Directory of Important Bird Areas in Mongolia:

KEY SITES FOR CONSERVATION

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Directory of Important Bird Areas in Mongolia:

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Editors:

Batbayar Nyambayar
and
Natsagdorj Tseveenmyadag

Major contributors:

Ayurzana Bold
Schagdarsuren Boldbaatar
Axel Bräunlich
Simba Chan
Richard F. A. Grimmett
and
Andrew W. Tordoff

This document is an output of the World Bank study *Strengthening the Safeguard of Important Areas of Natural Habitat in North-East Asia*, financed by consultant trust funds from the government of Japan

Ulaanbaatar, January 2009

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Implemented by: BirdLife International, the Wildlife Science and Conservation Center and the Institute of Biology of the Mongolian Academy of Sciences

In collaboration with: Ministry of Nature, Environment and Tourism

Supporting organisations: WWF Mongolia, WCS Mongolia Program and the National University of Mongolia

Editors: Batbayar Nyambayar and Natsagdorj Tseveenmyadag

Major contributors: Ayurzana Bold, Schagdarsuren Boldbaatar, Axel Bräunlich, Simba Chan, Richard F. A. Grimmett and Andrew W. Tordoff

Maps: Dolgorjav Sanjmyatav, WWF Mongolia

Cover illustrations: White-naped Crane *Grus vipio*, Dalmatian Pelican *Pelecanus crispus*, Whooper Swans *Cygnus cygnus* and hunters with Golden Eagles *Aquila chrysaetos* (Batbayar Nyambayar); Siberian Cranes *Grus leucogeranus* (Natsagdorj Tseveenmyadag); Saker Falcons *Falco cherrug* and Yellow-headed Wagtail *Motacilla citreola* (Gabor Papp).

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Copies available from:

Wildlife Science and Conservation Center,
Institute of Biology Building, Mongolian Academy of Sciences,
Ulaanbaatar 210351, Mongolia
Tel: +976 11 453843
E-mail: info@wscc.org.mn
Website: www.wscc.org.mn

BirdLife International Asia Division,
TM Suidobashi Building, 4F, Misaki-cho 2-14-6, Chiyoda-ku,
Tokyo 106-0061, Japan
Tel: +81 3 52130461, Fax: +81 3 52130422
E-mail: info@birdlife-asia.org
Website: www.birdlife-asia.org

BirdLife International,
Wellbrook Court, Girton Road, Cambridge, CB3 0NA, UK
Tel: +44 1223 277318, Fax: +44 1223 277200
E-mail: birdlife@birdlife.org
Website: www.birdlife.org

Disclaimer

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Acknowledgements

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The list of IBAs in Mongolia was finalised at a workshop entitled *Towards the Identification and Safeguarding of Important Areas of Natural Habitat in Mongolia,* held in Ulaanbaatar on 19 and 20 April 2007. WSCC, the Institute of Biology and BirdLife International would like to extend their thanks to the organisations that supported this workshop, namely the World Bank, MNET, WWF Mongolia, WCS Mongolia Program and the National University of Mongolia.

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Finally, the editors would like to express their appreciation to the staff of BirdLife International for the role they played in managing the World Bank study, and for the technical contributions they made to the preparation of the document. Sincere thanks are due to Noritaka Ichida, Richard Grimmett, Simba Chan and Andrew “Jack” Tordoff.

Forewords

Mongolia is rightly recognised world wide for its vast landscapes and wonderful biodiversity. The country's extensive steppe, deserts, mountain forests and important wetlands support a rich diversity of animals and plants. Mongolia is a stronghold for species such as Swan Goose, Dalmatian Pelican, Cinereous Vulture and Saker Falcon, which are declining elsewhere in their ranges. Also, during the migration period, vast numbers of migratory birds stop over on route to or from their breeding areas. Mongolia's natural habitats are not just important for nature, they also sustain the livelihoods of our people and provide environmental services such as flood and erosion control.

Humankind has played a very important role in the evolution of these landscapes. Now more than ever it has a vital role to play in conserving the natural environment. As the Mongolian economy expands, important sites and habitats will come under increasing pressure. In particular, we can expect pressure to come from livestock grazing, mining development, the improvement of transport networks and so on. It is central to government policy that species and habitats are protected alongside economic development.

The Ministry of Nature, Environment and Tourism has already made good progress with the establishment of a national protected area system. To date, 72 sites, covering 21.8 million ha, have been designated covering 14% of the total land area. Government policy is to expand the system further and we have an ambitious plan to add new national parks and nature reserves over the coming years. Certainly, this work on Important Bird Areas will contribute to this process by helping to identify gaps in the protected area system.

In the international context, Mongolia has made a major commitment to the Ramsar Convention on Wetlands, and to date has identified 11 Ramsar Sites covering over 1.7 million ha. I was delighted to hear that the review by BirdLife International and the Wildlife Science and Conservation Center has identified 30 additional sites that meet the criteria of Wetlands of International Importance and are worthy of future consideration as potential Ramsar Sites.

It is needless to say that the conservation of important areas of natural habitat is a key component of any conservation strategy, as is clearly stated in government policy. To ensure the protection and safeguard of important areas, first of all we need to know where they are. We need to know what are the key habitats they contain, what biodiversity they support and where are their boundaries. This directory, which contains important information and maps on 70 Important Bird Areas in Mongolia is, therefore, particularly useful. We must also recognise that, if an area is not included in this directory, it does not mean it is not important. It may be that data are lacking or that the area is part of a wider landscape of conservation significance.

I am pleased that the World Bank has recognised the importance of this information and has supported this work.

I believe publication of this valuable reference will be very useful for Mongolia, and help to enhance the protection of key conservation sites in our country.

Mr Davaadorj Delgertsogt
Deputy Minister of Nature, Environment and Tourism

As Mongolia enters a period of profound economic and demographic change, the need to ensure that economic development takes place alongside, not at the expense of, conservation of the country's biological wealth has never been greater. Fundamental to the mainstreaming of biodiversity into development planning and policy is authoritative, detailed information on the location of important areas of natural habitat. For over 20 years, BirdLife International and its partners have been addressing this need by identifying and documenting Important Bird Areas (IBAs). Information on IBAs is regularly used by the World Bank in our safeguard reviews of development projects.

The World Bank has developed a comprehensive policy with regard to natural habitats, which is set out in our Operational Policy 4.04 (June 2001). The World Bank supports the protection, maintenance, and rehabilitation of natural habitats and their functions in our economic and sector work, project financing, and policy dialogue. In particular, we do not support projects that involve the significant conversion or degradation of critical natural habitats.

The directory of IBAs in Mongolia is one of two publications resulting from the World Bank activity *Strengthening the Safeguard for Important Areas of Natural Habitat in North-East Asia*, which was financed through our Japanese Consultant Trust Funds. The other is a parallel directory of IBAs in China. By identifying important areas of natural habitat using birds as indicators, these two documents greatly increase the availability of information on sites of known high suitability for biodiversity conservation in the two countries. While we all recognize that birds are not perfect indicators of other biodiversity, we also acknowledge that the conservation of IBAs would go a long way towards addressing the conservation of many other taxonomic groups.

I commend the directory of IBAs in Mongolia to government, the donor community, civil society and the private sector, as a tool for sustainable development. The information contained in this directory can be used by the Government of Mongolia to ensure the recognition of these sites and their incorporation into development strategies, plans and projects. It can be used by the World Bank and other development financing institutions to strengthen application of their environmental safeguard policies. Finally, it can be used by civil society groups and the general public to inform their engagement with and oversight of development planning and policy making, thereby enhancing social accountability.

This work, together with our forthcoming publication of a complementary volume on *Safeguarding Important Areas of Natural Habitat in Mongolia Alongside Economic Development* and associated maps, comprehensive fieldguides to the birds and mammals of Mongolia, and the Mongolian Red List of Birds, together with the existing Mongolian Red Lists for mammals, fish, amphibians and reptiles, all give a first class basis for decisions to minimize the impacts of developments on Mongolia's biodiversity.

On behalf of the World Bank, I would like to congratulate BirdLife Asia (Tokyo), the Wildlife Science and Conservation Center and the Institute of Biology of the Mongolian Academy of Sciences for producing this valuable work. In particular, I would like to thank the editors, for their hard work in producing a work of such high quality, and also all the individuals and organizations who generously contributed information to it. This document is a fine example of what Mongolia's conservation and scientific community can achieve by working together.

Arshad Sayed
Mongolia Country Manager
The World Bank
Ulaanbaatar
Mongolia

Mongolia is located in the central part of Asia and has a vast territory. Distances between suitable wildlife habitats are wide, and such habitats are scattered throughout the country. Although ornithological study in Mongolia has a history of over 100 years, the past 10 years have been remarkable in terms of the amount of work completed, with support from international organisations and banks. This book, which includes site accounts on 70 Important Bird Areas, is definitely one of the most outstanding outputs of biologists working in Mongolia. This book is a major achievement and a clear step forwards in avian research and conservation in this country. Nevertheless, I think this is just the beginning of a broader programme of work that needs to be undertaken in the near future. The Important Bird Areas in Mongolia provide safe breeding sites where birds can raise their chicks, mostly between April and September, as well as safe havens for many threatened species. Mongolia is an important country for breeding birds, and avian biomass increases four to five times in autumn compared with spring. Thus, it is important to establish a network of sites to conserve nationally and internationally important congregations of migratory birds.

Migratory birds enter Mongolia via several major routes. For example, a large number of birds arrives in Mongolia passing through Dalai Lake, Buir Lake, Kherlen River and Onon River, to settle in the eastern half of the country. In theory, the whole of eastern Mongolia can be considered as an important area for summering and breeding birds. In practice, it may be better to designate many smaller Important Bird Areas, which is a reflection of the limitation of our capability. A similar situation exists for birds that arrive from the west, from Africa and the Middle East, and summer in the depression of the Great Lakes and the Khangai Mountains. More detailed studies need to be done to build on this book and broaden the scope of the scientific basis for identifying internationally important sites.

The directory of Important Bird Areas is not just a list or description of sites with threatened species or sites where birds occur in large numbers. It is also a call to recognise the value of these critical areas and start thinking about how to develop better management for each site, establish new protected areas and designate internationally important sites under international conventions. This directory can serve as a solid base and information source for all these worthy works. It is highly desirable to make information on Important Bird Areas in Mongolia accessible and as widely available as quickly as possible, in order to have the maximum impact on nature conservation in this country.

Professor O. Shagdarsuren
Academician of Mongolian Academy of Sciences
One of the first ornithologists to study the birds of Mongolia

Conventions used

Conventions used

Bird names (scientific), systematic order and species limits follow Stepanyan (1990), with the exception of globally threatened species, which follow BirdLife International (2008). Bird names (Mongolian and English) follow Bold *et al.* (2007). Mammal names (Mongolian, English and scientific) and species limits follow Dulamtseren (2003). Fish names (Mongolian and scientific) and species limits follow Baasanjav and Tsend-Ayush (2001).

Glossary of terms

Aimag refers to the largest sub-national administrative unit in Mongolia, equivalent to a province. There are 21 aimags in Mongolia plus the capital city, Ulaanbaatar.

Bag refers to the administrative unit below the level of *soum*, equivalent to a sub-district.

Biosphere Reserve refers to an area of a terrestrial or coastal ecosystem, designated under the UNESCO Man and the Biosphere Programme, where solutions to reconcile biodiversity conservation with sustainable use are promoted.

Endemic Bird Area (EBA) refers to an area to which the global breeding ranges of two or more restricted-range bird species are entirely confined (Stattersfield *et al.* 1998).

Ger camp refers to a tourist camp where visitors are accommodated in the traditional dwellings of nomadic herders.

Globally Threatened species refers to a species listed as Critical, Endangered or Vulnerable by IUCN (2008); the term excludes species listed as Near Threatened or Data Deficient.

Important Bird Area (IBA) refers to an internationally important area for bird conservation at the global, regional or national level, based upon standard, internationally recognised criteria.

Local Special Protected Area (Local SPA) refers to a protected area designated at the aimag or soum level under the 1994 Law on Special Protected Areas.

Ramsar Site refers to a wetland of international importance designated under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention).

Restricted-range bird species refers to a bird species with a global breeding range of less than 50,000 km^2 (Stattersfield *et al.* 1998).

Secondary Area (SA) refers to an area that supports one or more restricted-range species but has less than two species entirely confined to it (Stattersfield *et al.* 1998).

Soum refers to the administrative unit below the level of *aimag*, equivalent to a district.

State Special Protected Area (State SPA) refers to a protected area designated at the national level under the 1994 Law on Special Protected Areas. State SPAs comprise Strictly Protected Areas, National Parks, Nature Reserves and Monuments.

World Heritage Site refers to a cultural or natural monument or site of outstanding universal value designated under the UNESCO World Heritage Convention.

Abbreviations and acronyms used

EBA	-	Endemic Bird Area
IBA	-	Important Bird Area
IUCN	-	International Union for Conservation of Nature
MNET	-	Ministry of Nature, Environment and Tourism
SA	-	Secondary Area
SPA	-	Special Protected Area
UNESCO	-	United Nations Educational, Scientific and Cultural Organisation
WSCC	-	Wildlife Science and Conservation Center

Executive summary

Mongolia retains vast areas of relatively unspoiled natural habitats, including boreal forest (taiga), steppe grassland, semi-desert and desert, as well as many important wetlands. These habitats still support healthy populations of wildlife species that are in decline or have disappeared elsewhere. Until recently, pressures on Mongolia's natural habitats were felt to be relatively low, especially compared with parts of neighbouring China. However, the environment in Mongolia now looks set to enter a period of unprecedented change, as market reforms to the economy continue, and the country enjoys rapid economic growth.

This directory is a contribution to sustainable development planning in Mongolia. It responds to commitments by the government of Mongolia to conserve the country's rich natural heritage, including a stated goal of expanding the protected area system to cover 30% of the country. In support of these commitments, the directory presents information on Important Bird Areas (IBAs): sites of international importance for bird conservation, based upon standard, internationally recognised criteria. IBAs are not only important for birds but also typically support a wide range of other important animal and plant species. Furthermore, many IBAs are also significant for human welfare and economic well-being, through, for example, protecting water sources.

The identification of IBAs in Mongolia was a collaborative effort, involving many organisations and individuals. This directory is an output of a World Bank study on *Strengthening the Safeguard of Important Areas of Natural Habitat in North-East Asia*, which was implemented by BirdLife International, the Wildlife Science and Conservation Center (WSCC) and the Institute of Biology of the Mongolian Academy of Sciences, in collaboration with the Ministry of Nature and Environment (now the Ministry of Nature, Environment and Tourism).

