

Editorial

People often ask me: What is your favourite orchid? The short answer is that I don't have one. That is not because I find all orchids equally interesting or attractive. The problem is that I don't know how to define 'favourite orchid'. With favourite food or favourite music, you can say that this is something you like to eat or to listen to the most, but what do you do with a favourite orchid? Is it the one you would like to look at the longest, or the one you would like to grow yourself if you were allowed to have only one species, or the one you would like to see in the wild above all others? Or even, the one orchid you would want to save from extinction if all others had to be wiped out? I don't think in each case I would have picked the same species. The question is unanswerable to me.

This is not the case with a similar question that I have been asked: Which orchid that you have described or discovered is the most special? In this case I don't have to think long for an answer. This is not only because of the remarkable orchid itself but also because of the circumstances of its discovery and the memories it invokes.

It is April 1995, and I am visiting an old school friend, Arend de Wilde, who then lives in Pereira, Colombia. Both of us being plant and nature lovers, we spend most of the time during my month-long visit touring the countryside, from the glaciers of the Nevado del Ruiz at more than 5,000 m above sea level to the sauna-like lowlands of the Chocó. The flora of Colombia is the richest and most colourful I have ever seen, and all the butterflies and hummingbirds make it an even better experience. Unfortunately, Colombia is at this time a dangerous country to visit. The infamous drug lord Pablo Escobar had been eliminated less than two years before (we passed his *hacienda* during our trips), and the Cali Cartel would only be dismantled later in 1995. Several guerrilla movements are still active. Therefore, excursions to more remote places are preceded by a visit to the local police station, to obtain advice on the safety of the area.

We are going to the Chocó, which means crossing the Western Andes and descending into the lowlands. We, that is, three members of the orchid society of Pereira plus Arend de Wilde and I, plan to reach the town of Tadó, from where we want to make some excursions looking for orchids (of course). We have been advised that it will be safe to do so. The Chocó is one of the wettest places on Earth, with an annual rainfall of around 10,000 mm, and not many days pass entirely without rain. The vegetation is luxuriant and bright green, almost as if you could see everything growing. I am taking in the tropical landscape under the thick cloudy skies when our two cars suddenly stop. Dozens of men and a few women, all in camouflage dress, have come out of the jungle and are blocking the road. They carry machine guns and are approaching our cars. "Guerrillas," Arend says. This is not supposed to happen.

The leaders of the guerrillas, unsmiling characters, talk with my companions and demand to see our papers. These are passed around and studied carefully. Why are we here? Looking for *orquídeas*. Lengthy explanations and discussions follow. After half an hour we get our documents back and the guerrilleros gesture that we should go on. We don't need much encouragement to do so.

Towards the evening, we arrive in Tadó, which has a military checkpoint at the entrance to the town. Again, my companions must explain what the hell we are doing here. *Orquideas*, sergeant. I am reminded of a story I once read about botanists in the 19th century Wild West who entered the territory of a fierce tribe of native Americans. One day, a posse of tribesmen confronted the trespassers. The botanists tried to explain what they were doing, showing their presses with dried plants. The Indians, as they were called at that time, concluded they were harmless madmen and let them pass. I don't know if this story is true, but I can imagine that both the guerrilleros and the military thought much the same thing about us.

We find a cheap hotel in Tadó (probably the only kind there is) and spend the night there. After some discussion we unanimously conclude that it would be crazy to continue looking for orchids in the Chocó, and we decide to return to Pereira in the morning. There is only one problem: we will have to use the same road as we came. Will we meet our armed friends again?

There being no other way, we drive back towards the Andes with some apprehension. At the site where we have been stopped there is no trace of folk in camouflage gear. Instead, there is now a burnt-out bus lying on its side next to the road. This had not been there yesterday. My companions explain that extorting money from bus companies is one of the ways guerrilla organisations get money. Perhaps in this case the bus company hadn't paid enough. Fortunately, it seems that the passengers had not been harmed.

Still, we all think it is a shame to be in this botanical paradise and not to have looked for orchids even once. So, after a while, in the foothills of the Andes, we park our cars and look around in the nearby rain-soaked forest, making as little noise as possible, as we don't want to attract more unwelcome attention. We are at only 500 m, but the forest is so humid that it looks as if we are at a much higher elevation. Arend spots a poison dart frog and we see several orchids, mainly on fallen branches. Then I notice it. There is a mossy branch lying on the forest floor with several small pleurothallid orchids on it. There is also a small, round, red-brown mushroom poking out from the side. No, it's not a mushroom, it's a flower, an orchid. Is it perhaps a very small *Telipogon* (the only orchid I know that has such round flowers)? No, the plant is entirely different. It's a *Lepanthes*, but unlike any I have seen before.

We take the branch back to Pereira and add it to the small orchid collection that Arend is keeping there. I make an analysis of the flower and Arend looks after the plant until another bud has opened to be able to conserve an entire flowering specimen in alcohol for the herbarium (this is after I left Colombia).

As *Lepanthes* is a huge genus, it took me quite some time to establish that the species we had found under such scary circumstances was undescribed. Arend had found it before, but at a higher elevation (1200 m) and with buds that never properly opened afterwards, so our find was the first useful material. We described it the following year in the Colombian journal *Orquideología* as *Lepanthes telipogoniflora* Schuit. & A. de Wilde. This species is now widely cultivated and is probably one of the two or three most popular *Lepanthes* species, out of some 1,200. And this is the orchid that I consider the most special one that I have described. Now you know why.



Lepanthes telipogoniflora. Left: As first discovered at the type locality; Right: A different specimen in cultivation. Photos André Schuiteman

Reference

Schuiteman, A. and De Wilde, A. 1996. *Lepanthes telipogoniflora*, a new, extraordinary species from Colombia. *Orquideología* 20: 27–32 [I'd like to take the opportunity to correct some printing errors: the petals are not 11 mm wide and 7 mm long, as stated in the description, but 2.6 mm wide and 1.5 mm long].

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Upcoming Conferences

We welcome any news about future orchid conferences for promotion here. Please send details to the editor 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 2025 Asia Pacific Orchid Conference and Taiwan International Orchid Show (APOC/TIOS 2025) will be held in the Taiwan Orchid Technology Park, Tainan City, from 7 to 23 March. The associated conference is scheduled for 8 to 10 March. Please see the [website](#) for more information.

Jobs

We will be happy to announce job opportunities, provided they explicitly involve orchid research or conservation. Please send details to the editor.

Funding Opportunities

We will be happy to announce funding opportunities, provided they explicitly involve orchid research or conservation. Please send details to the editor.

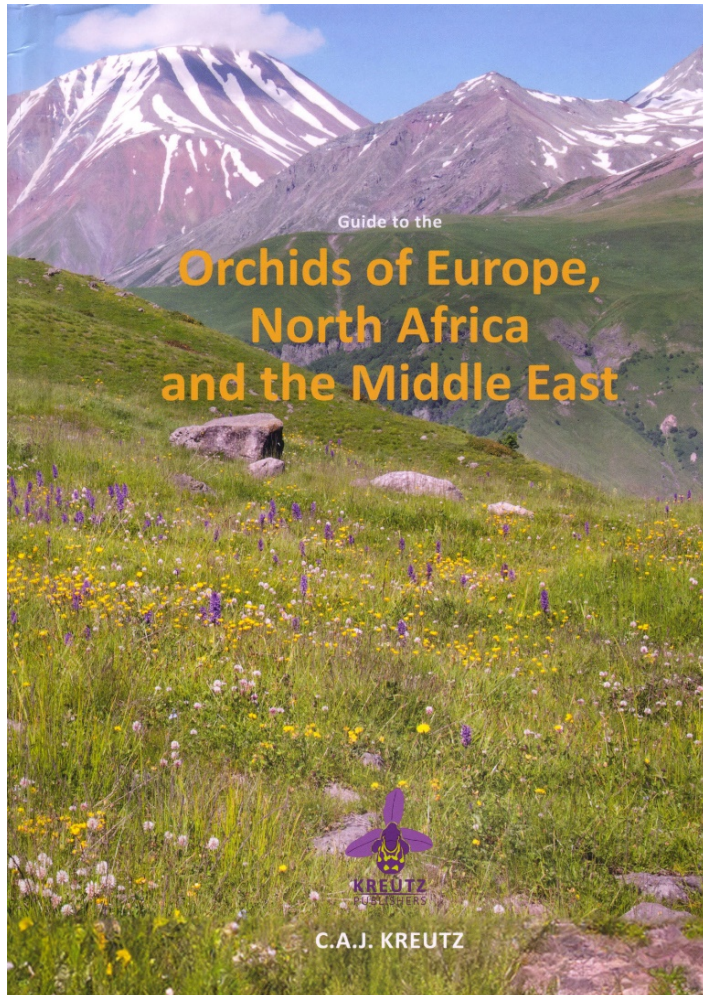
The **American Orchid Society** is soliciting grant proposals for orchid research. Deadline is 1 March of each year. For application instructions see <http://www.aos.org/about-us/orchid-research/application-guidelines.aspx>

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 the editor. Graduate students are especially encouraged to share the subjects of their thesis or dissertation with the international community.

Review

Kreutz, C.A.J. 2024. *Guide to the Orchids of Europe, North Africa and the Middle East*. Kreutz Publications, Eys, The Netherlands. Pp. 1200, numerous colour photographs. ISBN 978-90-831411-2-1. NUR 428. Price £ 42.50.



Over the past few years, Karel Kreutz has published a series of finely illustrated and immensely useful books on European, Middle Eastern and North African orchids. In these, his photographs are of a uniformly superb quality and the distribution maps, ecological notes and other information have proved invaluable for the many orchid enthusiasts who have followed in his footsteps to orchid-rich localities across the region. In addition to several already published country and regional orchid floras, he is preparing a six-volume account of the orchids of the same region. The present book provides much of the same information in a condensed, single, albeit large (1200 pages) and heavy volume (3 kg). It is, despite its format, not a practical field guide for most users.

The introductory chapters cover orchid biology, floral morphology, hybrids, taxonomy and nomenclature and references. It would be fair to say that the author favours a very narrow

species concept, resulting in a number of his species being difficult to distinguish from their close allies. Genetic studies in recent years suggest that many of these taxa are genetically indistinguishable from closely related ones, leading to many authorities adopting a broader species concept than used here. Of course, current DNA analysis is improving rapidly and it is possible that distinctions between, for example, the many close allies of *Ophrys sphegodes* or *O. holosericea* will be found in future. However, to date that is not true.

The main text provides an introduction to each genus. Some of the genera the author has recognised here are traditional ones that have, in recent years, been subsumed into larger genera, changes that have been recognised by most specialists since they are supported by genetic as well as morphological information. Thus, *Aceras* (now in *Orchis*), *Listera* (now in *Neottia*), *Nigritella* (now in *Gymnadenia*), and *Coeloglossum* (now in *Dactylorhiza*) will be found here. However, the recognition of segregates of *Orchis* and *Anacamptis* (*Anteriorchis*, *Paludorchis*, *Herorchis*, *Vermeulenia*) and of *Neotinea* (*Odontorchis*) have not been widely accepted. Based upon genetic data, these very narrow concepts seem to me best recognised at sectional level within more broadly defined genera.

Following each genus account, the species are treated in a morphological arrangement, often within named but informal alliances, each species being given a page, including photographs of habit and flowers or up to three different flowers to accompany a text covering nomenclature, type citation, etymology, description, flowering time, habitat, elevation, distribution (by country, region or island), and remarks on distinguishing features and conservation status. Again, I will emphasise the quality of the photography and the text are extremely helpful for identification purposes. However, even with this help, I have found the identification of many species here, particularly in *Ophrys*, *Epipactis* and *Dactylorhiza*, a real problem. Some of his species cannot be distinguished from the photos. Take, as one example, *Ophrys sicula*, *O. galilaea*, *O. corsica*, *O. transadriatica*, *O. phryganae* and *O. cynthia* on consecutive pages. They show minor variations on a theme and can only really be distinguished using locality information. Another example is provided by the opposite plates of *Ophrys lutea* and *O. glabra* which cannot be distinguished from each other. I could provide many other examples. In many cases, infraspecific taxa have, to my mind, been raised to specific rank without due cause. Readers will be amazed to find 494 species of *Ophrys* described and illustrated here. In my opinion, it is taxonomic inflation that more resembles stamp-collecting than science: the difference between looking for differences and looking for patterns.

The most significant information not included here are the distribution maps that the author will provide in his larger six-volume work. An explanation is provided in the sensible observation that on smaller maps much of the detail would be absent or obscure, a perfectly valid observation. In their place, he provides geographical indications by country, province and/or island.

A number of nomenclatural and taxonomic changes have been included here. Nineteen new taxa have been established, seventeen of which are at species rank (in *Cephalanthera*, *Dactylorhiza*, *Epipactis*, *Ophrys* and *Serapias*); three new names have replaced invalid epithets and 38 new combinations have been made in *Anacamptis*, *Androrchis*, *Dactylorhiza* and *Epipactis*, respectively.

Despite my taxonomic reservations, this detailed account of the orchid flora of Europe, the Middle East and North Africa will surely be enthusiastically received by the growing number of orchid enthusiasts who travel hopefully in the search of some of our most intriguing and beautiful flowers. It will also provide them with endless hours of discussion and dispute about what they have seen in their travels. My congratulations to the author on a magnificently produced book, a labour of love for a family of plants that continues to delight its many adherents.

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Recent Orchid Nomenclature

New orchid names may be retrieved from the IPNI website: <https://www.ipni.org/>. Click on “Advanced search”; after the search page appears, type in **Orchidaceae** under family name and select a date in “Recorded after”. This will pull up a list of all orchid names added to the IPNI database since that date. Also be sure to check the Plants of the World Online website (<https://powo.science.kew.org/>) which provides more information with added synonymy, maps and illustrations.

Recent Literature

If you are aware of any relevant and recent citations that should have been listed here or in the previous issues, please send them to the editor for publication in the next issue (July 2025). 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

Alfaro Pinto, A., McGill, C., Nadarajan, J., Archila Morales, F., and Clavijo McCormick, A. 2023. Seed morphology of three neotropical orchid species of the *Lycaste* genus. *Seeds* 2(3): 331–339 (<https://doi.org/10.3390/seeds2030025>).

Aytar, E. C., Deniz, I. G., İncedere, D., Kömpe, Y. O., Basılı, T., Harzli, I., and Durmaz, A. 2024. Comparison of seed morphology and seed coat chemistry in *Ophrys* (Orchidaceae) species. *ACS Omega* 9(31): 33773–33788 (<https://doi.org/10.1021/acsomega.4c03130>).

Botomanga, A., Jeannoda, V. H., Fuzzati, N., and Ramarosandratana, A. V. 2024. Morpho-anatomical responses of leafless *Vanilla* spp. roots to drought and habitat degradation. *Flora: Morphology, Distribution, Functional Ecology of Plants* 317: art. 152562 (<https://doi.org/10.1016/j.flora.2024.152562>).

Fan, J., Qi, X. C., Li, C. C., Du, C. H., and Jin, X. H. 2024. Understanding the systematic implications of pollinium morphology in the Aeridinae subtribe (Orchidaceae). *Systematic Botany* 49(3): 626–636 (<https://doi.org/10.1600/036364424X17267811220498>).

Gaponenko, M., Gnatiuk, A., Andrushchenko, O., Lystvan, K., Ovcharenko, O., Rudas, V., and Rakhmetov, D. 2024. Peculiarities of leaf epiderma in orchid *Bletilla striata* under ex vitro adaptation. *Cytology and Genetics* 58(5): 395–403 (<https://doi.org/10.3103/S0095452724050049>).

Hartati, S. and Rizki, L. N. 2024. Qualitative morphological similarities among hybrid *Phalaenopsis* in Indonesia. *IOP Conference Series: Earth and Environmental Science* 1362: art. 012002 (<https://doi.org/10.1088/1755-1315/1362/1/012002>).

Kant, R. 2023. Development of anther and sectile pollinium in *Herminium lanceum* (Thunb. ex Sw.) Vuijk—a massulate orchid. *Israel Journal of Plant Sciences* 70(3–4): 195–202 (<https://doi.org/10.1163/22238980-bja10081>).

Kobayashi, H. and Arditti, J. 2024. Rostellum in orchids. *Lankesteriana* 24(3): 285–318 (<https://doi.org/10.15517/lank.v24i3.63156>).

Kolomeitseva, G. L., Ryabchenko, A. S., and Babosha, A. V. 2023. Suspensor differentiation in the embryogenesis of *Liparis* from sections *Cestichis* and *Blepharoglossum* (Malaxidinae, Orchidaceae). *Protoplasma* 260(5): 1327–1338 (<https://doi.org/10.1007/s00709-023-01851-9>).

Kolomeitseva, G. L., Ryabchenko, A. S., Babosha, A. V., and Koval, V. A. 2024. Homoplasy in the embryonic development of terrestrial and epiphytic orchids from the subtribe Malaxidinae (Orchidaceae). *Planta* 260(6): art. 143 (<https://doi.org/10.1007/s00425-024-04569-x>).

Long, P. P., Zhang, Z. S., and Hanh, N. T. T. 2024. Morphological variation and polysaccharides biosynthesis gene expression in colchicine-induced autopolyploid and allopolyploid in *Dendrobium*. *Journal of the International Society for Southeast Asian Agricultural Sciences* 30(1): 191–206.

Nelson, H. V., Gansau, J. A., Shamsudin, N. A., and Rusdi, N. A. 2024. Flower initiation pattern, developmental stages, and seed morphology of *Paraphalaenopsis labukensis* P.S. Shim, A. Lamb & C.L. Chan, an endangered orchid in Sabah. *Open Agriculture Journal* 18: art. e187433152307040 (<https://doi.org/10.2174/18743315-v17-230726-2023-18>).

Purgina, C., Grímsson, F., and Ulrich, S. 2024. Proximal aperture in *Cephalanthera longifolia* (L.) Fritsch (Orchidaceae) pollen: a rare germination site for angiosperms. *Botanical Studies* 65(1): art. 33 (<https://doi.org/10.1186/s40529-024-00439-7>).

Purgina, C., Grímsson, F., Weber, M., and Ulrich, S. 2024. Pollen dispersal units of selected Orchidoideae and their morphological, ultrastructural, and chemical features. *Review of Palaeobotany and Palynology* 331: art. 105211 (<https://doi.org/10.1016/j.revpalbo.2024.105211>).

Rojas-Alvarado, G. and Karremans, A. A. 2024. Typological and morphological analysis of the Pleurothallidinae (Orchidaceae) inflorescences. *The Botanical Review* 90: 221–250 (<https://doi.org/10.1007/s12229-024-09303-6>).

Santos-Escamilla, M. H., Cruz-Lustre, G., Cuéllar-Martínez, M., Lagunez-Rivera, L., and Solano, R. 2024. Variation in the floral morphology of *Prosthechea karwinskii* (Orchidaceae), a Mexican endemic orchid at risk. *Plants* 13(14): art. 1984 (<https://doi.org/10.3390/plants13141984>).

Bioinformatics

Firdaus, M. R., Nuha, H. H., Mohandes, M., and Haeruman, A. 2024. The utilization of IoT-based humidity monitoring method and convolutional neural networks for orchid seed germination. *Materials Research Proceedings* 43: 261–268 (<https://doi.org/10.21741/9781644903216-34>).

Kothakota, N. J., Behera, B., Teja, S. A., Routray, S. K., Babu, R., and Behura, N. A. 2024. Advancements in Orchidaceae species identification: A comprehensive review of traditional and molecular methods. *International Journal of Experimental Research and Review* 43: 229–252 (<https://doi.org/10.52756/ijerr.2024.v43spl.017>).

Peng, Y., Zhou, Y., Zhang, L., Fu, H., Tang, G., Huang, G., and Li, W. 2024. Orchid2024: A cultivar-level dataset and methodology for fine-grained classification of Chinese *Cymbidium* Orchids. *Plant Methods* 20(1): art. 124 (<https://doi.org/10.1186/s13007-024-01252-w>).

Putra, A. S., Syarif, A., Sulistiyanti, S. R., and Hasibuan, M. S. 2024. Performance evaluation of fuzzy logic system for *Dendrobium* identification based on leaf morphology. *Journal of Applied Data Sciences* 5(4): 1520–1529 (<https://doi.org/10.47738/jads.v5i4.224>).

Books

Aragonès, H., Barrajón, F., and Mas, A. 2024. *Orquídies de les Muntanyes de Prades*. Cossetània Edicions, Valls Tarragona [in Catalan].

GIROS. 2024. *Orchidee d'Italia. Guida alle orchidee spontanee*. Terza Edizione. Il Castello, Cornaredo [in Italian].

Huang, G., Luo, P., and Deng, T. 2023. *Illustrated Guide to Orchidaceae in the Middle and Upper Reaches of the Yangtze River*. Yunnan Science and Technology Publishing House, Kunming [in Chinese].

Husen, A. and Pant, M. (eds.) (2024). *Exploring Medicinal Orchids*. Taylor & Francis, Boca Raton.

