

Information on Bird Fauna of the Upper Reaches of the Mid-Tisza

By

A. LEGÁNY*

I. The Tisza Reach of 500 and 510 km

The area examined is about 500 to 510 kilometre. This area includes the main stream, its fringes of flood areas and in some places the agricultural areas beyond the flood dams. Most of it is under the administration of Tiszadob and some smaller areas under that of Taktakenéz.

The physical features of this area vary. On both sides of the river there are flood forests, willow and poplar groves, bushes and oaks. These are mostly natives which is important for the fauna, though within the flood area, there are plentiful forest plantations. Agricultural areas, mainly plough land break up the forests here and there. The backwaters form part of the flood areas and these originate through natural recession of the water and through artificial river control. According to their age, the bogginess of the marshes is at various stages.

The described regional conditions determine the fauna to a certain extent, inasmuch as the combination of environmental and historical factors are suitable for the development of certain fauna.

Thus the bird fauna of this region is more or less as expected. Although a certain lack can be demonstrated, the gradual increase is noticeable which can be explained by more thorough observations, particularly by a definite increase. The earlier bird fauna was very rich in this area, both regarding species and individuals. The expansion of ground and aggressive interference of man in upsetting the balance of nature, i.e. cutting out forests, ploughing up meadows and artificial river control resulted in the disappearance of many of the species. Today, these same species are again reappearing, almost as if reconquering their previously occupied areas. As can be expected from the varied physical features of this region, the species of birds are equally varied and rich. The hydrophile birds of the stagnant backwaters come into close contact with those of the surrounding forests. In spite of this inevitable mixture of fauna, it is advisable to separate and discuss the ecology of the individuals, i.e. forest, swamps, etc.

a) Forests

Typically backwater forest fauna lives here. Apart from these, the hydrophile elements are characteristic which nest in the forest but obtain their food from the water.

The typical representatives of these species which nest in colonies in the oaks are the *Ardea cinerea* L. and *Nycticorax nycticorax* (L.) which built 106 nest in the summer of 1961. Since then, their number has increased. In the last two years, the *Egretta garzetta* has made its appearance and 6 pairs nested; 3 pairs of the *Ardeola ralloides* (SCOP.) nested in this colony in the summer of 1963. For several years 1 or 2 pairs of *Phalacrocorax carbo sinensis* (SHAW & NODD) have also nested here. They built their nests on centuries old oak and

* Dr. ANDRÁS LEGÁNY, Talajtani Laboratórium, Tiszavasvári, Hungary.

white poplars, at a height almost unapproachable by man. The colony forms a banquet for the birds of prey and it is understandable that nests of 4—5 pairs of *Milvus migrans* (BODD.) can be observed. In fact it is likely that the *Accipiter gentilis* (L.) has nested here, since a female was seen throughout the summer of 1963. Opposite this colony, on the right bank of the Tisza we established the nesting of *Ciconia nigra* (L.) in the summer of 1963 in an almost impenetrable area of willow and poplar thickets.

Most of the forest bird fauna is, however, that whose ecology is not confined to water. The enumeration of all the species would be too lengthy, so I shall merely mention those nesting birds which are characteristic of this region.

Numerous old and hollow oaks and willows provide nesting facilities for many species: *Coloeus monedula* (L.), *Sturnus vulgaris* L., *Parus maior* L., *P. caeruleus* L., *P. palustris* L., *Coracias garrulus* L., *Upupa epops* L., *Jynx torquilla* L., *Picus viridis* L., *Dendrocopos maior* (L.), *D. minor* (L.), *D. syriacus* (EHR.), *Asio otus* (L.), *Strix aluco* L., *Sitta europaea* L., *Phoenicurus phoenicurus* (L.), *Passer montanus* (L.), etc. Naturally, the zoological-geographical role of the species enumerated is not identical. They have been placed in the same group merely because of their nesting methods.

