

Birding in Central Asia: an introduction to Mongolia

Thinking of Mongolia brings impressions of vast endless grasslands to mind. But the country has much more to offer: lush taiga in the north, a mosaic of steppe and coniferous forests in the north and centre, endless seas of grass in the east and dry desert-steppe and desert in the south. In addition, there are several mountain ranges with sub-alpine and alpine habitats at higher altitudes and many wetlands. Twice a year, millions of migrating birds cross the country, which lies at the intersection of the Central Palearctic and the East Asian-Australasian flyways. Mongolia is rarely on the itinerary of birdwatchers, despite being a country with fantastic landscapes – including some of the last true wilderness areas in Asia, a great bird life and very friendly, hospitable people.

(At the author's request, we have retained a number of English names of species featured in this article which differ from those in *An Annotated Checklist of the Birds of the Oriental Region* by Inskipp, Lindsay and Duckworth – Eds)

Some facts about Mongolia

Mongolia (known historically as 'Outer Mongolia' and called 'Mongolian People's Republic' between 1924 and 1992) is a large upland country in northern Central Asia, lying between eastern Siberia and northern China. It is 2,400 km across from east to west and is c 1,250 km from north to south at its widest point. It covers an area of 1,564,100 km² and in 1998 had a population of 2.4 million people (1.5 inhabitants/km²), with over half-a-million living in the capital Ulaanbaatar alone.¹ The country is mountainous, with about 60% of the surface lying between 1,000–2,000 m a.s.l. and just 15% below 1,000 m.²

Mongolia contains a great array of natural habitats and associated flora and fauna. Moving just a few hundred kilometres from north to south, the landscape changes from the forested mountains of the southern reaches of the Siberian taiga to the barren Gobi desert. From west to east, the landscape changes from mountainous terrain to vast plains. The main vegetation zones encompass mountain taiga (4% of the projected surface area), the alpine belt (3%), forest steppe (mountain forest steppe, 25%), dry steppe (26%), desert steppe (semi-desert, 27%), and desert (15%).³ Despite its low rainfall, Mongolia is rich in water resources, with approximately 1.5 million

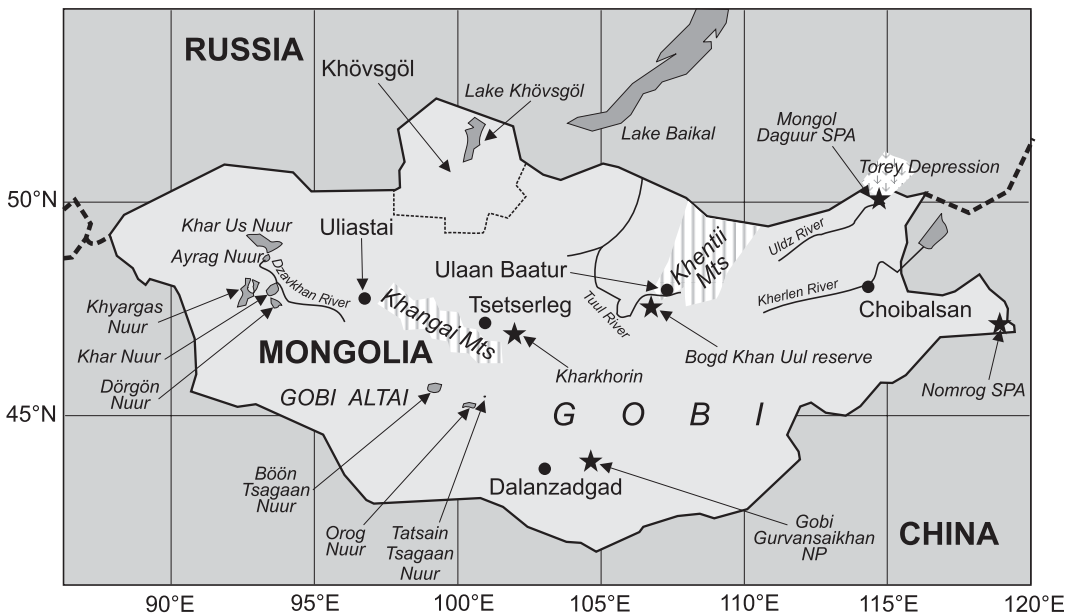


Figure 1. Map of Mongolia showing location of sites mentioned in the text.

