TMP Submissions
PO Box 11-146
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24 October 2007

Submission: Hector's and Maui's dolphin Threat Management Plan

Forest & Bird appreciates the opportunity to comment on the draft Threat Management Plan.

Forest & Bird
The Royal Forest and Bird Protection Society (Inc) (Forest & Bird) was established in 1923 and has campaigned for over 80 years for the protection of New Zealand's native species and the habitats on which they depend.

The constitutional purpose of Forest & Bird is to:

> "*To take all reasonable steps within the power of the Society for the preservation and protection of the indigenous flora and fauna and natural features of New Zealand, for the benefit of the public including future generations."*

Forest & Bird has a long history of advocacy for the protection of New Zealand's marine mammals and has been at the forefront of efforts to protect Hector's dolphins, *Cephalorhynchus hectori* (including Maui's dolphins, *Cephalorhynchus hectori maui*).

Summary of recommendations

- The following objective should be added to the Threat Management Plan:

  In order to maintain Hector's dolphin above a level that ensures their long-term viability, and the recovery of the species throughout its natural range, threats to Hector's and Maui's dolphins should be managed to allow the species to achieve non-threatened status as soon as reasonably practicable, and in any event within a period not exceeding 20 years.

- In light of set net fishing mortality being identified as the single most important threat to the long-term viability of Hector's dolphins, a new option (Option 4) should be adopted - *nationwide prohibition on set net fishing*. In this context the use of other fishing methods that do not pose a threat to Hector's and Maui's should be supported by the government.

- Of the options presented in the draft Threat Management Plan to deal with the major fishing related impacts(set netting and trawling), in each case the relevant option 3 comes the closest to achieving the Government's objectives for Hector's dolphins, because it most effectively deals with the key threat from fishing. However, this option needs to be strengthened by adding the following measures:

  - Set netting is prohibited throughout all Hector's and Maui's dolphin range out to 100m water depth[1];

  - Trawling is prohibited out to 4 nautical miles (nm);

  - Vessel monitoring systems required on all trawl vessels;

  - Observers or electronic monitoring equipment required on all trawl vessels within 100m water depth.

  This modified option 3 would be applicable year round, across all fishery sectors and locations (Manganui Bluff to Cape Egmont in the North Island and west of Te Waewae Bay in Southland north and round the South Island to Jackson Bay on the west coast of the South Island).

- The information principles set out in section 10 of the Fisheries Act 1996 require that measures imposed to deal with the threats to these dolphins must reflect the best available information, and that where information is uncertain or inadequate that the precautionary approach should be adopted.

- For ease of implementation measures aimed at protecting these dolphins should be standard across all sectors, seasons and regions;

- In terms of other threats, Forest & Bird supports the need for effective new sanctuaries and an extension to the present sanctuary around Banks Peninsula. However, proposed sanctuaries risk extinction of Maui's dolphin and further fragmentation of South Island Hector's dolphin sub-populations. It is crucial that such sanctuaries extend out to 100m water depth, encompass all critical populations and take into account all potential threats, including boat strike, pollution or waste

[1] Exception for the south coast of the South Island, where restrictions should extend to the north coast of Stewart Island.

discharge and activities or proposals for mineral exploration/utilisation and marine energy generation.

It is crucial that the fishing threats, which are the greatest threat to Hector's and Maui's dolphins (as identified from DoC's national mortality database), are mitigated first and foremost. Poor mitigation of these threats or implementation of sanctuaries alone would only fragment populations further and impede our ability to meet the objectives of the Threat Management Plan.

1. Introduction

It is commendable that the Ministry of Fisheries and Department of Conservation have worked together to develop a management plan to address threats to Hector's dolphins[2], and Forest & Bird note that a great deal of work has obviously gone into its preparation.

We note the Government's vision statement for the management of Hector's dolphins provides the basis for the management of threats to the species:

> "*Hector's dolphins should be managed for their long-term viability and recovery throughout their natural range*."

Forest & Bird consider that the Threat Management Plan (TMP) needs to be underpinned by the existing legislation. In particular the objectives of the TMP should be derived with reference to the relevant legislation, notably the Marine Mammal Protection Act 1978 and relevant sections of the Fisheries Act 1996 in particular, sections 9 and 10.

