

7. *O. ACETOSELLA*, L. Spec., 433. *O. Americana*, Bigel. *O. Montana*, Raf., *Annals of Nature*, 1, 12. Acaulescent, perennial by a slender simple or sparingly branched rootstock, more or less rusty-pubescent; leaves few (usually 3-6) a span or less high; petioles slender, articulated with their dilated bases, that persist on the rootstock clustered at the end of each year's growth; leaflets 3, broadly obovate, with a minute appendage in the narrowed base of the sinus; scapes solitary or few, slightly exceeding the leaves, 1-flowered, 2-bracted about an inch below the flower; bracts broad and rather obtuse; flowers open cup-shaped, 10-15 mm. long, homogone (but usually appearing as if the long-styled form of a trimorphic species); sepals ovate-oblong, rather obtuse; petals 3-4 times as long as the calyx, emarginate; capsule subglobose, 2-3 mm. long, its cells 1-2-seeded, glabrous; seeds ovoid, acute above, with about 5 shallow longitudinal grooves on each side, and obscurely pitted.—Damp woods from the mountains of North Carolina far northward, where it ranges from the Atlantic to the Saskatchewan. Also found in Europe, Asia and North Africa. Recurved scapes bear cleistogone flowers, mostly concealed among the moss, etc., at the base of the plant.—Pl. 11, fig. 7. A form with deeper-colored flowers found in New Brunswick, etc., is var. *subpurpurascens*, DC. Prod. 1, 700.

Var. *OREGANA*. *O. Oregana*, Nutt. in Torrey and Gray, *Fl. N. Am.*, 1, 211. *O. acetosella*, Hook., *Fl. Bor.-Amer.*, 1, 118. Larger in every way and more rusty-pubescent, as much as a foot high and with leaflets in extreme cases over 40 mm. long; flowers 20-25 mm. long; capsules 10 mm.; seeds 2.5×3.5 mm.; otherwise as in the type.—California to Washington Territory. The description of fruit and, in part, of inflorescence, in *Botany of California*, 1, 96, relates to the next species.—Pl. 11, fig. 8.

8. *O. THILLIFOLIA*, Hook., *Fl. Bor.-Amer.*, 1, 118. *O. macrophylla*, Dougl. in Hook, *l. c.* *O. Oregana*, Brewer and Watson, *Bot. Calif.*, 1, 96, in part; Gray, *Proc. Amer. Acad.*, VIII, 378. Habit of the last, sparingly pubescent or glabrate; leaves a span to a foot high, leaflets 25-45 mm. long and usually about as broad; scapes mostly several, a little longer than the leaves, umbellately about 6-flowered; pedicels at length equalling the capsules; bracts acute; flowers small, 5-12 mm. long, homogone; petals deeply emarginate or bifid and nearly white; capsule linear, 25 mm. long, its cells about 6-seeded, glabrous; seeds red-brown, oblong, obscurely coarse-pitted and somewhat longitudinally striate, 1×2.2 mm.—Damp woods, Washington to Oregon.—Pl. 11, fig. 9.

9. *O. VIOLACEA*, L. Spec., 434. *O. longiflora*, L. *O. pulchella*, Salish. Acaulescent, perennial from a stout brown bulb with rusty-ciliate scales, glabrous or the pedicels and bases of the leaves glabrate; leaves several from each bulb, a span or less high, leaflets 3, about 10 mm. long, broadly obovate with an open sinus, the midrib tipped on the lower side with a pair of usually prominent confluent orange callosities¹; scapes several, mostly about twice as long as the leaves, umbellately 3-12-flowered; pedicels at length rather longer than the flowers; bracts acute; flowers 15-20 mm. long, heterogone; sepals ovate, obtuse, with two more or less confluent orange callosities on the outer side at the tip; petals thrice as long as the calyx, undulately obtuse or truncate, rose-purple or sometimes white; capsule round-ovoid, about 5 mm. long, its cells about 3-seeded, glabrous; seeds

¹ These callosities, or so-called glands, are common to many species of this section of *Oralis*. In *O. Martiana*, *bipartita*, etc., an intramarginal series of small callosities of

the same nature occurs around the lower surface of the leaflets.