

THE BIRD FAUNA OF THE WET ZONES FROM THE MIDDLE COURSE OF THE SIRET RIVER

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Key words: bird, wet zones, Siret River

INTRODUCTION

Place of the research

- Artificial barrage lakes: Lilieci (Bacau I), Bacau II , Galbeni;
- Ponds (with piscicultural purpose) : Motoșeni , Antohești , Horgești
- Puddles (naturally accumulated waters from freatic layer or from the old winds of the Siret rivers): Marvila (Pâncești village), Fărăoani railway station (Cleja village), Cordoneni (Filipești village)

Research period

The time frame in wich the dates werw gathered was November 1-2004→ June 1-2007.

The observation time is over 100 days long, and is distributed in such way that every represebtative area could be researched in different phenological mementos.

RESEARCH METHODS

- Direct observation.

In fix points: usually used during nesting season or fuding moments (near specific points).

Long run observation: used especially in the passage periods, or during the winter time.

- The identification by bird-sounds was used in the nesting seasons.

Beside terroryaly bird songs, were surveyed also the asociation and alert signals, that many bird species are using especially during the flight.

- Other ways of identification regarding the presence of some bird species were:

- identification by foot prints on different types of land;
- crowds identification after bird drops;
- identification of the species from the crowds, after lost feders.

RESULTS AND DISCUSSIONS

All the gathered datas were synthetised in a synoptic table in wich is pointed out the presence of

the bird species in the choosed areas for the research.

There were identified 188 bird species, systematically belonging to 48 familys and 16 orders.

From all the bird species that are quoted for Romania (about 400 species), the number of species identified in the researched wet zones is representing almost 45%.

The big number of familys (48 for 188 species) denotes the fact that this areas have very different conditions of live for birds. There are especially many important and various food source and appropriate places for shelter.

Analysing the diversity of the bird fauna on the three maine types of wet habitats (barrage lakes, ponds and preddles), it can be seen that from the number of 172 bird species observed in the “barrage lakes” habitat, on the Lilieci lake were 121 species (64.36%) and on the Bacău II lake were 108 species (54.44%) and on the Galbeni lake were 150 species (79.78%).

In the “ponds” habitat (with piscicultural purpose) were identified a number of 70 bird species. On the Horgești pond were found 64 bird species (34.04%) on Antohești pond 57 bird species (30.03%) and on Motoșeni pond 63 bird species (33.51%).

In the “puddles” habitat were identified 118 bird species, from wich on Marvila 92 (48.93%), on Fărăoani 86 bird species (45.74%) and on the Filipești puddle 85 bird species(45.27%). (the number 2 table).

