

Factors influencing occurrence of passerines in the reed archipelago of Lake Velence (Hungary)

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Báldi A. 2006. Factors influencing occurrence of passerines in the reed archipelago of Lake Velence (Hungary). Acta Ornithol. 41: 01–06.

Abstract. Bird census data from the reed archipelago (109 islands) of Lake Velence, Hungary, were used to assess the relative importance of habitat scale variables (island area and shape, reed stand density and reed height) and landscape scale variables (distance to the nearest reed island and nearest large reed island, percentage of reed-, water- and land-cover around the islands). Habitat and landscape scale variables played a similar general role in explaining the presence of the eight observed reedbed passerines. Reed island area was the most important factor; however, owing to the small average island area (1.74 ha), this simply indicates that too small reed patches were not occupied. A preference for an elongated shape (reedbed edges) was important for half of the species, and no other variables were included into the model of more than two species. The important practical conclusion is that both habitat and landscape scale factors should be considered in nature conservation management of reedbeds.

Key words: Hungary, Lake Velence, logistic regression, passerines, habitat scale, landscape scale, *Acrocephalus* sp.

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Griffon Vulture *Gyps fulvus* food shortages in the Ebro Valley (NE Spain) caused by regulations against Bovine Spongiform Encephalopathy (BSE)

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Camiña A., Montelío E. 2006. Griffon Vulture *Gyps fulvus* food shortages in the Ebro Valley (NE Spain) caused by regulations against Bovine Spongiform Encephalopathy (BSE). Acta Ornithol. 41: 07–13.

Abstract. Livestock farms in the mid-Ebro Valley were regularly monitored for carcass disposal and food availability before and after the carcass removal programme was established. At the same time Griffon Vulture censuses were carried out. During 2004 vultures fed almost exclusively on pigs. Since 2005 carcasses have not been available for vultures, but griffon numbers using the area have remained roughly the same. Most of the vultures previously present were non-breeding birds, which probably increased their chances of survival by feeding far from the breeding colonies. Since the inception of the carcass removal programme, the situation has reversed, with adults now outnumbering immature birds. The establishment of carcass removal programmes all over Spain could affect the stability and future evolution of Griffon Vulture populations. To ensure a proper conservation policy for vulture species, scientific research is urgently needed in other areas before management measures are implemented.

Key words: Griffon Vulture, *Gyps fulvus*, foraging, food, intensive farming, BSE

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Impact of weather on partial loss of nestlings in the Red-backed Shrike *Lanius collurio* in eastern Poland

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Gołowski A. 2006. Impact of weather on partial loss of nestlings in the Red-backed Shrike *Lanius collurio* in eastern Poland. Acta Ornithol. 41: 15–20.

Abstract. The influence of ambient temperature and rainfall on the size of partial losses in broods of the Red-backed Shrike was studied in the extensive agricultural landscape of eastern Poland in 1999–2003. Nestlings were divided into two age classes: up to the 5th day after hatching and the 6–10th day of life. The entire period of the nestlings' stay in the nest (1–10th day of life) was also considered. The ambient temperature did not influence the size of losses at either stage of the nestling life. Rainfall affected the size of nestling losses in the periods when they were 6–10 and 1–10 days old. The influence of rainfall explained only 11% of nestling losses. Thus, one should expect some factors other than weather conditions to cause partial losses in Red-backed Shrike broods in the study area, at least in seasons with an average pattern of air temperature and rainfall. Among such factors, the structure of territories variation in food abundance should undoubtedly be considered.

Key words: Red-backed Shrike, *Lanius collurio*, weather conditions, rainfall, partial losses, fledging success

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Nest sites of Great Spotted Woodpeckers *Dendrocopos major* and Middle Spotted Woodpeckers *Dendrocopos medius* in near-natural and managed riverine forests

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Kosiński Z., Ksit P., Winięcki A. 2006. Nest sites of Great Spotted Woodpeckers *Dendrocopos major* and Middle Spotted Woodpeckers *Dendrocopos medius* in near-natural and managed riverine forests. *Acta Ornithol.* 41: 21-32.

