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Survey of migratory ducks in West Hammar marsh

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Abstract

Survey of migratory ducks was conducted during winter 2005/2006 and 2006/2007 season in West Hammar marsh. The ducks surveyed belonged to Anatidae family and divided to eight surface – feeding ducks species (mallard; gadwall; teal; gargany; wigeon; pintail; shoveler and marbled teal). Four species were diving ducks (tuffted duck; Pochard; ferruginous duck and red crested Pochard). One species of shelduks (Shelduck *Tadorna tadorn*a) and one species of gees (grayleg goose *Anser anse*r).

In first winter 2005/2006 twelve species of ducks were recorded while in the second winter 2006/2007 eleven species were detected. During the two successive winters of survey indicates existence 14 species of Anseriformes. This study recorded two species not recorded in the previous survey.

Wigeon (*Anas Penelope*) was appeared more abundant in the two winters, followed by gadwall (*A. strepera*). In general the number of birds individuals recorded in winter 2006/2007 was less than that recovered in winter 2005/2006.

Key word: Iraqi marshes, Migratory ducks, waterfowls

1-Introduction

Hammar marsh and the surrounding marshes comprise one of the most important areas for waterfowl in the Middle East, both in term of number of birds and diversity of species (Evans, 1994). The intensive reed beds provide breeding locations for a wide variety of resident species, while in winter the marshes (Huwayzah and Hammar) attract huge numbers of migratory waterfowl. (Scott, 1995).

Birdlife International has identified the Mesopotamia marshes as an "Endemic Bird Area" i.e. an important concentration of bird biodiversity where habitat destruction would cause disproportionately large number of species extinctions (ICBP, 1992), and have been identified as "Important Bird Areas" (Evans, 1994).

Several surveys were executed on water birds in some marshes of Iraq, during the seventies of the last century (Georg and Vielliard, 1970; Koning and Dijksen, 1973: Carp, 1975; Scott and Carp, 1982 and Scott, 1995). Salem (1995) and Al-Robaae and Salem (1996) surveyed three sites in Basrah and Razzaza lake for ducks during 1993-1994 migratory seasons .Recently Abed (2008) surveyed water birds in three southern Iraqi marshes.

The migratory ducks and other waterfowl were played an important economic role as an important edible meat and eggs to the marsh people and local people, where as many species of Anseriformes and many other species were sold in local market.

2- Description of study Area

West Hammar in Suq Shuyukh (locally called Abu salabeekh), which was closer to Ebadah distric in Hammar marsh was chosen to survey the migratory ducks, (N 30 49. 343, E 46 49. 767), which was about eight km from Al wineas (Suq Shuyukh), Site coordinate was obtained using a global positioning system (GPS) unit. In this area many aquatic plants were separates mainly *Thypha domengenensis*, *Phragmites austeralis*, *Schoenoplectus litoralis*, *Potamogeton crispes*, *P .pectinatus*, *Ceratophyllum demersum*, *Myriophyllum verticalltum* and *Vallisneria spiralis*. Water level in the first winter was 120-130 cm, while in the second winter was 95-105 cm. Survey was done on monthly basis for two winters, Dec. 2005 - March 2006 and Dec. 2006 – March 2007.

3- Material and methods

Survey of different species was recorded on monthly basis by using a portable binocular and telescope to count the ducks. Identification of water birds was done according to Allouse (1960 and 1961) and Portet *et. al* (1996).

4- Results

Migratory ducks were surveyed for two seasons during winter migratory to Iraqi marshes. The ducks surveyed belonged to Anatidae family. Eight species were surface – feeding ducks (mallard *Anas platyrhynchos*; gadwall *A. strepera*; teal *A. crecca*; gargany *A. querquedula*; wigeon *A. penelope*; pintail *A.acuta*; shoveler *A. clypeat*a and marbled teal *Marmonetta angustirostri*s. Four species were diving ducks (tuffted duck *Aythya fuligula*; Pochard A. *ferina*; ferruginous duck *A. nyroca* and red crested Pochard *Netta rufina*). One species of shelduks (Shelduck *Tadorna tadorn*a) and one species of gees (grayleg goose *Anser anse*r). Fig (1) showed twelve species. The more abundant species were wigeon, gadwall, pintail and shoveler .The peaks number were recorded in January 2006. Fig.(2) illustrated the abundance of migratory ducks during second winter, It was evident that eleven species were encountered, wigeon , tufted ducks, gadwall and shoveler were more abundant whereas mallard ranked first in January 2007. Shellduck was observed in January o7 only.

