DIVERSITY OF BIRD FAUNA DURING THE WINTERING TIME IN THE ROSPA0072 SIRET MIDDLE FLOODPLAIN (ROMANIA)

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Abstract. Our study presents data on the diversity of bird species during the wintering time on the territory of ROSPA0072 Siret Middle Floodplain. We identified 172 bird species, but the wintering bird fauna list includes 68 species. We also present quantitative data for the observed bird species. The typical forest species are dominant by diversity. For the group of the aquatic birds, anseriforms present the highest diversity and populations. We recorded eight diurnal raptor bird species and four nocturnal raptor species. We identified nine bird species that appear in Annex 1 of the Birds Directive as winter visitors in the perimeter of Natura 2000 site. We mention the presence of five bird species included in the Romanian Red Book of Vertebrates: *Bucephala clangula*, *Ardea alba*, *Falco peregrinus*, *Tyto alba* and *Corvus corax*.

Keywords: bird fauna, wintering time, Natura 2000, Siret River.

Rezumat. Diversitatea ornitofaunei în perioada de iernare în ROSPA0072 Lunca Siretului Mijlociu (România). Studiul nostru prezintă informații privind diversitatea avifaunei în timpul perioadei de iernare pe teritoriul ROSPA0072 Lunca Siretului Mijlociu. Au fost identificate 172 de specii de păsări, dar lista avifaunei din timpul iernii reunește 67 de specii. De asemenea, prezentăm și date cantitative pentru avifauna observată. Ca diversitate, speciile tipice pentru ecosistemul forestier sunt dominante. Din grupul păsărilor acvatice, anseriformele prezintă cea mai mare diversitate și cele mai importante efective. Am identificat opt specii de păsări răpitoare diurne și patru specii de răpitoare nocturne. Au fost inventariate nouă specii incluse în Anexa 1 a Directivei Păsări prezente ca oaspeți de iarnă pe teritoriul acestui sit Natura 2000. Menționăm prezența a cinci specii incluse în Cartea Roșie a Vertebratelor din România: *Bucephala clangula*, *Ardea alba*, *Falco peregrinus*, *Tyto alba* și *Corvus corax*.

Cuvinte cheie: avifaună, iernare, rețea Natura 2000, Siret.

INTRODUCTION

The ROSPA0072 Siret Middle Floodplain is part of the Natura 2000 network (HG no. 1284/2007), covering a surface of about 10329 hectares on the territory of three counties: Neamț, Iași and Bacău. The geographic coordinates of this site are $46^0$57'26'' northern latitude and $26^0$59'11'' eastern longitude, presenting a length about 60 kilometres. In the northern sector, there is an overlap with the ROSCI0378 Siret River, designated to protect some vertebrate species (fish – *Rhodeus amarus* and *Cobitis taenia*, amphibians – *Triturus cristatus*, *Bombina bombina* and *B. variegata*, reptiles – *Emys orbicularis* and mammals – *Lutra lutra*, *Myotis myotis* and *M. bechsteini*).

The main ecosystems and habitats, but also the use of lands from one territory (Fig. 1), have a strong influence on the bird fauna during the breeding season, migration or wintering time. In the perimeter of the ROSPA0072 Siret Middle Floodplain, the forests represent about 36% from the total surface, and the agricultural lands cover about 31%, while the meadows and aquatic ecosystems appear each with about 15% from the territory in the official standard form presentation of Natura 2000 site. We noticed that the natural meadow forests with willows, white poplar and alders cover small surfaces. In the '70s, natural flooding forests were replaced with productive plantations of non-native species. Even now, the forestry inside the continental forests from the slopes means deforestation and establishing of new plantation, so the old trees are rare in the woodland's area. The agricultural lands form a mosaic of vegetation comprising cultivated surfaces, grasslands with bushes, flooding meadows and clusters of trees.

The Siret River with some old closed meanders and some small abandoned ponds, but also the tributaries valleys represent the aquatic habitats in the area. On the territory of the Natura 2000 site, the Siret River receives the waters of some small tributaries such as Țiganca-Leorda, Icușești, Glodeni, Albuia, Valea Rece, Podul Târgului and Turbata, respectively, Moldova River, the main tributary from this sector of Siret River basin. The reed beds with sedges and rushes are present on small surfaces, while the clusters of willows (*Salix* sp.) cover the small islands formed by pebble and sand. In some sectors, the Siret River presents high clay banks, suitable for the riverine bird species.

