

Wild Birds Monitoring For Avian Influenza in the United Arab Emirates

Technical Report II



January 2006



هيئة البيئة - أبو ظبي
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Wild Birds Monitoring For Avian Influenza in the United Arab Emirates

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Contents

1. Introduction

2. Objectives

3. Survey sites

4. Methods

4.1 Site coordinate generation

4.2 Data collection and analysis

5. Results

Part I - Abu Dhabi Emirate

A) 5.1 December 2005

5.1.1 Disease surveillance

5.1.2 Number of species and number of birds recorded

5.1.3 Species Occurrence and abundance

B) 5.2 January 2006

5.2.1 Disease surveillance

5.2.2 Number of species and number of birds recorded

5.2.3 Species Occurrence and abundance

Part II – Northern Emirates

A) 5.3 November 2005

5.3.1 Disease surveillance

5.3.2 Number of species and number of birds recorded

5.3.3 Species Occurrence and abundance

B) 5.4 January 2006

5.4.1 Disease surveillance

5.4.2 Number of species and number of birds recorded

5.4.3 Species Occurrence and abundance

6. Conclusion

Summary

- As part of the National Bird Monitoring Plan for Avian Influenza in the United Arab Emirates, wild bird surveys were continued in the emirate of Abu Dhabi and Northern Emirates.
- No large-scale mortality or sickness was observed in the wild birds during the monitoring of all key sites in Abu Dhabi as well as Northern Emirates.
- Only one dead bird, a female Mallard was collected from Khor Al Jazeera in Ras Al Khaimah and it tested negative for avian influenza.
- In Abu Dhabi Emirate 16 sites were surveyed during December 2005 that included 15 coastal sites and one inland wetland site. During January 2006, six sites were monitored including the inland wetland site
- In Dubai and the Northern Emirates 13 sites were surveyed during November 2005 and 10 sites were surveyed during January 2006. These included four sites on the east coast (facing the Arabian Sea). Six of these sites were creeks or *Khors*.
- In December 2005, 25414 birds belonging to 72 species and 25 families were recorded from Abu Dhabi emirate and during January 2006 survey 10,171 birds belonging to 67 species were recorded.
- As many as 11966 birds belonging to 66 species and 28 families were recorded in Dubai and the northern emirates during November 2005 while during January 2006, 15787 birds belonging to 72 species were recorded.
- Al Wathba in Abu Dhabi had the highest number of species and birds, Ras Al Khor had the highest number of species and birds in the Dubai and northern emirates in November 2005 and during January 2006 Khor Kalba had the highest number of species while Khor Al Jazeera recorded the highest number of birds.
- All the congregation sites and other survey sites were potentially safe as there are no domestic ducks and poultry in the near vicinity to contract the disease.

I. INTRODUCTION

In response to the threat posed by the Avian Influenza outbreaks in many countries, particularly South-east Asian countries and more recently in Turkey and Saudi Arabia, A National Avian Influenza Action Plan was developed by UAE under the National Emergency Committee on Avian Influenza. Under the plan, various sub-plans such as monitoring of wild birds were also prepared. The National Bird Monitoring Plan (NBMP) prepared by the Environment Agency Abu Dhabi (EAD) identified wild bird monitoring at key sites through out the United Arab Emirates as a regular activity. The NBMP identified around 57 key sites throughout the country for regular monitoring. Wild bird monitoring is conducted by staff of Environment Agency – Abu Dhabi, and is also supported by large network of bird watchers from the Emirates Bird Record Committee (EBRC). Reports of previous monitoring have already been presented before. This report summarise results of monitoring conducted between November-December 2005 and January 2006

As per the protocols laid out in the NBMP, monthly wild bird surveys of the designated key sites have to be undertaken. This report covers results of the surveys conducted in the emirate of Abu Dhabi during December 2005 (Part I) and the Northern Emirates (Part II A) during November 2005 and (Part II B) during January 2006.

2. OBJECTIVES

The main objectives of the bird monitoring surveys are to

- monitor all key sites identified as important for wild birds, particularly migratory waterbirds in the UAE
- Search for sick or dying or any large-scale mortality in wild birds
- Identify potential sites with chances of interaction between migratory birds and domestic poultry or private collections.

3. SURVEY SITES

At the commencement of the exercise of monitoring sites for migratory birds and waterfowl 57 sites were identified to be monitored on a regular basis. These included

40 sites in the Abu Dhabi Emirate and 17 sites in Dubai and Northern Emirates. This includes all key coastal sites, important islands, and inland wetlands, some of them are Important Bird Areas (IBA;s).

In Abu Dhabi emirate during December 2005, a total of 16 sites, this included 15 coastal sites and one inland wetland site (Fig. 1). Out of the two sites on the east of the Abu Dhabi Island, only one was surveyed and the other (Al Raha beach) had lot of disturbance due to the construction at that site. One of the sites, East Corniche is in the island of Abu Dhabi while as the rest are on the west of the island. During January 2006, we could monitor only six sites out of the 16 sites surveyed in previous months.

In Dubai and the Northern Emirates we surveyed 13 sites during the November 2005 monitoring while 10 sites were covered during January 2006. This included six creeks or *Khor*. Two of these sites Ras Al Khor and Khor Al Beidah are designated Important Bird Areas. Four sites on the eastern coast of the country were also covered (Fig 2). Sites surveyed in Ajman, Umm Al Quwain and Ras Al Khaimah corresponded with the known congregation sites for migratory waterbirds. Sites on the East Coast are witnessing large scale changes due to construction and alterations along the beach. Among the east coast



