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# Activity of incubating common terns (*Sterna hirundo*) in freshwater and marine habitats

Matija Vodopija, Željko Pavlinec, Jelena Kralj

Department of Biology, Faculty of Science, University of Zagreb, Croatia

The common tern (*Sterna hirundo*) is a colonial seabird nesting in both marine and freshwater colonies. Colony characteristics, such as its location, size, and habitat may impact nest attendance, brooding rate and fledgling survival. Because of the complexity of colony site choice and the array of behaviours exhibited by colonial seabirds, existing data should be expanded to include different freshwater and marine habitats to gain a clearer picture of bird on-site behaviour. Therefore, we collected continuous camera trap photographs of seven nests of the common tern at three colony sites in Croatia, from 2021 to 2023. In order to quantify the difference in nest attendance and brooding rate between nests and between habitats. The collected data was categorised into three states (incubating, near the nest and not present) based on the birds' relation to the nest in a given photograph. Using the R programming language, these photographs were sorted en masse into three variables: state duration per day (SDPD), state durations until change (SDUC) and number of state changes (NOSC). Nonparametric statistical tests showed a significant difference in most variables between marine and freshwater colonies during incubation, as well as during specific parts of the day (nighttime, afternoon and morning) within that period. In general, terns from the freshwater colonies had higher nest attendance and brooding rates and incubation bouts were longer. Marine terns left their nests unattended for longer periods. Such activity patterns probably reflected the differences in prey availability and foraging activities between freshwater and marine habitats. These results shed light on important variations in parental behaviour, as well as the link between common tern behaviour and specific characteristics of freshwater and marine habitats.