

VITAMINS A AND E IN SOME HUNTING ANIMALS OF KARELIA

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The aim of the study was to determine the content of natural antioxidants, vitamins A and E, in tissues (liver, kidneys, heart, skeletal muscle) of Karelian hunting animals. The objects of research were the following species of animals – bear (*Ursus arctos* L.), wolf (*Canis lupus* L.), elk (*Alces alces* L.), raccoon dog (*Nyctereus procyonoides* Gray), marten (*Martes martes* L.), American mink (*Mustela vison* Briss.), Canadian (*Castor Canadensis* Kuhl) and European (*C. fiber* L.) beavers, muskrat (*Ondatra zibethica* L.), hare (*Lepus timidus* L.). The highest content of retinol and tocopherol was found in the predator's tissues, in rodents the content was much lower. Most species of animals had the highest content of both vitamins in the liver and kidneys. The content of vitamin E in the canidae kidneys was significantly higher than in other species. A high tocopherol level was observed in the mustelidae heart, which is associated with the peculiarities of metabolism in these animals. The retinol content in tissues depends on the amount of vitamin A which comes with food, and usually in the liver the highest level is found. But our investigations showed that the vitamin A concentration in the kidneys for most of the animals was much higher than that found in the liver. These results may indicate a significant contribution of the kidney to the vitamin A metabolism in wild mammals. It is obvious that the antioxidants level found in the tissues of the studied hunting animals provides them with high efficiency of the antioxidant system functioning in the typical for the species environment, adaptation to which is beneficial for the organism. Differences in the content and distribution of vitamins A and E in tissues of different species are caused by the level of metabolic processes in animals with different nutrition types and ecological specialization.