Fig.(3) exhibited number of individuals were seen. First winter showed higher number except December 05, and the peak was seen in January 06, the reason may be due to decrease of water level in the second winter.

Other waterfowls seen in the marsh were gulls and terns, three species of gulls and four species of terns fig.(4), the more abundance species were slender billed gull and whiskered tern. In general, the first winter was more abundance.

Fig.(5) showed seven species of Ciconiiformes, five species of which were detected in the two periods, great white heron was appeared in the first winter and night heron in the second period in highly abundance.

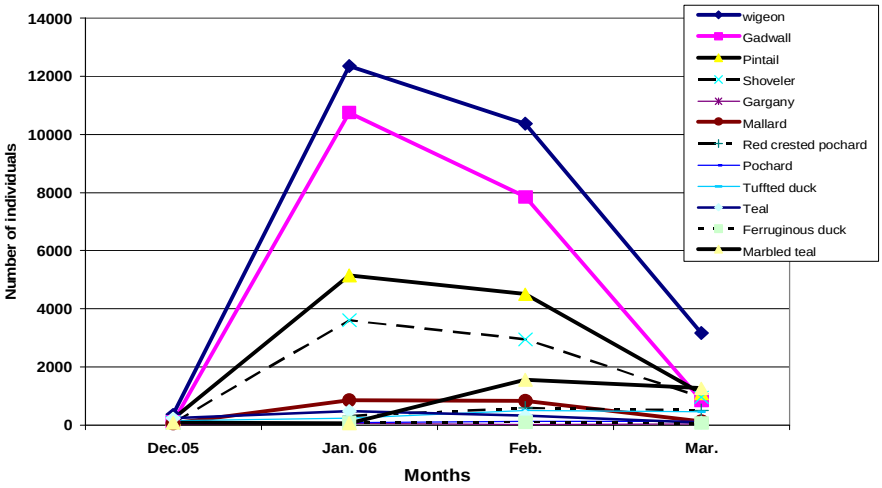

Fig.(1): Number of duck species recorded during first winter

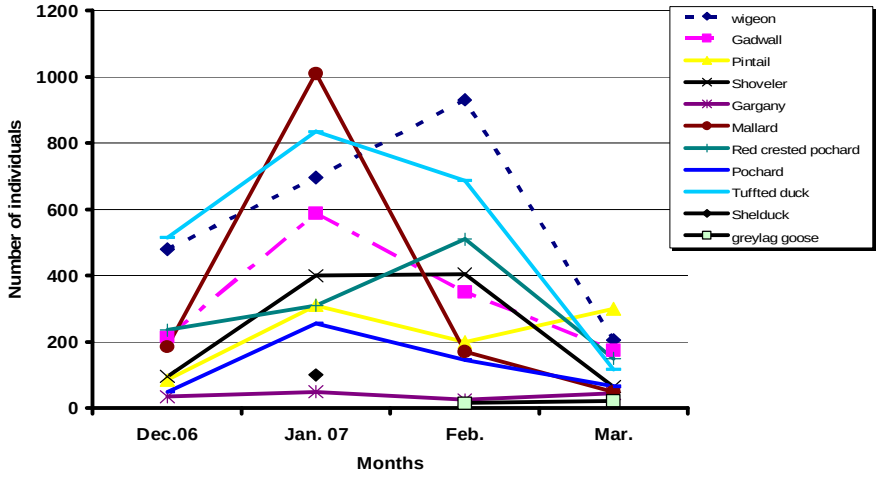

Fig.(2): Number of duck species recorded during second winter.

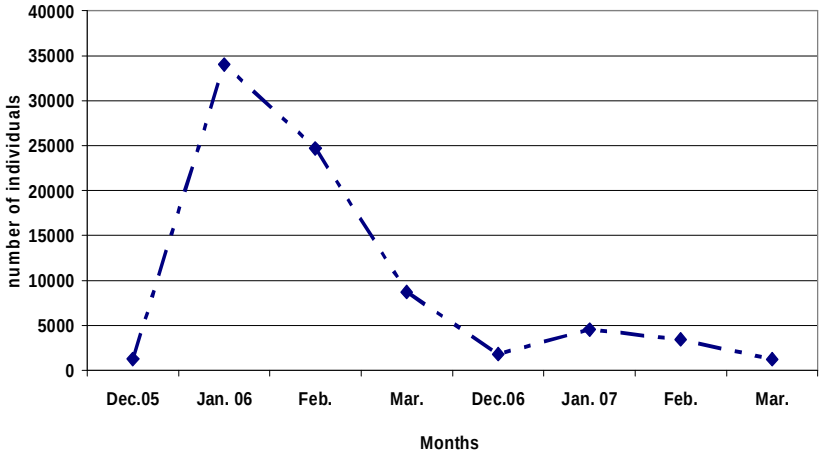

Fig.(3): Variation species of ducks recorded on monthly basis during the survey period.