ha of standing water bodies – both freshwater and saline, and 50,000 km of rivers.⁴

The climate is markedly continental, with severe winters, large diurnal and annual variations in temperature, low relative humidity and low precipitation, of which approximately 70% falls during the summer. The amount of precipitation ranges from around 50 mm/year in parts of the south to over 400 mm/year in some northern mountains. The average number of days with snow cover each year increases from 60 to 70 in the south to around 170 in the north.⁵

Avifauna

Mongolia's fauna represents a mixture of taxa from the Siberian taiga, the Eurasian steppes and the deserts of Central Asia. The latest published overview on birds gave a total of 415 species for the country in 1991.⁶ The national bird list is growing constantly, with recent additions of such rarities as Arctic Tern *Sterna paradisaea*⁷ and Black-headed Ibis *Threskiornis melanocephalus*⁸ for example. Possible new breeding species have been discovered in recent years, including Asian House Martin *Delichon dasypus* in northernmost Mongolia⁹ and Pale-legged Leaf Warbler *Phylloscopus tenellipes* near Ulaanbaatar.¹⁰ To date, c. 445–450 species (numbers varying according to taxonomic view and to the acceptance/rejection of a number of rarity records), including over 300 breeding species, have been recorded.¹¹ While the bird diversity is rather low for such a large country, several groups are represented by a fair number of species, e.g. cranes (6 species), raptors (39), waders (55), owls (12), leaf warblers (12) and buntings (22), to name but a few groups. Contrary to general opinion^{12,13} the author regards the globally threatened Hodgson's Bushchat *Saxicola insignis* (no recent records from Kazakhstan and Russia)¹² and Kozlov's Accentor *Prunella koslowi*¹⁴ as breeding species endemic to Mongolia.

BirdLife International lists 18 globally threatened, one conservation dependent and eight near threatened species for Mongolia,¹² of which Swan Goose *Anser cygnoides*, Pallas's Fish Eagle *Haliaeetus leucoryphus*, Cinereous Vulture *Aegyptius monachus*, Lesser Kestrel *Falco naumanni*, White-naped Crane *Grus vipio*, Great Bustard *Otis tarda*, Asian Dowitcher *Limnodromus semipalmatus*, and Relict Gull *Larus relictus* occur in globally important breeding populations.¹¹

Threats and Conservation

Despite its very low human population density, several factors have a severe impact on the natural environment in Mongolia, the most serious

probably being overgrazing by livestock. Many Mongolians are still nomads and kept almost 33 million head of livestock (sheep, goat, cattle, horse, and camel) in 1998.¹ Other threats include unplanned use and over-exploitation of natural resources, resulting in desertification, land degradation, and habitat loss; a growing number of steppe fires (mostly human-induced), which often spread into woodlands, forests and reedbeds; increasing infrastructure development, including construction of new railroads (planned) and roads; oil exploitation; and, to a lesser extent, poaching of wildlife, including the illegal capture of the still common Saker Falcon *Falco cherrug* for falconry in the Middle East. Recently there have been proposals to suspend the conservation status granted for protected areas or parts of them, to allow mining and road construction.

The percentage of the country set aside for nature reserves increased from 0.13% in 1967 to 13.1% (=20,5 million ha, 48 protected areas) in 2000, with a target to reach 30% between 2011 and 2030.¹⁵ However, several protected areas exist only on paper or suffer from inadequate funding, together with poor enforcement of environmental legislation. The difficulties associated with the economic transition occurring in Mongolia mean that government agencies have few financial resources for biodiversity conservation or for enhancing environmental protection and management of existing protected areas.

Some tips for visiting birdwatchers

Despite the fact that temperatures drop regularly to below minus 20° C and sometimes to minus 50° C. E. V. Kozlova¹⁶ recorded a total of 74 bird species in northern Mongolia in winter in the 1920s. However, most visiting birdwatchers will probably prefer the more pleasant warm season (late May to mid September).

