

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

## SELAGINELLACEAE

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*Selaginella exaltata*, photo by P. Acevedo.

A cosmopolitan family of terrestrial, herbaceous fern allies, with a single genus and about 720 species, with at least two species known in the Neotropics as scrambling herbs or vines. Mostly moist to wet, lowland forests.

**Diagnosics:** Scrambling herbaceous vines; main stems brittle, with numerous secondary branches with determinate growth; leaves microphyllous 3–4 mm long.

### General Characters

1. CLIMBING MECHANISM. Scramblers, leaning upon the surrounding vegetation and reaching 10 or more m in length.
2. LEAVES. Microphyllous with a single vein, dimorphic and distichous, numerous, membranaceous.

3. SPORANGIA. Axillary on the sporophylls produced on distal portion of branches; spores dimorphic.

### GENERIC DESCRIPTION

**SELAGINELLA** Palisot de Beauvois, Mag. Encycl. 9(5): 478. 1804 (nom. cons.).



*Selaginella willdenowii*, photo by P. Acevedo.

Terrestrial herbs, usually creeping or decumbent, rarely erect or scrambling vines. The following description pertains only to the vines. Main stems brittle, ca. 5 mm wide and reaching 10 or more m in length. Main branches with determinate growth, carrying tertiary branches and numerous microphylls that give

the appearance of a bi- or tri-pinnate, triangular or ovate-deltate leaf. Leaves however, are oblong with a single vein, dimorphic and imbricate in two layers along the referred branches; leaves of upper layer ca. 1 mm long, and those of the lower layer 3–4 mm long. Sporophylls produced at the tips of the tertiary branches with axillary sporangia that produce dimorphic spores.

**Distinctive features:** Scrambling, herbaceous vines, with alternate leaf-like branches carrying numerous tiny microphylls.

**Distribution:** A cosmopolitan genus of about 720 species, most of which are distributed in the tropics. In the Neotropics the genus is represented by 249 species (Ulloa et al. 2013) with only two species of scrambling vines. *Selaginella exaltata* (Kunze) Spring is native to the Neotropics with distribution in Costa Rica, Panama, Colombia, Ecuador, Peru, Bolivia and the Amazon region of Brazil, while *S. willdenowii* (Poir.) Baker is a species native to tropical Asia and

Indonesia which has been introduced in Panama, Colombia and Jamaica and is naturalized in Puerto Rico after its introduction there as an ornamental plant; moist lowland forests.

#### **RELEVANT LITERATURE**

Weststrand, S. and P. Korall. 2016. A subgeneric classification of *Selaginella* (Selaginellaceae). *American Journal of Botany*, 103(12): 2160–2169.