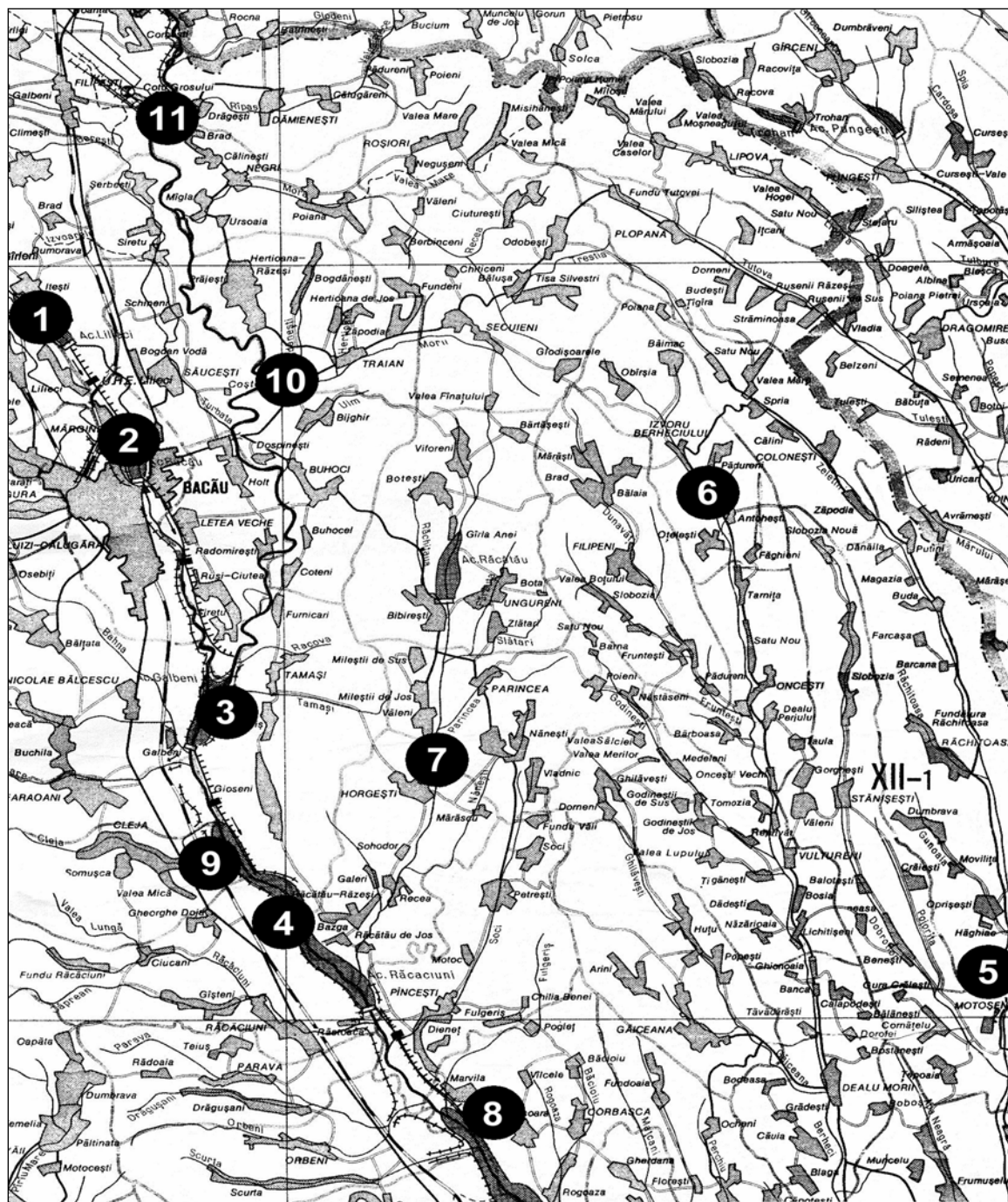
From the „type of fauna” point of view (geographic origin), to which the 188 bird species □ertainly□ in the wet zones are belonging to the European bird type, 37 species (39.89 % from total), 37 species are belonging to the transpalearctic 19.68 %), 23 species are Siberian type (12.23%), 17 species are Arctic type (9.04 %), 20 species are Mongol type (10.36%), 13 species are Mediterraneane type (6.91 %), 2 species are Chinese type (1.06 %0, 1 specie is the Tibetan type (0.53 %).(table number 3, fig. 3, 4, 5, 6). It’s easy to see that in the most cases the origin of the bird species is European and Transpalearctic (112 species- 59.57 %).

This are in fact forming the group of species for the temperate zone to which we are belonging.

The presence of the Siberian and Arctic categorys of species (40 species 21.27 %) in this area, is □ertainly by it’s importance as shelter space rich in

food sources during the passage and during the winter time.

The hydrographic map of the middle course of the Siret river with the location of the research points



The hydrographic map of the middle course of the Siret river with the location of the research points

Table 1. The birds species that are present in the wet zones from the middle course of the Siret river in the 2004-2007 period

ITEM	SPECIES	Geographic origin	Level	Wet zones									Observations
				Barrage lakes			Ponds			Puddles			
				Lilieci	Bacău II	Galbeni	Horgești	Antohești	Motoșeni	Marvila	Faraoani	Filipești	
0	1	2	3	4	5	6	7	8	9	10	11	12	13
1.	Accipiter gentilis	Tp	Pr	H	H	H	H	H	H	H	H	H	
2.	Accipiter nisus	Tp	Pr	H	H	H	H	H	H	H	H	H	
3.	Acrocephalus arundin.	E	Pr	C	C	C	C	C	C	C	C	C	
4.	Acrocephalus palustris	E	Pr	C	C	C				C	C		
5.	Acrocephalus schoenob.	E	Pr	C	C	C	C	C	C	C	C	C	
6.	Acrocephalus scirpaceus	E	Pr	C		C						C	
7.	Actitis hypoleucos	Tp	Pr	P	P	P					P		
8.	Alauda arvensis	Mo	O	P	P	P				P		P	
9.	Alcedo atthis	E	Pr	C	C	C				C	C	C	
10.	Anas acuta	S	O	P	P	P					P		
11.	Anas clypeata	Tp	O	P	P	P	P			P	P		
12.	Anas crecca	Tp	O	I	I	I	P			P	P	P	
13.	Anas Penelope	S	O	P	P	P				P	P	P	
14.	Anas platyrhynchos	Tp	O	C	C	C	C	C	C	C	C	C	
15.	Anas querquedula	Tp	O	C	C	C	P	P	P	P	P	P	
16.	Anas strepera	Tp	O	P		P	P			P	P		
17.	Anser albifrons	A	O			P				P			
18.	Anser anser	Mo	O	P		P				P	P	P	
19.	Anser erythropus	A	O	P		P							R
20.	Anthus campestris	Mo	O			P				P			
21.	Anthus pratensis	E	O			P				P			
22.	Anthus trivialis	E	O	P	P	P			P	P			
23.	Apus apus	E	Pr	P									R
24.	Aquila pomarina	E	Pr			P				P		P	R
25.	Ardea cinerea	Tp	Pr	P	P	P	P	P	P	P	P	P	
26.	Ardea purpurea	M	Pr	P	P	P	P	P	P	P	P	P	
27.	Ardeola ralloides	M	Pr			P							R
28.	Arenaria interpres	A	Pr			P							Ac
29.	Asio flammeus	Tp	Pr	I		I				I	I	I	
30.	Asio otus	Tp	Pr				P		P			P	
31.	Athene noctua	Mo	Pr	C									
32.	Aythya ferina	E	O	C	P	C	P				P		
33.	Aythya fuligula	S	O	C	P	P							
34.	Aythya marila	A	O	I		I							R
35.	Aythya nyroca	E	O	C	C	C	P	P	P		P	P	
36.	Bombicilla garrulus	S	F			I						I	R
37.	Botaurus stellaris	Mo	Pr			P	P			P	P	P	
38.	Bucephala clangula	S	O	I	I	I							
39.	Burchinus oedicnemus	M	O							P			Ac
40.	Buteo buteo	Tp	Pr	H	H	H	H	H	H	H	H	H	
41.	Buteo lagopus	A	Pr	I	I	I	I	I	I	I	I	I	
42.	Calidris alpine	A	Pr			P							R
43.	Calidris ferruginea	A	Pr			P							Ac

