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Hermann Sleumer (1906–1993), the eminent German botanist who worked for many years at the Rijksherbarium in Leiden, sometimes told an anecdote about Rudolf Schlechter (1872–1925), whom he had witnessed as a young student in Berlin about 1925. Schlechter, the foremost orchid taxonomist of his time, was by then seriously ill with malaria, which he had probably caught during his expeditions in New Guinea almost two decades earlier. To alleviate the symptoms, Schlechter had taken to drinking large quantities of beer, and, according to Sleumer, he would sometimes complain, "It's already noon and I haven't done anything for eternity yet [*Schon zwölf Uhr und noch nichts für die Ewigkeit getan*]." This meant that he had not yet described a new species that day and that he was getting too inebriated to do so after lunch time. Sadly, the malaria killed him soon afterwards. Schlechter didn't live long enough to witness how the herbarium of the Botanical Museum in Berlin went up in flames in March 1943 after a bombing raid, destroying his first set of collections and his archives. Sleumer used to tell how he found his own typewriter half molten in the rubble afterwards. On a lighter note, he once told Jaap Vermeulen (pers. comm.) that Schlechter had a very pretty daughter whom he wished he had married. But enough Leiden folklore—I wanted to draw attention to Schlechter's attitude towards describing new species.

It sounds like an almost pompous thing to say: doing something for eternity. But when you think about it, describing and naming new species does have an element of that. We are still using names given by Linnaeus 266 years ago and I doubt if we will abandon his system of binomial nomenclature anytime soon. Most orchid species will be described and named eventually, unless they become extinct before they are discovered. If Schlechter had not described *Dendrobium alexandrae* in 1912, somebody else would probably have done so by now. However, it is most unlikely that the species would have been called *D. alexandrae*, because Schlechter named this fine species in honour of his wife, Alexandra née Sobennikoff (the genus *Sobennikoffia* was also named after her by her husband).

Coming up with a name for a new species is one of the few ways in which those of us who don't become as famous as Darwin or Linnaeus can leave a semi-permanent mark in the wider world. Therefore, finding a good name is something that should be given careful thought, in my opinion. Many taxonomists do make the extra effort—some even go too far on occasion. Numerous examples of extraordinary species names, ranging from the clever to the ridiculous, can be found on the *Curious Taxonomy* website (http://www.curioustaxonomy.net/).

Far be it from me to tell others how they should name their species, but when I see that some taxonomists name every new species after the collecting locality or after the person who collected the type specimen, I silently accuse them of lack of imagination. There is nothing wrong with naming orchids after places or people—I already mentioned *Dendrobium alexandrae*—but it helps in more than one way when the name tells us something about the species, or when the name itself is somehow unusual. Firstly, it can be a quick aid in identification. If the name indicates that a species has minute flowers, then we can probably eliminate this species when we are trying to identify one with a large flower (this can go wrong sometimes: *Paphiopedilum micranthum* was hopelessly misnamed). Secondly, a name that means something will help us memorize it. When we come across an orchid with minute

flowers in genus X, our brain will hopefully remind us: "Ah, yes, this is *minutiflorus*." Thirdly, an unusual name may itself be memorable ("This is that thing with the funny name"), but this only works when there are not too many of those.

So, next time you are naming a new species, please give the name some more thought. Try to make it meaningful or memorable, highlight something which makes the species distinct, and don't make it overly long or complicated. Don't name a species *colombianus* when there are already 50 species from Colombia in that genus. Names, like diamonds, are forever. Schlechter knew this.

André Schuiteman
Kew

Dendrobium alexandrae Schltr. (photo André Schuiteman)

Upcoming Conferences

We welcome any news about future orchid conferences for promotion here. Please send details to André Schuiteman (a.schuiteman@kew.org) as far in advance of the event as possible, remembering that the *Orchid Research Newsletter* is published only in January and July of each year.

The **7th International Orchid Conservation Congress** will be held at the Royal Botanic Gardens, Kew, UK from Tuesday 28 May to Saturday 1 June 2019. More information can be found on the associated website: https://www.kew.org/kew-gardens/whats-on/7th-international-orchid-conservation-congress

The **2019 Taiwan International Orchid Symposium** will be held on 2 March 2019 as part of the **2019 Taiwan International Orchid Show** from 2–11 March in Tainan City, Taiwan. Please visit http://www.tiostw.com for details.