A number of tour companies offer tailor-made birding trips to Mongolia but it is also possible to go on your own. A visa for one month can be obtained without invitation. Hiring a 4-wheel drive vehicle is almost essential as there is little public transport and many good sites are rather remote. A car plus driver costs around 0.5 US\$ per kilometre, including fuel. All provincial capitals can be reached by local flights from Ulaanbaatar. Accommodation is scarce, so be prepared to camp out. Tents can be pitched almost everywhere, caution must be taken only close to larger settlements and towns. Tips and hints on local travel can be found in various travel guide books, e.g. the reasonably good Lonely Planet guide published recently,¹⁷ and are not dealt with

further here. Visitors should always remember that infrastructure is generally underdeveloped. A trip away from the immediate vicinity of Ulaanbaatar needs careful planning and in remoter parts adequate safety measures. Make sure to carry enough water, tools for the car (something drivers don't necessarily think of!) and protective clothing (blizzards can occur even in summer!). A hand-held GPS (Global Positioning System)¹⁸ will provide extra security and is worth carrying in the field for exact documentation of observation sites, especially as there are often no obvious landmarks, and good maps are difficult to obtain.

Birding regions

Birdwatching can be rewarding almost everywhere in Mongolia. Until recently, ornithological research was scant in many areas, especially in the far west and far east of the country. By way of basic information, a selection of a few better-known sites, and some rarely visited areas is presented here (see Fig. 1 for location of sites mentioned in the text). The sites are so extensive that detailed directions cannot be given.

Ulaanbaatar and the Khentii Mountains

The starting point for any trip will be Ulaanbaatar (UB). The Nairamdal Park in the city centre and the Tuul (Tola) river just at the southern edge of town are always good for an early morning stroll. Species which can be seen include Daurian Partridge *Perdix dauurica*, Fork-tailed Swift *Apus pacificus*, Hill Pigeon *Columba rupestris*, Blyth's Pipit *Anthus godlewskii*, Richard's Pipit *A. richardi*, Azure Tit *Parus cyanus*, White-crowned Penduline Tit *Remiz coronatus*, Long-tailed Rosefinch *Uragus sibiricus*, Red-billed Chough *Pyrrhocorax pyrrhocorax*, Yellow-breasted Bunting *Emberiza aureola* and Meadow Bunting *E. cioides*. Often a good selection of East Siberian migrants turn up here during the migration seasons.

The Bogd Khan Uul reserve (41,651 ha), south of town, is the southernmost extent of the Khentii mountain taiga, and is covered by steppe on the lower reaches, giving way to forest-steppe, and finally to boulder fields. More than 120 species of birds have been recorded, including Ural Owl *Strix uralensis*, Three-toed Woodpecker *Picoides tridactylus*, Black Woodpecker *Dryocopus martius*, Olive-backed Pipit *Anthus hodgsoni*, and Brown Shrike *Lanius cristatus*. In winter, Asian Rosy Finch *Leucosticte arctoa* and Pallas's Rosefinch *Carpodacus roseus* have been observed in some numbers here.

Just to the west of town, near the airport, are some gravel ponds. This is an area of wetlands and grassland near the Tuul river where one can easily see many of the common species. In late summer/early autumn, hundreds of Ruddy Shelducks *Tadorna ferruginea* congregate here.

Gorkhi-Terelj National Park (293,168 ha), 54 km by paved road from UB, borders the Khan Khentii Strictly Protected Area (1.2 million ha) and includes the southern Khentii mountain range. The park offers a good variety of habitats with coniferous forest on slopes, rocky outcrops, rich meadows, small streams bordered by broadleaved woodland, and mature riparian poplar forests along the Tuul river. The bird fauna is similar to that of Bogd Khan Uul but more species have been recorded. Amongst the many species which may well be encountered are Siberian Thrush *Zoothera sibirica*, Orange-flanked Bush Robin *Tarsiger cyanurus*, Two-barred Warbler *Phylloscopus trochiloides plumbeitarsus*, Chinese Bush Warbler *Bradypterus tacsanowskii*, Dark-sided Flycatcher *Muscicapa sibirica*, Asian Brown Flycatcher *M. dauurica* and the rare Spotted Capercaillie *Tetrao parvirostris*.

Khangai Mountains

The Khangai Mountains in central-western Mongolia are often crossed on the way to areas in the south and west of the country. Driving south from UB, Upland Buzzards *Buteo hemilasius* and Cinereous Vultures can be encountered with increasing frequency. The steppe lakes of the region don't hold such large numbers of waterbirds as wetlands in the east and west of the country but are excellent to see a good selection of waterbirds, including breeding Black-throated Divers *Gavia arctica* and Spot-billed Ducks *Anas poecilorhyncha*.