44.	<i>Calidris minuta</i>	A	Pr	P		P				P			
45.	<i>Calidris temminckii</i>	A	Pr			P							
46.	<i>Caprimulgus europaeus</i>	E	Pr					P		P		P	
47.	<i>Carduelis cannabina</i>	E	F				P	P	P			P	
48.	<i>Carduelis carduelis</i>	E	F	I	I		I				I	I	
49.	<i>Carduelis chloris</i>	E	F								P		
50.	<i>Carduelis flammea</i>	S	F			I							R
51.	<i>Carduelis spinus</i>	E	F									I	
52.	<i>Charadrius dubius</i>	Mo	Pr	C	C	P					C	P	
53.	<i>Charadrius hiaticula</i>	A	Pr			P							Ac
54.	<i>Chlidonias hybridus</i>	M	Pr	P	P	P	P	P	P				
55.	<i>Chlidonias leucopterus</i>	E	Pr	P		P							
56.	<i>Chlidonias niger</i>	E	Pr	P	P	P			P	P	P		
57.	<i>Ciconia ciconia</i>	E	Pr	H	H	H	H	H	H	H	H	H	
58.	<i>Ciconia nigra</i>	E	Pr	P	P	P							
59.	<i>Cinclus cinclus</i>	E	Pr	I	I								R
60.	<i>Circus aeruginosus</i>	Mo	Pr	C	C	C	P	P	P	C	P	P	
61.	<i>Circus cyaneus</i>	E	Pr	I	I	I					I	I	
62.	<i>Circus pygargus</i>	E	Pr			I					I		Ac
63.	<i>Clangula hyemalis</i>	A	O	I		I							
64.	<i>Coccothraustes coccoth.</i>	E	F	H	H	H	H	H	H	H	H	H	
65.	<i>Columba oenas</i>	E	F	P	P	P			P		P	P	
66.	<i>Columba palumbus</i>	E	F	P	P	P				P	P	P	
67.	<i>Coracias garrulus</i>	E	O			P					P		
68.	<i>Corvus corax</i>	Tp	O	H	H	H	H	H	H	H	H	H	
69.	<i>Corvus cornix</i>	E	O	H	H	H	H	H	H	H	H	H	
70.	<i>Corvus frugilegus</i>	E	O	P	P	P	P	P	P				
71.	<i>Corvus monedula</i>	E	O	H	H								
72.	<i>Coturnix coturnix</i>	E	F			P						P	
73.	<i>Crex crex</i>	E	O	P	P	P	P	P	P	P	P	P	
74.	<i>Cuculus canorus</i>	Tp	Pr	C	C	C	C	C	C	C	C	C	
75.	<i>Cygnus cygnus</i>	S	O	I	I	I					I		
76.	<i>Cygnus olor</i>	E	O	C	P	C							
77.	<i>Delichon urbica</i>	Tp	Pr							P	P	P	
78.	<i>Egretta alba</i>	Ch	Pr	P	P	P	P	P	P		P		
79.	<i>Egretta garzetta</i>	M	Pr	P	P	P	P	P	P	P	P	P	
80.	<i>Emberiza citrinella</i>	E	F	H	H	H	H	H	H	H	H	H	
81.	<i>Emberiza schoeniclus</i>	Tp	O	C	C	C	C	C	C	C	C	C	
82.	<i>Eremophila alpestris</i>	Ti	F			I							Ac
83.	<i>Erithacus rubecula</i>	E	Pr	P		P						P	
84.	<i>Falco columbarius</i>	S	Pr	P							P		R
85.	<i>Falco peregrinus</i>	Tp	Pr	I							I		R
86.	<i>Falco subbuteo</i>	Tp	Pr			P					P	P	
87.	<i>Falco tinnunculus</i>	Tp	Pr	H	H	H	H	H	H	H	H	H	
88.	<i>Falco vespertinus</i>	Mo	Pr	H	H								
89.	<i>Fringilla coelebs</i>	E	F							P		P	
90.	<i>Fringilla montifringilla</i>	S	F	I	I	I					I	I	
91.	<i>Fulica atra</i>	Tp	O	C	C	C	C	C	C	C	C	C	
92.	<i>Galerida cristata</i>	Mo	O	H	H	H	H	H	H	H	H	H	
93.	<i>Gallinago gallinago</i>	E	Pr	P	P	P	P	P	P	P	P	P	
94.	<i>Gallinago media</i>	E	Pr			P				P		P	R
95.	<i>Gallinula chloropus</i>	E	O	C	C	C	C	C	C	C	C	C	
96.	<i>Garrulus glandarius</i>	E	O		I							I	
97.	<i>Gavia arctica</i>	S	Pr	I	I	I							
98.	<i>Gavia stellata</i>	A	Pr			I							Ac
99.	<i>Gelochelidon nilotica</i>	M	Pr		P	P							R