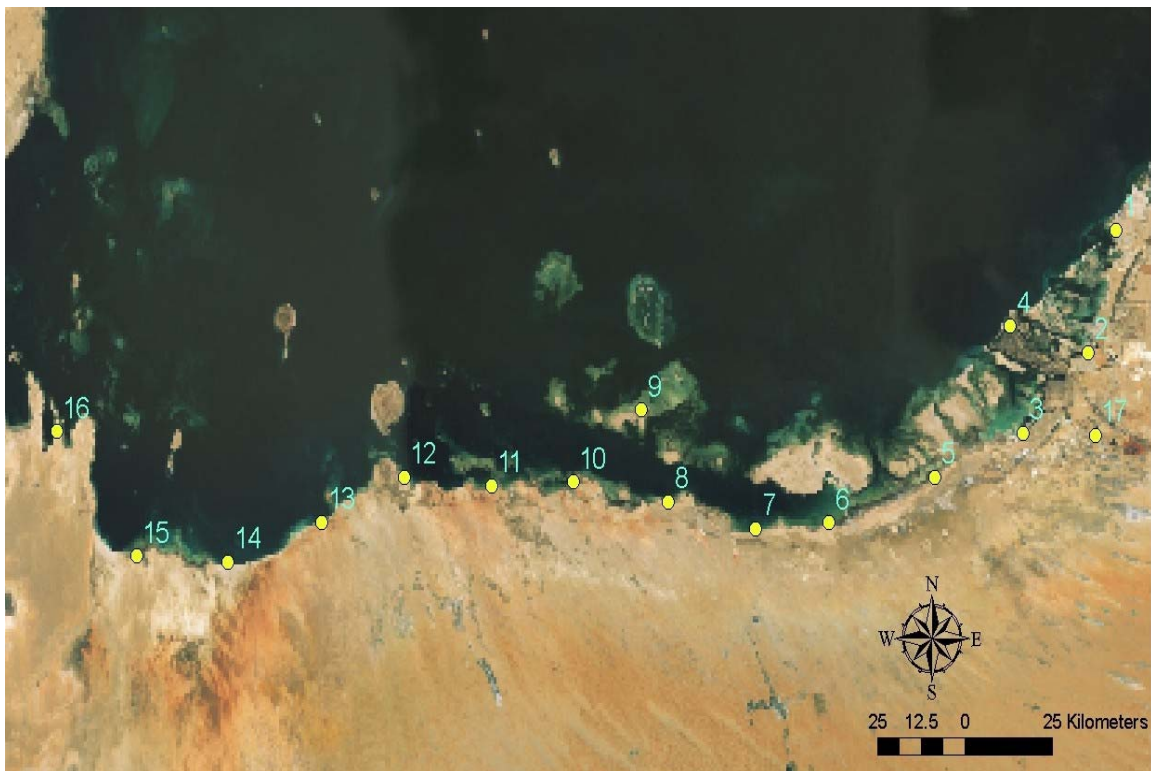
sites, only Khor Kalba has significant number of wild birds, including the endemic sub-species of White-collared Kingfisher (*Halcyon chloris*).

4. METHODS

4.1 Site coordinate generation

On a map of the United Arab Emirates, 25 km grids were placed on the coastline in an ARC GIS environment. Survey sites along the coast were created randomly at the centre of this 25 km square grid near the high tide line by putting a point and generating its coordinates. These coordinates were uploaded into Garmin eTrex Vista GPS units to aid in reaching the designated point.

Fig. 1 Survey sites for Bird Flu monitoring in Abu Dhabi Emirate



4.2 Data collection and analysis

On reaching the survey point we recorded birds on standard pre designed data sheets that are compatible with the format used for EAD Environmental Database. The information collected was the species, number of birds, their age and sex (if possible),

health, habitat, activity and any other remarks. Birds near this point were also recorded if that required moving away from the point. Data was entered into the environmental database and some preliminary analyses were performed. This data was exported to excel to perform some more analysis and compilation and to create graphs.

5. RESULTS

Part I – Abu Dhabi Emirate

A) 5.1 December 2005

5.1.1 Disease surveillance

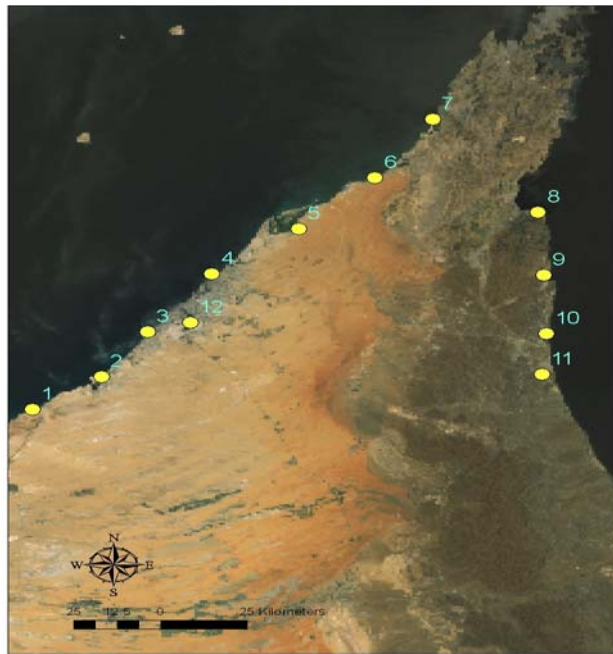
During this monitoring we did not encounter any dead or diseased birds at any of the sites that were visited.

5.1.2 Number of species and number of birds recorded

A remarkable **25414 birds** belonging to **72 species** and **25 families** were recorded. The highest number of species was recorded in Al Wathba (37), Abu Al Abyad (30), Gerain Al Aish (25) and Taweelah (25). The number of species recorded at each site is given in Fig. 3. Bird species list recorded during this survey is presented in Appendix I.

In terms of the number of birds recorded from the survey sites, the highest number of birds (5993) was also recorded from Al Wathba followed by sites in Sila (3225), Gerain Al Aish (2770) and Al Dabb'iya (2614). The number of birds recorded from the survey sites is shown in Fig. 4.

Fig. 2 Survey sites for Bird Flu Monitoring in Dubai and Northern emirates



5.1.3 Species occurrence and abundance

More than 30 species (32) were recorded from one site only and 31 species were recorded from less than ten survey sites, while only nine species were recorded from 10 or more than 10 sites. Kentish Plover *Charadrius alexandrinus* was recorded from the maximum number of 14 sites, followed by Redshank *Tringa totanus* that was recorded from 13 sites (Table I).

