
Diversity and infestation rate of mites associated with some birds in upper and lower Egypt

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Abstract

Survey, diversity and infestation rate of mites associated with five wild birds (*Passer domestica niloticus*, *Columba livia*, *Streptopelia Senegalensis aegyptiaca*, *Pycnonotus barbatus* and *Corvus cornix*) were carried out during two successive years in upper and lower Egypt provinces. The obtained data was recorded high numbers house sparrow, *P. domestica niloticus* (77.1%) were attacked by mite species followed by palm dove, *S. Senegalensis aegyptiaca* (75.5); *C. cornix* (70.2%); *C. livia domestica* (64.3%) and *P. barbatus* (61.9%). The total extracted mites was 24 species of 18 genera belonged to 16 family. The parasitic mites *Blattisocius keegani* Fox and *B. tarsalis* Berlese were the most prevalent between examined birds except, *S. Senegalensis aegyptiaca* while, *Dermanyssus gallinae* (DeGeer) was also, recorded on all examined birds except, *P. barbatus*. On the other hand, the mite species, *Myialges falconis* Fain, *M. pici* Fain, *Ornithonyssus sylviarum* (Canestrini & Fanzago), *O. bacoti* (Hirst), *Megninia cubitalis* (Megnin), *Dermoglyphus columbae* (Sugimoto), *Paralges pachenemys* (Megnin), *Harpyrhynchus vercommni* Megnin, *Ornithocheyletia pingus* Smiley, *O. hallae* Smiley, *O. gersoni* Smiley, *Syringophilus minor* (Berlese), *Kleemannia plumose* Oudemans, *Amblyseius swirskii* Athias-Henriot. were fewest prevalence between the examined birds species.

Key words: Parasitic mites, Halawa, Upper Egypt, Wild birds, Survey

Introduction

Egyptian birds attacked by many species of mites which have different relationship tended from accidental association with non-parasitic to ecto- and endo-true parasitism (Nageiba, *et al.* 2001; Zumpt, 1961; Krantz, 1978). Parasitic mites cause economical losses to the domestic bird industry, manifested by poor feeding, reduction in productivity and egg quality, weight loss, transmission of diseases agents and mortality (Arends, 1997 and Nageiba, *et al.* 2001). In addition, the parasitic mites are a threat to wild birds, being agents of various diseases such as otitis, podoknemidokoptiasis, arthritis, lethal body mange, anemia and death (Mattos *et al.*, 1996; Pence *et al.* 1999; Orton 2000 and Nageiba, *et al.* 2001). In the same time, the parasitic mites causing feather loss, feather picking and feather abnormalities (Baker, 1996; Roskopf & Woerpel, 1996; Harper, 1999 and Nageiba, *et al.* 2001)

Despite the high diversity of these mites in the world (several families and 2500 species, (Proctor & Owens, 2000) the data concerning on the mites associated with birds are very rare, especially from tropical regions.

Mites associated with birds were studied for the first time by Baker, (1949) who recorded *Acaropsellina docta* (Berlese) and *Cheletomorpha venustissima* (Koch), *Cheyletia flabellifera* (Mich.) and *Cheyletus eruditus* (Schrank) in large numbers in sparrow nests but less abundant in those of other birds.

Ancient, few literatures on the mites associated with birds were published in Egypt initiated with Wafa & Soliman (1968) they found cheyletid mite *Acaropsella aegyptiaca* (Wafa & Soliman) in bird

nests followed by Mohamad & Rakha (1980) they recorded ten species belonging seven families from suborders, Prostigmata, Mesostigmata and Astigmata inhabiting sparrow nests in Giza governorate. Rakha (1980) surveyed 62 mite species associated with birds in Egypt including 32 genera belonging 14 families of the five superfamilies: Analgoidea, Pterolichoidea, Freyanoidea, Psoroptoidea and Cytoditoidea. Abd-Alla (1993) collected 41 species, belonging to 35 genera, from 24 families belonging to the four suborders: Acaridida, Actinedida, Gamasida and Ixodida inhabiting wild birds., Morsy *et al.* (1999). studied the mite fauna of *Passer domestica niloticus* and *Streptopelia senegalensis aegyptiaca* captured in Sharkia and Qalyobia Governorates. They collected 31 species belonging to 23 genera, 17 families of three suborders.

