

14. The Milkweed, Dogbane, and Morning-Glory Families

ASCLEPIADACEAE, MILKWEED FAMILY

PERENNIALS. Leaves entire, various in arrangement and shape. Juice milky in common species. Flowers usually in conspicuous umbels. Petals recurved, surrounding a 5-pointed, crown-like structure. Fruit large, dehiscent, with numerous large, flat seeds which are elliptic in face view, brownish, and with a conspicuous tuft of long hairs.

Asclepias, Milkweed. Characters of family. Erect plants with essentially sessile leaves.

p133 *Asclepias syriaca*, Common milkweed. Plants perennial from creeping rootstocks. Stems unbranched, becoming 10-12 dm. tall. Leaves large (15-20 cm. long), opposite, elliptic to oblong. Flowers in spherical umbels, pinkish. Pods soft, greenish, 2-3 cm. in diameter at base, narrowed at apex, the surface warty. Abundant in cultivated and uncultivated soil, most frequently moist, rich areas. Summer. Often conspicuous in oats as the latter mature.

p134 *Asclepias verticillata*, Whorled milkweed. Stems up to 5 dm. in height, unbranched, densely leafy. Leaves linear, whorled. Flowers greenish-white. Pods much more slender than those of common milkweed. Abundant, roadsides, pastures, fields. Summer.

p135 *Asclepias tuberosa*, Butterfly-weed. Leaves alternate, narrowly oblong. Juice not milky. Flowers orange. Southern. Pastures. Summer.

p136 *Ampelamus*. *Ampelamus albidus*, Climbing milkweed. Plants perennial, twining. Leaves opposite, petioled, cordate. Flowers greenish-white, in axillary clusters. Southern. Locally common, fence rows and fields. Summer.

The vegetative appearance of this plant (leaves and habit) is similar to that of the bindweeds (*Convolvulus*), morning-glories (*Ipomoea*), and wild buckwheat (*Polygonum convolvulus*). These plants all have alternate leaves; the milkweed possesses opposite blades.

APOCYNACEAE, DOGBANE FAMILY

Apocynum. *Apocynum sibericum*, Dogbane, Indian hemp. Perennial from creeping rootstocks, erect, branched, with milky juice. Leaves opposite, entire, oblong, nearly sessile. Flowers small, borne in clusters amidst the foliage, whitish. Fruits pod-like, slender, and pointed. Seeds small, oblong, each with a long tuft of fine hairs. Uncultivated areas or low, cultivated soil. More common Southeast. p137

CONVOLVULACEAE, MORNING GLORY FAMILY

Plants viny, trailing or twining. Leaves alternate, entire, with a pair of basal lobes. Flowers large, gamopetalous, with a basal tube and a spreading limb. Fruit a two-chambered capsule containing 2 to 5 seeds in each chamber. Seeds large, irregularly wedge-shaped or nearly spheroid; hilum large; embryo convoluted within seed.

The above description does not entirely apply to the parasitic genus *Cuscuta*, which is characterized below.

In all families prior to this one, the petals present were essentially separate one from another. In this and following families, the petals, if present, are fused into a single corolla unit and said to be gamopetalous.

Convolvulus, Bindweed. Plants perennial from creeping roots or rootstocks. Basal lobes of leaves (in our species) pointed, sagittate or hastate. Stigmas two.

Convolvulus arvensis, Field bindweed, Creeping jenny, European bindweed. Plants perennial from creeping roots. Stems usually spreading on the ground, occasionally twining. Leaves commonly oblong-ovate with downwardly directed basal lobes. Leaf blade usually continuing in essentially a straight line in relation to the petiole. Flowers about 2 cm. across, light pink or white. Pedicels with a pair of small bracts well below the flower. Seeds 3-4 mm. long, irregularly obovoid with a thick, heavy coat; surface grayish, roughened by low, irregularly curving ridges. One of the most feared noxious weeds in the North Central States, most abundant and of greater consequence in the more arid western tier of states. All habitats, persisting under cultivation Summer. p138

When in flower, this plant is easy to distinguish from hedge bindweed, described below, because of the closely bracted, much larger flower of the latter. The two are sometimes confused previous to flowering. While the leaves are different, those of the field bindweed averaging smaller, having less of a pointed shape, and narrower basal lobes than those of hedge bindweed, too much reliance cannot be placed on leaf shape alone. The leaves of field bindweed are extremely variable in form, ranging from those which are broad and lush to narrowly oblong kinds with minute basal lobes. Greater consideration

should be given to the habit of the plant and the position of the blades relative to the petiole; those of field bindweed usually continue in the same direction, while those of hedge bindweed usually curve nearly at right angles to the petiole. Both of these plants are sometimes confused with wild buckwheat (*Polygonum convolvulus*); distinctions have been discussed under the latter species.

