

INCIDENCE OF SOME WILD BIRDS AT ASSUIT GOVERNORATE

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ABSTRACT

This article deals with the incidence of some wild birds at Assiut and their suburbs during 2003 & 2004. Twenty seven bird species belonging to 9 orders and 21 families were recorded from different habitat in the old land at Assiut, while at the new reclaimed area only seventeen bird species belonging to 7 orders and 14 families were observed. The statistical analysis of data showed insignificant positive correlation between the density of birds versus temperature during 2003 and 2004 ($r=0.374$ and $t=339$). On the other side, the relative humidity also showed insignificant negative correlation with the population density of birds during the two years of study ($r=-0.202$ and -0.052).

INTRODUCTION

Many bird species have become closely associated with man and his own activities. This association may merely consist of using man-made structures for perching or even nesting. At the another extreme, his crops may be utilized as food.

In addition, birds may be incriminated in transmitting the causative agents of plant diseases such as viruses, bacteria and fungi. On the other hand, they may be considered as natural enemies to Reptiles, Redontia, and Arthropods

MATERIALS AND METHODS

This studies were achieved throughout two years started from Nov., 2002 to Oct., 2004 under field conditions of two different ecosystems at Assiut district. The first was the Newly reclaimed land of Mankabad district. The second was the old lands representing farm of the Faculty of Agriculture AL - Azhar University at Assiut Governorate. In each type, the trails had been conducted at six different habitats representing different environmental and ecological areas at Assiut district. These habitat could be discussed in detail as follows:

Areas of study:

The studied areas in both old and newly reclaimed lands were about 130 feddans. These area was cultivated with some field crops (Sorghum, Maize, Sunflower, Sesame., Wheat, Clover and Sugar beet).

Twenty five feddans of the faculty of Agricultural farm and newly reclaimed land were chosen. They were cultivated with some deciduous and evergreen fruit trees. These were, Neck, Apple, Grape, Fig, Apricot, Date palm and ornamental trees (*Ficus* sp, Poinciana, Bauhinia, Acacia and ornamental shrubs.

Water canal :

The water canal was located at the middle of the experimental field. The borders of this canal was cultivated with different trees.

- Incidence and identification of the recorded birds:

Identification of the birds was done using illustrated keys by Sibley and Monroe 1990 under review of the Checklist Committee of the American Ornithologists Union (A. O. U.) .

The resident beneficial birds as well as harmful birds were surveyed in both newly reclaimed and old lands .According to Redinger and Libay (1979)method. a cultivated plot equivalent of two feddans was taken in each location. The identification and count of bird species was achieved by using field glass used for this purpose which give clear sighted vision of the whole plot. This work has been repeated twice daily, the first one was at sunrise and the second at sunset during one hour daily and six successive days monthly.

RESULTS AND DISCUSSION

Field trials has conducted in order to determine the incidence of the resident and migratory birds at Assiut district in relation to climatic factors.

Incidence and identification of the observed birds :

Incidence of resident and migratory bird species were run in the old and newly reclaimed lands at Assiut district during two successive years 2002-2004.

-1- In old lands :

A-Resident birds occurred in old area :

During the year of study (2003-2004) 21 resident bird species belonging to 21 genera and 17 families of 8 orders were recorded in the old land (table 1) . All collected species were existed all round the year.

-According to their orders, resident birds could be sorted as follows :

- 1- Nine species belonging to order Passeriformes, these species were; House sparrow *Passer domesticus niloticus*, Hooded crow *Corvus corone cornix*, Swallow *Hirundo rustica savignii*, Fantailed warbler *Cisticola juncidis* , Crested lark *Galerida cristata*, Nile valley sunbird *Nectarinia metallica* , Sand martin *Riparia riparia*, Desert wheater *Oenanthe deserti deserti* and White vented bulbul, *Pycnonotus barabtus arsine*.
- 2- Three species belonging to order Coraciformes, these species were Hoopoe *Upupa epops epops*, little green bee *Merops orientalis clepatra* and Pied kingfisher *Ceryle rudis rudis*.
- 3- Two species belonging to order Columbiformes, these species were Palm dove *Streptopelia senegalensis egyptica* , and Roke dove *Columba livia shimari*
- 4- Two species belonging to order Accipitres, these species were Kestrel ; *Falco tinnunculucs* and Black winged kite *Elanus coeruleus*.
- 5- Two species belonging to order Charadriiformes these species were Spur winged plover *Hoplopterus spinosus* and Senegal stone curlew *Burhinus senegalensis*.
- 6- One species belonging to order Ciconiiformes, this species was Cattle egret *Ardeola ibis ibis* .

