

## **Buchbesprechungen / Book reviews**

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## Buchbesprechungen / Book reviews

**McPherson S., Wistuba A., Fleischmann A. & Nerz J.:** *Sarraceniaceae* of South America. – Poole: Redfern Natural History Productions, 2011. – ISBN 978-0-9558918-7-8. – xii + 561 p., 488 figures; hardcover. – Price: GBP 34.99.

**McPherson S. & Schnell D.:** *Sarraceniaceae* of North America. – Poole: Redfern Natural History Productions, 2011. – ISBN 978-0-9558918-6-1. – xvi + 807 p., 571 figures; hardcover. – Price: GBP 34.99.

Stewart McPherson's speed in churning out books on carnivorous plants is breathtaking – all the more considering the high quality of his works. Together with a handful of other recognised experts in the field, he dedicated his latest release to one of the prototypical families of carnivorous plants, the *Sarraceniaceae*.

Together with the Old World genus *Nepenthes*, the *Sarraceniaceae* from the New World make up most of the species commonly known as “pitcher plants”. Their tubular, water-filled pitfall traps can exceed one metre in height and often exhibit spectacular colorations. The family comprises three genera which occur in different regions of the Americas: *Heliamphora* in the Guiana Highlands, *Sarracenia* in southern Canada and the eastern United States and *Darlingtonia* in northern California and Oregon. According to this distribution pattern, Stewart McPherson and co-authors decided to cover the fascinating diversity of the family separately in two books, *Sarraceniaceae* of South America and *Sarraceniaceae* of North America. Although not readily recognisable by their titles, these two books together form a whole, which is supposed to be no less than the first complete monograph of the *Sarraceniaceae*.

The intended first volume provides a general introduction to the entire family and treats the South American genus *Heliamphora*, whereas the second volume deals with the North American genera *Sarracenia* and *Darlingtonia*. Nevertheless, both volumes are self-contained and can be perfectly used without the other, according to the particular interests of the reader.

For every genus, introductory chapters provide information on distribution, botanical history, morphology and ecology, in each case reviewing the available scientific studies and referring to the relevant literature. The ecology chapter focuses on habitats, pollination, and – a matter of course for carnivorous plants – prey. The main

body of the generic treatments consists of sections for all species recognised by the authors and, where applicable, their respective subspecies, varieties and forms. Following the reference to the taxon's original description, these species treatments give profound and state-of-the-art information on taxonomic issues, distribution, habitats and other ecological topics. Thereafter, the taxon in question is presented in terms of a detailed morphological description, concluding with a summary of how to distinguish it from others. Each species treatment comes with a distribution map and is studded with photographs, nearly exclusively of very high quality and wherever possible from the plants' natural habitats. For many rare taxa, this actually means that the only existing photographs are presented. Following the detailed species sections and a chapter on natural hybrids within the respective genus, the generic treatments continue with chapters on traditional uses, other organisms associated with the pitcher plants, cultivation requirements and conservation status.

Despite this general outline shared by all three genera, their handling within the respective chapters is considerably heterogeneous, both regarding their taxonomic treatment and the attention to detail applied in the presentations of individual species and infraspecific taxa. However, these differences are perfectly deliberate and, as pointed out explicitly by the authors, they reflect crucial dissimilarities in the morphological differentiation and the biogeography of the species, in the history of their botanical exploration and, interestingly enough, in their conservation status.

While the high diversity within the genus *Heliamphora* is nearly exclusively treated at the species level, the astonishing variability within *Sarracenia* and *Darlingtonia* is mainly addressed at various infraspecific levels. This is in line with the entirely distinct morphology of the different *Heliamphora* species as opposed to the distinctive but less significant coloration patterns and size differentiation among the varieties and forms of the relatively few *Sarracenia* and *Darlingtonia* species. As convincingly discussed by the authors, this disparity is associated with the completely different distribution patterns of the genera. Speciation in *Heliamphora* was fostered by a long-standing isolation of populations on the Precambrian sandstone plateaus of the numerous Tepuis in the Guiana Highlands. In contrast, *Sarracenia* species and even *Darlingtonia californica* with its relatively restricted range have very broad distributions compared to

*Heliamphora*, which caused a much more pronounced differentiation within the species.

These variant distribution patterns also led to a remarkable difference in the scientific discovery of the genera. While the first known illustration of a *Sarracenia* species dates back to the 16th century, the first *Heliamphora* species found by European scientists was discovered not earlier than 1838 on Mount Roraima – and for nearly a century, this was the only known species. Generally, due to the species' remote and inaccessible habitats in the "Lost World" of the Tepuis, the genus *Heliamphora* is among the least studied of all carnivorous plants; whereas *Sarracenia* and *Darlingtonia* are probably among the best studied, which is reflected in their somewhat meticulous distribution maps and lists at the county level given in the second volume.

