

ABSTRACT

This PhD thesis is connecting three publications and one manuscript and focuses on the study of interspecific nest parasitism among particular duck species of family *Anatidae*. The first part describes the occurrence of interspecific nest parasitism, in the study area of Trebon between years 1999 and 2008 in three diving duck species (*Aythini*): the Common pochard (*Aythya ferina*), the Tufted duck (*Aythya fuligula*) and the Red-crested Pochard (*Netta rufina*) and two dabbling duck species the Gadwall (*Anas strepera*) and the mallard (*Anas platyrhynchos*). The most of parasitic eggs was laid by Red-crested Pochard and Common Pochard. In this period, inter-specific nest parasitism was recorded in 6.6% of nests. The values were compared with the results of studies in the same species between 1975 and 1980, when inter-specific nest parasitism was in 13.9% of nests. The difference in rate of nest parasitism is caused as a result of a decline in breeding populations of the studied species. In the second analysis, we investigate whether parasitically laid eggs are of different size than non-parasitic eggs in three diving duck species; the Common Pochards, the Tufted Ducks and the Red-Crested Pochards. Parasitic eggs of the Common Pochard were significantly longer than non-parasitic eggs of the same species and parasitic eggs of the Tufted Duck were significantly wider and had greater egg mass than non-parasitic eggs of the same species. Contrarily, the parasitic eggs of the Red-Crested Pochard were smaller, were shorter and had smaller egg mass. The differences in sizes are caused by the population trends of the studied species and the dependence of nest parasitism proportions to nest density. The next part of my study focuses on host reactions to parasitic events, which is tested in an experimental way. There, it was found that the host female of Common Pochard's reaction to a parasitic female in the nest or in the surrounding area, is mostly passive. However, this passive behavior could be an adaptive reaction to a parasite. In the last part of my study, the major host female's reaction to parasitic egg/s was acceptance in both studied species (Common pochard, Tufted duck). The parasitized nests of the Tufted duck were abandoned significantly more often than Common pochard nests. The abandonment of a parasitized nest by the Tufted duck's host female could be one of a few exceptions. These exceptions are probably caused by differences in the life history of the studied species. We can conclude that particular aspects of nest parasitism, such as the size of a parasitic egg, and the rate of nest parasitism, could be influenced by external factors like population trends and nest density.