# Hector's and Māui Dolphin Threat Management Plan Research Strategy 2026- 2031

## Contents



## Purpose

The purpose of the Hector's and Māui dolphin Threat Management Plan (TMP) Research Strategy is to:

- Support the Government's vision that New Zealand's Hector's and Māui dolphin populations are resilient and thriving throughout their natural range[1];
- Support the long-term goal of ensuring Hector's and Māui subpopulations are thriving or increasing, supported by an enduring, cohesive and effective threat management programme across New Zealand[2]; and
- Improve knowledge of poorly understood threats[3], including their nature, scale, and extent.
- Identify and prioritise key knowledge gaps, ensuring that resources for new research are aligned with management needs.

This strategy will be reviewed approximately every five years.

# Context

Hector's and Māui dolphins are small coastal dolphins found only in New Zealand. Hector's dolphins were officially listed as threatened in 1999 under the Marine Mammals Protection Act 1978 (MMP Act). Since 2002, Hector's dolphin (*Cephalorhynchus hectori hectori)* and Māui dolphin (*C. h. maui*) have been recognised as distinct subspecies, reflecting clear genetic and morphological differences between them. Hector's dolphins are found primarily around the South Island, while Māui dolphins have a much more restricted range and only occur only along the west coast of the North Island (WCNI).

## Status of Hector's and Māui dolphins

Hector's dolphin is classified as *Nationally Vulnerable* under the New Zealand Threat Classification System (NZTCS, Lundquist et al. 2025). The total population is estimated at around 14 849 animals (CV: 11%, 95% CI 11 923–18 492) (MacKenzie & Clement 2014, 2016).

Māui dolphin is classified as *Nationally Critical* under the NZTCS (Lundquist *et al*. 2025) and has an estimated population of 54 individuals aged one year and over (95% confidence interval (CI) = 48–66) (Constantine et al. 2021).

Population trends for both Hector's and Māui dolphins remain uncertain. However, Māui dolphins are particularly vulnerable to any human-induced mortality due to their extremely small population size.

Surveys to refine an abundance estimate for Māui dolphins were undertaken in 2025 and 2026. An updated population estimate is expected in late 2026.

## The Threat Management Plan

Public and government concern about human-induced mortality led to the development of the Hector's and Māui Dolphin Threat Management Plan (TMP) in 2008. The Māui component was reviewed in 2012, and a full review of both subspecies in 2019 resulted in an updated TMP, released in 2020.

The TMP operates at a subpopulation scale (see Appendix 1 for maps). It recognises both subspecies and four South Island Hector's dolphin subpopulations: East Coast (ECSI), West Coast (WCSI), North Coast (NCSI), and South Coast (SCSI). These divisions are based on genetic evidence showing breaks in distribution. Although dolphins are occasionally sighted off the East Coast of the North Island

[1] Hector's and Māui dolphin Threat Management Plan vision – (link)
[2] Hector's and Māui dolphin Threat Management Plan long term goal
[3] Hector's and Māui dolphin Threat Management Plan medium term goal

(ECNI), there is insufficient evidence to confirm a resident, self-sustaining population or assign these individuals to a specific subpopulation.

For this research strategy, the West Coast North Island (WCNI) is divided at Cape Egmont into two zones:

- a northern zone representing the core Māui dolphin range, and
- a southern zone that may function as both a recovery area and a potential movement corridor between the North and South Islands.

The NCSI is retained as a planning unit. However, recent genetic evidence suggests Tasman Bay may act as a boundary between the ECSI and WCSI subpopulations. Dolphins found to the west of Tasman Bay align with the WCSI, while those to the east, including animals in the Marlborough Sounds, align with the ECSI (Carroll et al 2022).

Further refinement of subpopulation boundaries, particularly between the SCSI and ECSI, is ongoing. Within the ECSI, "local populations" have been defined to support Fisheries-Related Mortality Limits (FRMLs), although these do not necessarily represent demographically independent units. Similar consideration of finer-scale population structure may be required for other subpopulations, particularly the WCSI.

The TMP subpopulations, local areas, and FRML units provide the framework for this research strategy and guide investigations into movement patterns and overlap with threats

## Threats

Hector's and Māui dolphins face a range of pressures that can affect them in multiple, often overlapping, direct and indirect ways. These include injury, disease, disturbance, underwater noise, habitat modification, changes in prey availability and distribution, reduced foraging efficiency, displacement, and habitat fragmentation.

The nature and severity of these impacts vary depending on context and scale. These include factors such as location, the size and intensity of an activity, the technology used, and when and how long activities occur. Pressures from different human activities, or their associated by-products, can combine and act cumulatively on individuals potentially leading to population-level effects over time.

