Wildlife Conservation Society & Royal Society for the Protection of Birds Important Bird Areas Survey in Eastern Mongolia

A report on three ornithological surveys during May - September 2004

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Contents

1. Executive summary

Three ornithological surveys visited north-east and east Mongolia in May, mid-July to mid-August and September 2004, with the intention of counting the extensive wetland complexes and steppe grasslands. The prime objective was to survey populations of Globally Threatened Species, particularly Anser cygnoides, Grus vipio and Otis tarda. Full counts of all waterbirds were conducted, which enable an assessment of the bio-geographic importance of individual sites. All other bird species were recorded routinely during the surveys.

The surveys were carried out by joint teams, consisting of staff from the Royal Society for the Protection of Birds (RSPB) - the UK BirdLife International partner; staff and students from the National University of Mongolia and the State Agriculture University of Mongolia, staff from the Daursky Nature Reserve, Russia and staff from the Protected Area Administration, Dornod Province. The surveys were coordinated and funded by the Wildlife Conservation Society and RSPB. Logistical and organizational support was provided by the Steppe Forward Programme.

Ten Globally Threatened and seven Near Threatened species were recorded;

Siberian crane	*Grus leucogeranus*	Critical
Swan goose	*Anser cygnoides*	Endangered
Red-crowned crane	*Grus japonensis*	Endangered
Baikal teal	*Anas formosa*	Vulnerable
Baer's pochard	*Aythya baeri*	Vulnerable
Great bustard	*Otis tarda dybowskii*	Vulnerable
Lesser kestrel	*Falco naumanni*	Vulnerable
White-naped crane	*Grus vipio*	Vulnerable
Hooded crane	*Grus monacha*	Vulnerable
Relict gull	*Larus relictus*	Vulnerable
White-tailed eagle	*Haliaeetus albicilla*	Near threatened
Cinereous vulture	*Aegypius monachus*	Near threatened
Asian dowitcher	*Limnodromus semipalmatus*	Near threatened
Far eastern curlew	*Numenius madagascariensis*	Near threatened
Reed parrotbill	*Paradoxornis heudei*	Near threatened
Yellow-breasted bunting	*Emberiza aureola*	Near threatened
Ochre-rumped bunting	*Emberiza yessoensis*	Near threatened

Status from ***BirdLife International Red Data Book; Threatened Birds of Asia (BirdLife International 2003 www.rdb.or.id)***

The following summarizes the IBA survey results.

Buir Nuur (Lake Buir), Bayan Nuur and associated wetlands including Khalkh gol (River Khalkh), Dornod Aimag

- Buir nuur continues to qualify as an IBA based on Criteria A1 (Globally Threatened Species), Criteria A4i (supporting >1% biogeographic population of waterbirds), and Criteria A4iii (supporting >20,000 waterbirds).
- Bayann nuur, the Khalkh delta and the Khalkh river system immediately upstream should be considered an integral part of the Buur nuur site.

The Eastern Steppe Lakes - Tashgain Tavan nuur ("Five Lakes"), Khonkhor Shuumar nuur ("Three Lakes"), Bayan Burdiin nuur ("Two Lakes"), Khunt nuur ("Swan Lake") and associated lakes (Bulang Shavar nuur, etc.)

- Tashgain Tavan nuur continues to qualify as an IBA based on criteria A1
- The area around Khonkhor Shuumar nuur potentially qualifies as an IBA based on criteria A1.
- Bayan Burdiin nuur should qualify as an IBA under criteria A1.
- Khunt Nuur should qualify as an IBA under criteria A1.
- Bulang Shavar nuur should also be recommended as an IBA under criteria A1.
- Data suggests recognition of the whole area as an IBA.

Khukh nuur and lakes north of Choibalsan

- Khukh nuur and associated wetlands qualify as an IBA on criteria A1 and criteria A4i and on criteria 4iii.

The Ulz river Valley and associated lakes - including Galuut, Duruu and Bus nuur, the four Tsagaan nuur Lakes, Turgenii Tsagaan Nuur, and scattered lakes further to the south-west

- This entire area would qualify as an IBA under criteria A4iii.
- Ulz valley qualifies as an IBA on criteria A1.
- The Tsagaan nuur complex qualifies as an IBA on criteria A1 and on criteria A4i.
- The Duruu, Galuut and Bus nuur complex qualify as an IBA under criteria A1 and on criteria A4i.
- Turgenii Tsagaan nuur qualifies as an IBA on criteria A1.

Khurkh river valley

- This area continues to qualify as an IBA on criteria A1.

Onon river valley

- This area continues to qualify as an IBA under criteria A1.

Tsengeleg nuur

- This area continues to qualify as an IBA under criteria A1.

2. Acknowledgements

We would like to thank the following;

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Badamjav Odmaa (Specialist in Public Awareness, Buffer Zone, Eastern Mongolia Protected Area Administration).
Amartuvshin Purevdorj, zooology student from the University of Mongolia for assistance on all three surveys.
M Baatar (driver) and Munkh-Orgil 'Muunii' (cook) on the spring survey.
Bataa (driver), Purevdorj Bayartsengel 'Ulaana' and Yanjan (cooks) on the summer survey.
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In addition, we would like to thank the many Mongolian people we came across who provided us with hospitality, advice and company on our trips.

Demoiselle Crane

3. Introduction

The Eastern Steppe of Mongolia is the world's largest intact temperate grassland ecosystem. At about 250,000 sq km, this vast wilderness is home to one of the world's last great spectacles of migrating ungulates, the Mongolian gazelle Procapra gutturosa, which may number over one million. Numerous other mammals live on the steppe, and there are many rare or critically threatened birds that nest or use the steppe for migratory stopover sites, including six species of cranes, swan goose Anser cygnoides, Asiatic dowitcher Limnodromus semipalmatus, and great bustard Otis tarda. The Mongolian steppe is of international importance (a Global 200 Ecoregion, a Last Wild Place, and the location of Mongolia's first Ramsar site), especially when compared to the degraded steppe in neighboring Russia and China. Human populations on the steppe have historically been sparsely distributed and engaged in traditional nomadic livestock production, which had minimal impact on the ecosystem. Although there are nine Protected Areas on the Eastern Steppe, these encompass only a small fraction of the region and only a few of the many important locations for biodiversity. The steppe also faces numerous and growing threats, including pressure from the government to increase mining activity in the region, build roads and railroads, continue a poisoning campaign against rodents that threatens a host of bird species (including raptors and cranes), and plans to degazette parts or even entire Protected Areas.

Little survey work has been performed on the Eastern Steppe and the Central and Southern Asian Flyway is the most poorly known of the major migratory flyways. A high proportion of its wader populations is unknown in either population size or trend. Based on some of the surveys of the area (Bold et al. 1992, Tseveenmyadag 1998, Severinghaus pers. comm. 2003) there are numerous locations on the Eastern Steppe that are extremely important for breeding as well as migratory birds, but many of these are not contained within any protected area. Unfortunately, there is a lack of baseline data upon which to submit recommendations or proposals to the government or even to increase awareness amongst the herding communities living in and around some of these areas. There is an urgent need to improve this baseline data within Mongolia.

White-winged Scoter

4. Objectives

These surveys were designed to visit a suite of locations that have been suggested as Important Bird Areas and survey them in a scientific manner, with a view to using the data to determine which sites are critical for biodiversity conservation. The surveys would focus on assessing numbers and species of waterbirds, and numbers and locations of Globally Threatened species in these areas, along with status (i.e., breeding, passage, etc.). The data will then be used in support of proposals to the Government of Mongolia that these sites identified as internationally important be designated as official Protected Areas.

Three month-long surveys were carried out in 2004.

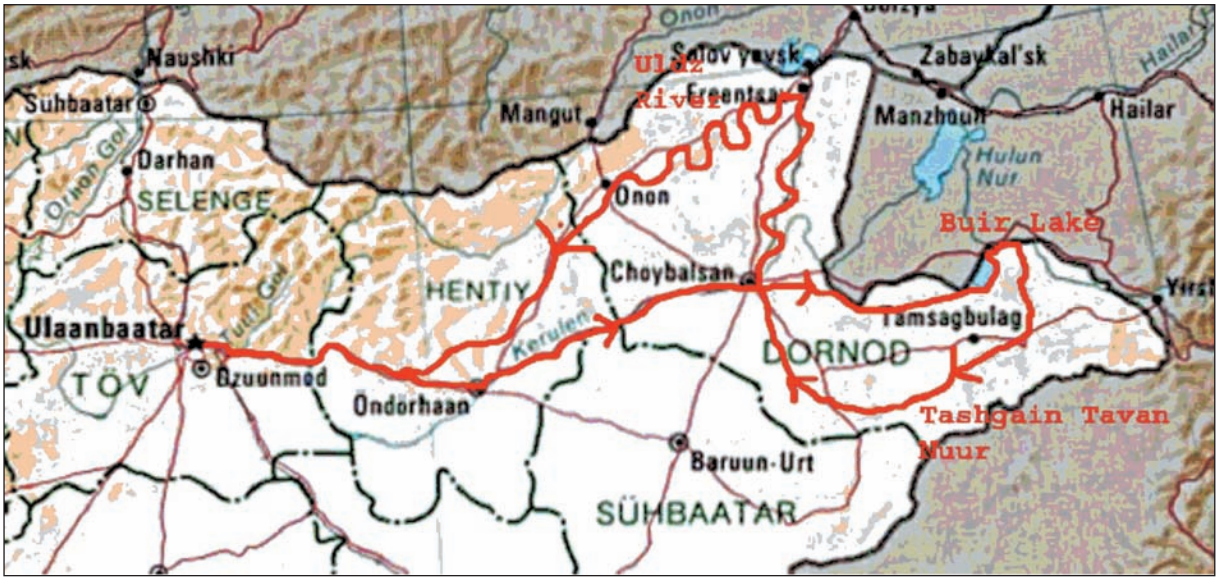
A spring survey (2 – 28 May) to investigate sites for migratory birds.
A summer survey (15 July – 9 August) to investigate sites for breeding birds, with a special focus on the swan goose (Anser cygnoides).
A fall survey (29 August – 20 September) to investigate sites for migratory birds.

All three surveys focused on eastern Mongolia. All the currently identified IBAs were visited by at least one of the surveys[1]. Sites visited included the Kherlen River, **Tashgain Tavan nuur and associated lakes**, Khonkhor Shuumar nuur and associated lakes, the two lakes at Bayan **Burdiin nuur**, Khunt (Swan) nuur, Bulang Shavar nuur, Buir nuur, Khalkh delta and Khalkh River in the southeast and the Ulz River and regional lakes (Khaichiin Tsagaan nuur, Bus nuur, Galuut nuur, Duruu nuur, **Khukh nuur**)[2] in the northeast. The fall survey also included the lakes and marshes along the **Khurkh** and **Onon rivers** and a suite of sites in Dornod aimag (a cereal farm at Salbaryn Taria Brigad and nearby Togoruu nuur and **Tsengeleg nuur**), but excluded some sites in the northeast (e.g., Ereen nuur and Uvgudein Khar nuur) that were covered by the previous two surveys.

Hooded Cranes

[1] Sites identified by bold text have been identified as IBAs in *Important Bird Areas in Asia* (2004).
[2] Some of these lakes (the Tsagaan, Bus, Galuut and Duruu nuurs) almost certainly fall within the **Mongol Daguur IBA (site 36),** some of which is also a Strictly Protected Area.

Map of survey route



NB the fall route was reversed along the NE section of the route.

Trumpeter Swan

5. Methodology

The methodology chosen was designed to deliver the objectives and was based on Wetland Bird Survey (WeBS) methodology from the UK. For all lakes, a total waterbird count was aimed at - all ducks, geese, swans, waders, divers and grebes, herons and allies, raptors and passerines were counted at each site. Where a full count could not be achieved or accuracy was reduced due to weather conditions (heat haze, wind), a percentage estimate of accuracy was made and recorded. All counters were experienced ornithologists who regularly carry out wetland bird counts in the UK and abroad. In all cases, whether the count was made from a single fixed position (e.g., for a small lake) or involved circumnavigating the lake by vehicle or on foot, coordinates for count positions were taken using GPS and a record made of the method used. All three expeditions followed the same route though there were of course differences due to differing weather conditions, etc. These differences are insignificant and the counts are, except where noted, both broadly comparable and repeatable in subsequent years.

Relict Gull

6. Survey details

The spring survey took place between 2 and 28 May, 2004. The expedition counted over 57,000 waterbirds. RSPB participants were Jane Brookhouse and Simon Busuttil. The guide for the southeastern area was Batdorj Bekhbat (officer of the Eastern Mongolia Protected Area Administration). The Russian ornithologist Dr. Oleg Goroshko from the Daursky Nature Reserve joined the survey for much of the second half surveying the Ulz river basin. Amartuvshin Purevdorj, a zoology student from the National University of Mongolia, accompanied the expedition. Badamjav Odmaa (Specialist Public Awareness, Buffer Zone, Eastern Mongolia Protected Area Administration) accompanied the second half of the expedition. The survey covered some 3,500 km and successfully surveyed Buir Nuur, the Khalkh River and the most of the eastern lakes that were still wet at this time in the south-east of the country before surveying lakes north of Choibalsan, the Ulz River and its associated lakes and stretches of the Kherlen river.

The summer survey took place between 15 July and 9 August, 2004. Over 105,000 waterbirds were recorded by Mark Thomas and John Badley of the RSPB accompanied by Uuganbayar Chuluunbaatar (Lecturer, State Agriculture University of Mongolia and member of the Ornithological Society of Mongolia) and Amartuvshin Purevdorj. The summer trip covered the same route and areas as the spring expedition.

The fall survey took place between 29 August and 20 September, 2004 and recorded in excess of 94,000 waterbirds. RSPB participants were Steve Rowland and Adam Rowlands accompanied by Gombobaatar Sundev Bodonguud (Lecturer, Biology Faculty, National University of Mongolia and Vice President, Ornithological Society of Mongolia) and again by Amartuvshin Purevdorj.

Juvenile Saker Falcon

7. Buir Nuur (Lake Buir), Bayan Nuur and associated wetlands including Khalkh gol (River Khalkh), Dornod Aimag

7.1 Site descriptions

Buir nuur and Bayan nuur

Buir nuur is listed in IBA number 38 (Birdlife International 2004) at 47^0 46'N 1170 08'E. It is a 43,200 ha (WCS and IBA) or 104,000 ha (Ramsar) lake of almost fresh water. The western side of the lake is in China and was not covered in this survey.

There is a smaller shallow associated lake (Bayan nuur) in the south-east corner which is seasonally linked to Buir nuur. This appears to be shallow enough to fully dry out at times, and the lake was virtually dry in May and by mid-Sept when the remaining isolated patches of water had concentrated the food supply and attracted numerous herons and spoonbill. Only 5 - 10% of Bayan nuur was still wet on the spring and fall visits; the remaining area was a salt pan, having clearly been dry for some time. The remaining areas of water were no more than 40 cm deep and the lake was at these times isolated from the channel connecting it to Buir Nuur.

During the summer survey Bayan nuur was an extensive area of apparently shallow open water, estimated at 900 ha. The lake margins held sparse short emergent vegetation in places, particularly in the south-west corner, but approximately 75% of the margins along with the centre of the lake was unvegetated.

During both the summer and fall surveys there was an area of inundation between Bayan nuur and Buir nuur extending to about 150 ha. This area was flowing into Bayan nuur in summer and had also spilled out onto a further small wetland area of about 20 ha which consisted entirely of short emergent vegetation. This 150 ha area had an approximately 80% coverage of quite tall dense emergent vegetation.

The south-western shore of Buir nuur has areas of shallow water and mud exposed by falling water levels, areas of reed and swamp and some scrub. Grazing pressure appeared to be reduced to the south-west of the lake towards the Chinese border as demonstrated by longer vegetation and the relatively increased area of scrub there.

The eastern shore appears to be ornithologically less interesting with sandy steppe edging the shoreline. A relatively limited area of mud and shallow water exists along this shore until more extensive and varied habitats, described under Khalkh gol delta, start to develop at the northern end of the lake.

During the summer survey, several islands were present towards the southern end of Buir nuur. The islands were visible only from the southern and south-eastern shoreline, and being over 2 km from the shoreline made an accurate assessment difficult but the islands appeared to be of a seasonal nature as they were low lying and apparently unvegetated. They had not been observed in the spring. Their estimated size was 100 ha but due to the distance and their apparently rather linear nature, this assessment should be viewed as a guide only.

A string of isolated lakes from 5 to 20 ha in size lies to the north east of Buir nuur. These small lakes were counted and included within the Buir nuur totals.

Khalkh gol

The Khalkh gol (Khalkh River) drains the Numrug Strictly Protected Area (SPA) and its watershed into Buir nuur, entering the lake at its northern end and forming a delta across a large area estimated at 2000 ha. The delta is composed of riverine channels, areas of dense Salix scrub and reedbed and wet meadows with pools. The scrub is between 2 and 4 m high and appears to be mainly in Mongolian territory. A very large reedbed appears to extend across the border into China. The area clearly supports huge numbers of nesting birds including several scarce species, and the pools and meadows along the river are important in spring at least.

