

**THE MID - WINTER CENSUS 2013-2016 ABOUT THE
ORNITHOFAUNA FROM THE TINCA AREA (BIHOR COUNTY,
ROMANIA)**

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ABSTRACT. In this work the results of the midwinter census 2013-2016 about the presence of the birds on the Crișul Negru River, around Tinca Spa, are presented. There were recorded 41 bird species that belong to 9 orders.

Keywords: ornithological census, Tinca area, ecological data.

REZUMAT. Recensământul de iarnă 2013-2016 asupra ornitofaunei din zona Tinca (județul Bihor, România). În această lucrare sunt prezentate rezultatele recensământului de iarnă 2013-2016 al păsărilor de pe râul Crișul Negru, din jurul stațiunii balneoclimaterice Tinca. S-au identificat 41 specii de păsări, aparținând la 9 ordine.

Cuvinte cheie: recensământ ornitologic, zona Tinca, date ecologice.

INTRODUCTION

The winter census of the birds is coordinated at European level by Wetlands International and in Romania by Romanian Ornithological Society, proceeding in a second ten days of January in every year.

Data about the ornithofauna of the Tinca area were published in two books (Ilie, 2008, 2016).

Tinca area is located in the south-western part of Bihor County, at the confluence of the Miersig Plain and the Holod Depression, on the Crișul Negru river banks (the inferior limit of this river, middle train). The relief is hilly; the climate is temperate-continental, moderate. The vegetation belongs to the oak stage. The average altitude is 115 m (Berindei & Pop, 1972).

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The bottom of Crișul Negru River is situated in the proximity of Tinca Spa. For prevent her inundation there were raised two little barrages situated at two opposite extremities of the Tinca Spa. The Crișul Negru River course was deviated, being created an “island” between the river and the part of water between the two barrages that became semi-stagnant.

This described area is the location where the censuses were performed and present a surface of 5 ha. The vegetation of semi-stagnant water has some characteristic species: rush, mace reed, sedge, poplar tree, willow tree, etc.

The park from the proximity of Tinca Spa present woody species like willow tree, chestnut tree, maple tree, poplar tree, ash tree, oak tree and pine tree.

MATERIALS AND METHODS

The observations were performed in 14-15 January 2013, 15 January 2014, 13-14 January 2015 and 14-15 January 2016 on the island near Tinca Spa.

There were observed the aquatic and the land birds, with binoculars 8 x 25 and 20 x 50, completed with direct observations.

For the determinations of species different guides were used (Bruun et al., 1999; Gooders & Lesaffre, 1998).

RESULTS AND DISCUSSIONS

In the analyzed period there were identified 41 species: 26 species (305 specimens) in 2013, 35 species (404 specimens) in 2014, 28 species (364 specimens) in 2015, and 31 species (420 specimens) in 2016.

These species belongs to the following orders (Tab. 1): Pelecaniformes (2 species, 4.87 %), Ciconiiformes (1 species, 2.43%), Anseriformes (3 species, 7.31%), Falconiformes (3 species, 7.31%), Galliformes (2 species, 4.87%), Columbiformes (1 species, 2.43%), Coraciiformes (1 species, 2.43%), Piciformes (4 species, 9.75%), Passeriformes (24 species, 58.53%).

Table 1 - Bird species identified in 2013-2016 at midwinter in Tinca area.

No.	Species	Number of specimens				Habitat type	Phenological category
		2013	2014	2015	2016		
1.	<i>Pelecanus onocrotalus</i> (Linnaeus, 1758)	-	-	-	3	Aq	SV, RW
2.	<i>Phalacrocorax carbo</i> (Linnaeus, 1758)	-	1	15	17	Am	SV, RW
3.	<i>Ardea cinerea</i> (Linnaeus, 1758)	2	2	1	1	Aq	SV, RW
4.	<i>Cygnus olor</i> (Gmelin, 1789)	-	-	-	11	Aq	PM

