

## A SURVEY ON LICE INFESTATIONS OF PIGEONS IN ISTANBUL, TURKEY

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### İstanbul'da güvercinlerde bit enfestasyonları

**Özet:** Eylül 2000 ve Şubat 2001 arasında İstanbul'da 4 semtte 5 farklı kümeste/çatıda bakılan 118 erişkin evcil güvercinden (*Columba livia*) %89.8'i bitlerle enfeste bulundu. Çalışmada *Columbicola columbae* ve *Menopon gallinae* türleri belirlendi. *Columbicola columbae*'den ileri gelen enfestasyon oranı %89.8 ve *M. gallinae*'den ileri gelen %3.39 idi. Toplam 664 adet bit toplandı. Bu bitlerin %74.2'si *C. columbae* ve %25.8'i *M. gallinae* idi.

**Anahtar Kelimeler:** Güvercin, *Columba livia*, Bit, *Columbicola columbae*, *Menopon gallinae*, Yaygınlık, İstanbul, Türkiye

**Summary:** Out of 118 adult domestic pigeons (*Columba livia*) reared in 5 different pigeon houses/roofs in 4 districts of İstanbul between September 2000 and February 2001, 89.8% were found to be infested with lice. The lice species identified and their infestation rates were as follows: *Columbicola columbae* (89.8%), *Menopon gallinae* (3.39%). A total of 664 lice were collected, of which 74.2% were *Columbicola columbae* and 25.8% *Menopon gallinae*.

**Key Words:** Pigeon, *Columba livia*, Lice, *Columbicola columbae*, *Menopon gallinae*, Prevalence, İstanbul, Turkey

### Introduction

Some literature (1, 5, 6, 8, 9) on lice infestations of pigeons in Turkey is available. Three of them (1, 5, 9) are original articles and the others (6, 8) are books recording the notes on some lice occurring on pigeons in Turkey. The literature on this subject in Turkey (1, 5, 6, 8, 9) and the synonyms of some species (4) is summarized in Table 1.

There is only one study (5) on lice infestation of pigeons in İstanbul, which was performed in 1963.

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**Table 1.** Summary of information on lice infestations of pigeons in Turkey

Ref. and its year	City	No of pigeons examin.	No of Lice		Total no of lice	Lice species found	No of pigeons infested with each species	Infest. rate (%) of each spec.	No of lice belonging to each spec.	
			pigeons infested with lice	infest. rate (%)						%
(1) 1999	Ankara	200	+	?	3492	1-Col. colum.	100	50	2689	77
						2-Gon. biden.*	60	30	803	23
(9) 1973	Ankara	270	58	21.5	841	1-Col. colum.	54	20	591	70.3
						2-Gon. biden.*	30	11.1	249	29.6
						3-Gon. holog.	1	0.37	1	0.12
(9) 1973	İzmir	30	16	53.3	165	1-Col. colum.	8	26.7	115	69.7
						2-Gon. biden.*	12	40	50	30.3
(5) 1963	İstanbul	82	5	6.1		1-Col. colum.	4	4.88	+	?
						2-Gon. biden.*	1	1.22	+	?
(6) 1970	İstanbul		+	?	+	Men. gallinae	+	?	+	?
(8) 1961	?		+	?	+	Men. latum**	+	?	+	?

Abbr. Col.colum.=Columbicola columbae, Gon.biden.=Goniocotes bidentatus, Gon.holog.=Goniocotes hologaster, Men.=Menopen

(+) No of pigeons or no of lice not given, (\*) Syn. Campanulotes bidentatus compar (4), (\*\*) Syn. Hohorstiella lata (4)

**Table 2.** Number of pigeons examined, number of pigeons infested and the infestation rates

District of pigeon houses or roofs	Month	No of pigeons examin.	No of pigeons infested with lice		No of pigeons infested with Col.columbae		No of pigeons infested with Men.gallinae	
			infested with lice	%	infested with	%	infested with	%
Bayrampaşa-1	09 / 2000	16	12	75	12	75	0	0
Bayrampaşa-2	09 / 2000	24	23	95.8	23	95.8	0	0
Yenibosna	11 / 2000	20	15*	75	15*	75	2*	10
Güneşli	11 / 2000	32	30**	93.8	30**	93.8	1**	3.12
Beylikdüzü	02 / 2001	26	26**	100	26**	100	1**	3.85
Total		118	106***	89.8	106***	89.8	4***	3.39

