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Artificial nest experimentation suggests equal predation pressure on waders in coastal meadows and mires

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Estonia supports a substantial proportion of the European breeding populations of several wader species. In the 1970s and 80s, several typical meadow-breeding waders, such as the Black-tailed Godwit (*Limosa limosa*) and Dunlin (*Calidris alpina*), moved into areas of mire there, a shift thought to be related to the degradation of coastal meadows due to an increase in predation pressure. Yet valid quantitative data in support were unavailable. In order to compare the quality of managed coastal meadows and inland mires for breeding waders and the effects of predation, an artificial nest experiment was carried out in 2004 and 2005 in western Estonia. Eight pairs of adjacent coastal meadow and mire sites used by breeding waders were selected, the sites of each pair averaging 20.8 km apart (SD±9.9 km). At each site, ten artificial nests containing quail eggs were set and surveyed at 5–7 day intervals over 21 days; searches were also made for the real wader nests. No statistically significant differences in nest survival could be established between the two habitats (paired *t*-test: p=0.70). Average survival rates were 90.7% per day in meadows and 92.0% in mires. Although such a difference could have some biological significance, its exact quantification remains complicated due to high variability among the results. That the difference is not significant in any case is supported by (1) a doubling of the sample size would only reduce the confidence intervals of the differences two-fold on a substantially representative study area of coastal meadow, perhaps 20% of that habitat in Estonia, and (2) survival rates of real wader nests were similar, even though sample sizes were too small for analysis.

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KuşBank: Citizen Science for Bird Conservation

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KuşBank is an internet based databank where the bird watchers can store their bird observation data as a "citizen scientist" to contribute the conservation of birds. KuşBank Project is executed by Doğa Derneği and Erciyes University with the support of RSPB (The Royal Society for the Protection of Birds). KuşBank is a part of the World Birds Project which is carried on by BirdLife and RSPB. Worldbirds is a project which aims to compile all national bird databases and use these data for conserving the birds throughout the world. Turkey is a rich country in terms of bird diversity and hosts 456 species. 362 (79%) of those have been seen and entered into the KuşBank database during 2004. Among those species, 158 are under a threat category in Europe. During 2004, 2000 field observations by 400 birdwatchers were collected in KuşBank which include a total of 28,140 bird sightings.The majority of the observations and sightings in KuşBank date from spring and autumn. The breeding data was used to prepare breeding distribution maps of Turkish birds. KuşBank has become the most important source of information to update information on the states of birds, their habitats and the threats on IBAs. Many sightings come from Important Bird Areas (IBA) and 53% of those source from Central Anatolian IBAs. Mogan Gölü (Lake Mogan) in Central Anatolia is the most frequently visited IBA. KuşBank 2004 report was published in 2005 and it has been compiled from the data collected in KuşBank by the birdwatchers from different provinces of Turkey during 2004. In KuşBank, birdwatchers can store their sightings in a standard way and share with other birdwatchers. KuşBank, as a citizen science project for bird conservation, has shown that volunteers can contribute to not only scientific work and but also Turkey's Site Protection strategies while Turkey is on the way to EU membership.

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Endocrine and neuroendocrine regulation of reproductive timing in an opportunistic breeder

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Opportunistically breeding species regulate their reproductive physiology according to immediate environmental conditions. Instead of slowly preparing for seasonal breeding each year, such species are thought to maintain an activated hypothalamo-pituitary gonadal axis to initiate breeding very quickly whenever favorable conditions occur. We present data from wild Zebra Finches (*Taeniopygia guttata castanotis*) captured in southern and central Australia during periods of breeding and non-breeding to investigate whether reproductive physiology, measured by gonadal volume and reproductive hormones, mirrored environmental changes characteristic of each location: highly seasonal in the south and aseasonal in the center. We found that periods of non-breeding did not result from simple inhibition by drought, as indicated by low plasma concentrations of the hormone corticosterone, because baseline concentrations were low in both populations. We are now investigating the endocrine and neuroendocrine regulation of reproductive physiology by manipulating supplementary cues in controlled conditions in the laboratory. Specifically, we will discuss the influence of food and water restriction on various gonadotropin-releasing hormone peptides in the brain, on circulating reproductive hormones, and on sexual behavior. These findings will improve our understanding of nonphotic cue use and how these environmental signals are transduced in opportunistic breeders.

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Comparative phylogeography of the Rufous Gnateater (Conopophagidae) and Lesser Woodcreeper (Dendrocolaptidae): Congruent history of two passerines from the South American Atlantic Forest

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