100.	Grus grus	E	F			P				P			Ac
101.	Haematopus ostralegus	Tp	Pr			P							Ac
102.	Haliaeetus albicilla	Tp	Pr	I		I							R
103.	Himantopus himantopus	Mo	Pr			P							R
104.	Hirundo rustica	Tp	Pr	P	P	P	P	P	P	P	P	P	
105.	Ixobrychus minutus	E	Pr	C	C	C	C	C	C	C	C	C	
106.	Jynx torquilla	Tp	Pr		P								
107.	Lanius collurio	E	Pr							P	P	P	
108.	Lanius excubitor	Tp	Pr		I			I		I		I	
109.	Lanius minor	E	Pr							P	P	P	
110.	Larus argentatus	Tp	Pr	P	P	P							
111.	Larus canus	S	Pr	I		I							Ac
112.	Larus minutus	S	Pr			P							R
113.	Larus ridibundus	Tp	Pr	H	H	H	H	H	H	H	H	H	
114.	Limicola falcinellus	S	Pr			P							Ac
115.	Limosa limosa	Mo	Pr		P	P				P	P		
116.	Locustella fluviatilis	E	O	P									
117.	Locustella luscinioides	E	O	C	C	C							
118.	Lymnocyrtus minimus	S	Pr			P				P	P	P	
119.	Mergus albellus	S	Pr	I		I							R
120.	Mergus merganser	Tp	Pr	I	I	I							
121.	Mergus serrator	S	Pr	I									Ac
122.	Merops apiaster	M	Pr	H	H	H	H	H	H	P	P	P	
123.	Miliaria calandra	E	F			P			P	P	P		
124.	Milvus migrans	E	Pr							P			R
125.	Motacilla alba	E	O	C	C	C	C	C	C	C	C	C	
126.	Motacilla cinerea	E	Pr							P			
127.	Motacilla flava	Tp	O	C	C	C	C	C	C	C	C	C	
128.	Muscicapa striata	E	O	P	P								
129.	Netta rufina	M	O	P	P	C							
130.	Numenius arquata	E	Pr			P			P	P		P	
131.	Nycticorax nycticorax	M	Pr	P	P	P	P	P	P	P	P	P	
132.	Oenanthe oenanthe	Tp	O				C	C	C	C	C	C	
133.	Oxyura leucocephala	M	Pr	P									Ac
134.	Pandion haliaetus	Tp	Pr	P									Ac
135.	Panurus biarmicus	Mo	O	C		C							
136.	Parus caeruleus	E	O		H								
137.	Parus major	E	O		H	H	H		H			H	R
138.	Passer domesticus	Tp	F	H	H	H	H	H	H	H	H	H	
139.	Passer montanus	Tp	F	H	H	H	H	H	H	H	H	H	
140.	Perdix perdix	E	O							H	H	H	
141.	Pernis apivorus	E	Pr			P				P			
142.	Phalacrocorax carbo	Tp	Pr	I	I	I							
143.	Phalacrocorax pygmaeus	M	Pr	P		P							R
144.	Phalaropus lobatus	A	Pr			P							Ac
145.	Phasianus colchicus	Ch	O	H	H	H	H	H	H				
146.	Philomachus pugnax	S	Pr	P	P	P	P	P	P	P	P	P	
147.	Phylloscopus collybita	Tp	O		P						P		
148.	Pica pica	E	O	H	H	H	H	H	H	H	H	H	
149.	Platalea leucorodia	E	Pr			P							R
150.	Plegadis falcinellus	M	Pr			P				P			R
151.	Pluvialis apricaria	A	Pr			P							Ac
152.	Puvialis squatarola	A	Pr			P							Ac
153.	Podiceps cristatus	Tp	Pr	C	C	C	C	C	C				
154.	Podiceps griseigena	E	Pr		C	C							

