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RESEARCHES LOOKING THE RAPTORS FROM SALONTA AREA (BIHOR COUNTY, ROMANIA)

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ABSTRACT. In this paper are presented personal researches about the raptors from Salonta area, performed during 2011-2013.

Key words: raptors, Salonta, Romania.

REZUMAT. Cercetări privind răpitoarele din zona Salonta (județul Bihor, România). În această lucrare sunt prezentate cercetări personale despre răpitoarele din zona Salonta, efectuate în perioada 2011-2013.

Cuvinte cheie: răpitoare, Salonta, România.

INTRODUCTION

Salonta is situated in the south-western part of Bihor County, in the Salonta plain, belonging to the Crişurilor plain.

The average altitude is 50-60 m; the climate is continental-temperate moderate. The annual average of precipitations is 500-600 mm. The drainage is represented by two natural lakes: Lacul Şerpilor (the Lake of Snakes), 10 hectares and Lacul cu papură (the Rush Lake), 12 hectares.

The vegetation is represented by nonhalophyle natural lawns characterized by phytocoenosis of *Agrostis alba* L., or *Festuca sulcata* (Hack.) or halophyle lawns made by species like: *Plantago tenuiflora* Waldst. & Kit., *Puccinellia distans* (Jacq.) Parl., *Eleocharis palustris* (L.) Roem. & Schult., *Achillea* sp. The trees are represented by the species like: *Populus alba* L., *Salix* sp., *Ulmus* sp., *Fraxinus excelsior* L., *Robinia pseudoaccacia* L., etc.

The importance of the raptors species is very big in the ensemble of the ecosystems and represents a good indicator of the environment's quality. For example, the reduction of their density shows the irrational intervention of the man in the respective area.

MATERIAL AND METHODS

The researches were performed between the 2011 & 2013. We used the method of routes and the method of fixed points and optical equipments: binoculars 8x25 and 20x50. The determination of the species was performed using different bibliographical sources (Geroudet, 1989; Gooders & Lesaffre, 1998; Bruun et al., 1999).

The travellings in the area:

Years: 2011 - 30, 2012 - 27, and 2013 - 33.

Months: January - 10, February - 7, March - 12, April - 8, May - 9, June - 6, July - 7, August - 8, September - 4, October - 5, November - 6, December - 8.

On the whole, were accounted 90 days of observations in the area.

For each species was researched the frequency in the area, the nests (if is the case), the phenology and the food.

RESULTS AND DISCUSSIONS

In the analyzed period were observed 12 species belonging to 2 orders and 2 families. The list of identified species in Salonta area:

Order **Accipitriformes**
Family **Accipitridae**
Buteo buteo Linnaeus, 1758
Buteo lagopus Pontoppidan, 1763
Accipiter gentilis Linnaeus, 1758
Accipiter nisus Linnaeus, 1758
Circus aeruginosus Linnaeus, 1758.
Circus cyaneus Linnaeus, 1766
Circus pygargus Linnaeus, 1758

Order **Falconiformes**
Family **Falconidae**
Falco tinnunculus Linnaeus, 1758
Falco vespertinus Linnaeus, 17
Falco columbarius Linnaeus, 1758
Falco peregrinus Tunstall, 1771
Falco subbuteo Linnaeus, 175

Buteo buteo L. - frequent species in area but it does not hatch, using the analyzed territory for hunting only. Phenological, sedentary-partial migratory species. Over the winter the number of individuals grows because the migration of some individuals from the north of Europe or Romania for wintering.

The food consists of rodents, little reptiles or birds, insects. They rarely eat dead animals.

Number of contacts (days where the species was observed) - 46 (51.11%) total number of individuals - 170 (Tab. 1; Fig. 1).

Table 1 - Data about the abundance and the frequency of the species *Buteo buteo*.

