

of return in the wrong hands can be a lethal weapon. There is a strong case, however, to maintain what good quality we have in *P. radiata* and in order to optimise marketing to improve it. The State here should show a lead. It is not doing so either through advice from the Ministry of Forestry or example by the Forestry Corporation. Some foresters in the latter organisation are worried that permitting a rotation age of 27 years or less will adversely affect marketing opportunities, just as some foresters at NZ Forest Products Ltd are worried at the shorter fibres and the lower pulping properties of their 25-year-old stands.

If as a country we want to get back to

a 30- or 35-year-old rotation we haven't got much time to do so. Under present legislation private owners can do what the owners decide, unlike privately owned forests in Europe which are still under a firm degree of State control. The legislation in New Zealand should and I think will be changed to correct this but it may not happen for some years. Meantime overcutting and lowering the rotation age will continue; unless of course we foresters somehow manage to dissuade the owners. There is a very big challenge to the Institute.

For publicly owned forests the solution may be easier. The Corporation forests, still entirely publicly owned, can be sub-

ject to political pressure. The professional pressure should come from the Ministry of Forestry which at the moment is hampered by the fact that representations to the Corporation must go from the Minister of Forests to the Minister of State Owned Enterprises. This difficulty of getting a forester's view on the management of what was about 40% of NZ's State exotic forests is one of the bigger current challenges to the Institute. The most important thing though is to mobilise public opinion and to influence both Ministers about the genuine and so far largely ignored dangers of persistent overcutting.

A. P. Thomson

Why protect endangered species?

Relatively recently, we in the Western world have come to realise that our quality of life is markedly affected by the way we treat the environment in which we live – indeed, that the very future of our existence on this planet requires that we make sustainable use of our resources.

Through a variety of circumstances, I have been involved with the administration of our environmental laws for nearly 40 years. As a Planning Judge, I had the opportunity to conduct hearings in over 50 different places in New Zealand.

I have therefore been a participant in the growth and development of a new branch of the law; to use an appropriate figure of speech, in New Zealand it is a tree which has literally grown up in my lifetime.

I was born in August 1926. The first Town Planning Act was passed on September 9, 1926. For 25 years, town planning law was a small and insignificant sapling.

But the sapling burst into vigorous growth in 1953, with the passage of a new Town and Country Planning Act. That was the year I was first elected to local government, and commenced my involvement with what is now called "resource management".

However, it still took nearly 30 years more before that Act caught up with the forestry industry. I have looked up the records, and found that during the 1980s there were three Planning Tribunal decisions of particular interest to those involved with forestry. It is appropriate that I comment briefly on them. They were:

1 **1981 – Fletcher Forests Ltd versus Taumarunui County**

The issue in this case was the social effects of the planting of exotic forest

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in areas which had historically been devoted to pastoral farming – loss of resident rural population, loss of services, etc.

With the dramatic change that has come in the farming economy over the last 12 years, I wonder if that would be a live issue today.

2 **1985 – Royal Forest & Bird Protection Society versus Clutha County**

The issue in this case was the conservation of areas of native bush that contributed to wider landscape qualities, and which were of value because of their association with other plant or animal life; in other words, with the preservation of important ecosystems for environmental reasons.

3 **1988 – Nelson Pine Forest Ltd versus Waimea County**

The dispute in this case was the conservation of remnant native forest areas on private land, and whether conversion of native forest land to pasture was a wise use of the land resource. But there is a paragraph in this decision that is of more general significance. It reads: "Any form of forest felling can result in total destruction of bird life in the affected areas, because birds may find themselves unable to establish in other areas already territorially occupied by similar species. It will almost certainly affect many other forms of flora and fauna ...".