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5.	<i>Anas platyrhynchos</i> Linnaeus, 1758	42	73	36	42	Am	S
6.	<i>Anas crecca</i> Linnaeus, 1758	-	2	-	-	Aq	SV, RW
7.	<i>Buteo buteo</i> (Linnaeus, 1758)	2	1	4	3	T	PM
8.	<i>Accipiter gentilis</i> (Linnaeus, 1758)	1	-	-	-	T	S
9.	<i>Accipiter nisus</i> (Linnaeus, 1758)	-	1	1	2	T	S, WV
10.	<i>Perdix perdix</i> (Linnaeus, 1758)	-	-	3	-	T	S
11.	<i>Phasianus colchicus</i> (Linnaeus, 1758)	1	4	3	3	T	S
12.	<i>Streptopelia decaocto</i> Frivaldzky, 1838	9	7	12	14	T	S
13.	<i>Alcedo atthis</i> (Linnaeus, 1758)	-	2	1	1	Am	PM
14.	<i>Picus viridis</i> Linnaeus, 1758	1	2	-	-	T	S
15.	<i>Dendrocopos major</i> (Linnaeus, 1758)	5	7	2	1	T	S
16.	<i>Dendrocopos syriacus</i> (Linnaeus, 1758)	-	1	-	-	T	S
17.	<i>Dendrocopos minor</i> (Linnaeus, 1758)	-	1	-	1	T	S
18.	<i>Motacilla cinerea</i> Tunstall, 1771	-	2	-	-	T	WV
19.	<i>Garrulus glandarius</i> (Linnaeus, 1758)	9	12	13	17	T	S
20.	<i>Pica pica</i> (Linnaeus, 1758)	5	9	10	19	T	S
21.	<i>Corvus frugilegus</i> Linnaeus, 1758	14	17	23	36	T	S
22.	<i>Corvus corone cornix</i> Linnaeus, 1758	3	4	5	2	T	S
23.	<i>Corvus corax</i> Linnaeus, 1758	-	-	-	1	T	S
24.	<i>Troglodytes troglodytes</i> (Linnaeus, 1758)	-	-	1	2	T	SV, RW
25.	<i>Regulus regulus</i> (Linnaeus, 1758)	-	3	-	-	T	WV
26.	<i>Erithacus rubecula</i> (Linnaeus, 1758)	1	2	1	1	T	SV, RW
27.	<i>Turdus merula</i> Linnaeus, 1758	2	4	3	5	T	S

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28.	<i>Turdus pilaris</i> Linnaeus, 1758	2	5	12	10	T	WV
29.	<i>Parus palustris</i> Linnaeus, 1758	2	1	-	-	T	S
30.	<i>Parus caeruleus</i> Linnaeus, 1758	5	7	4	2	T	S
31.	<i>Parus major</i> Linnaeus, 1758	10	16	12	16	T	S
32.	<i>Aegithalos caudatus</i> (Linnaeus, 1758)	9	7	3	5	T	S
33.	<i>Sitta europaea</i> Linnaeus, 1758	-	1	2	3	T	S
34.	<i>Passer domesticus</i> (Linnaeus, 1758)	65	60	70	74	T	S
35.	<i>Passer montanus</i> (Linnaeus, 1758)	84	89	96	101	T	S
36.	<i>Fringilla coelebs</i> Linnaeus, 1758	4	6	3	6	T	PM
37.	<i>Fringilla montifringilla</i> Linnaeus, 1758	1	2	-	-	T	WV
38.	<i>Pyrrhula pyrrhula</i> (Linnaeus, 1758)	1	3	-	-	T	S
39.	<i>Coccothraustes coccothraustes</i> (Linnaeus, 1758)	-	1	2	3	T	S
40.	<i>Carduelis carduelis</i> (Linnaeus, 1758)	5	7	23	13	T	S
41.	<i>Emberiza citrinella</i> Linnaeus, 1758	20	12	3	5	T	S

Legend: Aq - aquatic, Am - amphibious, T - terrestrial; SV - summer visitor, WV - winter visitor, RW - rarely winter visitor, S - sedentary species, PM - partial migratory species.

