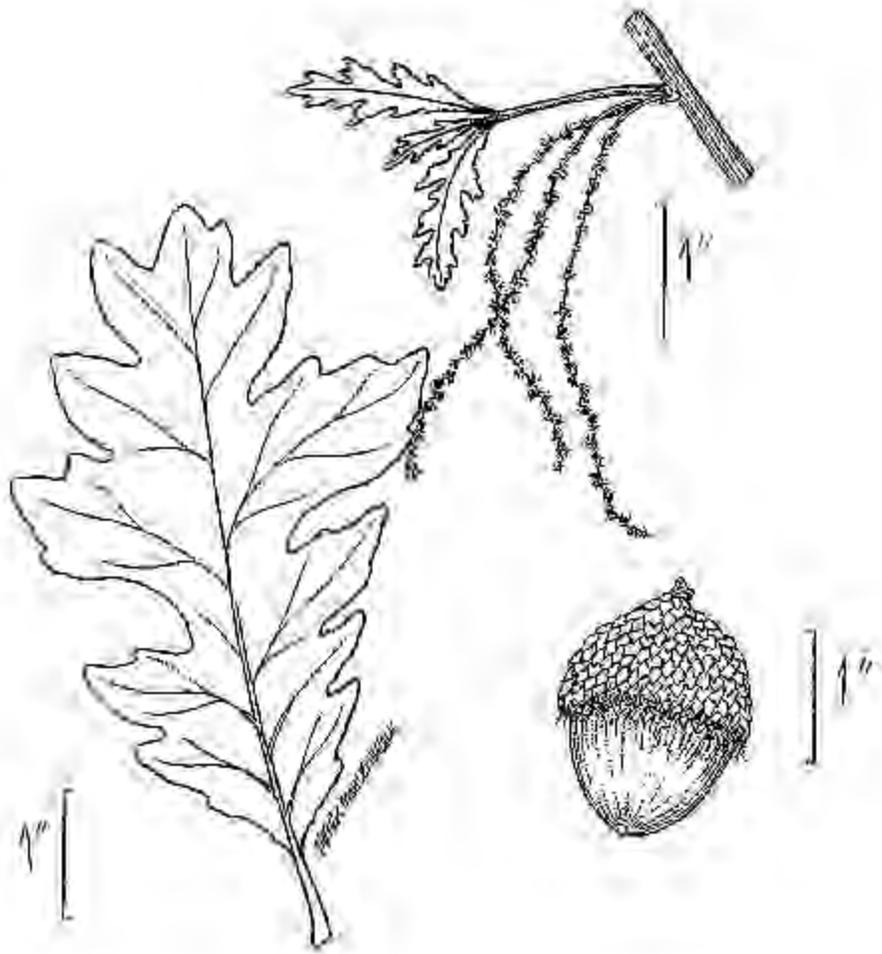


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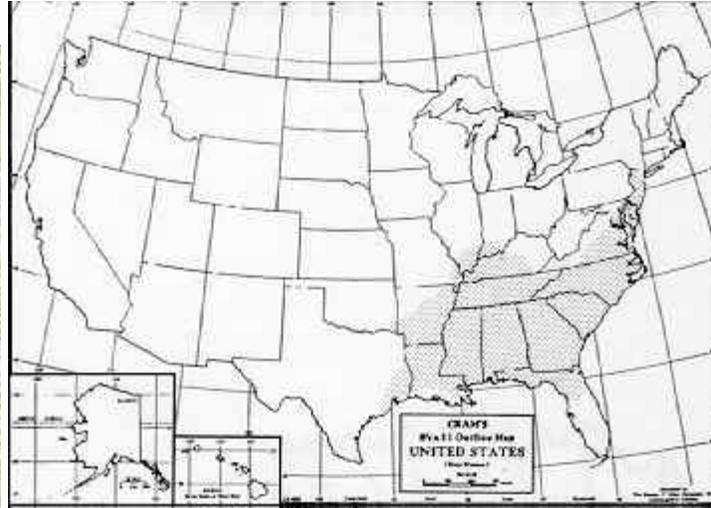
## Bur Oak (*Quercus macrocarpa*)



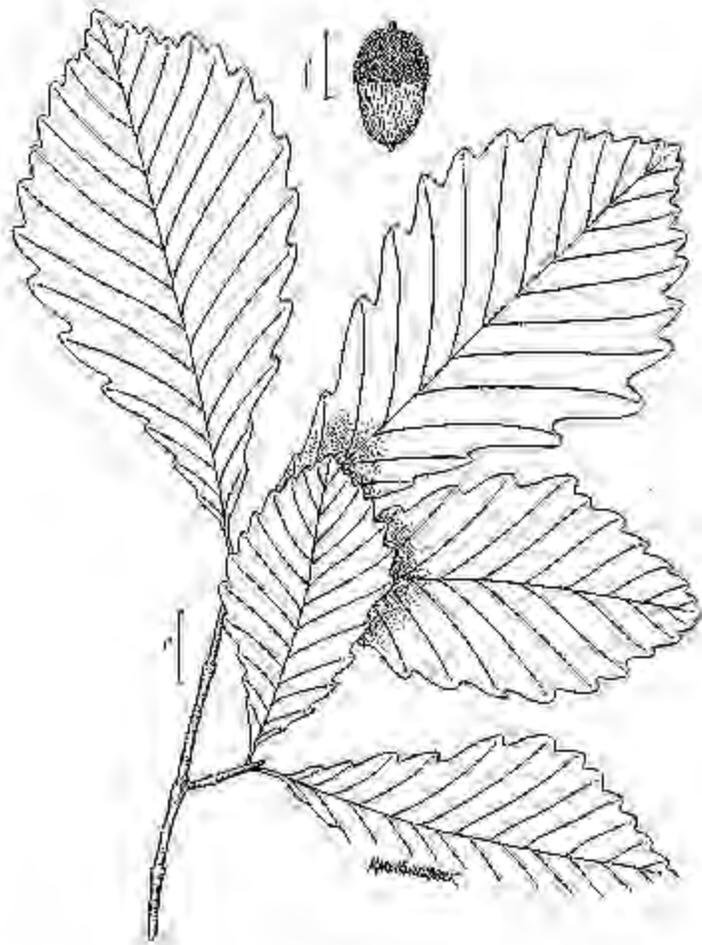
- **Family:** Beech (Fagaceae)
- **Flowering:** April-May.
- **Field Marks:** This oak is distinguished by its large acorn with a fringed cup and by its deep pair of sinuses just below the middle of the leaf.
- **Habitat:** Bottomland woods, along rivers and streams; many times in drier habitats.
- **Habit:** Tree up to 120 feet tall, with a rounded crown and stout branches.
- **Bark:** Dark brown or yellow-brown, rather deeply furrowed.
- **Leaves:** Alternate, simple, broader at the upper end, coarsely round-toothed, usually with a pair of deep sinuses just below the middle of the leaf, often with 5 or 7 lobes, not bristle-tipped, usually hairy on the lower surface, up to 14 inches long, up to 7 inches wide.
- **Flowers:** Male and female borne separately, but on the same tree, the male flowers in slender, drooping spikes; the female few in a group.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3-12.
- **Pistils:** Ovary inferior.
- **Fruits:** Acorns usually solitary, the nut ovoid to ellipsoid, dark brown, up to 1 3/4 inches long, the cup covering half to nearly all of the nut, hairy, the lowermost scales long-fringed.



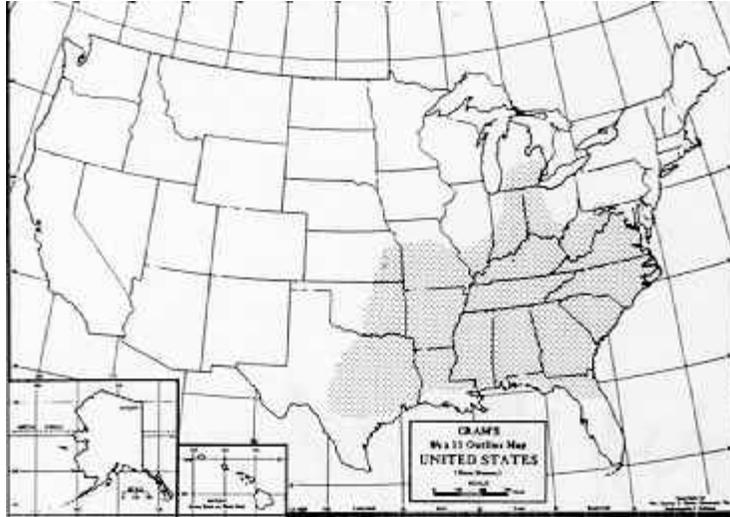
# Swamp Chestnut Oak (*Quercus michauxii*)



- **Family:** Beech (Fagaceae)
- **Flowering:** April-May.
- **Field Marks:** This oak possesses leaves with coarse teeth but no lobes and a hairy lower surface that is usually somewhat velvety to the touch. The cup of the acorn is at least 1 inch across.
- **Habitat:** Low woods, swamps, sloughs, bayous, along streams.
- **Habit:** Tree up to 100 feet tall, with a trunk diameter up to 6 feet and a rounded crown.
- **Bark:** Gray or silvery white, scaly.
- **Leaves:** Alternate, simple, obovate, pointed at the tip, rounded or tapering to the base, coarsely toothed along the edges, densely hairy and velvety on the lower surface, up to 10 inches long, up to 6 inches broad.
- **Flowers:** Male and female borne separately, but on the same tree, the male crowded into long, slender, spikes; the female few in a cluster.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Acorns solitary or paired, with or without short stalks, the nut ovoid to ellipsoid, brown, up to 1 1/2 inches long, enclosed about 1/3 its length by the cup; the cup thick, hairy, at least 1 inch across.
- **Notes:** This species is sometimes known as basket oak or cow oak. The acorns are relatively sweet and are a source of food for wildlife.



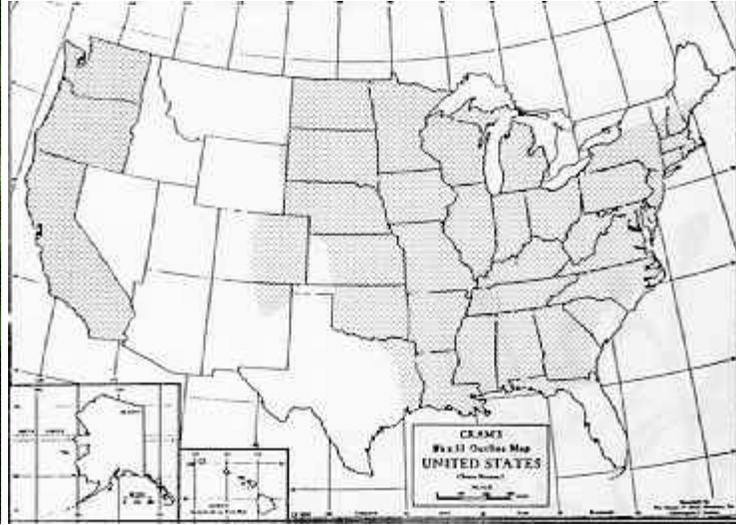
## Shumard Oak (*Quercus shumardii*)



- **Family:** Beech (Fagaceae)
- **Flowering:** April-May.
- **Field Marks:** Among the red oak group, *Quercus shumardii* is distinguished by its leaves that are hairy only in the axils of the veins on the lower surface, and by its smooth gray buds.
- **Habitat:** Low woods, along streams.
- **Habit:** Tree up to 120 feet tall, with a trunk diameter up to 5 feet; crown broad and open, with wide-spreading branches.
- **Bark:** Firmly ridged and dark brownish black.
- **Buds:** Smooth, gray, about 1/3 inch long.
- **Leaves:** Alternate, simple, straight across or somewhat wedge-shaped at the base, with 2-4 pairs of lobes divided over 2/3's the way to the mid-vein, each lobe toothed and bristle-pointed at the tip, the sinuses broadly rounded, dark green and shiny above, smooth below except for tufts of hairs in the axils of the veins; leaf stalks slender, smooth, up to 2 1/2 inches long.
- **Flowers:** Male and female borne separately, but on the same tree, appearing as the leaves unfold, inconspicuous, the male crowded into a slender, drooping spike; the female solitary or 2-3 together.
- **Fruits:** Acorns ripening in October of the second year, on stalks less than 1/4 inch long, the nut broadly ovoid, short-pointed at the base, flat on top, up to 1 1/4 inches long, about 3/4 inches wide, light brown; cup shallow, about 1/4 to 1/3 covering the acorn, with closely appressed, densely short woolly scales.
- **Notes:** The wood is used for interior finishing and furniture.



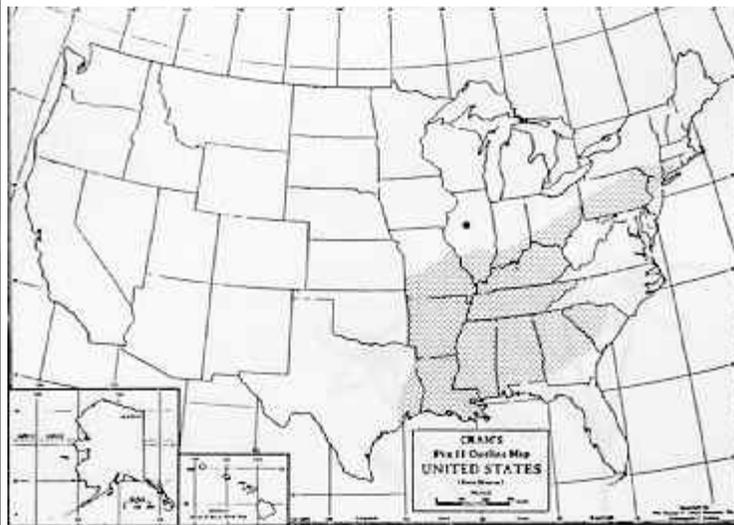
## Subalpine Buttercup (*Ranunculus abortivus*)



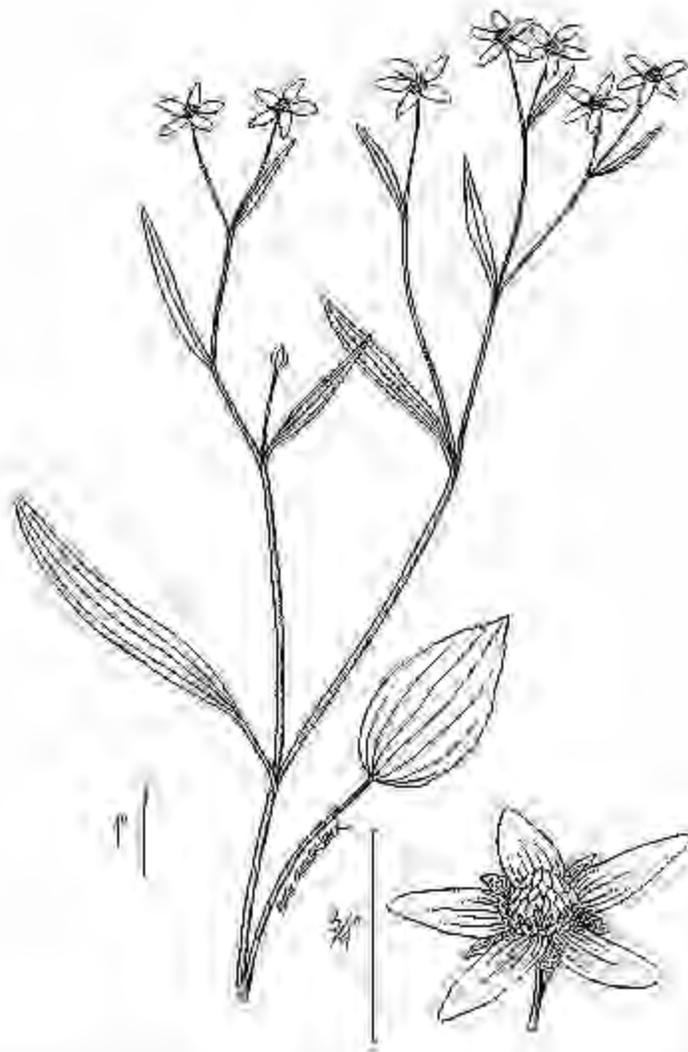
- **Family:** Buttercup (Ranunculaceae)
- **Flowering:** March-June.
- **Field Marks:** This species is distinguished by having its 5 petals equalling or shorter than the sepals, by its shiny achenes, and by its usually smooth stems.
- **Habitat:** Along streams, low woods, in ditches, and in drier habitats.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect, branched or unbranched, usually smooth, up to 1 1/2 feet tall.
- **Leaves:** Basal and alternate, smooth; the basal ones simple, toothed and sometimes deeply lobed; the leaves on the stem toothed or toothless or divided into 3 or 5 lobes.
- **Flowers:** 1-several at the ends of the branches, yellow, up to 1/2 inch across, subtended by leafy bracts.
- **Sepals:** 5, green, up to 1/4 inch long, pointing downward.
- **Petals:** 5, yellow, free from each other, up to 1/6 inch long, equalling or shorter than the sepals.
- **Stamens:** Numerous.
- **Pistils:** Numerous, free from each other, smooth.
- **Fruits:** Nearly round heads of short-beaked achenes; each achene more or less round in outline, smooth, shiny, 1/10-1/8 inch long, with a minute beak to one side.
- **Notes:** The common name listed for this species is inappropriate. It is usually known as the small-flowered crowfoot. The achenes are eaten by wildlife.



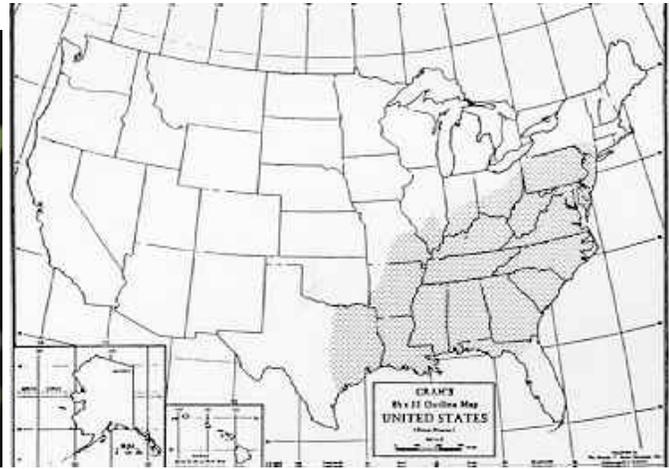
## Spearwort (*Ranunculus laxicaulis*)



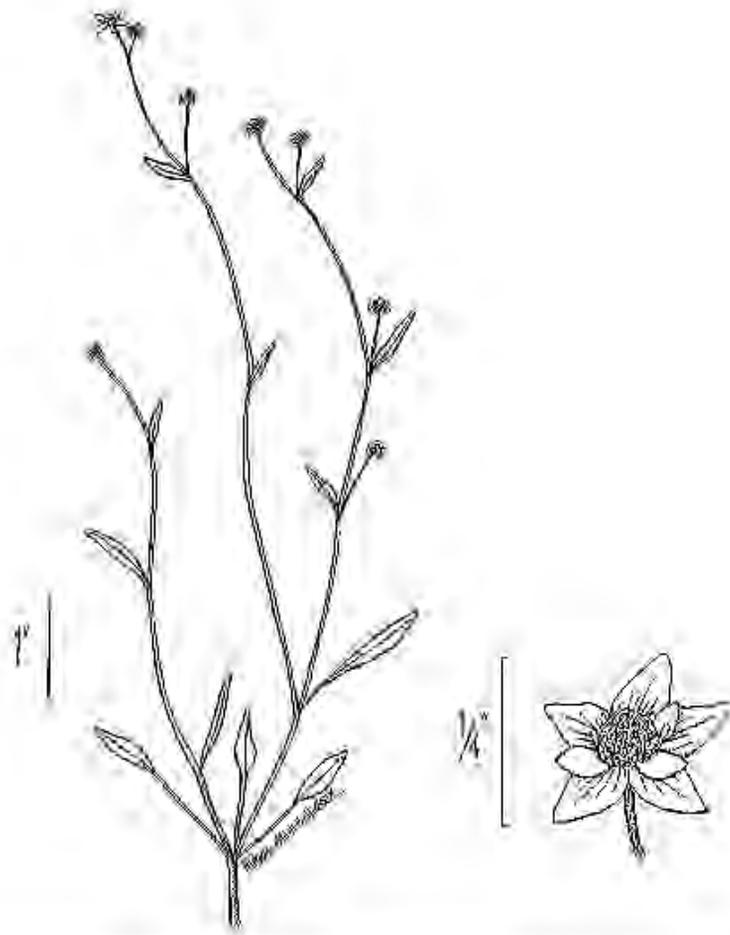
- **Family:** Buttercup (Ranunculaceae)
- **Flowering:** May-June.
- **Field Marks:** This is the only *Ranunculus* with all the leaves unlobed and with 5 petals about twice as long as the sepals.
- **Habitat:** Roadside ditches, wet prairies.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect or sprawling, smooth or slightly hairy, sometimes branched, up to 1 foot long.
- **Leaves:** Basal and on the stem, narrowly elliptic to ovate, with or without teeth, smooth or slightly hairy, none of them lobed, up to 3 inches long, up to 1 1/2 inches broad.
- **Flowers:** Solitary on slender stalks, with several flowers per stem, yellow.
- **Sepals:** 5, green, free from each other, about 1/6 inch long.
- **Petals:** 5, yellow, free from each other, up to 1/3 inch long.
- **Stamens:** 25-30.
- **Pistils:** Numerous, with a superior ovary.
- **Fruits:** Achenes oblongoid, yellowish, smooth, less than 1/20 inch long, without a beak.



## Low Spearwort (*Ranunculus pusillus*)



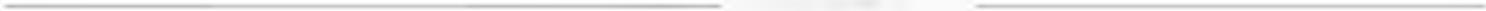
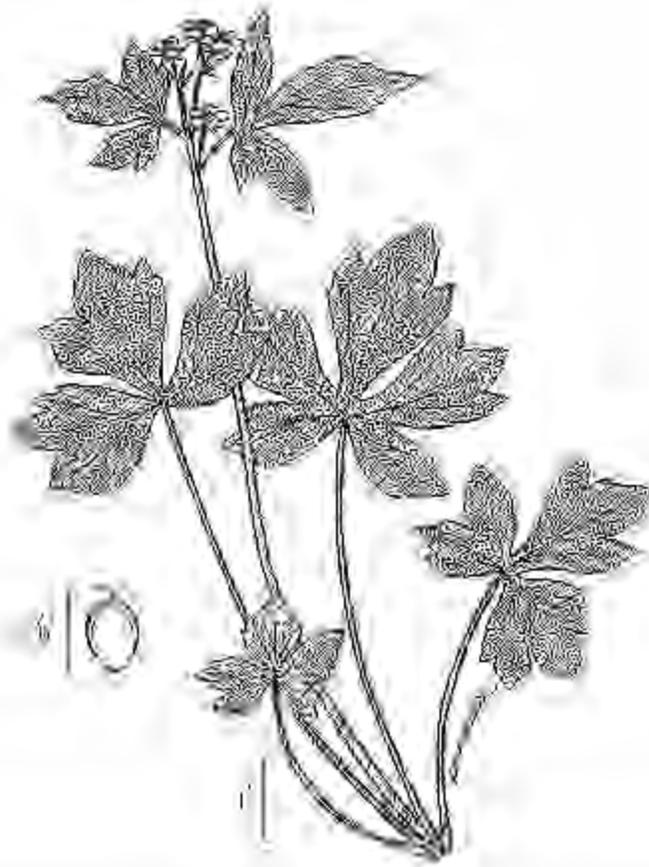
- **Family:** Buttercup (Ranunculaceae)
- **Flowering:** May-June.
- **Field Marks:** This is the only *Ranunculus* with all the leaves unlobed and with 1-3 tiny petals shorter than the sepals.
- **Habitat:** Roadside ditches, swamps, wet woods.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect or sprawling, smooth or slightly hairy, sometimes branched, up to 1 foot long.
- **Leaves:** Basal and on the stem, linear to ovate, with or without teeth, smooth or slightly hairy, up to 1 1/2 inches long.
- **Flowers:** Solitary on slender stalks, with several flowers per stem, yellow.
- **Sepals:** 5, green, free from each other, about 1/10 inch long.
- **Petals:** 1-3, yellow, free from each other, about 1/10 inch long.
- **Stamens:** Up to 10.
- **Pistils:** Several, with a superior ovary.
- **Fruits:** Achenes oblongoid, brown, smooth, about 1/20 inch long, minutely beaked.



