The Conservation of Whales in the 21st Century

Thanks to all the photographers who generously contributed their images.

Bryan Williams, DOC

FOREWORD FROM THE MINISTER OF CONSERVATION

Hon Chris Carter
Minister of Conservation

This publication is being issued as a challenge to all of us who are concerned about whale conservation. It draws on New Zealand's own experience. We were once a whaling country, like many others, and New Zealand whalers hunted the humpback and southern right whales whose migratory path brought them close to our shores. But we have moved on from that past. Nowadays living whales are a source of tourism, and the whale-watching attraction at Kaikoura is proving hugely successful.

Whales have been mercilessly exploited in the past and driven to the brink of extinction. They are now a symbol for the way we want to live on our planet in the future. Are they just another exploitable resource, to be killed even though we don't need them for food or oil? Or are they to be respected as great and unique species with which we can share our global environment?

In New Zealand, as in many countries, there is overwhelming public opposition to killing whales. This passionate concern is reflected in the positions taken by the New Zealand Government internationally, including in the International Whaling Commission (IWC). We are arguing, consistently and with all our strength, against any form of commercial or scientific whaling.

We and other countries that oppose whaling have had some successes, but also disappointments and frustrations. The 1946 International Convention for the Regulation of Whaling (ICRW) is outmoded, and the decision-making processes of the IWC itself are out of step with more modern environmental instruments. The IWC represents a limited group of countries, which are deeply divided between those who are strongly for or against whaling.

The challenge for IWC members is to adapt to the new values of the 21st century. Unless we do so, then it is likely that even more whales will be killed in the future. Some whaling countries are planning to significantly increase their take, under the pretext of scientific whaling. If the pro-whalers are able to induce enough countries to join the IWC on their side, it is possible that they will be able to overturn the present moratorium and allow the commercial killing of whales to resume.

New Zealand will continue to stand firm against further whaling. But this is not a cause that can be left to a few committed countries. If others wish to see the whales protected they need to act now. More conservationist countries should join the IWC. Nor should this be left to governments alone. NGOs and civil society are already engaged and they have a vital role to play in increasing international awareness of this threat.

If we fail to act effectively, then the slaughter of whales will continue and increase. Looking back, we are ashamed of the all-out butchery of whales that occurred in our past. It is now up to us to redeem ourselves in the eyes of future generations. Now is the time to show that we can learn from our mistakes, and ensure that whales are preserved as a taonga – a heritage – for our children and grandchildren.

I hope that this publication will help encourage a fresh debate about the future of whale conservation in the 21st century.

Chris Carter
MINISTER OF CONSERVATION

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Summary

Most of the great whale species were exploited to the edge of extinction by the commercial whaling industries of many countries, including New Zealand, in relatively recent times. Whales were common throughout the world's oceans until humans learned to hunt them in large numbers. Many species had all but disappeared by 1986, when a long-overdue ban on commercial whaling entered into force.

Recovery of many whale species since the International Whaling Commission (IWC) moratorium has been extremely slow, because whales are slow breeders and possibly also because of new environmental threats. Because they are long-lived, migrate huge distances, spend much of their time underwater and live often far from land, whales are difficult to study. Despite much effort, relatively little is known about the ecology of many whale species.

Whales have now come to symbolise the excesses to which unrestrained human activity can go. Their potential recovery is widely seen as a signal as to whether humans can restrain themselves for the benefit of future generations. In light of those excesses, there needs to be clear scientific evidence of the restoration of whale populations before the moratorium on commercial whaling should even be re-examined.

Nan Hauser

Even if, eventually, clear evidence were developed that some whale populations had rebuilt to levels at which a sustainable harvest might be possible, the question of whether such a harvest should be undertaken should be weighed carefully against other considerations. These should include the availability of satisfactory and more readily sustainable alternative sources of employment, such as whale watching, for communities currently involved in whale killing for commercial gain, and whether there can be any humane method of slaughtering such huge animals when they are not able to be restrained for that purpose.

The conservation needs of the 21st century are very different from the ones contemplated when the International Convention for the Regulation of Whaling (ICRW) was concluded in 1946. Although a more up-to-date Convention is highly desirable, this is unlikely in the foreseeable future. Accordingly, New Zealand considers it important to ensure that the current institutional machinery functions effectively.

New Zealand **opposes**:

- any form of commercial take of any whales, including dolphins and porpoises;
- killing whales for "scientific" purposes.

New Zealand **accepts**:

- limited IWC-regulated aboriginal subsistence whaling, in accordance with IWC rules, to protect the legitimate interests of indigenous communities;
- the humane euthanasia of beached whales that cannot be refloated.

New Zealand **strongly supports**:

- whale sanctuaries, such as the Indian Ocean and Southern Ocean Whale Sanctuaries, as appropriate tools for the interim protection of whales. Such regional sanctuaries should be stepping stones towards a global sanctuary;
- strong linkages and synergies with overlapping international environmental forums and organisations, and application of guiding principles of international environmental law;
- non-consumptive use of whales, such as whale watching;
- the pursuit of humane killing methods to lower the time to death for whales, and the reduction of any unnecessary pain inflicted upon them.

Whales

The diversity of whales

The world has at least 80 species of whale, including dolphins and porpoises, divided into baleen or filter-feeding whales and toothed whales.

Baleen whales:There are 13 species ranging in size from the pygmy right whale (6.5 metres) to the blue whale (27 metres). They include fin, bowhead, humpback, northern right, southern right, gray, sei, two species of minke, and two or possibly three species of Bryde's. All are listed as "great whales" by the IWC.

Toothed whales: 69 to 73 species including sperm, orca, pilot, beluga, narwhal, around 20 species of beaked whales, and 46 species of dolphins and porpoises. Only the sperm whale is listed by the IWC as a great whale, despite the fact that some toothed whales, such as Baird's beaked whale, are bigger than 9 metre-long minke whales.

WHALE DIVERSITY IN NEW ZEALAND WATERS

Close to half the world's whale species are seen today around New Zealand's coasts – eight species of baleen whale and 30 species of toothed whales, including 10 dolphins and one porpoise.

Humpbacks migrate through New Zealand waters each year, heading northwards after feeding all summer in the Antarctic or southwards as summer approaches. In winter they breed in the coastal waters of Pacific islands.

New Zealand waters hold the world's highest number of beaked whale species.

Ingrid Visser

Southern right whales

In the 1800s the mating antics of southern right whales in Wellington Harbour were so loud that a visitor to the city complained they kept him awake all night. Southern right whales then numbered more than 70,000. At their lowest level in the 1920s, the global population probably fell as low as 500 animals. Today there are between 7000 and 8000 in the entire Southern Hemisphere.

Southern right whales are finally making a recovery in New Zealand waters and congregate in winter in the sub Antarctic breeding grounds, especially the Auckland Islands. The population is now estimated at around 1,000 animals. This recovery has occurred despite the impact of several years of illegal hunting around the Auckland Islands by the Soviet Union in the 1960s, during which some 250 whales were killed. Had this illegal hunt not taken place, the New Zealand population of right whales may by now have been three to four times its present size.

