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## THE IRIDALES OF OHIO.

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Trees, herbs, and vines with sword-shaped or sometimes broad, netted veined leaves. Flowers bisporangiate or monosporangiate; usually showy though sometimes small and inconspicuous, with perianth often united; epigynous, pentacyclic, or reduced to tetracyclic or tricyclic; trimerous, usually actinomorphic; andrecium in two cycles or either the inner or outer cycle wanting or vestigial. Ovulary trilocular; seeds with endosperm; fruit usually a capsule.

### *Synopsis of the Families and Genera.*

- I. Herbs with erect aerial stems and parallel veined usually narrow leaves; flowers bisporangiate.
  1. Stamens 6. AMARYLLIDACEAE.
    - (1.) Fruit a 3-valved loculicidal capsule; plant glabrous.
      - a. Flowers in long spikes or racemes; perianth without a crown. *Manfreda* (*Agave*.)
      - b. Flowers solitary or in umbels with a crown. *Narcissus*.
    - (2.) Fruit indehiscent; plants villous. *Hypoxis*.
  2. Stamens 3, alternate with the inner corolla segments. IRIDACEAE.
    - (1.) Style branches very broad and petal-like, opposite the stamens. *Iris*.
    - (2.) Style branches not petal like, slender or filiform, alternate with the stamens.
      - a. Stamen filaments not united.
        - (a). Flowers not tubular, in terminal bracted clusters. *Gemmingia*.
        - (b). Flowers single, perianth united in a long tube. *Crocus*.
      - b. Stamen filaments united. *Sisyrinchium*.
- II. Twining vines with netted-veined, petioled leaves, mostly cordate. Flowers diecious. Stamens 6. DIOSCOREACEAE. *Dioscorea*.

## AMARYLLIDACEAE. Amaryllis Family.

Geophilous, perennial herbs with bulbs or rhizomes and scapose or aerial stems, or some tropical species trees. Leaves sword-shaped sometimes fleshy. Flowers bisporangiate, epigynous, pentacyclic, actinomorphic, trimerous; ovulary trilocular; fruit usually a capsule.

## Key.

1. Inflorescence a spike or raceme; plants glabrous. *Manfreda*.
1. Inflorescence umbellate or flowers solitary. 2.
2. Perianth tubular with a crown; plants glabrous, cultivated. *Narcissus*.
2. Perianth spreading, star-shaped, without a crown; plants villous. *Hypoxis*.

**Manfreda** Salisb.

Fleshy herbs with bulbiferous rootstalks and bracted scapes, the leaves basal and the flowers in terminal spikes or racemes. Perianth tubular or funnellform withering persistent; sepals and petals of nearly equal length, united below into a tube. Stamens inserted on the perianth, exserted, filaments flattened. Ovulary trilocular, style slender, exserted; ovules numerous; capsule ovoid.

1. **Manfreda virginica** (L.) Salisb. False Aloc. Perennial geophilous herbs  $\frac{1}{2}$  to 2 feet high; leaves sword-shaped, fleshy, with smooth or denticulate edges. Flowers borne in a loose spike on a scape 2 to 6 feet tall, greenish-yellow in color, solitary in the axils of bracts. Perianth nearly tubular,  $\frac{2}{3}$  to 1 inch long. Capsule  $\frac{1}{2}$  to  $\frac{2}{3}$  inch diameter, slightly longer than thick. Lawrence county.

**Narcissus** L.

Bulbous herbs with leafless scapes and linear, basal leaves. Flowers solitary or several substended by a deciduous spathe; Perianth 6-parted bearing a cup-like crown in the throat. Stamens united with perianth tube. Ovulary trilocular, capsule thin-walled.

1. **Narcissus pseudo-narcissus**. L. Daffodil. Scape about 1 foot high; leaves linear; flowers bright yellow 2 to 3 inches broad, crown serrate. Cultivated.

**Hypoxis**. L.

Perennial, villous herbs with short rootstocks and grass-like leaves. Flowers borne on slender scapes, regular; stamens united with the bases of the perianth segments. Ovulary trilocular; capsule oblong, not dehiscent by valves.

1. **Hypoxis hirsuta** (L.) Coville. Yellow Stargrass. Leaves linear 5 to 12 inches long,  $\frac{1}{8}$  to  $\frac{1}{4}$  inch wide. Flowers 1 to 6 umbellate, bright yellow within, greenish without, plant villous. General.

## IRIDACEAE. Iris Family.

Perennial geophilous herbs with narrow two ranked leaves. Flowers mostly clustered, subtended by bracts, regular or irregular, bisporangiate epigynous, tetracyclic by reduction, trimerous. Ovary trilobular and dehiscent.

## Key.

1. Style branches very broad and petal-like, opposite the stamens; petals recurved. *Iris*.
1. Style branches not petal-like, slender or filiform; sepals widely spreading or erect. 2.
2. Flowers solitary; leaves with revolute margins. *Crocus*.
2. Flowers several on a long scape or leafy stem. 3.
3. Flowers crimson mottled; leaves sword-shaped. *Gemmingia*.
3. Flowers blue or white; leaves grass-like. *Sisyrinchium*.

**Iris.** (Tourn.) L.

Perennial herbs with horizontal, often woody or sometimes tuber-bearing rootstocks and erect stems with sword-shaped leaves. Flowers large, borne singly or paniced; sepals dilated or reflexed, style branches petal-like, arching over the stamens. Ovary trilobular.