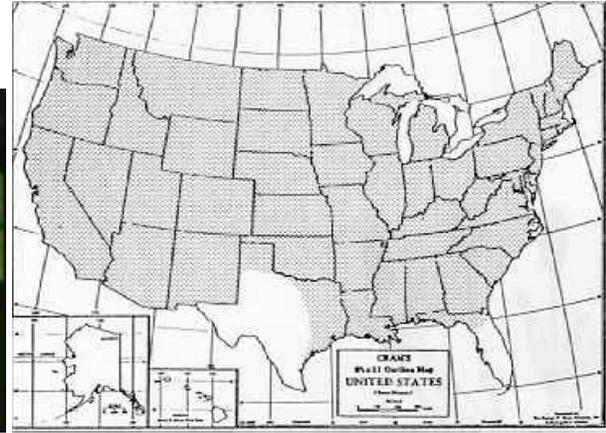
## Hooked Buttercup (*Ranunculus recurvatus*)



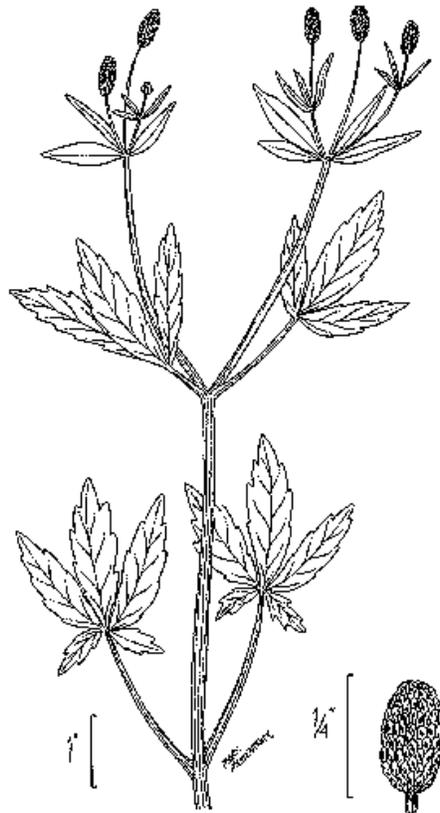
- **Family:** Buttercup (Ranunculaceae)
- **Flowering:** May-July.
- **Field Marks:** This usually hairy species has small, yellow petals about as long as the sepals, and all leaves lobed or divided.
- **Habitat:** Damp woods, around ponds and lakes, along streams.
- **Habit:** Perennial herbs with short rhizomes.
- **Stems:** Erect, usually unbranched, with spreading hairs, up to 1 1/2 feet tall.
- **Leaves:** Basal and alternate, usually 3- or 5-parted with each part often divided again, hairy.
- **Flowers:** 2-several in short racemes, yellow, about 1/2 inch across.
- **Sepals:** 5, green, free from each other, hairy, up to 1/3 inch long, pointing downward.
- **Petals:** 5, yellow, free from each other, about as long as the sepals.
- **Stamens:** Numerous.
- **Pistils:** Numerous, free from each other, smooth.
- **Fruits:** Rounded or slightly elongated heads of minutely beaked achenes; each achene flat, about 1/10 inch long, with a minute, hooked beak.



## Celeryleaf Buttercup (*Ranunculus sceleratus*)



- **Family:** Buttercup (Ranunculaceae)
- **Flowering:** May-August.
- **Field Marks:** This buttercup is recognized by its smooth, nearly succulent stems and leaves and its elongated fruiting clusters.
- **Habitat:** Around ponds, along streams, swamps, sloughs.
- **Habit:** Annual or sometimes perennial herb with fibrous roots.
- **Stems:** Erect, hollow, fleshy, branched, smooth or rarely hairy, up to 2 feet tall.
- **Leaves:** Basal and alternate, or crowded and seemingly opposite, palmately lobed or divided, the lowermost somewhat fleshy, smooth, up to 4 inches long and often as broad.
- **Flowers:** Many on stalks from the axils of the leaves, yellow.
- **Sepals:** 5, green, free from each other.
- **Petals:** 5, yellow, up to 1/4 inch long, usually shorter than the sepals.
- **Stamens:** Numerous.
- **Pistils:** Numerous, each with a superior ovary.
- **Fruits:** Clusters of achenes in cylindrical heads up to 3/4 inch long and up to 1/2 inch broad; each achene yellowish, smooth, obovoid, about 1/20 inch long, with a minute beak.





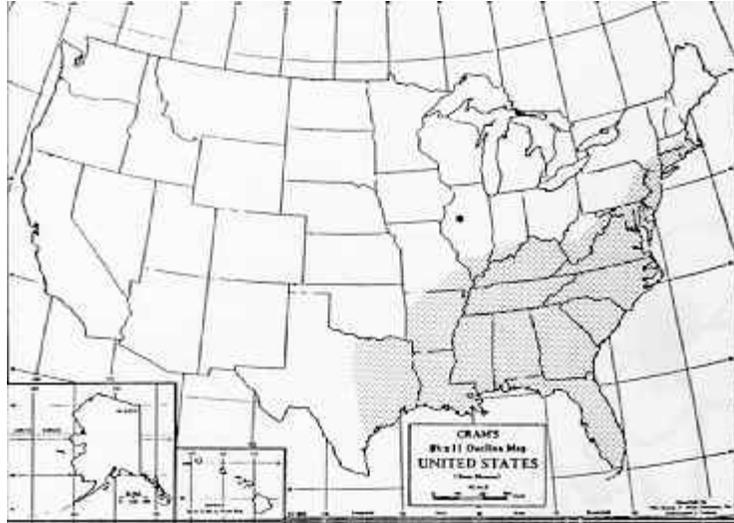
## Swamp Buttercup (*Ranunculus septentrionalis*)



- **Family:** Buttercup (Ranunculaceae)
- **Flowering:** April-June.
- **Field Marks:** This buttercup has waxy yellow petals longer than the sepals, stalked leaflet segments, stems that lie or creep along the ground, and flattened achenes.
- **Habitat:** Along streams, in damp woods.
- **Habit:** Trailing or ascending perennial herb with fibrous roots.
- **Stems:** Usually trailing or creeping, sometimes ascending, hollow, smooth or sometimes hairy, up to 2 1/2 feet long.
- **Leaves:** Alternate, pinnately divided into usually 3 leaflets; each of these leaflets stalked, usually toothed and sometimes divided again, smooth or less commonly hairy.
- **Flowers:** 1-several, slender stalked, yellow, up to 1 1/2 inches across.
- **Sepals:** 5, green, free from each other, smooth or hairy, up to 1/2 inch long, pointing downward.
- **Petals:** 5, yellow, waxy, free from each other, up to 2/3 inch long, longer than the sepals.
- **Stamens:** Numerous.
- **Pistils:** Numerous, free from each other, smooth.
- **Fruits:** Nearly round heads of short-beaked achenes; each achene flattened, up to 1/6 inch long, with a curved beak to one side.
- **Notes:** This is an extremely variable species, easily confused and often intergrading with other large-flowered buttercups.



## Maryland Meadow Beauty (*Rhexia mariana*)



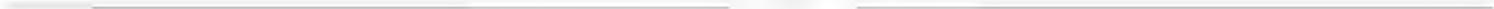
- **Family:** Melastome (Melastomaceae)
- **Flowering:** May-October.
- **Field Marks:** This *Rhexia* differs by its unwinged stems and its smooth petals.
- **Habitat:** Wet prairies, low woods, in ditches.
- **Habit:** Perennial herb with horizontal roots.
- **Stems:** Erect, branched or unbranched, usually hairy, not winged, to 20 inches tall.
- **Leaves:** Opposite, simple, linear-lanceolate to ovate, pointed at the tip, rounded or tapering to the base, without teeth, hairy, up to 3 inches long, up to 1 inch broad.
- **Flowers:** Few in a cyme, up to 1 3/4 inches across, pink to pink-purple.
- **Sepals:** 4, green, united, forming a flask-shaped tube, hairy.
- **Petals:** 4, pink to pink-purple, free, not hairy, up to 1 inch long.
- **Stamens:** 8.
- **Pistils:** Ovary inferior.
- **Fruits:** Capsules flask-shaped, up to 1/3 inch long; seeds brown, slightly warty.



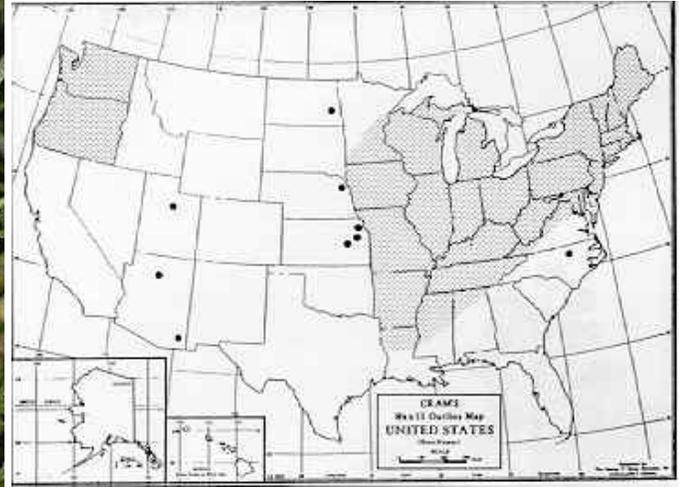
## Sessile-flowered Cress (*Rorippa sessiliflora*)



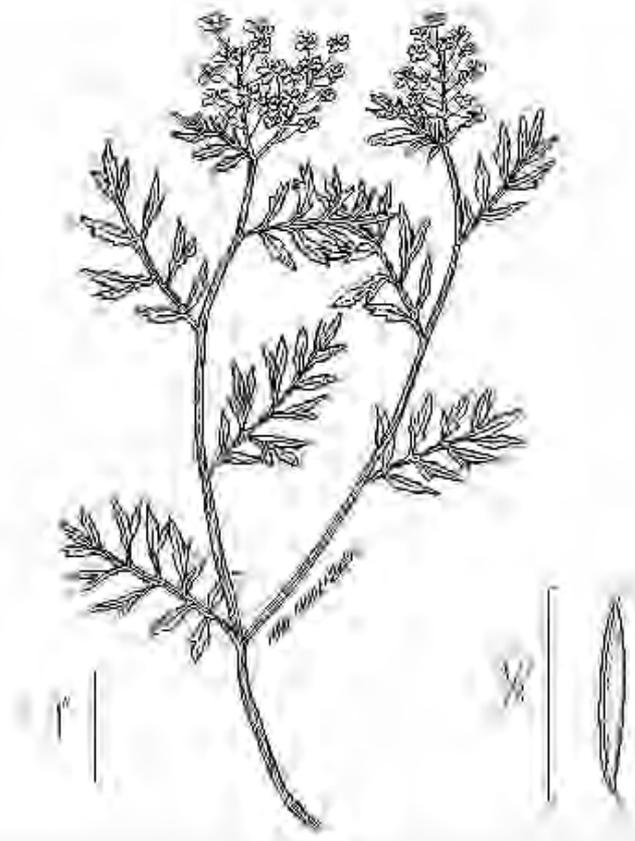
- **Family:** Mustard (Brassicaceae)
- **Flowering:** April–November.
- **Field Marks:** Rorippas are wetland herbs with small, yellow, 4-parted flowers. This species differs from others in the genus by its flower stalks less than 1/6 inch long, its coarsely toothed leaf segments, and its 4 stamens.
- **Habitat:** Around ponds and lakes, along streams, swampy ground, sloughs.
- **Habit:** Annual or biennial herbs from slender taproots.
- **Stems:** Erect, usually branched, smooth, up to 18 inches tall.
- **Leaves:** Basal leaves deeply lobed or divided, up to 4 inches long; the leaves on the stem alternate, undivided or sparsely divided, oblong to broadly lanceolate, rounded at the tip, tapering to the base, toothed, smooth, up to 1 1/2 inches long.
- **Flowers:** Several flowers in terminal or axillary racemes; each flower yellow, about 1/12 inch across, on very short stalks.
- **Sepals:** 4, green, free from each other.
- **Petals:** 4, yellow, free from each other.
- **Stamens:** 4.
- **Pistils:** Ovary superior.
- **Fruits:** Pods oblong, thickened, green, beaked at the tip, up to 1/2 inch long.



## Creeping Yellow-cress (*Rorippa sylvestris*)



- **Family:** Mustard (Brassicaceae)
- **Flowering:** May-September.
- **Field Marks:** All species of *Rorippa* have small yellow flowers with 4 petals. *Rorippa sylvestris* differs from all the others by having the petals longer than the sepals and by having all leaves deeply pinnately divided.
- **Habitat:** Wet meadows, along streams.
- **Habit:** Perennial herb with creeping rhizomes.
- **Stems:** Erect, branched or unbranched, smooth or slightly hairy, up to 8 inches tall.
- **Leaves:** Alternate and basal, all deeply pinnately divided, the lowest up to 6 inches long, the upper ones much smaller, smooth or slightly hairy.
- **Flowers:** Yellow, borne in racemes, up to 1/6 inch broad.
- **Sepals:** 4, green.
- **Petals:** 4, yellow, free from each other, longer than the sepals.
- **Stamens:** 6, not all the same length.
- **Pistils:** Ovary superior.
- **Fruits:** Slender, more or less straight, up to 3/4 inch long, with a very short beak.



## Swamp Rose (*Rosa palustris*)



- **Family:** Rose (Rosaceae)
- **Flowering:** July-September.
- **Field Marks:** This is the only wetland wild rose that has 7 leaflets and large pink flowers.
- **Habitat:** Swamps, marshes.
- **Habit:** Shrub up to 7 feet tall.
- **Stems:** Much branched, with stout, flat, curved spines up to 1/4 inch long.
- **Leaves:** Alternate, pinnately divided into 7 leaflets, the leaflets elliptic, pointed at the tip, tapering to the base, toothed, hairy, up to 1 1/2 inches long.
- **Flowers:** Solitary or few in a cluster, pink, up to 3 inches across.
- **Sepals:** 5, green.
- **Petals:** 5, pink, free from each other.
- **Stamens:** Numerous.
- **Pistils:** Numerous, each with a superior ovary.
- **Fruits:** Fleshy, red, up to 3/4 inch in diameter.
- **Notes:** The fruits are eaten by wildlife.



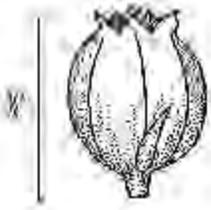
## Tooth Cup (*Rotala ramosior*)



- **Family:** Loosestrife (Lythraceae)
- **Flowering:** July-September.
- **Field Marks:** Tooth Cup has only one flower per leaf axil. Each flower has 4 tiny pink petals, but they frequently fall away after only a very short time. The narrow leaves are opposite and toothless.
- **Habitat:** Wet soil, often along margins of ponds and lakes, wet meadows.
- **Habit:** Annual herbs from a tuft of roots.
- **Stems:** 1-several, erect or rarely prostrate, often branched, smooth, up to 1 foot tall.
- **Leaves:** Opposite, simple, oblanceolate to linear, rounded at the tip, tapering to the base, without teeth, smooth, up to 2 inches long, less than 1/2 inch wide, sessile or with a very short stalk.
- **Flowers:** Solitary in the axils of the leaves, pink, up to 1/8 inch long, without a stalk.
- **Sepals:** 4, green, united below.
- **Petals:** 4, pink, free from each other, falling away early, sometimes completely lacking.
- **Stamens:** 1-6.
- **Pistils:** Ovary superior.
- **Fruits:** Rounded capsules up to 1/4 inch in diameter, with minute yellow or red seeds.
- **Notes:** The seeds are eaten by waterfowl. Another common name for this species is Pink Rotala.



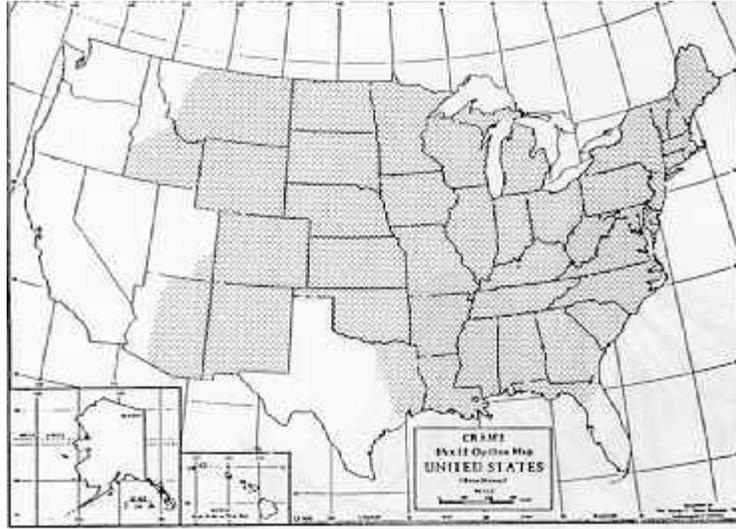
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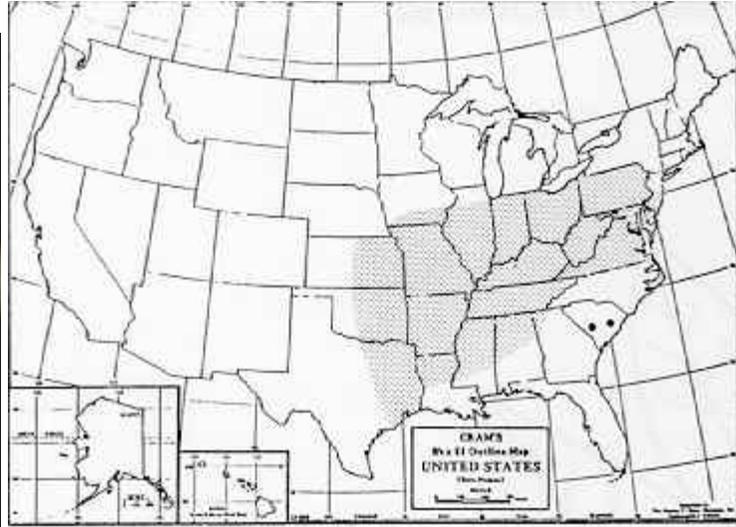
## Tall Coneflower (*Rudbeckia laciniata*)



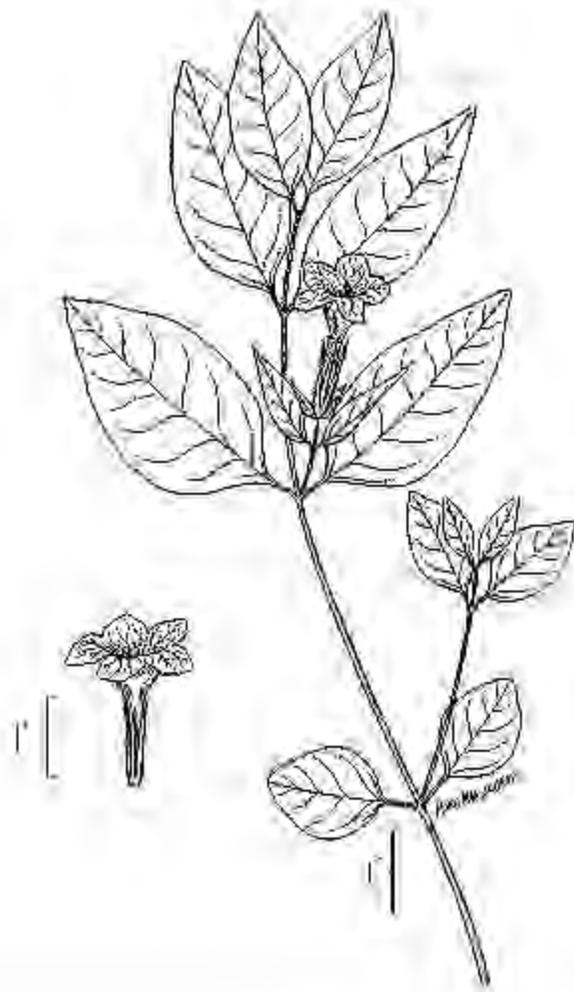
- **Family:** Aster (Asteraceae)
- **Flowering:** July-September.
- **Field Marks:** This nearly smooth species has leaves divided into 5 or 7 lobes and flower heads with a yellow center.
- **Habitat:** Along streams, around lakes, in sloughs.
- **Habit:** Coarse perennial herb with thickened rootstocks.
- **Stems:** Erect, branched, smooth, sometimes glaucous, up to 10 feet tall.
- **Leaves:** Alternate, usually pinnately divided into 3 to 7 coarsely toothed segments, or the uppermost sometimes undivided, smooth or sometimes hairy, very large.
- **Flowers:** Yellow, crowded together into heads, the heads up to 3 1/2 inches across, subtended by green, spreading or downward-pointing leaf-like bracts; flowers of 2 kinds: the outer ray-like, drooping, up to 2 1/2 inches long; the inner tubular, forming a central rounded disk up to 1 inch across.
- **Sepals:** 0.
- **Petals:** 5, united, some of them forming flat rays, others forming tubular disk flowers.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes flattened or 4-sided, smooth, up to 1/3 inch long, with a few teeth at the tip.
- **Notes:** This species, sometimes grown as a garden ornamental, is also known as goldenglow.



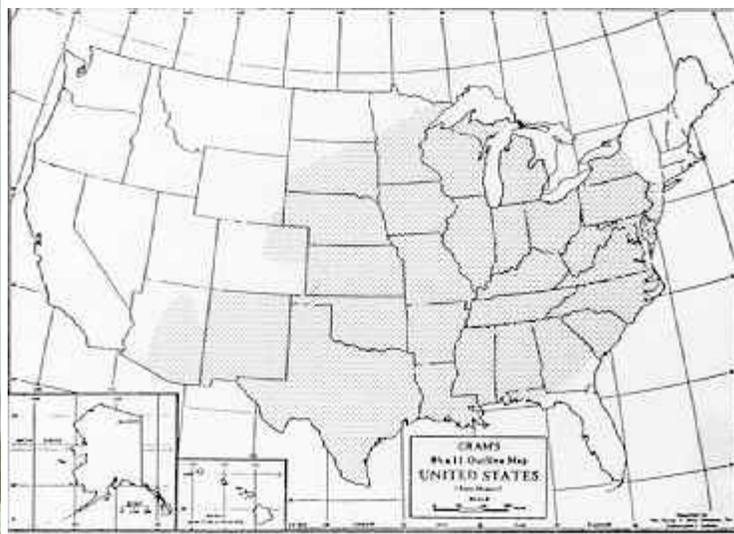
## Smooth Ruellia (*Ruellia strepens*)



- **Family:** Acanthus (Acanthaceae)
- **Flowering:** May-September.
- **Field Marks:** Ruellias have opposite, simple leaves and tubular flowers with 4 stamens. *Ruellia strepens* differs from all the rest by its lanceolate sepals at least 1/10 inch broad.
- **Habitat:** Moist woods, around ponds and lakes, along streams.
- **Habit:** Perennial herbs with fibrous roots.
- **Stems:** Erect, smooth or branched, slightly hairy, up to 3 feet tall.
- **Leaves:** Opposite, simple, lanceolate to ovate, pointed at the tip, rounded or tapering to the base, without teeth, smooth or slightly hairy, up to 6 inches long, up to 3 inches broad; leaf stalks up to 1/2 inch long.
- **Flowers:** 1-3 in the axils of the leaves, blue, subtended by a pair of ovate bracts; each flower up to 3 inches long.
- **Sepals:** 5, green, united into a very short tube; the lobes lanceolate, about 1/10 inch broad.
- **Petals:** 5, blue, united to form a funnel-shaped tube; the lobes somewhat unequal in size.
- **Stamens:** 4, not exerted beyond the corolla.
- **Pistils:** Ovary superior; stigmas 2-cleft.
- **Fruits:** Capsules brown, smooth, up to 3/4 inch long; seeds several, brown, 1/10-1/8 inch long.



