

BOOK REVIEWS

Hágsater, E. & M. Soto (eds.). 2008. **Icones Orchidacearum. Fascicle 10. Orchids of Mexico. Part 4.** Herbario AMO, México D.F., México. Pp. i-xxxvi, plates 1001—1100. Published on June 11, 2008.

Under the experienced editorship by Eric Hágsater and Miguel Soto, the Herbario AMO delivers the fourth part of “Orchids of Mexico”, fascicle 10 of the series *Icones Orchidacearum*. The volume is dedicated to the late Federico Halbinger Mosig (1925—2007), a short biography of whom is provided by Hágsater and Soto, together with checklists of the taxa named after him and those described or transferred by Halbinger, as well as a complete bibliography of the great Mexican orchidologist.

In line with the last issues of the *Icones Orchidacearum*, particular attention is given to the typification and stabilization of nomenclature, with a much needed effort to neotypify the species originally proposed by La Llave and Lexarza, and by Richard and Galeotti (the last case made more problematic by the absence of type specimens for several taxa). Unlike the previous releases of the series, the new fascicle eliminates the short English descriptions to provide more information in the Spanish version and to augment the space devoted to the very ample chapters on specimen citation and bibliographic references. Even so, in some cases, the length of the texts obliged the editors to include part of the specimen citations and the references in 21 additional pages of appendices to list all the vouchers known to the authors

The emphasis of the volume is on the genera *Barkeria* (5 spp.), *Isochilus* (4 spp.), *Prosthechea* (11 spp.), and *Rhynchostele* (9 spp.), but the treatment also includes interesting taxa as the Mexican endemic *Lockhartia galeottiana* A. Rich ex Soto Arenas [typified by *Ophrys imbricata* Sessé & Moc. (1890)], *Cuitlauzina pendula* La Llave & Lex., and *Homalopetalum pumilio* (Rchb.f.) Schltr. (both neotypified in the volume), as well as some well-known species important in horticulture (i.e., *Guarianthe skinneri*, *Rhynchostele* spp.).

Six new taxa (i.e., *Bletia villae* Soto Arenas, *Encyclia halbingeriana* Hágsater & Soto Arenas, *Isochilus oaxanus* Salazar & Soto Areas, *Maxillaria chimalpana* Soto Arenas & Salazar, *Rhynchostele*

cervantesii subsp. *halbingeriana* Soto Arenas & Hágsater, and *R. maculata* subsp. *oestlundiana* fo. *perotensis* Soto Arenas & R. Jiménez) and eight new names, combinations and/or status changes [*Camaridium punctostriatum* (Rchb.f.) Soto Arenas, *Lockhartia galeottiana*, *Myoxanthus congestus* (A. Rich. & Galeotti) Soto Arenas, *Oestlundia ligulata* (La Llave & Lex.) Soto Arenas, *Prosthechea squalida* (La Llave & Lex.) Soto Arenas, *Rhynchoaelia digbyana* subsp. *fimbripetala* (Ames) Soto Arenas, *Rhynchostele maculata* subsp. *oestlundiana* (L.O. Williams) La Llave & Lex.) Soto Arenas & R. Jiménez fo. *oestlundiana*, and *Stelis platystylis* (Schltr.) R. Solano & Soto Arenas] are proposed in the work, making it a necessary reference for any serious library on Neotropical botany.

Consistently with the other volumes of the series, the fourth part 4 of “Orchids of Mexico” adopts the new classification system based on phylogenetic analysis of molecular data, even when the authors express their doubts about some of the actual generic circumscriptions. The framework of the taxonomic system is basically that suggested by the ongoing series of *Genera Orchidacearum*, and the editors’ decision to strictly follow this system is an appreciable attempt to maintain a common (and hopefully standing) “language” in orchid nomenclature.

With a very few exceptions, of standard quality, most of the botanical illustrations included in Orchids of Mexico, part 4, are outstanding for the information they convey and the artistic interpretation of the depicted subjects. In particular, the work of Rolando Jiménez Machorro (who produced 51 of the 100 illustrations) has seemingly reached its full maturity; worthy of note are also the composite plates by Marco Antonio López-Rosas, whose inked drawings are among the most informative in contemporary botanical production.