The starting point for identification of IBAs in Mongolia was a preliminary inventory of IBAs, prepared in 2004, which drew on published and unpublished literature, and consultations with field scientists. This was updated and greatly expanded at a workshop held in Ulaanbaatar in April 2007. This workshop was convened by the Ministry of Nature and Environment and the World Bank and attended by over 40 participants, including representatives of the National University of Mongolia, the Mongolian Academy of Sciences, WWF Mongolia, the WCS Mongolia Program and GTZ. Participants were asked to identify sites that met the global IBA criteria developed by BirdLife International:

A1. **Globally Threatened species:** The site is known or thought regularly to hold significant numbers of a Globally Threatened bird species.

A2. **Restricted-range species:** The site is known or thought to hold a significant component of a group of bird species whose breeding distributions define an Endemic Bird Area or Secondary Area.

A3. **Biome-restricted assemblages:** The site is known or thought to hold a significant component of the group of bird species whose distributions are largely or wholly confined to one biome.

A4. **Congregations** The site is known or thought to hold, on a regular basis, 1% or more of a biogeographic population of a congregatory waterbird species; or at least 20,000 waterbirds of one or more species.

A total of 70 IBAs were identified through this process, covering a total area of 8.4 million ha, equivalent to 5% of the territory of Mongolia. All but one of these sites qualified as IBAs under category A1 (globally threatened species), seven qualified under category A2 (restricted-range species), 41 qualified under category A3 (biome-restricted assemblages) and 46 qualified under category A4 (congregations). IBAs were identified in 18 of Mongolia's 21 aimags (provinces), with the largest number being in Dornod, Zakhan, Khovd and Khovsgol aimags.

With the exception of two vagrants, all of the Globally Threatened bird species recorded in Mongolia are known or thought to occur regularly in significant numbers within the IBA network. The most widespread Globally Threatened bird species within Mongolia's IBA network are Swan Goose *Anser cygnoides*, Lesser Kestrel *Falco naumanni*, Saker Falcon *F. cherrug*, Great Bustard *Otis tarda*, Pallas's Fish-eagle *Haliaeetus leucoryphus* and White-naped Crane *Grus vipio*.

Forty-six IBAs support 1% or more of the flyway population of a congregatory waterbird species. In total, 43 different waterbird species meet this threshold in at least one IBA. Some species, for example Ruddy Shelduck *Tadorna ferruginea*, Northern Lapwing *Vanellus vanellus* and Great Crested Grebe *Podiceps cristatus*, meet this threshold at a large number of sites, while 14 species only meet it at a single site. This indicates that there is considerable variation among sites with regard to the specific species they are important for, and underlines the importance of conserving the entire Mongolian IBA network.

At the national level, 14 IBAs are fully (>95%) protected within State Special Protected Areas (State SPAs), and 15 IBAs are partially (<95%) protected. Forty-one IBAs have no protection at all at the national level. Because the fully protected IBAs include some very large sites, while many of the unprotected sites are relatively small wetlands, 70% of the IBA network by area is protected within State SPAs. At the local level, over 500,000 ha of the IBA network is protected within Local Special Protected Areas (Local SPAs). In contrast to State SPAs, very few Local SPAs are under any form of conservation management on the ground. Most only exist as 'paper parks' at present.

Since becoming a party to the Convention on Wetlands of International Importance in 1998, the government of Mongolia has nominated 11 Ramsar Sites, containing a total of 16 IBAs. A further 30 IBAs clearly qualify as Ramsar Sites because they support 1% of the flyway population of one or more congregatory waterbird species and/or 20,000 or more congregatory waterbirds. These sites can be thought of as 'potential Ramsar Sites', from which the government of Mongolia could select additional sites to nominate under the Convention.

The list of IBAs presented in this directory is by no means exhaustive. Mongolia has a small, albeit increasing, number of ornithologists and birdwatchers, and many places have not yet been surveyed ornithologically. Even for the IBAs in this directory, survey coverage at most is far from complete, and sometimes limited to a single visit or to visits during a single season. It is likely that there are other sites qualifying as IBAs that are not documented in this directory. In addition, many of the IBAs documented here may be important for more bird species and assemblages than are currently known to occur.

To date, disproportionately more IBAs have been identified in wetlands compared with other habitat types. This is a reflection of the ease with which wetland sites can be delineated and the availability of survey data on waterbird populations compared with other species. It is anticipated that future field surveys will identify more sites that qualify as IBAs, especially in boreal forest, steppe and desert habitats, and that the boundaries of some existing IBAs will be refined to reflect new information on the distribution of bird populations.

This directory identifies a number of threats to biodiversity at Mongolia's IBAs. IBAs in the steppe zone are coming under increasing pressure as a result of increasing livestock populations and overgrazing. Steppe IBAs are also adversely affected by fires, which are set in spring and early summer to promote grass growth for grazing and which can be destructive to nesting birds.

Overgrazing and trampling by livestock is of particular concern at a number of wetland IBAs in the steppe region. A further problem at some sites in recent years has been the widespread use of rodenticides, which has resulted in the poisoning of birds of prey and other species. The water levels of many steppe lakes have fallen in recent decades, with some wetlands completely disappearing. In some cases this is due to the damming or diversion of rivers and streams, and use or water for irrigation and livestock. In other locations the cause is believed to be climatic.

Mining, infrastructure development and tourism development are all undergoing rapid expansion in Mongolia, and pose risks to IBAs if their environmental impacts are not anticipated and managed. Although only a small number of IBAs are currently affected by on-going mining operations, many more of them overlap with mineral exploration licenses. Moreover, mineral exploration and extraction can threaten the biodiversity values of IBAs, even when there is not direct overlap, due to indirect impacts such as water pollution and infrastructure development.

There is also increasing concern about the potential impacts on IBAs of infrastructure, including road and rail networks, hydropower development and power transmission lines, much of which is associated with mining development. At the same time, the impacts of tourism are already resulting in disturbance and localised pollution at some sites, particularly certain wetland IBAs with important breeding colonies of globally threatened waterbirds.

Finally, illegal hunting can have a devastating impact at IBAs, with some species being particularly vulnerable. Dalmatian Pelican *Pelecanus crispus* is very close to extinction in Mongolia as a result of hunting, and Great Bustard *Otis tarda* populations are highly vulnerable and continue to be targeted. A comparatively recent development has been capture of Saker Falcons *Falco cherrug* to supply the Arab falconry trade, which causes concern as it may have a significant detrimental effect on the population.

The Directory of IBAs in Mongolia documents the biodiversity values of important areas natural habitat, draws attention to the conservation issues facing them, and provides a tool for integrating them into development planning. The conservation of Mongolia's IBAs will require the combined efforts of government, civil society, private sector and the donor community. The IBAs of Mongolia have been identified; the challenge now is to conserve them!

Dedication

This book is dedicated to the memory of

Dr Ayurzana Bold
(1936-2007)

**of the Institute of Biology, Mongolian Academy of Sciences,
who passed away unexpectedly from heart failure on 10 June 2007**

Dr Ayurzana Bold was an Academician of the Mongolian Academy of Sciences and a highly respected biologist and ornithologist, both in Mongolia and abroad. He worked as a senior scientist at the Institute of Biology, Mongolian Academy Sciences, until the last day of his life. Dr Bold made a major contribution to the *Directory of Important Bird Areas in Mongolia* but, sadly, did not live to see it in print.

After graduation, Dr Bold started his career as a biology lecturer at the National University of Mongolia. During his years at the university, he participated in several major zoological expeditions to the Trans-Altai Gobi, the Mongolian Altai, the Dzungarian Gobi, the South Gobi, the Eastern Gobi, Mongolia's eastern steppes, and the taiga mountains in Khovsgol, which were organised by the Mongolian and Russian Academies of Sciences. Participation in those legendary expeditions was fundamental for his future work.

Dr Bold worked at the Institute of Biology since its establishment in 1961. His main responsibilities were to study and explore bird species inhabiting various landscapes in the country, and raise awareness on birds among the public. In those days, travel in the remote parts of Mongolia was very difficult. Field workers had to work continuously for months, with the only means of transportation often being horses, cows or camels. Dr Bold was a gifted man who could live on basic things for months under harsh conditions.

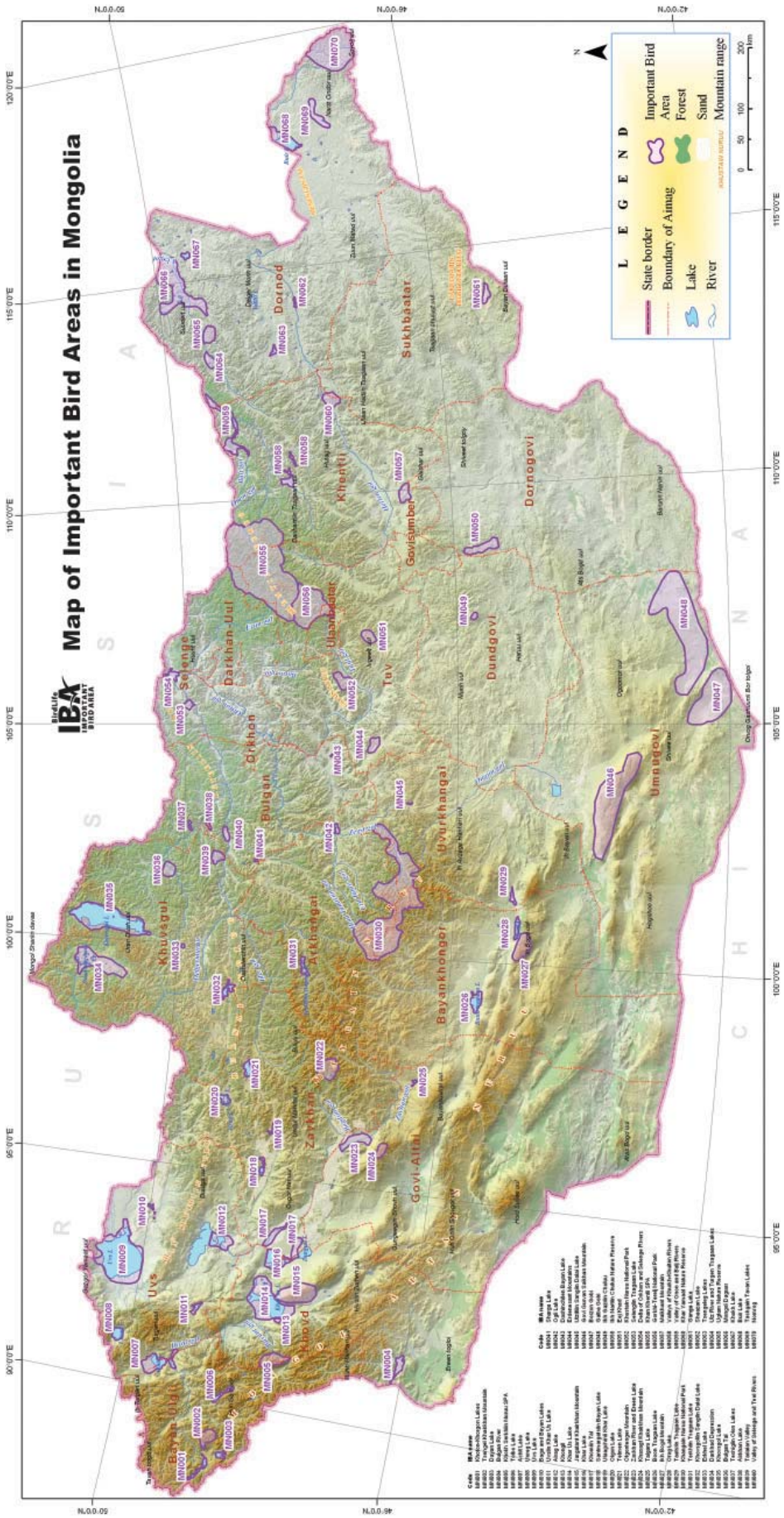
In 1990, he received his Doctorate of Science from the Institute of Animal Ecology and Evolution of the Russian Academy of Sciences. His doctoral thesis *Ecology and Geography of Mongolian Avifauna and their Use and Conservation Fundamentals* is still an essential reference for all ornithologists in Mongolia. For his outstanding achievements in science and nature conservation, Dr Bold received numerous awards, including, 2002, the *Altan Gadas* (Pole Star) medal, one of the highest honorary medals issued by the government of Mongolia.

Dr Bold probably travelled through the country more than any other biologist, studying the distribution, ecology, biology and diversity of Mongolian birds for his entire life. He made countless trips and expeditions to all regions of Mongolia, and worked with scientists from many countries from Europe, Asia, North and South America. The day before he died, in spite of his health problems, he was still preparing to work in the field with other researchers.

All those who worked with him in the field remember Dr Bold as a compassionate man and a remarkably kind friend. He was also an excellent father to his children, a caring husband to his wife and a highly respected friend to his colleagues. His skilled supervision and support to many young Mongolian biologists helped them to find their way in the scientific field.

Although he is no longer with us, we will always remember him and he will always be in our hearts.

Natsagdorj Tseveenmyadag, Batbayar Nyambayar


Map of Important Bird Areas in Mongolia
L E G E N D
State border
Boundary of Aimag
Lake
River
Important Bird Area
Forest
Sand
Mountain range
RUSSIA
CHINA
Bayan-Ulgii
Khuvsgul
Uvs
Khovd
Zavkhan
Arkhangai
Bayankhongor
Govi-Altai
Uvurkhangai
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Govisumber
Khentii
Dornod
Sukhbaatar
Selenge
Darkhan-Uul
Orkhon
Bulgan
Tuv
Ulaanbaatar

1. Background

1.1 Introduction

Mongolia retains vast areas of relatively unspoiled natural habitats, including boreal forest (taiga), steppe grassland, semi-desert and desert, as well as many wetlands of international importance. These habitats still support healthy populations of wildlife species that are in decline or have disappeared elsewhere. Until recently, pressures on Mongolia's natural habitats were felt to be relatively low, especially compared with parts of neighbouring China. However, the environment in Mongolia now looks set to enter a period of unprecedented change, as market reforms to the economy continue, and the country enjoys rapid economic growth. Furthermore, although Mongolia has made good progress with the establishment of a formal protected area system, many of its most important areas of natural habitat remain unprotected.

Given the anticipated escalation in the scale and severity of threats faced by Mongolia's natural habitats, there is a need for a programme of coordinated conservation action by the government, civil society, donors and the corporate sector. In order to guide such a programme, in particular to safeguard sites of high conservation significance from incompatible developments and ensure that conservation efforts are targeted at the highest priority sites, it is essential that accurate, up-to-date information on sites of international importance for biodiversity conservation is made available to government institutions, donor agencies and civil society organisations. It is also essential that such information is based on clear, objective and universally accepted criteria.