The climate is temperate-continental, with eastern and artic influences. The winters are long and very cold, while summers are hot and dry, with incidentally flooding phenomena in June. The average annual temperature is 10.5^0C and the average annual rainfalls are about 516.5 millimetres. The dominant winds from the north, north-western and north-eastern directions.

As we can see in the official standard form presentation, the designation of ROSPA0072 Siret Middle Floodplain supports the conservation of 48 bird species included in Annex 1 of the Birds Directive. From these, 28 bird species present small and medium breeding populations on this territory, but the passage and wintering populations of some aquatic and semi-aquatic bird species give the ornithological significance of the site. Ornithological data used for Natura 2000 site designation are available starting from the '60s (RANG, 1968, 2002), respectively, from one recent study (MŰLLER et al., 2005). These data also appear in two synthesis works (MUNTEANU, 2004 and PAPP & FÂNTÂNĂ, 2008). There are more ornithological data available related to the bird fauna from the downstream territory of ROSPA0063 Reservoirs Buhuși – Bacău – Berești (RANG, 2002; FENERU, 2002; GACHE 2012, 2017, 2018).

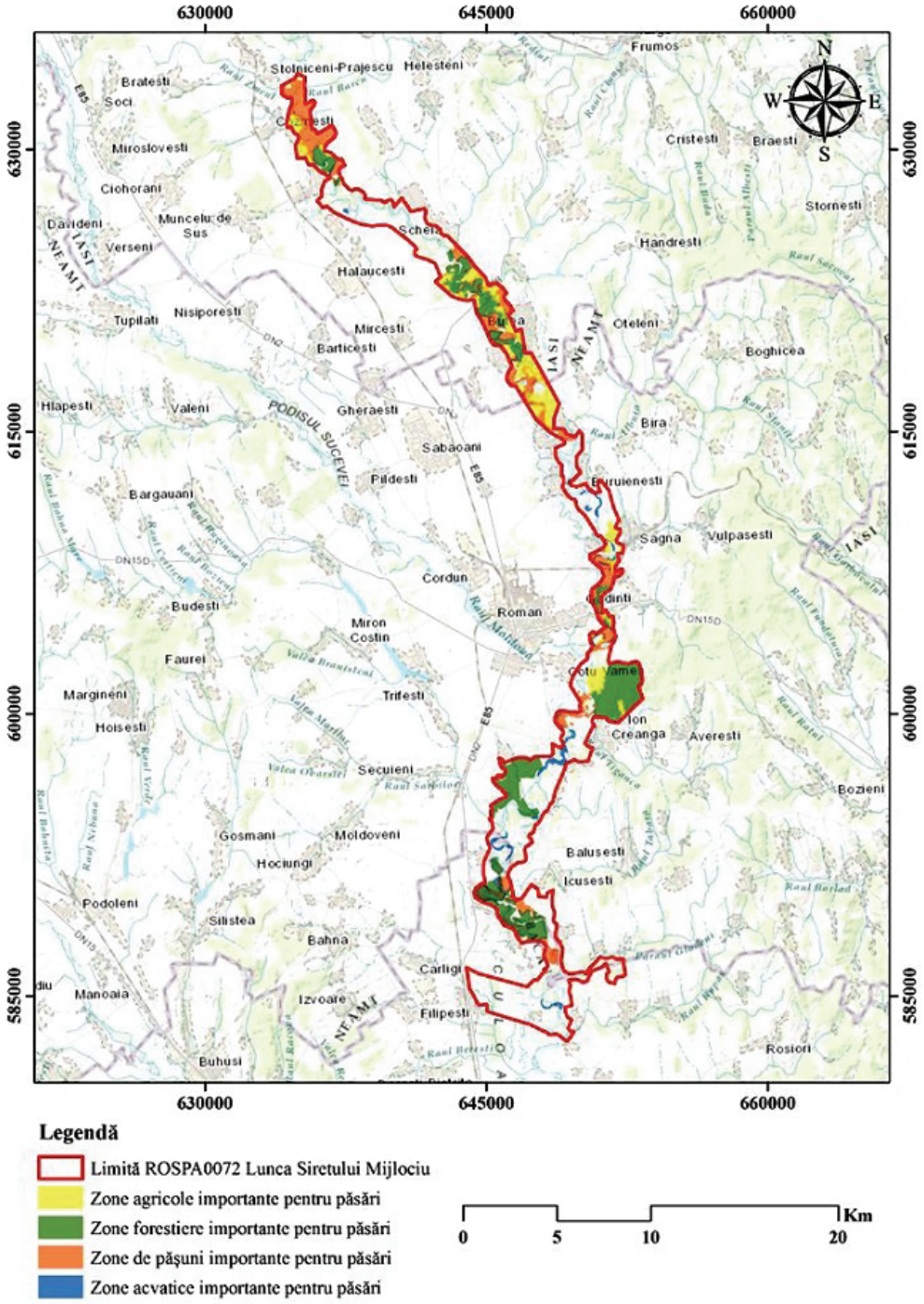

Figure 1. Map of ROSPA0072 Siret Middle Floodplain – suitable habitats for birds: red – limits of site, yellow – agricultural lands, green – forests, orange – meadows, blue – aquatic areas
(Source: *Plan de management pentru situl Natura 2000 Lunca Siretului Mijlociu*, 2013).

The ROSPA0072 Siret Middle Floodplain has a management plan (OMMAP no. 1971/2015). The monitoring study used as a base to develop the plan of management represents the more recent evaluation on the status of bird fauna from this area (17th July – 31st December 2012), performed by the specialists from the EPC Consultanță de Mediu. During the period 2010 – December 2018, the Association of Sportive Hunters and Fishers of Roman (AVPS Roman) was the custodian of the site. Now, the administration of the site is under the management of the National Agency for Natural Protected Areas that is currently under organization. Moreover, the government's decision that removed the non-governmental organizations from the custody of protected areas is blocked, and now there is no other legal support for this problem. We carried out all the field investigation work with the logistical support of the custodian AVPS Roman, as monitoring and conservation activities for bird species, part of the management plan for the site.

