

**New data regarding the Bird Lice (*Phthiraptera*) living on diurnal birds of prey (*Accipitriformes*) in
Danuba Delta, Romania**

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ABSTRACT. From four areas, in December 1993 - February 2004 period, we collected 896 Bird Lices found on eight bird of prey individuals (three species), that were injured, suffering or living in captivity (method especially demanded for protected species, without killing of viable individuals in nature). During collecting there was taken into account the place of parasites on different parts in bird bodies. The collected Bird Lices belong to four genera and six species (out of which four species are new for Romanian parasitological fauna). Regarding the parasites of Long-legged Buzzard (*Buteo rufinus*), till now, there are no further data.

Key words: *Phthiraptera*, faunal, *Accipitriformes*, anatomically site specificity, Danube Delta, Romania

INTRODUCTION

During over 40 years of Bird Lice research when were examined about 1000 bird individuals and determined 310 parasite species, the diurnal bird of prey, *Accipitriformes* order, had been very little investigated. Although this group it is represented in Romania through three families with over 40 species comprising about 10 % of Romanian ornithological list. Up to the present, I published ectoparasitological data from only 9 species [16, 17]. On the one hand, this fact is explained through the birds of prey rarity and their populations are less numerous than their prey. On the other hand, according to UE and national legislation, all diurnal birds of prey have a gradual protection, some of them being protected through the most restrictive normative acts. For this reason our harvests have come from before the introduction of limiting or from accidentally dead bird.

MATERIAL AND METHOD

The present study contains data on the material harvested by Kiss J. B. between December 12th, 1993 and February 2nd, 2004. The identification and processing of scientific material was carried out by Rékási J.

The White-tailed Eagles (*Haliaeetus albicilla*) come from six different areas, the Long-legged Buzzard (*Buteo rufinus*) and Imperial Eagle (*Aquila heliaca*) from other two areas. In the course of the material harvesting, there was noted the location of the parasites on different anatomical sites of the host-birds.

The Lice were harvested by the methods indicated in the authors' former works ([7], [20], [18], [19]). For preservation of the collected lice there was used ethyl alcohol (70%).

For the Lice systematizing, we have used works of Hopkins and Clay (1952) [6], and Price et al. (2003) [11]. For the host-species systematizing were used works of Magyar et al. (1998) [8] and Munteanu (2002) [9]. With the view of establishment of new species for Romania, we appealed to the older studies: Bechet ([1], [2], [3], [4]), Constantineanu et al. [5], Kiss and Rékási [7], Negru and Elekes [10], Rékási and Kiss ([12], [13], [14], [15], [16], [17]) Rékási and Szombath [20], Rékási et al. ([18], [20]), Rózsa [22], and Rózsa et al. [21].

RESULTS

Results of the research of the eight bird individuals belonging to 3 species are presented in table 1.

DISCUSSIONS

During the ectoparasitological checking of eight bird individuals, for two White-tailed Eagles we could not to identify any parasite. On the others bird bodies were harvested six Lice species belonging four genera. Four species have proved not to be recorded up to the present in Romania, these, we have marked with *. Up to the present there are no data about *Buteo rufinus*.

In all, were harvested 896 Lice. Out of these, 256 were male (M) – 28,58%, 424 female (F) – 47,32% and 216 larva (L) – 24,10%. It was not identified more than three parasite species onto one host. In one case, there were found three species of Lice, two species in three cases and one species in two cases. The highest number of parasites (594) were harvested from a White-tailed Eagle with broken wing, kept in captivity for several months.

The Lice were limited especially to the head and neck area. It is significant to establish of the site specificity as that the parasites grouping together on certain sites could be the result of syntopic forms of inter-specific competition. On the other hand, according to some authors, the phenomenon could be explained through appetitive behaviour such preening of plumage, scratching and so on, less efficient for some anatomical sites [22].