Jeričević, M. and Jeričević, N. 2024. *Orhideje na otoku Korčuli*. ?Publisher [in Croatian].

Jones, D. L. 2024. *A Field Guide to Australian orchids: Epiphytes*. Reed New Holland, Wahroonga, Australia.

Jones, D. L. 2024. *A Complete Guide to Native Orchids of Australia*, 3rd rev. ed. Reed New Holland, Wahroonga, Australia.

Kreutz, C. A. J. 2024. *Orchids of Europe, North Africa and the Middle East*. Kreutz Publishers, Eys, The Netherlands [see [review](#)].

Kühn, R., Pedersen, H. Æ., and Cribb, P. 2024. *Field Guide to the Orchids of Europe and the Mediterranean*, 2nd ed. Kew Publishing, Royal Botanic Gardens, Kew.

Kurbel, R. and Hirse, T. 2024. *Eesti Orhideede Määraja*. MTÜ Käoraamat, Tartu [in Estonian].

Liu, Q. 2023. *Orchids: Diversity and Conservation in Kachin State, Northern Myanmar*. Yunnan Science and Technology Publishing House, Kunming.

Meijrink, M., Hartgers, E., and Engels, M. 2024. *Orchideeën in Nederland: Ecologie, Determinatie & Beheer*. KNNV Uitgeverij, Zeist [in Dutch].

Wang, M. 2024. *The Orchids of Shennongjia National Park*. Southeast University Press, Nanjing [in Chinese].

Wind, P. 2024. *Vilde Danske Orkidéer*. Aarhus University Press, Aarhus [in Danish].

Conservation

Bhutia, T. L., Bhutia, N. T., Sailo, N., and Bhutia, T. C. 2023. Ex situ conservation of rare and threatened orchid: *Diplomeris hirsuta* (Lindl.). *Journal of Applied Horticulture* 25(2): 120–122 (<https://doi.org/10.37855/jah.2023.v25i02.21>).

Botta, C. U. 2024. New insights on the Colombian orchid trade. *Orchid Review Yearbook* 2024: 32–37.

Ching, K. S., Li, C. X., Xi, L. J., Syamsumir, D. F., and Ling, M. N. 2024. Rebuilding of orchid germplasm conservation via molecular multi-omics approaches. *Journal of Sustainability Science and Management* 19(6): 169–199 (<https://doi.org/10.46754/jssm.2024.06.013>).

Er, K. B. H., Tan, R., Neo, L., and Ang, W. F. 2024. Rediscovering and conserving orchids in a tropical city-state. *Gardens' Bulletin Singapore* 76(2): 165–181 ([https://doi.org/10.26492/gbs76\(2\).2024-02](https://doi.org/10.26492/gbs76(2).2024-02)) [Singapore].

Hernández-García, A., Baltazar-Bernal, O., and Ramírez-Valverde, B. 2024. Sustainable native orchid tourism demand in central Veracruz, Mexico. *Sustainability (Switzerland)* 16(23): art. 10695 (<https://doi.org/10.3390/su162310695>).

Hsu, R. C. C., Chen, Y. C., and Lin, C. 2024. The impact of changing climate on an endangered epiphytic orchid (*Pleione formosana*) in a montane cloud forest and the conservation challenge ahead. *Plants* 13(17): art. 2414 (<https://doi.org/10.3390/plants13172414>).

Istiqomah, N., Indriani, H., Wijaya, Y. I. F., Yalapusipita, D. C., Handini, E., Diantina, S., Aprilianti, P., and Semiarti, E. 2024. Clonal propagation of rare orchid species *Paphiopedilum* spp. (Orchidaceae) to save Indonesian biodiversity. *South African Journal of Botany* 172: 779–785 (<https://doi.org/10.1016/j.sajb.2024.05.004>).

Kabuini, K. K. and Meitei, M. D. 2024. Unregulated wild orchid trade in Manipur: an analysis of the Imphal Valley markets from the Indo-Burma hotspot. *Journal of Threatened Taxa* 16(11): 26078–26088 (<https://doi.org/10.11609/jott.9329.16.11.26078-26088>).

Kropf, M. 2023. Monitoring der Bestandsentwicklung von Orchideen in der Lobau-Heißlände “Fuchshäufel” im Nationalpark Donau-Auen. *Acta ZooBot Austria* 159: 187–192.

Labadessa, R., Adamo, M., Tarantino, C., and Vicario, S. 2024. The side effects of the cure: Large-scale risks of a phytosanitary action plan on protected habitats and species. *Journal of Environmental Management* 371: art. 123285 (<https://doi.org/10.1016/j.jenvman.2024.123285>).

Lohr, M. and Margenburg, B. 2023. *Dactylorhiza majalis*: l’Orchis de mai ou Orchis à larges feuilles. *L’Orchidophile* 54(236): 59–74.

Machnik, A., Kluza-Wieloch, M., and Maciejewska-Rutkowska, I. 2024. Responsible urban tourism as a tool of natural and cultural heritage protection: Poznań (Poland) orchids’ case. *Sustainability (Switzerland)* 16(23): art. 10669 (<https://doi.org/10.3390/su162310669>).

Newmarch, M. B., Velde, M., Menon, M., and Sarasan, V. 2024. Soil studies for fungal diversity to enable the conservation translocation of green-winged orchid. *Diversity* 16(6): art. 327 (<https://doi.org/10.3390/d16060327>) [*Anacamptis morio*].

Perdomo, O., Zuluaga, A., and Trujillo-Trujillo, E. 2024. Conservation assessment of five new records for the Orchidaceae of Colombia. *Check List* 20(4): 950–961 (<https://doi.org/10.15560/20.4.950>).

Pica, A., Vela, D., and Magrini, S. 2024. Forest orchids under future climate scenarios: habitat suitability modelling to inform conservation strategies. *Plants* 13(13): art. 1810 (<https://doi.org/10.3390/plants13131810>) [*Cephalanthera*, *Epipactis*, *Limodorum*].

Ribeiro, I. S., Ribeiro, L. M., Ramos, J. C. M., Soares, J. S., and Sorgato, J. C. 2024. The Brazilian native orchid *Brassavola tuberculata* Hook.: ornamental potential and reintroduction. *Ornamental Horticulture* 30: art. e242768 (<https://doi.org/10.1590/2447-536X.V30.E242768>).

Rutherford, C. R., Rogers, A. M., Prober, S. M., Roper, E. M., Cook, E., and Reside, A. E. 2024. Evaluation of management options for climate-change adaptation of threatened species: A case study of a restricted orchid. *Australian Journal of Botany* 72(7): art. Bt23092 (<https://doi.org/10.1071/BT23092>) [*Prasophyllum petilum*].

Shang, W., Mao, L., Miao, L., Yan, Y., Li, S., and Feng, G. 2024. Impacts of natural environmental factors and anthropogenic activities on the distribution of threatened orchid species in China. *Journal of Geophysical Research: Biogeosciences* 129(7): art. e2023JG007681 (<https://doi.org/10.1029/2023JG007681>).

Zimmer, H., Mastroianni, E., Nargar, K., and Ferris, J. 2023. Updates on Red Listing of rare and threatened Australian orchids. *The Orchadian* 21(1): 5–10.

Cytogenetics/Horticultural genetics

da Cunha, T. B., de Sousa, S. M., Reis, A. C., de Matos, E. M., and Viccini, L. F. 2024. Synthetic tetraploid of *Oncidium crispum* Lodd. (Orchidaceae). *Methods in molecular biology (Clifton, NJ)* 2827: 267–278 (https://doi.org/10.1007/978-1-0716-3954-2_18).

Gastelbondo, M., Nicholls, U., Chen, S., Chambers, A., and Wu, X. 2024. First gynogenesis of *Vanilla planifolia* for haploid production and ploidy verification protocol. *Plants* 13(13): art. 1733 (<https://doi.org/10.3390/plants13131733>).

Hartati, S. and Cahyono, O. 2024. Chromosome and karyotype analysis of *Dendrobium* spp. *International Journal of Agricultural Technology* 20(5): 1917–1930.

Hartati, S. and Isnaeni, K. A. 2024. Chromosome analysis of *Dendrobium stockelbuschii* and *Dendrobium sylvanum* orchids. *IOP Conference Series: Earth and Environmental Science* 1362: art. 012003 (<https://doi.org/10.1088/1755-1315/1362/1/012003>).

Praptosuwiryo, T. N., Garvita, R. V., Handini, E., Fijridiyanto, I. A., and Witono, J. R. 2024. Karyological studies of four species of Lady's Slipper Orchids (*Paphiopedilum*) collected in the Bogor Botanical Garden, Indonesia. *Caryologia* 77(1): 57–64 (<https://doi.org/10.36253/CARYOLOGIA-2232>).

Tini, E. W., Widodo, P., and Ulinnuha, Z. 2024. Assessment of genetic parameters and heritability of *Dendrobium* species section *Spatulata* native to Indonesia. *Advances in Horticultural Science* 38(3): 239–248 (<https://doi.org/10.36253/ahsc-15528>).

Wang, L., Zheng, P., Ge, H., Zhao, X., Kou, Y., Yang, S., Yu, X., and Jia, R. 2024. Colchicine-induced tetraploidy in protocorms of *Aerides rosea* Lodd. ex Lindl. and Paxton.[sic] and its identification. *Plants* 13(24): art. 3535 (<https://doi.org/10.3390/plants13243535>).

Ecology

Ackerman, J. D., Recart, W., Soifer, L., Falcón, W., and Baider, C. 2024. Invasions of the bamboo orchid: performance variability on islands oceans apart. *Biological Invasions* 26: 4229–4243 (<https://doi.org/10.1007/s10530-024-03442-y>) [*Arundina graminifolia*].

Andres, C. 2023. Dynamique d'une station urbaine de *Spiranthes spiralis* à Tours (Indre-et-Loire). *L'Orchidophile* 54(238): 223–227.

Awasthi, M., Thapa, S., Awasthi, B., Lim, C. R., You, Y. H., and Chung, K. W. 2024. Diversity patterns of epiphytic orchids along elevation in the mountains of western Nepal. *Plants* 13(22): art. 3256 (<https://doi.org/10.3390/plants13223256>).

Bergfeld, D. 2024. Der Klimawandel in Deutschland und seine Auswirkungen auf heimische Orchideen in Baden-Württemberg. *Journal Europäischer Orchideen* 56(2–4): 149–167.

Botomanga, A., Andriamihaja, C. F., Besse, P., Jeannoda, V. H., Grisoni, M., Ny Aina Ranaivoson, S. E. F., Antsonantenainarivony, G., Fuzzati, N., and Ramarosandratana, A. V. 2024. Continuous degradation of forest structure and composition causes a shift in phorophytes and population genetics in aphyllous *Vanilla* species. *Tropical Conservation Science* 17: art. 19400829241301920 (<https://doi.org/10.1177/19400829241301920>).

Constans, G., Falvard, A., Gilardin, J., Laveran, H., and Peyrissat, F. 2023. Observations et étude des populations de *Spiranthes spiralis* sur substrat de roches granitiques en Auvergne (2014–2021). *L'Orchidophile* 54(236): 49–58.

Egorova, N. Y. and Suleimanova, V. N. 2024. Formation of a life strategy in plant species from technogenic ecotopes by the example of short-rhizomatous orchids. *Ecosystem Transformation* 7(2): 176–188 (<https://doi.org/10.23859/estr-221228>) [*Epipactis*, *Neottia*, *Cypripedium*].

Falvard, A. and Peyrissat, F. 2023. *Cephalanthera rubra*, une orchidée calcicole...ou pas? Observations dans la chaîne des Puys en Auvergne. *L'Orchidophile* 54(237): 151–156.

Fardeeva, M. B., Chizhikova, N. A., and Shafigullina, N. R. 2024. Habitat features and population status of *Dactylorhiza maculata* (L.) Soó (Orchidaceae) on the southern border of the range in the Volga-Kama Reserve (Republic of Tatarstan). *Contemporary Problems of Ecology* 17(6): 892–906 (<https://doi.org/10.1134/S1995425524700641>).

García-Luna, C., Carrillo-Bastos, A., Cutz-Pool, L. Q., and González-Salvatierra, C. 2024. Composition of vascular epiphytes associated with the riparian mangrove in the community of Ramonal, Quintana Roo, Mexico. *Madera y Bosques* 30(4): art. e3042616 (<https://doi.org/10.21829/myb.2024.3042616>).

Hernández-Mejía, J. A., De La Rosa-Manzano, E., and Delgado-Sánchez, P. 2024. Ecosystem services provided by orchids: a global analysis. *Botanical Sciences* 102(3): 671–685 (<https://doi.org/10.17129/botsci.3478>).

Kolanowska, M. 2024. Climate change will decrease the coverage of suitable niches for Asian medicinal orchid (*Bulbophyllum odoratissimum*) and its main phorophyte (*Pistacia weinmannifolia*). *Scientific reports* 14(1): 22656 (<https://doi.org/10.1038/s41598-024-73248-4>).

Kolanowska, M. and Scaccabarozzi, D. 2024. Does climate change pose a threat to the guild mimicry system of Australian orchids? *Ecology and Evolution* 14(12): art. e70633 (<https://doi.org/10.1002/ece3.70633>) [*Diuris*].

Lin, L. W., Huang, H., Liu, W. W., and Sun, W. B. 2024. Cyclical drought and herbivore threats are potential causes of leaf variegation dimorphism in *Cypripedium forrestii*. *Journal of Plant Ecology* 17(6): art. rtae081 (<https://doi.org/10.1093/jpe/rtae081>).

Liu, T., Cai, H., and Zhang, G. 2024. Assessment of climate change impacts on the distribution of endangered and endemic *Changnienia amoena* (Orchidaceae) using ensemble modeling and gap analysis in China. *Ecology and Evolution* 14(11): art. e70636 (<https://doi.org/10.1002/ece3.70636>).

Liu, X., Gao, C., Yang, G., and Yang, B. 2024. Prediction of suitable regions for *Danxiaorchis yangii* combined with pollinators based on the SDM model. *Plants* 13(21): art. 3101 (<https://doi.org/10.3390/plants13213101>).

Mirioba, J. N., Emitaro, W., Obwanga, B., Gaya, H., Leley, N., Otuoma, J., Maina, J. M., and Kawaka, F. 2024. Orchid species diversity across a forest disturbance gradient in west Mau forest, Kenya. *PLoS ONE* 19(8): art. e0307887 (<https://doi.org/10.1371/journal.pone.0307887>).

Morales-Linares, J., Flores-Palacios, A., Ramos-Robles, M., and Vásquez-Bolaños, M. 2023. Checklist of epiphytic angiosperm that constitute ant-gardens of *Azteca gnava* (Formicidae) in southeastern Mexico. *Acta Botanica Mexicana* 2023-January(130): art. e2129 (<https://doi.org/10.21829/abm130.2023.2129>).

Moreira, D. M., Boff, L., de Almeida Caputti Araújo, G., and Silva, S. M. 2024. Ecological inferences in Orchidaceae species from the Brazilian subtropical Atlantic Forest based on morphological and functional anatomical traits. *Flora: Morphology, Distribution, Functional Ecology of Plants* 317: art. 152558 (<https://doi.org/10.1016/j.flora.2024.152558>).

Phillips, R. D., Hatley, J., Li, X., Dimon, R. J., and Reiter, N. 2024. Resilience to summer bushfire in the threatened orchid, *Caladenia tessellata*, in terms of pollination success, herbivory, and mycorrhizal associations. *Botanical Journal of the Linnean Society* 205(4): 365–378 (<https://doi.org/10.1093/botlinnean/boad079>).

Poudel, B., Li, T., Anbazhakan, R., and Gao, J. 2025. Diverging role of phytohormones and soil nutrients between two broad and narrow-distribution orchids of *Satyrium* species. *Rhizosphere* 33: art. 101013 (<https://doi.org/10.1016/j.rhisph.2024.101013>).

Putra, S. R. T. and Trisnawati, I. 2024. Habitat preferences of epiphytic orchids and potential pollinators in Sumber Pawon Forest, Kediri District, East Java, Indonesia. *Biodiversitas* 25(6): 2780–2787 (<https://doi.org/10.13057/biodiv/d250649>).

Tsiftsis, S., Štípková, Z., Rejmánek, M., and Kindlmann, P. 2024. Predictions of species distributions based only on models estimating future climate change are not reliable. *Scientific Reports* 14(1): art. 25778 (<https://doi.org/10.1038/s41598-024-76524-5>).

Voßhall, H. and Gerbersmann, C. 2023, publ. 2024. Untersuchung zu den Ursachen von Bestandsschwankungen bei *Ophrys apifera* anhand eines Bestandes am Steinbruch Steltenberg in Hagen-Hohenlimburg. *Berichte aus den Arbeitskreisen Heimische Orchideen* 40(1): 66–113.

Ethnobotany/(Ethno)pharmacology

Alam, T., Sarkar, B. R., Luitel, P. S., Gorai, A. K., Dey, G., Umam, A. H., Rahman, T., Sikdar, D., Hussain, I., and Roy, A. G. 2024. Review on ethno medicinal activities of wild varieties of orchids used by the ethnic group of northeast India. *Journal of Natural Remedies* 24(7): 1425–1443 (<https://doi.org/10.18311/jnr/2024/35534>).

Araujo, N. G. R., da Silva Junior, F. C., Santos, L. V. D. S., Batistuzzo de Medeiros, S. R., Felzenszwalb, I., and Araújo-Lima, C. F. 2024. Molecular docking and in silico analysis of the pharmacokinetics, toxicological profile and differential gene expression of bioactive compounds from *Cyrtopodium glutiniferum*. *Toxicology Reports* 13: art. 101810 (<https://doi.org/10.1016/j.toxrep.2024.101810>).

Barragán-Zarate, G. S., Lagunez-Rivera, L., Alexander-Aguilera, A., Solano, R., and Vilarem, G. 2024. Extraction, characterization, and nutraceutical potential of *Prosthechea karwinskii* orchid for insulin resistance and oxidative stress in Wistar rats. *Foods* 13(15): art. 2432 (<https://doi.org/10.3390/foods13152432>).

Biswas, S. S., Kalaivanan, N. S., Pal, R., Alam, B. K., Ngangom, N. M., and Natta, S. 2024. Traditional knowledge of medicinal orchids in different parts of India. *Indian Journal of Traditional Knowledge* 23(5): 452–463 (<https://doi.org/10.56042/ijtk.v23i5.11042>).

Castillo-Pérez, L. J., Ponce-Hernández, A., Alonso-Castro, A. J., Solano, R., Fortanelli-Martínez, J., Lagunez-Rivera, L., and Carranza-Álvarez, C. 2024. Medicinal orchids of Mexico: A review. *Pharmaceuticals* 17(7): art. 907 (<https://doi.org/10.3390/ph17070907>).

Chen, J., Liu, H. G., Chang, P., Yuan, Y., and Dai, Y. C. 2025. Insight into the *Gastrodia elata* microbiome and its relationship with secondary metabolites. *Industrial Crops and Products* 223: art. 120248 (<https://doi.org/10.1016/j.indcrop.2024.120248>).

Chompoo, J., Chusuwan, O., and Abdullakasim, S. 2024. Influence of storage temperature and duration on phytochemical contents and antioxidant activities of the inflorescence of *Aranda* hybrids. *Indian Journal of Agricultural Research* 58(5): 820–827 (<https://doi.org/10.18805/IJARE.AF-837>).

Develioglu-Arslan, A., Sagdic, O., Tekin-Cakmak, Z. H., Karasu, S., Kayacan-Cakmakoglu, S., and Yaman, M. 2024. Characterization of different orchid species and rheological properties of orchids solutions. *Notulae Botanicae Horti Agrobotanici Cluj-Napoca* 52(4): art. 13844 (<https://doi.org/10.15835/nbha52413844>).

Fernández-Rojas, B., López-Pérez, A., Lagunez-Rivera, L., Solano, R., Bernal-Martínez, A. K., Majluf-Cruz, A., and Hernández-Juárez, J. 2024. Antiplatelet, anticoagulant, and fibrinolytic activity of orchids: A review. *Molecules* 29(23): art. 5706 (<https://doi.org/10.3390/molecules29235706>).

Gupta, A., Naorem, A., and Khuraijam, J. S. 2024. Medicinally important orchids of Northeast India: traditional knowledge and scientific validation. *Indian Journal of Traditional Knowledge* 23(7): 638–654 (<https://doi.org/10.56042/ijtk.v23i7.1815>).

Heriansyah, P., Aziz, S. A., Sukma, D., and Nurcholis, W. 2025. Antioxidant capacity of *Coelogyne pandurata* extracts at different phenological phases. *Revista Brasileira de Engenharia Agrícola e Ambiental* 29(2): art. e279352 (<https://doi.org/10.1590/1807-1929/agriambi.v29n2e279352>).

Jaimun, R., Kanha, N., and Sangsuwan, J. 2024. Indicator films containing *Dendrobium* orchid flower extract and TiO₂ nanoparticles for monitoring fish fillet spoilage. *Natural and Life Sciences Communications* 23(3): art. e2024036 (<https://doi.org/10.12982/NLSC.2024.036>).