Key threats to the dolphins include:

- Set net and trawl fishing
- Toxoplasmosis and other diseases
- Seismic surveying
- Seabed mining
- Underwater noise
- Dolphin watching and vessel traffic
- Oil spills
- Other pollution and sediment run-off
- Coastal development
- Climate change

The level of understanding and management of these threats varies. Some, such as commercial fishing, are well understood and are addressed through the TMP. Others, particularly climate change

and indirect effects of human-driven habitat change, are less well understood and are not yet fully addressed.

Under the TMP, key threats including commercial and recreational set-netting, trawling, toxoplasmosis, seismic surveying, and seabed mining are actively managed. Other threats are primarily addressed through broader regulatory frameworks, which are generally considered appropriate for managing the risks to Hector's and Māui dolphins.

## Collaborative research planning

The science underpinning the TMP draws on research commissioned by the Department of Conservation and Fisheries New Zealand, as well as a broad body of independent work produced by iwi partners, universities, NGOs, industry groups, and individual researchers. This includes extensive programmes focused directly on Hector's and Māui dolphins, alongside research that strengthens our understanding of broader environmental pressures and threats that, while not always species-specific, are highly relevant to dolphin conservation.

Effective management and monitoring of Māui and Hector's dolphins relies on robust information and evidence-based decision-making.

Defining populations at the right spatial scales, and detecting changes in their size and trends, is challenging for long-lived, slow-breeding species that are difficult to observe. Despite these challenges, this information is vital for assessing the effectiveness of management actions and ensuring that human pressures do not undermine the TMP's objectives.

Selecting appropriate research tools and approaches requires careful consideration of geographic, environmental, social licence, and budget constraints. It may also require new or innovative methods. This strategy does not prescribe specific methods or limit research through predefined budgets. However, these factors will remain important considerations for government agencies when planning and supporting research.

To incorporate scientific expertise into the development of this strategy, a workshop was held in September 2025 with participants from New Zealand and overseas (a list of participants is provided in Appendix 5). The workshop aimed to:

- Support the update of the TMP research strategy.
- Identify priority science needed to achieve the TMP's goal of *resilient, thriving dolphin populations across their natural range*, and ensure *subpopulations are thriving or increasing – supported by a cohesive, enduring, and effective threat management programme*.
- Identify key knowledge gaps and determine research needed to address them
- Focus on science that improves management outcomes at appropriate scales, including better understanding of threats and their extent.
- Inform government prioritisation of research, monitoring, and responses to current and emerging threats.

DOC and Fisheries New Zealand used the outcomes of this workshop to inform the development of this research strategy.

### Stranded and bycaught animals

Work programmes to understand subpopulations and the threats they face are supported by information from stranded and bycaught animals. A significant component of this work is delivered by DOC's Operations staff, who respond to reports, work with Treaty partners, recover carcasses, take biological measurements, and send dolphins to Massey University for necropsy.

The necropsy programme provides critical insights into causes of death, population health, and dolphin biology, including disease prevalence and diet. This ongoing work is essential for identifying risks and improving understanding of factors affecting dolphin survival and population trends.

## Priority Research

Workshop outcomes identified a clear need to strengthen understanding of population demographics, distribution, abundance, and connectivity, particularly for small and vulnerable subpopulations. This work should be supported by ongoing work to better understand key threats and to evaluate the effectiveness of management responses.

Through collaborative planning, three overarching research priorities have been identified to guide work under the TMP:

1. Life history and population dynamics
2. Habitat use, behaviour, and diet
3. Understanding and managing threats

### Life history and population dynamics

Effective conservation management of Hector's and Māui dolphins relies on a robust understanding of their population dynamics, including population size, structure, and trends over time. Small populations are particularly vulnerable to stochastic processes such as environmental variability, demographic fluctuations, and genetic risks, including inbreeding and loss of genetic diversity.

Quantifying key demographic parameters, such as survival rates, recruitment, sex ratios, and age structure, alongside measures of genetic diversity and connectivity between populations, is critical for assessing population viability. Together, these metrics provide essential insight into population health, resilience, and the ability to withstand and recover from human and natural pressures.

Necropsy examinations are a key source of information for understanding life history and population dynamics. Detailed internal assessments can provide reproductive status, recent and historical diet (from stomach contents), and overall condition. Understanding patterns of mortality across different demographic groups (e.g., calves compared with breeding adults) is particularly important for informing population viability models.

The following strategic research questions underpin efforts to monitor and understand population health:

- Monitoring subpopulation and local population size, trends, and factors influencing population growth for both Māui and Hector's dolphins.

- Understanding population structure and demographic characteristics, including age, sex, and rates of recruitment and survival.
- Assessing genetic relationships and connectivity among subpopulations and identifying demographically independent local populations.
- Monitoring factors that influence demographic rates, including reproductive status and causes of mortality derived from necropsy data.

## Habitat use, behaviour and diet

The distribution and movement of Hector's and Māui dolphins are closely linked to the spatial and temporal patterns of their prey, particularly demersal and small pelagic fish species. Integrating data on dolphin occurrence and movement with information on prey distribution, environmental drivers, and behaviour helps identify areas of ecological overlap. This provides a foundation for robust habitat-use models and improves assessment of exposure to human pressures.

