

FINAL REPORT. Subtle population structure of killer whales (*Orcinus orca*) at the Russian Far East. Ekaterina Borisova, a Ph.D. student at the Faculty of Biology, Moscow State University.

The goal of this study was to find out if there is potential subdivision within each ecotype of killer whales (mammal-eating and fish-eating) or not. For this, I tested additional 13 loci of nuclear DNA, where three did not yield any PCR products, and one locus appeared to be monomorphic.

We also obtained an additional 76 samples from carcasses or through remote biopsy sampling, thus a total number of biopsies included 176 samples in total and 160 without doubles.

Total DNA was extracted from these additional animals. To reduce the cost of work I analyzed new short 3 loci by vertical electrophoresis. Aliquots of the amplified products were separated in a vertical block of 6% non-denaturing polyacrylamide gel with fragment length markers and control samples. The electropherograms obtained were visualized by dyeing with ethidium bromide and photographed under UV light. Fragment analysis of new long and previous 9 loci was performed on analyzer AB3130 in the presence of dimensional standard GeneScan 500 LIZ Size Standard (Applied Biosystems).

I am currently finishing primary analysis and going to perform statistical analysis to reveal a more subtle genetic structure. The results of my work will be published later and will be included in my Ph.D. thesis.