USAID
FROM THE AMERICAN PEOPLE

WILDLIFE CONSERVATION SOCIETY

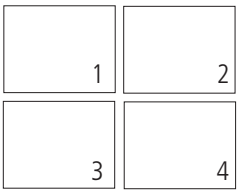
Birdlife monitoring in Kol-e Hashmat Khan, Kabul, Afghanistan (March 2007–April 2010)

Mr. Saeed Naqibullah Mostafawi & Dr. Stéphane Ostrowski,
Wildlife Conservation Society / Afghanistan

August 2010




Wildlife Conservation Society
2300 Southern Boulevard • Bronx, NY 10460



Cover photos:

Kole-e Hashmat Khan landscape shows spectacular seasonal variations.

1. In late spring, water is high and the lake is covered with reeds.
2. By mid-summer the lake is half-drained and reeds are harvested.
3. In fall, the lake is completely drained.
4. In winter, when precipitations are abundant, the water level rises.

All photographs: Mr. Saeed Naqibullah Mostafawi, WCS

Table of contents

Birdlife monitoring in Kol-e Hashmat Khan, Kabul, Afghanistan (March 2007 - April 2010)

Sayeed Naqibullah Mostafawi and Stéphane Ostrowski,
Wildlife Conservation Society / Afghanistan
August 2010

Summary — Between March 22, 2007 and April 4, 2010 we have completed 86 bird monitoring visits to Kol-e Hashmat Lake situated in the south-east outskirt of Kabul, Afghanistan.

We have documented the occurrence of 93 bird species belonging to 28 different families. When comparing the taxonomic composition of birds reported during the present survey with the one reported in a 35 year old compilation (1966/1975-1977) it appears that the water bird diversity has increased from 46 to 53 different species.

In late winter and spring Kol-e Hashmat Khan can provide a relatively safe haven to large numbers of water birds at a time. The peak of presence occurs in March and April (roughly during "hut" and "hamal" months of the Afghan Persian calendar or between week 8 and 16 of the Gregorian calendar) when the area can host more than 2,000 water birds at a time.

In summer we have documented with certitude (nests, eggs and chicks) the successful breeding of four species of water birds: the little grebe (*Tachybaptus ruficollis*), the mallard (*Anas plathyrhynchos*), the coot (*Fulica atra*), and the common moorhen (*Gallinula chloropus*), yet a marked decrease compared to the late 1960's when 10 different species of water birds were reported to breed in this lake. We hypothesize that the decrease in number of breeding species could be due to excessive water drainage in summer and the precocious harvesting of reeds when the lake dries.

Eventually five species of global conservation concern have visited occasionally Kol-e Hashmat Khan during the monitoring period: the Dalmatian pelican (*Pelecanus crispus*), the ferruginous duck (*Aythya nyroca*), the "Western" black-tailed godwit (*Limosa limosa*), the Eastren imperial eagle (*Aquila heliaca*) and the European roller (*Coracias garrulus*).

The paucity of wetlands in Afghanistan, the occurrence of sizeable bird populations during winter and spring and the occasional presence of species of global conservation concern in the area justify that Kol-e Hashmat Lake should be efficiently protected from the point of view of biodiversity conservation.

General background

Kol-e Hashmat Khan is situated in the south-eastern outskirt of Kabul, the capital city of Afghanistan. The area extends over an approximate surface of 190 hectares (5.2 km in its greatest length by 1 km in maximal width) on a large shelf in the Hindu Kush foothills at an average altitude of 1793 m asl. The Logar River is the main water source for the lake, flowing in early winter and spring through a tributary stream and the Mastan dam reservoir, into the lake.

This wetland was a historical hunting ground for rulers of Afghanistan. It is reported that the Moghul Emperor Babur Shah (1483-1530) had an interest in this area. Later Amir Abdul Rahman Khan (1880-1901) and Amir Habibullah Khan (1901-1919) used the lake for their waterfowl hunting activities. The late King Mohammed Zahir Shah took a personal interest in the area and had it protected by the corpse of Royal Guards. In 1951 Kol-e Hashmat Khan was officially proclaimed a Hunting Reserve. In 1973, the lake was protected by the Republican Guards and in 1978 the Afghan Government with the technical support of the United Nations Environmental Program gazetted Kol-e Hashmat Khan as a protected area (Rahim and Larsson 1978)[1].

