Book Review

Correa A., M.D., and dos Santos Silva, T.R. 2005. *Drosera* (Droseraceae): Flora Neotropica Monograph 96. 0-89327-463-1, 72 p., black and white figures and maps. Paperback, US$25.00+shipping. Order from www.nybg.org or 718-817-8721.

Reviewed by Fernando Rivadavia

This 72-page publication (in Spanish) on Droseraceae is a new addition to the Flora Neotropica series, published by the New York Botanical Garden. The authors M.D.Correa A. & T.R.S. Silva have published a few works on Droseraceae in Latin America over the past 30 years, including the recent *D. peruensis* T.Silva & M.D.Correa.

After a brief introduction and taxonomic history of the genus *Drosera* in the New World tropics, the authors describe general morphology of native species, and present interesting scanning electron microscope images of seeds and glands on leaves. The sections that follow cover cytology, palynology (with more SEM images), phytochemistry, infrageneric classification, geographic distribution (with numerous maps covering every species), floral biology and seed dispersal, ecology, conservation, human uses, and finally the taxonomic treatment which takes up nearly forty pages with detailed descriptions of each species, including morphology & distribution.

The first impression is that this is a very impressive work, probably one of the largest and most complete taxonomic publications on *Drosera* since Diels' monograph in 1906 or Allen Lowrie's three volume treatment of the Carnivorous Plants of Australia. The authors should at least be praised for the effort of bringing together so much information spread throughout dozens of publications spanning mostly the last century.

Unfortunately, only a slightly less superficial reading of this publication will bring to light a disheartening endless series of oversights and errors. These range from numerous misspellings, maps with dots in wrong places, and contradictory statements (sometimes even in succeeding paragraphs) to more serious mistakes such as quotes from important publications (including Juniper, Robins & Joel's "The Carnivorous Plants" and Takahashi & Sohma's "Pollen Morphology of the Droseraceae and its Related Taxa") which were wrongly interpreted by the authors, possibly due to a poor grasp of English.

Knowledgeable botanists may identify further signs of worry, such as the less-than-precise botanical drawings, the often vague morphological terminology, the non-inclusion of important herbarium collections from the past decade (especially those at the University of São Paulo, Brazil), the non-citation of more recent molecular phylogenetic data, and the obvious failure to even attempt addressing the taxonomic difficulties posed by the more complicated species complexes. The odd assortment of taxa dumped under *D. montana* A.Saint-Hilaire, with no recognition even of varieties, is absolutely indefensible.

The reader will hopefully remember that this work is not the final say in the matter of the Droseraceae of the New World tropics. Unfortunately the recently published *D. camporupestris* F.Rivadavia, *D. grantsaui* F.Rivadavia, *D. tentaculata* F.Rivadavia, and *D. viridis* F.Rivadavia were not mentioned in this publication. New species will certainly continue to be described from this biologically wealthy area and new taxonomic revisions will be made.

The overall sum of problems detected in this publication is simply inexcusable for two main reasons. First of all, most of the errors could and should have been pointed out by careful reviewers. Second, the authors seemingly did not realize the importance of this publication, that any and all errors published, as well as inadequate taxonomical treatments, will be propagated and multiplied—since this will be a reference to numerous other authors for at least decades to come.

Unfortunately, Flora Neotropica Volume 96 illustrates a failure in the process of authoring, editing, and reviewing a scientific work, and its legacy will be with us for a long time. I have not reviewed the other volumes in the series and so cannot say if this problem is limited to the treatment of the Droseraceae.

Akhriadi, P., Hernawati, and Tamin, R. A. 2004. A new species of *Nepenthes* (Nepenthaceae) from Sumatra. Nuytsia 15: 355-393.

The authors identify *Nepenthes rigidifolia* as a new highland species from north Sumatra. This is apparently the same entity as discovered by C. Lee, and described as "*Nepenthes* species A" in Clarke (2001, *Nepenthes* of Sumatra and peninsular Malaysia); it has also been given other trade names by nurseries. *Nepenthes rigidifolia* has affinities to *N. bongso*, *N. ovata*, and *N. spectabilis*, and the various differences are described in the paper—there are no single "spot characteristics" that easily identify this species.

It is always a pleasure to see floristic works being performed by regional botanists. However, I encourage authors, especially those writing in a second language, to seek assistance in drafting their papers—the grammar in this work is sometimes confusing and detracts from the clarity of the overall findings. (BR)

Alm, T. 2005. *Pinguicula vulgaris* (Lentibulariaceae) and its uses in Norway. Sida. 21: 2249-2274.

This comprehensive review of how this plant was (and still is!) utilized in Norway is a treasure-trove for those seeking evidence of strangeness in humanity. For examples, *Pinguicula vulgaris* has been given many common names, my favorites being "gnome-bite grass," "slime-grass", "old woman's mouth," and quite inexplicably "thickening old man." Its connection to making tettemelk is discussed, and a photograph is presented of such a viscous milk (Tjukkmjølk) commercially available in Norway. Furthermore, we learn that *P. vulgaris* is useful to treat soreness in reindeer teats, and can be used to calm down cows that have mated. Furthermore, it has some minor magical properties: if laid under a girl's pillow, she would dream of their coming husband. And that's not all… (BR)

Berry, P.E., Holst, B.K., Yatskievych, K. (eds.), 1998-2005. Flora of the Venezuelan Guayana. Vols 4: 697-703, 5: 782-803, 9: 138-144.