Jobs

We will be happy to announce job opportunities, provided they explicitly involve orchid research or conservation. Please send details to André Schuiteman (a.schuiteman@kew.org).

Sainsbury Orchid Fellow at the Royal Botanic Gardens, Kew

Reporting to the Senior Research Leader in the Integrated Monography team, the post holder is a member of a research group providing day-to-day supervision for post-docs, PhD students, Early Career Research Fellows and research assistants. The post holder is responsible for their own grant-funded research project focussing on the orchid family, Orchidaceae, within a discrete area of a wider research programme. He/she contributes to the overall running of the Science Directorate as commensurate within the grade of the post.

https://careers.kew.org/vacancy/research-leader-sainsbury-orchid-fellow-374935.html

Closing Date: 05/02/2019

Funding Opportunities

We will be happy to announce funding opportunities, provided they explicitly involve orchid research or conservation. Please send details to André Schuiteman (a.schuiteman@kew.org).

The **American Orchid Society** is soliciting grant proposals for orchid research. Deadline is 1 March of each year. For application instructions see http://www.aos.org/about-us/orchid-research/application-guidelines.aspx

The **23rd World Orchid Conference** in Taiwan, 2020, has Young Fellow Awards for students and junior researchers ("youths under 40") to help them attend the conference and present their research:

> *Application Guidelines*
> The Young Fellow Award aims to support youths and early career scientists who study or conduct research in institutions around the world to participate in the WOC 2020 in Taiwan and

to shape them as future leaders in orchid conservation and research. Subsidies for 100 foreign students/junior scientists and 50 domestic students to attend the WOC to present research work in oral or poster format. We will provide US$ 700 subsidy for Asian countries and US$ 1,200 for non-Asian nationals.

Language for Application: English
Deadline of the Application: March 31st, 2019
The results of evaluation will be announced around May 2019.

Target group:
Youths under 40 years old who take part in the seven thematic areas (Conservation, Ecology, Systematics, Bree- ding, Genetics and Development, Cultivation, and Orchid Industry) planned by the WOC 2020 or with background knowledge related to orchids.

Application for the scholarship requires:
1. Young Fellow Award application form.
2. Curriculum Vitae.
3. Passport copy (Portrait page).
4. A letter of recommendation from supervisor or professor.
5. Upload the above materials via online registration system (www.woc23.com) before March 31st, 2019; approved applicants have to pay all the registration fee before June 30th, 2019.
6. Research achievement or report, e.g. papers or publications (if applicable).
(Notice: all material should be submitted in a single pdf, no larger than 5MB.)

To submit your application, please visit WOC 2020 website or contact TOGA (Taiwan Orchid Growers Association).
Contact Person: Ms. Fanny Huang
Email address: service@woc23.com

News from Correspondents

Please submit any news about recently completed research, future research plans and needs, change of address, upcoming or recent fieldwork, etc. to André Schuiteman (a.schuiteman@kew.org). Graduate students are especially encouraged to share the subjects of their thesis or dissertation with the international community.

Obituary

Peter O'Byrne (1955-2018)

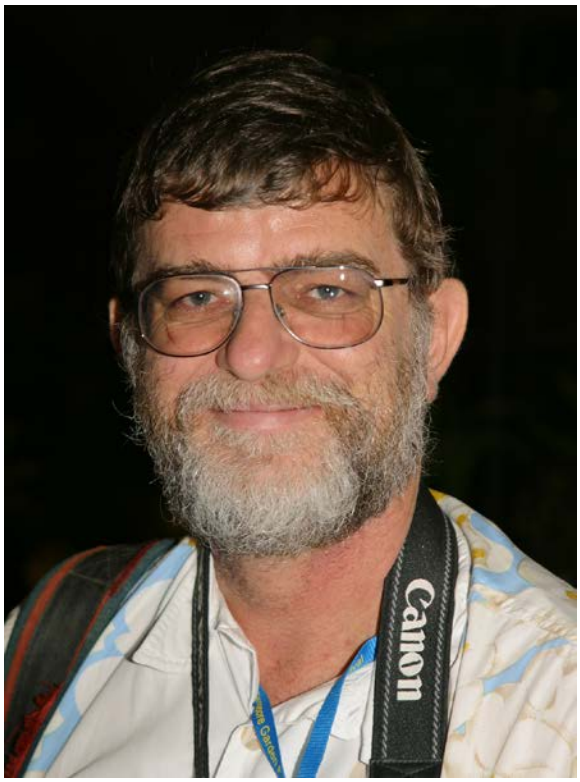
Peter O'Byrne entered the orchid scene with a big splash: his book *Lowland Orchids of Papua New Guinea*, published in 1994. I first met Peter in 1990 in Port Moresby, PNG, where he was living with his family. We remained in regular contact ever since. Only about a week before his sudden death from a cardio-vascular failure in August 2018, we met for the last time when he was visiting Kew to work on one of his projects, a revision of *Dendrobium* sect. *Crinifera* for the *Flora of Peninsular Malaysia*. By then, two-and-a-half decades after his initial splash, Peter had established himself as one of the greatest authorities alive on the orchid flora of Southeast Asia and New Guinea. A bibliography would fill many pages and he described or co-described some 238 new taxa.