Kim Westerskov

THE INTRINSIC VALUE OF WHALES

Aside from the value that we attach to a particular species, it is also valuable in itself. International law accepts that all biodiversity has an intrinsic value. Being large marine mammals, whales occupy a special place in marine ecosystems. Many species of whales have unique characteristics.

Many species are now but remnants of a time when whales were plentiful. At the beginning of the 20th century, baleen whales were the major vertebrate group in the Southern Ocean in biomass terms, but hunting during the last century, when over two million large whales were slaughtered, probably reduced their biomass to one-tenth or less.

There has been a major international debate on whale conservation for the last 30 years. Ensuring their protection is one way of showing that humans are capable of protecting biodiversity for the benefit of future generations and of using it in a non-consumptive way.

There is much still to be learned about whales and their behaviour. According to new research, many whale and dolphin species exhibit complex social patterns, including:

- **Family life:** A calf may stay with its mother for 10 years or more, or throughout its whole life in the case of some dolphin species. Adult sperm whales will stagger their dives so that one adult is always looking after the calves. Adults will help each other defend their calves against predators.
- **Cultural behaviour:** Sperm whales, humpbacks and orca have regional song dialects. Specific pods of orca have specific migration patterns. Female orca teach their young how to beach themselves to catch sealion pups and how to get off the beach again without becoming stranded.

- **Memory:** Male humpbacks sing one of the animal kingdom's longest and most complex songs during the breeding season, and the songs continually change in structure. After a break of several months at the end of the season, they take up where they left off on their return to the breeding grounds, and continue. Over time they modify their individual songs without ever reverting to a previous song pattern. Annual changes in the song of humpback whales in Tonga mirror the changes of song in eastern Australia, but with a year's time delay - another example of cultural transmission.
- **Language:** Orca and dolphins are able to communicate their individual identity to other members of their pod. Specific categories of sperm whale clicks establish recognition by the members of a pod. Southern right whales emit specific calls to establish contact with other whale groups. In 1986 a scientist taught bottlenose dolphins a simple sign language and a computer-generated sound language with a subject-verb-object sentence structure.
- **Care of the sick:** When a whale is sick or injured, pod members will help support that whale out of the water to allow it to breathe. Whales will persist in attempting to support their colleagues even after the stricken whale has died, a trait that whale hunters used to exploit. In New Zealand this strong social bond can result in mass strandings of several hundred pilot whales.

Photo: DOC

Blue Leviathan

The blue whale is the biggest animal on Earth. A female blue whale weighing 150 tonnes, killed in the Antarctic in 1928, was the largest animal ever known to have lived on Earth during its 4600 million-year history, far bigger than any dinosaur. An adult's lungs weigh one tonne each, its heart two tonnes, and a small child could crawl through its aorta. A mother produces about 430 litres of milk a day. To achieve its daily need of 1.5 million calories during its 80-100 day feeding season in the Southern Ocean, an adult must daily consume up to five tonnes of krill, a tiny crustacean. Blue whales produce the loudest underwater sound – 188 decibels, louder than a jumbo jet taking off.

At 20 knots, blue whales outswam early sail whaling ships, but were later outpaced by factory ships and their attendant killer boats. Whalers killed more than 350,000 blue whales between 1920 and 1965, when the IWC finally banned their hunting because they were near extinction. From an estimated population of some 200,000 in 1900, fewer than 2000 are believed to remain in the Southern Hemisphere.

WDCS

WHALE NUMBERS – AN UNCERTAIN SCIENCE

Population numbers for many whale species are poorly known and estimates are subject to disagreement. As a result, the IWC decided in 1989 to limit publication of whale population figures to species and stocks for which detailed and statistically sound assessments were available.

For the great whales, the IWC has agreed to abundance estimates for only some stocks of whales.

- **Blue** – fewer than 2000 in the Southern Hemisphere;
- **Fin** – 720,000 fins were taken from the Southern Hemisphere during the twentieth century. This population is now probably less than 20,000. There are no agreed estimates for fin whales in the North Atlantic or North Pacific;
- **Sei** – there are no agreed estimates for any ocean basin;
- **North Atlantic right** – only 300–350, with at least 50 deaths recorded between 1970 and 2001. Attrition from ship strikes and entanglement in fishing gear may spell the end for this species;
- **Southern right** – between 7000 and 8000, probably at around 10 per cent of initial abundance;
- **North Pacific right** – eastern population critically endangered and likely consists of only tens of animals as a result of illegal whaling in the 1960s; western North Pacific population unknown but probably in the hundreds;
- **Bowhead** – between 7000 and 8000 for the Bering Sea stock, although the two other stocks are critically endangered – Atlantic bowheads probably number in the hundreds and the Spitsbergen stock is all but extinct;
- **Humpback** – some populations (eastern North Pacific, North Atlantic, west and east Australia) are recovering, while others (New Zealand, South Georgia) have shown little sign of recovery from near-extinction;
- **Gray** – eastern North Pacific gray whales are back from the brink of extinction in the 1920s to about their original abundance of 20–25,000. Western North Pacific grays are still on the edge of extinction, with an estimated 100-plus individuals;
- **Bryde's** – no agreed population estimates for any ocean basin, but possibly in the tens of thousands worldwide;
- **Sperm** – no agreed abundance estimates, but were seriously depleted in the South Pacific by sail whalers of the nineteenth century;
- **Minke** – the IWC Scientific Committee estimates the North Atlantic population to be over 100,000. There are no agreed estimates for North Pacific or Southern Hemisphere.


Ingrid Visser


Kim Westerskov


Kim Westerskov

20th Century whaling in the Southern Hemisphere

	Reported catches	Unreported Soviet catches	Total catch
Blue	351,645	8,999	360,644
Fin	735,087	-9,971	725,116
Sei	179,923	23,615	203,538
Bryde's	6,310	1,447	7,757
Minke	117,469	-901	116,568
Humpback	162,528	45,831	208,359
Sperm	380,013	21,657	401,670
Right	988	3,350	4,338
Unspecified	11,631	-	11,631
Total	**1,945,594**	**94,027**	**2,039,621**

Minke whale numbers

Even where population estimates are available, questions are frequently raised about their reliability. Minke whales are a case in point. Over the past two decades, more than US$50 million has been spent on sightings surveys, mainly for minke whales, in the Southern Ocean.

In the early 1990s the IWC Scientific Committee, after analysing the available data, agreed that minkes in the Southern Hemisphere numbered 760,000. In 2000, however, the Committee withdrew this advice in light of new survey data suggesting a much smaller population. It is unclear whether this is due to a real decline in population abundance or to inaccuracies in the survey methodology. It is unlikely that a new abundance estimate will be agreed before 2005.

Whales are slow breeders

A female sperm whale may produce one calf every five years, after reaching sexual maturity at nine years. Males reach breeding age in their late twenties. It is not known how many calves a female may bear before reaching menopause or the rate of natural sperm whale mortality. A young whale may suckle from her mother for up to 15 years.