Kirkwood, A., Fisk, I., Xu, Y., Reid, J., and Yang, N. 2025. Mechanisms of aroma compound formation during the drying of *Dendrobium nobile* stems (Shihu). *Food Chemistry* 464: art. 141888 (<https://doi.org/10.1016/j.foodchem.2024.141888>).

Kumwenda, F. D., Sumani, J., Jere, W., Nyirenda, K. K., and Mwatseteza, J. 2024. Nutritional, phytochemical, and functional properties of four edible orchid species from Malawi. *Foods* 13(15): art. 2403 (<https://doi.org/10.3390/foods13152403>) [*Disa*, *Satyrium*].

Li, J., Gao, C., He, Z., Huang, Y., Tan, D., Qin, L., Wu, D., Wu, J., Wang, Y., He, Y., Wu, X., and Lu, Y. 2024. The chemical structure and pharmacological activity of sesquiterpenoids in *Dendrobium* Sw. *Molecules* 29(24): art. 5851 (<https://doi.org/10.3390/molecules29245851>).

Liu, G., Mu, K. L., Ran, F., Liu, J. M., Zhou, L. L., Peng, L. Q., Feng, G., Liu, Y. C., Wei, F. D., Zhu, L. L., Zhang, X. Y., Zhang, Y. P., and Sun, Q. W. 2024. The hemostatic activity and mechanistic roles of glucosyloxybenzyl 2-isobutylmalate extract (BSCE) from *Bletilla striata* (Thunb.) Rchb.f. in inhibiting pulmonary hemorrhage. *Heliyon* 10(18): art. e38203 (<https://doi.org/10.1016/j.heliyon.2024.e38203>).

Maksup, S. and Obsuwan, K. 2024. An analysis of the levels of bioactive components and antioxidant activity in several *Dendrobium* ‘Khao Sanan’ sections taken at various developmental stages. *Acta Horticulturae* 3: 903–908 (<https://doi.org/10.17660/ActaHortic.2024.1404.123>).

Manyatsi, T. S., Lin, Y. H., Sung, P. H., and Jou, Y. T. 2024. Exploring the volatile profile of *Vanilla planifolia* after fermentation at low temperature with *Bacillus* isolates. *Foods* 13(17): art. 2777 (<https://doi.org/10.3390/foods13172777>).

Obsuwan, K., Rayanil, K., Sanmanee, N., Charoenpanich, A., and Maksup, S. (2024). Crude polysaccharides from orchid pseudobulbs modified the in vitro development of *Dendrobium cretaceum* and its antioxidant activity. *Acta Horticulturae* 2024: 897–902. (<https://doi.org/10.17660/ActaHortic.2024.1404.122>).

Peng, L., Yu, J., Fang, J., Yin, F., Abirami, G., Wu, J., Lou, G., Li, H., Yang, L., Xia, J., Yang, D., Liang, Z., and Zhang, X. 2024. Unveiling the phytochemical profile and biological potential of five *Dendrobium* species. *Arabian Journal of Chemistry* 17(9): art. 105922 (<https://doi.org/10.1016/j.arabjc.2024.105922>).

Targu, M., Pun, B., Arora, M., Joshi, S. R., and Kumaria, S. 2024. Evaluation of bioactive compounds, antioxidant and antimicrobial properties of *Bulbophyllum griffithii* (Lindl.) Rchb.f., an unexplored rare orchid of therapeutic importance. *South African Journal of Botany* 174: 283–306 (<https://doi.org/10.1016/j.sajb.2024.08.049>).

Thakar, A. and Dave, D. 2024. Population assessment, distributional pattern and ethnomedicinal significance of *Dactylorhiza hatagirea* (D. Don) Soo: an endangered species of the Himalayan region. *Frontiers in Forests and Global Change* 7: art. 1475620 (<https://doi.org/10.3389/ffgc.2024.1475620>).

Wang, J., Lv, A., Yao, L., Zhang, M., Fang, H., Jiang, J., Zhu, J., and Zheng, Y. 2024. Effects of harvest times on the production and quality of *Bletilla striata*. *Acta Physiologiae Plantarum* 46(12): art. 107 (<https://doi.org/10.1007/s11738-024-03708-x>).

History

Arditti, J. 2024. Conrad Gesner. Outstanding botanist. *Orchids, the Bulletin of the American Orchid Society* 93(6): 470–475.

Hervouet, J.-M. 2024. Mélanges de botanique et de voyages: Louis-Marie-Aubert Aubert du Petit Thouars. *L'Orchidophile* 55(241): 169–184.

Wong, S. C. and Wong, K. M. 2024. Dr Eduard Ferdinand (Ed) de Vogel (1942–2021), Malesian botanist, visionary orchidologist and New Guinea veteran. *Malesian Orchid Journal* 27: 126–141.

Horticultural science

Bualom, O. and Fuggate, P. 2024. Logistics activities and logistics performance of Thai exporters exporting cut orchid flowers to Vietnam. *Journal of International Studies(Malaysia)* 20(2): 225–253 (<https://doi.org/10.32890/jis2024.20.2.8>).

De Oliveira dos Santos, P. C., Landgraf, P. R. C., and Florentino, L. A. 2024. In vitro evaluation of plant growth promoting bacteria isolated from the cymbidian[sic: *Cymbidium*] orchid. *Ornamental Horticulture* 30: art. e242762 (<https://doi.org/10.1590/2447-536X.V30.E242762>).

Devi, N. S., Hatibarua, P., Handique, K., Devi, N. B., Goswami, S., and Das, K. 2024. Standardization of packaging technique(s) for the distant marketing of *Rhynchostylis retusa*. *Environment Conservation Journal* 25(2): 581–587 (<https://doi.org/10.36953/ECJ.24892678>).

Ditasya Putri, N., Setiari, N., Nurchayati, Y., and Agung Suedy, S. W. 2024. The effect of thidiazuron treatment on the growth of *Vanda limbata* Blume in vivo. *Makara Journal of Science* 28(4): 330–336 (<https://doi.org/10.7454/mss.v28i4.2207>).

Hartati, S. 2024. *Phalaenopsis* orchid hybrid diversity based on flower and leaves morphology. *International Journal on Advanced Science, Engineering and Information Technology* 14(4): 1327–1333 (<https://doi.org/10.18517/ijaseit.14.4.20070>).

Mubarok, S., Yulianty, V., and Farida, F. 2024. Vegetative growth response of *Phalaenopsis* sp. hybrids (Moon Orchid) in response to light intensity and fertilizer concentration. *Ornamental Horticulture* 30: art. e242694 (<https://doi.org/10.1590/2447-536X.v30.e242694>).

Rineksane, I. A., Aulia, D., Astuti, A., and Samidjo, G. S. 2024. Promoting *Vanda tricolor* growth at the acclimatization stage: influence of rice washing water and wood charcoal-fern root medium. *IOP Conference Series: Earth and Environmental Science* 1417: art. 012014 (<https://doi.org/10.1088/1755-1315/1417/1/012014>).

Salman Aos, T. N. and Permana, A. D. 2024. Value chain management of orchid businesses: a case study of the Indonesian Orchid Association of West Java. *Agraris* 10(1): 90–104 (<https://doi.org/10.18196/agraris.v10i1.174>).

Taticharoen, T., Matsumoto, S., Chutteang, C., Srion, K., Abdullakasim, W., and Abdullakasim, S. 2023. Increased relative humidity in the dry season during stomata opening promotes growth, leaf area, and biomass of CAM orchid: *Dendrobium* Sonia ‘Earsakul’. *Journal of Applied Horticulture* 25(2): 155–160 (<https://doi.org/10.37855/jah.2023.v25i02.27>).

Tina, S. A. and Wiendi, N. M. A. 2024. Bibliometric analysis of a decade Orchidaceae research: a comprehensive study in the agriculture field. *Journal of Tropical Crop Science* 11(3): 246–259 (<https://doi.org/10.29244/jtcs.11.03.246-259>).

Yuan, C., Ma, J., Zhang, P., Zhao, M., Wang, J., Wang, J., and Xu, D. 2024. Design and experiment of the visual servo planting platform for *Phalaenopsis* tissue-cultured seedlings using improved YOLOv8. *Transactions of the Chinese Society of Agricultural Engineering* 40(20): 138–146 (<https://doi.org/10.11975/j.issn.1002-6819.202405039>).

(Micro)propagation/Seed germination/Cryopreservation

Azad, M. Z., Kaviani, B., and Sedaghatthoor, S. 2024. Cold storage and cryopreservation by encapsulation-dehydration of *Cephalanthera rubra* (L.) Rich., a threatened orchid species. *Acta Agrobotica* 77: art. 189312 (<https://doi.org/10.5586/AA/189312>).

Bartel, L. G. and Downing, J. 2024. Comparison of in-vitro orchid media solutions for *Prosthechea cochleata* (L.) W.E. Higgins vars. *diandra* and *triandra*. *Plant Cell, Tissue and Organ Culture* 158(2): art. 27 (<https://doi.org/10.1007/s11240-024-02814-5>).

Borbolla-Pérez, V., Georgina Iglesias-Andreu, L., and Luna-Rodríguez, M. 2024. Effect of zeatin and casein hydrolysate on in vitro asymbiotic germination of immature seeds of *Vanilla planifolia* Jacks ex Andrews (Orchidaceae). *South African Journal of Botany* 171: 802–811 (<https://doi.org/10.1016/j.sajb.2024.07.005>).

- Campol, J. R., Naing, A. H., Aung, H. M., Cho, S. B., Kang, H., Chung, M. Y., and Kim, C. K. 2024. Production of genetically stable and odontoglossum ringspot virus-free *Cymbidium* orchid 'New True' plants via meristem-derived protocorm-like body (PLB) subcultures. *Plant Methods* 20(1): art. 145 (<https://doi.org/10.1186/s13007-024-01269-1>).
- Chamara, R. M. S. R., Miyoshi, K., Yukawa, T., Asai, N., and Ogura-Tsujita, Y. 2024. Orchid mycorrhizal association of cultivated *Dendrobium* hybrid and their role in seed germination and seedling growth. *Microorganisms* 12(6): art. 1176 (<https://doi.org/10.3390/microorganisms12061176>).
- Chen, W. A., Hsu, S. T., and Lee, Y. I. 2024. Embryology of a lady's slipper orchid, *Paphiopedilum spicerianum* and cytokinin requirements for seed germination and protocorm development. *HortScience* 59(8): 1158–1164 (<https://doi.org/10.21273/HORTSCI17917-24>).
- Cordova, E. M., Gansau, J. A., Tihoi, S., and David, D. 2024. Induction of protocorm-like bodies (PLBs) and plant regeneration in *Cymbidium chloranthum* (Orchidaceae). *BIO Web of Conferences* 131: art. 01002 (<https://doi.org/10.1051/bioconf/202413101002>).
- Cunia, O., Oliva, M., Chavez, S. G., Veneros, J., Guadalupe, G. A., Ix, M., and Rosero, L. M. G. 2024. A mother plant and somatic embryo registry for the propagation and conservation of artificial seeds of the orchid *Phragmipedium kovachii*. *OnLine Journal of Biological Sciences* 24(4): 695–707 (<https://doi.org/10.3844/ojbsci.2024.695.707>).
- Deb, A. and Kaur, S. 2024. Conservation of threatened orchid *Aerides multiflora* Roxb. through in vitro asymbiotuc[sic] seed culture. *Applied Biological Research* 26(3): 334–442 (<https://doi.org/10.48165/abr.2024.26.01.38>).
- Edmond, V. D. V., Moon, P. A., Bremgartner, M., Wu, X., and Bassil, E. 2024. *Agrobacterium*-mediated transformation, selection and regeneration of *Vanilla pompona*. *Plant Cell, Tissue and Organ Culture* 158(2): art. 41 (<https://doi.org/10.1007/s11240-024-02836-z>).
- Hwang, J. E., Park, H. B., Jeon, D. Y., Park, H. J., Kim, S., Lee, C. W., Kim, Y. J., and Yoon, Y. J. 2024. Effect of different basal media and organic supplements on in vitro seedling development of the endangered orchid species *Dendrobium moniliforme* (L.) Swartz. *Plants* 13(19): art. 2721 (<https://doi.org/10.3390/plants13192721>).
- Jeldes-Cajas, O., Pereira, G., Molina-Montenegro, M. A., and Atala, C. 2024. Symbiotic and asymbiotic germination in vitro of *Chloraea longipetala* (Orchidaceae), an endemic orchid from Chile. *Gayana—Botanica* 81(1): 66–76 (<https://doi.org/10.4067/S0717-66432024000100066>).
- Jin, X. H., Wang, Y. C., Li, D., Li, Y., He, H. Y., and Zhang, H. B. 2024. Diverse *Mycena* fungi and their potential for *Gastrodia elata* germination. *Journal of microbiology and biotechnology* 34(6): 1249–1259 (<https://doi.org/10.4014/jmb.2401.01009>).
- Kaladharan, S., Mariappan, M., and Thiruppathi, S. K. 2024. An effective in vitro propagation of *Coelogyne mossiae* Rolfe: An endangered endemic orchid of Western Ghats, India. *South African Journal of Botany* 173: 217–224 (<https://doi.org/10.1016/j.sajb.2024.08.026>).

- Laily, A. N., Maharijaya, A., Wulandari, D. R., Puspitaningtyas, D. M., Ariati, S. R., Martin, A. F., and Hapsari, B. W. 2024. Optimizing micropropagation of Indonesian conserved orchid *Vanda celebica* using organic compounds and a temporary immersion system. *Notulae Botanicae Horti Agrobotanici Cluj-Napoca* 52(4): art. 14065 (<https://doi.org/10.15835/nbha52414065>).
- Sarkar, D., Sarkar, I., Chettri, S., and Ojha, S. 2024. In vitro seed propagation of *Dendrobium moschatum* as influenced by different plant growth regulators. *Journal of Applied Horticulture* 26(2): 186–190 (<https://doi.org/10.37855/jah.2024.v26i02.35>).
- Setyawati, A., Hartati, S., Gusniar, N., Fathin, T. S., and Prihanto, J. 2024. In vitro application of kinetin and tomato extract on orchid growth of *Dendrobium stratiotes*. *Annals of Biology* 40(2): 211–218.
- Shah, S., Paudel, M. R., Thapa, B. B., Sharma, H., Kashyap, A. K., Rekadwad, B. N., Sharma, R., Sharma, J., and Pant, B. 2025. Extract from endophytic *Fusarium* isolates stimulates seed germination of the host and protocorm development of non-host orchids. *Communicative and Integrative Biology* 18(1): art. 2439798 (<https://doi.org/10.1080/19420889.2024.2439798>).
- Supreeworakij, S., Saetiew, K., Rungkitwattananukul, T., Phanchompoo, P., and Montri, N. 2024. Effects of organic compound and plant growth regulators on seed germination and growth of *Doritis pulcherrima* Lindl. in vitro. *Acta Horticulturae* 3: 363–368 (<https://doi.org/10.17660/ActaHortic.2024.1404.49>).
- Téllez-Casas, J. M., López-Peralta, M. C. G., Hernández-Meneses, E., and Cruz-Huerta, N. 2024. Direct shoot organogenesis from in vitro germinated seedlings of *Rhyncholaelia glauca* (Lindley) Schlechter. *Revista Fitotecnia Mexicana* 47(3): 293–300 (<https://doi.org/10.35196/rfm.2024.3.293>).
- Thakur, U. and Dongarwar, N. 2024. Asymbiotic seed germination of an anticancerous terrestrial orchid *Eulophia nuda* Lindl. and its adulterant *Geodorum densiflorum* (Lam) Schltr. *Applied Biological Research* 26(2): 263–269 (<https://doi.org/10.48165/abr.2024.26.01.30>).
- Valencia-Glushchenko, N., Oña-Arias, C. G., Orellana, M., Ortega, M., Montero-Oleas, A., and de Lourdes Torres, M. 2024. In vitro asymbiotic seed germination and seedling development of four endangered Ecuadorian orchids: *Epidendrum jamiesonis*, *Pleurothallis pulchella*, *Oncidium pentadactylon*, and *Elleanthus capitatus*. *Plant Cell, Tissue and Organ Culture* 158(3): art. 60 (<https://doi.org/10.1007/s11240-024-02841-2>).
- Wu, Z., Liu, S., An, B., Zhang, H., Wu, J., Li, C., and Long, Y. 2024. Mutagenesis and flowering promotion through sodium azide in vitro culture of *Cymbidium faberi* Rolfe. *Horticulturae* 10(8): art. 889 (<https://doi.org/10.3390/horticulturae10080889>).
- Yalapusita, D. C., Handini, E., Aprilianti, P., Isnaini, Y., and Semiarti, E. 2024. Improvement of growth rate in in vitro culture of *Paphiopedilum primulinum* M. W. Wood & P. Taylor and *Paphiopedilum glaucophyllum* J. J. Smith using banana enrichment media. *Tropical Life Sciences Research* 35(3): 109–120 (<https://doi.org/10.21315/tlsr2024.35.3.5>).

Yang, J., Li, N. Q., and Gao, J. Y. 2024. Roles of mycorrhizal fungi on seed germination of two Chinese medicinal orchids: need or do not need a fungus? *Frontiers in Plant Science* 15: art. 1415401 (<https://doi.org/10.3389/fpls.2024.1415401>) [*Pleione bulbocodioides*, *Bletilla striata*].

Molecular biology

Almontero, C. C., Lalusin, A. G., Diaz, M. G. Q., Ocampo, E. T. M., Gentallan, R. P., and Rojas, S. M. 2024. DNA barcoding of 11 endemic *Vanda* species of the Philippines based on rbcL, matK, and ITS sequences. *Philippine Journal of Science* 153(5): 1783–1800.

Barrett, C. F., Pace, M. C., and Corbett, C. W. 2024. Plastid genome evolution in leafless members of the orchid subfamily Orchidoideae, with a focus on *Degranvillea dermaptera*. *American Journal of Botany* 111(7): art. e16370 (<https://doi.org/10.1002/ajb2.16370>).

Carrion, J. V., Perez, J., Tineo, D., Calderon, M. S., Garcia, L., Oliva, M., Gamarra Torres, O., and Bustamante, D. E. 2024. High-throughput sequencing yields the complete plastid genome of the endemic species *Phragmipedium kovachii* (Orchidaceae) from northeastern Peru. *Mitochondrial DNA Part B: Resources* 9(9): 1175–1180 (<https://doi.org/10.1080/23802359.2024.2397979>).

Chen, H.-Y., Zhang, Z.-R., Yao, X., Ya, J.-D., Jin, X.-H., Wang, L., Lu, L., Li, D.-Z., Yang, J.-B., and Yu, W.-B. 2024. Plastid phylogenomics provides new insights into the systematics, diversification, and biogeography of *Cymbidium* (Orchidaceae). *Plant Diversity* 46(4): 448–461 (<https://doi.org/10.1016/j.pld.2024.03.001>).

Chen, P., Zhang, Z., Song, X., and Zhang, Z. 2024. Characterization and phylogenetic analysis of the complete chloroplast genome sequence of *Phalaenopsis deliciosa* (Rchb. f. 1854). *Mitochondrial DNA Part B: Resources* 9(11): 1483–1486 (<https://doi.org/10.1080/23802359.2024.2420842>).

Chen, X., Niu, M., Wu, X., Peng, Y., Zheng, R., Cheng, M., Zhao, K., Zhou, Y., and Peng, D. 2024. BBX genes of *Cymbidium ensifolium* exhibited intense response to blue light in meristem induction through artificial control. *Plants* 13(17): art. 2375 (<https://doi.org/10.3390/plants13172375>).

Chen, X., Zhao, Y., Xu, S., Zhou, Y., Zhang, L., Qu, B., and Xu, Y. 2024. Analysis of codon usage bias in the plastid genome of *Diplandrorchis sinica* (Orchidaceae). *Current Issues in Molecular Biology* 46(9): 9807–9820 (<https://doi.org/10.3390/cimb46090582>).

Dwiyani, R., Sanjaya, I. P. W., Yuswanti, H., Darmawati, I. A. P., Suada, I. K., Manullang, P. K., and Fitriani, Y. 2024. Intraspecific SSR marker screening for detection of *Dendrobium crumenatum* mutants generated from in vitro gamma irradiation. *Journal of Tropical Biodiversity and Biotechnology* 9(2): art. jtbb89896 (<https://doi.org/10.22146/jtbb.89896>).

Goedderz, S., Clements, M. A., Bent, S. J., Nicholls, J. A., Patel, V. S., Crayn, D. M., Schlüter, P. M., and Nargar, K. 2024. Plastid phylogenomics reveals evolutionary relationships in the mycoheterotrophic orchid genus *Dipodium* and provides insights into plastid gene degeneration. *Frontiers in Plant Science* 15: art. 1388537 (<https://doi.org/10.3389/fpls.2024.1388537>).