This directory is a contribution to sustainable development planning in Mongolia. It responds to commitments by the government of Mongolia to conserve the country's rich natural heritage, including a stated goal of expanding the protected area system to cover 30% of the country. In support of these commitments, the directory identifies a set of internationally important sites for biodiversity conservation using birds as indicators. Birds were selected because they are an important conservation focus in their own right, and because they have been shown to be effective indicators of biodiversity in other taxonomic groups, especially when used to define networks of priority sites for conservation (e.g. Howard *et al.* 1998, Burgess *et al.* 2002).

The directory also forms part of the global Important Bird Area (IBA) programme, coordinated by BirdLife International, which aims to identify and protect a network of critical sites for the world's birds. The IBA programme began in Europe in 1985 (Grimmett and Jones 1989), and was adopted as a global initiative by BirdLife International at its 1994 World Conference. The IBA programme has proved to be a very cost-effective and flexible way of identifying and promoting coherent and organised action for priority sites for birds and biodiversity, at the regional, national and local levels. To date, IBAs have been identified for all countries in Europe (Heath and Evans 2000), Africa (Fishpool and Evans 2001), the Middle East (Evans 1994) and Asia (BirdLife International 2004).

The identification of IBAs in Mongolia was a collaborative effort, involving many organisations and individuals. The information presented in this directory was collated as part of a World Bank-funded activity entitled *Strengthening the Safeguard of Important Areas of Natural Habitat in North-East Asia*, which was implemented by the Wildlife Science and Conservation Center (WSCC), the Institute of Biology of the Mongolian Academy of Sciences and BirdLife International, in collaboration with the Ministry of Nature and Environment (now Ministry of Nature, Environment and Tourism), and with support from WWF Mongolia, WCS Mongolia Program and the National University of Mongolia.

1.2 Aim and objectives of the directory

The aim of this directory is to promote the conservation of a set of internationally important sites for the conservation of birds and other biodiversity. The objectives of the directory are to:

- Present data on internationally important sites for the conservation of birds and other biodiversity in a standardised and clear format.
- Assist Mongolia to meet its obligations under the Convention on Biological Diversity (CBD) and the Convention on Wetlands of International Importance by, in the first case, identifying candidate sites for inclusion within a representative system of protected areas, and, in the second case, identifying candidate sites for nomination as Ramsar Sites.
- Inform decision makers in government, private sector and donor agencies of the location and biodiversity values of critical natural habitats *sensu* World Bank Operational Policy 4.04 on Natural Habitats, and thereby promote their safeguard from incompatible developments, such as road and railway construction.
- Identify clear priorities for site-based conservation action, and encourage government institutions, donor agencies and civil society organisations to address them.
- Provide a centralised source of information for use in education, training and environmental awareness.
- Provide information on key sites for birds and biodiversity in a format that can be used by birdwatchers and other nature-based tourists, thereby, support the development of sustainable tourism in Mongolia.

1.3 General information on Mongolia

Location and political units. Mongolia is situated in the north-eastern part of Central Asia and is the seventeenth largest country in the world (1,565,000 km^2). It is divided

into 21 aimags (provinces) plus the capital city, Ulaanbaatar.

Topography and landscapes

About 85% of national land area lies more than 1,000 m above sea level. The average altitude of the country is about 1,600 m, making it one of the most elevated countries in the world. Mongolia is located in the transition zone between the boreal forests of Siberia and the deserts of Central Asia. The southern fringes of the Siberian Great Taiga (boreal forest) extended into northern Mongolia, while the vast Mongolian and Manchurian steppes spread into the country from the east. The landscapes of southern Mongolia are dominated by the Gobi Desert, while the high Altai Mountains dominate the west and northwest. From north to south, the landscape changes from forested mountains through grassy steppe to barren, arid desert plains. Moreover, from west to east, the topography changes from high mountainous terrain to boundless plains. Each region has its own specific floral and faunal characteristics, which combined comprise the unique biological richness of the country.

Climate

A geographical position far from seas or oceans and the distribution of mountains endow Mongolia with an extreme continental climate, with long, dry, cold winters, short summers, and relatively low precipitation. The average temperatures in winter vary from -20°C to -35°C. In contrast, summer temperatures in the Gobi desert sometimes rise up to 40°C. Average annual rainfall varies among different regions, from 600 mm in mountainous areas to less than 100 mm in desert regions. In some parts of the Gobi Desert, no precipitation may fall for several consecutive years. Remarkably, Mongolia is truly a land of Blue Sky, because more than 280 days of the year are cloudless and sunny.

Population

Mongolia has a population of only about 2.7 million people, and has the lowest population density of any country in the world (1.7 persons per km^2). Nearly half of the population lives in the capital city, Ulaanbaatar.

Economy

Mongolia's economy was traditionally based upon herding, with most of the population engaged in livestock husbandry. Although diminished as a proportion of the overall economy, herding continues to play an important role in Mongolia's economy and culture, because approximately 30% of the population still follows a traditional nomadic or semi-nomadic lifestyle. Other major economic activities in Mongolia are fixed agriculture, cross-border trade and mining. Agricultural crops include wheat, barley, potatoes and fodder crops for livestock. Cross-border trade with, and between, China and Russia is an important source of revenue, and a driving force for what little transport infrastructure exists in the country. Mongolia has rich mineral resources, including coal, gold, copper and fluorspar, and has a booming mining sector. Mining currently accounts for roughly one-third of Mongolia's GDP and around half of its industrial output and export earnings (IMMI 2007, World Bank and PPIAF 2007). Overall GDP growth was nearly 10% in 2007, largely driven by high copper prices and new gold production (CIA 2008). Because of its geographical position, growth of Mongolia's economy is heavily dependent on growth of its neighbours'.

Environment

The relatively pristine wilderness and untouched wildlife of Mongolia have always encouraged outsiders since the time when the first pioneer explorers came to the country in thirteenth century. Many explorers made exciting descriptions of the biological richness of the country. Based on the distribution of annual average precipitation and landscape type, distribution of soil types, and floral and faunal characteristics, Mongolia is divided into six main ecological zones: the high mountain zone; the boreal forest (taiga) zone; the mountain forest zone; the steppe zone; the desert steppe or semi-desert zone; and the Gobi Desert zone. Vegetation is relatively abundant in grassland steppe and mountainous areas but sparse in arid semi-desert and desert areas. The forest resources of Mongolia are relatively limited, and forest covers only about 9% of the national territory. In addition to mountain and boreal forests, some Saxaul *Haloxylon ammodendron* forests occur in the desert areas. River systems are extensive in the north part of the country but less so in the south. The tributaries of several major rivers have their origins in Mongolia.

1.4 Biodiversity conservation in Mongolia

Biodiversity values. Mongolia's location in the transition zone between the boreal forests of Siberia and the deserts of Central Asia means that it has relatively low species richness and levels of endemism compared with other countries in Asia. For instance, none of Mongolia's 470 bird species are endemic to the country, while out of over 3,000 species of vascular plants, only around 150 species are endemic (UNEP 2002). Nevertheless, its large size, very low human population and infrastructure densities, and weak integration into the global economy have combined to ensure that Mongolia still supports vast areas of relatively unspoiled steppe grassland, semi-desert and desert habitat, as well as extensive coniferous boreal forests, and a great diversity of saline and freshwater wetlands. These habitats support important populations of wildlife species that have undergone major declines elsewhere in their ranges. For several of these species, such as Takhi (Prezwalski's Wild Horse) *Equus prezwalskii* and Bactrian Camel *Camelus bactrianus*, Mongolia provides the last known refuge in the wild.

Mongolia still retains vast areas of relatively unspoiled steppe, semi-desert and desert habitat, which support important populations of species such as Mongolian Saiga *Saiga tatarica mongolica*, Goitered Gazelle *Gazella subgutturosa*, Pallas's Steppe Cat *Felis manul* and Gobi Bear *Ursus gobiensis*. Mongolia has particular significance for the conservation of Eurasian steppe, which previously extended in a fairly unbroken sweep, from eastern Europe through western and central Asia to north-east Asia, but has since been degraded or lost across large expanses

due to agricultural intensification and conversion. The remaining steppe habitats in Mongolia form the core of the Daurian Steppe Global 200 Ecoregion, which is recognised by WWF as the best and most intact example of an undisturbed steppe ecosystem in the world, and one of the last areas in the Palearctic to still support stable herds of larger vertebrates (WWF 2008).

The steppe region contains many freshwater and saline wetlands, including some of the largest bodies of freshwater in the world. Many of these wetlands support large numbers of breeding and migrating waterbirds, such as White-headed Duck *Oxyura leucocephala*, Bar-headed Goose *Anser indicus* and Relict Gull *Larus relictus*. These wetlands are also vital for the conservation of a number of fish species, such as Taimen *Hucho taimen*, the world's largest salmonid.

Parts of northern Mongolia support large tracts of coniferous boreal forests (taiga), particularly in the Khentii mountains, around Lake Khovsgol, on the north and east sides of the Khangai mountains and in parts of the Khan Khokhii range. This comprises the southern edge of the vast belt of boreal forest that extends from northern Europe to the Pacific coast of Russia. These forests support important populations of Siberian Musk Deer *Moschus moschiferus*, European Elk *Alces alces* and Brown Bear *Ursus arctos*, among other species. Also of note are alpine habitats in the Altai and other high mountains in western and central Mongolia, which have communities of high montane species. These habitats support a number of threatened species, including Snow Leopard *Uncia uncia* and almost the entire global breeding population of White-throated Bushchat *Saxicola insignis*.

Threats

Although Mongolia has one of the lowest human population densities in the world, its population growth rate is one of the highest in East Asia. In recent years, Mongolia's population has become increasingly urban, which has been accompanied by a rapid growth in natural resource consumption (UNEP 2002). Impacts on environmental resources have been compounded by the transition to a market economy (UNEP 2002). As a result of these changes, Mongolia's biodiversity is becoming increasingly threatened. *The IUCN Red List of Threatened Species* (IUCN 2008) currently assesses 39 species in Mongolia as Globally Threatened, comprising 24 birds, 11 mammals, three insects and one fish.

Growth in the human population (which has trebled since 1950), and an associated increase in livestock numbers, is resulting in over-grazing, degradation and desertification of steppe habitat. Over-grazing has led to compaction and erosion of the topsoil and succession by less edible plant species, especially in desert steppe regions; over 70% of Mongolia's pastureland has already been degraded (UNEP 2002). Other pressures impacting on steppe ecosystems include steppe fires, usually set in spring and early summer, which can be very destructive to nesting birds, and the use of rodenticides to control vole outbreaks, which can poison birds-of-prey or lead to breeding failure by causing prey populations to collapse. In addition, the sinking of boreholes to supply water to domestic livestock has led to severe land erosion of nearby areas, and generally lowered water-tables. Furthermore, there are government plans for agricultural developments that could have major impacts on threatened grassland species.

The water levels of many steppe lakes have fallen in recent decades, with some wetlands completely disappearing. In some cases, this has been due to the damming or diversion of rivers and streams, to divert water for irrigation and livestock. In other cases, the cause is believed to be climatic. During the last 50 years, the average annual temperature in Mongolia has increased by 0.7°C (UNEP 2002), with some regions experiencing drought, milder winters with less snow fall, and hotter summers. In addition, over-grazing and trampling by livestock are adversely impacting reedbeds and wet grasslands at many steppe wetlands, and steppe fires can have devastating impacts on wetland vegetation.

Boreal forest habitats are also under pressure, as a result of unregulated use and inadequate protection. Around 1.6 million ha of forest (around one-tenth of the total area) was lost between 1974 and 2000, as a result of fire, unsustainable (and sometimes illegal) logging, over-grazing and other threats (UNEP 2002). Pests and disease are also threats to forest. Over 700 species of forest pest have been recorded in Mongolia, and these are causing severe ecological stress in some regions (UNEP 2002).

With world-class mineral resources and a strategic location close to markets in China, Mongolia's mining sector is currently growing fast. Over 3,500 exploration licenses have been granted, covering a quarter of the country, in addition to over 1,000 mining licences, covering a much smaller area. In addition to large-scale mining, there is a large informal (artisanal) sector, which is associated with a suite of environmental problems, including the use of mercury (World Bank 2006). Mining can have a number of direct impacts on biodiversity, including habitat clearance, pollution of surface water bodies and (of particular significance in arid and semi-arid environments) extraction of groundwater. Significant though these impacts can be at particular locations, they are typically localised. It is the indirect impacts associated with mining, particularly the construction of water, power and transport infrastructure, that are of the greatest concern from a biodiversity conservation perspective.

The mining sector is not the only engine of infrastructure development in Mongolia. Overall growth in the national economy, rapid urbanisation and expansion of international trade between Russia and China are all driving investment in infrastructure. Developments such as roads, railroads, hydropower dams and power transmission lines are of particular concern, as they can fragment natural habitats and create barriers to wildlife dispersal and migration. One example of an infrastructure development with negative implications for biodiversity is the proposed construction of a new border crossing from China into eastern Mongolia, which passes through Nomrog Strictly Protected Area.

The tourism sector is also growing rapidly, placing increasing pressure on those places that have been targeted by tour companies. Several protected areas have witnessed the mushrooming of *ger* camps close to, or even within,

their boundaries, in particular Gorkhi-Terelj and Khangain Nuruu National Parks. There have also been a number of *ger* camps established at sensitive wetlands with important breeding colonies of vulnerable waterbirds, for example Khovsgol Lake. Poorly planned and unregulated tourism development can result in a number of negative impacts on biodiversity, including disturbance to wildlife, degradation of steppe and desert habitats, and pollution of lakes and rivers.

Unsustainable and illegal hunting is causing dramatic declines in Mongolia's wildlife (Wingard and Zahler 2006). Species that concentrate at specific sites are particularly vulnerable, such as Dalmatian Pelican *Pelecanus crispus*, whose bills are prized as sweat-scrapers for horses. However, there is no escape for widespread species, as hunting occurs throughout the country. Many species are hunted on a commercial basis, responding to market demand from China and elsewhere, and rapid declines have been documented in many economically valuable wildlife species, including Saiga *Saiga tatarica*, Red Deer *Cervus elaphus*, Argali *Ovis ammon*, Siberian Marmot *Marmota sibirica* and Saker Falcon *Falco cherrug* (Wingard and Zahler 2006). Other species, such as Siberian Marmot *Marmota sibirica*, Goitered Gazelle *Gazella subgutturosa*, Mongolian Gazelle *Procapra gutturosa* and Grey Wolf *Canis lupus* are widely targeted by opportunistic hunters. There is near unanimous agreement among hunters, traders and biologists that continued wildlife trade at the current volumes is unsustainable (Wingard and Zahler 2006)

Conservation action

Since the transition to multi-party democracy in 1992, Mongolia has introduced several key pieces of legislation related to environmental protection. These include the 1992 Constitution of Mongolia, which gives citizens a sacred duty "to protect nature and environment", the 1995 Law on Environmental Protection, which establishes the legal basis for environmental protection and the sustainable use of natural resources, and the 1994 Law on Special Protected Areas, which sets out the regulations for the creation and management of protected areas.