7.2 Methodology

The west shoreline of Buir nuur is in China. None of the groups had permission to enter Chinese territory so a full survey of the lake was not possible.

Buir nuur and Bayan nuur

During the spring survey, between 5 and 9 May, an estimated 30% of the surface area of the main lake and 75% of the Mongolian shoreline was counted. Bayan nuur was fully counted.

The counts were made by walking the south-western shore of Buir nuur. The southern and south-eastern shore was counted from stops made at 47^0 44 N 117^0 47 E, and from the army post in the north-east corner of the lake at 47^0 54 N 117^0 52 E. The guide was reluctant to let surveyors go too near the border with China on the west side of the southern shore so this count was not complete. However, there was no reason to suppose that there were large numbers of birds present elsewhere on the lake, e.g., no flocks flying to and from the area. Large numbers of birds were present on the lake in the south-east corner and were identified with difficulty, as they were only just within optical range. A count by boat would have added little to this count as the birds were widely dispersed across a large area of water and would have flown off and moved around further reducing accuracy. There were only small numbers of birds along the southern shore, so again, although not achieving full coverage, it is unlikely that large numbers of birds were missed.

Along the eastern shore, counts were made by driving as close to the shore as possible and stopping at approximately 2 km intervals to count from the shoreline. Some intervals were longer due to logistical difficulties of accessing the shoreline across difficult terrain.

Bayan Nuur was fully counted (100%) by walking and driving around the lake. In the spring the dried-up area was scanned from several points but clearly supported no birds at that time.

Several of the smaller lakes in the north-east corner were counted from single stops adjacent to them.

During the summer survey between 21 and 24 July approximately 30% of the surface area of Buir nuur was counted by observations from >80% of the Mongolian shoreline. The team walked the southern shoreline and made point counts along the south-eastern shoreline by stopping at regular intervals of approximately 2 km, enabling all larger waterbirds and most smaller waterbirds to be counted. All the small isolated lakes along the eastern shore of Buir Nuur were fully counted, the majority of waterbirds being concentrated in the south-west corner of Buir Nuur. Nearly 2,000 ducks were visible on the islands, but were too distant to identify to species, although it is believed a high percentage were common pochard *Aythya ferina*.

Bayan nuur was counted by walking around its entirety. Due to the soft nature of the sand/mud a close

approach to the water line was not always possible, so accuracy was estimated at 90%.

Due to access difficulties the 150 ha inundated area was only counted from the Bayan nuur side. Counting was hindered by the tall emergent vegetation. Possibly only 50% of ducks and 25% of waders, but nearly 100% of the larger waterbirds (herons, etc.) were visible.

Observation conditions were generally good with no rain and little wind; however the heat, with temperatures reaching 43^{0}C and heat haze during the day, made distant observations difficult. Disturbance to the waterbirds was minimal.

During the fall visit on 13 and 14 September, approximately 30% of the surface area of the main lake and 90% of the Mongolian shoreline was counted.

The counts were made by driving as close to the shore as possible and stopping at approximately 2 km intervals to count from the shoreline. Some intervals were longer due to logistical difficulties of accessing the shoreline across difficult terrain. A full list of count points is included in Appendix 1.

In September the largest concentration of waterbirds was in the south-west corner of the lake and on an adjacent pool here. A full count of this area of the lake was achieved from the respective coordinates given in Appendix 1 and the viewing conditions were excellent.

Bayan Nuur was largely counted from N47 37 29.3 E117 34 55.0, with a compete (100%) count achieved by walking and driving around the lake. The dried-up area was scanned from several points but clearly supported very few birds at this time. The remaining areas of water were approached on foot across the dried-up sandflats to ensure that distant waders could be identified.

Several of the smaller lakes in the north-east corner were counted by vehicle from single stops adjacent to them. The figures have been included in the Buir nuur totals.

Overall, conditions for counting were good for this large lake and its satellite sites for all three expeditions. Unidentified wildfowl have been included as such in the bird count tables for this site.

Khalkh gol (Khalkh river)

The Khalkh gol (Khalkh river) flows into Buir nuur at its northern end, forming a huge delta. The delta area is shared with China, the river forming the international boundary. The area was counted from the Mongolian side. The delta area was not entered but elevated banks on the southern side and the army observation tower at N47 54 18 E117 52 00 allowed for good views across the area, including some areas of the delta across the border in China. Although a boat was offered by the local army post to enter the delta, it was felt that this would not offer any advantage, as being within the trees would significantly restrict the visibility. Survey by boat in the spring would also have created substantial disturbance to the nesting waterbirds at a critical time in their breeding cycle. There were also concerns about approaching an international boundary too and, for the summer expedition, concern about the abundance of mosquitoes present.

The delta was counted in spring from 8 to 10 May. Attempts to count the huge numbers of Cormorants *Phalacrocorax carbo* and Grey Herons *Ardea cinerea* from the elevated banks and army observation tower had to be abandoned due to rain and the estimates of numbers present and nesting are therefore incomplete. Huge numbers were observed entering the delta at dusk and leaving at dawn with flight lines in all directions.

The summer survey counted Cormorants flying to roost at the delta from the army observation tower. Roosting occurred in and around the breeding colony. It was not possible to count birds arriving from the Chinese side of the delta and an unknown number of birds were already present in the colony, but as the majority of the lake was to the south of the delta it was believed that the majority of birds present were counted.

In May, several stops were made along the Khalkh gol (Khalkh river) between 47^0 56 N 118^0 03 E and 47^0 57 N 118^0 05 E, but it was not possible to explore sections where the river was very close to the Chinese border. It is difficult to assess what proportion of the birds present were counted, but a combination of local knowledge, reading of the available maps and choosing count points carefully results in an estimate of approximately 75%. The river eventually narrows and loses the meadows and pools that support the largest number of birds. No surveys were undertaken to the north of this point.

In summer the Khalkh gol was followed away from Buir nuur on route towards the 'eastern lakes'. Few stops were made as the river was not in flood, with only one small wetland area apparent and few waterbirds were seen.

The Khalkh gol was also surveyed on 15 September. The marshes in the delta were relatively dry and supported little in the way of bird interest. The points from which observations were made are included in Appendix 1. The majority of waterbirds were recorded on the "fishing village" lake at N47 54 22.4 E117 52 48.6 and a salt lake N47 53 26.2 E117 55 23.5.

7.3 Condition assessment

Few of the threats previously described were visible on our very short visits to this site. The factors likely to influence the ornithological interest of this site are fishing, pollution, disturbance (including hunting and grazing pressure), changes to water levels and its trans-border position.

Fishing

The survey teams found small numbers of low intensity fishermen on the Mongolian side of the lake, e.g., the spring survey encountered just one small group of fishermen on the eastern shore who fish on a local scale with nets from the shore. No fishing boats were visible on the lake in either the spring or summer despite conditions being relatively calm. However, the fall survey found a fishing camp employing 20 Mongolians and Chinese on the south-eastern shore at N47 41 32.0 E117 42 19.5. At least two fishing boats were operating from the south-west shore from gers located south of N47 41 04.2 E 117 35 59.5 and there were a number of fishing nets located offshore between these two locations.

There is a fishing village located near the army post on the north-east shore of the lake (near the observation tower at N47 54 18. 8 E117 52 00.2) with 50+ huts, but no fishing activity was visible here during the survey.

The overall fishing pressure is unknown, but appears to be on a commercial scale and a large building visible on the Chinese shore is apparently a fish factory. Discarded tackle may also be an issue, with large quantities washed up on the shoreline during the September visit.

Pollution

The survey teams were not in a position to assess pollution. During the September visit a number of local people reported that significant mortality of Cormorants Phalacrocorax carbo had occurred in August, but the reasons for this mortality were not clear. There was no obvious evidence of pollution or eutrophication that might emanate from China.

Disturbance including hunting

There was also no evidence of hunting (e.g., shell casings, hunters' shelters) nor were birds particularly flighty. Large-scale disturbance was not obvious, though there may be local effects as areas of water dry up and waterbirds become concentrated or as herders move in to an area. However, in the Khalkh delta Cormorants were nesting along the most accessible waterways and had young, suggesting that they are not interfered with on any large scale.

Grazing pressure

It is not possible to assess the impacts of grazing pressure on the ornithological interest of the area. There was no evidence of large-scale burning of reed and other vegetation as will sometimes occur where the creation of new grass for stock is needed.

Changes to water levels

A clear threat was that of lowered water levels - almost certainly as a result of the dry period of the past three years. Areas of reedbed and swamp had dried out and shallow areas of water had been lost before they could be of value to breeding birds.

Transborder position

Being a cross border site could threaten the site but in this case it may also be that this fact offers protection from disturbance, e.g., in the Khalkh delta.

7.4 Threat assessment

Threat	Current Level
Lower water levels - climatic	Medium
Grazing - overgrazing	Unknown
Fishing	Medium
Fire	Low
Hunting	Low
Disturbance	Low
Pollution	Unknown
Trans-border position	Unknown

7.5 Summary of Results

May 2004	Buir nuur	Bayan nuur	Khalkh delta	Khalkh gol	Total
Total number of waterbirds*	9,927	1,800	7,136	3,082	21,945
No. of species	31	24	46	35	54
Total number of waterbirds excluding gulls and terns	4,291	1,031	6,862	2,408	14,592
No. of species excluding gulls and terns	27	19	40	31	47

July 2004	Buir nuur	Bayan nuur	Khalkh delta	Khalkh gol	Total
Total number of waterbirds*	12,496	5,650	22,603	968	41,717
No. of species	56	53	26	12	67
Total number of waterbirds excluding gulls and terns	10,685	4,605	22,582	783	38, 655
No. of species excluding gulls and terns	46	43	22	7	56

Sept 2004	Buir nuur	Bayan nuur	Khalkh delta	Khalkh gol	Total
Total number of waterbirds*	20,844	1,795	1,469	0	24,108
No. of species	60	32	31	0	65
Total number of waterbirds excluding gulls and terns	20,091	1,741	1,391	0	23,223
No. of species excluding gulls and terns	51	24	25	0	55

* Note: Waterbirds includes grebes and divers, herons and associates, swans, geese and ducks, waders, gulls and terns

7.6 Globally Threatened Species –

Spring

Species	Population in proposed IBA	Status
Anser cygnoides	550	Breeding (?)
Grus monacha	1	Passage
Larus relictus	4	Passage
Paradoxornis heudei	1	Breeding - singing male

Summer

Species	Population in proposed IBA	Status
Anser cygnoides	6,288	Post breeding flocks
Otis tarda	4	Breeding/passage
Limnodromus semipalmatus	7	Passage
Larus relictus	9	Passage

Fall

Species	Population in proposed IBA	Status
Anser cygnoides	284	Post-breeding flocks
Haliaeetus albicilla	1	?
Numenius madagascariensis	3	Passage
Larus relictus	2	Passage

7.7 Analysis

Buir nuur continues to qualify as an IBA on the following criteria;

Criteria A1 (Globally Threatened Species) supporting breeding *Anser cygnoides and Paradoxornis heudei and non-breeding Grus monacha, Limondromus semipalmatus, Numenius madagascariensis and Larus relictus*. The surrounding steppe supports Otis tarda.

Criteria A4i (supporting >1% biogeographic population of waterbirds) (Asian population estimates - Wei and Mundkur 2004) for the following species in July *Phalacrocorax carbo* (22,077 = ca.10%); and in September: *Podiceps cristatus* (2,182 = ca.4% of estimated Asian population); *Phalacrocorax carbo* (2,287 = ca.1%); *Cygnus olor* (29 = ca.1%).

Criteria A4iii (supporting >20,000 waterbirds) in July and September.

Bayann nuur should be considered an integral part of the Buur nuur site. Not only is the site linked directly by a channel, but large movements of birds were noted between Bayan nuur and Buir nuur.

The Khalkh delta and the Khalkh river system immediately upstream should also be considered part of this site. The delta supports huge numbers of *Phalacrocorax carbo* and breeding *Paradoxornis heudei*.

Therefore, improved levels of protection for the whole area would be valuable to maintain the integrity of the site. The largest concentrations of waterbirds were observed at the south-west corner of Buir nuur (close to Bayan nuur), at Bayan nuur and near the mouth of the Khalkh delta, and it is particularly important that these areas are protected.

7.8 Recommendations

The areas of Bayan nuur, the Khalkh delta and Khalk gol (river) immediately upstream of the delta are included in the Buir nuur IBA.

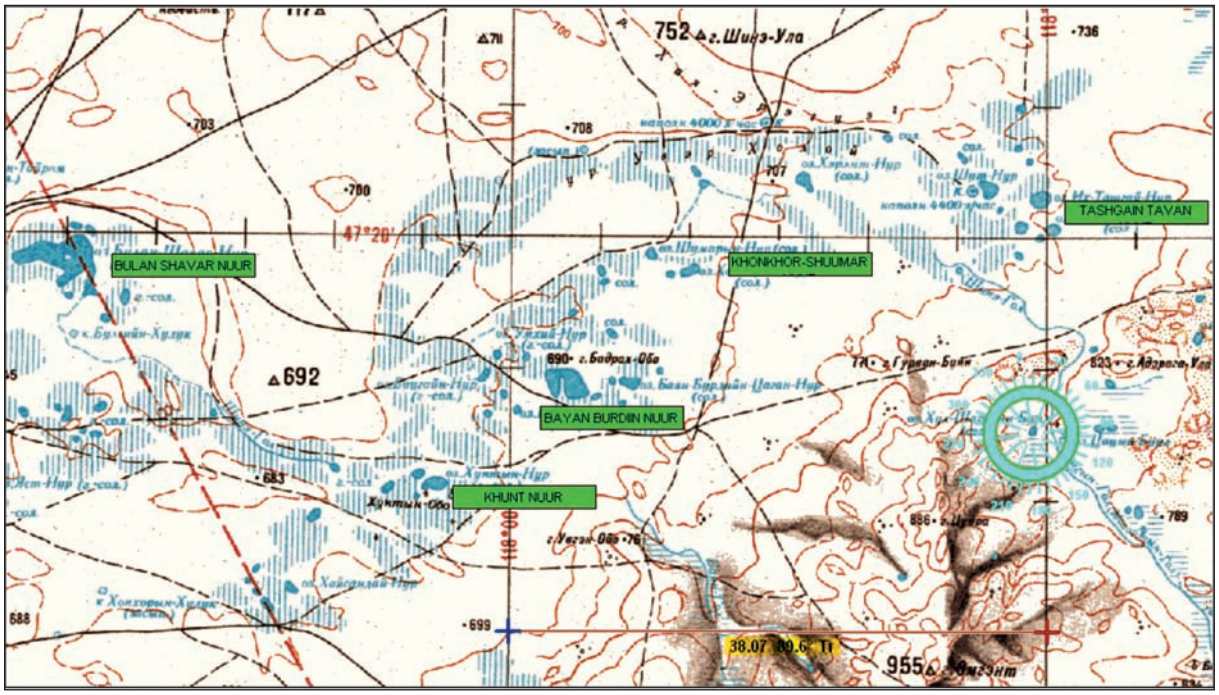
The potential impacts of fishing activities on the lake require further study.

Swan Goose

8. The Eastern Steppe Lakes - Tashgain Tavan nuur (“Five Lakes”), Khonkhor Shuumar nuur (“Three Lakes”), Bayan Burdiin nuur (“Two Lakes”), Khunt nuur (“Swan Lake”) and associated lakes (Bulang Shavar nuur, etc.)

8.1 Site descriptions

This large area centered on N 47 18 33.9 E 118 10 38.9 consists of a series of lakes and groups of lakes set in the steppe (see map).



Map. Location of lakes. Scale: 1:500 000

This area, identified already as an IBA, consists of six larger lakes with several small lakes/pools and associated low-lying wetlands adjacent to and in some cases joining them together. The lakes vary in size from only about 2 ha to about 60 ha. Some are no more than small pools surrounded by substantial areas of reed and other seasonally inundated wetland vegetation, including what appears to be bog type (acid, peat) vegetation. Others are typical small (partly saline) steppe lakes and two are large and reservoir-like with steeper shore profiles.

Lake 1 at 47^0 21 488 N 118^0 27 218 E, is the most varied with an excellent shoreline for waders – bays, islands and shallows exposed by a falling water level. The hydrology of the area appears quite complex, e.g., in the spring some lakes were drying out rapidly whilst others were seemingly full to the brim at this time. The seasonally inundated areas were already dry by the time of the spring visit. It is not known whether this is “normal” or, more likely, is a result of recent drought conditions.

Khonkhor Shuumar nuur ("Three Lakes")

This site comprised three lakes each of about 10 ha. All three had fringes of reed; in the case of the largest lake this comprised some 50% of its area. The lakes were surrounded by large areas of reed and seasonally inundated grassland with shallowly flooded areas. The larger of the lakes held water on all three visits. The smaller lakes were dry in summer and fall. Much of the reed area had been burnt last year and during the spring survey visit was shallowly flooded and attractive to many birds.

Bayan Burdiin nuur ("Two Lakes")

The larger of these two lakes, which is approximately 300 ha in size, is almost cut in two by a developing and substantial causeway. There are large amounts of exposed mud along the shoreline with good areas of wet grassland, reedbed, temporary pools and associated saline flora. Good numbers of birds were present during all three survey visits. Reeds extended between the two lakes and appeared to get dryer towards the larger lake. The smaller lake is about 30 ha in size and entirely surrounded by a large wet reedbed which extends to several hundred ha in area.

