

Progress in historical biogeography

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Historical biogeography is the multidisciplinary study of spatial patterns of all biodiversity spanning present and past; it also spans many different aims and methods (Ebach 2015). As historical biogeographers, we sought to find an outlet to showcase the different aims and methods of historical biogeography. In our view, historical biogeography deserves its own outlet, even its own journal, one that embraces the multidisciplinary nature of the field. As Associate Editors of *Australian Systematic Botany*, we have brought together the first Historical Biogeography Special Issue since the classic *Austral Biogeography* (Ladiges *et al.* 1991) hit the shelves during the cladistic biogeography boom of the early 1990s. The methods of yesteryear have matured and developed due to theoretical and technological breakthroughs, faster computing speeds, and finally, access to far greater resources, such as molecular phylogenies, electronic distributional data, new geological discoveries (i.e. neotectonics) and geographical information systems. Rather than grind to a halt, historical biogeographic research has blossomed and a whole new generation of practitioners are building upon the work of earlier studies and attempts to tackle questions that, after 20 years, still need to be addressed. For example, understanding the historical pathways of Southern Hemisphere regions, the validity of these regions, and the new geological processes that may affect areas in the short-term. As the *Austral Biogeography* Special Issue led the way in the 1990s, here *Australian Systematic Botany* continues that tradition.

In this issue, the first of a series, we show the different aims of historical biogeography, namely, the integration of cenocrons (Corral-Rosas and Morrone 2016), vicariant hypotheses (Ung *et al.* 2016), historical distributional pathways (Grehan 2016; Romano *et al.* 2016) and biogeographic regionalisation (Martínez *et al.* 2016). Given these different aims, it is not surprising that there are also many different approaches (e.g. vicariance biogeography, panbiogeography and evolutionary biogeography), and contrasting viewpoints (de Queiroz 2016).

We consider historical biogeography – with its differences of interpretation and plethora of aims, concepts and methods – to encompass a wide range of opinions and ideas. Given this,

we acknowledge and respect its diversity of approaches, namely, panbiogeography, cladistic biogeography, phylogeography, parametric biogeography, evolutionary biogeography, and systematic biogeography, among others. The contributions in this volume are the first step towards a future series of historical biogeographic special issues and hopefully towards a larger journal that incorporates all methodological and theoretical aspects of historical and paleobiogeography, without restrictions on the number of pages or approaches used.

If you wish to contribute to the Historical Biogeographic Special Issue Series, please submit your contribution by the *Australian Systematic Botany* submission system: <https://mc.manuscriptcentral.com/csiro-sb>.

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