Months of year	**Number contacts**	**Total number of individuals**	**Average individuals/day**
January	5	30	6
February	4	17	4.2
March	4	11	2.7
April	1	3	3
May	1	2	2
June	1	3	3
July	1	1	1
August	2	5	2.5
September	4	7	1.7
October	6	14	2.3
November	7	35	5
December	10	42	4.2

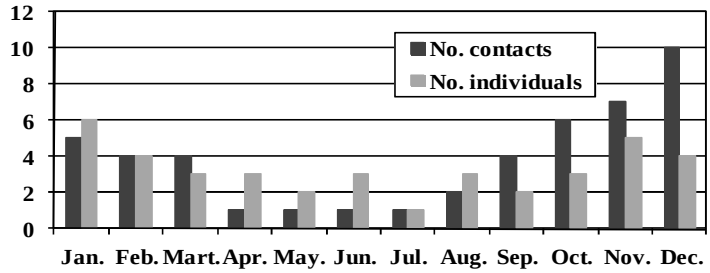

Figure 1 - Monthy dynamics of *Buteo buteo*.

Buteo lagopus Pont. - relatively rare species in area, winter visitor. It was regularly observed each year as single individuals or together with individuals of *Buteo buteo*. It uses the lawns and agricultural lands of area for hunting.

Species observed during November-March (Tab. 2; Fig. 2).

The food consists of rodents and little birds. Number of contacts - 15 (16.66%), total number of individuals - 27.

Table 2 - Data about the abundance and the frequency of the species *Buteo lagopus*.

Months of year	**Number contacts**	**Total number of individuals**	**Average individuals/day**
November	3	3	1
December	4	8	2
January	3	9	3
February	4	6	1.5
March	1	1	1

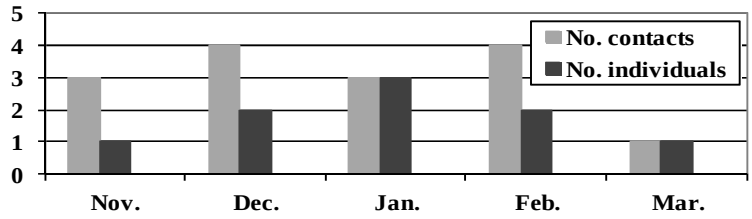

Figure 2 - Monthly dynamics of *Buteo lagopus*.

Accipiter gentilis – a relatively common species in area; it does not hatch. Phenological, sedentary or even passage visitor species is more frequently observed at the end of autumn and during the winter when it hunts in wide open lands, entering even in Salonta to search for food (birds of different sizes, rarely rodents).

Number of contacts - 54 (60%), total number of individuals - 111 (Tab. 3; Fig. 3).

Table 3 - Data about the abundance and the frequency of the species *Accipiter gentilis*.

Months of year	**Number contacts**	**Total number of individuals**	**Average individuals/day**
January	8	20	2.5
February	7	16	2.2
March	6	17	2.8
April	3	5	1.6
May	4	5	1.1
June	2	3	1.5
July	2	4	2
August	3	5	1.6
September	2	2	1
October	4	7	1.7
November	4	8	2
December	9	19	2,1

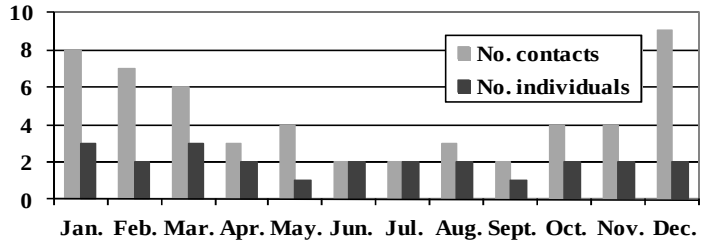

Figure 3 - Monthly dynamics of *Accipiter gentilis*.

Accipiter nisus L. - more frequent species than the precedent, hatch. Sedentary or winter visitor, the number of individuals grows during the winter

because the comings of the northern individuals for wintering. It hunts inside Salonta and in the open lands from town's neighborhoods (little birds, rarely rodents).

Number of contacts - 83 (92.22%), total number of individuals - 83 (Tab. 4; Fig. 4).

Table 4 - Data about the abundance and the frequency of the species *Accipiter nisus*.