First scientific accounts, made by the German zoologists G. and J. Niethammer (1967)[2], mentioned that the area was visited in mid 1960 by thousands of birds every year. A compilation of observations combining records from the mid 1960's and 1975-1977 reported a list of 113 birds observed in Kol-e Hashmat Khan and surrounding areas (Rahim and Larsson 1978). The area was also used by a small variety (<15) of bird species for breeding purposes (Puget 1971)[3] (Plate 1), adding value to its protection. In the 1960's and 70's Kol-e Hashmat Khan was considered an important stop-over site for migrating birds between their Indo-Pakistani wintering grounds and Central Asian and Western Siberian breeding strongholds.

The main objective of our work was to evaluate, almost 30 years after the last scientific survey, the condition of the avifauna in Kol-e Hashmat Khan.

---

[1] Rahim A and J Y Larsson. 1978. A preliminary study of lake Hashmat Khan with recommendations for management. FO:DP/AFG/74?016, Unpublished Field Document No. 10, Kabul, Afghanistan.

[2] Niethammer J. 1967. Zwei jahre vogelbeachtungen an stehenden gewässern bei Kabul in Afghanistan. *Journal für Ornithologie* 108, Heft 2. [In German].

[3] Puget A. (1971). Observation sur l'avifaune nidificatrice de l'étang de Binihesar (Chamane Qala Hachmatran) dans la proche banlieue de Kaboul en Afghanistan. *Alauda* 39: 139-144 [in French].

Methods

Between March 22, 2007 and April 4, 2010, we visited the area to census bird species present and document the various threats supported by the habitat. The first visits were supervised in the field by SO and then SNM carried out the other surveys on his own, yet reporting immediately the results of each visit to SO. This on-going collaboration was part of a larger capacity building scheme developed by the Wildlife Conservation Society (WCS) in Afghanistan since 2006 and allowed correcting mistakes and implementing modifications without compromising the integrity and comparability of collected information. All together 86 monitoring visits, relatively regularly spaced, were carried out during this period. All months were covered. Visits took place during morning, extending only occasionally to noon, with an average duration per visit of 2.5 hours. Forty-four visits (51.2%) were done in optimal weather conditions with no clouds and almost no wind, allowing an excellent detection of birds visible in the area. Twenty-nine visits (33.7%) were carried out when the weather was mildly covered or with fair wind, yet still in good visibility conditions. On 9 (10.5%) occasions, all in winter, 25-90% of the lake's surface was frozen but the visibility was still good. On 4 (4.6%) occasions, because of rainfall or snowfall the visibility hindered the work and we considered that quantitative detections of birds were not good and only compiled the qualitative information obtained.

During each visit we validated the detection probability of our surveys by repeating spot-observation counts in three different sites that offered each a view of the totality of the lake. Because the three repeated counts were within 15 % precision between mid September and mid May, we suggest that our total counts provided a reasonably accurate estimate of the total water bird population present in the area during this period. Between mid May (week 20) and mid September (when the lake typically turns dry) water birds[4] are fewer, and reed beds growing taller and thicker reduce the ability to detect the birds (repeated counts usually >15% imprecision). During that period we consider that bird counts should only be taken as indices of abundance and not as reliable total counts. During each visit birds were identified to species level.

List of equipment used during surveys: One spotting scope (x15-60) with tripod, one to two pairs of binoculars, one to two digital cameras, one hand-held GPS unit, one

[4] Under the generic name of 'water birds' we have included species belonging to the Anatidae, Ardeidae, Charadriidae, Laridae, Pelecanidae, Phalacrocoracidae, Podicipedidae, Rallidae, Recurvirostridae, Scolopacidae, and Threskiornithidae families (see Appendix 1 for species list).

counting form, one identification bird guide [Birds of South Asia by Rasmussen and Anderson (2005)].

Results and discussions

Kol-e Hashmat Khan is one of the very few sizeable wetland ecosystems in Afghanistan, and as such is likely of high national value for water birds. Nowadays the wetland is completely drained by late summer because of the increased water diversion for crop irrigation (Plate 1), and is no longer an area of importance to host migrating water birds in autumn. However it still remains a site of great ornithological value in spring and to an extent depending largely on precipitations and air temperatures, in winter.

Plate 1. A water pumping installation on the south-west shore of Kol-e Hashmat Khan Lake. Crop irrigation combined to intense summer evaporation contribute to drain the lake by late summer and sometimes as early as July when winter precipitations have been low. Winter precipitations and the extent of human utilization of water are two important factors determining the success of breeding birds in this wetland. Kol-e Hashmat Khan, Kabul, Afghanistan, July 2009.