Not to affect the viable individuals on the wild-fauna, we emphasize the importance of parasitological research of diseased birds, injured or kept in captivity. In this way, we choose for periodical and exhaustive harvesting of the Lice living on birds from the latter category. Throughout a repeated control, after 4-5 weeks the period the metamorphosis egg – larva – imago, we can find the infestation degree of host and estimation of the individual growth speed of parasites. Moreover, we emphasize the importance that the parasited species belong to *Accipitriformes* which are all strictly protected, therefore, it is more difficult to harvest the parasitological material.

Table 1. Results of ecto – parasitological research from the 8 *Accipitriformes* individuals

Nr.	<i>Phthiraptera, species, nr. ex.</i>	M	F	L	Host	Recolcted of	Data
crt.	AMBLYCERA						
	<i>Familia: Menoponidae</i>						
	<i>Genus: Colpocephalum</i>						
1.	<i>C. flavescens (De Haan, 1829)</i>	108	205	73	<i>Haliaeetus albicilla</i>	Tulcea	19.11.1993
		4	5	15	<i>Haliaeetus albicilla</i>	Murighiol	08.12.1999
		1	0	-	<i>Haliaeetus albicilla</i>	C.A.Rosetti	02.02.2004
2.	* <i>C. imperialis / Martin Mateo, 1981/</i>	0	2	0	<i>Aquila heliaca</i>	Gorgova	12.11.2003
	<i>Familia:Laemobothriidae</i>						
	<i>Genus:Laemobothrion</i>						
3.	* <i>L. /Laemobothrion /maximum,/Scopoli,1763/</i>	1	2	1	<i>Buteo rufinus</i>	Tulcea	03.08.2003
	ISCHNOCERA						
	<i>Familia: Philopteridae</i>						
	<i>Genus: Craspedorrhynchus</i>						
4.	* <i>C.fraterculus / Eichler-Zlotorzycska,1975/</i>	26	54	52	<i>Aquila heliaca</i>	Gorgova	12.11.2003
5.	<i>C. macrocephalus / Nitzsch, 1874 /</i>	74	98	36	<i>Haliaeetus albicilla</i>	Tulcea	10.09.1993
		9	17	13	<i>Haliaeetus albicilla</i>	Murighiol	08.12.1999

		0	1	1	<i>Haliaeetus albicilla</i>	Tulcea	27.01.2000
		31	34	16	<i>Haliaeetus albicilla</i>	C.A.Rosetti	02.02.2004
	<i>Genus:Degeeriella</i>						
6.	* <i>D. discocephalus</i> / Burmeister, 1838/	2	4	9	<i>Haliaeetus albicilla</i>	Murighiol	08.12.1999

Abbreviations used in the table: * - species not recorded in Romania till now; M – male; F – female; L – larvae.

SUMMARY.

Date noi privind unele paraziți externi (*Phthiraptera*) de pe păsări răpitoare diurne (*Accipitriformes*) din Delta Dunării, România

În perioada decembrie 1993 – februarie 2004 au fost recoltate de pe păsări răpitoare diurne exemplare de paraziți externi aparținând ordinului *Phthiraptera*. Gazdele aparțineau speciilor *Aquila heliaca*, *Buteo rufinus* și *Haliaeetus albicilla*, exemplarele fiind rânite, bolnave sau ținute în captivitate - metodă admisă în cazul studierii speciilor protejate, fără să fie nevoie de sacrificarea unor exemplare sălbatice. În cursul investigațiilor au fost identificate în total 896 exemplare de *Phthiraptera* aparținând la 4 genuri, respectiv 6 specii. Dintre acestea 4 specii sunt noi pentru parazitofauna din România, acestea sunt marcate cu * în tabelul 1. În ceea ce privește șorecarul mare (*Buteo rufinus*), până în prezent nu cunoaștem alte date privind speciile de *Phthiraptera* care parazitează această specie de răpitor diurn. În vederea protejării speciilor periclitare trebuie impus ca și în viitor recoltarea de paraziți de pe diferite specii să fie realizate fără sacrificarea exemplarelor aflate în studiu.

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