BETWEEN MONOGAMY AND PROMISCUITY – HOW DOES BEHAVIOURAL ECOLOGY EXPLAIN THE DIVERSITY OF AVIAN MATING SYSTEMS?

Summary

The evolution of diversity and complexity of avian mating systems can be explained basing on sociobiological assumption that individuals maximize their fitness (selection acts on the level of individuals or genotype but not population) and no behaviour could have evolved for „the good of a species". As a result there is a conflict between sexes and a mating system is the outcome of this conflict.

Within a small genus *Acrocephalus* the whole spectrum of mating systems from monogamy to promiscuity has been described. The social relationships roughly reflect genetic links (genetic paternity and maternity), but no species is in 100% genetically monogamous. The diversity of mating systems can be found not only while comparing different species but also within a species. In various populations of the same species genetic monogamy or polygyny can dominate. Moreover, such differences can be found in the same population in different years. This suggests the influence of environmental factors. These facts contradict the hypothesis that closely related species have similar mating systems as a result of common evolutionary history. For example, two closely related species from the genus *Acrocephalus* (in the past considered as sibling species): sedge warbler and aquatic warbler have completely different mating systems. Among environmental factors most important seem to be potential food resources. In general, the diversity of mating systems in the genus *Acrocephalus* supports the hypothesis that non-monogamous mating systems occur in habitats rich in food resources in which males can partly (sedge warbler, great reed warbler) or totally (aquatic warbler) be emancipated from parental duties.