(\*) 2, (\*\*) 1, (\*\*\*) 4 animals infested with both species

Table 3. Number of pigeons examined, number of pigeons infested and the infestation rates

District of pigeon houses or roofs (Month)	Lice species found	No of infested animals	Min- Max no of lice	Total no of lice	%	Intensity of infestation*	No of male lice	No of female lice	Sex ratio (Male: Female)	No of nymph
Bayrampaşa-1 (09 / 2000)	Col.columbae	12	1-6	37	100	3.08	13	24	1:1.85	0
	Men.gallinae	0	0	0	0	-	-	-	-	-
	Men.and/or Col.	12	1-6	37	-	3.08	13	24	-	0
Bayrampaşa-2 (09 / 2000)	Col.columbae	23	1-13	104	100	4.52	53	51	1:0.96	0
	Men.gallinae	0	0	0	0	-	-	-	-	-
	Men.and/or Col.	23	1-13	104	-	4.52	53	51	-	0
Yenibosna (11 / 2000)	Col.columbae	15	1-7	49	45.4	3.27	23	26	1:1.13	0
	Men.gallinae	2	1-58	59	54.6	29.5	24	30	1:1.25	5
	Men.and/or Col.	15	1-59	108	-	7.2	47	56	-	5
Güneşli (11 / 2000)	Col.columbae	30	1-10	108	99.1	3.6	70	38	1:0.54	0
	Men.gallinae	1	1	1	0.91	1	1	0	-	0
	Men.and/or Col.	30	1-10	109	-	3.63	71	38	-	0
Beylikdüzü (02 / 2001)	Col.columbae	26	1-38	195	63.7	7.5	97	98	1:1.01	0
	Men.gallinae	1	111	111	36.3	111	55	37	1:0.67	19
	Men.and/or Col.	26	1-135	306	-	11.8	152	135	-	19
Total	Col.columbae	106	1-38	493	74.2	4.65	256	237	1:0.93	0
	Men.gallinae	4	1-111	171	25.8	42.8	80	67	1:0.84	24
	Men.and/or Col.	106	1-111	664	-	6.26	336	304	-	24

(\*) Intensity of infestation = No of lice / No of infested animals, Abbr. Men.=Menopon gallinae, Col.=Columbicola columbae

## Material ve Methods

In this study, 118 adult domestic pigeons (*Columba livia*) reared in 5 different pigeon houses or roofs in 4 districts of İstanbul were examined for lice between September 2000 and February 2001 (Table 2). Whole bodies of pigeons were inspected and lice on them were taken into 70% alcohol. The identification was done according to the information in the literature (2, 3, 4, 7, 9).

## Results

Two lice species, *Columbicola columbae* (Linnaeus 1758) and *Menopon gallinae* (Linnaeus 1758), were found in this study. *Menopon gallinae* was observed on and/or in the shaft of feathers. The results are given in Table 2 and 3.



Table 3. Number of pigeons examined, number of pigeons infested and the infestation rates

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## Discussion

In the previous studies in Turkey, lice infestation rate in pigeons was reported to be 53.3% in İzmir (9), 21.5% Ankara (9), 6.1% İstanbul (5). The lice species identified and their infestation rates were recorded to be *Columbicola columbae* (26.7%), *Goniocotes bidentatus* (Syn. *Campanulotes bidentatus compar*) (40%) in İzmir (9), *C. columbae* (20%), *G. bidentatus* (11.1%), *Goniocotes hologaster* (0.37%) in Ankara (9), *C. columbae* (50%), *G. bidentatus* (30%) in Ankara (1), *C. columbae* (4.88%), *G. bidentatus* (1.22%) in İstanbul (5), *Menopon gallinae* (Infestation rate not given) in İstanbul (6) and *Menopon latum* (Syn. *Hohorstiella lata*) (Infestation rate not given) in Turkey (8).

In this study, lice infestation rate was found to be 89.8%. Two lice species, *Columbicola columbae* and *Menopon gallinae*, were identified. Their infestation rates were 89.8% and 3.39% respectively. The infestation rate of *C. columbae* was much higher than the rates stated in previous studies (1, 5, 9) in Turkey.

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