

## Robert L. Pressey (1953–2023)

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**Leading conservation planner and champion for biodiversity.**

Professor Robert (Bob) Pressey pioneered conservation planning and is known for his numerous and significant theoretical and practical contributions to the field. His early research focused on protected area or ‘reserve’ design, and particularly on reserve selection principles; these included work on the definition and application of irreplaceability and complementarity measures that underpin the creation of representative and efficient reserve networks. Bob’s seminal work from this period shaped the theory and origins of systematic conservation planning<sup>1,2</sup>, methods for calculating core metrics<sup>3</sup> and tools to support its application<sup>4</sup>. In particular, his work examined the implications of ad hoc conservation, emphasizing its negative impact on the coherence of representative reserve systems.

Bob’s work and scientific contributions are well known and accoladed – but those who worked with him knew him as someone generous with ideas, and a true mentor. His scientific legacy will be not only in the papers he wrote but also in the differences he made on the ground. He should be remembered for his significant ideas and the places he helped to protect – notably, reserves in Australia and South Africa. Through his collaborations and mentorship, he contributed to advancing applied conservation planning across the world, including in Brazil, Canada, Costa Rica, Mexico, the USA and several countries in the Asia–Pacific region.

His education and career began and continued in New South Wales, Australia. After completing his BSc (Hons) at the University of Sydney in 1975, and his Master of Environmental Studies degree at Macquarie University in 1979, Bob worked for nine years as a private environmental consultant on wetlands conservation. In 1986, he accepted a position as a researcher with the New South Wales National Parks and Wildlife Service, where he worked for 19 years in semi-arid and forest ecosystems. During this time, he completed his PhD at the University of New South Wales, entitled *Requirements for a Representative Reserve*



*System: A Case Study in the Western Division of New South Wales.* In 2007, he moved to James Cook University in Queensland, Australia as a professor in the ARC Centre of Excellence for Coral Reef Studies, where he created and led the conservation planning programme.

His career evolved from his time working for the Parks and Wildlife Service; this work informed how he understood national parks, their design and what had to change to ensure they made the difference they promised for biodiversity. New South Wales reserves are at the centre of many of his papers on reserve design<sup>5,6</sup> and protected areas established as a result of the Regional Forest Agreement in New South Wales are a concrete legacy of how systematic conservation planning can lead to measurable conservation outcomes<sup>3</sup>.

While Bob is perhaps best known for his contributions to the underpinning theory and practice of systematic conservation planning that came from his time in the Parks

and Wildlife Service, his work evolved and responded to contemporary topics in reserve design and biodiversity conservation<sup>7</sup>. For example, as the field of conservation planning advanced beyond the early days of algorithms and tool development, he turned his attention to how conservation plans could influence on-the-ground action in a dynamic<sup>8</sup> and often challenging world<sup>9</sup>. The final decade of his career was characterized by challenging the concepts of area-based measures and whether conservation planning had genuinely delivered on its goal of designing reserve systems that stop biodiversity loss. In doing so, he focused on residual reserves and how to bring concepts of avoiding loss into conservation planning<sup>10</sup>.

Bob’s scholarly output across his career was extensive and impactful, spanning over 350 publications over four decades. From his early days in aquatic ecology, forest reserves and conservation-planning theory to his seminal

coauthored paper in *Nature*<sup>2</sup>, he consistently delivered ground-breaking research that defined the field of systematic conservation planning. However, Bob's contributions extended beyond academia, as he actively engaged with the conservation community and decision-makers. His work demonstrated a deep understanding of the importance of bridging science and practice. By collaborating with various stakeholders, he championed the application of conservation planning principles in real-world scenarios, forging a path towards more effective and sustainable conservation strategies.

Through his scientific contributions, Bob continually pushed the boundaries of spatial planning, progressively defining best practices in the field. It was this passion for conservation and unwavering commitment to scientific rigour that both his work and he as a person are well known for. His enthusiasm for conservation extended to a generosity of ideas and desire to connect groups and ideas. This knowledge sharing and commitment to conservation facilitated a strong sense of community among us who worked with him. It informed how we ourselves conduct science, the topics we tackle, and the ways that we network with others and mentor our students. We have him to thank for our friendships and collaborations that will continue

throughout the rest of our lives. Bob's legacy endures as we carry forward his dedication to excellence in conservation research and planning.

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Published online: 16 October 2023

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## Additional information

V.M.A. first met Bob and his family in 2005 on Heron Island during a conservation planning workshop, and went on to complete a PhD with him 2008–2012; their collaboration continued well beyond. J.A.-R. is a former student and long-time collaborator whose journey with Bob at James Cook University began in 2008 during his PhD. Together, they advanced integrated land–sea planning, always hoping to leave a lasting positive impact. N.C.B. worked with Bob as a postdoctoral fellow (2008–2012), which was a tremendous learning experience; Bob provided numerous opportunities for taking on leadership roles (for example, co-supervising students and going to meetings on his behalf such as an Association of Southeast Asian Nations (ASEAN) meeting in Indonesia). M.M. first met Bob at the University of Queensland, and completed a PhD under his supervision at James Cook University (2008–2011). His devotion to quality and impactful science will always be an inspiration. P.V. went to visit Bob at the University of Queensland in 2007 with a 1-year grant after completing a master's degree; Bob trained P.V. as a scientist and shared his time, knowledge and network like nobody else since. P.V. stayed three more years to do a PhD with him at James Cook University and looks fondly on the four years with him and the group he created.