

QUANTITATIVE AND QUALITATIVE CHARACTERIZATION OF THE AVIFAUNA OF THE MAROS-SIDE (1965—1967)

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Abstract

During the examinations the occurrence of 119 species was observed on this area. In both years 13 species were observed to nest on the area.

The greatest numbers of species and individuals occur in aspects III and III' (autumn). During the spring migration (in aspects I and I') the numbers of species and individuals are low, and indeed in the first year of the examination they did not even attain the values from the winter period.

In aspects II mainly those species coming to nest, feed and drink are found on the area.

The lowest number of species is observed in aspect IV, because of the hard winter in the second year of the study. The snow was knee-high and the Maros was frozen along the entire section, and this did not provide the means for many species to stay on the area. The higher numbers of species and individuals in the same aspect of the first year of the examination can be explained by the mild winter. A complete absence of birds from the area was not observed in either year, not even in the winter period.

A qualitative analysis of the bird population led to the following findings: the insect-eating species are dominant in the first three aspects in both years of the study. The number of seed-eating species is lowest in aspect I, but their number gradually increases, and they are dominant in aspect IV. The number of predatory bird species is generally low, but it rises perceptibly in aspect IV.

Because of the distance of the woods, there is very little change in the number of omnivorous species during the aspects.

The number of aquatic bird species varies mainly with their components. There is a fairly significant decrease in aspects III—IV.

The importance of the area is confirmed by the number of species arriving to nest, to feed, to drink and for refuge, and by the number of migrating species.

Introduction

The ornithological literature of the Roumanian Socialist Republic does not contain a large number of treatments of the coenological aspects. Mention must be made here of the works of KOHL, KORODI GÁL, KÓNYA and VESPREMEANU. At the present time quantitative and qualitative examinations are of very great importance. Civilization and the cultivated regions are consuming an ever larger area from free nature, thereby decreasing the living space of the fauna and upsetting the natural biological equilibrium. It is well known that by this means not only the fauna, but also the human community suffers.

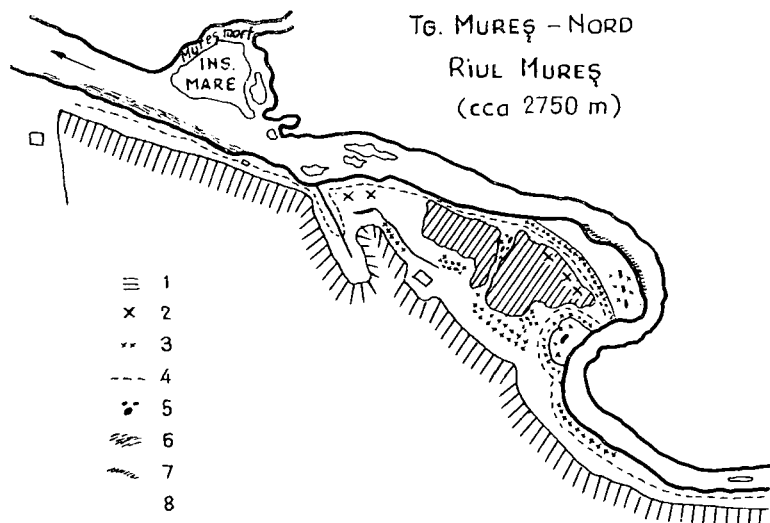
"It is primarily the biotopes on agriculturally worked areas which are today undergoing substantial transformations, and thus the study of these is particularly urgent" (EGON SCHMIDT).

Different biotopes can be characterized from various aspects. In the quantitative and qualitative evaluation of the bird species in the biotope, an approximately accurate picture is obtained of the biological state of the area. This tells us the extent of the population of the biotope, and whether the fauna is developing or stagnating. The presence of the different bird species gives an indication of the numbers of weeds, harmful insects and rodents on the area.

In the course of the present investigations these considerations were taken into account, in an effort to provide as realistic a picture as possible of the area. For their help during the observations and in the treatment of the material, the author wishes to express his thanks to ISTVÁN KOHL, DR. JÁNOS KORODI GÁL, EGON SCHMIDT, LÁSZLÓ ANTAL, ATTILA GOMBOS, ATTILA KELEMEN and ZOLTÁN SZOMBATH.