Evidence from stomach content analyses, passive acoustic monitoring, and bio-logging technologies, such as digital archival tags, indicates that these dolphins may use a broader vertical range in the water column and forage further offshore than is apparent from daytime aerial surveys alone. This highlights the importance of incorporating subsurface and nocturnal behaviour into habitat assessments.

A comprehensive understanding of movement ecology is therefore essential to ensure that spatial management measures effectively capture ecologically important areas and provide adequate protection from risk.
Key research priorities include:

- Characterising temporal and spatial variation in the distribution of key populations
- Improving understanding of dolphin distribution and movements, including offshore, diel, and long-distance movements, as well as connectivity between areas
- Improve knowledge of prey distribution and availability
- Continuing to refine and improve habitat and distribution models
- Maintaining surveillance and collecting data and samples from dolphins observed in atypical or previously unrecorded locations.

## Understanding and managing threats

Understanding and mitigating human-induced risks is essential for the long-term survival of inshore dolphin populations.

### *Fishing Interactions*

Fisheries-related impacts remain the primary source of human-induced mortality for Hector's and Māui dolphins. Incidental bycatch in set-net and trawl fisheries continues to pose a significant threat, highlighting the need for robust monitoring and management of interactions across both commercial and recreational sectors. Equally important is the evaluation of mitigation measures, such as spatial closures, acoustic deterrent devices, and gear modifications, to ensure they are effective and do not introduce unintended ecological, behavioural, or socioeconomic impacts. Poorly

designed measures may alter dolphin distribution, disrupt foraging, or shift fishing effort in ways that increase overall risk.

Priority actions include:

- Improve information on fisheries impacts across gear types and sectors
- Increasing confidence in mortality estimates
- Strengthening understanding of mitigation effectiveness and unintended consequences

### *Disease & Parasites*

Detection of pathogens is critical for assessing dolphin health and wider ecosystem condition. Land-derived pathogens introduced via runoff can enter marine food webs. For example, the parasite *Toxoplasma gondii*, originating from domestic and feral cats, can cause severe and often fatal disease in dolphins. Beyond direct mortality, pathogen exposure can reduce fitness by impairing immune function and increasing vulnerability to other stressors. Pathogen surveillance is therefore essential for understanding both population health and cumulative environmental pressures.

Priority actions include:

- Improving determination of cause of death through examination of stranded and bycaught dolphins, noting toxoplasmosis is addressed in a separate programme

### *Acoustic & Physical Disturbance*

Activities such as seabed mining, seismic surveying, pile driving, coastal development, use of acoustic deterrent devices, and vessel traffic (including commercial, tourism, and recreational activities) all contribute to underwater noise and disturbance. These pressures can cause physical injury, displacement from key habitats, and disruption of critical behaviours such as foraging and communication. Noise can also mask important acoustic cues, affecting navigation, prey detection, and social interactions.

Priority actions include:

- Improving understanding of noise impacts on dolphins
- Assessing the adequacy of existing regulatory frameworks

### *Carcass recovery and necropsy*

DOC places a priority on raising awareness of the importance of reporting dead animals, to better enable carcass recovery. Improving the detection and recovery of dolphin carcasses is essential for accurately determining causes of mortality and assessing risk. Many deaths go undetected due to sinking, scavenging, or ocean transport, meaning observed strandings likely underestimate true mortality. The timely recovery of carcasses from bycatch, strandings, and beach cast animals supports high-quality necropsy data, which improves understanding of natural and human-induced mortality.

### *Emerging threats*

Identifying and understanding emerging threats early is important. Necropsy programmes play a key role in detecting risks from pollutants such as persistent chemicals and plastics. New and expanding activities within dolphin habitats, such as offshore renewable energy and aquaculture, also require careful assessment to ensure risks are well managed.

### *Climate change*

Understanding how climate change may affect dolphins is important for future management. Changes in ocean conditions may influence dolphin distribution, habitat suitability, and prey availability.

Priority actions include:

- Estimating climate change impacts on each sub-population
- Understanding effects on key prey species to support habitat modelling
- Maintaining vigilance for emerging risks through ongoing monitoring and necropsy

## Toxoplasmosis

In Budget 2022, Treasury provided funding to investigate the threat of toxoplasmosis, caused by the parasite *Toxoplasma gondii*, to dolphins, with a focus on Māui dolphins. This work is being delivered through a dedicated research programme that reflects both the complexity of the issue and its terrestrial origin in cats.

The programme is due to run until the end of the 2027 financial year (30 June 2027). Findings from this research will inform an action plan to guide future management and investment.

DOC already invests in initiatives that are expected to contribute to reducing this threat. This includes the development of tools and partnerships through Predator Free 2050 to manage feral cats and other pest species, as well as investments in waterways and wetlands management.