155.	<i>Podiceps nigricollis</i>	E	Pr	P	P	P							
156.	<i>Porzana parva</i>	E	O		P		P			P			
157.	<i>Porzana porzana</i>	E	O	C	C	C	C	C	C	C	C	C	
158.	<i>Rallus aquaticus</i>	E	O	C	C	C	C	C	C	C	C	C	
159.	<i>Recurvirostra avisetta</i>	M	Pr			P							R
160.	<i>Remiz pendulinus</i>	Mo	O		H								
161.	<i>Riparia riparia</i>	Tp	Pr	P	P	P				P	P	P	
162.	<i>Saxicola rubetra</i>	E	F							P	P	P	
163.	<i>Saxicola torquata</i>	Mo	F							P		P	
164.	<i>Scolopax rusticola</i>	E	Pr	P		P							
165.	<i>Somateria mollissima</i>	A	Pr			I							Ac
166.	<i>Stercorarius parasiticus</i>	A	Pr	P									Ac
167.	<i>Sterna albifrons</i>	E	Pr	P	P	P				P			
168.	<i>Sterna hirundo</i>	E	Pr	C	C	C	C	C	C	P	P	P	
169.	<i>Streptopelia decaocto</i>	M	F	H	H	H	H	H	H	H	H	H	
170.	<i>Streptopelia turtur</i>	E	F	P	P	P				P	P	P	
171.	<i>Strix aluco</i>	E	Pr	P	P								R
172.	<i>Strix uralensis</i>	S	Pr		I								R
173.	<i>Sturnus vulgaris</i>	E	O	P	P	P	P	P	P	P	P	P	
174.	<i>Tachybaptus ruficollis</i>	E	Pr	I	I	I	I	I	I				
175.	<i>Tadorna ferruginea</i>	Mo	Pr			P							Ac
176.	<i>Tadorna tadorna</i>	Mo	Pr			P							Ac
177.	<i>Tringa erythropus</i>	S	Pr		P	P							
178.	<i>Tringa glareola</i>	S	Pr	P	P	P				P			
179.	<i>Tringa nebularia</i>	S	Pr		P	P			P	P			
180.	<i>Tringa ochropus</i>	S	Pr	P	P	P	P	P	P	P	P	P	
181.	<i>Tringa stagnatilis</i>	Mo	Pr	P		P							R
182.	<i>Tringa totanus</i>	Mo	Pr	P	P	P	P	P	P	P	P	P	
183.	<i>Troglodytes troglodytes</i>	E	O	C	C	C	C	C	C	C	C	C	
184.	<i>Turdus merula</i>	E	O	P	P	P							
185.	<i>Turdus philomelos</i>	E	O	P	P	P							
186.	<i>Turdus pilaris</i>	S	O	I	I	I	I	I	I	I	I	I	
187.	<i>Upupa epops</i>	E	Pr			P				P		P	
188.	<i>Vanellus vanellus</i>	Mo	O	P	P	P	C	C	C	C	P	P	

Fauna type
 Tp-transpoleartic
 E-European
 Mo-Mongol
 S-Siberian
 A-Arctic
 M-Mediterranean
 Ch-Chinese
 Ti-Tibetan

Phenologic statute erratic
 H-erratic
 C- nesting species
 P- passage
 I- winter guestt
 R-rare
 Ac-accidental

Trophic category
 Pr-predator
 O-omnivorous
 F-vegetarian

Table 2. Tahe number of observed species in different habitats from the middle course of the Siret rivers

ITEM	HABITAT	LOCATION	Number of species	% from total
1.	Barrage lakes	Lilieci	121	64.36
2.		Bacău II	108	57.44
3.		Galbeni	150	79.78
The total on barrage lakes			172	91.48%
4.	Ponds	Horgești	64	34.04
5.		Antohești	57	30.03
6.		Motoșeni	63	33.51
The total number on pouds			70	37.23%
7.	Puddles	Mârșila	92	48.93
8.		Fărăoani	86	45.74
9.		Filipești	85	45.27
The total number on puddles			118	62.76%
The total number of species			188	