Fig. 3 Number of species recorded from survey sites

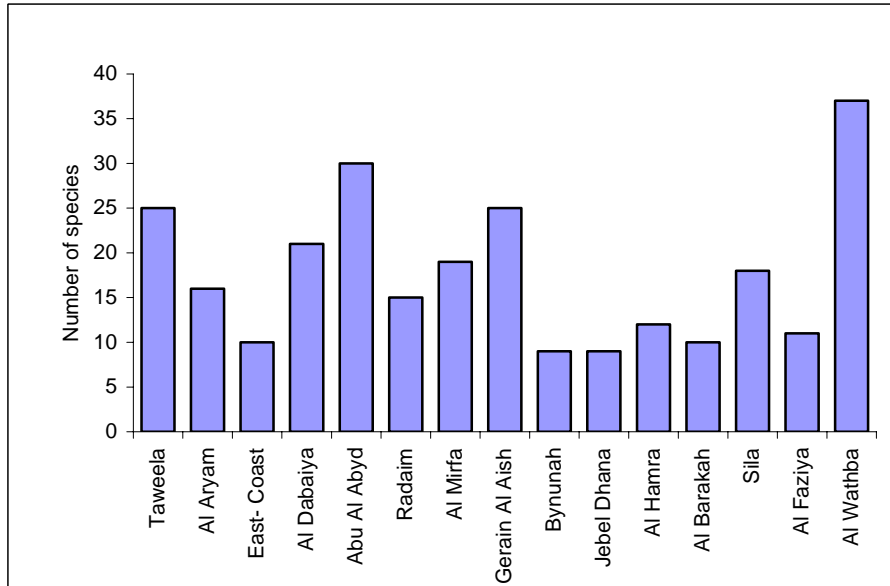


Fig. 4 Number of birds recorded from the survey sites monitored during the survey

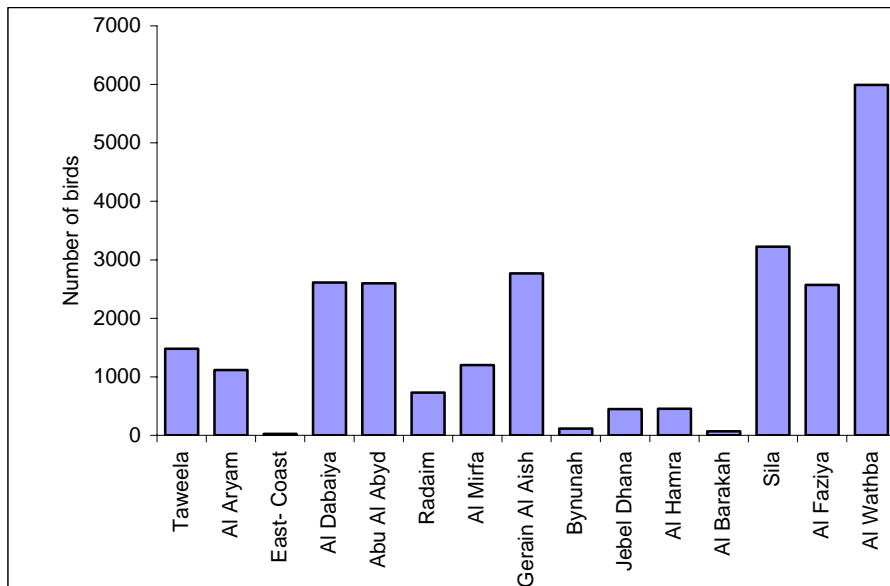


Table 1 Species recorded from more than five survey sites

Species	No. of sites recorded
Greater Flamingo	7
Ringed Plover	7
Greenshank	7
Sanderling	8
Little Stint	8
Terek Sandpiper	8
Oystercatcher	9
Bar-tailed Godwit	10
Curlew	10
Greater Sand Plover	11
Turnstone	11
Western Reef Heron	12
Grey Plover	12
Dunlin	12
Redshank	13
Kentish Plover	14

During this survey 22 species recorded one to five birds and 25 species recorded five to hundred birds. 21 species recorded 100 to 1000 birds and only four species recorded 1000 to 5000 birds. One species, Dunlin *Chalidris alpina* was the most abundant species with 6446 individuals being recorded followed by Unknown Gull *Larus Spp.*(4883). These could not be identified as they most often are far from the shore on mudflats, resting which makes their identification very difficult. These were followed by Kentish Plover and we recorded 2605 individuals. Little Grebe and Purple Heron were the least abundant and only one individual was recorded. Table 2 provides information about some of the species and the numbers recorded.

Table 2 Abundance of some of the species recorded during the survey (n > 500)

Species	No. recorded during the survey
Slender-billed Gull	605
Saunders's Little Tern	630
Redshank	638
Greater Flamingo	738
Little Stint	840
Unknown Wader	847
Shoveler	1004

Kentish Plover	2605
Unknown Gull	4883
Dunlin	6446

B) January 2006

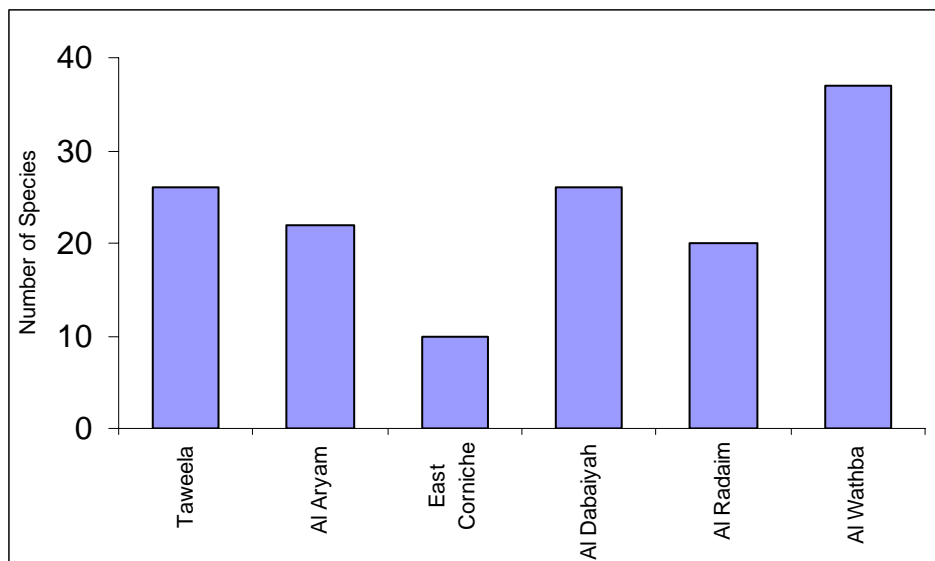
5.2.1 Disease surveillance

During this survey we did not come across any sick or dead bird. Apart from recording birds from the survey points we tried to observe birds in regard to their health along the coast or at sites of congregation.