Recently, only three limited studies were conducted in Egypt *i.e* Nageiba *et al.* (2001) they presence 24 species of mites belonging to 14 families and three suborders (Astigmata, Prostigmata and Mesostigmata) including feather mites of families Dermoglyphidae, Analgidae, Harpyrhynchidae and Syringophilidae, skin mites of families Epidermoptidae, Knemidokoptidae, Laminosioptidae and Cheyletiellidae; and haematophagous mites of family Macronyssidae. Abo-Shnaf *et al.* (2008) they recorded Seventeen mite species of 15 genera belong to ten families from parrots and Peacocks in Giza zoo. Negm *et al.* (2018) they recorded 16 species within 10 families were collected from 22 bird species The most abundant species belonged to the genera *Dermanyssus* Dugès (Dermanyssidae), *Ornithonyssus* Sambon, and *Steatonyssus Kolenati* (both Macronyssidae). Among

various birds examined, the distribution and occurrence of mites were recorded.

Therefore, This study was carried out to detect and survey of mites associated with five common wild birds and their nests (*Passer domesticus niloticus*, *Columba livia*, *Streptopelia Senegalensis aegyptiaca*, *Pycnonotus barbatus* and *Corvus cornix*) in lower Egypt (represented by three provinces, Cairo, AL-Qalubia and EL-Behera) and upper Egypt (represented by three provinces, Bany-Swaif, EL-Fayoum and Sohag).

Materials and Methods

Mite species associated with five common wild birds were surveyed in six Egyptian provinces, three of them from lower Egypt (Cairo, AL-Qalubia and EL-Behera) and other from upper Egypt (Bany-Swaif, EL-Fayoum and Sohag). During two successive years from Jun, 2016 to May, 2018. A total of 865 wild birds and their nests were trapped / collected and examined, these birds were, House Sparrow, *P. domesticus niloticus* (212); Rock Dove, *C. livia* (178); Palm dove, *S. Senegalensis aegyptiaca* (273); Common Bulbul, *P. barbatus* (95) and Hooded crow, *C. cornix* (107). The birds was monitored for making sure from its own nests and applying the model that reported by Mark, et al.(2014) as a methods to confirm the nests type. The body areas of collected birds were individually examined by using a stereomicroscope. Mites were removed by fine hair brush. Nests; feathers and feces were put in modified Tullgren funnels for 24–48 h for mite extraction in petr-dishes including of ethanol 70%. Collected mites were cleared in Nesbitt solution for 20- 30 minutes. Subsequently, mites were mounted on micro- slides in Hoyer's medium and later dried at 40 C° for one week (Zhang, 2003). The main classification works followed in the identification of different mites from the following literature:-:

- 1- Nasr and Abou-Awad, 1986
- 2- Mašgn, 2017
- 3- Di Palma et al., 2012
- 4- Zumpt and Till, 1961
- 5- Radovsky and Yunker, 1963
- 6- Evans and Till, 1979
- 7- Faraji, 2011; Abo-Shnaf and de Moraes, 2016
- 8- Chant and McMurtry, 2007
- 9- Evans, 1957
- 10- Nageiba, et al. 2001

Results and Discussion

A- Infestation rate of examined birds with mites at different provinces in lower and upper Egypt during two successive years:-

1- In Lower Egypt Provinces.