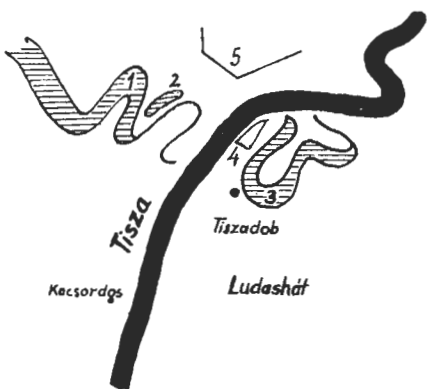


Fig. 1. The Tisza at Kocsordos and Tiszadob. 1: Sajó backwater, 2: Szelepi backwater, 3: Tótfüz backwater, 4: Oak-forest, 5: Forest of Saints

A larger group of the species constitute the non-hollow dwellers. Of these I mention the most characteristic ones: *Falco tinnunculus* L. is common everywhere. *Falco vespertinus* L. breed in scattered places, 1—2 pairs, but about 30 pairs nest in the Vakzug forest. The number of breeding pairs of *F. subbuteo* L. is continually increasing. We are certain of 7 pairs breeding in 1963. The following species are common everywhere, frequent, dominant and subdominant: *Luscinia megarhynchos* BREHM, *Oriolus oriolus* (L.), *Streptopelia turtur* (L.), *Columba palumbus* L., *Pica pica* (L.), *Corvus cornix* L., *Sylvia nisoria* (Bechst.), *S. atricapilla* (L.), *Muscicapa striata* (Pall.), *Chloris chloris* (L.), *Fringilla coelebs* L., *Emberiza citrinella* L., and *Cuculus canorus* L. The *Corvus frugilegus* L. lives at Farkashát in a medium sized colony. The following are characteristic and colourful of the forest fauna. The nest of *Columba oenas* L. was found in 1953. The carcass of a young specimen of *Otus scops* (L.) was found in the summer of 1961. Nesting of *Bubo bubo* (L.) is certain in the Szentek forest. The *Caprimulgus europaeus* L. is rare but nests regularly. *Aegithalos caudatus* L., *Certhia familiaris* L., *C. brachydactyla* BREHM, *Turdus merula* L., *Troglodytes troglodytes* (L.), *Erithacus rubecula* (L.), *Muscicapa albicollis* TEMM, and *Lullula arborea* (L.) are generally known, but few of them nest. The nest of *Regulus regulus* (L.) was discovered in the castle gardens of Tiszadob in 1954.

The Tisza Research Expedition observed 2 *Corvus corax* L. in the Szentek forest and *Tringa ochropus* L. in the willows along the Tisza. Both sexes of *Loxia curvirostra* L. were collected by this Expedition. Presumably one can

count on the breeding of this species too, and with that of *Scolopax rusticola* L., though its nest has not yet been discovered, although the bird is frequently seen in summer.

b) Backwaters, Wet Meadows

Open surfaces of water, rush borders and larger areas of rushes alternate in the swamps at various stages of development. Thus, even the species requiring a varied dwelling place can find a home here. The *Anas platyrhynchos* L. is most frequent and prefers to nest on the dead willows of the backwaters. The *Aythya nyroca* (GÜLD.) is frequently seen. The *A. ferina* (L.) bred for the first time in 1963. The *Larus ridibundus* L. reappeared in 1962 and settled in a smaller colony in the Szelep backwater. The *Chlidonias niger* (L.) breeds in colonies in the backwater at Tótfűz. In addition to the above species, the *Fulica atra* L. is very frequent and perhaps the most common. There are many fewer *Porzana porzana* (L.) at Kocsordos, Miér and Tótfűz, and the *Gallinula chloropus* (L.) is a rarity. The *Podiceps ruficollis* (PALL.) and the *Ixobrychus minutus* L. is common but nests infrequently. They can mainly be seen in the Tótfűz and Szelep backwaters. The birds of prey are represented by 2—3 pairs of *Circus aeruginosus* (L.) and 1 pair of *C. pygargus* (L.). Both species dwell in the strongly marshy backwaters of Szelep. Of the song birds, the *Acrocephalus arundinaceus* (L.), *A. palustris* (Bechst.) and *A. schoenobaenus* (L.) are equally frequent in the Tótfűz, Szelep and Sajó backwaters. I established the existence of *Locustella luscinioides* (SAVI) in the summer of 1963. The *Remiz pendulinus* (L.) is not infrequent on the willows reaching over the Sajó backwater. Presumably may rely on the *Ardea purpurea* L. to settle at Szelep, since it can be frequently observed in the larger rushy areas. The *Vanellus vanellus* (L.) is dominant on the meadows bordering the swamps and elsewhere. The *Motacilla flava* L. is increasing lately, particularly in bushy meadows. In 1952, the nest of the *Asio flammeus* PONTOPP was discovered at Ludashát.