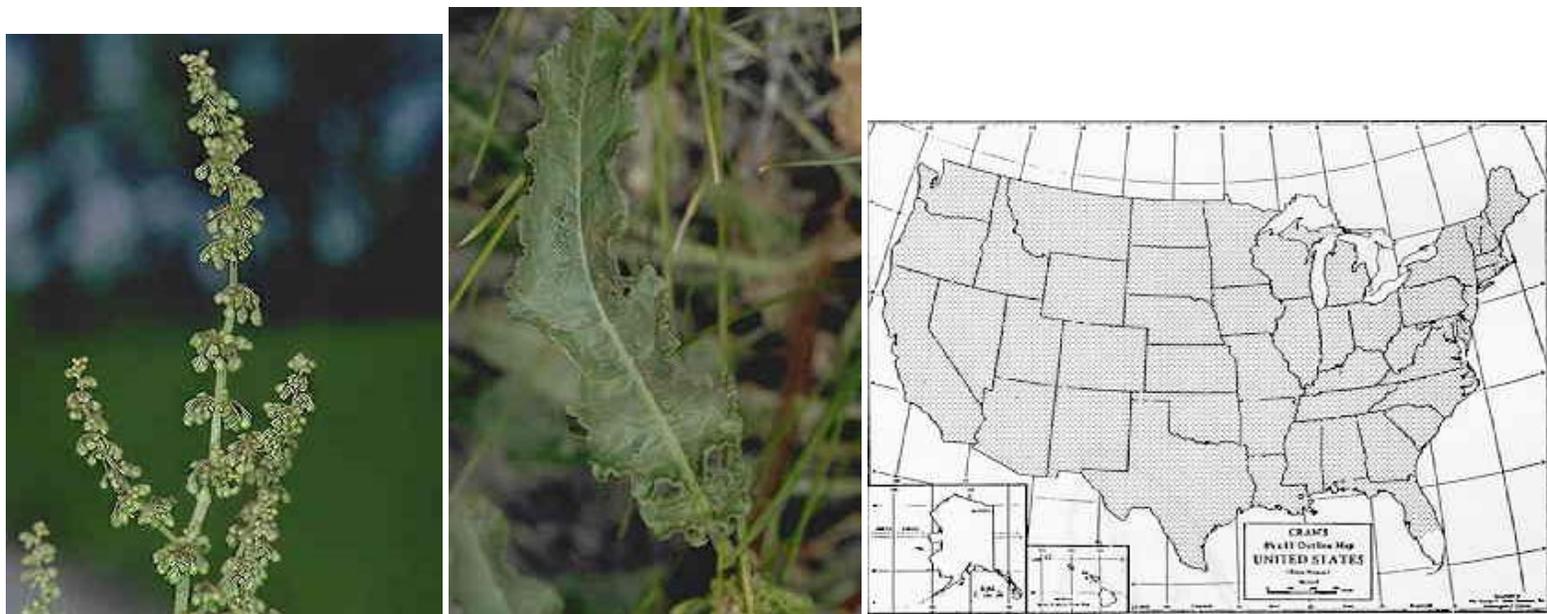
## Pale Dock (*Rumex altissimus*)



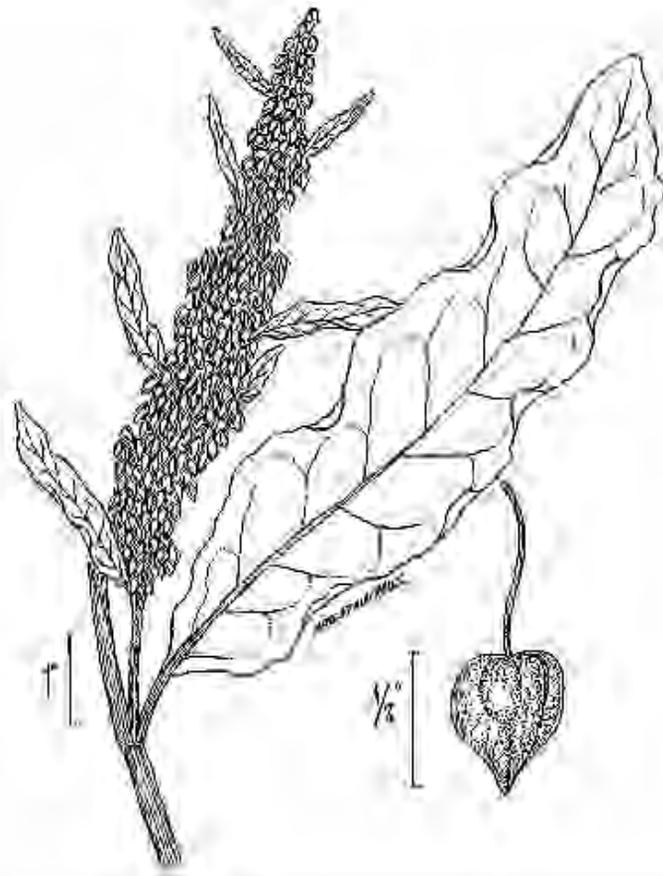
- **Family:** Smartweed (Polygonaceae)
- **Flowering:** April-May.
- **Field Marks:** This species has completely smooth stems and leaves, flat leaves, and the fruit with only one valve bearing a tubercle.
- **Habitat:** Along streams, around ponds and lakes, sloughs, fallow fields, damp thickets.
- **Habit:** Perennial herb with a taproot.
- **Stems:** Erect, branched, smooth, up to 6 feet tall.
- **Leaves:** Alternate, simple, broadly lanceolate to ovate, pointed at the tip, tapering to the base, without teeth, smooth, flat, up to 6 inches long, up to 2 1/2 inches broad.
- **Flowers:** Several in branched, spike-like racemes; each flower greenish, up to 1/6 inch long, borne on stalks up to 1/3 inch long.
- **Sepals:** 6, greenish, free from each other.
- **Petals:** 0.
- **Stamens:** 6.
- **Pistils:** Ovary superior.
- **Fruits:** Achenes smooth, up to 1/4 inch long, bearing 3 veiny valves, only one with an elongated tubercle.
- **Notes:** The young parts of this species can be cooked and eaten. The achenes are eaten by wildlife.



## Curly Dock (*Rumex crispus*)



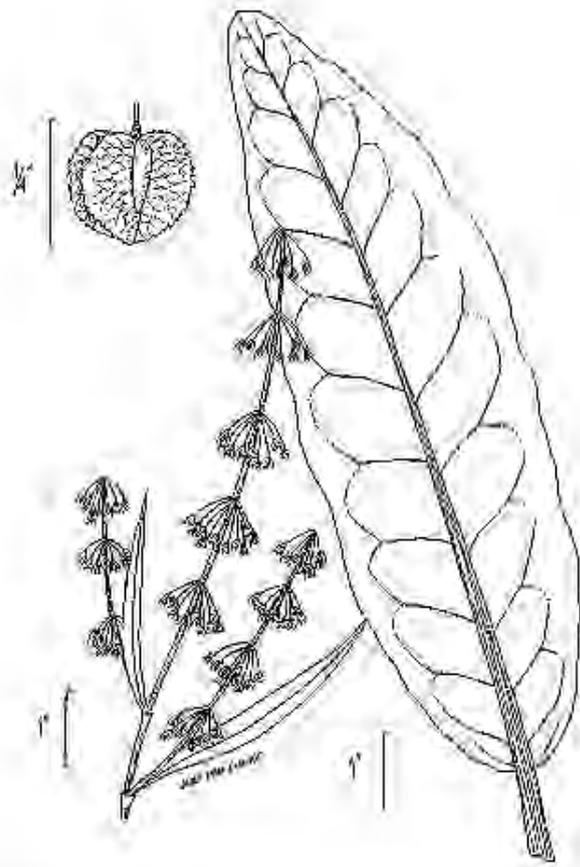
- **Family:** Smartweed (Polygonaceae)
- **Flowering:** April-May.
- **Field Marks:** This species is readily distinguished by its wavy-edged leaves up to 3 inches broad.
- **Habitat:** Along streams and rivers, around ponds, fields, roadsides, roadside ditches.
- **Habit:** Biennial or perennial herb with a taproot.
- **Stems:** Erect, striate, unbranched, up to 3 1/4 feet tall.
- **Leaves:** Basal and alternate, broadly lanceolate, short-pointed at the tip, rounded or tapering to the base, strongly wavy along the edges, smooth, up to 10 inches long, up to 3 inches broad.
- **Flowers:** Many in whorls in terminal, much-branched spikes; each flower greenish, borne on slender, drooping stalks up to 1/2 inch long.
- **Sepals:** 6, greenish, up to 1/10 inch long.
- **Petals:** 0.
- **Stamens:** 6.
- **Pistils:** Ovary superior, with 3 styles.
- **Fruits:** Fruits 3-winged; each wing broadly ovate, up to 1/4 inch long, smooth, rounded at the tip, usually bearing a wart-like tubercle.



## Great Water Dock (*Rumex orbiculatus*)



- **Family:** Smartweed (Polygonaceae)
- **Flowering:** April-May.
- **Field Marks:** The wings (valves) of the fruit have teeth along the edges, and each wing has a tubercle. The lower leaves are broadly oblong.
- **Habitat:** Swamps, shallow standing water.
- **Habit:** Coarse perennial herb with a stout rootstock.
- **Stems:** Erect, unbranched, smooth, up to 7 feet tall.
- **Leaves:** Basal leaves broadly oblong; stem leaves lanceolate; all leaves smooth, flat or sometimes wavy along the edges; the lowest up to 10 inches long and up to 6 inches broad.
- **Flowers:** Many, crowded on branched spikes up to nearly 1 foot long.
- **Sepals:** 6, green.
- **Petals:** 0.
- **Stamens:** 6.
- **Pistils:** Ovary superior.
- **Fruits:** Achene surrounded by 3 wings (valves); each wing toothed along the edges and each bearing a tubercle.
- **Notes:** The fruits are eaten by waterfowl. *Flora of the Pacific Northwest* by Hitchcock and Cronquist (1973) does not attribute this species to California, although the National Wetlands Inventory lists it from there.



## Swamp Dock (*Rumex verticillatus*)



- **Family:** Smartweed (Polygonaceae)
- **Flowering:** April-June.
- **Field Marks:** This species is distinguished by the stalks of the fruit which are at least twice as long as the fruits and by each valve of the fruit bearing one tubercle.
- **Habitat:** Swamps, sloughs, wet woods, sometimes in shallow standing water.
- **Habit:** Perennial herb with a taproot.
- **Stems:** Erect, usually unbranched, smooth, up to 3 feet tall.
- **Leaves:** Alternate, simple, lanceolate, pointed at the tip, tapering to the base, without teeth, smooth, up to 6 inches long.
- **Flowers:** Several in whorls, each flower greenish, up to 1/8 inch long, borne in slender stalks up to 3/4 inch long, the stamens and pistils often in separate flowers on the same plant.
- **Sepals:** 6, greenish, free from each other.
- **Petals:** 0.
- **Stamens:** 6.
- **Pistils:** Ovary superior.
- **Fruits:** Achenes smooth, up to 1/4 inch long, bearing 3 veiny valves, each valve with an elongated tubercle.
- **Notes:** The fruits are eaten by waterfowl.



## Rose Pink (*Sabatia angularis*)



- **Family:** Gentian (Gentianaceae)
- **Flowering:** July-August.
- **Field Marks:** This species is recognized by its sharply angled, smooth stems, opposite, toothless leaves, and bright pink flowers.
- **Habitat:** Moist woods, marshes, old fields, glades, thickets.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect, branched, smooth, sharply angled, up to 2 feet tall.
- **Leaves:** Opposite, simple, ovate-lanceolate to ovate, pointed at the tip, rounded at the sessile base, to 2 inches long.
- **Flowers:** Several in a panicle, bright pink, up to 1 1/2 inches across, on stalks up to 1 1/2 inches long.
- **Sepals:** 5, green, narrow, up to 3/4 inch long.
- **Petals:** 5 (rarely 6), united only at the base, up to 3/4 inch long, usually with a greenish "star" in the center.
- **Stamens:** 5.
- **Pistils:** Ovary superior.
- **Fruits:** Capsules ellipsoid, up to 1/2 inch long, with minute, dark brown seeds.
- **Notes:** This species occupies a wide variety of both moist and dry habitats.



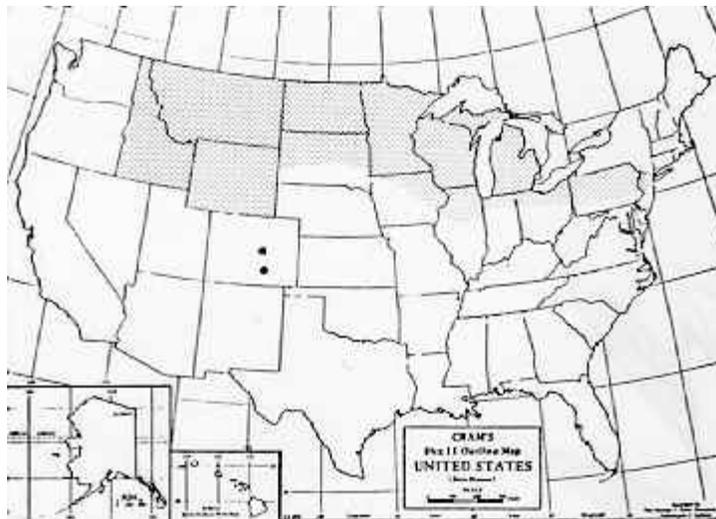
## Peachleaf Willow (*Salix amygdaloides*)



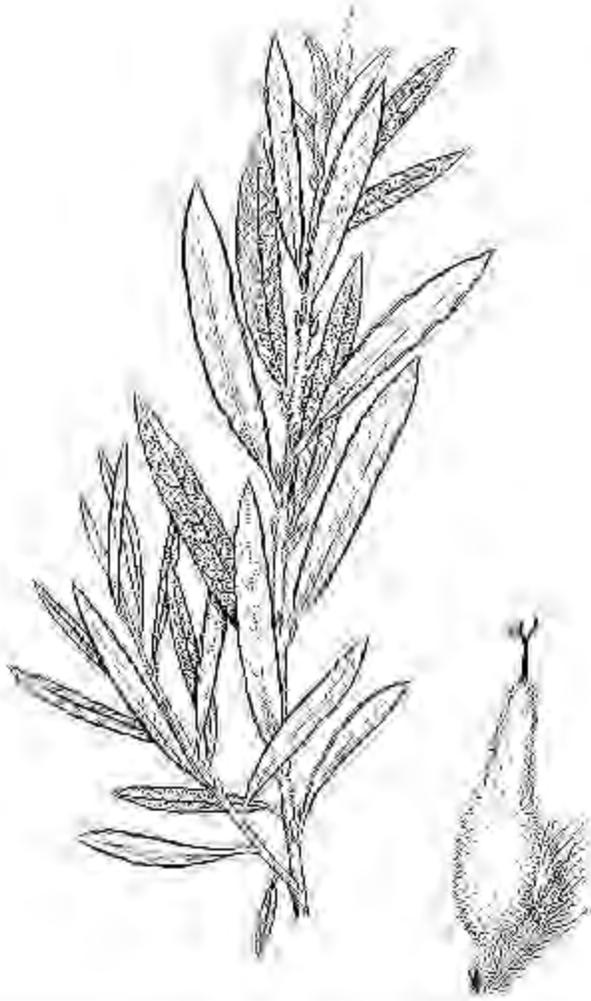
- **Family:** Willow (Salicaceae)
- **Flowering:** April-June.
- **Field Marks:** The leaves of the peachleaf willow are pale on the lower surface. Leaf-like stipules at the base of each leafstalk are lacking.
- **Habitat:** Low woods, along streams.
- **Habit:** Tree up to 60 feet tall, with a narrowly rounded crown.
- **Bark:** Gray-brown at maturity, becoming somewhat scaly.
- **Leaves:** Alternate, simple, broadly lance-shaped, long-pointed at the tip, rounded or tapering to the base, finely toothed, pale on the lower surface, up to 5 inches long; stipules not persistent.
- **Flowers:** Male and female flowers borne on separate trees in elongated spikes as the leaves begin to unfold.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3 or more.
- **Pistils:** Ovary on a short stalk.
- **Fruits:** Capsules brown, flask-shaped, up to 1/6 inch long.
- **Notes:** *Atlas of United States Trees* by Little (1971) does not attribute this species to the southeastern states, although it is listed from there in the National Wetlands Inventory list.



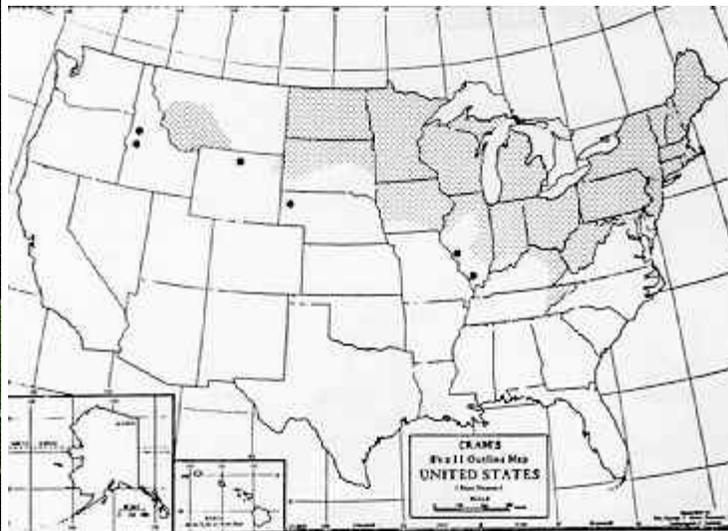
## Hoary Willow (*Salix candida*)



- **Family:** Willow (Salicaceae)
- **Flowering:** May-July.
- **Field Marks:** This shrubby willow is further distinguished by the mat of dense white hairs on the lower surface of the leaves.
- **Habitat:** Bogs, marshes.
- **Habit:** Shrub to 2 1/2 feet tall.
- **Stems:** Upright, branched, brown, very hairy when young, becoming smooth.
- **Leaves:** Alternate, simple, narrowly oblong, pointed at the tip, tapering to the base, with or without teeth, densely white-hairy on the lower surface, up to 3 inches long, less than 1 inch wide.
- **Flowers:** Many flowers crowded into dense, cylindrical spikes up to 2 inches long; the male and female flowers borne in different spikes; each flower tiny, subtended by a bract.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 2.
- **Pistils:** Ovary 1.
- **Fruits:** Capsules lanceoloid, white-hairy, about 1/3 inch long.



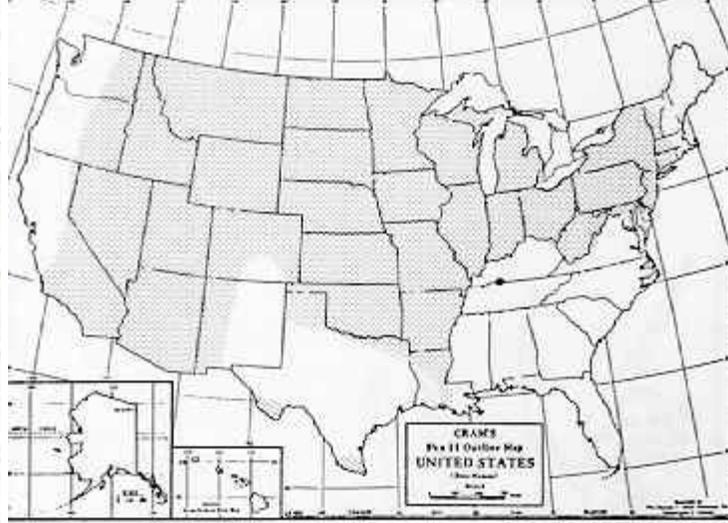
## Pussy Willow (*Salix discolor*)



- **Family:** Willow (Salicaceae)
- **Flowering:** April-May.
- **Field Marks:** The distinguishing features of the pussy willow are the broadly elliptic leaves that are usually rounded at the base and white but smooth on the lower surface.
- **Habitat:** Marshes, bottomland woods.
- **Habit:** Shrub or small tree up to 20 feet tall.
- **Stems:** Brown, hairy when young, becoming smooth.
- **Leaves:** Alternate, simple, broadly elliptic, pointed at the tip, tapering or rounded at the base, finely toothed, smooth, white on the lower surface, up to 1 1/2 inches long.
- **Flowers:** Many flowers crowded into dense, cylindrical spikes up to 3 inches long; the male and female flowers borne in different spikes; each flower tiny, subtended by a bract.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 2.
- **Pistils:** Ovary 1.
- **Fruits:** Capsules long-tapering, gray-hairy, up to 1/2 inch long.



## Sandbar Willow (*Salix exigua*)



- **Family:** Willow (Salicaceae)
- **Flowering:** April-June.
- **Field Marks:** This willow is distinguished by the fewer number of teeth along the margins of the leaves.
- **Habitat:** Along streams, sandbars, frequently forming thickets.
- **Habit:** Tree up to 25 feet tall, with an irregular crown.
- **Bark:** Gray, furrowed, broken into rough scales.
- **Leaves:** Alternate, simple, very long and narrow, pointed at the tip, tapering to the base, with widely spaced teeth, usually smooth at maturity, up to 4 inches long, less than 1/2 inch broad.
- **Flowers:** Many in elongated spikes up to 3 inches long; the male and female flowers borne separately on separate plants.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 2.
- **Pistils:** Ovary 1.
- **Fruits:** Capsules flask-shaped, smooth or silky, brownish, up to 1/8 inch long.



## Black Willow (*Salix nigra*)



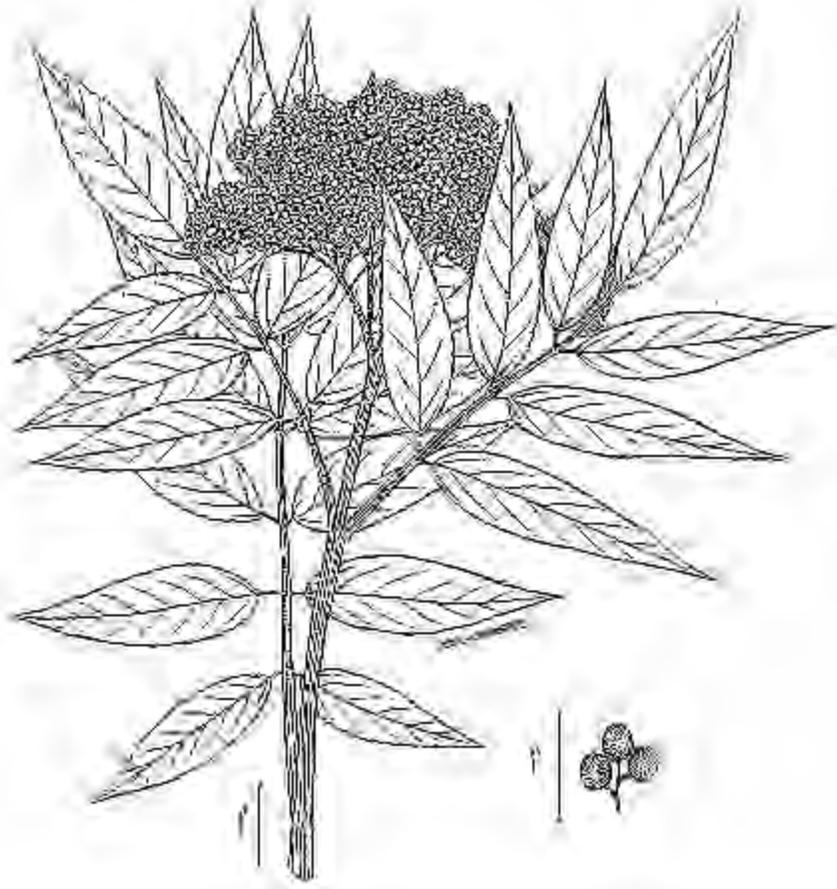
- **Family:** Willow (Salicaceae)
- **Flowering:** April-May.
- **Field Marks:** Black willow is distinguished by its narrow leaves, green on the lower surface, and the presence of heart-shaped stipules.
- **Habitat:** Along streams, marshes, swamps, around lakes and ponds.
- **Habit:** Tree up to 90 feet tall, usually round-topped.
- **Bark:** Rough, furrowed, forming elongated, vertical, rather tight scales.
- **Leaves:** Alternate, simple, narrowly lanceolate, pointed at the tip, rounded or tapering to the base, finely toothed, smooth, green on both surfaces, up to 6 inches long, stipules present, heart-shaped.
- **Flowers:** Many borne in slender, elongated spikes; the male and female flowers borne separately on separate plants.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3-7.
- **Pistils:** Ovary 1.
- **Fruits:** Capsules flask-shaped, reddish brown, up to 1/8 inch long.



## American Elder (*Sambucus canadensis*)



- **Family:** Honeysuckle (Caprifoliaceae)
- **Flowering:** May-July.
- **Field Marks:** This coarse herb is distinguished by its opposite, pinnately compound leaves and its huge cymes of small white flowers.
- **Habitat:** Along streams, moist woods.
- **Habit:** Shrub with several stems, scarcely woody.
- **Stems:** Erect, branched, smooth, up to 12 feet tall.
- **Leaves:** Opposite, pinnately compound, with 5-11 leaflets; the leaflets lanceolate to ovate, long-pointed at the tip, rounded or tapering to the base, toothed, smooth, up to 6 inches long, up to 2 1/2 inches broad.
- **Flowers:** Numerous in large, compound cymes up to 1 foot across; each white flower up to 1/3 inch across.
- **Sepals:** 5, green, very tiny.
- **Petals:** 5, white, united below.
- **Stamens:** 5, longer than the petals.
- **Pistils:** Ovary inferior.
- **Fruits:** Berries spherical, purple, up to 1/4 inch in diameter, usually with 4 light brown, oblongoid, wrinkled seeds.
- **Notes:** The berries are edible. The range map gives only the native distribution of this species and does not account for ornamental specimens.