Guizar Amador, M. F. G., Darragh, K., Liu, J. W., Dean, C., Bogarín, D., Pérez-Escobar, O. A., Serracín, Z., Pupulin, F., and Ramírez, S. R. 2024. The *Gongora gibba* genome assembly provides new insights into the evolution of floral scent in male euglossine bee-pollinated orchids. *G3: Genes, Genomes, Genetics* 14(11): art. jkae211 (<https://doi.org/10.1093/g3journal/jkae211>).

Hanifa, Y. R., Gildantia, E., Kasi, P. D., Purwantoro, A., and Semiarti, E. 2024. Characterization of flower's color based on CHS gene structure in *Phalaenopsis* 'OX Queen' and *Dendrobium* 'Cheddi Jagan' Orchids. *Journal of Tropical Biodiversity and Biotechnology* 9(3): art. jtbb91511 (<https://doi.org/10.22146/jtbb.91511>).

Hartati, S., Aziez, A. F., and Eldita, C. 2024. Genetic diversity of *Phalaenopsis* spp. orchids based on ISSR (Inter Simple Sequence Repeat) markers. *Research on Crops* 25(4): 648–654 (<https://doi.org/10.31830/2348-7542.2024.ROC-1127>).

He, X., Zhang, M. M., Huang, Y., Yu, J., Zhao, X., Zheng, Q., Liu, Z. J., and Lan, S. 2024. Genome-based identification of the Dof gene family in three *Cymbidium* species and their responses to heat stress in *Cymbidium goeringii*. *International Journal of Molecular Sciences* 25(14): art. 7662 (<https://doi.org/10.3390/ijms25147662>).

He, X., Zhao, X., Zheng, Q., Zhang, M. M., Huang, Y., Liu, Z. J., and Lan, S. 2024. Whole-genome analysis of ZF-HD genes among three *Dendrobium* species and expression patterns in *Dendrobium chrysotoxum*. *Horticulturae* 10(6): art. 610 (<https://doi.org/10.3390/horticulturae10060610>).

Hou, Z., Wang, M., Jiang, Y., Xue, Q., Liu, W., Niu, Z., and Ding, X. 2024. Mitochondrial genome insights into the spatio-temporal distribution and genetic diversity of *Dendrobium hancockii* Rolfe (Orchidaceae). *Frontiers in Plant Science* 15: art. 1469267 (<https://doi.org/10.3389/fpls.2024.1469267>).

Hsu, H. F., Li, Y. C., Shen, Y. H., and Yang, C. H. 2024. PaWOX3 and PaWOX3B regulate flower number and the lip symmetry of *Phalaenopsis*. *Plant & cell physiology* 65(8): 1328–1343 (<https://doi.org/10.1093/pcp/pcae069>).

Karbarz, M., Szlachcikowska, D., Zapał, A., and Leśko, A. 2024. Unlocking the genetic identity of endangered *Paphiopedilum* orchids: A DNA barcoding approach. *Genes* 15(6): art. 689 (<https://doi.org/10.3390/genes15060689>).

Kaur, A., Pawar, S. V., and Sembi, J. K. 2025. Comparative transcriptome-wide analysis of Polyketide Synthase (PKS) gene family amongst five *Phalaenopsis* species. *Revista Brasileira de Botanica* 48(1): art. 3 (<https://doi.org/10.1007/s40415-024-01049-0>).

Lai, Y. S., Chen, S. Y., Wu, Y. J., Chen, W. H., Chen, H. H., Lin, Y. Y., Lin, T. C., Lin, T. J., and Kao, C. F. 2024. Genetic profiles and phenotypic patterns in Taiwanese *Phalaenopsis* orchids: a two-step phenotype and genotype strategy using modified genetic distance algorithms. *Frontiers in Plant Science* 15: art. 1416886 (<https://doi.org/10.3389/fpls.2024.1416886>).

- Lei, W., Zhou, P., Pei, Z., Liu, Y., Luo, Y., and Xiang, X. 2024. Plastome evolution and comparative analyses of a recently radiated genus *Vanda* (Aeridinae, Orchidaceae). *International Journal of Molecular Sciences* 25(17): art. 9538 (<https://doi.org/10.3390/ijms25179538>).
- Li, J., Wen, J., Wu, K., Li, L., Fang, L., and Zeng, S. 2024. Integrating physiology, cytology, and transcriptome to reveal the leaf variegation mechanism in *Phalaenopsis* Chia E Yenlin variegata leaves. *Biomolecules* 14(8): art. 963 (<https://doi.org/10.3390/biom14080963>).
- Li, X., Ma, J., Fan, Y., Xu, L., Wu, J., Liu, H., Li, T., He, S., Wang, H., Zhu, L., Zeng, L., and Aoxue, L. 2024. Transcriptomics combined with physiological analysis provided new insights into the enhancing *Dendrobium nobile* resilience to Cu stress through Ce modulation. *Industrial Crops and Products* 222: art. 119821 (<https://doi.org/10.1016/j.indcrop.2024.119821>).
- Liao, M., Zhang, J. Y., Feng, Y., Ren, Z. X., Deng, H. N., and Xu, B. 2024. Phylogenomic insights into the historical biogeography, character-state evolution, and species diversification rates of Cypripedioideae (Orchidaceae). *Molecular Phylogenetics and Evolution* 199: art. 108138 (<https://doi.org/10.1016/j.ympev.2024.108138>).
- Liu, Q., Song, Q., Yu, Y., Shi, Y., Lu, M., Chen, Y., and Tan, L. 2024. Whole chloroplast genome sequence and phylogenetic analysis of *Calanthe discolor* (Orchidaceae). *Mitochondrial DNA Part B: Resources* 9(10): 1345–1349 (<https://doi.org/10.1080/23802359.2024.2411376>).
- Liu, Z., Lee, S. Y., Yeh, C.-L., Averyanov, L. V., Liao, W., and Suetsugu, K. 2024. Plastome analysis elucidates the phylogenetic placement of the mycoheterotrophic genus *Yoania* (Orchidaceae) and its plastomic degeneration during the evolution of mycoheterotrophy. *Botanical Journal of the Linnean Society* 206(4): 313–326 (<https://doi.org/10.1093/botlinnean/boae028>).
- Li-Zhen, L., Dong-Yan, T., Wu-Fu, D., and Shu-Dong, Z. 2024. The chloroplast genome of *Cephalanthera nanchuanica* (Orchidaceae): comparative and phylogenetic analysis with other Neottieae species. *BMC Genomics* 25(1): art. 1090 (<https://doi.org/10.1186/s12864-024-11004-8>).
- Lu, T. W., Chen, W. H., Chen, P. Y., Shu, Y. C., and Chen, H. H. 2024. Perturbation of periodic spot-generation balance leads to diversified pigmentation patterning of harlequin *Phalaenopsis* orchids: in silico prediction. *BMC Plant Biology* 24(1): art. 681 (<https://doi.org/10.1186/s12870-024-05305-z>).
- Lu, T. W., Chen, W. H., Chen, P. Y., Shu, Y. C., and Chen, H. H. 2024. Correction: Perturbation of periodic spot-generation balance leads to diversified pigmentation patterning of harlequin *Phalaenopsis* orchids: in silico prediction (BMC Plant Biology, (2024), 24, 1, (681), 10.1186/s12870-024-05305-z). *BMC Plant Biology* 24(1): art. 782 (<https://doi.org/10.1186/s12870-024-05475-w>).
- Luo, X., Long, Z., Chen, M., Yin, H., Lu, S., Liao, Y., Yin, J., and Li, C. 2025. Targeted metabolomics- and transcriptomics-based investigation of carotenoid pigmentation in *Phalaenopsis*-type *Dendrobium* hybrids. *Scientia Horticulturae* 339: art. 113829 (<https://doi.org/10.1016/j.scienta.2024.113829>).

Mao, W. T., Hsu, W. H., Song, J. L., and Yang, C. H. 2024. The HD-ZIP II gene PaHAT14 increases cuticle deposition by downregulating ERF gene PaERF105 in *Phalaenopsis*. *Plant & cell physiology* 65(11): 1751–1768 (<https://doi.org/10.1093/pcp/pcae078>).

Mondal, A. and De, K. K. 2024. Estimation of DNA content and genome size of some orchids using flow cytometry. *Indian Journal of Horticulture* 81(3): 251–258 (<https://doi.org/10.58993/ijh/2024.81.3.5>).

Mursyidin, D. H. and Firnanda, M. R. 2024. Genetic diversity and relationship of native *Phalaenopsis* orchids: a case study of Indonesian Archipelago. *Journal of Tekirdag Agricultural Faculty* 21(4): 844–853 (<https://doi.org/10.33462/jotaf.1247037>).

Muti, R. M., Barrett, C. F., and Sinn, B. T. 2024. Evolution of Whirly1 in the angiosperms: sequence, splicing, and expression in a clade of early transitional mycoheterotrophic orchids. *Frontiers in Plant Science* 15: art. 1241515 (<https://doi.org/10.3389/fpls.2024.1241515>) [*Corallorhiza*].

Naczek, A. M., Ziętara, M. S., Wołkowycki, D., Wilhelm, M., and Zheleznaya, E. 2024. Genetic and morphological variation of two local allotetraploid orchids, *Dactylorhiza baltica* and *D. ruthei*. *Preslia* 96(3): 267–297 (<https://doi.org/10.23855/preslia.2024.267>).

Nascimento, R. R. and Ribeiro, T. 2024. In silico analysis of *Apostasia wallichii* (Apostasioideae) and *Ludisia discolor* (Orchidoideae) orchids reveals different repeats composition despite the same genome size. *Anais da Academia Brasileira de Ciencias* 96: art. e20240172 (<https://doi.org/10.1590/0001-3765202420240172>).

Nguyen, M. P., Trinh, T. H., Dao, K. D., Luu, P. L., and Ho, V. T. 2024. Complete chloroplast genome of the jewel orchid, *Anoectochilus formosanus* (Orchidaceae) and its relatives. *Revista de Biologia Tropical* 72(1): art. e56423 (<https://doi.org/10.15517/rev.biol.trop.v72i1.56423>).

Pailler, T., Gauche, M., Da Silva, D., and Besse, P. 2024. Taxonomic position of *Hemipervis micrantha* (Frapp. ex Cordem.) Schltr. (Orchidaceae; Orchidoideae; Habenariinae), by sequencing the ITS and matK genes. *Adansonia* 46(14): 149–155 (<https://doi.org/10.5252/adansonia2024v46a14>).

Peng, F. C., Yuan, M., Zhou, L., Zheng, B. Q., and Wang, Y. 2024. Identification and analysis of aluminum-activated malate transporter gene family reveals functional diversification in Orchidaceae and the expression patterns of *Dendrobium catenatum* aluminum-activated malate transporters. *International Journal of Molecular Sciences* 25(17): art. 9662 (<https://doi.org/10.3390/ijms25179662>).

Pessoa, E. and Christenhusz, M. J. M. 2024. Molecular phylogenetics provides support for the current circumscription of *Rodriguezia* (Oncidiinae-Orchidaceae) and for a new infrageneric classification of the genus. *Plant Systematics and Evolution* 310(6): art. 46 (<https://doi.org/10.1007/s00606-024-01918-x>).

Pramanik, D., Becker, A., Roessner, C., Rupp, O., Bogarín, D., Pérez-Escobar, O. A., Dirks-Mulder, A., Droppert, K., Kocyan, A., Smets, E., and Gravendeel, B. 2023. Evolution and development of fruits of *Erycina pusilla* and other orchid species. *PLoS ONE* 18(10): art. e0286846 (<https://doi.org/10.1371/journal.pone.0286846>).

Primasiwi, D. H., Purwestri, Y. A., and Semiarti, E. 2024. Improving transient gene expression and agroinfiltration-based transformation effectiveness in Indonesian orchid *Phalaenopsis amabilis* (L.) Blume. *Indonesian Journal of Biotechnology* 29(3): 111–120 (<https://doi.org/10.22146/ijbiotech.80555>).

Qian, X., Sarsaiya, S., Dong, Y., Yu, T., and Chen, J. 2024. Recent advances and new insights in genome analysis and transcriptomic approaches to reveal enzymes associated with the biosynthesis of dendrobine-type sesquiterpenoid alkaloids (DTSAs) from the last decade. *Molecules* 29(16): art. 3787 (<https://doi.org/10.3390/molecules29163787>).

Qu, X., Li, N., Xu, C., Huang, Z., Li, C., Jiang, Y., Zheng, G., Fu, H., Zhang, G., and Liu, C. 2024. Unveiling the molecular mechanism of sepal curvature in *Dendrobium* section *Spatulata* through full-length transcriptome and RNA-seq analysis. *Frontiers in Plant Science* 15: art. 1497230 (<https://doi.org/10.3389/fpls.2024.1497230>).

Russo, A., Alessandrini, M., El Baidouri, M., Frei, D., Galise, T. R., Gaidusch, L., Oertel, H. F., Garcia Morales, S. E., Potente, G., Tian, Q., Smetanin, D., Bertrand, J. A. M., Onstein, R. E., Panaud, O., Frey, J. E., Cozzolino, S., Wicker, T., Xu, S., Grossniklaus, U., and Schlüter, P. M. 2024. Genome of the early spider-orchid *Ophrys sphegodes* provides insights into sexual deception and pollinator adaptation. *Nature Communications* 15(1): art. 6308 (<https://doi.org/10.1038/s41467-024-50622-4>).

Seangprajak, J., Phetsom, J., Saengdee, A., Atichart, P., Chuncher, S., Theerakulpisut, P., Saengprajak, A., and Thanonkaew, S. 2024. Assessment of genetic relationship among *Rhynchostylis* species based on inter-simple sequence repeat (ISSR) markers. *Plant Breeding and Biotechnology* 12: 69–81 (<https://doi.org/10.9787/PBB.2024.12.69>).

Starke, M. D., Kapusta, M., Płachno, B. J., and Bohdanowicz, J. 2024. Immunolocalization of extensin and pectin epitopes in *Liparis loeselii* protocorm and protocorm-like bodies. *Cells* 13(23): art. 1985 (<https://doi.org/10.3390/cells13231985>).

Sukma, D., Purwoko, B. S., Dinarti, D., Sukmadjaja, D., and Sanjaya, I. P. W. 2024. Flow cytometry analysis reveals nuclear DNA content variation in *Phalaenopsis* young leaf and root tip cells. *Sabao Journal of Breeding and Genetics* 56(4): 1410–1423 (<https://doi.org/10.54910/sabao2024.56.4.8>).

Sun, L., Liu, X., Nie, T., Chen, Y., Xu, L., Li, S., and Yin, Z. 2024. Weighted correlation network analysis and differential expression analysis identify auxin-related genes responsible for adventitious root formation in an epiphytic *Dendrobium* orchid (*Dendrobium moniliforme* (L.) Sw.). *Scientia Horticulturae* 338: art. 113614 (<https://doi.org/10.1016/j.scienta.2024.113614>).

Tang, Y. H., Zhong, Y. Y., and Huang, X. 2024. Identification and functional analysis of the flower development-related TCP genes in *Erycina pusilla*. *Horticulturae* 10(6): art. 534 (<https://doi.org/10.3390/horticulturae10060534>).

Thakur, N., Kanchan, M., and Sembi, J. K. 2024. Homeodomain leucine zipper (HD-ZIP) gene family in *Apostasia shenzhenica* Z. J. Liu & L. J. Chen (Orchidaceae): In silico identification and characterization. *Scientia Horticulturae* 337: art. 113577 (<https://doi.org/10.1016/j.scienta.2024.113577>).

Thawara, N., Kongsawadworakul, P., Suksathan, P., Watthana, S., Pingyot, T., Merckx, V. S. F. T., and Ruchisansakun, S. 2024. An overview of floral and vegetative evolution in the Asian clade of *Bulbophyllum* (Orchidaceae). *Plant Ecology and Evolution* 157(3): 313–326 (<https://doi.org/10.5091/plecevo.114642>).

Tikendra, L., Dey, A., Sahoo, M. R., and Nongdam, P. 2023. Genetic stability in micropropagated orchids: assessment by molecular markers and flow cytometry. In: Mujib, A. (ed.), *Genome Size and Genetic Homogeneity of Regenerated Plants: Methods and Applications*. Bentham Science, UAE, pp. 180–231 (<https://doi.org/10.2174/9789815165555123010011>).

Tong, W., Yu, D., Zhu, X., Le, Z., Chen, H., Hu, F., and Wu, S. 2024. The whole mitochondrial genome sequence of *Dendrobium loddigesii* Rolfe, an endangered orchid species in China, reveals a complex multi-chromosome structure. *Genes* 15(7): art. 834 (<https://doi.org/10.3390/genes15070834>).

Wang, F., Chen, X., Cheng, M., Zhou, C., Zheng, R., Wu, X., Duan, Y., Ahmad, S., Liu, Z., Chen, J., and Peng, D. 2024. Genome-wide identification of the WUSCHEL-related homeobox (WOX) gene family in three *Cymbidium* species and expression patterns in *C. goeringii*. *Horticulturae* 10(6): art. 645 (<https://doi.org/10.3390/horticulturae10060645>).

Wang, R.-R., Yu, L., Kuang, P., Su, S. L., Mo, F. X., Ruan, X., Niu, L. J., and Li, J. 2023. Transfer of the *Arabidopsis* CBF1, a cold-induced transcription activator, into *Phalaenopsis* via pollen-tube pathway. *Phyton—Annales Rei Botanicae* 62–63: 87–96.

Yang, X. 2024. The armor of orchid petals: insights into cuticle deposition regulation. *Plant & cell physiology* 65(11): 1737–1739 (<https://doi.org/10.1093/pcp/pcae116>).

Zeng, M.-Y., Li, M.-H., Lan, S., Yin, W.-L., and Liu, Z.-J. 2024. Comparative phylogenomic study of Malaxidinae (Orchidaceae) sheds light on plastome evolution and gene divergence. *International Journal of Molecular Sciences* 25(20): art. 11181 (<https://doi.org/10.3390/ijms252011181>).

Zhang, J., Zhou, D., Chen, W., Lin, P., Zhao, S., Wang, M., Wang, H., Shi, S., mehmood, F., Ye, X., Meng, J., and Zhuang, W. 2024. Comparison of the chloroplast genomics of nine endangered *Habenaria* species and phylogenetic analysis. *BMC Plant Biology* 24(1): art. 1046 (<https://doi.org/10.1186/s12870-024-05766-2>).

Zhang, J.-Y., Cheng, Y.-H., Liao, M., Feng, Y., Jin, S.-L., He, T.-M., He, H., and Xu, B. 2024. A new infrageneric classification of *Gastrochilus* (Orchidaceae: Epidendroideae) based on molecular and morphological data. *Plant Diversity* 46(4): 435–447 (<https://doi.org/10.1016/j.pld.2023.08.001>).

Zhang, T., Yu, X., Liu, D., Zhu, D., and Yi, Q. 2024. Genome-wide identification, expression pattern and interacting protein analysis of INDETERMINATE DOMAIN (IDD) gene family in *Phalaenopsis equestris*. *PeerJ* 12(9): art. e18073 (<https://doi.org/10.7717/peerj.18073>).

Zheng, Q., Huang, Y., He, X., Zhang, M. M., and Liu, Z. J. 2024. Genome-wide identification and expression pattern analysis of GATA gene family in Orchidaceae. *Genes* 15(7): art. 915 (<https://doi.org/10.3390/genes15070915>).

Zheng, Q., Luo, X., Huang, Y., Ke, S. J., and Liu, Z. J. 2024. The complete mitogenome of *Apostasia fujianica* Y.Li & S.Lan and comparative analysis of mitogenomes across Orchidaceae. *International Journal of Molecular Sciences* 25(15): art. 8151 (<https://doi.org/10.3390/ijms25158151>).

Zhou, P., Lei, W. S., Shi, Y. K., Liu, Y. Z., Luo, Y., Li, J. H., and Xiang, X. G. 2024. Plastome evolution, phylogenomics, and DNA barcoding investigation of *Gastrochilus* (Aeridinae, Orchidaceae), with a focus on the systematic position of *Haraella retrocalla*. *International Journal of Molecular Sciences* 25(15): art. 8500 (<https://doi.org/10.3390/ijms25158500>).

Zhou, Z., Chen, J., Wang, F., Wu, X., Liu, Z., Peng, D., and Lan, S. 2024. The complete chloroplast genome of an epiphytic leafless orchid, *Taeniophyllum complanatum*: Comparative analysis and phylogenetic relationships. *Horticulturae* 10(6): art. 660 (<https://doi.org/10.3390/horticulturae10060660>).

Mycorrhiza and endophytes

Balducci, M. G., Calevo, J., and Duffy, K. J. 2024. Narrow mycorrhizal specialization and its effect on early development in the Mediterranean orchid *Orchis italica*. *Botanical Journal of the Linnean Society* 206(3): 245–256 (<https://doi.org/10.1093/botlinnean/boae018>).

Bibikov, N. M., Voronina, E. Y., and Kurakov, A. V. 2024. Root-associated mycobiota of *Goodyera repens* (Orchidaceae) populations from three Russian regions. *Mikologiya I Fitopatologiya* 58(3): 195–204 (<https://doi.org/10.31857/S0026364824030025>).

