

Herbs: Opposite, Divided Leaves

43

Goutweed (*Aegopodium podagraria*) Carrot family (*Apiaceae*)



Photo Credit: Mo Ewing



For Complete description,
see side 2

KEY IDENTIFIERS:

Low growing, erect, branching herbaceous perennial, 16"- 40" H with dense growth habit. Extremely colonial in nature. Lower leaves long-petioled containing nine leaflets, upper leaves short petioled containing only three leaflets. White flowered 2.5" W umbels resemble Queen Anne's Lace.



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Description

Goutweed

Habit: erect, branching herbaceous perennial 16"- 40" in height, commonly seen as a dense mat of foliage

Leaves: oblong to ovate, lower leaves have long petioles (stems) and nine often-irregular leaflets, sharply toothed, about 1" - 2.5" in length; smaller upper leaves contain only three leaflets each

Flowers: July-August, small white flowers, resembling Queen Anne's Lace, borne in dense umbels 2" - 5" wide

Note: A variegated form of this species is grown in cultivation but is rarely found in the wild. It is commonly seen as a dense mat of foliage. The root system beneath the plants is often extensive, well anchored, and difficult, if not impossible to pull by hand.

Habitat Goutweed or Bishop's Weed (variegated form) is often found near old cultural sites. It will tolerate sun but prefers shaded situations with moist, often rich soils. Escaped populations are often found colonizing shaded stream banks, seeps, and floodplains.

Similar Species

This plant can be distinguished from others with similar form by its dense growth pattern, flowers, and leaflet arrangement. The species most often confused with goutweed is golden alexanders (*Zizia aurea*). In flower they are easily separated by the loose, yellow inflorescence of golden alexanders.

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Herbs: Alternate, Divided Leaves

45

Celandine (*Chelidonium majus*) Poppy family (*Papaveraceae*)



Photo Credit: Mo Ewing



For Complete description,
see side 2

KEY IDENTIFIERS:

Herbaceous perennial grows 1' - 2' H. Alternate leaves are divided into several irregularly lobed leaflets. Yellow 4-petaled flowers bloom in small umbels from spring to fall. Most often found along roadsides, waste places, streambanks, and in seeps. Sap from broken stem is bright orange.



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Description

Celandine

Habit: herbaceous perennial in the poppy family, 1-2' in height

Leaves: alternate leaves are divided into several irregularly lobed leaflets

Stem: hairy, oozes orange sap when broken

Flowers: spring to fall, yellow 4-petaled flowers bloom in small umbels

Fruit: thin capsule 1.2" - 2" long containing several single-seeded chambers

Habitat Celandine grows in moist soils and is most often found along roadsides and in waste places. Look for it also along streams and in seepy places.

Similar Species

One might confuse this plant with some native plants in the mustard family. However, unlike any similar plants it has bright yellow/orange juices that flow when the stem is broken.

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Herbs: Alternate, Divided Leaves

47

Spotted Knapweed (*Centaurea biebersteinii*)

Aster family (*Asteraceae*)



Photo Credit: Albert Bussewitz



For Complete description,
see side 2

KEY IDENTIFIERS:

Biennial herb grows in tufted clumps, 1'-3' H, most branching occurring in the upper half of plants. Pinnately to bipinnately dissected leaves 4" - 8" L. Flowers are white to pink or purple and grow at the end of the stems in thistle-like heads.



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Description

Spotted Knapweed

Habit: biennial herb that grows in erect, tufted clumps, from 1'-3' in height—one plant may give rise to up to twenty slender, upright stems, with most of the branching occurring in the upper half of the stem

Leaves: seedlings form a rosette of alternate, pinnately to bipinnately dissected leaves 4-8 inches long; stem leaves are pinnate, low on the stem and become smaller, and linear-shaped further up

Flowers: July-September, white to pink or purple, growing at the end of the stems in thistle-like heads—base of the heads are covered with black-fringed bracts

Fruits: dry, tan, with prominent bristly hairs, black fringed bracts at base of flower heads persist into winter

Habitat Grows in dry sterile, gravelly, or sandy openings such as pastures, old fields, and roadsides.