As a result of these biological and historic differences, 23 species of *Heliamphora* are recognised, out of which only one species is treated in two varieties. Furthermore, three incompletely known taxa are discussed and described as far as possible, and eleven natural hybrids are presented in the first volume. In contrast, the second volume treats the single species of *Darlingtonia* in two forms, and the eight species of *Sarracenia* are divided in no less than 42 infraspecific taxa, one of which is classified as incompletely diagnosed. Besides distinctive differences in coloration and size, "splitting" most of the North American species up to the level of varieties and forms is also justified by the authors with an improved feasibility to monitor distinctive and, at the same time, endangered populations.

Since 18 of these *Sarracenia* varieties and forms as well as one *Darlingtonia* form are recognised for the first time, they are taxonomically described and many previously informal names are thus validated. These descriptions are pooled in the Appendix of the second volume and feature colour sketches to highlight the important differences in colouration patterns among the respective infraspecific taxa. Likewise, in the Appendix of the first volume, four *Heliamphora* species are described as new to science (*H. arenicola*, *H. ceracea*, *H. collina* and *H. purpurascens*), and *H. neblinae* var. *parva* is raised to the species level (as *H. parva*). In this case, the descriptions of the new species are accompanied by detailed morphological drawings.

Apart from the Appendix, each volume features its own glossary, bibliography and index, as well as a chapter on societies and recommended horticultural suppliers of American pitcher plants, including the nursery of one of the authors (A. Wistuba). Since a great deal of the audience addressed by this work might comprise private collectors of carnivorous plants and other interested hobbyists, this practical guidance is without question a very useful part of the books.

A small concession to this broad audience might consist in a few points which are somewhat unusual for a scientific monograph. Although synonyms are mostly given

for the species, they are rather hidden within the text and, in most cases, do not appear anywhere in the Index or in a separate list of synonyms. This is a little disappointing, since it would have caused the books to be only slightly more cumbersome for non-taxonomists, but much more useful as a scientific monograph. Another shortcoming of this two-part book is the lack of identification keys for the taxa within the *Sarraceniaceae*. Indeed, a table clearly summarises distinguishing characters of the three genera, and for species and infraspecific taxa, diagnostic features are given within the text. Furthermore, the authors explicitly do justify the omission of identification keys due to the polymorphism of many species. From a taxonomist's point of view, however, the inclusion of keys nonetheless would have been highly desirable for practical identification reasons. And, ultimately, a taxonomic concept which cannot be implemented in an identification key always leaves some room for doubt about its viability.

Despite these few and minor flaws, this magnificent work is clearly the result of decades dedicated to the research on carnivorous plants and of numerous field trips, many of them to impressively remote areas. The text is easily comprehensible and scientifically profound at the same time, and the plethora of brilliant photographs document the astonishing diversity of the family at the best. In conclusion, *Sarraceniaceae* of South America and *Sarraceniaceae* of North America are the ideal companions for everybody interested in New World pitcher plants.

**Koperski M. [unter Mitarbeit von Preußing M.]:** Rote Liste und Gesamtartenliste der Moose in Niedersachsen und Bremen. 3. Fassung, Stand 2011. – Informationsdienst Naturschutz Niedersachsen Heft 31(3): 131–205. – Hannover: Niedersächsischer Landesbetrieb für Wasserwirtschaft, Küsten- und Naturschutz (NLWKN). – 74 S., 40 Farbfotos, 21 Tabellen, 1 farbige Karte. – Bezug: NLWKN-Naturschutzinformation, Postfach 910713, D-30427 Hannover; <http://webshop.nlwkn.niedersachsen.de/> – Preis: EUR 4,00.

Die 3. Fassung der Gesamtartenliste der Moose (*Anthocerotophyta*, *Marchantiophyta*, *Bryophyta*) von Niedersachsen und Bremen umfasst 758 Arten. 46 Neufunde seit der 2. Fassung von 1999 konnten berücksichtigt werden, 11 bisher geführte Arten wurden nach Revision fehlbestimmter Belege gestrichen. Weitere Abweichungen gegenüber der 2. Fassung ergeben sich aus taxonomischen Änderungen. Neben den bisherigen regionalen Listen für das Tiefland und das Hügel- und Bergland wird trotz unbefriedigender Datenlage erstmals eine separate Liste für die Region Küste vorgelegt. Die Standortdiversität des Untersuchungsgebietes vom Meeresstrand bis zur Montanstufe der Mittelgebirge (Harz, Weserbergland) macht die taxonomisch und nomenklatorisch bestens aktuali-

sierte Liste zu einer überregional verwendbaren Konsultationsquelle. Hervorzuheben ist der mitgelieferte Literaturapparat und die taxonomisch und naturschutzfachlich tiefeschürfende Kommentierung vieler Einzelfälle. 431 Arten (57 %) der Moose in Niedersachsen und Bremen haben landesweit einen Rote-Liste-Status. Davon gelten aktuell 60 Sippen (8 %) als ausgestorben oder verschollen.

