

Leaves linear to lanceolate or oblong, entire or with a few low teeth; fruiting bracteoles tending to be rhomboidal, acute at base. Incl. *Atriplex patula* L. var. *littoralis* (L.) A.Gray
HERBARIUM RECORDS: 18 Aug 1979—Summit St. near 12th Ave., weed in shaded lawn, Cols., *W. Carr*; 17 Sep 1985—Northland Mall, flowerbeds, SE jct. of Karl Rd. & Morse Rd., NE Cols. Quad., *Cusick 24816*.

2. **Atriplex hastata* L.
Adventive (Eurasian)

Spearscale

Leaves triangular, hastate, or rhomboidal, with sharp basal angles or lobes; fruiting bracteoles triangular, truncate at base. Syn.: *A. patula* L. var. *hastata* (L.) A.Gray
REFERENCE: Selby & Craig 1890:14 (introduced).
HERBARIUM RECORDS: 1890—Franklin Ave., Cols., *Selby*; 9 Sep 1890—N. Cols., *E. V. Wilcox*; Aug 1892—Cols., *Werner* (CLM); 22 Oct 1895—Cols., *W. Kellerman*.

4. SALSOLA L.

Erect or ascending, much-branched; leaves stiff, narrow, spine-tipped; flowers perfect, solitary or in clusters of a few in upper axils; calyx deeply 5-lobed, horizontally keeled in fruit; seed horizontal.

1. **Salsola tragus* L.
Naturalized (native of Eurasia)

Russian Thistle

Plants bushy, erect; leaves stiff, spine-tipped; calyx 5-lobed, horizontally keeled in fruit; seed horizontal, enclosed by sepals. Syn.: *S. kali* L. var. *tenuifolia* Tausch
HERBARIUM RECORDS: Jul 1923—Franklin Co., rather frequent in waste places, *J. H. Schaffner*; 29 Sep 1973—abandoned RR yards along the Scioto R. at Grandview Ave. exit, common along tracks, *Roberts 4290*.

AMARANTHACEAE, Amaranth Family

Rather coarse herbs; leaves simple, opposite or alternate; flowers hypogynous, bisporangiate or monosporangiate, small, bracted, in spikes, panicles, or small axillary clusters; sepals 5 or fewer, separate or united, or none; petals none; stamens 5 or fewer, separate or united; styles and stigmas usually 2-3 or stigmas sessile; ovary 1-loculed; fruit a dehiscent or indehiscent utricle.

Two common garden ornamentals are Cockscomb (*Celosia argentea* L. var. *cristata* (L.) Kuntze) having spikes cristate, fan-shaped, or distorted, in a variety of colors (12 Jul 1911—OSU Bot. Garden, Cols., cult., *J. H. Schaffner*; 24 Aug 1935—Cols., *Alter*), and Globe Amaranth (*Gomphrena globosa* L.; 12 Jul 1911—OSU Bot. Garden, Cols., cult., *J. H. Schaffner*).

1. AMARANTHUS L. Amaranth

Dioecious or monoecious; plants not woolly; stems erect to prostrate, usually much branched; leaves alternate, blades usually entire; flowers green or reddish, monosporangiate, in axillary clusters or in simple or branched spikes; sepals 1-5 or none, separate, sometimes unequal; stamens 1-5; stigmas usually 2-3. (*Acnida* L.)

a Species monoecious.

b Flowers in small axillary clusters; stems usually much branched; stamens 2 or 3.

c Stems prostrate or decumbent; bracts acuminate, about equaling longest sepal and fruit; seed 1.5 mm wide; sepals 4-5. 1. *A. blitoides*

c' Stems ascending to erect; bracts stiff, subulate, longer than sepals and fruit; seeds 1 mm wide; sepals of carpellate flowers usually 3. 2. *A. albus*

b' Flowers mostly in simple or paniced spikes; stamens 5.

d Leaf bases with a pair of spines; fruit indehiscent or irregularly dehiscent. 3. *A. spinosus*

d' Leaf bases without spines; fruit dehiscent, top coming off as a lid.

e Terminal spike 1.5 cm thick, branches short, erect; calyx of carpellate flowers 3 mm long, tips rounded, truncate, or emarginate, mucronate, about half as long as the bracts. 4. *A. retroflexus*

e' Terminal spike 1 cm thick or less, branches many, spreading to erect; calyx or carpellate flowers 2 mm long or less, acute, aristate, equaling or half as long as bracts. 5. *A. hybridus*

a' Species dioecious; stamens 5; sepals of staminate flowers 5. 6. *A. tuberculatus*

1. **Amaranthus blitoides* S.Watson

Mat Amaranth

Naturalized (native of W U.S.)