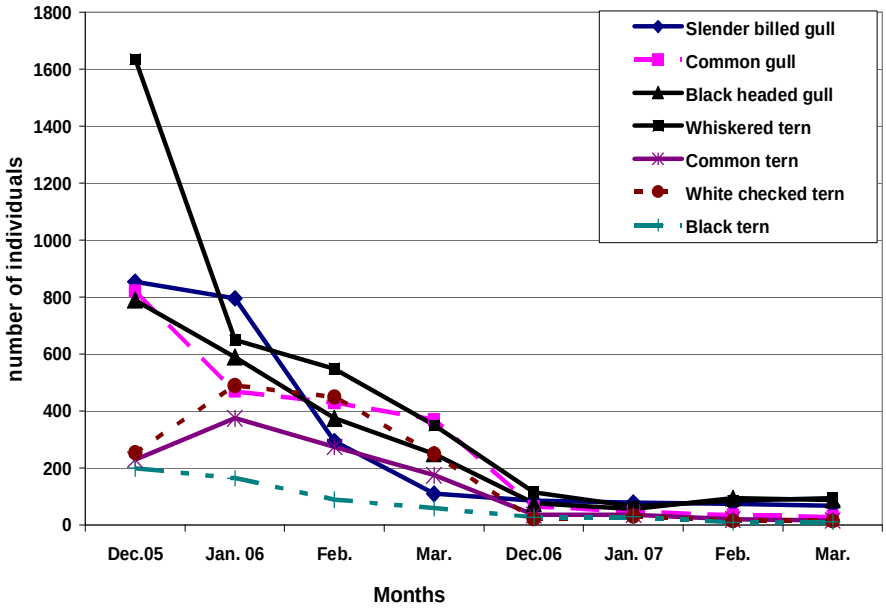

Fig.(4): Number of gulls and terns recorded durnig the survey.

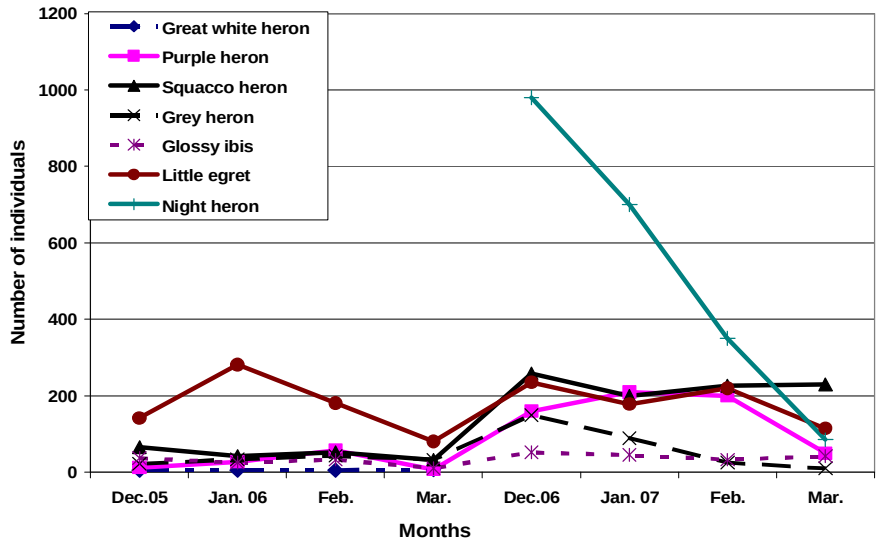

Fig.(5): Number of ciconiiformes seen in the marsh.

5- Discussion

During two successive winters of survey, fourteen species of Anseriformes were detected. Allouse (1960) listed 26 species belong to Anseriformes recorded from Iraqi marshlands. Previous surveys of migratory ducks in Iraqi marshes executed during the seventies of the last century indicate occurrence of 19 species of Anseriformes in variation localities of Iraqi marshlands (Georg and Vielliard, 1970; Koning and Dijksen, 1973; Carp, 1975; Scott, 1995), and recently Abed (2007, 2008) was recorded 12 and 14 species of Anseriformes in Huwayzah, East Hammar and Suq Shuyukh marshes.