Most baleen whale species produce one calf every three years. In years of poor environmental conditions, large whales (such as North Atlantic right whales) increase the time period between breeding.

Mortality rates in whales vary during their lives. Five to twenty per cent of young animals will die in their first few years of life. Once adulthood is reached, natural mortality drops to negligible levels. Orca females, for example, are very likely to survive their first 10-15 years of reproductive maturity. Some whales are known to live for more than 100 years, but, as in humans, that may only be a small percentage.

Scientists believe that it takes around 20 years on average for a female whale to replace itself with one mature female offspring. This does not account for the potential adverse impacts of new human-induced threats to whales such as bycatch, climate change, ozone depletion, marine pollution, ship strikes and underwater noise pollution.

Whaling and New Zealand

Whangara Marae, north of Gisborne.
Photo: Rob Suisted, Nature's Pic Images

THE INDIGENOUS RELATIONSHIP WITH WHALES IN NEW ZEALAND

As elsewhere among Polynesian peoples, many Maori tribes have strong cultural affinities to whales.

In Maori cosmology, whales are the descendants of *Tangaroa*, the god of the oceans. They were thought of in awe, as supernatural beings, and often deemed *tapu*, or sacred.

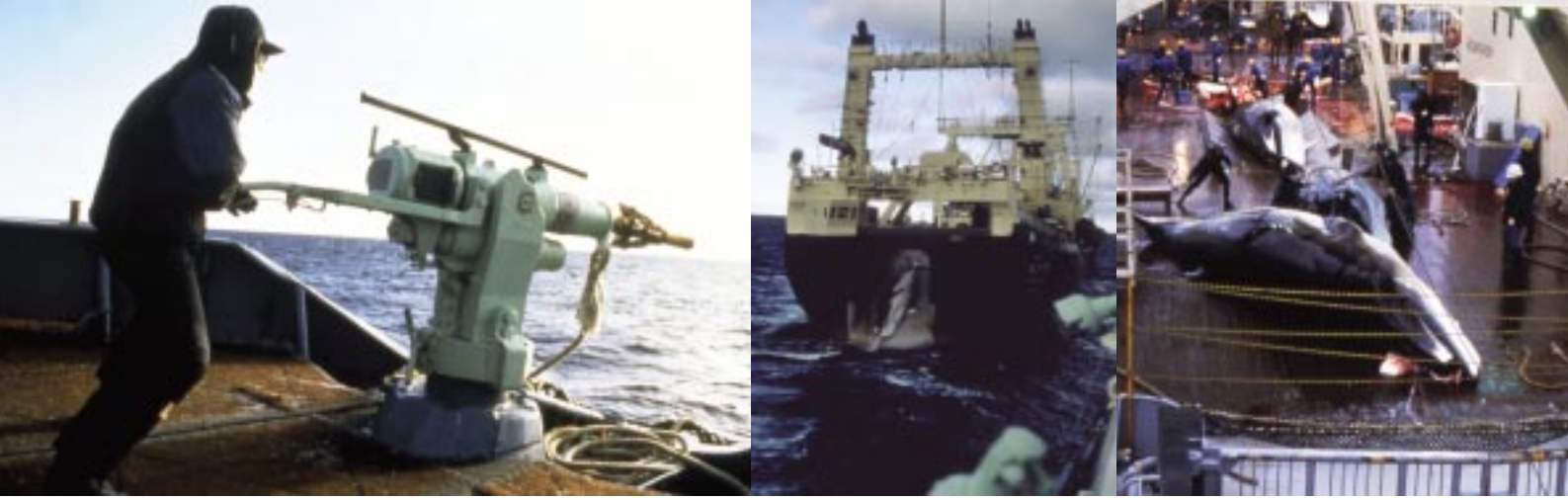
Whales appear in the migration legends of many tribes. In some, whales were a sign indicating to a tribe that it should settle in a particular place. In others, whales were a guide. A legend highlighted in the acclaimed New Zealand film, 'Whalerider', has a whale bearing the tribal ancestor, *Paikea*, to New Zealand after his canoe sinks on the voyage from *Hawaiiki*, the ancestral home of Maori.

Some individual Maori were said to have a whale guardian spirit when at sea. Stylised whale shapes, symbolising the bounty within, were often carved on the bargeboards of storage houses.

Whangaparaoa, the name of a peninsula north of Auckland as well as a bay near Cape Runaway at East Cape, means "bay of sperm whales". Pendants carved from the teeth of sperm whales, *rei puta*, are still highly prized by some Maori. Whale bone is still carved into clubs, cloak pins and combs but nowadays only bone from beached whales that have died is used.

Today, the Ngai Tahu tribe runs the world's most successful sperm whale watching operation out of Kaikoura, in the South Island.

Ingrid Visser



Votier/WDCS

THE LEGACY OF UNSUSTAINABLE COMMERCIAL WHALING

Commercial whaling began with Basques in the Bay of Biscay in the 11th century. They hunted "right" whales, so-called because they were the right whales to kill – large, slow-moving beasts that obligingly floated when dead and yielded large amounts of valuable oil, bone and baleen. By the 1600s the numbers of North Atlantic right whales had plummeted.

European expansion around the world opened up new whaling grounds. This set a pattern for the next three centuries of whalers moving from one area to the next, leaving remnant whale populations in their wake.

From the 1860s onwards, the invention of harpoon cannons, explosive-tipped harpoons, a device to make dead whales float, and factory ships to process whale carcasses at sea brought industrialisation to whaling. Whalers sailed to the Antarctic, the last frontier of whaling, where Captain James Cook had first discovered abundant herds in 1773. By the early 1900s, around 30 countries were involved in whaling but only a handful accounted for most of the catch.

Votier/WDCS

Norway and Britain dominated the whaling industry until the 1950s, taking mainly blue and fin whales. Falling revenue and diminishing catches caused both countries to stop whaling in the Southern Hemisphere in the early 1960s.

Although there had been a small amount of coastal whaling for centuries, Japan only started distant-water whaling just before the Second World War. Large numbers of mainly fin, sperm and sei whales were taken during the 1950s and 1960s. Their oil and meat was especially important because of the post-war food shortage. Japan's peak catch was 24,468 whales in 1964-65, shortly after the worldwide peak in 1961–62.

The Soviet Union concentrated on sperm whales, using their oil for specialised lubricants. The Soviets began whaling just after the Second World War, peaking a year later than Japan with 21,313 animals killed in 1965-66.

The Soviet Union and Japan were the last nations to withdraw from large-scale whaling. They were among countries lodging objections against the moratorium on commercial whaling that took effect in 1986. Japan later removed its objection.

It was revealed in 1994 that South Pacific whale stocks had been heavily affected by illegal whaling operations of the USSR. During the 1950s and 1960s Soviet whalers secretly killed thousands of whales:

- Four Soviet factory ships in the late 1950s recorded that they had taken only 152 humpbacks when, in fact, 7207 were taken;
- In the 1959/60 season alone, 12,900 humpbacks were illegally taken, around six times the total remaining population of humpbacks in the South Pacific;
- The same vessels recorded 156 blue whales during the 1950s and 1960s. The true catch was later revealed to have been 1433.