Based on reports proposed by Birdlife International, 505 bird species have been recorded at least on one occasion in Afghanistan and about 400-450 of them are of regular, although often localized, occurrence. During the study period we have confirmed the presence of 93 species of birds in the area, almost one quarter of the total regular bird species reported for the country. Given the small size of the area, its relatively high altitude, the harsh weather conditions in winter, and the immediate vicinity of a population of >5 million humans, which increases the likelihood of disturbance, the bird diversity of Kol-e Hashmat Khan appears reasonably high.

It is also interesting to compare the differences in bird diversity between observations recorded in 2007-2010 and those from 1966/1975-1977. Thirty years ago Rahim and Larsson (1978) reported 113 bird species for the area or 20 more than us. Compared to these early statistics the total bird diversity has apparently decreased by 17.7% in 30 years. However we believe that this overall decrease translates more a methodological difference than a genuine bird diversity loss. In fact early accounts have included birds observed on the lake, shores and surrounding lands whereas we have focused our attention almost exclusively on the lake and shores. The comparison of taxonomic composition of the two bird lists comforts this hypothesis. In 1966/1975-1977, water birds composed 40.7% of bird diversity whereas in 2007-2010 they account for 57% of the bird diversity. In addition the number of recorded water birds was higher in 2007-2010, with 53 species than in 1966/1975-1977, 46 (13.2% less). During our surveys we have recorded only 40 non water-birds contra 67 (67.5% more) in 1966/1975-1977.

The comparison of the species composition of the two survey results shows also interesting differences. Thirty-seven species of water birds were common to both surveys or 69.8% of water birds recorded during 2007-2010 and 80.4% of those recorded in 1966/1975-1977. Nine water bird species observed in 1966/1975-1977 were not observed in 2007-2010. Among these species the Terek sandpiper (*Xenus cinereus*), the curlew sandpiper (*Calidris ferruginea*), the sanderling (*Calidris alba*), and the red-necked phalarope (*Phalaropus lobatus*) are small-size and relatively inconspicuous species, reported only as occasional visitors in 1966/1975-1977, and might have easily been overlooked in 2007-2010. All these species are known to migrate through Afghanistan and we have observed them all in other areas in Afghanistan during 2006-

2010. The white-tailed lapwing (*Vanellus leucurus*) and the Northern lapwing (*Vanellus vanellus*) are more conspicuous species but both are relatively uncommon visitors to Central Afghanistan. The purple heron (*Ardea purpurea*) is uncommon in Afghanistan and was apparently observed only on one occasion in 1966/1975-1977. Eventually the white-headed duck (*Oxyura leucocephala*) is a threatened species and the marbled teal (*Marmaronetta angustirostris*) is considered vulnerable (IUCN, 2010). The lack of records for these two species in 2007-2010 supports that both species suffer decreasing population trends in the region.

It is also interesting to note that 16 species of water birds observed in 2007-2010 were not observed in 1966/1975-1977. However explanations concerning this discrepancy could vary according to species. The lesser sand plover (*Charadrius mongolus*), the great crested grebe (*Podiceps cristatus*), the Dalmatian pelican (*Pelecanus crispus*), the greylag goose (*Anser anser*), the common shelduck (*Tadorna tadorna*), the cotton teal (*Nettapus coromandelianus*), the water rail (*Rallus aquaticus*), the little egret (*Egretta garzetta*), and the great black-headed gull (*Larus ichthyaetus*) were observed as single individuals or groups of less than six birds only one or two times between March and May and should be therefore considered as occasional spring visitors. Owing to their "occasional" status, these species could have easily been overlooked in 1966/1975-1977. The Indian pond heron (*Ardeola grayii*) should be considered as an occasional summer visitor with a maximum of two specimens in July 2008 and 2009. Eventually we recorded the little bittern (*Ixobrychus minutus*) on three occasions in July and August 2009 and believe that the species could breed in Kol-e Hashmat Khan (see below). Five species of water birds were considered common in 2007-2010 and it is hard to believe that their omission in the 1966/1975-1977 report did reflect a genuine absence in the area. We saw groups of 2-13 common terns (*Sterna hirundo*) on seven occasions in April 2008/09/10 and groups of 2-8 'Steppe' gulls (*Larus heuglini*) on 14 occasions in March and April of every survey year. The garganey (*Anas querquedula*) showed an occupancy pattern typical of spring migrants. It was reported on 14 occasions between March and May 2008 and 2009, with an average group size of 24 birds and a maximum of 94 birds on 10 April 2008. The Eurasian wigeon (*Anas penelope*) was a common winter and spring visitor. We recorded this species during 53 visits (61.6% of all visits) in groups averaging 51 individuals between February and May 2007-2010. Noteworthy we observed 210 wigeons on 17 March 2008. Eventually the gadwall (*Anas strepera*) was considered very common in the area with 56

observations between January and April of every survey year, in flocks composed of 3 to 480 birds.