Peter had studied biochemistry at Bristol University and made a living as lecturer in chemistry at various international schools, first in Nigeria and Swaziland, then Papua New Guinea, and, finally, for 22 years in Singapore. He retired in 2013

and settled with his wife Judith in Kota Kinabalu, close to one of the highest concentrations of wild orchid species in the world. Not surprisingly, many of the new species he described in recent years came from Sabah. Even when he was strictly speaking an amateur botanist, his scientific training shines through in his orchid publications, which are meticulous and reliable to a fault. Over the years, his pencil drawings became more and more sophisticated until they showed real mastery. Peter was always ready to help and stimulate local orchid students and enthusiasts, who in turn supplied him with interesting discoveries. It is a great loss for all of us that this mutually beneficial collaboration has now come to a crashing end.

I will mis his no-nonsense personality, his humour, and the ability to discuss arcane orchid problems with him.

André Schuiteman



Peter O'Byrne (photo Henry Oakeley)

Reviews

Grünanger, P. and Hennecke, M. 2018. *Bibliography of European and Mediterranean Orchids. 3rd Supplement, 2002–2015*. 256 pp. GIROS Orchidee Spontanee d'Europa—European Native Orchids, Supplemento—Special Issue 1 (2018). ISSN 2281-6437. Price €35. Available from: Int. Bookseller Andreas Kleinsteuber, Weißdornweg 35, D-76149 Karlsruhe, Germany.

This is neither more nor less than what it says on the cover: a list in book format of (almost) every publication on European and Mediterranean orchids published between 2002 and 2015, alphabetically arranged by first author. It is a welcome

continuation of the monumental series published between 1977 and 2004 by Barbara and Eckhard Willing, who gathered 11,191 references on European and Mediterranean orchids in the literature from 1673 until 2002. The present volume lists 3,583 books and articles. It is, as we all know, highly contentious how many orchid species there are in Europe and the Mediterranean. It depends literally on whom you ask. If we adopt a conservative estimate of 140 species, then there are at present on average 106 publications per species. Is there anything left to say about European orchids? When it comes to ecology, population genetics, pollination, phylogeny and other fields we still have a lot to learn about them. I think we can safely predict that another supplement will be needed in ten years' time. In my opinion, however, this kind of publication would be more useful in electronic format, where you can easily search for key words. That aside, this is an essential publication for serious students of European and Mediterranean orchids.

André Schuiteman

Hennecke, M. 2018. *Ophrys Orchideen—Ragwurze erkennen und Bestimmen. Eine Orientierungshilfe für Anfänger*. 74 pp. (in German). Verlag Manfred Hennecke, Remshalden. ISBN 978-3-927981-24-9. Price €18. Available from: Int. Bookseller Andreas Kleinsteuber, Weißdornweg 35, D-76149 Karlsruhe, Germany.