5.2.2 Number of species and number of birds recorded

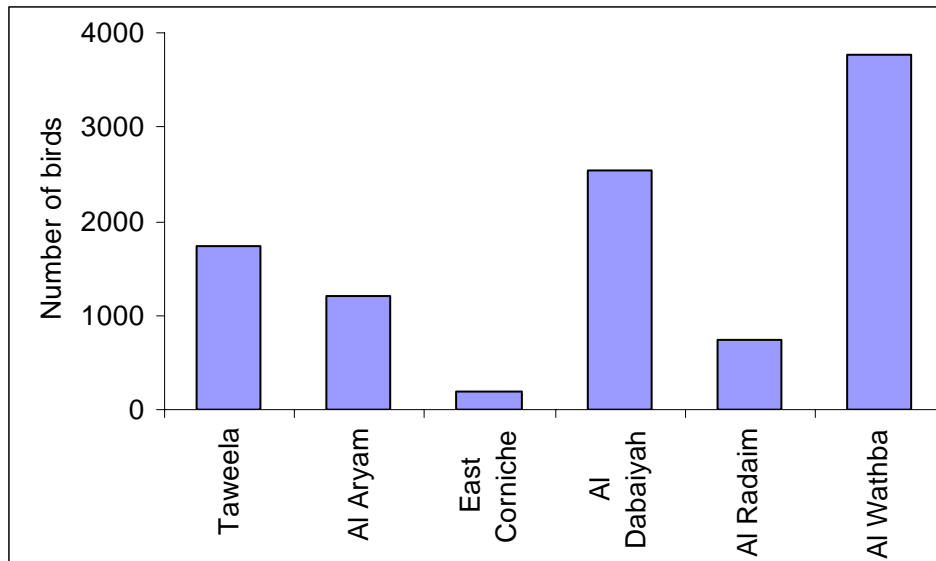
During this survey more than **10,000 birds** (10,171) were recorded belonging to **67 species** and **25 families** were recorded. The highest number of birds was recorded from Al Wathba (37) followed by Al Taweelah and Al Dabaiya where 26 species each were recorded (Fig. 5). The lowest number of species was recorded from the Eastern Corniche in Abu Dhabi.

Fig. 5 Number of species recorded from the survey sites during January 2006 in Abu Dhabi Emirate



The highest number of birds was recorded at Al Wathba (3764) and Al Dabaiya (2533) whereas the lowest number of birds was recorded from East Corniche where only 197 birds were counted (Fig. 6).

Fig. 6 Number of birds recorded from the survey sites in Abu Dhabi during January 2006



5.2.3 Species Occurrence and abundance

More than 30 species (32) were recorded from one site only and 29 species were recorded from two to five sites while only six species were recorded from five or more than five species (Table 3). Redshank *Tringa tetanus* was recorded from all the sites surveyed.

Table 3 Species recorded from more than three sites in Abu Dhabi Emirate during January 2006

Species	Number of sites reported from
Lesser Black-backed Gull	4
Grey Plover	4
Curlew	4
Slender-billed Gull	4
Curlew Sandpiper	4
Bar-tailed Godwit	4
Greenshank	5
Western Reef Heron	5
Kentish Plover	5
Dunlin	5
Little Stint	5
Redshank	6

About 25 species (24) recorded less than five individuals, 26 species had five to 100 individuals, 11 species had 100 to 500 individuals, four species had 500 to 1000 individuals and only two species had more than 1000 individuals. Socotra Cormorant *Phalacrocorax nigrogularis* was the most abundant species with 2000 individuals followed by Little Stint with 1381 individuals (Table 4).

Table 4 Abundance of some of the species recorded in Abu Dhabi Emirate during January 2006

Species	No. recorded during the survey
Slender-billed Gull	305
Kentish Plover	383
Curlew Sandpiper	421
Bar-tailed Godwit	457
Unknown Wader	461
Shoveler	564
Greater Flamingo	624
Mallard	668
Dunlin	972
Little Stint	1381
Socotra Cormorant	2000

Part II – Northern Emirates

A) 5.2 November 2005

5.2.1 Disease surveillance

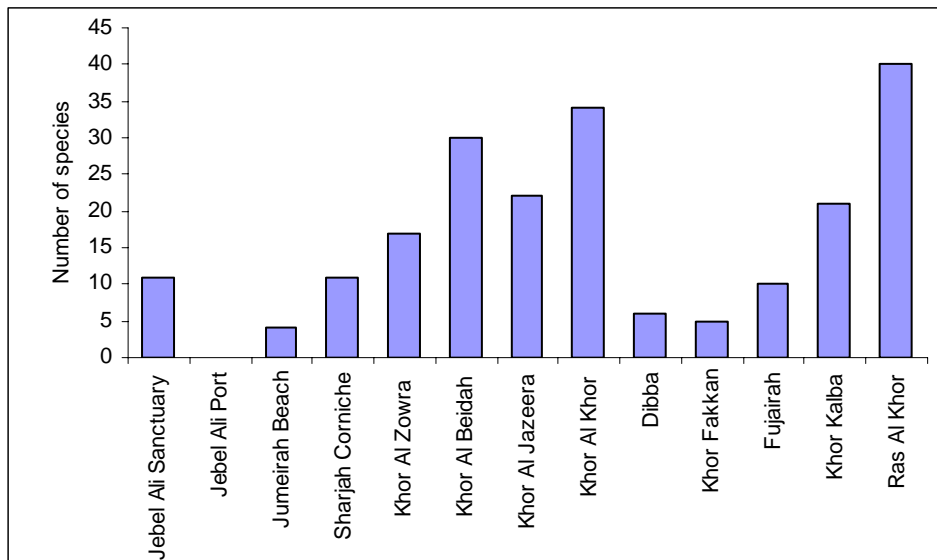
During this survey one dead female Mallard *Anus platyrhynchos* was collected at Khor Al Jazeera in Ras Al Khaimah. An on the spot rapid test resulted negative for Avian influenza and a detailed test in the laboratory was also resulted negative.