Dar, B. A., Wani, A. H., Qadir, R., and Bhat, M. Y. 2024. Quantitative exploration of arbuscular mycorrhiza colonization in *Dactylorhiza hatagirea* (D.Don) Soó in Kashmir Himalaya. *Ornamental Horticulture* 30: art. e242723 (<https://doi.org/10.1590/2447-536X.v30.e242723>).

De Rose, S., Sillo, F., Ghirardo, A., Perotto, S., Schnitzler, J. P., and Balestrini, R. 2024. Integration of fungal transcriptomics and metabolomics provides insights into the early interaction between the ORM fungus *Tulasnella* sp. and the orchid *Serapias vomeracea* seeds. *IMA Fungus* 15(1): art. 31 (<https://doi.org/10.1186/s43008-024-00165-6>).

García-Sánchez, C., Pérez-Moreno, J., Almaraz-Suárez, J. J., Delgadillo-Martínez, J., and Cetina-Alcalá, V. M. 2024. Distribution of mycorrhizal colonization in the roots of the Neotropical orchid *Laelia furfuracea* Lindl. *Caldasia* 46(2): 339–349 (<https://doi.org/10.15446/caldasia.v46n2.96265>).

Hu, X., Qi, X., Artigas Ramírez, M. D., Wu, Q., Liu, S., Deng, Z., Li, X., Zhang, N., Zhang, H., Dai, H., Xin, R., Wu, X., and Cheng, J. 2024. Analysis of the fungal community composition in endemic orchids with terrestrial habitat in subtropical regions. *Microorganisms* 12(7): art. 1412 (<https://doi.org/10.3390/microorganisms12071412>) [*Habenaria*, *Liparis*].

Miura, C., Tominaga, T., and Kaminaka, H. 2024. Different roles of the phytohormone gibberellin in the wide-spread arbuscular mycorrhiza and in orchid mycorrhiza. *Current Opinion in Plant Biology* 82: art. 102627 (<https://doi.org/10.1016/j.pbi.2024.102627>).

Nkomo, T., Bose, T., Wingfield, B. D., Knoppersen, R., Mbhele, O., Nemesio-Gorriz, M., Rodas, C. A., Paetz, C., Cilliers, C. T., Ferreira, M. A., and Hammerbacher, A. 2024. Geographic location shapes fungal communities associated with *Epidendrum* roots. *Mycological Progress* 23(1): art. 54 (<https://doi.org/10.1007/s11557-024-01990-0>).

Pereira, M. C., Cunha, P. C., Teixeira, A. F. S., da Silva, L. I., Valadares, R. B. D. S., Dória, J., Costa, P. H. O., and Moreira, F. M. S. 2024. Narrow mycorrhizae and large non-mycorrhizal fungal diversity associated with roots of *Cattleya milleri*, an endemic and endangered orchid from a rupestrian hotspot in the “Quadrilátero Ferrífero” of Minas Gerais—Brazil. *Acta Botanica Brasilica* 38: art. e20230196 (<https://doi.org/10.1590/1677-941X-ABB-2023-0196>).

Qin, J., Han, Z. D., Wu, Y., Wang, H., and Zhang, S. B. 2024. Three helmet-orchid species share abundant fungi of Serendipitaceae regardless of altitude. *Botany* 102(7): 304–312 (<https://doi.org/10.1139/cjb-2024-0020>) [*Corybas*].

Raj, R., Job, J., Rajan, P., Mathew, S., Ramanathan, R. A., and Cherian, E. 2024. The diversity of fungal associates of *Dendrobium ovatum* (L.) Kraenzl., an endemic orchid of the Western Ghats of India. *Indonesian Journal of Biotechnology* 29(3): 139–148 (<https://doi.org/10.22146/ijbiotech.92378>).

Saikia, J. and Thakur, D. 2024. A review on endophytic bacteria of orchids: functional roles toward synthesis of bioactive metabolites for plant growth promotion and disease biocontrol. *Planta* 260(3): art. 70 (<https://doi.org/10.1007/s00425-024-04501-3>).

Suriyachadkun, C., Ngaemthao, W., Pujchakarn, T., Sakdapetsiri, C., Ayawong, C., Chairrote, K., and Chunhametha, S. 2024. *Actinomycespora aeridis* sp. nov., *Actinomycespora flava* sp. nov. and *Actinomycespora aurantiaca* sp. nov., endophytic actinobacteria isolated from wild orchid (*Aerides multiflora* Roxb). *International Journal of Systematic and Evolutionary Microbiology* 74(8): art. 006505 (<https://doi.org/10.1099/ijsem.0.006505>).

Tian, L., An, M., Liu, F., and Zhang, Y. 2024. Fungal community characteristics of the last remaining habitat of three *Paphiopedilum* species in China. *Scientific Reports* 14(1): art. 24737 (<https://doi.org/10.1038/s41598-024-75185-8>).

Wei, Y. H., Tzean, S. S., and Hsieh, S. Y. 2024. *Trichoderma changiae* (Hypocreales), a new species isolated from a native orchid in Taiwan. *Phytotaxa* 658(3): 261–270 (<https://doi.org/10.11646/phytotaxa.658.3.4>) [*Dendrobium nakaharae*].

Yao, N., Wang, T., Jiang, J., Yang, Y., and Cao, X. 2024. *Corioloopsis strumosa* as an orchid endophytic fungus and its spatial distribution in *Epidendrum* sp. (Orchidaceae). *Microorganisms* 12(6): art. 1054 (<https://doi.org/10.3390/microorganisms12061054>).

Zahn, F. E., Jiang, H., Lee, Y. I., and Gebauer, G. 2024. Mode of carbon gain and fungal associations of *Neuwiedia malipoensis* within the evolutionarily early-diverging orchid subfamily Apostasioideae. *Annals of Botany* 134(3): 511–520 (<https://doi.org/10.1093/aob/mcae097>).

Zhang, W., Gao, S., Liang, Y., Wang, M., and Shao, S. 2024. Fungal community dynamics in the roots and root zone soil of *Spathoglottis plicata* at different development stages. *Acta Microbiologica Sinica* 64(9): 3366–3378 (<https://doi.org/10.13343/j.cnki.wsxb.20240129>).

Zhao, Z., Shi, L., Yang, L., and Xing, X. 2023. Research progress on the correlation between mycorrhizal fungi and the habitat selection of orchids. *Journal of Fungal Research* 21(1–3): 113–120 (<https://doi.org/10.13341/j.jfr.2023.1580>).

Zhao, Z., Yang, L., Wang, Y., Qian, X., Ding, G., Jacquemyn, H., and Xing, X. 2024. Shifts in bacterial community composition during symbiotic seed germination of a terrestrial orchid and effects on protocorm development. *Microbiology Spectrum* 12(12): art. e02185-02124 (<https://doi.org/10.1128/spectrum.02185-24>) [*Gymnadenia conopsea*].

Pathology

Bouffleur, T. R., Ino, P. Y. T., Júnior, N. S. M., de Oliveira, V. C., de Almeida Neto, L. C., and Fischer, I. H. 2024. Black rot caused by *Phytophthora nicotianae* and *Phytophthora palmivora* on *Cattleya wittigiana* and *Dendrobium thyrsiflorum* in Brazil. *Australasian Plant Disease Notes* 19(1): art. 25 (<https://doi.org/10.1007/s13314-024-00549-y>).

Chen, C., Lu, C. Y., Hsieh, R. M., and Yang, G. M. 2024. Evaluation of *Bacillus* spp. for biological control of *Fusarium* stem rot in *Anoectochilus formosanus*. *Acta Horticulturae* 3: 1001–1008 (<https://doi.org/10.17660/ActaHortic.2024.1404.137>).

Harju, V., Fowkes, A. R., Skelton, A., Adams, I. P., McGreig, S., Forde, S. M. D., Pufal, H., Conyers, C., Frew, L., and Fox, A. 2024. First detection of orchid fleck virus on *Veronica spicata* and *Dendrochilum magnum*. *New Disease Reports* 50(2): art. e12312 (<https://doi.org/10.1002/ndr2.12312>).

Jin, X., Yao, J., Yin, Y., Li, T., Guo, M., Zhong, J., He, S., Chen, Y., He, J., Yan, B., and Ding, M. 2024. Molecular characterization of the odontoglossum ringspot virus and cymbidium chlorotic mosaic virus mix-infecting *Cymbidium hybridum* in Yunnan. *Acta Horticulturae Sinica* 51(8): 1844–1852 (<https://doi.org/10.16420/j.issn.0513-353x.2023-0555>).

Kim, J., Yoon, S., Kang, S., Kim, H. B., and Boo, K. H. 2024. Development of a multiplex PCR to simultaneously detect four problematic pathogens in *Cymbidium kanran*. *Plant Pathology Journal* 40(6): 569–577 (<https://doi.org/10.5423/PPJ.OA.07.2024.0101>).

Lafarge, D. 2023. Reconnaître et maîtriser les cochenilles farineuses. *L'Orchidophile* 54(238): 203–207.

Nguyen, N. C., Nguyen, H. T., and Trinh, Q. P. 2024. First report of *Helicotylenchus dihystrera* parasitizing Lady Tankerville's swamp orchids (*Phaius tankervilleae*) in Vietnam. *Plant Disease* 108(9): 2934 (<https://doi.org/10.1094/PDIS-03-24-0554-PDN>).

Pujasatria, G. C., Miura, C., Yamaguchi, K., Shigenobu, S., and Kaminaka, H. 2024. Colonization by orchid mycorrhizal fungi primes induced systemic resistance against necrotrophic pathogen. *Frontiers in Plant Science* 15: art. 1447050 (<https://doi.org/10.3389/fpls.2024.1447050>).

Soelistijono, R., Rakhmawati, D., Rianto, P. A., and Utomo, H. 2024. Utilization of *Rhizoctonia mycorrhizae* for Orchid Late Blight control in sustainable agricultural[sic]. *Biosaintifika* 16(1): 1–9 (<https://doi.org/10.15294/biosaintifika.v15i1.3498>).

Tsao, W. C., Li, Y. H., Tu, Y. H., Nai, Y. S., Lin, T. C., and Wang, C. L. 2024. Identification and molecular detection of the pathogen of *Phalaenopsis* leaf yellowing through genome analysis. *Frontiers in Microbiology* 15: art. 1431813 (<https://doi.org/10.3389/fmicb.2024.1431813>).

Yao, H., Liu, K., Peng, L., Huang, T., Shi, J., Sun, B., and Zou, J. 2024. *Clonostachys rosea*, a pathogen of brown rot in *Gastrodia elata* in China. *Biology* 13(9): art. 730 (<https://doi.org/10.3390/biology13090730>).

Physiology/Phytochemistry

D'Auria, M., Lorenz, R., Racioppi, R., and Romano, V. A. 2024. Determination of volatile organic compounds in some *Epipactis*, *Neottia*, and *Limodorum* orchids growing in Basilicata (southern Italy). *Compounds* 4(2): 366–375 (<https://doi.org/10.3390/compounds4020022>).

David, D., Rusdi, N. A., Mokhtar, R. A. M., Goh, L. P. W., and Gansau, J. A. 2024. Untargeted metabolite profiling of wild and in vitro propagated Sabah jewel orchid *Macodes limii* J.J. Wood & A.L. Lamb. *Tropical Life Sciences Research* 35(3): 23–56 (<https://doi.org/10.21315/tlsr2024.35.3.2>).

Feng, S. Q., Lu, A. J., Yang, M., Feng, D. N., He, Y. Q., and Xue, S. 2023. Difference of odd-carbon fatty acid composition in three *Dendrobium* species. *Food and Machinery* 39(4): 130–134, 169 (<https://doi.org/10.13652/j.spjx.1003.5788.2022.80723>).

Harinarivo, H. L., Tombozara, N., Rabemanantsoa, C., Randriamampionona, D., Lebret, D., Rasoarahona, J., Raonizafinimanana, B., Rasoarahona, F., Raherimandimby, M., Andrianjara, C., and El-Jaziri, M. 2024. Quality of *Vanilla* spp. from Madagascar: evolution of the compound fingerprints from the green beans to the vanilla pods' preparation. *Biotechnology, Agronomy, Society and Environment* 28(1): 28–36 (<https://doi.org/10.25518/1780-4507.20622>).

Im, N. H., Kim, M. S., Min, K., Lee, E. J., and Lee, H. B. 2024. Changes in leaf sugar content during sink transition by low temperature exposure in *Phalaenopsis* orchids. *Scientia Horticulturae* 338: art. 113805 (<https://doi.org/10.1016/j.scienta.2024.113805>).

Kumaar, M. D., Karthikeyan, S., Lourdusamy, D. K., Senthil, A., and Vellaikumar, S. 2024. Morphophysiological adaptations and fragrance profile analysis of two relocated orchid species. *Plant Science Today* 11(4): 557–569 (<https://doi.org/10.14719/pst.4822>) [*×Brassocattleya*, *Dendrobium*].

Mohammadpour Barough, A., Dianati Daylami, S., Fadavi, A., Aliniaiefard, S., and Vahdati, K. 2024. Enhancing photosynthetic efficiency in *Phalaenopsis amabilis* through bioreactor innovations. *BMC Plant Biology* 24(1): art. 1166 (<https://doi.org/10.1186/s12870-024-05767-1>).

Murvanidze, N., Doležal, K., Plačková, L., and Werbrouck, S. P. O. 2024. Metabolism of fluorinated topolin cytokinins in micropropagated *Phalaenopsis amabilis*. *Horticulturae* 10(7): art. 727 (<https://doi.org/10.3390/horticulturae10070727>).

Mus, A. A., Gansau, J. A., Kumar, V., and Rusdi, N. A. 2024. Isolation and characterisation of sesquiterpene synthase from aromatic orchid *Phalaenopsis bellina* (Rechb.f.) Christenson. *Molecular Biology Reports* 51(1): art. 1000 (<https://doi.org/10.1007/s11033-024-09943-2>).

Ruti, I., Kaliyaperumal, V., Kola, R., Pratap Rao, D., and Kumar, S. 2024. An efficient and green strategy for the synthesis of graphene with aqueous polyphenol extracts of orchid flower (*Dendrobium anosmum*) for charge storage. *Materials Letters* 376: art. 137131 (<https://doi.org/10.1016/j.matlet.2024.137131>).

Xia, K., Wu, Q., Chai, S., Wang, Z., Yang, Y., Liu, Q., Zhao, Z., Xiong, Z., and Qiu, S. 2024. Exploring the interspecific relationships among *Dendrobium* species via electrochemical fingerprinting techniques. *International Journal of Electrochemical Science* 19(9): art. 100735 (<https://doi.org/10.1016/j.ijoes.2024.100735>).

Zhang, W., Qin, J., Feng, J. Q., Dong, X. M., Hu, H., and Zhang, S. B. 2024. A mycoheterotrophic orchid uses very limited soil inorganic nitrogen in its natural habitat. *Journal of Plant Physiology* 303: art. 154367 (<https://doi.org/10.1016/j.jplph.2024.154367>) [*Cymbidium macrorhizon*].

Zhang, Y., Liu, T., Nan, T., Hua, Z., Zhao, Y., and Yuan, Y. 2024. Characteristics and functions of volatile organic compounds in the tripartite symbiotic system of *Gastrodia elata*-*Armillaria gallica*-*Rahnella aceris* HPDA25. *Plant Signaling and Behavior* 19(1): art. 2399426 (<https://doi.org/10.1080/15592324.2024.2399426>).

Zhang, Y. W., Shi, Y. C., Huang, W., and Zhang, S. B. 2024. Insights into the differences in polysaccharide and alkaloid biosynthesis in the medicinal orchids *Dendrobium nobile* and *D. officinale*. *Physiologia Plantarum* 176(5): art. e14575 (<https://doi.org/10.1111/ppl.14575>).

Pollination/Population genetics/Seed dispersal

Avisse, I. 2023. Euglossines, noyer d'Amazonie et orchidées forestières: un partenariat symbiotique et mutualiste exemplaire. *L'Orchidophile* 54(237): 127–136.

Barreda-Castillo, J. M., Pansarin, E. R., Monribot-Villanueva, J. L., Guerrero-Analco, J. A., and Menchaca-García, R. A. 2024. Alloamy, metaxenia and hybrids in orchids, what do we know about it? *Botanical Sciences* 102(3): 646–670 (<https://doi.org/10.17129/botsci.3470>).

Borràs, J., Cursach, J., Herrera, C., Perelló-Suau, S., and Capó, M. 2024. Ecological perspectives on female and male reproductive success with competition in two *Serapias* species. *Annals of Botany* 134(2): 311–324 (<https://doi.org/10.1093/aob/mcae074>).

Bower, C. 2024. Fixed non-random orientation to the Sun (conversonotropism) in two window-flowered greenhood orchids, *Diplodinium* spp. (Orchidaceae: Pterostylidinae); implications for other window flowers and pollinator behaviour. *Botanical Journal of the Linnean Society* 206(3): 231–244 (<https://doi.org/10.1093/botlinnean/boae023>).

Da Costa, G. V., Alves, M. F., Duarte, M. O., Caetano, A. P. S., Koehler, S., and Mayer, J. L. S. 2024. Apomixis beyond trees in the Brazilian savanna: New insights from the orchid *Zygopetalum mackayi*. *AoB PLANTS* 16(4): art. plae037 (<https://doi.org/10.1093/aobpla/plae037>).

De Angelli, N. 2023. Le nectar stupéfiant d'*Epipactis*. *L'Orchidophile* 54(236): 75–78.

Hayashi, T., Ayre, B. M., Bohman, B., Brown, G. R., Reiter, N., and Phillips, R. D. 2024. Pollination by multiple species of nectar foraging Hymenoptera in *Prasophyllum innubum*, a critically endangered orchid of the Australian Alps. *Australian Journal of Botany* 72(5): art. Bt23110 (<https://doi.org/10.1071/BT23110>).

Hernández-Rivera, Á., Dáttilo, W., Montoya, B., Villegas-Patraca, R., and González-Tokman, D. 2024. Effects of urbanization on orchid bee diversity and orchid pollination: From neotropical cloud forests to urban cores. *Science of the Total Environment* 954: art. 176553 (<https://doi.org/10.1016/j.scitotenv.2024.176553>).

Hu, S., Wang, M., Yan, X., and Cheng, X. 2024. Genetic diversity and population structure of endangered orchid *Cypripedium flavum* in fragmented habitat using fluorescent AFLP markers. *Plants* 13(20): art. 2851 (<https://doi.org/10.3390/plants13202851>).

Ilyina, V., Senator, S., Mitroshenkova, A., and Kozlovskaya, O. 2024. Peculiarities of the *Neottianthe cucullata* population structure under industrial loads (Samara oblast). *AIP Conference Proceedings* 3184: art. 020013 (<https://doi.org/10.1063/5.0212015>).

Ivanov, S. P., Fateryga, A. V., Svirin, S. A., Murtazaliev, R. A., and Fateryga, V. V. 2024. The first record of *Eucera tricineta* Erichson, 1835 (Hymenoptera: Apidae) as a pollinator of an endangered orchid *Himantoglossum formosum* (Steven) K. Koch (Orchidaceae). *Far Eastern Entomologist* (506): 10–16 (<https://doi.org/10.25221/FEE.506.3>).

Karremans, A. P. 2024. A historical review of the artificial pollination of *Vanilla planifolia*: The importance of collaborative research in a changing world. *Plants* 13(22): art. 3203 (<https://doi.org/10.3390/plants13223203>).

Kirillova, I. A. and Kirillov, D. V. 2024. Population dynamics and seed productivity of *Dactylorhiza maculata* (Orchidaceae) population in the Komi republic (European Russia) as a response to the effects of weather factors. *Nature Conservation Research* 9(3): 47–60 (<https://doi.org/10.24189/ncr.2024.019>).

Lipińska, M. M. and Barabasz, C. 2024. Pollination of Guatemalan orchids—state of knowledge. *Neotropical Biology and Conservation* 19(2): 149–171 (<https://doi.org/10.3897/neotropical.19.e119499>).

Oikonomidis, S., Koutsovoulou, K., Kaltsis, A., Constantinou, C., Andreou, M., Kadis, C., Georgiou, K., and Thanos, C. A. 2024. The effect of pollen origin (self- and cross-pollination) on seed production and viability in *Ophrys* (Orchidaceae). *Botany Letters* 171(4): 500–508 (<https://doi.org/10.1080/23818107.2024.2393360>).

Ospina-M, A., Sanín, M. J., Maia, A. C. D., and Cardona-Duque, J. 2024. The sweet path of Hansel and Gretel: Pollination system of *Masdevallia hortensis* (Orchidaceae: Pleurothallidinae) in a cloud montane forest of the Cordillera Occidental, in Colombia. *Plant Systematics and Evolution* 310(6): art. 43 (<https://doi.org/10.1007/s00606-024-01924-z>).