Data in tables (1 & 3) demonstrated that, the house sparrow, *P. domesticus niloticus* was the most birds in terms of infestation rates with mites (77.8 %). The highest infestation range was recorded at EL-Behera province (87.8%) followed by Cairo province (78.1%) and AL-Qalubia (67.7%). Moreover, data in same tables showed that, the wild bird, *S. Senegalensis aegyptiaca* was second most birds in infestation with mites (70.6%) the highest numbers were recorded in Cairo province (74.4%) followed by AL-Qalubia (66.6%) and EL-Behera province (62.2%). On contrast, the *C. livia* was the lowest birds in terms of infestation rate with mites(59.8%), the wide range was recorded in EL-Behera(63.8%) while (53.8%) and (62%) were recorded in Cairo and AL-Qalubia provinces, res. The recorded results in tables(1,3) are also showed that, the birds, *P. barbatus* and *C. cornix* were moderate in their infestation with mites(67.7%) and (66.9%) res. the highest levels were recorded in EL-Behera provive(76.1%) and (70.8%), res.

Table 1. Infestation rate of examined birds with mites in lower Egypt represented by three provinces (Cairo- AL-Qalubia - EL-Behera)

Birds	No. of examined birds and infestation rate in three provinces								
	Cairo			AL-Qalubia			EL-Behera		
	Exam.	Inf.	%	Exam.	Inf.	%	Exam.	Inf.	%
<i>P. domesticus niloticus</i>	32	25	78.1	31	21	67.7	33	29	87.8
<i>C. livia</i>	26	14	53.8	29	18	62	36	23	63.8
<i>S. Senegalensis aegyptiaca</i>	43	32	74.4	51	34	66.6	53	33	62.2
<i>P. barbatus</i>	19	11	57.8	15	9	60.3	21	16	76.1
<i>C. cornix</i>	21	13	61.9	22	15	68.1	24	17	70.8

Exam. = Examined Inf. = Infested

2- In Upper Egypt provinces.

Results in tables (2, 3) recorded wide range of infestation by mites on the Egyptian laughing dove, *S. Senegalensis aegyptiaca* (80.4%), the highest numbers were recorded in EL-Fayoum province(85.2%) followed by Sohag (82.9%) and

Bany-Swaif (73.3%). Meanwhile, 76.5% of examined house sparrow, *P. domesticus niloticus* were infested by mites, 92.1% from them were recorded in EL-Fayoum province while 70% and 67.5 % were recorded in Sohag and Bany-Swaif provinces res. On contrary, few number (56.2%) of examined *P.*

barbatus were infested by mites, most of them were in Bany- Swaif province (70.5%) followed by (55.5%) and (42.8%) in EL-Fayoum and Sohag provinces, res. Moderately numbers of examined birds, *C. cornix* (73.6%) and *C. livia* (68.8%) were attacked by mites, the highest numbers of *Columba livia* (93.1%) were

recorded in Bany-Swaif province and few numbers(48.1%) were recorded in EL-Fayoum province. In addition, the most (81.8%) *C. cornix* infested by mites were recorded in EL-Fayoum province followed by Sohag (77.7%) and (61.5%) in Bany- Swaif.

Table 2. Infestation rate of examined birds with mites in upper Egypt represented by three provinces (Bany-Swaif - EL-Fayoum- Sohag) .

Birds	No. of examined birds and infestation rate in three provinces								
	Bany-Swaif			EL-Fayoum			Sohag		
	Exam.	Inf.	%	Exam.	Inf.	%	Exam.	Inf.	%
<i>P. domestica niloticus</i>	37	25	67.5	38	35	92.1	41	29	70.0
<i>C. livia</i>	29	27	93.1	27	13	48.1	31	11	35.4
<i>S. Senegalensis aegyptiaca</i>	45	33	73.3	34	29	85.2	47	39	82.9
<i>P. barbatus</i>	17	12	70.5	9	5	55.5	14	6	42.8
<i>C. cornix</i>	13	8	61.5	11	9	81.8	9	7	77.7
Exam. = Examined	Inf. = Infested								

Table 3. Infestation rate (%) of examined birds in lower and upper Egypt during two successive years (Jun, 2016 to May, 2018)

