

From the Foundations to the Frontiers of Biogeography

The investigation of patterns of biological diversity on earth, a topic that has been a focal point of study for over two hundred years, has arguably come to a single predominant conclusion: the distribution of organisms has been dynamic over time, changing as a result of the changing geological face of the earth, the changing climate of the earth, and the dynamic nature of the organisms themselves. At a meeting held at National Center for Ecological Analysis and Synthesis in Santa Barbara, California in September 2001, which was held principally to organize a volume on the Foundations of Biogeography (Lomolino et al. 2004), it was abundantly clear that the field of biogeography had not only an illustrious past, but was entering an exciting and potentially transformative stage of development.

Two decisions were reached quickly at that meeting in Santa Barbara: 1) to organize a new society that would provide a forum for biogeographers world-wide to meet regularly and exchange new ideas and methods, and 2) to publish a volume that would exemplify the emerging concepts and identify the most promising directions for future research. The International Biogeography Society (IBS) held its first meeting in Mesquite, Nevada in 2003, and the papers presented during its symposia became the basis for a book, "Frontiers of Biogeography: New Directions in the Geography of Nature", which we were honored to organize and edit for publication (Lomolino and Heaney 2004). Thus, the IBS and the recognition of continued dynamic development of conceptual issues in biogeography have been intertwined since the origin of the society.

The title of the book was one that we considered carefully. It is our sense that much about biogeography remains unknown, and that both patterns and processes that are of fundamental importance may, even today, be entirely unknown or existing only as a glimmer in someone's mind. Thus, we wished to choose a title that emphasized that the field was entering an exciting period of great discovery, rather than one of confirmation of past ideas and a state of final resolution. The

selection of the term "frontiers" was made deliberately for its implication of vast unknown spaces where wondrous things might be found. Rapid advances in increasingly detailed knowledge of the earth's geological history, especially its tectonic history, continued to overturn previous concepts, and study of superb new fossil material has allowed a resurgence in paleobiogeography. Rapid increases in the ease and speed of conducting studies using DNA sequencing technology has created the new field of phylogeography, which has given us bold new perspectives on the history of diversification and distribution patterns all over the globe. The dynamics that underlie patterns of species richness, especially on islands and along elevational gradients, have changed rapidly as new data have emerged and new questions have provided new insights that have in turn led to still more new questions. There is a growing recognition that marine and terrestrial biogeography, long discussed in different journals using different terminology, have a great deal in common and will provide reciprocal illumination in many respects. And a new term and topic of focus emerged that recognizes the value of the data and issues that



Butterfly logo for the original Frontiers of Biogeography book (designed by Mark V. Lomolino), that will also be part of the image of this new journal.

biogeographers address relative to the menacing environmental problems that we face, “conservation biogeography”.

It is in the spirit of the first conference of the IBS and of the “Frontiers of Biogeography” volume that the former “IBS Newsletter” is now being renamed. Several current journals have contributed greatly to the recent growth and excitement about the field of biogeography, and it is our hope that they will continue to provide a venue for leading research in the field. But the surge in publications citing “biogeography” as a key word is evidence of the steadily growing need for multiple venues, and it seems eminently reasonable for the IBS to take a leadership role in providing one such venue. Thus, as explained at greater length elsewhere in this issue, it is the intent of the editors of this journal and the officers of the International Biogeography Society to foster the growth of this former newsletter into a format that will gradually take on increasing prominence in the field, providing a forum in which the frontiers of biogeography will be explored with vigor. As with the process of biological diversification, the development will occur over time, and may take unanticipated directions - but we view the prospect of the new journal with the same sense of enthusiasm that we felt at the meetings in Santa Barbara

in 2001 and Mesquite in 2003. New vistas are opening, and we look forward to the directions in which they will take us.

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References

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Layout for the cover of the original *Frontiers of Biogeography* book (Lomolino and Heaney 2004). Design by Mark V. Lomolino.