The overall management of the IWC in earlier times was well summed up by Professor Edward O. Wilson of Harvard University in his 2002 book, *The Future of Life*. He suggests that the whaling industry has ignored the dependency of both the economy and social progress on the environmental resource base. To continue to ignore the destruction of natural resources would produce an uncertain economic future. Wilson states:

> *The dollars and cents value of a dead blue whale was based only on the measures relevant to the existing market – that is, on the going price per unit weight of whale oil and meat. There are many other values, destined to grow along with our knowledge of living Balaenoptera musculus in science, medicine and aesthetics, in dimensions and magnitudes still unforeseen. What was the value of the blue whale in AD1000? Close to zero. What will be its value in AD3000? Essentially limitless, plus the gratitude of the generation then alive to those who, in their wisdom, saved the whale from extinction.*

Votier/WDCS




NEW ZEALAND'S PARTICIPATION IN COMMERCIAL WHALING

New Zealand's experience of whaling mirrors that of many other countries: whaling became New Zealand's first European-style industry, attracting whalers and sealers from 1791. Whales were so abundant that whalers would anchor in east coast bays and wait for southern right whales to arrive within sight of shore.

From the mid-1820s whaling stations were set up on shore to process the increasing volume of catch. In 1840, when the industry was at its peak, 740 whaling ships visited New Zealand's then main port of Russell.

From an estimated population of 15,000 animals a few decades earlier, "bay whaling" led to the near-extinction of southern right whales in New Zealand waters. The peak years were between 1837 and 1842. By 1860 the southern right whale industry had collapsed. Even today, despite 80 years of full protection, the surviving New Zealand population (found mainly in its sub Antarctic waters) numbers no more than 1000 individuals.

Whaling led economic activity in the early New Zealand colony and was the main point of contact between Maori and European cultures. While New Zealand Maori did not traditionally hunt large whales, many joined European whaling crews and later set up their own shore-based stations. The growing contact between the two cultures through whaling was part of the reason for the British Crown and Maori signing the 1840 Treaty of Waitangi.

Norwegian whale catchers under repair at Stewart Island ca. 1910
Photos: Museum of New Zealand Te Papa Tongarewa

New Zealand whalers – Cook Strait, 1950s

New Zealand's early whaling industry was completely unregulated. Whalers took every whale they could, including mothers and calves.

New Zealand stocks of the faster-swimming great whales, such as humpback, fin and sei, were also depleted by hunting. This took place not only during their migrations along the New Zealand coastline but also on their feeding grounds in the Ross Sea and the Southern Ocean.

New Zealand did not send whaling vessels to the Antarctic, but in the early 1900s Norwegian whalers used Stewart Island as a repair base for the catcher boats of its Ross Sea fleet.

In 1910 whaling stepped up a level with the introduction of steam-powered chaser boats. The most successful of these operations was in Tory Channel, at the northern tip of the South Island, which each season processed 100-200 humpback whales caught in Cook Strait, between the North and South Islands.

New Zealand was an early member of the IWC, acceding to the ICRW in 1949. New Zealand ceased whaling in 1964, when the Tory Channel station closed. Humpback whales had ceased migrating through Cook Strait and commercial whaling was no longer viable. New Zealand left the IWC in 1968.

Conserving whales: a challenge for the 21st century

During the 1970s, the IWC changed its focus as more member States dropped out of whaling. Increasingly it was a voice against the continued destruction of the world's dwindling stocks of whales. New Zealand also followed this path, which was and continues to be directed by strong public opinion. Polls indicate that more than 90 percent of New Zealanders are opposed to commercial whaling. Public pressure played a major role in New Zealand's decision to rejoin the IWC in 1976. Since then, New Zealand's position at the IWC has been to advocate whale conservation, on the basis of science, international law and policy.

NEW ZEALAND'S POLICY ON WHALES

Whales have come to symbolise the excesses to which unrestrained human activity can go, and their potential recovery is widely seen as a signal as to whether humans can restrain themselves for the benefit of future generations.

In light of those excesses, there needs to be clear scientific evidence of the rebuild of whale populations before the moratorium on commercial whaling should even be re-examined. Even if, eventually, clear evidence were developed that some whale populations had rebuilt to levels at which a sustainable harvest might be possible, the question of whether such a harvest should be undertaken should be weighed carefully in the light of other considerations.

These other considerations should include the availability of more readily sustainable alternative sources of employment, such as whale watching, for communities currently involved in whale killing for commercial gain and the question of whether there can be any humane method of slaughtering such huge, free-ranging animals at sea.

New Zealand works through the IWC to advocate its policy and achieve its goals. In doing so, it believes that the IWC is the primary international body responsible for managing and regulating whale conservation.

In addition New Zealand:

- supports a continuation of the moratorium and opposes the resumption of commercial whaling;
- supports whale sanctuaries;
- objects to scientific whaling;
- accepts subsistence whaling by indigenous communities whose requests meet IWC criteria;
- accepts the humane euthanasia of beached whales that cannot be safely refloated;
- seeks solutions to the problem of incidental bycatch of whales in fisheries;
- promotes greater synergies between the IWC and other relevant international organisations;
- seeks to raise awareness of the new generation of environmental threats facing cetaceans. These include climate change, ozone depletion, persistent organic pollutants, oceanic pollution, as well as ship strikes and noise pollution;
- draws attention to the intrinsic value of whales and the legitimacy of pursuing international legal options for non-consumptive use options, such as whale watching;
- opposes inhumane whale killing practices.

Kim Westerskov

Photo: DOC

THE MORATORIUM ON COMMERCIAL WHALING AND THE NEED FOR A PRECAUTIONARY APPROACH

Despite a moratorium on commercial whaling since 1986, and two ocean sanctuaries to further protect whales, only a few whale populations are increasing. Slow reproductive rates and new environmental threats affect the ability of whales to recover, even in the absence of any whaling activities. New Zealand believes a precautionary approach must be followed. This is especially so in the case of whales, where far too many mistakes have been made in the past.

Despite the relatively short period during which the moratorium has been in place, there is now considerable pressure from a few countries to resume commercial whaling. But few whale species have reached the levels of abundance they enjoyed before 1830. The inherent difficulties in accurately counting whales mean that only a few agreed abundance estimates exist, covering only a small proportion of total whale populations. In such situations of scientific uncertainty, the benefit of any doubt must be given to the whales. It is a classic case for application of the precautionary approach. Principle 15 of the Rio Declaration, adopted by the United Nations Conference on Environment and Development on 13 June 1992, states:

> *In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible change, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.*

That precautionary approach was also reflected by the International Tribunal for the Law of the Sea in the case of Southern Bluefin Tuna, and through such instruments as the 1995 United Nations Convention Relating to the Conservation and Management of Straddling Stocks and Highly Migratory Fish Stocks. Article 6 (2) of that Agreement provides:

> *States shall be more cautious when information is uncertain, unreliable or inadequate. The absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation measures.*

New Zealand believes that to lift the moratorium on commercial whaling would not be fair to future generations. In the absence of clear and convincing scientific evidence, such a step would be inconsistent with the precautionary approach.