Birds	Infestation rates of wild birds with parasitic mites in lower and upper Egypt								General mean
	Lower Egypt provinces				Upper Egypt provinces				
	Cairo	AL-Qalubia	EL-Behera	Mean	Bany-Swaif	EL-Fayoum	Sohag	Mean	
<i>P. domestica niloticus</i>	78.1	67.7	87.8	77.8	67.5	92.1	70.0	76.5	77.1
<i>C. livia</i>	53.8	62	63.8	59.8	93.1	48.1	35.4	68.8	64.3
<i>S. Senegalensis aegyptiaca</i>	74.4	66.6	62.2	70.6%	73.3	85.2	82.9	80.4	75.5
<i>P. barbatus</i>	57.8	60.3	76.1	67.7	70.5	55.5	42.8	56.2	61.9
<i>C. cornix</i>	61.9	68.1	70.8	66.9	61.5	81.8	77.7	73.6	70.2

A- List of mite species collected from five common wild birds (*P. domestica niloticus*; *C. livia* ; *S. Senegalensis aegyptiaca* ; *P. barbatus* ; *C. cornix*) and their distribution in different Egyptian provinces.

A total of 865 birds and their nests were trapped / collected and examined. The total extracted mites was 24 species of 18 genera belonged to 16 family they were:-

Family: Epidermoptidae Trouessart

Genus: *Myialges* Sergent and. Trouessart

This genus have been represented by two species

A- *Myialges falconis* Fain

Host bird / distribution: This species was recorded on feathers and nests of *P. domestica niloticus* at EL-Behera ; Bany-Swaif and Sohag provinces.

B- *M. pici* Fain

Host bird / distribution: The mentioned species was recorded on feathers and nests of *P. domestica niloticus* at Sohag province .

Family: Blattisociidae Garman

Genus: *Blattisocius* Keegan

Two species belonged genus Blattisocius have been recorded they were:

A- *Blattisocius keegani* Fox.

Host bird / distribution:This mite species was recorded on feathers and nests of *C. livia domestica*; *P. domestica niloticus*; *C. cornix* and *P. barbatus* at (EL-Behera, EL-Fayoum , Sohag) ; (AL-Qalubia , EL-Behera, Bany-Swaif , Sohag) ;(AL-Qalubia , EL-Behera) and (Cairo, AL-Qalubia , EL-Behera, EL-Fayoum), Respectively. .

B- *B. Tarsalis* Berlese

Host bird / distribution recorded on *C. cornix*, *P. domestica niloticus*, *C. livia domestica* and *P. barbatus* at (AL-Qalubia , EL-Behera, EL-Fayoum); (Cairo, AL-Qalubia , EL-Behera, EL-Fayoum);(Cairo, EL-Behera) and (Sohag), resp.

Family: Acaridae Latreille

Genus: *Tyrophagus* Oudemans

***Tyrophagus putrescentia* (Schrank)**

Host bird / distribution:- recorded on *C. livia domestica*, *S. Senegalensis aegyptiaca*, *P. barbatus* at (EL-Behera, Bany-Swaif, EL-Fayoum); (EL-Behera, Bany-Swaif) and (EL-Behera) resp.

Family: Dermanyssidae Radovsky

Genus: *Dermanyssus* Dugès

***Dermanyssus gallinae* (DeGeer)**

Host bird / distribution:- recorded on *Passer domestica niloticus*, *C. livia domestica*, *C. cornix*, *S. Senegalensis aegyptiaca* at (Cairo, AL-Qalubia , EL-Behera, EL-Fayoum, Bany-Swaif, Sohag);(Cairo, EL-Behera, EL-Fayoum, Bany-Swai); (EL-Behera, Bany-Swaif) and (AL-Qalubia , EL-Behera, Sohag)resp.

Family: Laelapidae Berlese

Genus :- *Androlaelaps* Berlese

***Androlaelaps casalis* Berlese**

Host bird / distribution:- this species recorded on *S. Senegalensis aegyptiaca*, *P. domestica niloticus* and *C. cornix* at (EL-Behera, EL-Fayoum) ; (Cairo, Bani-Swaif) and (AL-Qalubia, EL-Fayoum, Bany-Swaif, Sohag), resp.