Khunt nuur ("Swan Lake")

This is a large lake with an extensive area of saline shallows at one end. The lake also contained a widespread reed fringe. The saline shallows contained a large amount of saltmarsh-type vegetation and appeared to be seasonally inundated, being wet in the spring but dry during the summer and fall surveys.

Bulang Shavar nuur

This is a very large, ca. 600 ha lake with at least one island, which held a small number of breeding Mongolian gulls (40 birds present on the summer survey). It has little or no reed or wet margins and is surrounded by typical dry steppe grassland. Despite the size of the lake extremely few waterbirds were recorded, which might indicate hyper-salinity. There was a small lake nearly adjacent to the southern end of the lake of approximately one hectare. The lake was virtually entirely dry on the September visit and was devoid of waterbirds.

West Mud Lake

This is a very large, ca. 600 ha lake. It appeared to be quite shallow and seasonally variable in size. The salt pan indicated the lake could have been as much as twice as large during wet periods. As the lake was surrounded by large areas of salt pan, access to it was very difficult. There was a small area of reed in the south of the lake with some pools, otherwise the lake and its margins appeared to be sparsely vegetated.

8.2 Methodology

In spring all lakes except Bulang Shavar nuur and West Mud lake were counted from the shore between 11 and 14 May. Grid references for count points were taken and followed by the summer and fall teams. The summer and fall surveys visited all the lakes counted in spring. In addition, both teams visited Bulang Shavur nuur and the summer team also counted West Mud lake. Very few birds were found on these two largest lakes. Given that the spring team did not visit these on the advice of the Mongolian guides it would seem that few birds were missed by not visiting at this time of year.

Depending on access, visibility due to size and weather conditions, time available and initial assessment of number of birds, the lakes were counted either from one or more fixed points, or were circumnavigated and continuously counted either on foot or from a vehicle. The spring survey counted 14 of the 16 largest lakes in this area. The summer and fall surveys counted all 16. Assessments were made of coverage in terms of accuracy of count on a lake-by-lake basis. Without over-complicating the calculation, the accuracy for the wetland counts of the area was estimated at 80% for the three surveys.

In summer the sites were counted between 24 and 27 July and in fall the sites were counted between 15 and 17 September.

Tashgain Tavan nuur ("Five Lakes")

The area in which the lakes are set is low and rolling, and it is easy to become disorientated. Maps are not wholly accurate and changes in water levels and grazing can change the appearance of the area radically, making it difficult to locate former count positions even for the Mongolian guides. The coordinates of the six main count points from the spring and summer surveys are listed here:

Lake 1 47^0 21 488 N 118^0 27 218 E
Lake 2 47^0 21 683 N 118^0 29 244 E
Lake 3 47^0 20 633 N 118^0 28 864 E
Lake 4 47^0 21 011 N 118^0 27 393 E
Lake 5 47^0 22 210 N 118^0 28 817 E
Lake 6 47^0 21 296 N 118^0 30 122 E

The main count points used in the fall survey are included in Appendix 1.

In the spring a further lake to the west, the position of which as shown on the maps, did not correlate with co-ordinates as measured by GPS - 47^0 22 420 N 118^0 19 917 E. A lake is shown on the map nearby but we did not find it.

Near full coverage (95%) was achieved on all three surveys of the Tashgain Tavan nuur complex.

Khonkhor Shuumar nuur ("Three Lakes")

All three surveys counted the most accessible of these three lakes. The location for the spring count was 47^0 18' 581 N 118^0 10' 716 E. The nearby fall location is included in Appendix 1. All three teams counted the same lake from good vantage points, achieving an estimated 95% accuracy.

The spring survey was unable to visit the other two lakes. The summer and fall surveys did manage to visit but found the other two lakes to be dry.

Bayan Burdiin nuur ("Two Lakes")

It was not possible to walk around the smaller lake as it was surrounded by a wet reedbed; it was observed from one point from nearby high ground on the south-east side. Around 66% accuracy was estimated. The spring survey walked around the larger lake while the summer and fall surveys drove around the lake and made point counts at regular intervals, achieving 100% coverage.

Small lake 47 14 192 N 118 07 089 E
Large lake 47 13 805 N 118 02 598 E

Khunt nuur ("Swan Lake")

This lake was viewed from surrounding high ground, which allowed good views from a number of points. Accuracy was estimated at ca. 95% for all three surveys. The starting point for the count is included in Appendix 1.

Bulang Shavar nuur

This site was only visited in summer and fall. Access was difficult in places due to soft ground. Stops were made at two vantage points where approximately 66% of the lake could be seen. There were very few birds present on the lake in summer and virtually no waterbirds in fall (when the lake was virtually dry). If there had been more birds present, the distance involved would have precluded specific identification of most. The adjacent small lake was counted in its entirety in the summer, but was dry in the fall. A grid reference is provided in Appendix 1.

West Mud Lake

This site was only visited during the summer survey. Access difficulties and time constraints only allowed one vantage point survey. This was at the southern end of the lake. Approximately 25% of the lake was surveyed from this point.

8.3 Condition assessment

The lakes did not appear to be fished, nor was there any sign of hunting or other major disturbance, and livestock grazing was at low to moderate levels. There was no sign of pollution. Land use around the wetlands is of low (though increasing) intensity.

Grazing is the dominant land use surrounding this whole area. Only at Tashgain Tavan nuur where there were at least four gers in the area in spring did grazing pressure appear to be anything other than moderate. There was no sign of humans or livestock at the other lakes in summer and fall and the large areas of standing reed suggest that the areas were not grazed by livestock throughout the May to September period.

It was clear from the spring visit that burning had taken place the previous year around some of the lakes and extensive areas of reed were burnt. However, there was no sign of this practice in summer and fall. Reed burning is not necessarily harmful to birds and indeed good numbers were making use of the open burnt areas where these had been flooded, but the timing of burning is crucial as it can destroy nests, eggs and young. It is unknown when this occurred or whether this is a traditional management, a one-off or an increasing trend. It is possible that the recent natural dry period has allowed this to occur. These dry conditions also appear to have allowed grazing animals to penetrate into the reed and wetland areas. If this grazing pressure continues or increases, the habitat could eventually be lost. The dry conditions also appear to have reduced the grazing activity at the sites away from the Tashgain Tavan nuur area – this appears to be a consequence of the reduced availability of fresh water.

It was impossible from our visits to understand whether the draw-down (falling water levels) observed on the lakes is an annual event on this scale or whether conditions were in some way abnormal. Clearly in the spring, both the wet shorelines and the winter “tidelines” exposed by this event are vital feeding areas for north-bound waders as are drying waterbodies that presumably concentrate food sources as they shrink and warm up.

8.4 Threat assessment

Threat	Level
Lower water levels - climatic	Medium/High
Grazing - overgrazing	Low (except Tashgain Tavan nuur)
Fishing	Low
Fire	Low
Hunting	Low
Disturbance	Low
Pollution	Low

8.5 Summary of Results

May 2004	Tashgain Tavan nuur	Khonkhor Shuumar nuur	Bayan Burdiin nuur	Khunt nuur	Bulang Shavar nuur	West mud lake	Total
Total number of waterbirds	3,078	777	3,106	4,503	No count	No count	11,464
No. of species	52	36	46	34	No count	No count	63
Total number of waterbirds excluding gulls and terns	2,892	753	2,988	4,151	No count	No count	10,784
No. of species excluding gulls and terns	47	34	40	31	No count	No count	58

July 2004	Tashgain Tavan nuur	Khonkhor Shuumar nuur	Bayan Burdiin nuur	Khunt nuur	Bulang Shavar nuur	West mud lake	Total
Total number of waterbirds	4,187	324	7,571	1,556	93	2,057	15,788
No. of species	47	21	40	27	6	5	57
Total number of waterbirds excluding gulls and terns	3,918	269	7,558	1,551	15	1,757	15,068
No. of species excluding gulls and terns	42	19	36	24	3	4	49

Sept 2004	Tashgain Tavan nuur	Khonkhor Shuumar nuur	Bayan Burdiin nuur	Khunt nuur	Bulang Shavar nuur	West mud lake	Total
Total number of waterbirds*	9,897	364	3,300	5,054	4	No count	18,619
Total number of waterbirds excluding gulls and terns	9,814	357	3,286	5,047	0	No count	18,504
No. of species	48	28	34	28		No count	65
No. of species excluding gulls and terns	45	24	32	30		No count	60

* Note: Waterbirds includes grebes and divers, herons and associates, swans, geese and ducks, waders, gulls and terns

White-naped Crane

8.6 Globally threatened species

Spring

Species	Population in proposed IBA	Status
Anser cygnoides	189	?
Otis tarda	4	Breeding
Larus relictus	6	Passage migrant
Emberiza yessoensis	15	Breeding

Summer

Species	Population in proposed IBA	Status
Anser cygnoides	400	Post-breeding flocks
Grus japonensis	3	Breeding/Passage migrant
Grus vipio	2	Breeding?
Otis tarda	3	Breeding/Passage migrant
Numenius madagascariensis	1	Passage migrant
Larus relictus	36	Passage migrant
Emberiza yessoensis	2	Breeding?
Emberiza aureola	Ca 6	Breeding?

Fall

Species	Population in proposed IBA	Status
Anser cygnoides	223	Post-breeding flocks
Otis tarda	1	Breeding ?
Grus monacha	2	Passage migrant (?)
Numenius madagascariensis	2	Passage migrant

8.7 Analysis

Tashgain Tavan nuur continues to qualify as an IBA on criteria A1 (Globally Threatened Species) supporting *Anser cygnoides, Otis tarda, Emberiza yessoensis* and non-breeding *Numenius madagascariensis*.

The area around Khonkhor Shuumar nuur potentially qualifies as an IBA on criteria A1 as *Anser cygnoides* and *Grus monacha* were located in this area on the spring and fall surveys respectively. However, neither species was proved to be breeding in the area.

Bayan Burdiin nuur would qualify as an IBA under criteria A1, supporting populations of *Anser cygnoides* throughout the breeding season, and *Larus relictus* also being recorded in spring.

Similarly, Khunt Nuur held populations of *Anser cygnoides* and a single *Emberiza yessonensis* in the breeding season, when *Otis tarda* was also recorded and should qualify as an IBA under criteria A1.

The breeding population of Larus relictus at Bulang Shavar nuur, together with the *Numenius madagascariensis* recorded there in summer suggests this should also be recommended as an IBA under criteria A1.

8.8 Recommendations

The whole area is integral to supporting these important populations, and the fact that over 18,000 waterbirds were recorded throughout the complex of wetlands in September suggests that, when viewed as a whole, these steppe lakes almost achieve criteria Aiii (>20,000 waterbirds). The presence of suitable habitat for *Otis tarda*, with sightings throughout the area during the whole survey period, would also support **recognition of the whole area as an IBA.**

The potential impacts of prolonged dry weather require further investigation. The reduction in grazing pressure that follows the absence of access to freshwater could have significant benefits for the area. No records of *Paradoxornis heudei* were made during the 2004 surveys, but this species could presumably be affected by drought conditions leading initially to increased grazing pressure in reedbeds that would be inaccessible to livestock during wetter conditions. It would also be important to establish if the species is capable of persisting in dry reedbeds, as these potentially could be unsuitable.

Short-toed Lark

Mongolian Lark

9. Khukh nuur and lakes north of Choibalsan

9.1 Site descriptions

This 'site' comprises a series of generally small lakes lying between the 500 ha Yakhi nuur, just north of Choibalsan and the large Khukh nuur (some 30 sq km in size) and includes the latter. The landscape north of Choibalsan is generally rolling with low hills and ridges, the average elevation in this area being approximately 1,300 m. The lakes do not appear to lie in any particular valley system, but are formed by the retention of water in small depressions. There are numerous small water bodies throughout the area, some of which the survey teams were unable to visit. Some of the lakes were dry on both the spring and summer visits, others retained water throughout. Much of the area was not visited in fall.

Yakhi nuur

Yakhi nuur, due north of Choibalsan is a large salt lake of approximately 500 ha, with no open water during the spring and summer surveys. A golden eagle eyrie was located on the small cliffs above the northern shore in spring.

Small lakes between Yakhi nuur and Sumyn nuur

There are four small lakes between Yakhi nuur and Sumyn nuur, the southern and northern of which are seasonal salt lakes.

Sumyn nuur

This is a large lake, mostly open water, but with an extensive shallow and marshy wetland area to the south and east, near the village of Gurvanzagal. The main lake was dry during the summer survey, but the smaller lake near Gurvanzagal was still wet and held birds.

Series of small lakes between Sumyn nuur and Khukh nuur

These lie in the direction of Khukh nuur, north/north-east of Sumyn nuur. Seven lakes varying in size from 10 ha to 150 ha were counted by the spring and summer surveys. The lakes were quite variable. Some were subject to grazing while others were not during our visits. Reed fringe varied between 0 and 25% cover. The southern most lake was a dry salt lake and held no birds.

Khukh Nuur

This large lake of approximately 30 sq km in size was more ornithologically important than had previously been indicated to us to expect. Along the western and southern shore, there is an exposed shore favoured by good numbers of waders. There is a spit/island on the west shore that held a large colony of Cormorants and Mongolian gulls. The northern end of the lake contained a delta and a small island. During the spring visit it was relatively dry and poor for birds. The northern and eastern shore supported an extensive area of annual plants that provides a significant resource for seed-eating birds. Due to time limitations and bad weather conditions, the spring survey team was not able to assess the eastern shore. However, on the summer survey the majority of birds present were along the eastern and southern shore. In fall, the entire lake supported birds, but the highest numbers of migrants (both waterbirds and passerines) were found along the eastern shore.

9.2 Methodology

A series of lakes north-east of Choibalsan, towards Khukh nuur and including the latter

On the spring and summer surveys all the large lakes between Choibalsan and Khukh nuur - Yakhi nuur and salt lakes towards Sumyn nuur - were dry with no birds present and were observed quickly from a distance while passing. The other small lakes were counted from close vantage points and good counts were made, although weather conditions were windy on the spring trip. These areas were not visited during the fall survey.

Small lakes between Yakhi nuur and Sumyn nuur

The southern and northern of these four lakes are seasonal salt lakes and were drying out in the spring. The two lakes between were wet on the spring survey so were counted with a high accuracy (<90%). These lakes were dry during the summer survey and were not visited on the fall survey.

Sumyn Nuur

During the spring trip the large area of open water was counted in calm conditions and good light on the evening of 17 May, with the wetland area being counted the following morning on 18 May, again in excellent conditions and from a good vantage point on the edge of the village (causing some curiosity from local residents!). Good numbers of swan geese and other waterbirds were observed here. The smaller wetland area closer to the village is easily observed from high ground at the edge of the village. The main lake was dry during the visit of the summer trip but the wetland was counted from near the village. This area was not visited on the fall survey. Coverage was excellent at <95% in spring and summer.

Series of lakes between Sumyn Nuur and Khukh nuur

The spring survey counted six small lakes, each from usually a single close vantage point accessible by vehicle or a short walk. The first lake was a dry salt lake, which held no birds, but the remaining lakes were wet. Conditions were increasingly windy, which made counting somewhat difficult, but the lakes were small enough to enable reasonable counts to be gained. Accuracy was <80%. On the summer survey these lakes were counted by either walking around them or counting from one or more vantage points depending on their size. Excellent coverage (approx 95% of all waterbirds) was possible. The lakes were not visited on the fall survey.

Khukh nuur

This is a huge lake and difficult to count. During the spring survey visit to Khukh nuur (one evening and the following morning) the weather was very poor, with strengthening winds and squall conditions, and considerable chop on the open water, making counting difficult and unpleasant. Approximately 25-30% of the surface area was counted. The northern bay, northern shore and as much of the western spit area as possible, which supported Cormorant and gull colonies, were counted from vantage points during the afternoon of the 18 May, with the intention of doing more the following morning. However, conditions were so bad by then, with a Force 9 gale blowing, that the decision was taken to move on. The northern delta was visited during the morning of the 19 May, but it was dry, though there were a few swan geese present on the grassy edges. This area appeared to be wet at other times and is known to hold more birds at those times. The eastern shore looked barren and difficult to access in the conditions and limited time available. Accuracy was therefore thought to be as low as 20%.

The summer survey counted the whole lake by making stops approximately every 2 km, although access around the northern delta proved difficult and this area was not well covered. The summer survey estimated 90% coverage of the lake with 90% of large waterbirds to have been counted but possibly only 50% of the waders.

The fall survey achieved good coverage of the entire shore by driving around and stopping at approximately 2 km intervals. The count of larger waterbirds was though to be >90% accurate, but the count of smaller waders would be less complete (estimated ca.75%). The river in the north-east corner of the lake was still flowing, but was narrow and easy to cross with our four-wheel-drive vehicle.

White-naped Crane *Ruddy Shelduck*

9.3 Condition Assessment

At the time of the spring visit to this series of lakes, threats were not apparent. Although it was clear that livestock grazing was the main land use in the area, there was little evidence of herders or livestock in this area at the time. The grass was lush and varied in structure at the time of the spring visit but quite arid and parched by the summer and fall visits due to a lack of summer rainfall.