THE FAILURE OF COMPLIANCE, ENFORCEMENT AND DISPUTE RESOLUTION

The IWC has failed to agree on any suitable management regime for whales. Such a management regime, including compliance mechanisms, must be in full accordance with best international practice. New Zealand has argued consistently for the last 10 years that until the countries that seek to resume commercial whaling commit themselves to best international compliance mechanisms, any discussion of a resumption of commercial whaling is premature.

Due to its antiquity, ICRW does not contain appropriate enforcement provisions. In particular, the IWC does not have power to enforce regulations or punish violations. Enforcement is the exclusive province of member States and the Convention does not specify the type of measures that should be adopted to ensure compliance. The IWC can only make recommendations to member States regarding issues of enforcement. The ongoing failure of the IWC to deal with relatively small-scale violations that continue while the moratorium is in place bodes very badly for any discussions of future compliance and enforcement regimes.

Finally, there is a conspicuous absence in the ICRW of a compulsory dispute settlement mechanism of the type contained in most modern treaties. New Zealand believes that without an authoritative way of settling differences between its parties, the ICRW will become increasingly paralysed over time, to the ultimate detriment of all.

Greenpeace, Votier/WDCS

HUMANE KILLING

Experience has shown that it is very difficult to kill a whale at sea humanely; that is, by causing minimum pain or instantaneous death. An explosive-tipped harpoon fired from a cannon on a moving vessel at a moving, partly submerged, unsecured animal is unlikely to lead consistently to instantaneous death. In the 2002 Norwegian minke whale hunt, 20 percent of whales were recorded as not dying instantaneously. In the Japanese "scientific whaling" hunt for minke whales in Antarctica, 60 percent of whales do not die instantaneously.

On impact, the harpoon barbs extend and a grenade explodes inside the whale, inflicting serious injury. The whale is pulled towards the vessel where it is secured. If it is still alive, it may need to be harpooned again or shot with a rifle to kill it. It may take more than one hour to die, in what appears to be extreme pain. Harpooned whales may escape capture, because the harpoon failed to stick, pulled out, or because the line broke. These whales may suffer over several hours or days, before dying of their injuries.

The IWC is seeking ways to minimise time to death and New Zealand strongly supports its efforts. In the 1990s researchers from New Zealand's Massey University carried out experiments over several years to demonstrate that the electric lance, a method commonly used to "finish off" whales that had been harpooned but were still alive, was an inherently cruel and inhumane device. Their work led directly to a voluntary ban on the use of the lance.

While New Zealand does not support commercial whaling, it has offered advice on the humane killing of whales, derived from anatomical research into different species of beached whales. For humane euthanasia in such circumstances, researchers have standardised the use of heavy calibre firearms on specific target areas at close range.

Votier/WDCS, Nan Hauser

WHALING OUTSIDE THE MORATORIUM

After centuries of uncontrolled whaling and the resulting collapse of whale populations, an international moratorium on commercial whaling was agreed by the IWC in 1982, following 10 years of debate. It entered into force in 1986.

Some countries – notably Japan and Norway – have since continued to hunt whales either by way of reservations to the moratorium or through the exemption of scientific whaling.

Norway catches between 500 and 700 minke whales a year, and in 2004 has announced its intention to increase this number significantly. Japan kills 440 minke whales a year in the Antarctic (see section on scientific whaling), and several hundred minke, sei, Bryde's, and sperm whales in the North Pacific. Japan also catches between 17,000 and 20,000 dolphins, porpoises and small whales every year within its Exclusive Economic Zone.

Some IWC members maintain that the IWC applies only to the "great whales", that is, the 12 baleen whale species and the sperm whale. These countries refuse to accept IWC jurisdiction over small whales, also known as small cetaceans. Consequently, many species of small cetaceans – often the most endangered of all whale species - may not be appropriately managed.

New Zealand is convinced that the IWC applies to all whales. This is clear from the Preamble to the International Convention for the Regulation of Whaling, which stipulates that "the Convention applies to all whales and all waters where whaling is prosecuted".

This position is consistent with post-1946 developments in the Law of the Sea, and with many other treaties and agreements including:

- Convention on the Conservation of Migratory Species of Wild Animals 1979;
- United Nations Convention on the Law of the Sea 1982;
- Agenda 21 agreed at the Rio Earth Summit in 1992.

New Zealand affirms that the IWC is the appropriate lead agency to co-ordinate the protection of small cetaceans.

Ingrid Visser

WHALE SANCTUARIES

Controversy over the moratorium has led IWC members including New Zealand to advocate other whale conservation mechanisms, such as sanctuaries, to provide long-term protection from commercial whaling.

The world's first international whale sanctuary was established by the IWC in 1937. This covered one-quarter of the Southern Ocean, millions of square kilometres between New Zealand and the western seaboard of South America. It was disestablished in 1955, in response to demand from an industry facing falling catches elsewhere in the Antarctic.

Within a year the former sanctuary was supplying 25 per cent of total Antarctic catch. It remained open till the 1986 moratorium. The serious depletion of great whales in the breeding areas of the South Pacific can be traced to the ending of the Sanctuary, combined with the illegal whaling conducted by the Soviet Union in this area.

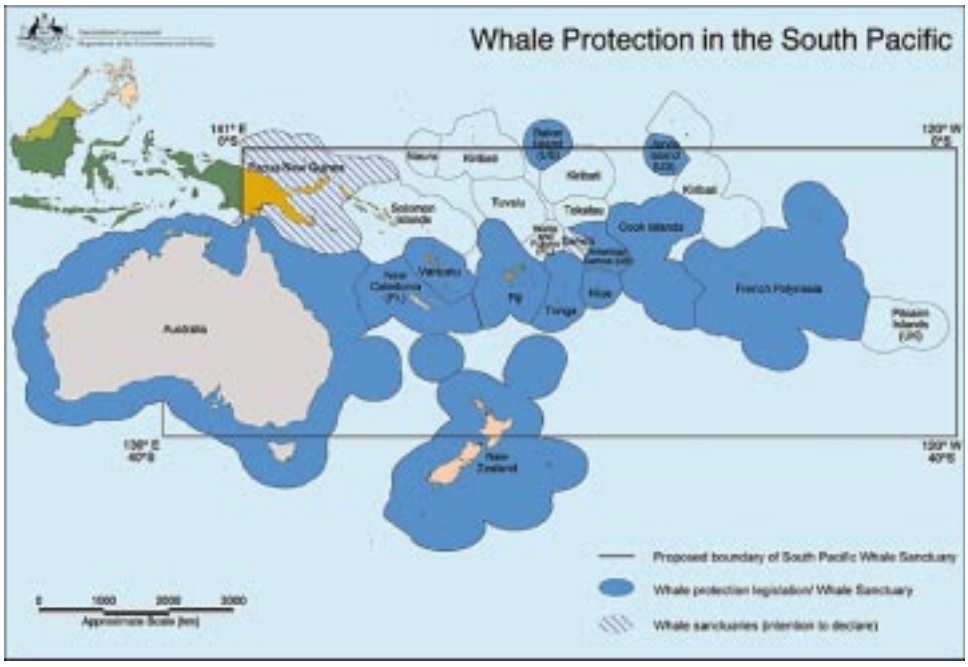
In 1979 the IWC agreed to establish the Indian Ocean Whale Sanctuary, protecting whales in breeding and calving grounds in the region.