METHODS AND PERIOD OF STUDY

Our field investigations on the bird fauna from the ROSPA0072 Siret Middle Floodplain began during July 2016 until June 2017, with regular visits performed monthly (December – February) or twice per month (during the breeding season in June – July, and in the migration time in March – May, respectively, August - November). We spent four days on field for each visit, except the December – February months, when we did our field work in two days per month. Moreover, for the wintering time, we visited the territory during one day at the middle of January 2017, 2018 and 2019, focused on the presence of aquatic birds and diurnal raptor species as part of national monitoring program "Census of wintering waterfowls" – coordinated by the Romanian Ornithological Society (SOR/Birdlife Romania).

The monitoring of birds was done using the methods of transect and fixed points, following from south towards north direction the 26 transects and the associated 56 fixed points established through the monitoring schemes in the management plans. The 26 transects have a total length of about 50.5 km and are crossing the site from west to east; the distance between two transects is about 2 km. We have performed monitoring activity for 15 minutes per fixed point. Numerous roads are not asphalted ones or are only forestry roads. The access is difficult, even impossible in some parts of the site during the rainfalls and in the snow-winter conditions (as example, Mogoșești-Siret – Rotunda villages in the middle northern part or Gâdinți – Ion Creangă villages in the middle sector, respectively, Onișcani – Boanța villages in the southern part of the Natura 2000 site).

We mention that, during migration and wintering time, we also counted the birds observed while we were driving from one transect to another. As we found during our field activity, waterfowls generally feed or rest in specific points along the meanders of Siret River, while the raptor birds present specific hunting areas, sometimes outside the established monitoring transects, but all these birds are present in the perimeter of the investigated Natura 2000 site.