Pansarin, E. R., Pedro, S. R. M., Pansarin, L. M., Davies, K. L., and Stpiczyńska, M. 2024. Neither nectar nor deception: the role of floral rewards in the pollination system of *Laelia* (Orchidaceae: Laeliinae). *Science of Nature* 111(6): art. 57 (<https://doi.org/10.1007/s00114-024-01941-5>).

Pemberton, R. W. 2024. Female orchid bee *Euglossa dilemma* visits the perfume orchid *Coryanthes panamensis* in Florida. *Lankesteriana* 24(3): 277–283 (<https://doi.org/10.15517/lank.v24i3.61983>).

Renner, S. S., Zhang, M., Aguiar, A. J. C., and Huang, S. Q. 2024. A filmed copulation of *Ctenoplectra* (Ctenoplectrini, Apidae) bees suggests that males may chemically mark females. *Apidologie* 55(5): art. 63 (<https://doi.org/10.1007/s13592-024-01102-7>) [*Dendrobium*, *Galeola*].

Richards, R. and Owens, N. W. 2023. Observations of insect visitors to *Anacamptis robusta* (T. Stephenson) R.M. Bateman (Orchidaceae) flowers at s'Albufera de Mallorca. *Bolleti de la Societat d'Historia Natural de les Balears* 66: 167–185.

Wang, L. H. 2024. The phenology of flowering in *Spiranthes sinensis* s.s. *Flora: Morphology, Distribution, Functional Ecology of Plants* 321: art. 152628 (<https://doi.org/10.1016/j.flora.2024.152628>).

Yagame, T. and Naka, H. 2024. Sexually deceptive pollination of the non-native *Ophrys fuciflora* (Orchidaceae) in Japan by the native bee *Euclera nipponensis* (Hymenoptera: Apidae). *European Journal of Entomology* 121: 355–359 (<https://doi.org/10.14411/eje.2024.037>).

Zhang, H., Chen, X., Miao, J., Deng, S., Liang, C., Li, M., Wu, S., and Zhai, J. 2024. Flowering phenology and mating system of *Calanthe sieboldii*. *Horticulturae* 10(10): art. 1025 (<https://doi.org/10.3390/horticulturae10101025>).

Systematics and distribution

AFRICA (excluding NORTH AFRICA, including the southern part of the ARABIAN PENINSULA)

Al-Khayri, J. M. and Arditti, J. 2023. Orchidées d'Arabie Saoudite. *L'Orchidophile* 54(239): 309–319 [Saudi Arabia].

Hermans, J. 2024. Where have those long spurs gone. The first record of *Angraecum corrugatum* and *Cynorkis inermis* from Madagascar. *Orchids, the Bulletin of the American Orchid Society* 93(5): 388–389.

Hermans, J., Schuiteman, A., Rajaovelona, L., Hervouet, J.-M., and Cribb, P. 2024. *Aerangis* (Orchidaceae) in Madagascar, the Mascarenes, and the Comoro Islands. *Kew Bulletin* 79: 703–806 (<https://doi.org/10.1007/s12225-024-10202-7>).

Pailler, T. and Baider, C. 2024. Identité d'*Amphorkis inermis* Thouars et d'*Arnottia mauritiana* A.Rich.: deux espèces distinctes, traitées en synonymie comme *Cynorkis inermis* (Thouars) Hermans & P. J. Cribb dans la Flore des Mascareignes. *Adansonia* 46(16): 161–168 (<https://doi.org/10.5252/adansonia2024v46a16>).

AMERICA

Alfaro, L. E., Salinas, J. D., Hagsater, E., and Cano, A. 2024. *Epidendrum manusalinasiae* (Orchidaceae: Laeliinae), new species from the high Andean forests of Manu National Park, Cusco, Perú. *Phytotaxa* 664(1): 068–074 (<https://doi.org/10.11646/phytotaxa.664.1.6>).

Assis, L. C. and Ferreira, U. L. C. 2024. Um novo híbrido natural de *Catasetum* (Orchidaceae) descrito para o Brasil. *Richardiana*, nouv. sér. 8: 1–7 (<https://richardiana.jardinbotaniquedeguyane.com/wp-content/uploads/2024/03/Novo-hibrido-natural-de-Catasetum-.pdf>).

Baquero, L. E., Monteros, M. F., Iturralde, G. A., Jimenez, M. M., and R., D. 2024. *Pleurothallis markgruinii*, a new Pleurothallidinae (Orchidaceae) from northwestern Ecuador. *Edinburgh Journal of Botany* 81: art. 2032 (<https://doi.org/10.24823/ejb.2024.2001>).

Barberena, F. F. V. A., da Silva Sousa, T., and Roque, N. 2023. Orchidaceae in the Parque Natural Municipal da Restinga de Praia do Forte, Bahia, Brazil. *Acta Botanica Mexicana* (130): art. e2271 (<https://doi.org/10.21829/abm130.2023.2271>).

Batista, J. A. N., Cruz-Lustre, G., Vale, A. A. D., and Bianchetti, L. B. 2023. Checklist and molecular phylogenetics reveal three taxonomic novelties in *Habenaria* (Orchidaceae, Orchidoideae) from Chapada dos Veadeiros, Goiás, Brazil *European Journal of Taxonomy* 891: 51–86 (<https://doi.org/10.5852/ejt.2023.891.2271>).

Belfort-Oconitrillo, N., Salguero, G., Oses, L., Gil-Amaya, K., Rojas-Alvarado, G., Chinchilla, I. F., Díaz-Morales, M., Pupulin, F., Bogarín, D., and Karman's, A. P. 2024. New species and records of Orchidaceae from Costa Rica. IV. *Lankesteriana* 24(2): 141–192 (<https://doi.org/10.15517/lank.v24i2.60686>).

Blind, A. D. 2024. A controversial *Catasetum* revisited. *Orchid Review Yearbook* 2024: 102–103.

Caro, H., Arango-Carvajal, S., Suescún, D., and Restrepo, E. 2024. Unhiding Colombian orchid treasures: A new *Lepanthes* (Orchidaceae) from the northeastern Andes in Colombia. *Phytotaxa* 664(3): 191–199 (<https://doi.org/10.11646/phytotaxa.664.3.4>).

Cervera, F. 2023. Phragmipediums: ce que Mère Nature nous enseigne. *L'Orchidophile* 54(236): 31–48.

Cervera, F. 2024. *Phragmipedium schlimii*. Is this species really five different species and three natural hybrids? *Orchids, the Bulletin of the American Orchid Society* 93(8): 622–635.

da Silva, D. F., Do Nascimento, E. G., and Barberena, F. F. V. A. 2024. First record of *Epidendrum ×doroteae* (Orchidaceae) in South America. *Nature Conservation Research* 9(4): 118–120 (<https://doi.org/10.24189/ncr.2024.035>).

Dalström, S. and Deburghgraeve, G. 2024. *Cyrtochilum cinnamoneum* Dalström & Deburghgr. sp. nov. A new large-flowered and previously misinterpreted Andean *Cyrtochilum* (Orchidaceae: Oncidiinae), and some new combinations. *Orchids, the Bulletin of the American Orchid Society* 93(5): 390–395.

De Castro Cantuária, P., Passos Krah, D. R., Schmal, P., Fernandes Da Silva, J. B., Dos Santos Damasceno, T., Pereira Petcov, A., Herbert Krah, A., and Chiron, G. 2024. A new form of *Galeandra styllomisantha* (Orchidaceae: Catasetinae) from the Brazilian Amazon. *Richardiana*, nouv. sér. 8: 8–20 (<https://richardiana.jardinbotaniquedeguyane.com/wp-content/uploads/2024/03/New-form-of-Galeandra-styllomisantha.pdf>).

de Oliveira, M. S., Krahling, A. H., Silva, J. B. F., Krahling, D. R. P., Viana, P. L., and Meneguzzo, T. E. C. 2024. A taxonomic overview of *Notylia platyglossa* Schltr. and related species (Orchidaceae). *Phytotaxa* 655(1): 079–088 (<https://doi.org/10.11646/phytotaxa.655.1.6>).

de Oliveira, M. S., Viana, P. L., and Meneguzzo, T. E. C. 2024. A nomenclator for the genus *Notylia* Lindl. (Orchidaceae: Oncidiinae). *Phytotaxa* 655(2): 105–124 (<https://doi.org/10.11646/phytotaxa.655.2.1>).

Doucette, A. 2024. A new species of *Ophidion* (Orchidaceae). *Orchids, the Bulletin of the American Orchid Society* 93(7): 552–555.

Engels, M. E., C., S. E., Silva, C. A., and Koch, A. K. 2024. *Mormodes benelliana* (Catasetinae), a new species from Mato Grosso, Brazil. *Lankesteriana* 24(3): 222–231 (<https://doi.org/10.15517/lank.v24i3.61741>).

Fajardo Villela Antolin Barberena, F., de Lima da Costa, D. L., Tamyres Fonseca Borges, I., and dos Santos Domitilo da Costa, M. 2023. *Vanilla karenchristianae* (Orchidaceae): taxonomic notes and first record in the Brazilian Atlantic Forest. *Acta Botanica Mexicana* (130): art. e2200 (<https://doi.org/10.21829/abm130.2023.2200>).

Glicenstein, L. and Shaw, J. 2024. A natural butterfly orchid hybrid from California. *Orchid Review Yearbook* 2024: 104–105 [*Platanthera*].

Imig, D. C., Toscano de Brito, A. L. V., and de Camargo Smidt, E. 2024. The genus *Dryadella* (Orchidaceae, Pleurothallidinae) in Brazil. *Rodriguésia* 75: art. e00442023 (<https://doi.org/10.1590/2175-7860202475035>).

Jiménez, M. M., Kuethe, J. R., Garzón-Suárez, H. X., Lapo-González, N., Vélez-Abarca, L., Salagaje M, L. A., and Iturralde, G. A. 2024. A new white-flowered *Elleanthus* (Orchidaceae: Sobralieae) from the Andes of southern Ecuador and notes on hummingbird pollination of *Elleanthus scopula*. *Phytotaxa* 662(3): 209–223 (<https://doi.org/10.11646/phytotaxa.662.3.1>).

Karremans, A. P. 2024. *Platystele shanti*, a petite novel jewel from Costa Rica. *Phytotaxa* 672(2): 215–220 (<https://doi.org/10.11646/phytotaxa.672.2.8>).

Krahling, D. R. P., De Oliveira, M. S., Schmal, P., Chiron, G., Krahling, A. H., Da Silva, J. B. F., and De C. Cantuária, P. 2024. Revealing the true taxonomic status of *Catasetum joaquinianum* (Orchidaceae: Catasetinae). *Phytotaxa* 664(2): 123–131 (<https://doi.org/10.11646/phytotaxa.664.2.4>).

Krahling, D. R. P., Schmal, P., de Oliveira, M. S., da Silva, J. B. F., Chiron, G., and Krahling, A. H. 2024. *Catasetum cantuariiae* (Orchidaceae, Catasetinae), a new species from the Brazilian Amazonian biome. *Kew Bulletin* 79(3): 583–595 (<https://doi.org/10.1007/s12225-024-10191-7>).

Leal, S. B., Monsivais, M. C. H., and Solano, R. 2023. Diversity of Orchidaceae from an area of the Sierra Madre Oriental in Tamaulipas, Mexico. *Acta Botanica Mexicana* (130): art. e2231 (<https://doi.org/10.21829/abm130.2023.2231>).

León-Peralta, C. E., Jones, J., Reynaud, S., and Pérez-García, E. A. 2024. *Barkeria wixarika* (Laeliinae, Epidendroideae, Orchidaceae), a new species from Nayarit, Mexico. *Phytotaxa* 674(3): 265–274 (<https://doi.org/10.11646/phytotaxa.674.3.3>).

Lima, A. P., Silva, J. R. S., Siqueira, G. B., and Van Den Berg, C. 2024. Morphometric analyses as a tool for the delimitation of a species complex of rupicolous *Cattleya* orchids from the Brazilian campos rupestres of Minas Gerais and Bahia. *Phytotaxa* 672(1): 064–078 (<https://doi.org/10.11646/phytotaxa.672.1.4>).

Lizcano, A., Sánchez-Cortez, D., Trujillo, E. T., and Perdomo, O. 2024. Extinction risk categorization and first record for Colombia of *Cynoches suarezii* (Orchidaceae, Catasetinae). *Acta Botanica Mexicana* (131): art. e2130 (<https://doi.org/10.21829/abm131.2024.2299>).

López-Florian, O. M., Claros-Calderón, B., Hágsater, E., and Santiago, E. 2024. A new species of *Epidendrum* (Orchidaceae) of the Albertii group of the Eastern Andes in Colombia. *Phytotaxa* 668(3): 279–285 (<https://doi.org/10.11646/phytotaxa.668.3.7>).

Luz, A. L. S., da Costa, D. L. L., Pacheco, J. R. V., and Barberena, F. F. V. A. 2024. Orchidaceae in the state of Pará, Brazilian Amazon: An updated checklist reveals underestimated species richness. *Acta Botanica Brasilica* 38: art. e20240011 (<https://doi.org/10.1590/1677-941X-ABB-2024-0011>).

Marçal, S. 2024. *Coryanthes microsmophora* (Orchidaceae, Stanhopeinae), a new species from Mato Grosso, Brazil. *Richardiana, nouv. sér.* 8: 74–84 (<https://richardiana.jardinbotaniquedeguyane.com/wp-content/uploads/2024/07/New-species-of-Coryanthes-from-Mato-Grosso.pdf>).

Martín, C. M., Ospina, J. C., Morales, A. M., and Keller, H. A. 2024. *Zeuxine strateumatica* in South America, the soldier orchid arrived in Argentina. *Kew Bulletin* 79: 993–998 (<https://doi.org/10.1007/s12225-024-10222-3>).

Meneguzzo, T. E. C., Chase, M. W., and Prado, J. 2024. (115) Request for a binding decision on whether *Deppea* Schltdl. & Cham. (Rubiaceae) and *Deppia* Raf. (Orchidaceae) are sufficiently alike to be confused. *Taxon* 73(3): 925–926 (<https://doi.org/10.1002/tax.13198>).

Meneguzzo, T. E. C., De Carvalho, B. M., Batista, J. A. N., Gomes, S. M., and Proença, C. E. B. 2024. *Brachystele guayanensis* is a *Cyclopogon* (Orchidaceae): notes on its biology and taxonomy. *Phytotaxa* 658(1): 109–119 (<https://doi.org/10.11646/phytotaxa.658.1.5>).

Menezes, E. L. F., Giordani, S. C. O., Pinheiro, R. A., and Gonella, P. M. 2024. *Cattleya attenboroughiana* (Orchidaceae: Laeliinae): a new species from the Diamantina Plateau, Minas Gerais, Brazil. *Kew Bulletin* 79(3): 597–604 (<https://doi.org/10.1007/s12225-024-10198-0>).

Moreno, J. S., Galindo-Tarazona, R., Zuluaga, A., and Sierra-Ariza, M. A. 2024. Validation and correction of *Lepanthes* names (Orchidaceae: Pleurothallidinae). *Harvard Papers in Botany* 29(2): 349 (<https://doi.org/10.3100/hpib.v29iss2.2024.n15>).

Moreno, J. S., Tamayo-Cen, I., Carnevali, G., Ocupa-Horna, L., and Castaño, A. 2024. *Encyclia tuluaensis* (Orchidaceae: Laeliinae), a new species from a tropical dry forest in the department of Valle del Cauca, Colombia. *Harvard Papers in Botany* 29(2): 279–288 (<https://doi.org/10.3100/hpib.v29iss2.2024.n6>).

Parra-Sánchez, E., Restrepo, E., Barrera, Y., Ordóñez-Blanco, J. C., and Edwards, D. P. 2024. *Lepanthes chalalensis* (Pleurothallidinae), a new species endemic to the Santander department in Colombia. *Lankesteriana* 24(2): 131–140 (<https://doi.org/10.15517/lank.v24i2.56321>).

Pessoa, E. M., Zocal, K. H., Feitoza, L. H. J., Rondon-Anjos, M. V., Pinho, M. F., Ribeiro, M. G., Cabral, T. P. S., and Koch, A. K. 2024. Typifications in *Epidendrum* species (Laeliinae, Orchidaceae) endemic to Brazil. *Phytotaxa* 665(2): 167–173 (<https://doi.org/10.11646/phytotaxa.665.2.7>).

Pupulin, F., Hidalgo, E. S., and Bogarín, D. 2024. *Kefersteinia nova isthmii Americani australis cum generis synopsi*. *Harvard Papers in Botany* 29(2): 307–315 (<https://doi.org/10.3100/hpib.v29iss2.2024.n11>).

Pupulin, F. and Karremans, A. P. 2024. A rare and extraordinary new species of *Trichopilia* from Costa Rica. *Harvard Papers in Botany* 29(2): 301–306 (<https://doi.org/10.3100/hpib.v29iss2.2024.n10>).

Quinteros-Gómez, Y., Millán, B., Gómez-Ticerán, D., Angeles-Alvarez, F., Salinas-Inga, A., Macedo-Bedoya, J., Chamolí, S. O., and Balbuena-Serrano, Á. 2024. Diversity and species of vascular epiphytes in Tingana, the highest flooded forest in Peru. *Mires and Peat* 31: art. 05 (<https://doi.org/10.19189/MaP.2023.OMB.Sc.2321074>).

Royer, C. A., Toscano de Brito, A. L. V., and Smidt, E. C. 2024. Nomenclatural notes in the *Ornithocephalus* clade (Oncidiinae: Orchidaceae). *Systematic Botany* 49(2): 293–294 (<https://doi.org/10.1600/036364424X17151801116367>).

Sambin, A. and Aucourd, M. 2024. Une nouvelle espèce d'*Elleanthus* (Orchidaceae–Sobralieae) de la Colombie et du Venezuela. *Richardiana, nouv. sér.* 8: 54–64 (<https://richardiana.jardinbotaniquedeguyane.com/wp-content/uploads/2024/05/Elleanthus-juninensis.pdf>).

Sierra-Ariza, M. A. 2024. *Pleurothallis cop-biodiversitatis* (Pleurothallidinae), a new species from Colombia. *Lankesteriana* 24(3): 259–265 (<https://doi.org/10.15517/lank.v24i3.61038>).

Trujillo, D., Edquén, J. D., Fernandez-Hilario, R., Wong Sato, A. A., and Salazar, G. A. 2024. A new green-flowered *Aa* (Cranichideae) from Peru. *Lankesteriana* 24(3): 245–257 (<https://doi.org/10.15517/lank.v24i3.62472>).

Vieira, T. L., Viotti, J., and Menezes, E. L. F. 2024. A new nothospecies of *Prosthechea* (Orchidaceae: Laeliinae) from the Diamantina Plateau, Minas Gerais, Brazil. *Phytotaxa* 665(3): 282–290 (<https://doi.org/10.11646/phytotaxa.665.3.10>).

Zárate, M. and Martel, C. 2024. A new species of *Telipogon* (Oncidiinae) from Bolivia. *Lankesteriana* 24(3): 233–237 (<https://doi.org/10.15517/lank.v24i3.62111>).

Zubek, H., Curtivo, L. B., Pessoa, E. M., Caxambu, M. G., Dettke, G. A., Temponi, L. G., and Silva, S. M. 2024. Orchidaceae in Iguazu National Park, Paraná, Brazil. *Rodriguésia* 75: art. e01252023 (<https://doi.org/10.1590/2175-7860202475064>).

ASIA - PACIFIC (excluding the MIDDLE EAST, AUSTRALIA, and NEW ZEALAND)

Aazhivaendhan, G., Rajasekar, C., Karthikeyan, A. V. P., Jeevith, S., Kottaimuthu, R., and Senthil Kumar, T. 2024. Rediscovery of *Crepidium crenulatum* (Orchidaceae) from the Western Ghats, India. *Rheedea* 34(2): 127–131 (<https://doi.org/10.22244/rheedea.2024.34.02.05>).

Abd Mutalib, A., Raffi, A., Kalu, M., and Nordin, F. A. 2024. Orchids of UNIMAS: Diversity in a developed campus landscape. *Borneo Journal of Resource Science and Technology* 14(1): 161–173 (<https://doi.org/10.33736/bjrst.6104.2024>).

Adit, A. and Kumar, P. 2024. Taxonomy of *Coelogyne* section *Fuliginosae* (Orchidaceae): new species, notes, resurrections and typifications. *Phytotaxa* 668(1): 081–098 (<https://doi.org/10.11646/phytotaxa.668.1.5>).

Ahmed, M., Hussain, J., and Dhiman, M. 2024. Update of the inventory of orchids present in the territory of Jammu and Kashmir, India. *Richardiana, nouv. sér.* 8: 28–53 (<https://richardiana.jardinbotaniquedeguyane.com/wp-content/uploads/2024/05/Orchid-flora-of-Jammu-and-Kashmir.pdf>).

Averyanov, L. V., Nguyen, V. C., Le, T. A., Vuong, T. B., Nuraliev, M. S., Maisak, T. V., Yudova, D. A., Nguyen, C. H., and Nong, D. V. 2024. New orchids in the flora of Vietnam IX (Orchidaceae: Orchidoideae, tribes Cranichideae and Orchideae). *Phytotaxa* 664(4): 229–248 (<https://doi.org/10.11646/phytotaxa.664.4.1>).

