

## MORPHOFUNCTIONAL FEATURES OF THE DISTAL'S PARTS OF THE LIMBS SKIN OF SOME BIRDS SPECIES

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The morphology of the skin interdigital membrane of some species of the birds (*Cygnus olor*, *Anser indicus*, *Larus ridibundus*, *Anas platyrhynchos*) was investigated. Histological sections of the skin (thickness of 5 to 20 microns), were manufactured by the usual method, and stained with hematoxylin by Van Hizon and with orsein by Tentser - Unna. The skin of the interdigital membrane of the birds consists of three layers (dorsal epidermis layer, dermis layer and ventral epidermis layer); hypodermis layer is absent. A similar structure of the skin is observed in the interdigital membrane of *Pelophylax ridibundus* and bats wing membrane, despite of the fact that subcutaneous fat is well developed in other areas of the body. This difference in the structure of the skin of the trunk from the interdigital skin membrane of the birds affects the blood supply. Blood vessels are located in the reticular dermis have a well-developed middle shell. Number of rows of smooth muscle cells of the tunica media of arterioles in *Anser indicus* and *Larus ridibundus* 4-6, in *Cygnus olor* and *Anas platyrhynchos* 5-8; number of rows of smooth muscle cells of the tunica media of venules are 3-6. It involved in the redistribution of blood in the membrane. Morphometric parameters - the ratio of the diameter of the lumen of arterioles to the wall thickness among the investigated species above in *Cygnus olor* ( $5.2 \pm 0.16$ ) and *Anser indicus* ( $4.7 \pm 0.19$ ). At *Larus ridibundus* the figure is  $3.7 \pm 0.14$ , and *Anas platyrhynchos*  $2.8 \pm 0.12$ . The ratio of the diameter of the lumen of venules to the wall thickness of *Cygnus olor*  $6.5 \pm 0.31$ , *Anser indicus*  $5.3 \pm 0.16$ , *Larus ridibundus*  $4.2 \pm 0.21$  and *Anas platyrhynchos*  $3.6 \pm 0.14$ . Morphometric parameters of the blood vessels are higher in the birds more specialized to aquatic environment than in the birds less in contact with water.

Birds, skin, epidermis, dermis, hypodermis, interdigital membrane, blood vessels, thermoregulation