THE ISSUE ANIMALS UNDER THREAT

Building a second ark

Australia’s record for protecting its indigenous mammals is the worst on the planet, writes Conrad Walters.

For nearly 10 years Tammie Matson, a zoologist, worked in Africa to preserve endangered species, such as the black-faced impala, but it was Australia’s appalling record at protecting its own mammals that drew her back home.

For Dr Matson, one statistic summed it up: of all the mammal species that became extinct in the past 200 years, nearly half were Australian.

That means the world will never again see a living white-footed rabbit rat, which made its nest in the hollow limbs of eucalyptus trees. It means no more pig-footed bandicoots, with hind toes that elongated into tiny hooves. No more of the lesser bilbies that once burrowed metres deep into the sand dunes of the central deserts.

In total, since white settlement Australia has lost 27 species and sub-species of mammals, as well as 23 birds, four frogs and 49 plants. Each extinction has reduced biodiversity, but it is the vanishing mammals that most worry Dr Matson, who heads the species program at WWF-Australia.

“It’s embarrassing, as an Australian,” she says of the figures.

This month Dr Matson met advisers to the federal Minister for the Environment, Peter Garrett, to convey the scale of the decline of Australia’s mammals.

“They were looking at me completely blankly when I said we had the worst rate of mammal extinction in the world,” she says. The advisers asked: Are you sure? She was.

She has been working to raise awareness of past losses as well as the fate of some 350 native fauna in Australia deemed critically endangered, endangered or vulnerable.

In the coming weeks WWF-Australia will launch its Flagship Species Program, which will use 10 endangered animals as “ambassadors” to highlight the problems facing the endangered species.

The first of these is the snubfin dolphin. Discovered in 2005, it is the only dolphin endemic to Australia and the first new dolphin species identified in several decades.

The snubfin’s plight is representative of the dangers facing various species in Australia’s northern coastal waters. Coastal and river dolphins are among the most threatened species of mammal in the world, WWF-Australia says.

A partnership with the Northern Territory Government and the corporate sponsor ING Direct will launch a $50,000 research boat to study the shy, round-snouted snubfin.
Other flagship species include the gouldian finch, the greater bilby – a genetic cousin of the extinct lesser bilby – and even kangaroos and wallabies.

“A third of all wallabies and kangaroos in Australia and New Guinea are endangered,” Dr Matson says.

The official picture of Australia’s record on extinctions comes from figures maintained by the Department of the Environment, which lists 27 mammals lost in the past 200 years. Meanwhile, a global list maintained by the World Conservation Union details 70 mammals made extinct worldwide in 500 years.

That would put Australia’s mammal extinctions at 38 per cent of the world’s total, but the true picture is far worse, says Chris Johnson, a professor at James Cook University who specialises in mammal ecology. “Many of them happened in the 20th century, and they really picked up pace after about 1880. If you were going to look worldwide since 1880, you’re predominantly looking at Australian mammals … ”

“Continental-scale extinctions of mammals are something that we’ve really only seen in Australia. North America, for example, I don’t think has lost mammal species in the last 200 years. Neither has Europe.”

And it gets worse still, according to the Department of Environment. Its record of animals under threat lists four other mammals as critically endangered, including the southern bent-wing bat, which in December joined the category just short of extinction. A further 33 mammals are listed as endangered and 54 are deemed vulnerable.

The World Conservation Union, which says it has 10,000 scientists and environmental experts from 181 countries as members, has singled out Australia as one of five countries having large numbers of threatened species. The others are Brazil, China, Mexico and Indonesia.

A main reason for Australia’s dwindling biodiversity has been the introduction of efficient predators, says Professor Johnson, author of Australia’s Mammal Extinctions: A 50,000 Year History.

Two introduced species, foxes and cats, are the main culprits, he says. This disruption of the food chain has been helped by the culling and genetic dilution of dingoes, which would otherwise ward off the introduced predators. “It’s the presence or absence of dingoes that really explains most about the extent of mammal decline in Australia,” he says.