We identify the birds (BRUUN et al., 1999; SVENSSON et al., 2017) through direct observation by binoculars (Olympus 8-16x40 and Nikon Akulon 8 – 24x) and telescope (HAKUBA 40x70, Swarowski 20 – 60x). We aimed at estimating the bird populations, too, by counting each bird from the small groups and used quantitative evaluation in band for the groups or flocks larger than 200 individuals. In the analysis of our results, we are using SIBLEY & AHLQUIST's taxonomic system (1995) with subsequent additions and modifications (http://avibase.bsc-eoc.org/).

RESULTS AND DISCUSSIONS

The ROSPA0072 Siret Middle Floodplain presents ornithological significance especially in migration and wintering period, sheltering thousands of waterfowls and waders on its territory. During the period of our study, we recorded 172 bird species, while in the wintering time we met 68 bird species (Table 1) as sedentary, winter visitors or partially migratory species. The mentioned values for the birds' population represent the total number of identified birds during one visit in the whole territory, so, during two days of monitoring from the southern towards the northern sector of the site, totalizing the counted observed birds along each transect. It is necessary to mention that we could not reach part of the woodland areas in January and February, as the access roads were impracticable – in the sector Boanța – Onișcani (transects 23 - 24), Ion Creangă – Gâdinți (transects 17 - 18) or Răchiteni – Butea villages (transects 8 - 10).

Table 1. List of bird species identified during the wintering time in the perimeter of ROSPA0072 Siret Middle Floodplain.

No.	Species	Presence (individuals)	Birds Directive Annex 1	Birds Directive Annex 2	Romanian Red Book of Vertebrates
1.	*Perdix perdix*	290 - 300	-	+	-
2.	*Coturnix coturnix*	0 - 5	-	+	-
3.	*Phasianus colchicus*	140 - 150	-	+	-
4.	*Cygnus olor*	1 - 35	-	-	-
5.	*Cygnus cygnus*	0 - 129	+	+	-
6.	*Anser anser*	52 - 540	-	+	-
7.	*Anser albifrons*	34 - 380	-	+	-
8.	*Anas platyrhynchos*	2100 - 3410	-	+	-
9.	*Anas crecca*	20 - 275	-	+	-
10.	*Spathula clypeata*	2 - 11	-	+	-
11.	*Bucephala clangula*	2 - 8	-	+	V
12.	*Mergus merganser*	3 - 4	-	+	-
13.	*Mergellus albellus*	0 - 2	-	+	-
14.	*Phalacrocorax carbo*	5 - 19	-	-	-
15.	*Ardea alba*	2 - 30	+	-	E
16.	*Ardea cinerea*	3 - 8	-	-	-
17.	*Buteo buteo*	14 - 33	-	-	-
18.	*Buteo lagopus*	3 - 8	-	-	-
19.	*Accipiter gentilis*	7 - 10	-	-	-
20.	*Accipiter nisus*	0 - 1	-	-	-
21.	*Circus cyaneus*	2 - 3	+	-	-
22.	*Falco peregrinus*	2 - 3	+	-	E

