

16. The Potato, Plantain, and Miscellaneous Families

SOLANACEAE, POTATO FAMILY

LEAVES ALTERNATE. Flowers gamopetalous, regular, tubular, or with a tube and expanded limb. Fruit a berry or capsule. Seeds often flattened, irregularly circular with the hilum marginal, in some kinds thicker with a mesh-like seed coat.

This large and diverse plant family not only contains many weeds but numerous well-known cultivated plants, e.g. tobacco, Irish potato, eggplant, tomato, peppers, petunia.

Physalis, Groundcherry. Stems ascending, much branching. Leaves petioled, ovate to ovate-lanceolate. Flowers pale yellow with a purplish center. Fruit a berry enclosed by the bladdery-inflated calyx. Seeds ^{p155} golden-yellow, usually nearly symmetrical in outline, the hilum located in a small notch in the middle of one of the edges. The seed coat is typically finely bumpy, appearing somewhat as if sugar-coated. Some kinds, however, have less distinctly roughened coats and are easily confused with those of horsenettle (see below). The seeds are not infrequently found in those of small-seeded legumes and forage grasses.

The ground cherries are rarely encountered in cultivated soil but are usually seen in grassland, along roadsides, etc. Several kinds occur in the North Central States. These include both annual and perennial species. Some kinds are densely sticky hairy and are called "clammy ground cherries." Others, usually with longer, narrower leaves, are less pubescent and may be termed "smooth ground cherry."

Solanum. Plants diverse in appearance. Fruit a berry, not enclosed in a husk as above, in one species spiny.

Solanum carolinense, Horsenettle. Plants perennial from ^{p157} creeping roots, spiny. Leaves shallowly lobed, often oak-like in appearance. Flowers white or lavender with a yellow center. Fruit a yellow berry. Seeds irregular in outline, the margin frequently angled, faintly roughened by low curving ridges. Primary noxious or prohibited in most states. Widely distributed but major importance primarily in eastern and southern portion of range. Nearly all habitats, spreading aggressively from roots.

- p156 *Solanum elaeagnifolium*, White horsenettle. Similar to horse-nettle; leaves narrower, sinuate-margined, white-hairy. Noxious in several southern and western states, entering the North Central States only in the extreme southwest.
- p157 *Solanum rostratum*, Buffalo bur. Plants annual, very spiny. Fruit a dry berry enclosed by a spiny covering (the calyx). Seeds blackish, the surface honeycomb-like in appearance. Principally uncultivated soil, about buildings, feed lots, over-grazed pastures, roadsides, etc. More common southwest. Summer.
- p158 *Solanum nigrum*, Black nightshade. Plants annual, not spiny. Leaves ovate, wavy-margined. Flowers white, small. Fruits small berries, purple-black when mature. Cultivated soil and waste areas. Summer and fall. The unripe (green) berries and foliage may be poisonous.
- p159 *Datura*. *Datura stramonium*, Jimson weed. A rank, often tall annual. Leaves shallowly lobed. Flowers trumpet-shaped, large, 1-2 d.m. long. Fruit a large, spiny capsule. Fertile soil, around buildings, feed lots and waste areas. Primarily southern. Summer.

SCROPHULARIACEAE, FIGWORT FAMILY

Leaves alternate or opposite. Flowers gamopetalous, irregular in most genera (but not in *Verbascum*). Fruit a capsule.

Verbascum, Mullein. As described below.

- p160 *Verbascum thapsus*, Mullein, Torch plant. Plants biennial, tall (1-2 m. if well developed), densely woolly. Flowers in a terminal spike, regular, yellow. Fruit a capsule. Seeds very small, less than 1 mm. in length. Dry sandy soil, pastures and waste ground. Summer.
- p160 *Verbascum blattaria*, Moth mullein. Biennial, but smaller than above and not woolly. Flowers in a loose raceme. Mostly eastern.

