

# *Calypogeia rhynchophylla* (Herz.) Bischl.

Status: **Vulnerable (VU) D2**

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Class: Hepaticae

Order: Jungermanniales

Family: Calypogeiaceae

**Description and Biology:** Plants are growing in appressed, deep green to olive-green mats on soil and bark. Stems are up to 5 cm long and 2-4 mm wide, irregularly branched. Leaves are long ovate with a mucronate apex and a conspicuous leaf border consisting of very narrow, obliquely arranged cells; the leaf arrangement is incubous. Underleaves are well-developed, broadly ovate and with a rounded apex. The species is dioicous and only male plants have been reported. Sexual and vegetative reproduction are unknown but it is possible that reproduction by means of caducous leaves, observed in allied species of the subgenus *Caracoma*, does occur.

**Distribution and Habitat:** *Calypogeia rhynchophylla* is endemic to Costa Rica and is known from three localities on the mainland and from several localities on Cocos island (a small Pacific island about 1000 km off the coast of Costa Rica). The species grows on humic soil and bases of trees in very humid, tropical montane cloud forest, at ca. 1000-2000 m on the mainland and above 500 m on Cocos Island. The species is only known from dense, undisturbed forests.

**History and Outlook:** *Calypogeia rhynchophylla* is an isolated taxon. It was first discovered in the 1920's, by P.C. Standley, and described as a new genus, *Mniolomia* Herz. *Mniolomia* is now considered a subgenus of *Calypogeia*, with *C. rhynchophylla* still as its only species. The unique, bordered leaves set it widely apart from its congeners. The cloud forests of Costa Rica, the habitat of the species, have largely disappeared except in a few protected areas. All collections, except for the type specimen, are recent gatherings and are from Natural Parks (Tapanti 1980's, Monteverde 1993, Cocos Island 1994). In Cocos island the species is still locally abundant at higher elevations (G. Dauphin, pers. comm. 1994). Although its geographical range is very narrow, the occurrence of *Calypogeia rhynchophylla* in the relatively well-managed Natural Parks of Costa Rica and its commonness on the remote, uninhabited (and protected) Cocos Island, indicates that the species may not be considered endangered, at least at present. Habitat destruction (deforestation).

## References:

- Fulford, M. H. 1968. *Calypogeia rhynchophylla*. Manual of the leafy Hepaticae of Latin America III. - Mem. New York Bot. Garden 11 (3): 281-282, Fig. 1.
- Morales, M.I. 1991. Las Hepaticas comunicada para Costa Rica. - Trop. Bryol. 4: 25-57.

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