

S.P. Gaschak, Y.A. Maklyuk, A.M. Maksimenko et al. The Features of Radioactive Contamination of Small Birds in Chernobyl Zone in 2003-2005 // Radiation Biology. Radioecology. - 2008. - V.48, № 1.- P. 28-47.

Radioactive contamination of small birds (484 individuals, 44 species) was investigated in the Chernobyl Zone (Ukraine) in 2003-2005. Values variation of the ^{90}Sr and ^{137}Cs activity concentration reached 3-4 orders of magnitude even in one site, and maximum values amounted to hundreds Bq/g at the central plots of the zone. The biggest contamination is appropriate to birds in breeding season and to settled species, whilst migrants are the "cleanest". Change of contamination within a year reflects seasonal and short-term changes in bird's diet and in behavior. During breeding season females have higher activity concentration of ^{90}Sr , while on ^{137}Cs accumulation sexual differences are absent. In other season's radioactive contamination of male and female does not differ if they live in similar conditions and have similar migration behavior. Young birds during fledging and just after, as a rule, have highest levels of ^{90}Sr contamination than adults, and actually do not differ on ^{137}Cs accumulation. On a set of own and published data, it was assumed, that in small birds the half-life period of ^{137}Cs extraction amounts to 1-2 days, and ^{90}Sr -5-10 days: the dynamic equilibrium of the radionuclide's turnover in organism is reached over 4-7 and 17-34 days, respectively, after the bird's arrival on the contaminated site. Among 44 studied species, those who search invertebrates in soil top layer or forest litter (thrushes), have noticeably higher accumulation of ^{90}Sr and of ^{137}Cs . Specific differences of radionuclide's accumulation for the rest birds were not revealed due to small sample sizes of the species.