Plants monoecious, prostrate or decumbent; bracts acuminate, about equaling longest sepal and fruit; seed 1.5 mm wide; sepals 4-5. Syn.: *A. graecizans* L., misapplied

REFERENCES: Selby & Craig 1890:14; Lazenby 1891:302 (quite common about Cols.); Kellerman & Werner 1893:229 (in the pasture between the campus and High St., 1 Aug 1890).

HERBARIUM RECORDS: 189—Sellsville & stockyards, Cols., Selby; 26 Oct 1890—Sellsville & show ground, Selby; 28 Oct 1890—Sellsville near Cols., E. V. Wilcox; 29 Aug 1894—Cols., W. Kellerman; 4 Sep 1894—OSU Campus, Cols., W. Kellerman; 27 Oct 1897—OSU Campus, near Townshend Hall, Cols., W. Kellerman; 28 Jun 1899—Sellsville, Cols., W. Kellerman.

2. *Amaranthus albus* L.

White Pigweed, Tumbleweed

Plants monoecious, erect, bushy-branched; bracts stiff, subulate, longer than sepals and fruit; seeds 1 mm wide; sepals of carpellate flowers usually 3.

REFERENCES: Riddell 1834:120; Craig 1890:54, 98 (a few specimens have been found W of Neil Ave. S of the garden, and in the dormitory yard, 12 Aug 1887, University Farm Sep 1887); Selby & Craig 1890:14.

HERBARIUM RECORDS: 28 Aug 1890—O.A.E.S. garden, Cols., Hine; Sep 1892—Cols., Werner; 29 Aug 1894—Cols., W. Kellerman; Summer 1899—Cols., J. H. Schaffner; 21 Jul 1899—Cols., J. H. Schaffner; 7 Oct 1960—Cols., parking lot along Olentangy River Rd., across Olentangy R. from OSU Hospital, Cusick; 17 Sep 1985—Northland Mall, SE jct. of Karl Rd. & Morse Rd., sidewalk weed, NE Cols. Quad., Cusick 24815; 15 Jul 1988—Highbanks Metro Park, field on dry knoll directly N of Franklin/Delaware Co. line, Watts 457 (OS, OWU).

3. **Amaranthus spinosus* L.

Spring Amaranth

Naturalized (pantropical, probably originally from the New World)

Plants monoecious; leaf bases with a pair of spines.

REFERENCES: Selby & Craig 1890:14 (introduced); Lazenby 1891:302; Selby 1891b:75.

HERBARIUM RECORDS: 26 Oct 1890—Sellsville, Selby (OS, WOOS); 28 Oct 1890—Cols., E. V. Wilcox.

4. **Amaranthus retroflexus* L.

Rough Pigweed

Naturalized (native of tropical America)

Similar to *Amaranthus hybridus* except for terminal spike wide and calyx of carpellate flowers 3 mm long, rounded with mucronate tips.

REFERENCES: Craig 1890:54, 97 (common in fields and pastures, 4 Sep 1882, 2 Aug 1888, University Farm Sep & Oct 1887); Selby & Craig 1890:14 (introduced).

HERBARIUM RECORD: 12 Aug 1890—Cols., Hine.

5. **Amaranthus hybridus* L.

Slender Pigweed

Naturalized (native of tropical America)

Plants monoecious, flowers in simple or paniced spikes; terminal spike 1 cm thick or less; calyx of carpellate flowers 2 mm long or less, acute, aristate, equaling or half as long as bracts.

REFERENCES: Riddell 1834:120 (*Amaranthus hypochondriachus*); Sullivant 1840:24; Selby & Craig 1890:14 (#669 & 670, *Amaranthus chlorostachys* Willd., introduced); Lazenby 1891:302 (*Amaranthus chlorostachys* Willd.).