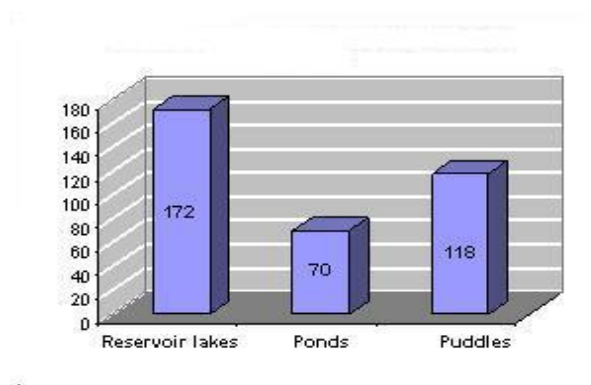


Fig.1 The total number of species on all three types of habitats researched

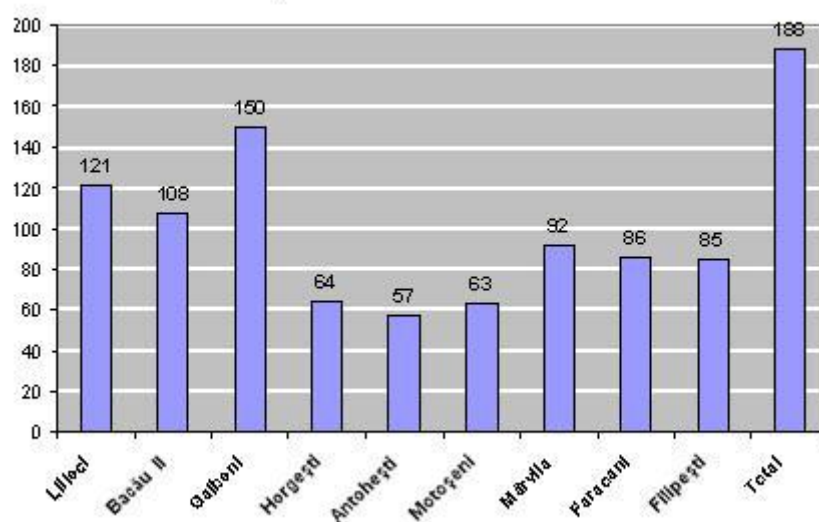


Fig 2. The number of observed species in I points of research

Table 3. Synoptic table with the geographic origin of the birds from the middle course of the Siret river, distributed on habitats of observation

ITEM	GEOGRAPHIC ORIGIN	TOTAL		HABITATS					
		Nr.	%	Artificial lakes		Ponds		Puddles	
				Nr.	%	Nr.	%	Nr.	%
0	1	2	3	4	5	6	7	8	9
1.	Tp	37	19,68	33	19,18	21	30	29	24,57
2.	E	75	39,89	65	37,79	32	45,71	56	47,45
3.	Mo	20	10,63	19	11,07	5	7,14	11	9,32
4.	S	23	12,23	23	13,37	4	5,71	12	10,16
5.	A	17	9,04	17	9,88	1	1,42	3	2,54
6.	M	13	6,91	12	6,97	6	8,57	7	5,93
7.	Ch	2	1,06	2	1,16	1	1,42	-	-
8.	Ti	1	0,53	1	0,58	-	-	-	-
	Total	188		172		70		118	

The presence of the other fauna category is probable related to the birds's certain and big capacity of adaptation, but especially is related to the geographic position, certainly to this type of superposition.

Regarding the bird fauna's diversity, in the three main types of wet habitats (barrage lakes, ponds and puddles), at first it can be noticed the very big percent of birds with European and origins (75.71 % on ponds and 72.035 on puddles).

This fact can be explained by several causes:

- at first, as against the natural surroundings (which are covered mainly with seasonal crops or with forests) this types of habitats are certainly very small areas;
- often the ponds are certainly to dry-up operations and that can take even many years;
- because of some floods that can have even seasonal character, the puddles are also often certainly to big changes regarding the form and the location.

All these are associating in to favour the existence of bird species that are belonging to an arid continental fauna.

It can be pointed out a fairly big percent (23.29 %) of Arctic and Siberian species in the artificial lakes habitat.

This places are offering wide water surfaces (hundreds of hectares). In present here is manifesting an intense clog phenomenon that is favorable to the extension of wide water surfaces with reduced depths and muddy bottoms, rich in benthonic fauna. So this constitutes an ideal place for rest and food searching for the Northern species are in fact populations of species that are nesting also in Romania (in small numbers or even whole effective, when they are certainly nesting in the extreme North).

The energetic exploitation of the reservoirs is causing also important variations in the water level. In the winter time this phenomenon is

extremely important, because it's producing the breaking of the ice bridge and it's drawing it in the deep middle of the lakes.