In light of this, Forest & Bird proposes the following additional objective for the TMP:

> *In order to maintain the Hector's dolphin species above a level that ensures their long-term viability, and the recovery of the species throughout its natural range, threats to Hector's and Maui's dolphins should be managed to allow the species to achieve non-threatened status as soon as reasonably practicable, and in any event within a period not exceeding 20 years.*

When considering appropriate management actions to achieve this objective it is important to note that Hector's and Maui's dolphins were once much more common around New Zealand's coasts than they are in 2007. The natural range of Maui's dolphin is documented as extending around most of the New Zealand Coastline, the exceptions being Fiordland in the South Island and the Coromandel coast, Hauraki Gulf and east coast of Northland in the North Island. This is what Forest & Bird consider the "natural range" of Hector's dolphin.

Management of the threats to Hector's dolphins should be on the basis of the precautionary approach:

> *States and subregional and regional fisheries management organizations should apply a precautionary approach widely to conservation, management*

[2] We note that the current taxonomy for *Cephalorhynchus hectori* describes Maui's dolphin *C. h. maui* as a sub species of Hector's dolphin, although from a geographically and genetically distinct population. In our submission, 'Hector's dolphins' refers to both subspecies, while 'Maui's dolphin' refers only to the subspecies currently restricted to the west of the North Island.

> *and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment, taking account of the best scientific evidence available. The absence of adequate scientific information should not be used as a reason for postponing or failing to take measures to conserve target species, associated or dependent species and non-target species and their environment.*" (Para. 6.5, FAO Code of Conduct for Responsible Fisheries)

This is supported by section 10 of the Fisheries Act 1996.

Forest & Bird has publicly proposed a number of measures it considers are required to meet the Government's vision statement for the management of Hector's dolphins.

On the basis of the feedback on these proposals and the best available information, Forest & Bird considers that the following measures are necessary to significantly reduce the effects of fishing on this species, to halt declines in their numbers, to prevent potential extinction and allow recovery of the species to non-threatened status.

2. Fishing Threats

The Threat Management Plan (TMP) has two sections which deal with the threats faced by Hector's and Maui's dolphins; a) measures to mitigate adverse effects of fishing and b) marine mammal sanctuaries to address other threats.

Fishing threats have been widely identified as the most serious threat to Hector's and Maui's dolphins. Data from the Department of Conservation's Hector's and Maui's mortality database (2000-2007) show that fishing threats are responsible for nearly 70% of deaths of Hector's dolphins where the cause of death is known. Set nets (gill nets) are the single biggest threat, responsible for more than 60% of Hector's dolphin deaths where the cause of death is known.

Other identified fishing threats include trawling, drift netting and cray potting. Whilst drift nets are only used in the Waikato River by a few individuals and cray potting entanglements are thought relatively rare, trawling may pose a more significant threat. Currently, trawl captures of Hector's and Maui's dolphin are reported inconsistently. Observer coverage is very low. Research conducted in 1997/98 (Baird and Bradford, 2000) showed that there is potential for a considerable number of Hector's dolphins to be caught annually in trawl nets.

Option 2 prohibiting drift net use at Port Waikato is supported by Forest & Bird, as are proposed measures to address the risk of cray pot entanglements in Kaikoura.

The TMP proposes three options to address set netting and trawling threats under the Fisheries Act 1996, ranging from minimal regulation and protection of the dolphins, to

more substantial regulations that offer greater protection for Hector's and Maui's dolphins.

In 2006 submissions on the proposed interim protection measures for Hector's and Maui's dolphins from a wide range of stakeholders, including the recreational and commercial fishing sectors, called for any measures imposed to protect Hector's and Maui's dolphins from fishing threats to be universal across all sectors. However, the TMP fails to meet this request, providing different options not only for different fishing sectors, but also across different geographical regions and seasons.

A consistent approach, aimed at achieving the required level of protection for Hector's dolphins needs to be applied across fishing areas, sectors and seasons.

