



COUNCIL OF AUSTRALASIAN WEED SOCIETIES

Medal for Leadership Winner in 2016

Dr John K. Scott

Dr John Scott has had a distinguished career in the weed sciences, spanning over 35 years and three continents. His ability to have impact at the leading edge of weed research combined with a track record of on-ground outcomes through extension and program implementation has seen John nationally recognised as a leader in the ecology and management of invasive plants. John specialises in weeds that originated from around the Mediterranean basin and from southern Africa. He has particular interests in the use of biological control as a management tool and the potential impact of future climate change scenarios upon these invasive species.

His work focuses mainly on aspects of:

- developing strategies and plans for weed management (local and national)
- plant, insect and pathogen ecology
- genetics and phylogenies of plants and associated organisms
- host range studies
- prediction of climate change impacts on and risks for weed invasions.

John's approach to weed management is one of developing a deep understanding of ecological context to best guide management strategies and improve outcomes. For John, detail matters. This approach has seen him spend considerable amounts of time in the field right across Western Australia, as well as long placements in South Africa and France. To facilitate biological control programs that targeted Australian weeds of South African and/or Mediterranean origins and to enhance collaboration between Australia and these countries, John was instrumental in establishing overseas laboratories for weed research undertaken by CSIRO. As part of this role John served as Officer in Charge of the CSIRO laboratories in Cape Town, South Africa, and Montpellier, France.

As a thought leader in his field, John has made significant contributions to the literature in areas of seed germination, invasion terminology, biological control, host plant specificity, climate-change ecology and insect biology. John has published over 200 papers and has edited 6 books, including over 100 peer reviewed journal articles, 15 book chapters and numerous reports and conference proceedings. Despite working on rather un-glamorous topics in an era when the 'publish or perish' mantra was not prevalent, John has had multiple papers published in globally renowned journals such as *Nature*, *Biological Reviews* and *Trends in Ecology and Evolution*.

John's record of on-ground achievements is similarly outstanding, most notably as a champion of weed biological control. There is a national balance in Australian weed biological control targets across the east and the west, and programs for the latter have been largely due to John's efforts. He has been the driving force behind most of Western

Australia's biological control programs, specifically the immensely successful programs on bridal creeper and dock. Nationally, biomass of bridal creeper has significantly decreased following the release of the leafhopper and rust, and in eastern Australia, there is anecdotal evidence that clear-wing moth *Chamaesphecia dorylififormis* has essentially solved the dock problem in the eastern states. John's understanding of the phenology of *Rubus* sp. in Western Australia was major determinant on where to look for new strains of rust fungus *Phragmidium violaceum* from southern Europe to ensure the most robust strains were part of the Australian biocontrol program. John was also the lead person behind Perth having its only quarantine facility for biological control programs, thereby removing any impediment for research into the biological control of weeds that mostly affect Western Australia. He led the charge of convincing the grains industry and GRDC to continue to invest in weed biological control after the efforts with skeleton weed in the early 1980s. John has initiated the biological control programs for Cape tulip, stinking passionflower and *Euphorbia* sp., all weeds with their main impact in Western Australia, which would not have received due attention relative to the suite of high priority targets in eastern Australia.



John Scott (in centre, holding certificate) shown in September 2016 beside CAWS president Rachel Melland (left of John) and Sandy Lloyd (right of John), and with some past winners of CAWS Medals in Leadership from Western Australia: John Moore (far left), Rod Randall and Steve Powles (far right).

John's vast knowledge has been critical for helping (i) represent Australia at international weed committees and other fora, (ii) lead national thinking on weed strategies and management plans, and (iii) to make a significant contribution toward the mentoring and education of Australia's next generation of weed scientists. Firstly at an international level, John has represented Australian weed interests as the Australian appointment on the Governing Board of the Biological Resource Management for Sustainable Agricultural Systems program (OECD, Paris, 1998-2002) and as the Australian representative on the Executive Council of CAB International, London (1999-2002). He has also served as an

associate editor for the international journal *Biocontrol* (2006-2014). Secondly at a national level, in his role as the CSIRO representative on the Australian Weeds Committee (2003-2013), John was involved in prioritising and selecting the Weeds of National Significance (WONS). He was the CSIRO representative on the nation Consultative Committee on Exotic Plant Incursions (2003-2013) for monitoring weed eradication programs and was a senior member and key organiser for the Weeds Cooperative Research Centre between 1995 and 2001 and has served as a member of the Gorgon Quarantine Expert Panel for the past seven years, 4 years as a CSIRO scientist, 3 years as an independent consultant. Finally in his many leadership roles at CSIRO, John has spent over twenty years leading weed research teams in Western Australia. In this role, and via an Adjunct Professorship at the University of Western Australia (as well as via the Université Montpellier II in France), he has supervised to completion five postgraduate students and numerous honours students and cadetships. It is important to note that most of his students have gone on to take up leading roles in weed management across the country and overseas. Despite retiring in 2014, John's strong engagement in weed science continues, and he continues to remain active in research, advisory panel appointments and student supervision.