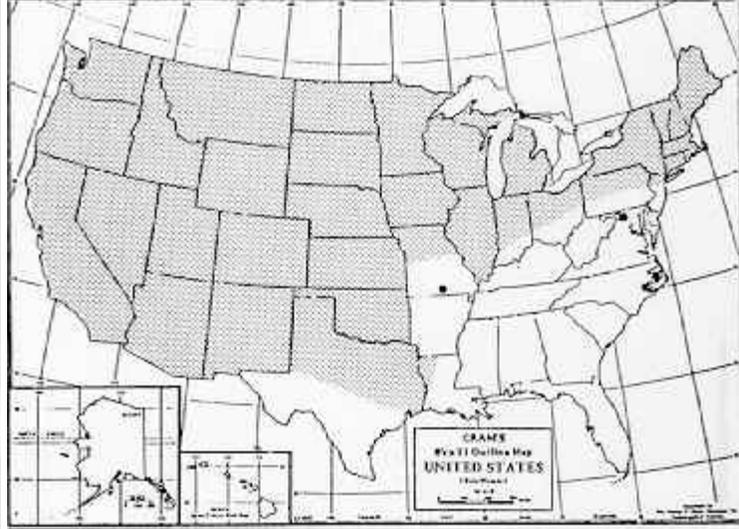
## Pennsylvania Saxifrage (*Saxifraga pensylvanica*)



- **Family:** Saxifrage (Saxifragaceae)
- **Flowering:** April-June.
- **Field Marks:** This species is distinguished by its rosette of lanceolate to broadly elliptic, toothed or wavy-edged leaves and its panicle of small greenish white flowers.
- **Habitat:** Wet meadows.
- **Habit:** Perennial herb with a thickened rootstock.
- **Stems:** Erect, arising from the middle of the cluster of basal leaves, hairy, up to 3 feet tall, bearing only flowers.
- **Leaves:** All basal, lanceolate to broadly elliptic, pointed at the tip, tapering to the base, usually toothed or wavy-edged, usually sparsely hairy, up to 8 inches long.
- **Flowers:** Borne in few-flowered racemes, greenish white, up to 1/4 inch across.
- **Sepals:** 5, green, united below, pointing downward.
- **Petals:** 5, greenish white, up to 1/8 inch long.
- **Stamens:** 10.
- **Pistils:** Ovary 2-parted, beaked.
- **Fruits:** A pair of beaked follicles up to 1/6 inch long.



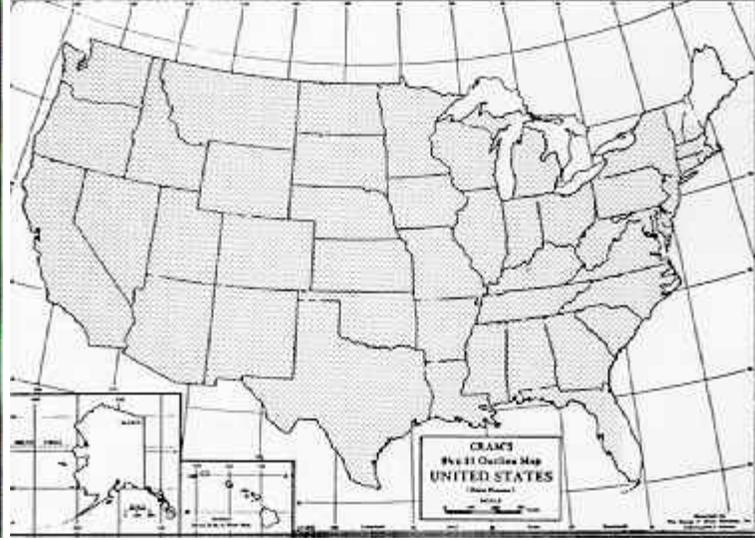
## Hardstem Bulrush (*Scirpus acutus*)



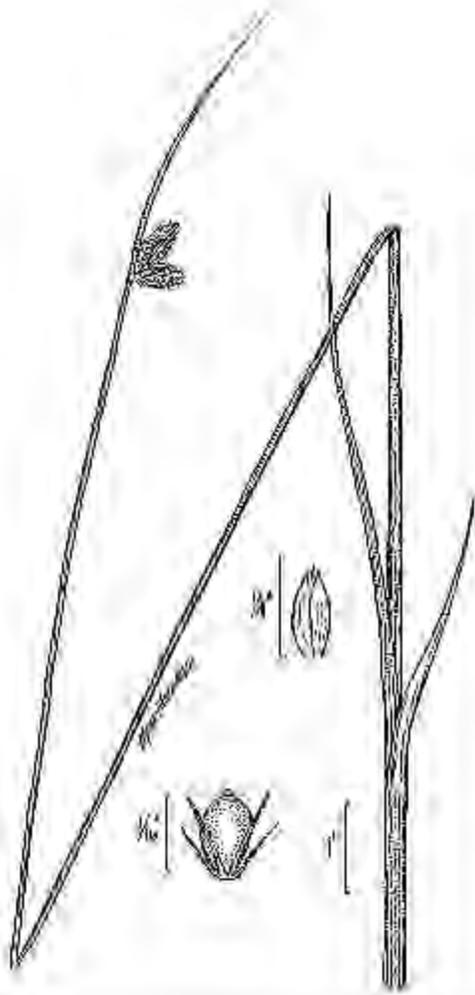
- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-September.
- **Field Marks:** This bulrush is recognized by its nearly round stems, its cluster of spikelets borne laterally along the stem, and its usually 2-cleft style.
- **Habitat:** Along rivers.
- **Habit:** Perennial herb with rather stout rhizomes.
- **Stems:** Erect, not triangular, smooth, up to 8 feet tall.
- **Leaves:** Usually reduced to sheaths near base of stem.
- **Flowers:** Borne in spikelets from the side of the stem near the tip, in short-stalked or long-stalked clusters; each spikelet oblong to cylindrical, pointed or rounded at the tip, up to 3/4 inch long, reddish.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 2-3.
- **Pistils:** Ovary superior, styles 2-cleft.
- **Fruits:** Achenes flattened, obovate, not shiny.
- **Notes:** The achenes are eaten by waterfowl.



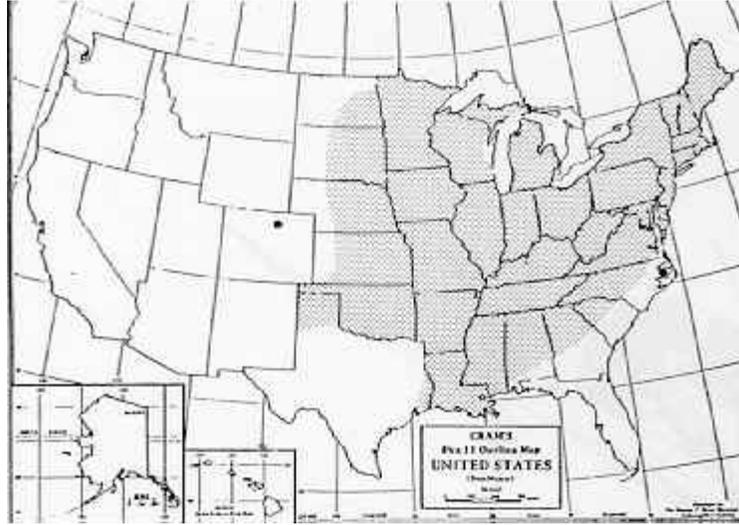
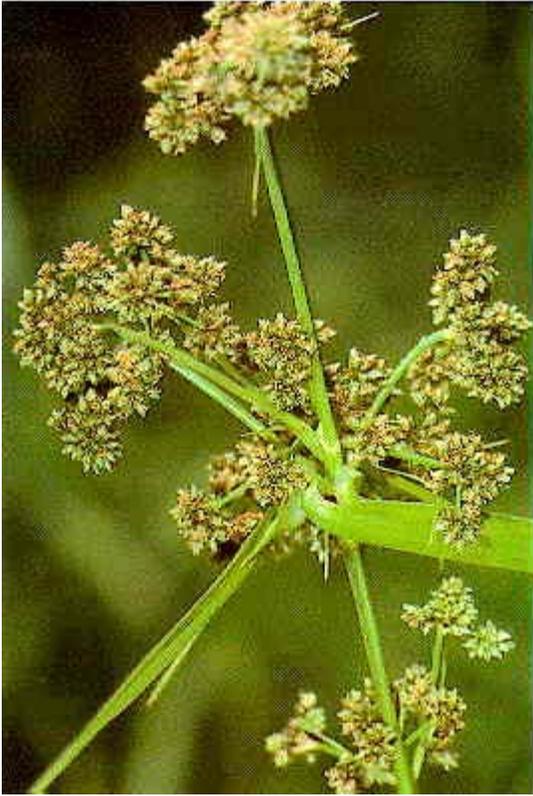
## Olney's Bulrush (*Scirpus americanus*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-September.
- **Field Marks:** This bulrush has a single bract that is a continuation of the stem beyond the spikelets. The spikelets do not have stalks.
- **Habitat:** Along streams, around ponds and lakes, in sloughs, swamps, wet woods, roadside ditches.
- **Habit:** Perennial herb with rhizomes.
- **Stems:** Erect, triangular, smooth, up to 5 feet tall.
- **Leaves:** Long and narrow, without teeth, smooth, up to 1/6 inch broad.
- **Flowers:** 1 per scale, with several scales in a spikelet, the spikelets acute, up to 1 inch long, in clusters without stalks, with one bract continuing the stem beyond the spikelets; scales ovate, brown, pointed or divided into 2 teeth at tip.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** 1; styles 2; ovary superior, subtended by 2-6 barbed bristles.
- **Fruits:** Achenes obovate, smooth, dark brown, 1/10 inch long.
- **Notes:** This sedge is also known as Three Square or Chairmaker's Rush. The achenes are eaten by waterfowl.



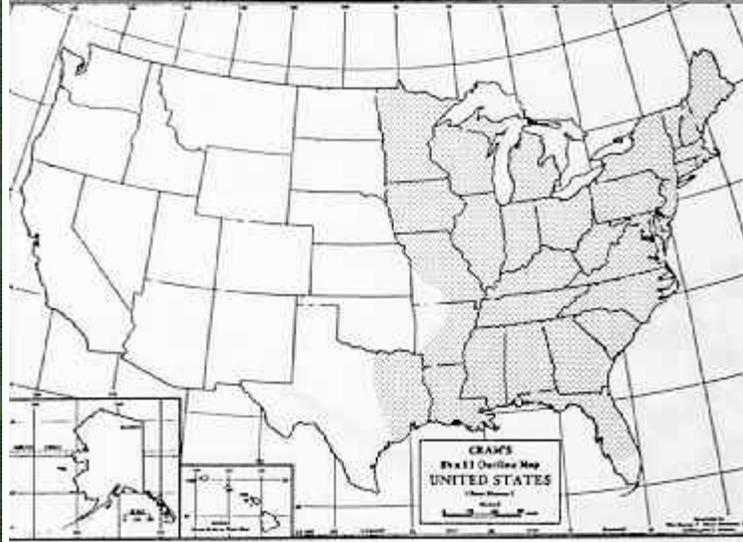
## Green Bulrush (*Scirpus atrovirens*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-September.
- **Field Marks:** The flower clusters are subtended by several leaflike bracts, the stems are not sharply triangular, and the bristles in each flower are rarely longer than the achenes.
- **Habitat:** Along streams, around ponds and lakes, roadside ditches.
- **Habit:** Perennial herb with short, thick rhizomes.
- **Stems:** Erect, triangular, smooth, up to 4 1/2 feet tall.
- **Leaves:** Elongated, narrow, dark green, rough along the edges, up to 1/2 inch broad.
- **Flowers:** Borne in spikelets with several spikelets in clusters, some of the clusters sessile, others on long stalks, subtended by 2-4 leafy bracts.
- **Scales:** Narrow, tapering to rough awns, up to 1/16 inch long, brown, green-brown, or brown-black.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Styles 3-cleft; ovary superior.
- **Fruits:** Achenes ellipsoid, triangular, pale brown, up to 1/20 inch long.
- **Notes:** The achenes are eaten by waterfowl.



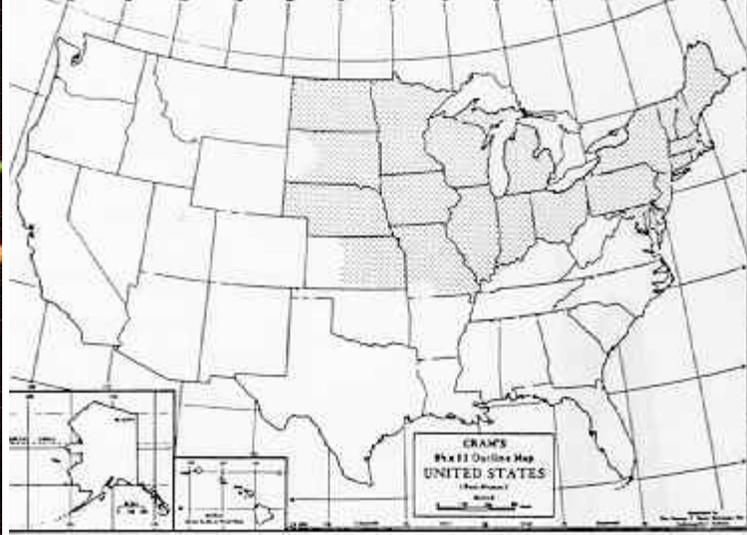
## Woolgrass (*Scirpus cyperinus*)



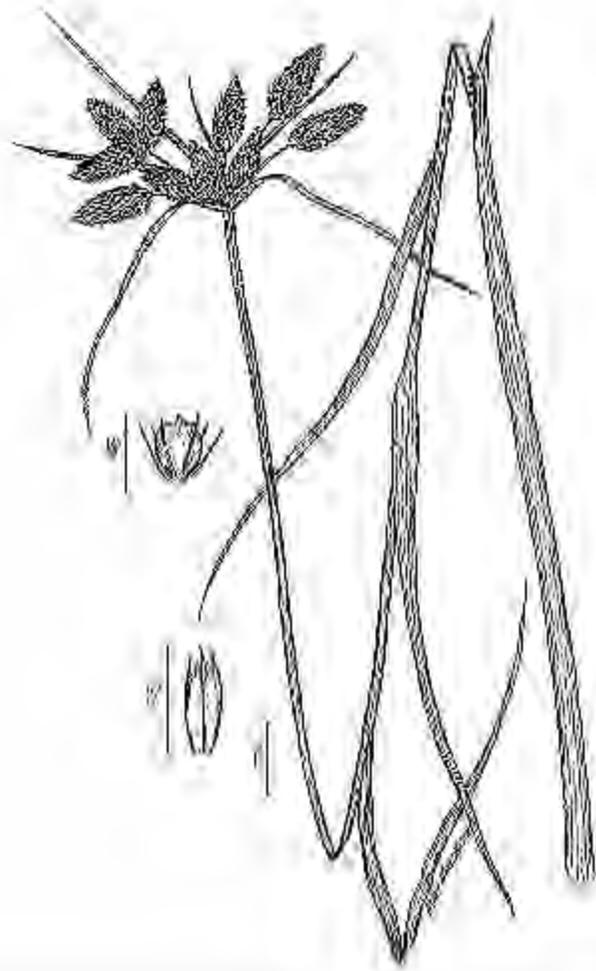
- **Family:** Sedge (Cyperaceae)
- **Flowering:** July-October.
- **Field Marks:** Three or more bracts subtend the inflorescence. The spikelets are up to 1/4 inch long and become woolly at maturity because of the elongated bristles.
- **Habitat:** Swamps, sloughs, around lakes, wet woods.
- **Habit:** Robust perennial herbs with rhizomes.
- **Stems:** Erect, smooth, up to 5 feet tall.
- **Leaves:** Flat, elongated, smooth, mostly crowded near base of plant, up to 1/2 inch wide.
- **Flowers:** One per scale, with several scales per spikelet, the spikelets up to 1/4 inch long, forming large terminal clusters subtended by 3-6 leaf-like bracts.
- **Scales:** Narrowly lanceolate, pointed.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** 1; styles 3; ovary superior, subtended by 6 bristles.
- **Fruits:** Achenes elongated, less than 1/16 inch long, surpassed by long red-brown bristles at maturity.
- **Notes:** The achenes are eaten by waterfowl.



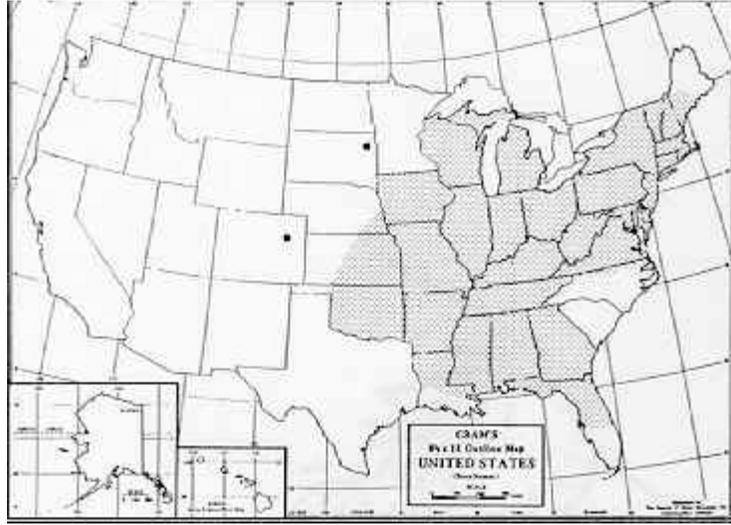
## River Bulrush (*Scirpus fluviatilis*)



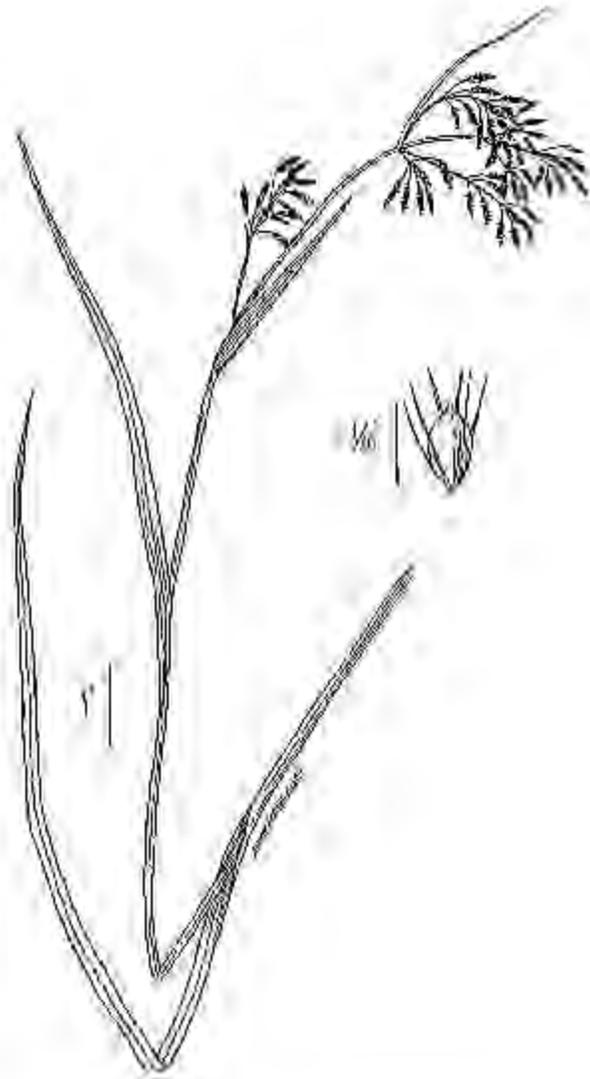
- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-September.
- **Field Marks:** Two or more bracts subtend the inflorescence. The spikelets are up to 2 inches long.
- **Habitat:** Swamps, sloughs, around ponds and lakes, along rivers, often in shallow, standing water.
- **Habit:** Robust perennial herb with rhizomes.
- **Stems:** Erect, triangular, smooth, up to 6 feet tall.
- **Leaves:** Flat, elongated, smooth, up to 1 inch broad.
- **Flowers:** One per scale, with several scales per spikelet, the spikelets up to 2 inches long, forming terminal clusters subtended by several leaf-like bracts.
- **Scales:** Elongated, usually with 2 teeth and a short awn at the tip.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** 1; styles 3; ovary superior, subtended by 6 barbed bristles.
- **Fruits:** Achenes triangular, whitish, about 1/8 inch long.
- **Notes:** The achenes are eaten by waterfowl.



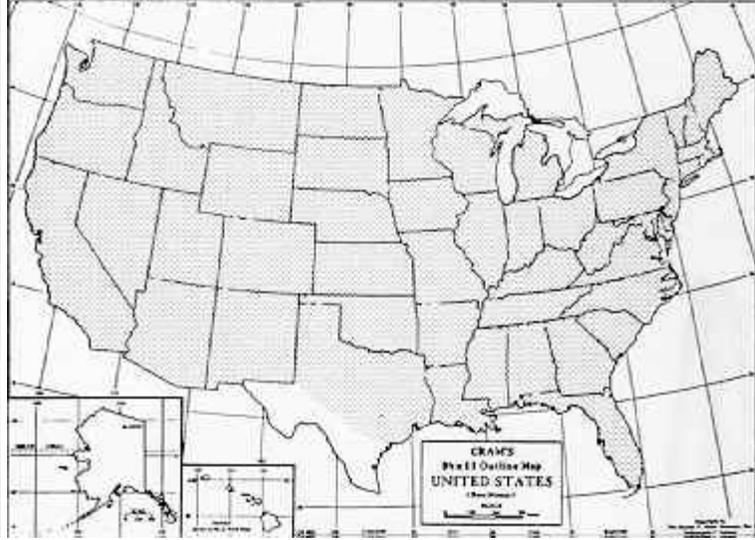
## Reddish Bulrush (*Scirpus pendulus*)



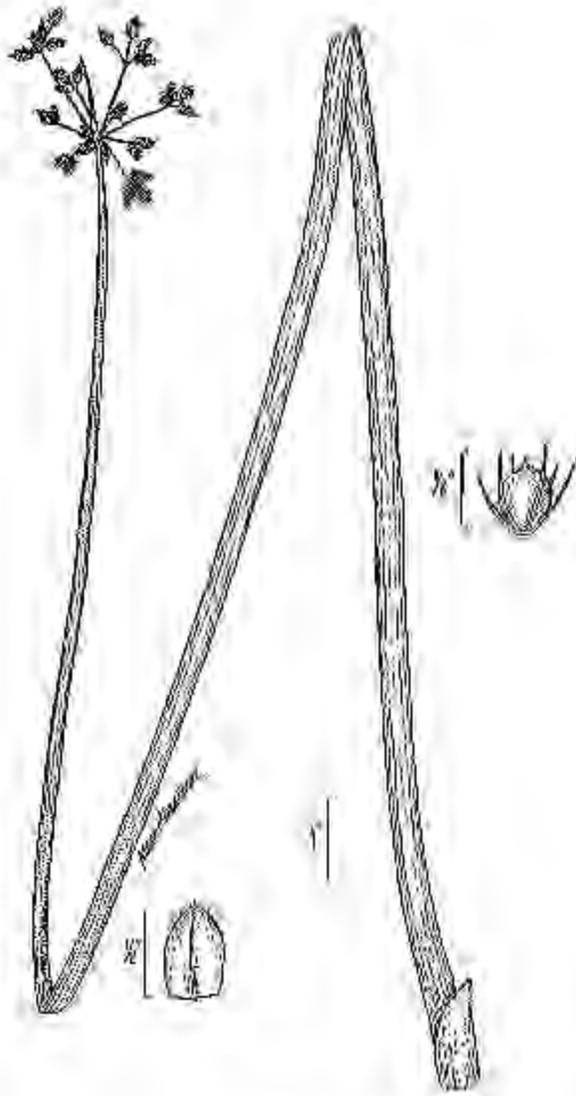
- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-August.
- **Field Marks:** Two or more bracts subtend the inflorescence. The spikelets are up to 2 inches long.
- **Habitat:** Along streams, around ponds and lakes, wet prairies, wet meadows.
- **Habit:** Perennial herb with short, thick rhizomes.
- **Stems:** Erect, smooth, up to 4 feet tall.
- **Leaves:** Elongated, narrow, up to 1/3 inch broad; sheath with purple speckles.
- **Flowers:** Many borne in spikelets; the spikelets red-brown, broadly lanceoloid, up to 1/2 inch long, borne on long, drooping stalks.
- **Scales:** Broadly lanceolate, tapering to a short point.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Fruits:** Achenes brown, shiny, ellipsoid, about 1/20 inch long.
- **Notes:** In the past, this species was sometimes known as *Scirpus lineatus*. This species does not occur in the western United States, as the National Wetlands Inventory indicates.



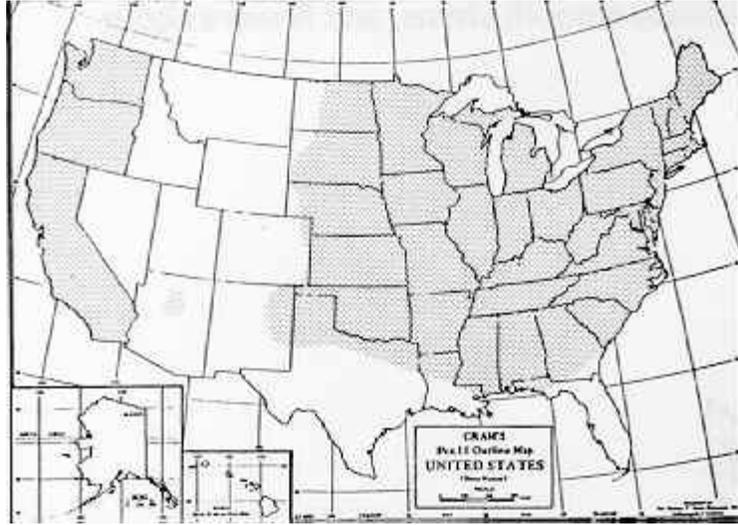
## Softstem Bulrush (*Scirpus validus*)



- **Family:** Sedge (Cyperaceae)
- **Flowering:** May-September.
- **Field Marks:** This tall bulrush has a single bract that is a short continuation of the stem beyond the spikelets. The spikelets have distinct stalks.
- **Habitat:** Along rivers and streams, around ponds and lakes, wet prairies, sloughs.
- **Habit:** Robust perennial herb with stout rhizomes.
- **Stems:** Erect, not triangular, smooth, soft, up to 9 feet tall.
- **Flowers:** One per scale, with several scales per spikelet, each spikelet up to 1/2 inch long, forming a cluster near the top of the stem, with one bract that is a short continuation of the stem beyond the spikelets.
- **Scales:** Ovate, round-tipped but with a short point, somewhat hairy, up to 1/2 inch long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** 1; styles 2; ovary superior, subtended by 4-6 barbed bristles.
- **Fruits:** Achenes brown, about as broad as long, about 1/10-1/8 inch long.
- **Notes:** The achenes are eaten by waterfowl.



