

CARYOPHYLLACEÆ OF OHIO.

AMY WILLIAMS.

Herbs often with swollen nodes, with opposite entire leaves, and hypogynous, bisporangiate or rarely monosporangiate, regular flowers. Sepals 4 or 5, persistent, separate or united into a calyx-tube; petals equal in number to the sepals or occasionally none; stamens twice as many as the sepals or fewer; anthers longitudinally dehiscent; ovulary usually unilocular with a central placenta, bearing several to many seeds; fruit usually a membranous capsule dehiscent by valves or teeth.

Synopsis.

- I. Calyx of distinct sepals, or the sepals united only at the base. Petals without claws. Ovulary sessile. *Alsinateæ*.
 1. Stipules wanting.
 - a. Petals entire, toothed, or slightly notched. *Sagina*, *Arenaria*, *Mœhringia*, *Holosteum*.
 - b. Petals 2-cleft. *Alsine*, *Cerastium*.
 2. Stipules present. *Spergula*, *Tissa*.
- II. Calyx of united sepals, tubular or ovoid. Petals with slender claws. Ovulary stalked. *Caryophyllatæ*.
 1. Calyx ribs at least twice as many as the teeth. *Agrostemma*, *Lychnis*, *Silene*.
 2. Calyx 5-ribbed or 5-nerved or nerveless. *Saponaria*, *Vaccaria*, *Dianthus*.

Key to the Genera.

1. Calyx of distinct sepals or united only at the base. 2.
1. Calyx of united sepals, tubular or ovoid. 9.
2. Stipules none. 4.
2. Stipules present, scarious. 3.
3. Styles and capsule valves 5; pod short. *Spergula*.
3. Styles and capsule valves 3. *Tissa*.
4. Petals deeply 2-cleft or 2-parted, (rarely none). 5.
4. Petals entire or emarginate (rarely none) 6.
5. Styles 4 or 5; pod cylindrical; dehiscent by twice as many equal teeth as styles. *Cerastium*.
5. Styles usually 3, rarely 5; pod short, splitting into as many valves as styles; valves often 2-parted. *Alsine*.
6. Styles 4 or 5, alternate with the sepals; pod short. *Sagina*.
6. Styles usually 3. 7.
7. Stamens 3 to 5; capsule cylindrical; flowers cymose-umbellate; annual. *Holosteum*.
7. Stamens 8 to 10; capsule ovoid or oblong. 8.
8. Leaves 1 to 1½ inches long, oblong or oval; seeds strophiolate. *Mœhringia*.
8. Leaves less than ½ inch long or if longer, then linear or subulate; seeds not appendaged by a strophiole. *Arenaria*.
9. Calyx without scaly bractlets or small leaves at the base; styles 5 to 2. 10.
9. Calyx with scaly bractlets or small leaves at the base. *Dianthus*.
10. Styles 5 to 3. 11.
10. Styles 2. 13.
11. Styles 5. 12.
11. Styles 3, rarely 4; petals with scales at the base of the blade. *Silene*.

12. Petals unappendaged; styles opposite, alternate with the leaf-like calyx-teeth. *Agrostemma*.
 12. Petals often appendaged; styles alternate with them; calyx-teeth short. *Lychnis*.
 13. Petals appendaged at the base of the blade, calyx terete. *Saponaria*.
 13. Petals not appendaged, calyx 5-angled, enlarged in fruit. *Vaccaria*.

Sagina L.

Low, tufted, matted herbs with subulate leaves. Flowers white; petals 4 or 5, entire, emarginate, or none; sepals 4 or 5; stamens 4 or 5 or 8 or 10; styles of the same number, arranged alternately.

1. Plant depressed-spreading; petals present. *S. procumbens*.
 1. Plant erect; petals minute or none. *S. apetala*.

1. **Sagina procumbens** L. Procumbent Pearlwort. Annual or perennial; branching, decumbent or spreading; smooth or somewhat downy-matted, $\frac{1}{2}$ to $2\frac{1}{2}$ inches high; leaves linear, subulate, connate at the base; flowers arranged on capillary peduncles which are often reflexed in fruit; sepals and stamens 4 or rarely 5; petals sometimes absent. Lake, Gallia.

2. **Sagina apetala** Ard. Small-flowered Pearlwort. Erect or ascending, annual, glabrous, filiform, about $3\frac{1}{2}$ inches high; leaves linear-subulate, smooth or slightly ciliate, $\frac{1}{4}$ inch long; flowers on long peduncles; petals none or four very minute ones; sepals 4, ovate or oval, obtuse. Lawrence County.