- 7- One species belonging to order Gruiformes, this species was Moorhen *Gallinula chloropus chloropus*
- 8- One species belonging to order Strigiformes, this specie was Barn owi *Tyto alba alba*.

Table (1) : Incidence of some wild bird species in old land at Assiut district during 2003- 2004.

Common name	Order	Family	Scientific name	R.or M.
1-House sparrow	Passeriformes	Passeridae	<i>Passer domesticus niloticus</i>	(+)
2-Hooded Crow	Passeriformes	Corvidae	<i>Corvus corone cornix</i>	(+)
3- Swallow	Passeriformes	Hirundidae	<i>Hirundo rustica savignii</i>	(+)
4-Fantailed Warbler	Passeriformes	Muscicapidae	<i>Cisticola juncidis</i>	(+)
5-Crested lark	Passeriformes	Alaudidae	<i>Galerida cristata</i>	(+)
6-Nile Valley Sunbird	Passeriformes	Nectarinidae	<i>Nectarinia metallica</i>	(+)
7-Sand martin	Passeriformes	Hirundidae	<i>Riparia riparia</i>	(+)
8-Desert Wheatear	Passeriformes	Muscicapidae	<i>Oenanthe deserti deserti</i>	(+)
9- White Vented	<i>Bulbul</i> Passeriformes	<i>Brachypodidae</i>	<i>Pycnonotus barbatus arsinoe</i>	(+)
10-White wagtail	Passeriformes	Motacillidae	<i>Motacilla alba alba</i>	(-)
11-Black headed wagtail	Passeriformes	Motacillidae	<i>Motacilla flava</i>	(-)
12-Blue throat	Passeriformes	Muscicapidae <i>svecica</i>	<i>Luscinia svecica</i>	(-)
13-Chiffchaff	Passeriformes	Sylviidae	<i>Phylloscopus collybita</i>	(-)
14-Hoopoe	Coracuformes	Upupidae	<i>Upupa epops epopes</i>	(+)
15-Little green bee	Coracuformes	Miropidae	<i>Merops orientalis clepatra</i>	(+)
16 -Pied Kingfisher	Coracuformes	Cerylidae	<i>Ceryle rudis rudis</i>	(+)
17-Palm dove	Columbiformes	Columbidae	<i>Streptopelia senegalensis egy</i>	(+)
18- Rock dove	Columbiformes	Columbidae	<i>Columba livia schimari</i>	(+)
19- Kestrl	Accipitres	Acciptridae	<i>Falco tinnunculus</i>	(+)
20-Black Winged kite	Accipitres	Acciptridae	<i>Elanus coeruleus</i>	(+)
21-Spur Winged Plover	Charadrufomes	Charadriidae	<i>Hoplopterus spinosus</i>	(+)
22-Senegal stone curlew	Charadrufomes	Burhinid	<i>Burhinus negalensis</i>	(+)
23-Jack Snipe	Charadrufomes	Phalaropidae	<i>Lymnocyptes minima</i>	(-)
24-Cattle Egret	Ciconiformes	Ardidae	<i>Ardeola ibis ibis</i>	(+)
25-Moorhen	Gruiformes	Rallidae	<i>Gallinula chloropus lorop</i>	(+)
26-Quail	Galliformes	Phasianidae	<i>Coturnix coturnix coturnix</i>	(-)
27-Barn Owi	Strigiformes	Strigidae	<i>Tyto alba alba</i>	(+)

(+) = (R..21) = Resident wild birds
 (-) = (M..6) = Migratory wild birds

b Migratory birds occurred in old area :

Data in Table (1) show recorded the migratory bird species in old land at Assiut district 6 species belonging to 5 genera and 5 families of 3 orders.