Abstract. The main goals of this study were to determine whether woodpeckers differ in nest-site selection between near-natural old-growth forests protected for ca. 50 years and managed forests. Great Spotted Woodpeckers preferred oaks as nest sites, but Middle Spotted Woodpeckers selected dead trees as well as live ashes and oaks. It was found that the degree of silviculture did not affect the preference for tree species between long-term protected and managed areas in either *Dendrocopos* species. However, the share of ashes as nesting trees for Middle Spotted Woodpeckers was distinctly smaller in managed stands. In primeval *Quercus-Fraxinus-Ulmus* riverine forests ashes are thought to have played an important role as a nest-site for this species. In unmanaged forests both woodpeckers nested in trees of a larger diameter, at a nearly twofold higher rate than in managed stands. Nest-height was influenced by tree diameter. However, these relationships varied between the two woodpecker species, in relation both to the type of management and to the tree species, and were the most pronounced in Middle Spotted Woodpeckers nesting in ashes in near-natural stands. The type of management did not affect the placements of nest-holes in relation to tree condition, state of tree stump and condition of the wood in either species. However, in comparison to the near-natural forests, both species excavated holes more frequently than expected in tree-trunks in the managed stands. The results of the present work suggest a convergence of some nest-site characteristics in managed forests.

Key words: nest-site selection, riverine forests, stand structure, forest management, nest-site convergence

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Reaction to playback and density estimations of Syrian Woodpeckers *Dendrocopos syriacus* in agricultural areas of south-eastern Poland

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Michalczuk J., Michalczuk M. 2006. Reaction to playback and density estimations of Syrian Woodpeckers *Dendrocopos syriacus* in agricultural areas of south-eastern Poland. *Acta Ornithol.* 41: 33–39.

Abstract. The numbers and density of Syrian Woodpeckers were estimated in a synanthropic environment in an area of 238 km² in SE Poland during 2003–2005. The combined cartographic method together with voice stimulation (playback) was used during the study. The birds' reaction to the playback was also assessed. It was found that the woodpeckers reacted most strongly to voice stimulation in March and April, which led to a high rate of discovering breeding sites during this period. During the breeding period (May-June) the birds reacted less strongly to playback, which significantly decreased our ability to find their territories. The woodpeckers most often reacted to vocal provocation by drumming and emitting alarm calls, which permitted rapid confirmation of the birds' presence in their territories. During the three years of the study, respectively 29, 41 and 35 Syrian Woodpecker breeding pairs were confirmed, giving a mean density of 1.2-1.7 pairs/10 km² for the entire study area, and 13.8-19.5 pairs/10 km² calculated for the area of optimal habitat, such as orchards, tree lines and the scattered tree growth associated with human settlements (21 km²). The densities noted are among the highest found in both Poland and Europe.

Key words: Syrian Woodpecker, *Dendrocopos syriacus*, number of pairs, density, agricultural landscape, playback stimulation

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Habitat selection and winter food resources of the Water Pipit *Anthus spinoletta* in south-western Poland

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Orłowski G. 2006. Habitat selection and winter food resources of the Water Pipit *Anthus spinoletta* in south-western Poland. *Acta Ornithol.* 41: 41–48.