Area examined. Method

The area examined was a 2700 m long section of the river Maros above the town of Marosvásárhely; the geographical location of this area is $24^{\circ} 35' N$, $46^{\circ} 33' W$, and its height above sea-level is 308 m. In this section the Maros runs for 2/3 of the distance between high banks, while 1/3 of the distance is bordered by stones, or reeds and various aquatic plants; on one reach of about 500 m, a more or less continuous strip of bushes can be found (the average width of this is 3 m, and its height is 4—5 m). On one 300 m section the strip containing the bushes separates the cultivated areas from that part of the Maros-side used as a sand-pit pasture, and serving at times as an inundation area of the Maros. Sand-pits and stony parts can also be found to a small extent between the bank-side cultivated areas. Two old poplars, each about 30 m high, stand on this section of the Maros; these served as an alighting place for some of the bird species. The strip of bushes is accompanied on the side nearer the river by a ditch in which water is to be found throughout the entire year. As a result of this, the vegetation of the bush-strip is strikingly dense, and accordingly the observation of the species here and the



finding of their nests was made quite difficult. The water in the ditch primarily provided a nearby source of drinking water for the small birds of the area, but it also meant a possibility for feeding for some of the aquatic bird species.

The anthropogenic biomes bordering the area in general consist of maize and soya-bean crops. These fields provided rich feeding possibilities for *Motacilla flava*, *Motacilla alba*, *Phylloscopus collybita*, *Acrocephalus palustris*, *Sylvia communis*, *Sylvia corruca*, *Anthus pratensis* and *Saxicola rubetra*. Naturally, the area was also richly stocked with small rodents, *Cricetus cricetus* and *Microtus arvalis*, the numbers of which were particularly high in the second year. The Maros and its bank-line, in some places rich in stones, aquatic plants and mud, provided optimum possibilities for feeding and hiding for the species occurring here. The number of bird species in the area was strongly influenced by the proximity of the town, and by the human settlements in the neighbourhood of the area. Their importance is highest in winter, when the food reserves of the area are very poor.

Of the plants observed in the area, the following are worthy of mention: *Populus robusta*, *Salix* sp. bushes, *Alnus glutinosa*, *Crataegus monogyma*, *Prunus spinosa*, *Cornus sanguinea*, *Morus nigra*, *Ligustrum vulgare*, *Viburnum opulus*, *Rubus tomentosus*, *Rosa canina*, *Sambucus nigra*; of the soft-stemmed plants: *Poligonum* sp., *Hipericum perforatum*, *Lavatera thuringiaca*, *Althaea officinalis*, *Simphitum officinalis*, *Verbascum* sp., *Dipsacus laciniatus*, *Mellilotus officinalis*, *Carduus* sp., *Cirsium* sp., and various wild Gramineae and Leguminosae. Of these, mainly the berry-producers *Sambucus nigra*, *Ligustrum vulgare*, *Morus nigra* and *Cornus sanguinea*, and the soft-stemmed weeds *Cirsium* sp., *Carduus* sp., *Dipsacus laciniatus* and *Cichorium intibus* were of great importance in the nutrition of the birds.

The mammals occurring on the area were: *Microtus arvalis*, *Cricetus cricetus*, *Mustela nivalis*, *Lepus europeus*, *Mustela putorius*, *Vulpes vulpes*, *Lutra lutra*, *Talpa*

