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PHOTO-IDENTIFICATION OF WHITE WHALES (*DELPHINAPTERUS LEUCAS*) IN WESTERN KAMCHATKA: PRELIMINARY RESULTS

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Here we present preliminary results of photo-identification of white whales summering in the estuary of Khairuzova and Belogolovaya rivers (Kamchatka, Russia). This work is a part of diversified project on white whales biology in Russian Far East: White Whale Programm (A.N. Severtsov Institute of Ecology and Evolution, RAS).

Photo ID on white whales is not a widespread approach to their biology although it was successfully used for Alaska's Cook Inlet (Alaska, USA) and White Sea belugas (Russia). Our field season was conducted in the period of 30 July - 31 August 2010. In total we made more than 13.5 thousands of pictures during 90.6 hours of work. Images were underexposed (setting at -2 or lower exposure depending of light conditions) to show otherwise faint marks in images of white animals). All pictures were sorted by quality and analyzed for identification of individual animals. Our experience showed that forced correction of exposure increased number of suitable for analyzing images considerably. At the same time this approach complicates image-based differentiation of gray animals: light gray, gray and dark gray age classes couldn't be identified reliably. For accurate age class identification it is necessary to make a description of animals during photographing.

We identified 22.5% (173) of total encountered animals (832), and 14 (1.7%) animals were encountered repeatedly. There were found considerable amount of white animals, unavailable for individual identification because of absence of any visible marks. We didn't observe animals, obtained scratches or bites during our work; therefore we don't have information about its appearance changes throughout days and months. By analysis of identified animals' spatial distribution we made the assumption that belugas had individual preferences in places for foraging and resting.

We are planning to continue our work with collecting more data about little-studied population of belugas in western Kamchatka coastal waters.