

Morphometric analysis of the syrinx in Mallard (*Anas platyrhynchos*) and Black scoter (*Melanitta nigra*)

S u m m a r y

The research material included 79 syrinxes of adult males of two bird species: 38 Mallard (A) and 41 Black scoter (B) ducks. The following determinations were carried out: body weight (BW) and body length (BL) of the birds, their sternum length (SL) and length of tarsometatarsus (TL) as well as syrinx weight (WS) and its length (LS). Males of the examined species had syrinx of tracheobronchial type (tracheobronchial syrinx), constructed of final cartilages of trachea and initial cartilages of the main bronchi (cartilaginous bronchosyringeales). However anatomy of syrinx in Black scoters (B) is much different than that one in mallards (A). A similarity includes lack of *membrana tracheosyringealis*, often occurring in anatomy of syrinx of other duck species. "A" drakes had distinctly larger syrinx (WS=2.61 g and LS=20.5 mm) as compared to "B" males (WS=0.20 g and LS=7.1 mm). Only two relationships in "A" birds were not statistically significantly correlated (LS-TL and WS-LS). In the remaining cases, statistically significant positive coefficients  $r$  at  $P \leq 0.05$  were found (WS-BW:  $r=0.392$ ; LS-BL:  $r=0.402$ ; LS-SL:  $r=0.409$ ). For "B" birds, significant correlations were recorded only in case of WS-BW at  $P \leq 0.05$  where  $r=0.397$  and insignificant correlations were always negative (LS-BL, LS-SL, LS-TL and WS-LS). For "A" birds, three relative indices were established: WS/BW=0.19%, LS/BL=4.02% and LS/SL=17.91%. For "B" birds, only WS/BW=1.29% was established. The remaining relative indicators in "B" group were not established because the absolute parameters were insignificantly correlated.

**KEY WORDS:** ducks / Mallard (*Anas platyrhynchos*) / Black scoter (*Melanitta nigra*) / syrinx / morphometry