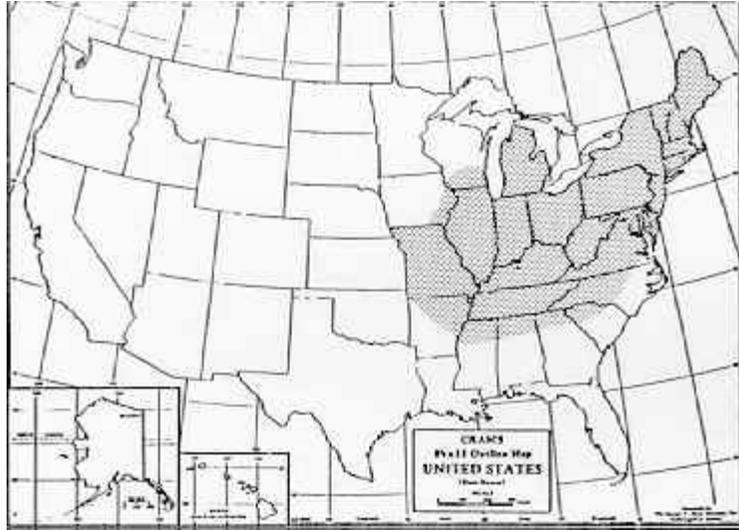
## Blue Skullcap (*Scutellaria lateriflora*)



- **Family:** Mint (Lamiaceae)
- **Flowering:** July-October.
- **Field Marks:** Skullcaps differ from all other mints by the swelling on the calyx. This species differs from all other species in the genus by its slender racemes, usually smooth stems, and flowers about 1/4 inch long.
- **Habitat:** Low woods, swamps, along rivers and streams.
- **Habit:** Perennial herb with slender rhizomes.
- **Stems:** Erect, usually branched, smooth or slightly hairy, 4-sided, up to 2 feet tall.
- **Leaves:** Opposite, simple, lanceolate to ovate, pointed at the tip, rounded at the base, toothed, smooth or slightly hairy, up to 3 inches long.
- **Flowers:** Several in racemes from the axils of the leaves, blue, a little more than 1/4 inch long, bilaterally symmetrical.
- **Sepals:** 5, green, united below, with a swelling on the united part.
- **Petals:** 5, blue, 2-lipped; the upper lip 2-lobed; the lower lip 3-lobed.
- **Stamens:** 4.
- **Pistils:** Ovary superior, 4-parted.
- **Fruits:** Nutlets very small, smooth.



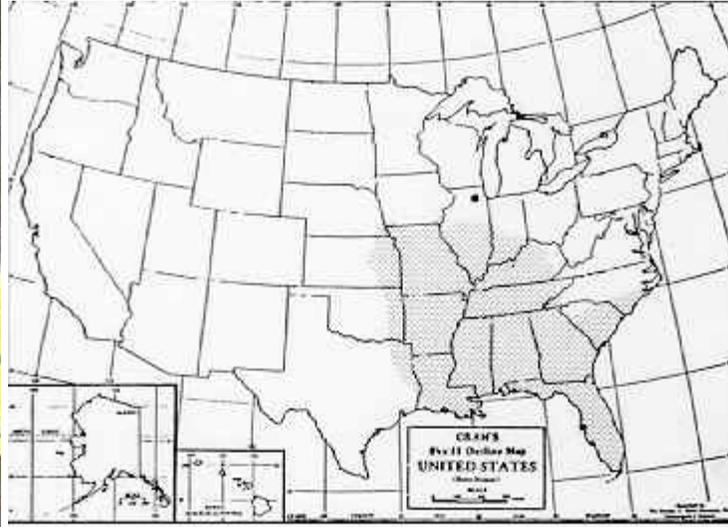
## Golden Ragwort (*Senecio aureus*)



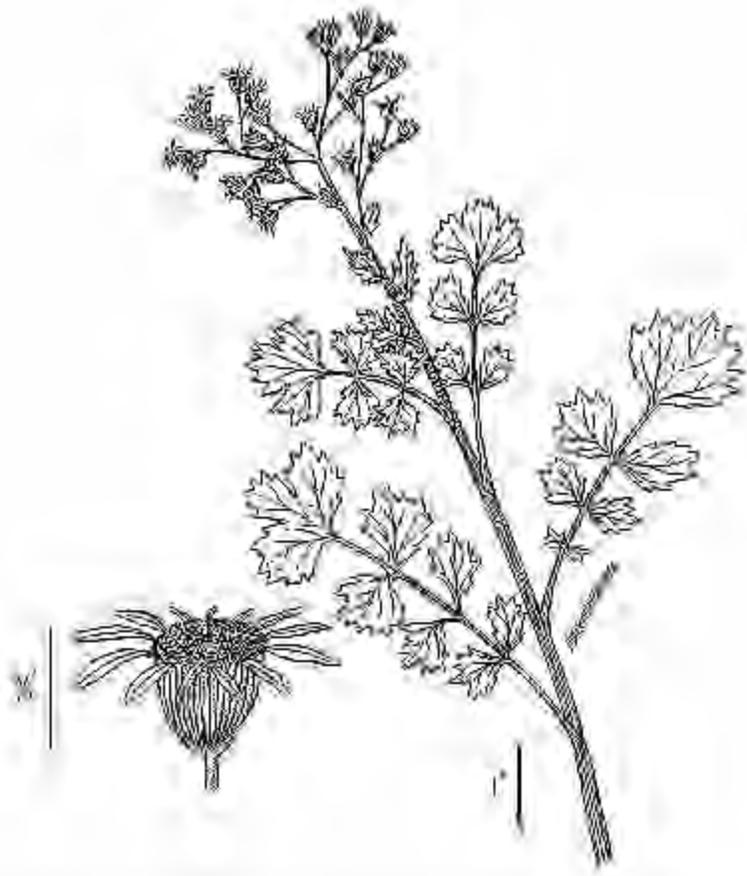
- **Family:** Aster (Asteraceae)
- **Flowering:** April-June.
- **Field Marks:** This species has large, dark green, undivided basal leaves that are heart-shaped at the base.
- **Habitat:** Along streams, moist woods.
- **Habit:** Perennial herb with branched, creeping rhizomes and slender stolons.
- **Stems:** Erect, usually branched above, white-woolly when young, becoming smooth, up to 3 feet tall.
- **Leaves:** Of 2 kinds: the basal ones ovate, pointed at the tip, heart-shaped at the base, toothed, white-woolly when young, up to 3 inches long, up to 2 inches broad, with long stalks; the leaves on the stem narrower, pinnately divided or the uppermost undivided, without stalks.
- **Flowers:** Many crowded in heads; each head surrounded by many very narrow, smooth bracts, the bracts green and often purple-tipped; the heads composed of both yellow ray and tubular flowers.
- **Sepals:** 0.
- **Petals:** Yellow, some united to form flat rays up to 1/2 inch long, others united to form tubular flowers.
- **Stamens:** 5.
- **Pistils:** Ovary inferior, smooth.
- **Fruits:** Achenes smooth, up to 1/6 inch long.
- **Notes:** This species produces substances which may be poisonous to wildlife.



## Butterweed (*Senecio glabellus*)



- **Family:** Aster (Asteraceae)
- **Flowering:** April-June.
- **Field Marks:** This *Senecio* has all of its leaves pinnately divided into 3-13 segments.
- **Habitat:** Low woods, swamps, fallow fields.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect, usually smooth, sometimes branched, hollow, up to 3 feet tall.
- **Leaves:** Alternate, deeply pinnately divided into 3-13 segments, each segment usually toothed, smooth; the lower leaves on long stalks; the upper leaves on short stalks, or stalkless.
- **Flowers:** Many crowded into a head, with many heads per plant; each head up to 1 inch across, subtended by small, green bracts; the outer flowers yellow and ray-like; the inner flowers yellow and tubular, forming a disk.
- **Sepals:** 0.
- **Petals:** Some ray-like, yellow; others tubular, yellow, 5-lobed.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes smooth, with a tuft of white hairs at the top.



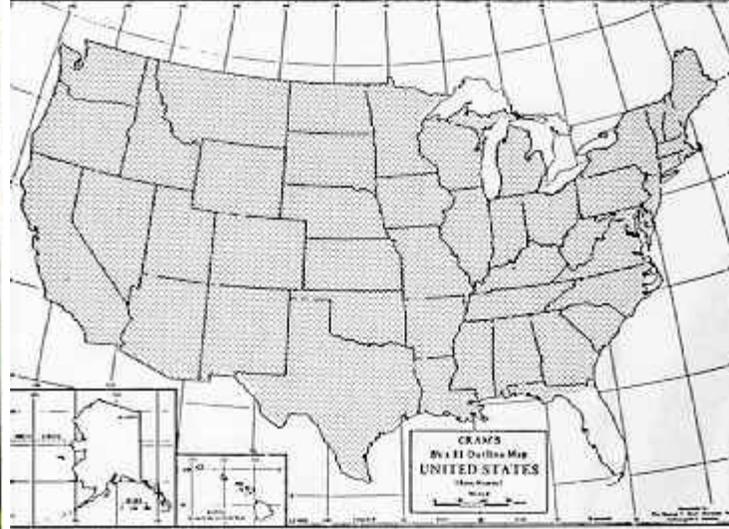
## Faber Bristlegrass (*Setaria faberi*)



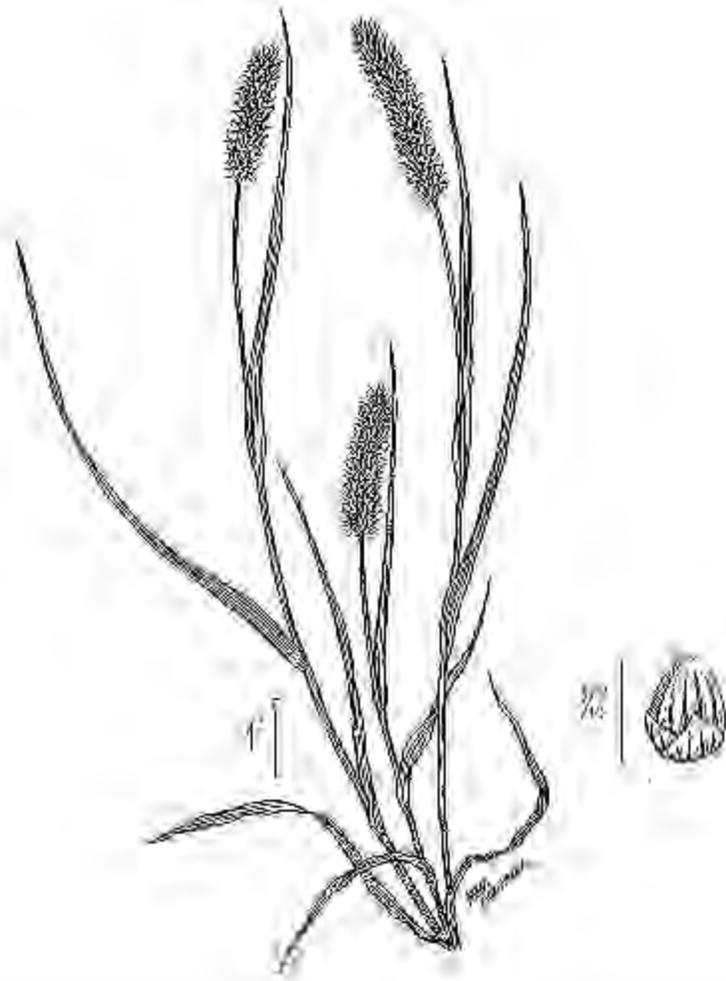
- **Family:** Grass (Poaceae)
- **Flowering:** July-October.
- **Field Marks:** This species is recognized by its arching, soft-bristly spikes at least 3 inches long.
- **Habitat:** Fields and generally any disturbed habitat.
- **Habit:** Coarse annual herb with fibrous roots.
- **Stems:** Erect, smooth or slightly hairy at the nodes, up to 4 feet tall.
- **Leaves:** Up to 8 inches long, up to 1 inch broad, hairy on the upper surface with ciliate sheaths.
- **Flowers:** One per spikelet, with many spikelets crowded into an arching spike up to 5 inches long; each spikelet subtended by 1-3 soft bristles up to 1 inch long.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Grains:** Usually enclosed by scales.
- **Notes:** The usual common names for this species are giant foxtail or nodding foxtail.



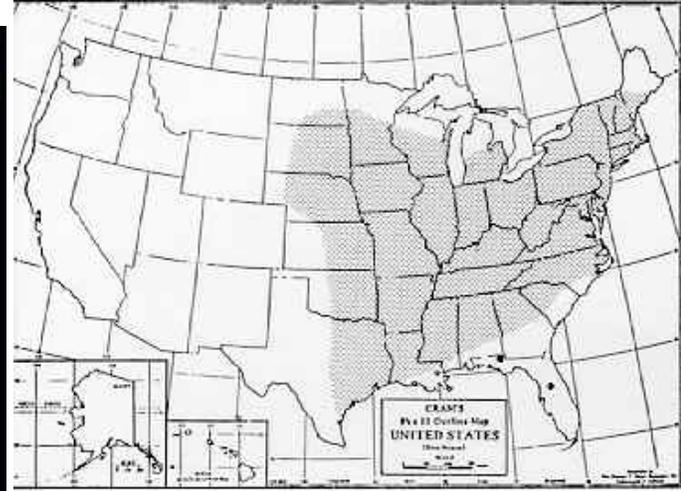
## Yellow Foxtail (*Setaria glauca*)



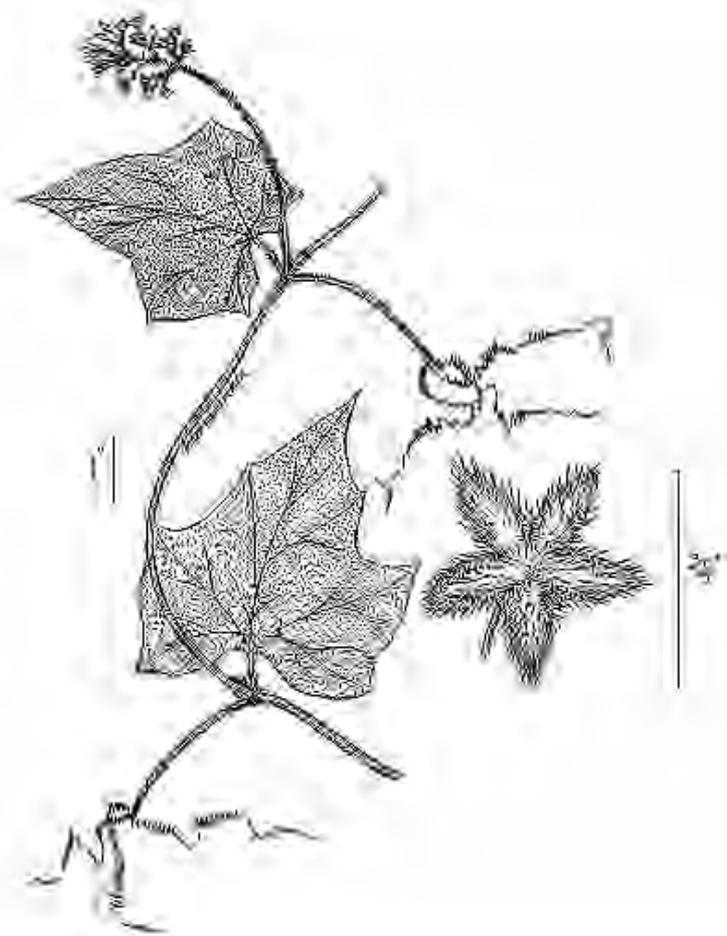
- **Family:** Grass (Poaceae)
- **Flowering:** June-October.
- **Field Marks:** This annual foxtail has stiff, erect spikes subtended by bristles that are usually yellowish.
- **Habitat:** Along streams, along roads, fields, pastures, and most disturbed areas.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Usually erect, smooth, up to 3 feet tall.
- **Leaves:** Up to 7 inches long, up to 1/3 inch broad, smooth, with smooth sheaths.
- **Flowers:** One per spikelet, with many spikelets crowded into a straight, erect spike up to 4 inches long; each spikelet subtended by 4-8 straight, stiff, usually yellow bristles up to 1/2 inch long.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Grains:** Usually enclosed by scales.
- **Notes:** This plant is commonly called pigeon grass in some areas.



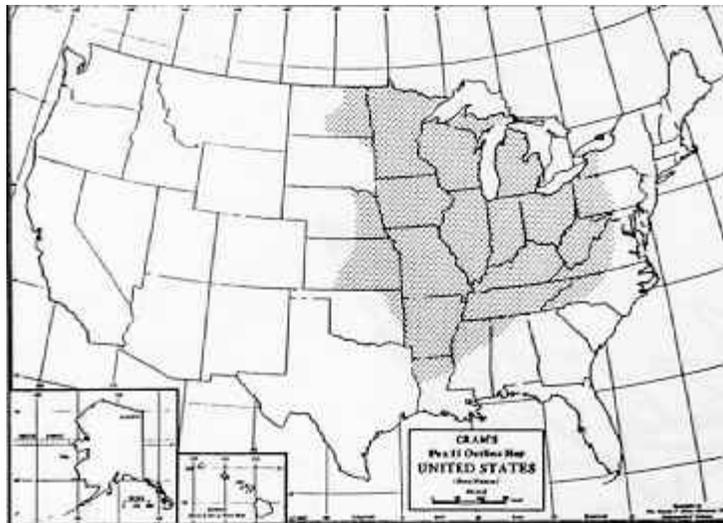
## Bur Cucumber (*Sicyos angulatus*)



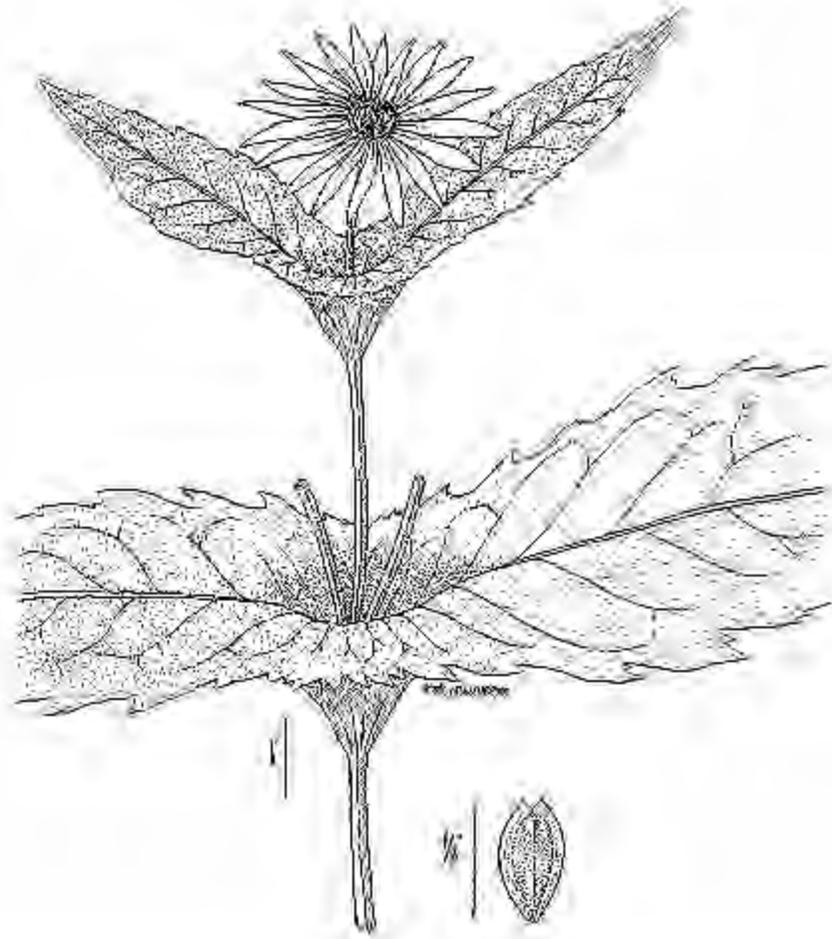
- **Family:** Gourd (Cucurbitaceae)
- **Flowering:** July-October.
- **Field Marks:** The distinguishing features of this gourd are the prickly, 1-seeded fruits and the very hairy stems and leaves.
- **Habitat:** Wet woods, damp thickets, particularly along rivers.
- **Habit:** Climbing annual herb with tendrils.
- **Stems:** Twining or climbing, very hairy, often many feet long.
- **Leaves:** Alternate, simple, with 3 or 5 shallow lobes, toothed, hairy, pointed at the tip of each lobe, up to 6 inches long, often as broad.
- **Flowers:** Male and female flowers separate but on the same plant, up to 1/2 inch across.
- **Sepals:** 5, green, united.
- **Petals:** 5, greenish yellow, united.
- **Stamens:** Usually 5, united to each other.
- **Pistils:** Ovary inferior; stigmas 3.
- **Fruits:** Dry, indehiscent, ovoid, covered by prickly bristles, hairy, up to 3/4 inch long.
- **Notes:** The prickles on the fruit are stiff enough to break the skin.



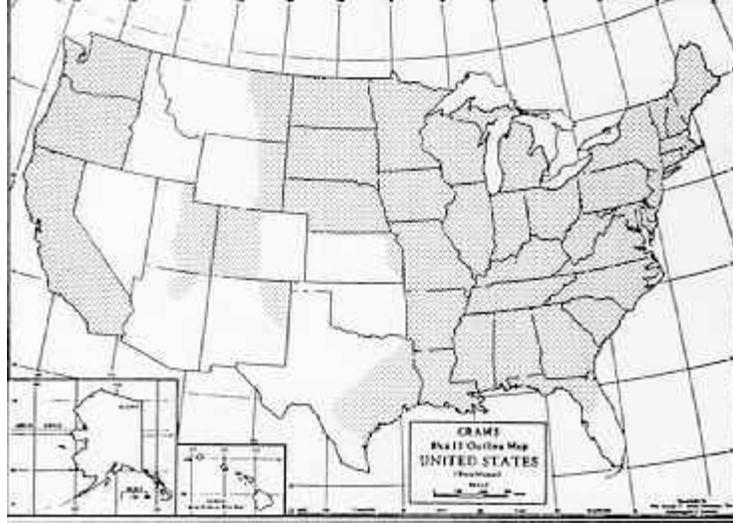
## Cup-plant (*Silphium perfoliatum*)



- **Family:** Aster (Asteraceae)
- **Flowering:** July-September.
- **Field Marks:** The cup formed where each pair of opposite leaves comes together on the stem and the strongly square stems readily identify this species.
- **Habitat:** Low woods, around ponds, wet meadows, along streams.
- **Habit:** Coarse perennial herb with thickened rootstocks.
- **Stems:** Erect, branched or unbranched, square, usually smooth, up to 10 feet tall.
- **Leaves:** Opposite, simple, ovate, pointed at the tip, united at the base with the opposing leaf to form a cup, coarsely toothed, rough to the touch, up to 1 foot long, up to 6 inches broad.
- **Flowers:** Many crowded together into heads, with numerous heads per plant; each head up to 3 inches across, subtended by elliptic to ovate, ciliate bracts, composed of 20-30 yellow rays and a central yellow disk.
- **Sepals:** 0.
- **Petals:** Yellow, some united to form rays, others united to form tubes that comprise the central disk.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes obovoid, winged, up to 1/2 inch broad.