Months of year	**Number contacts**	**Total number of individuals**	**Average individuals/day**
January	10	10	1
February	11	11	1
March	5	5	1
April	8	8	1
May	7	7	1
June	5	5	1
July	5	5	1
August	3	3	1
September	3	3	1
October	5	5	1
November	9	9	1
December	12	12	1

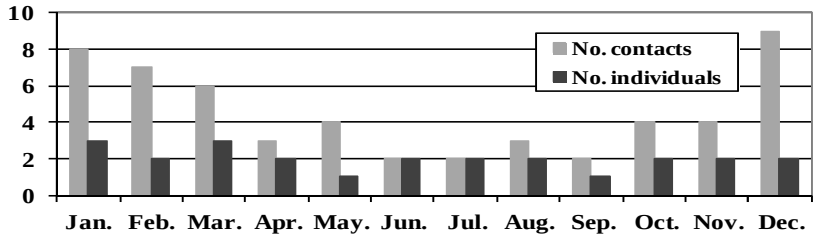

Figure 4 - Monthly dynamics of *Accipiter nisus*.

Circus aeruginosus L. - relatively common species in areas, it is hatching in the reed thicket. Summer visitor (March-October), sometimes passage visitor. The food: rodents, aquatic birds, big insects.

Number of contacts 36 (40%), total number of individuals - 38 (Tab. 5; Fig. 5).

Table 5 - Data about the abundance and the frequency of the species *Circus aeruginosus*.

Months of year	**Number contacts**	**Total number of individuals**	**Average individuals/day**
March	2	2	1
April	8	9	1.1
May	7	8	1.1
June	5	5	1

Months of year	Number contacts	Total number of individuals	Average individuals/day
July	5	5	1
August	4	4	1
September	3	3	1
October	2	2	1

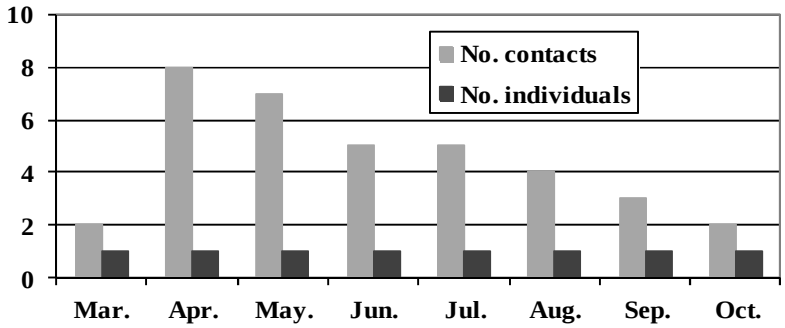

Figure 5 - Monthly dynamics of *Circus aeruginosus.*

Circus cyaneus L. - winter visitor or passage bird, during October-March. It prefers a wet or dry open places for hunting. The food: rodents or little birds.

Number of contacts - 21 (23.33%), total number of individuals - 30 (Tab. 6; Fig. 6).

Table 6 - Data about the abundance and the frequency of the species *Circus cyaneus*.

Months of year	Number contacts	Total number of individuals	Average individuals/day
October	4	6	1.5
November	5	6	1.2
December	3	3	1
January	4	7	1.7
February	3	5	1.6
March	2	3	1.5

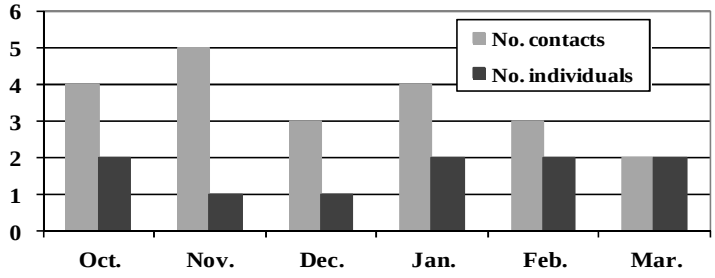

Figure 6 - Monthly dynamics of *Circus cyaneus.*

Circus pygargus L. - summer visitor species (April-October), often even passage visitor, presence relatively more rare in the area, it does not hatch. Observed each year of researched period, it hunts only in open places, not loving wet lands very much as others species of harriers.

Food: hatching birds on the ground (quail, buntings, sky lark), rodents, amphibians, reptiles (lizards).