For completeness, I bring the record up-to-date by mentioning that in April 1992 an application was made to the

Planning Tribunal under the Resource Management Act 1991, for an order enforcing the effect of the Nelson Pine Forest decision. Gibbons Holdings Ltd wished to establish an exotic forest in the Waimea area, and the Maruia Society believed that Gibbons would be clearing native forest to do so. The Judge found that the company's operations would not involve the clearing of native forest. The application failed. But the case illustrates the extent of the legal controls to which the forest industry can now be subject.

I said that it took a long time for the Town Planning Act to catch up with the operations of the forest industry. That was because the controls exercisable under the Town Planning Act were directed primarily to control the use of private land; and because environmental concern (as it has related to forestry) has been directed primarily at the protection of our remaining areas of native forest, much of which is in public ownership.

The environmental movement perceived very early that protection and management of native forest in public ownership could more easily be influenced by protest action and political measures.

Thus the 1970s saw Stephen King and his friends perching in old totara trees in the Pureora Forest to prevent them being logged, and to preserve the habitat of the kokako – to preserve an 'ecosystem' – a new word, not in the S.O.E.D. 1956.

'Ecosystem' – a system of interacting living organisms and their environment (and we should not overlook the fact that human beings are part of ecosystems).

The 1970s also saw the presentation of the Maruia petition, which sought protec-

tion for native forest in public ownership, to Parliament. And they saw the formation of the Maruia Society, and later, the Native Forests Action Council.

It was in the 1970s that I first asked myself the question: "Why preserve endangered species?" It arose out of a conference in Auckland of the ANZAAS, at which I had been a panel member at one session. One of the conference themes was the need to prevent the rapid loss of species. I asked what to me was an obvious question, but those at the seminar seemed at a loss for an answer.

Soon after, an Associate Professor of Botany at one of our universities gave me her answer. She said that we should preserve endangered species in order to preserve the gene pool – an answer which, I must confess, I did not fully understand at that stage. Though I did perceive that she was not referring to designer jeans or Levi jeans.

Perhaps the theme of that conference nearly 20 years ago was influenced by the passage in the USA of the Endangered Species Act 1973.

You as foresters will all be familiar with that Act, because of the pressure in recent years to save a bird known as the northern spotted owl, by halting most of the logging on about 8.2 million acres of the Pacific north-west.

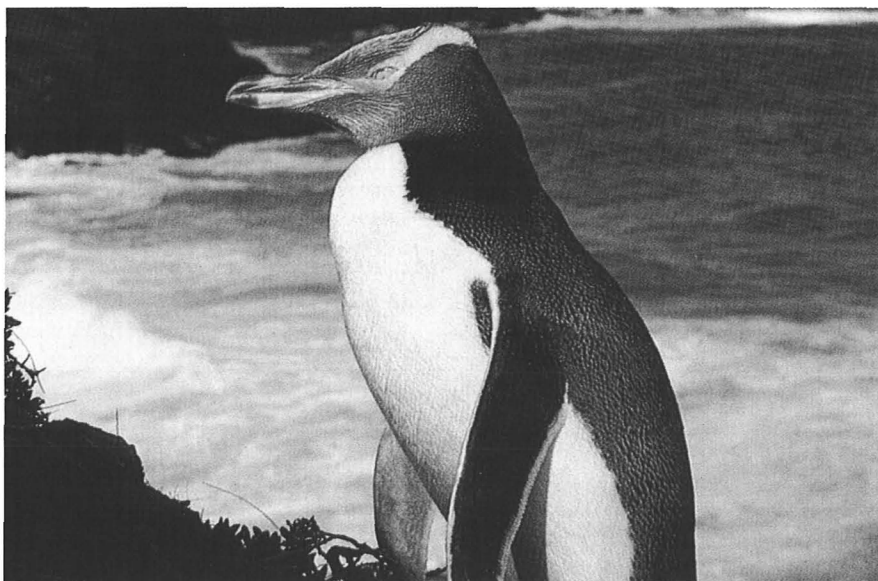
For the purposes of this address, it is appropriate that I say something more about that Act, and its effect. And I immediately acknowledge articles in the January 1992 issue of 'The Atlantic' magazine as the source of some of what I have to say about it.

