

DATA ON THE BIRD STOCK OF THE FLOOD-PLAIN AT TISZAFÜRED

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Abstract

We have performed stock-taking within the framework of the Third Ornithological and Nature Conserving Camp of the Hungarian Ornithological Association, in the area of the Bird Reserve at Tiszafüred and the Angler Island. In the Bird Reserve, work was concentrated on the heronry and its wider environs. It was established that in the colony seven species were hatching, namely: *Phalacrocorax carbo*, *Ardea cinerea*, *Ardeola ralloides*, *Egretta alba*, *Egretta garzetta*, *Nycticorax nycticorax*, and *Platylea leucorodia*, with a total of 1149 pairs. In the Angler Island, apart from establishing the number of nesting pairs, we strove to clarify, in what kind of niche the single species were living in the area. Taking into consideration the short period of observations, I have intended this publication to be a fact-communicating work.

The Hungarian Ornithological Association organized its Third Ornithological and Nature Conserving Camp on 21—28 June 1977 at Tiszafüred, among others with the aim of carrying out ornithological observations in the area of the Tisza II Reservoir and the Hortobágy National Park. The fact-finding work, important for the Tisza research, took place in the area of the Bird Reserve at Tiszafüred and on the Angler Island. As the ornithological survey in 1969 did not affect these two areas (LEGÁNY 1971) and as I have not found any data relating to these in the literature of the present-day Tisza research, either, I mean to be worth, and even necessary, to publish the recent results.

Materials and Methods

As the time at our disposal has not enabled any deeper and comprehensive ecological analysis to be performed, apart from fixing the species quantitatively and qualitatively, we have investigated into the distribution in both areas, on the basis of the nesting and feeding districts. This was important if only because one of the objects — the Angler Island — is a relatively disturbed, much frequented area, with but a few trees, while the Bird Reserve at Tiszafüred is less disturbed, having more forest plantations and a huge heronry. The character, vegetation and extent of the areas are also different and this also involves the difference in ornithology.

Results of observations

The Bird Reserve at Tiszafüred:

It is the area of the Tisza II Reservoir, lying north of the railway line between Tiszafüred and Poroszló. It is mostly covered with plough-lands but there are also meadows and grasslands of large extension, as well as poplar and white willow plantations to be found in the area (sketch map 1). The centre of our observations was

the heronry and its wider environs in the flood-plain at Poroszló because, apart from Imre Lipcsey's oral indications, we did not know any details of it.

The colony developed in a white willow plantation, on about 4 to 5 hectares. On the occasion of the survey, 1149 nests were counted, from the following species.

| | pairs | per cent |
|------------------------------|-------|----------|
| <i>Phalacrocorax carbo</i> | 6 | 0.52 |
| <i>Ardea cinerea</i> | 42 | 3.65 |
| <i>Ardeola ralloides</i> | 16 | 1.39 |
| <i>Egretta alba</i> | 33 | 2.87 |
| <i>Egretta garzetta</i> | 205 | 17.84 |
| <i>Nycticorax nycticorax</i> | 846 | 73.62 |
| <i>Platalea leucorodia</i> | 1 | 0.08 |

In connection with the colony, there are some things worth mentioning. One of these is the structure of the heronry. The other species settled among the night herons, coming to 73.62 per cent, in larger contiguous islands (Fig. 2). And even, in the middle of the colony, the settlement of night herons is also much denser. *Ardea cinerea*, in opposition to the *Egretta* and *Ardeola ralloides*, do not form any closed groups but they hatch uniformly scattered in the heronry.

All the nests were, without any exception, on willows. The heronry did not expand towards the two adjacent poplar plantations. At the date of the survey, there was 50 to 80 cm water below the colony, continuing to cover the soil, in a changing thickness, for the whole year. A specific matter of curiosity of the heronry is the populous group of *Egretta alba* nesting on tress. In the willowy containing the colony, there couldn't be found any warblers. We have only observed three *Fringilla coelebs* individuals in the adjacent poplar plantation.

