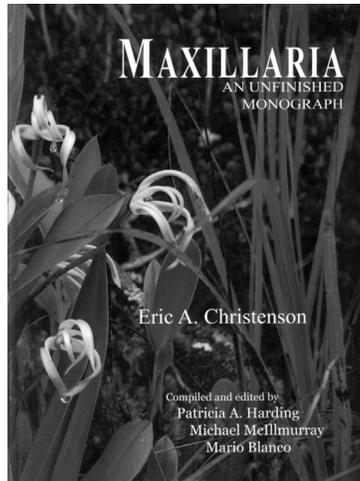
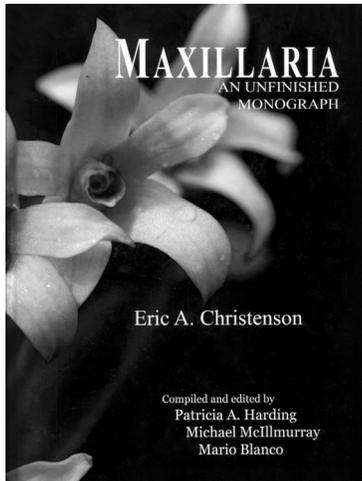


## BOOKS

### *Maxillaria*. An Unfinished Monograph

Eric A. Christenson. Co-compilers/editors Patricia A. Harding, Michael McIlmurray and Mario A. Blanco. Published in 2013 by P.A. Harding for Robert Christenson. Two volumes, 938 pages, 21 x 28 cm. SBN-13: 978-0-9836747-1-9. Available from Patricia Harding, 39127 Griggs Dr., Lebanon, OR 97355 USA (patriciaorchids@gmail.com). \$160.00.



The title of this two-volumes-book well synthesizes the scope and the real reach of the work. Christenson's posthumous opus is as much imperfect as an unfinished work can be, and a compendium as much complete in a single source as no other treatment of the mammoth genus *Maxillaria* ever done before.

Patricia Harding must be acknowledged for assuming the burdensome commitment of ordering Christenson's files after his death and organize them in the shape of a publishable work, searching for trustable sources for the (many) missing images, and trying to respect as much as possible the ideas of the late author. She was greatly assisted by a veritable expert on *Maxillaria* as McIlmurray, who has a direct knowledge of most of the species, and by the taxonomist who probably knew the genus better than any other, Mario Blanco, presently at the University of Costa Rica. All together, the editors updated the available information, checking it against the more recent findings that in some cases supersede the author's concepts, whilst conserving Christenson's views and his frequently polemic writing style.

Enthusiast and botanists alike will find an unbelievable quantity of material and valuable

information in the almost thousand pages of this treatment, with hundreds of photographs, fine line drawings of living plants and flowers mostly provided by M. McIlmurray (curator of the UK National Plant Collection of Maxillarias, who corresponded with Christenson for several years), and many other images taken from herbaria over the world.

What the reader will not find in the treatment is neither a coherent and modern hypothesis about the classification of *Maxillaria*, nor a comparable amount and quality of information among the over 600 species that shape the genus in its broadest circumscription (the one favored by Christenson), so that the concepts of the author about the taxonomic identity of several species are often confused or superficial. During his life, Christenson published a number of papers presenting his ideas about the systematics of *Maxillaria* and the diversity of the genus, naming 16 sections, 80 species, and a few infraspecific taxa of *Maxillaria*. He fiercely refused to take into account the information provided by DNA data on the natural history of the genus, and this is amply reflected in the fact that a large number of his sections are not supported by molecular analyses (i.e., they are artificial assemblages

of species from different evolutionary lineages). As the classification of *Maxillaria* proposed by Mark Whitten and his colleagues at the University of Florida, as well as the generic circumscriptions – and the relative nomenclatural changes – presented by Mario Blanco and colleagues are gaining momentum in the botanical community, several of the names used in Christenson's treatment will contribute to perpetrate a long standing confusion as to which names have to be used for any given species. The lack of a list of the specimens studied also contributes to obscure the meaning of several of the names treated.

Volume 1 includes an introduction by P. Harding and a chapter of taxonomic comments by M. Blanco, plus a short chapter on how to read a plant description. Then, Christenson's unfinished work is presented, with his overview of *Maxillaria*, its morphology and taxonomy, and the alphabetical treatment of the species (A through L). Volume 2 begins with a comment by McIlmurray

and a miscellany from Christenson's articles, files and letters related to *Maxillaria*. Species from M through Y are treated here. An extense bibliography and index close the book.

For each of the species are presented nomenclatural and type information, species description, general distribution, discussion, photographs, and illustrations. The quality of the information, however, is very variable, and in a few cases it is reduced just to the record of the name and the place of publication of the prologue. No key to the species is provided, and the only way to identify a given plant is going through the alphabetical list, checking for plant images.

Even though the treatment should not be viewed as a final study of *Maxillaria*, these two books represent a unitary effort to embrace a large and taxonomically difficult genus, and they can not miss in any serious library.

