

SCIENTISTS' STATEMENT ON PROTECTION OF WESTERN AUSTRALIA'S SOUTH-WEST FORESTS

June 2013

We, the undersigned scientists with knowledge and understanding of the forest ecosystems of the south-west of Western Australia, have concerns about the future of these ecosystems.

Securing improved protection and management is essential for this internationally recognised, biologically rich and highly valued landscape.

The south-west of Western Australia is listed as one of the world's 34 Global Biodiversity Hotspots because of its large numbers of endemic species and the serious threats to its biodiversity.

Western Australia's karri, jarrah, marri, tuart and tingle forests grow within this Biodiversity Hotspot and nowhere else in the world. These forests have become important refuges for forest-dependent flora and fauna species. They are critical habitat for endangered species such as the Numbat (*Myrmecobius fasciatus*), the Mainland Quokka (*Setonix brachyurus*) and the Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*).

About half Western Australia's native forests have been permanently cleared for farms, towns, roads, powerlines and dams and of the remaining half, about 40 per cent continues to be subjected to clearing or logging.

In combination, climate change, forest diseases, destructive fires, logging and mining are placing enormous stress on the south-west forest ecosystems. The region is drying more rapidly than other parts of Australia and drought is having significant impacts.

In this context, continued industrial-scale logging of the remaining forests is undermining their capacity to cope with the pressures they are under. This disturbance is:

- Continuing to reduce critical habitat for threatened species such as nesting hollows in mature trees;
- Spreading dieback (*Phytophthora cinnamomi*) and other diseases;
- Fragmenting ecosystems and facilitating access for introduced predators (foxes and cats);
- Compacting soil with long-term implications for ecosystem health;
- Causing erosion and reducing water quality;
- Releasing very large amounts of carbon into the atmosphere.

While much remains unknown and more research is needed, we recognise that Western Australia's south-west forests are under stress and state that, based on the precautionary principle, the following measures should be incorporated in the next Forest Management Plan:

- Critical habitat for threatened species including forest that retains the structure of the original forests should be urgently protected from degradation and loss;
- Additional corridors for fauna movement should be urgently incorporated into the conservation reserve system to link refuge areas;
- Forests currently free of *Phytophthora cinnamomi* should be protected from activities that could introduce dieback;
- Jarrah forests receiving less than 600 mm of rain per annum, and jarrah forests projected to receive less than 600 mm of rain per annum by 2030 should be protected;
- Karri forests receiving less than 1000 mm of rain per annum, and karri forests projected to receive less than 1000 mm of rain per annum by 2030 should be protected;
- Water in rivers, streams, wetlands and aquifers should be protected from the impacts of logging and clearing;
- The value of Western Australia's south-west forests as a carbon store should be recognised, accounted for and prioritised above conflicting uses.

We believe that these measures, while not exhaustive, will significantly improve the ability of the forests to cope with the stresses they are under while reducing the pressures on threatened species endemic to the south-west.

This statement, endorsed by the following experts (listed in alphabetical order), was launched on World Environment Day, 5th June 2013:

Dr Mark Andrich, Honorary Research Fellow, University of Western Australia (Centre for Water Research).

Associate Professor John Bailey, School of Veterinary and Life Sciences, Murdoch University.

Dr Paul Barber, Forest pathologist, Adjunct Senior Lecturer, Murdoch University.

Dr P.F Berry, Former Director of Natural Science, Western Australian Museum.

Dr David Bradley, PhD NSERC IRDF Postdoctoral fellow Bird Studies Canada, University of Guelph.

Emeritus Professor Don Bradshaw, University of Western Australia.

Felicity Bradshaw, Honorary Research Associate, School of Animal Biology, University of Western Australia.

Associate Professor Mike Calver, School of Biological Sciences and Biotechnology, Murdoch University.

Dr Christopher Dean, carbon and spatial scientist, University of Tasmania.

Professor Neal Enright, Plant ecologist, Murdoch University.

Professor Giles Hardy, Professor Forest Pathology, Director State Centre of Excellence on Climate Change, Woodland and Forest Health, Murdoch University.

Professor Richard J Hobbs, Australian Laureate Fellow School of Plant Biology, University of Western Australia.

Professor Pierre Horwitz, School of Natural Sciences, Edith Cowan University.

Professor Jörg Imberger, Director Centre for Water Research, University of Western Australia.

Winthrop Professor Hans Lambers, FAA, FRNAAS Immediate Past Head of School of Plant Biology (2002-2012) School of Plant Biology, University of Western Australia.

Professor Brendan Mackey, Griffith University.

Adjunct Professor Jonathan Majer, Department of Environment and Agriculture, School of Science, Curtin University.

Dr Jean-Paul Orsini, Conservation biologist.

Dr Trudy Paap, PhD, Centre of Excellence on Climate Change, Woodland and Forest Health, Murdoch University.

Associate Professor Pieter Poot, School of Plant Biology, University of Western Australia.

James Radford, PhD. Honorary Research Associate, School of Life and Environmental Sciences, Deakin University.

Emeritus Professor Harry F. Recher, FRZS, AM Edith Cowan University.

Philip W. Rundel, Distinguished Professor of Biology and Director of the Mildred E. Mathias Botanical Garden Department of Ecology and Evolutionary Biology, University of California (UCLA) Los Angeles CA.

Dr Denis Saunders AM, Chair Sara Halvedene Foundation.

Professor Michael Soule, PhD Professor Emeritus, UC Santa Cruz, Founder and past president, Society for Conservation Biology Founder and past president, Wildlands Network Member, Science Counsel, The Wilderness Society (Australia).

Katrina Syme, Field mycologist.

Malcolm Trudgen, BSc, Consulting botanist, plant taxonomist.

Associate Professor Grant Wardell-Johnson, Department of Environment and Agriculture, School of Science, Curtin University.

Dr Alexander Watson, PhD in Environmental Management (Forest Ecology).

Associate Professor James Watson, University of Queensland, Director of the Climate Change Program at the Wildlife Conservation Society, Chair of the IUCN Climate Change Specialist Group.

Dr Mary E White AM.

Adjunct Professor Ray Wills, School of Earth and Environment, University of Western Australia.

Kerrie Wilson, ARC Future Fellow, University of Queensland.

Barbara York Main, Adjunct Professor Researcher on spider ecology, evolution and systematics.

Sandra V. Valderrama, PhD University of Waikato, New Zealand Researcher, Conservation Leadership Programme, Fundación Conserva, Colombia.