Family:- Macronyssidae Oudemans

This family represented by two genera:-

A- Genus :- *Ornithonyssus* Sambon

Three species belonged to this genus have been recorded

1- *Ornithonyssus bursa* (Berlese)

Host bird / distribution:- recorded on *S. Senegalensis aegyptiaca*, *C. livia domestica*, *P. domestica niloticus* at (Cairo, AL-Qalubia, AL-Fayoum, Sohag); (AL-Qalubia, EL-Behera, EL-Fayoum) and (Cairo, AL-Qalubia, EL-Behera, Bani-Swaif, AL-Fayoum, Sohag) resp.

2- *O. sylviarum* (Canestrini & Fanzago)

Host bird / distribution:- recorded on *C. livia domestica* at EL-Behera

3- *O. bacoti* (Hirst)

Host bird / distribution:- recorded on *P. barbatus* at AL-Qalubia province

B- Genus:- *Steatonyssus* Kolenati

***Steatonyssus longipes* Radovsky & Yunker**

Host bird / distribution:- recorded on *P. domestica niloticus* , *S. Senegalensis aegyptiaca*, *C. livia domestica* at (AL-Qalubia, EL-Behera, Bani-Swaif); (Cairo, AL-Qalubia, EL-Behera, AL-Fayoum, Sohag) and (Cairo, AL-Qalubia, Bani-Swaif, AL-Fayoum, Sohag), resp.

Family: - Analgidae Trouessart & Mégnin

Genus: *Megninia* Berlese

***Megninia cubitalis* (Mégnin)**

Host bird / distribution:- This species recorded on *S. Senegalensis aegyptiaca*, *C. livia domestica* at (AL-Fayoum, Sohag) and (AL-Qalubia, EL-Behera, AL-Fayoum)resp.

Family:- Ascidae Voigts & Oudemans

Genus: *Proctolaelaps* Berlese

***Proctolaelaps pygmaeus* (Muller)**

Host bird / distribution: - recorded on *C. livia domestica*, *S. Senegalensis aegyptiaca* at (AL-Qalubia, EL-Behera, AL-Fayoum) and (AL-Qalubia, Sohag)

Family:- Dermoglyphidae Mégnin & Trouessart

A- Genus:- *Dermoglyphus* Mégnin

***Dermoglyphus columbae* (Sugimoto)**

Host bird / distribution: - This species recorded on *S. Senegalensis aegyptiaca* at Bani-Swaif and Sohag provinces

B- Genus:- *Paralges* Mégnin & Trouessart

***Paralges pachenemys* Mégnin**

Host bird / distribution: - This species recorded on *S. Senegalensis aegyptiaca* at Bani-Swaif province.

Family:- Harpyrhynchidae (Mégnin)

Genus:- *Harpyrhynchus* Mégnin

***Harpyrhynchus vercammi* Mégnin**

Host bird / distribution: - Recorded on *S. Senegalensis aegyptiaca* at AL-Fayoum and Sohag provinces.

Family :- Cheyletidae Leach

Genus:- *Ornithocheyletia* Volgin

1- *Ornithocheyletia lukoschusi* Smiley

Host bird / distribution: -Recorded on *S. Senegalensis aegyptiaca* and *C. livia domestica* at (Sohag) and (AL-Qalubia; Bani-Swaif)resp..

2- *O. pingus* Smiley

Host bird / distribution: - Recorded on *S. Senegalensis aegyptiaca* at AL-Fayoum and Sohag.

3- *O. hallae* Smiley

Host bird / distribution: - Recorded on *S. Senegalensis aegyptiaca* Sohag province.

4- *O. gersoni* Smiley

Host bird / distribution: - Recorded on *S. Senegalensis aegyptiaca* at Sohag province.

Family :- Syringophilidae Lavoipierre

Genus :- *Syringophilus* Heller

***Syringophilus minor* (Berlese)**

Host bird / distribution: - Recorded on *P. domestica niloticus* at AL-Qalubia; EL-Behera and Bani-Swaif province.