At the national level, responsibility for the development and enforcement of environmental policies lies with the Ministry of Nature, Environment and Tourism (MNET). MNET contains a specialised agency, the Protected Area Bureau, responsible for developing and managing the national protected area system. However the ministry has no specific budget for wildlife conservation outside of protected areas, and does not have a dedicated wildlife management agency (Wingard and Zahler 2006). In fact, since 2000, the ministry has actually shifted emphasis from protection of the environment towards exploitation of natural resources, for instance by making hunting licences easier to obtain (Beck *et al.* 2007). At the local level, environment departments are understaffed, underpaid, poorly equipped and, therefore, unable to control the unsustainable and illegal hunting that is causing dramatic declines in the country's wildlife (Wingard and Zahler 2006).

The efforts of the government of Mongolia to protect the environment and conserve the country's biodiversity have been supported by international donors, including UNDP, the World Bank and the governments of Germany, Japan, the Republic of Korea and the Netherlands. Several international conservation organisations have long-established programmes in the country, most notably WWF and the Wildlife Conservation Society (WCS). More recently, these have been joined by other international organisations, including The Nature Conservancy (TNC). These international donors and conservation organisations work alongside, and in support of, government agencies and an emerging Mongolian civil society, including the Mongolian Association for Conservation, Nature and the Environment (MACNE), the Union of Mongolian Environmental NGOs (UMENGO) and various community-based organisations.

Protected areas

Mongolia has one of the oldest traditions of protected area establishment in the world, dating back to the designation of three sacred mountains by Chinggis Khan in the early 13th Century (Enebish and Myagmarsuren 2000, Farrington 2005). The present protected area system dates back to 1778, when a formal ban on logging and hunting was introduced at Bogd Khan Mountain, creating one of the world's oldest continuously protected areas (Johnstad and Reading 2003). The national system of protected areas (known officially as 'Special Protected Areas') evolved slowly until the transition to multi-party democracy in 1990, which was followed by a rapid expansion of the system. Since 2000, the rate of increase slowed significantly, and, as of June 2008, the system included 72 sites, with a total area of around 22 million ha. These sites comprise 18 Strictly Protected Areas, 26 National Parks, 20 Nature Reserves and eight Monuments.

As well as national protected areas, the 1994 Law on Special Protected Areas provides for the designation of local protected areas by aimag and soum authorities. Based on data collated by WWF and TNC, there were 937 local protected areas in Mongolia as of May 2008, covering over 16 million ha. Whereas the expansion of the national protected area system has slowed in recent years, the expansion of the local protected area system has accelerated. More than three-quarters of local protected areas were established since the start of 2000.

In September 1993, Mongolia became a contracting party to the CBD. In line with the CBD Programme of Work on Protected Areas, which aims to establish and maintain comprehensive, effectively managed and ecologically representative networks of terrestrial protected areas by 2010, the government of Mongolia is implementing a National Programme on Special Protected Areas. The second phase of this programme (2005-2015) includes an ambitious target for protected areas to occupy up to 30% of the national territory (MNE 2007). This reiterates a goal, originally set by the Mongolian Parliament in 1992, of placing 30% of the country under some form of protected status (Johnstad and Reading 2003). Given that the total area (excluding overlaps) protected at the national or local level is now around 38 million ha (equivalent to over 24% of the national territory), Mongolia is well on the way to meeting this target.

In addition to national and local protected areas, the government of Mongolia has designated a number of sites under multilateral environmental agreements. Since becoming a contracting party to the Convention on Wetlands of International Importance (Ramsar Convention) in 1998, Mongolia has designated a total of 11 Ramsar Sites, covering a total area of nearly 1.5 million ha. Mongolia signed the World Heritage Convention in 1990, since when two sites, covering nearly 1 million ha, have been inscribed on the World Heritage List: Uvs Nuur Basin (a natural World Heritage Site); and Orkhon Valley (a cultural World Heritage Site). In addition, since 1990, Mongolia has designated six biosphere reserves under the UNESCO Man and the Biosphere Programme, with a total area of over 16 million ha. Although these sites can be considered to be 'internationally protected areas', they do not have any specific protection under Mongolian law, unless they are otherwise designated as national or local protected areas (which is the case for 80% of these sites, by area).

1.5 The birds of Mongolia

Overview

Currently, about 470 bird species have been recorded in Mongolia, belonging to 60 families and 19 orders. There are 81 species of resident birds and 387 species of migratory birds. In addition, 247 species of migratory birds breed in Mongolia, 10 species are winter visitors from Siberia, nine species are summer visitors and 66 species are vagrants. Four major global migratory routes have been recognized in Mongolia: the East Asia-Australasia flyway; the Central Asia flyway; the West Pacific flyway; and the Africa-Eurasia flyway. Of these, the former two account for the majority of bird migration.

Bird habitats and communities

The main bird habitats in Mongolia comprise grassland steppe, semi-desert and desert, mountain steppe, high mountains, forested mountains, wetlands and riparian areas. Birds characteristic of grassland steppe include Upland Buzzard *Buteo hemilasius*, Steppe Eagle *Aquila nipalensis*, Saker Falcon *Falco cherrug*, Mongolian Lark *Melanicorypha mongolica*, Crested Lark *Galerida cristata*, Eurasian Skylark *Alauda arvensis,* Demoiselle Crane *Anthropoides virgo*, Mongolian Plover *Charadrius mongolus*, Great Bustard *Otis tarda*, Northern Wheatear *Oenanthe oenanthe*, Isabelline Wheatear *Oenanthe isabellina*, Lesser Short-toed Lark *Calandrella rufescens* and Horned Lark *Eremophila alpestris*.

Birds adapted to desert and semi desert habitats include Pallas's Sandgrouse *Syrrhaptes paradoxus*, Houbara Bustard *Chlamydotis undulata*, Greater Sand Plover *Charadrius leschenaultia*, Desert Wheatear *Oenanthe deserti*, Mongolian Ground Jay *Podoces hendersoni,* Desert Warbler *Silva nana*, Asian Short-toed Lark *Calandrella cheleensis* and Saxaul Sparrow *Passer ammodendri*.

Mountain steppe areas are characterised by species such as Upland Buzzard *Buteo hemilasius*, Steppe Eagle *Aquila nipalensis*, Saker Falcon *Falco cherrug*, Cinereous Vulture *Aegypius monachus*, Daurian Partridge *Perdix dauuricae*, Little Owl *Athene noctua*, Short-eared Owl *Asio flammeus*, Eurasian Eagle-owl *Bubo bubo*, Meadow Bunting *Emberiza cioides,* Pied Wheatear *Oenanthe pleschanka*, Isabelline Wheatear *Oenanthe isabellina*, Rufous-tailed Rock-Thrush *Monticola saxatilis* and Eurasian Hoopoe *Upupa epops*.

Black Kite *Milvus migrans*, Eurasian Hobby *Falco subbuteo*, Eurasian Sparrowhawk *Accipiter nisus*, Greater Spotted Eagle *Aquila clanga*, Booted Eagle *Hieraaetus pennatus*, Hazel Grouse *Tetrastes bonasia*, Black Grouse *Lyrurus tetrix*, Western Capercaillie *Tetrao urogallus,* Ural Owl *Strix uralensis*, Daurian Redstart *Phoenicurus auroreus*, Common Rosefinch *Carpodacus erythrinus,* Red Crossbill *Loxia curvirostra,* Lemon-rumped Warbler *Phylloscopus proregulus,* Eurasian Treecreeper *Certhia familiaris*, Naumann's Thrush *Turdus naumanni,* Siberian Jay *Perisoreus infaustus* and Eurasian Jay *Garrulus glandarius* are among the species typical of forested mountains.

High mountain species include Golden Eagle *Aquila chrysaetos*, Himalayan Griffon *Gyps himalayensis*, Cinereous Vulture *Aegypius monachus*, Lammergeier *Gypaetus barbatus*, Altai Snowcock *Tetraogallus altaicus*, Chukar *Alectoris chukar*, Rock Ptarmigan *Lagopus mutus*, Alpine Accentor *Prunella collaris*, White-winged Redstart *Phoenicurus erythrogaster*, White-throated Bushchat *Saxicola insignis,* Rufous-tailed Rock-Thrush *Monticola saxatilis*, White-winged Snowfinch *Montifringilla nivalis* and Wallcreeper *Tichodroma muraria*.

Wetland and riparian habitats are characterised by Black-throated Loon *Gavia arctica*, Swan Goose *Anser cygnoides*, Bar-headed Goose *A. indica*, Mallard *Anas platyrhynchos*, Common Pochard *Aythya ferina*, Red-crested Pochard *Netta rufina*, White-headed Duck *Oxyura leucocephala*, White-naped Crane *Grus vipio*, Common Crane *G. grus*, Relict Gull *Larus relictus*, Mongolian Gull *L. mongolus*, Asian Dowitcher *Limnodromus semipalmatus*, Amur Falcon *Falco amurensis*, Pied Avocet *Recurvirostra avosetta*, Eastern Marsh Harrier *Circus spilonotus*, Pied Harrier *C. melanoleucus*, Penduline Tit *Remiz pendulinus*, Yellow-breasted Bunting *Emberiza aureola*, Bearded Parrotbill *Panurus biarmicus* and Great Reed Warbler *Acrocephalus arundinaceus*. Rare species found in these habitats include Reed Parrotbill *Paradoxornis heudei*, which is dependent on a very few wetland sites in eastern Mongolia, and Dalmatian Pelican *Pelecanus crispus*, the eastern population of which breeds only at a few lakes in western Mongolia.

Endemic bird areas

Endemic Bird Areas (EBAs) are areas to which at least two restricted-range bird species (species with a total global breeding range of less than 50,000 km^2) are entirely confined, while Secondary Areas (SAs) are areas that support one or more restricted-range species but to which less than two species are entirely confined (Stattersfield *et al.* 1998). In common with other countries in north-east Asia, Mongolia has low levels of bird endemism, with most of the species occurring in the country having wide breeding ranges. Stattersfield *et al.* (1998) determined that Mongolia does not contain any EBAs, and only a single SA: Mongolian Mountains. This SA is defined by the range of Mongolian Accentor *Prunella koslowi*, a poorly known

species, which breeds in juniper scrub and grassland on dry mountain slopes around 2,000 m above sea level.

Threatened species

According to BirdLife International (2008), 24 Global Threatened bird species are known from Mongolia, comprising two Critical, six Endangered and 16 Vulnerable species. Six of these species only occur in very small numbers or as vagrants. Of the 18 species that are known to regularly occur in significant numbers, Mongolia has a critical role to play in the long-term conservation of many of them, because it supports globally significant breeding, passage or wintering populations; in some cases, the populations in Mongolia are the largest in the world. Species that Mongolia is of particular importance for include Swan Goose *Anser cygnoides*, Lesser Kestrel *Falco naumanni*, Saker Falcon *F. cherrug*, White-naped Crane *Grus vipio* and White-throated Bushchat *Saxicola insignis*. In addition to Globally Threatened birds, 10 Near Threatened species are known from Mongolia, of which nine regularly occur in significant numbers (BirdLife International 2008). The major threats to bird diversity in Mongolia are overgrazing by livestock, illegal logging of forest, hunting and trapping. Other threats include dam construction, mining, fires, drainage of wetlands, large-scale use of rodenticides, and disturbance by humans, livestock and dogs (BirdLife International 2004).

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2. Methodology

2.1 What are IBAs?

Important Bird Areas (IBAs) are sites of international importance for bird conservation at the global, regional or national level, based upon standard, internationally recognised criteria. IBAs are not only important for birds but also typically support a wide range of other important animal and plant species. Furthermore, many IBAs are also significant for human welfare and economic well-being, through protecting catchments, providing flood control or as a source of natural resources.

IBAs are a practical tool for conservation but they are only one of a variety of approaches. While birds have been shown to be a good indicator for other biodiversity, IBAs do not always correspond to important areas for the conservation of other taxonomic groups. Even for birds, the conservation needs of some species are not adequately addressed by the IBA approach alone. For instance, raptor species that occur at low densities over wide areas and colonially nesting species that disperse widely during the non-breeding season may require habitat-scale conservation action in addition to focused action at key sites. Similarly, policy-level intervention may be required to address the conservation needs of species affected by pervasive threats, such as pesticide use or wildlife trade. For these reasons, IBAs should form part of an integrated approach to conservation that also includes landscape, habitat and species-focused measures. These caveats aside, IBAs have proven to be a widely applicable and cost-effective means of identifying priorities and generating support for site-based conservation action.

In summary, IBAs are:

- Critical sites for the conservation of birds and biodiversity.
- Places of international importance.
- Practical targets for conservation action.
- Selected according to internationally recognised criteria.
- Used to both reinforce and compliment existing protected area networks.
- Used as part of a wider approach to conservation.

2.2 Scientific rationale

Protection of a network of sites that supports as wide a range as possible of species and natural habitats is one approach to conservation, and forms the basis of most protected area networks. Many species may be effectively conserved by this approach, because it is often possible to identify a relatively small set of sites that supports a wide range of species within a given country or region. When taken together, these sites form a network throughout the species' ranges, which may be considered as the minimum essential to ensure their survival. At the landscape-scale, these sites can be adopted as the core areas of regional conservation plans, and, where appropriate, linked by habitat corridors and insulated by buffer zones.

In this directory, birds are used as the basis for such a network, because they are an important conservation focus in their own right. Birds perform ecological roles essential to the function of ecosystems, such as seed-dispersal and pollination. Birds have high cultural significance, for instance ethnic Kazakhs in western Mongolia use Golden Eagles *Aquila chrysaetos* to hunt game. Birds also have economic values, particularly as a basis for ecotourism, an increasingly important part of the Mongolian economy. Another example of the economic value of birds is the role of raptors in controlling the populations of rodents and other pest species that damage pastureland. Certain species have direct economic value in their own right, such as Saker Falcon *Falco cherrug*, which is in high demand from the Arab falconry trade and can fetch US$2,500 per bird (Wingard and Zahler 2006). In 2003, state revenue from Saker Falcon sales amounted to US$2.2 million, equivalent to 10% of total state revenue from natural resources (Wingard and Zahler 2006). The impact of this trade on the population of Saker Falcons in Mongolia is not known and requires urgent attention.