Averyanov, L. V., Nguyen, V. C., Vuong, T. B., Nuraliev, M. S., Nguyen, K. S., Maisak, T. V., Yudova, D. A., Saidov, N. T., Nguyen, C. H., and Nong, D. V. 2024. New orchids in the flora of Vietnam VIII (Orchidaceae: Epidendroideae, tribes Malaxideae, Neottieae and Podochileae). *Phytotaxa* 658(1): 001–049 (<https://doi.org/10.11646/phytotaxa.658.1.1>).

Betageri, S. and Kotresha, K. 2024. *Habenaria spencei* (Orchidaceae): rediscovery other than its type locality and new distribution record to Karnataka, India. *Journal of Threatened Taxa* 16(11): 26180–26184 (<https://doi.org/10.11609/jott.9406.16.11.26180-26184>).

Champion, J. K. and Schuiteman, A. 2024. *Dendrobium fulminicaule* (Orchidaceae), a little-known species from Sumatra, Indonesia, with a new synonym. *Malesian Orchid Journal* 27: 31–34.

Chanokkhun, T., Muangsang, N., Suwanwaree, P., Malaiphis, R., Schuiteman, A., and Watthana, S. 2024. *Chiloschista breviseta* (Orchidaceae), a new species from Thailand. *Taiwania* 69(4): 449–453 (<https://doi.org/10.6165/tai.2024.69.449>).

Chantanaorrapint, S., Sevanakun, N., Suwanmala, O., Muangthong, P., and Chantanaorrapint, A. 2024. *Gastrodia punctata* (Orchidaceae): An addition to the flora of Thailand. *Rheedea* 34(3): 205–210 (<https://doi.org/10.22244/rheedea.2024.34.03.06>).

Chen, X., Li, J., Wei, W., Fu, Q., Zheng, Q., Li, M., and Li, X. 2024. Diversity of orchid in *Abies nephrolepis* Nature Reserve in Shanxi, China. *Ecology and Evolution* 14(10): art. e70433 (<https://doi.org/10.1002/ece3.70433>).

Cootes, J. and Cabactulan, D. 2024. Sektion *Foveolatae*—eine neue Sektion der philippinisch-bornesischen Dendrobiinae | Section *Foveolatae*—a new section in the Philippine/Bornean Dendrobiinae. *Die Orchidee E-Paper* 10(10): 94–104 (<https://orchidee.de/wp-content/uploads/Sektion-Foveolatae—neue-Sektion-der-philippinisch-bornesischen-Dendrobiinae.pdf>).

Cootes, J., Leon, M. D. D., and Cabactulan, D. 2024. *Bulbophyllum atromaculatum* und *Epicrianthes signa*, zwei neue Arten der Subtribus Bulbophyllinae aus dem Süden der Philippinen | *Bulbophyllum atromaculatum* and *Epicrianthes signa*, two new species of the subtribus Bulbophyllinae from the southern Philippines. *Die Orchidee E-Paper* 10(12): 114–123 (<https://orchidee.de/wp-content/uploads/Bulbophyllum-atromaculatum-Epicrianthes-signa-neue-Arten-von-den-Philippinen.pdf>).

Dalström, S., Gyltshen, C., Gyltshen, N., and Tobgay, K. 2024. Orchids of Bhutan. The genus *Thunia*. *Orchids, the Bulletin of the American Orchid Society* 93(6): 452–459.

Dang, M. Q., Averyanov, L. V., Maisak, T. V., Tran, T. T. N., Nguyen, V. C., Wook, U. S., Nguyen, Q. B., Truong, Q. T., and Truong, B. V. 2024. *Bulbophyllum* section *Macrocaulia* (Orchidaceae) in Vietnam. *Phytotaxa* 677(3): 265–277 (<https://doi.org/10.11646/phytotaxa.677.3.6>).

Dang, M. Q., Averyanov, L. V., Maisak, T. V., Wook, U. S., Canh, N. V., Phan, X. T., Truong, Q. T., Wojtas, K. P., and Truong, B. V. 2024. *Chiloschista eckhardii* (Orchidaceae, Aeridinae), a new miniature leafless orchid from northern Vietnam. *Phytotaxa* 664(2): 139–145 (<https://doi.org/10.11646/phytotaxa.664.2.6>).

Fulgencio, B. K. R., Cootes, J., Amparado, O. A., and Naive, M. A. K. 2024. Lectotypification and new data on the distribution of the Philippine endemic *Liparis dumaguettensis* (Orchidaceae). *Phytotaxa* 661(1): 103–108 (<https://doi.org/10.11646/phytotaxa.661.1.8>).

Garrino, A. L., Mansibang, J. A., Aumentado, J. A. M., Ang, Y. P., Udasco Jr, L. C., Diego, J. M., Altomonte, J. C., Tamayo, M. N., Magtoto, L. M., and Bustamante, R. A. A. 2024. Two new species of *Bulbophyllum* (Orchidaceae, sect. *Polymeres*) from Pantabangan-Carranglan Watershed Forest Reserve, Luzon Island, Philippines. *Nordic Journal of Botany* 2024(2): art. e04187 (<https://doi.org/10.1111/njb.04187>).

Geiger, D. L. 2024. Flora of Singapore precursors, 46: Studies in *Oberonia* 12 (Orchidaceae: Malaxideae). *Gardens' Bulletin Singapore* 76(2): 215–227 ([https://doi.org/10.26492/gbs76\(2\).2024-04](https://doi.org/10.26492/gbs76(2).2024-04)).

Gruss, O. and Wijaya, E. 2024. *Phalaenopsis amabilis* f. *elysia*, eine neue Farbform aus Java | *Phalaenopsis amabilis* f. *elysia*, a new colour form from Java. *Die Orchidee E-Paper* 10(11): 105–113 (<https://orchidee.de/wp-content/uploads/Phalaenopsis-amabilis-f.-elysia-eine-neue-Farbform-aus-Java.pdf>).

Gruss, O. and Wijaya, E. 2024. Corrigendum zu/to *Phalaenopsis amabilis* f. *elysia*, eine neue Farbform aus Java | *Phalaenopsis amabilis* f. *elysia*, a new colour form from Java. *Die Orchidee E-Paper* 10(13): 124–126 (<https://orchidee.de/wp-content/uploads/Corrigendum-zu-Phalaenopsis-amabilis-f.-elysia.pdf>).

Gyeltshen, P., Rabgay, K., Phuentsho, Tobgay, K., and Namgyel, P. 2024. Addition of five orchid species to the flora of Bhutan. *Lankesteriana* 24(2): 205–216 (<https://doi.org/10.15517/lank.v24i2.61573>).

Hepuni, L., Singh Jalal, J., Bhattacharjee, A., Lokho, A., and Mao, A. A. 2024. Extended distribution of *Calanthe lamellosa* (Orchidaceae) in Manipur, India. *Indian Journal of Forestry* 47(1): 24–27 (<https://doi.org/10.54207/bsmps1000-2024-26H8Y0>).

Hsieh, F.-M., Liu, C.-H., and Lin, T.-P. 2025. New addition and a review of *Neottia* in Taiwan. *Taiwania* 70(1): 31–36 (<https://doi.org/10.6165/tai.2025.70.31>).

Juswara, L. S., Wibowo, A. R. U., Ormerod, P., Gumilang, A. R., Santoso, W., Sutikno, and Kusumawaty, A. 2024. *Phreatia tinukariensis* (Orchidaceae: Thelasiinae), a new species from Sulawesi, Indonesia. *Blumea* 69: 266–269 (<https://doi.org/10.3767/blumea.2024.69.03.05>).

Khanal, M., Sarkar, S., Sarkar, K., Chhetri, P., Rai, S. K., Kumar, D., and Rawat, S. 2024. *Gastrodia indica* (Orchidaceae: Gastrodieae), a new completely cleistogamous holomycotrophic species from India. *Phytotaxa* 663(1): 026–032 (<https://doi.org/10.11646/phytotaxa.663.1.3>).

Kottaimuthu, R. 2024. *Bulbophyllum leonidae*, a replacement name for *Sunipia saccata* Aver. (Orchidaceae). *Annales Botanici Fennici* 61(1): 161–162 (<https://doi.org/10.5735/085.061.0123>).

Kubentayev, S. A., Efimov, P. G., and Fateryga, A. V. 2024. *Epipactis persica* (Orchidaceae), a new taxon for the flora of Kazakhstan, Kyrgyzstan and China. *Nature Conservation Research* 9(4): 115–117 (<https://doi.org/10.24189/ncr.2024.026>).

Lense, O. N., Wanma, J. F., Kesaulija, F. F., Mansyur, F. I., Rachim, A. K., Krey, K., Wanma, B., Kesaulija, R., Simanjanrang, D., and Simbiak, F. 2024. Diversity of flora and fauna in various forest ecosystem types of South Sorong District, Southwest Papua Province, Indonesia. *Biodiversitas* 25(10): 3884–3898 (<https://doi.org/10.13057/biodiv/d251049>).

Li, C. X., Liu, Y., Shi, B. B., Sun, M., Huang, J., Liu, Z., and Tian, H. Z. 2024. A natural hybrid of *Anoectochilus* (Orchidaceae) from Xizang, China. *Phytotaxa* 678(1): 45–54 (<https://doi.org/10.11646/phytotaxa.678.1.4>).

Lin, T. P. 2024. New addition of *Taeniophyllum* and *Lecanorchis* (Orchidaceae) in Taiwan. *Taiwania* 69(3): 380–385 (<https://doi.org/10.6165/tai.2024.69.380>).

Lin, T. P. and Zhu, G. X. 2024. New addition of *Taeniophyllum* (Orchidaceae) in Taiwan. *Taiwania* 69(3): 302–308 (<https://doi.org/10.6165/tai.2024.69.302>).

Margońska, H. B. 2024. A new species of *Pseudoliparis* (Malaxidinae, Orchidaceae) from New Guinea. *Phytotaxa* 674(3): 297–300 (<https://doi.org/10.11646/phytotaxa.674.3.7>).

Metusala, D. 2024. A new species of *Aerides* (Aeridinae: Orchidaceae) from Sulawesi, Indonesia. *Edinburgh Journal of Botany* 81: art. 2001 (<https://doi.org/10.24823/ejb.2024.2001>).

- Misra, S., Tudu, S., and Sahu, S. C. 2024. *Vanilla walkeriae* Wight (Orchidaceae)—Range extension and new record for Odisha, India. *Nelumbo* 66(1): 120–123 (<https://doi.org/10.20324/nelumbo/v66/2024/173302>).
- Mustaqim, W. A., Arico, Z., Ginting, R. B., Rahayu, T., and Yudistira, Y. R. 2024. *Corybas geminigibbus*, a new addition to the orchid flora of Sumatra. *Lankesteriana* 24(3): 239–244 (<https://doi.org/10.15517/lank.v24i3.60323>).
- Mustaqim, W. A., Yudistira, Y. R., Arico, Z., Andini, W. R., Pratiwi, D., and Schuiteman, A. 2024. The first record of *Bulbophyllum* sect. *Monomeria* (Orchidaceae) from Indonesia. *Telopea* 27: 47–51 (<https://doi.org/10.7751/telopea17950>).
- Nayak, S., Agrawala, D. K., and Maity, D. 2024. Notes on the exclusion of *Bulbophyllum cupreum* from orchid flora of India. *Nelumbo* 66(1): 104–108 (<https://doi.org/10.20324/nelumbo/v66/2024/173352>).
- Nayak, S., Agrawala, D. K., Odyuo, N., and Maity, D. 2024. *Bulbophyllum colomaculosum* Z.H. Tsi & S.C. Chen (Orchidaceae)—an addition to the orchid flora of India with notes on its relationship with *Bulbophyllum leopardinum* (Wall.) Lindl. and its red list assessment as per IUCN guidelines. *Nelumbo* 66(1): 96–103 (<https://doi.org/10.20324/nelumbo/v66/2024/173284>).
- Nguyen, C. H., Dang, H. V., Nguyen, Y. T., Nguyen, L. V., Averyanov, L. V., Maisak, T. V., and Shvanova, V. V. 2024. *Dendrobium namdongense* (D. sect. *Dendrobium*), a new miniature orchid from limestone mountains of northern Vietnam. *Phytotaxa* 664(3): 200–206 (<https://doi.org/10.11646/phytotaxa.664.3.5>).
- Ong, P. T. 2024. A new species of *Thrixspermum* from Peninsular Malaysia. *Malesian Orchid Journal* 27: 17–23.
- Ong, P. T. 2024. *Bulbophyllum osyriceroides*, a new orchid record for Peninsular Malaysia. *Malesian Orchid Journal* 27: 35–38.
- Ong, P. T. and Schuiteman, A. 2024. A revision of *Dendrobium* section *Crinifera* in Peninsular Malaysia. *Malesian Orchid Journal* 27: 39–105.
- Ormerod, P. and Juswara, L. 2024. Notes on some Malesian Orchidaceae VIII. *Harvard Papers in Botany* 29(2): 291–293 (<https://doi.org/10.3100/hpib.v29iss2.2024.n8>) [*Appendicula*, *Cestichis*, *Crepidium*, *Dendrobium*].
- Ormerod, P. and Metzger, K. 2024. *Bulbophyllum antenniferum* subsp. *icterinum*, eine neue Unterart aus Papua-Neuguinea | *Bulbophyllum antenniferum* subsp. *icterinum*, a new subspecies from Papua New Guinea. *Die Orchidee E-Paper* 10(09): 84–94 (<https://orchidee.de/wp-content/uploads/Bulbophyllum-antenniferum-subsp.-icterinum-neue-Unterart-aus-Papua-Neuguinea.pdf>).
- Pedersen, H. Æ. and Suddee, S. 2024. A new species of *Dendrobium* sect. *Crinifera* (Dendrobieae) from Thailand. *Lankesteriana* 24(2): 199–203 (<https://doi.org/10.15517/lank.v24i2.61571>).

Prapitasari, B., Rezaldi, T., Kenza, M. L., Aliwafa, A., Gunawan, D. A., and Nuraini, L. 2024. Diversity of orchid species in the Tilu Mountains region of Indonesia and the potential for phytochemistry. *Journal of Tropical Biodiversity and Biotechnology* 9(3): art. jtbb89174 (<https://doi.org/10.22146/jtbb.89174>) [Java].

Qin, Y., Huang, S. Q., Wang, B. M., and Liu, Y. 2024. *Gastrodia daweishanensis* (Orchidaceae), a new species from Yunnan, China. *Taiwania* 69(3): 317–320 (<https://doi.org/10.6165/tai.2024.69.317>).

Rao, P. J., Rao, J. P., and Padal, S. B. 2024. *Epipogium* Borkh. (Orchidaceae): a new generic record for Andhra Pradesh, India. *Journal of Threatened Taxa* 16(6): 25470–25473 (<https://doi.org/10.11609/jott.8207.16.6.25470-25473>).

Roy, R., Agrawala, D. K., and Jalal, J. S. 2024. Notes on the taxonomy of *Coelogyne albolutea* Rolfe—an endemic orchid species from India. *Nelumbo* 66(1): 44–52 (<https://doi.org/10.20324/nelumbo/v66/2024/173348>).

Sarkar, S., Agrawala, D. K., Maity, D., and Khanal, M. 2024. Notes on the correct identity of *Ceratostylis siamensis* (Epidendroideae: Podochileae) from India. *Lankesteriana* 24(2): 123–129 (<https://doi.org/10.15517/lank.v24i2.55730>).

Sâwmliana, M., Gogoi, K., Jalal, J. S., and Kumar, P. 2024. *Bulbophyllum gopalianum* (Orchidaceae), a new species from Mizoram (India), the westernmost region of the Indo-Myanmar biodiversity hotspot. *Nordic Journal of Botany* 2024(5): art. e04256 (<https://doi.org/10.1111/njb.04256>).

Schuiteman, A. 2024. Orchid hunting on the Bird's Head Peninsula. *Orchid Review Yearbook* 2024: 82–91.

Schuiteman, A. and Lambkin, D. 2024. 1086. *Bulbophyllum infundibuliforme* J.J. Sm. subsp. *infundibuliforme*. *Curtis's Botanical Magazine* 41(1): 3–9 (<https://doi.org/10.1111/curt.12552>).

Schuiteman, A., Wanma, J. F., Saputra, R., Jennings, L., and Heatubun, C. D. 2024. New and noteworthy orchid species from the Arfak Mountains, West Papua Province, Indonesia II. *Malesian Orchid Journal* 27: 107–125.

Sengupta, S., Agrawala, D. K., Bhattacharjee, A., and Maity, D. 2024. Notes on the exclusion of *Ascocentrum semiteretifolium* Seidenf. (Orchidaceae) from India and range extension of *Holcoglossum nagalandense* (Phukan & Odyuo) X.H. Jin. *Nelumbo* 66(1): 74–78 (<https://doi.org/10.20324/nelumbo/v66/2024/173346>).

Shaw, J. M. H. and Govaerts, R. 2024. (3054) Proposal to conserve the name *Phalaenopsis lobbii* (Rchb. f.) H.R. Sweet against *P. lobbii* Veitch ex Beaton (Orchidaceae). *Taxon* 73(6): 1527–1528 (<https://doi.org/10.1002/tax.13270>).

Shreyas, B. and Kotresha, K. 2024. *Oberonia marnkuliensis* (Orchidaceae), a new species from Western Ghats, Karnataka, India. *Richardiana, nouv. sér.* 8: 21–27 (<https://richardiana.jardinbotaniquedeguyane.com/wp-content/uploads/2024/04/A-new-species-of-Oberonia.pdf>).

- Sodusta, P. J. A. and Cootes, J. 2024. Validation of *Thrixspermum ravanii* (Aeridinae, Orchidaceae), a new species from the Philippines. *Phytotaxa* 661(2): 211–212 (<https://doi.org/10.11646/phytotaxa.661.2.9>).
- Suetsugu, K., Hirota, S. K., and Suyama, Y. 2024. A new natural hybrid *Goodyera* × *kazumae* (Orchidaceae) from Tomakomai City, Hokkaido Prefecture, Japan. *Taiwania* 69(3): 309–316 (<https://doi.org/10.6165/tai.2024.69.309>).
- Suetsugu, K., Shinjo, J., Yonekura, K., and Abe, A. 2024. A new variety of *Zeuxine boninensis* (Orchidaceae) from Ishigaki Island, Ryukyu Islands, Japan. *Acta Phytotaxonomica et Geobotanica* 75(3): 179–185 (<https://doi.org/10.18942/apg.202413>).
- Sulistiyono, Champion, J. K., and Schuiteman, A. 2024. *Dendrobium cokronagoroi* (Orchidaceae), a new species of section *Diplocaulobium* from Papua Province, Indonesia. *Malesian Orchid Journal* 27: 25–30.
- Tamayo, M. N., Magtoto, L. M., Penales, P. J. F., Baquiran, E. R. A., and Bustamante, R. A. A. 2024. *Bulbophyllum bokodense* (section *Polymeres*, Orchidaceae), a new species from Benguet Province, Luzon Island, Philippines. *Phytotaxa* 662(2): 187–194 (<https://doi.org/10.11646/phytotaxa.662.2.7>).
- Tobgay, S., Nidup, T., Wangchuck, K., and Dalström, S. 2024. Orchids of Bhutan. *Pinalia spicata* and its misunderstood allies. *Orchids, the Bulletin of the American Orchid Society* 93(3): 209–217.
- Toolmal, N., Suddee, S., Culham, A., Utteridge, T. M. A., and Schuiteman, A. 2024. Eleven species of *Thrixspermum* (Orchidaceae: Vandae: Aeridinae) newly recorded from Thailand. *Taiwania* 69(4): 506–521 (<https://doi.org/10.6165/tai.2024.69.506>).
- Tran, T. T. N., Truong, B. V., Nguyen, V. C., Maisak, T. V., Krupkina, L. I., and Averyanov, L. V. 2024. Two new miniature species of *Cymbidium* sect. *Jensoa* (Orchidaceae, Cymbidieae) from southern Vietnam. *Turczaninowia* 27(3): 5–14 (<https://doi.org/10.14258/turczaninowia.27.3.1>).
- Truong, B. V., Nguyen, V. C., and Um, S. W. 2024. *Bulbophyllum whanilii*, ein neues *Bulbophyllum* aus Nordvietnam | *Bulbophyllum whanilii*, a new *Bulbophyllum* from Northern Vietnam. *Die Orchidee E-Paper* 10(8): 74–81 (<https://orchidee.de/wp-content/uploads/Bulbophyllum-whanilii-ein-neues-Bulbophyllum-aus-Nordvietnam.pdf>).
- Tsering, J., Kushwaha, P. S., and Bhattacharjee, A. 2024. *Herminium humidicola* (Orchidaceae: Orchidoideae), an addition to the orchid flora of India. *Rheedea* 34(2): 132–134 (<https://doi.org/10.22244/rheedea.2024.34.02.06>).
- Vermeulen, J. J., Perry, M., and Schuiteman, A. 2024. *Bulbophyllum lampadion* (section *Monanthes*), a new species from New Guinea. *Lankesteriana* 24(2): 193–198 (<https://doi.org/10.15517/lank.v24i2.61182>).
- Wei, C.-Y., Li, R.-Y., Wu, Y.-W., Huang, M.-Z., and Li, M.-H. 2024. *Dendrobium tetrapterum*, a cryptic species in the *D. lindleyi* alliance (Orchidaceae; Dendrobiinae): evidence from morphological and molecular data. *Phytotaxa* 655(2): 209–218 (<https://doi.org/10.11646/phytotaxa.655.2.8>).

