

NOTES ON THE OCCURRENCE OF *CHEILOLEJEUNEA PAROICA* MIZUT. (*LEJEUNEACEAE*, *MARCHANTIOPHYTA*) IN NEOTROPIC

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RESUMEN. *Notas sobre la presencia del Cheilolejeunea paroica Mizut. (Lejeuneaceae, Marchantiophyta) en el Neotrópico.* Se cita *Cheilolejeunea paroica* Mizut. por primera vez para el Neotrópico. Se presentan descripciones e ilustraciones, y se aportan datos acerca de los hábitats, sustratos y distribución geográfica.

Palabras clave. Marchantiophyta, Lejeuneaceae, *Cheilolejeunea*.

ABSTRACT. *Notes on the occurrence of Cheilolejeunea paroica Mizut. (Lejeuneaceae, Marchantiophyta) in Neotropic.* In this paper, the occurrence of *Cheilolejeunea paroica* Mizut is reported for the first time to the Neotropic. Description, illustration and comments on habitat, substrate, and geographical distribution are provided.

Key words. Marchantiophyta, Lejeuneaceae, *Cheilolejeunea*.

INTRODUCTION

A species belonging to the genus *Cheilolejeunea* was found during our study of Lejeuneaceae from the state of Bahia, Brazil. After careful study, the specimens were identified as *Cheilolejeunea paroica*.

Cheilolejeunea paroica was described by Mizutani (1979), and belongs to subgenus *Euosmolejeunea* (Spruce) Schust. It is a paleotropical species previously reported only to Celebes and Borneo (Mizutani 1979), and there aren't records of it within the neotropical region. In this paper, the occurrence of *Cheilolejeunea paroica* in the state of Bahia, Brazil is reported, and therefore, it represents the first reference of

this species to the Neotropic.

MATERIAL AND METHODS

The specimens were collected at the ombrophilous forest and mussununga vegetation, which is found on sandy soil covering a smaller area than the ombrophilous forest, with trees usually smaller and a lower density distribution. This vegetation type is located at southern Bahia, within ombrophilous forest, Atlantic Forest domain. The other ecosystem was the coastal cerrado (savanna) fragment at northern Bahia. All specimens are deposited at Alexandre Leal Costa Herbarium (ALCB),