23.	*Falco columbarius*	2 - 5	+	-	-
24.	*Falco tinnunculus*	0 - 2	-	-	-
25.	*Larus cachinnans*	28 - 47	-	-	-
26.	*Chroicocephalus ridibundus*	2 - 5	-	-	-
27.	*Tachybaptus ruficollis*	2 - 5	-	-	-
28.	*Streptopelia decaocto*	48 - 76	-	-	-
29.	*Tyto alba*	12 - 15	-	-	V
30.	*Athene noctua*	25 - 30	-	-	-
31.	*Asio otus*	35 - 40	-	-	-
32.	*Strix aluco*	12 - 15	-	-	-
33.	*Picus viridis*	10 - 18	-	-	-
34.	*Picus canus*	4 – 9	+	-	-
35.	*Dendrocopos major*	13 - 21	-	-	-
36.	*Dendrocopos syriacus*	20 - 24	+	-	-
37.	*Dendrocopos leucotos*	2 – 4	+	-	-
38.	*Dendrocopos medius*	3 – 4	+	-	-
39.	*Dryobates minor*	1 – 5	-	-	-
40.	*Lanius excubitor*	13 - 24	-	-	-
41.	*Pica pica*	71 - 118	-	-	-
42.	*Garrulus glandarius*	45 - 50	-	-	-
43.	*Corvus monedula*	18 - 25	-	-	-
44.	*Corvus frugilegus*	650 - 1450	-	-	-
45.	*Corvus cornix*	21 - 27	-	-	-
46.	*Corvus corax*	35 - 49	-	-	E
47.	*Poecile palustris*	10 - 15	-	-	-
48.	*Parus major*	68 - 125	-	-	-
49.	*Cyanistes coeruleus*	16 - 32	-	-	-
50.	*Galerida cristata*	22 - 46	-	-	-
51.	*Sitta europaea*	26 - 48	-	-	-
52.	*Certhia familiaris*	2 – 5	-	-	-
53.	*Troglodytes troglodytes*	5 – 7	-	-	-
54.	*Erithacus rubecula*	0 - 1	-	-	-
55.	*Turdus merula*	56 - 78	-	-	-
56.	*Turdus torquatus*	1 – 2	-	-	-
57.	*Turdus pilaris*	510 - 820	-	-	-
58.	*Sturnus vulgaris*	0 - 68	-	-	-
59.	*Passer domesticus*	270 - 1150	-	-	-
60.	*Passer montanus*	235 - 430	-	-	-
61.	*Fringilla coelebs*	110 – 140	-	-	-
62.	*Fringilla montifringilla*	180 – 320	-	-	-
63.	*Pyrrhula pyrrhula*	42 – 86	-	-	-
64.	*Coccothraustes coccothraustes*	18 – 47	-	-	-
65.	*Spinus spinus*	33 – 68	-	-	-
66.	*Carduelis carduelis*	120 – 410	-	-	-
67.	*Emberiza schoeniclus*	2 – 4	-	-	-
68.	*Emberiza citrinella*	110 – 140	-	-	-

Legend: *Romanian Red Book of Vertebrates*: E – endangered species, V – vulnerable species.

As we can see in table 1, typical woodland bird species present the highest diversity on the territory of ROSPA0072 Siret Middle Floodplain due to the large surfaces covered by forests, natural ones or production plantations. The woodpeckers are not leaving the forest's perimeter, while we met small and mixed flocks of passerines near the edge of woodlands, searching fruits and seeds around the shrubs and bushes. We met some passerine species only as winter visitors in the investigated territory: *Fringilla montifringilla* Linnaeus 1758, *Pyrrhula pyrrhula* Linnaeus 1758 and *Spinus spinus* Linnaeus 1758. We notice the unusual early presence of the wheatear (*Oenanthe oenanthe* Linnaeus 1758) – one female observed on the 26th February 2017 in an open grassland area from the southern sector of the territory near the Filipești village (transect 25). In the same day, we recorded the first territorial songs of the skylarks (*Alauda arvensis* Linnaeus 1758) in the southern edge of the site, near the Cotu Grosului village.

Significantly for the quality of agricultural lands and grasslands from one territory, game fowls form small flocks during the winter searching feeding resources and sheltering places in the areas with bushes and compact dry reed beds. During the last winter, in early December 2018, but also in late January 2019, small groups up to five quails (*Coturnix coturnix* Linnaeus 1758) were present in two different humid grassland areas with rich seeds resources from the vicinity of Gâdinți forest perimeter.

During our field monitoring in the wintering time, we focused especially on the waterfowls and raptor bird species. Between the typical aquatic bird species, anseriforms were dominant by diversity (11 species from a total of 14 aquatic bird

species) and populations. The ducks, especially the dabbling species (*Anas* sp.) present large wintering populations (Fig. 2) – for example, we recorded even more than 3400 individuals of mallard (*Anas platyrhynchos* Linnaeus 1758). We met flocks of hundreds of geese (*Anser anser* Linnaeus 1758 and *A. albifrons* Scopoli 1769) on the cultivated lands (wheat and rape) but no later than December, while the swans (*Cygnus olor* Linnaeus 1758 and *C. cygnus* Linnaeus 1758) were present during the entire wintering time. The common goldeneye (*Bucephala clangula* Linnaeus 1758), the common merganser (*Mergus merganser* Linnaeus) and the smew (*Mergellus albellus* Linnaeus 1758) prefer the stagnant waters and slow rivers; we met them in groups of less than ten individuals, usually in January, when the ice-covered near completely the Siret River, and the remained open waters appear as small lakes along the valley.