2.1 Option 4

There is currently no option provided in the TMP that will allow for the achievement of the Government's vision statement – *recovery of dolphin populations throughout their natural range*. In light of set net fishing mortality being identified as the single most important threat to the long-term viability of Hector's dolphins, Forest & Bird recommends the following option (Option 4) be adopted in the medium to long term:

"*A nationwide prohibition on set net fishing*."

This option will remove the single biggest threat to Hector's dolphins, would best allow for rebuild and expansion into new and previously occupied areas and would benefit a wide range of other marine life killed by this indiscriminate fishing method.

2.1.1 Recovery throughout Hector's and Maui's dolphins range

Hector's dolphin's once ranged around most of the New Zealand coastline. In the South Island Hector's dolphins are found in all coastal waters except around Fiordland. In the North Island they were found everywhere except the Coromandel coast, Hauraki Gulf and east coast of Northland in the North Island (Figure 1).

If the Government's vision statement and the objectives of the TMP are to be met in full, the full natural range of Hector's dolphins should be included within the TMP.

Figure 1. Historical distribution of Hector's dolphins around the North Island (yellow). (Source: Department of Conservation.)

2.1.2 Protection of other vulnerable marine life

Option 4 also provides for requirements under the Fisheries Act 1996 to avoid, remedy or mitigate the effects of fishing on other marine wildlife. Set nets are an indiscriminate fishing method that catch other vulnerable marine life such as sharks, rays, seals, other dolphins, penguins and other seabirds (Taylor, 2000; Darby and Dawson, 2000; Massey University, 2007).

The New Zealand experience of set net impacts on marine mammals reflects similar impacts overseas with significant bycatch problems reported in gillnet fisheries worldwide (Read et al, 2006; DeGrange and Day, 1991; European cetacean bycatch campaign, 2007). A global study over a 5 year period showed that as a fishing method, set netting has a disproportionate effect on marine mammals compared to other methods (Read et al, 2006). An average of 215,000 set net vessels caught 643,000 marine mammals per year. For the same 5 year period 213,000 trawl and other fishing vessels had an average marine mammal bycatch of 9,900 a year. The set net vessels were responsible for 65 times the marine mammal bycatch of other fishing vessel types.

Many countries have banned or heavily restricted the use of set nets (gill nets). In Fiji set netting has been banned for 20 years. Many states in the USA also ban or tightly control set nets, for example, in California set nets are banned in water shallower than 100m. Several European states have similar controls, including Denmark, Italy, England and Scotland. In Australia amateur set netting is not permitted except in Tasmania.

A nationwide prohibition of set net fishing is therefore not only necessary to protect Hector's and Maui's dolphins, but other vulnerable marine life in New Zealand waters.

2.2 Option 3

The only option proposed by the TMP that comes close to meeting the Government's objectives is Option 3. However, there are a number of omissions and inconsistencies that make the current Option 3 inadequate.

Whilst Forest & Bird recommends adoption of Option 4, we would support implementation of Option 3 with the following amendments:

- Set netting is prohibited throughout all Hector's and Maui's dolphin range out to 100m water depth[3];

- Trawling is prohibited out to 4 nautical miles (nm);

- Vessel monitoring systems required on all trawl vessels;

- Observers or electronic monitoring equipment required on all trawl vessels within 100m water depth.

  This modified option 3 would be applicable year round, across all fishery sectors and locations (Manganui Bluff to Cape Egmont in the North Island and West of Te Waewae Bay in Southland north and round the South Island to Jackson Bay on the west coast of the South Island).

Hector's dolphin populations are fragmented, restricting the ability of the species to withstand human induced threats. The approach adopted in the TMP is to only mitigate fishing threats in key Hector's dolphin areas. It ignores the vulnerability of fragmented sub-populations, the limited gene flow between them and the need to remove threats in the gaps between sub-populations to encourage recovery. The most notable of these omissions is protection of Hector's dolphins around the top of the South Island – Tasman Bay, Golden Bay and the Marlborough Sounds. It is crucial that the TMP offer protection to Hector's dolphins throughout their natural range to meet it's objectives.