- According to their orders migratory birds could be sorted as follow :

- 1- Four species belonging to order Passeriformes, these species were White wagtail *Motacilla alba alba*, Black headed wagtail *Motacilla flava*, Bule throat *Luscinia svecica svecica* and Chiffchaff *Phylloscopus collybita*.
- 2- One species belonging to order Galliformes, this species was Quail *Coturnix coturnix coturnix*.
- 3- One species belonging to order Charadriiformes, this species was Jack snipe *Lymnocyptes minima*.

2-In newly reclaimed lands:

A Resident wild birds occurred in the newly reclaimed land:

Data in Table (2) showed the occurrence of resident birds in the newly reclaimed land in Assiut district. This work proved to the presence of 14 species belonging to 14 genera, and 12 families of 7 orders. All surveyed bird species were equally excited all the year round

According to their orders resident birds could be sorted as follow :

- 1- Five species belonging to order Passeriformes, these species were ; House sparrow *Passer domesticus niloticus*, Hooded crow *Corvus corone cornix*, Swallow *Hirundo rustica savignii*, Fantailed warbler *Cisticola juncidis*, and Crested lark *Galerida cristata*.
- 2- Two species belonging to order Columbiformes, these species were Palm dove *Streptopelia senegalensis egyptica*, and Roke dove *Columba livia shimari*.
- 3- Two species belonging to order Accipitres, these species were Kestrel *Falco tinnunculus* and Black winged kite *Elanus coeruleus*.
- 4- Two species belonging to order Ciconiiformes, these species were Hoopoe *Upupa epops epops* and Little green bee *Merops orientalis cleatra*.
- 5- One species belonging to order Gruiformes, this species was : Cattle egret *Ardeola ibis ibis*.
- 6- One species belonging to order Charadriiformes, this species was Spur winged plover *Hoplopterus spinosus*.
- 7- One species belonging to order Strigiformes, this species was Little owl *Athene noctua gloux*.

B Migratory birds occurred in the newly reclaimed land :

Data in Table (2) showed the recorded migratory wild bird species in newly reclaimed lands at Assiut district. This work proved to the occurrence of 3 species belonging to two genera, two families and one order

All migratory bird species were belonged to the order Passeriformes. These species were White wagtail *Motacilla alba alba*, Black headed wagtail *Motacilla flava* and Chiffchaff *Phylloscopus collybita*.

The results of the present surveillance study are supported by certain authors, Peter *et al.*, (1980) recorded the house crow, *Corvus splendens* outside its natural range, this species has been recorded since 1976 in Ismailiya, Suez, Ras Gharib and Safaga. The same results were also obtained by Bijlsma (1983), Hume (1985), Hovel (1987) and Goodman *et al.* (1989). On the other hand, Essa (1993) surveyed the following species from Nubaria region; Cattle egret, *Egretta ibis*, Great gray shrike, *Lanius excubitor*,

:White wagtail, *Motacilla alba*, Black headed gull. *Larus ridibundus*, House sparrow, *Passer domesticus niloticus*, Starling, *Sturns vulgaris* and Crested lark, *Galereda cristata*. In addition to the surveillance shoding of Khattab (1993), Wilson (1993), EL-Deeb *et al* (1995), Tolba (1999) and Soliman (1999) gave crednnces to the present study. Esteban (2001), EL-Danasory (2002) and Aziz and Ilhami (2003) recorded six bird species from the urban parks ground/rock, *Motacilla alba*. Tree ground, *Phylloscopus bonelli*, ground ground, *Galereda cristata*, *Erithacus rubecula*, bush bush, *Troglodytes Troglodytes* and *Sylvia melanocephala*. wholly in agreement with the worke here.

Table (2) :Incidence of some wild bird species in newly reclaimed land at Assiut district during 2003 -2004.