There was found one nest each of *Podiceps cristatus* resp. of *Fulica atra*, not as members of the heronry but quasi under its "protection" — "parish" — in the wood. The wood was bordered from the north with a moist marshland with bulrush in which there were observed *Anas platyrhynchos*, *Spatula clypeata*, *Aythya nyroca*, and *Acrodephalus scirpaceus* species.

In the shallow water of the mortlake, bordering the plantation from the west, eight *Ciconia nigra* individuals were feeding. This species has supposedly some nests in the area of the Bird Reserve, as well, but they could not be found. On the other hand, we have found an inhabited nest of *Milvus migrans*, and this counts as a welcome datum, taking into consideration the rapidly decreasing number of this species. According to our observations, the overwhelming majority of the dwellers of the heronry went for their food into the puddles and mortlakes in the area of the Bird Reserve.

It is regrettable that the liquidation of the wood containing the heronry, as well, is scheduled. The continuance of the heronry of very great value, belonging to the area of Hortobágy National Park (!) is endangered. In our opinion, this plan were to be changed and the ornithologically so valuable and interesting colony should obtain full protection.

The Angler Island at Tiszafüred:

It lies close by the community, in the semicircle of the mortlake bending towards north with its two arms. It is an area utilized mostly as a grassland, although there are some imposing white poplars and willow-bushes in the grassland, as well, and

mainly at the banks of the mortlake. The riverside strip of the mortlake is bordered with *Phragmites communis* and *Typha angustifolia*. All these neable — in spite of the disturbance caused by angling and some camping — a rather colourful bird association to be formed.

Table 1. *Bird species observed in the Angler Island at Tiszafüred.*
(The numbers denote the quantity of nesting pairs, + denotec the species only feeding there)

| Species | Reed-fringe | Waterside trees and bushes | Trees, shrubs in the meadow | Meadow |
|--|-------------|----------------------------|-----------------------------|--------|
| (1) <i>Ardea cinerea</i> | + | | | |
| (2) <i>Egretta garzetta</i> | + | | | |
| (3) <i>Anas platyfhynchos</i> | + | | | |
| (4) <i>Phasianus colchicus</i> | | | | 3 |
| (5) <i>Crex crex</i> | + | | | |
| (6) <i>Streptopelia turtur</i> | | 1 | 3 | |
| (7) <i>Cuculus canorus</i> | | 2 | 1 | |
| (8) <i>Picus viridis</i> | | 1 | | |
| (9) <i>Dendrocopos maior</i> | | | 1 | |
| (10) <i>Oriolus oriolus</i> | | | 2 | |
| (11) <i>Corvus cornix</i> | | 1 | | + |
| (12) <i>Pica pica</i> | | | | + |
| (13) <i>Parus maior</i> | | | 2 | |
| (14) <i>Luscinia megarhynchos</i> | | | 1 | |
| (15) <i>Acrocephalus scirpaceus</i> | 1 | | | |
| (16) <i>Acrocephalus schoenobaenus</i> | 9 | | | |
| (17) <i>Sylvia atricapilla</i> | | 1 | | |
| (18) <i>Sylvia nisoria</i> | | | 1 | |
| (19) <i>Sylvia borin</i> | | 2 | 2 | |
| (20) <i>Sylvia communis</i> | | | 3 | |
| (21) <i>Muscicapa striata</i> | | | 1 | |
| (22) <i>Lanius collurio</i> | | | 3 | |
| (23) <i>Sturnus vulgaris</i> | | 2 | 3 | + |
| (24) <i>Passer domesticus</i> | | | 3 | + |
| (25) <i>Passer montanus</i> | 2 | 2 | | + |
| (26) <i>Chlorsi chlors</i> | | 1 | | |
| (27) <i>Fringilla coelebs</i> | | 2 | 2 | |
| (28) <i>Emberiza citrinella</i> | | | | 1 |
| (29) <i>Emberiza calandra</i> | | | | 2 |
| Number of nesting species | 2 | 10 | 15 | 3 |
| Number of nsting pairs | 10 | 15 | 29 | 6 |

With regard to the extent of the area, the survey of stock was carried out divided into four strips. In every strip a separate survey group was going forward, recording the data observed according to uniform instructions. We strove to establish what kind of species were nesting in the area and in what proportion. Moreover, it was to be established, in what kind of niches they lived in this diversified scenery and what bird species were visiting the area only for getting food exported in this way. The results obtained are shown in Table 1.

