

Annex P

List of Recommendations Relating to Hector's and Māui Dolphins

Children	Number	Year	Text
	SC1201	2012	The Committee expresses particular concern about the low abundance of Māui's dolphins (North Island subspecies of Hector's dolphin). The latest abundance estimate of 55 individuals over one year old (CV 0.15) was calculated from a genetic mark-recapture analysis (Hamner <i>et al.</i> , 2012). The Committee recommends the immediate implementation of the proposal by the New Zealand Ministry for Primary Industries to extend the North Island protected area to approximately 80km south of the latest dolphin bycatch site (Maunganui Bluff to Hawera), 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. Further population fragmentation could be avoided by also protecting the north coast of the South Island, providing safe 'corridors' between North and South Island populations (Hamner <i>et al.</i> , 2012). Adequate observer coverage across all inshore trawl and gillnet fisheries is important in order to obtain robust scientific data on continuing bycatch as a means of assessing the effectiveness of protection measures.
	SC1301	2013	The Committee agrees that management measures must be precautionary. If any fisheries with the potential for bycatch were to remain active within the range of Māui's dolphins, 100% observer coverage would maximise the chance of identifying any bycatch and providing information that might trigger immediate further area closures. In conclusion, the Committee reiterates its extreme concern about the survival of Māui's dolphin given the evidence of population decline, contraction of range and low current abundance. The Committee agrees that the human-caused death of even one dolphin in such a small population would increase the extinction risk for this subspecies.
	SC1302	2013	The Committee therefore recommends that rather than seeking further scientific evidence, the highest priority should be given to immediate management actions that will lead to the elimination of bycatch of Māui's dolphins. This includes full closures of any fisheries within the range of Māui's dolphins that are known to pose a risk of bycatch of small cetaceans.
	SC1303	2013	The Committee commends the New Zealand Government on its initial and interim measures to protect Māui's dolphins. However, the Committee emphasises that the critically endangered status of this sub-species and the inherent and irresolvable uncertainty surrounding information on small populations require the immediate implementation of precautionary measures. Ensuring full protection of Māui's dolphins in all areas throughout their habitat, together with an ample buffer zone, will minimise the risk of bycatch and maximise the chances of population increase.
	SC1413	2014	The Committee commends the New Zealand Government for maintaining initial and interim protection measures for Māui's dolphin, and adding an additional 350 sq. km set net restriction. However, the Committee emphasises that these measures fall significantly short of those previously recommended (IWC, 2013; 2014). The Committee reiterates its extreme concern about the continued decline of such a small population as the human-induced death of even one dolphin would increase the extinction risk for this subspecies. It also reiterates that rather than seeking further scientific evidence it is of highest priority to take immediate management actions that will eliminate bycatch of Māui's dolphins. This includes full closures of any fisheries within the range of Māui's dolphins that are known to pose a risk of bycatch of small cetaceans (i.e. set net and trawl fisheries).
	SC1414	2014	The Committee re-emphasises that the critically endangered status of Māui's dolphin and the inherent and irresolvable uncertainty surrounding information on small populations, require the implementation of precautionary measures. Ensuring full protection of Māui's dolphins in all areas throughout their habitat, together with an ample buffer zone, would minimise the risk of bycatch and maximise the chances of population increase.
	SC1415	2014	The Committee notes that the current range of Māui's dolphins comprises the area from Maunganui Bluff in the north to Whanganui in the south, offshore to 20n.miles and including harbours. This range reflects all available sightings and strandings data for Māui's and Hector's dolphins along the West Coast of the North Island. The Committee notes that data from Hector's dolphins off the South Island, with most sightings in waters less than 100m deep and less than 20n. miles offshore support our understanding of the offshore distribution of Māui's dolphins and the recommendation that within this defined area, fishing methods other than set nets and trawling should be used.
	SC1416	2014	The Committee urges the New Zealand Government to commit to specific population increase targets and timelines, and respectfully requests that reports be provided annually on progress towards conservation goals.
	SC1501	2015	Given the information presented this year, the Committee concludes, again, that existing management measures in relation to bycatch mitigation fall short of its previous recommendations and expresses grave concern over the status of this small population. The human-caused death of even one individual would increase the extinction risk for this subspecies. It reiterates its previous recommendation that highest priority should be assigned to immediate management actions to eliminate bycatch of Māui dolphins. This includes closures of any fisheries within the range of Māui dolphins that are known to pose a risk of bycatch to dolphins (i.e. set net and trawl fisheries).
	SC1502	2015	It re-emphasises that the critically endangered status of this population and the inherent and irresolvable uncertainty surrounding information on small populations point to the need for precautionary measures. Ensuring full protection of Māui dolphins throughout their known range, together with an ample buffer zone, would minimise the risk of bycatch and maximise the chances of population increase.

