Abstract

The aim of my study was to determine the incubation rhythm of Red-spotted Bluethroat *(Luscinia s. svecica)* in two different types of habitats within its breeding range - Central Europe alpine tundra (Czech Republic – Krkonoše N.P.) and Northern Europe arctic tundra, (Sweden – Abisko N.P.). Incubation behaviour has been recorded using a data-logger with thermal probe inserted into the nest and also simultaneously by a video camera. Comparison of both methods allowed me to evaluate reliability of thermal logging of nest temperature to estimate incubation rhythm. In condition then probe was installed correctly and air temperature was not so high, thermal probe proved to be good way to determine number of female's recesses. The main differences of incubation rhythm between localities was caused mainly by continuous daylight in polar region (polar day). Though females in Abisko were not limited by dawn and dusk, they still used to have night rest only slightly shorter than females in Krkonoše. Females in Abisko were active more during evening and night hours of polar day then females in Krkonoše. They usually settled in nest later in night and woke up later in the morning hours than did the females in Central Europe. It caused longer nest-attentiveness and fewer recesses through the whole day, except during the evening and night hours. They used continuous daylight for feeding and their nest-attentiveness is accordingly shortened during evening hours in comparison to Central Europe alpine environment. Incubation bouts of females behind polar circle were longer so we could assume that arctic tundra is more comfortable environment for incubation in birds than alpine.

Key words:

incubation behaviour, incubation rhythm, passerines, apline and arctic tundra, time-lapse video, datalogger, Bluethroat, *Luscinia s. svecica*