

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

ASPARAGACEAE

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A cosmopolitan family of rhizomatous herbs, sub-shrubs, shrubs, erect, or rarely scandent



H. salsaparilha (photo by P. Acevedo)

or twining vines.

The family is represented in the Neotropics by ca. 445 species eight of which species are twining vines with wiry stems. These all belong to the South American genus *Herreria*, which is found in diverse habitats

throughout the continent.

Diagnosics: Although this monocot family is difficult to diagnose by morphological characters, *Herreria* is easily recognized by its wiry, twining stems, provided with recurved thorns and by its fasciculate leaves with fine parallel venation. Fruits are trigonous capsules.

General Characters

1. STEMS. Stems are deep green, cylindrical, **wiry** (reaching up to 5 mm in diam.) and provided with recurved **thorns**. Cross section with typical monocot configuration of discrete **bicollateral vascular bundles**. Nodal areas sometimes producing aerial roots.
2. EXUDATES. Exudates are odorless and *colorless*.
3. CLIMBING MECHANISM. All climbing species of *Herreria* are **twiners**.
4. LEAVES. Leaves are simple, exstipulate, and fasciculate, with entire margins, parallel venation, and short petioled or sessile. Leaves fascicles accompanied by 1-5 membranous or papery cataphylls.
5. INFLORESCENCES. Inflorescences, ascending or spreading, axillary, simple or compound racemes, with flowers in lateral, small fascicles.
6. FLOWERS. *Actinomorphic*, bisexual. Tepals yellowish or greenish white, cucullate, and papillose, of similar size and shape, partly connate at base, erect or reflexed at apex. Stamens as many as, and opposing the tepals; filaments free adnate to the base of tepals. Gynoecium superior, syncarpous, 3-carpellate, the style elongated, the stigmas trilobed; placentation axial, ovules 4–6 per carpel.
7. FRUITS. Trigonous, loculicidal, green capsules.
8. SEEDS. Seeds 1–3 per locule, black, with marginal short wing.

GENERIC DESCRIPTION

HERRERIA Ruiz & Pavón, Fl. Peruv. Prodr. 1: 48. 1794.



H. salsaparilha (photo by P. Acevedo)

Twining, rhizomatous vines. Stems wiry, cylindrical or angled, green, with recurved thorns; 2–5 mm in diam. and up to 10 m long. Leaves in 1 or 2 fascicles per node, short-petiolate or sessile, with fine parallel venation. Inflorescence of axillary, simple or compound racemes, with flowers in small fascicles. Flowers bisexual. Tepals 6, connate at base, of similar shape and size, yellowish or greenish white. Stamens six, opposite to

the tepals, filaments free, flattened, subulate; anthers oblong to linear. Ovary trigonous-globose or trigonous-oblong, with 4 to 6 ovules per carpel; style trigonous; stigma trilobed. Fruit a trigonous loculicidal capsule; seeds 1-3 per locule, nearly lenticular with a narrow, panoramic wing.

Distinctive features: Stems twining, wiry, green and spiny, leaves in lateral fascicles.

Distribution: A South American genus of twining vines, with eight species distributed in southern South America, seven of which occur in the Neotropics (Brazil & Bolivia) and extending south to Paraguay, Argentina, Uruguay, and Chile.

USES

Several species of *Herreria* are used in the medicinal folklore in Brazil for the treatment of various ailments. In addition, the stems of *H. montevidensis* Griseb. are used in the confection of baskets in the region of Corumbá in Mato Grosso de Sul, Brazil (Alvarez et al. 2008).

RELEVANT LITERATURE

Alvarez, J.M., R.C. Lopes, and I.M. Bartolotto. 2008. The ethnobotany of *Herreria montevidensis* Klotzsch ex Griseb.-Herreriaceae, in Corumbá, Brazil. *Economic Botany* 62(2): 187-191.

Lopes, R.C. 2003. *Herreriaceae* Endlicher: Revisão taxonômica dos gêneros neotropicais *Herreria* Ruiz & Pavón e *Clara* Kunth. Doctoral Dissertation, Universidade Federal do Rio de Janeiro/Museu Nacional, Brazil.