Little increase in grazing was recorded by the summer or fall visits – with only a few gers around the entire lake. Some evidence of limited steppe fires was recorded on the spring visit.

None of the lakes appeared to be fished, though it is possible that Khukh nuur is fished at times, due to its large size. Local people mentioned that illegal fishing by Chinese migrants occurred on the lake, but it is not a Special Protected Area and so it was not clear why this fishing was illegal. There was no evidence of pollution, shooting, or any development.

Perhaps the most obvious threat was potential lack of water and dry conditions during the breeding season. Some of the small lakes were dry at the time of the spring visit, and if the level of Khukh nuur dropped much more, this might affect the success of the Cormorant colony on the spit, in that it would be more accessible to predation and/or disturbance.

The level of mineral exploration or potential development, given that Khukh nuur lies very close to the main railway line connecting Choibalsan with Russia to the north, is currently unknown.

9.4 Threat Assessment

Threat	Level
Lower water levels - climatic	Medium
Grazing - overgrazing	Low
Fishing	Low
Fire	Low
Hunting	Low
Disturbance	Low
Pollution	Low
Trans-border position	Unknown
Other development (mineral exploration, etc.)	Unknown

9.5 Summary of Results

May 2004	Lakes N of Choibalan	Sumyn Nuur	Lakes between SN and Khukh nuur	Khukh nuur	Total
Total number of waterbirds*	393	1,076	1,050	5,021	7,540
Total number of waterbirds excluding gulls and terns	381	1,057	1,043	2,913	5,396
No. of species	14	18	15	17	31
No. of species excluding gulls and terns	12	13	14	11	25

Jul/ Aug 2004	Lakes N of CB	Sumyn Nuur	Lakes between SN and Khukh nuur	Khukh nuur	Total
Total number of waterbirds*	51	604	4,956	17,432	23,043
Total number of waterbirds excluding gulls and terns	47	531	4,412	16,751	21,741
No. of species	3	27	54	50	63
No. of species excluding gulls and terns	1	23	49	45	57

Sept 2004	Lakes N of CB	Sumyn Nuur	Lakes between SN and Khukh nuur	Khukh nuur	Total
Total number of waterbirds*	No count	No count	No count	10,847	10,847
Total number of waterbirds excluding gulls and terns	No count	No count	No count	10,419	10,419
No. of species	No count	No count	No count	45	45
No. of species excluding gulls and terns	No count	No count	No count	40	40

9.6 Globally threatened species

Spring

Species	Population in proposed IBA	Status
Anser cygnoides	148	Breeding
Grus vipio	4	Breeding

Summer

Species	Population in proposed IBA	Status
Anser cygnoides	4,086	Post-breeding flocks
Aythya baeri	3	?
Grus vipio	2	Breeding
Limnodromus semipalmatus	1	Passage migrant

Fall

Species	Population in proposed IBA	Status
Anser cygnoides	60	Post-breeding flocks
Haliaeetus albicilla	3	?
Numenius madagascariensis	1	Passage migrant (?)
Larus relictus	4	Passage migrant

9.7 Analysis

Khukh nuur and associated wetlands qualify as an IBA on criteria A1 (Globally Threatened Species) supporting breeding *Anser cygnoides* and *Grus vipio* and non-breeding *Aythya baeri, Numenius madagascariensis* and *Larus relictus*.

The area also qualifies as an IBA on criteria A4i (supporting >1% biogeographic population of waterbirds) (Asian population estimates - Wei and Mundkur 2004) for the following species in May; *Larus mongolicus* (2,088 = ca. 2% estimated Asian population) July; *Tadorna ferruginea* (4,032 = ca.4% estimated Asian population) September: *Tadorna ferruginea* (1,530 = ca.1% of estimated Asian population) and *Podiceps cristatus* (527 = ca.1%).

The area also qualifies as an IBA on criteria 4iii (supporting more than 20,000 waterbirds) in July/August.

The potential impact of increasingly dry conditions on the populations of breeding birds on the lake would be worthy of further study. It is suggested that birds may be increasingly vulnerable to predation if the lake levels remain as low or lower than they were during the 2004 surveys. The potential impacts of fishing activities on the lake require further study.

9.8 Recommendations

That Khukh Nuur and associated lakes (the small lakes between Yakhi nuur and Sumyn nuur, between Sumyn nuur and Khukh nuur, and Sumyn nuur itself) **be designated an IBA**.

Willow Tit

10. The Ulz river Valley and associated lakes - including Galuut, Duruu and Bus nuur, the four Tsagaan nuur Lakes, Turgenii Tsagaan Nuur, and scattered lakes further to the south-west

10.1 Site descriptions

Ulz River Valley

The Ulz gol valley stretches some 428 km in a south-west to north-east direction, eventually draining into Lake Ozero in Russia, just north of the Mongolian border (Tsegmid 1969). The Ulz river meanders extensively through a wide valley floodplain between 3 and 6 km wide, with the valley sides rising up to merge into low hills with higher mountains behind. Further up the valley, to the west of Dashbalbar, the hill slopes supported natural coniferous forest, this being typical of the forest-steppe zone. Near the main villages, there was evidence of one or two small plantations. In places, the valley floor contains areas of *Salix* scrub (ca. 2-4 m high), very extensive areas of marsh and reedbed with wet pools, meanders and ox-bows. There were areas of more intensively grazed grassland in places, especially near villages such as Dashbalbar and Onon.

Within the valley, or occasionally in tributary valleys, are scattered lakes, often surrounded by low hills.

Duruu nuur

Although there is an area of reedbed and scrub at the north-west end, the shore of this lake is largely barren. However, extensive areas of the lake were relatively shallow in the spring, the low water level had exposed the barren, sandy shore and there were good numbers of waders along the water's edge. There was little evidence of disturbance, with limited evidence of human activity around the lake shore. This lake has had intermittent records of *Grus leucogeranus* summering since 1994, but no evidence of breeding.

Galuut nuur, including the small adjacent lake of two ha

Reeds and scrub were present at one end, but otherwise this lake has a fairly barren shore. The lake has fairly steep sides in places and the water appeared quite deep. The small lake adjacent was nearly dry in the summer visit.

Bus nuur

Similar to Galuut nuur, a fairly barren shoreline with no reeds or scrub around the margins of the lake though there is an island in the center of the lake.

The Tsagaan nuur Lakes

This was a group of four good-sized lakes, which held good numbers of birds

Khaichiin Tsagaan nuur

This is a large lake with a prominent spit on the eastern shore that in the spring was cut off as an island. The shore is fairly barren, with little emergent vegetation, although there is a good wetland on the east side where a small river enters the lake. By the fall this was dried out.

Davsan nuur

Large parts of this lake were dried out and salt-panned during the spring visit, though again there was a shallow marsh/reedy area with small island where there were nesting Herons and Cormorants. The area was dry by late-summer/fall visits. All the birds were concentrated in a reed-fringed pool near to the lake by the summer visit.

Khoriin Tsagaan nuur

This lake was similar to Khaichiin Tsagaan nuur - fairly steep-sided with a fairly barren shoreline with little emergent or fringing vegetation around much of it though all had areas of wet/marshy edge with little disturbance. This lake appeared to be wetter holding more water through the summer and into the fall.

All these lakes were very good for waterbirds.

Delger Tsagaan nuur

This lake had quite a gravelly shoreline with no reed or other marginal vegetation and was poor for waders.

Turgenii Tsagaan nuur

This site (which is called by either of the names above) consisted of two lakes, one of approximately 100 ha and one of 8 ha, set in an extensive marshy area, and reached by crossing two rivers. The smaller lake was dry during the summer and fall visits. It appears shallow, but has good marshy edges in places, along with exposed shore. The majority of the shore is rather barren and stony, but small numbers of waders were found scattered along the shoreline and adjacent grasslands.

Norovlin Tsagaan Nuur

This lake and the adjacent area of river valley supports an important post-breeding gathering of cranes, possibly attracted by the adjacent wheat fields that provide good feeding opportunities. *Otis tarda* were also located here. The lake itself is rather shallow with wide, muddy margins supporting good numbers of waders.

Ulz Valley lakes

These are scattered and generally much smaller in size than the previous set of lakes. Most are shallow, with exposed shore, and a few have marshy edges. Some extensive areas of reedbed occur close to some of the lakes. Many of the lakes had dried up by the time of the fall survey, with very few water-birds present. There also appeared to be a reduction in grazing pressure, with evidence of land being abandoned by humans when water resources had become scarce.

10.2 Methodology

In spring and summer the Ulz river valley was observed largely from vantage points along the valley sides. Periodic stops were made at appropriate elevated locations, with time taken to scope the valley bottom for open water and key species, such as *Anser cygnoides, Grus vipio* and *Otis tarda*. Known or observed lakes were visited and counted either as they were en route, or by making specific detours to lake locations known by the guides. Grid references were taken and passed on to the following teams.

Duruu nuur , Galuut nuur, and Bus nuur

These were all counted by driving around the shoreline, stopping at vantage points and ensuring no double counting. Conditions during the spring survey were very poor – extremely windy and dusty, which made counting difficult. During the summer and fall surveys, count conditions were generally good. It was not possible to visit the north-west shore of Duruu nuur due to the presence of a delta and dense vegetation, but counts were made from the south and eastern shore. The spring survey estimated 75% coverage. The summer survey estimated approximately 95% of wildfowl and 75% of waders were surveyed at all three lakes. In fall it is considered that coverage was virtually 100% at all three lakes.

Tsagaan nuur lakes

These lakes were all counted by driving and/or walking to good count locations. During the spring survey coverage was good, by virtue of splitting into two teams of one observer and one recorder, thus enabling more effective use of time. Conditions during the spring survey were much improved, with light winds and good visibility. During the summer and fall conditions were again good. Estimates during the summer and fall surveys were of approximately 95% wildfowl and 66% waders surveyed at Khaichiin Tsagaan nuur, approximately 95% of waterbirds surveyed at Davsan Tsagaan nuur and Delger Tsagaan nuur and approximately 95% wildfowl and 30% waders surveyed at Khoriin Tsagaan nuur.

Scattered Ulz Valley lakes

These were observed in a similar manner to the Tsagaan nuur lakes above. Again conditions were good, so good counts were obtained. In the fall access was restricted in the vicinity of the Onon area and it was not possible to explore the valley to the south-west of Bayandum sum centre.

10.3 Condition Assessment

Conditions along the Ulz valley varied along the route. There were parts of the valley, especially in the higher reaches, that contained very extensive areas of marsh with long tussocky vegetation and wet areas, which provided good conditions for a range of wetland species. There were good densities of breeding waders and duck in places, along with Grus vipio and *Anser cygnoides*. Duruu nuur is known to be a significant location for breeding and migratory swan geese, although 361 birds were recorded no obvious breeding evidence was observed. Generally speaking numbers of swan geese seemed to suggest that 2004 was neither a bad year (as the previous three years had been due to drought), but not especially good either (O. Goroshko *pers comm*.). South-west of E111 50/N48 35, the river itself began to disappear, and wetter areas became apparently less frequent within the wide marshy floodplain. In this area were a few lakes which were dry and salty and areas of current and previous cultivation. By the summer and fall visits, the river was also dry or nearly dry near the Tsagaan lakes and much of the floodplain was dry.

Grazing was the main land use, and evidence of grazing pressure increased as progress was made up the valley. There was slightly less evidence of grazing around Galuut nuur, Duruu nuur and Bus nuur, but there were several gers with livestock around the Tsagaan lakes. Further up the valley, especially west of Dashbalbar and around the village of Onon, grazing was heavy, mostly by sheep and horses, and there was much less marshy habitat present, with fewer wetland birds. The stretch between Dashbalbar and Turgenii Tsagaan nuur in particular was of less interest ornithologically.

Human disturbance in some areas may be significant, though difficult to assess, as we did observe Grus vipio nesting within 200 m of a ger. Some people believe cranes benefit from their association with man as they are less likely to be preyed upon by wolves. Disturbance from hunting or fishing was not apparent during any of the visits.

There were at least two large open cast gold mines on the north side of the floodplain west of N49 42 30.5 E113 73 33.3 and east of Turgenii Tsagaan nuur (N49 39 99.0 E113 26 63.5). It is considered that these large mineral operations may be having significant adverse impacts on the hydrology of the area and may be further exacerbating the effects of recent dry summers. No evidence of pollution was discovered, but this was not investigated to any significant degree.

10.4 Threat Assessment

Threat	Level
Low water levels - climatic	Medium
Grazing - overgrazing	Medium
Fishing	Low
Hunting	Low
Disturbance	Low - medium?
Pollution	Low – medium?
Other development (e.g., mineral exploration)	Medium - high

White-naped Crane and Swan Geese

10.5 Summary of Results

May 2004	Tsagaan nuur complex	Duruu, Galuut and Bus nuur	Turgenii Tsagaan nuur	Ulz valley wetlands	Total
Total number of waterbirds*	7,101	3,204	1,116	4,283	15,704
No. of species	43	37	33	53	58
Total number of waterbirds excluding gulls and terns	6,634	3,054	1,096	3,978	14,762
No. of species excluding gulls and terns	39	35	31	46	51

Aug 2004	Tsagaan nuur complex	Duruu, Galuut and Bus nuur	Turgenii Tsagaan nuur	Ulz valley wetlands	Total
Total number of waterbirds*	9,928	11,034	373	4,054	25,389
No. of species	50	45	23	47	68
Total number of waterbirds excluding gulls and terns	9,680	10,924	327	3,936	24,867
No. of species excluding gulls and terns	45	42	20	42	60

Sept 2004	Tsagaan nuur complex	Duruu, Galuut and Bus nuur	Turgenii Tsagaan nuur	Ulz valley wetlands	Total
Total number of waterbirds*	10,413	12,769	874	3,626	27,682
No. of species	36	39	31	39	61
Total number of waterbirds excluding gulls and terns	10,357	12,743	838	3,580	27,518
No. of species excluding gulls and terns	34	37	27	36	56

10.6 Globally threatened species

Spring

Species	Population in proposed IBA	Status
Anser cygnoides	419	Breeding
Haliaeetus albicilla	3	?
Grus vipio	115	Breeding
Limnodromus semipalmatus	15	Passage migrant

Summer

Species	Population in proposed IBA	Status
Anser cygnoides	1,370	Breeding/post-breeding flocks
Aythya baeri	3	?
Haliaeetus albicilla	1	Breeding
Falco naumanni	4	?
Otis tarda	6	Breeding (?)
Grus vipio	164	Breeding
Grus monacha	32	Passage migrant (?)
Limnodromus semipalmatus	16	Passage migrant
Numenius madagascariensis	4	Passage migrant
Larus relictus	8	Passage migrant

Fall

Species	Population in proposed IBA	Status
Anser cygnoides	2,138	Post-breeding flocks
Anas formosa	1	Passage migrant
Haliaeetus albicilla	1	?
Otis tarda	4	Breeding
Grus leucogeranus	2	Non-breeding
Grus vipio	201	Breeding/passage
Larus relictus	1	Non-breeding

10.7 Analysis

This area would qualify as an IBA under criteria A4iii (supporting >20,000 waterbirds) in August and September. However, the individual areas qualify as IBAs under the following features:

Ulz valley qualifies as an IBA on criteria A1 (Globally Threatened Species) supporting breeding *Anser cygnoides, Grus vipio* (for which this area is especially important) and *Otis tarda* and non-breeding *Limnodromus semipalmatus, Anas formosa* and *Grus monacha*.

The Tsagaan nuur complex qualifies as an IBA on criteria A1 supporting breeding *Anser cygnoides* along with passage *Limnodromus semipalmatus, Larus relictus* and *Numenius madagascariensis*. It also qualifies on criteria A4i (supporting >1% biogeographic population of waterbirds) (Asian population estimates - Wei and Mundkur 2004) for the following species in August: *Anser cygnoides* (654 = ca.1% of estimated Asian population); *Tadorna ferruginea* (1807 = ca.1%) and, in September, *Podiceps nigricollis* (4686 = ca.5%).

The Duruu, Galuut and Bus nuur complex qualify as an IBA under criteria A1 supporting breeding *Anser cygnoides* (for which this area is especially important) and *Grus vipio* along with *Limnodromus semipalmatus, Grus leucogeranus and Aythya baeri*. The area also qualifies as an IBA on criteria A4i (supporting >1% biogeographic population of waterbirds) for the following species: *Anser cygnoides* (1,866 in September = ca.3% of estimated Asian population); *Tadorna ferruginea* (3,443 in August = ca.2%); *Bucephala clangula* (1,484 in September = ca.2%) and *Podiceps nigricollis* (2,648 in September = ca.3%).

Turgenii Tsagaan nuur qualifies as an IBA on criteria A1 supporting breeding *Anser cygnoides, Grus vipio, Otis tarda* along with non-breeding *Limnodromus semipalmatus, Larus relictus, Grus monacha and Numenius madagascariensis*.

10.8 Recommendations

This area is exceptionally important for breeding and passage bird populations and should be designated an IBA.

It is essential that developments such as the mineral extraction recorded in the Ulz valley do not have an adverse impact on these populations. Further investigation of the effects of the existing mineral extraction and satisfactory environmental impact assessments of any further planned development are considered essential.