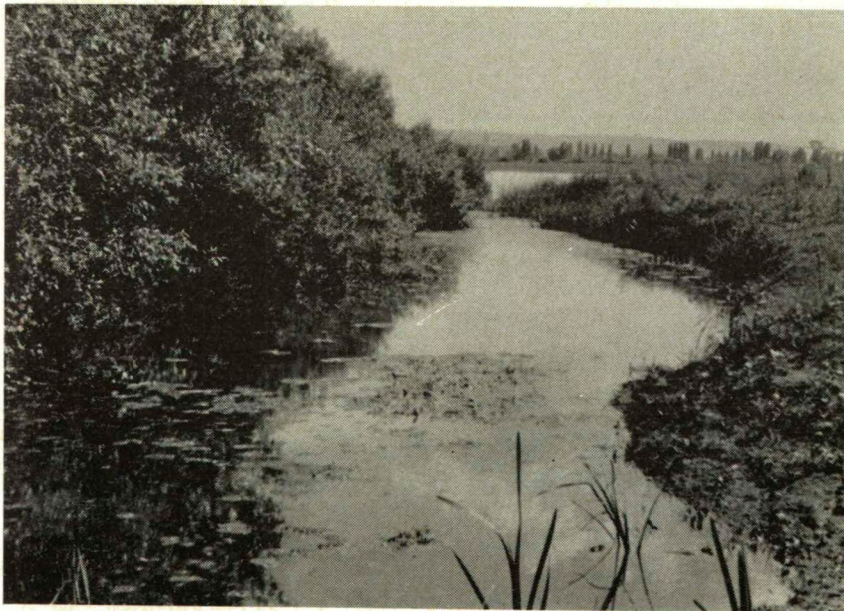


Fig. 2

Table 1

Species	I.			II.			III.		
	T ₁	F ₁	Q ₁	T ₂	F ₂	Q ₂	T ₃	F ₃	Q ₃
<i>Gavia arctica</i>									
<i>Podiceps ruficollis</i>							4	10,0	0,09
<i>Podiceps cristatus</i>							4	15,3	0,09
<i>Podiceps griseigena</i>	1	5,0	0,04						
<i>Ardea cinerea</i>	5	15,0	0,19	2	9,0	0,04	1	7,6	0,02
<i>Ardea purpurea</i>	6	25,0	0,21	5	22,7	0,10			
<i>Egretta garzetta</i>	1	5,0	0,04						
<i>Ixobrychus minutus</i>	5	20,0	0,19	10	31,8	0,20	2	15,3	0,04
<i>Ciconia ciconia</i>	3	15,0	0,10	17	45,4	0,35			
<i>Anser albifrons</i>									
<i>Anas platyrhynchos</i>				1	4,5	0,02	9	23,0	0,2
<i>Anas querquedula</i>	300	30,0	11,7						
<i>Aythya nyroca</i>	51	10,0	1,9	8	18,1	0,17			
<i>Bucephala clangula</i>									
<i>Milvus migrans</i>	2	10,0	0,08	3	13,6	0,06			
<i>Accipiter gentilis</i>									
<i>Accipiter nisus</i>				1	4,5	0,02	2	15,3	0,04
<i>Buteo buteo</i>	1	5,0	0,04				13	46,1	0,3
<i>Buteo lagopus</i>							1	7,6	0,02
<i>Pandion haliaetus</i>	3	15,0	0,10				1	7,6	0,02
<i>Falco subbuteo</i>	1	5,0	0,04	4	18,1	0,08	8	46,1	0,19
<i>Falco columbarius</i>									
<i>Falco tinnunculus</i>	1	5,0	0,04	1	4,5	0,02	9	53,8	0,2
<i>Perdix perdix</i>							20	7,6	0,47
<i>Coturnix coturnix</i>	2	10,0	0,08	3	13,6	0,06			
<i>Crex crex</i>	2	10,0	0,08						
<i>Porzana porzana</i>									
<i>Gallinula chloropus</i>				4	4,5	0,08	3	15,3	0,07
<i>Squatarola squatarola</i>									
<i>Charadrius hiaticula</i>									
<i>Charadrius dubius</i>	56	90,0	2,1	79	100	1,7	1	7,6	0,02
<i>Tringa erythropus</i>									
<i>Tringa totanus</i>	27	25,0	1,0						
<i>Tringa nebularia</i>				12	13,6	0,25	6	23,0	0,14
<i>Tringa ochropus</i>	10	30,0	0,39	5	13,6	0,10	1	7,6	0,02
<i>Tringa glareola</i>	9	10,0	0,35	6	4,5	0,12			
<i>Actitis hypoleucos</i>	114	75,0	4,4	58	90,9	1,2	1	7,6	0,02
<i>Gallinago sp.</i>							3	15,3	0,07
<i>Galidris minuta</i>	23	15,0	0,89	2	4,5	0,04	1	7,6	0,02
<i>Galidris temmincki</i>				1	4,5	0,02			
<i>Galidris alpina</i>									
<i>Philomachus pugnax</i>	65	40,0	2,5						
<i>Larus ridibundus</i>									
<i>Larus minutus</i>	4	10,0	0,18	3	4,5	0,06	4	7,6	0,09
<i>Chlidonias leucoptera.</i>	10	10,0	0,39						
<i>Chlidonias niger</i>	135	45,0	5,2	5	13,6	0,10			
<i>Sterna hirundo</i>	2	10,0	0,08						
<i>Streptopelia turtur</i>	96	70,0	3,7	310	95,4	6,6	13	30,7	0,3
<i>Streptopelia decaocto</i>				12	13,6	0,25	30	61,5	0,7
<i>Cuculus canorus</i>	10	45,0	0,39	3	13,6	0,06			
<i>Asio flammeus</i>									
<i>Alcedo atthis</i>							1	7,6	0,02
<i>Upupa epops</i>	4	15,0	0,18	14	22,7	0,29	4	7,6	0,09
<i>Jynx torquilla</i>	1	5,0	0,04						
<i>Picus viridis</i>							1	7,6	0,02
<i>Dendrocopos maior</i>	1	5,0	0,04	2	9,0	0,04	2	7,6	0,04

