ABSTRACT

Breeding site fidelity and its effect on reproductive success was investigated in two diving ducks species, i.e. Common Pochard (*Aythya ferina*) and Tufted Duck (*Aythya fuligula*) in the Trebon region and the surroundings using caught and individually marked females, searching for nests, and monitoring of marked individuals and its broods. In both studied species, the fidelity ratio (apparent survival, MARK software) was around 65%. Evaluating the influencing factors, impact of previous reproductive success in the phase of rearing ducklings was found to be the only one statistically significant factor. Furthermore, we compared reproductive parameters (i.e. clutch size, laying date, reproductive success) in the first and subsequent year of study. The statistically significant relationship was found between the timing of nesting in the first and in any subsequent year in the Tufted Duck.

When comparing the reproductive success in relation to hatched or unhatched clutches and reared or not reared ducklings, we do not confirm any significant shift. Successful females were not able to improve or even repeat their reproductive success in the following years, which could result in subsequent lower degree of fidelity. Subsequently, there is a female dispersion and reduction of the reproductive success of females, which resulted in overall population decline in investigated species.

Key words: breeding site fidelity, Common Pochard, Tufted Duck, reproductive success