



**ASSESSING THE STATUS OF THE BROWN BEAR
POPULATION IN PINEZHSKY STRICT NATURE RESERVE
(ARKHANGELSK REGION) DRAWING UPON THE
MATERIALS OF LONG-TERM MONITORING WITH FECAL
DNA ANALYSIS DATA**

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Brown bear is the most numerous large predator in taiga ecosystems of the European North of Russia. To ensure sustainable utilization of the resources of this valuable game species one should have full information about the abundance, population structure, reproductive patterns, spatial distribution of the species. This information can be gathered from protected areas where long-term station-based research is underway.

The paper analyses the 1977-2009 monitoring of brown bear in Pinezhsky reserve and in adjacent areas. We use materials of track counts (over 1000 sightings), visual observations, results of fecal DNA analysis carried out in 2005-2008 (laboratory treatment by staff of Bioforsk-Svanhovd, Norway).

In the largely pristine northern taiga, brown bear abundance estimates through track counts are not always representative. The data of the counts can be corrected using data of long-term observations over the reproductive part of the stable brown bear grouping in the reserve. Fecal DNA analysis of brown bear provides valuable information about the spatial distribution and home ranges of individual animals, gives answers to some questions concerning reproduction. A drawback of this method is the rather low level of positive samples (40% at max). Modern research into brown bear ecology should employ also telemetry, otherwise one cannot call the work efficient.