From the habitat point of view (Fig. 1), predominate terrestrial species - 34 (82.93%), followed by aquatic species - 4 (9.76%) and amphibious species - 3 (7.32%).

From the phenological point of view (Fig. 2), it predominates sedentary species - 26 (63.41%), followed by summer visitor - 6 (14.63%), rarely winter species - 6 (14.63%), winter visitor species - 5 (12.01%) and partial migratory species - 4 (9.75%).

The protection status of the identified bird species indicates the existence of the following categories (Tab. 2).

After Birds Directive (2009/147/CE), 3 species belong to annex I, requiring special protection of habitats for secure the survival and the breed of those. Other 4 species belong to annex II/A, being able to hunted in the areas which is applied the directive and 7 species belong to annex II/B, being able to hunted only in the states of European Union for which they are mentioned.

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Annex III/A includes species that requires special licence for sale both alive or dead birds and any part of produce obtained from bird, easy identification. The species of annex III/B, if captured those there were legally killed or illegal obtained, member states could allows on their territory the transport for sale, the sale, the supply for sale of alive or dead birds or any part or produce obtained from bird, easy identification.

Convention of Berna includes 19 species belonging to annex II, being strictly protected and 17 species from the annex III being protected.

Convention of Bonn refers to migratory species of wild animals and includes 1 species in annex I, being endangered migratory species, and 6 species who belongs to annex II, having need of international accords for their protection because present unfavourable protection statute.

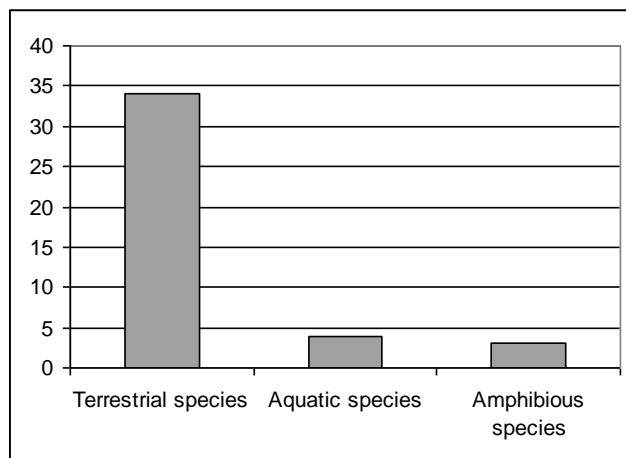


Figure 1 - The distribution of the bird species from the habitat point of view, in Tinca Spa.

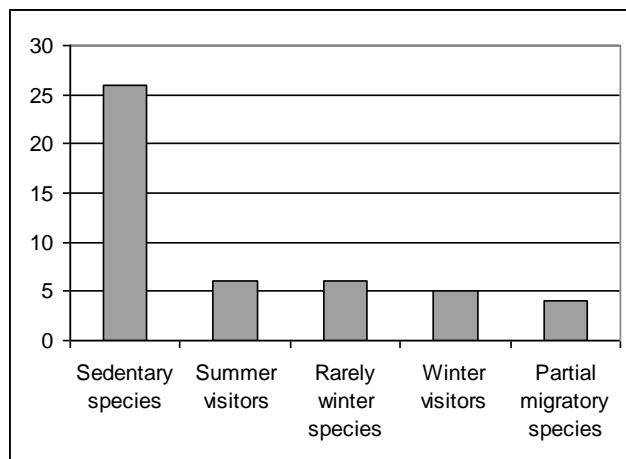


Figure 2 - The distribution of the identified bird species from the phenological point of view.

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Table 2 - The protection status of the identified bird species from Tinca Spa during 2013 - 2016 midwinter census.