Arenaria L.

Tufted herbs with sessile leaves. Flowers white, in cymes, heads, or rarely solitary; petals 5; sepals 5; stamens 10; styles generally 3.

1. Plant pubescent, leaves ovate-acute, cymes leafy. *A. serpyllifolia*.
 1. Plant glabrous, leaves subulate. 2.
 2. Perennial; leaves in groups at the nodes or axils, rigid. *A. michauxii*.
 2. Annual; leaves opposite, soft. *A. patula*.

1. **Arenaria serpyllifolia** L. Thyme-leaf Sandwort. Annual, somewhat pubescent, branched, $5\frac{1}{2}$ to 14 inches high; leaves ovate, acute; flowers numerous, arranged in cymose panicles; sepals ovate, acute; petals obovate or oblong, usually shorter. General in Ohio.

2. **Arenaria michauxii** (Fenzl.) Hook. Rock Sandwort. Perennial, tufted, glabrous, dark green, 7 to 15 inches high; leaves subulate or filiform, 1-ribbed arranged in fascicles in the axils, $\frac{3}{4}$ inch long; calyx ovoid-oblong in fruit; sepals lanceolate or ovate-lanceolate, acute, one half the length of the petals. Ottawa, Erie, Cuyahoga, Clarke, Franklin.

3. **Arenaria patula** Mx. Pitcher's Sandwort. Annual, glabrous, very slender, 8 to 10 inches high; leaves soft, linear-filiform, $\frac{3}{4}$ to 1 inch long; flowers in cymes, sepals lanceolate, acuminate, about one-half the length of the emarginate petals. Montgomery County.

Moehringia L.

Low perennial herbs. Leaves oblong, ovate-lanceolate or linear, sessile or with short petioles; flowers white, solitary or in cymes; sepals and petals 4 or 5, stamens 8 or 10.

1. **Moehringia lateriflora** (L.) Fenzl. Blunt-leaf Moehringia. Stems finely pubescent, 6 to 14 inches high; leaves thin, oval or oblong, obtuse, the margins and nerves ciliate; flowers arranged in cymes or solitary; petals twice as long as the sepals. Ottawa, Auglaize, Darke, Morrow, Franklin, Perry.

Holosteum.

Annual or biennial, erect herbs with acute, ovate-lanceolate leaves. Flowers white, arranged in long terminal peduncles in umbellate cymes; petals 5, sepals 5, stamens 3 to 5, rarely 10.

1. **Holosteum umbellatum** L. Jagged Chickweed. Glabrous or somewhat glandular, 3 to 7 inches high, pubescent above and a little hairy below. Basal leaves spreading, oblanceolate or oblong; stem leaves oblong, sessile; flowers arranged 3 to 8 in an umbel; pedicels erect in flower, reflexed in fruit; sepals obtuse, shorter than the petals. Hamilton County.

Alsine L.

Tufted herbs with white flowers arranged in cymes. Sepals 5 rarely 4; petals of the same number, 2 cleft, 2 parted, or emarginate, rarely none; stamens 10 or fewer; styles usually 3, rarely 4 or 5, generally opposite the sepals.

1. Styles 5; leaves ovate, pointed. *A. aquatica*.
1. Styles 3, rarely 4. 2.
2. Leaves linear or lanceolate, not pubescent. 3.
2. Leaves ovate-pubescent. 4.
3. Leaves acute at each end; seeds smooth. *A. longifolia*.
3. Leaves broadest near the base; seeds rough. *A. graminea*.
4. Petals shorter than the calyx; lower leaves petioled. *A. media*.
4. Petals longer than the calyx; lower leaves rarely petioled. *A. pubera*.

1. **Alsine aquatica** (L.) Britt. Water Chickweed. Perennial, usually glandular-pubescent above, ascending or decumbent, about 13 inches high. Leaves ovate or ovate-lanceolate, acute; the upper ones sessile, the lower petioled, rounded at the base, $\frac{3}{4}$ to $1\frac{1}{2}$ inches long; flowers solitary, in the forks of the stem, or in cymes; pedicels longer than the calyx in fruit, deflexed; calyx campanulate, sepals about half as long as the 2-cleft petals; stamens 10. Guernsey County.

2. **Alsine media** L. Common Chickweed. Annual; tufted and much branched, decumbent or ascending; 4 to 14 inches high; glabrous, except the line of hairs along the stem and branches, the pubescent sepals and ciliate petioles; leaves oval or ovate, usually acute; flowers in terminal, leafy cymes or solitary in the axils. General.