5.2.2 Number of species and number of birds recorded

Nearly **12000 (11966) birds** belonging to **66 species** and **28 families** were recorded during the survey.

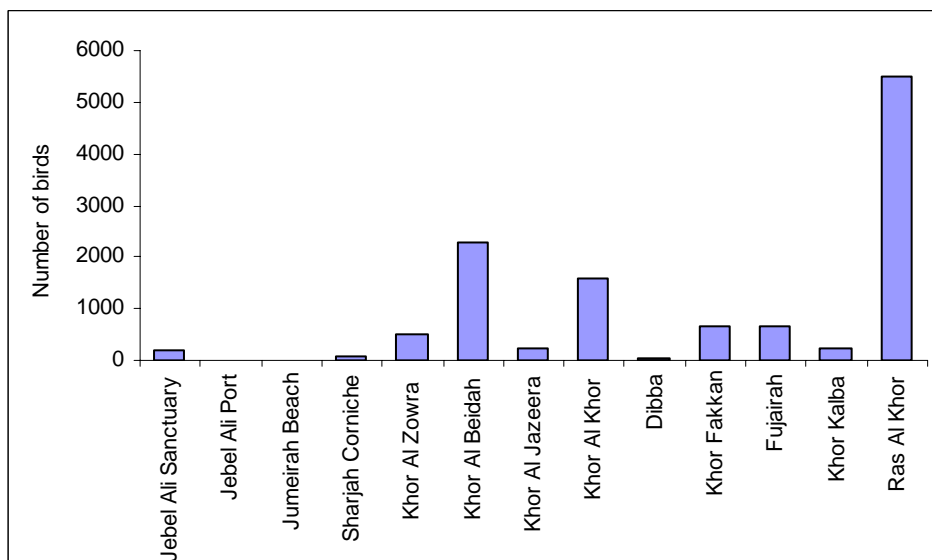
The highest number of species was recorded at Ras Al Khor (40), Khor Al Khor (34), Khor Al Beidah (30) and Khor Al Jazeera (22). Figure 7 shows the number of species recorded during the survey. Bird species list recorded during this survey is given in Appendix II.

Fig. 7 Number of species recorded from the



The highest numbers of birds were recorded at Ras Al Khor (5511), Khor Al Beidah (2287) and Khor Al Khor (1579). Figure 8 shows the number of birds recorded during the survey.

Fig. 8 Number of birds recorded from the survey sites monitored in Dubai and the Northern Emirates



5.2.3 Species occurrence and abundance

Nearly 50 species (49) were recorded from less than five sites, out of which 27 species were recorded from one site only. Only 17 species were recorded from five or more than five sites. We recorded Kentish Plovers from the maximum number of 11 sites, followed by Unknown Gull and Western Reef heron *Egretta gularis* which were recorded from nine sites each and Little Stint *Calidris minuta* and Grey Plover *Pluvialis squatarola* which were recorded from eight sites each (Table 5).

Table 5 Species recorded from more than five survey sites

Species	No. of sites reported from
Greater Sand Plover	6
Dunlin	6
Redshank	6
Marsh Sandpiper	6
Grey Heron	7
Whimbrel	7
Common Sandpiper	7
Crested Lark	7
Grey Plover	8
Little Stint	8
Western Reef Heron	9
Unknown Gull	9
Kentish Plover	11

More than 30 species (33) had less than 20 individuals and 22 species had 20 to 200 individuals, seven species had 200 to 1000 individuals and only four species had more than 1000 individuals. During this survey Dunlin was the most abundant species with 1876 individuals followed by 1785 Kentish Plovers, 1711 Little Stint and 1198 Greater Flamingo *Phoenicopterus ruber* (Table 6).

Table 6 Abundance of some of the species recorded during the survey (n > 200)

Species	No. recorded during the survey
Grey Plover	222
Western Reef Heron	361
Common Sandpiper	420
Unknown Wader	450
Terek Sandpiper	478
Unknown Gull	736

Lesser Black-backed (Baltic) Gull	922
Greater Flamingo	1198
Little Stint	1711
Kentish Plover	1765
Dunlin	1876

B) January 2006

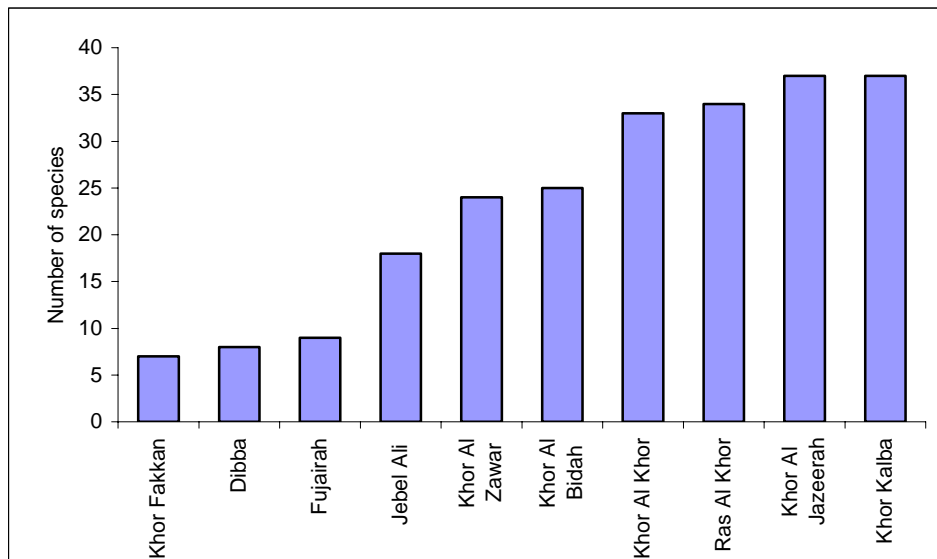
5.3.1 Disease Surveillance

No sick or dead bird was seen during this period. No large-scale mortality was also observed.