The freshwater steppe lake, Ogi Nuur, near the road between UB and Tsetserleg is a fairly accessible rich wetland (c. 400 km west of UB). Regular species include White-tailed Eagle *Haliaeetus albicilla*, Swan Goose and Whooper Swan *Cygnus cgnus*. Asian Dowitcher has been seen displaying here and there are several records of Pallas's Fish Eagle, White-naped Crane (probably breeding) and Siberian Crane *Grus leucogeranus*.

Kharkhorin (Karakorum), the Mongol capital in the 13th and 14th centuries, lies c. 370 km to the south-west of Ulaanbaatar. A trip here can easily be combined with a visit to Ogi Nuur or the Gobi Lakes. Close to Kharkhorin, the largest agricultural area in Mongolia supports large congregations of up to 7,500 Demoiselle Cranes

Grus virgo and 5,000 Ruddy Shelducks in autumn (September). Other sought-after species like Amur Falcon *Falco amurensis*, Mongolian Lark *Melanocorypha mongolica* and Blyth's Pipit are regulars in the area. Eurasian Eagle Owl *Bubo bubo* has been recorded breeding in the buildings of the nearby Buddhist monastery of Erdene-Zuu.

The highest mountain of the Khangai, Otgon Tenger (4,021 m), near the town of Uliastai is home to the little-known Hodgson's Bushchat which occurs in subalpine meadows near streams, in areas with many gorges, rocky outcrops and scattered boulders, at an altitude of 2,430–2,600 m,¹² where it shares habitat with Altai Accentor *Prunella himalayana* and other high-altitude species.

Khövsgöl

Some of the finest forest in Mongolia can be found near Lake Khövsgöl (2,760 km², altitude 1,645 m, National Park 838,070 ha) in the north of the country. This is the smaller sister of Lake Baikal (c 200 km to the north-east) with which it shares many similarities in origin, flora and fauna. The forest avifauna is comparable to that of the Khentii mountains. The best birdwatching areas lie in the southern half of the western shore where there are several lagoons and wet meadows, with the taiga almost reaching the shoreline. This combination of habitats supports a wide variety of species (more than 250 recorded). In early / mid June, when the lake is often still frozen, waterbirds concentrate in remarkable numbers on these lagoons, including Horned Grebes *Podiceps auritus* and White-winged Scoters *Melanitta (fusca) stejnegeri*. While waders are rather rare in the area, the forests have good numbers of breeding Swinhoe's Snipe *Gallinago megala* and marshes near the lake might hold a few breeding pairs of Long-toed Stint *Calidris subminuta*.¹¹ The region is one of the few places in Siberia where Black-throated Thrush *Turdus ruficollis atrogularis* and Red-throated Thrush *T. r. ruficollis* have been

recorded breeding alongside each other.¹⁹ Northern Hawk Owl *Surnia ulula*, Oriental Cuckoo *Cuculus saturatus*, several species of leaf warbler *Phylloscopus* spp., Siberian Rubythroat *Luscinia calliope*, Rufous-backed Redstart *Phoenicurus erythronota*, and Daurian Redstart *P. aureoreus* occur here.