Together, these efforts are expected to deliver long-term benefits for dolphin populations by reducing the load of *Toxoplasma* oocysts entering marine environments, alongside broader conservation benefits.

## Guiding policies and legislative framework

This research strategy is guided by the statutory responsibilities and legislative frameworks of DOC and Fisheries New Zealand. DOC is responsible for conserving New Zealand's natural and historic heritage, including the protection of Hector's and Māui dolphins. Fisheries New Zealand is responsible for managing fisheries and mitigating their effects on protected species.
Regional councils also play an important role under the Resource Management Act 1991, including protecting habitats that support indigenous species.
A range of policies and legislative instruments underpin these roles and responsibilities. These are outlined in Appendix 4.

## Delivery, funding and review

Research on Hector's and Māui dolphins is delivered through a range of established programmes and funding streams.

**Delivery mechanisms**

- DOC's Conservation Services Programme (CSP) runs an annual process to plan and fund research on understanding and mitigating the impacts of fisheries on protected species. Further information is available on the DOC website (link).
- Research, development and operational work is also funded and delivered through standard DOC processes.

- Fisheries New Zealand operates an annual process to plan and fund fisheries research on understanding fisheries risks to protected species.

### Funding sources

DOC and Fisheries New Zealand have committed funding to support research on Hector's and Māui dolphins. Additional funding may be available from other sources, including:

- Government funding streams such as the Ministry of Business, Innovation and Employment, Crown Research Institute Strategic Investment funding, where alignment with broader funding objective can be demonstrated.
- Private foundations, non-governmental organisations, industry groups such as tourism operators and fishing companies, and academic institutions. Universities may also undertake or support relevant research as part of existing or new programmes.

### Review and assurance

Research undertaken on Hector's and Māui dolphins is subject to regular review. This includes annual reviews of research progress, as well as periodic updates to this research strategy.

All research commissioned through DOC or Fisheries New Zealand is independently peer review through established expert forums, including DOC's CSP Technical Working Group and MPI's Aquatic Environment Working Group (AEWG). These forums are also open to externally funded research, and participation is encouraged to ensure transparency, consistency, and scientific rigour.

## References


Baker, C.S.; Steel, D.; Hamner, R.M.; Hickman, G.; Boren, L.; Arlidge, W.; Constantine, R. (2016). Estimating the abundance and effective population size of Māui dolphins using microsatellite genotypes in 2015–16, with retrospective matching to 2001–16. Department of Conservation, Auckland. 70 p.

Carroll, E.L., Steel, D., Tham, F.F., Ogilvy, C., Constantine, R. (2022). Hector's Dolphin Genetic Analysis Update: Progress Report. For DOC - hectors-dolphin-genetic-analysis-update-2022.

Constantine, R., Steel, D., Carroll, E., Hamner, R. M., Hansen, C., Hickman, G., Hillock, K., Ogle, M., Tukua, P., & Baker, S. C. (2021). Estimating the abundance and effective population size of Maui dolphins (*Cephalorhynchus hectori maui*) in 2020–2021 using microsatellite genotypes, with retrospective matching to 2001. Department of Conservation.

