

Maui's Dolphin (*Cephalorhynchus hectori maui*) Alongshore Boat Distribution Survey, Awakino to Oeo, December 2012 – March 2013

Aims: - To gather information on the alongshore distribution of Maui's¹, dolphins (*Cephalorhynchus hectori maui*), in particular, the southern extent of their range.

- To obtain genetic samples to help us learn more about Maui's dolphins, in particular, whether sightings off the Taranaki coast are of Maui's or Hector's dolphins.

Methods: Systematic alongshore boat-based Maui's dolphin surveys were carried out along the west coast of the North Island between Awakino in the north and Oeo in the south. Because of the travel distance, each trip only covered half of the survey area -either north or south of New Plymouth. The intention was to survey the area between Awakino and Oeo once per month as weather conditions allowed.

Surveys were conducted aboard the DOC vessel "Orca", a 7.5m alloy boat powered by twin four-stroke 150hp motors. The vessel departed New Plymouth heading either north or south at approximately 0.5 to 1nm from shore and after turning at the furthest extent of the survey, returned at approximately 1 to 2nm from shore. The survey speed was approximately 18-20 knots with observers positioned to provide 360° of survey coverage using naked eye scans.

Six alongshore boat-based surveys were undertaken in good sighting conditions within a Beaufort sea state range of 0 to 3 (although conditions did at times deteriorate for parts of the survey). The surveys undertaken were:

- New Plymouth to Awakino (4 trips – 13/12/12, 29/01/13, 19/02/13, 22/03/13)
- New Plymouth to Oeo (1 trip – 31/01/13)
- New Plymouth to Opunake (1 trip – 26/02/13)

When any marine mammal was sighted, the sighting position and time was recorded as a waypoint on the GPS and details were recorded on a data sheet.

Results: A total of 836km was surveyed with a total of 26 hours and 2 minutes of on-effort observation. No Maui's were sighted (see Figure 1).

Few other marine mammals were sighted. Two fur seals were observed off of New Plymouth and Bell Block and a pod of approximately 20 common dolphins were observed between Bell Block and Waitara.

Discussion: Although Maui's dolphins were not sighted during these surveys, we need to acknowledge the limitations of the survey. Given the small population size of Maui's dolphins, there is a low likelihood of encountering them at the extremes of their range. Surveys are only a snapshot in time and as sighting distance is limited by the low platform of the vessel, even if dolphins were present in the area they could be passed by unnoticed. However, despite sighting limitations, boat-based surveys would provide the opportunity to obtain biopsy samples should dolphins be encountered. Genetic research is extremely important to inform decisions regarding the management of the subspecies and could help establish whether sightings off Taranaki are of Hector's or Maui's dolphins. Although Hector's dolphins (*Cephalorhynchus hectori hectori*) have been recorded from between Maunganui Bluff and Hawera, around 95% of tissue samples taken from live or beach-cast Maui's or Hector's dolphins north of Hawera have been Maui's dolphins.

¹ Where this document refers to Maui's dolphin, it is recognised that without genetic sampling it is not possible to determine if the dolphin is Hector's or Maui's dolphin. Given the evidence of Hector's dolphins sampled off the west coast of the North Island there remains a small possibility that the dolphins sighted could include Hector's dolphins, however, based on the proportion of Hector's dolphins sampled, this remains a low proportion <5%.

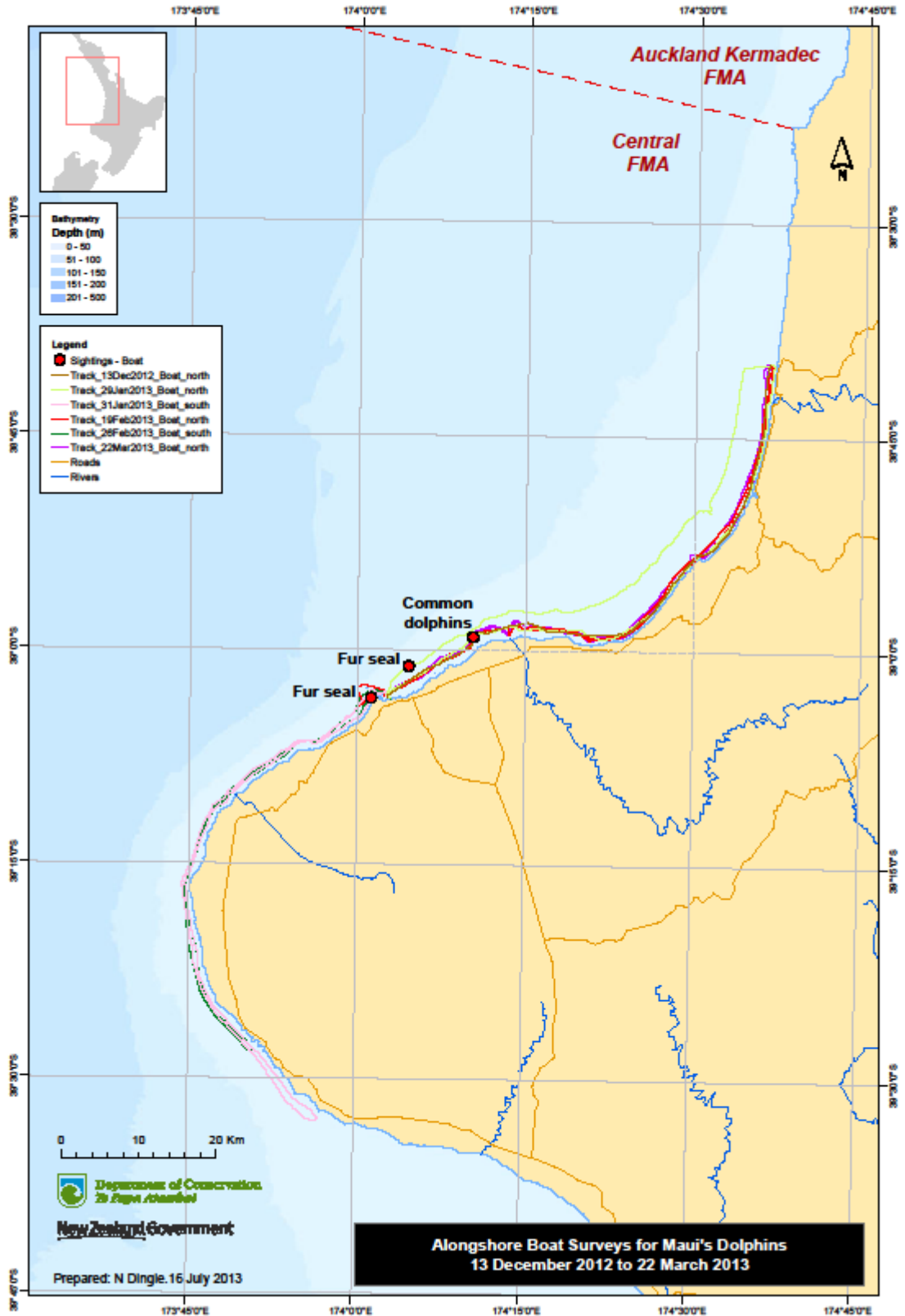


Figure 1. Alongshore Boat Surveys for Maui's Dolphins, December 2012 to March 2013.