No.	Species	Birds Directive	Convention of Berna	Convention of Bonn
1.	<i>Pelecanus onocrotalus</i> Linnaeus, 1758	AI	AIII	AI, AII
2.	<i>Phalacrocorax carbo</i> (Linnaeus, 1758)		AIII	
3.	<i>Ardea cinerea</i> Linnaeus, 1758		AIII	
4.	<i>Cygnus olor</i> (Gmelin, 1789)	AII/B	AIII	AII
5.	<i>Anas platyrhynchos</i> Linnaeus, 1758	AII/A, AIII/A	AIII	AII
6.	<i>Anas crecca</i> Linnaeus, 1758	AII/A, AIII/B	AIII	AII
7.	<i>Buteo buteo</i> (Linnaeus, 1758)		AII	AII
8.	<i>Accipiter gentilis</i> (Linnaeus, 1758)		AII	AII
9.	<i>Accipiter nisus</i> (Linnaeus, 1758)		AII	AII
10.	<i>Perdix perdix</i> (Linnaeus, 1758)	AII/A, AIII/A	AIII	
11.	<i>Phasianus colchicus</i> (Linnaeus, 1758)	AII/A, AIII/A	AIII	
12.	<i>Streptopelia decaocto</i> Frivaldzky, 1838	AII/B	AIII	
13.	<i>Alcedo atthis</i> (Linnaeus, 1758)	AI	AII	
14.	<i>Picus viridis</i> Linnaeus, 1758		AII	
15.	<i>Dendrocopos major</i> (Linnaeus, 1758)		AII	
16.	<i>Dendrocopos syriacus</i> (Linnaeus, 1758)	AI	AII	
17.	<i>Dendrocopos minor</i> (Linnaeus, 1758)		AII	
18.	<i>Motacilla cinerea</i> Tunstall, 1771		AII	
19.	<i>Garrulus glandarius</i> (Linnaeus, 1758)	AII/B		
20.	<i>Pica pica</i> (Linnaeus, 1758)	AII/B		
21.	<i>Corvus frugilegus</i> Linnaeus, 1758	AII/B		

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22.	<i>Corvus corone cornix</i> Linnaeus, 1758	AII/B		
23.	<i>Corvus corax</i> Linnaeus, 1758		AIII	
24.	<i>Troglodytes troglodytes</i> (Linnaeus, 1758)		AIII	
25.	<i>Regulus regulus</i> (Linnaeus, 1758)		AII	AII
26.	<i>Erithacus rubecula</i> (Linnaeus, 1758)		AII	
27.	<i>Turdus merula</i> Linnaeus, 1758	AII/B	AIII	
28.	<i>Turdus pilaris</i> Linnaeus, 1758	AII/B	AIII	
29.	<i>Parus palustris</i> Linnaeus, 1758		AII	
30.	<i>Parus caeruleus</i> Linnaeus, 1758		AII	
31.	<i>Parus major</i> Linnaeus, 1758		AII	
32.	<i>Aegithalos caudatus</i> (Linnaeus, 1758)		AII	
33.	<i>Sitta europaea</i> Linnaeus, 1758		AII	
34.	<i>Passer domesticus</i> (Linnaeus, 1758)			
35.	<i>Passer montanus</i> (Linnaeus, 1758)		AIII	
36.	<i>Fringilla coelebs</i> Linnaeus, 1758		AIII	
37.	<i>Fringilla montifringilla</i> Linnaeus, 1758		AIII	
38.	<i>Pyrrhula pyrrhula</i> (Linnaeus, 1758)		AIII	
39.	<i>Coccothraustes</i> <i>coccothraustes</i> (Linnaeus, 1758)		AII	
40.	<i>Carduelis carduelis</i> (Linnaeus, 1758)		AII	
41.	<i>Emberiza citrinella</i> Linnaeus, 1758		AII	

Legend: AI - annex I, AII - annex II, AII/A - annex II, part A, AII/B - annex II, part B, AIII - annex III, AIII/A - annex III, part A, AIII/B - annex III, part B.

CONCLUSIONS

The Midwinter census during 2013-2016, in Tinca area, emphasizes the presence of 41 bird species, majority terrestrial and sedentary species, belonging of different protection categories.

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