

Depredation of recreational fisheries by resident killer whales in British Columbia: extent of occurrence and factors influencing fish selection

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Although killer whales have been known since the 1950s to take fish from lines in the recreational salmon fishery in British Columbia, the extent of this depredation has not been assessed. We recently undertook a survey of professional fishing guides in the region to determine the geographical distribution of depredation by killer whales, the fish species involved, and whether such depredation is perceived as a problem within the recreational fishery. Preliminary results from this survey indicate that depredation takes place throughout most coastal waters in B.C., although certain 'hot spots' exist where incidents are most frequent. Depredation appears to be undertaken by resident-type killer whales. It is not yet known whether some pods exhibit this behaviour more than others in the resident populations, but the distribution of depredation incidents suggests that this may be the case. Killer whales most frequently target large chinook salmon, and often take the fish off lines in very close proximity to the fishing vessel. This apparent preference for depredation of chinook salmon is consistent with recent findings from our field studies of prey selection by resident killer whales. Although these whales prey naturally on all species of Pacific salmon, they show a strong selectivity for chinook salmon over smaller species such as sockeye, pink, and coho, and tend to favour older aged and, thus, larger chinook. Depredation by killer whales is generally not considered by fishing guides to be a problem compared to that by pinnipeds.