

Gaichenko V.A., Zhezherin I.V., Nebogatkin I.V. Dynamics of the number of small mammals in the 30-kilometer zone of the Chernobyl nuclear power plant in the pre- and post-accident period// Reports. 2nd union. scientific and technical meeting following the results of liquidation of the consequences of accidents at the Chernobyl nuclear power plant. — Chornobyl, 1990. — V. 6, P. 3. — P. 449—454.

Changing environmental conditions that have arisen as a result of the evacuation of the 30 km zone of Chernobyl left their mark on the animal world, and in particular, on small mammals. This work studied the number of small mammals from 1987 to 1989 in the village Kopachi and near the village of Novaya Krasnitsa on an abandoned rye field. In the pre-accident period, the numbers of small mammals in the fields near the village Kopachi was low and did not exceed 20-30 animals/hectare during the years of population growth. The dominant species were the common vole (*Microtus arvalis*) and house mouse (*Mus musculus*). Wood and field mice (*Sylvaemus sylvaticus* and *Apodemus agrarius*) (0-30% and 0-14%), respectively, were observed in smaller numbers. Common shrews (*Sorex araneus*) and bank voles (*Myodes glareolus*) were also encountered in a small amount.

In 1986-1987 the number of small mammals decreased by April 1987 and was about 10-20 animals/ ha. The density of rodents began to increase rapidly with the beginning of the reproductive period and due to the intensive development of vegetation, favorable weather conditions, the termination of the cultivation of fields and the weak pressure of predators and in the middle of the summer of 1987 it was already 600-700 animals/ha. It were noted a decrease in the number of species and a sharp increase in the number of representatives of the remaining species. In summer catches only two species were practically found: the common vole and the house mouse, and the share of the latter increased from 37.5% to 75% from the beginning to the middle of summer. The age distribution of murine rodents had a tendency towards the predominance of young animals, which indicates an ongoing intensive reproduction.

During the winter of 1987-1988 years there was a massive elimination of rodents. In April and May 1987, small mammals in the catches were represented exclusively by common voles and their number was 80-100 animals / ha. In 1989, there has been a gradual increase in the number of small mammals. In August it was 70 animals/ha and by mid-October has already reached 100 animals/ha. The species diversity increases significantly. The dominant species are the common vole and field mouse (44% and 29%, respectively). The harvest mouse (*Micromys minutus*) was 11%. Root voles (*Microtus oeconomus*) were found again in the catches 4%. Wood mouse and bank vole were encountered in single cases.

The average number of small mammals in the pre-accident period in the area located near Novaya Krasnitsa was 1.5 times higher than in the village Kopachi in the same period and was 34 animals/ha. The ratio of species was as follows: common vole - 64%, house mouse - 12%, field mouse - 12%, common shrew - 9% and harvest mouse - 3%. The number of rodents in 1986 was 30-50 animals/ha. The species diversity was slightly higher than on the first site. Common vole 41%, field mouse 41%, house mouse 12% and wood mouse 6% were captured. In 1987 the density of the rodent population gradually increased throughout the year after a slight decrease towards spring. In 1988 at the site near the village Novaya Krasnitsa also noted a significant decrease in the number of small mammals, although not as sharp as in the village Kopachi.

In 1989, as in the first site, the abundance and species diversity of small mammals increased. By the beginning of autumn the population density was 270 animals/ha and the common vole dominates -50%. Field mice (28%) and wood mice (16%) were subdominant

species. Less common were common 3% and pygmy shrews (*Sorex minutus*) 1%, yellow-necked mouse (*Apodemus flavicollis*) 1% and harvest mouse 1%.