The US Endangered Species Act required the US Fish and Wildlife Service to maintain a list of species that are endangered or threatened; and it made it an offence to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any species on the list.

The Act first came into national and international prominence in 1978, when the US Supreme Court halted the construction of the Tellico Dam (construction being well underway) because of the presence of a fish known as the 'snail darter'.

In effect, the Court ruled that the plain intention of Congress in passing the Act was to stop the extinction of species, no matter what the cost..., that Congress viewed the value of endangered species as incalculable, that a \$100 million dam was worth less than an infinitely valuable, but rare, fish.

As one writer has said: "(The US Congress) thought they were writing a law about saving bald eagles and elk", (what the writer called 'the charismatic megafauna'); "instead they got a law pro-



The yellow-eyed penguin – an example of an endangered macrofauna (with charisma).
Photo: Rod Morris.

tecting species" (a difference with unexpected implications).

Examples of New Zealand's 'charismatic megafauna' would perhaps be whales, yellow-eyed penguin, kakapo and black robin. (Is the black robin an example of megafauna or microfauna?)

There are relatively few animals and birds that humanity identifies with emotionally. But the word 'species' includes not only animals, birds and plants, but also insects, fungi, bacteria, and viruses? Thus there could be as many as 100 million species, most of them not identified and named yet.

When the effect of the US Supreme Court decision became apparent, the US very quickly authorised the setting up of what came to be called "the God Committee", because it was empowered to authorise the extinction of a species so long as the benefits of a particular project outweighed the benefits of action to save a species in danger of extinction by the project.

There were also a number of other consequences; legislation was eventually pushed through to authorise the completion of the Tellico Dam, and the dam did not have all the economic benefits which its protagonists had asserted prior to construction. Subsequently, the snail darter fish turned up in other places.

But more importantly, it set a pattern for activists. The US found that people who cared little about endangered species would invoke the Act as an excuse to stop projects. And the science used to justify the stand of one side or another was often rushed, and as one writer said: "In some cases it was so incomplete as to verge on the fraudulent". (New Zealand has had situations with similar consequences.)

Another important consequence of the US Supreme Court decision was that it put the US Fish and Wildlife Service in an impossible position. "The agency, formerly a haven for guys who liked to work outdoors, became a hot spot of sophisticated, partisan arm twisting. Hundreds of petitions (for the listing of species) flowed in every year, and the service was required to evaluate them all, with litigious interest groups scrutinising every move." Processing of the list, of course, fell far behind. Meanwhile, more species were becoming extinct.

Large sums of money were being spent in an effort to save a few species, with costly wrangles over which projects should receive funding. And in many cases, the expenditure had questionable results in saving species.

Many people in the US began to realise that society would inevitably and inescapably have to make choices over which creatures to save, and which to allow to become extinct. But in the meantime, they were saddled with an Act which required the saving of every species. As a result, the US Government was left with little guidance, and moved almost at random, with dismaying consequences.

Should we in fact assume that everyone must have environmental concern? I would like to point out:

In today's world, environmental concern is a luxury enjoyed by the people of developed nations. In most other situations, life without a developed technology is a harsh struggle for a miserable existence, a struggle which usually degrades the environment. The world's poor are entitled to the bare necessities, indeed to some of the luxuries we

take for granted.

Is the cause of the environment elitist?

This is an appropriate point at which to attempt to answer the question which is the subject of this address: "Why preserve endangered species?"

I now know of three answers which have been offered to that question.

- 1 In order to preserve genetic diversity (the gene pool) and the DNA information contained in the genes of endangered species.

Living creatures are the source of almost all foods and many medicines. Wiping out even one humble creature might deprive humanity of the benefit of some important medicine not yet discovered. The classic example given is that of the discovery of the benefits of penicillin, obtained from a mould. Similarly, the benefits to humans of many plants as food have not yet been examined.