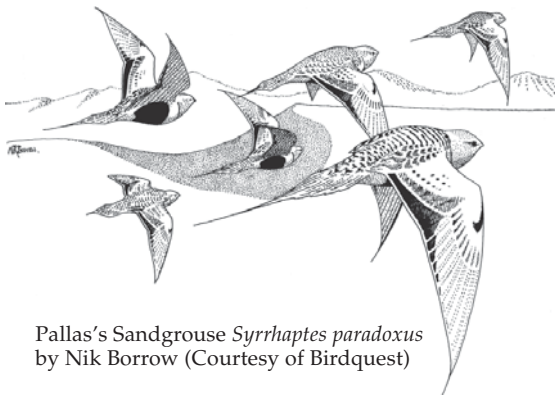
Great Lakes Basin

The Great Lakes Basin in western Mongolia contains some very large lakes: Khyargas Nuur (1,407 km², saline), Ayrag Nuur (143 km², freshwater), Khar Us Nuur (1,852 km², freshwater), Khar Nuur (575 km², freshwater), and Dörgön Nuur (305 km², saline). All lakes hold at least a few breeding pairs of Black-throated Diver, occurring here at the southernmost edge of their Eurasian range. Other characteristic species of the region include Bar-headed Goose *Anser indicus*, Black-tailed Godwit of the eastern subspecies *Limosa. l. melanuroides*, Pallas's Gull *Larus ichthyaetus*, White-winged and Whiskered Terns *Chlidonias leucopterus* and *C. hybridus*, Little Tern *Sterna albifrons*, Caspian Tern *Sterna caspia*, Gull-billed Tern *Gelochelidon nilotica*, Pallas's Sandgrouse *Syrrhaptes paradoxus*, Asian Short-toed Lark *Calandrella cheleensis*, and the beautiful white-headed race *leucocephala* of Yellow Wagtail *Motacilla flava*.

Captions for plates on pages 66–67

All photos by Henry Mix

- 1 Mongolian Ground-jay *Podoces hendersoni*, on rumen on top of a nomad tent, southern Gobi, Mongolia, November 1995
- 2 Dalmatian Pelican *Pelecanus crispus*, Ayrag Nuur, western Mongolia, June 1995.
- 3 Upland Buzzards *Buteo hemilasius*, main road Ulaanbaatar - Arvaikheer, Mongolia, July 1997.
- 4 Upland Buzzard *Buteo hemilasius*, Mongolia.
- 5 Demoiselle Cranes *Anthropoides virgo* and White-naped Cranes *Grus vipio*, Ulz valley, north-eastern Mongolia, May 1994.
- 6 White-naped Crane *Grus vipio*, Ulz valley, north-eastern Mongolia, May 1994.
- 7 Migrant Siberian Blue Robin *Luscinia cyane*, Kherlen valley, north-eastern Mongolia, May 1994.
- 8 Pallas's Sandgrouse *Syrrhaptes paradoxus*, southern Gobi, Mongolia, June 1996.
- 9 Pallas's Fish Eagle *Haliaeetus leucoryphus*, Orchon river, eastern Khangai, Mongolia, June 1994.
- 10 Pallas's Gulls *Larus ichthyaetus* at colony, Dörgön Nuur, western Mongolia, June 1995.



Pallas's Sandgrouse *Syrrhaptes paradoxus* by Nik Borrow (Courtesy of Birdquest)

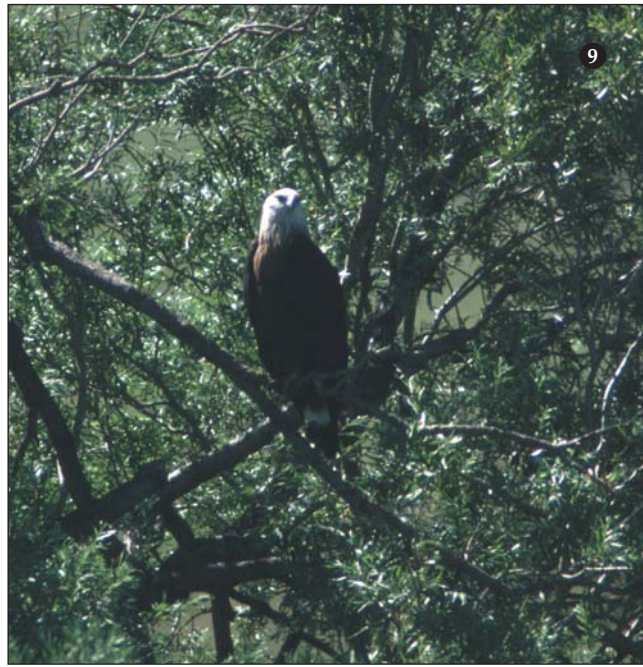


*Production of this double colour plate
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Captions are on page 65



Khar Us Nuur National Park (850,272 ha) has some of the largest reedbeds in Central and Eastern Asia. Characteristic breeding species are Great Bittern *Botaurus stellaris*, Paddyfield Warbler *Acrocephalus agricola*, Bearded Parrotbill *Panurus biarmicus* and the race *pyrrhuloides* of Reed Bunting *Emberiza schoeniclus* with its thick beak, adapted to crush reed stems when searching for arthropods in winter. A speciality here is the world-wide easternmost population of White-headed Duck *Oxyura leucocephala*, with a maximum of 238 birds recorded in September 1998.^{12,20} Patches of long grass on dry ground near the lake usually hold a few breeding pairs of Pallas's Bunting *Emberiza pallasii*.