3. **Alsine pubera** (Mx.) Britt. Great Chickweed. Perennial; stems and branches with two lines of hairs; 3 to 12½ inches high; leaves oblong or ovate-oblong, their margins ciliate, the upper generally sessile, the lower sometimes narrowed into broad petioles; flowers in terminal cymes with lanceolate sepals and 2-cleft petals. Medina, Preble, Clermont, Fairfield, Pike, Lawrence, Gallia, Vinton.

4. **Alsine longifolia** (Muhl.) Britt. Long-leaf Stitchwort. Glabrous, ascending; stem rough angled; leaves linear, spreading, acute; flowers numerous, arranged in terminal or lateral cymes. General in northern Ohio; also in Highland, Jackson and Gallia Counties.

5. **Alsine graminea** (L.) Britt. Lesser Stitchwort. Weak, glabrous, ascending from creeping rootstocks; 6 to 12 inches high; stem 4-angled; leaves lanceolate, sessile; flowers arranged in loosely spreading cymes; bracts lanceolate sometimes scarious or ciliate; sepals equalling the 2-cleft petals. Cuyahoga, Auglaize, Belmont.

Cerastium L.

Pubescent or hirsute herbs. Flowers white, arranged in terminal cymes; petals 5, rarely 4, emarginate or bifid, (rarely wanting); sepals 4 or 5; stamens 10, rarely fewer; styles 4 or 5 or fewer, arranged opposite the sepals.

1. Leaves linear or lanceolate, 8 to 10 times as long as broad; petals longer than the sepals. 2.
1. Leaves ovate-lanceolate, about 4 times as long as wide, petals 3, equaling or shorter than the sepals. *C. vulgatum*.
2. Stem erect; pubescent, densely tufted; perennial; styles 5. *C. arvense*.
2. Stem weak, reclining or ascending, clammy-pubescent to glabrate, annual. *C. longipedunculatum*.

1. **Cerastium vulgatum** L. Common Mouse-ear Chickweed. Biennial or perennial, viscid-pubescent, 7 to 14 inches high. Lower and basal leaves spatulate-oblong; upper leaves oblong, ½ to ¾ inch long; flowers loosely arranged on long pedicels. General.

2. **Cerastium longipedunculatum** Muhl. Nodding Chickweed. Annual, reclining or ascending, 6 to 16 inches high; clammy-pubescent to glabrate. Lower leaves spatulate, obtuse, petioled, 1 to 1½ inches long; flowers loosely arranged, pedicels very long in fruit; petals when present about twice as long as the sepals. General in southern Ohio, also in Ottawa and Cuyahoga Counties.

3. **Cerastium arvense** L. Field Chickweed. Perennial, downy or nearly smooth, 6 to 12 inches high. Basal leaves and those on the sterile shoots linear-oblong; stem leaves distant, linear or narrowly lanceolate; petals obovate, longer than the lanceolate acute sepals. Sandusky, Ottawa, Trumbull, Miami, Monroe.

4. **Cerastium arvense oblongifolium** (Torr) Holl. and Britt. Pubescent; leaves oblong or lanceolate; capsule about twice the length of the calyx. Erie, Monroe.

5. **Cerastium arvense webbii** Jennings. Plant more or less viscid-pubescent, 12 to 18 inches high. Lower leaves oblong-lanceolate, upper ones ovate-lanceolate, $1\frac{3}{4}$ to 2 inches long; flowers arranged in strict cymes. Cuyahoga.

Spergula L.

Annual herbs. Leaves subulate, stipulate, arranged in fascicles in the axils; flowers white, in terminal cymes; sepals 5; petals 5; stamens 10 or 5; styles 5, alternate with the sepals.

1. **Spergula arvensis** L. Corn Spurry. Glabrous or finely pubescent, 9 or 10 inches high. Leaves linear or subulate; stipules small, connate; pedicels slender, divaricate. Lake County.

Tissa Adans.

Low herbs with fleshy, linear, or setaceous leaves; often arranged in fascicles in the axils; stipules scarious; flowers pink or white in terminal cymes; sepals 5, petals 5, rarely fewer or none, entire, stamens 2 to 10.

1. **Tissa rubra** (L) Britt. Sand-spurry. Annual or perennial, depressed or ascending, leafy, glabrous or glandular-pubescent above; 5 to $7\frac{1}{2}$ inches high; leaves linear, $\frac{1}{4}$ inch long; flowers bright pink; stipules ovate-lanceolate, acuminate; sepals ovate-lanceolate, somewhat acute. Lake County.