In 1994 the IWC established the Southern Ocean Whale Sanctuary, covering all waters surrounding Antarctica as far northwards as 60 degrees south, and protecting the feeding grounds of three-quarters of the world's whales.

Proposals have been presented at recent IWC meetings for two further sanctuaries: the South Pacific Whale Sanctuary, proposed by Australia and New Zealand, and the South Atlantic Whale Sanctuary, proposed by Brazil and Argentina.

Both would extend the Southern Ocean Whale Sanctuary's coverage from Antarctica to the tropics.Together they would protect Southern Hemisphere whales during their entire life cycles, between feeding in the Antarctic and calving in the tropics.

Neither proposal has yet gained the 75 per cent majority vote required by the IWC. New Zealand will continue to push for the South Pacific Whale Sanctuary in the IWC, in the belief that its establishment would help the recovery of some of the world's most depleted whale populations.



Over the last three years, over 12 million square kilometres of the South Pacific Ocean within their Exclusive Economic Zones have been declared as national whale sanctuaries by a number of Pacific Island states and territories.

SCIENTIFIC WHALING

Article VIII of the ICRW allows member States to issue themselves special permits to take whales for research purposes. This has become known as "scientific whaling". New Zealand considers that this exception has been manipulated by a few member States.

Between 1986 and 2004 many more whales have been killed under the auspices of this Article than were killed in the name of science since the moratorium on commercial whaling came into effect in 1986.

In 2003 Japan awarded the Institute of Cetacean Research (ICR) in Tokyo special permits to collect 440 minke whales in the Southern Ocean and 150 in the North Pacific, as well as 50 Bryde's, 50 sei and 10 sperm whales. Whalemeat derived from scientific whaling is sold to the public. In 1997, ICR officials said that the previous season's catch of 2000 tonnes would sell wholesale for US$33 million, and retail at three times that price.

Scientific whalers say that they need to kill whales to determine age, reproductive status, diet and effects of environmental changes – information they claim is needed for future management of whale stocks. Non-lethal methods such as biopsy sampling are deemed "inefficient and impractical".

Votier/WDCS

However, the Revised Management Procedure (RMP), adopted by the IWC in 1994, only requires information on past and present catches and abundance estimates from surveys to generate catch quotas. New Zealand considers, and the IWC's Scientific Committee has agreed, that most of the information collected by scientific whalers is of little relevance for any possible future IWC management regime. This is particularly true of scientific whaling programmes in the North Pacific and North Atlantic, which are purportedly mainly intended to provide information for fisheries management.

After a 14-year absence from whaling, Iceland submitted to the IWC in 2003 a scientific whaling programme to hunt 500 whales over two years. The proposal comprised 200 fin, 100 sei, and 200 minke whales. There was considerable international opposition to this proposal and it was scaled back to 38 minkes, of which 36 were taken. In 2004 it has been further reduced.

While member states carrying out scientific whaling are required to submit scientific whaling proposals to the IWC Scientific Committee, they are not required to abide by its recommendations. Recent reports from the Scientific Committee have included highly critical reviews of proposed programmes of scientific whaling. Nor is the sale of meat from scientific whaling prevented under the ICRW. If the treaty were redrafted today, prior approval for research and a prohibition on the sale of produce would be consistent with best-practice guidelines for scientific research exemptions.

Scientific whaling is ultimately a case of large-scale animal experimentation, as the animals are killed allegedly to further some scientific research. In some instances, animal experimentation may be legitimate. However, it should be in accordance with international best practice. In experiments on animals, non-lethal alternatives should be pursued as a first choice and killing the animals should be allowed only if there is no alternative. Ethical reviews and approvals should be required for experiments in which animals are killed. These typically seek to limit species choice, numbers, and pain inflicted. Unfortunately, the IWC does not include such requirements in its text. This is because the Convention was drawn up over fifty years ago, at a time when consideration of such concerns was not well developed. Nor was whaling for scientific purposes an established practice at the time.

New Zealand considers that the current practice of scientific whaling is a clear anomaly in the 21st century and would not be acceptable in any comparable new international treaty. New Zealand will continue to work towards bringing the rules relating to scientific research on whales up to acceptable contemporary international standards. That would mean permitting only non-lethal scientific research, as is already prescribed in a number of regional agreements made through the Convention for Migratory Species.

ABORIGINAL SUBSISTENCE WHALING

A small number of indigenous communities around the world have long and continuous histories of subsistence whaling and an ongoing nutritional need for whale meat. This has been recognised for more than 70 years, under both previous agreements and the ICRW. The practice is known as "aboriginal subsistence whaling".

In 2002, aboriginal subsistence whalers took 1448 whales, including:

- West Greenland – eight fin, two humpback, 139 minke;
- East Greenland – 17 minke;
- St Vincent and the Grenadines – two humpback;
- Russian Federation – one bowhead, 112 gray;
- United States – 75 bowhead.

Aboriginal whalers also take pilot whales, beluga, narwhals, dolphins and porpoises.

New Zealand considers that only the legitimate needs of authentic indigenous claimants should be recognised within applicable international law and IWC frameworks. On that basis, aboriginal subsistence whaling can be accepted, provided that requests meet IWC criteria, which are that:

- whale meat must be obtained to meet an established cultural tradition and nutritional need;
- whale meat must be consumed locally;
- whale meat must not be utilised for commercial purposes; and
- aboriginal subsistence whaling must not threaten the ecological viability of the stock.

New Zealand supports the IWC's early completion of an Aboriginal Whaling Management Procedure to help set baselines for calculating sustainable limits to aboriginal/subsistence hunting.

ENTANGLEMENT IN FISHING GEAR AND BYCATCH

Photos: Sea World, Queensland

Estimates suggest that 71 percent of all North Atlantic and North Pacific humpback whales and 62 percent of all North Atlantic right whales have been entangled in fishing gear during their lives. The yearly entanglement rate may be 10–31 per cent for humpbacks and 10-28 per cent for North Atlantic right whales.

Based on data collected in the United States, which presented these figures to the IWC in 2003, it has been estimated that between 60,000 and 300,000 whales, including dolphins and porpoises, are caught accidentally in global fisheries every year. Animals that break free from fishing gear can still suffer later injury, disease and death as a result.

New Zealand believes that the IWC needs to confront the whale bycatch issue, and to establish disincentives to taking and using bycatch. For example, bycatch should be deducted from any overall quota and should not be made available for sale.

CLIMATE CHANGE, OZONE DEPLETION, MARINE POLLUTION

In 2001 the third report of the Intergovernmental Panel on Climate Change predicted that average global surface temperatures would increase by 2100 from 1.4 to 5.8 degrees, with accompanying sea level rises of between 9cm and 88cm.