Ayrag Nuur is another important site, being probably the most bird-rich wetland in Mongolia. Especially in late summer and early autumn, tens of thousands of birds use the area as a stop-over site. A wide variety of shorebirds can be observed feeding on exposed mud when water levels are low, especially at the mouth of the river Dzavkhan. For example, Broad-billed Sandpiper *Limicola falcinellus*, Sharp-tailed Sandpiper *Calidris accuminata*, Asian Dowitcher and Greater Sand Plover *Charadrius leschenaultii* occur, the latter with an impressive maximum of over 7,000 birds in July 1995.¹¹ Waterfowl are plentiful and in particular, Red-crested Pochard *Netta rufina*, Eurasian Wigeon *Anas penelope* and Common Teal *A. crecca* have been recorded in thousands, providing ample food resources for White-tailed and Pallas's Fish Eagles, which are present in dozens in late summer and early autumn. Besides a large colony of Eurasian Spoonbill *Platalea leucorodia*, the lake holds the last known breeding pairs of Dalmatian Pelican *Pelecanus crispus* in Mongolia.²¹

Bird life similar to that of the Great Lakes Basin can be found at the brackish Gobi Lakes (Böön Tsagaan Nuur, Orog Nuur, Tatsain Tsagaan Nuur and Ulaan Nuur), between the Khangai and Altai. Relict Gull has been reported breeding at Tatsain Tsagaan Nuur, and the lake is the only site in Mongolia where Brown-headed Gull *Larus brunnicapillus* has been recorded several times (in summer).¹¹

Eastern Mongolia

The grasslands of eastern Mongolia are the last large undisturbed steppe ecosystem in the world. Huge herds of Mongolian Gazelle *Procapra gutturosa*, often numbering tens of thousands of animals, still roam in this area. The provincial capital, Choibalsan, 600 km east of UB can be reached by fairly good roads in one and a half

days. Plentiful poplars in the town create an oasis-like effect and during spring the author has seen the town bustling with a plethora of migrants, including hundreds of Taiga Flycatchers *Muscicapa (parva) albicilla*, Siberian Blue Robins *Luscinia cyane* and the occasional White-throated Rock Thrush *Monticola gularis*. The nearby Kherlen river produced surprising observations of species such as Oriental Pratincole *Glareola maldivarum*, Chinese Pond Heron *Ardeola bacchus* and Von Schrenck's Bittern *Ixobrychus eurhythmus*.¹¹

There are numerous wetlands in eastern Mongolia. The Torey Depression (shared with south-eastern Transbaikalia, Russia) in the northeast, for example, may contain over 1,500 lakes in wet periods.²² Characteristic species include Pied Harrier *Circus melanotus*, Swan Goose, Eastern Curlew *Numenius madagascariensis*, Relict Gull, Black-browed Reed Warbler *Acrocephalus bistrigiceps* and Pallas's Grasshopper Warbler *Locustella certhiola*. Small islands on several steppe lakes are home to colonies of Mongolian Gulls *Larus mongolicus*, a species that was regarded as a subspecies of Yellow-legged Gull *Larus cachinnans* until recently, but which is undoubtedly genetically and morphologically distinct and should be given specific status.^{23,24} The grasslands provide habitat to thousands of northward bound Pacific Golden Plovers *Pluvialis fulva* and, especially in autumn, to large numbers of Little Curlews *Numenius minutus*. The small lake Ikh Tashgai Nuur, with its reedbeds and marshes, is one of the very few localities where Reed Parrotbill *Paradoxornis heudei* occurs and recently Ochre-rumped Bunting *Emberiza yessoensis* has been discovered breeding here.¹¹

Mongol Daguur Strictly Protected Area (103,016 ha) was established to preserve a representative portion of Mongolia's Daurian steppe and its characteristic flora, fauna, landscape, and endangered species. Six species of crane have been recorded: Common Crane *Grus grus* (on passage, probably breeding), Hooded Crane *G. monacha* (common on passage, especially in autumn), White-naped Crane (fairly common breeding visitor), Red-crowned Crane *G. japonensis* (very rare visitor), Siberian Crane (rare non-breeding summer visitor and passage migrant), and Demoiselle Crane (common breeding visitor). The protected area is especially known for its high density of nesting White-naped Cranes. The Uldz River (which flows through the southern part) and the nearby Onon and Khukh rivers support one of the largest breeding populations of this species in the world.

