Entanglement risk to western gray whales from commercial fisheries in the Russian Far East

Lloyd F. Lowry1,*, Vladimir N. Burkanov2, Alexey Altukhov2, David W. Weller3, Randall R. Reeves4

173-4388 Paiaha Street, Kailua Kona, HI 96740, USA
2Kamchatka Branch of the Pacific Geographical Institute, Far East Branch of Russian Academy of Sciences, 6 Partizanskaya Street, Petropavlovsk-Kamchatksky 683000, Russia
3NOAA Fisheries, Southwest Fisheries Science Center, 8901 La Jolla Shores Drive, La Jolla, CA 92037, USA
4Okapi Wildlife Associates, 27 Chandler Lane, Hudson, Quebec J0P1H0, Canada

*Corresponding author: llowry@hawaii.rr.com

ABSTRACT: Western gray whales Eschrichtius robustus (WGWs) are endangered, and their range overlaps areas where several important commercial fisheries operate in the Russian Far East (RFE). Throughout their range, gray whales commonly become entangled or entrapped in fishing gear. In the western North Pacific, they have been killed in set nets and seen entangled with ropes and float lines. Signs of fishery interactions on 28 of 150 living whales photographed near Sakhalin Island were reported in a published study. We describe characteristics of RFE fisheries that might entangle WGWs, including fishing effort based on daily catch reports from 2010-2014. We make a preliminary qualitative assessment of entanglement risk, taking into account factors including (1) evidence that the gear type has entangled large whales, (2) fishing effort, and (3) geographic and temporal overlap between WGWs and fishing activity. Fishing for salmonids with pelagic gillnets is no longer allowed in the RFE, and as long as the prohibition is being followed such fishing poses no risk to WGWs. In contrast, the coastal salmon set net fishery poses a high entanglement risk off northeastern Sakhalin and Kamchatka where WGWs feed very close to shore, and that situation should be mitigated. Bottom-set gillnet, demersal longline, snurrevad (also called Danish seine), and trap and pot fisheries overlap substantially with WGW distribution, and bycatch in those fisheries should at least be monitored. More rigorous risk assessment would require additional information on WGW distribution and movements.

KEY WORDS: Western gray whale · Eschrichtius robustus · Distribution · Russian Far East · Fisheries · Entanglement risk · Sakhalin Island

Full text in pdf format
Supplementary material
Russian translation available here


Export citation
Mail this link · Contents Mailing Lists · RSS
Tweet

Published in ESR Vol. 37. Online publication date: October 11, 2018
Print ISSN: 1863-5407; Online ISSN: 1613-4796
Copyright © 2018 Inter-Research.