- p161 *Linaria*. *Linaria vulgaris*, Yellow toadflax, Butter-and-eggs. Perennial from creeping rootstocks. Stems closely leafy with sessile, strap-shaped blades. Flowers yellow and orange in terminal racemes; corolla with a conspicuous backwards-pointing spur. Seeds circular, "scale-like," black. Usually in uncultivated areas. Northeast.
- p161 *Veronica*, Speedwell. Several small, low or creeping, annual or winter annual species. Lower leaves opposite; upper often alternate. Flowers (in our species) very inconspicuous in leaf axils, blue or white. Fruits heart-shaped with notch at top. Gardens, lawns, waste areas. Eastern. Usually most conspicuous in the spring.

PLANTAGINACEAE, PLANTAIN FAMILY

Leaves all in a basal cluster (in common weedy species). Flowers greenish, borne in a slender, leafless spike. Fruit a 2-chambered capsule bearing 2 to many seeds. The capsule is dehiscent by an apical lid.

Plantago, Plantains. Characters of the family.

Plantago aristata, Bracted plantain. Plants annual. Leaves linear. Spikes conspicuously bracted. Seeds two, boat-shaped, brownish on the back, white-rimmed on the inside, with a laterally directed medial groove on the back. Southern only. p162

Pastures, grassland, legumes, usually in poor soil. Seed common in those of small-seeded legumes and grasses, and often considered secondary noxious or restricted.

Plantago lanceolata, Buckhorn, Narrow-leaf plantain, Ribgrass. Plants perennial. Leaves lanceolate. Spike stalk much longer than the spike itself. Seeds two, boat-shaped but thicker than those of bracted plantain, shiny brown in color. More common eastward. Legumes, lawns, roadsides. The seeds are common in those of forage legumes. p163

Plantago major, Common plantain, Ripple-seed plantain, Broad-leaved plantain. Plants perennial. Leaf petioles usually greenish at base; blades ovate, finely hairy, dull green in color. Flower spikes longer than the supporting stalk. Lid of capsule separating about the middle. Seeds numerous, irregularly polyhedral in shape, brownish, covered with fine ridges and lines. Central and eastern, lawns, waste areas, pastures, legumes. Summer and fall. p164

Plantago rugelii, Rugels plantain, Black-seeded plantain, Broad-leaved plantain. Similar to common plantain, differing only as follows: leaf petioles usually reddish at base; blades shiny green. Lid of capsule separating below the middle. Seeds black in color, appearing like tiny lumps of coal. Occurring in the same situations as common plantain, but more frequent. Seeds in those of legumes, forage grasses, and lawn seed mixtures. p165

Plantago purshii, Woolly plantain. Annual with woolly, linear leaves. Spike elongate. Seeds boat-shaped, thin, reddish-brown. Western plains. Ranges and waste areas. Summer. p164

RUBIACEAE, MADDER FAMILY

Diodia. *Diodia teres*, Buttonweed. Plants annual, low. Leaves opposite, sessile, small, oblong-lanceolate. Flowers sessile in leaf axils, pinkish. Fruits topped by four persistent calyx lobes, splitting longitudinally at maturity into 2 1-seeded segments. Extreme South. Sterile soil. Summer. p166

p166 *Galium*, Bedstraw, Cleavers. Plants "sticky," readily adhering to clothing from fine, hooked hairs which cover stems and leaves. Leaves sessile, whorled, 6 to 8 at each node. Flowers small, whitish. Fruits of two attached, somewhat ball-shaped segments, covered with bristles, these each containing a single seed and separating at maturity. Roadsides, pastures, openings under trees, usually in moist soil. "Seeds" (fruit segments) occasional in crop seeds, bristles mostly broken off, with a conspicuous concavity in one side.

CAPRIFOLIACEAE, HONEYSUCKLE FAMILY

Symphoricarpos, Buckbrush. Shrubs with opposite, oval, usually entire leaves. Flowers white or greenish, clustered towards branch tips or in leaf axils. Fruit berry-like, with two seeds. Pastures and ranges, widely distributed, perhaps most common in south central portion.

p167 *Symphoricarpos albus*, Buckbrush, Snowberry. Flowers white. Fruits white, about 10 mm. in diameter.

p167 *Symphoricarpos orbiculatus*, Buckbrush, Coralberry. Flowers greenish-purple. Fruits reddish, about 5 mm. in diameter.