5.3.2 Number of species and number of birds recorded

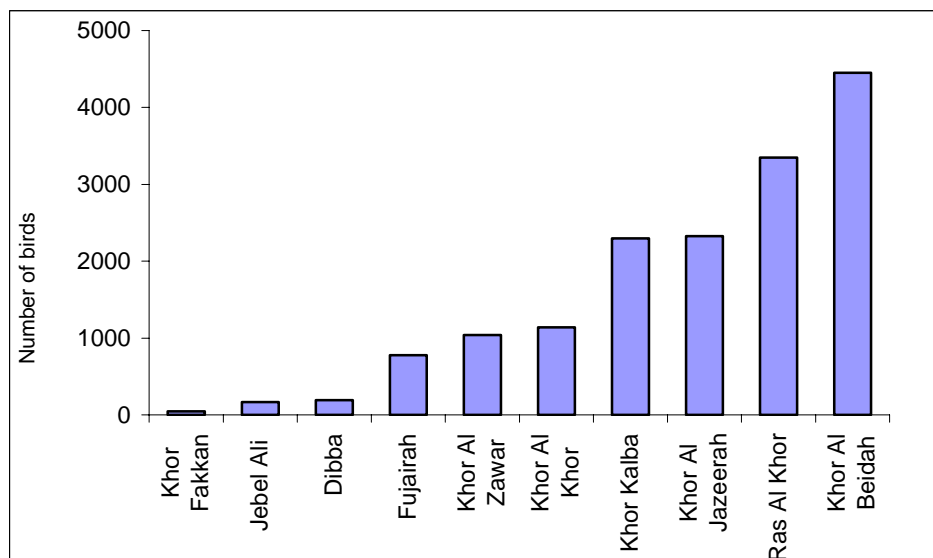
During the survey more than **15000 birds** (15785) birds belonging to **72 species** and **24 families** were recorded. The highest number of species was recorded in Khor Kalba and Khor Al Jazeera (37 species each) followed by Ras Al Khor where 34 species were recorded. The number of species recorded at each site is given in Fig 9.

Fig 9 Number of species recorded during the survey of Northern Emirates



The highest number of birds (4450) was recorded from Khor al Beidah followed by 3347 from Ras Al Khor and 2326 from Khor Al Jazeera. The number of birds recorded from the survey sites is shown in Fig10.

Fig 10 Number of birds recorded from survey sites during the survey



5.3.3 Species Occurrence and abundance

Out of the 72 species recorded, 28 species were recorded from one site only. 18 species were recorded from less than five sites and only 24 species were recorded from five or more than five sites. The species recorded from more than five sites are given in Table 7.

Table 7 Species recorded from more than five sites

Species	No. of sites recorded from
Oystercatcher	6
Ringed Plover	6
Little Stint	6
Curlew	6
Greenshank	6
Gull-billed Tern	6
Unknown Gull	6
Grey Heron	7
Greater Sand Plover	7
Grey Plover	7
Dunlin	7
Western Reef Heron	8
Kentish Plover	8
Redshank	8

Nearly 30 species recorded less than 10 individuals during the monitoring, 18 species had 10 to 100 individuals recorded and 20 species had 100 to a 1000 birds while only four species were recorded that had more than 1000 birds. The Highest numbers of birds recorded were the gulls. We recorded 2241 Black Headed Gulls *Larus ridibundus* and 1975 Unknown Gulls followed by Dunlin (1536). The species which were recorded in numbers of more than 500 are given in Table 8.

Table 8 Abundance of some of the species (n >500)

Species	Number recorded during the survey
Little Stint	521
Sooty Gull	662
Bar-tailed Godwit	721
Unknown Wader	762
Kentish Plover	803
Greater Flamingo	895
Grey Plover	960
Redshank	1045
Dunlin	1536
Unknown Gull	1925
Black-headed Gull	2241

6. Conclusion

Surveys and site monitoring were undertaken at designated survey sites some of which were also the known congregation sites for winter and passage migrant wader and other waterfowl. The main focus during these surveys was to look for any sick or dead birds that may be infected with avian influenza virus. During these surveys no large scale deaths or sickness were seen throughout the country, although more than 40,000 birds were recorded.

Revisits to the sites in Abu Dhabi that were last surveyed in October had shown some welcome changes based on the suggestions. Places that were considered to be “probable” flash points due to the presence of large number of wandering domesticated waterfowl like Gerain Al Aish gave a very clean look with all the domesticated birds housed in closed pens away from the coastline, thus minimising any possibility of

contracting the disease. There are still some areas like Taweelah and adjoining Shaleela which need similar changes.

Dubai and the Northern Emirates have certain traditionally important congregation sites particularly the *Khors* that receive a considerable number of migrants during winter. No signs of any kind of sickness were found in the birds at these places. As most of the birds in these areas concentrate in the *Khors*, we can be sure that most of the birds have been monitored and not many of them were missed. Many of these sites do not have local populations living very near to them and there are almost no domestic poultry and ducks nearby which reduces up to some extent.

Considering the risks of this disease, monitoring will be continued at all these key sites routinely.