This way during the whole winter time, there are unfrozen water surfaces that are favouring the stay for many limicole and aquatic bird species. These birds can easily get food and are finding wide calm zones for shelter.

It is certain that the Siret valley has certainly been a migration way for these birds towards the Mediterranean and even African areas, but the appearing of such habitats with food sources and certainly places for calm shelter, has determined many of this to renounce to a long and uncertain migratory effort.

This is probably a proof that only the frost, which makes the nourishment inaccessible, was driving many of these birds through the South to unfrozen zones (warmer).

Regarding the consumer role that the birds have in the food chain, from the researched aquatic habitats, it can be easily seen that the predators (in this category are included every type of bird species which are eating other animals/ are representing almost 56.98% from the total number of certainly species. The next are the omnivorous 31.38%, represented by bird species which are eating food of different origins (vegetable and animal) related even to certain moments from the 24 hours period. This way this species can belong to different trophic levels, related to the type or food that they have been eating in certain moments, even during the same day. The vegetarians have 17.71 % percent from all the species and are represented by the pigeons group (exclusive vegetarians), and by some groups of birds that are vegetable-fruits, seeds or other vegetation remains. Barrage lakes are offering the most certain food source (in aquatic medium) for omnivorous and predators. Phenological statute of the bird species observed in the wet zones from the certain area, is mostly determined by its trophic characteristic, but also by the character of the fauna

types to which they are belonging. The species that are nesting strictly in the *□ertainly□s* wet zones of this area, are not very numerous (32 species 17.02%) if we consider the relative big number of observed species.

This is due to the populational character of the migratory waves. This way, the species can be found here in the nesting season, and after its migration, other more Northern populations from the same species are I to passage or as winter guests. In this case the observed species is the resulting its multiple *□ertainly□s□* statute. The passage of the birds is strongly represented in the wet zones from the middle course of the Siret river.

In only one year of up-dated observations, there were seen 96 bird species (51.06 % from total). Related to the total numbers of observed species in each type of habitat, the most important percentage of nesting birds is on the ponds zone (20 species 28.57%). Even if in the barrage lakes areas are nesting 30 species, this are representing only 17.44% from the total number of seen species for this habitat. This is normal when we are relating this fact to the big number of species seen on the ponds (70 species) (table number 1).

In all the cases, the percentage if the species, the winter guest species (13.3%) and also the rare species (14%) we can see the big importance that the new formed lakes (30-40 years old) have , and this way the *□ertainly□* is reaching 77%.

The rare species cracter has resulted from the fact that the frequency of observations was very small, and also the number of specimens were 1, 2 at the most. In the final list were included 20 species that were seen only once during the study, and this were considered as accidental.

We appreciate that the species which are not nesting here and are not using *□ertain* this zones as shelter, but are I sometimes here for food and water, can be considered and *□ertainly* as erratics. This orcentage is not very hight (barrage lakes 11,7%, puddles 14 %).It can reach 25,7% in the ponds case, but we must keep in mind the fact that here are a much lower number of observed species, and also the unstable character that this zones have.

ABSTRACT

In the October 2004 – June 2007 period, a number of 188 bird species belonging to 16 orders and 47 familys were observed in the wet zones from the middle course of the Siret river.

The *□ertain* specific diversity has been found in the habitats created by artificial lakes-172 species. The most reduced diversity was found in the habitats created were found 118 species. The main reson this phenomenon is the fact that the barrage lakes are offering more importante food

source and protection, because of the intensive clog.

CONCLUSIONS

Many passage birds are finding in the small depths waters with muddy button an importante feeding possibility. We can also say that the other types of habitat are almost the same *□ertainly□s*. This is the true, but we must keep in mind the fact that many observed species are belonging to the categorys that are specific to wide waters and littoral zones (Anatidae, Limicole, Laridae). For this species an importante role during the feedins is played by the wide spaces for avoiding the eventual predators. On the other side, the dimension of this areals used for food search has an importante role in the limitation of the number of individuals on a certain surface, even if the food source is abundant. From 188 bird species *□ertainly□* in total, a number of 47 species have a statute of rare or accidental. This species can not characterize a bird cenoses but are completing a specific spectrum from a certain area. There is also the possibility that their passing throught the zone took place in such short interval of time, and this way the change of observation is reduced. If the ponds and puddles habitats are offering stable conditions for bird species that are specific to such habiatats (with reed and rush) we can not say the same type of vegetation from the barrage lakes. In the frequent variations in the water level caused by function of the energy plants(for which they were created) constitutes a decisive perturbing factor of the nesting possibility for many bird species. In early spring in autumn and in the winter time (outside the nesting season) on the reservoirs the variation in water level is favourable to birds that are in passage or are staying over the winter, because is allowing the access to large feeding surfaces. Also the breaking of the ice is causing the formation of water surfaces with small depths because if the clog and that allowing the crowding of nunmerous individuals (sometime even tenths of thousands). During the winter time on the water surfaces of the ponds and puddles, the ice bridge is not allowing the acces to food, and so we meet nothing but some isolated *□ertainly□s* of acvatic species. After a short flight over the zone they are leaving the area. The connections of the wet zones, their shores with the surrounding habitats have *□ertainly* a big importance and I am considering, that this aspect can constitute the object for future research.