Number of contacts - 9 (10%), total number of individuals - 11 (Tab. 7; Fig. 7).

Table 7 - Data about the abundance and the frequency of the species Circus *pygargus*.

Months of year	**Number contacts**	**Total number of individuals**	**Average individuals/day**
April	2	3	1.5
May	2	2	1
June	1	1	1
July	1	1	1
August	1	1	1
September	1	2	2
October	1	1	1

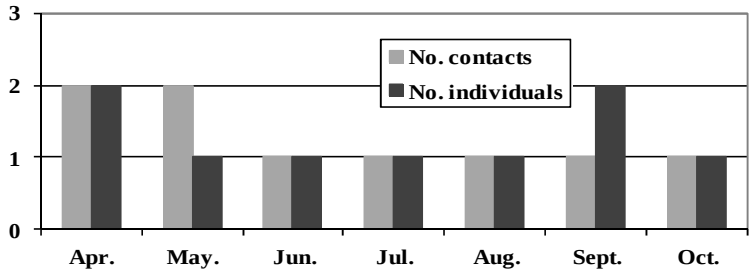

Figure 7 - Monthly dynamics of *Circus pygargus*.

Falco tinnunculus L. - hatching species; it is one of the most numerous species from area. It hatches inside Salonta on the high buildings and even on the isolated trees or even in the groups of trees from the edge of the high-ways or next to cultivated plots of land.

This species takes hold of the nets of the crows or the magpies and the high buildings; it lays the eggs on the platforms, without bringing any material for bedding. Passage visitor or partial migratory species in the area. During the winter sporadic individuals were observed.

The food - little birds, rodents, lizards, big insects.

Number of contacts - 68 (75.55%), total number of individuals - 70 (Tab. 8; Fig. 8).

Table 8 - Data about the abundance and the frequency of the species *Falco tinnunculus*.

Months of year	Number contacts	Total number of individuals	Average individuals/ day
February	3	3	1
March	6	6	1
April	7	7	1
May	8	9	1.1
June	7	8	1.1
July	10	10	1
August	8	8	1
September	8	8	1
October	5	5	1
November	6	6	1

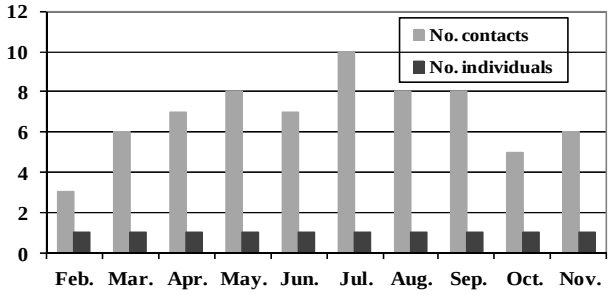

Figure 8 - Monthly dynamics of *Falco tinnunculus*.

Falco vespertinus L. - summer visitor species (April-October) uncertain nests. In the case of nests, takes hold of the nests of the rooks, of the magpies or of the hooded crow. It hunts often in the dusk, preferring the orchards or the open lands. There were not identified individuals during the winter.

It hunts little reptiles or amphibians and big insects.

Number of contacts - 10 (11.11%), total number of individuals - 10 (Tab. 9; Fig. 9).

Table 9 - Data about the abundance and the frequency of the species *Falco vespertinus*.

Months of year	Number contacts	Total number of individuals	Average individuals/day
April	1	1	1
May	2	2	1
June	1	1	1
July	1	1	1
August	2	2	1
September	1	1	1
October	1	1	1
November	1	1	1

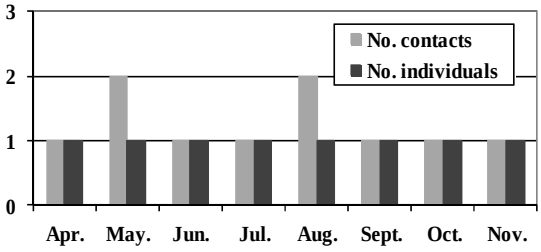

Figure 9 - Monthly dynamics of *Falco vespertinus*.

Falco columbarius L. - sporadic but constant presence in the area during the winter (the end of November-February). This species were not observed in the town, as it prefers open places.