The genus *Ophrys* is a joy for travellers to the Mediterranean and a nightmare for taxonomists. New species are still being proposed at the rate of several a year and it is not uncommon to see publications with pages full of spectacular close-ups of *Ophrys* flowers that to the untrained eye look virtually identical yet are labelled with different epithets. The number of *Ophrys* species recognized by splitters and lumpers differs by an order of magnitude, ranging from less than 20 to more than 200, which is probably unprecedented in orchid taxonomy. The author of the present little book tries to steer a middle course between splitting and lumping, recognizing about 80–100 species. The book is basically one big dichotomous identification key, with keys to the sections and subsections, and within these with keys leading to a picture and a diagnosis of (most of) the species recognized by the author—which are those that he managed to key out. It must be said that quite a few species are keyed out only by their geographical distribution, which presumably means that they cannot be reliably distinguished otherwise. Still, for the traveller who can read German this booklet is a great aid for naming their *Ophrys* finds, especially since many of the 'species' (or whatever they are) have been described quit recently in a plethora of journal articles. It is a pity that the distribution of the species is not consistently indicated and that here and there one is assumed to know what the difference is between a large and a small lip or flower, which is difficult for a beginner if there are no measurements provided (this is advertised as a guide for beginners—für Anfänger). At the end of the book there is an interesting discussion about species concepts, hybridization, and related topics that will surely make the author unpopular with both splitters and lumpers.

André Schuiteman

Recent Orchid Nomenclature

New orchid names may be retrieved from the IPNI website: http://www.ipni.org/ipni/plantnamesearchpage.do. Click on "Show additional search terms" on the right-hand side of the screen. After the search page appears, type in **Orchidaceae** under family name and (for example) **2010-11-30** under "Record date" and "Added since." This will pull up a list of all names added to the IPNI database since 30 November 2010. Also be sure to check the World Checklist of Selected Plant Families (http://apps.kew.org/wcsp/) for accepted names and synonyms as well as for building your own checklists.

Recent Literature

We are grateful to Paolo Grünanger for supplying references from journals dedicated to European orchids. If you are aware of any relevant citations published between January and November 2018 not listed here or in the previous issue, please send them—in the exact style below—to André Schuiteman (a.schuiteman@kew.org) for publication in the next issue (July 2019). Write "ORN references" in the subject line of the email. Book citations should include author(s), year of publication, title, publisher, and place of publication (in that order). Journal titles should be spelled out in full.

Anatomy and morphology

Ambika, N. K. and Supriya, P. 2018. Detection of *Vanilla* species by employing image processing approach. *Procedia Computer Science* 143: 474–480 (doi: 10.1016/j.procs.2018.10.420).

Casique, J. V., da Silva, E. F., de Aguiar Andrade, E. H., Mastroberti, A. A., and de Aguiar-Dias, A. C. A. 2018. Anatomical analyses of floral and extrafloral secreting structures indicate the presence of nectaries and colleters in *Stanhopea grandiflora* Lindl. *Revista Brasileira de Botanica* 41(3): 725–738 (doi: 10.1007/s40415-018-0469-5).

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Lipińska, M. M. and Kowalkowska, A. K. 2018. Floral morphology and micromorphology of selected *Maxillaria* species (Maxillariinae, Orchidaceae). *Wulfenia* 25: 242–272.

Pedroso-de-Moraes, C., De Souza-Leal, T., De Barros, F., and Das Graças Sajo, M. 2018. Vegetative anatomy of some Brazilian Zygopetalinae (Orchidaceae). *Iheringia - Serie Botanica* 73(2): 159–175 (doi: 10.21826/2446-8231201873208).

Rindyastuti, R., Nurfadilah, S., Rahadiantoro, A., Hapsari, L. I. A., and Abywijaya, I. K. 2018. Leaf anatomical characters of four epiphytic orchids of Sempu island, East Java, Indonesia: The importance in identification and ecological adaptation. *Biodiversitas* 19(5): 1906–1918 (doi: 10.13057/biodiv/d190543).

Şenel, G., Şeker, Ş. S., Akbulut, M. K., and Akçin, Ö. E. 2018. An integrative anatomical, morphological, micromorphological and molecular approach to Turkish epidendroid and orchidoid species (Orchidaceae). *Nordic Journal of Botany* 36(7): art. e01700 (doi: 10.1111/njb.01700).

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Weinmann, B. E. M. 2018. *Vanilla planifolia*. *Die Orchidee* 69(4): 280–284.

Books

Bhattacharjee, A. and Chowdhery, H. J. 2018. *Fascicles of Flora of India. Fascicle 28. Orchidaceae: Orchidoideae, Cranichideae: Subtribe Goodyerinae*. Botanical Survey of India, Kolkata.

Bhattacharjee, B., Dutta, B. K., and Hajra, P. K. 2018. *Orchid Flora of Southern Assam (Barak Valley). Diversity and their Conservation*. BSMPS, Dehra Dun.

