

Plant systematics and biogeography in the Australasian tropics: part 2

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This double issue is the second on the topic of plant systematics and biogeography in the Australasian tropics published in *Australian Systematic Botany*. The first issue on this topic (vol. 31, 5–6) was published in 2018 and brought together ten papers that contributed original research in a wide range of disciplines, including biogeography, developmental anatomy, evolutionary radiation and taxonomy. This second special issue follows directly on, and showcases 10 additional papers, many across those same disciplines; however, several fascinating papers expand the range of disciplines represented. These include palaeobotanical work that contributes critical new information on the history of horsetails (*Equisetum*) in Australia (Rozeffelds *et al.* 2019); a detailed account of the taxonomic work on Australian plants of the Wendland family, Court Gardeners at the Royal Gardens of Herrenhausen, Hanover, Germany (Dowe *et al.* 2019), a little-known aspect of Australian botanical history; and lastly a demonstration of the utility of genome skimming approaches for untangling evolutionary relationships in species-rich and morphologically complex tropical Australasian groups, using the carnivorous plant genus *Nepenthes* as an example (Nauheimer *et al.* 2019).

In contributing to the taxonomic significance of this special issue, it is notable that seven papers contribute new taxa and new records of flowering plants for northern Australia (Crayn *et al.* 2019; Fahey *et al.* 2019; Gray *et al.* 2019; Telford *et al.* 2019; Wannan 2019) and New Guinea (Venter 2019). Ten new species and one new genus are described and a number of other taxa revised. Importantly, two fern taxa that were presumed Extinct are rediscovered (Field and Renner 2019). These taxa had not been seen since collection of the types, more than 70 years prior, despite collecting activity at the type localities. This reminds us that for many tropical taxa, a protologue and a handful of preserved specimens constitutes the sum of our knowledge of their biology.

In the editorial for the first special issue (Crayn 2018), I expressed my surprise and delight at the overwhelming response to my rather informal call for papers on the Australasian tropics. With an additional 10 papers published in this second special

issue, my delight has grown. However, these two collections of papers by no means exhaust the corpus of existing but unpublished knowledge on plant and fungal systematics and biogeography in the Australasian tropics. On the contrary, an additional 24 manuscripts were enthusiastically offered by colleagues but could not be finalised in time for publication in this special issue. At least one more special issue is planned to accommodate some of these papers. Furthermore, wider discussions indicate that many more research projects are sufficiently advanced that papers could be prepared within the next year or two. Clearly, there is a great deal of fundamental research on the plant and fungal biodiversity of the Australasian tropics remaining to be completed, which mirrors the situation globally for the tropics. I trust that this series of special issues has helped to shine a light on an extraordinary, and systematically understudied part of the world.

Conflicts of interest

Darren M. Crayn is an Associate Editor for *Australian Systematic Botany*. Despite this relationship, he did not at any stage have Associate Editor-level access to this manuscript while in peer review, as is the standard practice when handling manuscripts submitted by an editor to this journal. *Australian Systematic Botany* encourages its editors to publish in the journal and they are kept totally separate from the decision-making process for their manuscripts. The author is also an author of three research papers in this special issue. The author has no further conflicts of interest to declare.

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