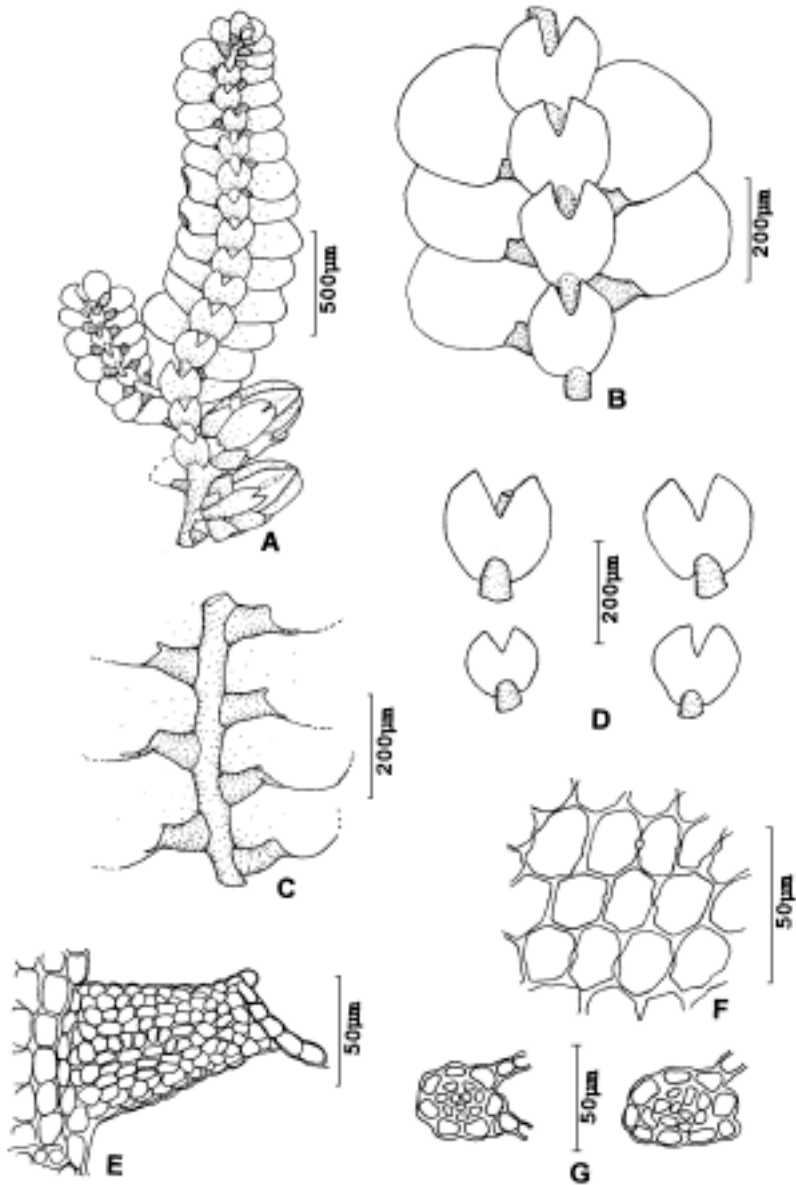


Figure 1. *Cheilolejeunea paroica* Mizut. A, B: gametophytes, ventral view; C: lobules; D: underleaves; E: lobule; F: laminar cells; G: cross-sections of the stem (C. Bastos & S.B. Vilas Bôas-Bastos 2088). (A, B: Gametófitos, vista ventral; C: Lóbulos; D: Anfigástrios; E: lóbulo; G: seccion transversal del tallo).