Braem, G. J., Tesón, E., and Öhlund, S. L. 2018. *The genus Phragmipedium. A treatise on the conduplicate-leafed slipper orchids of Latin America*. Guido J. Braem, Lahnau.

Chen, W.-H. and Chen, H.-H. (eds) 2017. *Orchid Biotechnology III*. World Scientific, Singapore.

Gale, S., Kumar, P., and Phaxaysombath, T. 2018. *A Guide to Orchids of Laos*. Natural History Publications (Borneo), Kota Kinabalu.

Gardiner, L. and Cribb, P. 2018. *The Orchid*. Royal Botanic Gardens, Kew.

Grünanger, P. and Hennecke, M. 2018. *Bibliography of European and Mediterranean Orchids. 3rd Supplement, 2002–2015*. 256 pp. GIROS Orchidee Spontanee d'Europa—European Native Orchids, Supplemento—Special Issue 1 [see Reviews].

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Jalal, J. S. 2018. *Orchids of Maharashtra*. Botanical Survey of India, Kolkata.

Kirby, S., Doi, T., and Otsuka, T. 2018. *Rankafu: Orchid Print Album*. Royal Botanic Gardens, Kew.

Kreutz, K., Harle, N., and Lejeune, M. 2017. *Orchideeën van de Sint-Pietersberg. Een historisch en actueel overzicht*. Stichting Natuurpublicaties Limburg, Roermond [orchids from the Netherlands, in Dutch].

Kurbel, R. and Hirse, T. 2017. *Eesti Orhideede Käsiraamat*. MTÜ Käoraamat, Tartu [orchids of Estonia, in Estonian].

Lebrun, J.-P. and Stork, A. 2017. *Tropical African flowering plants: ecology and distribution. Volume 10, Orchidaceae part two, Genera H-Z.* Éditions des Conservatoire et Jardin Botaniques, Geneve.

Mifsud, S. 2018. *Orchids of the Maltese Islands. A descriptive guide*. Greenhouse Malta, Marsaskala.

Pessei, A. 2017. *Orchidee in Sardegna.* Ilisso, Nuoro [orchids of Sardinia, in Italian].

Rodriguez Caballero, R. L. 2018. *Orquideas en acuarela: la obra inedita de Rafael Lucas Rodriguez Caballero*. Editorial Tecnológica de Costa Rica, Cartago.

Zhou, Q. 2017. *Native Orchids of Guizhou*. Guizhou Science & Technology Publishing House, Guiyang [in Chinese].

Conservation

Antolin Barberena, F. F. V., Baumgratz, J. F. A., and de Barros, F. 2018. Ecological data for an orchid diversity hotspot show that the subtribe Laeliinae may be endangered in the Brazilian Atlantic Forest. *Nordic Journal of Botany* 36(7): art. e01728 (doi: 10.1111/njb.01728).

Jasinge, N. U., Huynh, T., and Lawrie, A. C. 2018. Consequences of season of prescribed burning on two spring-flowering terrestrial orchids and their endophytic fungi. *Australian Journal of Botany* 66(4): 298–312 (doi: 10.1071/BT17179) [*Glossodia major, Thelymitra pauciflora*].

Koopowitz, H. 2018. Slipper orchids and CITES, a bankrupt and useless policy. *Orchid Digest* 82(4): 250–254.

Tye, M., Dahlgren, J. P., Øien, D. I., Moen, A., and Sletvold, N. 2018. Demographic responses to climate variation depend on spatial- and life history-differentiation at multiple scales. *Biological Conservation* 228: 62–69 (doi: 10.1016/j.biocon.2018.10.005) [*Dactylorhiza*, *Gymnadenia*].

van Schie, M. 2018. Wetland management planning, "Nieuwkoopse Plassen" (The Netherlands). In: Finlayson, C., et al. (eds), *The Wetland Book: I: Structure and Function, Management, and Methods Springer, Dordrecht*: 1943–1949 (doi: 10.1007/978-90-481-9659-3_271) [*Hammarbya paludosa*].

Wang, H.-H., Wonkka, C. L., Treglia, M. L., Grant, W. E., Smeins, F. E., and Rogers, W. E. 2019. Incorporating local-scale variables into distribution models enhances predictability for rare plant species with biological dependencies. *Biodiversity and Conservation* 28(1): 171–182 (doi: 10.1007/s10531-018-1645-4) [*Spiranthes parksii*].