Climate change may cause changes in migratory patterns, destroy habitat (particularly in nutrient-rich polar seas), and drastically change ocean circulation, vertical mixing and overall climate patterns. There may be changes in nutrient availability, biological productivity, and the structure of marine ecosystems from the bottom of the food chain to the top.

Whales may be particularly affected by changing location and abundance of food sources, changed migration patterns and habitat destruction. Endangered whale species may become extinct.

Thinning of the ozone layer in the upper atmosphere over the Poles has affected growth and reproduction of plant plankton – the basis of oceanic and freshwater ecosystems. A short-term 4–23 percent reduction in plant plankton productivity has been measured in areas affected by the ozone hole. Increased intensity of ultraviolet-B radiation damages the larval development of some crab, shrimp and fish species.

Any impacts of such changes on lower levels of the food chain may be expected to affect higher level species, such as large fish and all whales. Light-coloured whale species living in polar regions, such as beluga, may suffer short-term damage to vision and immune systems, and increased risk of disease and reproductive failure. The long-term effects of increased ultraviolet-B are unknown.

Because of their longevity, whales are more vulnerable to the accumulation of marine pollutants. Toxins accumulating in blubber can be passed to infants in their mother's milk. Whales are known to accumulate heavy metals, organochlorines such as PCBs (polychlorinated biphenyls), DDT, dioxins and polycyclic aromatic hydrocarbons.

Whales are less able than other mammals to metabolise many environmental pollutants. Because of atmospheric circulation patterns, whales living in areas far from industrial centres may contain more environmental pollutants than species near such centres. It is a global problem for whales.

New Zealand believes that problems arising from the effects on whales of persistent organic pollutants, heavy metals, climate change and ozone depletion must be confronted in appropriate international forums. The IWC should work more closely with these forums.

SHIP STRIKES AND NOISE POLLUTION

Slower moving species, such as North Atlantic right whales, are most at risk of ship strikes. As the volume and speed of global shipping traffic continues to increase, ships will increasingly affect all whale species.

Ocean vessels and other marine sources generate underwater noise, which may interfere with whales' sophisticated hearing systems. Other noise sources include drilling rigs, barges, outboard-powered boats, underwater explosions, low-frequency active sonar on military vessels, and air guns on geological survey vessels.

New Zealand believes that the potential problems of ship strikes and noise pollution require further study, and will seek a higher profile for these issues in the IWC and other appropriate bodies.

Phillip Clapham, NOAA

FISHERIES DEPLETION

Scientific whaling is often justified by its proponents on the grounds that more study is needed into the so-called problem of whales eating fish.This argument is misleading and tendentious. In reality, many major fisheries (11 of the world's 15 most important fishing areas and 70 percent of the major fish species) are either fully or over-exploited. It is commonly accepted that over-fishing is principally to blame for this decline. Fisheries' depletion was listed among the top 10 environmental problems facing the world at the World Summit on Sustainable Development in Johannesburg in 2002.

Votier/WDCS

Despite the overwhelming scientific evidence that points to over-fishing as the problem, there are some who continue to shift the blame by claiming that large whale species are responsible for declining fish populations. It is argued by the whalers that growing whale populations will lead to an imbalance in the marine ecosystem, and that by distorting the marine food chain, recovering populations of whales will threaten global food security. Countries engaged in "scientific whaling" claim they can learn more about the role of whales in the ecosystem by harpooning them and examining their stomach contents. Such activities are strongly opposed, on the grounds that:

- A huge amount of data on stomach contents collected during the days of commercial whaling is equally relevant today
- Examining the stomach contents of a harpooned whale only reveals what it has been eating in the previous few hours
- Better non-lethal alternatives exist to investigate the feeding habits of whales

In the past, when whale populations were far larger, there was obviously enough fish and plankton to sustain them. Enough was left over to support the huge global fish stocks that have been exploited by modern day fisheries.The partial recovery of a few whale populations over the past 30 years cannot be responsible for the decline in fisheries worldwide.

There is also little scientific basis for the argument that whales are competing with humans for food:

- Not all baleen whales eat fish. In the Southern Hemisphere, most baleen whale species eat small crustaceans (krill) almost exclusively;
- Even where some baleen whales are known to eat fish (such as in the North Atlantic and North Pacific Oceans), they do not consume significant quantities of commercial fish species when compared to other fish species. For example, adult cod are the major predators of juvenile cod
- Most of the prey of sperm whales are deep-water squid and fish species that are of no commercial value;
- Some smaller whales, such as orca, are known to occasionally take hooked fish from commercial longlines, but the economic impact is slight.

WHALE WATCHING AS AN EXAMPLE OF NON-CONSUMPTIVE SUSTAINABLE USE

New Zealand does not accept that only consumptive use fits with the concept of sustainable use. The Convention on Biological Diversity supports this view.

M. McIntyre

Principles on sustainable use were issued at the Convention's 7th Conference of the Parties in 2004. In these:

- The term "use" applies to both consumptive and non-consumptive use;
- International and national policies should take into account intrinsic and other non-economic values of biodiversity;
- It is important to achieve "more efficient ethical and humane use of wild fauna and flora".

Using a resource without killing it has long standing in international law, for example, the protection of highly endangered migratory species, wetlands, protected areas, and the complete protection of Antarctica. At the 2002 World Summit on Sustainable Development, participants were called upon to "promote sustainable tourism development, including non-consumptive and eco-tourism".

New Zealand believes that whale conservation is a very strong case for non-consumptive use.

Whale watching is a high profile example of achieving economic returns, sustainably, from live whales. Whale-watching tourism was estimated to have earned at least US$1 billion in income in 2000, double its value from 1996. Whale-watching operations now occur in at least 87 countries and attract more than 9 million people.

The Value of Live Whales

In a 1999 report, Dr Mark Orams of Massey University estimated that one humpback whale, returning every year to breed in Tongan waters, would generate US$1 million in tourism revenue during its 50-year lifetime. The products from that humpback, if slaughtered, would fetch only approximately US$250,000 on the Japanese wholesale market.

Economic use of live whales has been discussed in the IWC since the early 1980s. By the early 1990s, many members were suggesting that this might be the best sustainable use of whales. Thirty-four of the 51 current IWC member countries have whale-watching activities, including the handful that are also engaged in whaling operations. In the New Zealand view, this change of use from consumptive to non-consumptive options represents a clear indication of evolving relationships with whales. Views on the use of whales, and on the interests of consumers, have changed greatly from what was envisaged when the ICRW was concluded.

In New Zealand, the commercial value of the living sperm whales that visit Kaikoura is much greater than their value from hunting. Over 15 years, whale watching has transformed Kaikoura into one of the country's most popular tourist destinations.

Ingrid Visser

Whale Watch Story: Kaikoura

Kaikoura is today a small coastal community thriving because of the entrepreneurship, dedication and leadership of the indigenous people of this area, who have put to good use the rich natural resources at their doorstep.