11. Khurkh river valley

11.1 Site Description

This area has been identified as IBA number 33 (Valley of Khurkh-Khutien) and covers 42,900 ha of plains bordered by low hills. The plains support extensive marshes with a scattered network of small to medium sized lakes and shallow small rivers. The plains are predominantly grassland or herbaceous steppe, but also hold extensive areas of cultivation, particularly wheat fields, some of which attracted foraging cranes. There is some evidence that cranes have increased in this area following a decrease in wheat cultivation in the Ulz valley. The lakes that we counted specifically are described below.

Jargalant nuur

A 15 ha salt lake with limited grazing pressure and extensive boundary of emergent vegetation. A rocky, vegetated island supports breeding *Larus mongolicus* and possibly ground nesting *Ardea cinerea*. The lake is clearly eutrophic, with large areas of floating pondweed, but there was no evidence of significant pollutants. Nearby was a smaller salty lake, grazed heavily to the lakeshore and supporting a smaller number of birds. The adjacent river and plains held good numbers of *Grus vipio* (including five pairs with young). Local farmers also confirmed the presence of *Otis tarda*, and these may have been overlooked by the survey team.

Khulst nuur

There is extensive grazing in the vicinity, but grazing pressure appears to be light, possibly due to extensive marshes adjacent to this and nearby lakes. This lake is fringed by and contains several sedge islands supporting good numbers of duck. There were also muddy margins attracting waders. *Circus spilonotus* were nesting in the sedge beds. The surrounding marshes and ex-cultivated fields held large numbers of cranes. To the east, an extensive plain held *Otis tarda* (similar numbers to 2002) and a good flock of cranes. The latter flew to roost on small lakes (Uvur burd) at dusk.

Khairkhamy Aryn nuur

Moving north up the plain, the area becomes drier with smaller areas of marshes and pools. There is an increase in the number of gers and grazing pressure. Fewer cranes were observed, but this may also reflect the absence of wheat fields and therefore feeding opportunities for post-breeding cranes. The presence of only a single pair of *Grus vipio* with one young just south of this lake may support this. This nuur is fresh with an extensive fringe of emergent rush.

Binder Ovoony nuur

A fresh lake, which would usually be bordered by extensive marshes to the east and west, but they had dried out following the dry summer of 2004. This allowed access to the south shore and an accurate count was obtained. The north shore had relatively little grazing pressure and extensive stands of emergent vegetation. The south shore was intensively grazed and had a muddy shore. (It has been commented that the pool appeared to be reducing in extent each year). There was a ger nearby, with some evidence of hunting, but little evidence of disturbance with many birds using the lake.

11.2 Methodology

This area was only visited in the fall, during 30 August to 1 September. The method employed was very similar to that in the Ulz valley, scanning the plains and marshes from elevated points along the valley sides and counting lakes from vantage points.

The count of duck at Khairkhamy Aryn nuur (particularly *Anas platyrhyncos*) was high, because the counters walked to the very edge of the lake and flushed the birds. This count practice was not adopted at many lakes to avoid disturbance to cranes etc. and almost certainly will result in under-recording of wildfowl and possibly waders at lakes with emergent vegetation. It is estimated that 75% of the water-birds were counted in this area.

11.3 Condition Assessment

Local farmers indicated that 2004 had been the third consecutive dry summer in this area. The marshes were drier than normal and this may explain the relatively low numbers of juvenile cranes. There was some anecdotal evidence to suggest that hunting of great bustard takes place, but apart from marmot hunting we saw no evidence of hunting. The drought may be having an impact on some areas with the dry conditions allowing grazing in areas that would typically be too wet. The large volume of macro-phytes in some of the lakes may also be a concern, suggesting a high degree of eutrophication. The sources of this nutrient enrichment were not apparent and the phenomenon could be part of a natural process.

11.4 Threat Assessment

Threat	**Level**
Low water levels - climatic	Medium
Grazing - overgrazing	Medium - high in places
Fishing	Low
Hunting	Medium - some evidence of bustard hunting
Disturbance	Low - medium?
Pollution	Low
Other development (e.g., mineral exploration)	Low currently

11.5 Summary of Results

Fall

Aug/Sept'04	Jargalant nuur area	Khurk nuur	Khairkhamy Aryn nuur	Binder Ovoony nuur	Khurkh valley	Total
Total number of waterbirds*	938	1,071	863	624	502	3,998
No. of species	37	36	18	23	22	51
Total number of waterbirds excluding gulls and terns	848	1,028	793	624	491	3,784
No. of species excluding gulls and terns	34	33	17	23	20	47

11.6 Globally threatened species

Fall

Species	Population in proposed IBA	Status
Anser cygnoides	4	Post-breeding
Haliaeetus albicilla	1	?
Otis tarda	18	Breeding
Grus monacha	2	Non-breeding
Grus vipio	227	Breeding/passage migrant
Falco naumanni	18	Passage migrant

11.7 Analysis

This area continues to qualify as an IBA on criteria A1 (Globally Threatened Species) supporting *Anser cygnoides*, breeding *Grus vipio* (for which this area is especially important) *Otis tarda* and non-breeding *Grus monacha* and *Falco naumanni*.

11.8 Recommendations

Investigations into the level of hunting of *Otis tarda* in this area.

12. Onon river valley

12.1 Site Description

This area has already been identified as an **IBA (the Onon-Balj, IBA number 34)**. It represents a further area of upland valleys bordered by low hills. Some of the valleys support small to medium-sized lakes and very shallow small rivers. The plains were predominantly grassland or herbaceous steppe. The lakes that were counted specifically are described below.

Binder Tsagaan nuur

This was a 10 ha salt lake to the south of Binder Sum centre. It appeared intensively grazed with bare mud margins and an extensive growth of floating vegetation. Although relatively close to human population, there was little evidence of disturbance. For example, birds only flew a short distance when horse riders passed along the lakeshore whilst we were counting.

Mankhaadai nuur

This comprised a series of two medium and one small salt lakes to the north-east of Binder, heavily grazed along the margins, with little or no emergent vegetation, and shrinking in size. There was a significant growth of floating vegetation on the western lake. Little disturbance was evident, and a rather different assemblage of species was apparent between the two lakes, but when a number of ducks were flushed from the eastern lake they flew to the west lake. There was a small flock of *Anser cygnoides* on the west lake.

Tavgiin nuur

This was a 2.5 ha salt lake surrounded by timber dwellings. Again, there was extensive growth of floating vegetation and lake was clearly shrinking in size due to drying out. It supported a good number of dabbling ducks, which when flushed flew east towards the following site. The highlight here was two *Anas formosa*.

Tengeleg river

This comprised a marshy floodplain, which was apparently significantly drier in 2004 following several years of drought (Gomboo *pers. com*.), but still supported five pairs of *Grus vipio* (two pairs with single young). The cranes were apparently first recorded in this area in 1999. No significant threats were apparent, apart from potential drought caused by climatic change. Local people suggested that migrant flocks of *Anthropoides virgo* were a fall feature here, but there was no evidence during the survey. There are not thought to be any *Otis tarda* in this area.

Three Lakes

These were small freshwater but acid forest lakes at Dadal tourist camp up to 8 ha in size. There was extensive emergent vegetation on one side, and a wide muddy margin on the other (potentially more disturbed by people). Nesting *Melanitta fusca* and *Podiceps nigricollis* were observed during the summer survey.

12.2 Methodology

This area was only visited in the fall, during 1 to 3 September (although the 3 lakes at Dadal were also visited in August). The method employed was very similar to that in the Ulz valley, scanning the plains and marshes from elevated points along the valley sides and counting lakes from vantage points. There was less emergent vegetation surrounding or within the lakes in this region and it is estimated that over 95% of the waterbirds were counted in this area.

12.3 Condition Assessment

The lakes and wetlands in this area appeared to be extremely dry. All the lakes had very wide, bare, dry margins. This indicated that the water levels were relatively low, and many of the smaller rivers had dried up. Many of the gers and timber dwellings were associated with wetland features, therefore there was potential for significant human disturbance of the wetlands (although there were few examples to suggest this was a genuine issue).

12.4 Threat Assessment

Threat	Level
Low water levels - climatic	Medium
Grazing - overgrazing	Medium
Fishing	Low
Hunting	Low
Disturbance	Low - medium?
Pollution	Low
Other development (e.g., mineral exploration)	low - medium?

Ochre Reed Bunting

12.5 Summary of Results

Fall

Sept 2004	Binder Tsagaan nuur	Mankhaadai nuur	Tavgiin nuur	Three Lakes	Total
Total number of waterbirds*	422	1670	476	361	2,929
No. of species	26	34	20	22	39
Total number of waterbirds excluding gulls	407	1663	476	345	2,891
No. of species excluding gulls	23	33	20	20	36

12.6 Globally threatened species

Fall

Species	Population in proposed IBA	Status
Anser cygnoides	29	Post-breeding flocks
Anas formosa	2	Passage migrant
Grus vipio	12	Breeding/passage migrant

12.7 Analysis

This area continues to qualify as an IBA under criteria A1 (Globally Threatened Species) supporting *Anser cygnoides*, Anas formosa and *Grus vipio*.

Pallas' Grasshopper Warbler

Siberian Rubythroat

13. Tsengeleg nuur

13.1 Site Description

Tsengeleg Nuur

This salt lake, identified as an **IBA (number 35)** near the town centre, supported apparently migrant *Larus relictus*.

Salbaryn Taria Brigad

This fall detour is an extensive area of wheat fields and a farm complex. This area held a large concentration of cranes, which roosted at the nearby Togoruu nuur.

Kheseg Nuur

This lake (alt. 860 m) attracted *Tetrao tetrix* to drink at dawn. A local herder indicated that the water level in the lake was the lowest for at least 20 years and that the bog was dry for the first time. During the 2004 summer, there had been a big die-off of fish introduced by the Russians in the 1960s. There may be an increased threat in this area from steppe fires.

13.2 Methodology

This area was only visited in the fall, during 5 and 6 September, as a diversion from the Ulz valley due to an exclusion area around a quarantined zone centred on Onon. The method employed was very similar to that in the Ulz valley, scanning from elevated points where there appeared to be concentrations of birds. The salt lakes in this region had little emergent vegetation and it is estimated that over 95% of the waterbirds were counted in this area.

13.3 Condition Assessment

Once again, the lakes and wetlands in this area appeared to be extremely dry. All the lakes had very wide margins indicating that the water levels were relatively low. Gers and timber dwellings were associated with wetland features, therefore there was potential for significant human disturbance of the wetlands (although few examples to suggest this was a genuine issue).

13.4 Threat Assessment

Threat	Level
Low water levels - climatic	Medium
Grazing - overgrazing	Medium
Fishing	Low
Hunting	Low
Disturbance	Low - medium?
Pollution	Low
Other development (e.g., mineral exploration)	low

13.5 Summary of Results

Fall

Sept 2004	Tsengeleg nuur	Total
Total number of waterbirds*	516	516
No. of species	25	25
Total number of waterbirds excluding gulls	430	430
No. of species excluding gulls	21	21

13.6 Globally threatened species

Fall

Species	Population in proposed IBA	Status
Anser cygnoides	1	Post-breeding
Grus vipio	9	Passage migrant
Larus relictus	4	Passage migrant

13.7 Analysis

This area continues to qualify as an IBA under criteria A1 (Globally Threatened Species) supporting *Anser cygnoides, Grus vipio* and *Larus relictus*.

Red-necked Stint

Longtoed Stint

14. Additional sites

14.1 Wheat fields SW of Sumbur sum centre N47 35 21.7 E118 33 46.9

This area was counted in fall en route between Sumbur and Tashgain Tavan nuur. A large gathering of feeding cranes was located in the wheat fields here and at least 2,112 *Anthropoides virgo*, 7 *Grus grus* and 7 *G. monacha* were located. It is suspected that these birds probably roost on the floodplain south of Sumbur town centre. The importance of wheat fields in eastern Mongolia for hosting fall migrant cranes was clearly apparent, particularly when the cultivated sites lie in relatively close proximity to lakes where the cranes can roost at night.

Similar gatherings were found in similar situations at Norovlin Tsagaan nuur (where 1,264 *Anthropoides virgo*, 173 *Grus vipio* (including 4 juveniles) and 37 *G. grus* were counted on 4 September) and Salbaryn taria brigad/Togoruu nuur (where 1,533 *Anthropoides virgo* and 9 *Grus vipio*, including 3 juveniles, were counted on 5 September).

A fall survey to assess the importance of these areas for crane populations would be extremely valuable. These birds are potentially vulnerable to poisoning incidents. Land-use changes could also have impacts. A reduction in food availability associated with a change from cereal cultivation could potentially affect the cranes' survival on migration.

Hooded Cranes

15. Additional information

1. The trips were significant in providing education and training for students of the National University of Mongolia, field biologists of the Mongolian Ornithological Society, and Protected Area Administration staff in field bird identification and field data collection. The trips provided good opportunities to researchers from the UK, Mongolia and Russia to exchange and share information on bird identification and bird status in Mongolia and other countries.

2. The trips covered every season of breeding and migration for birds in the region so comparative data can show species composition and their changes through the year. The next aim of the report will be focused on comparative analysis of the bird species composition and change.

3. The field research conducted by Mongolian and foreign ornithologists in the region will make a significant contribution to the long-term data of migratory species and to evaluate the seasonal and long term (at least 2 or 3 years) change of bird populations and distribution. During these three trips, field biologists collected valuable data on some species which have an unknown status in Mongolia such as Red-throated Pipit, Relict Gull, Baikal Teal, Pechora Pipit, and many other song birds. Ornithologists consider that there are three main migration routes of migratory birds in Mongolia. One of them is the eastern region of Mongolia that we surveyed in 2004. However, migration through the central and western regions of Mongolia is still unknown. Further field trips in the region are necessary to enable an understanding of the real changes of bird species and numbers in Mongolia and the region.

4. Mongolia is vast country and has many important sites for rare breeding, migratory and resident birds that require action to conserve their habitats for the future. Along with the sites identified during these surveys for eastern Mongolia there are many areas in central and western Mongolia that urgently require field research to ascertain their importance, for example, Baga Gazar chuluu, Sum Khukh Burd, Ikh Gazar Chuluu, Choiryn Bogd Uul, Terelj, Tuul river, Khustai nuruu and the Bulgan river. These areas are still not listed in the Ramsar site inventory or identified as IBAs due to a lack of field surveys. These area represent many of the main breeding sites of Black Vulture, Saker Falcon, Lesser Kestrel, Golden Eagle, Steppe Eagle, Great Bustard, Amur Falcon, White-napped Crane and forest birds in Mongolia and are also very important for migratory birds during spring and fall.

5. The Mongolian Ornithological Society (MOS), NGOs, professional organizations, the National University of Mongolia (NUM) and Governmental organizations with experienced field biologists can collaborate and support further ornithological surveys in Mongolia. These organizations have a proven track record, demonstrated here with the success of these surveys of eastern Mongolia under the agreement between MOS, NUM and foreign organizations and institutions. All members of MOS and NUM are very committed to further field surveys and future contributions that seek to increase our understanding of Mongolian bird life.