c) The Steep Banks of the River and Backwaters

A few parietic species should be mentioned here. The *Merops apiaster* L. is very frequent and dominant in the breeding colony. They appeared first on the banks of the Tisza in 1957. Since then they have increased to the extent that they can be found in the Tótfűz backwater. The *Riparia riparia* (L.) is frequent, though not nearly so **numerous and it** breeds in the banks of the Tisza. The *Alcedo atthis ispida* (L.) **nects regularly but** not so profusely, and mainly at Tótfűz. An occasional parietic species is the *Passer montanus* (L.), which nests in the clay hollows of **the deserted** *Merops* and *Riparia*.

d) Human Settlements and Agricultural Areas

First those species will be mentioned which live in the villages and settlements: the anthrophile species. These are either dominant or subdominant: *Ciconia ciconia* (L.), *Passer domesticus* L., *Hirundo rustica* L., *Delichon urbica* (L.) and *Streptopelia decaocto* (FRIV.). The *Athene noctua* (SCOP.) breeds regularly but there are fewer of them and since the disappearance of thatched roofs they have noticeably decreased in number. Decidedly rare is the *Tyto alba guttata* (BREHM). Its nest was discovered in the church tower for the last time in 1953.

The characteristic species of the cultivated fields, trees lining the avenues, bushes, stone and brush-wood stacks are: *Galerida cristata* (L.), *Alauda arvensis* L. and *Perdix perdix* (L.). The *Coturnix coturnix* (L.) and *Oenanthe oenanthe* (L.) are fewer. Through bigger fields being cultivated, the *Otis tarda* L. has advanced; its nest was found at Ludashát in 1960. It favours the bushier areas and the *Phasianus colchicus* L. and *Lanius collurio* L. are more frequent here too. The *Lanius minor* GM. and *Carduelis carduelis* (L.) live in the tree lined avenues. The *Motacilla alba* L. favours and nests in the stone stacks and brush-wood stacks which protect the embankment.

II. The Tisza Reach of 511 and 543 km

The area to be discussed includes the Tisza region from about 510 kilometres to 543 kilometres. Administratively this area belongs mainly to the counties of Tiszadada, Tiszalök, Tiszaeszlár and Tiszatardos.

Its physical features differ considerably from the region previously discussed. Whilst in the former the flood forests dominate, in the latter wide open spaces, mainly hayfields, are predominant. The forests, willow and poplar groves and poplar plantations are found in smaller patches, and the majority of nesting species live here. These species have fairly favourable conditions, since there is comparatively little disturbance in the extensive meadows, yet sufficient food is available.

Along the Tisza, there is a rush border owing to the damming of the river, and the fauna is characteristic but not over rich. The higher flood areas have come under agriculture. In some parts fodder is grown and in others orchards have been planted. The latter are merely neglected, the trees are un-pruned, old and hollows, etc., and these conditions are, to a certain extent, favourable for some species.

The marshes are part of the flood areas and occur in all districts. With the exception of Tiszatardos, they are less stagnant here, younger, of anthropogene origin and the rushes merely fringe the banks. As typical nesting places of the backwaters, the holes left over after building the flood protecting embankments should be mentioned. These flooded pits are surrounded by old, hollow willows and provide nesting places.

a) Forest Patches

A differentiation must be made between the willow and poplar groves and the poplar plantations. This difference can be established by the varied geographical position and the bird fauna. The willow and poplar groves (*Populeto-Salicetum*) are characteristic along the main stream and can be seen in smaller patches along the entire length of the river. Its distinguishing nesting birds are: *Streptopelia turtur* (L.), *Oriolus oriolus* (L.) and most numerous are the *Phasianus colchicus* L. A rarer, but regular breeding species is the *Columba palumbus* L. The *Pica pica* (L.) and *Corvus cornix* L. are dispersed dwellers. There are not many *Remiz pendulinus* (L.), but they are the most characteristic nesting birds of this type of forest. I found 3 at Tiszalök and 5 nests at Tiszaeszlár, next to the Bazsi canal, in the summer of 1961.

The *Lanius collurio* L. favours the bushy edges and the *Picus viridis* L., *Dendrocopos maior* L. and *Asio otus* L. prefer the hollow willow and poplar trees. The tree hollow dwellers do not nest frequently.

Ornithologically, there are two poplar tree plantations, both in the flood area one at Tiszalök, the other at Tiszaeszlár. There is a rich colony of *Corvus frugilegus* L. in both. In 1962. there were approximately 100 nests at Tiszalök and about 250—300 nests at Tiszaeszlár. The crow colonies regularly accompany the *Coloeus monedula* (L.), *Falco tinnunculus* L. and *Falco vespertinus* L.

at both places mentioned above. The crows are represented by 2—3 breeding pairs. In addition, the following species deserve mention which regularly breed here, but not very numerously: *Oriolus oriolus* (L.), *Pica pica* (L.) and *Lanius minor* GM.