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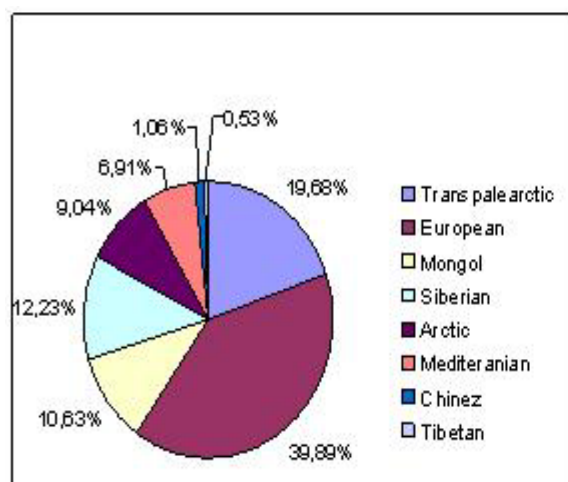


Fig. 3 – The weight of fauna's types in the analyzed humid areas

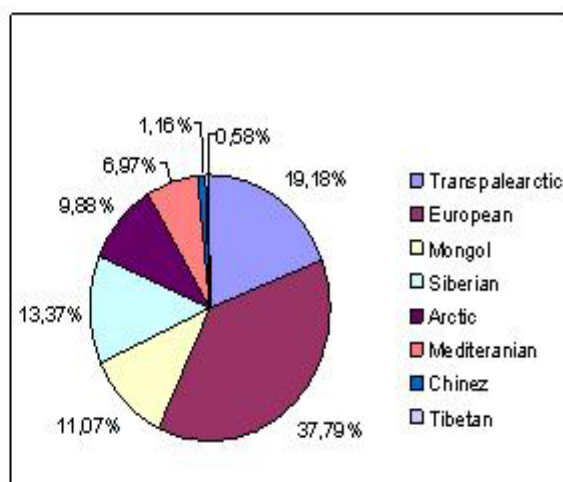


Fig. 4 – The weight of fauna's types on the analyzed artificial lakes

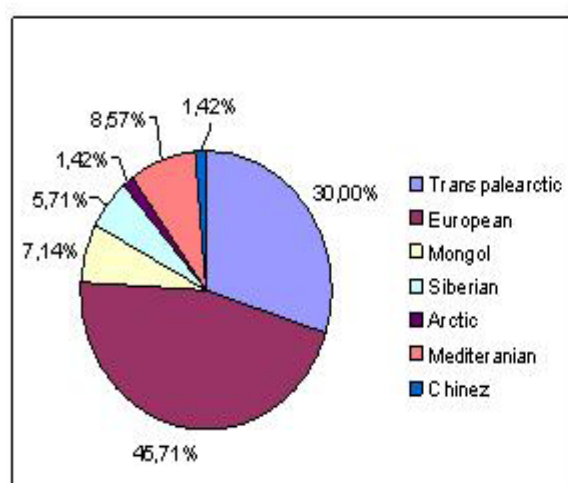


Fig. 5 – The weight of fauna's types in the analyzed ponds

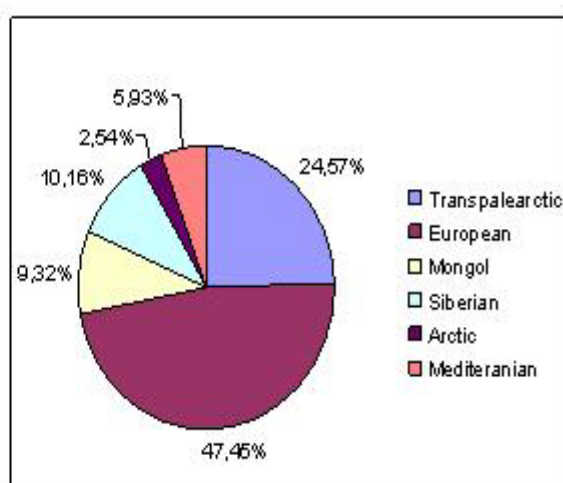


Fig. 6 – The weight of fauna's types in the analyzed puddles



The Itești reservoir



The Răcăciuni reservoir



The Marvila natural puddle



The Motoșeni pond

THE BIRD FAUNA OF THE SIRET RIVER