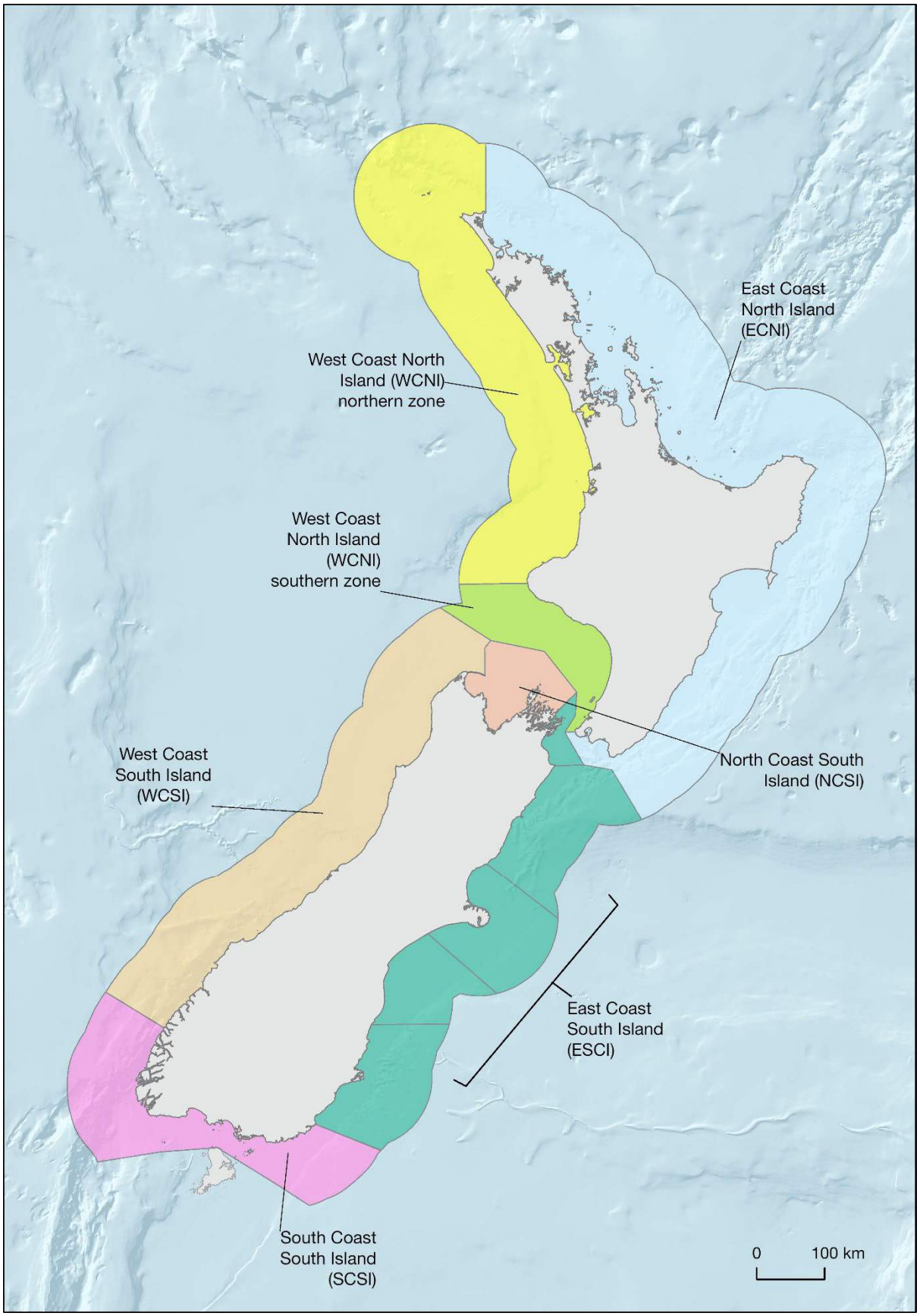
Lundquist, D., Boren, L., Childerhouse, S., Constantine, R., van Helden, A., Hitchmough, R., Michel, P., Rayment, W., and Baker, C.S., (2024). Conservation status of New Zealand marine mammals, 2024. New Zealand Threat Classification Series 48. Department of Conservation, Wellington. 25p

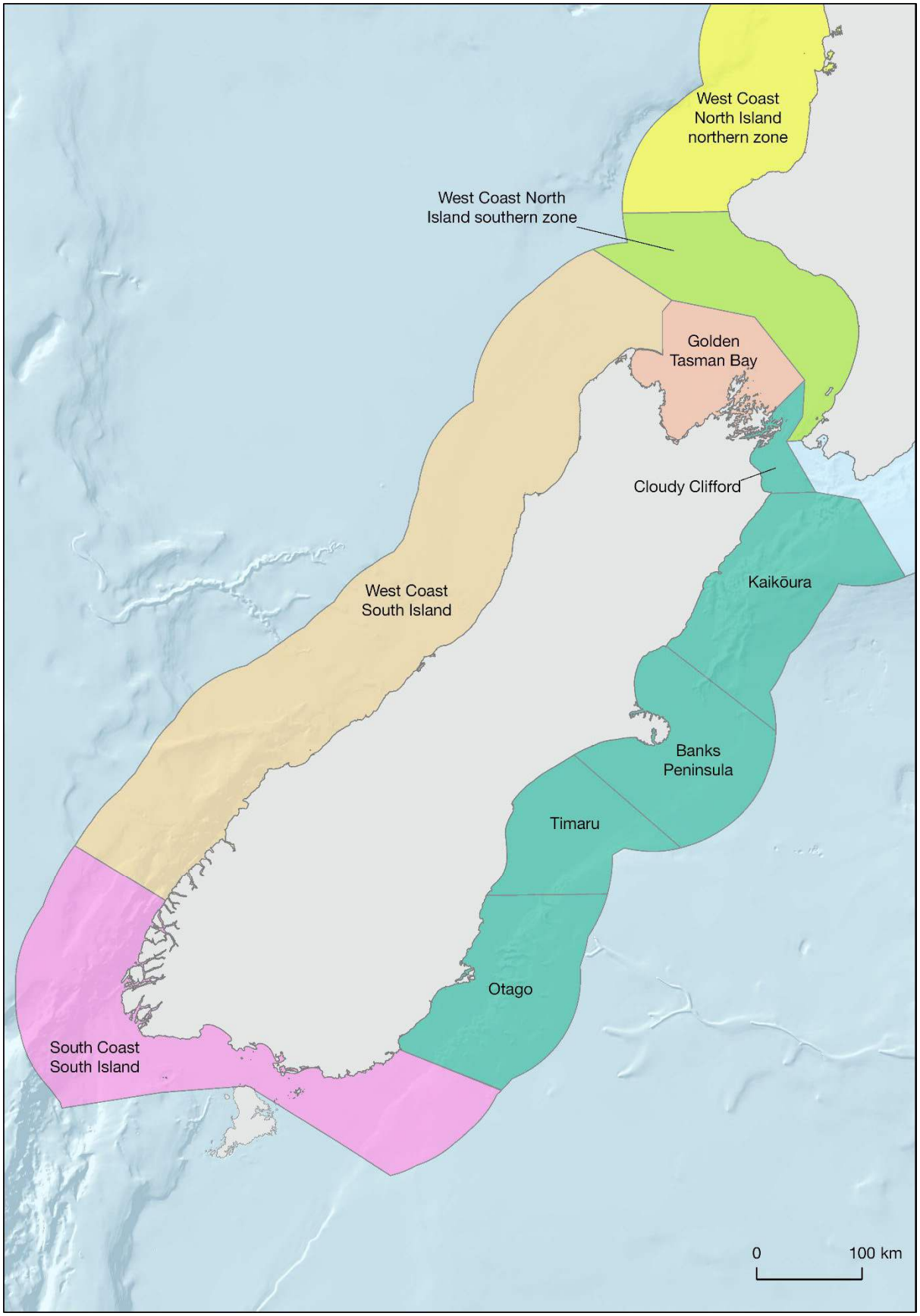
MacKenzie, D. L., & Clement, D. M., (2016). Abundance and distribution of WCSI Hector's dolphin (New Zealand Aquatic Environment and Biodiversity Report No. 168). Ministry of Primary Industry.

