

Genetics of the white-tailed eagle (*Haliaeetus albicilla*) in Iceland

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The white-tailed eagle (*Haliaeetus albicilla*) or Haförn is the only resident eagle in Iceland. Even though it is often thought of as a “flagship” species, not much is known about the genetics of the Icelandic population.

The Icelandic white-tailed eagle went through a bottleneck from the end of the 19th century to the middle of the 20th century. The bottleneck was a direct effect, first of persecution and later due to poisoning. Today, the Icelandic eagle population is increasing in size, but it may be affected by the bottleneck; the population size is increasing much slower than the mainland Europe populations, which went through similar bottlenecks.

Using whole genome data, we investigate the population genetics of the Icelandic white-tailed eagle, and how it deviates from the populations in the neighboring North-Atlantic populations. Based on the phylogeography we suggest where the Icelandic population originated and hypothesize which effects could cause the Icelandic population to rise slower than the populations of mainland Europe.

Large efforts have been and are being put in to studying the wellbeing of not only the Icelandic but also many other populations of white-tailed eagle. Several conservation efforts have been made and reintroductions have been successful. This study will help in the further conservation of this iconic species, and can help police makers, not least in Iceland, to make the right decisions so insure their wellbeing.