Nomrog Strictly Protected Area (311,205 ha) covers the remote and uninhabited far eastern tip of Mongolia and includes the westernmost end of the Da Hinggan mountain range, which extends into Mongolia from Manchuria, China. As it is situated near the border, foreigners require a special permit to visit this area. The region is relatively wet and one-fifth of the area is forested, primarily by small groves of Scotch pine, white birch and willow. Mandarin Duck *Aix galericulata*, Yellow-rumped Flycatcher *Ficedula zanthopygia* and Black-naped Oriole *Oriolus chinensis*, inhabiting riparian forest, reach the westernmost limit of their range here.

Gobi and Gobi Altai

Travel to desert regions requires expedition-like logistics and remoter parts are better explored with two 4-wheel drive vehicles for safety reasons. Key species to be seen in the Gobi include McQueen's Bustard *Chlamydotis macqueeni*, Pallas's Sandgrouse, Mongolian Ground-jay *Podoces hendersoni*, Desert Warbler *Sylvia nana*, Steppe Grey Shrike *Lanius (meridionalis) pallidirostris* and Saxaul Sparrow *Passer ammodendri*.

A good base for a desert tour is the well-known Gobi tourist camp near the regional capital, Dalanzadgad. Poplars were planted here in 1978 in the otherwise treeless landscape. They attract often large numbers of migrants such as Japanese Sparrowhawk *Accipiter gularis*, Amur Falcon, Lesser Kestrel and various passerines. Recent first records for Mongolia from this site include Black Drongo *Dicrurus macrocercus* and Forest Wagtail *Dendronanthus indicus*.⁷ Père David's Snowfinch *Pyrgilauda davidiana* and both Greater Sand Plover and Oriental Plover *Charadrius veredus* breed in the vicinity of the camp.

Gobi Gurvansaikhan National Park (2,694,737 ha), situated west of Dalanzadgad, encompasses a series of ridges and valleys that make up the eastern end of the Gobi Altai mountains. Surrounded by low plains, the mountains rise to 2,200–2,600 m. The park, which extends for more than 380 km from east to west, lies at the northern edge of the Gobi desert but at higher elevations includes desert-steppe and steppe. The park's landscape is extremely varied, with rocky and sandy desert plains, precipitous cliffs and ravines, salt pans, and oases. Over 240 bird species occur in the area. Yolyn Am (Vulture Valley) – the name is based on the abundant occurrence of Eurasian Griffon *Gyps fulvus* and Bearded Vulture *Gypaetus barbatus* – is on the itinerary of almost all visiting birdwatchers. Several species of rosefinch

Carpodacus spp., Altai Snowcock *Tetraogallus altaicus*, Wallcreeper *Tichodroma muraria*, White-winged Redstart *Phoenicurus erythrogaster*, Brown Accentor *Prunella fulvescens*, Kozlov's Accentor, Godlewski's Bunting *Emberiza godlewskii*, and Mongolian Finch *Bucanetes mongolicus* breed in the valley. A few years ago a birdwatching group even saw the elusive Snow Leopard *Uncia uncia* at a kill here.

Request for information

The author welcomes any type of information on the birds of Mongolia. Relevant data will be used for various publications and projects, including BirdLife International's Important Bird Areas programme. Any contribution will be acknowledged by letter and in print.

