

Book Reviews

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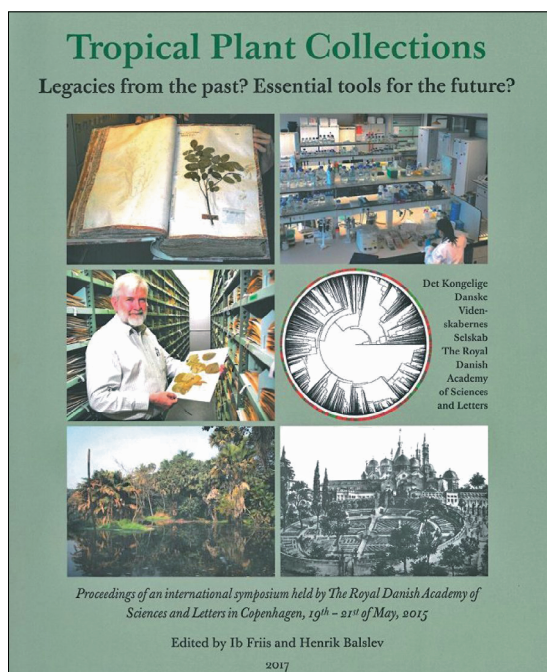
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Book reviews



FRIIS, I. & H. BALSLEV (ed.) (2017). Tropical Plant Collections: Legacies from the Past? Essential Tools for the Future? – Proceedings of an International Symposium Held by The Royal Danish Academy of Sciences and Letters in Copenhagen, 19th-21st of May, 2015. *Sci. Danica, ser. B* 6, 320 pp.

The importance of Tropical Plant Collections has been confirmed during at least last two centuries, in which traditional systematic studies have strongly relied on the comparison of specimens stored in a wide range of repositories. It is also generally agreed that specimen data associated to botanical specimens and used for scientific publications in taxonomy or biogeography must be at any time traced back to vouchered sources (FUNK et al., 2005). Historical collections have traditionally played a major role in this respect as they keep important holdings of specimens; however, the scientific community is fully aware that new ways should be explored in order to improve their availability, comprehensibility and use in modern studies (FRIIS, 2017). Nowadays, the existence of these data and their availability has increasing implications for research and education and public service beyond what was originally envisioned in

the past (FUNK, 2004; FUNK et al., 2005; CHAPMAN, 2005). The huge amount of herbaria available in many parts of the world highlights the fundamental role of these resources for ecological and biogeographical research (HOLMGREN et al., 1990).

Ironically, although the critical role of plant collections has exponentially increased for cutting-edge fundamental and applied research (i.e. genomics, molecular systematics, macro-ecology and ecoinformatics), many historical and apparently well-established institutions storing large holdings of specimens, struggle to guarantee enough economic support even for the execution of daily tasks. The number of curatorial and technical positions taking care of the specimens (herbaria) or living material (living collections) has dramatically reduced in the last two decades, opening the door to critical questions such as what are the past, current and future uses of Tropical Plant Collections? What role do they play for our institutions and for our society? What do they represent for research and conservation strategies on biodiversity at a planetary scale? And what are their current and future threats?

These are some of the subjects that were discussed by seventy four botanists representing eighteen countries (including seven countries in the tropics) in the frame of a meeting held in the Royal Danish Academy of Sciences and Letters (Copenhagen, 19th-21st May 2015). The proceedings issued from this international symposium were recently edited by two outstanding representatives of tropical plant studies, Dr. Ib Friis (Natural History Museum of Denmark) and Dr. Henrik Balslev (Aarhus University). For many decades these two researchers have devoted major efforts towards a better comprehension of tropical botany in all continents and have also established exemplary collaboration efforts with research partners in southern countries. The two researchers have perfectly accomplished an excellent compendium of the most important outcomes of the symposium, meanwhile reflecting their long experience in research and editing work. Twenty three experts coming from high-ranking institutions in northern and southern countries contributed to this benchmark publication, for which six major topics were developed: 1) Herbaria in North and South; 2) Collaboration: Flora projects and training; 3) Tropical Plant Collections and “Big Data”; 4) Tropical Plant Collections and Drug Discovery; 5) Tropical Plant Collections and Molecular Systematics and 6) Tropical Botanical Gardens.