With the publication of Volume 9, the treatment of the last of the carnivorous monocots of the tepuis is complete. In total, fourteen *Drosera*, seven *Genlisea*, forty-six *Utricularia*, and ten *Heliamphora* are discussed with keys, line drawings, and short descriptions. This is an excellent resource for those interested in the species from this region. Of course, new species have been described that are not described in these treatments; such new species are noted in the literature reviews of Carnivorous Plant Newsletter. (BR)

Carow, T. 2005. Fleischfressende Pflanzen. Kosmos Garten. ISBN 3-440-10176-2 (in German)

Master carnivorous plant photographer Thomas Carow has written a small (48 page), illustrated book on carnivorous plants. An introductory work, it discusses horticulture of carnivorous plants in the home and garden, minibogs, and terraria. Short treatments are given of the carnivorous genera. Carow's photographs, of course, are delightful! Interested customers should contact German colleagues to coordinate a purchase. If nothing else, copies can be bought directly from the author (carow@t-online.de) for approximately US$10, including shipping. (BR)

Degtjareva, G., Casper, J., Hellwig, F. & Sokoloff, D. 2004. Seed morphology in the genus *Pinguicula* (Lentibulariaceae) and its relation to taxonomy and phylogeny. Botan. Jahrb. Syst. 125: 431-452.

The title is slightly misleading, as the species studied are predominantly Eurasian, and only one (*P. moranensis*) from Mexico. Although the authors are convinced micromorphological features of the seed surface are significant at sectional, specific or infraspecific level, the most striking characteristic of the studied seeds is their similarity. Particularly in comparison with the huge structural diversity

found in the seeds of the closely related genus *Utricularia*, the seeds of *Pinguicula* are best described as essentially uniform. The members of *P.* sect. *Pinguicula* (to which most of the studied species belong) share the presence of furrows between the outer parts of the anticlinal walls of adjacent exotesta cells and an always monocotyledonous embryo. (JS)

Garrido, B., Hampe, A., Marañón, T., and Arroyo, J. 2003. Regional differences in land use affect population performance of the threatened insectivorous plant *Drosophyllum lusitanicum* (Droseracae). Diversity and Distributions. 9: 335-350.

The authors surveyed *Drosophyllum* sites and assigned four age classes to the plants observed. This allowed them to infer how well new plants were being recruited, and to understand more about the status of the populations in the wild. The five sites studied in Morocco were damaged from heavy grazing, although the plant's range in this country was probably never extensive. The twenty Spanish sites included the places most likely to retain *Drosophyllum* in the future, since they included populations in the Los Alcornocales Natural Park. The seven Portuguese sites are highly impacted by development of housing and infrastructure, and also plantations. Seedling recruitment at such sites is poor, and *Drosophyllum* is likely to go extinct at these sites. (BR)

Lowrie, A. 2005. A taxonomic revision of *Drosera* section *Stolonifera* (Droseraceae) from southwest Western Australia. Nuytsia 15: 355-393.

All taxa of section *Stolonifera* ("fan-leaved" sundews, of which some have peltate and not fan-shaped leaf blades) were already featured in Carnivorous Plants of Australia, Vol. 1, by the same author (Univ. of W. Australia Press, 1987, ISBN 0 85564 254 8), from which the drawings have been reproduced. This time the species descriptions are more detailed than in the book: synonyms, basionyms and types are cited, and lists of examined specimens are added (but maps and colour photographs are missing). SEM photomicrographs of the seeds and a schematic body plan of all species complete the account. The most notable change is all former subspecies of *D. stolonifera* are elevated to species rank, i.e. *D. stolonifera* subsp. *humilis*, *D. stolonifera* subsp. *monticola*, *D. stolonifera* subsp. *porrecta*, *D. stolonifera* subsp. *prostrata*, and *D. stolonifera* subsp. *rupicola* are treated as the new species *D. humilis*, *D. monticola*, *D. porrecta*, *D. prostrata*, and *D. rupicola*. *Drosera stolonifera* subsp. *stolonifera* is retained as a more narrowly defined species, *Drosera stolonifera*. *Drosera purpurascens* (that has formerly been attributed to *D. stolonifera* subsp. *stolonifera*) is now found identical with what has been described as *D. stolonifera* subsp. *compacta*, so *D. purpurascens* is the correct name of the latter taxon if regarded a species different from D. stolonifera. (JS)

Sirová, D., Adamec, L., and Vrba, J. 2003. Enzymatic activities in traps of four aquatic species of the carnivorous genus *Utricularia*. New Phytologist. 159: 669-675.

By examining the enzymatic activity in four species of aquatic *Utricularia* (*U. vulgaris*, *U. australis*, *U. foliosa*, *U. aurea*), the authors were able to detect the presence of acid phosphatase inside the bladders. It is unclear if the creation of this enzyme is due to the plant itself, or organisms living inside the bladders and resisting consumption. (BR)

Wistuba, A., Carow, T., Harbarth , P., and Nerz, J. 2005, *Heliamphora pulchella*, eine neue mit *Heliamphora minor* (Sarraceniaceae) verwandte Art aus der Chimanta Region in Venezuela. Das Taublatt. 53/3: 42-50.

The new species *Heliamphora pulchella* is described. Previously regarded as a form of *Heliamphora minor*, this new species is distinguished by the long (5 mm, 0.2 inches) hairs on the inside of the pitcher. (BR)