Appendix II Species recorded from Bird Flu Survey Sites in the Emirate of Abu Dhabi during December 2005

S.No	Species	Scientific Name	Family
1	Little Grebe	<i>Tachybaptus ruficollis</i>	Podicipedidae
2	Socotra Cormorant	<i>Phalacrocorax nigrogularis</i>	Phalacrocoracidae
3	Cattle Egret	<i>Bubulcus ibis</i>	Ardeidae
4	Western Reef Heron	<i>Egretta gularis</i>	Ardeidae
5	Grey Heron	<i>Ardea cinerea</i>	Ardeidae
6	Purple Heron	<i>Ardea purpurea</i>	Ardeidae
7	Greater Flamingo	<i>Phoenicopterus ruber</i>	Phoenicopteridae
8	Greylag Geese	<i>Anser anser</i>	Anatidae
9	Egyptian Geese	<i>Alopochen aegyptiacus</i>	Anatidae
10	Wigeon	<i>Anas penelope</i>	Anatidae
11	Teal	<i>Anas crecca</i>	Anatidae
12	Mallard	<i>Anas platyrhynchos</i>	Anatidae
13	Pintail	<i>Anas acuta</i>	Anatidae
14	Shoveler	<i>Anas clypeata</i>	Anatidae
15	Common Pochard	<i>Aythya ferina</i>	Anatidae
16	Marsh Harrier	<i>Circus aeruginosus</i>	Accipitridae
17	Spotted Eagle	<i>Aquila clanga</i>	Accipitridae
18	Osprey	<i>Pandion haliaetus</i>	Pandionidae
19	Moorhen	<i>Gallinula chloropus</i>	Rallidae
20	Oystercatcher	<i>Haematopus ostralegus</i>	Haematopodidae
21	Black winged Stilt	<i>Himantopus himantopus</i>	Recurvirostridae
22	Avocet	<i>Recurvirostra avosetta</i>	Recurvirostridae
23	Crab Plover	<i>Dromas ardeola</i>	Dromadidae
24	Ringed Plover	<i>Charadrius hiaticula</i>	Charadriidae
25	Kentish Plover	<i>Charadrius alexandrinus</i>	Charadriidae
26	Greater Sand Plover	<i>Charadrius leschenaultii</i>	Charadriidae
27	Grey Plover	<i>Pluvialis squatarola</i>	Charadriidae
28	Red-wattled Lapwing	<i>Vanellus indicus</i>	Charadriidae
29	White-tailed Plover	<i>Vanellus leucurus</i>	Charadriidae
30	Sanderling	<i>Calidris alba</i>	Scolopacidae
31	Little Stint	<i>Calidris minuta</i>	Scolopacidae
32	Temminck's Stint	<i>Calidris temminckii</i>	Scolopacidae
33	Curlew Sandpiper	<i>Calidris ferruginea</i>	Scolopacidae
34	Dunlin	<i>Calidris alpina</i>	Scolopacidae
35	Ruff	<i>Philomachus pugnax</i>	Scolopacidae
36	Snipe	<i>Gallinago gallinago</i>	Scolopacidae
37	Black-tailed Godwit	<i>Limosa limosa</i>	Scolopacidae
38	Bar-tailed Godwit	<i>Limosa lapponica</i>	Scolopacidae
39	Whimbrel	<i>Numenius phaeopus</i>	Scolopacidae
40	Curlew	<i>Numenius arquata</i>	Scolopacidae

41	Redshank	<i>Tringa totanus</i>	Scolopacidae
42	Marsh Sandpiper	<i>Tringa stagnatilis</i>	Scolopacidae
43	Greenshank	<i>Tringa nebularia</i>	Scolopacidae
44	Green Sandpiper	<i>Tringa ochropus</i>	Scolopacidae
45	Terek Sandpiper	<i>Tringa cinerea</i>	Scolopacidae
46	Common Sandpiper	<i>Tringa hypoleucos</i>	Scolopacidae
47	Turnstone	<i>Arenaria interpres</i>	Scolopacidae
48	Black-headed Gull	<i>Larus ridibundus</i>	Laridae
49	Slender-billed Gull	<i>Larus genei</i>	Laridae
50	Lesser Black-backed (Baltic) Gull	<i>Larus fuscus</i>	Laridae
51	Yellow-legged Gull	<i>Larus cachinnans</i>	Laridae
52	Caspian Tern	<i>Sterna caspia</i>	Sternidae
53	Saunders's Little Tern	<i>Sterna saundersi</i>	Sternidae
54	Rock Dove	<i>Columba livia</i>	Comubidae
55	Collared Dove	<i>Streptopelia decaocto</i>	Comubidae
56	Laughing Dove	<i>Streptopelia senegalensis</i>	Comubidae
57	Hoopoe	<i>Upupa epops</i>	Upupidae
58	Sand Martin	<i>Riparia riparia</i>	Hirundinidae
59	White Wagtail	<i>Motacilla alba</i>	Motacillidae
60	White-cheeked Bulbul	<i>Pycnonotus leucogenys</i>	Pycnonotidae
61	Black Redstart	<i>Phoenicurus ochruros</i>	Muscicapidae
62	Black-eared Wheatear	<i>Oenanthe hispanica</i>	Muscicapidae
63	Desert Wheatear	<i>Oenanthe deserti</i>	Muscicapidae
64	Graceful Warbler	<i>Prinia gracilis</i>	Sylviidae
65	Great Reed Warbler	<i>Acrocephalus arundinaceus</i>	Sylviidae
66	Desert Wabler	<i>Sylvia nana</i>	Sylviidae
67	Southern Grey Shrike	<i>Lanius meridionalis</i>	Laniidae
68	Common Mynah	<i>Acridotheres tristis</i>	Sturnidae
69	House Sparrow	<i>Passer domesticus</i>	Passeridae
70	Unknown Gull		
71	Unknown Tern		
72	Unknown Wader		

Appendix II Species recorded from Bird Flu Survey Sites in Dubai and the Northern Emirates during November 2005

