

Ring-tailed lemurs have become a symbol for Madagascar's unique biodiversity.

PRIMATOLOGY

# Among the lemurs

Henry Nicholls savours the posthumous autobiography of the pioneering conservationist Alison Jolly.

hen Alison Jolly heard about the plot of the 2005 film *Madagascar* from Jeffrey Katzenberg, chief executive of DreamWorks Animation, she took issue with one detail. The seasoned primatologist had discovered that female lemurs are dominant over males — and pointed out that King Julien, an exuberant ring-tailed lemur, should have been a queen. Katzenberg told her, "That boat has already left".

Although not as well known as fellow primatologists Jane Goodall, Dian Fossey or Biruté Galdikas, Jolly was similarly groundbreaking in Madagascar, where she began a study of ring-tailed lemurs (*Lemur catta*) in 1962. Indeed, it is arguably down to Jolly's pioneering research that the species has become the flagship for the island's extraordinary profusion of unique species. Her posthumously published autobiography, *Thank You, Madagascar*, brings together diary entries and letters spanning almost 30 years, from 1985 to

**ONATURE.COM** For more on science in culture, see: nature.com/ booksandarts days before her death in February 2014. These decades are particularly interesting in the history of the conservation



Thank You, Madagascar: Conservation Diaries of Alison Jolly ALISON JOLLY Zed: 2015. movement. Conservationists came to realize that it was not enough to focus solely on the natural world; embracing the needs of people living in biodiverse regions was almost more important. This seems commonplace now, but voicing it was something of a heresy in decades past, as Jolly herself discovered in 1970, at

an international conference on conservation in Madagascar. Her presentation, which asked difficult questions about who stood to benefit from conservation, drew "discreet reproof". Nor did the paper, jointly authored with her economist husband Richard, ever find its way into the conference proceedings. It was seen as too incendiary.

Yet by the 1980s, the idea of involving community in conservation had started to take root, and Jolly began to document the changing ideological landscape. Through carefully selected diary excerpts, she acknowledges different ways of seeing nature — traditional, aesthetic and economic — and tells the story of bold, often flawed and frequently stumbling efforts by conservationists to forge a single, sustainable vision for the future of Madagascar. It is, as she puts it, "an eyewitness account of a major case study in the politics of conservation".

Jolly's vignettes are drawn from the length and breadth of the country. She takes in the terraced paddy fields that dominate the highlands, the slow-growing baobab forests in the west, the effulgent rainforests that drop down to the Indian Ocean, and the semi-arid spiny forest of the south that was the locus for her work with lemurs. There are frequent descriptions of wondrous natural riches, including an encounter with an aye-aye (Daubentonia madagascarensis) — "that hefty head, and bat ears, and the hands like bunches of knobbed licorice sticks" — skimming the palm fronds "like a hologram". Yet rather than taking centre stage, the chameleons, lemurs and hedgehog-like tenrecs seem to act as impartial observers, looking on from the canopy to marvel wide-eyed at the unfolding human drama that is the real subject of Jolly's text.

This theatre takes many forms. There is tragedy: the epic tradition of *tavy*, the slashand-burn culture that annually sends hundreds of thousands of hectares of natural forest up in flames; the illegal plundering of valuable rosewood from forest reserves; and the unnecessary death of children from a combination of poverty and polluted water, "a slice of village life I never hope to see again".

There is comedy too, much of it absurdist.

In 1987, for instance, a team of US conservationists took a select group of Malagasy ministers to St Catherine's Island, off the coast of the state of Georgia, to persuade them that "the environment and the little lemurs are a prize to be seized". The World Bank wanted to make an example of Madagascar, ploughing cash into development projects in exchange for commitments to conservation. But the Malagasy, cautious about foreign meddling, needed convincing. Jolly describes the minister of water and forests, Joseph Randrianasolo, as a Machiavellian fast-footer who left his fellow ministers "sweating fear like dogs", and the meeting as "probably the most intense three weeks of small-group psychology of my life". The gathering was ultimately a crucial step towards the creation of a National Environmental Action Plan for Madagascar.

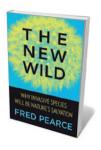
The inevitable setbacks, corruption and inefficiencies will resonate with many conservationists. Jolly's reflections on her stint as an adviser to the corporation Rio Tinto, as it began to develop a titanium mine on the country's southern coast, are particularly interesting. Idealism did not seem to feature in her thinking. She was intensely pragmatic, arguing persuasively that such development, if done properly, can bring huge benefits to both humans and the environment.