Franco Pupulin

Lankester Botanical Garden, University of Costa Rica

Oakeley, H.F. 2008. *Lycaste, Ida and Anguloa. The essential guide*. Published by the author, Bekenham, United Kingdom, and printed by Cambrian Printers, Aberystwyth, U.K. Large 30.5 x 30.5 cm volume, pp. (v) 445, 1400 color photographs. 1st edition published on May, 2008.

A complete, gorgeously illustrated, superbly printed and perfectly bound large book represents the long-awaited and ultimate work on *Lycaste*, *Ida*, and *Anguloa* by Henry Francis Oakeley, the recognized specialist in these orchid groups of increasing horticultural importance.

As in his previous, small-sized “essential guide” to *Lycaste* (Oakeley 1993), the author claims for completeness: “If is not in here it has not been described”. In fact, the total numbers of recognized species, subspecies (varieties in the actual treatment) and natural hybrid in *Lycaste* and *Ida* (both treated under the former genus in the old guide) are significantly different in the new, amply augmented monograph. When split apart into two genera, the previous work by Oakeley recognized 24 species, 7 subspecies and 8 natural hybrids of *Lycaste*, and 22 species of *Ida*. In the present work *Lycaste* includes 31 species (5 of which are described as new and 4 elevated to specific rank by the author), 33 varieties (23 new) and one (new) subvariety, and 14 natural hybrids (7 of which described in this treatment). *Ida* has 39 species, 7 of which described in the text, 11 varieties (5 new) and 3 natural hybrids, all newly proposed in the book. A natural intergeneric hybrid between *Lycaste* and *Ida* is also included: *x Lycida mathiasae*. The treatment of *Anguloa* does not differ significantly from the recent monographs published by the author (Oakeley 1999a, 1999b, 1999c, 1999d, 1999e) and, according to Oakeley’s guide, the genus comprises today 9 species, 5 varieties, and 4 natural hybrids, one of them (*Anguloa x speciosa*) described in this volume.

For each of the nearly 150 species, natural hybrids and varieties included in the volume, the text provides a full description, etymology, historical notes, taxonomic discussion, distribution and voucher citations, and bibliography. Of these, the chapters on taxonomic history and bibliographic references are particularly worthy, amply documented and with frequent, direct references to the original sources, while the citation of herbarium specimens is generally of limited use due the relative paucity of the consulted herbaria.

Species and hybrids are listed alphabetically within each genus, following a criterion that makes easier to find any specific taxon, but on the other hand obscures the phylogenetic relationships among closely related (albeit alphabetically distant) species. The taxonomic treatments are preceded by chapters on the history of the discovery and the introduction of the three genera, their general and distinguishing features, and artificial keys to the species of *Anguloa*, *Ida*, and *Lycaste*. An ample, final chapter is devoted to the cultivation of the species of these three genera, including accounts on their pollination and the preparation of herbarium specimens. Dr. Oakeley is the holder of the National Plant Collection for *Anguloa*, *Ida* and *Lycaste* in the United Kingdom, and his more than 50 years long acquaintance with the growing secrets of these plants is well evident in this chapter. Two large Appendices complete the book. The first is devoted to “Synonyms and errors”, and the author enlists over 300 invalid, misapplied, and synonymous names that plagued the complex taxonomic history of the involved genera and have been used at some time but have to be considered incorrect or redundant. The second Appendix is an “Annotated bibliography” with almost one thousand bibliographical citations (including indications of the presence of plates/pictures/photographs), and references to relevant websites and travel accounts involving *Anguloa*, *Ida*, and *Lycaste* in their habitats.