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Convolvulus sepium, Hedge bindweed. Plants perennial from creeping rootstocks, twining or climbing if support is available, otherwise spreading on the ground. Leaves triangular-ovate, pointed at apex, curved at right angles to the petiole. Flowers white to pink, 4-5 cm. wide, the calyx subtended by a pair of large bracts. Seeds obovoid, wedge-shaped, larger than those of field bindweed, the surface black, relatively smooth, hilum conspicuous, reddish-margined. Widely distributed but most common and important as a weed in the eastern more humid portions of the North Central States, infrequent in the western tier. A variety of habitats, both cultivated and uncultivated soil. Summer.

Ipomoea, Morning-glory. Our species annual. Leaves cordate with rounded basal lobes or 3- to 5-lobed. Flowers white, purple, or blue. Style one; stigma capitate. The sweet potato is a perennial species of *Ipomoea*.

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Ipomoea purpurea, Morning-glory. Leaves cordate. Cultivated crops, corn and soybeans, and waste areas. Predominately southern. Summer. Seeds occur in those of soybeans.

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Ipomoea hederacea, Ivy-leaved morning-glory. As above, but leaves palmately lobed.

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Cuscuta, Dodder. Plants parasitic, the plant body consisting of a twining mass of yellow, thread-like stems which send suckers into the stem of the host plant. Flowers small, whitish, produced in dense masses. Seeds much smaller than those of *Ipomoea* and *Convolvulus*, spheroid, or irregularly wedge-shaped; seed coat brownish-gray with a sandpaper-like texture. Secondary or restricted noxious in all seed laws. Throughout region in legumes and flax, but only locally abundant.

Dodder causes the greatest amount of damage to lespedeza and is much feared in the southeastern United States where lespedeza is an important forage and soil improvement plant. Dodder may also be harmful to alfalfa; it is less common in red clover. Dodder seeds are disseminated in agricultural seed and in hay. The seeds are hard and capable of living in the soil for a number of years.



PLATE 73

Asclepias syriaca 1. Fruit $\times 2/3$. 2. Apex of plant $\times 1/3$. 3. Flower $\times 2 \frac{1}{2}$.



PLATE 74

Asclepias verticillata Habit x2/3.



PLATE 75

Asclepias tuberosa Habit x2/3.



PLATE 76

Ampelamus albidus Habit x2/3.



PLATE 77

Apocynum sibericum 1. Flowering branch x1/2. 2. Pods x2/3.

