



Cladocolea kuijtii (Loranthaceae) a new species from Mexico

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Abstract

A new species of *Cladocolea*, from Guerrero, Mexico, is described and illustrated. *Cladocolea kuijtii* is morphologically similar to *C. hintonii*, but it differs by its obovate to orbicular leaves, bracts persistent, female flowers pentamerous or hexamerous, straight style and linear-lobed stigma.

Resumen

Se describe e ilustra una nueva especie de *Cladocolea* del estado de Guerrero, México. *Cladocolea kuijtii* es morfológicamente similar a *C. hintonii*, de la cual difiere por sus hojas obovadas a orbiculares, brácteas persistentes, flores femeninas pentámeras o hexámeras, estilo recto y estigma linear-lobulado.

Key words: *Cladocolea*, *Cornus*, Guerrero, Mexico

Introduction

Cladocolea (Van Tieghem (1895: 166)), with about 30 species (Kuijt 2012), is a New World genus. Among the total number of species for the genus, 21 are in Mexico of which 20 are endemic to the country (Kuijt 1975, Kuijt 1980, Alvarado & Saavedra 2005), and 14 are in Guerrero, according to the taxonomic revision of the Loranthaceae of Guerrero, which is carried out by the Herbario de la Facultad de Ciencias, UNAM.

The individuals of *Cladocolea* are perennial hemiparasitic shrubs, usually dioecious; among the attributes of the group are its alternating to opposite phyllotaxis, its simple inflorescences and usually sessile flowers. Delimitation between *Cladocolea* species is based on leaves, inflorescence, and flower morphology. In Mexico, the genus *Cladocolea* is distributed from the North of the Isthmus of Tehuantepec, along the central and southeastern of Mexico, mainly in the tropical deciduous forests of the Pacific slope and in the Balsas basin (Kuijt 1975, Alvarado & Saavedra 2005), as well as in the slope of Gulf of Mexico (Cházaro *et al.* 2005).

Within the family Loranthaceae, the genus *Cladocolea* is included in the subtribe Psittacanthinae Engler (1987: 135), which is considered a monophyletic group (Vidal-Rusell & Nickrent 2008). However, there are no specific phylogenetic studies of this genus. In addition, the circumscription of the genus has completely changed, due to the publication of new species (Kuijt 1975, Kuijt 1980, Kuijt 1987a, Kuijt 1987b, Kuijt 1992, Kuijt 2003, Kuijt 2009), the transfer of some species from *Cladocolea* to the genus *Ixocatus* Rizzini (Kuijt 1991a) and *Peristethium* Tieghem (Kuijt 2012), as well as the addition of the species of genus *Phthirusa* Martius to *Cladocolea* (Kuijt 1991b). As a result, a revision of *Cladocolea* is required.

During the taxonomic revision of the Loranthaceae of Guerrero, a species of *Cladocolea* was detected, with obovate to orbicular leaves, persistent bracts, pentamerous male flowers, pentamerous and hexamerous in the case of females, straight style and linear-lobed stigma. This species could not be assigned to any taxon described at the moment, and here it is proposed as a new species. The present work also includes a key to determine the species of *Cladocolea* present in Guerrero, Mexico.

- long or less..... *C. pringlei*
6. Inflorescences dimorphic, the primary in the young growth with shape of dichasium, the secondary in the last year growth with shape of spike, tetramerous flowers *C. oligantha*
- Inflorescences isomorphic, hexamerous flowers..... 7
7. Stems quadrangular and sulcate, inflorescences capituliform, flowers sessile *C. andrieuxii*
- Stems cylindrical, inflorescences racemeform, pedicellate flowers..... 8
8. Phyllotaxis alternate rarely opposite, determinate inflorescence with 7–9 flowers, pedicel 4–7 mm long *C. pedicellata*
- Phyllotaxis opposite rarely alternate, indeterminate inflorescence with 10–14 flowers, pedicel 0.5–2 mm long..... *C. racemosa*
9. Phyllotaxis alternate, leaves narrowly lanceolate to ensiform, papillose to puberulous indumentum, tetramerous flowers..... 10
- Phyllotaxis alternate to opposite, leaves lanceolate, ovate, obovate or orbicular, pubescent indumentum 11
10. Plants hermaphrodite, dimorphic inflorescences, the primary in the young growth with shape of dichasium, the secondary in the last year growth with shape of capitulum, foliar bracts present only in the lateral flowers..... *C. dimorpha*
- Plants dioecious, isomorphic inflorescences with shape of capitulum, male inflorescences shorter than the female, foliar bracts absent..... *C. coyucaae*
11. Inflorescences spiciform with 3–7 flowers, bracts deciduous..... *C. hintonii*
- Inflorescences capituliform with 4–10 flowers, bracts persistent 12
12. Foliar bracts present 13
- Foliar bracts absent..... 14
13. Not sympodial branch, yellow-brown colored stem, inflorescence with 10–25 mm long, hexamerous flowers, rarely pentamerous *C. loniceroides*
- Sympodial branch, grey colored stem, inflorescence with 8–13 mm long, hexamerous flowers *C. microphylla*
14. Inflorescences 5–8 mm long, triangular bracts 1–2 mm long, pentamerous flowers, sometimes hexamerous, rarely tetramerous *C. stricta*
- Inflorescences 6–25 mm long, triangular to oblanceolate bracts 1–4 mm long, pentamerous flowers, rarely hexamerous..... *C. kuijtii*

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