Whale Watch Kaikoura Ltd is 100 percent Maori owned. These people are the modern day descendants of *Paikea,* the legendary "Whale Rider" who called on the assistance of *Tohora* the great whale and was carried safely to the shores of Aotearoa, New Zealand.

Today, like their ancestor before them, these people have again turned to the whales for assistance and they have been carried from impoverished desperate times to prosperity, this time not through riding whales but by watching them.

Whale Watch Kaikoura Ltd started from humble beginnings in 1987, with a single 6m vessel, and they carried a modest 3,000 passengers in their first year of operation. Today this multi-million dollar business treats over 80,000 visitors per year to a whale watching encounter second to none. Kaikoura has been rejuvenated, an estimated one million visitors each year take in the sights, sounds and taste bud sensations of this coastal community.Whale watch tourism has transformed Kaikoura, and today this town is a hustle and bustle of activity; accommodation, restaurants, cafés and souvenir shops line the main street. Business is booming.

Whale Watch Kaikoura Ltd is the largest employer in the town, employing 70 staff through the peak tourist season and 50 staff year round. The whale watch team operate today four state-of-the-art catamarans, which are armed with high powered technology that delivers an informative graphic presentation to the visitor through a large plasma screen, taking the viewer to a virtual seabed 1000m down in the Kaikoura Canyon, home of the giant sperm whale, which is viewed on a daily basis.

At the heart of this community is its natural resources – the whales, the coastal and alpine environments. It is no secret that these resources have made Kaikoura a sought-after international destination and the rapid growth in tourist numbers, with its associated economic benefit, is testament to how well-managed use of a natural resource and commitment to the protection of these treasures can benefit the local inhabitants.

Whale Watching in Kaikoura has transformed this community. When managed properly, whale watching is both environmentally sustainable and economically viable. The community development over the past decade demonstrates that it is both socially and culturally acceptable and there is every indication that it will remain that way for many years to come. Whale watching proves year after year that it is without doubt the best use of whale resources today.

The International Architecture for the Conservation of Whales

CONTRADICTIONS IN THE ICRW

The structural weaknesses at the heart of the ICRW are the source of many of the problems that have made it a less than satisfactory instrument for the conservation of whales. One serious defect is the contradictions built into the treaty about its purposes. The preambular paragraphs arguably create both conservation and exploitative purposes that are not necessarily compatible. These paragraphs conclude with the statement that the ICRW is "to provide for the proper conservation of whale stocks and thus make possible the orderly development of the whaling industry". Those who wish to hunt whales and those who wish to conserve them can both point to words that assist their cause. What constitutes a "whaling industry" in the 21st century is not altogether clear, either – it may include whale watching.

There are large areas of jurisdictional instability under the ICRW. It is undoubtedly showing signs of its age. It is also increasingly evident that the ICRW is out of line with modern international environmental treaties as they have developed in recent years. The UNCLOS and the Convention on Biodiversity can inform the application of the ICRW more effectively than they have done so far.

To remedy these structural weaknesses of the ICRW in any meaningful way would probably require the convening of a full diplomatic conference. At an early stage of the ICRW's life there was international discussion about whether it should be brought within the auspices of the United Nations, but that never occurred. It could still occur. The ICRW's weaknesses provide further reasons why a global whale sanctuary needs to be established.

THE INTEGRITY OF THE IWC MACHINERY

New Zealand respects the opinions of those countries with different views from its own, although it hopes that one day all countries will be of the same opinion. Until that time arrives, it is essential that dialogue is maintained and that all management decisions are conducted via appropriate democratic and constitutional mechanisms. Accordingly, the institutional mechanisms and processes of the IWC must operate effectively and with integrity. As such, New Zealand remains concerned about reservations to the Convention and the possibility that countries may "opt out" of the IWC's decisions.

There is a modern approach in some environmental treaties that says no reservations will be accepted. This is a sound approach. As it stands, not only can reservations be entered by new parties to the ICRW, but also Schedule amendments can be avoided by objection. Schedule amendments, such as the moratorium on commercial whaling, require a 75 percent majority. But member states that do not accept the amendment can use Article V to object, and it will not be binding on them. This risks weakening the effectiveness of necessary conservation and management measures. It means essentially that even where the numbers are secured for a Schedule amendment, the

amendment may not be binding on all the parties to the Convention. Such a method of lawmaking is less efficient than that contained in more modern environmental treaties.

New Zealand is also convinced that the effective operation of international environmental conventions requires strong structures that can help involve civil society in non-voting situations. This is consistent with the approach taken by the international community to encourage full participation by non-governmental organisations in the work of the United Nations and its specialised agencies. Through their interest and expertise, NGOs can have a valuable contribution to make to the work of international organisations. The participation of NGOs in the work of such bodies is also important in ensuring transparency in the multilateral system. With regard to the IWC, New Zealand considers that the current restrictions and controls upon NGOs hinder the effective harnessing of their energies. Such measures are out of step with best international practice, as shown by other international environmental conventions.

New Zealand would like to see consideration given to ways in which the participation of NGOs in the work of the IWC can be further enhanced. This includes examination of areas such as accreditation, costs of participation, and submission and speaking rights.

SYNERGIES WITH OTHER CONVENTIONS

When the ICRW was concluded over 50 years ago, only a handful of other international environmental treaties needed to be considered. In the 21st century, there are literally hundreds of international environmental conventions that must be taken into account. Although most of these are not directly applicable to the management of cetaceans, some of them – or the approaches that have evolved from them – are relevant. New Zealand supports the primacy of the IWC with regard to questions directly related to international cetacean management, and the development of synergies with international and regional organisations. It is essential that the role of the IWC is not eclipsed or usurped, and that other conventional bodies co-operate with the IWC, following its lead where appropriate.

New Zealand considers that the IWC should further strengthen its cooperation with the Convention on International Trade in Endangered Species of Wild Fauna and Flora, and the Convention on the Conservation of Migratory Species of Wild Animals.

In addition, the IWC should seek relationships with newer conventions that have direct applicability, such as the Convention on Biological Diversity. It should also seek out working relationships with other bodies involved in areas that could have direct implications for the management of cetaceans.

Conclusion

For over half a century, the IWC has been responsible for the management and conservation of whales. During that time, the world has taken one step away from the wholesale extermination of whales that was such a shameful episode in our past. But there is still much more that needs to be done. Whale numbers are still far below where they stood in the time before large-scale slaughter commenced.

Times have changed. Whales are no longer seen in most countries as just another marketable commodity. They have come to symbolise, rightly, the challenge we all face in the 21st century – whether we can turn away from unrestrained exploitation and find a new way to live in balance with our environment. Instead of killing whales for commercial profit, sustainable alternatives such as whale watching are becoming increasingly popular.

The IWC itself needs to move with the times. It is clearly under pressure from a few countries which, for their own motives, want to increase their kill of whales. It seems possible, even likely, that whales will once again be killed in increasing numbers unless the IWC can evolve to meet this new challenge. It is time for a fresh debate on the effective conservation of whales in the 21st century.

Kim Westerskov

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