Extensive meadows are typical of this region. They took the place of dried out swamps and rush patches after the river had been artificially controlled. In lower lying areas the water collects in spring and dries out during the middle of May. The monotony of the flat meadows is broken by willow bushes. The appearance of these bushes, noticeably enriches the bird fauna through providing new nesting places.



Fig. 2. The Tisza between Tiszadada and Tiszaeszlár, 1: Bazsi canal, 2: Eastern main canal, 3: Tardos backwater, 4: Tardos loess bank, 5: Tiszaeszlár backwater, 6: Tiszaeszlár willow grove, 7: Tiszalök backwater, 8: Tiszalök willow grove

b) Flood Meadows

In the moister, bushy areas the *Sylvia communis* (Lath.), the *Motacilla flava* L. and *Vanellus vanellus* (L.) are predominant; those of the drier grass lands provide nesting places for the *Coturnix coturnix* (L.), *Emberiza calandra* L. and *Alauda arvensis* L. Apart from these species, the *Perdix perdix* (L.) and rarely, the *Saxicola rubetra* (L.) breed.

Actually, the bird life of the meadows seems richer, since many species, such as crows, starlings, storks and gulls collect their daily food here and consequently a permanent bird mobility can be observed.

c) Steep Banks

Here, the species previously discussed can be found. The *Merops apiaster* L. formed a colony at Tardos on the steep loess banks of the Tisza in 1958 and has bred well here ever since. The numbers of *Riparia riparia* L. have decreased due to the damming of the water, but it breeds in places suitable for nesting. I observed the *Alcedo atthis ispida* (L.) in the backwater at Tardos in the summer of 1961, but it is not nearly as frequent there as at Tiszadob. The *Passer montanus* L. should be mentioned as an occasional parietic nester in the breeding hollows of *Merops* and *Riparia*.

d) Swamps and Rush Borders along the Tisza

The bird fauna of these two areas will be discussed together because of their more or less similarity. On the whole, this area is poorer in birds to some extent than that of Tiszadob. This is demonstrated mainly by the decreased numbers.

The most frequent breeding birds of the backwaters is the *Fulica atra* L. and *Acrocephalus arundinaceus* (L.). The *Acrocephalus palustris* (BECHST.) and *Acrocephalus schoenobaenus* L. are less numerous, particularly in the backwaters of Tiszalök and Tardos. I observed the *Luscinola melanopogon* (Temm.) and *Ixobrychus minutus* (L.) species at Tiszalök; the *Botaurus stellaris* (L.) and *Galinulla chloropus* (L.) species solely in the Tardos backwater, and the *Porzana porzana* (L.) species in both places. Of the duck types I am able to report breeding of the *Anas platyrhynchos* L. which can be seen dispersed between Tiszalök and Eszlár. I presume the settlement of *Circus aeruginosus* (L.) at Tiszalök during the summer of 1961, though I have not discovered its nest.

The bird fauna of the rush borders along the river are similar, the only variation being brought about by the size of the rush areas. In both breeding places, in fact over the whole area studied, the *Cuculus canorus* L. can be found which chiefly visits the nests of the various *Acrocephalus*.

e) Clay Hollows

Almost without exception here are hollow dwellers. This is understandable considering the numerous hollow and old willows growing here. The *Sturnus vulgaris* L. is dominant; the *Passer montanus* L. is subdominant. The following are characteristic, though breeding in lesser numbers: *Coracias garrulus* L., *Upupa epops* L., *Asio otus* (L.), *Picus viridis* L., *Dendrocopos maior* (L.), and *Coloeus monedula* (L.). The *Streptopelia turtur* (L.), and *Pica pica* (L.) are not hollow dwellers but breed here quite well.

f) Human Settlements and Agricultural Areas

As mentioned in the introductory paragraphs, I particularly studied the plough lands and orchards within the flood protecting dams. In the fields, where usually annual fodder and spring sown plants are grown, the *Alauda arvensis* L., *Galerida cristata* (L.) and *Perdix perdix* (L.) are found.

The hollow dwellers: *Dendrocopos maior* L., *Picus viridis* L., *Parus maior* L., *Passer montanus* L., *Muscicapa striata* (PALL.) and *Phoenicurus phoenicurus* (L.) have settled in the orchards, but the *Streptopelia turtur* (L.) and *Sylvia atricapilla* (L.) are equally typical. These orchards are mainly at Tiszadada with smaller ones at Tiszalök and Tiszaeszlár.