

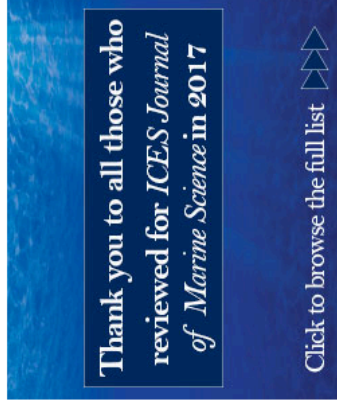
Movements and dive behaviour of a toothfish-depredating killer and sperm whale

Jared R Towers, Paul Tixier, Katherine A Ross, John Bennett, John P Y Arnould, Robert L Pitman, John W Durban, Handling editor: Simon Northridge

ICES Journal of Marine Science, fsy118, <https://doi.org/10.1093/icesjms/fsy118>

Published: 19 September 2018 [Article history](#)

Cite Permissions Share



Abstract

Depredation of demersal longlines by killer and sperm whales is a widespread behaviour that impacts fisheries and whale populations. To better understand how depredating whales behave in response to fishing activity, we deployed satellite-linked location and dive-profile tags on a sperm and killer whale that were depredating Patagonian toothfish from commercial longlines off South Georgia. The sperm and killer whale followed one fishing vessel for >180 km and >300 km and repeatedly depredated when longlines were being retrieved over periods of 6 and 7 d, respectively. Their behaviours were also sometimes correlated with the depths and locations of deployed gear. They both dove significantly deeper and faster when depredating compared with when foraging naturally. The killer whale dove >750 m on five occasions while depredating (maximum: 1087 m), but these deep dives were always followed by long periods (3.9–4.6 h) of shallow (<100 m) diving. We hypothesize that energetically and physiologically costly dive behaviour while depredating is driven by intra- and inter-specific competition due to the limited availability of this abundant resource.

Issue Section: [Original Article](#)



Email alerts

- New issue alert
- Advance article alerts
- Article activity alert

Receive exclusive offers and updates from Oxford Academic

Related articles in

Google Scholar

Citing articles via