82.75 per cent of the observed species are feeding and hatching in the investigated area. 17.24 per cent of them are only feeding there. These are, at any rate, species of large body, consuming a large quantity of food.

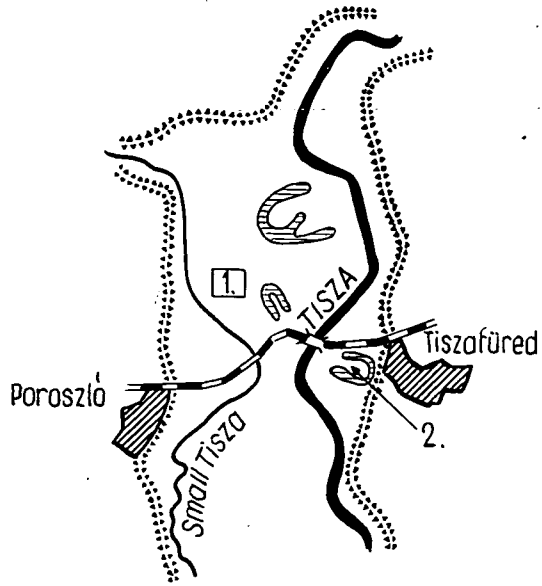


Fig. 1. Geographical situation of the investigated areas in the flood-plain of the Tisza

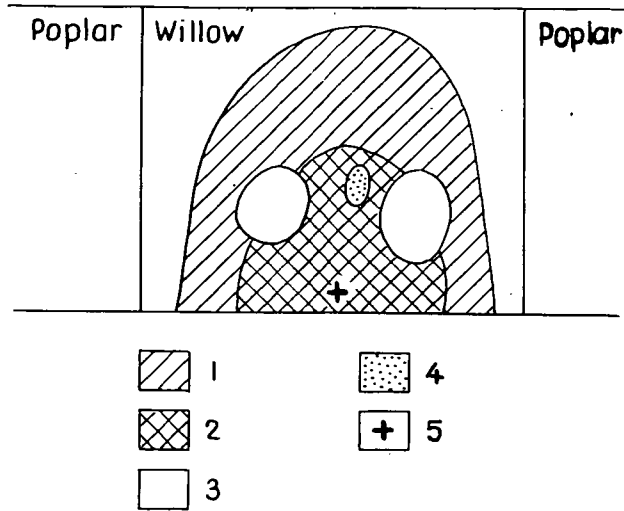


Fig. 2. Structure of the heronry of the Bird Reserve at Tiszafüred

- (1) Rather sparse colony of *Nycticorax nycticorax*
- (2) Rather dense colony of *Nycticorax nycticorax*
- (3) *Egretta alba*, *E. garzetta*, *Ardeola ralloides*
- (4) *Phalacrocorax carbo*
- (5) *Platalea leucordia*

The large mass of the nestlers — 58.33 per cent — so formed by insectivorous singing-birds of small body. Herbivora represent 25 per cent and omnivora 16.67 per cent. This comparatively considerable richness can be explained partly by the abundance in food, partly by the mansided nesting possibilities — reed, soil, shrub, tree-trunk, and the level of leafy crown (tree stratum).

In conclusion, I should like to make it clear that the present publication was first of all made with the intention of publishing data. The short time at our disposal and, as a result of this, the low number of not repeated observations do not enable particular conclusions to be drawn. The data themselves, however, seem — as referred to in the Abstract — to be suitable for being published.

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