Agrostemma L.

Annual or biennial, pubescent or woolly herbs. Leaves opposite, linear or linear-lanceolate, acute or acuminate, sessile; flowers red or white, solitary; petals 5, shorter than the sepals, unappendaged, emarginate; calyx oblong, wooly, 10-ribbed; sepals 5, linear, elongated and foliaceous, stamens 10, styles 5, opposite the petals.

1. **Agrostemma githago** L. Corn Cockle. Plant erect, 12 to 40 inches high, covered with long, whitish, appressed hairs; leaves linear-lanceolate; calyx ovoid, sepals exceeding the petals and deciduous in fruit; flowers red, petals slightly emarginate, obovate-cuneate. General.

Lychnis L.

Mostly more or less pubescent herbs. Sepals 5, petals 5, entire, 2-cleft or laciniate, generally crowned; stamens 10; styles 5, rarely 4; calyx ovoid, tubular or inflated, 10-nerved.

1. Plant entirely pubescent, viscid. 2.

1. Plant having viscid-pubescent bands on the stems. *L. viscaria*.

2. Calyx-teeth twisted; plant densely white-wooly. *L. coronaria*.

2. Calyx teeth not twisted; only ordinarily pubescent; usually diecious. 3.

3. Flowers white or pink; calyx teeth attenuate. *L. alba*.

3. Flowers red; calyx teeth triangular-lanceolate, acute. *L. dioica*.

1. **Lychnis coronaria** (L) Desv. Mullein Pink. Perennial, woolly white, quite tall. Lower leaves spatulate; upper leaves oblong or lanceolate, sessile, acute or acuminate; flowers few in terminal panicles; petals crimson; calyx oblong-campanulate, its teeth twisted and shorter than the tube. Cuyahoga, Portage, Lake, Fairfield.

2. **Lychnis viscaria** L. Viscid Lychnis. Plant erect. Lower leaves spatulate; upper ones linear or linear-lanceolate; inflorescence in oppositely arranged clusters; calyx club-shaped. Escaped in Lake County.

3. **Lychnis alba** Mill. White Lychnis. Biennial and branched with leaves ovate-oblong or ovate-lanceolate, acute; upper ones sessile, the lower ones having petioles; flowers few, arranged in loose panicles, white or pink, fragrant; calyx at first tubular, becoming inflated by the ripening pod; sepals lanceolate, short; petals obovate, 2-cleft, crowned. Lake, Meigs.

4. **Lychnis dioica** L. Red Lychnis. Biennial. Basal leaves with long petioles, oblong; stem leaves sessile or the lower short petioled, ovate, acute; flowers red or nearly white, opening in the morning, calyx at first tubular, in fruit nearly globular. Erie County, Mosely Herbarium.

Silene L.

Herbs with pink, red or white flowers; calyx more or less inflated, with 5 sepals, 10 to many nerved, not bracted at the base; stamens 10; styles 3, rarely 4 or 5; petals 5, narrow, clawed, variously cleft or rarely entire; flowers solitary or in terminal cymes.

1. Leaves verticillate in fours. *S. stellata*.
1. Leaves opposite. 2.
2. Flowers white or greenish. 3.
2. Flowers scarlet to pink. 6.
3. Calyx much inflated and bladdery, not with prominent ribs. 4.
3. Calyx tubular, merely expanded by the ripening pod, prominently ribbed. 5.
4. Inflorescence leafy bracted; flowers few. *S. alba*.
4. Flowers numerous, in leafy cymes. *S. vulgaris*.
5. Flowers racemose, short-pedicelled, calyx ribs 5. *S. dichotoma*.
5. Flowers cymose, night-blooming; calyx ribs 10. *S. noctiflora*.
6. More or less viscid-pubescent, perennial. 7.
6. Glutinous at or below the nodes, annual. 10.
7. Leaves broadly oval, the lower ones tapering into a long petiole; stems pubescent. *S. rotundifolia*.
7. Leaves lanceolate or spatulate, the blades not rounded. 8.
8. Leaves broadest below the middle, sessile; stems very rough. *S. regia*
8. Leaves, all except the uppermost, broadest above the middle, the lower ones tapering into a petiole. 9.
9. Leaves broadly spatulate. *S. virginica*.
9. Leaves narrowly spatulate or oblanceolate. *S. caroliniana*.
10. Stems pubescent, leafy; calyx much inflated, many-ribbed. *S. conica*.
10. Stems smooth. 11.
11. Calyx club-shaped, many ribbed; leaves ovate-lanceolate. *S. armeria*.
11. Calyx ovoid; leaves linear. *S. antirrhina*.