[3] Exception for the south coast of the South Island, where restrictions should extend to the north coast of Stewart Island.

It is also important that the TMP applies measures that do not reinforce problems in existing fisheries management. Current rules and regulations governing fishing practices, especially set netting, are highly variable. To meet the requests of the fishing sectors involved and to ensure management measures are easy to implement and enforce, Option 3 must be modified to provide a single, universal option that is applicable across the board in all areas where Hector's and Maui's dolphins are known or likely to range.

2.2.1 Set net restrictions within 100m water depth

Hector's dolphins around Banks Peninsula range within 100m water depth (Slooten et al, 2006). This research provides the best available information on the species distribution offshore and should be adopted in the TMP.

The draft TMP currently confines regulations to waters within 12 nm from the shore line. As illustrated by the Banks Peninsula research, this option would exclude some Hector's dolphins and continue to expose them to the threat of being caught and killed in set nets. The 12nm option would also unnecessarily penalise fishers in other areas, for example Kaikoura fishermen, where the 100m isobath is close to shore south of the peninsula.

Using a depth contour as a management boundary is also of far greater practical value. All vessels have depth sounders installed, but may not necessarily have GPS. radar, measuring distance from shore, is complicated by factors such as weather and tide.

One area of obvious contention within the TMP is where information is lacking or uncertain, for example the small harbours along the west coast of the North Island and the inner reaches of the Manakau and Kaipara harbours.

Under Section 10(d) of the Fisheries Act 1996, the Minister should take into account:

> "*The absence of, or any uncertainty in, any information should not be used as a reason for postponing or failing to take any measure to achieve the purpose of this Act.*"

We know that Hector's dolphins can forage in waters from 1m to 100m water depth. We also know that large cetaceans, such as killer whales have been sighted inside some for the west coast harbours. Maui's dolphins sightings have been made in at least 3 of the 5 harbours (Scali, 2007) and despite limited observations and comprehensive research inside these harbours, it is highly probable that Maui's do, have done in the past or could in the near future range within these areas.

We risk the extinction of Maui's dolphins if we do take all possible measures to protect them from their entire known and possible range. A prohibition on set net

fishing within 100m water depth should therefore be implemented within Hector's and Maui's dolphins range.

2.2.2 Trawl restrictions out to four nautical miles

Forest & Bird supports the TMP's proposal to restrict trawling out to 4 nm on the west coast of the North Island. Prohibiting trawling only out to 2nm in the South Island is inconsistent with this and not supported by the Society.

To ensure consistency across the management measures, Forest & Bird supports a prohibition on trawling out to 4nm which has been proposed by commercial fishers in lower Northland.

2.2.3 Vessel monitoring systems (VMSs)

There has been considerable support expressed by the commercial and recreational fishing sector to install vessel monitoring systems on board all trawl vessels. The TMP does not address the use of VMS's.

Forest & Bird supports the fishing industry's call for the use of VMS's as they will support monitoring and enforcement of management measures. For example, if a trawl vessel was observed within 100m water depth, referenced rapid assessment could be made to ensure compliance of the vessel with the regulations to protect Hector's and Maui's dolphins, plus other fisheries regulations.

2.2.4 Increased observer coverage

Forest & Bird supports the TMP's proposal for increased observer coverage. However, there is no specification in the TMP as to the scale and intensity of proposed increases in observer cover. Whilst the we recognises the costs involved in placing fisheries observers on board all trawl vessels throughout Hector's and Maui's dolphin range, successful video monitoring outlined in the TMP would mitigate these costs.

It is essential that given the status of Hector's and Maui's dolphins, that all trawl vessels operating within 100m water depth be required to chose one of these options.

3. Other Threats

The Threat Management Plan (TMP) deals with non fishing related threats mainly through proposals for new marine mammal sanctuaries and extensions to the existing Banks peninsula sanctuary.

Forest & Bird supports the need for effective new sanctuaries and extensions to the present sanctuary, however we consider that the draft TMP proposals will not be adequate to properly protect the dolphins from the non fishing threats.

Such sanctuaries should extend out to 100m water depth, to encompass all critical populations and take into account all potential threats, including boat strike, pollution or waste discharge and activities or proposals for mineral exploration/utilisation and marine energy generation.