IV.			I'			II'			III'			IV'		
T ₄	F ₄	Q ₄	T ₁	F ₁	Q ₁	T ₂	F ₂	Q ₂	T ₃	F ₃	Q ₃	T ₄	F ₄	Q ₄
2	10,0	0,1	2	20,0	0,2	1	7,1	0,03	1	11,1	0,04	4	20,0	0,4
			2	20,0	0,2	4	14,2	0,15	1	11,1	0,04			
			4	20,0	0,5	4	14,2	0,15	1	11,1	0,04			
			1	20,0	0,1	16	64,2	0,59	20	11,1	0,9			
			4	20,0	0,5	30	85,7	1,1						
1	10,0	0,06				23	21,4	0,85	1	11,1	0,04	1	10,0	0,1
9	20,0	0,5	18	40,0	2,3				1	11,1	0,04	13	20,0	1,3
			2	20,0	0,2				3	11,1	0,10			
1	10,0	0,06				10	42,8	0,37				2	20,0	0,2
			2	20,0	0,2	1	7,1	0,03	2	22,2	0,09			
1	10,0	0,06							5	55,5	0,21	5	40,0	0,5
2	20,0	0,1				8	42,8	0,29	21	77,7	1,0	36	100,0	3,7
10	70,0	0,6										18	80,0	1,8
16	70,0	0,9							1	11,1	0,04			
			1	20,0	0,1	9	50,0	0,3	8	77,7	0,32			
1	10,0	0,6				6	21,4	0,2	8	77,7	0,32	6	50,0	0,6
6	50,0	0,37				5	14,2	0,18				35	30,0	3,6
128	30,0	7,6				1	7,1	0,03						
						11	35,7	0,4	2	22,2	0,09			
									6	33,3	0,3			
									8	44,4	0,32			
			17	80,0	2,2	28	42,8	1,0						
						2	14,2	0,07	1	11,1	0,04			
			1	20,0	0,1	19	14,2	0,69						
						14	35,7	0,50	3	22,2	0,12			
			2	40,0	0,2	7	28,5	0,16	2	11,1	0,09			
			10	40,0	1,3	2	14,2	0,07						
			19	80,0	2,5	53	92,8	1,9	10	66,6	0,42			
						1	7,1	0,03	1	11,1	0,04			
						2	7,1	0,07						
									6	22,2	0,3			
			2	20,0	0,2				1	11,1	0,04			
						12	14,2	0,44						
						1	7,1	0,03						
			18	60,0	2,3	2	7,1	0,07						
			245	60,0	32,4	80	42,8	2,9	2	11,1	0,09			
			9	40,0	1,1	80	100	2,9	48	66,6	2,3			
12	40,0	0,7	4	40,0	0,5	8	21,4	0,29	21	77,7	1,0	11	50,0	1,1
			4	60,0	0,5	8	35,7	0,29	1	11,1	0,04			
												1	10,0	0,1
			2	20,0	0,2	9	50,0	0,3	2	22,2	0,09			
						2	14,2	0,07	1	11,1	0,04			
1	10,0	0,06							2	20,0	0,2			

