

Seasonal Distribution of Harbour Porpoise (*Phocoena phocoena*) in Japanese Waters Inferred from Stranding and Bycatch Records

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Abstract.

Little is known about the biology of harbour porpoises (*Phocoena phocoena*) around Japanese waters. This study estimates the seasonal distribution of harbour porpoises in Japan using 240 stranding and bycatch records from 1966 to August 2009 deposited at the Institute of Cetacean Research, Tokyo, the Stranding Network Hokkaido, Hokkaido, and records summarized in a previous study. Over 70% of all the records were bycatch from use of three types fishing gear: large set-nets, other type set-nets, and gill nets. Most of the bycatch records were derived from Usujiri, Hokkaido, where a regular monitoring survey on harbour porpoises caught incidentally by large set-nets has been conducted since the 1980s. These records showed that harbour porpoises migrate to the coast of Honshu (mainland of Japan) in the winter, and move north in the summer. Their latitudinal range coincided with the sea surface temperature (SST) range between 6 and 17 °C. Additionally, the stranding and bycatch records which were found only from April to June in Funka Bay, Hokkaido suggested that Funka Bay is used only for a few months in spring. Overall, the present study clarifies the finer seasonal distribution of harbour porpoise around Japan, and its strong dependence on SST.

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