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References

1. Bajiiikhuu, Kh., Dolgor, S. and Tegshjargal, Ts., eds. (1999) *Mongolian Statistical Yearbook 1998*. Ulaanbaatar: National Statistical Office of Mongolia.
2. Murzaev, E. M. (1954) *Die Mongolische Volksrepublik*. Physischgeographische Beschreibung. Gotha: VEB Geographisch-Kartographische Anstalt.
3. Hilbig, W. (1995) *The Vegetation of Mongolia*. Amsterdam: SPB Academic Publishing.
4. Davies, J. (1989) Mongolian People's Republic. Pp. 1–30 in: Scott, D. A., ed.: *A directory of Asian wetlands*. Gland, Switzerland and Cambridge, UK: IUCN., the World Conservation Union.
5. Mallon, D. P. (1985) The mammals of the Mongolian People's Republic. *Mammal Rev.* 15(2): 71–102.
6. Fomin, V. E. and Bold, A. (1991) [Catalogue of the Birds of the Mongolian People's Republic]. In: [The Vertebrates of the Mongolian People's Republic]. Moscow: Nauka. (In Russian.)
7. Folz, H.-G. (2000) *Ornithologische Exkursionen in der Mongolei vom 02. – 21 Juni 2000*. Unpublished trip report.
8. Ryslavy, T. (1998) *Mongolei (Gobi-Altai) 23.08. – 20.09.98*. Unpublished trip report.
9. Durnev, Yu. A., Siroklin, I. N. and Sonin, V. D. (1983) [Materials on the ecology of *Delichon dasypus* (Passeriformes, Hirundinidae) on Khamar-Daban (south Baikal territory).] *Zool. Zhurn.* 62: 1541–1546. (In Russian.)

10. Smirenskij, S. M. and Sumjaa, D. (1990) Der Amurlaub Sänger, *Phylloscopus tenellipes* Swinhoe, ein neuer mongolischer Brutvogel? *Mitt. Zool. Mus. Berlin* 66, Suppl.: *Ann. Ornithol.* 14: 143–145.
11. Bräunlich, A., unpublished
12. BirdLife International (2001) *Threatened Birds of Asia: the BirdLife International Red Data Book*. Cambridge, UK: BirdLife International.
13. Wheatley, N. (1996) *Where to Watch Birds in Asia*. London: Christopher Helm.
14. Gedeon, K., Jähme, E. and Bräunlich, A. (2002) Anmerkungen zum Brüten und zu Feldkennzeichen der Steppenbraunelle *Prunella koslowi*. *Ornithol. Mitt.* 54(2): 52–56 + inside front cover.
15. Myagmarsuren, D., ed. (2000) *Special Protected Areas in Mongolia*. Ulaanbaatar: Munkhyn Useg.
16. Kozlova, E. V. (1932–1933) The birds of south-west Transbaikalia, Northern Mongolia, and Central Gobi. *Ibis* (13)2: 316–347, 405–438, 567–596; 13(3): 59–87, 301–332.
17. Mayhew, B. (2001) *Mongolia*. Melbourne, Oakland, London, Paris: Lonely Planet Publications.
18. Ingraham, S. (2000) GPS for Birders? *Birding* 32(7): 77–79.
19. Kalbe, L. (1994) Zur Vogelwelt am nordmongolischen See Chöwdsgöl. *Mitt. Zool. Mus. Berlin* 70, Suppl.: *Ann. Ornithol.* 18: 31–52.
20. Liegl, C. (1998) *Waterfowl in Har Us Nuur National Park and at Ayrag Nuur (Western Mongolia), Report on two Expeditions in June and September 1998*. WWF Project Office Mongolia: unpublished.
21. Mix, H. M. and Bräunlich, A. (2000) Dalmatian Pelican. Pp. 78–83, 332–333 in: Reading, R. P. and B. Miller, eds.: *Endangered Animals. A Reference Guide to Conflicting Issues*. Westport, Connecticut and London: Greenwood Press.
22. Goroshko, O. A. (1999) Migration of Red-necked Stint (*Calidris ruficollis*) through Transbaikalia (Russia) and adjacent regions of North-eastern Mongolia. *Stilt* 35: 34–40.
23. Liebers, D., Helbig, A. J. and De Knijff, P. (2001) Genetic differentiation and phylogeography of gulls in the *Larus cachinnans-fuscus* group (Aves: Charadriiformes). *Molecular Ecology* 10: 2447–2462.
24. Yésou, P. (2001) Phenotypic variation and systematics of Mongolian Gull. *Dutch Birding* 23: 65–82.



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Beautiful Nuthatch *Sitta formosa* by Craig Robson (Courtesy of Birdquest)