Family:- Ameroseidae Evans in Hughs

Genus :- *Kleemannia* Oudemans

***Kleemannia plumosa* Oudemans**

Host bird / distribution: - Recorded on *P. domestica niloticus* at EL-Behera province

Family:- Uropodidae Kramer

Genus :- *Uropoda* Latreille

***Uropoda* Spp.**

Host bird / distribution: - Recorded on *P. domestica niloticus* at AL-Qalubia; EL-Behera and Bani-Swaif provinces

Family:- Phytoseiidae Berlese

Genus :- *Amblyseius* Berlese

***Amblyseius swirskii* Athias-Henriot**

Host bird / distribution: - Recorded on *P. domestica niloticus* at AL-Qalubia; EL-Behera and AL-Fayoum provinces.

Conclusion

Data in table(3) recorded that high numbers of collected house sparrow, *P. domestica niloticus* (77.1%) were attacked by mite species followed by palm dove, *S. Senegalensis aegyptiaca* (75.5); *C. cornix* (70.2%); *C. livia domestica* (64.3%) and *P.*

barbatus (61.9%). In regards with prevalence of collected mites, the data in table (4) showed that, the highest number of mite species were collected from Palm dove, *S. Senegalensis aegyptiaca* (15 species) followed by Hous sparrows, *P. domestica niloticus* (12 species); *C. livia domestica* (9 species); *C. cornix* (4 species) and *P. barbatus* (4 species).

Table 4. List of mite species associated with five wild birds in Upper and lower Egypt during two successive years

Mites		Birds	Governorates		
Family	S.N		Lower Egypt	Upper Egypt	
Blattisociidae	<i>Myialges falconis</i>	<i>P. domesticus niloticus</i>	3	4,6	
		<i>M. pici</i>	-	6	
	<i>Blattisocius keegani</i>	<i>Columba livia domestica</i>	3	5,6	
		<i>P. domesticus niloticus</i> ;	2,3	4,6	
		<i>Corvus cornix</i>	2,3	-	
		<i>Pycnonotus barbatus</i>	1,2,3	5	
		<i>Corvus cornix</i>	2,3	5	
		<i>P. domesticus niloticus</i>	1,2,3	4,5	
	Acaridae	<i>B. tarsalis</i>	<i>C. livia domestica</i>	1	3
			<i>P. barbatus</i>	-	6
<i>C. livia domestica</i>			3	4,5	
<i>Tyrophagus putrescentia</i>			-	3,4	
Dermanyssidae	<i>Dermanyssus gallinae</i>	<i>Streptopelia Senegalensis aegyptiaca</i>	-	3,4	
		<i>P. barbatus</i>	3	-	
		<i>P. domesticus niloticus</i>	1,2,3	4,5,6	
		<i>C. livia domestica</i>	1,3	4,5	
		<i>Corvus cornix</i>	3	4	
Laelapidae	<i>Androlaelaps casalis</i>	<i>S. Senegalensis aegyptiaca</i>	2,3	6	
		<i>S. Senegalensis aegyptiaca</i>	3	5	
		<i>P. domesticus niloticus</i>	1	4	
		<i>C. cornix</i>	2	4,5,6	
		<i>S. Senegalensis aegyptiaca</i>	1,2	5,6	
Macronyssidae	<i>Ornithonyssus bursa</i>	<i>C. livia domestica</i>	2,3	5	
		<i>P. domesticus niloticus</i>	1,2,3	4,5,6	
		<i>C. livia domestica</i>	3	-	
		<i>O. sylviarum</i>	2	-	
		<i>O. bacoti</i>	<i>P. barbatus</i>	2	-
Analgidae	<i>Steatonyssus longipes</i>	<i>P. domesticus niloticus</i>	2,3	4	
		<i>S. senigalensis aegyptiaca</i>	1,2,3	5,6	
		<i>C. livia domestica</i>	1,2	4,5,6	
Ascidae	<i>Megninia cubitalis</i>	<i>S. senigalensis aegyptiaca</i>	-	5,6	
Dermoglyphidae	<i>Proctolaelaps pygmaeus</i>	<i>C. livia domestica</i>	2,3	5	
		<i>S. senigalensis aegyptiacus</i>	2	6	
Harpyrhynchidae	<i>Dermoglyphus columbae</i>	<i>S. senigalensis aegyptiaca</i>	-	4,6	
		<i>Paralges pachenemys</i>	<i>S. senigalensis aegyptiaca</i>	-	6
Cheyletidae	<i>Harpyrhynchus vercommni</i>	<i>S. senigalensis aegyptiaca</i>	-	5,6	
		<i>Ornithocheyletia lukoschusi</i>	<i>S. senigalensis aegyptiaca</i>	-	6
		<i>C. livia domestica</i>	2	4	
		<i>O. pingus</i>	<i>S. senigalensis aegyptiaca</i>	-	5,6
		<i>O. hallae</i>	<i>S. senigalensis aegyptiaca</i>	-	6
Syringophilidae	<i>O. gersoni</i>	<i>S. senigalensis aegyptiaca</i>	-	6	
		<i>Syringophilus minor</i>	<i>P. domesticus niloticus</i>	2,3	4
Ameroseidae	<i>Kleemannia plumosa</i>	<i>P. domesticus niloticus</i>	3	-	
Uropodidae	<i>Uropodida sp.</i>	<i>P. domesticus niloticus</i>	2,3	4	
Phytoseiidae	<i>Amblyseius swirskii</i>	<i>P. domesticus niloticus</i>	2,3	5	