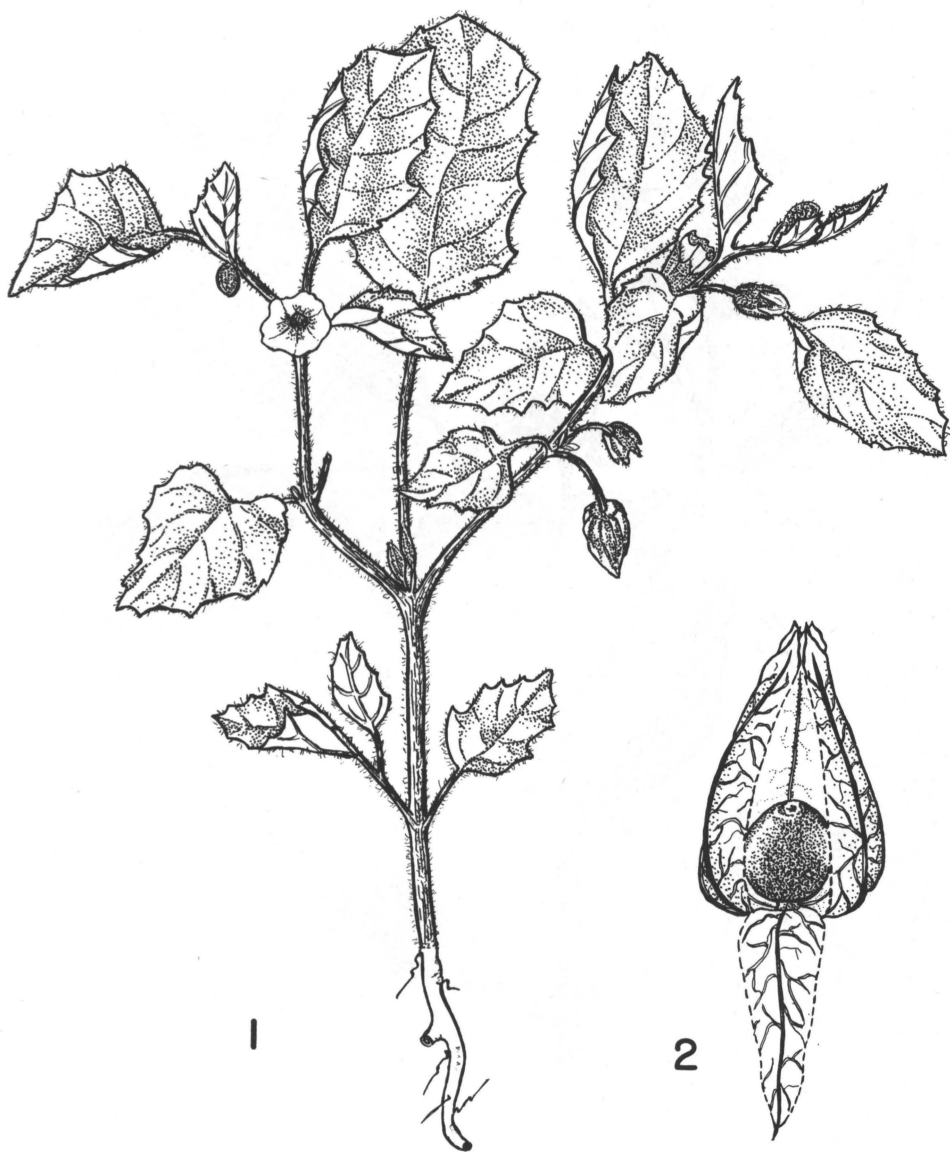


PLATE 88

Physalis heterophylla 1. Habit x2/3. 2. Fruiting calyx with enclosed berry x1 1/3.