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Stilt Sandpiper

16. Appendicies

Appendix 1

GPS locations of count points on fall survey

Khentii aimag		Khentii aimag		Khentii aimag	
Kherlen river		**Khurkh river**		**Khurkh river**	
N47 75 49.8 E108 49 44.7	*Grus vipio* - 3 adults	N48 14 52.3 E110 17 93.2	19 Grus vipio [incl 1 pr & 2 yg] + 4 G.grus + Anthropoides virgo feeding in wheat field	N48 30 39.3 E110 33 16.1	flock of Grus vipio, G.grus and Anthropoides virgo
N47 82 49.0 E108 87 02.8	*Columba oenas* (stock dove)	N48 07 77.1 E110 11 75.0	Grus vipio pr & 1 yg, near ger	N48 26 72.5 E11013 84.4	plain
N47 68 90.4 E109 09 40.3	*Cygnus cygnus*	N48 13 3x.x E110 10 11.1	Riverine marsh, with 3 prs & 5 yg Grus vipio	N48 29 95.2 E110 34 69.3	small lake
N47 69 46.7 E108 47 27.4	Kherlen bridge	N48 17 37.7 E110 01 38.9	small salt lake	N48 31 48.2 E110 36 70.8	Khulst nuur
		N48 20 76.1 E109 95 78.6	Jargalant nuur	N48 34 90.4 E110 50 07.0	small lake
		N47 88 98.2 E109 80 99.2	Streptopelia decaocto (collared dove) at Umnudelger	N48 36 37.6 E110 53 36.9	Uvur Burd (viewpoint)

	2 Otis tarda - female & juv + Buteo hemilasius & Aegypius monachus
N48 48 90.8 E110 66 73.7	Viewpoint
N48 37 42.1 E110 54 88.2	Viewpoint
N48 40 98.4 E110 57 77.0	Khairkhamy Aryn nuur
N48 42 30.1 E110 59 31.5	Binder Ovoony nuur
N48 36 80.6 E110 29 26.3	
Onon river	Binder Tsaagan nuur
N48 59 10.0 E110 60 82.6	

Khentii aimag		**Khentii aimag**				**Dornod aimag**		**Dornod aimag**
Onon river		**Onon river**		**Ulz river**				
N48 62 04.1 E110 79 14.1	Mankhaadai nuur	N49 00 03.2 E111 48 59.1	Tavgiin nuur	N48 52 48.4 E111 63 95.6	Derst nuur	N48 30 58.7 E112 89 03.5	1360 Anthropoides virgo; 9 Grus vipio [3j] feeding at Salbaryn Taria Brigad:wheat field & farm complex, Tsagaanovoo sum; Dornod aimag	N49 20 20.5 E113 51 16.5
N48 61 45.7 E110 80 21.5	Mankhaadai nuur E	N48 98 03.8 E111 51 27.4	Tenngeleg river, Grus vipio (2 ads, 1juv)	N48 75 14.8 E111 98 48.9	Norovlin Tsagaan nuur	N48 33 50.3 E112 95 13.6	1533 Anthropoides virgo from Salbaryn taria brigad dropped into roost at Togoruu (crane) nuur, used by a nocturnal roost according to local people	**Ulz river**
		N48 99 96.3 E111 53 89.5	Grus vipio, 4 ads	N48 55 00.4 E111 74 36.5	2 Grus vipio near dry lake & 3rd-cy Haliaeetus albicilla, Aquila nipalensis, Milvus migrans	N48 55 36.2 E113 22 54.2	Tsengeleg Nuur	N49 39 99.0 E113 26 63.5
		N49 00 99.2 E111 56 02.7	Grus vipio, 4 ads, 1j	N48 48 51.7 E111 57 70.3	8 ad Grus vipio, 8 Anthropoides virgo [4 juvs], Cygnus cygnus			N49 42 24.0 E113 67 14.5
		N49.03 42.9 E111 65 77.5	Dadal, 3 lakes	N48 73 25.2 E111 98 87.9	1264 Anthropoides virgo, 173 Grus vipio [4j], 37 G. grus - adjacent to Norovlin Tsagaan Nuur			N49 42 30.5 E113 73 33.3
								N49 53 31.6 E114 15 73.6

	7th		8th		9th		13th	
	Dornod aimag				**Dornod aimag**		**Dornod aimag**	
Kheseg nuur [Birch bog lake - alt.860m] with 8 Lyrurus tetrix (5 males)	N49 52 57.5 E114 65 27.9	Chukh nuur	N49 65 08.2 E114 61 51.0	Khoriin Tsagaan nuur - S count point	N49 58 32.4 E115 59 86.8	Khukh nuur -count point ne1	N47 41 42.5 E117 33 07.1	Buir nuur - count point SW
	N49 67 95.1 E114 70 85.7	Khaichiin Tsagaan nuur - E count point	N49 65 04.4 E114 60 36.4	Khoriin Tsagaan nuur - SE count point	N49 58 33.4 E115 60 58.2	Khukh nuur -count point ne2	N47 41 46.8 E117 34 14.2	Buir nuur - count point SW2
Turgen nuur	N49 67 17.1 E114 68 36.8	Khaichiin Tsagaan nuur - SE count point	N49 67 23.2 E114 60 20.6	Khoriin Tsagaan nuur - N count point	N49 57 60.7 E115 62 91.6	Khukh nuur -count point e	N47 41 21.6 E117 35 36.9	Buir nuur - count point SW3
salt lake (lake 8)	N49 67 53.0 E114 66 71.5	Khaichiin Tsagaan nuur - SW count point	N49 70 50.4 E114 46 98.7	Delger Tsagaan nuur - S count point	N49 55 67.0 E115 63 72.7	Khukh nuur -count point se	N47 41 04.2 E117 35 59.5	Buir nuur - count point SW4 (warbler spit)
Uvgudiin Khar nuur [dry], 2 ad Grus vipio	N49 69 55.0 E114 67 40.7	Khaichiin Tsagaan nuur - N count point	N49 71 56.8 E114 59 10.3	Delger Tsagaan nuur - N count point	N49 53 63.5 E115 63 50.1	Khukh nuur -count point se2	N47 40 38.1 E117 34 46.2	Buir nuur - count point SW5
4 [2j] Grus vipio			N49 74 18.0 E114 95 35.7	salt lake 9 (no count - no swan geese)	N49 51 36.4 E115 62 98.5	Khukh nuur -count point se3	N47 39 41.6 E117 34 25.7	Buir nuur - count point SW6
			N49 73 31.2 E115 14 63.5	Bus nuur - count point 1	N49 49 31.7 E115 65 41.2	Khukh nuur -count point se4	N47 39 23.8 E117 34 13.7	Buir nuur - count point W1
			N49 74 87.0 E115 15 60.6	Bus nuur - count point 2 (N)	N49 47 46.7 E115 64 44.7	Khukh nuur -count point se5	N47 38 26.1 E117 34 32.9	Buir nuur - count point SW1 (pool)
			N49 74 64.7 E115 16 66.9	Bus nuur - count point 3	N49 45 71.2 E115 61 66.3	Khukh nuur -count point s	N47 37 29.3 E117 34 55.0	Bayan Nuur
			N49 73 82.0 E115 17 42.3	Bus nuur - count point 4	N49 46 39.9 E115 57 72.0	Khukh nuur -count point sw		
			N49 73 34.4 E115 25 66.4	Galuut nuur - sw count point	N49 46 91.4 E115 53 97.1	Khukh nuur -count point w		
			N49 74 11.6 E115 27 20.0	Galuut nuur - w count point	N49 48 72.7 E115 52 55.1	Khukh nuur -count point nw		
			N49 75 26.5 E115 26 70.1	Galuut nuur - nw count point	N49 50 64.1 E115 53 46.8	Khukh nuur -count point nw2		
			N49 76 27.5 E115 26 15.5	Galuut nuur - n count point	N49 52 34.4 E115 51 15.3	Khukh nuur -count point nw3		
			N49 77 82.7 E115 26 17.6	Galuut nuur - e count point	N49 53 54.3 E115 49 65.9	Khukh nuur -count point nw4		
			N49 74 42.4 E115 29 44.1	Galuut nuur - se count point	N49 54 08.5 E115 52 27.5	Khukh nuur -count point nw5		
			N49 66 33.7 E115 44 40.8	Duruu nuur - sw count point	N49 55 07.4 E115 55 49.6	Khukh nuur -count point n		
			N49 66 28.9 E115 46 13.1	Duruu nuur - se count point	N49 56 64.3 E115 57 62.5	Khukh nuur -count point n2		
			N49. E115.	Duruu nuur - n count point				

	14th			15th			16th
	Dornod aimag			**Dornod aimag**			**Dornod aimag**
Distance (km)			Distance (km)			Distance (km)	
	N47 39 02.9 E117 36 57.1	Buir nuur - count point S1	3.9	N47 54 22.4 E117 52 48.6	Khalkh delta (following previous trips) - fishing village lake	1	N47 21 00.7 E118 27 23.6
0.1	N47 39 28.9 E117 39 08.6	Buir nuur - count point 7#	2.9	N47 53 26.2 E117 55 23.5	Khalkh delta (following previous trips) - salt lake	3.7	N47 21 41.0 E118 29 14.6
1.9	N47 40 32.1 E117 40 28.5	Buir nuur - count point S2	2.6	N47 55 53.9 E118 01 37.0	Khalkh river (following previous trips) - eagle owl nest	9	N47 20 28.4 E118 30 09.8
0.7	N47 41 32.0 E117 42 19.5	Buir nuur - count point S3 (fishing camp)	3	N47 56 09.5 E118 03 51.0	Khalkh river (following previous trips) - Buir count location 11 [from May trip]	2.8	N47 20 38.0 E118 28 51.8
1.7	N47 42 12.1 E117 43 54.7	Buir nuur - count point S4	2.3	N47 57 15.6 E118 05 37.0	Khalkh river (following previous trips) - July Otis tarda location	3	N47 22 12.6 E118 28 49.0
1.8	N47 43 21.0 E117 46 06.4	Buir nuur - count point S5	3.5				
0.6	N47 44 26.5 E117 47 45.6	Buir nuur - count point 8	2.9	N47 35 21.7 E118 33 46.9	Wheat fields SW of Sumbur sum centre - 2112 Anthropoides virgo, 7 Grus grus and 7 G. monacha feeding. 4 Circus cyaneus & 1 C. spilonotus hunting.		N47 23 13.4 E118 20 59.0
1.8	N47 45 17.5 E117 48 59.7	Buir nuur - count point S6	2.2				N47 23 49.9 E118 20 57.5
1.8	N47 47 16.1 E117 51 18.3	Buir nuur - count point S7	4.7	N47 21 29.3 E118 27 13.1	Tashgain Tavan nuur (5 Lakes) - Lake 1 (medium/big, shallow margin, grazed but extensive reedbed to west)		N47 18 33.9 E118 10 38.9
	N47 48 56 5 E117 52 53.3	Buir nuur - count point S8	3.7				
	N47 51 42.8 E117 53 14.5	Buir nuur - count point E1	5.2				
	N47 54 18.8 E117 52 00.2	Buir nuur/Khalkh delta - army observation tower	5.1				

	Dornod aimag	
Tashgain Tavan nuur (5 Lakes) - Lake 4 [small pools, extensive reed, lighter grazing]	N47 15 00.2 E118 03 05.8	Bayan Burdiin nuur (2 Lakes) - big lake. Started at this location and then worked anti-clockwise for complete count.
Tashgain Tavan nuur (5 Lakes) - Lake 2 (incl.2 small nearby lakes)	N47 14 11.5 E118 07 05.3	Bayan Burdiin nuur (2 Lakes) - small lake. Counted from roof of van at this location
Tashgain Tavan nuur (5 Lakes) - Lake 6 [note July GPS is east shore of lake 2] - lake 5 in May	N47 10 59.8 E117 55 51.8	Khunt nuur - started at this location and then worked along shore for complete count.
Tashgain Tavan nuur (5 Lakes) - Lake 3	N47 19 46.2 E117 34 39.6	Bulang Shabar nuur
Tashgain Tavan nuur (5 Lakes) - Lake 5 [lake 6 in May]		
16 Grus grus (16) & 2 G. monacha feeding.		
Small lake en route to Khonkhor Shuumar nuur (3 lakes)		
Khonkhor Shuumar nuur (3 lakes)		

Appendix 2

Individual site waterbird counts

			Khulst nuur	Jargalant nuur	Uvur burd	Khairkhamy Aryn nuur	Binder ovoony nuur	Binder Tsaagan nuur	Mankhaadai nuur - N48 62 04.1 E110 79 14.1
			8/31/2005	8/30/2005	8/31/2005	9/1/2005	9/1/2005	9/1/2005	9/2/2005
Swan Goose	*Anser cygnoides*	Endangered	0	0	4	0	0	0	29
Bean Goose	*Anser (fabalis) serrirostris*		0	0	0	0	0	0	0
Bar-headed goose	*Anser indicus*		0	0	0	0	0	0	1
Whooper Swan	*Cygnus cygnus*		6	4	5	2	5	2	56
Common Shelduck	*Tadorna tadorna*		0	0	0	0	1	4	0
Ruddy Shelduck	*Tadorna ferruginea*		2	0	35	8	95	7	129
Gadwall	*Anas strepera*		129	5	0	18	10	13	6
Falcated Duck	*Anas falcata*		0	0	0	0	0	0	10
Eurasian Wigeon	*Anas penelope*		0	0	3	22	0	30	53
Mallard	*Anas platyrhynchos*		75	108	8	338	20	0	62
Spot-billed Duck	*Anas poecilorhyncha*		0	0	3	0	0	0	0
Northern Shoveler	*Anas clypeata*		3	16	30	67	35	10	22
Northern Pintail	*Anas acuta*		10	14	3	2	7	20	30
Garganey	*Anas querquedula*		3	2	1	6	1	0	1
Baikal Teal	*Anas formosa*		0	0	0	0	0	0	0
Eurasian Teal	*Anas crecca*		121	19	165	280	104	37	87
Common Pochard	*Aythya ferina*		0	4	4	8	0	99	159
Tufted Duck	*Aythya fuligula*		0	35	38	18	0	22	215
White-winged Scoter	*Melanitta (fusca) stejnegeri*		0	0	0	0	0	0	27
Common Goldeneye	*Bucephala clangula*		0	27	0	9	8	59	189
Smew	*Mergellus albellus*		0	0	0	0	0	0	0
Common Merganser	*Mergus merganser*		0	0	0	0	0	0	0
Red-breasted Merganser	*Mergus serrator*		0	0	0	0	0	0	0
Arctic Loon	*Gavia arctica*		0	0	0	0	0	0	0
Great Crested Grebe	*Podiceps cristatus*		0	0	0	0	0	0	0
Eared Grebe	*Podiceps nigricollis*		0	39	6	3	0	18	33

			Khulst nuur	Jargalant nuur	Uvur burd	Khairkhamy Aryn nuur	Binder ovoony nuur	Binder Tsaagan nuur	Mankhaadai nuur - N48 62 04.1 E110 79 14.1
			8/31/2005	8/30/2005	8/31/2005	9/1/2005	9/1/2005	9/1/2005	9/2/2005
Horned grebe	*Podiceps auritus*		0	0	0	0	0	0	0
Black Stork	*Ciconia nigra*		0	2	0	0	0	0	0
Spoonbill	*Platalea leucorodia*		0	0	0	0	0	0	0
Great Bittern	*Botaurus stellaris*		0	0	0	0	0	0	0
Gray Heron	*Ardea cinerea*		19	63	1	0	0	4	0
Great Cormorant	*Phalacrocorax carbo*		0	5	0	0	0	0	0
Eurasian Coot	*Fulica atra*		1	1	0	7	0	0	0
Demoiselle Crane	*Anthropoides virgo*	Vulnerable	0	0	9	0	0	0	0
Siberian Crane	*Grus leucogeranus*	Critical	0	0	0	0	0	0	0
White-naped Crane	*Grus vipio*	Vulnerable	2	4	79	0	0	0	0
Common Crane	*Grus grus*		0	0	33	0	0	0	0
Hooded Crane	*Grus monacha*	Vulnerable	0	0	2	0	0	0	0
Black-winged Stilt	*Himantopus himantopus*		0	0	3	0	0	0	0
Pied Avocet	*Recurvirostra avosetta*		0	0	0	0	0	0	0
Northern Lapwing	*Vanellus vanellus*		0	104	25	3	272	20	52
Pacific Golden-Plover	*Pluvialis fulva*		0	0	0	0	0	0	0
Grey Plover	*Pluvialis squatarola*		1	0	0	0	0	0	0
Little Ringed Plover	*Charadrius dubius*		0	0	0	0	1	0	0
Kentish Plover	*Charadrius alexandrinus*		0	0	0	0	0	0	0
Mongolian Plover	*Charadrius mongolus*		0	0	0	0	0	0	0
Pintail Snipe	*Gallinago stenura*		0	1	7	0	7	0	0
Common Snipe	*Gallinago gallinago*		1	0	10	0	0	0	0
Asian Dowitcher	*Limnodromus semipalmatus*	Near-threatened	0	0	0	0	0	0	0
Black-tailed Godwit	*Limosa limosa*		0	0	14	0	4	1	0
Little Whimbrel	*Numenius minutus*		7	0	0	0	0	0	0
Eurasian Curlew	*Numenius arquata*		0	0	0	0	0	0	0
Far Eastern Curlew	*Numenius madagascariensis*		0	0	0	0	0	1	0
Spotted Redshank	*Tringa erythropus*		57	1	100	1	16	0	6
Common Redshank	*Tringa totanus*		0	1	3	0	1	0	0
Marsh Sandpiper	*Tringa stagnatilis*		1	1	0	0	5	16	0
Common Greenshank	*Tringa nebularia*		2	0	1	0	5	3	1

			Khulst nuur	Jargalant nuur	Uvur burd	Khairkhamy Aryn nuur	Binder ovoony nuur	Binder Tsaagan nuur	Mankhaadai nuur - N48 62 04.1 E110 79 14.1
			8/31/2005	**8/30/2005**	**8/31/2005**	**9/1/2005**	**9/1/2005**	**9/1/2005**	**9/2/2005**
Green Sandpiper	*Tringa ochropus*		0	0	0	0	0	0	0
Wood Sandpiper	*Tringa glareola*		0	10	1	1	15	13	21
Terek Sandpiper	*Xenus cinereus*		0	0	0	0	0	0	0
Common Sandpiper	*Actitis hypoleucos*		0	0	0	0	0	2	0
Ruddy Turnstone	*Arenaria interpres*		0	0	0	0	0	0	0
Red Knot	*Calidris canutus*		0	0	0	0	0	0	0
Sanderling	*Calidris alba*		0	0	0	0	0	0	0
Red-necked Stint	*Calidris ruficollis*		0	5	0	0	9	21	0
Temminck's Stint	*Calidris temminckii*		0	1	0	0	0	1	0
Long-toed Stint	*Calidris subminuta*		0	0	0	0	0	0	0
Sharp-tailed Sandpiper	*Calidris acuminata*		0	0	0	0	1	0	0
Curlew Sandpiper	*Calidris ferruginea*		0	1	0	0	0	0	0
Broad-billed Sandpiper	*Limicola falcinellus*		0	0	0	0	0	0	0
Ruff	*Philomachus pugnax*		2	0	0	0	1	0	0
Red-necked phalarope	*Phalaropus lobatus*		0	3	0	0	1	4	5
Common Gull	*Larus canus*		0	0	0	0	0	0	0
Mongolian Gull	*Larus (cachinnans) mongolicus*		0	115	0	70	0	2	1
Black-headed Gull	*Larus ridibundus*		3	0	0	0	0	15	0
Relict Gull	*Larus relictus*		0	0	0	0	0	0	0
Little Gull	*Larus minutus*		0	0	0	0	0	0	0
Gull-billed Tern	*Sterna nilotica*		0	0	0	0	0	0	0
Caspian Tern	*Sterna caspia*		0	0	0	0	0	0	0
Common Tern	*Sterna hirundo*		6	0	1	0	0	2	0
Whiskered Tern	*Chlidonias hybrida*		0	0	0	0	0	0	0
White-winged Tern	*Chlidonias leucopterus*		6	5	20	0	0	0	0
	Total waterbirds (incl. gulls)		320	596	610	863	624	426	1165
	Total waterbirds (excl. gulls)		308	587	584	861	619	422	1109
Great Bustard	*Otis tarda*	Vulnerable	0	0	16	0	0		