europaea and *Erinaceus europaeus roumanicus*. In both years the numbers of *Microtus arvalis* and *Cricetus cricetus* were very high, and correspondingly there were many predatory birds too.

The observations were in the main carried out by the band-method (65 observations in the first year of the investigation, and 38 in the second year). A great amount of care was taken to avoid the recording of not accurately defined species. To a certain extent, however, this modifies the bird-capacity of the area. Those species flying over the area were recorded only if certain aquatic or predatory bird species were involved, which, according to the observations, sought out this area for feeding, rest or refuge. On the occasion of the population recording, a small number of specimens were collected on the area for confirmatory purposes (*Motacilla flava*, *Motacilla flava feldeggii*, etc.). For reasons beyond the author's control, ringing could not be performed.

The methods applied by KORODI GÁL and SCHMIDT were followed in the characterization of the birds in the area.

Constant-dominant species: Present in all four aspects in the course of the year. Breeding species. $F > 80\%$ and in at least two aspects $Q > 4\%$.

Aspect-characterizing dominant species: In the aspect $F > 80\%$, $Q > 4\%$.

Aspect-characterizing species: $F > 80\%$, Q is not characteristic.

Concomitant species: which occur in certain aspects or throughout the entire year, but whose characteristics do not attain the above categories.

Accessory species: Recorded only rarely, and on isolated occasions.

Constant-dominant species

In the first year's study, *Galerida cristata* and *Passer montanus* can be classified in this category. 4—5 pairs of *Galerida cristata* nested in the sand-pit parts among the anthropogenic biomes and on the pasture periodically serving as the inundation area of the Maros. In both years 3 pairs successfully nested on the sand-pit parts, while the gravel-production and floodings on the inundation pasture meant that 1—2 pairs did not succeed in breeding.

Their feeding territory is confined almost exclusively only to the bank-line. On occasions they could be observed on the cultivated areas during ploughing, and on hot summer days. Their food consisted mainly of insects, but in summer too they seek out horse droppings, which contain partially digested seeds. At the same time, this is an excellent habitat for worms and insects. In late autumn and winter the stable manure brought out to the agricultural areas, and the seeds of the various weeds, provided feeding possibilities.

Appreciable numbers of *Passer montanus* sought out the bushes of the area for refuge, and the cultivated areas and the pasture for feeding purposes. They caused a small amount of harm to the cultivated areas, mainly because of incorrect agrotechnical methods. They performed a considerable role in the repression of the *Melolontha vulgaris* invasion in the first year. Unsuccessful attempts were made to nest in the two poplars.

Aspect-characterizing dominant species

Motacilla alba (I—III, I'—III'): nested in three and two pairs, respectively. Their breeding was unsuccessful on the high bank, but on the sand-pit area two pairs successfully bred in each year. Their food was collected around the sand-pits and from the cultivated areas on the Maros bank. The fairly large number of specimens visiting to seek food from the surrounding areas can be attributed to individuals.

Riparia riparia (II—II'): in the first year 10 pairs, and in the second year 6 pairs attempted unsuccessfully to nest, but they were successful on the opposite high bank-side. They generally acquired their food above the Maros and the pastures.

Pica pica (IV'): a species occurring constantly on the area. Their successive attempts to nest were thwarted by hunters. Their food consists mainly of insects, mice and to a lesser extent corn-seed.

Hirundo rustica (II—I'—II'): appeared on this area to search for food and to rest. In aspects I and III they could frequently be observed on the branches of bushes, and at night among the reeds. The largest number of specimens occurred in the second aspect, feeding their flying young on the bushes in the area.