MacKenzie, D.I.; Clement, D.M., (2014). Abundance and distribution of ECSI Hector's dolphin. New Zealand Aquatic Environment and Biodiversity Report No. 123. 79 p. Ministry of Primary Industry.

# Appendices

## Appendix 1: Maps of sub-population and local populations




West Coast
North Island
northern zone
West Coast North
Island southern zone
Golden
Tasman Bay
Cloudy Clifford
Kaikōura
West Coast
South Island
Banks
Peninsula
Timaru
Otago
South Coast
South Island
0
100 km

## Appendix 2: DOC and MPI's key research priorities

DOC's and MPI's key research priorities for Hector's and Māui dolphins include:

- **Māui dolphin (core range, west coast North Island (WCNI) northern zone):** abundance estimation, epigenetic aging, inshore and offshore distribution, and refinement of habitat preference models, including diet and prey distribution.
- **East Coast South Island (ECSI):** updated population estimates for high-density areas. Funding for this work has been secured through the International Visitor Levey (IVL), with fieldwork scheduled to begin in July 2026.
- **South Coast South Island (SCSI):** estimation of abundance and connectivity, along with collection and archiving of biological samples to support demographic studies and long-term population monitoring.
- **Otago region:** collection of genetic samples to assess the size and demographic independence of local populations and to support future analyses through sample archiving.
- **North coast South Island (NCSI)- Golden/Tasman Bay:** refinement of demographic boundaries through targeted sample collection.
- **Noise management:** support for the development of underwater noise standards, and guidelines relevant to acoustic fisheries bycatch mitigation devices and dolphin conservation.
- **Fisheries interactions:** improved understanding of mitigation approaches through the Conservation Services Programme (CSP).
- **Abundance surveys:** continued efforts to secure funding for population surveys of the SCSI and WCSI subpopulations.
- **Necropsy programme:** Ongoing vigilance for carcass detection, and maintenance of necropsy programme.
- **Emerging methods:** ongoing exploration and application of new technologies to address key knowledge gaps around distribution and behaviour.
- **Risk Modelling**: continued updating and improvement of risk estimation models

## Appendix 3: Strategic research by Sub-population and Local Population

### *WCNI – Northern Zone (Māui core range)*

- Estimate abundance – genetic capture -recapture
- Monitor population demographics, age structure, and reproduction (pregnancy rates)
- Analyse genetic population structure
- Monitor distribution, habitat use, and movement patterns – particularly offshore and diel shifts
- Refine habitat models incorporating diet and prey distribution
- Maintain disease surveillance and assess impacts – including carcass detection and recovery - from stranded and bycaught animals
- Monitor fisheries

### *WCNI – Southern Zone*

- Further examine genetic identity of animals found in this region to understand connectivity with Māui core and South Island sub-populations through opportunistic biopsy
- Collect and verify sightings data to inform distribution of events through time
- Monitor disease and health indicators from stranded or bycaught animals

- Monitor fisheries

*ECNI*

- Collect genetic samples to understand population of origin
- Collect and verify sightings data to inform distribution of events through time
- Monitor disease and health indicators from stranded or bycaught animals
- Monitor fisheries