PLATE 89

Solanum elaeagnifolium Habit x2/3.



PLATE 90

Solanum rostratum 1. Flowering branch x1/2.

Solanum carolinense 2. Apex of plant x2/3. 3. Perennial root x2/3.



PLATE 91

Solanum nigrum Flowering branch x2/3.

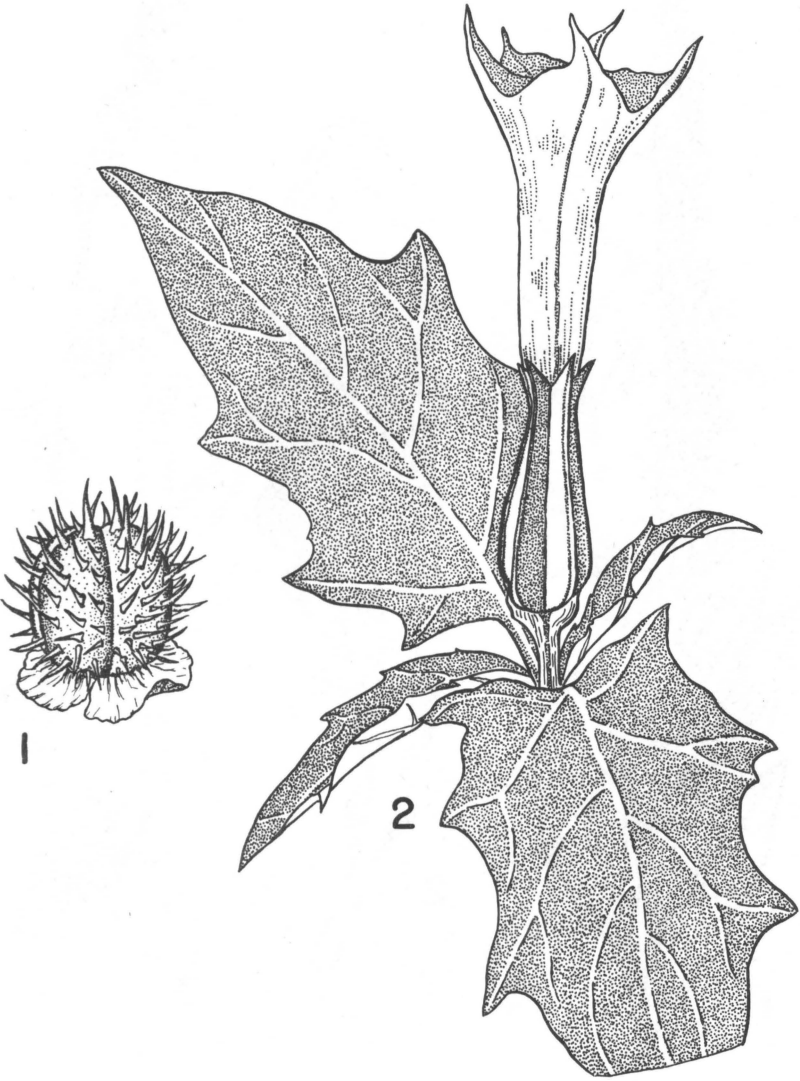


PLATE 92

Datura stramonium 1. Fruit x2/3. 2. Leaves and flower x2/3.

