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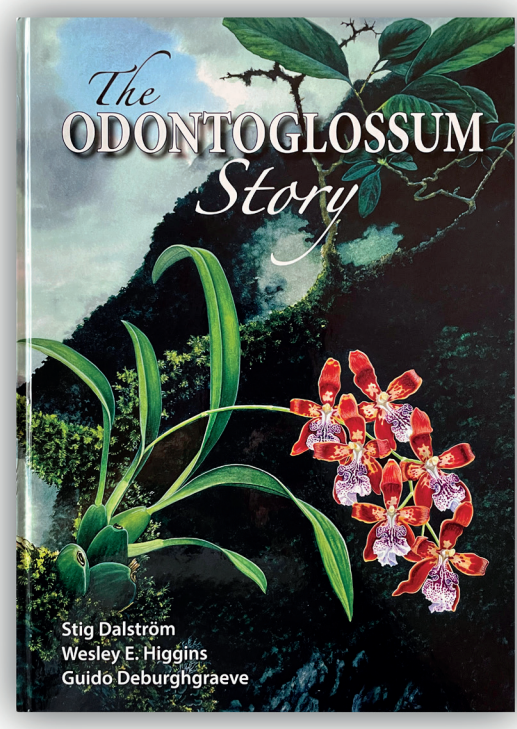
BOOKS

The *Odontoglossum* Story, by Stig Dalström, Wesley E. Higgins & Guido Deburghgraeve. Koeltz Botanical Books, Oberreifenberg (Germany) and Stig Dalström, Sarasota (U.S.A.), 2020. ISBN: 978-3-946583-27-1. Large *in-octavo* volume (30 × 22 cm), 782 pages, more than a thousand color illustrations, with dozens of botanical drawings. Hardbound. Price: 194,74 € (EU buyers); 182,00 € excl. VAT (Other buyers); 227,50 US$). Ordering: https://koeltz.com



There are books that resemble their authors. In the case of literature this is, perhaps, the rule, but in systematic botany it is a much rarer occurrence. "The *Odontoglossum* Story" bears a striking resemblance to Stig Dalström. I say this, of course, as a great compliment because in the often somewhat arid and impersonal world of botanical monographs, Stig's original ideas and personal views make the book a breath of fresh air. But, on the other hand, it is perhaps right to admit that since the beginning of this book, starting with its genesis and the chosen words of the title, "The *Odontoglossum* story" doesn't seem to be strictly a systematic monograph. I say "strictly" because the book contains, in fact, also a systematic monograph of the genus *Odontoglossum*.

Dalström is a botanist like those that were made in the good old days. A prepared, curious, patient, refined observer and even more selective illustrator, a friend of the dusty works in herbarium and in historical literature, a good and prolific storyteller, with that pinch of adventurer, deeply in love with his object of study and continuously opening the way to new discoveries. I add, because in exploratory botany this is as important as knowledge, with a marked "gift for people" that has allowed him to create and maintain a network of friendships and collaborations at all levels and in the countries he has known and explored. His book, a synthesis of at least thirty years of exploration,

observation, and study, is also a synthesis of the Stig Dasltröm that friends love and that his many readers appreciate all over the world.

It is no coincidence that, even if Dalström is the main author of this volume, indeed the chief and most important author, he also welcomed interventions by some of his friends who have enriched the book with their specific experiences in the fields of botanical history and horticulture, molecular systematics, ecology, traditional and under artificial light cultivation. Wesley E. Higgins and Guido Deburghgraeve share with Stig the honor of being co-authors of this important work, but the list of contributors includes resonant names such as those of Phillip Cribb, Alex Hirtz, Peter Sander and Gerhard Vierling, to name but a few.

Thirty years after the publication of the only other monograph of the genus *Odontoglossum* (Bockemühl 1989), "The *Odontoglossum* Story" represents an epochal event for the study of oncidioid orchids. The worldwide COVID-19 pandemic has delayed our review of this beautiful book. Despite being published just after Christmas 2020, our copy of "The *Odontoglossum* Story" only arrived at Lankesteriana's editorial office recently. Physically, this is a beautifully published book. Despite its nearly 800 pages, Koeltz managed to pack it in a still manageable format, printing it on a rather thin semi-matte coated paper, without sacrificing the quality and variety of the illustrations, both in color and in black and white, which complement the texts. The hard cardboard cover, without dust jacket, covered with a scratch-proof transparent coating, shows on the front and back two of Dalström's rightly famous watercolor illustrations (*Odontoglossum deburghgraveanum* and *O. harryanum*, respectively); the spine is slightly curved, as in the tradition of the best bound books, to facilitate opening and to ensure that the pages remain flat on the desk once opened.