Common name	Order	Family	Scientific name	R.or M.
1-House sparrow	Passeriformes	Passeridae	<i>Passer domesticus niloticus</i>	(+)
2-Hooded Crow	Passeriformes	Corvidae	<i>Corvus corone cornix</i>	(+)
3-Swallow	Passeriformes	Hirundidae	<i>Hirundo rustica savignii</i>	(+)
4-Fantailed Warbler	Passeriformes	Muscicapidae	<i>Cisticola juncidis</i>	(+)
5-Crested lark	Passeriformes	Alaudidae	<i>Galerida cristata</i>	(+)
6-White wagtail	Passeriformes	Motacillidae	<i>Motacilla alba alba</i>	(-)
7-Black headed wagtail	Passeriformes	Motacillidae	<i>Motacilla flava</i>	(-)
8-Chiffchaff	Passeriformes	Sylviidae	<i>Phylloscopus collybita</i>	(-)
9-Palm dove	Columbiformes	Columbidae	<i>Streptopelia senegalensis egypti</i>	(+)
10-Rock dove	Columbiformes	Columbidae	<i>Columba livia schimari</i>	(+)
11-Kestrl	Accipitres	Acciptridae	<i>Falco tinnunculus</i>	(+)
12-Black Winged kite	Accipitres	Acciptridae	<i>Elanus coeruleus</i>	(+)
13-Hoopoe	Coracuiformes	Upupidae	<i>Upupa epops epops</i>	(+)
14-Little green bee	Coracuiformes	Miopidae	<i>Merops orientalis clepatra</i>	(+)
15-Cattle Egret	Ciconiformes	Ardidae	<i>Ardeola ibis ibis</i>	(+)
16-Spur Winged Plover	Charadruiformes	Charadriidae	<i>Hoplopterus spinosus</i>	(+)
17-Little Owl	Strigiformes	Strigidae	<i>Athene noctua glaux</i>	(+)

(+) = (R.14) = Resident wild birds

(-) = (M.3) = Migratory wild birds

2--Effect of temperature and relative humidity on bird population:

Data in Tables (3 & 4) . Show the effect of temperature and relative humidity on the population density of birds .Statistical analysis of data showed insignificant positive correlation between the population density of birds and temperature during 2003 - 2004, ($r = + 0.374$ and $+0.339$).

Table (3): Effect the temperature and relative humidity on birds species in Assiut district during 2003.

	Population	Temperature	Humidity
Population	--	0.374	- 0.202
Temperature		--	- 0.780 **
Humidity			--

Table (4): Effect the temperature and relative humidity on birds species in Assiut district during 2004.

	Population	Temperature	Humidity
Population	--	0.339	- 0.052
Temperature		--	- 0.798 **
Humidity			--

Also, insignificant negative correlation was found between the relative humidity and population of birds during 2003 and 2004 ($r = - 0.202$ & $- 0.052$). Hence , it might be observed that the temperature and relative humidity were not considered as a deterring factors of birds density .

REFERENCES

- Aziz, A. and Ilhami , K. (2003). A study on the Ornitho, fauna of Sakaryabasi / Eminekin pond and its vicinity. Turk – J. 2001. Vol. 27. PP. 19 – 26.
- Bijlsma, R.G. (1983). The migration of raptors near Suez, Egypt autumn 1981. Sandgrause, 5, 19 – 44.
- El – Danasoury, M.A. (2002). Ecological and biological studies on some harmful birds for plants at Minoufia Govern orate. M. SC. Thesis Faculty of Agric. Al-Azhar Univ..PP. 141.
- El – Deeb, H. I.? Metwally, A.M.? Abdel – Aal, S. and Khattab, M.M. (1995). Ecological and biological studies on some wild birds at Sharkia Governorate - Al – Azhar. J. Agric., Res., Vol. 21. PP. 425 – 438.
- Essa, N. H. (1993). Ecological and Toxicological studies on harmful and useful birds in Egyptian crops Ph. D. Thesis Institute. of Environmental. Studies and Research Ain Shams Univ. Egypt.
- Esteban, F.J. (2001). Avian spatial segregation at edges and interiors of urban parks in Madrid, Spain. Biodiversity and conservation ,10 : 1303 – 1316.
- Goodman, S.M.; Meininger, P.L.; Bahaa El – Dine, S.M.; Hoobs, J.J. and Mullie, W.C. (1989). The birds of Egypt. Univ. Oxf., New York.
- Hovel, H. (1987). Chick lick list of the birds of Israel. Society for the Protection of Nature in Israel, Tel Aviv.
- Hume, R. (1985). Swan Hellincil RSPB Nile cruise 25 September, - 11 October 1985, Ornithological report Royal Society for the protection of birds sandy.
- Khattab, M.M. (1993). Biological, ecological and toxicological studies on harmful birds of agricultural land of Sharkia Governorate. M.Sc. Thesis, Fac. Agric., Al – Azhar Univ. PP.199.
- Peter, L.M.; Wim, C.M. and Bertel, B. (1980). The spread of the house crow, *Corvus splendens*, with special reference to the occurrence in Egypt le gerfout de givervalk 70 : 245 – 250.
- Redinger, R.F. and Libay, S.L. (1979). Perches courted with glue reduce bird damage in rice field plots. Eighth Proceeding of bird control, seminar, Bowling green, Ohio, Nov. PP. 201 – 206.
- Sibley, C.C. and Monoroe, L.B. (1990). Distribution and taxonomy of birds of the world. New haven Yale University press. PP. 34-38.

