ECOLOGY: ECOSYSTEMS AND DYNAMICS, 2020, Vol. 4, No. 4, P. 5-13

METHODS OF MAINTENANCE AND PRESERVATION OF ECOSYSTEMS AND THEIR COMPONENTS

UDC 502.5/8; 502.74; 574.472; 574.91; 574.24

METHODOLOGICAL ASPECTS OF STUDYING POPULATION DYNAMICS OF SABLE (*MARTES ZIBELLINA* L., 1758) IN THE ZONE OF INFLUENCE OF THE ZEYA RESERVOIR

© 2020. S.A. Podolskiy*, **, L.Yu. Levik*, K.P. Pavlova**, E.K. Krasikova****

**Water Problems Institute of the Russian Academy of Science*
Russia, 119333, Moscow, Gubkina Str. 3. E-mail: sergpod@mail.ru

***Zeya Nature Reserve*
Russia, 676246, Amur Region, Zeya, Stroitelnaya Str. 71. E-mail: zzap@mail.ru

****M.V. Lomonosov Moscow State University, Faculty of Geography*
Russia, 119991, Moscow, Leninskiye Gori 1. E-mail: lilia-levik@yandex.ru

Received June 15, 2020. After revision July 15, 2020. Accepted November 01, 2020.

On the basis of long-term data of the Zeya reserve the role of natural and anthropogenic factors in the dynamics of the sable population (*Martes zibellina* L., 1758) of the zone of influence of the Zeya reservoir is estimated. A close direct dependence of the sable population density with long-term trends in the total relative number of rodents was established. The negative dependence of the last indicator with long-term trends in solar activity and the amount of spring-summer precipitation was established. Significant deviations from the natural population dynamics of the sable, including the deepest and longest depressions, as well as increased amplitude of population fluctuations were noted on the coast of the reservoir. For the zone of influence of the Zeya reservoir, the duration of the period of significant destabilization of the sable population under the influence of hydraulic engineering is established.

Keywords: sable, rodents, population dynamics, solar activity, precipitation, water engineering, evaluation of the effect.
DOI: 10.24411/2542-2006-2020-10071