

MYRSINACEAE, THE MYRSINE FAMILY

Anagallis L. PIMPERNEL

Anagallis arvensis L., SCARLET PIMPERNEL, POOR MAN'S WEATHERGLASS. Annual, taprooted, several-stemmed at base, prostrate to decumbent, often branching from just 1 axillary bud per a node, typically < 20(–40) cm tall; shoots mostly glabrous. **Stems:** ± square (hexagonal) in ×-section with 4(6) winged edges, < 1.5 mm diameter, herbaceous, light green, at corners wings ⊥ narrow face and the 2 extensions descending from 1 leaf, the younger stems flatter and sparsely capitate-glandular; internodes hollow. **Leaves:** opposite decussate (whorled), simple, sessile, without stipules; blade ovate, 5–20 × 3–13 mm, dull, cordate to rounded at base, entire and papillate on margins, acute at tip, with principal veins radiating from base and slightly sunken on upper surface and slightly raised on lower surface, lower surface with brownish dots, the dots composed of several slightly blistered cells. **Inflorescence:** flowers solitary, axillary, stalked, lacking bracts; peduncle (pedicel) ascending, 10–30 mm long, slender, glandular-hairy with colorless to reddish transparent heads. **Flower:** bisexual, radial, 7–11 mm across; **calyx** 5-lobed; lobes divided almost to base, initially spreading and later ascending, acuminate-lanceolate, 3.5–5 mm long, green with whitish membranous margins, keeled, the keel decurrent on receptacle with blisterlike cells; **corolla** 5-lobed, dishlike, fused only at the base; tube = a narrow ring ± 0.2 mm long, whitish to pale green; lobes obovate to roundish, 4–6 mm long, orange to salmon-colored with a reddish base (rarely dark purplish blue at tips with a dark violet band above a dark purplish red base; also in range rarely essentially all-white to pale salmon), ciliate with scattered capitate hairs, the hairs black-purple to translucent purplish red or paler; **stamens** 5, opposite corolla lobes, fused at base into a short tube and to the corolla tube; filament tube ± 0.1 mm long, with whitish hairs having reddish heads, free portion of filaments 2–2.5 mm long, the lower 1/4–1/3 whitish with hairs as on tube, the upper portion purplish red bearing purplish red hairs; anthers versatile, dithecal, arched and narrowly heart-shaped, 0.6–1 mm long, bright yellow, longitudinally and inwardly dehiscent; pollen bright yellow; **pistil** 1; ovary superior, spheric, 1 mm, ovary wall with 5 faint, reddish vertical lines, semitransparent with ovules visible through wall, 1-chambered with many ovules attached to central post; style erect, 1.5–2 mm long, lavender to purplish red, slender; stigma narrowly capitate, greenish to yellowish green, papillate. **Fruit:** capsule, dehiscing around circumference (circumscissile), several–25(–45)-seeded, spheric, 2.5–4 mm, inconspicuously 5-valved, with seeds on a minutely bumpy central post (placenta). **Seed:** ± lenticular to 3-sided, 1.1–1.5 mm long, dark brown, papillate. Early March–late October.

Naturalized. Annual found throughout the range in moist places, often where disturbed and along trails and roads. *Anagallis arvensis* generally begins to flower in early spring and finishes by early August, but a second cohort of plants may be found again flowering in late summer and early fall, where plants receive supplemental water. Scarlet pimpernel gets its name from the typical, salmon-colored flowers contrasting with hairs having purple pigmentation, but individuals with blue flowers occur as spontaneous recombinants within a large population, and can be found if one searches long enough. The blue flower form

should not be confused with cultivated pimpernels that produce larger blue flowers and are sometimes planted on irrigated hillsides on the edges of wildlands. In Oak Park a local population was found in 2010 having many individuals with essentially much smaller, all-white flowers, growing with typical scarlet phenotypes, but also some individuals had flowers of intermediate size and corolla color. Fairly recently this genus was transferred from the primrose family (Primulaceae) to the myrsine family to better reflect its evolutionary relationships.

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