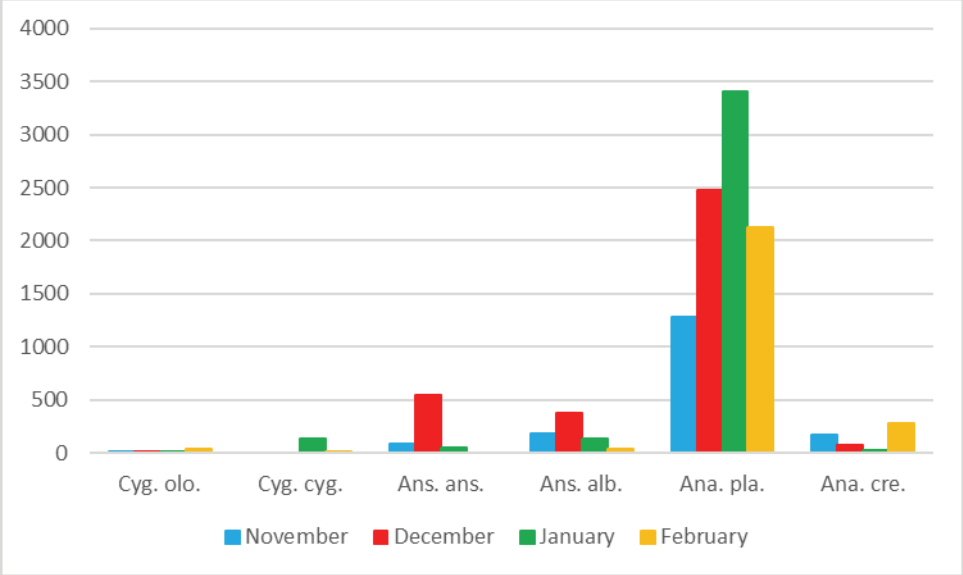

Figure 2. Dynamic of principal waterfowl species recorded during the wintering time on the territory of ROSPA0072 Siret Middle Floodplain.

We visit the site three years in a row, 2017 – 2019, one day during the second decade of January for the national Census of Wintering Waterfowls. Weather conditions were different, but we met significant groups of waterfowls in the same areas of the site during these three winters, along some large meanders of the Siret River - about 780 – 900 individuals in the south-eastern side of the Hârlești village, respectively, in the eastern and north-eastern sides of the Cozmești village. The first winter was the worst one, as the ice-bed covered the river with no strips of open waters in the middle– around the Hârlești village (transects 21 and 22) and near the Roman city (transects 14 - 16), respectively, in the northern edge of the site - in the vicinity of the Cozmești village (transects 1 and 2). For this reason, we counted only 2479 individuals of waterfowls (Fig. 3) on the territory of the ROSPA0072 Siret Middle Floodplain, and we observed about 620 mallards feeding on the perimeter of stubble fields from the area near the Filipești and Cornești villages (transect 25).

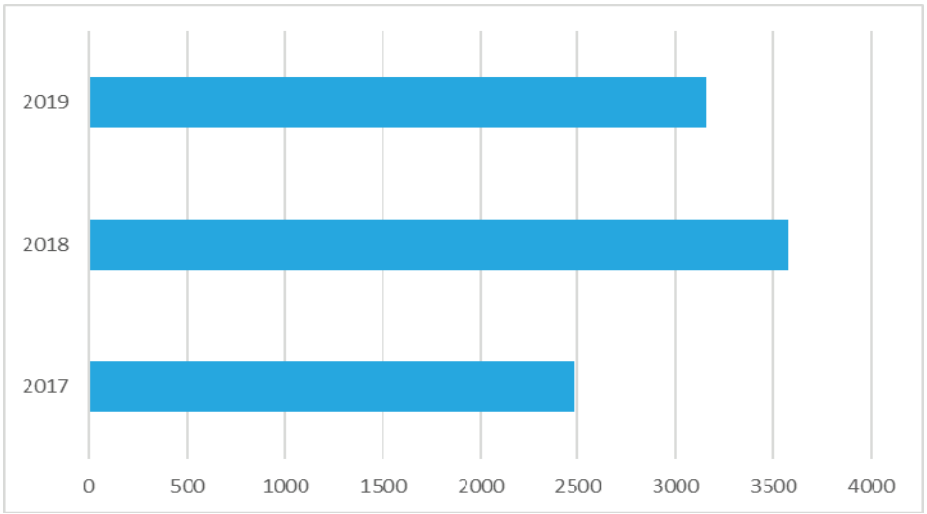

Figure 3. Dynamic of populations for waterfowl species in middle January 2017 - 2019 on the territory of the ROSPA0072 Siret Middle Floodplain.