Two species (ferruginous duck and the resident species marbled teal) were recorded in our survey not noticed in previous studies (Georg and Vielliard, 1970; Koning and Dijksen, 1973; Carp, 1975; Scott, 1995). On the other hand seven species were appeared in pervious surveys and not found in the recent work, namely white-headed duck *Oxyura leucocephala*, bewick's swan *Cygnus columbianus*, white-fronted goose *Anser albifrons*, lesser white-fronted goose *Anser erythropus*, smew *Mergus albellus*, ruddy shelduck *Tadorna ferruginea* and scup *Aythya marila*, disappear once of these species might be due to different localities of surveys and differ in some conditions of the habitats (like decline of water level). Salem (1995) recorded 15 species of Anseriformes, of them two species (goldeneye *Bucephala clangula* and whooper swan *Cygnus cygnus Cygnus*) were not recorded in the previous surveys were. From the above data we can conclude that during all surveys 23 species of Anseriformes were recorded in the Iraqi marshlands.

Wigeon exhibited higher numbers compared to others and occupied the first position among the different species of ducks during the two winters of survey. Peak (12350) was detected in January 2006. However previous surveys indicated that wigeon formed 3361, 4620 and 6000 individuals (Georg and Vielliard, 1970; Koning and Dijksen, 1973 and Carp,1975 respectively). However, Salem (1995) found less number compared to previous surveys. Wigeon was more abundance in current survey than the previous works.

Gadwall ranked second in the first winter and tuffted duck in the second winter, while shoveler, mallard, pintail and tufted duck occupied second rank in previous surveys (Georg and Vielliard, 1970; Koning and Dijksen,1973; Carp, 1975 and Scott, 1995) respectively (table 1). On the other hand, tufted duck and gadwall ere not found by Georg and Vielliard (1970) and Carp (1975). Other species of ducks were recorded in fewer numbers in the different previous surveys.

It is evident that number of birds' individuals varied among the different surveys.

However during seventies of the last century teal was more abundant (Georg and Vielliard, 1970; Koning and Dijksen, 1973; Scott, 1995), Whereas Scott and carp (1982) noticed tufted duck more abundant than other species. Therefore the structure of ducks population was different through the different surveys.

Total numbers of individuals in current survey was 68723 and 11044 for first and second winter respectively. Number in second winter were low due to decrease of water level. Total numbers in the previous surveys were 26693, 129593, 49389, 145749 and 148487 individuals (Georg and Vielliard, 1970; Koning and Dijksen, 1973; Carp, 1975; Scott and carp, 1982; Scott, 1995 respectively). Current survey recorded less number of individuals.

In general the marsh retains its job to attracted birds mainly in species more than in individuals.

Table (1): More abundant duck species recorded in previous studies.

Species ducks	Georg and Vielliard (1970)	Koning and Dijksen (1973)	Carp (1975)	Scott (1995)
Teal	9167	63150	2135	59660
Shoveler	5571	2217	120	2030
Mallard	3574	15220	873	12300
Pintail	309	13760	3051	12200
Tufted duck	-	6800	50	42280
Wigeon	3361	4620	6000	6000
Gadwall	20	110	-	10830

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مسح لطيور البط المهاجرة في هور غرب الحمار

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الملخص

تضمنت الدراسة مسحا لطيور البط المهاجرة إلى أهوار جنوب العراق (غرب الحمار) خلال شتاء عامي 2006/2005 و2007/2006،يعود البط إلى عائلة الوز Anatidae ويقسم إلى: ثمانية أنواع من البط غير الغواصة وهي (الخضيري والجوشمة والحذف الشتوي والحذف الصيفي والمصوه وأبو زلة وأبومجرف و الحذف المعرق). أربعة أنواع من البط الغواص (ابوخصلة والحمراوي والبط ابيض العين والحمراوي المقنزع) ونوع واحد من الشهرمان (البط المطوق *Tudorna tudorna*) ونوع واحد من الوز (الوز الأربد *Anser anse*).

بينت نتائج المسح تواجد 12 نوعاً من طيور البط خلال شتاء 2006/2005 بينما سجل تواجد احد عشر نوعاً من طيور البط خلال شتاء 2007/2006، وخلال المسح لشتاءين متتالين تبين تواجد أربعة عشر نوعاً من طيور البط،، وسجلت الدراسة نوعين لم يسجلا في الدراسات السابقة.

ظهر طير المصوه (*Anas Penelope*) أكثر أنواع البط وفرة خلال فترة المسح لعامي 2006/2005 و2007/2006 يليه طير الجوشمة (*A. strepera*)، كانت أعداد الطيور خلال شتاء 2007/2006 اقل من تلك المسجلة خلال شتاء2006/2005. قورنت النتائج مع المسوحات السابقة ونوقشت أسباب التذبذب في الأعداد والأنواع.