It hunts little birds or rodents.

Number of contacts - 10 (11.11%), total number of individuals - 14 (Tab. 10; Fig. 10).

Table 10 - Data about the abundance and the frequency of the species *Falco columbarius*.

Months of year	Number contacts	Total number of individuals	Average individuals/day
November	1	2	2
December	3	3	1
January	4	5	1.2
February	2	4	2

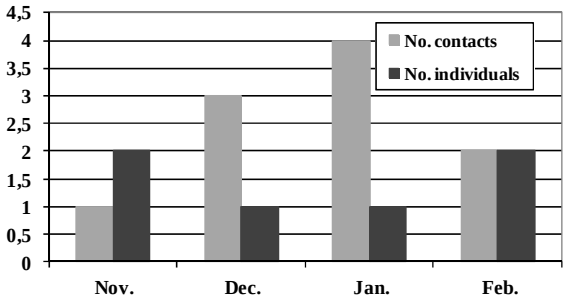

Figure 10 - Monthly dynamics of *Falco columbarius*.

Falco peregrinus Tunst. - passage visitor or winter visitor species in the area, relatively more rare. The food consists entirely of birds.

Number of contacts - 5 (5.55%), total number of individuals - 9 (Tab. 11; Fig. 11).

Table 11 - Data about the abundance and the frequency of the species *Falco peregrinus*.

Months of year	Number contacts	Total number of individuals	Average individuals/day
October	2	4	2
November	2	4	2
December	1	1	1

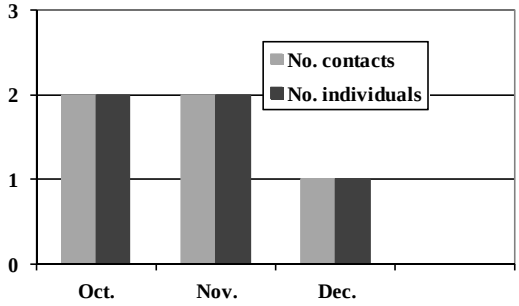

Figure 11 - Monthly dynamics of *Falco peregrines.*

Falco subbuteo L. - relatively common species in the area, hatches. It nests in the nests of different species of the *Corvidae* family. Phonologically it is summer visitor (April-October) and its food consists of the little birds, insects, rarely bats.

Number of contacts - 22 (24.44%), total number of individuals - 47 (Tab. 12; Fig. 12).

Table 12 - Data about the abundance and the frequency of the species *Falco subbuteo*.

Months of year	Number contacts	Total number of individuals	Average individuals/day
April	4	6	1.5
May	3	7	2.3
June	5	11	2.2
July	3	9	3
August	2	5	2.5
September	3	7	2.3
October	2	2	1

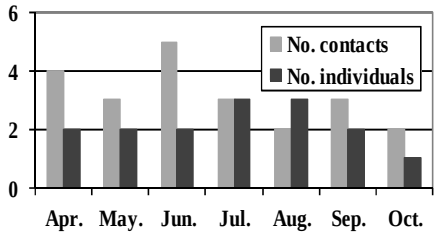

Figure 12 - Monthly dynamics of *Falco subbuteo*.

CONCLUSIONS

From the total species identified in Salonta area, during 2011 - 2013, 4 species hatches and one species presents uncertain nests.

From the phenological point of view the summer visitors (4) predominates, followed by sedentary (3) and partial migratory species (1).

REFERENCES

BERINDEI I., POP Gr., 1972 - *Judetul Bihor*, Editura Academiei R. S. R., Bucureşti. 164 p.

BRUUN B., DELIN H., SVENSSON L., 1999 - *Hamlyn Guide. Păsările din România şi Europa. Determinator ilustrat.* Octopus Publishing Group LTD, London. 320 p.

GEROUDET P., 1989 - *Rapaces d'Europe (Raptors of Europe)*. Éditeur Delachaux et Niestlé. Paris. 238 p.

GOODERS J., LESAFFRE G., 1998 - *Photo - guide des oiseaux d'Europe (Photo - guide of the birds of Europe),* Éditeur Delachaux et Niestlé. Paris. 736 p.