- 2 In order to preserve the inter-relationships between species, and the harmony of the functions different species perform. To preserve bio-diversity.

The myriad small species around us have an important function in disposing of waste, generating soil, even cleaning the air and cleaning water, and keeping a balance between themselves. Do we really know the nature and effect of those relationships? We upset the balance between species at our peril.

Those two reasons (arguments) are practical and utilitarian, based on the benefit other species have for the human race. The third reason is of a different kind.

- 3 Because of the belief that all non-human species have a right to exist.

This reason is often expressed by saying that all species have intrinsic value or worth – value inherent in themselves as distinct from the value that humans may place on them. That everything is precious, and human-beings have a moral responsibility toward all species.

You will notice that in expressing a belief that everything has a right to exist, one is using a religious term-belief, and a legal term-right. That legal term carries with it the notion of a relationship as between humans and all other living creatures. Sometimes, the right of other creatures to exist is expressed by saying that humans exercise stewardship toward other living creatures. Stewardship is also a relationship, but it is a three-way relationship, involving the steward, those toward whom stewardship is exercised, and the one to whom the steward is accountable. A 'belief' is a matter of insight rather than a matter

Move over spotted owl

Federal timber agencies in the USA are preparing a report that suggests additional logging restrictions may be needed in the Northwest to protect a rare seabird. They apparently delayed finishing it because they didn't want it released during President Clinton's timber meeting in April.

The report covers the implications of permanently protecting the marbled murrelet on about 107 federal timber sales dating back to 1989 covering thousands of acres. Logging has been halted on the land since September, when the Government declared the marbled murrelet a threatened species under the Endangered Species Act. Like the spotted owl, the murrelet needs old-growth forest habitat to survive.

The report is a much-anticipated milestone in the forest conflict because it will help define how much cutting, if any, will be allowed on the acreage in the future. – **Wall Street Journal, April 13, 1993**

scientifically proved. And who is the One to whom we are accountable for what we do to the environment?

Thus the simple question, "Why protect endangered species?", raises deep philosophical and spiritual questions. The variety of species we have in this land is a biological endowment. The practical and moral costs of losing parts of that endowment may be substantial. But so may be the financial cost of saving endangered species. I do not know of any study of the cost of saving the black robin. I presume that the annual cost to the New Zealand taxpayer of the protection this country gives to endangered and threatened species is available from official sources. But I have never heard that cost questioned. It would be interesting to hear what it is.

*"We are moving toward
recognition of the
importance of preserving
ecosystems."*

It is clear that in due course some hard choices will have to be made because we will not be able to afford to save every endangered species.

Heroic efforts to save a particular endangered species catch the public imagination, and have an emotional appeal to many people. But as one American writer has said: "If our goal is to save as many kinds of plants and animals as possible, it makes little sense to spend limited funds on heroic steps to rescue a handful of near-extinct species. A more effective strategy would focus on protection ecosystems that

support maximum biological diversity."

Fortunately, New Zealand does not have an Endangered Species Act which requires us to save every endangered species. But we are moving toward recognition of the importance of preserving ecosystems, in addition to the importance given (in some instances) to the saving of individual species. One of the objects of the Environment Act, and one of the matters relevant in decision-making under the Resource Management Act, is the recognition of the intrinsic values of ecosystems.

Also, the Department of Conservation is recognising the importance of preserving ecosystems in the conservation programmes for which it is responsible. And we also have the work being done by private organisations, such as the Native Forests Restoration Trust, which seek to enlarge small ecosystems by purchasing blocks of land which link up remnants of native forest, and by enrichment planting.

What messages are there for foresters in all this?

First, I believe that the major arguments over what publicly-owned native forest should be preserved have now been settled. This has occurred by decisions in individual cases such as Pureora and Whirinaki, and also by the break-up of the NZ Forest Service, and the division of its land between the Department of Conservation and the Forestry Corporation.