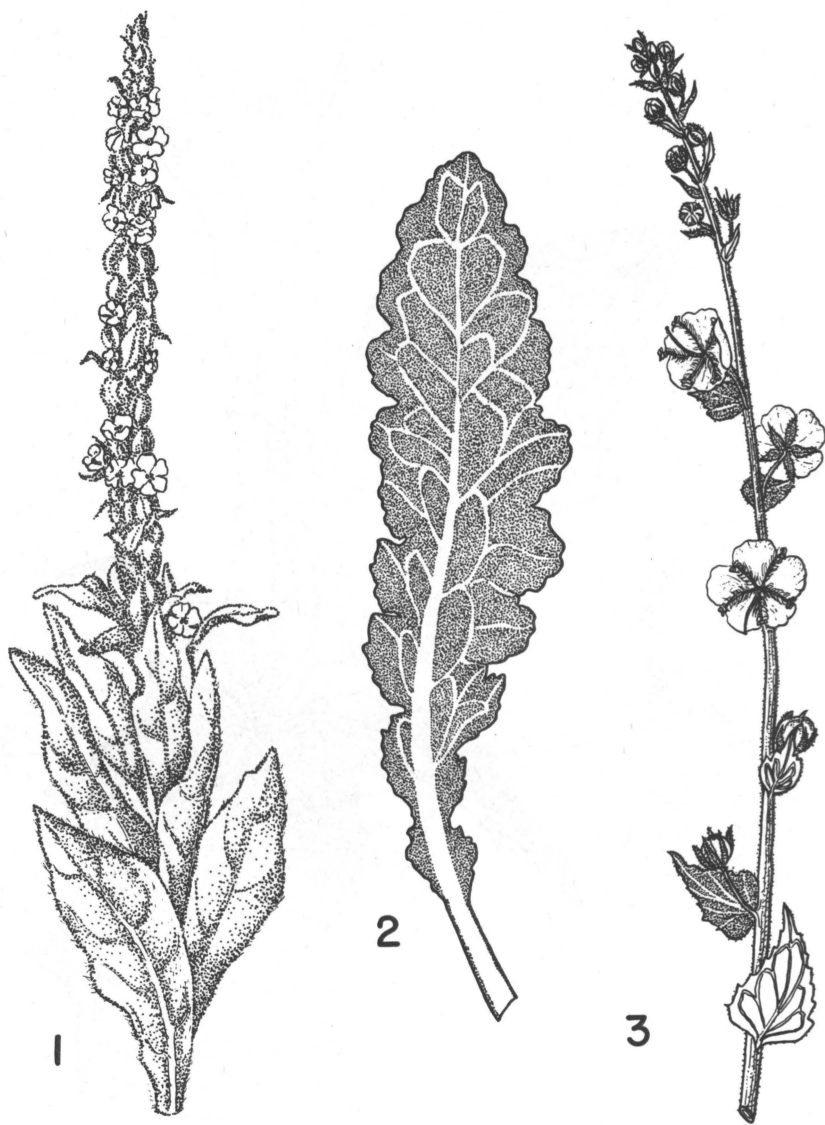


PLATE 93

Verbascum thapsus 1. Stem apex x1/3.

Verbascum blattaria 2. Basal leaf x2/3. 3. Inflorescence x2/3.



PLATE 94

Linaria vulgaris 1. Stem apex x1/3.
Veronica peregrina 2. Habit x2/3.



PLATE 95
Plantago aristata Habit x2/3.



PLATE 96

Plantago lanceolata 1. Habit x2/3. 2. Fruit x5.