1= Cairo 2= AL-Qalubia 3= EL-Behera 4= Bany-Swaif 5= EL-Fayoum 6= Sohag

Concerning the prevalent of collected mites, *Blattisocius keegani* Fox and *B. tarsalis* Berlese were the most prevalent between examined birds except, *S. Senegalensis aegyptiaca* while, *Dermanyssus gallinae* (DeGeer) recorded also, on all examined birds except, *P. barbatus*. On the other hand, the mite species, *Myialges falconis* Fain, *M. pici* Fain, *Ornithonyssus sylviarum*(Canestrini & Fanzago), *O. bacoti* (Hirst), *Megninia cubitalis*(Megnin), *Dermoglyphus columbae*(Sugimoto), *Paralges pachenemys*(Megnin), *Harpyrhynchus vercommni* Megnin, *Ornithocheyletia pingus* Smiley, *O. hallae* Smiley, *O. gersoni* Smiley , *Syringophilus minor* (Berlese), *Kleemannia plumose* Oudemans, *Amblyseius swirskii* Athias-Henriot. were fewest prevalence between the examined birds species where each have been recorded on one bird species.

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تنوع ومعدل الإصابة بالاكاروسات المرتبطة ببعض الطيور البرية في مصر العليا و الدنيا

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اجريت هذه الدراسة خلال سنتين متتاليتين (2017/2016 - 2018/2017) بهدف دراسة حصر وتوزيع ومعدل اصابة خمسة انواع من الطيور البرية (عصفور النيل الدورى , الحمام الجبلى , اليمام ' البلبل الشائع ' الغراب البلدى) بالاكاروسات . اثبتت النتائج المتحصل عليها ان 77.1% من عصفور النيل الدورى التى تم تجميعها كانت مصابة بالاكاروسات يليها اليمام 75.5 % ثم الغراب البلدى 70.2% وكان الحمام الجبلى والبلبل قد سجل اقل نسبة اصابة بالاكاروسات 64.3% و 61.9% على التوالى كما تم تسجيل 24 نوع اكاروسى من 18 جنس ينتمون الى 16 عائلة اكاروسية وكان اكثر الانواع الاكاروسية انتشارا بين الطيور التى تم دراستها هي *B. tarsalis* Berlese, *Blattisocius keegani* Fox من عائلة Blattisociidae