Birds are also used to define site-scale priorities because, as a group, they have a number of features that make them suitable tools for conservation planning. Birds contain high numbers of Globally Threatened and endemic species. They have well understood distributions and habitat requirements, and are good indicators of habitat condition and human disturbance. They are possible to record and identify in the field. In addition, birds can be used as 'flagships' for conservation. Studies in other countries have shown that birds can be a highly efficient means of setting conservation priorities in the absence of detailed data on other taxa (Howard *et al.* 1998, Burgess *et al.* 2002). Thus, although IBAs in Mongolian are based on birds, their protection would ensure the survival of many key sites for the conservation of other taxonomic groups.

2.3 Criteria for IBA identification

In Europe, three categories of IBAs have been defined: globally important; regionally important; and nationally important (Grimmett and Jones 1989). In Asia, however, due to constraints of time, resources and information, only globally important IBAs have been identified during the first phase of the IBA programme. In the future, when more detailed information becomes available, it may be desirable to identify regionally and/or nationally important IBAs in Asia. At that stage, it will be necessary to develop and apply additional criteria.

The criteria used to identify IBAs in Mongolia were the standard ones used to identify globally important IBAs in other countries (Table 1). In order to ensure consistency and comparability with other countries, the criteria were

applied objectively and consistently. In some instances, it was necessary to interpret the criteria in a way that was relevant to the Mongolian context. All such instances are explained in the notes that follow the table.

Category A1: Globally Threatened species

Criterion: The site is known or thought regularly to hold significant numbers of a Globally Threatened bird species.

Notes

- This category refers to bird species classified as Critical, Endangered or Vulnerable, according to BirdLife International (2008).
- According to BirdLife International (2008), 24 Globally Threatened bird species are known from Mongolia, comprising two Critical, six Endangered and 16 Vulnerable species (Appendix 1).
- The words *regularly* and *significant* in the definition of this criterion are intended to exclude sites that are not judged to be important for the conservation of that species. Sites qualify as IBAs if the species in question is only present seasonally, or even if it only occurs at longer intervals (for example, if suitable conditions themselves only occur at extended intervals, such as at ephemeral wetlands). However, sites do not qualify if the species occurs only as a vagrant, occurs only marginally or is known only from historical records.
- For well studied sites, the application of this criterion was relatively straightforward. Species were considered to occur *regularly* if they were recorded in the majority of years that surveys were undertaken during the season(s) when the birds could be expected to be present. Species were considered to occur in *significant* numbers if 1% or more of the global population was recorded. At sites with high turnover of individuals (e.g. stop-over sites for migratory birds), species were considered to occur in significant numbers even if counts on any given visit were below the 1% threshold, if there was reason to assume that the total number of individuals passing through over the course of the season would have exceeded the threshold.
- For many sites with records of Globally Threatened species, information on these species is restricted to a handful of records, reflecting the limited observer coverage in most parts of Mongolia. For these sites, it was frequently very difficult to assess whether a particular species occurred regularly in significant numbers. Sites were considered to meet this criterion if a Globally Threatened species had been recorded there, and the site could reasonably be assumed to regularly support the species in significant numbers (i.e. because suitable habitat for the species was present).
- Records of Globally Threatened species were collated from direct field observations, records in published and unpublished literature, and reports from scientists, birdwatchers and local people. There was

Table 1: Summary of global IBA criteria

Category	Criterion	Notes
A1. Globally Threatened species	The site is known or thought regularly to hold significant numbers of a Globally Threatened bird species.	The site qualifies if it is known or thought to hold a population of a bird species categorised as Critical, Endangered or Vulnerable.
A2. Restricted-range species	The site is known or thought to hold a significant component of a group of bird species whose breeding distributions define an Endemic Bird Area (EBA) or Secondary Area (SA).	The site qualifies if it forms one of a set selected to ensure that, as far as possible, all restricted-range bird species of an EBA or SA are present in significant numbers within at least one site and, preferably, more.
A3. Biome-restricted assemblages	The site is known or thought to hold a significant component of the group of bird species whose distributions are largely or wholly confined to one biome.	The site qualifies if it forms one of a set selected to ensure that, as far as possible, all biome-restricted bird species are adequately represented.
A4. Congregations	**(i)** The site is known or thought to hold, on a regular basis, 1% or more of a biogeographic population of a congregatory waterbird species.	This applies to waterfowl species as defined in Wetlands International (2002). Thresholds are set based on the population estimates given in Wetlands International (2002) for the relevant flyway population (i.e. Central Asia-South Asia or East Asia).
or	**(ii)** The site is known or thought to hold, on a regular basis, 1% or more of the global population of a congregatory seabird or terrestrial species.	This applies to terrestrial species and those seabird species not covered in Wetlands International (2002). Thresholds are set by estimating 1% of the global population.
or	**(iii)** The site is known or thought to hold, on a regular basis, at least 20,000 waterbirds, or at least 10,000 pairs of seabird, of one or more species.	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).
or	**(iv)** The site is known or thought to be a 'bottleneck site', where at least 20,000 raptors (Accipitriformes and Falconiformes) or cranes (Gruidae) pass regularly during spring and/or autumn migration.	Thresholds are set regionally or inter-regionally as appropriate (in Asia, a site qualifies if a combined total of ≥ 20,000 migrating individuals of all raptor or crane species pass through it in a single migration season).

no time-limit for accepting records: historical records were accepted, provided that there was no strong reason to assume the species might have subsequently disappeared from the site in question. No attempt was made to predict the occurrence of species at unsurveyed sites on the basis of available habitat or other factors.
- Every site in Mongolia that was known or thought regularly to hold significant numbers of one or more Globally Threatened bird species was identified as an IBA.

Category A2: Restricted-range species

Criterion: The site is known or thought to hold a significant component of a group of bird species whose breeding distributions define an Endemic Bird Area (EBA) or Secondary Area (SA).

Notes
- This category refers to restricted-range bird species, which are species with a total global breeding range of less than 50,000 km^2. Areas to which the global breeding ranges of two or more restricted-range species are entirely confined are termed Endemic Bird Areas (EBAs), while areas that support one or more restricted-range species but have less than two species confined to them are termed Secondary Areas (SAs) (Stattersfield *et al.* 1998).
- Mongolia only contains a single SA, Mongolian Mountains (SA077), and no EBAs (Stattersfield *et al.* 1998). This SA is defined by the breeding range of Mongolian Accentor *Prunella koslowi*. This species also occurs in northern China, where it is assumed to be a non-breeding visitor.
- Every site in Mongolia that was thought to hold a significant breeding population of Mongolian Accentor was identified as an IBA.

Category A3: Biome-restricted assemblages

Criterion: The site is known or thought to hold a significant component of the group of bird species whose distributions are largely or wholly confined to one biome.

Notes
- This category applies to groups of bird species with largely shared distributions of greater than 50,000 km^2 that occur mostly or wholly within all or part of a particular biome, and are, therefore, of global importance.
- The term *significant component* in the definition of the criterion is intended to avoid selecting IBAs solely on the presence of one or a few biome-restricted species that are common, widespread and adaptable to habitat modification and disturbance. Such species can be expected to occur at other chosen sites.
- A biome may be defined as a major regional ecological community characterised by distinctive animal and plant species. No system of global biome classification has been found that can be adequately used as a basis for generating the bird species lists required to apply this criterion. Consequently, a bespoke biome classification developed specifically for the Asia region was used (BirdLife International 2004).
- Four biomes are represented in Mongolia: Boreal forest (taiga) (Biome AS02); North-East Asian temperate forest (Biome AS03); Eurasian steppe and desert (Biome AS04); and Eurasian high montane (alpine and Tibetan) (Biome AS05).
- In each of these biomes, a network of IBAs was selected, with the aim of including populations of all of the species restricted to that biome occurring in Mongolia, together with representative areas of all key habitats for these birds. The number (and total area) of IBAs selected per biome took into account the relative extent of that biome within Mongolia. Wherever possible, a few large sites with relatively intact natural habitats were selected under this criterion but care was taken to ensure that these sites were not too large to be impractical for conservation.

Category A4: Congregations

A site may qualify if it meets any one of the four criteria listed below:

Criterion A4i: The site is known or thought to hold, on a regular basis, 1% or more of a biogeographic population of a congregatory waterbird species.

Criterion A4ii: The site is known or thought to hold, on a regular basis, 1% or more of the global population of a congregatory seabird or terrestrial species.

Criterion A4iii: The site is known or thought to hold, on a regular basis, at least 20,000 waterbirds, or at least 10,000 pairs of seabird, of one or more species.

Criterion A4iv: The site is known or thought to be a 'bottleneck site', where at least 20,000 raptors (Accipitriformes and Falconiformes) or cranes (Gruidae) pass regularly during spring and/or autumn migration.

Notes
- This category applies to those species that are perceived to be particularly susceptible to threats because they congregate at specific sites when breeding or wintering, or while on passage.
- The term 'waterbird' is used here in the same sense as the Ramsar Convention uses 'waterfowl', and covers the list of waterbird families defined by Wetlands International (2002). The term 'seabird' covers those families of seabird not covered by Wetlands International (2002).
- The threshold for criterion A4i is 1% of the biogeographic population of a congregatory waterbird species. These thresholds were based on the population estimates given in Wetlands International (2002) for the relevant flyway population. In the case of Mongolia, some waterbird species follow the Central Asia-South Asia flyway, while others follow the East Asia

flyway; the relevant threshold was applied in each case.
- As Mongolia is a landlocked country and because gulls and terns (Laridae) and cormorants (Phalacrocoracidae), which are considered to be seabirds by some authorities, are listed as waterbirds by Wetlands International (2002), no congregatory seabirds regularly occur in Mongolia. Therefore the A4ii criterion could not be applied to seabirds.
- The A4ii criterion also allows IBAs to be identified for congregatory terrestrial species. However, because suitable global population data were not available to set 1% thresholds for these species, it was not possible to apply this criterion. In the future, when sufficient information becomes available, it may be possible to identify a number of additional IBAs in Mongolia under this criterion.
- Criterion A4iv covers sites over which migrating raptors and cranes congregate, for example before gaining height in thermals. Such 'bottlenecks' may be susceptible to the construction of power lines, wind turbines or other infrastructure.
- All sites in Mongolia that met one or more of criteria A4i, A4ii, A4iii or A4iv were identified as IBAs.
- Sites meeting criteria A4i or A4iii qualify as Ramsar sites under the Convention on Wetlands of International Importance.

Criteria for defining IBA boundaries

In addition to the above criteria, an IBA should, as far as possible, meet the following three criteria:

1. *Be different in character or habitat or ornithological importance from the surrounding area.*
2. *Exist as an actual or potential protected area, with or without buffer zones, or be an area that can be managed in some way for nature conservation.*
3. *Alone or with other sites, be a self-sufficient area, which provides all the requirements of the birds that it is important for during the time they are present.*

Notes
- IBAs were identified by the occurrence of *species*. However, IBA boundaries were defined by the extent of the *habitats* of these species, based upon known/inferred habitat requirements.
- In some cases, the boundaries defined for Mongolian IBAs followed the boundaries of existing national protected areas, because these were felt to meet the requirements of the birds for which they were identified. However, IBA boundaries did not always follow protected area boundaries. In cases where areas of habitat necessary to meet species' requirements lay outside of a protected area, the IBA boundary was extended to include those areas. Moreover, in cases where a protected area included large areas of habitat thought not to be suitable for the birds the IBA was identified for, the IBA boundary only included that part of the protected area that contained suitable habitat(s).
- In many cases, IBAs did not overlap significantly with national protected areas, so boundaries of existing management units could not be used (in some cases, IBAs overlapped with local protected areas but maps of these sites were not available at the time that IBA boundaries were being defined). For these IBAs, topographical features, hydrological features and changes in habitat type or condition were used to delimit their boundaries. Where extensive areas of continuous habitat important for birds occurred, the highest importance was given to practical considerations of how a site could best be managed for nature conservation. No fixed maximum or minimum sizes for IBAs were set.

2.4 Identification of IBAs

The starting point for identification of IBAs in Mongolia was a preliminary inventory of 41 IBAs presented in the Asian IBA directory (BirdLife International 2004). This inventory was compiled by Bazarsad Chimed-Ochir, Natsagdorj Tseveenmyadag, Ayurzana Bold, Nyambayar Batbayar, Radnaabazar Bolor, Simba Chan and Axel Bräunlich, drawing on published and unpublished literature, and consultations with field scientists.

The list of IBAs was finalised at a workshop entitled *Towards the Identification and Safeguarding of Important Areas of Natural Habitat in Mongolia*, held in Ulaanbaatar on 19 and 20 April 2007. This workshop was convened by MNE and the World Bank and attended by over 40 participants, including representatives of the National University of Mongolia, the Institute of Biology of the Mongolian Academy of Sciences, WWF Mongolia, the WCS Mongolia Program and GTZ. In advance of the workshop, participants were provided with the preliminary inventory, and asked to bring with them any published or unpublished information they had on sites of importance for birds and other biodiversity. At the workshop, participants were introduced to the global IBA criteria, and asked to identify sites that met them. IBA boundaries were delineated in a preliminary fashion on satellite images and topographic maps, and the justification for identifying them was recorded, together with other information about biodiversity values and conservation issues at each site.

Following the workshop, the editors of this directory reviewed and refined the data provided by participants at the workshop, supplemented them by extensive review of published and unpublished literature on birds in Mongolia, and correspondence with field scientists, and then prepared site accounts for each IBA. These site accounts were then circulated to leading biologists and conservationists in Mongolia for review. The final step was to refine the IBA boundaries suggested at the workshop, using a GIS application.

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3. Results

3.1 The IBA network in Mongolia

A total of 70 IBAs were identified in Mongolia (Table 2); a detailed site account for each is given in Chapter 4. Fifty-six IBAs qualified under two or more categories but only three IBAs qualify under all four (MN001 Khoton-Khorgon Lakes; MN003 Dayan Lake and MN022 Otgontenger Mountain). All but one of the IBAs qualify under category A1, emphasising the significance of Mongolia's IBAs for the conservation of Globally Threatened species (Appendix 1). Seven IBAs qualified under category A2, reflecting the fact that Mongolia has low levels of Avian endemism and is home to only one restricted-range bird species: Mongolian Accentor *Prunella koslowi* (Appendix 2). Forty-one sites qualified under category A3, because they support assemblages of species restricted to one of the biomes in Mongolia (Appendix 3). Finally, 46 sites met criterion A4i and/or A4iii, because they hold large congregations of migratory waterbirds (Appendix 4).