Similar Species

Spotted knapweed closely resembles three other local knapweeds, short-fringed knapweed (*Centaurea nigrescens*), brown knapweed (*C. jacea*), and black knapweed (*C. nigra*). A key to distinguish the four follows:

Knapweed Key:

- **If leaves shaped like a feather**, with narrow lobes = **C. bierbersteinii**
- **If leaves entire or toothed**, or some of the larger ones few-lobed, lower leaves over 1 cm wide. = **1 of other 3 species**
- **If dry tip of the bracts under the flower are tan to dark brown**, the middle and outer bracts have jagged edges, inner bracts are expanded and often deeply cleft from the tip; the marginal flowers are generally enlarged and ray-like = **C. jacea**
- **If dry tip of the bracts under the flower are blackish** at least in part, the middle and outer bracts are comb-like, and they are seldom deeply cleft = **C. nigrescens** or **C. nigra**
- **If tip of the bracts are small**, 1-3mm; flower heads relatively narrow, generally higher than broad; marginal flowers are enlarged and ray like = **C. nigrescens**
- **If tip of the bracts are large**, the larger ones 4-6 mm; flower heads are relatively broad, broader than high; the marginal flowers are not enlarged, except in a frequent hybrid with *C. jacea* = **C. nigra**

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Aquatic Plants

49

European Water Milfoil (*Myriophyllum spicatum*)

Water milfoil family (*Haloragaceae*)

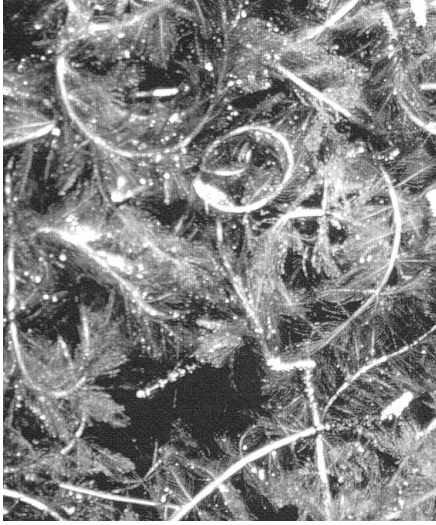
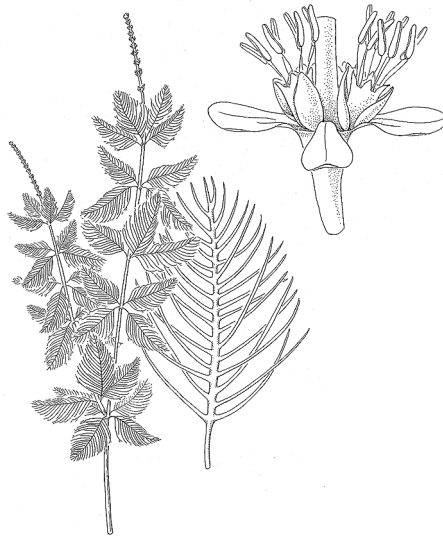


Photo Credit: Holly Crossen



For Complete description,
see side 2

KEY IDENTIFIERS:

Submerged aquatic perennial with whorls of 3 or 4 finely divided threadlike grayish-green leaves attached to under-water stems 5' - 15' L. Stems branch profusely as they reach the surface. Plants form a dense mat.



Aquatic Plants

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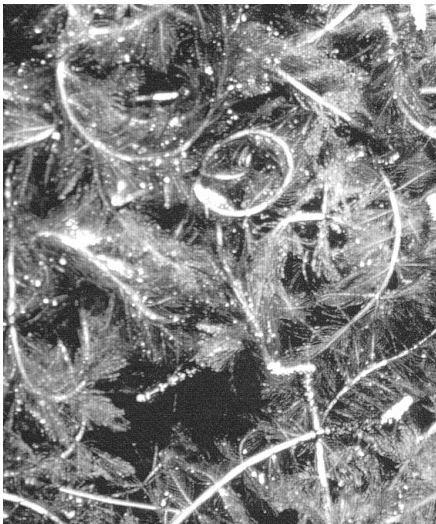
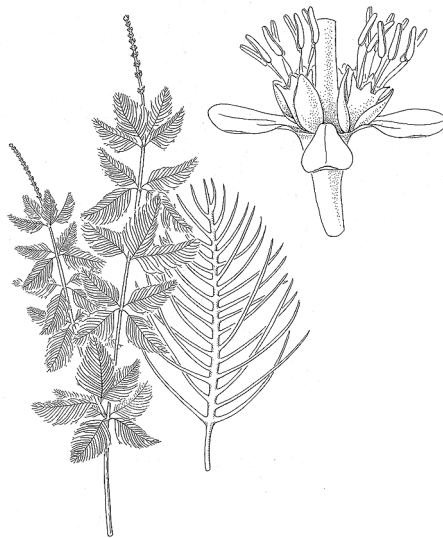