In spite of its gritty realism, Thank You, Madagascar is never a gloomy read. Jolly's lively writing and dozens of compelling cameos lift it. She meets broadcaster David Attenborough, in Madagascar with the BBC in 2010, who talks of the children's books that inspired him (such as Ernest Thompson Seton's 1898 Wild Animals I Have Known). Russell Mittermeier, executive vice-chair of Conservation International, pops up frequently, on one occasion wearing "silver running shorts and silver singlet and brandishing a couple of Antandroy spears". Jolly joins Alison Richard, best known for her work on the behavioural ecology of the sifaka (a genus of lemur), and recalls time spent with ecologist Eleanor Sterling, who was "prepared to gallop after aye-ayes all night long". Primatologist Patricia Wright is particularly inspirational, discovering the rare golden bamboo lemur (Hapalemur aureus), rediscovering the thought-tobe-extinct greater bamboo lemur (Prolemur simus) and driving the creation of Ranomafana National Park in 1991.

Perhaps through modesty, Jolly does not dwell on the importance of incorruptible and inspirational role models for successful conservation. But without the work of such people, there is no doubt that the world would be poorer — in every sense.

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# **Books in brief**



### The New Wild: Why Invasive Species Will Be Nature's Salvation

Fred Pearce ICON BOOKS (2015)

Invasive species have an undeserved bad reputation, opines veteran environmental journalist Fred Pearce. Digging deep into famous unintended invasions and deliberate introductions, from jellyfish in the Black Sea to rabbits in Australia, he argues that these cases are rarely as simple as good natives versus evil aliens. Far from being rapacious monsters, animals that thrive when transplanted may be exactly the adaptable chancers that will prosper in a world radically reconfigured by human action. Ecologists must abandon "green xenophobia", says Pearce, to ensure that ecosystems stay healthy.

## The Least Likely Man: Marshall Nirenberg and the Discovery of the Genetic Code Franklin H. Portugal MIT PRESS (2015)



Marshall Nirenberg was outside the club of molecular biologists seeking the link between gene and protein in the 1950s and 60s. Yet it was he who, as a researcher at the US National Institutes of Health, obtained the first experimental evidence of an RNA messenger molecule, and first cracked the code of an amino acid. Although its narrative structure is a little confused, biologist Franklin Portugal's biography reminds us that Nirenberg sits in the Nobel pantheon alongside Francis Crick, James Watson and Sydney Brenner.

#### The Container Principle: How a Box Changes the Way We Think Alexander Klose, translated by Charles Marcrum MIT PRESS (2015)



Alexander Klose, translated by Charles Marcrum MIT PRESS (2015) Unseen by most, the global movement of shipping containers connects us all, maintaining the lives we live and the societies we form. Alexander Klose is fascinating on the technical details of the global swirl of millions of twenty-foot equivalent units (TEUs) and the agents — from artists to accidents — that bring this mobile infrastructure to light. At other points, Klose's philosophical reading of the phenomenon is laid on thick, but this is a muchneeded examination of why the TEU is the defining technological artefact of our age.



# Making Marie Curie: Intellectual Property and Celebrity Culture in an Age of Information

*Eva Hemmungs Wirtén* UNIVERSITY OF CHICAGO PRESS (2015) Marie Curie remains the most famous of female scientists. In the analysis of how the co-discoverer of radium became uniquely idolized, cultural scholar Eva Hemmungs Wirtén uses the prisms of celebrity and intellectual property — Curie and her husband, Pierre, having famously refused to patent radium. Wirtén's picture of a scientist carefully shaping her own image is less angelic than the traditional view of Curie, but might have much to teach her modern successors.



#### Cuckoo: Cheating by Nature

Nick Davies BLOOMSBURY (2015)

This detective story by behavioural ecologist Nick Davies sets out to solve how "Nature's most notorious cheat" gets away with its "outrageous" behaviour. This is the cuckoo (*Cuculus canorus*) that well-known hijacker of other birds' nests. Davies underpins calm and elegant prose with deep knowledge gleaned from years studying the species. By the end of the book, it is hard not to feel the same joy as Davies does when contemplating this remarkable bird, or the same sadness at its apparent UK decline. Daniel Cressey