

## Beyond the Limits

by Donella and Dennis Meadows and Jorgen Randers (Earthscan Publications) \$29.95.

This is the most significant book I've come across for a long time. Twenty years ago the authors wrote *The Limits to Growth*. This examined the long-term consequences of economic and population growth and, because the conclusions pointed to a collapse of the world that we know, it caused a furore. It also sold nine million copies in 29 languages.

Now the authors have returned to the fray. They believe that their earlier conclusions are still valid: human population and the use of resources are approaching the limits of a finite earth. In fact for many resource and pollution flows the limits have already been passed. In many areas it is not necessarily depletion of resources which define the limits, but rather the ability of the planet's natural systems to process the wastes. Hence global warming and the ozone hole.

They argue, using a range of assumptions and computer models, that without reductions in the throughput of material and energy the next century will see a dramatic decline in food supplies and industrial production.

There is a choice for a sustainable future, however, but the difficulties in such a transition are not underestimated by the authors: "We think it is technically and economically possible, maybe even easy, but we also know it is psychologically and politically daunting. So much hope, so much of the modern industrial culture, has been built on the premise of perpetual material growth."

It is also worth noting the foreword by Nobel laureate Jan Tinbergen: "Market economies are obviously in need of some intervention in order to provide public goods, to avoid too much inequality, and to approach sustainability".

The message in the book is particularly relevant to New Zealand with its new Resource Management Act. There are some hard fights ahead for Forest and Bird and sister organisations – this could be just the weapon you need.

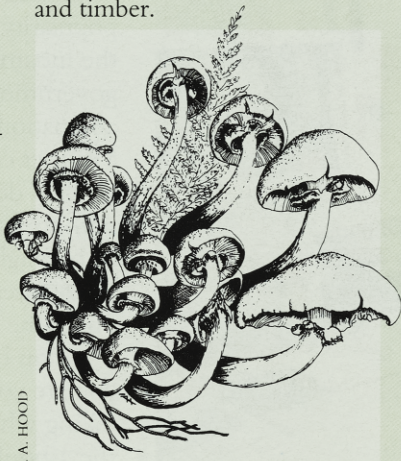
Donald Scott

## An Illustrated Guide to Fungi on Wood in New Zealand

I.A. Hood (Auckland University Press) \$39.95

Fungi are an essential part of the recycling processes that occur within forests, breaking down the wood of living and dead trees, releasing the bonded carbon and chemical energy for their own use and leaving the residues to decompose into the soil and sustain the living forest.

Most of our native wood fungi are also found in Australia, Papua New Guinea and the South Pacific, and a few also in South America. Some native fungi attack exotic trees, but are not found in the northern hemisphere where these trees originate. Naturally some exotic wood fungi have arrived in New Zealand with exotic trees and timber.



*Armillaria limonea* is a common white to lemon-yellow toadstool. Along with other *Armillaria* fungi it is an important decay agent of native forests and, known as harore, is still eaten by Maori. Fresh *Armillaria*-decayed wood is bioluminescent and can be seen eerily glowing along bush tracks on dark nights.

This book is an introduction to tree and wood fungi, for those of us who have progressed beyond Marie Taylor's *Mobil Guide to Mushrooms and Toadstools*. To use the book you will need to master the key, but don't despair, the text is well-illustrated (170 line drawings and 48 colour illustrations) featuring the more common species and noting their hosts. Perhaps some more diagrams

might have helped in the key, for those who are totally fungi-ignorant. At 400 pages this book is good value.

Mark Bellingham

## Rights of Nature, a history of environmental ethics

by Roderick Nash (Primavera Press)

This may be the most important conservation book you ever read. Roderick Nash's work is an exhaustive investigation of the origins of the rights of nature through its development in the American legal and philosophical system.

This book is not light reading, but it is readable and thorough.

It traces the development of the greening of philosophy and religion and examines particularly the rights that have been claimed for minorities, animals and nature over the past 300 years. The broader ecosystem approach to nature has had a profound effect on the recognition given to the non-human elements of the planet. This approach has helped mould the transition through minority rights, anti-animal cruelty and animal rights to rights for nature – the plants, the air and even the rocks.

Nash quotes Christopher Stone's 1972 landmark essay "Should trees have standing? Towards legal rights for natural objects":

"I am quite seriously proposing," he states, "that we give legal rights to forests, oceans, rivers and other so-called 'natural objects' in the environment – indeed, to the natural environment as a whole".

There is a need for a complement to *Rights of Nature* exploring the development of these concepts in the British legal system, and in New Zealand and Australian philosophy and law. New Zealand is relatively advanced in this area and some of our environmental legislation already recognises the "intrinsic values of ecosystems". The sea, however, remains the major realm in this country where life is viewed simply as resource for people.

This book can be ordered

from good bookshops or through The Wilderness Society, 7-9 Hosier St, Melbourne, Victoria 3000, Australia for \$A26.95.

Mark Bellingham

## Sierra Club: 100 years of protecting nature

by Tom Turner (Harry N. Abrams Inc) \$139.00

This beautifully presented book is a fitting tribute to an extraordinary organisation, America's oldest and largest – over 650,000 members – conservation group, the Sierra Club. To anyone with an interest in the natural wilderness areas of America the book will provide an endless source of pleasure.

Begun in San Francisco in 1892 by John Muir as an advanced walkers' group of like-minded people, the club's main aim was "to explore, enjoy and protect the wild places of this earth". The name derives from one of their favourite areas, the High Sierras of the Pacific coast.

Things began to change as this active set of people became aware of some of the threats to their beloved wilderness areas. One of the first in a series of many battles was fought over the creation of the Yosemite National Park. The club was enthusiastically lead by Muir, the first president and perhaps the first modern "conservationist", at a time when conservation was considered a lunatic fringe idea.

Today the Sierra Club sees itself as "the most radical of the mainstream organisations". It has over 250 national staff and its roles range from political lobbying and supporting green congressional candidates to promoting recreation and outdoor pursuits and publishing superb photographic records of the natural world.

As for the next 100 years, David Brower (celebrated mountaineer and former president) in addressing the centennial celebration issued the following challenge to all environmental groups, indeed all Americans: "We need to stop and take time to clean up the mess".

Felicity Gifford