ABSTRACT

Feather ornaments and its role as a signals in sexual selection has been broadly studied topic in avian biology. However, vast majority of studies focus especially on role of male ornamentation and female preferences in sexual selection. Despite this fact, recent work shows, that similar palette of adaptive functions can be found for female feather ornaments, and male preferences for them, respectively.

This study focuses on possible importance of female melanin-based ornaments and other individual on breeding performance in the Northern Lapwing (*Vanellus vanellus*), common polygynous wader breeding in agricultural landscape.

No significant predictor of female investment to egg size was found. Long winged females with bigger proportion of secondaries changed during prenuptial moulting and bigger extent of melanin ornaments tended, surprisingly, to later timing of breeding. Contrary to this trend, extent of female ornamentation seems to be sexually selected trait by males. Analysis of male incubation behavior shows, that males incubate more in nests of more ornamented females, as well as in nests in later incubation stage. These findings seems to be in a good agreement with "Differential allocation hypothesis". On the other site, no effect of clutch egg sizes and timing of breeding was found. Similarly, nesting colony size, as an indirect measure of possibility to gain additional mates has no overall effect on male incubation behavior. Rainy weather has even negative influence on male nest attentiveness.

KEY WORDS

Northern Lapwing, *Vanellus vanellus,* sexual selection, melanin-based ornaments, mating systems, polygyny, biparental incubation, incubation rhythms, differential allocation hypothesis