Delichon urbica (II'): occurred less systematically than the former. It appeared on this area exclusively to feed. It nested in the town.

Streptopelia turtur (II): specimens visited the Maros-side from the more distant woods, in order to drink and feed. As can be seen from the Table, they occur in the highest numbers in aspect II. They visit the ditch to drink, and sit for hours on the branches of the bushes.

Passer domesticus (II—II'—III'): visited this area to feed and drink, and for refuge. They feed primarily on the cultivated areas, and in spring and the beginning of summer mainly destroy insects harmful to cultivated plants.

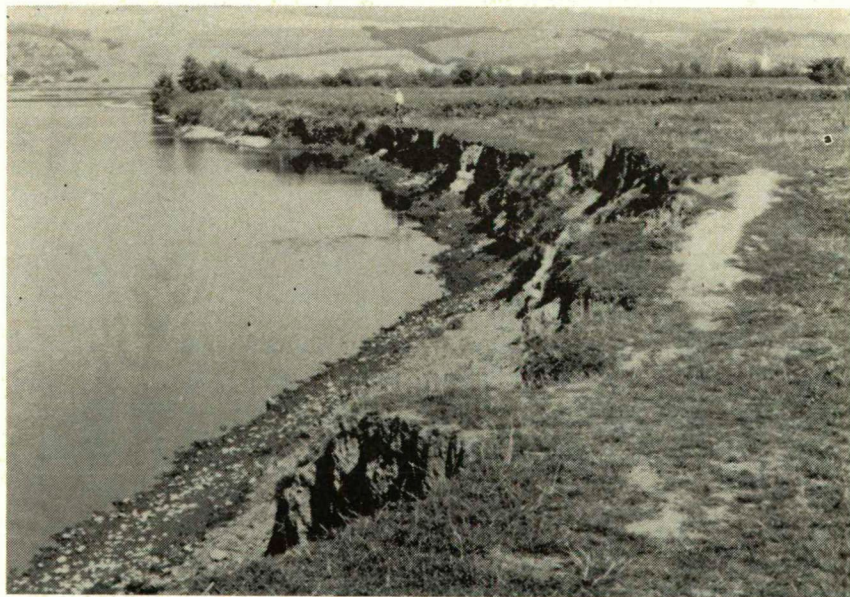


Fig. 3

Carduelis carduelis (II'—IV'): they seek mainly the plants *Carduus* sp. and *Dipsacus laciniatus*. In the second aspects they already visit the area with their young. In spring and early summer they come to the Maros-side to drink.

Sturnus vulgaris (I—III'): similarly to *Streptopelia turtur*, they visit the ditch beside the strip of bushes for drinking purposes. They were also observed to a lower extent feeding on the pasture.

Corvus cornix (IV—IV'): occurs in the largest numbers in the winter aspects, but appears in a well-demonstrable number of specimens in all aspects. Besides hunting for mice and insects, it fishes on the Maros-side, and also presumably raids the nests of *Charadrius dubius*.

Parus maior (IV): appears in greater numbers in general at the end of aspect II. For feeding it mainly visits the bushes and reeds.

Anthus pratensis (IV): comes to this area for migration and feeding.

Pyrrhula pyrrhula (IV'): a late-autumn and winter species. Its remaining on the area in the course of the second year can be attributed to the rich privet and weed growth.

Emberiza schoeniclus (IV'): generally appears at the end November. It mainly inhabits the bushy and reedy spots, but it is also predisposed to visit the weeds of the cultivated areas.

Buteo buteo (IV'): in the fourth aspect of the second year of observation it stands so close to this category that its discussion can be regarded as acceptable. In the other periods it generally appears in very low numbers. Because of the rodent invasion in the second year, however, it remained in the area in fairly large numbers. Exclusively only *Microtus arvalis*, *Cricetus cricetus* and *Mustela nivalis* remains were found in the *Buteo buteo* pellets examined.

Aspect-characterizing species

This section presents a discussion of those species which did not come into any of the above categories. The majority of the species nesting in this area belong in this category.