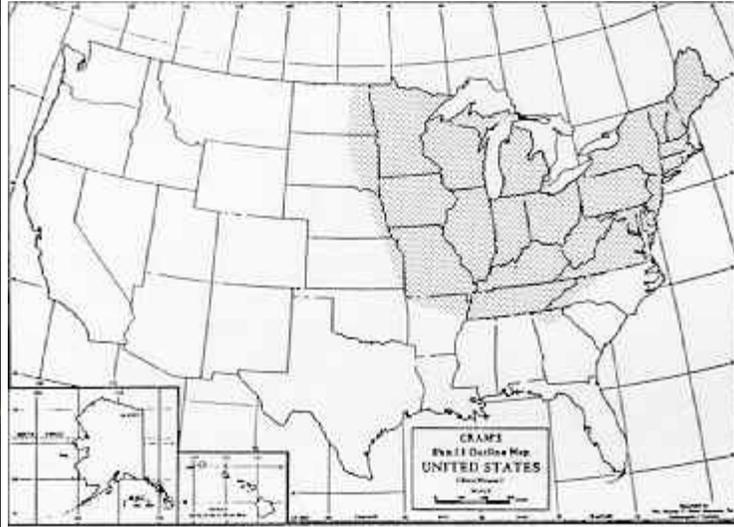
## Waterparsnip (*Sium suave*)



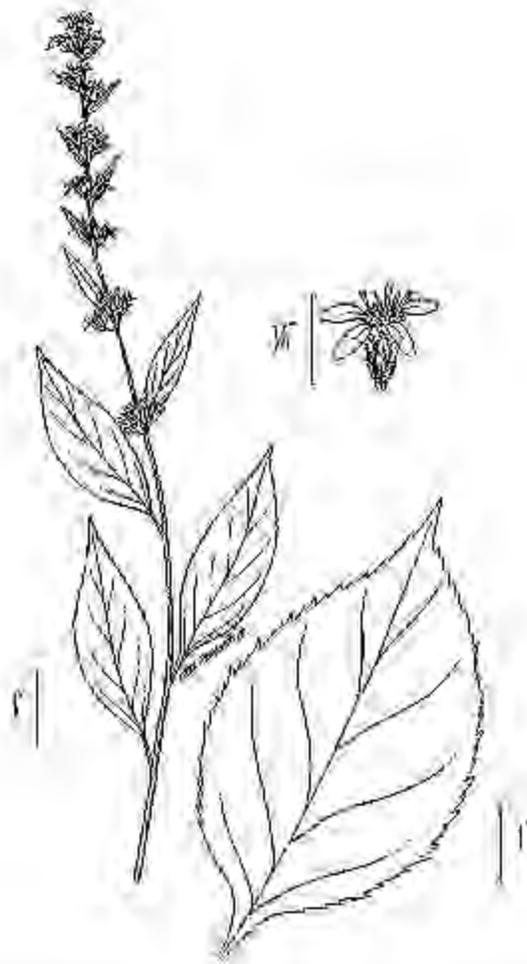
- **Family:** Carrot (Apiaceae)
- **Flowering:** July-September.
- **Field Marks:** This robust perennial is distinguished by its umbels of white flowers and its once-pinnate leaves with toothed leaflets.
- **Habitat:** Wet woods, swamps, wet roadside ditches, wet prairies.
- **Habit:** Perennial herb with fibrous roots.
- **Stems:** Erect, branched, angular, smooth, hollow, up to 8 feet tall.
- **Leaves:** Alternate, pinnately divided into 11-15 leaflets; the leaflets lanceolate, pointed at the tip, tapering to the base, toothed, smooth, up to 5 inches long, up to 2 inches broad; leaves under water divided into thread-like or linear segments.
- **Flowers:** Many in a compound umbel; each flower white, up to 2/3 inch across.
- **Sepals:** 5, green, very tiny.
- **Petals:** 5, white, free from each other, up to 1/3 inch long.
- **Stamens:** 5.
- **Pistils:** Ovary inferior, smooth.
- **Fruits:** Ellipsoid, with several strong vertical ribs, 1/6 inch long.



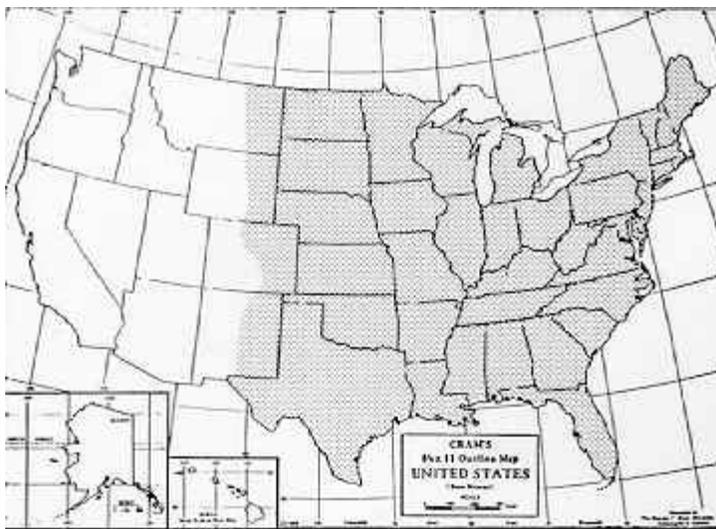
## Zigzag Goldenrod (*Solidago flexicaulis*)



- **Family:** Aster (Asteraceae)
- **Flowering:** July-October.
- **Field Marks:** The flowers are formed in small clusters in the axils of the jagged-toothed leaves. The stems are sometimes zigzag.
- **Habitat:** Rich woods, particularly along streams.
- **Habit:** Perennial herb with short rhizomes.
- **Stems:** Erect, smooth, usually zigzag, striate, up to 3 feet tall.
- **Leaves:** Alternate, simple, ovate to elliptic, coarsely toothed, smooth or nearly so, tapering to a rather long point at the tip, abruptly contracted to a winged leaf stalk, up to 6 inches long, up to 4 inches broad.
- **Flowers:** Borne in small heads; the heads arranged in small clusters in the axils of the leaves, yellow; each head up to 1/4 inch across, subtended by several round-tipped bracts, consisting of 3-4 rays.
- **Sepals:** 0.
- **Petals:** 5, united into flat yellow rays up to 1/8 inch long.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes about 1/10 inch long, short-hairy.



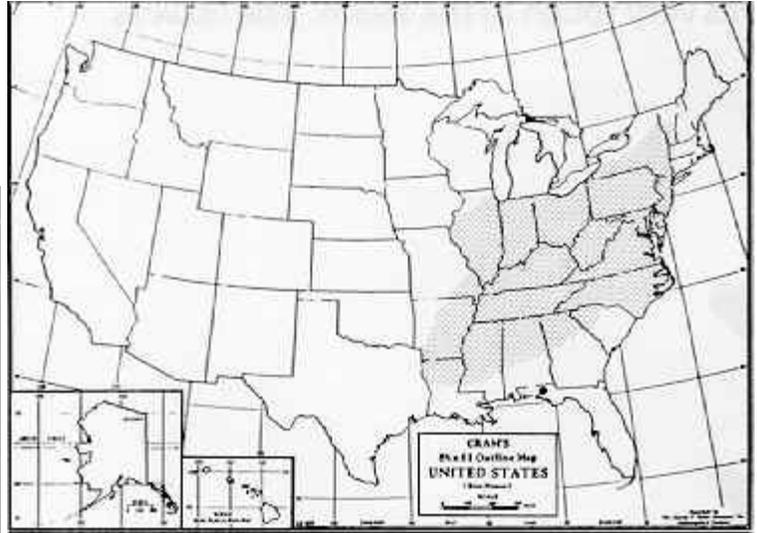
## Late Goldenrod (*Solidago gigantea*)



- **Family:** Aster (Asteraceae)
- **Flowering:** July-October.
- **Field Marks:** This tall goldenrod has glabrous stems with toothed, lanceolate leaves that have 3 principal veins. The flowers are formed along one side of terminal racemes.
- **Habitat:** Wet woods, sloughs, wet prairies, along rivers and streams, around ponds and lakes.
- **Habit:** Perennial herb with long, slender rhizomes.
- **Stems:** Erect, smooth, sometimes bluish, up to 8 feet tall.
- **Leaves:** Alternate, simple, lanceolate, pointed at the tip, tapering to the base, sharply toothed, smooth or somewhat hairy, 3-veined, up to 5 inches long, up to 3/4 inch broad.
- **Flowers:** Borne in small heads, the heads arranged in a much-branched panicle and usually on only one side of the branches, yellow; each head up to 1/4 inch across, subtended by several pointed, yellowish bracts, consisting of 7-17 rays.
- **Sepals:** 0.
- **Petals:** 5, united into flat yellow rays up to 1/16 inch long.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes about 1/12 inch long, short-hairy.



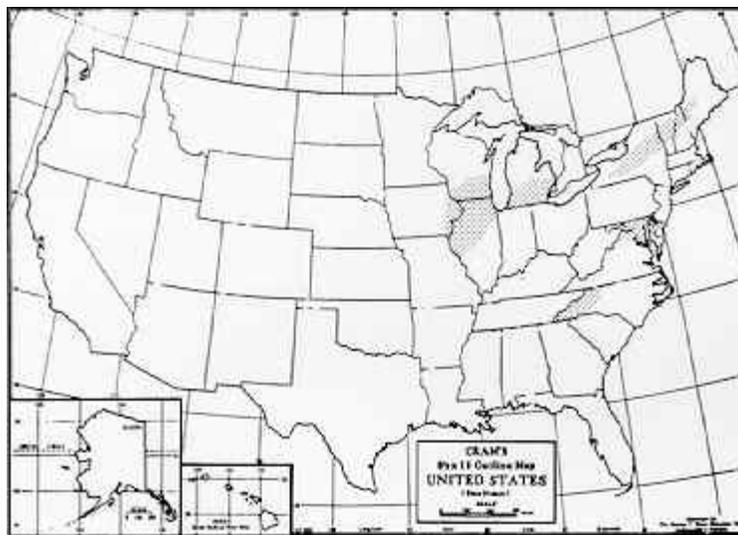
## Roughleaf Goldenrod (*Solidago patula*)



- **Family:** Aster (Asteraceae)
- **Flowering:** August-October.
- **Field Marks:** Roughleaf goldenrod has smooth stems and the basal leaves are usually present at flowering time. It differs from similar species by having leaves very rough to the touch. The flowers are along one side of the branchlets.
- **Habitat:** Wet woods, swamps, wet meadows.
- **Habit:** Perennial herb with short, thick rhizomes.
- **Stems:** Upright, usually branched, smooth, with prominent ridges, up to 6 feet tall.
- **Leaves:** Alternate and basal, simple, very rough to the touch, the basal leaves broadly elliptic, pointed at the tip, tapering at the base to a long stalk, toothed, up to 1 foot long, the leaves on the stem progressively smaller and without a stalk.
- **Flowers:** Several crowded into a head with many heads usually arranged along one side of the branchlets, each head up to 1/4 inch high, subtended by several green bracts, the outer flowers 5-12, yellow, ray-like, the inner yellow and tubular.
- **Sepals:** 0.
- **Petals:** The outer yellow, ray-like, about 1/6 inch long, the inner yellow, tubular, 5-parted.
- **Stamens:** 5.
- **Pistils:** Ovary inferior, hairy.
- **Fruits:** Achenes elongated, hairy, 1/10 inch long, with a tuft of white hairs at the tip.



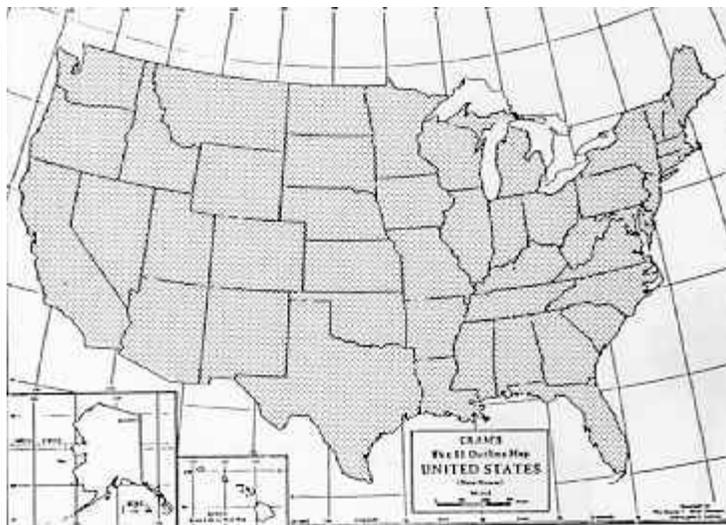
## Bog Goldenrod (*Solidago uliginosa*)



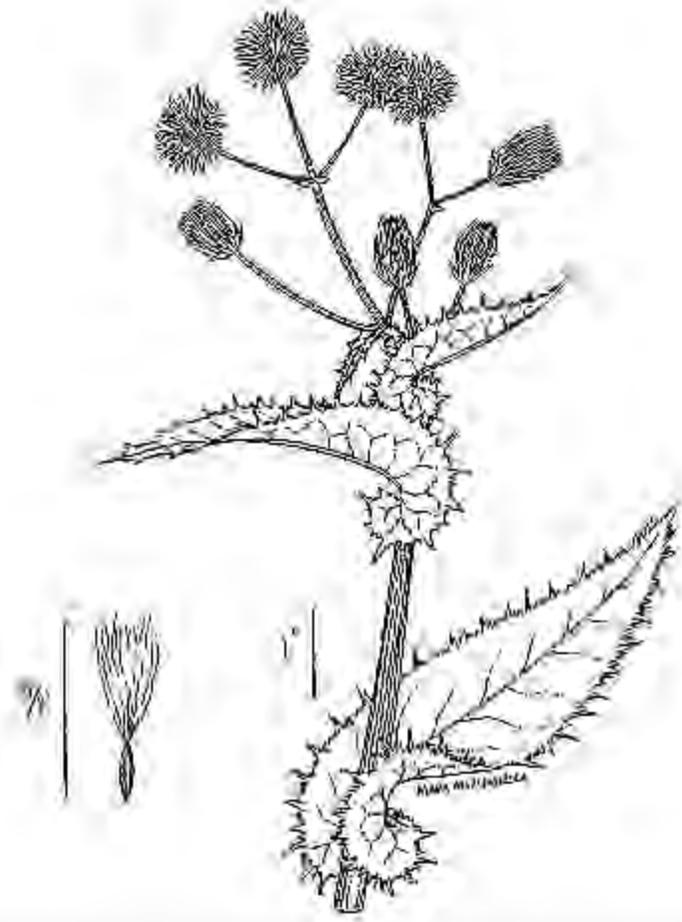
- **Family:** Aster (Asteraceae)
- **Flowering:** July-August.
- **Field Marks:** This goldenrod has smooth stems and smooth leaves. The basal leaves are present at flowering time. The flowers are in terminal racemes.
- **Habitat:** Bogs, fens.
- **Habit:** Perennial herb from a thickened rootstock.
- **Stems:** Erect, branched or unbranched, smooth except near the flowers, up to 3 feet tall.
- **Leaves:** Basal and alternate, simple, narrowly elliptic, pointed at the tip, tapering to the base, with or without teeth, smooth, up to 3 inches long (up to 8 inches long for basal leaves), the upper progressively smaller.
- **Flowers:** Several crowded into a head with many heads usually arranged in terminal racemes, each head up to 3/8 inch high, subtended by several narrow, green bracts, the outer flowers up to 8 in number, yellow, ray-like, the inner yellow and tubular.
- **Sepals:** 0.
- **Petals:** The outer yellow, ray-like, about 1/4 inch long, the inner yellow, tubular, 5-parted.
- **Stamens:** 5.
- **Pistils:** Ovary inferior, smooth or hairy.
- **Fruits:** Achenes elongated, smooth or slightly hairy.



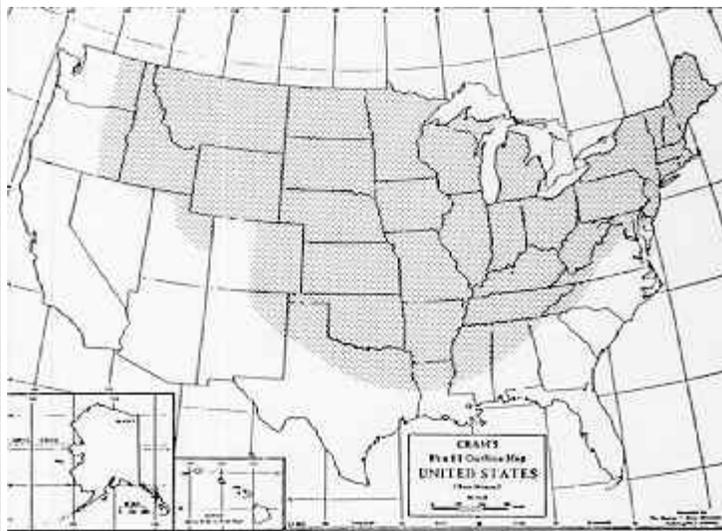
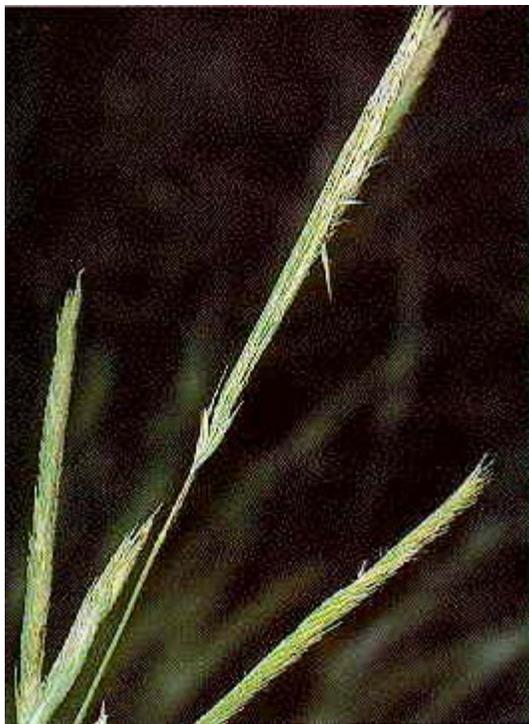
## Prickly Sowthistle (*Sonchus asper*)



- **Family:** Aster (Asteraceae)
- **Flowering:** May-October.
- **Field Marks:** This prickly species differs from other sowthistles by its flowering heads less than 1 inch in diameter and wrinkled achenes.
- **Habitat:** Disturbed soil.
- **Habit:** Annual herb with a short taproot.
- **Stems:** Erect, usually branched, smooth or slightly hairy, up to 4 feet tall, with latex.
- **Leaves:** Alternate, deeply divided, with prickly teeth, up to 1 foot long, with a pair of rounded auricles at the base; latex present.
- **Flowers:** Several crowded into heads, with several heads per plant; each head less than 1 inch in diameter and subtended by several rows of pointed, green bracts; all flowers ray-like, yellow.
- **Sepals:** 0.
- **Petals:** Yellow, united to form a ray, notched at the tip.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes up to 1/8 inch long, wrinkled.



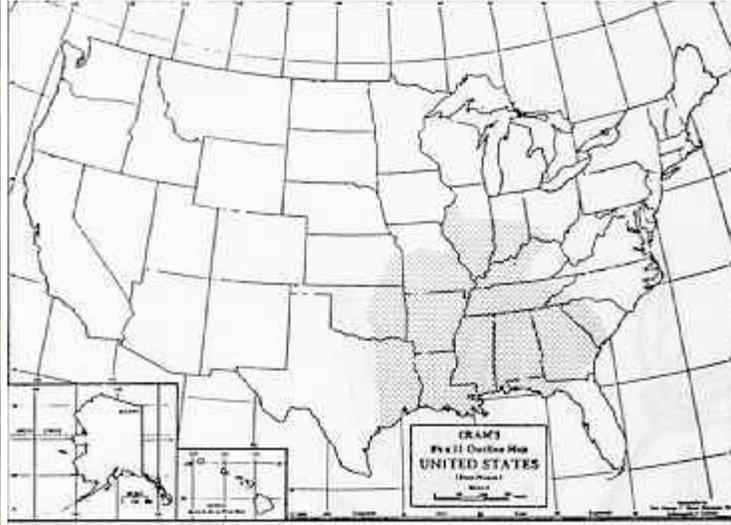
## Prairie Cordgrass (*Spartina pectinata*)



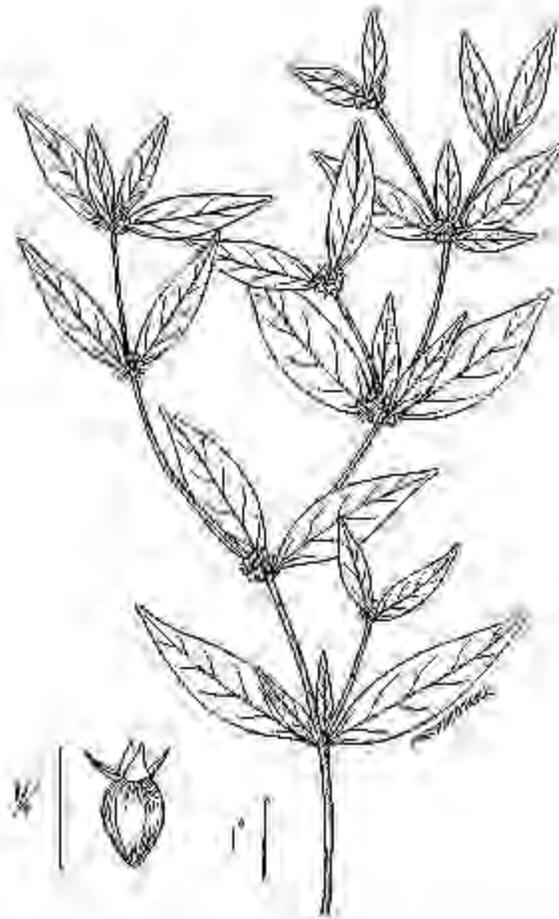
- **Family:** Grass (Poaceae)
- **Flowering:** June-October.
- **Field Marks:** This rhizome-bearing grass has flat, 1-flowered spikelets crowded into 2 rows on one side of the branchlets.
- **Habitat:** Wet prairies, wet meadows, in sloughs, around ponds, swamps.
- **Habit:** Coarse perennial herb with rhizomes.
- **Stems:** Erect, usually unbranched, smooth up to 6 feet tall.
- **Leaves:** Long, narrow, rough along the edges, up to 1 foot long, up to 2/3 inch broad.
- **Flowers:** One per spikelet, with many flat spikelets crowded into 2 rows on one side of the branchlets of the spike; each spike up to 5 inches long.
- **Sepals:** 0.
- **Petals:** 0.
- **Scales:** Hairy, tapering to a slender point.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Grains:** Small, smooth.
- **Notes:** The pollen of this grass may cause hay fever.



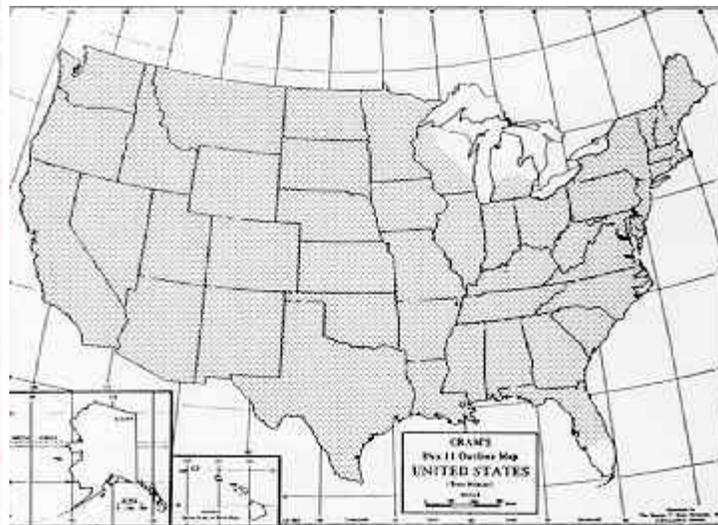
## Smooth Buttonweed (*Spermacoce glabra*)



- **Family:** Madder (Rubiaceae)
- **Flowering:** June-October.
- **Field Marks:** This species is distinguished by clusters of small white flowers in the axils of the leaves and its smooth or slightly hairy stems and leaves.
- **Habitat:** Wet woods, around ponds and lakes, fallow fields, sloughs, along streams.
- **Habit:** Perennial herb with a woody root.
- **Stems:** Erect, usually branched, 4-sided, usually smooth, up to 2 feet long.
- **Leaves:** Opposite, simple, elliptic, pointed at the tip, tapering to the base, without teeth, finely hairy or smooth, up to 3 inches long, up to 1 inch broad.
- **Flowers:** Few to several in crowded, rounded clusters in the axils of the leaves; each flower white, 1/6-1/4 inch long.
- **Sepals:** 4, green, united at the base.
- **Petals:** 4, white, united below into a short tube.
- **Stamens:** 4, not exerted beyond the petals.
- **Pistils:** Ovary inferior, smooth.
- **Fruits:** Capsule splitting into two 1-seeded parts at maturity.