There are 96 pages of text and illustrations that precede the actual monograph. Another 20 pages, including a chapter on "Oddballs and Pecularities", one on the authors' bios, a glossary, abundant cited literature, acknowledgments, and index, follow the monograph.

There is a short chapter in the Introduction dedicated to "What is a species?", an exciting and often controversial topic. Dalström deals with it in a personal way, but I have the impression that he has kept himself quite distant from the "heart" of the problem, even speaking strictly of *Odontoglossum*. Instead, what is really welcome is the author's discussion regarding his decision to adopt a given *Odontoglossum* circumscription, versus the proposal to submerge the genus in the broadest definition of *Oncidium*. Dasltröm had already approached this topic in the past, presenting some of the reasons that lead him to prefer a taxonomic and nomenclatural distinction between the two genera (Dalström 2012, Dalström & Higgins 2016). But in this case, he treats the topic in a broad and general perspective, presenting his conclusions based on the analysis of all the evidence at his disposal and including, among others, his interpretation of the phylogenetic tree derived from the analysis of molecular sequences presented by Neubig *et al.* (2012) and were used as basis to treat *Odontoglossum* as part of *Oncidium*. It is clear that Dalström's interpretation, which has its roots in an intimate knowledge of the morphology and ecology of the genera related to *Oncidium*, doesn't collide with the molecular data but rather represents a different – and in my opinion legitimate – interpretation of those data, and it constitutes a solid rationale for the monographic treatment of the genus and for the nomenclatural changes needed to reflect its systematics according to the author's views.

Two other interesting introductory chapters dedicated to "The Rise of *Odontoglossum*" (by P. Cribb) and "*Odontoglossum* at St. Albans", a saga of the Sander dynasty (by P. Sander), both beautifully illustrated with the delicate watercolors of the past, offer profound insights on the history of this genus, which certainly during the late nineteenth and early twentieth centuries enjoyed a reputation among horticulturists and the wide audience incomparable with those of today.

The systematic monograph is organized into six sections, with 16 series, and a chapter on natural hybrids. Each section chapter begins with a dichotomous key to series and species. Unfortunately, the treatment is not preceded by a general key to the different sections, so that to identify a given species it is necessary to go through the dichotomous keys of the six sections one by one. However, such a key is

provided as a PDF document that can be downloaded for free within the web page presenting the book at Koeltz's web site. The document has the same size and layout as the monograph. It is advisable to have it printed and physically inserted into the books at the beginning of the taxonomic treatment.

Within each section, species treatments are arranged according to series, introduced by convenient photographic synopses, so that the morphologically similar species are close to each other. Species are then arranged not alphabetically but according to their appearance in the dichotomous key. Each species is presented with information on the type (types are cited for all synonyms), a general discussion, full description, notes on habitat and phenology, material seen, etymology, and pertinent literature. For each species, a full-page botanical illustration is provided, mostly done by Dalström himself, often accompanied by Lankester Digital Composite Plates, and several photographs showing variation, plants in their habitats, and images of people variously related with that given taxon. From what I was able to judge, the list of synonyms under each species treatment is verified by the author and virtually complete.

The last systematic chapter, devoted to natural hybridization, is also extremely interesting. Nine natural hybrids are documented, mostly illustrated with informative botanical drawings, and comparative photographs showing the hybrid flowers side by side with those of their putative parents. Such a treatment suggests both that the role of natural "mistakes" is probably greater than suspected in the evolutionary history of the genus, and that a strictly morphologically-based taxonomy can be a true nightmare in this specific groups of plants...

The ammount of first-hand information packed into this book is prodigious. It offers great additions and suggestions on the natural history, distribution, expected variation, and key characters for identifying the different species, but also significant insights about the author's methodology of study and the rationale behind his taxonomic decisions. The profusion of photographs is a delight and will prove of great utility for all those concerned with this taxonomically difficult genus, particularly in those regions where it presents the greatest diversity.

