

Extinction crisis looms in Oceania: study

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Governments must act urgently to halt loss of habitats and invading species that are posing major threats to biodiversity and causing species extinctions across Australia, New Zealand and the Pacific Islands, according to a landmark new study.

Published in the international journal *Conservation Biology*, the report is the first comprehensive review of more than 24,000 scientific publications related to conservation in the Oceanic region. Compiled by a team of 14 scientists, it reveals a sorry and worsening picture of habitat destruction and species loss. It also describes the deficiencies of and opportunities for governmental action to lessen this mounting regional and global problem.

"Earth is experiencing its sixth great [extinction](#) event and the new report reveals that this threat is advancing on six major fronts," says the report's lead author, Professor Richard Kingsford of the University of New South Wales.

"Our region has the notorious distinction of having possibly the worst extinction record on earth. This is predicted to continue without serious changes to the way we conserve our environments and dependent organisms. We have an amazing natural environment in our part of the world but so much of it is being destroyed before our eyes. Species are being threatened by [habitat loss](#) and degradation, invasive species, climate change, overexploitation, pollution and wildlife disease."

Threats in Oceania

- Loss and degradation of habitat is the largest single threat to land species, including 80 percent of threatened species.
- More than 1,200 bird species have become extinct in the Pacific islands and archipelagos.
- In Australia agriculture has modified or destroyed about 50 percent of woodland and [forest ecosystems](#), and about 70 percent of remaining forests are ecologically degraded from logging.
- Invasive species, particularly vertebrates and vascular plants, have devastated terrestrial species of the Pacific Islands and caused 75 percent of all terrestrial vertebrate extinctions on oceanic islands.
- More than 2,500 invasive plants have colonized New Zealand and Australia - representing about 11 percent of native plant species.
- Many invasive weeds, vertebrate pests, and fishes were introduced by government, agriculturalists, horticulturalists and hunters.

Species deceases: global snapshot

- Nearly 17,000 of the world's 45,000 assessed species are threatened with extinction (38 percent). Of these, 3,246 are in the highest category of threat, Critically Endangered, 4,770 are Endangered and 8,912 are Vulnerable to extinction.
- Nearly 5,500 animal species are known to be threatened with

extinction and at least 1,141 of the 5,487 known mammal species are threatened worldwide.

- In 2008, nearly 450 mammals were listed as Endangered, including the Tasmanian Devil (*Sarcophilus harrisii*), after the global population declined by more than 60 percent in the last 10 years.
- Scientists have catalogued relatively little about the rest of the world's fauna: only 5 percent of fish, 6 percent of reptiles, and 7 percent of amphibians have been evaluated. Of those studied, at least 750 fish species, 290 reptiles, and 150 amphibians are at risk.
- The average extinction rate is now some 1,000 to 10,000 times faster than the rate that prevailed over the past 60 million years.

"Many people are just beginning to understand the full extent of these problems in terms of land-clearing, degradation of rivers, pest species and overfishing," says Professor Kingsford. "Climate change is a very important issue but by no means the only threat to biodiversity. The biggest problem seems to be that the policy challenges are just not being taken up by governments. Conservation policies are just seen as a problem for the economy."

For each of the major threats to biodiversity and conservation, the scientific team has proposed between three and five specific policy recommendations that should be adopted by governments around the region.

Many of these broad policies are being implemented but in a piecemeal way. For example, the scientists recommend setting targets for protected areas such as National Parks of at least 10 percent of terrestrial areas and

up to 50 percent of marine areas but these may not be enough.

Dr James Watson, President of the Society for [Conservation Biology](#) and an author of the report, says: "There is a need for commitment to more protected areas and more effort into rehabilitation of major threatened ecosystems such wetlands."

The report's authors are particularly concerned about the impacts of destructive fisheries and the effects of by-catch from long-line fishing, bottom trawling, cyanide and explosive use in some Pacific nations.

"Our recommendations have clearly identified the need for more restrictions on harvesting and better ecosystem management of fisheries," says Professor Kingsford. "There is a real need to have better international mechanisms for protecting against unsustainable fisheries."

Of particular importance is the overwhelming impact of burgeoning human populations in the region on the environment. Populations are set to increase significantly by 2050; for example Australia 35%; New Zealand 25%; Papua New Guinea 76%; New Caledonia 49%.

"The burden on the environment is going to get worse unless we are a lot smarter about reducing our footprint on the planet or the human population," says Professor Kingsford. As well, many Pacific Island states have a relatively poor information base for conservation. The study found that 88.5% of all scientific studies were from Australia (53.7%), New Zealand (24.3%) and Hawaii (10.5%). In most other countries in the region, there was relatively poor capacity to inform the community about the state of the environment.

There is a real need to invest in building the scientific and government capacity for conservation throughout the region. "Unless we get this equation right, future generations will surely be paying more in terms of

quality of life and the environment we live in. And our region will continue its terrible reputation of leading the world in the extinction of plants and animals," says Professor Kingsford.

Source: University of New South Wales ([news](#) : [web](#))

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