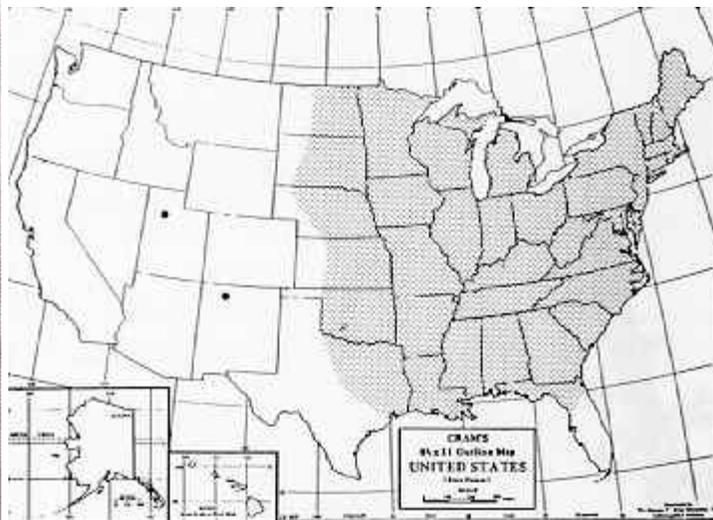
## Prairie Wedgegrass (*Sphenopholis obtusata*)



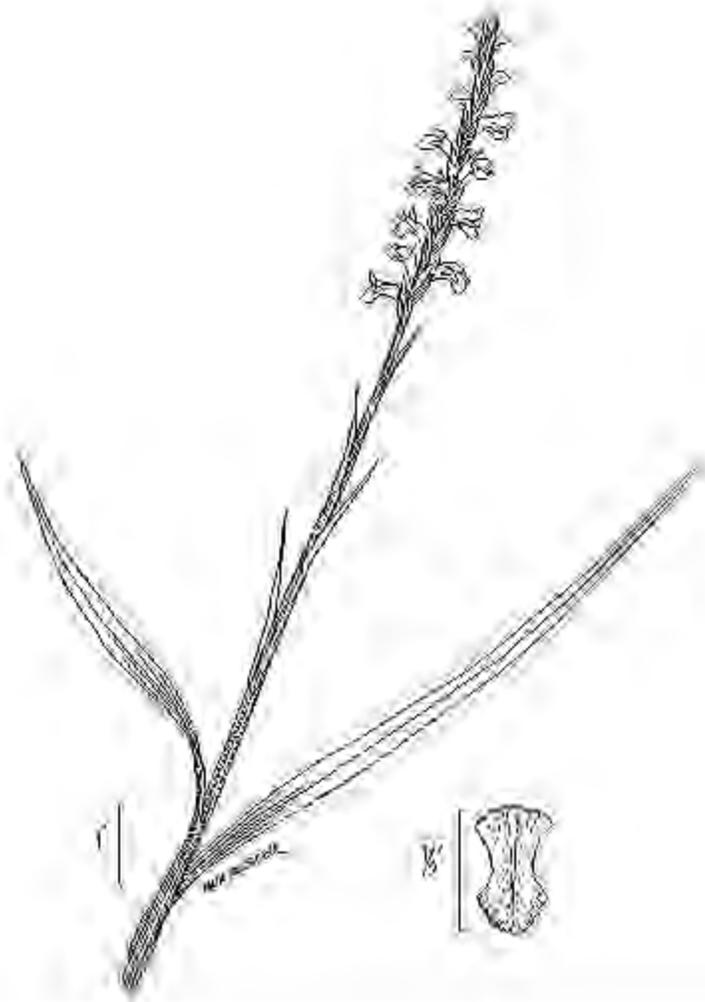
- **Family:** Grass (Poaceae)
- **Flowering:** May-July.
- **Field Marks:** The genus *Sphenopholis* usually has 2-flowered spikelets. *Sphenopholis obtusata* differs from other members of the genus by its very slender inflorescence and round-tipped scales of the spikelet.
- **Habitat:** Moist woods; also in drier habitats.
- **Habit:** Perennial grass with slender rhizomes.
- **Stems:** Erect, smooth or hairy, up to 2 feet tall.
- **Leaves:** Elongated, narrow, rough to the touch or merely hairy, up to 1/4 inch wide.
- **Flowers:** Borne in spikelets; the spikelets 2-flowered, up to 1/8 inch long, arranged in a very narrow panicle up to 6 inches long.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 3.
- **Pistils:** Ovary superior.
- **Grains:** Narrowly ellipsoid, yellowish, shiny, about 1/10 inch long.



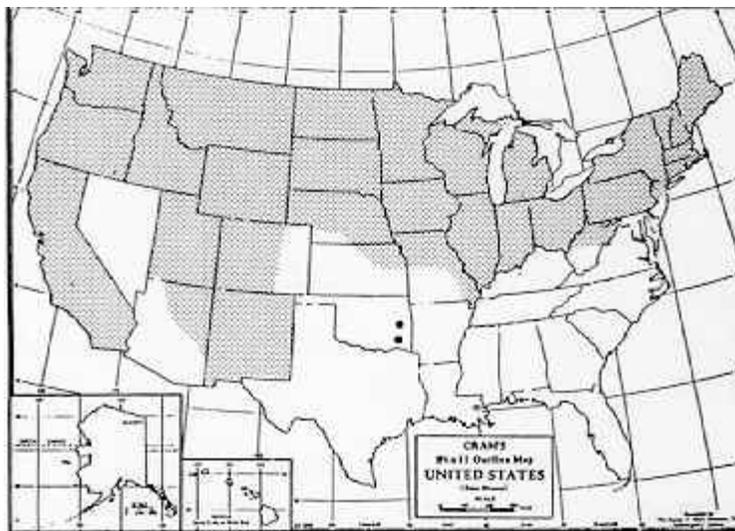
## Nodding Ladies' Tresses (*Spiranthes cernua*)



- **Family:** Orchid (Orchidaceae)
- **Flowering:** August-November.
- **Field Marks:** Species of *Spiranthes* usually have their flowers in twisted spikes. This species has flowers at least 1/3 inch long borne in spikes at least 3/4 inch thick.
- **Habitat:** Wet meadows; also in drier habitats.
- **Habit:** Perennial herb with tuberous roots.
- **Stems:** Erect, unbranched, hairy at least above, up to 1 1/2 feet tall.
- **Leaves:** Mostly basal, simple, narrowly lanceolate, pointed at the tip, tapering to a sheathing base, up to 10 inches long, up to nearly 1 inch broad, more or less hairy.
- **Flowers:** Several in 3 spirally twisted rows, forming a cylindrical, densely flowered spike up to 6 inches long; each flower usually nodding.
- **Sepals:** 3, white, linear to narrowly lanceolate, hairy, up to 1/2 inch long.
- **Petals:** 3, white, linear to narrowly lanceolate, hairy, up to 1/2 inch long; the lip petal narrowly ovate.
- **Stamens:** 1.
- **Pistils:** Ovary inferior.
- **Fruits:** Capsules ellipsoid.



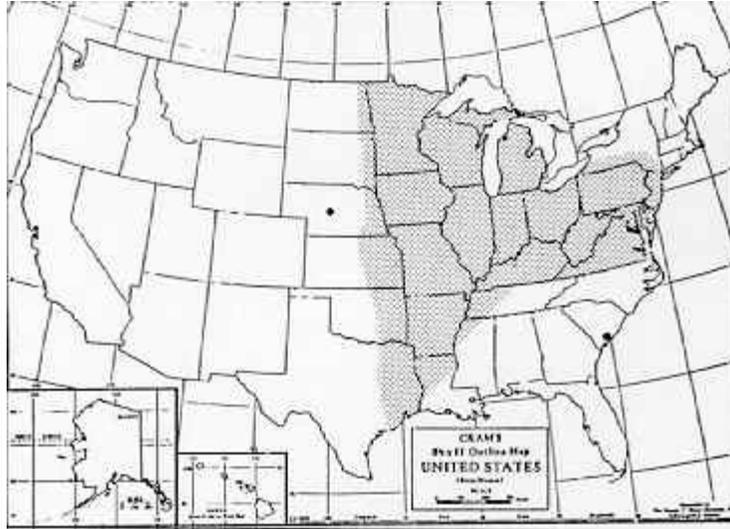
## Woundwort (*Stachys palustris*)



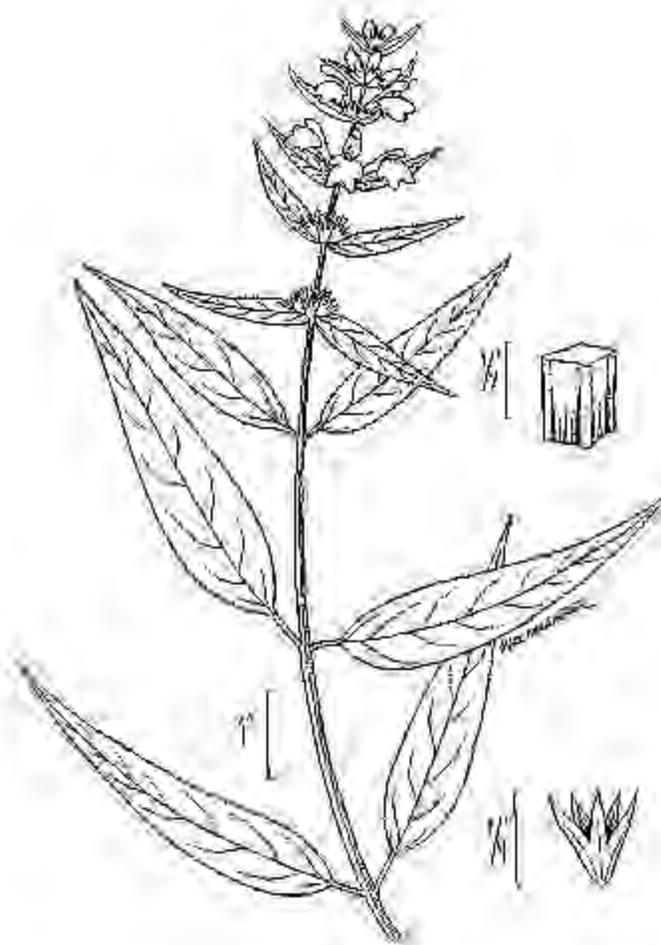
- **Family:** Mint (Lamiaceae)
- **Flowering:** June-September.
- **Field Marks:** This species of *Stachys* is distinguished by its hairy leaves and stems.
- **Habitat:** Wet meadows, wet prairies, swamps, sloughs, edges of lakes.
- **Habit:** Perennial herb with slender rhizomes and white tubers.
- **Stems:** Erect, branched or unbranched, hairy, up to 3 feet tall.
- **Leaves:** Opposite, simple, lanceolate to narrowly ovate, pointed at the tip, rounded at the base, toothed, hairy, up to 4 inches long.
- **Flowers:** Usually 6 in a whorl, with several whorls along the upper end of the stem, rose-purple.
- **Sepals:** 5, slightly unequal in size, united below, up to 1/2 inch long, densely hairy.
- **Petals:** 5, united into 2 lips, rose-purple, up to 3/4 inch long, hairy on the outside.
- **Stamens:** 4.
- **Pistils:** Ovary superior, 4-parted.
- **Fruits:** Dark brown, shiny, about 1/10 inch long.
- **Notes:** The nutlets are eaten by wildlife.



## Smooth Hedge Nettle (*Stachys tenuifolia*)



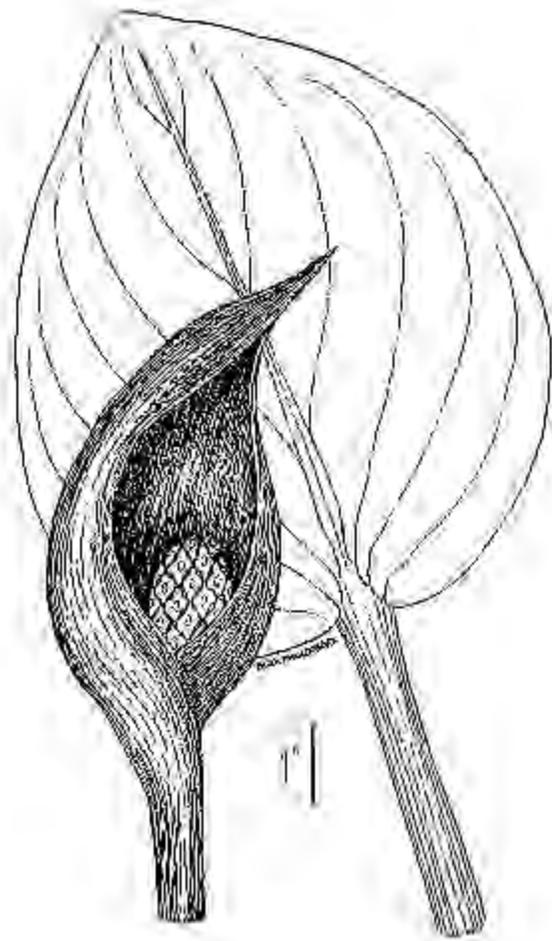
- **Family:** Mint (Lamiaceae)
- **Flowering:** June-September.
- **Field Marks:** This species of *Stachys* has generally smooth stems and conspicuously veiny leaves.
- **Habitat:** Wet woods, along streams, around ponds and lakes, swamps, sloughs.
- **Habit:** Perennial herb with tufted roots.
- **Stems:** Erect, unbranched, 4-sided, smooth or with some hairs only on the angles, up to 2 1/2 feet tall.
- **Leaves:** Opposite, simple, lanceolate to ovate, pointed at the tip, rounded at the base, toothed, smooth or sometimes hairy, conspicuously veiny, up to 3 inches long.
- **Flowers:** Several in interrupted spikes at the tip of the stems; each flower subtended by a bract, purple, bilaterally symmetrical, up to 1/2 inch long.
- **Petals:** 5, purple, 2-lipped: the upper lip 2-lobed; the lower lip 3-lobed.
- **Stamens:** 4.
- **Pistils:** Ovary superior, 4-parted.
- **Fruits:** Nutlets about 1/10 inch long.
- **Notes:** The nutlets are eaten by wildlife.



## Skunk Cabbage (*Symplocarpus foetidus*)

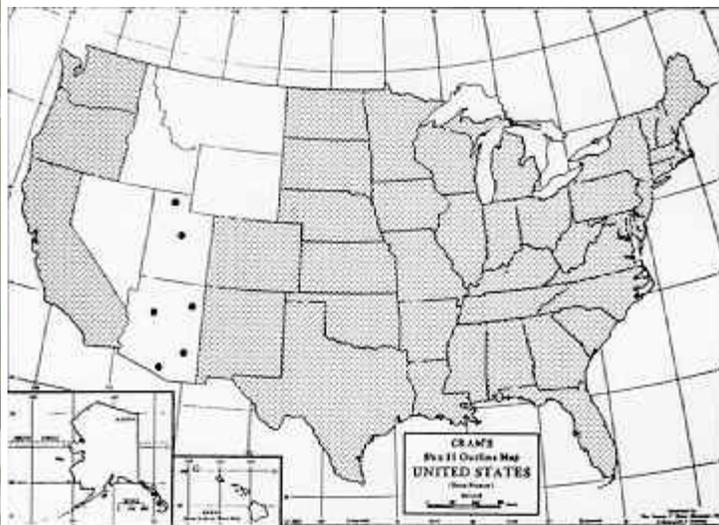


- **Family:** Aroid (Araceae)
- **Flowering:** February-April.
- **Field Marks:** This species is distinguished by its large heart-shaped leaves and its very foul-smelling flowers which bloom as early as February.
- **Habitat:** Swamps, bogs.
- **Habit:** Perennial herb with thick rootstocks.
- **Stems:** Partly underground, leafless, smooth.
- **Leaves:** Basal, simple, ovate, more or less pointed at the tip, heart-shaped at the base, smooth, without teeth, up to 3 feet long and up to 1 foot broad; leaf stalks with deep grooves.
- **Flowers:** Male and female flowers borne separately on a thickened stalk (spadix) surrounded by a leaf-like spathe; the spathes up to 6 inches long, purple-brown to greenish yellow.
- **Sepals:** 4, small.
- **Petals:** Absent.
- **Stamens:** 4 or more.
- **Pistils:** Embedded in the spadix; style 4-sided.
- **Fruits:** Berries with seeds up to 1/2 inch long.
- **Notes:** This is one of the first herbs to flower.



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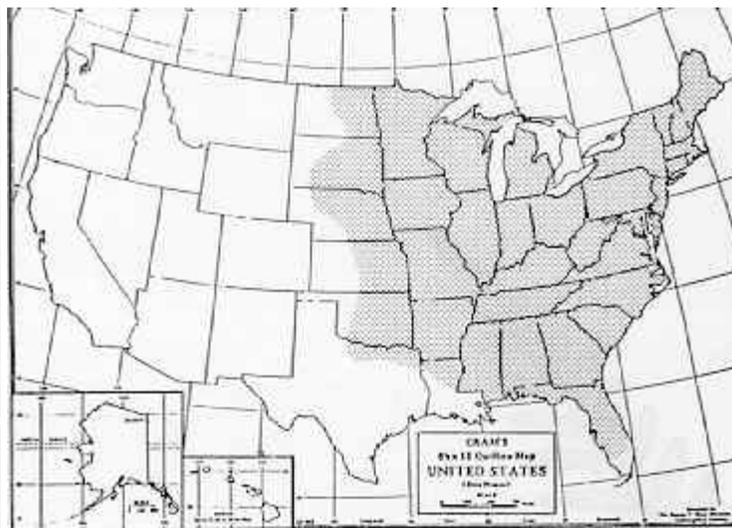
## Canada Germander (*Teucrium canadense*)



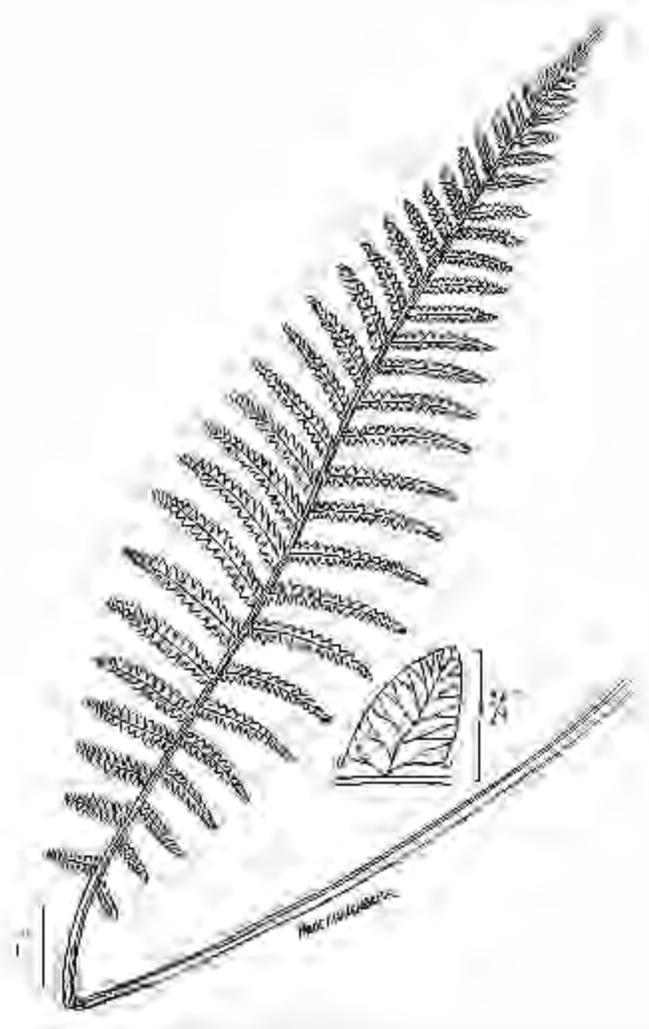
- **Family:** Mint (Lamiaceae)
- **Flowering:** June-September.
- **Field Marks:** Only one lip of the flower is developed in this species, distinguishing it from all other mints.
- **Habitat:** Moist woods, along streams, in meadows.
- **Habit:** Perennial herb with long, slender rhizomes.
- **Stems:** Erect, branched or rarely unbranched, hairy, up to 4 feet tall.
- **Leaves:** Opposite, simple, lanceolate to narrowly ovate, pointed at the tip, tapering to or rounded at the base, round-toothed.
- **Flowers:** Many crowded in terminal spikes, the spikes up to 6 inches long, each flower purplish, subtended by a short, narrow bract.
- **Sepals:** 5, green, united below, asymmetrical.
- **Petals:** 5, asymmetrical, the upper lip absent, the lower lip 3-lobed, up to 1/2 inch long, purplish.
- **Stamens:** 4, protruding beyond the petals.
- **Pistils:** Ovary superior, 4-lobed.
- **Fruits:** Nutlets 4, yellow-brown, veiny, ellipsoid, up to 1/10 inch long.



## Marsh Fern (*Thelypteris thelypteroides*)



- **Family:** Fern (Polypodiaceae)
- **Fruiting:** June-October
- **Field Marks:** This is a deciduous fern that grows in marshy soils. The leaves are divided 1 1/2 times
- **Habitat:** Marshes, wet woods.
- **Habit:** Perennial herb with slender, creeping, black rhizomes.
- **Stems:** No aerial stems present.
- **Leaves:** Deciduous, lanceolate, covered with short hairs, at least when young, divided 1 1/2 times into tiny, more or less toothless segments with forking veins.
- **Reproductive Bodies:** Circular, along the edges of the leaf segments.
- **Notes:** Marsh fern is usually known as *Thelypteris palustris*.



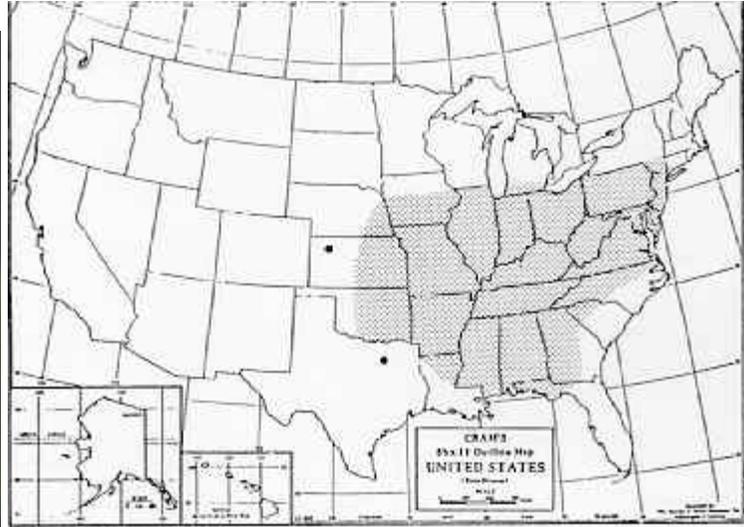
## Marsh St. Johnswort (*Triadenum walteri*)



- **Family:** St. Johnswort (Hypericaceae)
- **Flowering:** August-October.
- **Field Marks:** Species of *Triadenum* have 5 pink petals, 9 stamens, and opposite leaves. This one is further distinguished by its blunt sepals and its stalked leaves with black glandular dots.
- **Habitat:** Swamps, marshes, low woods.
- **Habit:** Perennial herb with slender rhizomes.
- **Stems:** Erect, branched or unbranched, smooth, up to 2 1/2 feet tall.
- **Leaves:** Opposite, simple, oblong to elliptic to ovate, rounded at the tip, tapering to the short-stalked base, without teeth, smooth, with black glandular dots, up to 4 inches long, up to 2 inches broad.
- **Flowers:** Few in clusters in the axils of the leaves, pink.
- **Sepals:** 5, greenish, rounded at the tip, up to 1/6 inch long.
- **Petals:** 5, pink, free from each other, up to 1/3 inch long.
- **Stamens:** 9, in 3 groups of 3 each.
- **Pistils:** Ovary superior, styles 3.
- **Fruits:** Capsules ellipsoid to ovoid, smooth, up to 1/2 inch long, with many brown seeds.
- **Notes:** The seeds are eaten by waterfowl.



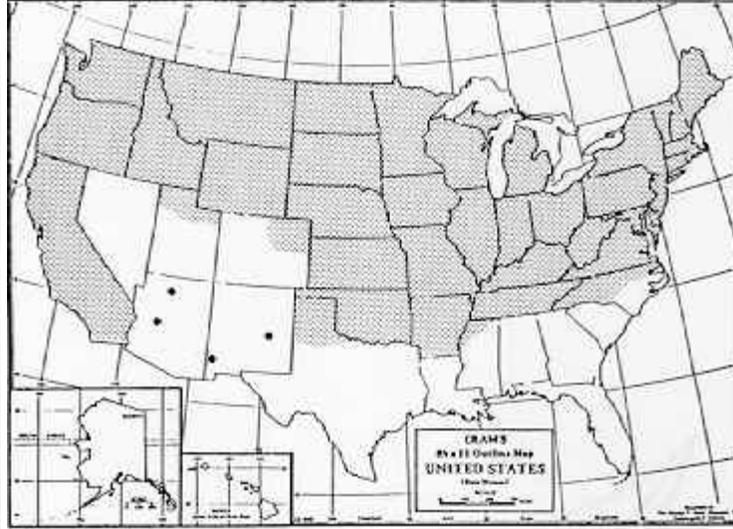
## Yellow Ironweed (*Verbesina alternifolia*)



- **Family:** Aster (Asteraceae)
- **Flowering:** August-October.
- **Field Marks:** Most species of *Verbesina* have winged stems. In addition, this species has 2-10 drooping yellow ray flowers.
- **Habitat:** Low woods, wet meadows, along streams.
- **Habit:** Perennial herb with rhizomes.
- **Stems:** Erect, branched, usually winged, hairy, up to 6 feet tall.
- **Leaves:** The lower usually opposite, the upper alternate, lanceolate to oblong to ovate, pointed at the tip, tapering to the base, toothed or without teeth, hairy, up to 10 inches long, up to 3 1/2 inches broad.
- **Flowers:** Many flowers crowded into many yellow heads; each head subtended by a few bracts and composed of 2-10 flat ray flowers up to 1 1/2 inches long and a few tubular disk flowers.
- **Sepals:** 0.
- **Petals:** 5, some united to form flat rays, others united to form tubular flowers.
- **Stamens:** 5.
- **Pistils:** Ovary inferior, smooth.
- **Fruits:** Achenes flat, smooth, sometimes winged, with 2-3 short awns at the tip.



