

Bush Blitz and biodiversity discovery in Australia

Russell L. Barrett^{A,B,C,D}

^ABotanic Gardens and Parks Authority, Kings Park and Botanic Garden, West Perth, WA 6005, Australia.

^BWestern Australian Herbarium, Department of Parks and Wildlife, Locked Bag 104, Bentley Delivery Centre, WA 6983, Australia.

^CSchool of Plant Biology, Faculty Science, The University of Western Australia, Crawley, WA 6009, Australia.

^DPresent address: Australian National Herbarium, Centre for Australian National Biodiversity Research, GPO Box 1600, Canberra, ACT 2601, Australia. Email: russell.barrett@bgpa.wa.gov.au

When Editor-in-Chief of *Australian Systematic Botany*, Dan Murphy, asked me to consider editing a special issue devoted to botanical research arising from the *Bush Blitz* program I was a little taken aback, but I immediately saw the potential benefits. The original suggestion for a special issue had come from the journal's previous Editor-in-Chief, Mike Bayly, which Dan thought it was a great idea, but recognised it would require a dedicated editor. I was called on to guide the compilation and direction of the special issue, working towards the short-timelines Dan was hoping for.

Little did I know that the ultimate result would be 13 new species being described, including a freshwater alga with screw-like wings on its oospores, the world's smallest species in the fan-flower family Goodeniaceae, and rock-encrusting lichens. Along with these novelties came revised circumscriptions for numerous additional species. Significant advances are also made in our understanding of the evolutionary relationships in Aspleniaceae, *Synostemon* and *Zieria* through detailed molecular phylogenetic research.

Australia is a continent where new species discoveries are not confined to the imagination but a real possibility. With so much still unknown, ongoing biodiversity discovery and documentation remains vital to our understanding, appreciation and conservation of Australia's globally unique natural landscapes. *Bush Blitz* is a unique partnership that brings together science, Government and business with the Australian Government (through the Australian Biological Resources Study), BHP Billiton Sustainable Communities and the Earthwatch Institute (Australia) all working collaboratively to expand our biodiversity knowledge on a continent-wide scale.

Bush Blitz takes a multi-faceted approach to building our biodiversity knowledge through targeted fieldwork in National conservation reserves, research projects utilising collections in National collections, and through public education. Targeting all forms of life, *Bush Blitz* field trips bring together experts from many research fields and institutions, many of whom are working

together for the first time, to fill gaps in our biodiversity knowledge. In many ways the program provides the missing pieces to a much larger puzzle.

This special issue of *Australian Systematic Botany* showcases the *Bush Blitz* program and draws together several significant outcomes in Australian algal, fungal, and plant systematics. Research papers included in this volume present the results of *Bush Blitz* field trips, from the Tasmanian highlands to the central Australian deserts, novel taxonomic discoveries, including alga, lichens and plants, and significant research outcomes from *Bush Blitz Research Grants* and *Capacity Building Grants* awarded to researchers, including post-graduate students.

The *Bush Blitz* partnership remains strong and today through renewed funding of new projects it continues to support vital botanical discovery and research that helps reveal the true botanical wonder of Australia. In addition to the on-going field surveys, *Bush Blitz* is funding herbarium- and museum-based studies, this is critical, and so valuable to taxonomic science, as much of our undescribed biodiversity has been incorporated into collections, but remains unrecognised due to a severe shortage of expertise in many taxonomic groups. *Bush Blitz* is working to bridge that gap in knowledge by bringing together scientists from across Australia and the world.

The *Bush Blitz* program is to be commended for bringing Industry, Government and the Community together to tackle the great challenges remaining in Australian biodiversity discovery.

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