# GUIDE TO THE GENERA OF LIANAS AND CLIMBING PLANTS

# **IN THE NEOTROPICS**

### ROSACEAE

By Pedro Acevedo-Rodríguez (Jul 2020)



Rubus sp., photo by P. Acevedo

Primarily a family of sub-temperate or subtropical regions of the Northern Hemisphere, with about 100 genera and 3,000 species of herbs, trees, shrubs, and seldom scrambling vines or lianas. The family is represented in the Neotropics by about 30 genera and 800 species, of which only 55 are reported as climbers, all belonging to the genus *Rubus*. The genus is most diverse in humid forests at elevations between 1500 and 3000 m elevation.

*Diagnostics*: Scrambling vines or lianas, stems, leaves and inflorescences armed with recurved prickles; flowers commonly with white corollas and numerous stamens; fruits a syncarp of numerous coherent, fleshy drupes.

### **General Characters**

1. STEMS. Stems slender (< 1 cm in diam.), cylindrical or angled, armed with numerous recurved prickles; cross section simple, with regular anatomy.

- 2. EXUDATES. Scanty, watery, inconspicuous.
- 3. CLIMBING MECHANISM. All climbing species of *Rubus* are scramblers aided with recurved thorns.
- 4. LEAVES. Leaves are compound (impari-pinnate, palmate, trifoliolate), alternate; leaflets with serrate, serrulate, dentate or lobed margins, and pinnate venation; rachis and blades commonly armed with prickles; petioles short to long, glandless; stipules often large, persistent or caducous.
- 5. INFLORESCENCES. Terminal or axillary racemes, corymbs or panicles, or flowers solitary, the axes commonly armed with prickles.
- 6. FLOWERS. *Actinomorphic*, bisexual; long-pedicelled. Sepals 5, free, green; petals 5, free, often white, unguiculate; stamens numerous, the filaments equal or unequal; gynoecium superior, of numerous, coherent, uniovulate carpels.
- 7. FRUITS. A syncarp of numerous, minute, coherent fleshy drupes, commonly red or purple.



Figure 1. *Rubus sp.* A. Branch with imparipinnate leaves. B. Palmately compound leaf. C. Stems showing prickles. Photos by P. Acevedo.

## **GENERIC DESCRITION**

#### **RUBUS** Linnaeus, Sp. Pl. 492. 1753.

Erect, clambering, or decumbent shrubs, with numerous recurved prickles and numerous lateral branches, reaching 3-10 m in length. Leaves alternate, compound, trifoliolate, 5-9-pinnate, or quinate; stipules small to large, conspicuous, usually adnate to the petiole, persistent. Inflorescences of axillary or terminal racemes, corymbs or panicles, or less often solitary. Flowers pedicellate, bisexual, actinomorphic; sepals 5, free or connate at base; petals 5, free, white, commonly unguiculate at base; stamens numerous, the filaments free; gynoecium of numerous, coherent, superior, uniovulate carpels. Fruit a syncarp of numerous, minute, coherent drupes, commonly red or purple.

**Distinctive features**: Scrambling vines or lianas 3-10 m long, often in forest understory, plant armed with recurved prickles; flowers commonly with white corollas and numerous stamens; fruit a syncarp of numerous coherent, fleshy drupes.

**Distribution**: A genus of about 1,500 species, with cosmopolitan distribution, with most species in the temperate zone or in the mountains (above 1500 m elevation) of the tropics, absent from the humid, lowland equatorial forests. About 110 species in the Neotropics, 55 of which have been reported as climbers; distributed from Mexico to southern Brazil and Bolivia.

#### **RELEVANT LITERATURE**

- Acevedo-Rodríguez, P. 2005. Vines and climbing plants of Puerto Rico and the Virgin Islands. Contrib. United States National Herbarium 51: 1-483.
- Pankhurst, R.J. 2001. Rosaceae. In: W.D. Stevens, C. Ulloa Ulloa, A. Pool and O.M. Montiel (eds), Flora de Nicaragua. Monographs in Systematic Botany from the Missouri Botanical Garden. 85(3): 2202-2206.