*NCSI – Golden & Tasman Bays*

- Clarify population boundaries and structure – through genetic sampling from biopsy to assess connectivity with adjacent populations
- Collect and verify sightings data
- Estimate abundance
- Characterize diet and prey
- Monitor disease and health indicators from stranded or bycaught animals
- Monitor fisheries

*NCSI – Marlborough Sounds*

- Understand population structure and connectivity to Cloudy Bay – biopsy sampling
- Estimate abundance and monitor distribution (seasonal and overlap with industry activities)
- Monitor interactions with aquaculture and tourism
- Assess habitat use and movement
- Characterize diet
- Monitor disease and health indicators from stranded or bycaught animals
- Monitor fisheries

*ECSI – Cloudy-Clifford*

- Estimate abundance
- Improve distribution data – particularly relative to protection measures e.g. offshore
- Understand population structure and connectivity to Marlborough Sounds – biopsy sampling
- Reconcile population estimation methods – using as model population
- Monitor disease and health indicators from stranded or bycaught animals
- Monitor fisheries

*ECSI – Kaikōura*

- Estimate abundance
- Distribution – habitat use
- Monitor fisheries interactions
- Estimate cryptic mortality
- Collect genetic information to inform population health and demographics
- Monitor disease and health indicators from stranded or bycaught animals
- Monitor fisheries

*ECSI –Banks Peninsula (Includes Pegasus Bay)*

- Estimate abundance
- Monitor demographics (e.g. calf frequency)
- Assess environmental drivers of change
- Maintain long-term population monitoring
- Understanding tourism and noise impacts

- Monitor disease and health indicators from stranded or bycaught animals
- Monitor fisheries

*ECSI – Timaru*

- Estimate abundance
- Assess genetic connectivity within southern ECSI
- Evaluate interactions with trawl fisheries and mitigation approaches
- Estimate cryptic mortality
- Monitor disease and health indicators from stranded or bycaught animals
- Monitor fisheries

*ECSI – Otago*

- Estimate abundance – e.g. through genetics and longitudinal study
- Assess offshore distribution and distribution relative to protection measures
- Resolve genetic connectivity with ECSI and SCSI
- Monitor disease and health indicators from stranded or bycaught animals
- Monitor fisheries

*SCSI – Porpoise Bay*

- Determine genetic structure and connectivity
- Develop prey and habitat models
- Characterize diet
- Monitor disease and health indicators from stranded or bycaught animals
- Monitor fisheries

*SCSI – to Te Waewae Bay*

- Understand seasonal distribution
- Estimate abundance
- Characterize diet and prey relationships
- Further develop habitat models
- Understand impacts of mitigation approaches being used in fisheries e.g. acoustic alarms
- Monitor disease and health indicators from stranded or bycaught animals
- Monitor fisheries

*WCSI – Karamea North*

- Assess genetic connectivity with Golden Bay – genetic sampling
- Monitor disease and health indicators from stranded or bycaught animals
- Monitor fisheries

*WCSI – broader*

- Improve understanding of diet and foraging ecology
- Support abundance and connectivity research
- Monitor disease and health indicators from stranded or bycaught animals
- Monitor fisheries

## Appendix 4: The legislative framework

The table below lists legislative and policy frameworks guiding DOC and MPI in the development of the Hector's and Māui dolphin Threat Management Plan 2026.

| **Legislative/ policy framework** | **Guiding principle** | **Relevant agency** |
|---|---|---|
| The Wildlife Act 1953 | Provides for the protection of all absolutely protected wildlife throughout New Zealand and New Zealand Fisheries Waters. This Act lays out wildlife that is whole or partially protected and restricts hunting, killing or possession of wildlife unless under specified conditions. It also gives the Minister of Conservation the ability to designate Wildlife Sanctuaries within which specified activities can be regulated or restricted. | DOC |
| Marine Mammals Protection Act 1978 (MMPA) | To make provision for the protection, conservation and management of marine mammals within New Zealand fisheries waters (the Territorial Sea and EEZ). Two key tools within the MMPA are:<br>• Marine Mammal Sanctuaries – an area designated by the Minister of Conservation within which specified activities can be regulated or restricted.<br>• Population Management Plans – a management plan that sets maximum allowable human-induced mortality, and maximum allowable fishing-related mortality. | DOC |
| Convention on International Trade in Endangered Species (CITES) implemented through Trade in Endangered Species Act 1989 | The object of this Act is to enable New Zealand to fulfil its obligations under the Convention on International Trade in Endangered Species of Wild Fauna and Flora and to promote the management, conservation, and protection of endangered, threatened, and exploited species to further enhance the survival of those species. Therefore, no person shall trade in any specimen of an endangered, threatened, or exploited species into or from New Zealand, unless under an appropriate permit or certificate. In addition, the Act gives the Minister of Conservation the following powers:<br>( a ) to conduct research and investigations into and surveys of species in New Zealand—<br>( i ) that are, or are likely to become, threatened with extinction; or<br>( ii ) the existence of which is likely to be affected,— by trade in specimens of those species:<br>( b ) to disseminate information relating to the import and export of endangered, threatened, and exploited species. | DOC |
| Conservation Act 1987 (CA) | New Zealand's principal Act concerning the conservation of indigenous biodiversity and promotes the conservation of New Zealand's natural and historic resources. It sets out the functions of DOC and the management of public conservation land in New Zealand. | DOC |
| Resource Management Act 1991 (RMA) | Part 2, Purpose and principles<br>• To promote the sustainable management of natural and physical resources… including safeguarding the life-supporting capacity of air, water, soil, and ecosystems (s 5(b)).<br>• Recognise and provide for…the protection of areas of… significant habitats of indigenous fauna (s 6(c)).<br>• Have particular regard to…intrinsic values of ecosystems (s 7(d)).<br>**New Zealand Coastal Policy Statement (NZCPS)**<br>It is mandatory to have at least one in place at all times (s 57(1)) – NZCPS 201o is the current policy statement[11].<br>• The Minister of Conservation is required to prepare, monitor, and review the NZCPS.<br>• The Minister of Conservation also approves regional coastal plans developed by regional councils and unitary authorities.<br>• Local Authorities are required to give effect to the NZCPS in their Regional Policy Statements, Regional Plans and District Plans (sections 62(3), 67(3)(b) | MfE<br>DOC<br>Local authorities |