Children	Number	Year	Text
	SC1503	2015	The Committee notes that the confirmed current range extends from Maunganui Bluff in the north to Whanganui in the south, offshore to 20 n.miles and included harbours. Within this defined area, fishing methods other than set nets and trawling should be used.
	SC1504	2015	The Committee again urges the New Zealand Government to commit to specific population increase targets and timelines, and again, respectfully requests that reports be provided annually on progress towards conservation goals.
	SC16299	2016	The Committee notes the intensive work undertaken since last year to review the aerial survey data and analyses from New Zealand. The Committee endorses the abundance estimate for Hector's dolphins around the South Island, New Zealand (excluding sounds and harbours) of 14,849 (CV: 11%; 95% CI 11,923-18,492) and considers it reasonable to inform management. The Committee also encourages further work to consider the suggestions and recommendations in Annex M, appendix 2 on how to improve aerial survey methods generally.
	SC16300	2016	The Committee welcomes the update on research on Māui dolphins provided but noted that no new management actions had been enacted since 2013. Given the information presented this year, the Committee concludes, as it has repeatedly in the past, that existing management measures in relation to bycatch mitigation fall short of what has been recommended previously and expresses continued grave concern over the status of this small, severely depleted subspecies. The human-caused death of even one individual will increase the extinction risk.
	SC16301	2016	The Committee: (a) re-emphasises that the critically endangered status of this subspecies and the inherent and irresolvable uncertainty surrounding information on most small populations point to the need for precautionary management; (b) reiterates its previous recommendation that highest priority should be assigned to immediate management actions to eliminate bycatch of Māui dolphins including closures of any fisheries within the range of Māui dolphins that are known to pose a risk of bycatch to dolphins (i.e. set net and trawl fisheries); and (c) notes that the confirmed current range extends from Maunganui Bluff in the north to Whanganui in the south, offshore to 20 n.miles, and it includes harbours - within this defined area, fishing methods other than set nets and trawling should be used.
	SC16302	2016	The Committee again respectfully urges the New Zealand Government to commit to specific population increase targets and timelines for Māui dolphin conservation, and again respectfully requests that reports be provided annually on progress towards the conservation and recovery goals.
	SC17327	2017	The Committee agrees that the evidence presented suggests that longlines are a potential alternative to reduce risk from the set nets and trawling currently associated with bycatch of Māui dolphin and that this should be investigated. It recognises that Government support is required to develop and implement such alternatives and assess any associated impacts on target catch or other marine species.
SC17386, SC17387, SC17388, SC17389	SC17385	2017	The Committee notes that no new management action regarding the Māui dolphin has been enacted since 2013. It therefore concludes, as it has repeatedly in the past, that existing management measures in relation to bycatch mitigation fall short of what has been recommended previously and expresses continued grave concern over the status of this small, severely depleted subspecies. The human-caused death of even one individual would increase the extinction risk. In addition, the Committee: (1) welcomes the update on research on Māui dolphins provided and looks forward to receiving the final report on the updated marine mammal risk assessment in 2018.
	SC17386	2017	The Committee: (2) notes with interest the reported fishing industry initiatives to reduce the use of potentially entangling gear in the range of Māui dolphins which are discussed in Leathers and Leslie (2017).
	SC17387	2017	The Committee: (3) re-emphasises that the critically endangered status of this [Māui dolphin] subspecies and the inherent and irresolvable uncertainty surrounding information on most small populations point to the need for precautionary management.
	SC17388	2017	The Committee: (4) reiterates its previous recommendation that highest priority should be assigned to immediate management actions to eliminate bycatch of Māui dolphins including closures of any fisheries within the range of Māui dolphins that are known to pose a risk of bycatch to dolphins (i.e. set net and trawl fisheries).
	SC17389	2017	The Committee: (5) notes that the confirmed current range extends from Maunganui Bluff in the north to Whanganui in the south, offshore to 20n.miles, and it includes harbours - within this defined area, fishing methods other than set nets and trawling should be used; and (6) respectfully urges the New Zealand Government to commit to specific population increase targets and timelines for Māui dolphin conservation, and again respectfully requests that reports be provided annually on progress towards the conservation and recovery goals.
	SC18172	2018	The Committee notes that no new management action regarding the Māui dolphin has been enacted since 2013. It therefore concludes, as it has repeatedly in the past, that existing management measures in relation to bycatch mitigation fall short of what has been recommended previously and expresses continued grave concern over the status of this small, severely depleted subspecies. The human-caused death of even one individual would increase the extinction risk.
SC18172, SC18174, SC18175, SC18176, SC18177	SC18173	2018	The Committee reiterates its previous recommendation that highest priority should be assigned to immediate management actions to eliminate bycatch of Māui dolphins including closures of any fisheries within the range of Māui dolphins that are known to pose a risk of bycatch to dolphins (i.e. set net and trawl fisheries). It re-emphasises that the critically endangered status of this subspecies and the inherent and irresolvable uncertainty surrounding information on most small populations point to the need for precautionary management.

