Results of blood tests of wild boar males *(Sus scrofa* L.)

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The wild boar *(Sus scrofa L.)* is a traditional game species in many countries of the world. Lately it has been successfully fanned and bred under semi-free range conditions in an artificial habitat, which requires game management, biotechnical and veterinary arrangements. A variety of laboratory diagnostic methods is used to assess the condition of the animals.

The purpose of this study is to research the morphology and biochemistry of blood and determine testosterone content in wild boar males to obtain new data on the species biology.

The research material is the blood of 43 wild boar males obtained in the northern part of the species distribution, i.e. in the north-east of the European Russia (Kirov region).

The morphology test results were compared with the data cited by other authors (Harapin *et ah*, 2003). As it turned out, the blood of Croatian wild boar contains slightly more red blood cells, and their hemoglobin, hematocrit and mean red blood cell (RBC) volume values were somewhat higher. Higher total RBC and mean RBC volume values in wild boar can be attributed to their increased demand for oxygen (Tusek *et al,* 1994). Most likely it is related to their environment as most of Croatia lies at higher altitude than Kirov region. Furthermore, when animals are under stress, their spleen contracts and hematocrit values are increased (Brenner and Curlier, 1981). Most of the morphology parameters in the blood of wild boar are within the normal physiological limits for domestic pigs (Meyer *et al,* 2007).

Most of the biochemistry parameters were similar to the data obtained by other researchers, however, some differences in transaminase and albumine content were noted. The AST concentration is higher than the ALT concentration in our test results, which corresponds to the results for domestic pigs (Meyer *et al.,* 2007). Harapin *et al.* (2003) reported that their ALT values were higher than AST value. Total protein content was essentially similar, however the albumine content in our test results was higher.

The study of historical testosterone content in the blood serum of adult and young wild boar demonstrated that this value increased in October. The maximum testosterone content was noted in November, which corresponds to the rutting period of the species. The value gradually decreases by January. The testosterone content curve in the adult and young wild boar is similar, however, the testosterone content in the adults is considerably higher.

The research data obtained supplement the essential data on the biology and adaptation potential of the species and show the animal physiology parameters can change depending on the environmental conditions and ecology situation.