Facing Extinction

New Zealand's Forgotten Dolphins

On the Verge of Extinction

Hector's dolphins (*Cephalorhynchus hectori*) and their close relative the Maui's dolphin (*Cephalorhynchus hectori maui*) occur only in New Zealand and are both the smallest and rarest marine dolphins on earth.

Since the introduction of nylon filament fishing nets in the 1970s, Hector's dolphin numbers have dropped from 30,000 to 7,270 (CV 0.16). The situation for Maui's dolphins, a Critically Endangered subspecies of Hector's dolphins, is even worse. More than 94% are already lost. With just 55 survivors older than one year (48-69), less than 20 breeding females, and an annual decline of around 7.5 percent, Maui's dolphins are facing imminent extinction.

In October 2012, a government appointed scientific panel confirmed that commercial and recreational set netting and trawling are responsible for an estimated 95.5% of human induced Maui's dolphin mortalities. The estimated level of impact on the population is 75.5 times higher than the sustainable limit (Potential Biological Removal or PBR).

Science and Extinction

Hector's and Maui's dolphins have declined for over three decades because their protection is inadequate in terms of the areas and the fishing methods it covers.

Current and newly proposed protection measures fall significantly short of requirements for recovery, as well as urgent recommendations made by the International Whaling Commission's (IWC) Scientific Committee and the International Union for Conservation of Nature's (IUCN) World Conservation Congress.

The **Scientific Committee of the International Whaling Commission** (IWC) consists of 162 of the world's leading experts on whales and dolphins. At its 2012 meeting of the Committee noted that bycatch in gillnet and trawl fisheries still poses the most serious threat to Hector's and Maui's dolphins. "Bycatch in 'exemption' areas without protection measures, and in areas with incomplete protection, is causing continued population declines and population fragmentation" for Hector's and Maui's dolphins. "Weak protection on the west coast South Island, a lack of protection on the north coast South Island and 'exemption' areas in other regions are preventing species recovery".

The SC added that Hector's and Maui's dolphin populations are "predicted to recover if the boundaries of the protected areas were extended to the 100m depth contour." The SC "expressed particular concern about the low abundance of Maui's dolphin "given the latest population estimate of only 55 individuals over one year old and the estimated population."

The Committee recommended that protected areas should extend "offshore to the 100m depth contour, including the harbours for gillnet and trawl fisheries. This would protect part of an area with high gillnet and trawl fishing effort between the North and South Islands." The Committee further stressed the importance of avoiding further population fragmentation by ensuring a safe 'conservation corridor' between New Zealand's North and South

Island populations across the Cook Strait. The latter is vital to counteract inbreeding and genetic isolation as it is likely that Hector's and Maui's dolphins mix in the southern part of the Maui's dolphin's range.

In September 2012, after referring to the Species Survival Commission's Cetacean Specialist Group, the **IUCN World Conservation Congress** urged the New Zealand government to "expand the areas of protection from gillnetting and trawling to cover the entire range of the Maui's and Hector's dolphins" to a depth of 100m offshore. New Zealand alone opposed the Motion, which was adopted with 117 governmental and 459 NGO votes in favour.

By consistently ignoring the best available scientific advice about the urgent need to protect the last Maui's and Hector's dolphins against harmful fishing methods, New Zealand fails to meet its obligation under the Convention on Biological Diversity's Aichi Biodiversity Targets.

Obligations under the CBD

New Zealand is a signatory to the Convention on Biological Diversity (CBD) and as such made a formal commitment to the Convention's Strategic Goals for 2011 to 2020 (Aichi Biodiversity Targets).

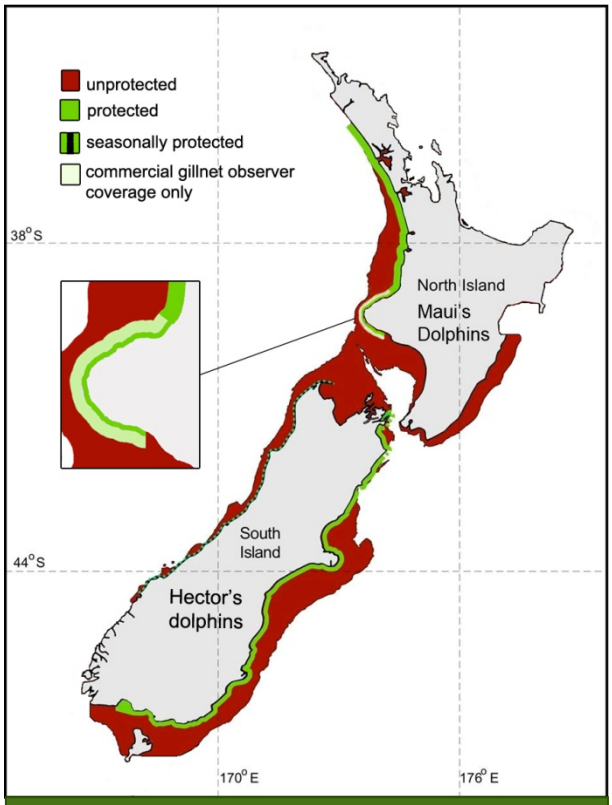
This includes the obligation to ensure that "the extinction of known threatened species has been prevented and their conservation status, particular of those most in decline, has been improved and sustained", and that the impacts of use of natural resources are kept "well within safe ecological limits."

New Zealand's lack of effective conservation initiatives conflicts specifically, with:

Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society

Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use ecosystems, species and genetic diversity

Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity



Hector's and Maui's dolphins inhabit coastal waters up to a depth of 100 m (red). Because only a fraction of their range is protected against harmful fishing methods (green) their numbers continue to decline.