			Mankhaadai nuur E - N48 61 45.7 E110 80 21.5	**Tavgiin nuur**	**Dadal, 3 lakes**	**Derst nuur**	**Norovlin Tsagaan nuur**	**Kheseg nuur**
			9/2/2005	9/3/2005	9/3/2005	9/4/2005	9/4/2005	9/6/2005
Swan Goose	*Anser cygnoides*	Endangered	0	0	0	0	0	0
Bean Goose	*Anser fabalis*		0	0	0	0	0	0
Bar-headed goose	*Anser indicus*		0	0	0	0	0	0
Whooper Swan	*Cygnus cygnus*		7	4	0	0	10	2
Common Shelduck	*Tadorna tadorna*		1	0	0	14	5	6
Ruddy Shelduck	*Tadorna ferruginea*		11	0	0	1	594	3
Gadwall	*Anas strepera*		62	7	1	0	75	0
Falcated Duck	*Anas falcata*		0	0	10	0	1	0
Eurasian Wigeon	*Anas penelope*		12	0	3	0	93	0
Mallard	*Anas platyrhynchos*		12	79	55	0	60	15
Spot-billed Duck	*Anas poecilorhyncha*		0	0	0	0	0	0
Northern Shoveler	*Anas clypeata*		7	4	0	0	64	14
Northern Pintail	*Anas acuta*		22	15	2	0	83	1
Garganey	*Anas querquedula*		0	2	0	0	0	0
Baikal Teal	*Anas formosa*		0	2	0	0	0	0
Eurasian Teal	*Anas crecca*		66	267	33	31	39	104
Common Pochard	*Aythya ferina*		13	0	1	0	73	0
Tufted Duck	*Aythya fuligula*		22	7	61	0	57	0
White-winged Scoter	*Melanitta fusca*		0	0	24	0	0	0
Common Goldeneye	*Bucephala clangula*		78	0	22	0	73	1
Smew	*Mergellus albellus*		0	0	0	0	0	0
Common Merganser	*Mergus merganser*		0	0	0	0	0	0
Red-breasted Merganser	*Mergus serrator*		0	0	0	0	0	0
Arctic Loon	*Gavia arctica*		0	0	0	0	0	0
Great Crested Grebe	*Podiceps cristatus*		0	0	0	0	0	0
Eared Grebe	*Podiceps nigricollis*		13	2	38	0	53	0
Horned grebe	*Podiceps auritus*		0	0	1	0	1	0
Black Stork	*Ciconia nigra*		0	0	0	0	0	0

			Mankhaadai nuur E - N48 61 45.7 E110 80 21.5	Tavgiin nuur	Dadal, 3 lakes	Derst nuur	Norovlin Tsagaan nuur	Kheseg nuur
			9/2/2005	9/3/2005	9/3/2005	9/4/2005	9/4/2005	9/6/2005
Spoonbill	*Platalea leucorodia*		0	0	0	0	0	0
Great Bittern	*Botaurus stellaris*		0	0	0	0	0	0
Gray Heron	*Ardea cinerea*		0	0	0	0	0	1
Great Cormorant	*Phalacrocorax carbo*		0	0	0	0	2	0
Eurasian Coot	*Fulica atra*		0	0	0	0	0	0
Demoiselle Crane	*Anthropoides virgo*	Vulnerable	0	0	0	0	1269	0
Siberian Crane	*Grus leucogeranus*	Critical	0	0	0	0	0	0
White-naped Crane	*Grus vipio*	Vulnerable	0	0	0	0	185	0
Common Crane	*Grus grus*		0	0	0	0	49	0
Hooded Crane	*Grus monacha*	Vulnerable	0	0	0	0	0	0
Black-winged Stilt	*Himantopus himantopus*		0	1	0	0	0	0
Pied Avocet	*Recurvirostra avosetta*		0	0	0	0	0	0
Northern Lapwing	*Vanellus vanellus*		66	51	38	0	333	0
Pacific Golden-Plover	*Pluvialis fulva*		2	0	0	0	31	0
Grey Plover	*Pluvialis squatarola*		0	0	0	0	0	0
Little Ringed Plover	*Charadrius dubius*		3	0	0	0	0	0
Kentish Plover	*Charadrius alexandrinus*		0	0	0	0	0	0
Mongolian Plover	*Charadrius mongolus*		0	0	0	0	0	0
snipe sp	*Gallinago sp.*		0	0	0	0	0	0
Common Snipe	*Gallinago gallinago*		3	5	0	0	0	2
Asian Dowitcher	*Limnodromus semipalmatus*	Near-threatened	0	0	0	0	0	0
Black-tailed Godwit	*Limosa limosa*		0	0	0	0	0	0
Little Whimbrel	*Numenius minutus*		0	0	0	0	0	0
Eurasian Curlew	*Numenius arquata*		0	0	0	0	0	0
Far Eastern Curlew	*Numenius madagascariensis*		0	0	0	0	0	0
Spotted Redshank	*Tringa erythropus*		0	0	7	0	1	4
Common Redshank	*Tringa totanus*		0	0	1	0	0	0
Marsh Sandpiper	*Tringa stagnatilis*		1	11	25	0	14	0

			Mankhaadai nuur E - N48 61 45.7 E110 80 21.5	**Tavgiin nuur**	**Dadal, 3 lakes**	**Derst nuur**	**Norovlin Tsagaan nuur**	**Kheseg nuur**
			9/2/2005	9/3/2005	9/3/2005	9/4/2005	9/4/2005	9/6/2005
Common Greenshank	*Tringa nebularia*		0	0	4	0	4	0
Green Sandpiper	*Tringa ochropus*		0	0	1	0	0	0
Wood Sandpiper	*Tringa glareola*		2	12	10	0	1	1
Terek Sandpiper	*Xenus cinereus*		0	0	0	0	0	0
Common Sandpiper	*Actitis hypoleucos*		0	1	0	0	0	3
Ruddy Turnstone	*Arenaria interpres*		0	0	0	0	0	0
Red Knot	*Calidris canutus*		0	0	0	0	5	0
Sanderling	*Calidris alba*		0	0	0	0	1	0
Red-necked Stint	*Calidris ruficollis*		47	1	0	2	25	0
Temminck's Stint	*Calidris temminckii*		2	2	0	0	1	1
Long-toed Stint	*Calidris subminuta*		1	0	0	0	0	0
Sharp-tailed Sandpiper	*Calidris acuminata*		0	0	0	0	0	0
Curlew Sandpiper	*Calidris ferruginea*		5	0	0	0	0	0
Broad-billed Sandpiper	*Limicola falcinellus*		2	1	0	1	0	0
Ruff	*Philomachus pugnax*		2	0	0	0	8	0
Red-necked phalarope	*Phalaropus lobatus*		0	1	3	0	8	0
Common Gull	*Larus canus*		0	0	1	0	0	0
Mongolian Gull	*Larus (cachinnans) mongolicus*		3	0	0	0	0	0
Black-headed Gull	*Larus ridibundus*		0	0	15	0	3	0
Relict Gull	*Larus relictus*		0	0	0	0	0	0
Little Gull	*Larus minutus*		0	0	0	0	0	0
Gull-billed Tern	*Sterna nilotica*		0	0	0	0	0	0
Caspian Tern	*Sterna caspia*		0	0	0	0	0	0
Common Tern	*Sterna hirundo*		0	0	0	0	0	0
Whiskered Tern	*Chlidonias hybridus*		0	0	0	0	0	0
White-winged Tern	*Chlidonias leucopterus*		0	0	0	0	0	0
	Total waterbirds (incl. gulls)		465	475	356	49	3221	158
	Total waterbirds (excl. gulls)		458	471	356	49	3211	156
Great Bustard	*Otis tarda*	Vulnerable			0	0	4	

			Turgen nuur	Ulz valley salt lake at N49 42 24.0 E113 67 14.5	Chukh nuur	Khaichiin Tsagaan nuur	Khoriin Tsagaan nuur	Delger Tsagaan nuur	Bus nuur	Galuut nuur	Duruu nuur
			9/6/2005	9/6/2005	9/7/2005	9/7/2005	9/8/2005	9/8/2005	9/8/2005	9/8/2005	9/8/2005
Swan Goose	*Anser cygnoides*	Endangered	154	0	2	0	80	38	28	0	1838
Bean Goose	*Anser fabalis*		0	0	0	0	0	0	0	0	0
Bar-headed goose	*Anser indicus*		0	0	0	0	0	0	0	0	0
Whooper Swan	*Cygnus cygnus*		8	0	22	0	69	23	28	6	5
Common Shelduck	*Tadorna tadorna*		0	6	0	492	6	2	18	198	0
Ruddy Shelduck	*Tadorna ferruginea*		6	8	11	857	74	229	968	121	261
Gadwall	*Anas strepera*		0	10	70	16	15	28	24	0	66
Falcated Duck	*Anas falcata*		1	0	0	0	0	0	0	0	0
Eurasian Wigeon	*Anas penelope*		131	0	201	4	118	199	75	0	299
Mallard	*Anas platyrhynchos*		50	28	0	10	111	16	62	31	537
Spot-billed Duck	*Anas poecilorhyncha*		0	0	0	0	0	0	0	0	1
Northern Shoveler	*Anas clypeata*		3	0	0	178	10	7	4	26	92
Northern Pintail	*Anas acuta*		29	0	18	3	26	1	3	2	95
Garganey	*Anas querquedula*		0	0	0	0	0	0	0	0	6
Baikal Teal	*Anas formosa*		0	1	0	0	0	0	0	0	0
Eurasian Teal	*Anas crecca*		33	21	7	340	4	6	35	104	1086
Common Pochard	*Aythya ferina*		8	1	1165	8	157	104	600	4	880
Tufted Duck	*Aythya fuligula*		9	13	5	26	135	77	6	0	8
White-winged Scoter	*Melanitta fusca*		2	0	0	0	58	90	0	0	0
Common Goldeneye	*Bucephala clangula*		0	7	54	105	950	465	332	805	285
Smew	*Mergellus albellus*		7	0	0	0	0	0	0	0	33
Common Merganser	*Mergus merganser*		0	0	8	0	0	0	0	0	0
Red-breasted Merganser	*Mergus serrator*		0	0	0	0	0	0	0	0	14
Arctic Loon	*Gavia arctica*		0	0	0	0	0	0	0	0	0
Great Crested Grebe	*Podiceps cristatus*		24	0	4	0	0	0	0	0	14
Eared Grebe	*Podiceps nigricollis*		0	4	2	1764	1638	1284	2506	142	0

			Turgen nuur	Ulz valley salt lake at N49 42 24.0 E113 67 14.5	Chukh nuur	Khaichiin Tsagaan nuur	Khoriin Tsagaan nuur	Delger Tsagaan nuur	Bus nuur	Galuut nuur	Duruu nuur
			9/6/2005	9/6/2005	9/7/2005	9/7/2005	9/8/2005	9/8/2005	9/8/2005	9/8/2005	9/8/2005
Horned grebe	*Podiceps auritus*		0	0	0	0	0	0	0	0	0
Black Stork	*Ciconia nigra*		0	0	0	0	0	0	0	0	0
Spoonbill	*Platalea leucorodia*		0	0	0	0	0	0	0	0	7
Great Bittern	*Botaurus stellaris*		0	0	0	0	0	0	0	0	0
Gray Heron	*Ardea cinerea*		24	0	22	0	0	0	0	6	69
Great Cormorant	*Phalacrocorax carbo*		10	0	3	4	0	0	10	5	12
Eurasian Coot	*Fulica atra*		0	0	0	1	4	0	0	0	0
Demoiselle Crane	*Anthropoides virgo*	Vulnerable	0	0	0	0	0	0	0	0	0
Siberian Crane	*Grus leucogeranus*	Critical	0	0	0	0	0	0	0	0	2
White-naped Crane	*Grus vipio*	Vulnerable	0	0	0	0	0	0	0	0	0
Common Crane	*Grus grus*		0	0	0	0	0	0	0	0	0
Hooded Crane	*Grus monacha*	Vulnerable	0	0	0	0	0	0	0	0	0
Black-winged Stilt	*Himantopus himantopus*		0	0	0	0	0	0	0	0	0
Pied Avocet	*Recurvirostra avosetta*		0	0	0	0	0	0	0	0	0
Northern Lapwing	*Vanellus vanellus*		280	21	70	163	33	0	72	227	139
Pacific Golden-Plover	*Pluvialis fulva*		6	0	0	0	0	0	0	0	0
Grey Plover	*Pluvialis squatarola*		0	0	0	0	0	0	0	0	0
Little Ringed Plover	*Charadrius dubius*		0	0	0	1	0	0	0	0	6
Kentish Plover	*Charadrius alexandrinus*		0	0	0	72	0	0	0	10	13
Mongolian Plover	*Charadrius mongolus*		0	0	0	2	0	0	0	0	0
snipe sp	*Gallinago sp.*		0	0	0	0	2	0	0	0	100
Common Snipe	*Gallinago gallinago*		0	0	2	7	1	0	5	10	5
Asian Dowitcher	*Limnodromus semipalmatus*	Near-threatened	0	0	0	0	0	0	0	0	0
Black-tailed Godwit	*Limosa limosa*		0	0	0	0	5	0	1	0	70
Little Whimbrel	*Numenius minutus*		3	0	0	0	0	0	0	0	0
Eurasian Curlew	*Numenius arquata*		1	0	0	0	0	0	0	0	0
Far Eastern Curlew	*Numenius madagascariensis*		0	0	0	0	0	0	0	0	0
Spotted Redshank	*Tringa erythropus*		7	2	16	12	41	1	3	9	207
Common Redshank	*Tringa totanus*		0	0	0	3	0	0	0	0	0
Marsh Sandpiper	*Tringa stagnatilis*		0	0	0	12	23	0	0	0	9

			Turgen nuur	Ulz valley salt lake at N49 42 24.0 E113 67 14.5	Chukh nuur	Khaichiin Tsagaan nuur	Khoriin Tsagaan nuur	Delger Tsagaan nuur	Bus nuur	Galuut nuur	Duruu nuur
			9/6/2005	9/6/2005	9/7/2005	9/7/2005	9/8/2005	9/8/2005	9/8/2005	9/8/2005	9/8/2005
Common Greenshank	*Tringa nebularia*		3	0	2	0	0	0	0	0	0
Green Sandpiper	*Tringa ochropus*		0	0	0	0	0	0	0	0	0
Wood Sandpiper	*Tringa glareola*		3	0	0	0	5	0	1	0	4
Terek Sandpiper	*Xenus cinereus*		3	0	0	0	0	0	0	0	0
Common Sandpiper	*Actitis hypoleucos*		0	1	0	0	3	2	1	0	0
Ruddy Turnstone	*Arenaria interpres*		0	0	0	0	0	0	0	0	0
Red Knot	*Calidris canutus*		0	0	0	0	0	0	0	0	0
Sanderling	*Calidris alba*		0	0	0	12	1	1	0	0	0
Red-necked Stint	*Calidris ruficollis*		26	4	0	47	0	5	5	44	0
Temminck's Stint	*Calidris temminckii*		2	0	0	10	1	1	5	0	5
Long-toed Stint	*Calidris subminuta*		0	0	0	0	0	0	0	0	0
Sharp-tailed Sandpiper	*Calidris acuminata*		0	0	0	4	0	0	0	0	2
Curlew Sandpiper	*Calidris ferruginea*		1	0	0	1	0	0	3	17	0
Broad-billed Sandpiper	*Limicola falcinellus*		0	0	0	0	0	0	0	0	0
Ruff	*Philomachus pugnax*		4	0	0	4	0	0	0	0	11
Red-necked phalarope	*Phalaropus lobatus*		0	0	0	0	0	0	0	0	0
Common Gull	*Larus canus*		6	2	5	26	5	2	0	8	2
Mongolian Gull	*Larus (cachinnans) mongolicus*		10	8	3	11	2	10	5	1	10
Black-headed Gull	*Larus ridibundus*		19	0	8	18	23	3	0	1	0
Relict Gull	*Larus relictus*		0	0	0	0	0	1	0	0	0
Little Gull	*Larus minutus*		0	0	0	0	0	0	0	0	0
Gull-billed Tern	*Sterna nilotica*		0	0	0	0	0	0	0	0	0
Caspian Tern	*Sterna caspia*		0	0	0	0	0	0	0	0	0
Common Tern	*Sterna hirundo*		1	0	0	0	0	0	0	0	0
Whiskered Tern	*Chlidonias hybridus*		0	0	0	0	0	0	0	0	0
White-winged Tern	*Chlidonias leucopterus*		0	0	0	0	0	0	0	0	0
	Total waterbirds (incl. gulls)		720	137	1698	4213	3520	2557	4772	1777	4355
	Total waterbirds (excl. gulls)		711	137	1676	4213	3451	2533	4744	1771	4350