Children	Number	Year	Text
	SC18174	2018	The Committee notes that the confirmed current range extends from Maunganui Bluff in the north to Whanganui in the south, offshore to 20n.miles, and it includes harbours - within this defined area, fishing methods other than set nets and trawling should be used.
	SC18175	2018	The Committee welcomes the update on Māui dolphins provided and looks forward to receiving the species-specific, spatially explicit, multi-threat risk assessment in 2019.
	SC18176	2018	The Committee respectfully encourages the New Zealand; Government to commit to specific population increase targets and timelines for Māui dolphin conservation.
	SC18177	2018	The Committee respectfully requests that reports be provided on progress towards the conservation and recovery goals as updates become available.
	SC19112	2019	<p>The Committee reiterates last year's recommendations (Hamner <i>et al.</i>, 2012; IWC, 2019, p.17), given its continued grave concerns regarding Māui dolphins. The Committee thanks the Government of New Zealand for bringing forward the spatial risk assessment model for Māui and Hector's dolphins presented in Roberts <i>et al.</i> (2019). However, in order provide a rigorous evaluation of the approach and its outputs, the Committee recommends that an intersessional Working Group (Annex T) be convened to provide a thorough, independent review of the spatial risk assessment model. The Terms of Reference would include the preparation of solicited review papers on the information and analysis presented in Roberts <i>et al.</i> (2019) on:</p> <ol style="list-style-type: none"> Māui and Hector's dolphins' life history parameters; Māui and Hector's dolphins' spatial distribution; estimates of bycatch rates and vulnerability; toxoplasmosis; and the risk model outputs. <p>A Steering Group of individuals from the Committee would be convened to coordinate the review process and identify individuals for the Review Panel. The Review Panel will consist of five independent experts with backgrounds appropriate to topics a-e above, and who are able to carry out a comprehensive review in their area of expertise. No individual on the Steering Group will also serve on the Review Panel to avoid any perceived conflict of interest. Further, in order to ensure the independence of the review and its process, in both perception and reality, no member of the Review Panel or the Steering Group will be associated with Roberts <i>et al.</i> (2019), Cooke <i>et al.</i> (2019) or Slooten <i>et al.</i> (2019). The results of the Review Panel's independent reviews would be discussed in a two-day pre- meeting to the 2020 Annual Meeting. All conclusions will be presented to the Committee in SC/68B for further discussion, and any decisions with regards to existing or future recommendations will be made at that time. The Committee encourages the Government of New Zealand to work with the Committee to consider how to support the independent reviewers and the pre-meeting needed to achieve a rigorous review and evaluation of the spatial risk assessment model presented in Roberts <i>et al.</i> (2019). The recommendations above are additional to, and do not supplant, the recommendations made by the Committee last year (IWC, 2019, p.17), including closures of any fisheries within the range of Māui dolphins that are known to pose a risk of bycatch to dolphins (i.e. set net and trawl fisheries).</p>
	SC19113	2019	The Committee recommends that further research be carried out to better understand the source and potential risk of toxoplasmosis, as well as approaches to its mitigation, as it relates to Māui and Hector's dolphins, particularly as toxoplasmosis would compound the threat posed by bycatch. Given the link between the review on toxoplasmosis in Māui and Hector's dolphins and the planned Environmental Concerns focus session on toxoplasmosis at the 2020 Annual Meeting, the Committee agrees that there is a need for coordination in the selection of the expert reviewer for toxoplasmosis and that individual's participation across both fora.
	SC2155	2021	<p>[Concerning threat assessment for Hector's and Māui's dolphins] Based on the reviews (Item 12.8.1), the Committee recommended scheduling a pre-meeting immediately prior to SC68D to:</p> <ol style="list-style-type: none"> evaluate the design and structure of the multi-threat risk assessment model; evaluate the overall sensitivity to model choices, data selection, uncertainties or potential biases identified in the review papers; and make recommendations to reduce key uncertainties and improve the utility of the model to inform management decisions.

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