The taxonomic novelties include the following new species: *Lycaste angelae* Oakeley (with var. *alba* Oakeley and var. *rubra* Oakeley), *L. crystallina* Wubben ex Oakeley, *L. fuscina* Oakeley, *L. occulta* Oakeley and its var. *alba* Oakeley, *L. panamensis* Fowlie ex Oakeley, *Ida angustipetala* Oakeley, *I. castanea* H. James ex Oakeley, *I. ejirii* Oakeley, *I. jimenezii* Oakeley, *I. munaensis* Oakeley, *I. priscilae* I. Portilla ex Oakeley, and *I. shigerui* Oakeley. *Lycaste plana* ‘Measuresiana’ B.S. Williams, *L. macrophylla* subsp. *puntarenasensis* Fowlie, *L. macrophylla* var. *viridescens* Oakeley, and *L. macrophylla* subsp. *xanthocheila* Fowlie are elevated to specific rank, while *L. plana* Lindl. is sunk under a variety of *L. macrophylla*.

The whole book is splendidly illustrated. Large, crisp photographs of outstanding quality by the author himself show one or (more commonly) several views of the flower (and variations within species), with a special attention to taxonomic relevant features, and the plant habit, in many cases accompanied by shots of the plants in-situ. For most of the older taxa, original type illustrations and/or critical historic illustrations are perfectly reproduced to help the reader understand original species concepts. Whenever possible, the book even includes portraits of the dignitaries honored with the species names. For each of the species, the author also presents an impressive series of macro- and microphotographs showing anatomical and morphological features that are relevant to identify the species. These normally include views of the dissected lip (adaxial and lateral), the callus, the column, and the pollinarium, but other features (like the shape and ornament of the pseudouls) are also presented when they are considered taxonomically relevant.

As the author admits in his preliminary notes, the use of types throughout the work is “more loose than as defined by the International Code of Botanical Nomenclature”, and this unfortunately happens in several opportunities. *Lycaste panamensis* Fowlie ex Oakeley is indicated in the text as a *stat. nov.*, but no reference is made to any basionym (in fact, *Lycaste macrophylla* subsp. *panamensis* Fowlie is a *nomen nudum*). In several cases (i.e. *L. dowiana*, *L. lasioglossa*), the author “chooses” a holotype, while in other cases he designates a lectotype when a holotype or isotype ostensibly is in existence (i.e., *L. candida*, *L. tricolor*). Doubts may be expressed about the applicability of the name *Lycaste candida* Lindl. This name was just cited by Lindley as a provisional name, but in the same text the author himself considered it (erroneously) a synonym of *L. leucantha*. Thus, by a strict application of the Rules of Nomenclature, the name *L. candida* was not accepted by its own author, and was thus invalid. The next available name should be, in this case, *L. brevispatha* Klotsch 1871, regarded by Oakeley as a synonym of *L. candida*. Other, objection cases are typifications that ignore the available materials. Thus, for example, *Lycaste bradeorum* Schltr. is neotypified with a cultivated plant reportedly from San Isidro del General, in southern Costa Rica, ostensibly outside the natural

distribution of this species, which is limited to the northern, dry areas of the Guanacaste province and its Nicaraguan neighbors. At the Ames Orchid Herbarium of the Harvard University is kept a copy of the original Schlechter's drawings of *L. bradeorum*, which could have been selected as a more appropriate lectotype. Another taxonomic point is the apparent frequency of natural hybrids in some groups of species, which can be regarded with some suspicion. Costa Rican *L. candida* (probably an invalid name) and *L. brevispatha* (if distinct) have been traditionally difficult to tell apart on the basis of their amply variable flower morphology. Now, Oakeley maintains *L. candida* for populations with markedly three-lobed lip, and creates *L. angelae* for plants with broadly diamond-shaped, obscurely lobed lip (his photographs of *L. angelae* var. *rubra*, however, show flowers with distinctly 3-lobed lip), resolving all the intermediate forms through the description of a supposed new natural hybrid, *L. x daniloi*, which is stated to be “much commoner than either species”.

All in all, Oakeley's book is an extraordinary work, based on a long, deep and intimate knowledge of the groups under study, and a fundamental piece to understand the diversity and complexity of the involved species. There are no doubts that this splendid monographs will stand for a long time as the essential reference of future students of these three genera.

Franco Pupulin

Lancker Botanical Garden, University of Costa Rica

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