

The value of targeted biological surveys: an assessment of Australia's Bush Blitz program.

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Biodiversity assessment and decisions rely on knowledge of the spatial distribution of species, yet most global biodiversity is inadequately represented by occurrence records. In this work, we evaluated nearly eight years of biodiversity record collection by Bush Blitz (www.bushblitz.org.au), Australia's largest species discovery program, to test how efficiently the program improved our knowledge of the distribution of biodiversity. Our assessment is based on Bush Blitz data for six taxa, benchmarked against data accumulated over the same period in the Atlas of Living Australia (ALA, http://www.ala.org.au/) – Australia's largest aggregation of biodiversity records – as a comparison of effectiveness to the Bush Blitz program. We found that environments surveyed through the Bush Blitz program are highly complementary to environments from which 'background' observations were made over the same period and aggregated in the ALA. This sampling of complementary environmental diversity translated into large numbers of records of new, or previously unrecorded, species. Bush Blitz additions were made highly efficiently with respect to survey effort, relative to background survey effort represented in the ALA. Our results demonstrate the ability of the Bush Blitz program to contribute valuable data to conservation assessment and planning, and the value of assessing environmental diversity in planning new surveys.

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