12 November 2018

Mr. A.L. Strelnikov Russian Federal Service for Overseeing Natural Resources Far Eastern Federal District

Dear Mr. Strelnikov:

We understand your agency is preparing an environmental assessment for the capture of free-ranging orcas in the Sea of Okhotsk. It appears that the orcas are to be sold overseas to marine parks for entertainment purposes

We are a group of marine mammal biologists and we wish to convey our concerns to you about capturing free-ranging orcas for the purpose of captive display.

<u>Capture Techniques for Free-Ranging Orcas Are Highly Stressful and Can Lead</u> <u>to Injuries and Deaths</u>

The process of chasing down orcas, using nets to corral them, separating animals from their pod mates, and lifting them out of the water, are all highly stressful to orcas. Sedation for orcas and other cetaceans is highly risky, as they can stop breathing under the influence of such drugs. Orcas and other free-ranging cetaceans can be injured by these capture techniques, and can in turn die due to capture myopathy or injuries.

It is our understanding that any animals that are injured but escape capture or any that are killed are not included in the quota. These unaccounted deaths increase the risk posed by these captures to the overall orca population.

Removal of Only a Few Orcas Can Have Long-term Population Impacts

We understand the total allowable catch (TAC) for free-ranging orcas in the Sea of Okhotsk was 13 in 2018. Orcas tend to live in relatively small populations globally (Ford, 2009) and therefore, even such a small number of animals can represent a large proportion of a population. Such removals annually over time, as is contemplated by this environmental assessment, can lead to long-term declines in populations. In the case of resident orca populations in the Salish Sea, according to the US National Marine Fisheries Service, "Scientists estimate the minimum historical population size of Southern Residents in the eastern North Pacific was about 140 animals. Following a live-capture fishery in the 1960s for use in marine mammal parks, 71 animals remained in 1974." The current population is only 74.

Russian scientists have determined that there are two separate and distinct ecotypes of orcas in the Sea of Okhotsk that should be considered reproductively

isolated (Filatova et al., 2014). The TAC does not take population structure into account.

Captures Can Affect the Entire Pod, Not Just the Few That Are Captured

Orcas are highly social animals and have strong bonds between the individuals in a pod. Orcas and other cetaceans have been witnessed holding up dead pod mates, swimming with them for days. Removal of members of the pod thus can have ramifications for the entire pod, not just the captured individuals. For example, removing individuals during a capture can have an effect on success in feeding of those left behind.

Orca social networks have been shown to be vulnerable to targeted removals, especially when younger females are removed (Williams and Lusseau, 2006); yet they are often the age and sex class that the captivity industry requests.

These potential impacts on pods are important when considering the overall impact of removing even "small" numbers of free-ranging orcas from a population for captive display.

We respectfully request that you consider our concerns and that no TAC be issued for future live captures of orcas in Russian waters.

Sincerely,

Robin W. Baird, PhD, Cascadia Research Collective, USA Giovanni Bearzi, PhD, Dolphin Biology and Conservation, Italy Maddalena Bearzi, PhD, Ocean Conservation Society, USA Leslie Cornick, PhD, Eastern Washington University, USA Alexandros Frantzis, PhD, Pelagos Cetacean Research Institute, Greece Silvia Frey, PhD, OceanCare, Switzerland Toni Frohoff, PhD, Terramar Research, USA Deborah A. Giles, PhD, University of Washington, USA Erich Hoyt, Whale and Dolphin Conservation, UK Samuel Hung, PhD, Hong Kong Dolphin Conservation Society, Hong Kong John Jett, PhD, Stetson University, USA David Lavigne, PhD, Dr philos, Independent Marine Mammal Biologist, Canada Janet Mann, PhD, Georgetown University, USA Lori Marino, PhD, Kimmela Center for Animal Advocacy, USA Giuseppe Notarbartolo di Sciara, PhD, Tethys Research Institute, Italy ECM Parsons, PhD, University of Glasgow, UK Heather Rally, DVM, PETA Foundation, USA Diana Reiss, PhD, Hunter College, City University of New York, USA Naomi A. Rose, PhD, Animal Welfare Institute, USA Paul Spong, PhD, Orcalab/Pacific Orca Society, Canada Helena K. Symonds, Orcalab/Pacific Orca Society, Canada Ingrid N. Visser, PhD, Orca Research Trust, New Zealand Lindy Weilgart, PhD, Dalhousie University, Canada Thomas I. White, PhD, Oxford Centre for Animal Ethics, UK

References:

Filatova, O.A., E. A. Borisova, O. V. Shpak, I. G. Meschersky, A. V. Tiunov, A. A. Goncharov, I. D. Fedutin, and A. M. Burdin (2014). Reproductively isolated ecotypes of killer whales *Orcinus orca* in the seas of the Russian Far East. *Zoologicheskii Zhurnal* 93: 1345-1353.

Ford, J.K.B. (2009). Killer whales. In: *Encyclopedia of Marine Mammals* (W.F. Perrin, B. Wursig, and J.G.M. Thewissen, eds.). Academic Press, New York, pp. 669-676.

Williams, R. and D. Lusseau (2006). A killer whale social network is vulnerable to targeted removals. *Biology Letters* 2: 497-500.