Charadrius dubius (I—II—I'): one of the characteristic birds of the Maros-side. It remains on this area from April until the second half of September. Two pairs nested in each year. In May or June the contents of the nests were destroyed because of the flooding. Successful nesting was observed only in the control period (14—17 July 1967).

Actitis hypoleucos (II—I'—II'): its phenology is similar to that of *Charadrius dubius*. In the first year it was established that two pairs successfully nested. The birds found their food on the Maros bank and on the pasture.

Acrocephalus arundinaceus (I—II): presumably one pair nested. In the second year, besides its own young it also reared a young *Cuculus canorus*. The family was observed on several occasions in the maize, and feeding the young in the bushes.

Acrocephalus palustris (II'): occurred in larger numbers along the bush-strip. Presumably 2—3 and 6 pairs, respectively, nested. No nests were found, but at the end of June and the beginning of July parents feeding their flying young were often observed. It fed primarily on the cultivated areas.

Sylvia communis (I—II—III): 4 and 2 pairs, respectively, nested in the bushes. Their nests were found only in the first year. They visit the cultivated areas diligently. They readily eat the berries of *Sambucus nigra*.

Sylvia curruca (I—II—III—I'—II'—III'): occurs in smaller numbers than the preceding species. Based on the singing males, 3 pairs are assumed to have nested in each year. A nest was found in the first year. In addition to three of its own eggs, the nest also contained an egg of *Cuculus canorus*. Its feeding area is predominantly the strip of bushes. It visits *Sambucus nigra* intensively.

Luscinia luscinia (I'—II'): this seeks out the densest places. Its nests were not found. It is assumed that two pairs bred. It feeds exclusively on the bushy part. It readily consumes the berries of *Sambucus nigra* and *Cornus sanguinea*.

Lanius collurio (II'): the specimens observed in the first year visited this area from the neighbouring areas. Their nesting was observed at the beginning of August in the second year. In the control year 3 pairs nested. Their feeding grounds are primarily the pasture and the sand-pits.

Chloris chloris (III'): this area was sought out as a place for drinking and for refuge, in aspects I—II. It arrived in the third and fourth aspects to feed. One pair was observed nesting at the end of July in the second year.

Ciconia ciconia (II'): the visiting specimens arrived from the populations of the nearby villages. They collected their food on the Maros-side and on the pasture.

Buteo lagopus (IV'): in the second year its numbers were comparatively high because of the *Microtus arvalis* and *Cricetus cricetus* invasion. Pellet and stomach-content examinations gave the same results as in the case of *Buteo buteo*.

Falco subbuteo (III'): one pair regularly visited the area. Their food consisted mainly of locusts.

Falco tinnunculus (III'): occurs irregularly in the course of the whole year. It feeds mainly on insects and mice.

Streptopelia decaocto (III'): occurs in low numbers in almost every aspect. It visits the area mainly to drink.