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Description

European Water Milfoil

Habit: submerged aquatic perennial often forming a dense mat

Leaves: whorled; three or four finely divided grayish-green leaves are attached to under-water stems; leaves are .5" - 2" in length, and divided into linear, threadlike leaflets, usually in pairs of 14 or more lying on the surface of the water

Stems: 5' - 15' in length, branching profusely near water surface

Flowers: yellow four-parted flowers form a spike at end of the branches

Fruit: hard segmented capsule, usually containing four seeds

Note: Species reproduces **VIGOROUSLY** from plant fragments!

Habitat Eurasian water milfoil prefers the still waters of lakes and slow moving streams.

Similar Species

There are several other species that are so similar to Eurasian water milfoil that a trained botanist is often needed to assure proper identification. Any plant as described above that forms a dense mat in the surveyed water body should be collected and sent to the New England Wild Flower Society for identification.

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Aquatic Plants

51

Water Chestnut (*Trapa natans*)

Water Chestnut family (*Trapaceae*)

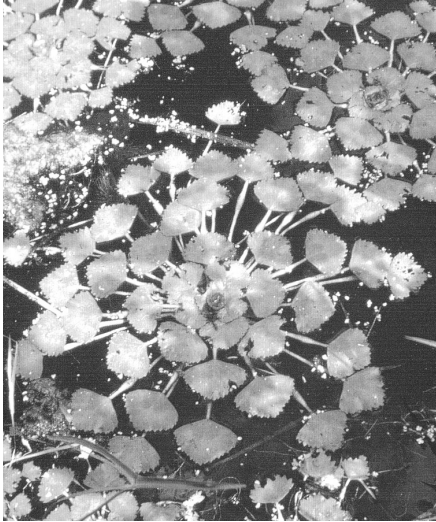


Photo Credit: Jean Baxter

For Complete description,
see side 2



KEY IDENTIFIERS:

Annual aquatic plant with both floating and submersed leaves. Cord-like stem up to 20' L. Floating triangular spade-shaped leaves 1" - 2.5"W, form a rosette on the water's surface up to 1' W. Submersed feather-like leaves are divided into whorled segments around the leaf stem. Fruit is a spiny nut.



Aquatic Plants

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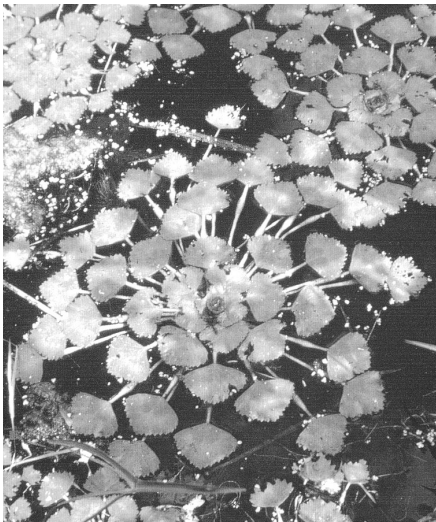


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Description

Water Chestnut

Habit: annual aquatic plant with both floating and submersed leaves forming a dense mat attached to long under-water stems

Leaves: floating leaves 1" - 2.5" wide, spade-shaped with toothed margins, attached to stem; leaves form a rosette on the water's surface up to a foot wide, submersed feather-like leaves divided into whorled segments

Stem: underwater, inflated spongy, 5' - 15' long

Flowers: July, small, white, inconspicuous (1/3" W), grow in axils of the floating leaves

Fruit: spiny nut, turning from green to brown when ripe

Habitat Water chestnut grows in freshwater lakes and ponds and slow moving streams and rivers. It prefers calm, shallow, nutrient-rich waters.

Similar Species

There is no local aquatic plant similar to the water chestnut that floats on the water in a rosette form.

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