The proceedings describe in much detail the history and fate of benchmark tropical collections in northern and southern countries, highlighting as well the synergy of collaboration between botanical institutions in the frame of floristic assessments. The use of massive data associated to herbarium or living collections in analyses at large biogeographical scales, as well as the evolution of plant functional traits, reveal the unique importance of plant collections. A couple of contributions address the essential role of these collections for medicinal plant research and underline the extremely promising field of herbarium genomics (Museomics) in which next generation sequencing approaches (NGS) successfully recover information from the otherwise fragmented DNA associated to herbarium specimens. A final contribution stresses the importance of botanical gardens for society, strongly linked to a global sustainable development, yet committed to meet the needs of local communities.

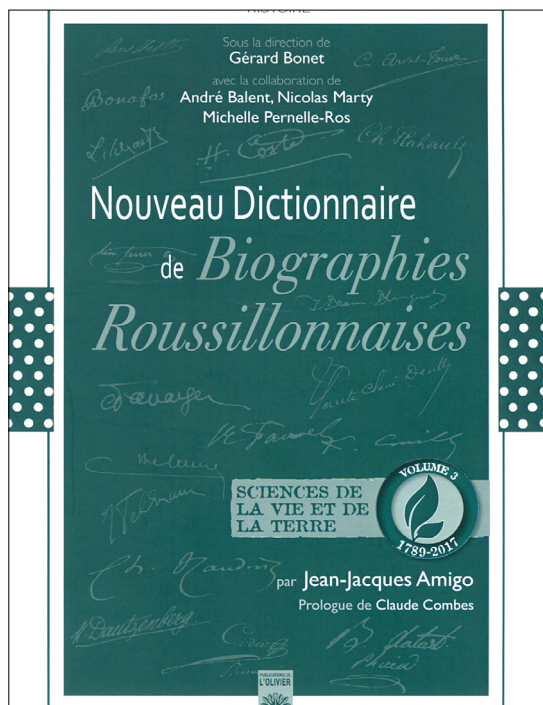
All in all, these proceedings constitute an update to our comprehension of the current and future role of Tropical Plant Collections and become an important tool for decision makers and scientists associated to the collection-based fundamental or applied research. These proceedings offer a general and integrative view of Tropical

Plant Collections, in which every contribution succeeds developing highly interesting and complementary subjects. Congratulations to the editors and all contributors for this major effort.

Literature cited

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Fred Stauffer



AMIGO, J.-J. (2017). *Nouveau dictionnaire de biographies roussillonnaises 1789-2017. Sciences de la Vie et de la Terre*. Les Publications de l'Olivier, Perpignan, 915 pp.

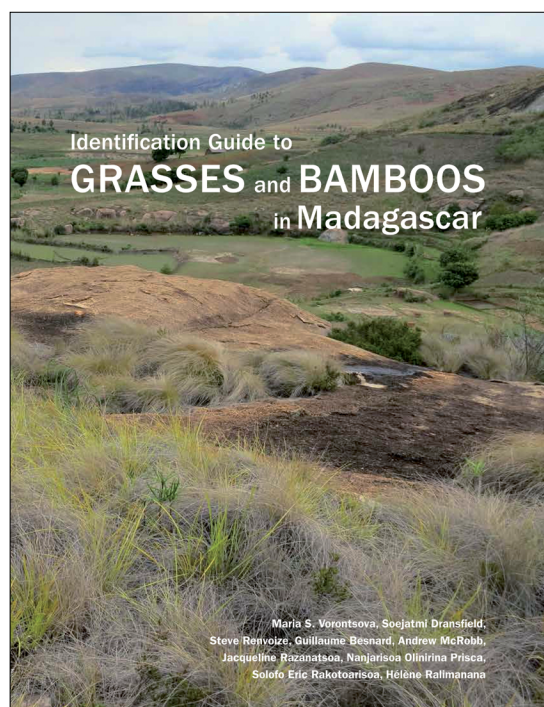
«Un dictionnaire, c'est tout l'univers par ordre alphabétique» rapportait le grand écrivain Anatole France. On peut témoigner de la vérité de cet adage par ce troisième volume du *Nouveau dictionnaire de biographies roussillonnaises* consacré, au travers de quelques 556 notices biographiques, à l'ensemble des savants naturalistes, amateurs ou professionnels, nés, morts ou ayant œuvré dans le département des Pyrénées Orientales et régions aux alentours au sein de plusieurs disciplines de sciences naturelles (botanique, géologie et zoologie entre autres). Ce volume est particulièrement riche en données. Illustré de quelques 347 portraits au travers de ses 915 pages, il dispose ainsi dans sa fin d'un riche glossaire lexicologique de termes techniques, d'une solide bibliographie secondaire en lien avec les notices biographiques et enfin d'un très utile index thématique incluant les noms des savants y étant rattachés et facilitant de fait les recherches au lecteur. Un index toponymique des communes et lieux-dits où sont passés les savants recensés complètent cet ensemble.

