

## **Hybridization of Glaucous gull (*Larus hyperboreus*) and Herring gull (*Larus argentatus*)**

*Freydís Vigfúsdóttir, Snæbjörn Pálsson og Agnar Ingólfsson. Institute of Biology, University of Iceland, Askja, Sturlugötu 7, 101 Reykjavík. [freydisv@hi.is](mailto:freydisv@hi.is)*

Geographical subdivision of species results in genetic divergence of populations. Following population expansion a contact zone may form where mixing can be (1) unrestrained, (2) limited and where selection may reinforce the divergence of the two groups, or (3) where little or no mixing will occur. Several hybrid zones are known where species have increased their distribution range during Holocene.

Glaucous gull is an arctic specie that has been breeding in Iceland for centuries but Herring gulls colonized Iceland just around 1920. Agnar Ingólfsson (1970) described hybridization among the two species in Iceland based on morphological variation; 'pure' Glaucous gulls were mainly found in Western Iceland; 'pure' Herring gulls or hybrids of the two species were found in Southern and Eastern Iceland. Snell (1991), arguing against hybridization, claimed that the variation just reflected the variation within the species. Recent genetic studies indicate that hybridization may occur among Herring gulls and related species.

The aim of this study is to evaluate whether hybridization occurs between Glaucous and Herring gulls in Iceland, by studying variation in microsatellites, mtDNA and morphology. The analysis is based on feathers, taken from wings sampled by Agnar Ingólfsson during 1965-1980, and samples collected in 2005 and 2006.

INGOLFSSON, A. 1970. Hybridization of Glaucous Gulls *Larus hyperboreus* and Herring Gulls *Larus Argentatus* in Iceland. *Ibis* 112:340-362.

SNELL, R. R. 1991. Variably plumaged Icelandic Herring Gulls reflect founders not hybrids. *Auk* 108:329-341.