The winter of 2018 was mild, but we could not reach the entire territory of the Natura 2000 site – we visited about 60% from its total surface. The rural and forestry roads were impracticable. The ice-beds and ice floes covered or blocked the Siret River in the middle sector of in the site, and the aquatic birds concentrated in some points from the vicinity of the Hârlești village to the southern edge, around the Cotu Grosului village, and in the northern part, near the Cozmești village. In middle January 2018, we recorded a bigger population of typical aquatic bird species than in January 2017 - 3575 individuals, and probably underestimated, but the specific diversity was lower (only six species). The mallard (*Anas platyrhynchos*) was dominant, with 3410 individuals, but we also met the largest wintering flock of whooper swan (*Cygnus cygnus*) in the area – 129 individuals feeding on the perimeter of a land cultivated with rape, in the southern side of Cotu Grosului village. We notice the wintering presence of starlings (*Sturnus vulgaris* Linnaeus 1758), forming a mixed flock with fieldfares (*Turdus pilaris* Linnaeus 1758) and feeding with dog rose fruit (*Rosa canina*). We also mention the winter presence of robin (*Erithacus rubecula* Linnaeus 1758) that has the status of summer visitor in Romania, recently mentioned during the wintering time in the green areas from Iasi city (CROITORU, 2009). These recordings suggest a possible change of status on the territory of our country for the robin, from summer visitor to partially migratory species.

In middle January 2019, the ice-bed partially covered the Siret River while the water flow had high values, but the snowfalls were higher than during the previous winters, so, the rural roads were snowbound and impracticable, too. We counted 3157 individuals of only four aquatic bird species; we cannot exclude the underestimation of the wintering population because we reached about 65% from the site's territory. The waterfowls were present in flocks of tens to 350 individuals in several points along the southern part of the site (from the Luțca village to the Cotu Grosului village), and we recorded the largest group of mallard in the northern edge, near the Cozmești village (910 individuals).

We can compare our census results only with the data mentioned in the official standard form presentation of the ROSPA0072 Siret Middle Floodplain. In the documents of the plan of management of the site, the authors present only data from the official standard form, respectively, one table with total recorded populations for 25 bird species observed during the period 17th July – 31st December 2012, species that present conservation status but do not appear in the official standard form of the site. Our recorded data presents lower populations for the waterfowl species included in this official standard form.

The cormorants (*Phalacrocorax carbo* Linnaeus 1758) and gulls (*Larus cachinnans* Pallas 1811, *Chroicocephalus ridibundus* Linnaeus 1766) are a constant wintering presence in the area, but have small populations. We also notice the constant presence of two heron species (*Ardea alba* Linnaeus 1758 and *A. cinerea* Linnaeus 1758) on the territory of the ROSPA0072 Siret Middle Floodplain. We recorded the higher winter population of great egret in January 2018 (30 individuals), during the Census of Wintering Waterfowls.

In November, we also met species such as *Gavia arctica* Linnaeus 1758, *Tringa ochropus* Linnaeus 1758 and *Vanellus vanellus* Linnaeus 1758, but we regard them only as migratory species in the area. We recorded the black-throated loon only in middle November, while the migration of waders is going on until the end of November in this part of Romania.

Raptor species represent significant bioindicators of environmental quality in a territory. We can relate their constant presence to rich and various feeding resources. We recorded the higher diversity and the bigger populations of these bird species in the southern part of the Natura 2000 site, where the suitable habitats cover large surfaces: the forest as resting territories, respectively, grasslands and agricultural lands with solitary trees and bushes as feeding areas, and still-hunting points. In middle January, during the Census of Wintering Waterfowls, we only counted the diurnal raptor species, of which the common buzzard (*Buteo buteo* Linnaeus 1758) had the highest population.