In late winter and spring Kol-e Hashmat Khan can provide a relatively safe haven to large numbers of water birds at a time. The peak of presence is in March and April (roughly during "hut" and "hamal" months of the Afghan Persian calendar or between week 8 and 16 of the Gregorian calendar year) when the area can host more than 2,000 water birds at a time (Fig. 1). There is a significant drop in numbers after the fourth week of April. By mid May the lake is deserted by most spring visitors which have presumably left to their northern breeding grounds. Typically less than 400 water birds will remain in summer, composed largely of breeding species.

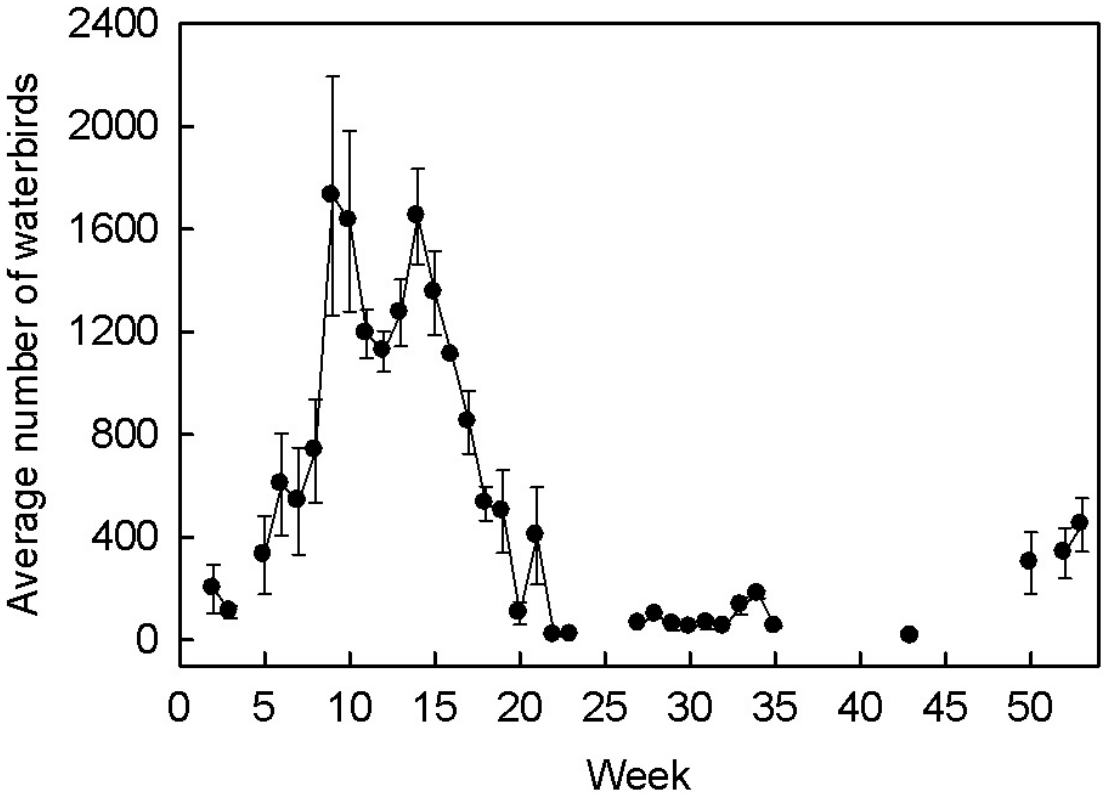


Figure 1: Mean +/- SE number of water birds counted in Kol-e Hashmat Khan Lake between March 2007 and March 2010, Kabul, Afghanistan. The week scale is based on the international civil calendar (Gregorian calendar).

The number of water birds utilizing the area in winter varies between years and is highly dependent on late autumn/winter precipitations and air temperatures. In winter 2009-2010 the lake as well as the Logar River drainage system received good precipitations, which combined to relatively mild air temperatures explained that 500-

600 water birds could overwinter in the area (Fig. 2). Similar situations did not occur in winter 2007-2008 when the lake was dry during most of the winter, or during the harsh winter 2008-2009 when the water was not accessible to birds for long time because the lake was frozen.

