



Special Issue

Evolutionary Islands: 150 Years After Darwin

To celebrate the year of Darwin 2009, the Netherlands Centre for Biodiversity 'Naturalis', together with the Darwin Center for Biogeology (based in Utrecht), held the symposium *Evolutionary Islands: 150 Years After Darwin* (11–13 February 2009) at the Museum Naturalis, Leiden, The Netherlands. The theme of the symposium was to explore the contribution of islands to our understanding of evolutionary biology and to analyse the role of island biological processes in a world in which the insularity of island and mainland ecosystems is being drastically altered. After all, islands, where the evolutionary play is set on the tiniest of stages, fuelled Darwin's thoughts on evolution. The idiosyncrasies of organisms on oceanic islands made him aware of the dynamics of species and played a key role in the formulation of his theory of natural selection. But other isolated (insular) ecosystems have taught us a great deal more about evolution since then. In an age when human activities create new islands by habitat fragmentation, while at the same time dispersal barriers are being removed from many naturally isolated systems, it is time to take stock of what we know about the evolution of island ecosystems.

The symposium brought together some 150 scientists from various disciplines, ranging from systematics, through behavioural ecology and computational biology, to geology, all of whom had their own perspectives on evolution in and development of insular ecosystems. The papers comprising this special issue reflect this diversity of viewpoints. They present contrasts between the long view of geologists and palaeontologists with the more immediate effects of dispersal and colonization. The issue contains papers that attempt to reconstruct the biodiversity effects of geological life cycles of oceanic islands, isolated mountain peaks, and freshwater lakes. And it encompasses studies of organisms with a wide variety of dispersal modes and propensities, ranging from the sessile (e.g. lizards) to the vagile (e.g. spiders). The papers were mostly derived from presentations given at the meeting, to which were added other submissions to the journal that we felt complemented the original set of articles. The editors and organizers hope that this issue drives home the point that, in the 150 years since the appearance of *The Origin of Species*, island science has evolved into a field where all aspects of the interplay between fragmentation, isolation, and ecological interactions continue to inform us on the evolutionary events that shape our world. More information and video recordings of the symposium's keynote lectures can be found at <http://science.naturalis.nl/darwin2009>.

Editors: Menno Schilthuizen, Niels Raes, Peter Linder, Konstantinos Triantis, José María Fernández-Palacios and Robert J. Whittaker.



The Wayag archipelago in the Raja Ampat region, West Papua, Indonesia. Besides “true” islands, this archipelago contains islands within islands, such as the marine lake in the foreground. (Photograph: L.E. Becking, NCB Naturalis.)