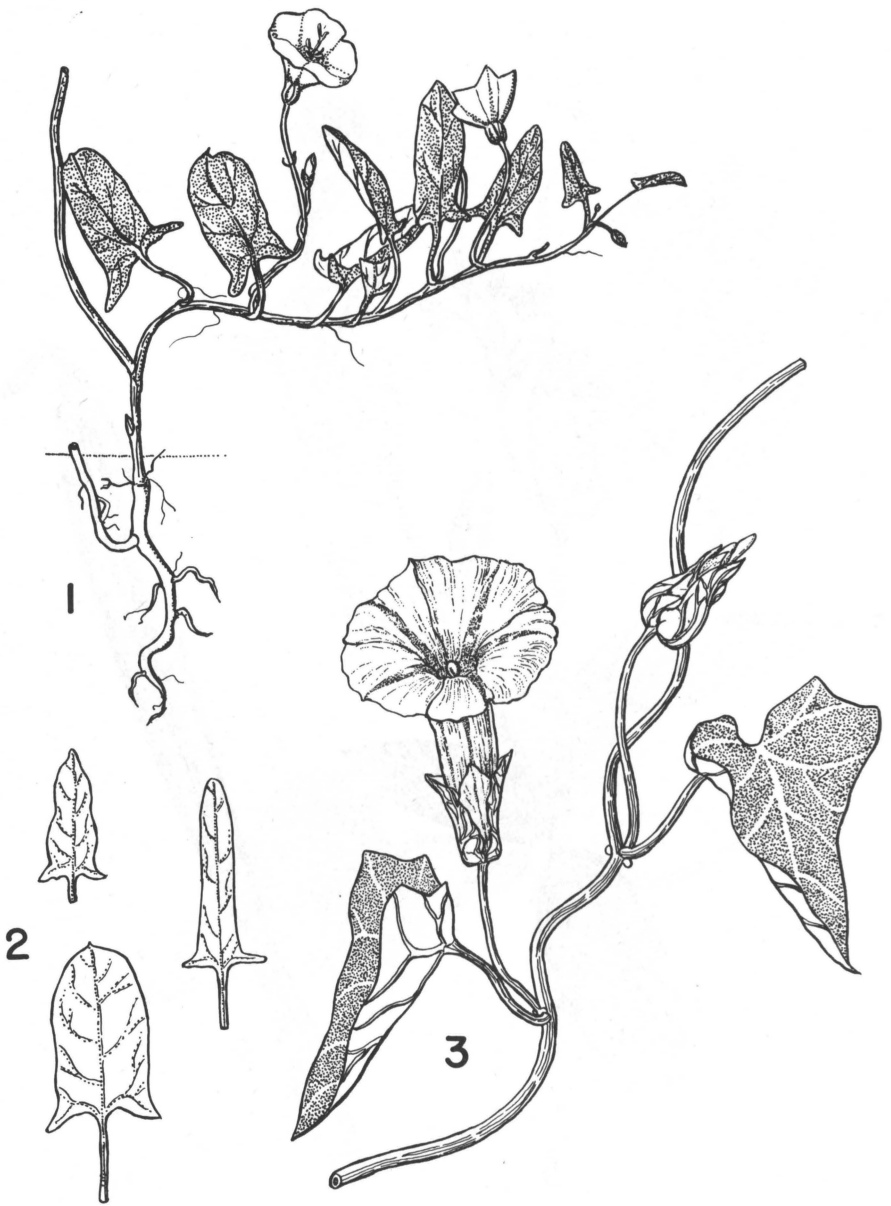


PLATE 78

Convolvulus arvensis 1. Habit x2/3. 2. Variation in leaf form x2/3.
Convolvulus sepium 3. Flowering branch x2/3.

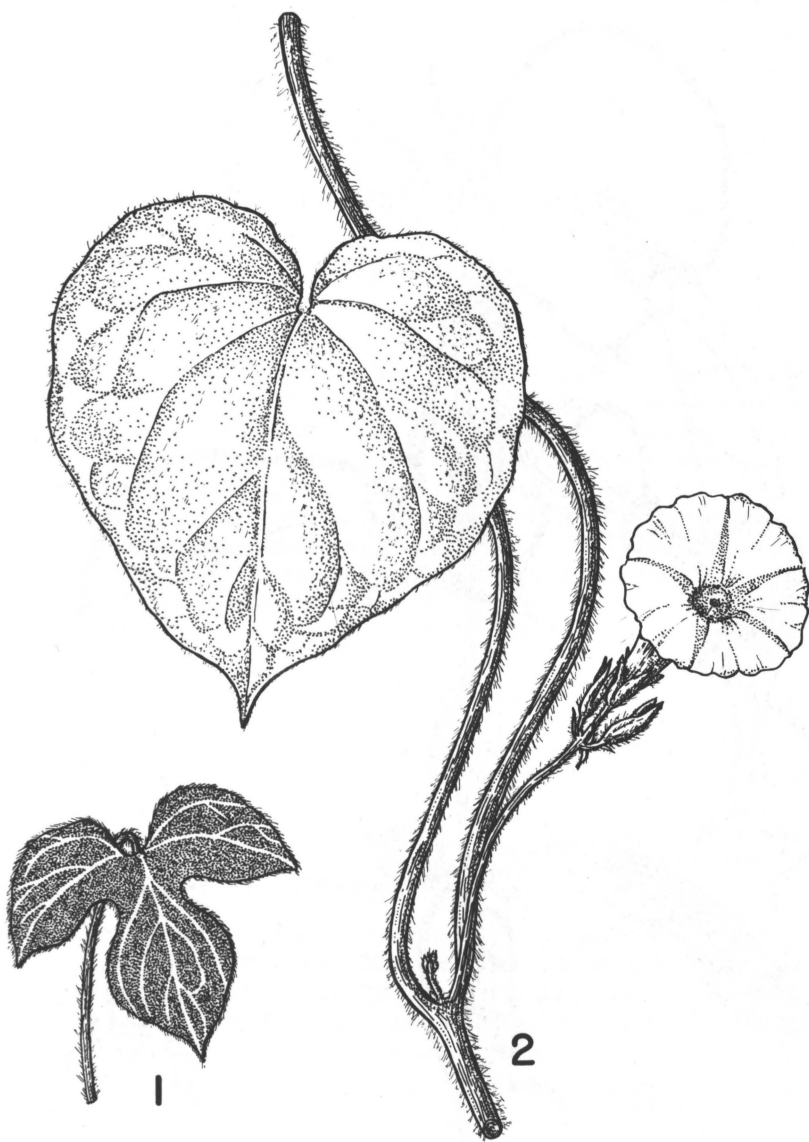


PLATE 79

Ipomoea hederacea 1. Leaf x2/3.

Ipomoea purpurea 2. Flowering branch x2/3.



PLATE 80

Cuscuta sp. 1. 1. Enlarged sucker x3, 2. Plant entwined on host x2/3. 3. Flower x5.