- Soliman, A.M.A. (1999). Eco – Biological studies on some wild bird species at Kafr El – Sheikh Governorate with special reference to some Arthropods. Ph.D. Thesis. Fac. Agric., Zagazig Univ. PP.203.
- Tolba, E.M.T. (1999). Some ecological aspects on house sparrow attacking various crops in Assiut Governorate. M. Sc. Thesis faculty of Agric., Assiut Univ. pp.105.
- Wilson, B.M. (1993). Integrated approaches for population management of harmful birds in agricultural areas of Egypt. Ph. D. Thesis. Institute of environmental studies and research, Ain Shams University, Egypt.

حصر بعض الطيور البرية في محافظة أسيوط

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بالرغم من الأضرار التي تسببها الطيور للزراعات المختلفة إلا أنها تشكل جزء هام من الحياة البيئية حيث تعمل على التوازن البيئي في الطبيعة . وفيما يلي أهم النقاط التي تناولها البحث خلال الدراسات البيئية التي أجريت على بعض أنواع تلك الطيور في الأماكن المختلفة داخل منطقة أسيوط بجنوب مصر .

- 1- حصر وتسجيل بعض أنواع الطيور المقيمة والمهاجرة في كل من الأراضي القديمة الاستزراع واقتصرت الدراسة على المناطق الزراعية التابعة لمركز البحوث الزراعية بكلية الزراعة جامعة الأزهر بأسيوط والأراضي المستصلحة حديثا في أسيوط وشملت منطقة منقباد (مدينة الفاتح) .
- 2- تقدير الكثافة العددية لبعض أنواع الطيور السائدة في المنطقة محل الدراسة ، مع تسجيل بعض من العوامل الجوية مثل الحرارة والرطوبة النسبية و أثرها على التعداد العام لأنواع تلك الطيور وذلك لمدة عامين متتاليين ابتداء من شهر نوفمبر ٢٠٠٢م حتى أكتوبر ٢٠٠٤م .

أظهرت النتائج ما يلي

(أ) في الأراضي القديمة : تم تسجيل ٢٨ نوع من الطيور البرية تابعة للرتب التالية:

أولا الطيور المقيمة:-

أسفرت النتائج عن تسجيل ٩ أنواع من الطيور المقيمة تابعة لرتبة العصفوريات في المنطقة محل الدراسة وهي تعد من أكثر رتب الطيور انتشارا منها كذلك بعض أنواع من الرتب التالية:- رتبة الحماميات , رتبة اللققيات , رتبة الضوضيات , رتبة الصقريات , رتبة القطقاطيات , رتبة الكركيات , رتبة البوميات ,

ثانيا : الطيور المهاجرة:

بعض أنواع من رتبة العصفوريات ,رتبة القطقاطيات , رتبة الدجاجيات

(ب) في الأراضي حديثة الاستصلاح : تم تسجيل ١٧ نوع من الطيور البرية تابعة للرتب والعائلات المختلفة منها الطيور المقيمة ومنها المهاجرة :-

أظهرت النتائج عن تسجيل (٥) أنواع تابعة لرتبة العصفوريات مقيمة في المنطقة محل الدراسة وكذلك بعض أنواع تابعة للرتب التالية: رتبة الحماميات ورتبة اللققيات , رتبة الضوضيات , رتبة الصقريات , رتبة القطقاطيات , رتبة البوميات .

أثر العوامل الجوية :

يوجد ارتباط موجب غير معنوي بين كل من الكثافة العددية ودرجة الحرارة . كذلك يوجد ارتباط سالب معنوي بين الكثافة العددية للطيور والرطوبة النسبية.