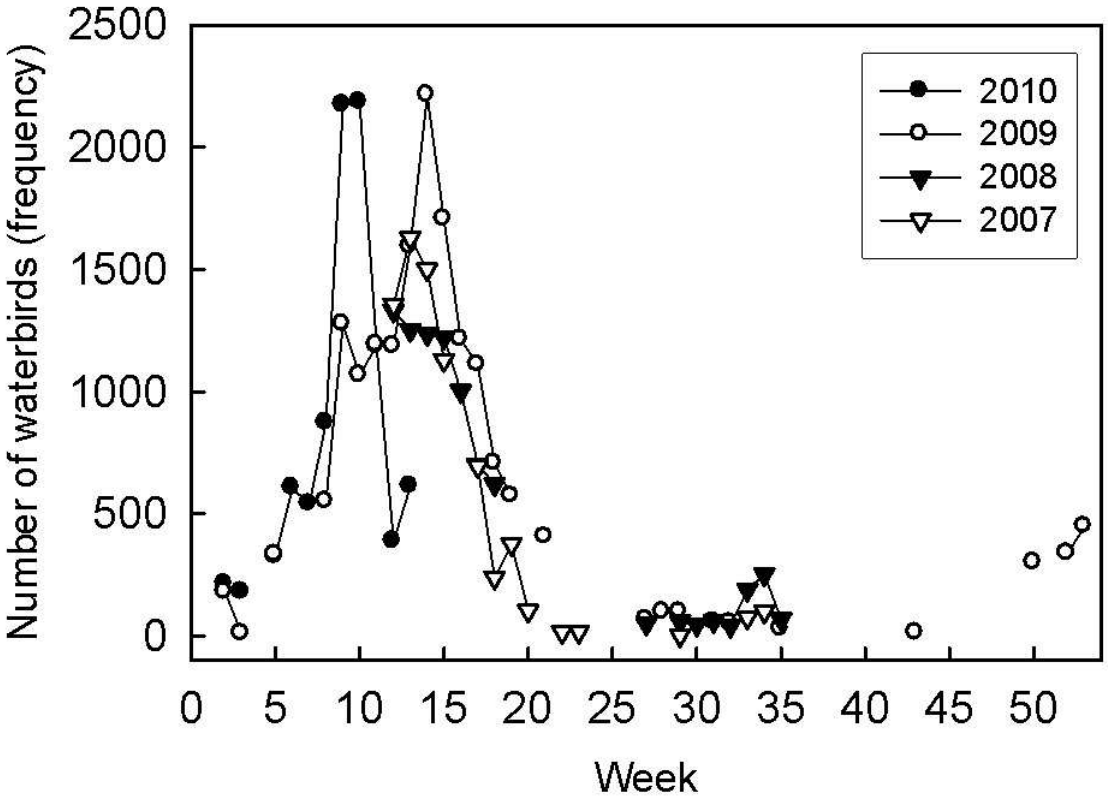


Figure 2: Mean number of water birds counted in different years between March 2007 and March 2010 in Kol-e Hashmat Khan Lake, Kabul, Afghanistan. The week scale is based on the international civil calendar (Gregorian calendar).

In March and April (week 8 to 16) the majority of water birds belonged to the Anatidae family (ducks) followed by Rallidae (eg. coot), Charadriiformes (waders and gulls or Recurvirostridae, Charadriidae, Scolopacidae and Laridae families), Pelecaniformes and Ciconiiformes (cormorants and egrets or Ardeidae, Pelecanidae, Phalacrocoracidae and Threskiornithidae families), and Podicipedidae (grebes) (Fig. 3) (Plate 2). The most numerous species at a time were the coot (*Fulica atra*), the common teal (*Anas crecca*), and the gadwall (*Anas strepera*), with 1,348 coots counted on 28 March 2007, and 800 common teals mixed with 480 gadwalls present on 4 March 2010.

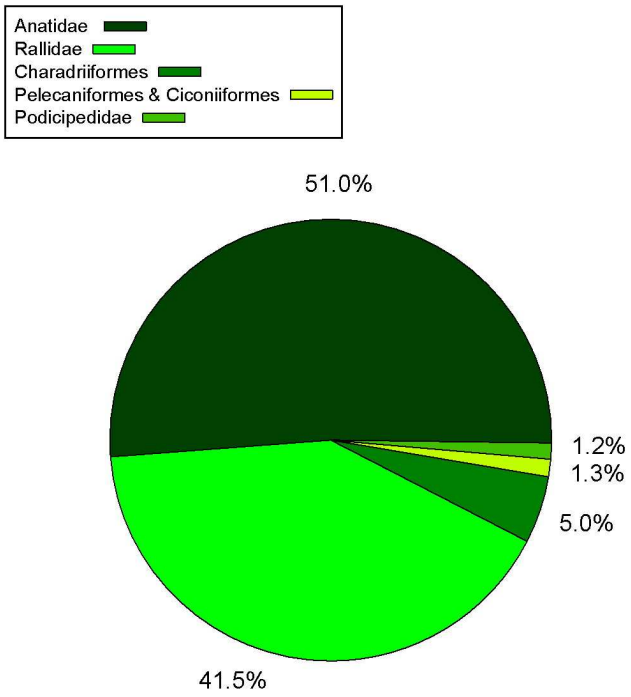


Figure 3: Taxonomic composition of water birds present in March-April 2007-2010 in Kol-e Hashmat Khan Lake, Kabul, Afghanistan.