3.1 West Coast North Island.

The outer boundary of the proposed marine mammal sanctuary for Maui's dolphin should be extended to the 100m depth contour. This offshore boundary reflects the known range of the species.

The proposed TMP offshore boundary of 12 nautical miles (nm) will mean that a significant area of habitat utilised by Maui's dolphin will not be included in the sanctuary. It will also unnecessarily penalise fishers in some areas. For example, those around the coastlines of Taranaki and north western Northland, where the 100m isobaths is less than 12nm.

The marine mammal sanctuary should also extend down to Cape Egmont in line with option 3 of the proposed fishing measures.

3.2 South Island.

The TMP's proposed South Island marine mammal sanctuaries do not adequately protect vulnerable Hector's dolphin populations. The focus on a few sub-populations is likely to lead to further fragmentation. This is particularly evident in the draft Threat management Plan's failure to propose any sanctuary for the West Coast Hector's population. As the largest population of Hector's dolphin it is important that it be protected and not be allowed to become reduced in size or fragmented.

3.2.1 West Coast sanctuary.
A marine mammal sanctuary should be established on the West Coast of the South Island between Kahurangi Point and Jacksons Bay. The outer boundary of the sanctuary should be the 100m depth contour.

3.2.2. East coast sanctuary
If Hector's dolphin is to recover around the South Island it will be essential that the areas between the main population concentrations are also adequately protected. Forest & Bird considers that the proposed sanctuaries in Cloudy Bay and the proposed extension to the existing Banks Peninsula sanctuary are not adequate to prevent the continued fragmentation of the east coast populations of Hector's dolphin. The lack of protection

for the population north of Pegasus Bay and up the Kaikoura Coast is of particular concern. Forest & Bird has advocated a single sanctuary extending from the Clarence River in the North to the Waitaki River in the south. This proposal could be further extended to include the Cloudy Bay proposal put forward in the Threat Management Plan. Any sanctuary should have its outer boundary defined by the 100m depth contour.

3.2.3 South coast sanctuary

The draft TMP proposal for two small sanctuaries on the south coast at Curio Bay and Te Waewae Bay is likely to reinforce the possible fragmentation of these populations. There should be a single south coast sanctuary which combines and connects these two proposals. The outer boundary for this sanctuary should be the 100m depth contour at its eastern and western edges and the 12 nautical mile line within Foveaux Strait.

4. Research priorities

The TMP states:

> "An accurate determination of dolphin distribution is considered the highest priority for further research".

Other identified research priorities include:

- To gather baseline data on the abundance of each population
- To determine the level of gene flow within and between populations to assess current levels (and potential effects) of population fragmentation
- To gather information on the life history characteristics of Hector's dolphins to enable more robust assessment of demographic trends and threats to the populations.

Whilst Forest & Bird supports these research objectives, the Society does not agree that they are the highest priority objectives. In relation to the information available on the distribution, abundance and life history of cetaceans worldwide, Hector's and Maui's dolphins can be considered to already be extensively researched. More research in this area would be of limited value in relation to questions that remain unanswered. The government's research priorities should therefore address the gaps in our knowledge.

Priority should be given to increase observer coverage and monitoring to identify the degree and scope of fisheries bycatch throughout Hector's and Maui's dolphin range. Research into other human induced threats and the degree to which mitigation measures reduce those threats enough to meet the TMP objectives should also be a priority.

In terms of current surveys on the socio-economic impacts of proposed TMP measures, Forest & Bird supports moves to address the costs of switching to alternative fishing methods, rather than the cost of stopping fishing – which is how this issues is currently

being framed. Many other fishing methods are available to fishers and the viability and cost of switching to these alternatives is of far more practical value to decision makers.

Socio-economic research should also focus on the non-extractive values of the TMP's proposed options. In particular, intrinsic values held by many New Zealanders as well as the economic values of ensuring the long-term viability of Hector's dolphins such as those gained through the tourism sector.

Should you have any queries regarding our comments, please do not hesitate to contact me.

Yours sincerely,

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