## THE DYNAMICS OF THE NUMBER OF BIRDS OF PREY IN THE KLYAZMINSKY FEDERAL RESERVE

Birds of prey are at the top of the trophic pyramids and they are an indicator of the state of ecosystems.

Therefore, monitoring their numbers in connection with the anthropogenic load on biocenoses is relevant. Klyazma Nature Reserve is one of the most

important monitoring sites in the region.



There are special landscapes with floodplain lakes and meadows in combination with various types of forests and agricultural land. This type of mosaic landscapes are attractive for different species of birds of prey.





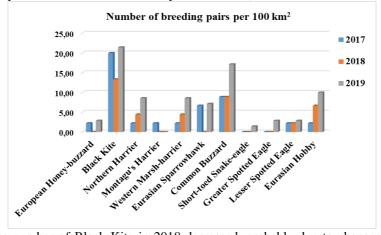
The purpose of the work is to study the dynamics of the number of birds of prey of the Klyazma Reserve. Data collection includes three field seasons (2017, 2018, and 2019). For accounting, the method of mapping nesting plots on the accounting area was used (Osmolovskaya, Formozov, 1952). In 2017 and 2018,  $45 \text{ km}^2$  were surveyed, in  $2019 - 70 \text{ km}^2$ .

As a result of the study, 11 species were registered: European Honey-buzzard, Black Kite, Northern Harrier, Montagu's Harrier, Western Marshharrier, Eurasian Sparrowhawk, Common Buzzard, Short-toed Snake-eagle, Greater Spotted Eagle, Lesser Spotted Eagle, Eurasian Hobby.



lack Kite Common Buzzard

The dominant species throughout the entire period is the Black Kite (2017 – 20 pairs /  $100 \text{ km}^2$ ,  $2018 – 13.3 \text{ pairs} / <math>100 \text{ km}^2$ ,  $2019 – 21.43 \text{ pairs} / <math>100 \text{ km}^2$ ). Subdominant – Common Buzzard ( $2017 – 8.8 \text{ pairs} / 100 \text{ km}^2$ ,  $2018 – 8.8 \text{ pairs} / 100 \text{ km}^2$ ,  $2019 – 17.14 \text{ pairs} / 100 \text{ km}^2$ ).



The number of Black Kite in 2018 decreased, probably due to changes in the feed base. In 2018, European Honey-buzzard, Montagu's Harrier and Eurasian Sparrowhawk were not registered. Thus, some dynamics is visible. The number of Lesser Spotted Eagle is stable (2017, 2018 – 2.22 pairs / 100 km²) due to the presence of typical habitats – mixed and deciduous forests near river valleys and meadows.



Lesser Spotted Eagle Greater Spotted Eagle Short-toed Snake-eagle In addition, in 2019, due to the increase in the survey area, Greater Spotted Eagle and Short-toed Snake-eagle were registered -2.86 and 1.43 pairs  $/100 \text{ km}^2$ , respectively.