## Key.

1. Stems tall; leaves glaucous; none of the perianth segments crested. *I. versicolor*.
1. Stems low; leaves not glaucous; outer perianth segments crested; perianth tube very slender. *I. cristata*.

1. **Iris versicolor** L. Large Blue-flag. Stems straight, 2 to 3 feet tall, often branched, leafy. Leaves erect, somewhat glaucous, 17 to 30 inches long,  $\frac{1}{4}$  to 1 inch wide. Flowers several, violet blue, variegated with yellow, green and white; perianth segments glabrous and crested. Capsule obscurely three-lobed. General.

2. **Iris cristata** Ait. Crested Dwarf Iris. Stems 1 to 3 inch high, leaves 4 to 12 inches long and  $\frac{1}{3}$  to 1 inch wide. Flowers blue, sepals crested; perianth 1 to  $1\frac{1}{2}$  inches long. Capsule sharply triangular. Lawrence, Adams, Scioto, Pilze, Ross, Jackson, Vinton, Hocking, Cuyahoga, Trumbull.

**Gemmingia** Fabr.

Erect perennial herbs with stout rootstocks and Iris-like leaves. Flowers in terminal clusters, purple mottled. Capsule figshaped.

1. **Gemmingia chinensis** (L.) Ktz. Blackberry-lily. Stem  $1\frac{1}{2}$  to 4 feet tall, leafy; leaves erect, sword-shaped, 8 to 14 inches long and  $\frac{1}{2}$  to 1 inch wide. Flowers several,  $1\frac{1}{2}$  to 2 inches long, perianth segments mottled with crimson and purple on the upper side, obtuse at the apex and narrow at the base, persistent and coiled together on the ovary after flowering. From Asia. Escaped in Franklin county.

**Crocus L.**

Perennial tufted herbs, with narrow leaves arising directly from the corm; leaves with revolute margins; flowers solitary, perianth united in a long tube.

1. **Crocus vernus** All. Crocus. Leaves 2 to 4, equalling the flower, glaucous beneath; perianth segments 1 to  $1\frac{1}{2}$  inches long, lilac or white, often striped with purple, throat pubescent, not yellow. Escaped in Lake county.

**Sisyrinchium L.**

Perennial slender tufted herbs, with short rootstocks; stems simple or branched, two winged; leaves grass-like; flowers small, terminal umbellate, usually blue in color; capsule globose.

*Key.*

1. Stems simple with sessile terminal spathe; flowers with perianth  $\frac{1}{2}$  inch long; pedicles erect and shorter than the inner bracts; capsules pale.

*S. angustifolium.*

1. Stems slender and ascending, mostly branched, broadly winged; flowers perianth less than  $\frac{1}{2}$  inch long on recurved pedicles. Capsules dark.

*S. graminoides.*

1. **Sisyrinchium angustifolium** Mill. Pointed Blue-eyed-grass. Stem stiff, erect, pale and glaucous, winged, edges minutely serrulate, 4 inches to 2 feet high; leaves 4 to 9 inches long,  $1-16$  to  $\frac{1}{4}$  inch broad, serrulate; spathes green or slightly purplish; flowers deep violet, blue,  $\frac{1}{2}$  inch long. General.

2. **Sisyrinchium graminoides** Bickn. Stout Blue-eyed-grass. Light green, somewhat glaucous; stems broadly winged, stout, erect or reclined, 8 to 18 inches tall; leaves 4 to 11 inches long and  $1-12$  to  $\frac{3}{4}$  inch broad; umbels 2 to 4 flowered, pedicels thread-like; flowers  $\frac{1}{2}$  to  $\frac{3}{4}$  inch broad,  $\frac{3}{4}$  to 1 inch long, petals sparsely pubescent on the outer surface. General.

**DIOSCOREACEAE. Yam Family.**

Slender twining vines slightly woody, with fleshy rootstocks; leaves petioled and netted-veined. Flowers diecious, epigynous and trimerous; ovulary trilocular.

**Dioscorea (Plum.) L.**

Slender twining vines with heart shaped or halbard-shaped leaves. Flowers inconspicuous and borne on pendulous spikes, panicles or racemes.

1. Leaves heart-shaped, abruptly acute or acuminate; without bulblets.

*D. villosa.*

1. Leaves usually cuspidate and often halbard-shaped; with bulblets in the axils of the leaves. *D. bulbifera.*

1. **Dioscorea villosa** L. Wild Yam. Stems slender and twining, 6 to 15 feet long; rootstocks slender, horizontal, woody; leaves heart-shaped, 9 to 13 nerved, acuminate at the apex, thin green, glabrous on top, sometimes pubescent beneath, 2 to 6 inches long, 1 to 4 inches wide, petioled; petiole often longer than the blade. Flowers greenish-yellow, the staminate 1-16 to  $\frac{1}{8}$  inch long in drooping panicles 3 to 6 inches long; the carpellate 3-16 inch long in drooping racemes. Capsules membranous, strongly 3 winged. General.

2. **Dioscorea bulbifera** L. Air Potato. Twining vines; leaves about 2 inches long and 2 to 3 inches broad, petioled, the petiole longer than the blade, halbard-shaped, acuminate at the apex, thin, green, 9-nerved. Flowers greenish, in loose axillary racemes. Tubers in the axils of the leaves. Tropical Asia. Escaped from gardens in Madison county.

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