Plate 2. A typical early spring assemblage of water birds in Kol-e Hashmat Khan. Great egrets (*Casmerodius alba*) and common black-headed gulls (*Larus ridibundus*) are visible in the forefront, while grey herons (*Ardea cinerea*), northern shovelers (*Anas clypeata*), gadwalls (*Anas strepera*), tufted ducks (*Aythya fuligula*), and coots (*Fulica atra*) appear in the background, March 2010

Few water bird species remain in Kol-e Hashmat Khan in summer and all of them are species known to use reed bed ecosystems for breeding. We have documented with certitude (nests and eggs) the breeding of four water bird species: the little grebe (*Tachybaptus ruficollis*), the mallard (*Anas platyrhynchos*), the coot, and the common moorhen (*Gallinula chloropus*) (Plate 3). We could not document with certitude the breeding of the "Eastern" Baillon's crake (*Porzana pusilla*), of the common teal, and of the little bittern (*Ixobrychus minutus*), yet because they were often observed in summer and were known to breed in the area in the past (Puget 1971) we suspect that they were likely breeders. Eventually the area could also offer breeding possibilities to a limited number of black-necked grebes (*Podiceps nigricollis*), common pochards (*Aythya ferina*) and Eurasian bitterns (*Botaurus stellaris*). Reed beds also hosted breeding pairs of Indian reed-warblers (*Acrocephalus* [*stentoreus*] *brunnescens*) and possibly Blyth's reed-warblers (*Acrocephalus demetorum*). There is a marked decrease in breeding water birds compared to the late 1960's when 10 different species of water birds were confirmed to breed in the area (Puget 1971). We hypothesize that the decrease in number of breeding species could be due to the excessive water drainage during summer as well as precocious harvesting of reeds as soon as the lake dries.

Plate 3: A nest of common moorhen (*Gallinula chloropus*) in reeds of Kol-e Hashmat Khan, Kabul, Afghanistan, July 2009

We have also recorded five species of global conservation concern. The Dalmatian pelican ["vulnerable" (VU), IUCN 2010] was seen on two occasions with two individuals on 11 April 2007 and one on 7 April 2008. We also recorded the ferruginous duck (*Aythya nyroca*) ["near-threatened" (NT), IUCN 2010] on two occasions as a group of eight birds on 4 March 2010 reduced to six birds four days later. The "Western" black-tailed godwit (*Limosa limosa*) (NT) was seen on four occasions, with one, two and three birds on 17, 20, and 24 April 2008, respectively, and two birds on 12 April 2009. The Eastern imperial eagle (*Aquila heliaca*) (VU) was also recorded on two occasions; three birds were seen on 21 August 2007 and one on 17 August 2008. Eventually the European roller (*Coracias garrulus*) (NT) visited the area on 14 and 21 August 2007 with three and two birds, respectively, and then again on 20 and 24 August 2008 with one bird each time, possibly the same one. While adult Dalmatian pelicans, ferruginous ducks and "Western" black-tailed godwit were spring visitors possibly stopping-over on their way to breeding grounds, Eastern Imperial eagles and European rollers might have been early post-breeding migrants or non-breeding vagrant individuals.

The paucity of wetlands in Afghanistan, the occurrence of sizeable bird populations during winter and spring and the occurrence in the area of species of global conservation concern support that this area needs an enhanced level of protection. It is also worth mentioning that if in the near future a proper conservation plan is adopted for Kol-e Hashmat Khan, it will not only safeguard a unique natural heritage but could also benefit education, Kabul citizen's leisure activities and tourism.

Conservation recommendations

1. Maintain wildlife protection measures in the area and in particular enforce a strict hunting prohibition.
2. Rehabilitate water resources to ensure continued water inflow to the lake.