Table 2: The number of IBAs in each category

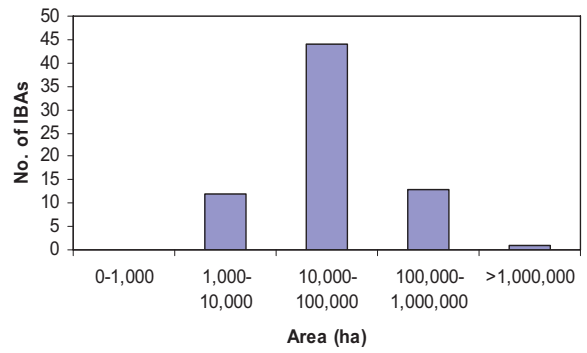
Category	Number of IBAs
A1 Globally Threatened species	69
A2 Restricted-range species	7
A3 Biome-restricted species	41
A4 Congregations	46

3.2 Coverage of the IBA network

Size

The 70 IBAs in Mongolia cover a total area of 8,358,313 ha, equivalent to 5% of the national territory. Mongolia's IBAs range in size from 1,491 to over 1.2 million ha, although most are in the range from 10,000 to 100,000 ha (Figure 1). The mean IBA size is 119,404 ha, while the median size is 35,029 ha, reflecting the disproportionate contribution made by large IBAs to the overall total. The relative lack of small IBAs (only 12 are smaller than 10,000 ha, with none being smaller than 1,000 ha) reflects the fact that Mongolia still supports very large expanses of natural habitats, which have not undergone significant fragmentation. All but two of the IBAs under 10,000 ha in area are wetlands, while the other two are rocky areas with concentrations of raptors.

Figure 1: Distribution of IBAs by size class



regularly in significant numbers within Mongolia's IBA network, while 18 species (75% of the total) are known or thought to occur regularly in significant numbers within at least three IBAs (Appendix 1, Table 3). The two species not known to occur regularly in significant numbers at any IBA are both vagrants. Egyptian Vulture *Neophron percnopterus* is only known from a handful of records, while Sociable Lapwing *Vanellus gregarius* is known only from records of single birds from Ogii Lake (MN042) and Tsogiin Tsagaan Nuur within Mongul Daguur (MN066) (BirdLife International 2001).

Table 3: Coverage of Globally Threatened bird species within IBAs

Threat category	No. of species in Mongolia	No. of IBAs that regularly support a significant population		
		≥3	1-2	0
Critical	2	1	0	1
Endangered	6	3	2	1
Vulnerable	16	14	2	0
Total	24	18	4	2

Note: the figures in the table exclude IBAs where the species has been recorded but is not thought to occur regularly in significant numbers.

The most widespread Globally Threatened bird species within Mongolia's IBA network are Swan Goose *Anser cygnoides* (found at 36 IBAs), Lesser Kestrel *Falco naumanni* (34 IBAs), Saker Falcon *F. cherrug* (33 IBAs), Great Bustard *Otis tarda* (31 IBAs), Pallas's Fish-eagle *Haliaeetus leucoryphus* (25 IBAs) and White-naped Crane *Grus vipio* (20 IBAs). Most of these species are widely distributed in suitable habitat throughout Mongolia.

Biomes

Of the 41 IBAs that qualify under category A3 (biome-restricted assemblages), 32 sites support a significant component of the group of species that characterise the Eurasian steppe and desert biome (AS04), such as Steppe Eagle *Aquila nipalensis*, Daurian Partridge *Perdix dauurica*, Pallas's Sandgrouse *Syrrhaptes paradoxus* and Mongolian Ground Jay *Podoces hendersoni*. The Eurasian steppe and biome is, by far, the most widespread biome in Mongolia. It is also the biome where most wetlands (and hence most IBAs) are located. Eleven IBAs support good representative examples of the bird communities of the Eurasian high montane (alpine and Tibetan) biome (AS05), including such characteristic species as Altai Snowcock *Tetraogallus altaicus*, Alpine Accentor *Tetraogallus altaicus* and White-throated Bushchat *Saxicola insignis*.

Only five IBAs qualify under category 3 for the boreal forest (taiga) biome (AS02) but these include some very large sites, such as Khan Khentii Strictly Protected Area (MN055), which covers over 1.2 million ha, and Khangain Nuruu National Park (MN030), which covers nearly 900,000 ha. Species characteristic of boreal forest that can be found at these IBAs include Black-billed Capercail-

lie *Tetrao parvirostris*, Ural Owl *Strix uralensis*, Siberian Jay *Perisoreus infaustus* and Siberian Accentor *Prunella montanella*. The North-East Asian temperate forest biome (AS03) is only found in the extreme east of Mongolia. Consequently, only one IBA, Nomrog (MN070), supports the characteristic bird community of this biome. The full list of biome-restricted bird species occurring in Mongolia is presented in Appendix 3.

Congregatory waterbirds

All 46 IBAs that qualify under category A4 (congregations) trigger criterion A4i (1% or more of the flyway population of a congregatory waterbird species). A total of 43 different congregatory waterbird species trigger this criterion (Appendix 4). Some do so at a large number of sites, for example Ruddy Shelduck *Tadorna ferruginea* (which meets the 1% threshold at 35 IBAs), Northern Lapwing *Vanellus vanellus* (20 IBAs), Great Crested Grebe *Podiceps cristatus* (17 IBAs), Demoiselle Crane *Anthropoides virgo* (15 IBAs) and Common Goldeneye *Bucephala clangula* (13 IBAs). In contrast, 14 species only trigger criterion A4i at a single site, indicating that, although many IBAs are important for the conservation of congregatory waterbirds, there is considerable variation among sites with regard to the specific species they are important for. This underlines the importance of conserving the entire Mongolian IBA network.

Five IBAs trigger criterion A4iii because they regularly support congregations of over 20,000 waterbirds: Uvs Lake (MN009); Airag Lake (MN012); Khar Us Lake (MN014); Ogii Lake (MN042); and Khukh Lake (MN067). These are among the most significant sites for wetland conservation in Mongolia, and each supports important congregations of a large number of individual waterbird species.

3.3 Gaps in coverage

The list of IBAs presented in this directory is by no means exhaustive. Mongolia has a small, albeit increasing, number of ornithologists and birdwatchers, and many places have not yet been surveyed ornithologically. Even for the IBAs in this directory, survey coverage at most is far from complete, and sometimes limited to a single visit or to visits during a single season. Consequently, it is likely that there are other sites in Mongolia that qualify as IBAs that are not documented in this directory. In addition, many of the IBAs documented here may be important for more bird species and assemblages than are currently known to occur.

To date, disproportionately more IBAs have been identified in wetlands compared with other habitat types. This is a reflection of the ease with which wetland sites can be delineated and the availability of survey data on waterbird populations compared with other species. It is anticipated that future field surveys will identify more sites that qualify as IBAs, especially in boreal forest, steppe and desert habitats, and that the boundaries of some existing IBAs will be refined to reflect new information on the distribution of bird populations.

It is also important to stress that Mongolia's boreal forest, steppe and desert habitats are extensive and largely intact, and that the populations of the key bird species they support are usually dispersed. As a result, only the best-known and most representative sites have been identified as IBAs. While these IBAs should form a focus for conservation efforts for these habitats, these will need to be complemented by landscape-scale conservation actions, covering a much larger area, if the wildlife values of these habitats are to be maintained. Although the IBAs that have been identified in these habitats are considered to be of particular importance, it would be incorrect to infer that land lying outside of their boundaries is unimportant for biodiversity. Indeed, the integrity of the IBAs identified can only be maintained if they are conserved as part of a wider landscape approach to habitat management and conservation.

With the above provisos, the 70 IBAs identified are an excellent first cut of important areas of natural habitat in Mongolia, which can be used with confidence, right away, to guide site safeguard, conservation planning and on-the-ground action.

3.4 Threats to biodiversity at IBAs

There is increasing pressure on IBAs in the steppe zone as a result of increasing livestock populations and overgrazing. This is resulting in the degradation and desertification of grasslands. Steppe IBAs are also adversely affected by steppe fires, which can be destructive to nesting birds. It is reported that most steppe fires are accidently started in spring and early summer.

Overgrazing and trampling by livestock is of particular concern at a number of wetland IBAs in the steppe region. A further problem at some sites in recent years has been the use of rodenticides to control vole outbreaks, which has resulted in the poisoning of birds of prey and sometimes other important species, such as cranes.

The water levels of many steppe lakes have fallen in recent decades, with some wetlands completely disappearing. In some cases this is due to the damming or diversion of rivers and streams, and use or water for irrigation and livestock. In other locations the cause is believed to be climatic.

Mining, infrastructure development and tourism development are all undergoing rapid expansion and these pose a risk to Mongolia's IBAs if their environmental impacts are not anticipated and managed. On-going mining operations are currently affecting only a small number of IBAs. However, mineral exploration licenses overlap with many more IBAs. Moreover, mineral exploration and extraction can threaten the biodiversity values of IBAs, even when there is not direct overlap, due to indirect impacts such as water pollution and infrastructure development.

There is also increasing concern about the potential impacts on IBAs of infrastructure, including road and rail networks, hydropower development, and power transmission lines, much of which is associated with mining development.

The impacts of tourism are also of growing concern. It is already resulting in disturbance and localised pollution at some sites, particularly certain wetland IBAs with important breeding colonies of globally threatened waterbirds.

Illegal hunting can have a devastating impact at IBAs, with some species being particularly vulnerable. Dalmatian Pelican *Pelecanus crispus* is very close to extinction in Mongolia as a result of hunting, and Great Bustard *Otis tarda* populations are highly vulnerable and continue to be targeted. A comparatively recent development is the very high pressure on Saker Falcon *Falco cherrug*, which is highly sought after for the Arab falconry trade.

3.5 Protection of the IBA network

Protected areas

At the national level, only 14 IBAs are fully (>95%) protected within State Special Protected Areas (State SPAs). A further 15 IBAs are partially (<95%) protected within State SPAs, while 41 IBAs have no protection at all at the national level (Figure 2). However, the fully protected IBAs include some very large sites, such as Khangain Nuruu National Park (MN030), Govi Gurvan Saikhan Mountain (MN046), Khan Khentii Strictly Protected Area (MN055) and Gorkhi-Terelj National Park (MN056). Consequently, 70% of the IBA network by area (5.9 million ha) is protected within State SPAs.

At the local level, over 500,000 ha is protected within Local Special Protected Areas (Local SPAs), most of which is not otherwise protected within State SPAs. In contrast to State SPAs, very few Local SPAs are under any form of conservation management on the ground. Most exist as 'paper parks' at present.

Nearly 1.4 million ha or 17% of the IBA network has been designated under international conventions and agreements by the government of Mongolia, as Ramsar Sites, World Heritage Sites or Biosphere Reserve core areas. These international designations do not confer any legal protection on an IBA under Mongolian Law, unless they are otherwise designated as either State SPAs or Local SPAs. Overall, around 1.8 million ha or 22% of the Mongolian IBA network is not protected at the local, national or international level (Table 4).

Figure 2: Protection of IBAs by State SPAs

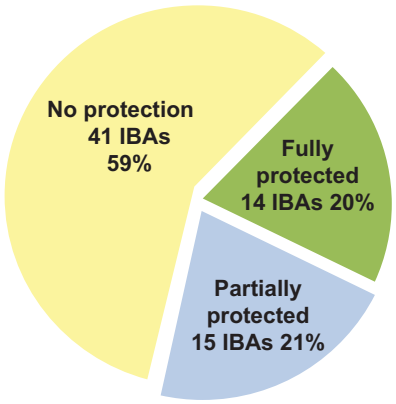


Table 4: Coverage of IBAs in local, national and international protected areas

IBA statistic	Total area (ha)	Area not otherwise protected (ha)
Area covered by State SPAs	5,858,813	5,858,813
Area covered by Local SPAs	519,341	389,633
Area covered by international designations	1,390,317	280,481
Area unprotected	1,829,386	1,829,386
Total area of IBA network	**-**	**8,358,313**

Ramsar Sites

Under the Convention on Wetlands of International Importance (Ramsar Convention), Mongolia has a commitment to "include wetland conservation considerations within its national land-use planning, and to formulate and implement this planning so as to promote, as far as possible, the wise use of wetlands in its territory". In addition, Mongolia has a commitment to designate wetlands meeting the

Table 5: Coverage of IBAs within Ramsar Sites

Ramsar Site	Year designated	Official area (ha)	IBAs
Mongol Daguur (Mongolian Dauria)	1997	210,000	Mongol Daguur (MN066) Khukh Lake (MN067)
Ogii Lake	1998	2,510	Ogii Lake (MN042)
Terkhiin Tsagaan Lake	1998	6,110	Terkhiin Tsagaan Lake (MN031)
Valley of Lakes	1998	45,600	Boon Tsagaan Lake (MN026) Orog Lake (MN028) Taatsiin Tsagaan Lake (MN029)
Airag Lake	1999	45,000	Airag Lake (MN012)
Khar Us Lake National Park	1999	321,360	Khar Us Lake (MN014) Khar Lake (MN016) Khomiin Tal (MN017)
Lake Achit and its surrounding wetlands	2004	73,730	Achit Lake (MN007)
Lake Buir and its surrounding wetlands	2004	104,000	Buir Lake (MN068)
Lake Ganga and its surrounding wetlands	2004	3,280	Ganga Lakes (MN061)
Lakes in the Khurkh-Khuiten river valley	2004	42,940	Valleys of Khurkh-Khuiten Rivers (MN058)
Lake Uvs and its surrounding wetlands	2004	585,000	Uvs Lake (MN009)

Ramsar criteria as Ramsar Sites (officially known as Wetlands of International Importance). Ramsar Sites include those that:

- Contain a representative, rare or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region.
- Support Vulnerable, Endangered or Critical species, or threatened ecological communities.
- Regularly support 20,000 or more waterbirds.
- Regularly support 1% of the individuals in a population of one species or subspecies of waterbird.

Since becoming a party to the Convention in 1998, the government of Mongolia has made good progress with implementation, nominating 11 Ramsar Sites so far. These sites contain a total of 16 IBAs (Table 5). In addition to these sites, 30 other IBAs clearly meet one or more of the above criteria, and, therefore, qualify as Ramsar Sites. All of these sites regularly support 1% of the flyway population of one or more congregatory waterbird species (IBA criterion A4i), five of them regularly support 20,000 or more congregatory waterbirds (IBA criterion A4iii) and all but one of them support Globally Threatened bird species (IBA criterion A1). These sites can be thought of as 'potential Ramsar Sites', from which the government of Mongolia could select additional sites to nominate under the Convention. The remaining 24 IBAs in Mongolia are principally terrestrial sites, although some of them do contain important wetlands, which may be found, through further study, to meet the Ramsar criteria.

