

LITTLE AUK – FLAGSHIP SPECIES OF THE ARCTIC

Summary

Arctic is characterized by a simple structure of its trophic web, where a single species of plants and animals play an important role in functioning of the whole ecosystem. One of such keystone species is the little auk (am. dovekie, *Alle alle*), a small seabird, colonially breeding exclusively in High Arctic. The little auk, as a typical seabird foraging in the sea and breeding in land, transport an enormous organic matters from the sea to nutritionally poor land ecosystem, what in turn positively affect tundra vegetation. With global population size of ca 37 mln breeding pairs little auk is probably the most numerous seabird of the world. Genetic differentiation of the population is however very weak. Due to

high metabolic rate (the highest of all seabirds), the little auks focus on energy rich zooplankton items associated with cold, Arctic waters. For that reasons, both breeding and wintering distribution is associated with distribution of cold, Arctic waters that are abundant in the preferred food items. In the light of the ongoing changes in the Arctic environment, little auk foraging might be challenged. Indeed, studies show birds response to deteriorating conditions on feeding grounds by increasing their parental efforts. No influence on the breeding success of birds have been observed yet, but the question how the birds can cope with the progressing environmental changes in the Arctic remains open.