GUIA DE CAMPO DE LAS ORCHIDEAS CHILENAS [FIELD GUIDE TO THE CHILEAN ORCHIDS]

Novoa, P., Espejo, J., Alarcon, D., Cisternas, M. and Dominguez, E. 2015. *Guia de Campo de las Orquideas Chilenas*, segunda edición [Field Guide to the Chilean Or-chids, second edition]. Corporación Chil-ena de la Madera (CORMA), Concepción, Chile. **Paperbound edition is free**, order through Emilio Uribe Coloma (email: jespejoc@uc.cl) or download a pdf copy at https://www.researchgate.net/publication/271525909 Guia de Campo de las Orquideas Chilenas

Forget bird watching (nasty pecking things). Trips to unfamiliar parts of the world can turn anyone into an orchid watcher. Did you know that Charles Darwin observed and collected orchids while the crew of the HMS Beagle mapped the Strait of Magellan? He handed his pressed specimens over to Sir Joseph Dalton Hooker, then Director of the Royal Botanic Gardens, Kew, upon his return to England but it looks like Darwin's eye was untrained. In a letter

to Darwin from Hooker the great botanist told the father of evolution that some specimens were actually pocket book flowers (Calceolaria). Nevertheless, Darwin collected a new orchid for Hooker who named it Chloraea magellanica, and gave his friend full credit for bringing it to Britain in Flora Antarctica: The Botany of the Antarctic Voyage (1844–1859). Unlike so many orchids, this tall and handsome wildflower has kept its original scientific name to this very day.

I have also "met" the native orchids of Chile but not in the way I wanted. When I attended a symposium in Vina del Mar in 1989, I was able to explore a bit but it was still winter in the antipodes and only one *Bipinnula* was in bloom. At that time I was doing a comparative study on the terrestrial orchids of Australia versus their South American "cousins" so I had to content myself with a visit to the herbarium in the University of Concepción. In an innocent age before genetic analyses,

taxonomists placed certain Australian genera and most of the temperate South American orchids in sister tribes or in the same tribe called the Geoblasteae (Bernhardt, 1995).

Concepción is the home of the Corporación Chilena de la Madera (CORMA), and this organization wants to give all of us this book (239 pages) as a gift. The cost of publication and delivery to your home is being absorbed by CORMA and 25 other Chilean corporations, garden clubs, conservation organizations, universities and botanical gardens. Order your copy through E.U. Coloma (jespejoc@uc.cl).

It is an attractive and informative field guide that makes up for a lot of what I missed the only time I visited Chile, and it's pretty obvious I missed quite a lot. In particular, the fuzzy, ground-hugging flowers of the genus *Myrosmodes* were entirely new to me. Chile has two species and this book reports that one of these species is visited by butterflies. The photography is impressive and, in most cases, there are usually several color photos for each species on the same page, including some close-ups right down a flower's "gullet" emphasizing the weird and contrastingly colored ridges, fingers,





warts and fins on the labellum. You may be surprised by the number of species that make their "do-hickeys" more prominent by employing a rather shiny, optic black mode of pigmentation.

Each genus and species is organized alphabetically. Following the written description of each species there is a map in color that will give you its distribution and topography if you are feeling fit and adventurous. The map, in turn, is accompanied by text offering flowering periods and elevation. Remember, these orchids pepper the Andes and their conservation status is listed when possible. The book ends with two most intriguing sections. The first reports physical variations that may or may not lead to

descriptions of new species. The second looks at possible hybrids at various field sites

Although I was always taught to receive every gift graciously, let me give you a few words of warning. With the exception of a prologue by Peter Raven, the book is entirely in Spanish. That is fine with me as my two years as a Peace Corps volunteer in El Salvador gave me a botanical lexicon in Spanish I cannot forget, but you may have other considerations. Also, information

on the natural history of each species is rather limited beyond its geography and habitat. There have been some studies on the seeds and pollination of a few of these temperate wildflowers over the past few decades, but not many. One becomes grateful for the occasional bits of information that follow, such as a sentence that tells us that "flowers of Chloraea multiflora, decked in white-with-lightgreen-sculptures, smell like vanilla extract." There's not much more the authors can offer until conservationists go out of their way to collect data on life histories, species by species.

Every now and then I receive photos of these orchids from friends and colleagues who participate in an ecotour of Chile before or after they go on their pilgrimage to the Galapagos Islands. It haunts

me and makes me wonder what I would have found had I visited the country in November or December. This book makes what-might-have-been just a little more bearable. — Peter Bernhardt, Professor of Biology, Saint Louis University, Saint Louis, Missouri; Research Associate, The Missouri Botanical Garden; Research Associate, The Royal Botanic Gardens and Domain Trust, Sydney, NSW, Australia (email: bernhap2@slu.edu).

References

Bernhardt, P. 1995. Biogeography and Floral Evolution in the Geoblasteae (Orchidaceae). p. 116–134. *In:* M.T.K. Arroyo, P.H. Zedler, and M.D. Fox, editors. *Ecology and Biogeography of Mediterranean Ecosystems in Chile, California and Australia.* Springer-Verlag, New York.