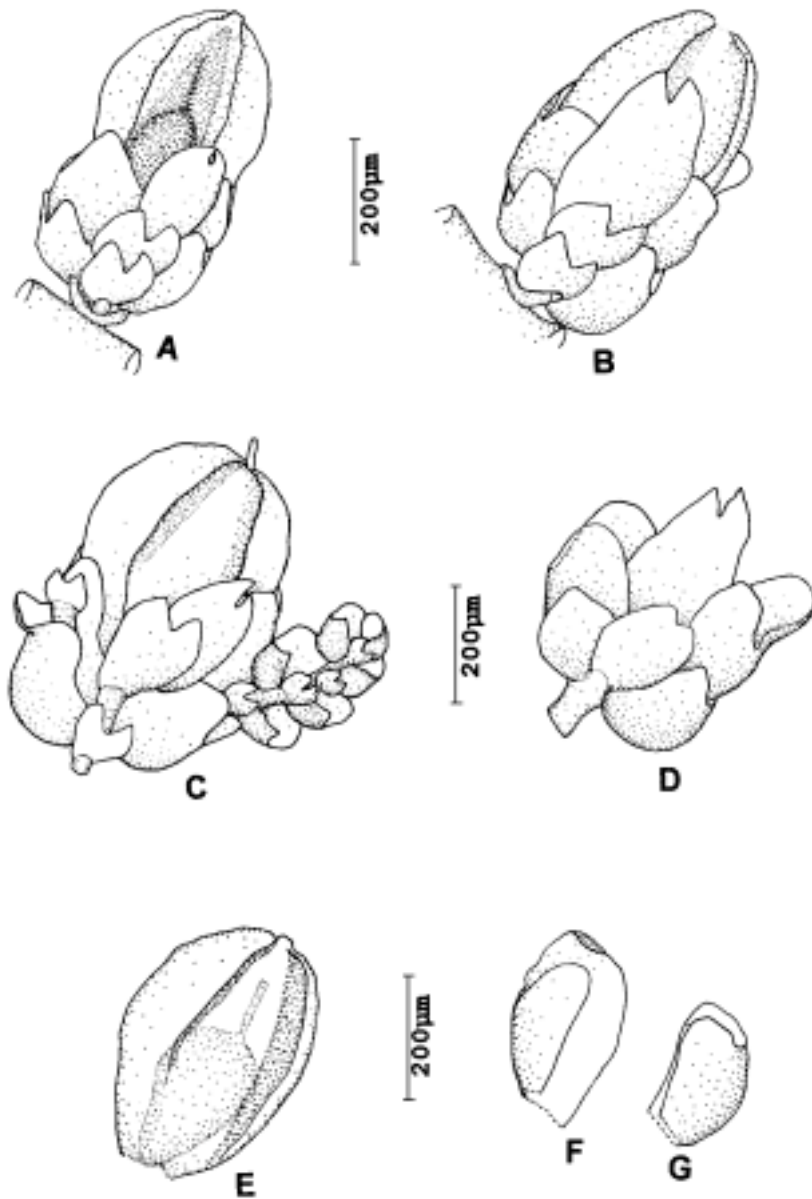


Figure 2. *Cheilolejeunea paroica* Mizut. A and B: paroicous branches, with perianth, ventral view; C: paroicous branch with pycnolejeuneoid innovation and perianth, ventral view; D: paroicous branch; E: perianth; F: gynoecial bract, ventral view; G: androecial bract, ventral view (C. Bastos & S.B. Vilas Bôas-Bastos2088). (A, B: ramas paróicos com periantio, vista ventral; C: ramas paróicos com innovaciones piclejeuneóides, vista ventral; D: ramas paróicos; E: periantio; F: brácteas periqueciales, vista ventral).

which belongs to the Instituto de Biologia, Universidade Federal da Bahia, Brazil.

RESULTS AND DISCUSSION

Cheilolejeunea paroica Mizut., Journ. Hattori Bot. Lab. 46: 364. 1979.

Type-locality: Celebes, Kandrai, SE peninsula, *Beccari* (Holotype L). Figs. 1-2.

Gametophyte small, 0.5-0.8 mm wide, irregularly branched, branches of *Lejeunea*-type. Stem in cross section with 7 cortical cells, and 9-10 medulary cells. Leaves spreading, imbricate; lobe oblong-ovate, 416-552 x 320-448 μm , antical margin arched, entire to slightly crenate from projecting marginal cells, postical margin straight, entire, apex rounded; cells oblong, 18-36 x 14-20 μm , slightly thickened walls, small trigones, intermediate thickening present or occasional; oil-bodies not observed; ocelli absents; lobule ovate-rectangular, free margin slightly involute, apical tooth short, obtuse, apical margin curved to oblique, keel straight to slightly arched, crenate from projecting cells; hyaline papillae distal. Underleaves ovate to orbicular, 188-556 μm wide, contiguous to distant, bifid, sinus acute, base cuneate to rounded, insertion line arched. Ventral merophyte two cells wide. Paroicous. Androecium below gynoecium, 2-3 pars of bracts, inflated lobules, bracteoles at base of the branch. Gynoecium terminal or lateral, pycnolejeuneoid innovation, bract lobe oblong-ovate, margin entire, apex obtuse to rounded, lobule large, oblong, apex acute; bracteole bifid, ovate, sinus acute, margin entire; perianth pyriform, keeled, rostrum short.

Selected specimens: Brazil. Bahia: Eunápolis, Estação Veracruz (Forestal Reserve), in mussununga vegetation, 16°22'00"S, 39°08'28"W, 10/9/1999, C.

Bastos & S.B. Vilas Bôas-Bastos 1854, 1926 (ALCB); Santa Cruz Cabralia, Forest Fragment "Cara-branca" (ombrophilous forest), 16°16'S, 39°02'W, 9/8/2001, C. *Bastos & S.B. Vilas Boas-Bastos 2539* (ALCB); Alagoinhas, Campus II-UNEB (coastal cerrado fragment), 10/7/2001, C. *Bastos & S.B. Vilas Boas-Bastos 2954, 2958, 3004* (ALCB).

All specimens were corticicolous, the most of them collected in open vegetation (mussununga and coastal cerrado), and few collected in ombrophilous forest.

The remarkable character of this species is their paroicous condition, observed in all specimens examined. The presence of this species in neotropic may be explained by current biogeographic theories, as vicariance or long-range dispersal, being the former the more possible event, considering the break up of Gondwana.

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