Abstract. In winter 2004/2005, 1532 Water Pipits were recorded during 37 censuses carried out along an established route on a sewage farm flooded with wastewater (Wrocław, SW Poland). Single birds were seen in nearly 39% of all 299 encounters, while the largest concentrations, between 16–28 individuals, accounted for 9%. 78% of all birds were observed on meadows flooded with communal wastewater. The remaining ones stayed around irrigation ditches (n = 172, 11.5%), sedimentation basins (n = 88, 5.9%) and reedbeds (n = 72, 4.8%). The mean size of the Water Pipit concentration was largest on the meadows (mean \pm SE = 6.54 ± 0.50 individuals) and smallest at the sedimentation basins (mean = 1.44 ± 0.14). In this winter season (December–first half of March), rainfall enlarged numbers of birds to forage on the meadows, and the thickness of the snow cover was positively correlated with bird abundance at the sedimentation basins. The dominant available prey items inhabiting the warm wastewater were Diptera larvae (96%), 88% of which belonged to the genus *Eristalis*. The mean (\pm SD) invertebrate biomass was highest in the basin sediments (1.03 ± 1.14 g/dm³ of deposits), and lowest on the flooded meadows (0.20 ± 0.37 g/dm³ of deposits). The results point to the significance of the artificial environmental conditions created by warm sewage water, which enable the birds to remain largely independent of the weather and thus to overwinter in a cold region of central Europe.

Key words: Water Pipit, *Anthus spinoletta*, sewage deposits, Dipteran larvae, *Eristalis* sp., flocking behaviour, weather conditions, winter

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Species richness of breeding birds at a landscape scale: which habitat type is the most important?

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Skórka P., Martyka R., Wójcik J. D. 2006. Species richness of breeding birds at a landscape scale: which habitat type is the most important? *Acta Ornithol.* 41: 49–54.

Abstract. The aim of the study was to compare different habitat types according to species richness and estimate their value for total species richness at a landscape level. The study was carried out in the years 1995–2001 in the Tarnów region (1400 km², S Poland). All bird species were classified according to broadly defined breeding habitat type. Four main, easily distinguishable habitat types were specified: forests (18% of the area), open areas (70%), wetlands (1%) and anthropogenic areas (11%). Birds were classified as habitat specialists if they bred in only one habitat type, or as habitat generalists, if they bred in two or more habitat types. Altogether, 151 species nested in the study area, and a total of 87 species were habitat specialists. There were statistically more endangered species (so called “losers”) among the habitat specialists than in the habitat generalists’ group. Habitat specialists were also statistically less abundant than habitat generalists. The following numbers of species were recorded in the specific habitats: forests — 70, open areas — 75, wetlands — 61, anthropogenic areas — 46. Among these, the percentages of habitat specialists were the following: forests — 41.4%, open areas — 18.7%, wetlands — 52.5%, anthropogenic areas — 26.1%. It was found that the numbers of species inhabiting the various habitat types differed from the number to be expected on the basis of their area. This was especially apparent in the case of wetlands, which constituted only a small part of the total area, but as many as 32 species (21.1% of all) occurred only there. For conservation purposes, wetlands appear to play the most important role in shaping species richness in the landscape studied here. However, each habitat type contained some species that were not noted in other habitats.

Key words: biodiversity, birds, habitat selection, landscape scale, regional studies, wetlands

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Breeding bird community of a primeval temperate forest (Białowieża National Park, Poland) at the beginning of the 21st century

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Wesołowski T., Rowiński P., Mitrus C., Czeszczewik D. 2006. Breeding bird community of a primeval temperate forest (Białowieża National Park, Poland) at the beginning of the 21st century. *Acta Ornithol.* 41: 55–70.