1. **Silene stellata** (L) Ait. Starry Champion. Perennial, pubescent, erect. Leaves ovate-lanceolate, verticillate in fours or the lowest ones opposite, their margins finely ciliate; flowers white, in paniced cymes, $\frac{1}{2}$ to $\frac{3}{4}$ inches wide; calyx campanulate, inflated, $\frac{1}{4}$ to $\frac{1}{2}$ inch long, its teeth triangular, acute; petals about equalling the stamens, not crowned. General.

2. **Silene alba** Muhl. White Champion. Perennial, rather weak, reclining, slightly pubescent or glabrate. Leaves lanceolate or oblong-lanceolate, opposite, 3 to 4 inches long, $\frac{1}{2}$ to 1 inch broad, acuminate; flowers white, $\frac{1}{2}$ to 1 inch broad; calyx inflated, elongated-campanulate, pubescent, with ovate teeth; petals cuneate, 2-cleft or 2-lobed, minutely crowned. Butler, Clermont.

3. **Silene vulgaris** (Moench.) Garcke. Bladder Champion. Perennial herb, branched from the base, glaucous, glabrous, or rarely pubescent. Leaves ovate-lanceolate or oblong acute, lower ones often spatulate; flowers white, in cymose panicles, sometimes drooping; petals 2-cleft; calyx inflated and globose, $\frac{1}{4}$ to $\frac{1}{2}$ inch long; stamens much longer than the petals and sepals. Erie County.

4. **Silene virginica** L. Fire Pink. Perennial, clammy-pubescent, 10 to 24 inches high. Stem slender; leaves thin, 3 to 5 inches long, lower ones spatulate or oblanceolate, upper ones oblong-lanceolate, acute, sessile; flowers in loose cymose panicles, crimson, petals oblong, 2-cleft, 2-lobed, or irregularly incised, crowned; calyx tubular-campanulate. General.

5. **Silene rotundifolia** Nutt. Round-leaf Catchfly. Perennial, ascending or reclining, viscid-pubescent; lower leaves spatulate or obovate, upper ones broadly oval, thin; flowers few or solitary; petals 2-cleft, lobed or laciniate, crowned, scarlet; pedicels very slender; calyx tubular-campanulate, about an inch long, somewhat enlarged by the ripening pod, its teeth ovate, acute. Hocking, Jackson.

6. **Silene armeria** L. Sweet William Catchfly. Glabrous, glaucous or minutely puberulent, about 23 inches high. Leaves ovate-lanceolate; flowers in flat cymes with petals rose-colored, white or purple, notched and crowned with awl-shaped scales; calyx club-shaped. Cuyahoga, Lake, Licking, Monroe.

7. **Silene noctiflora** L. Night-blooming Catchfly. Annual, erect, viscid-pubescent, 8 to 32 inches high. Leaf-blades thickish, lower ones large and spatulate, upper ones lanceolate; flowers few and large, white or nearly so, fragrant and opening at night; calyx glandular-pubescent, $\frac{1}{2}$ inch or a little more in length, with awl-shaped teeth. Lucas, Sandusky, Erie, Cuyahoga, Lake, Auglaize, Green, Belmont, Jefferson.

8. **Silene dichotoma** Ehrh. Forked Catchfly. Annual, pubescent. Lower and basal leaves lanceolate or oblanceolate,

acuminate or acute, tapering into a petiole; upper leaves sessile, lanceolate or linear; flowers white; calyx cylindric, hirsute, much enlarged by the ripening pod, with ovate-lanceolate, acute teeth; petals white, bifid, with a short obtuse crown. Ottawa County. Mosely Herbarium.

9. **Silene conica** L. Striate Catchfly. Annual, puberulent to tomentulose, or canescent, usually with several stems; leafy, 3 to 12 inches high. Leaves linear, lanceolate, acute, sessile; calyx ovoid, rounded or truncate at the base, strongly ribbed, about half an inch long, teeth triangular-subulate; flowers in cymes, petals rose-colored, obcordate. Sandusky County.

10. **Silene regia** Sims. Royal Catchfly. Perennial, erect and very rough, minutely pubescent. Leaves thick, ovate-lanceolate, acute, 1 to 2½ inches long, all but the lower ones sessile; flowers numerous, on short stalks and arranged in a panicle; deep scarlet; petals emarginate or laciniate, crowned; calyx oblong, tubular, slightly enlarged by the ripening pod. Clarke, Madison.

