



cycle appears to affect the distribution of voles in the landscape. On the basis of alternative prey hypothesis we hypothesize that the habitat use of predators changes according to alternative prey after the crash of vole peak.

We studied (1) the habitat use of four small predator species: the red fox (*Vulpes vulpes*), the pine marten (*Martes martes*), the stoat (*Mustela erminea*) and the least weasel (*Mustela nivalis*), and an alternative prey, the mountain hare (*Lepus timidus*), at several scales, and (2) how the phase of the vole cycle affects this. The habitat use of study species was analysed by using the Finnish wildlife triangle snow tracking data in western Finland from the years 1990–1995 and multi-source National Forest Inventory data as a landscape data. Vole surveys by Finnish Forest Research Institute provided vole population data.



SUBSTANTIATION OF THE NEED TO WORK OUT REGIONAL SCHEMES OF HUNTING LAND TYPES

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“...hunting management activities carried out by many institutions lack coordination and methodological continuity. There is pressing need ... to harmonize existing guidelines and instructions, to unify hunting management notions and terms, to adopt work standards and norms, to deal with the problem of staff training, to make the work on hunting management issues science-based” (D.N. Danilov, 1966).

It feels the utterance was made not more than forty years ago but today! The tasks formulated for hunting management by Danilov et al. in 1966 have not been fulfilled. This is true also for the development of regional schemes of hunting land types. We understand hunting land



type as an entity of one forest type with the same species composition, population density and habitat conditions of game animals, exploited with equal intensity, requiring and suitable for the same management activities. By management activities we mean the set of activities planned and implemented in the hunting estate.

The regional scheme of hunting land types should be worked out with regard to the whole set of conditions and distinctions of each specific region of Russia; for forest hunting land – with regard to the regional scheme of forest types produced within forest management inventories. Working out of the regional scheme of hunting land types is a precondition for wise, science-based management of game resources in the region, as it promotes understanding of the complex relationships between game populations and plant communities. Development of regional schemes of hunting land types would also help generate integrated methodological basis for the inventory of hunting lands, identify patterns in the dynamics of hunting land types, and promote the quality of hunting management planning in general.



EUROPEAN AND AMERICAN MINK (*MUSTELA LUTREOLA* AND *M. VISON*), AND OTTER (*LUTRA LUTRA*) IN DARWIN BIOSPHERE RESERVE AND EASTERN PART OF VOLOGDA REGION

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The studies were conducted in Darwin reserve and in the eastern part of Vologda Region in 2007-2010. More than 160 km of the river network were surveyed twice a year, with the abundance estimated by the tracks/10 km method. Simultaneously, faeces were collected (ca. 360 samples). In the reserve, minks tend to settle at small rivers and