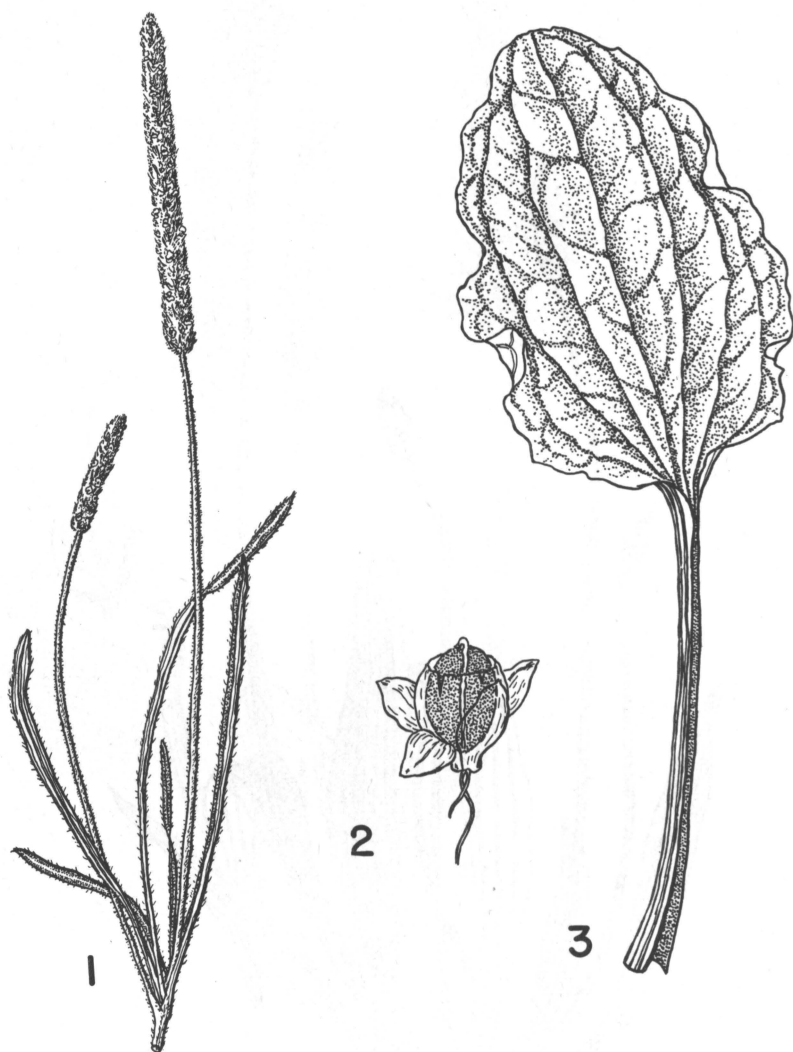


PLATE 97

Plantago purshii 1. Habit x2/3.

Plantago major 2. Capsule semi-diagrammatic x5. 3. Leaf x2/3.



PLATE 98

Plantago rugellii 1. Capsule, semi-diagrammatic showing separation of lid x5.
2. Habit x1/2.