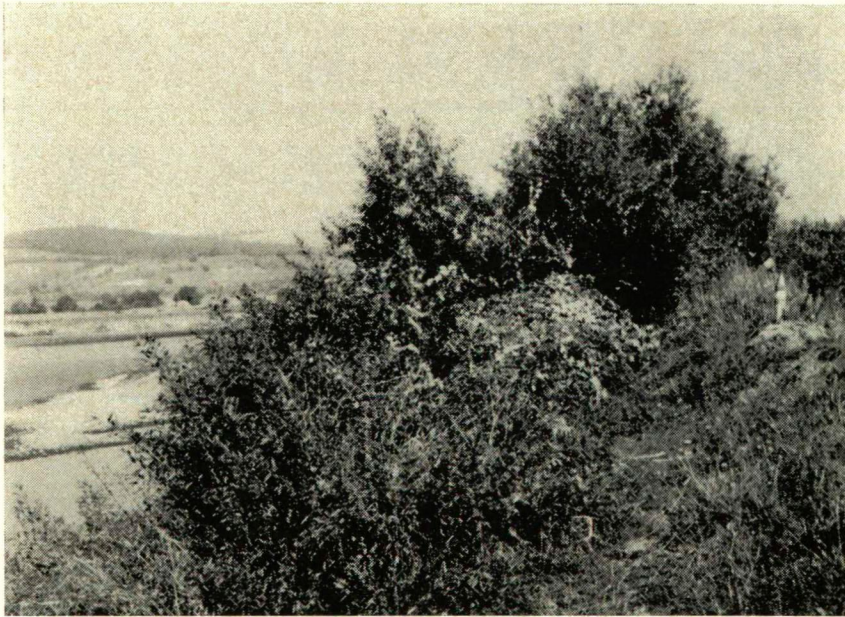


Fig. 4

Emberiza citrinella (IV): visits the area in the winter aspects. Its occurrence can be explained by the closeness of human settlements.

Phylloscopus collybita (III): can mainly be observed on the autumn migration. Its feeding grounds are the maize and bushy areas. It is presumable that *Phylloscopus trochilus* specimens also occur among its population. It was observed only in the control period on the spring migration.

Concomitant species

Only the more important species in this category will be discussed. Since there are essentially two biotopes in the area examined, the species will be classified according to habitats.

Maros and bank-line: The following species were observed in this biotope: *Podiceps cristatus*, *Podiceps fluviatilis*, *Ardea cinerea*, *Ardea purpurea*, *Anas platyrhynchos*, *Anas querquedula*, *Aythya nyroca*, *Gallinula chloropus*, *Totanus totanus*, *Tringa ochropus*, *Tringa nebularia*, *Tringa glareola*, *Calidris minuta*, *Larus minutus*, *Chlidonias leucoptera*, *Chlidonias nigra*.

These species in part seek out this area at the time of migration, and in part come here to feed and rest at other periods of the year.

Bush-strip, pasture and cultivated areas: These provided food and refuge for the following species: *Accipiter gentilis*, *Accipiter nisus*, *Perdix perdix*, *Cuculus canorus*, *Upupa epops*, *Dendrocopos maior*, *Alauda arvensis*, *Oriolus oriolus*, *Corvus corax*, *Parus coeruleus*, *Turdus pilaris*, *Turdus merula*, *Turdus philomelos*, *Oenanthe oenanthe*, *Phoenicurus phoenicurus*, *Erithacus rubecula*, *Acrocephalus schoenobaenus*, *Lanius excubitor*, *Carduelis spinus*, *Carduelis cannabina*, *Fringilla coelebs*, *Embriza calandra*, *Fringilla montifringilla*. With only a few exceptions, these species sought out this area mainly in the migration and winter periods.

In the breeding season, two "species" visited the area more or less regularly: *Motacilla flava*, which was first observed in 1964 in the vicinity of Marosásárhely, and *Motacilla flava feldegyi*, first found on 7 May 1966. *Motacilla flava* is very widespread on the Maros-side. *Motacilla flava feldegyi* was observed in the environs of the town during the breeding period: 3 pairs in 1966, and only one pair in 1967.

Accessory species

The occurrence of some rarer species is reported below.

Pandion haliaetus: a rare species, even on a national scale. Observed on 5 occasions during the examination period.

Falco columbarius: observed on one occasion.

Squatarola squatarola: two specimens observed on each of three successive days. One specimen was collected. According to the literature, this is the fifth recorded occurrence in Transylvania.

Charadrius hiaticula: two specimens observed. Its occurrence was more frequent in the control period.

Calidris temmincki: observed in the company of two *Calidris alpina*.

Eremophila alpestris: observed once on this section of the Maros, and on 17 occasions below the town.

Remiz pendulinus: its occurrence is extremely rare. It was now observed for the first time in the past 10 years.

In the course of the observations in the control period, the following species were included in this category.

Turdus iliacus: 6 specimens found on 16 April 1967.

Larus canus: one specimen observed on 9 September 1967.

Limicola falcinellus: collected by ATTILA GOMBOS on this area on 31 August 1967.

Calidris ferruginea: 2 specimens observed and photographed on 11 September 1967.

Pluvialis apricaria: observed by ATTILA GOMBOS in April 1967.