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34

A revision of the Andean wax palms, *Ceroxylon* (Arecaceae)

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Table of contents

Abstract	3
Resumen	3
Introduction	3
Taxonomic treatment	25
Acknowledgements	57
References	58
Appendix 1. List of cited specimens	62

Abstract

The genus *Ceroxylon* is revised and twelve species are recognized. A total of 228 specimens from 19 herbaria were studied and field work was carried out in four countries. A list of 113 characters was explored in the specimens and described for each species. Additionally, leaf anatomy and pollen morphology (via Scanning Electron Microscopy, SEM) were examined for twelve and eleven species, respectively. SEM images were used to describe the surfaces of the leaf and fruit epicarp. Information on habitat, natural history, local names, uses and conservation status are incorporated after the morphological description of each species. A key for the identification of the species is provided and illustrations and distribution maps are included for all species.

Key words: leaf anatomy, morphology, pollen, wax palms

Resumen

Se hace una revisión del género *Ceroxylon*, en la cual se reconocen doce especies. Se examinó un total de 228 especímenes de 19 herbarios y se realizó trabajo de campo en cuatro países. Se exploró una lista de 113 caracteres en los especímenes y éstos se describen para cada especie. Adicionalmente, la anatomía foliar y la morfología polínica (por Microscopía Electrónica de Barrido MEB) se describen para doce y once especies, respectivamente. Imágenes por MEB son usadas para describir las superficies de la hoja y del epicarpio del fruto. Secciones que incluyen el hábitat, el conocimiento hasta la fecha sobre historia natural, nombres comunes, usos locales y finalmente el estado de conservación, se incorporan después de la descripción morfológica de cada especie. Una clave para la identificación de las especies, fotos y mapas de distribución, se incluyen para todas las especies.

Palabras clave: Palmas de cera, anatomía foliar, polen, morfología

Introduction

Ceroxyloideae Drude (1877: 632), one of the five subfamilies of Arecaceae, comprises three tribes (Dransfield *et al.* 2008): Ceroxyleae Satake (1962: 125; four genera), Cyclospatheae Cook (1902: 24; one genus), and Phytelepheae Horaninow (1847: 38; three genera). Ceroxyleae is characterized by the following suite of characters: dioecy, sheaths not forming crownshafts, peduncular bracts 3–5, and flowers scarcely dimorphic, solitary, and open before anthesis (Dransfield *et al.* 2008). It includes four genera of southern distribution: *Ceroxylon* Bonpl. ex DC. from South America, *Juania* Drude (1878: 40) from the Juan Fernández Islands, *Ravenea* Wendland ex Bouché (1878: 324) from Madagascar and the Comoro Islands, and *Oraniopsis* (Beccari) Dransfield, Irvine & Uhl (1985: 57) from Australia. Cyclospatheae, with its single genus *Pseudophoenix* H.Wendl., has a Caribbean distribution, whereas the genera of Phytelepheae, *Phytelephas* Ruiz & Pav., *Ammandra* O.F.Cook and *Aphandra* Barfod, are restricted to the lowlands of southern Central America and northwestern South America. Phytelepheae (formerly treated as a subfamily, Phytelephantoideae Drude has been revised by Barfod (1991), and Cyclospatheae by Zona (2002). Within Ceroxyleae, *Ravenea* has been revised by Beentje (1994), *Oraniopsis* by Dransfield *et al.* (1985) and *Juania* by Moore (1969). Here we present a taxonomic revision of the remaining genus, *Ceroxylon*.