3. Construct a modern visitor center in the vicinity of Kole Hashmat Khan[5]. Improve capacity building in neighboring communities, and in Kabul at large, insist on the importance of the area as a unique natural resource, a valuable site for birdlife and an environmental richness in an otherwise heavily urbanized surrounding.
4. Prohibit livestock grazing inside and around the lake, and reed harvesting before September 1st (to allow a higher survival of fledged birds).
5. Carefully delineate and map the boundaries of the protected area, dispose sign posts around the lake to inform the visitors on the status of the area.
6. Extend bird monitoring according to the present methodology for at least one more year, analyze data and design a simplified monitoring methodology that could be used as routine monitoring duty by game guards.
7. Improve the monitoring capability of game guards for two additional years and put in place indicators of environmental changes.
8. Train game guards according to modern standards.

Acknowledgments

This study was made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents of the report are the responsibility of the Wildlife Conservation Society, and do not necessarily reflect the views of USAID or the United States Government.

Surveys in Kol-e Hashmat Khan would not have been possible without the enthusiastic supports of successive WCS country directors; A. Dehgan (2006-2008), P. Smallwood (2008-2009) and D. Lawson (2009-current). We thank Ali Madad Rajabi and Hafizullah Noori for having contributed to four survey counts. Eventually we thank the ranger guards at Kol-e Hashmat Khan (Ministry of Agriculture) who facilitated our work in the area. This mission would not have been possible without their collaboration.

[5] Recently the area has revealed a new and unique feature as an educative opportunity for students of the University of Kabul who have been visiting and studying the site as part of their curriculum in biology to better understand biodiversity, wetland ecosystems and conservation biology.

Appendix 1. List of bird species recorded at Kol-e Hashmat Khan Wetland between March 2007 and April 2010, Afghanistan.

No.	Common name	Scientific name	Family	Conservation status
1	Black-necked Grebe	*Podiceps nigricollis*	Podicipedidae	LC
3	Little Grebe	*Tachybaptus ruficollis*	Podicipedidae	LC
4	Great Crested Grebe	*Podiceps cristatus*	Podicipedidae	LC
5	**Dalmatian Pelican**	***Pelecanus crispus***	**Pelecanidae**	**VU**
6	Great Cormorant	*Phalacrocorax carbo*	Phalacrocoracidae	LC
7	Little Egret	*Egretta garzetta*	Ardeidae	LC
8	Great Egret	*Casmerodius alba*	Ardeidae	LC
9	Grey Heron	*Ardea cinerea*	Ardeidae	LC
10	Indian Pond-heron	*Ardeola grayii*	Ardeidae	LC
11	Little Bittern	*Ixobrychus minutes*	Ardeidae	LC
12	Glossy Ibis	*Plegadis falcinellus*	Threskiornithidae	LC
13	Eurasian Spoonbill	*Platalea leucorodia*	Threskiornithidae	LC
14	Greylag Goose	*Anser anser*	Anatidae	LC
15	Common Shelduck	*Tadorna tadorna*	Anatidae	LC
16	Ruddy Shelduck	*Tadorna ferruginea*	Anatidae	LC
17	Common Teal	*Anas crecca*	Anatidae	LC
18	Garganey	*Anas querquedula*	Anatidae	LC
19	Gadwall	*Anas strepera*	Anatidae	LC
20	Eurasian Wigeon	*Anas Penelope*	Anatidae	LC
21	Northern Shoveler	*Anas clypeata*	Anatidae	LC
22	Northern Pintail	*Anas acuta*	Anatidae	LC
23	Mallard	*Anas platyrhynchos*	Anatidae	LC
24	Tufted Duck	*Aythya fuligula*	Anatidae	LC
25	**Ferruginous Duck**	***Aythya nyroca***	**Anatidae**	**NT**
26	Common Pochard	*Aythya ferina*	Anatidae	LC
27	Red-crested Pochard	*Netta rufina*	Anatidae	LC
28	Cotton Teal	*Nettapus coromandelianus*	Anatidae	LC
29	Black Kite	*Milvus migrans*	Accipitridae	LC
30	Long-legged Buzzard	*Buteo rufinus*	Accipitridae	LC
31	Golden Eagle	*Aquila chrysaetos*	Accipitridae	LC
32	Western Marsh Harrier	*Circus aeruginosus*	Accipitridae	LC
33	**Eastern Imperial Eagle**	***Aquila heliacal***	**Accipitridae**	**VU**
34	Common Kestrel	*Falco tinnunculus*	Falconidae	LC
35	Eastern Baillon's Crake	*Porzana pusilla*	Rallidae	LC

