BIOPHYSICAL INDICATORS OF DEERS' SKIN DERIVATIES FROM DIFFERENT HABITATS

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Materials and Methods

The values of redox potentials of alkaline hair hydrolysates from different deer species — reindeer, sika and red deer — were studied. Hairs were taken from different parts of the body of healthy animals of different sex and age (males, pregnant and non-pregnant females, cubs), living in different climatic zones

The redox potential of hair was determined according to the author's method [1, 2].

1. Utility model patent No. 171788 "Device for determining the parameters of the photoredox effect in alkaline solutions of keratins" Novikov V.E., Komarova S.A., 2016.

2. Oleshkevich, A.A., Komarova,S.A., Guselnikova, A.A., Yarygina, E.I. Laboratory examination technique for animal skin derivatives (hair, wool, fluff). RAD Conference Proceedings, vol. 4, pp. 95–100. DOI: 10.21175/RadProc.2020.20

In reindeer samples, the potential during incubation in the dark was in the range of 55-57 mV, when irradiated with visible light, the range was 50-53 mV, and then, upon incubation in the dark, it returned to the original dark values

In sika deer wool, the potential during incubation in the dark was in the range of 48-51 mV, when irradiated with visible light, the range was 40-41 mV, and then, upon incubation in the dark, it returned to the original dark values

In red deer hair, the potential during incubation in the dark was in the range of 60-64 mV, when irradiated with visible light, the range was 56.5-58.5 mV, and then returned to the original dark values when incubated in the dark

This slide shows photos of the installation for studying the redox potential of alkaline hair hydrolysates