World Heritage Sites

Mongolia signed the World Heritage Convention in 1990, and has since designated one natural World Heritage Site (Uvs Nuur Basin) and one cultural World Heritage Site (Orkhon Valley). Of these, Uvs Nuur Basin contains Uvs Lake IBA (MN009), while Orkhon Valley overlaps partly with Khangain Nuruu National Park IBA (MN030).

Biosphere Reserves

Since 1990, Mongolia has designated six biosphere reserves under UNESCO's Man and the Biosphere Programme. The core areas of three of these biosphere reserves overlap with IBAs: Uvs Nuur Basin contains Uvs Lake IBA (MN009); Khustain Nuruu contains Khustain Nuruu National Park IBA (MN052); and Mongul Daguur contains Mongol Daguur IBA (MN066). The other three biosphere reserves in Mongolia, Great Gobi, Bogd Khan Uul and Dornod Mongol, do not contain any IBAs.

3.6 Priority conservation actions required for the IBA network

Based on an evaluation of the coverage of the network, the conservation issues affecting each site, and the institutional and regulatory frameworks for nature conservation in Mongolia, the following conservation actions are recommended to conserve the biodiversity values of Mongolia's IBA network and safeguard IBAs from incompatible developments:

Policy actions:

- Use the IBA network as a tool to review existing protected areas systems, identify gaps in coverage, and identify candidate sites for expansion or designation of protected areas to address these gaps. Of the 70 IBAs in Mongolia, 41 are currently unprotected at the national level; a further 15 are only partially protected. Many of these unprotected IBAs would benefit from official designation as conservation areas, either as State or Local SPAs, or as Ramsar Sites under the Convention on Wetlands of International Importance.
- Incorporate the IBA concept into government and donor environmental protection policies, particularly in the transport, power, agriculture, forestry, and tourism sectors.
- Incorporate the IBA concept into the National Biodiversity Action Plan and other national and regional level conservation plans.
- It is not feasible to designate every IBA as a formal protected area due to such factors as resource limitations, conflicting land ownership, high opportunity costs in productive landscapes, and even the size of the IBA for some large sites. Therefore there is a need to develop alternative approaches to site-based protection of IBAs such as community managed conservation areas, private protected areas, and voluntary agreements with land-owners and herders.
- Pilot alternative approaches to site conservation at unprotected IBAs where local stakeholders are facilitated to take responsibility for monitoring and, in some cases, managing IBAs.
- Individual or isolated IBAs are not always sufficient to support long term viable populations of bird species; therefore, habitat connectivity should be maintained or established among IBAs through landscape level conservation.
- Designate as Ramsar sites additional IBAs meeting the Ramsar criteria particularly fragile lakes in arid semi-desert environment and lowland areas.

Awareness actions:

- Raise awareness at all levels about the biological and socio-economic values of IBAs and threats to the biodiversity they support. Effective conservation of the IBA network is dependent on the support of stakeholders at all levels, from local communities, through civil society, private sector stakeholders, to government decision makers.
- Engage stakeholders from civil society, private sector and government in IBA conservation. At the site level, individuals can be engaged in IBA conservation through membership of nature conservation clubs, community based organizations, and local NGOs, while organizations could become engaged through corporate sponsorship or NGO-protected area partnership.

- Make IBA information widely available and accessible to public and corporate sectors. Putting IBA site accounts and GIS files online could be a cost effective and efficient means of disseminating information.

Research actions:

- Develop strategy for long term monitoring of bird communities and environmental condition of the IBA network. In addition, there is a need of an adequate diverse and sustainable funding base for the monitoring and protection of the IBA network.
- A cost effective, stakeholder based monitoring system needs to be developed for the IBAs.
- Conduct surveys of areas important for terrestrial birds especially in boreal forest, steppe and desert habitats.
- Conduct surveys of sites in Altai Mountains with a particular emphasis on identifying IBAs important for Mongolian Accentor.
- Conduct surveys of sites in North and South Gobi region with a particular emphasis on identifying IBAs important for Houbara Bustard.
- Conduct bird surveys in the northeast of Khovsgol aimag, Trans Altai Gobi and southeastern Mongolia with a particular emphasis on identifying IBAs for terrestrial bird communities.
- Conduct surveys of sites along Selenge River and Kherlen River valleys with a particular emphasis on identifying IBAs important for Great Bustard and White-naped Crane.
- In addition to surveys to fill gaps in coverage of the IBA network, it is important to conduct detailed ecological and socio-economic studies at IBAs and keep the network up to date.

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4. Site accounts

This chapter presents site accounts for each of the 70 IBAs in Mongolia; a full list can be found in the Table of Contents and on the map on page xii. Each site account contains the following sections:

4.1 Heading

IBA name
The name of the IBA is given. IBA names are usually based on a prominent geographical feature, such as a mountain, lake or river. Where an IBA corresponds to a protected area, the protected area name is often used.

IBA code
A unique code is given for each IBA, arranged in approximate geographic sequence, from west to east. Codes for Mongolian IBAs are prefixed with the letters MN, and comprise MN001 to MN070 inclusive.

Aimag(s)
The aimag(s) in which the IBA is located is/are listed.

Criteria
The IBA criteria that the site triggers are listed.

Area
The area of the IBA is given, in hectares.

Coordinates
The coordinates of the central point of the IBA are given, to the nearest minute.

Altitude
The approximate altitude range of the IBA is given, in metres above sea level.

Protection status
For IBAs that are fully (>95%) or partially (<95%) protected within one or more State SPAs, the name(s) of the relevant SPA(s) is/are given.

Photograph
Each site account features a photo, showing either habitats at the IBA or bird species that occur there.

4.2 Site description

Information on the location, topography, hydrology, vegetation, ecology and current management of the IBA is summarised. Not all of this information is available for every IBA. The information is compiled from a number of sources, including review of published and unpublished literature, and communications with scientists, birdwatchers and protected area managers. A full list of references used to compile this information is given on the following pages.

4.3 Importance for birds

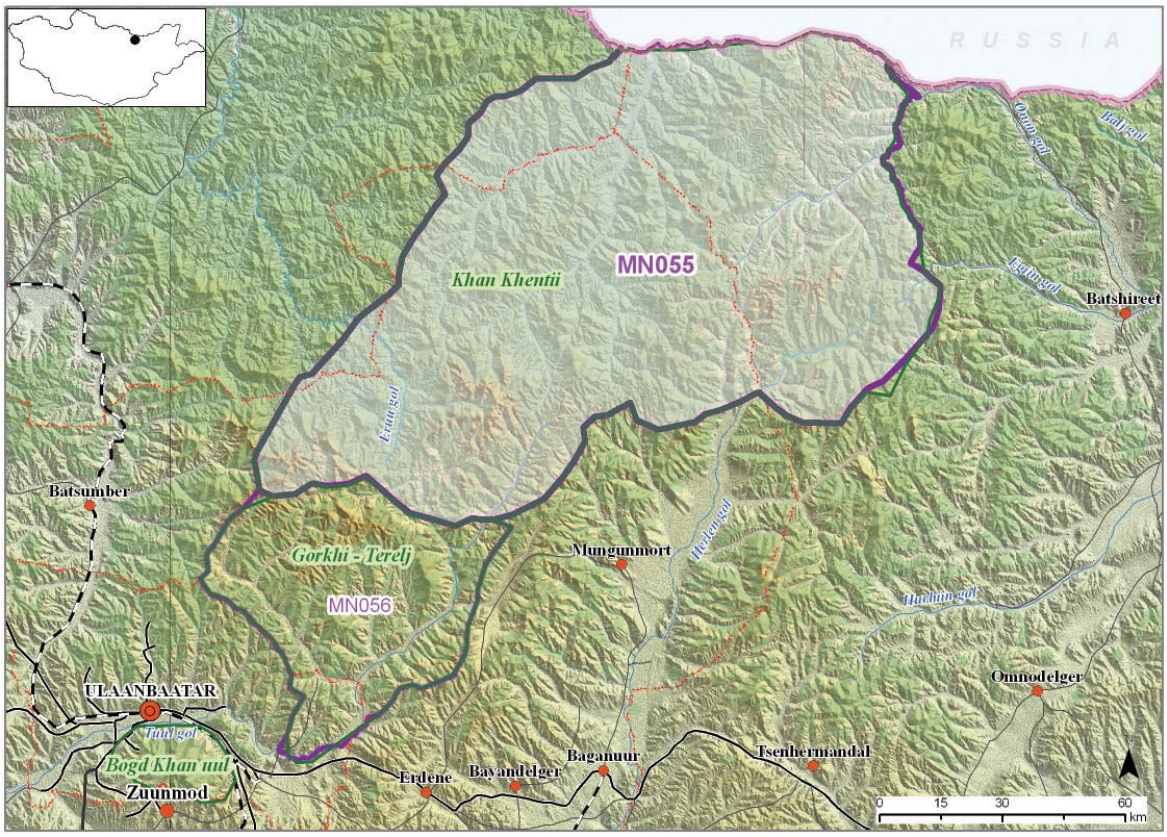
The key features of the avifauna of the IBA are briefly summarised. This section concentrates on the significance of the site for bird conservation, in particular the reasons why it was selected as an IBA, namely importance for Globally Threatened species, restricted-range species, biome-restricted assemblages and congregations of waterbirds. It also includes features of the avifauna of the site that did not contribute to its selection as an IBA, for instance nationally threatened species listed in the *Red Data Book of Mongolia* (Shiirevdamba 1997). References used to compile this information are listed on the following pages.

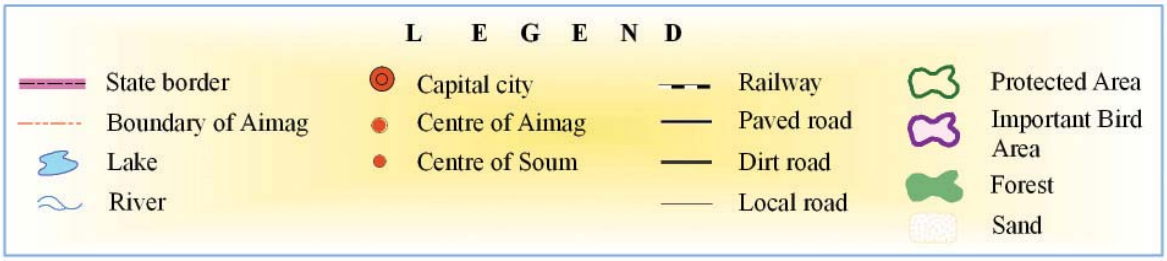
4.4 Importance for other fauna and flora

The importance of the IBA for taxonomic groups other than birds is briefly summarised. Particular attention is given to Globally Threatened species, as well as nationally threatened species listed in the *Red Data Book of Mongolia* (Shiirevdamba 1997) and the *Mongolian Red List of Fishes* (Ocock *et al.* 2006). The information on other fauna and flora is not intended to be comprehensive but, rather, intended to draw attention to the fact that IBAs are important for biodiversity in general, not only birds. References used to compile this information are listed on the following pages.

4.5 Map

Each site account includes a map showing the IBA boundary in relation to other key features, including aimag boundaries, aimag and soum centres, State SPA boundaries, roads and railways. Where a map shows several IBAs close together, only the IBA described in the site account is shaded. These features are shown on a relief map of Mongolia. In general, land cover is not shown, although areas of forest and sand and major lakes and rivers are shown. An example map is shown here.





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IBA CODE: MN001 IBA NAME: KHOTON-KHORGON LAKES

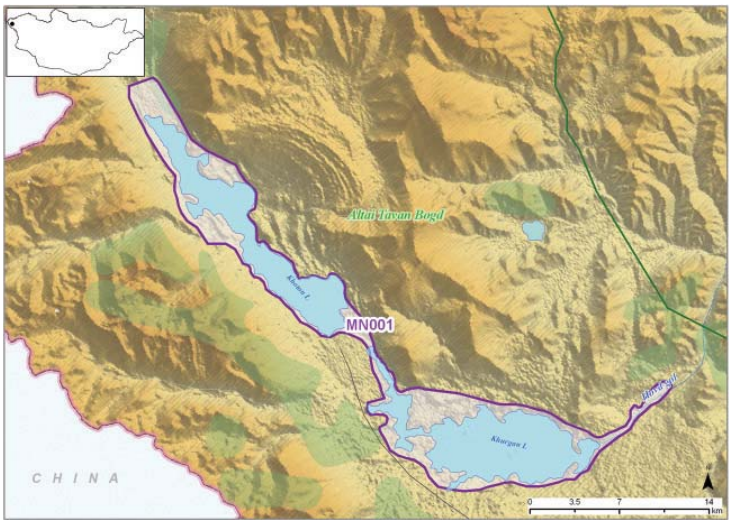
Aimag(s): Bayan-Olgii **Criteria:** A1, A2, A3, A4i **Area:** 19,629 ha
Coordinates: 48°36′N 88°23′E **Altitude:** 2,072-3,245 m

Protection status

Fully protected by Altai Tavan Bogd National Park

Site description

The Khoton-Khorgon Lakes are located at the source of Khovd River in Tsengel soum. They comprise a series of freshwater lakes, of glacial origin, connected by the 3 km-long Sargaal Channel. The lakes are frozen from December until June. Although the lakes are rich in fish, no commercial fishing is practiced at the site. The main land use in the area surrounding the lakes is livestock grazing. The lakes are surrounded by the Mongol Altai mountain range, with extensive forests, snow fields and glaciers.



Importance for birds

Two Globally Threatened species are found at the site: Dalmatian Pelican *Pelecanus crispus* (VU) and White-throated Bushchat *Saxicola insignis* (VU). The site also supports bird communities characteristic of the Eurasian steppe and desert and Eurasian high montane biomes, as well as Mongolian Accentor *Prunella koslowi*, the restricted-range species that defines the Mongolian Mountains Secondary Area. The site regularly supports at least 1% of the flyway populations of the following congregatory waterbird species: Dalmatian Pelican *Pelecanus crispus*, Ruddy Shelduck *Tadorna ferruginea*, Common Goldeneye *Bucephala clangula* and Northern Lapwing *Vanellus vanellus*.

Importance for other fauna and flora

Several nationally threatened fish species listed in the *Mongolian Red List of Fishes* inhabit the Khoton-Khorgon lakes, including Lake Osman *Oreoleuciscus angusticephalus*, Small Osman *O. humilis* and Mongolian Grayling *Thymallus revirostris*.