36	European Water Rail	*Rallus aquaticus*	Rallidae	LC
37	Moorhen	*Gallinula chloropus*	Rallidae	LC
38	Eurasian Coot	*Fulica atra*	Rallidae	LC
39	Pied Avocet	*Recurvirostra avosetta*	Recurvirostridae	LC
40	Black-winged Stilt	*Himantopus himantopus*	Recurvirostridae	LC
41	**Black-tailed Godwit**	***Limosa limosa***	**Charadriidae**	**NT**
42	Lesser Sand Plover	*Charadrius mongolus*	Charadriidae	LC
43	Little Ringed Plover	*Charadrius dubius curonicus*	Charadriidae	LC
44	Common Greenshank	*Tringa nebularia*	Scolopacidae	LC
45	Wood sandpiper	*Tringa glareola*	Scolopacidae	LC
46	Green Sandpiper	*Tringa ochropus*	Scolopacidae	LC
47	Common Sandpiper	*Actitis hypoleucos*	Scolopacidae	LC
48	Common Redshank	*Tringa totanus*	Scolopacidae	LC
49	Spotted Redshank	*Tringa erythropus*	Scolopacidae	LC
50	Ruff	*Philomachus pugnax*	Scolopacidae	LC
51	Dunlin	*Calidris alpina*	Scolopacidae	LC
52	Little Stint	*Calidris minuta*	Scolopacidae	LC
53	Common Snipe	*Gallinago gallinago*	Scolopacidae	LC
54	Steppe Gull	*Larus heuglini barabensis*	Laridae	LC
55	Great Black-headed Gull	*Larus ichthyaetus*	Laridae	LC
56	Common Black-headed Gull	*Larus ridibundus*	Laridae	LC
57	Slender-billed Gull	*Larus genei*	Laridae	LC
58	Gull-billed Tern	*Gelochelidon nilotica*	Laridae	LC
59	Common Tern	*Sterna hirundo*	Laridae	LC
60	Whiskered Tern	*Chlidonias hybrida*	Laridae	LC
61	Laughing Dove	*Streptopelia senegalensis*	Columbidae	LC
62	Eurasian Collared-dove	*Streptopelia decaocto*	Columbidae	LC
63	Rose-ringed Parakeet	*Psittacula krameri*	Psittacidae	LC
64	Common Cuckoo	*Cuculus canorus*	Cuculidae	LC
65	**European Roller**	***Coracias garrulus***	**Coraciidae**	**NT**
66	Common Hoopoe	*Upopa epops epope*	Upupidae	LC
67	Common Kingfisher	*Alcedo atthis*	Alcedinidae	LC
68	European Bee-eater	*Merops apiaster*	Meropidae	LC
69	Eurasian Crag-martin	*Ptyonoprogne rupestris*	Hirundinidae	LC
70	Northern House-martin	*Delichon urbicum*	Hirundinidae	LC
71	Barn Swallow	*Hirundo rustica*	Hirundinidae	LC
72	Grey Wagtail	*Motacilla cinerea*	Motacillidae	LC
73	Citrine Wagtail	*Motacilla citreola*	Motacillidae	LC
74	White Wagtail	*Motacilla alba*	Motacillidae	LC

75	Water Pipit	*Anthus spinoletta*	Motacillidae	LC
76	Tree Pipit	*Anthud trivialis trivialis*	Motacillidae	LC
77	Long-tailed Shrike	*Lanius schach erythronotus*	Laniidae	LC
78	Shrike	*Lanius spp.*	Laniidae	LC
79	Desert Wheatear	*Oenanthe deserti deserti*	Turdidae	LC
80	Common Stonechat	*Saxicola torquatus indicus*	Turdidae	LC
81	Indian Reed-warbler	*Acrocephalus stentoreus*	Sylviidae	LC
82	Blyth's Reed-warbler	*Acrocephalus dumetorum*	Sylviidae	LC
83	Siberian Chiffchaff	*Phylloscopus collybita tristis*	Sylviidae	LC
84	Hume's Leaf-warbler	*Phylloscopus humei*	Sylviidae	LC
85	House Sparrow	*Passer domesticus*	Passeridae	LC
86	Eurasian Tree Sparrow	*Passer montanus*	Passeridae	LC
87	Rock Sparrow	*Petronia petronia*	Passeridae	LC
88	Rosy Starling	*Sturnia roseus*	Sturdidae	LC
89	Common Starling	*Sturnia sturnina*	Sturdidae	LC
90	Common Myna	*Acridotheres tristis*	Sturdidae	LC
91	Hooded Crow	*Corvus corone cornix*	Corvidae	LC
92	Carrion Crow	*Corvus corone*	Corvidae	LC
93	Eurasian Magpie	*Pica pica*	Corvidae	LC

Conservation status follows IUCN Red list (2010) (http://www.iucnredlist.org/ downloaded on 2 August 2010). Criteria: LC (Least Concern), NT (Near Threatened), VU (Vulnerable).