S.no	Species	Scientific Name	Family	Order
1	Black necked Grebe	<i>Podiceps nigricollis</i>	Podicipedidae	Podicipediformes
2	Great Cormorant	<i>Phalacrocorax carbo</i>	Phalacrocoracidae	Pelecaniformes
3	Socotra Cormorant	<i>Phalacrocorax nigrogularis</i>	Phalacrocoracidae	Pelecaniformes
4	Squacco Heron	<i>Ardeola ralloides</i>	Ardeidae	Ciconiiformes
5	Western Reef Heron	<i>Egretta gularis</i>	Ardeidae	Ciconiiformes
6	Little Egret	<i>Egretta garetta</i>	Ardeidae	Ciconiiformes
7	Great Egret	<i>Egretta alba</i>	Ardeidae	Ciconiiformes
8	Grey Heron	<i>Ardea cinerea</i>	Ardeidae	Ciconiiformes
9	Purple Heron	<i>Ardea purpurea</i>	Ardeidae	Ciconiiformes
10	Painted Stork	<i>Mycteria leucocephala</i>	Ciconiidae	Ciconiiformes
11	Yellowbilled Stork	<i>Mycteria Ibis</i>	Ciconiidae	Ciconiiformes
12	Greater Flamingo	<i>Phoenicopterus ruber</i>	Phoenicopteridae	Phoenicopteriformes
13	Mallard	<i>Anas platyrhynchos</i>	Anatidae	Anseriformes
14	Marsh Harrier	<i>Circus aeruginosus</i>	Accipitridae	Falconiformes
15	Pallid Harrier	<i>Circus macrourus</i>	Accipitridae	Falconiformes
16	Greater Spotted Eagle	<i>Aquila clanga</i>	Accipitridae	Falconiformes
17	Osprey	<i>Pandion haliaetus</i>	Pandionidae	Falconiformes
18	Oystercatcher	<i>Haematopus ostralegus</i>	Haematopodidae	Charadriiformes
19	Black winged Stilt	<i>Himantopus himantopus</i>	Recurvirostridae	Charadriiformes
20	Avocet	<i>Recurvirostra avosetta</i>	Recurvirostridae	Charadriiformes
21	Crab Plover	<i>Dromas ardeola</i>	Dromadidae	Charadriiformes
22	Little Ringed Plover	<i>Charadrius dubius</i>	Charadriidae	Charadriiformes
23	Ringed Plover	<i>Charadrius hiaticula</i>	Charadriidae	Charadriiformes
24	Kentish Plover	<i>Charadrius alexandrinus</i>	Charadriidae	Charadriiformes
25	Greater Sand Plover	<i>Charadrius leschenaultii</i>	Charadriidae	Charadriiformes
26	Grey Plover	<i>Pluvialis squatarola</i>	Charadriidae	Charadriiformes
27	Sanderling	<i>Calidris alba</i>	Scolopacidae	Charadriiformes
28	Little Stint	<i>Calidris minuta</i>	Scolopacidae	Charadriiformes
29	Dunlin	<i>Calidris alpina</i>	Scolopacidae	Charadriiformes
30	Ruff	<i>Philomachus pugnax</i>	Scolopacidae	Charadriiformes
31	Black-tailed Godwit	<i>Limosa limosa</i>	Scolopacidae	Charadriiformes
32	Bar-tailed Godwit	<i>Limosa lapponica</i>	Scolopacidae	Charadriiformes
33	Whimbrel	<i>Numenius phaeopus</i>	Scolopacidae	Charadriiformes
34	Curlew	<i>Numenius arquata</i>	Scolopacidae	Charadriiformes
35	Redshank	<i>Tringa totanus</i>	Scolopacidae	Charadriiformes
36	Marsh Sandpiper	<i>Tringa stagnatilis</i>	Scolopacidae	Charadriiformes

37	Terek Sandpiper	<i>Tringa cinerea</i>	Scolopacidae	Charadriiformes
38	Common Sandpiper	<i>Tringa hypoleucos</i>	Scolopacidae	Charadriiformes
39	Turnstone	<i>Arenaria interpres</i>	Scolopacidae	Charadriiformes
40	Sooty Gull	<i>Larus ridibundus</i>	Laridae	Charadriiformes
41	Black-headed Gull	<i>Larus hemprichii</i>	Laridae	Charadriiformes
42	Slender-billed Gull	<i>Larus genei</i>	Laridae	Charadriiformes
43	Lesser Black-backed (Baltic) Gull	<i>Larus fuscus</i>	Laridae	Charadriiformes
44	Caspian Tern	<i>Sterna caspia</i>	Sternidae	Charadriiformes
45	Lesser Crested Tern	<i>Sterna bengalensis</i>	Sternidae	Charadriiformes
46	Sandwich Tern	<i>Sterna sandvicensis</i>	Sternidae	Charadriiformes
47	Rock Pigeon	<i>Columbia livia</i>	Comubidae	Columbiformes
48	Collared Dove	<i>Streptopelia decaocto</i>	Comubidae	Columbiformes
49	Palm Dove	<i>Streptopelia senegalensis</i>	Comubidae	Columbiformes
50	White Collared Kingfisher	<i>Halcyon chloris</i>	Alcedinidae	Coraciformes
51	Little Green Bee eater	<i>Merops orientalis</i>	Meropidae	Coraciformes
52	Indian Roller	<i>Coracias benghalensis</i>	Coraciidae	Coraciformes
53	Hoopoe	<i>Upupa epops</i>	Upupidae	Coraciformes
54	Crested Lark	<i>Galerida cristata</i>	Alaudidae	Passeriformes
55	Barn Swallow	<i>Hirundo rustica</i>	Hirundinidae	Passeriformes
56	Isabelline Wheatear	<i>Oenanthe isabellina</i>	Muscicapidae	Passeriformes
57	Black-eared Wheatear	<i>Oenanthe hispanica</i>	Muscicapidae	Passeriformes
58	Graceful Warbler	<i>Prinia gracilis</i>	Sylviidae	Passeriformes
59	Great Reed Warbler	<i>Acrocephalus arundinaceus</i>	Sylviidae	Passeriformes
60	House Crow	<i>Corvus splendens</i>	Corvidae	Passeriformes
61	Common Mynah	<i>Acridotheres tristis</i>	Sturnidae	Passeriformes
62	House Sparrow	<i>Passer domesticus</i>	Passeridae	Passeriformes
63	Indian Silverbill	<i>Lonchura malabarica</i>	Estrildidae	Passeriformes
66	Unknown Gull			
65	Unknown Wader			
64	Unknown Swallow			