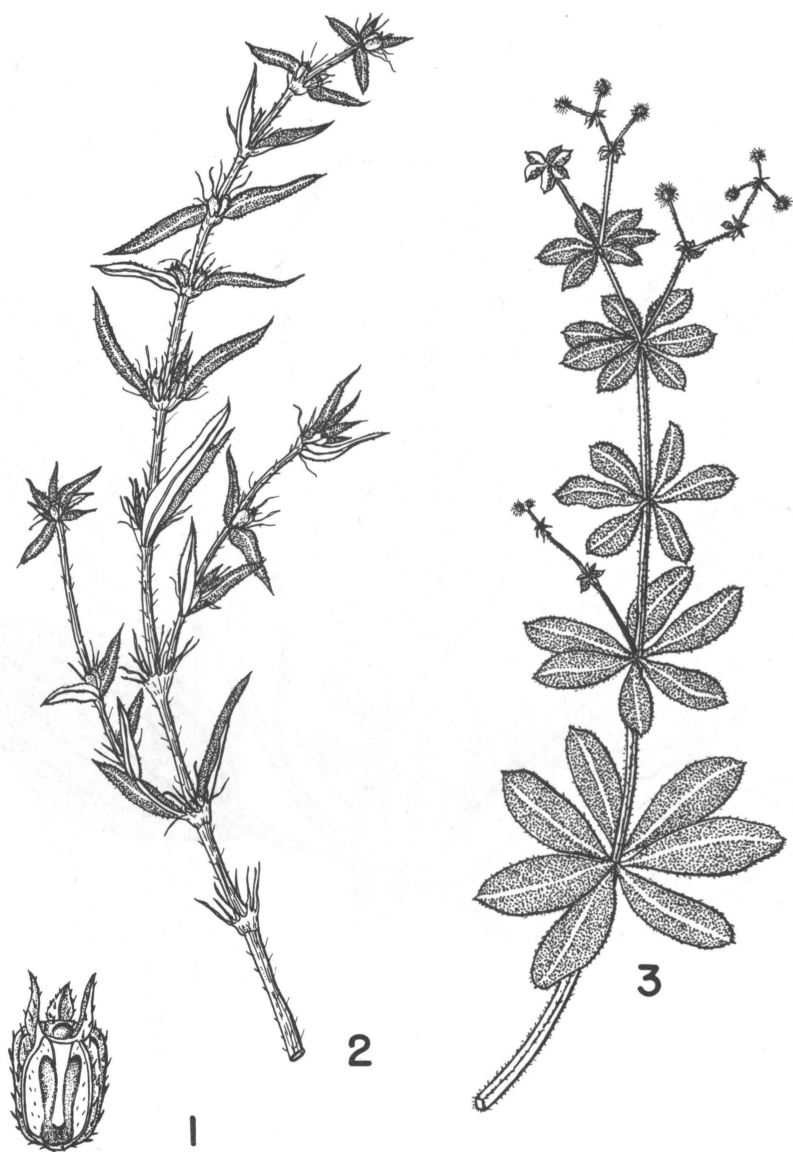
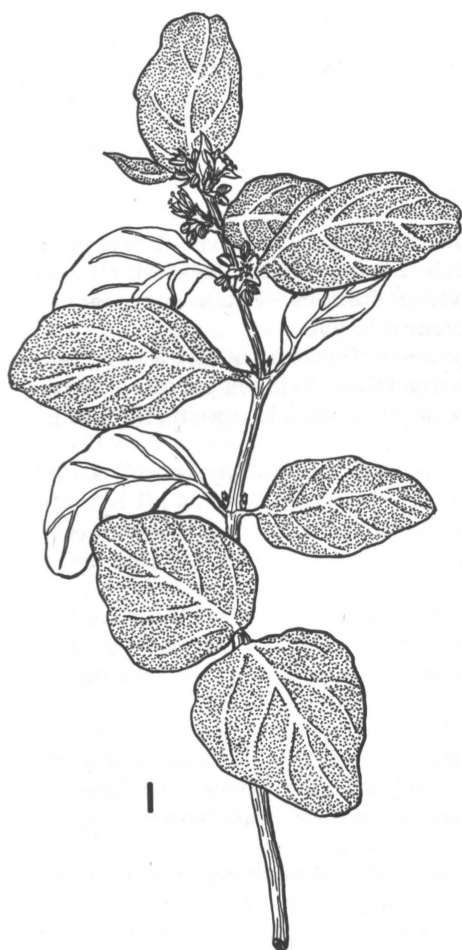
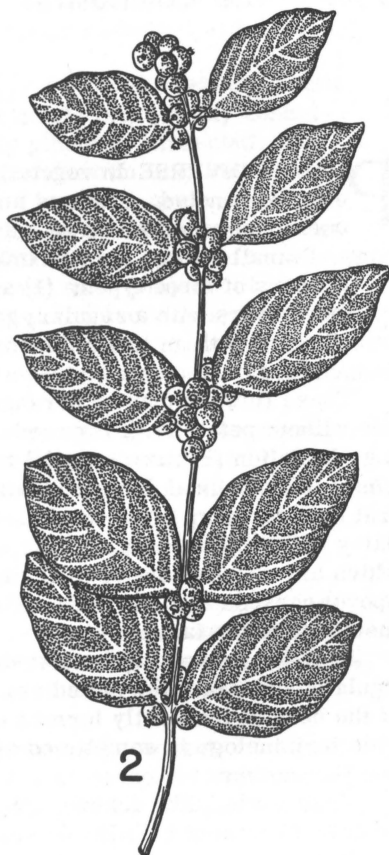


PLATE 99

Diodia teres 1. Fruit x4. 2. Fruiting branch x2/3.
Galium triflorum 3. Flowering branch x2/3.



1



2

PLATE 100

Symphoricarpos albus 1. Flowering branch x2/3.

Symphoricarpos orbiculatus 2. Fruiting branch x2/3.