Another critical cause is land clearing. A WWF study in 2003 into the effects of land clearing estimated 2.1 million mammals die each year because of habitat loss in Queensland alone.

Land clearing, logging and climate change are all factors that could push some species over the brink, says Dr Sandy Ingleby, who oversees the Australian Museum’s mammal collection.

Changes in fire regimes, too, have been blamed for the loss of species. “When Aboriginal people moved on to missions they were no longer able to instigate their pattern of small, patchy burns,” Dr Ingleby says. What occurred instead were huge fires that wiped out the undergrowth where small animals lived.

These factors have reduced habitats on a scale so large that people sometimes forget that species are native to their own region, she says. Visitors to the museum, for example, can see an example of the bridled nail-tailed wallaby. The marsupial is commonly associated with Queensland but was once abundant in NSW.

The Australian record for extinctions, though, is not merely a factor of giant land mass. “Australia has more threatened species overall and more threatened species per capita – by a country mile – than any other place in the planet,” says David Lindenmayer, a professor of wildlife management at the Australian National University.

Professor Lindenmayer, who spent part of the past week attending an environmental conference in Tasmania, fears the significance of biodiversity is slipping from the political consciousness, in part because climate change has captured so much of the public’s attention.

He challenges the current environmental priorities and cites a colleague, Professor Hugh Possingham of the University of Queensland, who believes biodiversity may be an even more important issue than water or climate change.

Their argument goes: Government policy can resolve water problems in 20 to 40 years, and greenhouse gas problems could conceivably be reversed in 100 years.

“But how long is it going to take to replace a species that goes extinct? Evolutionary process suggests maybe we’re dealing with 10,000 or 100,000 years,” Professor Lindenmayer says.

Last year he called for an environmental levy or a national lottery to raise billions for environmental work. Although New Zealand, Canada, South Africa and other countries have environmental lotteries, the proposal has gone nowhere here.

What Australia needs most, Professor Lindenmayer says, is to monitor the effectiveness of efforts to cull foxes and feral cats and to control noxious weeds. There is no way to know what works and what does not, he says.

“It’s like a major bank having no share price or no reporting mechanisms to the stock exchange,” he says.

Even small countries such as Malawi, Slovenia, Slovakia and Uruguay maintain long-term ecological research, he says.

But there is cause for hope. Despite having a poor reputation for many years, parts of Africa now have a better conservation record than Australia, the WWF’s Dr Matson says.

“In Africa there’s poaching, there’s civil war, poverty, starvation – all that awful stuff – but we’re seeing [animal] populations rebounding in parts of southern Africa.”

In Namibia black rhinos and black-faced impalas were poached out during civil war. Like elephants, they have recovered to the point that some believe there may be too many of them. Awareness of Australia’s record with protecting its animals is a big first step, Dr Matson believes.

If she is right the snubfin dolphin, the black cockatoo and the other flagship species may lead Australia down an ecological path that follows the metaphorical footsteps of Africa’s elephants.
**GOING, GOING, FAUNA**

**AUSTRALIA**
- Threatened animals: 345 species
- Threatened plants: 1249 species
- Critically endangered animals: 22 species*
- Critically endangered plants: 71 species
- Extinct animals: 54 species
- Extinct plants: 49 species

*Includes 27 mammals, 23 birds, 4 frogs

Only 11% of Australia is protected for endangered species

**NEW SOUTH WALES**
- Threatened animals: 103 species
- Threatened plants: 339 species
- Critically endangered animals: 4 species†
- Critically endangered plants: 6 species

†Includes grey nurse shark

Only 7.5% of NSW is protected for endangered species
Tammie Matson and Autumn the quokka. Dr Matson has been working to raise awareness of critically endangered, endangered or vulnerable Australian animals. Photo: Sahlan Hayes