From the perspective of the treatment of the Costa Rican flora (which is quite poor in *Odontoglossum*), the reduction of *Odontoglossum obryzatum* (aka *Oncidium klotzschianum*) under the concept of *Odontoglossum pictum*, originally described from the region of Cauca in Colombia, caught my attention.

I clearly don't have enough words to praise this fundamental work, which certainly shouldn't be missing in any library specializing on neotropical flora, nor in those of the many enthusiasts who appreciate these once very precious orchids or, more generally, oncidioid orchids and their more than exuberant variety.

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Bockemühl, L. (1989). *Odontoglossum, a Monograph and Iconograph*. Hildesheim, Germany: Brücke Verlag.

Dalström, S. (2012). New combinations in *Odontoglossum* (Orchidaceae: Oncidiinae) and a solution to a taxonomic conundrum. *Lankesteriana*, 12(1), 53–60.

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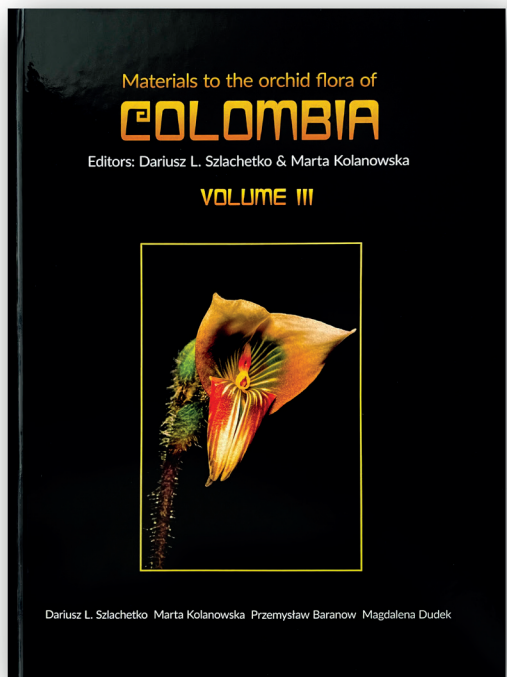
Neubig, K. M., Whitten, W. M., Williams, N. H., Blanco, M. A., Endara, L., Burleigh, J. G., Silvera, K., Cushman, J. C. & Chase, M. W. (2012). Generic recircumscriptions of Oncidiinae (Orchidaceae: Cymbidieae) based on maximum likelihood analysis of combined DNA datasets. *Botanical Journal of the Linnean Society*, 168, 117–146.

Materials to the orchid flora of Colombia. Vol. III. Orchidaceae. Spiranthoideae-Cranichideae, Vanilloideae, by Dariusz L. Szlachetko, Marta Kolanowska, Przemyslaw Baranow & Magdalena Dudek (D. L. Szlachetko & M. Kolanowska eds.). Oberreifenberg, Germany, Koeltz Botanical Books, 2020. ISBN 978-3-946583-29-5. Large volume *in octavo*, 22 × 30 cm. 580 pages, 288 colour photographs, 466 line illustrations, 73 maps. Hardcover. Price: 176,00 € (EU buyers); 164,86 € excl. vat (other buyers). Orders: https://koeltz.com



The volume represents the third of a series of twenty planned volumes dedicated to what is, to date, the most diverse orchid flora on the planet. The venture has so far given birth to two previous volumes, published in 2017 and 2019, dedicated respectively to the families Cypripediaceae and Orchidaceae subfamilies Orchidoideae (tribe Orchideae), Tropioideae, and Spiranthoideae (tribe Goodyereae) (Volume I) and five subtribes of the tribe Spirantheae (Prescottiinae, Spiranthinae, Discyphinae, Stenorrhynchidinae, and Cyclopogoninae) in subfamily Spiranthoideae (Volume II). The present volume completes the treatment of subfamily Spiranthoideae, with the tribe Cranichideae, and presents a treatment of subfamily Vanilloideae. As many of our readers will be able to observe even from this summary of the groups treated in the volumes published so far, the suprageneric systematics used in the work doesn't currently have wide acceptance outside the academic circle of the editors of this flora, and in some cases boldly collide with the evidence provided by the analyses of molecular data.