## Blue Vervain (*Verbena hastata*)



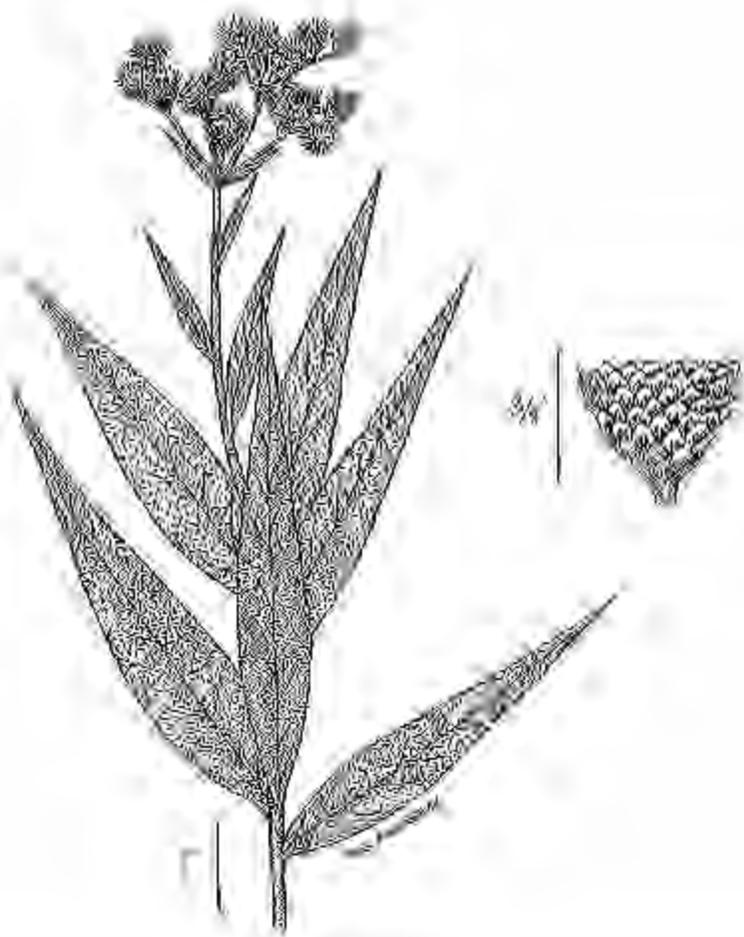
- **Family:** Vervain (Verbenaceae)
- **Flowering:** June-October.
- **Field Marks:** This erect *Verbena* has broadly ovate leaves, leaf stalks at least 1/3 inch long, and blue flowers.
- **Habitat:** Low woods, wet prairies, wet meadows, along streams, in sloughs, in disturbed soil.
- **Habit:** Perennial herb with fibrous roots.
- **Stems:** Erect, branched, rough-hairy, 4-sided, up to 5 feet tall.
- **Leaves:** Opposite, simple, lanceolate to ovate, pointed at the tip, often 3-lobed at the base, coarsely toothed, smooth or hairy.
- **Flowers:** Crowded into several terminal spikes, each blue flower subtended by a small bract.
- **Sepals:** 5, unequal in size, green united, hairy, about 1/10 inch long.
- **Petals:** 5, unequal, united to form a short tube about 1/8 inch long, blue.
- **Stamens:** 5, attached to the petals.
- **Pistils:** Ovary superior, 4-parted.
- **Fruits:** Nutlets 4, very narrow, smooth, about 1/10 inch long.
- **Notes:** The seeds are eaten by wildlife.



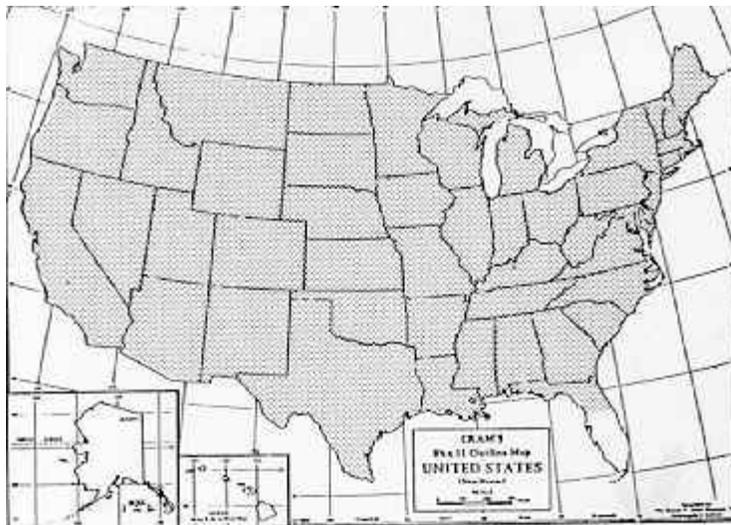
## Ironweed (*Vernonia missurica*)



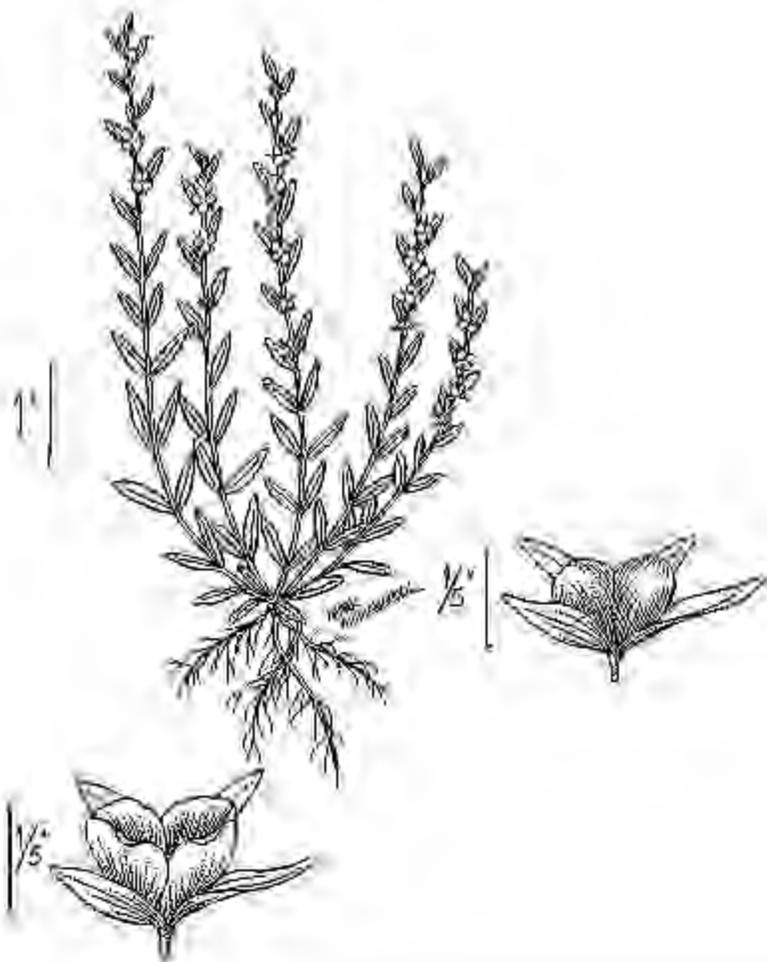
- **Family:** Aster (Asteraceae)
- **Flowering:** July-September.
- **Field Marks:** Although members of this genus are often difficult to distinguish, this species usually can be recognized by its densely hairy lower leaf surface, its round-tipped bracts at the base of each flower head, and its flower heads with 30 or more flowers.
- **Habitat:** Low woods, wet meadows, along streams, swamps, wet prairies, disturbed soil.
- **Habit:** Perennial herb with rhizomes.
- **Stems:** Erect, branched, hairy, up to 6 feet tall.
- **Leaves:** Alternate, simple, lanceolate, pointed at the tip, tapering to the base, toothed, hairy, up to 6 inches long, up to 2 inches broad.
- **Flowers:** Several crowded into numerous heads, each head subtended by several appressed, purple or green bracts; each head consisting only of purple disk flowers.
- **Sepals:** 0.
- **Petals:** 5, purple, united into a tube.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes about 1/6 inch long, with a tuft of tawny bristles at the tip.



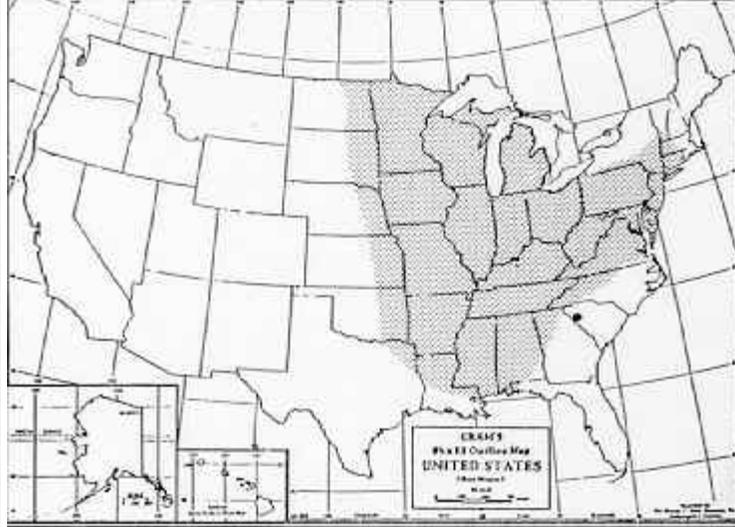
## Purslane Speedwell (*Veronica peregrina*)



- **Family:** Figwort (Scrophulariaceae)
- **Flowering:** April-August.
- **Field Marks:** This is the only speedwell in the area with white flowers.
- **Habitat:** Low woods, fallow fields, disturbed soil.
- **Habit:** Annual herb with fibrous roots.
- **Stems:** Erect, sometimes branched, smooth, up to 1 foot tall.
- **Leaves:** Opposite, simple, oblong to linear, rounded at the tip, tapering or rounded at the base, with or without a few teeth, smooth, up to 1 inch long.
- **Flowers:** White, borne in the axils of reduced, upper leaves.
- **Sepals:** 4, green, united only at the base, more or less rounded at the tip.
- **Petals:** 4, white, united below, less than 1/4 inch long.
- **Stamens:** 2, attached to the petals.
- **Pistils:** Ovary superior, smooth.
- **Fruits:** Capsules heart-shaped, flattened, smooth, up to 1/6 inch long, usually a little broader.



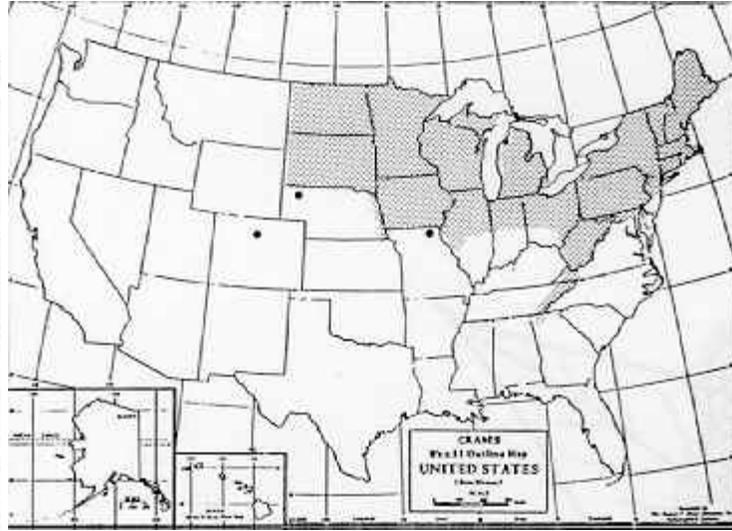
## Culver's-root (*Veronicastrum virginicum*)



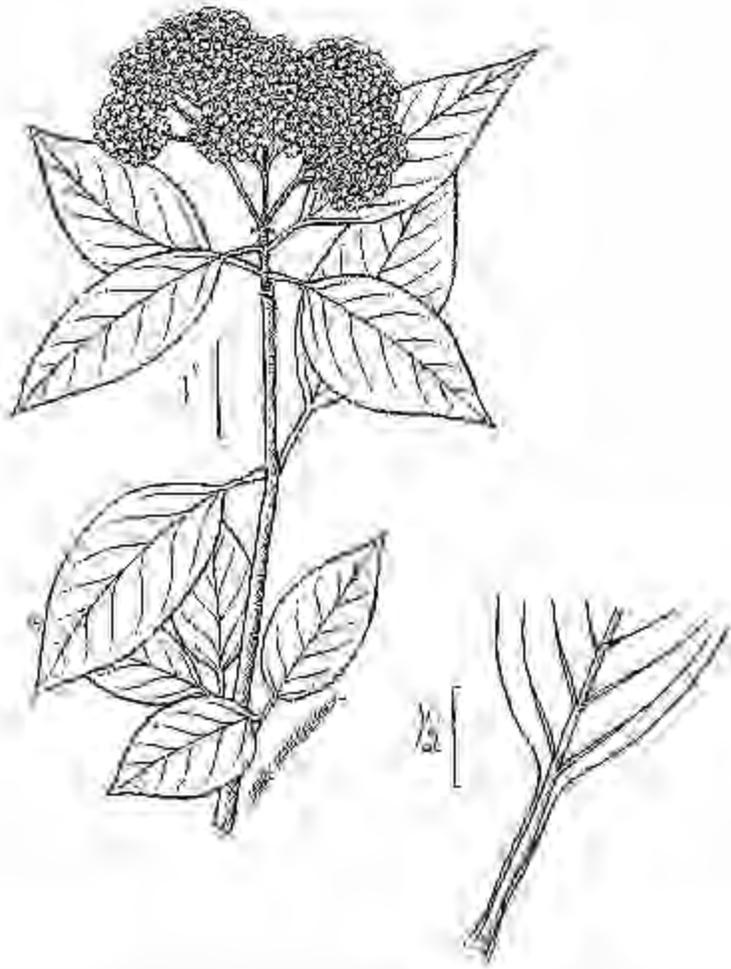
- **Family:** Figwort (Scrophulariaceae)
- **Flowering:** June-September.
- **Field Marks:** This species is easily identified by its whorls of toothed leaves and its candelabra-like spikes of pink flowers.
- **Habitat:** Wet meadows, as well as a variety of usually more dry habitats.
- **Habit:** Perennial herb with rhizomes.
- **Stems:** Erect, branched, smooth or sometimes hairy, up to 6 foot tall.
- **Leaves:** In whorls of 3-6, simple, lanceolate to lance-ovate, pointed at the tip, tapering to the base, toothed, smooth or hairy, up to 4 inches long, up to 3/4 inch broad.
- **Flowers:** Several, crowded into several erect spikes, pink; each spike up to 6 inches long.
- **Sepals:** 4-5, united, unequal.
- **Petals:** Usually 5, united into a tube; the tube up to 1/2 inch long, pink.
- **Stamens:** 2, attached to the petals.
- **Pistils:** Ovary superior, smooth.
- **Fruits:** Capsule ovoid, up to 1/4 inch long.
- **Notes:** The root contains substances that have been used in the past for medicinal purposes.



## Nannyberry (*Viburnum lentago*)



- **Family:** Honeysuckle (Caprifoliaceae)
- **Flowering:** May-June.
- **Field Marks:** This *Viburnum*, with finely toothed leaves, differs further by its wavy-edged leaf stalks and its long-pointed leaves.
- **Habitat:** Along streams, low woods.
- **Habit:** Small tree up to 25 feet tall; crown rounded.
- **Bark:** Red-brown, broken into an irregular pattern.
- **Buds:** Red, nearly smooth, long-pointed.
- **Leaves:** Opposite, simple, ovate, long-pointed at the tip, tapering or rounded at the base, finely toothed, smooth or slightly hairy, up to 3 inches long, up to 1 1/2 inches broad; leaf stalks wavy-edged.
- **Flowers:** Many, in broad, round-topped clusters, up to 1/3 inch wide, white.
- **Sepals:** 5, minute.
- **Petals:** 5, white, united.
- **Stamens:** 5, attached to the petals.
- **Pistils:** Ovary inferior.
- **Fruits:** Drupes oval to ellipsoid, blue-black, up to 1/2 inch long.
- **Notes:** The fruits are edible. The leaves turn purple-red in the autumn.



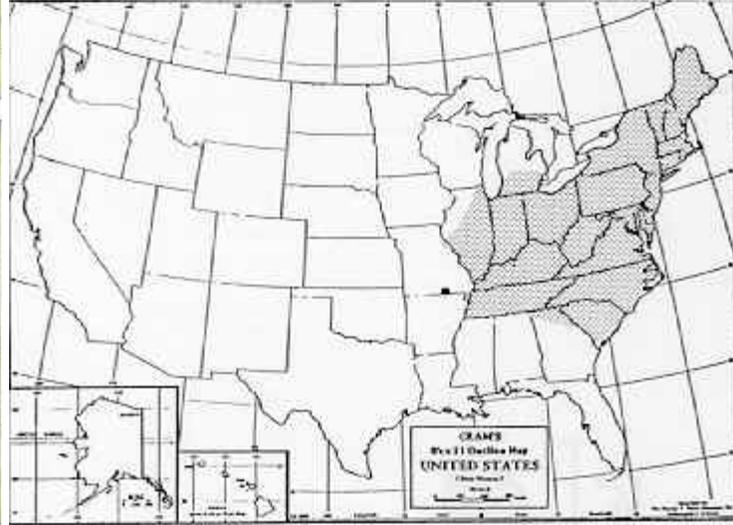
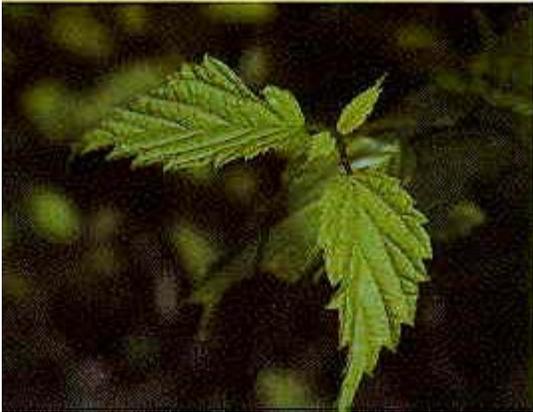
## Black Haw (*Viburnum prunifolium*)



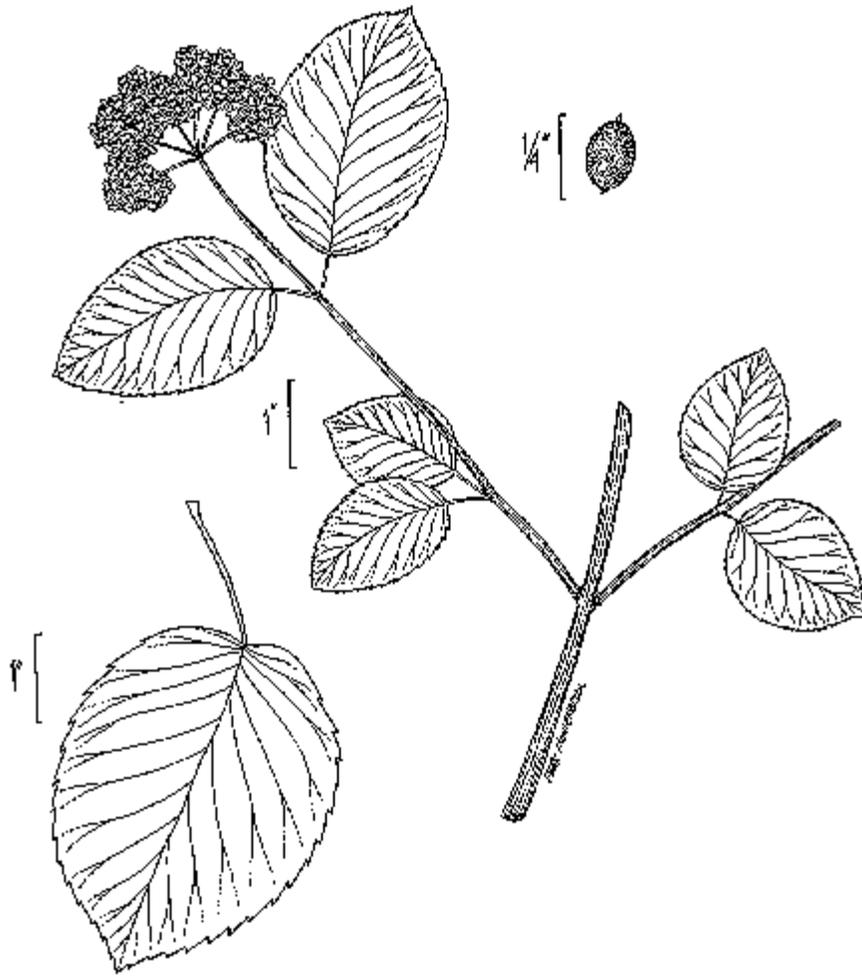
- **Family:** Honeysuckle (Caprifoliaceae)
- **Flowering:** April-May.
- **Field Marks:** This *Viburnum* has finely toothed leaves. It lacks the rusty hairs on the buds and the leaf stalks that *Viburnum rufidulum* possesses.
- **Habitat:** Along streams, moist woods.
- **Habit:** Small tree up to 25 feet tall, with an irregular crown.
- **Bark:** Reddish brown, broken into irregular plates.
- **Leaves:** Opposite, simple, oval to ovate, short-pointed at the tip, rounded or tapering to the base, finely toothed, smooth, up to 3 inches long, up to 2 inches broad; leaf stalks smooth, not rusty-hairy.
- **Flowers:** Many, in broad, round-topped clusters, small and white.
- **Sepals:** 5, green, very small.
- **Petals:** 5, white, united below.
- **Stamens:** 5, protruding beyond the petals.
- **Pistils:** Ovary inferior.
- **Fruits:** Fleshy, oval to ellipsoid, blue-black, up to 2/3 inch long, sweet.
- **Notes:** The fruits may be made into jams and jellies.



## Arrow-wood (*Viburnum recognitum*)



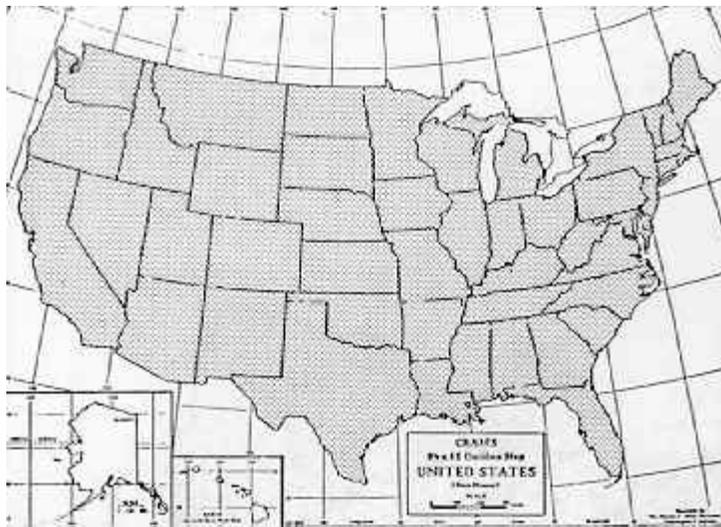
- **Family:** Honeysuckle (Caprifoliaceae)
- **Flowering:** May-June.
- **Field Marks:** This *Viburnum* differs from all others by its coarsely toothed leaves that are completely smooth.
- **Habitat:** Along streams, around ponds and lakes.
- **Habit:** Shrub to 10 feet tall.
- **Bark:** Gray, not scaly.
- **Leaves:** Opposite, simple, ovate to orbicular, pointed at the tip, rounded or heart-shaped at the base, coarsely toothed, smooth, up to 4 inches long, up to 3 inches broad.
- **Flowers:** White, many, in dense clusters up to 4 inches across.
- **Sepals:** 5, green, united below.
- **Petals:** 5, white, united at base.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Fleshy, blue-black, up to 1/2 inch long, 1-seeded.



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## Cocklebur (*Xanthium strumarium*)



- **Family:** Aster (Asteraceae)
- **Flowering:** August-October.
- **Field Marks:** The fruits are hairy in addition to having prickles all over them.
- **Habitat:** Fallow fields, along streams, in sloughs, wet prairies, disturbed soil.
- **Habit:** Coarse annual herb with fibrous roots.
- **Stems:** Erect, branched, usually hairy, up to 4 feet tall.
- **Leaves:** Alternate, simple, ovate, pointed at the tip, more or less heart-shaped at the base, shallowly lobed and toothed, hairy, up to 6 inches long, often nearly as broad.
- **Flowers:** Male and female flowers borne separately in small heads; each male head subtended by a series of small green bracts; each female head subtended by hooked prickles.
- **Sepals:** 0.
- **Petals:** 0.
- **Stamens:** 5.
- **Pistils:** Ovary inferior.
- **Fruits:** Achenes thick, embedded in a bur; the bur prickly, up to 1 inch long.
- **Notes:** Cockleburs contain a bitter poisonous substance that may cause death to grazing animals. The pollen may cause hay fever.