The major arguments have been settled, but not forever. The decisions have been made according to the values of this generation. Who knows whether in 50 or so years' time, the economic and social pressures of the day will cause the question of the preservation of native forest to be re-opened.

Second, we in New Zealand have not yet had to face up to some of the difficult economic and moral questions raised by a general desire to reserve endangered species – questions faced by the US over the last 20 years and now raised by the tropical rain-forest controversies. In New Zealand, the protection of endangered species is a specific, not a general issue, and we have not yet begun to assess the costs and benefits.

Third, we the people of New Zealand do however appear to have adopted a common environmental ethic which recognises the value, need and imperative of protecting and preserving species which are unique to New Zealand, and of preserving part of our native forest and bush heritage.

It is necessary for every community to have a common ethic governing its relationship with the natural world. If the community does not have a common environmental ethic, its debates about the environment “will be reduced to a Darwinian struggle of special interest groups, where power, not morality, rules”. But there will always be some ongoing debate.

I trust that what I have said has enabled you as foresters to better understand your relationship with the wider community and its concerns about the environment, and that you will contribute actively and meaningfully to that ongoing debate.

Judge Arnold R. Turner, CMG



INTERNATIONAL COMMENT



Impressions of Russia: Pushkino and Khabarovsk

Russia is a country that has always fascinated me, and if column inches in newspapers and magazines and minutes of airtime on radio and TV are a guide to general interest, it is a country that interests a large number of other New Zealanders too. Be it reports of our Prime Minister in Moscow, concerns over some \$400 million owed to the Dairy Board for product sent to the former USSR, the visit of the Russian Vice-President Alexander Rutskoi to New Zealand, reports about the machinations of the Russian political system or analysis of the chances that President Boris Yeltsin and his Government will survive, our media is at present full of Russian stories.

With nearly 27 per cent of the world's forest land and more than a quarter of the world's standing timber, the nations of the former USSR, and Russia in particular, are of interest to many involved in the forest industry. Potentially, Russia is an extremely significant component of the international timber economy. This potential could well have an impact upon New

Zealand, for Russia is immense, stretching all the way from the Baltic Sea in Europe to our backyard, the Pacific. Last September I was fortunate in having the opportunity of visiting Russia and spending a little over two weeks there. Visiting the country gave me the chance to view its forest potential and to form an opinion as to the challenge that this could pose for a country like New Zealand.

My visit was as a result of an invitation to speak about New Zealand's forest privatisation programme to a IUFRO/All Russia Research Institute of Silviculture and Forestry Mechanisation (VNIILM) co-sponsored conference on integrated sustainable multiple-use forest management under a market system. The conference was held in Pushkino, a town some 30 km north-east of Moscow, from September 6-12. However, conference participants had a number of opportunities to visit Moscow to shop, visit the Kremlin and other sights of the city, and of course to attend the ballet. As well, two field days during the conference gave an opportunity to see the forests and some of the processing plants of the Moscow region. After the conference I was able to further extend my time in Russia, visiting the Russian Far East and in particular the Far East Forestry Research Institute which is based in Khabarovsk.

Privatisation

At the conference the Russians showed a great deal of interest in all market-based forest management systems. New Zealand was of particular interest simply because of its separation of production and environmental forestry and our forest privatisation programme. Interest, however, doesn't mean that a Russian forest privatisation programme is imminent. From what was said it was quite clear that privatisation of forests in Russia is still some way off. Just before our conference took place the parliament had rejected a rather modest proposal for farmland privatisation and had then gone into recess for the summer break. Forest privatisation is not very likely before some form of successful farmland privatisation is achieved. In conversation, Russian foresters made the point to me that restructuring of forestry is of lower priority than restructuring of the



Wink Sutton look-a-like cuts up clear componentry.