			Tashgain Tavan nuur lake 1 - N47 21 29.3 E118 27 13.1	**Tashgain Tavan nuur lake 2 - N47 21 41.0 E118 29 14.6**	**Tashgain Tavan nuur lake 3 - N47 20 38.0 E118 28 51.8**	**Tashgain Tavan nuur lake 4 - N47 21 00.7 E118 27 23.6**	**Tashgain Tavan nuur lake 5 - N47 22 12.6 E118 28 49.0**	**Tashgain Tavan nuur lake 6 - N47 20 28.4 E118 30 09.8**
			9/15/2005	9/16/2005	9/16/2005	9/16/2005	9/16/2005	9/16/2005
Swan Goose	*Anser cygnoides*	Endangered	64	45	17	0	0	7
Bean Goose	*Anser fabalis*		0	0	0	0	0	0
Bar-headed goose	*Anser indicus*		0	0	0	0	0	0
Whooper Swan	*Cygnus cygnus*		0	5	2	4	0	0
Common Shelduck	*Tadorna tadorna*		149	4	0	0	0	0
Ruddy Shelduck	*Tadorna ferruginea*		13	50	1	1	0	0
Gadwall	*Anas strepera*		0	955	23	0	0	0
Falcated Duck	*Anas falcata*		0	53	30	0	0	0
Eurasian Wigeon	*Anas penelope*		0	904	148	0	0	0
Mallard	*Anas platyrhynchos*		4	736	138	9	0	9
Spot-billed Duck	*Anas poecilorhyncha*		4	0	0	3	0	0
Northern Shoveler	*Anas clypeata*		0	653	124	4	0	0
Northern Pintail	*Anas acuta*		23	51	10	10	0	7
Garganey	*Anas querquedula*		0	0	0	5	0	0
Baikal Teal	*Anas formosa*		0	0	0	0	0	0
Eurasian Teal	*Anas crecca*		209	26	9	91	0	10
Common Pochard	*Aythya ferina*		0	2610	341	9	0	32
Tufted Duck	*Aythya fuligula*		0	158	4	0	0	17
White-winged Scoter	*Melanitta fusca*		0	2	0	0	0	18
Common Goldeneye	*Bucephala clangula*		0	782	86	0	0	39
Smew	*Mergellus albellus*		0	0	0	0	0	0
Red-breasted Merganser	*Mergus serrator*		0	0	0	0	0	0
Common Merganser	*Mergus merganser*		0	0	0	0	0	0
Arctic Loon	*Gavia arctica*		0	0	0	0	0	0
Great Crested Grebe	*Podiceps cristatus*		0	0	0	0	0	0
Eared Grebe	*Podiceps nigricollis*		0	255	30	1	0	24
Horned grebe	*Podiceps auritus*		0	0	0	0	0	0
Red-necked Grebe	*Podiceps grisegena*		0	0	0	0	0	0
Black Stork	*Ciconia nigra*		0	0	0	0	0	0
Spoonbill	*Platalea leucorodia*		0	0	0	0	0	0
Great Bittern	*Botaurus stellaris*		0	0	0	0	0	0

			Tashgain Tavan nuur lake 1 - N47 21 29.3 E118 27 13.1	**Tashgain Tavan nuur lake 2 - N47 21 41.0 E118 29 14.6**	**Tashgain Tavan nuur lake 3 - N47 20 38.0 E118 28 51.8**	**Tashgain Tavan nuur lake 4 - N47 21 00.7 E118 27 23.6**	**Tashgain Tavan nuur lake 5 - N47 22 12.6 E118 28 49.0**	**Tashgain Tavan nuur lake 6 - N47 20 28.4 E118 30 09.8**
			9/15/2005	9/16/2005	9/16/2005	9/16/2005	9/16/2005	9/16/2005
Gray Heron	*Ardea cinerea*		0	0	0	0	0	0
Great Cormorant	*Phalacrocorax carbo*		0	0	0	0	0	0
Eurasian Coot	*Fulica atra*		0	81	0	0	0	0
Demoiselle Crane	*Anthropoides virgo*	Vulnerable	0	0	0	0	80	0
Siberian Crane	*Grus leucogeranus*	Critical	0	0	0	0	0	0
White-naped Crane	*Grus vipio*	Vulnerable	0	0	0	0	0	0
Common Crane	*Grus grus*		7	0	0	0	0	0
Hooded Crane	*Grus monacha*	Vulnerable	0	0	0	0	0	0
Black-winged Stilt	*Himantopus himantopus*		0	0	0	0	0	0
Pied Avocet	*Recurvirostra avosetta*		45	0	0	5	0	0
Northern Lapwing	*Vanellus vanellus*		62	12	10	1	20	4
Pacific Golden-Plover	*Pluvialis fulva*		0	0	0	0	0	0
Grey Plover	*Pluvialis squatarola*		1	0	0	0	0	0
Little Ringed Plover	*Charadrius dubius*		1	0	0	2	0	0
Kentish Plover	*Charadrius alexandrinus*		0	0	0	0	0	0
Mongolian Plover	*Charadrius mongolus*		0	0	0	0	0	0
Eurasian woodcock	*Scolopax rusticola*		0	0	0	0	0	0
snipe sp	*Gallinago sp.*		0	0	0	0	0	0
Common Snipe	*Gallinago gallinago*		1	0	0	22	2	1
Black-tailed Godwit	*Limosa limosa*		28	0	0	4	0	0
Bar-tailed Godwit	*Limosa*		1	0	0	0	0	0
Little Whimbrel	*Numenius minutus*		12	0	0	2	0	0
Eurasian Curlew	*Numenius arquata*		0	2	0	0	0	0
Far Eastern Curlew	*Numenius madagascariensis*		2	0	0	0	0	0
Spotted Redshank	*Tringa erythropus*		183	0	0	2	0	60
Common Redshank	*Tringa totanus*		0	0	0	0	0	0
Marsh Sandpiper	*Tringa stagnatilis*		0	0	0	3	0	0
Common Greenshank	*Tringa nebularia*		1	0	0	0	1	0
Green Sandpiper	*Tringa ochropus*		0	0	0	0	0	0
Wood Sandpiper	*Tringa glareola*		0	1	0	0	0	0
Terek Sandpiper	*Xenus cinereus*		0	0	0	0	0	0

			Tashgain Tavan nuur lake 1 - N47 21 29.3 E118 27 13.1	**Tashgain Tavan nuur lake 2 - N47 21 41.0 E118 29 14.6**	**Tashgain Tavan nuur lake 3 - N47 20 38.0 E118 28 51.8**	**Tashgain Tavan nuur lake 4 - N47 21 00.7 E118 27 23.6**	**Tashgain Tavan nuur lake 5 - N47 22 12.6 E118 28 49.0**	**Tashgain Tavan nuur lake 6 - N47 20 28.4 E118 30 09.8**
			9/15/2005	9/16/2005	9/16/2005	9/16/2005	9/16/2005	9/16/2005
Common Sandpiper	*Actitis hypoleucos*		0	0	0	0	0	0
Ruddy Turnstone	*Arenaria interpres*		0	0	0	0	0	0
Red Knot	*Calidris canutus*		0	0	0	0	0	0
Sanderling	*Calidris alba*		3	0	0	0	0	0
Red-necked Stint	*Calidris ruficollis*		39	0	0	0	0	0
Temminck's Stint	*Calidris temminckii*		1	0	0	1	0	0
Long-toed Stint	*Calidris subminuta*		0	0	0	0	0	0
Sharp-tailed Sandpiper	*Calidris acuminata*		1	0	0	0	0	0
Curlew Sandpiper	*Calidris ferruginea*		1	0	0	0	0	0
Broad-billed Sandpiper	*Limicola falcinellus*		1	0	0	0	0	0
Ruff	*Philomachus pugnax*		6	0	0	0	0	0
Red-necked phalarope	*Phalaropus lobatus*		0	0	0	3	0	0
Common Gull	*Larus canus*		2	0	0	1	0	0
Heuglin's Gull	*Larus (fuscus) heuglini*		0	0	0	0	0	0
Mongolian Gull	*Larus (cachinnans) mongolicus*		4	0	0	0	0	0
Black-headed Gull	*Larus ridibundus*		5	22	0	5	0	37
Relict Gull	*Larus relictus*		0	0	0	0	0	0
Little Gull	*Larus minutus*		0	0	0	0	0	0
Gull-billed Tern	*Sterna nilotica*		0	0	0	0	0	0
Caspian Tern	*Sterna caspia*		0	0	0	0	0	0
Common Tern	*Sterna hirundo*		0	0	0	0	0	0
Whiskered Tern	*Chlidonias hybridus*		0	3	2	1	0	1
White-winged Tern	*Chlidonias leucopterus*		0	0	0	0	0	0
	Total waterbirds (incl. gulls)		647	7306	955	184	103	259
	Total waterbirds (excl. gulls)		647	6348	930	183	103	258
Great Bustard	*Otis tarda*	Vulnerable	1	0	0	0	0	0

			Khonkhor shuumar nuur	Bayan Burdiin nuur - big lake	Bayan Burdiin nuur - small lake
			9/16/2005	9/17/2005	9/17/2005
Swan Goose	*Anser cygnoides*	Endangered	0	0	25
Bean Goose	*Anser fabalis*		0	0	0
Bar-headed goose	*Anser indicus*		0	0	0
Whooper Swan	*Cygnus cygnus*		2	7	0
Common Shelduck	*Tadorna tadorna*		2	50	0
Ruddy Shelduck	*Tadorna ferruginea*		1	28	2
Gadwall	*Anas strepera*		15	32	80
Falcated Duck	*Anas falcata*		0	0	0
Eurasian Wigeon	*Anas penelope*		6	0	528
Mallard	*Anas platyrhynchos*		7	165	57
Spot-billed Duck	*Anas poecilorhyncha*		0	0	0
Northern Shoveler	*Anas clypeata*		58	1	236
Northern Pintail	*Anas acuta*		36	0	29
Garganey	*Anas querquedula*		0	0	0
Baikal Teal	*Anas formosa*		0	0	0
Eurasian Teal	*Anas crecca*		65	187	14
Common Pochard	*Aythya ferina*		10	42	534
Tufted Duck	*Aythya fuligula*		0	1	6
White-winged Scoter	*Melanitta fusca*		0	10	0
Common Goldeneye	*Bucephala clangula*		3	111	64
Smew	*Mergellus albellus*		0	0	0
Red-breasted Merganser	*Mergus serrator*		0	0	0
Common Merganser	*Mergus merganser*		0	0	0
Arctic Loon	*Gavia arctica*		0	0	0
Great Crested Grebe	*Podiceps cristatus*		0	0	0
Eared Grebe	*Podiceps nigricollis*		2	878	14
Horned grebe	*Podiceps auritus*		0	0	0
Red-necked Grebe	*Podiceps grisegena*		0	0	0
Black Stork	*Ciconia nigra*		0	0	0
Spoonbill	*Platalea leucorodia*		0	0	0
Great Bittern	*Botaurus stellaris*		0	0	0
Gray Heron	*Ardea cinerea*		0	0	2
Great Cormorant	*Phalacrocorax carbo*		0	1	0
Eurasian Coot	*Fulica atra*		0	0	0
Demoiselle Crane	*Anthropoides virgo*	Vulnerable	0	0	0
Siberian Crane	*Grus leucogeranus*	Critical	0	0	0
White-naped Crane	*Grus vipio*	Vulnerable	0	0	0
Common Crane	*Grus grus*		0	0	0
Hooded Crane	*Grus monacha*	Vulnerable	0	0	0
Black-winged Stilt	*Himantopus himantopus*		0	0	0
Pied Avocet	*Recurvirostra avosetta*		0	15	0
Northern Lapwing	*Vanellus vanellus*		6	7	0
Pacific Golden-Plover	*Pluvialis fulva*		0	0	0
Grey Plover	*Pluvialis squatarola*		0	0	0
Little Ringed Plover	*Charadrius dubius*		1	0	0
Kentish Plover	*Charadrius alexandrinus*		0	12	0
Mongolian Plover	*Charadrius mongolus*		0	0	0
Eurasian woodcock	*Scolopax rusticola*		0	0	0
snipe sp	*Gallinago sp.*		18	0	0
Common Snipe	*Gallinago gallinago*		3	0	0

			Khonkhor shuumar nuur	Bayan Burdiin nuur - big lake	Bayan Burdiin nuur - small lake
			9/16/2005	9/17/2005	9/17/2005
Black-tailed Godwit	*Limosa limosa*		7	1	0
Bar-tailed Godwit	*Limosa*		0	0	0
Little Whimbrel	*Numenius minutus*		0	0	0
Eurasian Curlew	*Numenius arquata*		0	0	0
Far Eastern Curlew	*Numenius madagascariensis*		0	0	0
Spotted Redshank	*Tringa erythropus*		42	25	1
Common Redshank	*Tringa totanus*		0	0	0
Marsh Sandpiper	*Tringa stagnatilis*		0	4	0
Common Greenshank	*Tringa nebularia*		0	0	0
Green Sandpiper	*Tringa ochropus*		0	1	0
Wood Sandpiper	*Tringa glareola*		0	0	0
Terek Sandpiper	*Xenus cinereus*		0	0	0
Common Sandpiper	*Actitis hypoleucos*		0	0	0
Ruddy Turnstone	*Arenaria interpres*		1	0	0
Red Knot	*Calidris canutus*		0	0	0
Sanderling	*Calidris alba*		0	7	0
Red-necked Stint	*Calidris ruficollis*		11	102	0
Temminck's Stint	*Calidris temminckii*		5	0	0
Long-toed Stint	*Calidris subminuta*		0	0	0
Sharp-tailed Sandpiper	*Calidris acuminata*		0	0	0
Curlew Sandpiper	*Calidris ferruginea*		0	2	0
Broad-billed Sandpiper	*Limicola falcinellus*		0	0	0
Ruff	*Philomachus pugnax*		1	3	0
Red-necked phalarope	*Phalaropus lobatus*		0	2	0
Common Gull	*Larus canus*		1	0	0
Heuglin's Gull	*Larus (fuscus) heuglini*		2	0	0
Mongolian Gull	*Larus (cachinnans) mongolicus*		3	4	0
Black-headed Gull	*Larus ridibundus*		1	3	0
Relict Gull	*Larus relictus*		0	0	0
Little Gull	*Larus minutus*		0	0	0
Gull-billed Tern	*Sterna nilotica*		0	0	0
Caspian Tern	*Sterna caspia*		0	0	0
Common Tern	*Sterna hirundo*		0	2	0
Whiskered Tern	*Chlidonias hybridus*		0	3	1
White-winged Tern	*Chlidonias leucopterus*		0	1	0
	Total waterbirds (incl. gulls)		304	1622	1566
	Total waterbirds (excl. gulls)		289	1584	1485
Great Bustard	*Otis tarda*	Vulnerable	0	0	0

Appendix 3

Important Bird Areas: summary of global categories and criteria

* **Taken from Criteria for the Identification of Important Bird Areas in Kazakstan Lachman,L. and Braunlich, B 2003**

Category	Criterion	Notes
A1 Globally threatened species	The site regularly holds significant numbers of a globally threatened species, or other species of global conservation concern.	The site qualifies if it is known or thought to hold a population of a species categorized as Critical, Endangered, Vulnerable, Conservation Dependent or Data Deficient.
A4 Congregations	**(i)** The site is known or thought to hold, on a regular basis, ≥ 1% of a biogeographic population of a congregatory waterbird species. *or*	This applies to waterbirds species as defined by Rose and Scott (1997) resp. 3rd Ed. (2002). Thresholds have been set by combining flyway populations within Central Asia. For species lacking quantitative data, thresholds were set by estimating 1% of the Central Asian biogeographic population.
	(ii) The site is known or thought to hold, on a regular basis, ≥ 1% of the global population of a congregatory seabird or terrestrial species. *or*	This includes those seabird and terrestrial species not covered by Rose and Scott (1997). Where quantitative data were lacking, numerical thresholds were set by estimating 1% of the global population.
	(iii) The site is known or thought to hold, on a regular basis, ≥ 20,000 waterbirds or ≥ 10,000 pairs of seabirds of one or more species. *or*	This is the Ramsar criterion for waterbirds, the use of which is discouraged wherever data are good enough to permit the use of (i) or (ii).
	(iv) The site is known or thought to exceed thresholds set for migratory species at bottleneck sites.	Thresholds are set regionally or inter-regionally, as appropriate.