

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

## ARALIACEAE

By Pedro Acevedo-Rodríguez (Jul 2020)



*Hedera helix* L., painting by Jacob Sturm

A family of shrubs, trees, lianas, and occasionally herbs with pantropical distribution, some members extending into temperate zones of North America, Europe and the Southern Hemisphere. Worldwide, the family consists of about 43 genera and about 1,450 species, of which only the root-climbing liana *Hedera helix* L. has been introduced and naturalized in various localities in the Neotropics, in moist mountainous areas.

**Diagnosics:** Root-climbing liana, profusely branched, with alternate, mostly trilobed and sometimes variegated leaves that have distinct juvenile and mature stages.

## General Characters

1. **STEMS.** Cylindrical, older stems with numerous adventitious roots (fig. 1b & d); mature stems reaching 6 or more cm in diam. and > 20 m in length. Cross sections have regular wood anatomy, with abundant narrow rays (fig. 1c).
2. **EXUDATES.** Exudate not visible watery.
3. **CLIMBING MECHANISM.** All climbing *Hedera* are **root-climbers** during early stages.
4. **PUBESCENCE.** Plant glabrous; leaves sometimes dotted and with stellate hairs.
5. **LEAVES.** Leaves are simple, alternate, with undulate to 5-lobed margins, venation pinnate or palmate; petioles commonly as long as the blade, glandless; stipules absent.
6. **INFLORESCENCES.** Terminal racemes of umbels.
7. **FLOWERS.** Actinomorphic, bisexual, 5-merous; pedicelled; sepals fused to the hypanthium and represented by 5 teeth; corolla of 5, free, reflexed petals; stamens 5, alternating with the petals; ovary inferior, 5-locular with a single pendulous ovule per locule, bearing a single style (figs. 1a).
8. **FRUITS.** A berry, yellow-orange to black, depressed-globose with a calyptrate scar on upper third; seeds 4-5 per fruit.

## USES

*Hedera helix* L., the common ivy, is a popular ornamental that thrives in shady areas and is commonly used as groundcover and to hide unsightly structures. The deep green and variegated forms provide an interesting color contrast in temperate gardens.

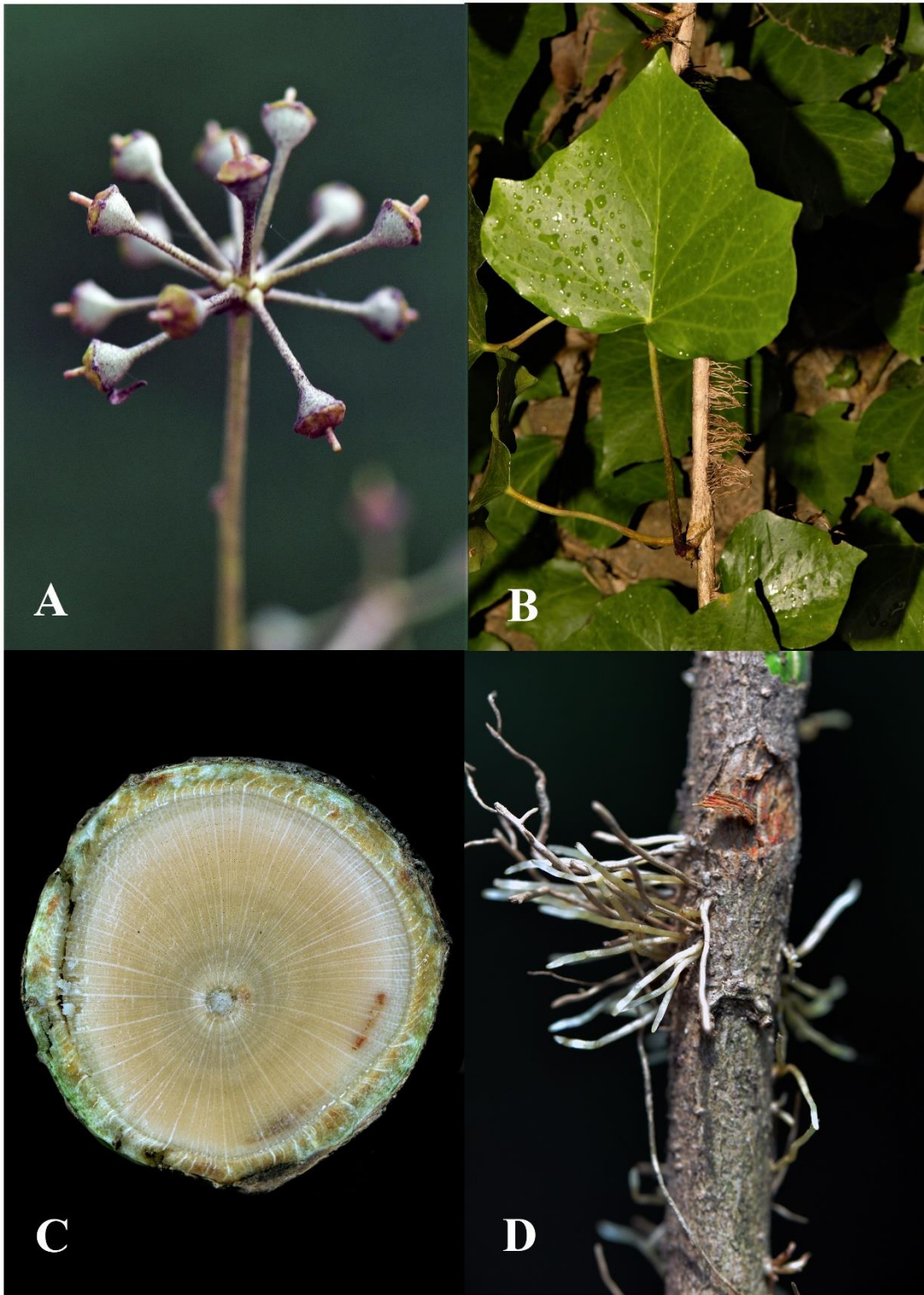
## GENERIC DESCRIPTION

**HEDERA** Linnaeus, Sp. Pl. 202. 1753.

Root-climbing lianas. Leaves alternate; blades simple with distinct juvenile and mature stages, the juvenile commonly with lobed leaves, the mature stage with unlobed leaves; petioles as long as the blade. Flowers 5-merous, bisexual, pedicellate, arranged in umbells; bracts minute. Calyx of minute sepals fused to the hypanthium; petals 5, free, reflexed; stamens 5, alternating with the petals; ovary inferior, 5-locular with a single pendulous ovule per locule, bearing a single style. Fruit a drepressed-globose berry with 4-5 seeds.

**Distinctive features:** Root-climbing lianas with alternate, hastate, simple leaves, commonly variegated.

**Distribution:** A Mediterranean and sub-temperate genus of 18 species naturally distributed from Europe to China; *H. helix* L. has been introduced as a garden plant and becoming naturalized in North America and parts of the Neotropics (Bolivia, Brazil, Colombia, Ecuador, Mexico, and Peru).



**Figure 1.** *Hedera helix* L. **A.** Inflorescence (immature fruits). **B.** Root-climbing stem with lobed leaves. **C.** Stem cross section with numerous narrow rays. **D.** Detail of stem with adventitious roots. Photos by P. Acevedo.

## 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.

Stace, C. 2010. Combretaceae. Flora Neotropica monograph 107. New York Botanical Garden,

New York.

## FIGURE VOUCHERS

Figure 1.

A-B. *Hedera helix* L. (Acevedo 16949).

C-D. *Hedera helix* L. (no voucher)