National Statutory Obligations

The purpose of the New Zealand **Fisheries Act 1996** is set out in Section 8 as providing "for the utilisation of fisheries resources while ensuring sustainability. "Ensuring sustainability" is defined to include the avoiding, remedying or mitigating of any adverse effects of fishing on the aquatic environment."

Decision makers are required to take into account that "associated or dependent species should be maintained above a level that ensures their long-term viability", that biological diversity is maintained and that habitat of particular significance for fisheries management should be protected.

Section 10 stipulates that the Minister must base his decisions on the best available information, take into account any uncertainty, and should be cautious when information is uncertain, unreliable or inadequate. The absence of, or uncertainty in, any information should not be used as a reason for postponing or failing to take any measure to achieve the purpose of the Act.

Section 5 of the Act requires the Minister to act in a manner consistent with New Zealand's international obligations relating to fishing, specifically the management of fishing related threats to protected species.

New Zealand's **Marine Mammals Protection Act 1996** sets out that**,** threatened species should become non-threatened as soon as practicable and in any case within 20 years.

Genetic Diversity and Recovery

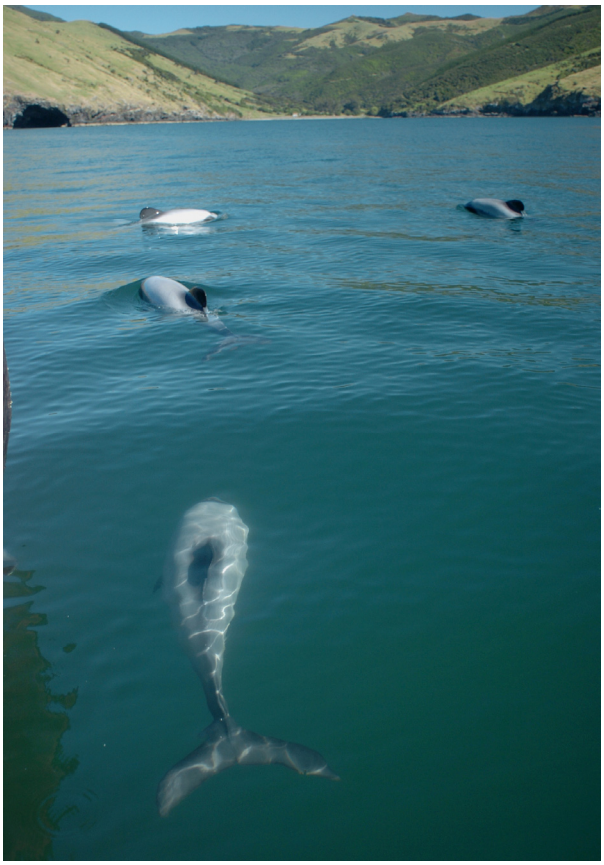
The level of genetic diversity amongst Maui's dolphins is relatively low, but higher than expected for such a small population. Scientists are optimistic about the ability of Maui's dolphins to recover if human induced mortality is eliminated. From a biological perspective, Maui's dolphins are not doomed to extinction.

Reproduction and Recovery

Hector's and Maui's dolphins reproduce very slowly. Recovery is therefore protracted. However, without bycatch, Hector's dolphins could recover to at least half their original numbers within decades.

Even under ideal circumstances a population of around 60 Maui's dolphins can grow by just one animal per year at the most (2%). In the absence of human induced mortality, it would take 10 years before the population reaches 73 individuals.

In their severely depleted state, Maui's dolphins can only absorb one human induced death every 10-23 years. They are therefore extremely vulnerable, and even the loss of a few individuals will have devastating consequences in terms of population survival. The recent death of one Maui's dolphin in a gillnet in January 2012 has therefore impeded Maui's dolphin recovery for many years.



Conclusions

1. Denial of the Facts

While local and international experts agree that fishing is the number one threat that is driving the extinction of Maui's and Hector's dolphins, the New Zealand government maintains "There is not enough evidence to pinpoint the exact reasons for the decline in the population." (MPI & DOC 2012)

2. Objective Conservation Targets

The recovery of Hector's and Maui's dolphins has been marred by a consistent lack of objective, science-based, measurable management targets. Instead conservation measures are proposed and agreed without any a priori assessment of the associated conservation benefits.

3. Recovery or Extinction

A demarcation to a water depth of 100 metres rather than an arbitrary distance from shore (e.g., 2, 4 or 7 nm) best defines the habitat of Maui's and Hector's dolphins. Therefore scientists and conservationists have been calling for a New Zealand-wide ban on gillnets and trawling in coastal waters up to a depth of 100m for many years. These calls have been ignored, and Hector's and Maui's dolphin numbers continue to decline. NABU International reiterates the urgent need for effective protection before it is too late.

4. Alternative Fishing Methods

A transition to selective, sustainable fishing methods which do not impact Maui's and Hector's dolphins is the best option in terms of long-term biological and economic sustainability.

5. Making Extinction History

The Baiji, or Chinese river dolphin, is the only cetacean to become extinct as a result of human activities. With just a few dozen survivors, Maui's dolphins are poised to follow suit as the first marine cetacean to die out due to human actions. NABU International understands the pressure fishing interests bring to bear on the Government's decision making process. Nonetheless, we sincerely hope that New Zealand will show the commitment and leadership required to save this species and leave its long-term survival as a legacy for the world. Failure to do so will forever tarnish New Zealand's reputation as an environmentally responsible nation.

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© 2012, NABU International, Charitéstr. 3, 10117 Berlin, Germany, www.nabu-international.de, www.hectorsdolphins.com, info@nabu.de, +44-7970987742.

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