| | | |
|---|---|---|
| | and 75(3)(b)). Local authorities must also have regard to the NZCPS when assessing consent applications. (section 104(1)(b)(iv))<br>• A number of policies within the NZCPS are relevant to the protection of Māui dolphins (e.g.);<br>• Policy 7 – Strategic planning<br>• Policy 11 – Indigenous biological diversity<br>• Policy 13 – Preservation of natural character<br>• Policy 14 – Restoration of natural character<br>• Policy 21 – Enhancement of water quality | |
| | Local Authorities (Regional, Unitary, City and District) must give effect to the NZCPS in their regional policy statements and plans.<br>Regional Coastal plans (mandatory in all regions) can:<br>• Include objectives, policies and rules<br>• Can include spatial planning, e.g. zoning | Local authorities |
| Marine Mammals Protection Regulations 1992 (MMPR) | Provide a regulatory framework for behaviour around all marine mammals and a permitting regime for commercial tourism. | DOC |
| The Fisheries Act 1996 (FA) | • Purpose of the FA<br>• Environmental principles (section 9)<br>• Information principles (section 10)<br>• Sustainability measures (section 11)<br>• Avoid, remedy or mitigate the effect of fishing-related mortality on any protected species (section 15(2)) | MPI |
| Te Mana o te Taiao – Aotearoa New Zealand Biodiversity Strategy (ANZBS) 2020 | provides the overall strategic direction for biodiversity in Aotearoa New Zealand for the next 30 years. It provides overarching direction and guidance to related strategies and work programmes, of which the Hector's and Māui Dolphin TMP is one.<br>Four of the five ANZBS outcomes align directly with the vision, goals and objectives of the TMP:<br>• Outcome 2: Indigenous species and their habitats across Aotearoa New Zealand and beyond are thriving.<br>• Outcome 3: People's lives are enriched through their connection with nature.<br>• Outcome 4: Treaty partners, whanau, hapū and iwi are exercising their full role as rangatira and kaitiaki.<br>• Outcome 5: Prosperity is intrinsically linked with a thriving biodiversity. | DOC |

## Appendix 5: List of participants in research planning workshops.

Facilitator: Karen Bell – Te Papa Atawhai Department of Conservation DOC

| | |
|---|---|
| Alana Alexander | Ōtākou Whakaihu Waka - University of Otago |
| Anton van Helden | Te Papa Atawhai DOC |
| Chloe Corne | Te Papa Atawhai Department of Conservation DOC |
| Darryl MacKenzie | Proteus |
| Dave Goad | Seafood New Zealand (SNZ) |
| David Lundquist | Te Papa Atawhai Department of Conservation DOC |
| David Middleton | Pices Research Ltd - for SNZ Inshore Council |
| Deanna Clement | Cawthron Institute |
| Debbie Steel | Oregon State University |

| | |
|---|---|
| Emma Betty | Massey University |
| Emma Carroll | Waipapa Taumata Rau – University of Auckland |
| Erin Hewetson | Te Papa Atawhai Department of Conservation DOC |
| Geoff Tingley | Gingerfish Ltd |
| Hannah Hendricks | Te Papa Atawhai Department of Conservation DOC |
| Jim Roberts | Anemone Consulting |
| John Richardson | Fisheries New Zealand (FNZ) |
| Kristina Hillock | Te Papa Atawhai Department of Conservation DOC |
| Liz Slooten | Ōtākou Whakaihu Waka - University of Otago |
| Malene Felsing | Te Papa Atawhai Department of Conservation DOC |
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