Cytogenetics and horticultural genetics

Aloysius, S., Purwantoro, A., Dewi, K., and Semiarti, E. 2018. Phenotypic variation and genetic alteration of *Spathoglottis plicata* resulted from in vitro cultured seed irradiated with X-ray. *Biodiversitas* 19(5): 1642–1648 (doi: 10.13057/biodiv/d190507).

Augusta, Y. C. A. and Rino, C. 2018. *Agrobacterium*-mediated transformation of the wild orchid *Cattleya maxima* Lindl. *Universitas Scientiarum* 23(1): 89–107.

Hu, C. J., Lee, N., and Lee, Y. I. 2018. Meiotic defects and premature tapetal degeneration are involved in the low fertility of *Oncidesa* Gower Ramsey, an important cut-flower orchid. *HortScience* 53(9): 1283–1287 (doi: 10.21273/HORTSCI13011-18).

Semiarti, E. (2018). Orchid biotechnology for Indonesian orchids conservation and industry. AIP Conference Proceedings 2002: art. 020022.

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Ecology

Endres Júnior, D., Sasamori, M. H., Schmitt, J. L., and Droste, A. 2018. Survival and development of reintroduced *Cattleya intermedia* plants related to abiotic factors and herbivory at the edge and in the interior of a forest fragment in south Brazil. *Acta Botanica Brasilica* 32(4): 555–556 (doi: 10.1590/0102-33062018abb0009).

García-González, A., Riverón-Giró, F. B., Damon, A., Raventós, J., and Aguilar-Romero, O. 2018. Is *Oncidium poikilostalix* an invasive species? Population ecology and reproductive behavior of this epiphytic orchid in Chiapas, Mexico. *Acta Botanica Mexicana* 2018(125): 215–230 (doi: 10.21829/abm125.2018.1370).

Hernández-Pérez, E., Solano, E., and Ríos-Gómez, R. 2018. Host affinity and vertical distribution of epiphytic orchids in a montane cloud forest in southern Mexico. *Botanical Sciences* 96(2): 200–217 (doi: 10.17129/botsci.1869).

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Lori A, B., Derek, A., Nancy, S., John, P., Judy, B., and Jeanne, P. 2018. Using phenological monitoring in situ and historical records to determine environmental triggers for emergence and anthesis in the rare orchid *Platanthera praeclara* Sheviak & Bowles. *Global Ecology and Conservation* 16: art. e00461 (doi: 10.1016/j.gecco.2018.e00461).

Martin, R. and Ludinant, S. 2018. Étude cartographique de l'impact de l'incendie sur les populations d'orchidées. *Bulletin de la Société Française d'Orchidophilie Rhône-Alpes* (38): 47–60.

Megre, D., Roze, D., Dokane, K., Jakobsone, G., and Karlovska, A. 2018. Survival of an endangered orchid *Liparis loeselii* in habitats with different water level fluctuations. *Polish Journal of Ecology* 66(2): 126–138 (doi: 10.3161/15052249PJE2018.66.2.004).

Ongaro, S., Martellos, S., Bacaro, G., Agostini, A. D., Cogoni, A., and Cortis, P. 2018. Distributional pattern of Sardinian orchids under a climate change scenario. *Community Ecology* 19(3): 223–232 (doi: 10.1556/168.2018.19.3.3).

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Testé, E., Palmarola, A., and González-Torres, L. R. 2018. Uso del microhábitat por *Encyclia pyriformis* (Orchidaceae) en la Reserva Ecológica Los Pretiles, Cuba. *Lankesteriana* 18(2): 93–101 (doi: 10.15517/lanke.v18i2.33673).

Texier, N., Deblauwe, V., Stévart, T., Sonké, B., Simo-Droissart, M., Azandi, L., Bose, R., Djuikouo, M. N., Kamdem, G., Kamdem, N., Mayogo, S., Zemagho, L., and Droissart, V. 2018. Spatio-temporal patterns of orchids flowering in Cameroonian rainforests. *International Journal of Biometeorology* 62(11): 1931–1944 (doi: 10.1007/s00484-018-1594-3).

Tsiftsis, S., Štípková, Z., and Kindlmann, P. 2019. Role of way of life, latitude, elevation and climate on the richness and distribution of orchid species. *Biodiversity and Conservation* 28: 75–96 (doi: 10.1007/s10531-018-1637-4) [Greece].

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