Wu, P., Zhang, Y., Shan, Q., Han, Z., Wang, Z., Lou, Y., Qin, X., and Xu, Z. 2024. *Stereochilus linearifolius* (Orchidaceae): a new species of Orchidaceae (Epidendroideae: Vandaeae: Aeridinae) from Yunnan, China. *Nordic Journal of Botany* 2024(10): art. e04452 (<https://doi.org/10.1111/njb.04452>).

Yudistira, Y. R., Ahmad, R. P. P., Adirahmanta, S. N., Mustaqim, W. A., and Randi, A. 2024. Contributions to the orchid flora of Kalimantan I: A new species and a new country record of *Bulbophyllum* (Orchidaceae). *Taiwania* 69(3): 386–392 (<https://doi.org/10.6165/tai.2024.69.386>).

Yudistira, Y. R., Candra, R., and A., M. W. 2024. A new species of *Bulbophyllum* (Orchidaceae: Bulbophyllinae) section *Macrocaulia* from Sumatra, Indonesia. *Gardens' Bulletin Singapore* 76(2): 251–258 ([https://doi.org/10.26492/gbs76\(2\).2024-07](https://doi.org/10.26492/gbs76(2).2024-07)).

Yudistira, Y. R., Schuiteman, A., and Champion, J. K. 2024. A new species of *Coelogyne* (Orchidaceae) from Aceh, Sumatra, Indonesia. *Malesian Orchid Journal* 27: 5–10.

Yudistira, Y. R., Schuiteman, A., and Champion, J. K. 2024. A new species of *Coelogyne* (Orchidaceae) from Seram Island, Maluku, Indonesia. *Malesian Orchid Journal* 27: 11–16.

Yukawa, T., Yamashita, Y., and Yoneda, K. 2024. 1108. *Bulbophyllum boninense* (Schltr.) J.J.Sm. *Curtis's Botanical Magazine* 41(3): 313–321 (<https://doi.org/10.1111/curt.12589>).

Zainudin, Idris, A. R., and Yudistira, Y. R. 2024. New distribution records and range extensions for three Sumatran orchid species in Kalimantan, Borneo, Indonesia. *Lankesteriana* 24(3): 267–276 (<https://doi.org/10.15517/lank.v24i3.59237>) [*Eria*, *Oxystophyllum*, *Plocoglottis*].

Zhao, Z., Gruss, O., Chen, J.-L., and Lan, S. 2024. *Vanilla shenzhenica* var. *fujianica*, eine neue Varietät aus China | *Vanilla shenzhenica* var. *fujianica*, a new variety from China. *Die Orchidee E-Paper* 10(14): 127–140 (<https://orchidee.de/wp-content/uploads/Vanilla-shenzhenica-var.-fujianica-eine-neue-Varietaet-aus-China-1.pdf>).

Zheng, B. Q., Yang, H. B., Wang, Q., and Chen, X. L. 2024. *Dendrobium moniliforme* var. *hongbinii* (Orchidaceae: Epidendroideae), a new variety from Sichuan, China. *Phytotaxa* 678(1): 55–64 (<https://doi.org/10.11646/phytotaxa.678.1.5>).

AUSTRALIA & NEW ZEALAND

Copeland, L. M. 2024. The rediscovery of the Coastal Sprite Orchid (*Liparis* [*Diteilis*] *simmondsii*) in northern New South Wales. *The Orchadian* 21(3): 103–105.

Davis, L. 2024. South Australian *Dipodium* species. *The Orchadian* 21(3): 96–102.

Jones, D. L., Zimmer, H. C., Clements, M. A., Bruhl, J. J., Christian, J., Copeland, L. M., Hutton, I., Andersen, A., and Wilson, M. 2024. Characterisation of *Adelopetalum argyropus* (Orchidaceae; Malaxideae) with the description of two related new species and two new combinations. *Phytotaxa* 678(1): 83–95 (<https://doi.org/10.11646/phytotaxa.678.1.9>).

Renner, M. A. M. 2024. A nomenclatural history for *Dendrobium* × *delicatum* (Orchidaceae). *Telopea* 27: 141–146 (<https://doi.org/10.7751/telepea18639>).

EUROPE, NORTH AFRICA & THE MIDDLE EAST (excluding the southern part of the ARABIAN PENINSULA)

Anghelescu, N. E., Balogh, L., Balogh, M., Kigyossy, N., Georgescu, M. I., Petra, S. A., Toma, F., and Peticila, A. G. 2024. *Gymnadenia winkeliana*—A new orchid species to Romanian flora. *Plants* 13(10): art. 1363 (<https://doi.org/10.3390/plants13101363>).

Battaglini, A., Romolini, R., and Soca, R. 2024. Nuovi ibridi di *Ophrys* (Orchidaceae) in provincia di Livorno e di Grosseto, nella Maremma toscana (Italia). *Journal Europäischer Orchideen* 56(1): 56–70.

Benigni, F., Barigelli, G., Petroselli, M., Mandozzi, A., and Biagioli, M. 2024. Un nuovo ibrido di *Ophrys* sul monte Conero (Ancona, Marche). *GIROS Orchidee Spontanee d'Europa* 67(1): 70–75.

Bergfeld, D. 2023, publ. 2024. Das Herzblättrige Zweiblatt *Neottia cordata* (L.) Rich.—Orchidee des Jahres 2023. *Berichte aus den Arbeitskreisen Heimische Orchideen* 40(1): 5–45.

Biagioli, M. 2024. 98 *Ophrys* hybrids in Italy: taxonomic variations not relevant as nomenclatural acts | 98 ibridi di *Ophrys* in Italia: variazioni tassonomiche non rilevanti come atti nomenclaturali. *GIROS Orchidee Spontanee d'Europa* 67(1): 31–69.

Bisceglia, F. and Benigni, F. 2024. Un nuovo ibrido di *Ophrys* nell'area garganica (Foggia, Puglia). *GIROS Orchidee Spontanee d'Europa* 67(1): 76–82.

Blatt, H. 2023, publ. 2024. Nachtrag zu “A Bee or not a Bee, this is no longer the question...”. *Berichte aus den Arbeitskreisen Heimische Orchideen* 40(1): 132–142 [*Ophrys fuciflora*].

Buono, S., Belardinelli, G., Filippelli, F., N., C., and Rempicci, M. 2024. *Ophrys* $\times$ *lyrata*, a new hybrid for Latium (central Italy). *Journal Europäischer Orchideen* 56(2–4): 193–198.

Camacho, F., Tisserand, J.-F., and Scappaticci, G. 2024. *Serapias neglecta* en Ardèche: une découverte étonnante. *L'Orchidophile* 55(241): 137–138.

Carnacina, A. and Biagioli, M. 2024. Segnalazioni di ibridi dei generi *Dactylorhiza* e *Gymnadenia* in val di Scalve (Lombardia, Alpi Orobie bergamasche). *GIROS Orchidee Spontanee d'Europa* 67(1): 83–89.

Cribb, P. 2024. An orchid odyssey. *Orchid Review Yearbook* 2024: 92–99 [Greece].

Croce, A. and Saetta, U. 2024. Prima segnalazione di *Ophrys speculum* in Campania. *GIROS Orchidee Spontanee d'Europa* 67(1): 90–94.

Eccarius, W. 2023, publ. 2024. Nachtrag zu “Die Orchideen des Kreises Eisenach” aus dem Jahre 1983. *Berichte aus den Arbeitskreisen Heimische Orchideen* 40(2): 5–20.

Eccarius, W. 2023, publ. 2024. Holotypus oder Lectotypus?—Zur Frage der Typisierung von *Orchis maculata* var. *sudetica* Poech ex Rehb. f. *Berichte aus den Arbeitskreisen Heimische Orchideen* 40(1): 143–157.

El Bouhissi, M., Babali, B., Dib, T., Cherifi, K., Hammou, M. A., and Miara, M. 2024. Inventory and characterization of orchids in the region of Sidi Bel Abbès (North-West Algeria). *Flora Mediterranea* 34: 203–218 (<https://doi.org/10.7320/FIMedit34.203>).

Fay, M. F., Bazzicalupo, M., and Calevo, J. 2024. 1102. *Platanthera chlorantha* (Custer) Rchb.: Orchidaceae. *Curtis's Botanical Magazine* 41(2): 227–235 (<https://doi.org/10.1111/curt.12573>).

Fay, M. F. and Calevo, J. 2024. British and Irish orchids in a changing world—an update. *Curtis's Botanical Magazine* 41(2): 177–179 (<https://doi.org/10.1111/curt.12576>).

Fay, M. F., Langhorne, J., and Pace, M. C. 2024. 1101. *Spiranthes spiralis* (L.) Chevall.: Orchidaceae. *Curtis's Botanical Magazine* 41(2): 217–225 (<https://doi.org/10.1111/curt.12559>).

Fay, M. F. and Raistrick, R. 2024. 1104. *Dactylorhiza purpurella* (T.Stephenson & T.A.Stephenson) Soó: Orchidaceae. *Curtis's Botanical Magazine* 41(2): 247–255 (<https://doi.org/10.1111/curt.12575>).

Fay, M. F., Raistrick, R., Bazzicalupo, M., Sayers, B., and Calevo, J. 2024. 1106. *Ophrys apifera* Huds.: Orchidaceae. *Curtis's Botanical Magazine* 41(2): 269–278 (<https://doi.org/10.1111/curt.12561>).

Fay, M. F., Raistrick, R., Bazzicalupo, M., Sayers, B., and Calevo, J. 2024. 1105. *Anacamptis pyramidalis* (L.) Rich.: Orchidaceae. *Curtis's Botanical Magazine* 41(2): 257–268 (<https://doi.org/10.1111/curt.12560>).

Fay, M. F., Raistrick, R., and Calevo, J. 2024. 1099. *Neottia ovata* (L.) Hartm.: Orchidaceae. *Curtis's Botanical Magazine* 41(2): 199–206 (<https://doi.org/10.1111/curt.12557>).

Fay, M. F., Raistrick, R., and Freudenstein, J. V. 2024. 1100. *Corallorhiza trifida* Châtel.: Orchidaceae. *Curtis's Botanical Magazine* 41(2): 207–215 (<https://doi.org/10.1111/curt.12558>).

Fay, M. F., Raistrick, R., and Sayers, B. 2024. 1097. *Epipactis palustris* (L.) Crantz: Orchidaceae. *Curtis's Botanical Magazine* 41(2): 181–190 (<https://doi.org/10.1111/curt.12555>).

Fay, M. F., Raistrick, R., and Sayers, B. 2024. 1098. *Epipactis dunensis* (T.Stephenson & T.A.Stephenson) Godfery: Orchidaceae. *Curtis's Botanical Magazine* 41(2): 191–197 (<https://doi.org/10.1111/curt.12556>).

Fay, M. F., Raistrick, R., Sayers, B., and Calevo, J. 2024. 1103. *Dactylorhiza incarnata* (L.) Soó: Orchidaceae. *Curtis's Botanical Magazine* 41(2): 237–245 (<https://doi.org/10.1111/curt.12574>).

Foelsche, W. 2023, publ. 2024. *Nigritella sulzeri* und *Nigritella dulnigiana*, zwei neue Kohlröschen auf der Westseite des Trenchtlingmassivs in den Nördlichen Kalkalpen. *Berichte aus den Arbeitskreisen Heimische Orchideen* 40(2): 101–152.

Foelsche, W. 2024. Berichte über die bisher bekannten Fundstellen von *Nigritella carniolica* und weiterer seltener Kohlröschen-Arten der Ostalpen einschließlich der neuen *N. perazzana* in den Julischen Alpen. *Joannea Botanik* 20: 201–236.

Gillet, V. 2023. *Ophrys massiliensis* ou *Ophrys suboccidentalis* dans Lot-et-Garonne? (Nouvelle-Aquitaine). *L'Orchidophile* 54(238): 241–246.

Griebel, N. 2023, publ. 2024. Beitrag zu den Orchideen des Obir-Gebiets (Kärnten, Österreich). *Berichte aus den Arbeitskreisen Heimische Orchideen* 40(2): 61–83.

Haddad, K., Bendahmane, L., and Krichbaum, M. 2024. Annotated bibliography of publications about wild orchids in Algeria—Evaluation of a systematic literature research. *Journal Europäischer Orchideen* 56(2–4): 267–329.

Haddad, K., Chetibi, M., Afoutni, L., Filali, A., and Saci, A. 2023. Nouveaux sites découverts et réévaluation du statut de conservation de *Serapias stenopetala* Maire & Stephenson en Numidie et en Algérie. *L'Orchidophile* 54(237): 143–150.

Hessel, W. 2023. Erstfund von Roberts Mastorchis (*Himantoglossum robertianum* [Loisel.] P. Delforge) in Nordrhein-Westfalen. *Jahrbuch des Bochumer Botanischen Vereins* 14: 63–67.

Hirth, M. and Paulus, H. F. 2024. Bestäubungsbiologie, Morphologie, Taxonomie kleinblütiger Sippen des *Ophrys holosericea*-Aggregates in der Ost-Ägäis. *Journal Europäischer Orchideen* 56(2–4): 219–266.

Jakely, D. and Könighofer, H. 2023. Zur Verbreitung der Orchideen auf der Insel Krk, Kroatien. *Joannea Botanik* 19: 5–148.

Kurbel, R. and Hirse, T. 2023, publ. 2024. Die Wiederentdeckung des Holunder-Knabenkrauts (*Dactylorhiza sambucina*) in Estland nach 120 Jahren. *Berichte aus den Arbeitskreisen Heimische Orchideen* 40(1): 158–164.

Lachmair, H. 2023, publ. 2024. Maculatablütige Fuchs-Fingerwurz *Dactylorhiza fuchsii* (Druce) Soó var. *maculatensis* Lachmair var. nov.—eine neue Varietät der Fuchs-Fingerwurz in Oberösterreich. *Berichte aus den Arbeitskreisen Heimische Orchideen* 40(2): 84–100.

Lancelotti, C., Feola, M., and Croce, A. 2024. *Orchis purpurea*, una specie rara per l'area metropolitana di Napoli (Campania). *GIROS Orchidee Spontanee d'Europa* 67(1): 95–98.

Lang, S. 2023, publ. 2024. Erstnachweis der Elbe-Ständelwurz (*Epipactis albensis* Nováková & Rydlo) in Bayern. *Berichte aus den Arbeitskreisen Heimische Orchideen* 40(1): 165–173.

Licheri, A. 2024. Descrizione di tre nuovi ibridi naturali di *Ophrys* nella Sardegna sud-occidentale. *GIROS Orchidee Spontanee d'Europa* 67(1): 99–119.

Maalouf, R., Maalouf, M., and Vêla, E. 2024. *Epipactis palustris* in the Eastern Mediterranean (Lebanon), a surprising peripheral micropopulation challenges us with its conservation. *Flora Mediterranea* 34: 127–136 (<https://doi.org/10.7320/FIMedit34.127>).

Margenburg, B., Westphal, G., and Wittjen, K. 2023, publ. 2024. Untersuchung der *Dactylorhiza*-Populationen im Süskenbrocksmoor (Nordrhein-Westfalen). *Berichte aus den Arbeitskreisen Heimische Orchideen* 40(2): 21–60.

- Martin, R. 2023. Les orchidées des petites îles de Méditerranée occidentale: les îles espagnoles des Baléares. *L'Orchidophile* 54(237): 137–142.
- Martin, R. 2023. Les orchidées des petites îles de Méditerranée occidentale: les îles françaises continentales. *L'Orchidophile* 54(238): 233–239.
- Mathé, H. 2023. L'ophrys abeille (*Ophrys apifera*), une orchidée polymorphe. *L'Orchidophile* 54(239): 321–336.
- Medagli, P., Turco, A., Gennaio, R., and Biagioli, M. 2024. Una variazione tassonomica per l'ibrido salentino *Serapias* × *gennaioi*. *GIROS Orchidee Spontanee d'Europa* 67(1): 120–123.
- Perazza, G. 2024. Sulla presenza di *Anacamptis berica* in Trentino (Italia settentrionale). *Journal Europäischer Orchideen* 56(1): 107–118.
- Perazza, G. and Chini, R. 2024. *Ophrys apifera* × *benacensis* sul Monte Brione di Riva (Trentino, Italia settentrionale). *Journal Europäischer Orchideen* 56(1): 45–55.
- Perazza, G. and Stringari, F. 2024. Record altitudinale di *Orchis purpurea* sopra i 2000 m s.l.m. (Trentino, Italia settentrionale). *Journal Europäischer Orchideen* 56(1): 97–106.
- Presser, H. 2023, publ. 2024. Zur Situation der Metlesics' Mastorchis Barlia metlesicsiana (Himantoglossum metlesicsianum). *Berichte aus den Arbeitskreisen Heimische Orchideen* 40(1): 46–65.
- Riechelmann, A. and Kohlmüller, H. 2023, publ. 2024. *Ophrys eivissa*—eine neue Orchideenart auf Ibiza. *Berichte aus den Arbeitskreisen Heimische Orchideen* 40(1): 114–131.
- Robles-Domínguez, E., Becerra-Parra, M., Quintana-Pozo, D., Díaz-Romera, J. A., Huertas-Sánchez, J. C., and Sánchez-Ochoa, F. 2024. Some remarks on wild orchids from Eastern Andalusia (southern Spain). *Acta Botanica Malacitana* 49: 221–236 (<https://doi.org/10.24310/abm.49.2024.20554>) [*Ophrys*, *Orchis*, *Serapias*].
- Romolini, R., Ballerini, B., Nieri, G., and Soca, R. 2024. Viaggio orchidologico nella provincia di Malaga (Spagna), arricchito dal ritrovamento di un nuovo ibrido di *Ophrys*. *Journal Europäischer Orchideen* 56(2–4): 199–208.
- Romolini, R. and Soca, R. 2024. Nuovi ibridi di *Ophrys* della Toscana (Italia). *Journal Europäischer Orchideen* 56(2–4): 168–192.
- Stadler, G. and Broggi, M. F. 2024. Zur Orchideenflora der Insel Fourni (Ostägäis, Griechenland). *Journal Europäischer Orchideen* 56(1): 3–22.
- Steffan, M. M. 2024. Nuovi interessanti ritrovamenti di Orchidaceae sul monte Cairo (Lazio meridionale). *GIROS Orchidee Spontanee d'Europa* 67(1): 124–130.
- Toli, R., Werson, R., Micheli, D., and Ratini, G. 2024. Prima segnalazione di *Dactylorhiza insularis* in Umbria. *GIROS Orchidee Spontanee d'Europa* 67(1): 131–137.

Tyteca, D. and Gathoye, J.-L. 2023. L'Orchis de la Haute-Marne (*Dactylorhiza devillersiorum*) aussi présent dans le Bassin tertiaire parisien. *L'Orchidophile* 54(237): 157–162.

Tyteca, D. and Gathoye, J.-L. 2024. The Orchid Flora of Portugal—Addendum N° 11—Variability, hybridization and introgression in the *Ophrys scolopax* group. *Journal Europäischer Orchideen* 56(1): 71–96.

Tyteca, D., Gathoye, J.-L., Monteiro, C., Urbano, H., Borges, L., and Pessoa, J. 2024. The Orchid Flora of Portugal—Addendum N° 10—Confirmation, distribution, and protection of *Platanthera bifolia* in Portugal. *Journal Europäischer Orchideen* 56(1): 23–44.

Verhart, F. 2024. *Ophrys helenae*, a new species for the flora of Montenegro and its distribution on the Balkan peninsula. *Journal Europäischer Orchideen* 56(2–4): 209–218.

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Alrich, P. and Higgins, W. 2024. Pfeiffer's lectotypes. *Orchids, the Bulletin of the American Orchid Society* 93(4): 272–277.

Behura, N. A., Kothakota, N. J., Behera, B., Teja, S. A., Routray, S. K., and Babu, R. 2024. Advancements in Orchidaceae species identification: a comprehensive review of traditional and molecular methods. *International Journal of Experimental Research and Review* 43: 229–252 (<https://doi.org/10.52756/ijerr.2024.v43spl.017>).

Wang, Y., Wang, H., Ye, C., Wang, Z., Ma, C., Lin, D., and Jin, X. 2024. Progress in systematics and biogeography of Orchidaceae. *Plant Diversity* 46(4): 425–434 (<https://doi.org/10.1016/j.pld.2024.05.002>).

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