The book begins without preambles, which were included in the previously published parts. Before starting the systematic treatment of the subtribe Cranichidinae (the only one belonging to the tribe Cranichideae, according to the author's scheme), there is a short paragraph of acknowledgments (mostly to herbaria staff and to the 46 individuals who agreed to have their photographs used in the book) and an index of the new taxa (18 new species and one new combination) and the lectotypyfications proposed in the work. Particularly worthy of note is the proposal of four species of *Sobralia* and the lectotypification of another seven species. Contrarily to what has been shown by several phylogenetic analyses of the Orchidaceae based on molecular data, where the tribe Sobralieae is placed together with the Tropidieae among the basalmost nodes of the Epidendroideae,

sister to the basal Neottieae, the authors of the present treatment include Sobraliinae (with the only genera *Sobralia* and *Brasolia*) in tribe Arethuseae, as one of the four subtribes of subfamily Vanilloideae. Similarly, also included within Vanilloideae, and accordingly treated in this volume, are other basal members of the Epidendroideae, such as the genera *Palmorchis* (of tribe Neottieae), *Monophyllorchis*, *Psilochilus*, and *Triphora* (of tribe Triphoreae), *Uleiorchis* (tribe Gastrodieae), and *Wullschlaegelia* (tribe Wullschlaegelieae). Until a general index of the genera discussed in the work is available, finding the treatment of these "misplaced" groups may be less than convenient.

For each subtribe, a short description and a useful key to the genera are provided, followed by the treatments of the single genera. These include a large bibliographical list of the previous systematic treatments arranged by year, a description of the genus, a key to the "groups of species" when requested, and finally, a key to the species. Within each genus, species are arranged alphabetically according to their "group". For both the species and their proposed heterotypic synonyms, type information is limited to the country and collector, without specific reference to the type locality. A full description, ecology, distribution, a list of the representative specimens studied, and miscellaneous notes are provided for each taxon. Every species is also illustrated with a diagram of the sepals, petals, and lip, more rarely of the column and occasionally of the habit. These were prepared in part from drawings associated with the original material or from exsiccata preserved in various herbaria. In several cases, the illustrated material is not from the concerned region of study or reproduced from works devoted to the orchid floras of different areas. Also, the proposed new species, mostly based on a single or a few dried specimens, are illustrated by relatively schematic floral analyses.

A selected list of references, an Index of scientific names, and an Index of the numbered collections cited conclude the text. A section of maps follows, with 73 black and white maps of northern South America, where the distribution of species representative of the various supragenetric taxa is shown, including not only Colombia but also the other Andean countries, Brazil, the Guyanas, and some countries from the Central American isthmus.

Then there is a section of "Plates", with 288 color photographs printed on coated paper. Being the work of so many different authors, the quality of the photographs is obviously quite uneven, but in their large majority, they are useful and illustrative of the depicted species. My major concern about these photographs is the provenience of the portrayed plants, which is not specified in the captions. The reader could perhaps imagine that the images loaned by Alex Hirtz were likely taken in Ecuador and those by Gustavo Romero in Venezuela, but for many of the other photographers this essential information is not available.

I must confess that a work of this nature, which purports to clarify the diversity of orchids of the most diverse country on the planet with limited access to natural populations and the intrinsic variability of the species, leaves me honestly perplexed. I can recognize the effort, but I find it hard to understand how the interpretation of such a diversity of organisms can still be based, with the availability of scholars and local institutions, on the study of dried and deformed specimens, without the curiosity to observe (and possibly document) at least a living individual characteristic of a particular species. In short, I still have doubt as to what the real contribution of such a work is. On which and how many individuals are the descriptions based? How "typical" of a given species is the specimen of which some floral parts have been schematically illustrated? What exactly are the photographs referring to? If they are not Colombian plants, with what rationale were they used? How have heterotypic synonyms been included, especially when they are based on types originally collected in Colombia?

This third volume of the series, like the two that preceded it, certainly can't be ignored, due to the enormous effort it represents to collect, gather, and present in a uniform way a mass of information scattered in a disorderly manner in a myriad of books, magazines, herbaria, museums. As such, it undoubtedly represents a contribution to the knowledge of Colombian orchids, but I believe it is still very far from being the beginning of a true orchid flora of that rich country.

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