Abstract

It was documented that many species of birds incubate their clutch before the clutch completion. This behaviour called partial or intermittent incubation usually takes only few hours per day. Eggs in clutch are from the time of laying until the time of full incubation exposed to many negative environmental factors and disturbances. These factors may reduce the viability of the embryo and brood survival. It is therefore predicted that birds use partial incubation as a protection against these negative factors. Most probable functions of partial incubation are a protection against clutch predation, intraspecific and interspecific brood parasitism, and antimicrobial actions linked with reduction of potentially harmful microorganisms on the eggshells and/or activation of proteins with antimicrobial potential in egg´s yolk and albumen. This bachelor thesis summarizes overall knowledge of partial incubation, with special emphasis on its incidence and functions in birds. Moreover, this thesis reviews the problematics of synchronous and asynchronous hatching of partially incubated clutches. Although, based on literature review, partial incubation has strong impact on overall reproduction success in birds, study of this incubation behaviour is still neglected and more attention should be paid on comparative studies of species from different geographical zones and physiological and biochemical mechanisms during partial incubation.

Key words: incubation, incubation temperature, viability, bakteria, synchrony hatching, protein in egg, physiological zero, predation, parasitism