

CHARACTERISTICS AND PRODUCTIVITY OF HYDROPHITE COMMUNITIES OF SMALL RESERVOIRS OF THE EUROPEAN NORTH-EAST OF RUSSIA

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Abstract. *Background.* There is very little information on the productivity of hydrophytes in the water bodies of the European Northeast. At the same time, the study of the specifics of the processes of accumulation of organic matter in the northern regions is of great interest and is of great practical importance. The reservoirs where productivity studies have been carried out are used for fishery and recreational purposes. The purpose of this work is to characterize the communities of hydrophytes of small reservoirs and calculate their productivity. *Materials and methods.* The study of the productivity of hydrophytes was carried out at three small reservoirs located in the southern part of the Komi Republic at the end of June – July 2019–2020. To assess the aboveground phytomass, cutting plots with a size of 0.25 m² were laid. Mows were selected in each community in triplicate, sorted by species and dried, after which their absolutely dry weight was weighed. When converting absolutely dry weight into pure annual products, a coefficient of 2,5 was used. *Results.* The studied reservoirs are moderately overgrown (21,7% and 17,5%) and significantly overgrown (26,1%). The most productive are the *Potamo natantis* – *Polygonetum natantis* and *Potametum natantis* communities. The net annual production of hydrophytes with low heat supply for the year was 6,3 t/year for the Kazhim reservoir, 23,2 t/year for the Nyuvchim reservoir, 0,3 t/year for the Nyuchpassky reservoir, and 11,6, 61,4, 0,4 t/year, respectively. *Conclusions.* 10 associations of hydrophytes were characterized and the values of their productivity were obtained. The influence of the temperature factor on the accumulation of organic matter by own-water plants was revealed. The main producers, which make the greatest contribution to the total productivity of the reservoir, have been identified.

Keywords: reservoir, temperature, productivity, phytomass, hydrophytes

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