Abstract. The 2000–2004 results of the mapping technique censuses carried out in permanent plots situated in three types of old-growth primeval BNP stands (ash-alder riverine, oak-hornbeam, mixed coniferous) are presented and compared with data gathered in the same plots in the late 1990s. These data supplement earlier observations in the BNP and extend the long-term set of data on the breeding bird numbers there to a 30-year uninterrupted series (1975–2004). Most community parameters, such as the composition of breeding avifauna, the species richness, and the make-up and cumulative share of dominants, have remained basically unchanged. The overall bird density has increased by 8–20% in different plots; in 2001 it reached the highest level within the 30-year study period. The increase was due to parallel increases in numbers of several species, widely differing in their nesting sites, food requirements and migratory habits — during this period 14 of the 26 most numerous species attained their highest numbers in the 30-year study period. Since numbers increased simultaneously in all the plots, the density differences across habitats remained the same, from the highest densities in riverine stands at the forest edge (up to 149 p/10 ha), through oak-hornbeam stands, to the lowest densities in the coniferous stands (54–56 p/10 ha). In most cases the numerical increases could not be attributed to changes in local environmental factors, such as food resources, or to detectable changes in habitat structure. The apparent lack of a relationship between the changes in bird numbers and the local situation suggests that factors acting on a larger scale (beyond the study area) could have been involved. Despite the directional changes in bird abundance observed in the Białowieża Forest, its breeding bird assemblage, when compared with the amplitude of changes recorded over the same period in other areas and habitats, stands out as an example of remarkable stability.

Key words: bird community stability, primeval forest, long-term study, species richness, community structure

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Two additional synapomorphies of grebes Podicipedidae and flamingos Phoenicopteridae

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Manegold A. 2006. Two additional synapomorphies of grebes Podicipedidae and flamingos Phoenicopteridae. Acta Ornithol. 41: 79–82.

Abstract. Sister group relationship of grebes and flamingos is well supported by both molecular and morphological data. Surprisingly, most of the morphological characters now recognized as synapomorphies of grebes and flamingos have long been known in both taxa, but they were never considered to be homologous. The same is true of two additional synapomorphies discussed here, the presence of nail-like ungual phalanges and prominent caudolateral projections on the ventral side of the cervical vertebrae (processus ventrales).

Key words: Podicipedidae, Phoenicopteridae, †Palaelodidae, morphology, phylogeny

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Significance of the breeding season for autumnal nest-site selection by Tree Sparrows *Passer montanus*

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Pinowski J., Pinowska B., Barkowska M., Jerzak L., Zduniak P., Tryjanowski P. 2006. Significance of the breeding season for autumnal nest-site selection by Tree Sparrows *Passer montanus*. Acta Ornithol. 41: 83–87.

Abstract. The Tree Sparrow is one of the species exhibiting classical autumn sexual behaviour. Autumn nest selection by this species was studied in Central Poland, especially with respect to the history of nest-boxes in the previous breeding season. During the autumn display, Tree Sparrows constructed nests significantly more often in boxes that had been occupied in spring by conspecifics, but only rarely in empty boxes, in boxes where House Sparrow *Passer domesticus*, tits *Parus* sp., Pied Flycatcher *Ficedula hypoleuca*, Redstart *Phoenicurus phoenicurus* had nested, or in boxes used by hymenopterans. During the autumn display, Tree Sparrows showed a preference for boxes where nestlings had hatched. Nests with nestlings in the breeding season are a cue used in selecting nest site in the autumn sexual behaviour.

Key words: Tree Sparrow, *Passer montanus*, autumnal nest, nest history, nest selection, public information

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Food transfer in Montagu's Harrier *Circus pygargus* during courtship

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Wiącek J. 2006. Food transfer in Montagu's Harrier *Circus pygargus* during courtship. *Acta Ornithol.* 41: 88–91.

Abstract. Male Montagu's Harriers delivered prey to their mates by ground and aerial transfer. Between 1992 and 1995, 365 cases of food pass behaviour were recorded (0.47 transfer per observation hour) on calcareous marshes near Chełm in eastern Poland. All of them were observed inside the territory. Ground transfer was dominant at the beginning of the pre-laying period during the time of pair formation. In the courtship season 107 ground transfers (29%) were observed (0.2 per hour). Aerial transfers were observed in 258 cases (71%, 0.41 per hour). The efficiency of aerial food pass was 98% (only five passes ended in the loss of food), that of ground transfer was 100%. Food transfer was strongly correlated with copulation, especially after ground transfer. The number of ground transfers of food was correlated with average time of sky-dancing in males.

Key words: Montagu's Harrier, *Circus pygargus*, aerial and ground food pass

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