Certes, ce dictionnaire n'intègre pas les personnes encore en vie et l'on peut s'interroger sur la bonne portée de ce choix, sachant que d'une année à l'autre, un grand nombre de personnages pourraient potentiellement y être inclus. La longueur et les détails informatifs des notices rendent cependant cette interrogation caduque. Certaines biographies d'amateurs savants peu connus (p.ex Jean Xatart) suscitent en particulier l'admiration par les détails qui sont donnés, détails issus

de recherches menées parfois jusque dans les archives d'état civil. Parfois, certaines biographies de personnages bien connus (comme Augustin-Pyramus de Candolle) surprendront par leurs longueurs. Mais ces longueurs ne sont pas superflues. Ainsi pour Candolle apprend on une foule de détails sur la taxonomie de différentes espèces qu'il a décrites. À cet égard, il aurait été judicieux d'ailleurs pour le lecteur, dans les notices, de stratifier l'information qui lui est livrée, entre les données purement historiques et celles liées par exemple aux taxons de plantes qu'il a décrites.

En conclusion, il faut signaler ce dictionnaire comme un magnifique instrument de travail pour l'historien ou pour le curieux. À ce titre, il serait tellement souhaitable que chaque département ou région de France et de Navarre puissent disposer d'un tel outil autour des hommes de science ou de lettres, amateurs ou professionnels, y ayant œuvré ou vécu.

Patrick Bungener



VORONTSOVA M.S., S. DRANSFIELD, S. RENVOIZE, G. BESNARD, A. MCROBB, J. RAZANATSOA, N.O. PRISCA, S.E. RAKOTOARISOA & H. RALIMANANA (2018). *Identification guide to Grasses and Bamboos in Madagascar*. Royal Botanic Gardens, Kew, 168 pp.

The island of Madagascar is renowned for its exceptional biodiversity, with extraordinary levels of species diversity and endemism. Despite more than two centuries of botanical exploration, the inventory, description, and documentation of the Malagasy flora are still far from complete. Madagascar's grasses are no exception despite the fact that several species have always been closely involved in the lives of the Malagasy, the most important of which is the cultivated rice imported from Asia: *Oryza sativa* L. Native grasses are omnipresent throughout the highlands of Mad-

agascar and bamboos are an important component of the rainforest flora, especially at higher elevation. Still, no modern treatment was available when Maria Vorontsova, a research scientist at the Royal Botanic Gardens, Kew, and a passionate student of the grass family, started to focus on tropical African and Malagasy species.

The *Identification guide to Grasses and Bamboos in Madagascar* is the result of her experience gained through direct participation with other renowned botanists working on Malagasy *Poaceae*, such as Soejatmi Dransfield and Steve Renvoize, along with other grass specialists and a team of Malagasy botanists. This 168 pages paperback guide, with an attractive layout and design, treats 144 Malagasy *Poaceae* genera. In a plant family that is rather difficult for non-specialist, with its own specialized terminology, the glossary coupled with identification keys to grasses and woody bamboos, will help botanists, students and naturalists extend their knowledge on Malagasy *Poaceae*. The high-quality colour scans of living plants taken in the field provided for each genus, with much-appreciated highlights on easily observable characters, smartly aid identification. Each genus is briefly described and discriminating characters are highlighted in bold. The "lookalikes" section is also helpful for distinguishing between genera with similar appearance. Finally, information is also provided on the distribution and habitat of each genus, along with a Notes section.

This vibrant compilation of currently available knowledge on the grass and bamboo genera present in Madagascar will also encourage botanists to devote more attention to collecting and studying this incredibly diverse family by helping them to identify material to the generic level. This guide will definitively dispel the myth that all grasses look the same. It will also enable the Malagasy, who have 20 recorded vernacular names for various cultivars of their *vary* (rice), to know how to recognize the other genera in the family that includes the cornerstone of their diet!

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