Obituary



Lionel Wayne Braithwaite, Ph.D. 1941–2011

ON Friday 4th March, 2011, Australia lost in Wayne Braithwaite one of its most pragmatic, lateral-thinking and influential conservation ecologists at

the premature age of 69. He died after a long and brave battle with pulmonary fibrosis. Wayne was born and raised on a small property just west of Griffith, New South Wales, the eldest of three siblings. From the earliest age he was engrossed in the natural world, and particularly in birds: he had the largest and most comprehensive collection of birds' eggs in the district, all properly data-based. During his secondary schooling as a boarder at Canberra Boys Grammar, he added to his egg collection with long series from Red Hill. He then went on to take his B.Sc. at the University of Sydney, graduating in 1962 and landing a job immediately as a biochemical analyst at Royal Prince Alfred Hospital.

Later events in 1962 became the turning point for his career. During holidays from his studies in the late 1950s, he had assisted Harry Frith, then of CSIRO's Wildlife Survey Section, with Frith's work on bird pest problems in the ricefields and orchards around Griffith. When Harry became head of the Section and took it, as Chief, to the status of a Division (Wildlife Research) in 1962, he remembered the enthusiasm and talents of his young helper and shanghaied Wayne from his job in Sydney. Wayne may have jumped at the chance, yet he was really thrown into the deep end of wildlife research right from the start. There he was, left all but unsupervised in charge of the Division's waterfowl ecology programme, leading a group of rather wild young assistants headed by John L. McKean.

It worked. Wayne's individual mix of nous, training, focus, drive and geniality produced a series of ground-breaking papers on the feeding and breeding ecology of Australia's waterfowl. This in turn led to the integration of shooting seasons and waterfowl conservation programmes across states, and established the foundation for the annual Australian waterfowl survey now being carried on by one of his students, Professor Richard Kingsford in Sydney. Around

the same time, Wayne was attached to the Australian National University to take his Ph.D. in waterfowl biology; the degree was conferred in 1971. He was his Division's golden research boy in those early years, but his growing understanding and authority in waterfowl ecology and management unfortunately brought him into conflict with the views of his partmentor, patron and chief, Harry Frith. By the late 1970s, Wayne, always ready to stand up for a principle, had contradicted Harry – correctly, once too often.

Overnight, Australia's leading expert in waterfowl ecology found himself transferred out of the swamps into the forests. Having years of expertise in one field stifled, and facing another so different in ecology, would confound the capacity and career of many a scientist. Yet once more, Wayne coped. Indeed, not only did he cope, he succeeded in uncovering the primal role of nutrient gradients in controlling fauna and its abundance in the generally nutrientpoor forests of Australia. Knowledge of these effects is vital for grading the value of natural bushland habitat for conservation and development. His reputation for such break-throughs, both in wetland and forest ecology, grew and he was engaged by university students for their mentoring. Although working in an organization outside academia, Wayne became involved in supervising the university careers of five Ph.D. students and one M.Sc. at four different universities: Sydney, Australian National, New England and Charles Sturt.

By the mid 80s, Wayne and his team had settled well into his forest ecosystem programme, and were liaising with state forestry departments across eastern Australia for improved forest management that would better reconcile the conflicting needs of wood production and conservation. That was one of Wayne's great strengths. Instead of joining the throng of ecologists clamouring for habitat protection and species conservation in the public arena, he quietly networked the back rooms of fauna and forestry departments around the country, where real decisions could be made, brokering better deals for waterfowl and wetlands as well as forests and their fauna.

When his own entreaties fell on deaf ears, he was not averse to letting out information so that

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external pressure could be brought to bear. It can now be told that Wayne was the person ultimately responsible for preventing extensive logging in the New South Wales State Forest of Chaelundi, and its eventual designation as a National Park in 1997. By 1989, his forest fauna surveys had found that the then almost unknown 11000 ha. Chaelundi old-growth eucalypt forest, on a rich volcanic plateau northwest of Dorrigo, held an unrivalled diversity and abundance of arboreal marsupials and owls. That forest was slated for impending logging, which concerned Wayne deeply. Not wishing to compromise his connections, he ensured nonetheless that his data got out to the Green Movement through colleagues. The case went to the NSW Land and Environment Court in 1991 where Justice Paul Stein, after reading the evidence, concluded that Chaelundi was a "veritable forest-dependent zoo". The rest is history.

Then this work too was halted by new directions at his Division. "Change" was the catch-cry that rang around the Division in the early 1990s. The environmental problems of the world were ever changing, and research directions had to change along with them to cope. Despite his scepticism and belief that there was no lack of relevance in his forest work, Wayne and his group were moved into a new Divisional initiative to work commercially in the lucrative but erratic environmental impact assessment market. Its purpose was to raise money so that the Division could meet external funding targets and so avoid cutting other, more favoured research programmes. Wayne's expertise may have been suited to the task, but he felt that it did not make the wisest use of his talents and experience, and it impacted on his selfesteem. He was now working as a technologist, no longer a scientist pushing out the boundaries of knowledge. In the end, he took redundancy and retired in 1998, aged 57, at the professional level of Principal Research Scientist.

If anything measured Wayne's stature as a scientist, it was not his capacity as a rivetting presenter or facile writer. Writing was always something of a struggle, even though he produced almost 90 major scientific papers, book chapters, technical and conference reports and environmental impact statements. Rather, what stood out was his intellectual acumen, single-minded focus, dedication, and a born ecologist's intuition combined with an ability to think outside the box of simple predator-prey relationships. Underpinning this was a seriously deep and broad understanding of theory. In his undergraduate years in Sydney, Wayne had read scientific philosophy under Charles Birch, in addition to taking the traditional overview of the animal kingdom. He liked nothing more than chew over with his friends the contrasting approaches of Pöpper and Kuhn to scientific thinking and analysis. And he was one of a select band of Australian vertebrate ecologists who understood that on-going research in systematics, and targetted collecting for it, was vital for the health of ecology because it kept the identity of subject animals up-to-date. The current revolution in the systematics of Australian birds from molecular studies is evidence enough of his perception. He was, as a result, a persistent and stout supporter of the Australian National Wildlife Collection at CSIRO.

But above all, Wayne had an honesty and integrity in his approach to research that was outspoken and unbending. It earned him the deep respect and friendship of peers but did not always endear him to senior figures with different views. When he thought a colleague might be cutting a corner or two, down would come that familiar blunt judgement, irrespective of rank: "If you do that, you'll get shot in the arse".

Throughout his professional life, Wayne had literally lived his research, yet his career had not turned out as he hoped, despite the impact of his work. His Division too became subsumed in other CSIRO Divisions into the new century as CSIRO abandoned its central niche in wildlife science and conservation. So, if there is any consolation in Wayne's epitaph, it is that our memory of both him and his Division will live on through the results and applications of his research in Australia's wetlands and forests, for it epitomises the scope, perception and standards of a first-rate CSIRO Division working on fundamental environmental problems of concern to all Australians and their future.

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