HERBARIUM RECORDS: Aug 1888—Cols., Craig; 189—Sellsville, Cols., Selby; 9 Sep 1890—Cols., Selby; 26 Oct 1890—Sellsville, Selby; 10 Sep 1894—Cols., W. Kellerman; 4 Oct 1936—J. H. Schaffner; 7 Oct 1960—along Olentangy River Rd., across Olentangy R. from OSU Hospital, Cols., Cusick; 10 Sep 1991—E bank of Big Darby Creek just off Rt. 40, Prairie Twp., Lowden 4814.

NOTE: Perhaps Selby & Craig and Lazenby's *Amaranthus chlorostachys* Willd. belongs here.

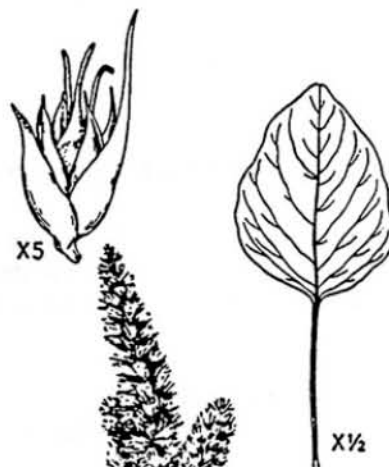
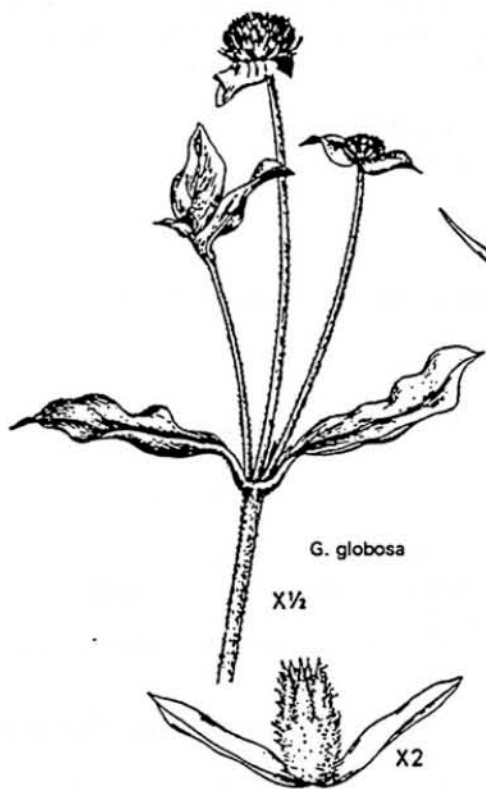
6. *Amaranthus tuberculatus* (Moq.) Sauer

Plants dioecious; bracts 1.5-2.0 mm long, they and sepals of staminate flowers with slender midvein; urticule much longer than bracts, splitting irregularly. Syn.: *Acnida altissima* Riddell

REFERENCES: Sullivant 1840:24 (*Acnida cannabina* L.); Selby & Craig 1890:14 (*Acnida cannabina* L.); Kellerman & Werner 1893:229 (*Acnida cannabina* L., Water-Hemp, fields back of North Dormitory).

HERBARIUM RECORDS: 28 Sep ♀ 1911—Cols., wet waste place, J. H. Schaffner & F. Brown; 1 Oct ♀ 1912—Cols., J. H. Schaffner; 6 Sep ♂ 1986—Highbanks Metro Park (Delaware Co.), floodplain, Witsberger 933 (OS, OWU); 10 Oct ♀ 1987—Highbanks Metro Park (Delaware Co.), river sandbar, Morawetz (OS, OWU); Summer ♀ 1988—along the Olentangy R., OSU Campus, Cols., Delong; 23 Sep ♀ 1991—Scioto R., common on gravel bars, just N of I-270, Hamilton Twp., SW Cols. Quad., McCormac 4353; 19 Aug ♂ 1992—Piedmont Rd., lawn, N of Torrence Rd., NW Cols. Quad., Cusick 30451.