11. **Silene caroliniana** Walt. Carolina Catchfly. Perennial, viscid-pubescent, 8 to 10 inches high, basal leaves spatulate, nearly glabrous, tapering into broad, pubescent petioles; stem leaves sessile, oblong or lanceolate; flowers in terminal cymes, pink; petals cuneate, emarginate, crowned; calyx tubular, much enlarged by the ripening pod, its teeth ovate, acute. Jefferson, Monoe, Washington.

12. **Silene antirrhina** L. Sleepy Catchfly. Annual, puberulent or glabrous, glutinous about the nodes, 10 to 20 inches high. Lower leaves spatulate or oblanceolate, narrowed into a petiole; upper leaves linear to subulate; flowers in a loose, cymose panicle, pedicels slender, erect; flowers pink, petals obcordate and minutely crowned; calyx ovoid, glabrous, delicately ribbed, with ovate, acute teeth. General.

13. **Silene antirrhina divaricata** Robinson. More slender, branches spreading, filiform; petals absent. Gallia County.

Saponaria L.

Annual or perennial herbs, with broad leaves and large flowers. Calyx narrowly ovoid or subcylindric, obscurely nerved; petals 5; sepals 5; styles 2; stamens 10; capsule dehiscent by four short apical teeth or valves.

1. **Saponaria officinalis** L. Bouncing Bet. Perennial, glabrous, erect, rather tall, 24 to 32 inches high. Leaves ovate or oval, 2 to 2½ inches long, acute and having a broad, short petiole; flowers pink or white, arranged in terminal corymbs with many small, lanceolate floral leaves; calyx tubular, about an inch long; petals obcordate with a scale at the base of the blade. General.

Vaccaria Medic.

Annual herbs, glabrous, glaucous. Flowers in corymbed cymes; petals pale red and not crowned, longer than the calyx; calyx sharply 5-angled and inflated in fruit; sepals 5; stamens 10; styles 2.

1. **Vaccaria vaccaria** (L.) Britt Cow-herb. Annual, 20 to 24 inches high; calyx 5-angled, enlarged and wing-angled in fruit; leaves ovate-lanceolate. Lake, Ashtabula.

Dianthus. L.

Stiff herbs. Leaves narrow; flowers terminal, solitary or cymose-paniculate, generally purple; calyx tubular, with several bracts at its base; sepals 5; petals 5, long clawed, dentate or crenate; stamens 10; styles 2; capsule cylindrical or oblong, stalked, dehiscent by four or five short teeth at the summit.

1. Leaves large, ovate-lanceolate or broadly lanceolate; 3 to 5 times as long as broad; flowers clustered; perennial. *D. barbatus*.
1. Leaves narrowly lanceolate, linear, subulate; 8 to 12 times as long as broad. 2.
2. Calyx densely pubescent; leaves 2 to 2½ inches long; flowers clustered; annual. *D. armeria*.
2. Calyx glabrous or slightly pubescent. 3.
3. Plants much branched; flowers solitary; perennial. *D. deltoides*.
3. Plants simple or with few erect branches; flowers in terminal heads, rarely solitary; annual. *D. prolifera*.

1. **Dianthus prolifera** L. Proliferous Pink. Annual, glabrous, 6 to 12 inches high. Leaves few, linear and acute; flowers small, pink, arranged in terminal, oblong or obovoid heads; calyx concealed by bracts. Cuyahoga County.

2. **Dianthus armeria** L. Deptford Pink. Annual, minutely pubescent, 12 to 20 inches high, with few erect branches. Leaves linear, about ⅓ inch wide, 1½ to 2¼ inches long; flowers arranged in terminal clusters with lanceolate, subulate bracts, usually longer than the calyx; sepals very acute. Licking, Jefferson, Gallia.

3. **Dianthus deltoides** L. Maiden Pink. Perennial, 4¾ to 8 inches high. Leaves short, narrowly lanceolate, glabrous or slightly pubescent; flowers pink or white, solitary, with toothed petals; bracts ovate and half as long as the tube. Lake County.

4. **Dianthus barbatus** L. Sweet William. Tufted, glabrous and erect, 16 to 18 inches high. Leaves lanceolate or ovate-lanceolate; 2½ to 3 inches long, ¾ inch wide; bracts linear-filiform, about the same length as the sharp, pointed sepals; flowers pink or white or variegated, in large terminal clusters. Portage County.