



individuals for further validation of the markers. Ten STRs (G1D, G10L, Mu05, Mu09, Mu10, Mu15, Mu23, Mu50, Mu51 and Mu59) conformed to Hardy-Weinberg equilibrium expectations with only minor deviations, while the remaining three STR loci (G1A, Mu26 and G10B) were subjected to further molecular analysis. The average estimate of population substructure for Norwegian bears using 10 STRs (F_{ST}) was determined to be 0.1, while the estimate for inbreeding (F_{IS}) was -0.02. Accounting for the F_{ST} -value, the average probability of identity (PI_{ave}) was 5.67×10^{-10} and the average probability of sibling identity (PI_{sib}) was 1.68×10^{-4} . Accreditation in accordance with the international standard ISO17025 was achieved for the described laboratory approach in 2009. We suggest that this approach and STR markers should also be considered to be used for other populations of brown bears in Northern Europe in order to ensure a common quality of the data as well as to facilitate exchange of information in conservation genetics.



SOME RESULTS OF THE EXPERIMENTS TO PREVENT THE DAMAGES CAUSED BY BEAVERS, HARES, RABBITS OR VOLES

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The experiment areas were in Satakunta in Western Finland on the European beaver distribution and in Kymenlaakso in Eastern Finland on Canadian beaver distribution. Some experiments were done in the few farm yards and in the apple gardens to test the impact of the glue on hares.

In the experiment areas the base part of the trees were handled with the test glues over the level of expected snow cover. Some trees, which



were growing close to handled trees, were not handled with the test glues.

During the experiments to prevent damages prime caused by beavers we controlled how the glue remained on the trees and did the glue any harm of the growth of the trees. We also checked during the test years, what kind of tracks of beavers/hares could be observed in the experiment areas. The experiments were carried out together with the Game Management Districts of Kymi and Satakunta, and with some hunters and landowners/gardeners.



ANALYSIS OF THE ORIGINS OF THE BEAVERS INHABITING THE EUROPEAN NORTH OF RUSSIA

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Two beaver species now inhabit the European North of Russia – the Canadian and the European beavers. The Canadian beaver population originates from 7 animals brought from the USA and released in Finland in 1937 (Linnamies, 1956; Siivonen, 1956; Lahti, 1968; Ermala et al., 1989). Their progeny then expanded into Russian territory. European beavers have been released in all regions of Russia's European North except for Karelia. Voronezh and Smolensk Regions, Byelorussia, Mari Republic and other regions were the sources from which the species spread. The paper discusses the provenance of the beavers in territories co-inhabited by the two species.