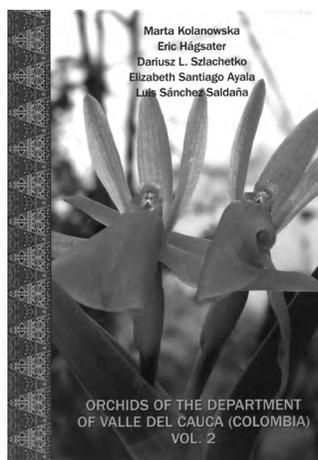
*Franco Pupulin*

**Orchids of the Department of Valle del Cauca (Colombia). Volume 1: Cyripediaceae, Orchidaceae: Orchidoideae, Spiranthoideae, Vanilloideae, Epidendroideae (Malaxideae, Elleantheae)**

Marta Kolanowska and Dariusz L. Szlachetko. Koeltz Scientific Books, Königstein, 2013. 410 pages, 177 color photographs, large octavo. ISBN-13: 978-3-87429-437-9. €157.00.

**Orchids of the Department of Valle del Cauca (Colombia). Volume 2: Epidendroideae (Epidendreae 1): Subtribes Laeliinae, Epidendrinae, Ponerinae**

Marta Kolanowska, Eric Hágsater, Dariusz L. Szlachetko, Elizabeth Santiago Ayala and Luis Sánchez Saldaña. Koeltz Scientific Books, Königstein, 2014. 494 pages, 197 color photographs. ISBN-13: 978-3-87429-451-5. €190.00.



These are the first two volumes in a four set series of orchids of the department of Valle del Cauca in Colombia. The in-record-time-produced series is undoubtedly a major contribution to the knowledge of orchids in one of Colombia's "floristically most poorly explored regions". Curiously, the two volumes are not presented in the same physical format, volume 1 being distinctly taller than volume 2.

The Department of Valle del Cauca is located in the south-western part of the country and occupies about 2% of the total area of Colombia (22.140 km<sup>2</sup>) extending from the Pacific lowlands across the Western Cordillera and valley of the upper Cauca river to the western slope of the Central Cordillera. The authors recon that about 5500 herbarium sheets and 300 specimens in alcohol of an apparently unknown number of species of orchids were revised from the 18 diverse ecosystems found in the study area. The catalogue, as it is best defined, is presented in systematic order following Szlachetko (1995), a nonetheless contested and outdated proposal. Each species' record

contains information about the locality, date of collection, collector's name and number, and acronym of the herbarium where the specimen is deposited. Descriptions, habitat, phenology data, general distribution, and distribution in the department are recorded for each entry. Distribution is supplemented by dot maps.

Volume 1 presents the Cyripediaceae and Orchidaceae families. Of the latter only the subfamilies Orchidoideae, Spiranthoideae, Orchidaceae, Epidendroideae (subtribes Malaxideae and Elleantheae only) are treated here.

The species are richly illustrated with color photographs and line drawings, frequently more than once. The line drawings can be easily used to compare the flat contour of structures like the lip, sepals and petals amongst close relatives and are nicely complemented with extremely informative photographs showing the natural color and shape of the flowers. The effort, however, falls short due to one gruesome flaw: the specimens illustrated are not

from Valle del Cauca, in fact most photographs are not even from Colombian plants! Many illustrations lack a voucher, and most which do have one have been re-drawn from Dodson's *Icones Orchidacearum* of Ecuador.

Volume 2 presents subtribes Laeliinae, Epidendrinae and Ponerinae from tribe Epidendreae, subfamily Epidendroideae. The second volume goes straight to the rough text without further introductory comments. It is presented in a way much like the first volume, with dichotomous keys for all categories, descriptions for the taxa and an entertaining amount of line drawings and color photographs. There is nevertheless one outstanding chapter, and that is the treatment of genus *Epidendrum*. Contrary to the rest, species of *Epidendrum* are presented with much more species' data, citations and discussion; the species are fully illustrated with line drawings, most of which represent Colombian material and some of it even from Valle del Cauca. The chapter is not surprisingly lead by Eric Hágsater and his colleagues at the AMO herbarium in México, who are the recognized authorities in the mentioned genus, and must be acknowledged for much improving this series in general terms.

Even though much of the volumes is devoted to species accounts, the authors have to be acknowledged for presenting all the taxa in a comprehensive and systematic manner. They have gone out of their way to

prepare dichotomous keys, based basically on column, anther and stigma features, for families, subfamilies, tribes and genera. Each family, subfamily, tribe, genus and species is at least partly described amounting for a plethora of data. All of which is extremely invaluable for anyone trying to identify their material at hand.

The usage of above species' categories, in the first two volumes published, unfortunately seems not to follow any particular system. The authors might be the only ones world-wide recognizing family Cypridiaceae as a segregate from Orchidaceae. No explanation for this decision is given, however they somehow contradict themselves by including Cypridiaceae in this book on orchids. But the questions on name usage only starts there. Genus *Scaphyglottis* is included in subtribe Ponerinae, contradicting all published DNA evidence. The recently proposed generic names in Oncidiinae, Pleurothallidinae and Sobraliinae, many of which have been proven non-monophyletic, are all accepted without discussion.

In general terms the series is useful for all students of the Colombian flora for being one of the only available comprehensive catalogues of orchids of a single region and is of invaluable importance in setting a base for further investigations in the area. It is also a great source of illustrations and photographs of some little known and rare species of orchids and is therefore a rewarding item to have in any orchid library.

*Adam P. Karremans*