During the entire wintering time, we recorded eight diurnal raptor species, with a total population of about 29 – 52 individuals on the territory of the ROSPA0072 Siret Middle Floodplain. The buzzards (*Buteo buteo* and *B. lagopus* Pontoppidan 1763) were dominant species as wintering populations, but we notice the constant presence of *Circus cyaneus* Linnaeus 1766, *Falco peregrinus* Tunstall 1771 and *F. columbarius* Linnaeus 1758, too. We identified only four nocturnal raptor species. We notice the presence of the barn owl (*Tyto alba* Scopoli 1769), but the dominant species by population is the long-eared owl (*Asio otus* Linnaeus 1758).

Finally, we mention the presence of raven (*Corvus corax* Linnaeus 1758) on the territory of the Natura 2000 site. In January 2017, we recorded the highest wintering population for this species – we met groups of four – eight ravens around carcasses of dogs and sheep in several points from the area.

In the list of the wintering bird fauna on the territory of ROSPA0072 Siret Middle Floodplain, nine bird species appear in Annex 1 to the Birds Directive (2009/147/EC), as species needing special conservation measures concerning their habitats in order to ensure their survival and reproduction in their distribution range. Most of them are raptors and typical bird species for woodlands, and only two are related to aquatic ecosystems (*Cygnus cygnus* and *Ardea alba*). Four species are not included in the official standard form presentation of this Natura 2000 site: *Cygnus cygnus*, *Falco columbarius*, *Picus canus* Gmelin 1788 and *Dendrocopos medius* Linnaeus 1758. During winter, we also met 12 bird species included in Annex 2 to the Birds Directive (2009/147/EC) as hunting species under the national laws without jeopardising conservation efforts in their distribution area. Most of them represent waterfowl species (Anseriformes). Nine of these species do not appear in the official standard form presentation of the ROSPA0072 Siret Middle Floodplain: the gamefowl species (*Coturnix coturnix*, *Perdix perdix* Linnaeus 1758 and *Phasianus colchicus*

Linnaeus 1758) and some waterfowl species (*Cygnus cygnus*, *Anser anser*, *A. albifrons*, *Spathula clypeata* Linnaeus 1758 and *Bucephala clangula*).

We notice the wintering presence of only five bird species included in the Red Book of Vertebrates from Romania (BOTNARIUC & TATOLE, 2005). Three of them are endangered species (*Ardea alba*, *Falco peregrinus* and *Corvus corax*), two are vulnerable species (*Bucephala clangula* and *Tyto alba*).

The anthropogenic activities with significant impact on the bird fauna from the territory of the ROSPA0072 Siret Middle Floodplain are the extraction of gravel and sand, the agriculture, grazing activity and forestry practices, but these influences are low during the wintering time.

CONCLUSIONS

On the territory of the Natura 2000 site ROSPA0072 Siret Middle Floodplain, we recorded 172 bird species during our study in the area.

The wintering bird fauna includes 68 bird species. Waterfowls present the most significant wintering populations, but the typical woodland species are dominant through their diversity. We recorded smaller populations of waterfowls than appear in the official standard form presentation of the ROSPA0072 Siret Middle Floodplain, probably due to the stronger winter conditions during our study. The ice-beds covered the ponds, marsh areas and old closed meanders of the Siret River during the winters of 2017 – 2019.

During the wintering time, we identified nine bird species that appear in Annex 1 to the Birds Directive – four of them do not appear in the official standard form presentation of the ROSPA0072 Siret Middle Floodplain, respectively, 12 birds species included in Annex 2 to the same directive – nine of them are not included in the official standard form presentation of the site.

We met three endangered bird species and two vulnerable bird species included in the Red Book of Vertebrates from Romania as winter presences on then territory of the ROSPA0072 Siret Middle Floodplain – just *Falco peregrinus* appears in the official standard form of the site.

The impact of anthropogenic activities is low during the wintering time in the area. We assess the probable increase of negative impact of the forestry practices and the extraction of gravel and sand in the present situation of the site without a local custodian.

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