Thomas Raus

**Schönfelder P. & Schönfelder I.:** Die Kosmos-Kanarenflora. Über 1000 Arten und 60 tropische Ziergehölze. – Stuttgart: Frankh-Kosmos Verlags-GmbH & Co. KG, 2012. – ISBN 978-3-440-12607-3. – 319 S., 922 Farbfotos, 6 Farbzeichnungen, 105 s/w-Zeichnungen, 527 Karten; Harteinband. – Preis: EUR 34,99.

Die Natur evoluiert und ist damit einem beständigen Wandel unterworfen. Die Neuauflage der Schönfelder'schen Kanarenflora stellt unter Beweis, dass Ähnliches für die entsprechende Fachliteratur gilt. Es ist erstaunlich, wie Autoren und Verlag den Grundduktus der Exkursionsflora gehalten, im Detail aber enorm Vieles einer illustratorischen und textlichen Verbesserung und Erweiterung zugeführt haben. Der geänderte Untertitel benennt diese Innovation quantitativ. Lautete er in der 1. Auflage (1997): "Über 850 Arten der Kanarenflora und 48 tropische Ziergehölze", so lesen wir nun in der 2. Auflage (2012): "Über 1000 Arten und 60 Ziergehölze". Am Prinzip Farbtafel recto und Bildlegenden mit Verbreitungskärtchen verso wurde festgehalten. Aber weder Format noch Seitenzahl der handlichen Exkursionsflora änderten sich, herausgeberisch und verlagstechnisch absolut professionell! Statt dessen wurde "verschenkter" Druckraum bei den Farbtafeln durch bessere Kompartimentierung effektiver genutzt, um den Informationszuwachs ohne Einschränkung von Lesbarkeit und Benutzerfreundlichkeit zu integrieren. Das Vorgehen ist im besten Sinne konservativ: Das Bewährte bleibt unangetastet, das Erneuerungsbedürftige und -fähige wird inhaltlich wertsteigernd optimiert. Die auf Webb & Berthelot (Phytographia canariensis 1838–50) basierenden "antiquierten" sw-Ab-

bildungsleisten zu den Bestimmungsschlüsseln sind ansprechenden Farbbildern gewichen, während der äußerst hilfreiche "Schlüssel für die auf den Kanaren heimischen Laubbäume und Baumsträucher nach Blattmerkmalen" der inneren Umschlagseiten beibehalten wurde und lediglich eine für's Auge angenehmere Schrifttype erhielt. Viele Farbbildungen wurden durch aussagekräftigere und ästhetischere ersetzt oder der gewählte Bildausschnitt geändert, in der Regel zum Besseren. Die neue "Architektur" des im Impressum nachgewiesenen Bildautorenteam's verdeutlicht diesen Wandel: jetzt 922 Farbfotos von R. Barone Tosco (1), M. L. Gil González (3), J. J. Hernández (1), L. Hoskovec (1), A. Kovalchuk (1), P. L. Pérez de Paz (4), C. Stiersdorfer (2), W. Weiß (1) und P. Schönfelder (908) gegenüber 612 Farbfotos von H. Baumann (1), V. Brockhaus (1), M. J. del Arco Aguilar (2), D. Lüpnitz (1), P. L. Pérez de Paz (5), A. Reifenberger (1), H. Schmidt (2) und P. Schönfelder (599) der Erstauflage. Geradezu prophetisch ist die Änderung des Frontispiz: Der als "Fels in der Brandung" nahezu unveränderte Drachenbaum von Icod ist 15 Jahre nach der Erstauflage zunehmend von hässlicher Wohnbebauung eingekreist! Die neue gebietsspezifische Literaturauswahl am Schluss des Buches enthält 27 nach 1997 erschienene Titel sowie (neu) Links zu sieben relevanten Internet-Datenbanken. Fazit für den Leser und Nutzer: Die Neuauflage unbedingt erwerben, die 1. Auflage als Fundus zusätzlicher Abbildungen behalten, auch zum Nachvollzug taxonomischer und nomenklatorischer Weiterentwicklungen der letzten 15 Jahre (*Anisantha* vs. *Bromus*, *Camptoloma* vs. *Sutera*, *Chenoleoides* vs. *Bassia*, *Himantoglossum* vs. *Barlia*, *Laurus novocanariensis*, *Myrica* vs. *Morella*, *Tetraena* vs. *Zygophyllum*, etc.). An die nach ICBN 60.8 korrekte Orthographie von *Cistus osbaekiiifolius* und *Tinguarra cervariifolia* und die Einbeziehung von *Greenovia* in *Aeonium* (vgl. Nyffeler in Egli, Sukkulenlexikon 4, *Crassulaceae*: 11 ff. 2003) wagten sich die Verfasser allerdings (noch) nicht. Und *Gnaphalium luteoalbum* L. ist nachweislich ein *Helichrysum* (*H. luteoalbum* (L.) Rchb., siehe Galbany-Casals & al. in Austral. Syst. Bot. 17: 241–253).

Thomas Raus, Berlin