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Richard Johnson  
Manager EEZ Applications  
Climate, Land and Oceans Group  
Environmental Protection Authority  
Private Bag 63002  
Wellington 6140  
[TTRapplication@epa.govt.nz](mailto:TTRapplication@epa.govt.nz)

Dear Richard

**Request for advice regarding the TTR marine consent application under section 44 of the Exclusive Economic Zone and Continental Shelf (Environmental Effect) Act 2012 (EEZ Act)**

Thank you for email of 9 March 2017 requesting DOC to provide to the DMC database records of sightings and strandings of marine mammals, further to the offer in DOC's letter of 8 February 2017.

Two Excel spreadsheets are attached providing information in DOC's marine mammal strandings and sightings database relating to records within the South Taranaki Bight (STB) and surrounding territory. The boundaries for this database search were set as follows:

- Awakino, north Taranaki, extending due west.
- Kahurangi Point, south of Farewell Spit, extending due west.
- Cape Campbell to Cape Palliser (including much of Cook Strait).

DOC has not attempted to map these data. Both datasets contain considerable amounts of information which means mapping is only possible or informative if the information sought is clear and concise including:

- Taxa – which species?
- Geographic boundaries – which areas or parts of the coast are of interest?
- Dates – over what time period?
- Circumstances – e.g. type of stranding

In other words, the questions you want the database to address need to be clearly articulated first. Both spreadsheets will allow the Environmental Protection Authority's GIS specialists to extract and where applicable map the precise data sought by the DMC. The two spreadsheets are reasonably self-explanatory. All the records have latitude and longitudes to allow for individual events to be mapped. If you require any additional explanation, please contact Hannah Hendriks ([hhendriks@doc.govt.nz](mailto:hhendriks@doc.govt.nz)).

When interpreting these datasets, and any maps that might be produced from them, there are some very important caveats to bear in mind to avoid misinterpretation.

The sightings and strandings data are not up to date or complete. There are lags between the event, receiving the information, checking the data for accuracy and content, and entering the information into the database. Data entry often depends on other work priorities. The dataset is often several months out of date and sometimes longer for scientific or seismic survey data depending on when (and if) these data are made available to DOC. For example, the strandings data are up to date to the end of 2016, whereas sightings data from seismic surveys have only been entered up to April 2015. None of Dr Leigh Torres' blue whale sightings are in the database.

Fisheries by-catch data (collected by the Ministry of Primary Industries) are not included in the data sets.

Strandings data are indicative of some species that may be resident, semi-resident or migrating through the wider geographic area. Some species such as sperm whales and beaked whales, which typically forage in very deep waters, may pass through the STB (including to and from Cook Strait) but be present there for only a day or two. Some strandings may be of taxa that rarely turn up in the STB.

Dead or dying cetaceans may drift on oceanic currents for many days. Sick or dying whales or dolphins will also swim inshore into shallow waters. There are three main oceanic currents relevant for the STB:

- The Westland Current, moving northwards up the west coasts of the South and North Islands.
- The D'Urville Current (an offshoot of the Westland Current) which circles back into the STB in a clockwise motion from Cape Egmont.
- The Southland current flowing northwards along the east coast of the South Island, with an extension through Cook Strait into the STB.

The combined effect of these factors is that dead or dying cetaceans that strand in the STB may originate from far away along the east and west coasts of the South Island and/or from a considerable distance offshore. Thus, the simple presence of a species stranded in the STB is not proof that this species inhabits this area to any meaningful extent.

Sightings data are predominantly non-systematic and represent when/where marine mammals were present, but equally so when/where people were present to observe them and when/where data were submitted to DOC. Low numbers of sightings may be due to fewer animals, fewer observers, fewer reports, or any combination of these. Thus, sightings data show where marine mammals were present but not necessarily absent.

A good case in point is that many of the marine mammal sightings in the STB are sourced from the oil and gas industry; e.g. from offshore platforms/rigs or from vessels undertaking seismic or other surveys for the industry. The distribution of these sightings will be strongly influenced by where most of the oil and gas activity has taken place, including vessel transiting to and from the fields.

Yours sincerely



Mike Slater

Deputy Director-General Operations

Attachments:

1. Excel spreadsheet - Marine mammal incidents
2. Excel spreadsheet – Marine Mammal sightings