CELOSIA
GOMPHRENA
AMARANTHUS



PORTULACACEAE, Purslane Family

Herbs; leaves succulent; flowers hypogynous or partly epigynous, bisporangiate; perianth regular or nearly so; as referred to in this manual, sepals 2, petals 5 (6), usually separate (or these parts interpreted as bracts 2, sepals 5 (6), petals none); stamens 4-many, opposite petals when of same number, sometimes on corolla base; carpels united; styles separate above; ovary 1-loculed; ovules several to many; placentation central or basal; fruit a capsule.

- a Ovary partly inferior; cauline leaves more than 2; capsule circumscissile. 1. **PORTULACA**
a' Ovary superior; cauline leaves 2; capsule dehiscent lengthwise. 2. **CLAYTONIA**

1. PORTULACA L. Purslane

Fleshy, sometimes prostrate; leaves alternate; ovary partly inferior; sepals united at base; stamens 6-many; style branches 3-several; seeds many, minute.

- a Leaves flat, obovate; flowers small, petals yellow; stamens 6-10. 1. *P. oleracea*
a' Leaves terete; flowers large, petals of various brilliant colors; stamens many. 2. *P. grandiflora*

1. **Portulaca oleracea* L.

Common Purslane

Naturalized (native of S Asia)

Plants glabrous; leaves spatulate to obovate, flat; flowers yellow; seeds with low blunt tubercles.

REFERENCES: Riddell 1834:120 (naturalized); Sullivant 1840:15; Craig 1890:53, 70 (This bad weed is common in the rich soil of gardens and in waste ground, 20 Jul 1882, 22 Jun 1887, University Farm Oct 1887); Selby & Craig 1890:8 (introduced).

HERBARIUM RECORDS: 20 Aug 1911—½ mi. E of Westerville, garden, *Hanawalt*; 7 Jul 1992—OSU, Fawcett Center for Tomorrow, common weed in lawn, Cols., Clinton Twp., *Lowden 4990*.

2. **Portulaca grandiflora* Hook.

Moss-rose, Garden Purslane

Adventive (native of Argentina)

Plants spreading, densely hairy at nodes; leaves linear, somewhat terete; flowers of various colors; stamens numerous, approx. 10.

HERBARIUM RECORD: 11 Jul 1991—parking lot at Fountain Square, S of Morse Rd., local weed in nearly barren traffic islands, NE Cols. Quad., *Cusick 29703*.

2. CLAYTONIA L. Spring Beauty

Perennial glabrous small herb; underground stem a corm; cauline leaves 2, usually opposite; basal leaf or leaves similar; flowers hypogynous, in bracted raceme; sepals ovate, separate, persistent in fruit; petals usually 5, white or pink, with more deeply colored veins; stamens opposite petals and attached to their bases; carpels 3, united; style 3-branched at tip.

- a Leaves lanceolate, oblanceolate, or wider, definitely petioled. 1. *C. caroliniana*
a' Leaves linear to lanceolate, tapering to base, blade and petiole not differentiated. 2. *C. virginica*

1. †*Claytonia caroliniana* Michx.

Carolina Spring-beauty

Leaves 3-6 cm long, rarely 9 cm long; blade and petiole clearly differentiated, blades usually 10-15 mm wide.

REFERENCES: Craig 1890:70 (This species is very rare, I found a few specimens this spring in the SE part of the woods growing in the rich soil around an old stump, 22 May 1885); Kellerman & Werner 1893:225 (the specimens to authenticate this species are broad-leaved *Claytonia virginica* L.).

HERBARIUM RECORD: May 1887—Neil's Run, Cols., *Craig*.

NOTE: The cited specimen doesn't have a distinct petiole but the blade width is 15 mm, perhaps just a form of *Claytonia virginica*.

2. *Claytonia virginica* L.

Spring Beauty

Leaves long-tapering to base; blades 2-10 mm wide, scarcely differentiated from the petiole.

REFERENCES: Riddell 1834:120; Sullivant 1840:15; Craig 1890:70 (very abundant in the woods but only a few are found elsewhere, 6 Apr 1882, 10 Apr 1883, 16 Apr 1884, 23 Apr 1885, 13 Apr 1886, 19 Mar 1887, 1 Apr 1888, 17 Mar 1889); Selby & Craig 1890:8.

AMARANTHUS
PORTULACA
CLAYTONIA
MOLLUGO
SAGINA

