

GUIDE TO THE GENERA OF LIANAS AND CLIMBING PLANTS IN THE NEOTROPICS

OROBANCHACEAE

By Mark T. Strong (Feb 2021)



Vellosiella dracocephaloides (Vell.) Baill., from
Hooker's *Icones Plant.* 30: t. 2943. 1913.

Orobanchaceae are the largest family of parasitic plants. They are parasitic on the rhizomes and roots of other plants. Those that lack chlorophyll are termed holoparasitic while those that have chlorophyll and are able to photosynthesize are termed hemiparasitic. They are annual or perennial herbs, rarely subshrubs and shrubs and have cosmopolitan distribution with about 100 genera and ca. 2,000 species worldwide. In the Neotropics, there are about 21 genera and a little over 300 species. Of these, only the genus *Vellosiella* is represented by several scrambling or twining species.

Diagnosics: In vegetative condition, climbing *Vellosiella* are glabrous or hirsute; stems are terete to quadrangular in cross section; leaves are opposite, simple, lanceolate to ovoid, with sinuate-dentate margins, acuminate at apex; stipules are absent.

GENERAL CHARACTERS

1. STEMS. Terete to quadrangular in cross section.
2. PUBESCENCE. Glabrous or pubescent.
3. LEAVES. Opposite or sometimes alternate, simple, petiolate or sessile, toothed or entire, rarely lobed, pinnate, palmate, or 1-veined; stipules absent.
4. CLIMBING MECHANISMS. Scrambling or twining.
5. INFLORESCENCE. Terminal or axillary spikes, racemes, corymbs, panicles or a single, axillary flower.
6. FLOWERS. Bisexual; calyx actinomorphic to gamosepalous, 4- or sometimes 5-lobed, the lobes connate; corolla 5-lobed, zygomorphic, usually bilabiate; stamens 4, often didynamous; ovary superior, 1- or 2-locular, with axial or parietal placentation; style 1.
7. FRUITS. Capsule with septicial or loculicidal dehiscence.

USES

Inflorescences and fruits of a few Neotropical Orobanchaceae are used as food and the showy flowers are desirable as ornamentals, but few others are cultivated. Only three species of Orobanchaceae have economic importance as medicinal plants or crops, none of which occur in the Neotropics. Some species in the genera *Orobanche* and *Striga* are economically important because they are invasive and have caused severe crop damage to agricultural fields worldwide.

GENERIC DESCRIPTION

VELLOSIELLA Baillon, Bull. Mens. Soc. Linn. Paris 1: 715. 1887.



V. dracocephaloides (Vell.) Baill., photo by L. S. Leoni

Perennial herbs, subshrubs or shrubs. Stems erect to scrambling or twining, terete to quadrangular, glabrous or hirsute. Leaves opposite, pinnately veined, shortly petiolate, lanceolate to ovoid, with sinuate-dentate margin, acuminate at apex. Inflorescence a single axillary flower, the pedicels elongate, bibracteolate and often abruptly curved distally; calyx spathaceous, with entire margin, inflated, acuminate at apex; corolla subactinomorphic, with 5 shallowly cleft and emarginate lobes, infundibuliform, slightly curved, fluted, orange-red; ovary bilocular; style 1, the stigma capitate. Fruit a loculicidal capsule; seeds fusiform, truncate, with a transparent, reticulate outer testa.

Unique features: The spathe-like calyx, infundibuliform corolla, and fusiform seeds characterize this genus.

Distribution: A small South American genus of 3 species, two of which are reported as scramblers or twiners. *Vellosiella dracocephaloides* (Vell.) Baill. is endemic to southeastern Brazil and occurs in riparian and secondary forests at 1100-2120 m elevation. *Vellosiella spathacea* (Oliv.) Melch. occurs from southern Venezuela to Guyana in riparian or mixed tropical forests to upland cloud forests and tepui scrub at 1500-2200 m elevation.

RELEVANT LITERATURE

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