Photo: N. Tseveenmyadag

IBA CODE: MN002 IBA NAME: TSENGEL KHAIRKHAN MOUNTAIN

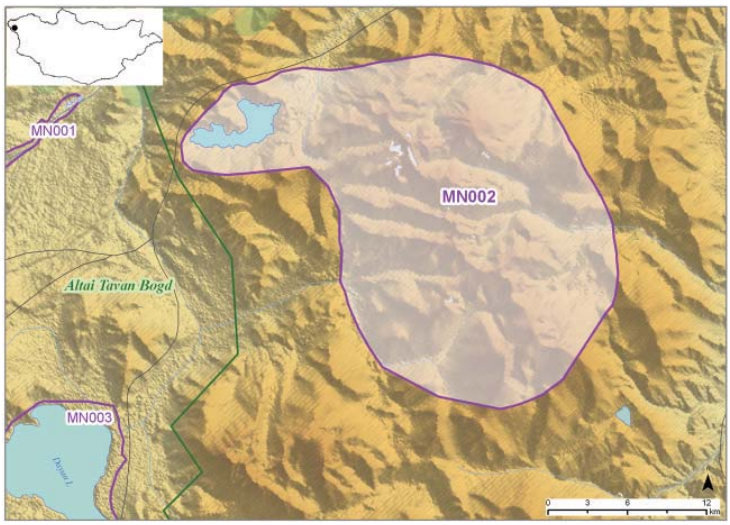
Aimag(s): Bayan-Olgii **Criteria:** A1, A2, A3 **Area:** 52,726 ha
Coordinates: 48°36′N 89°09′E **Altitude:** 2,482-3,943 m

Protection status

Unprotected

Site description

The site includes Tsengel Khairkhan Mountain plus a cold-water mountain lake, 1,430 ha in area, called Khar Lake. Tsengel Khairkhan Mountain is the one of 13 high mountains with glaciers in Mongolia's Altai mountain range. The mountainous area is barren with rock outcrops, rocky ridges and high cliffs. Several important rivers originate from Tsengel Khairkhan Mountain. In addition, there are several mineral springs in its southern foothills, which are used by herders for healing illnesses affecting internal organs and joints. Poaching of Siberian Ibex and Argali may occur at the site.



Importance for birds

One Globally Threatened species, Saker Falcon *Falco cherrug* (EN), is known from the site, as are several nationally threatened species, including Cinereous Vulture *Aegypius monachus* and Altai Snowcock *Tetraogallus altaicus*. The area supports a good example of the bird communities typical of the Eurasian high montane biome, including species such as Altai Snowcock *Tetraogallus altaicus*, Chukar Partridge *Alectoris chukar*, Alpine Accentor *Prunella collaris*, Brown Accentor *P. fulvescens*, White-winged Redstart *Phoenicurus erythrogaster* and White-winged Snowfinch *Montifringilla nivalis*. Large raptors, including Golden Eagle *Aquila chrysaetos*, Steppe Eagle *A. nipalensis,* Cinereous Vulture *Aegypius monachus* and Lammergeier *Gypaetus barbatus*, are common. The site is located with Mongolian Mountains Secondary Area, and supports a breeding population of Mongolian Accentor *Prunella koslowi*.

Importance for other fauna and flora

There are many nationally threatened and rare wildlife species at the site, including Argali *Ovis ammon*, Siberian Ibex *Capra sibirica*, Eurasian Lynx *Lynx lynx*, Pallas's Cat *Felis manul* and Stone Marten *Martes foina*. The Globally Threatened Snow Leopard *Uncia uncia* (EN) also occurs there.

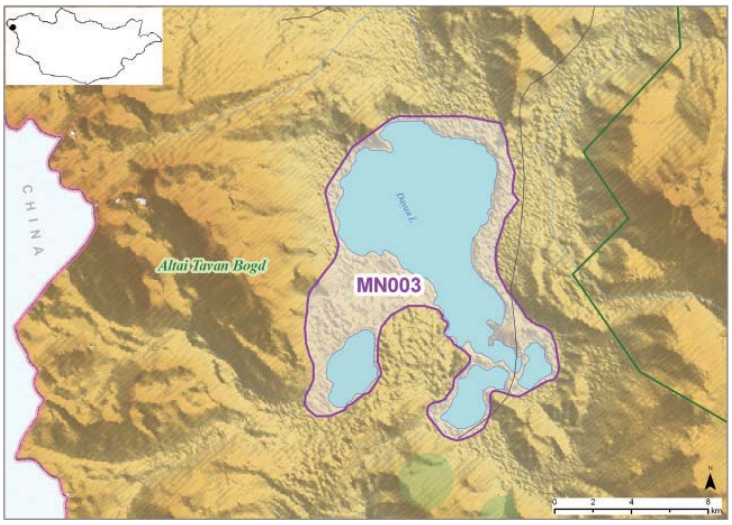
Photo: D.Suran

IBA CODE: MN003 IBA NAME: DAYAN LAKE

Aimag(s): Bayan-Olgii **Criteria:** A1, A2, A3, A4i **Area:** 13,537 ha
Coordinates: 48°20′N 88°50′E **Altitude:** 2,232-2,671 m

Protection status

Fully protected by Altai Tavan Bogd National Park



Site description

The IBA comprises Dayan Lake, the smaller Khar Lake to the southwest, and the area surrounding these two lakes. About 10 small rivers and springs flow into the lake, and only the Khatan River flows out, later merging into the Khovd River. The lake is frozen from October to June. There is emergent vegetation along some stretches of the lake shore. The site is considered to have great potential for ecotourism but this has not yet been developed. The beautiful Mongol Altai mountains with their forests, snow-capped peaks and glaciers can be seen from the lake shore. Areas with tall grass and reeds are often heavily grazed by livestock, which also cause disturbance to breeding waterbirds. In recent years, the water level has dropped due to drought.

Importance for birds

Three Globally Threatened species occur in significant numbers: Saker Falcon *Falco cherrug* (EN); Lesser Kestrel *Falco naumanni* (VU); and White-throated Bushchat *Saxicola insignis* (VU, breeding). The site also supports assemblages of species restricted to the Eurasian steppe and desert and Eurasian high montane biomes. In addition, the site supports a population of Mongolian Accentor *Prunella koslowi*, whose breeding range defines the Mongolian Mountains Secondary Area. The site regularly supports at least 1% of the flyway populations of Bar-headed Goose *Anser indicus*, Ruddy Shelduck *Tadorna ferruginea* and Northern Lapwing *Vanellus vanellus*, which occur in large numbers in autumn.

Importance for other fauna and flora

Grey Wolf *Canis lupus*, Red Fox *Vulpes vulpes* and Pallas's Cat *Felis manul* all occur at the site.

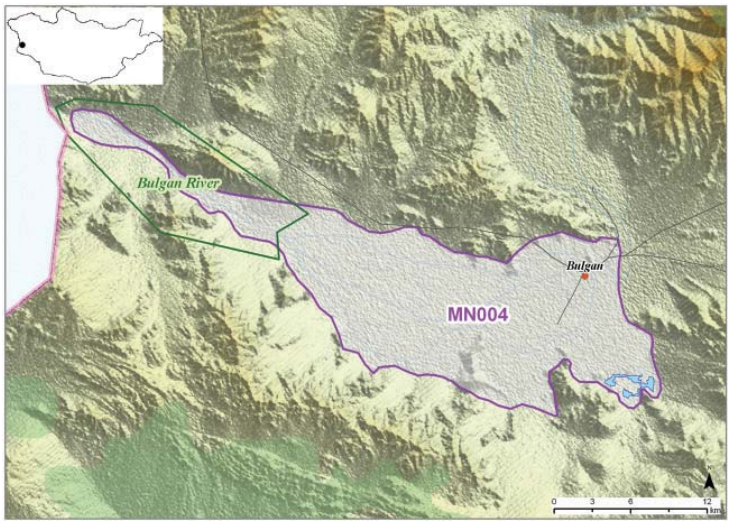
Photo: N.Tseveenmyadag

IBA CODE: MN004 IBA NAME: BULGAN RIVER

Aimag(s): Khovd **Criteria:** A1 **Area:** 32,700 ha
Coordinates: 46°03′N 91°24′E **Altitude:** 1,133-1,751 m

Protection status

Partially protected by Bulgan River Nature Reserve.



Site description

The Bulgan River rises on the southern slopes of the Mongol Altai mountain range and flows into Ulungur Lake in China. The site comprises a section of the Bulgan River valley, where the river divides into numerous large and small streams creating islands and isolated water bodies. At the source of the river and in the valleys of its tributary rivers, there are a number of small lakes. The sides of the Bulgan River valley support desert-steppe vegetation, while good wet riparian habitat is found along the bottom of the valley. There are numerous bays, such as Tsagaan Ereg, Sanjiin Tohoi, Balar Tohoi and Elst Tohoi, with dense reed and shrub vegetation.

Importance for birds

Bulgan River is an important stopover site for various migratory passerines, waterbirds and shorebirds. Globally Threatened species that regularly migrate through the site are Swan Goose *Anser cygnoides* (EN), Eastern Imperial Eagle *Aquila heliaca* (VU) and Lesser Kestrel *Falco naumanni* (VU).

Importance for other fauna and flora

A small population of Mongolian Beaver *Castor fiber birulai* exists along the Bulgan River. A hydroelectric dam in the Chinese section of Bulgan River may create a barrier to migration and cause habitat fragmentation along the river.

Photo: Michael Stubbe

IBA CODE: MN005 IBA NAME: KHOKH SERKHIIN NURUU STRICTLY PROTECTED AREA

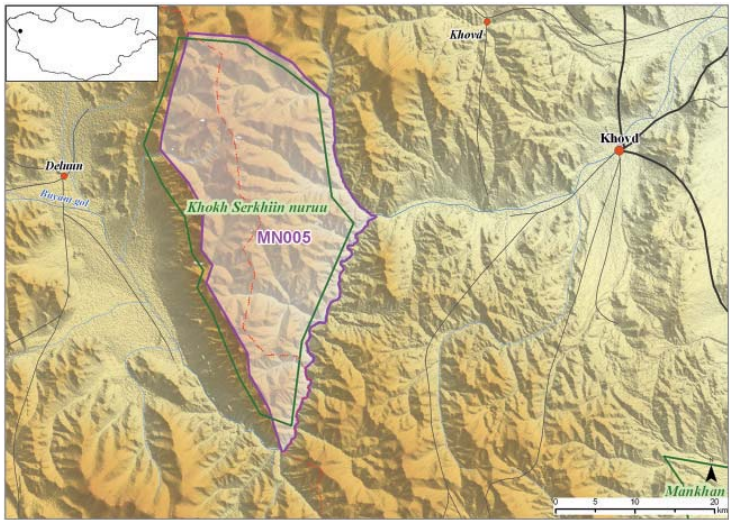
Aimag(s): Bayan-Olgii, Khovd **Criteria:** A1, A2, A3 **Area:** 74,502 ha
Coordinates: 48°09′N 90°47′N **Altitude:** 2,100-3,775 m

Protection status

Fully protected by Khokh Serkhiin Nuruu Strictly Protected Area

Site description

The site comprises an area of high, snow-capped mountains, located in the centre of the Mongol Altai mountain range, on the border between Khovd and Bayan-Olgii aimags. The mountainous area is barren and rocky, and forest patches are found in some areas.



Importance for birds

Globally Threatened and Near Threatened species occurring at the site include Saker Falcon *Falco cherrug* (EN), Cinereous Vulture *Aegypius monachus* (NT), White-throated Bushchat *Saxicola insignis* (VU) and Yellow-breasted Bunting *Emberiza aureola* (VU). The bird community at the site is a good example of the Eurasian high montane biome, and biome-restricted species there include Altai Snowcock *Tetraogallus altaicus*, Chukar Partridge *Alectoris chukar*, Alpine Accentor *Prunella collaris*, Brown Accentor *P. fulvescens*, White-winged Redstart *Phoenicurus erythrogaster* and White-winged Snowfinch *Montifringilla nivalis*. Large raptors, such as Golden Eagle *Aquila chrysaetos*, Steppe Eagle *A. nipalensis*, *Gyps himalayensis*, Cinereous Vulture and Lammergeier *Gypaetus barbatus*, are common and nest at the site. The site supports Mongolian Accentor *Prunella koslowi*, the restricted-range species whose breeding range defines the Mongolian Mountains Secondary Area.

Importance for other fauna and flora

Many Globally Threatened and *Red Data Book of Mongolia* species occur at the site, including Snow Leopard *Uncia uncia* (EN), Siberian Ibex *Capra sibirica*, Argali *Ovis ammon* (NT), Red Deer *Cervus elaphus*, Eurasian Lynx *Lynx lynx*, Pallas's Cat *Felis manul*, Stone Marten *Martes foina* and Siberian Marmot *Marmota sibirica* (EN). Large herds of Siberian Ibex and Argali can be seen, which is a rare sight.

Other information

Poaching and habitat fragmentation are the main threats to the wildlife of the site. Trophy hunters often visit this area. There is no regulation about the locations of trophy hunters' camp sites. Herders' camps are also common, and cause disturbance to mountain ungulates. As a result, Snow Leopard and Grey Wolf face a shortage of food and attack livestock, giving rise to conflict between park rangers and herders.

Photo: N.Tseveenmyadag

IBA CODE: MN006 IBA NAME: TOLBO LAKE

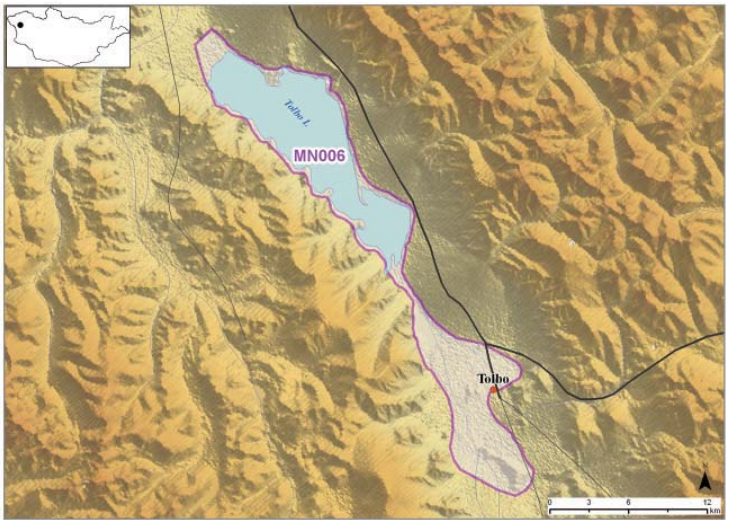
Aimag(s): Bayan-Olgii **Criteria:** A1, A3, A4i **Area:** 16,334 ha
Coordinates: 48°32'N 90°06'E **Altitude:** 2,079-2,594 m

Protection status

Unprotected

Site description

Tolbo Lake is a freshwater lake located in Tolbo soum, Bayan-Olgii aimag. The west side of the lake has numerous inlets and peninsulas. Reed and tall grassy areas have become degraded by overgrazing. The lake is frozen from October to May. A warmer climate and many years of drought have resulted in a decrease in the water level. Illegal hunting threatens wildlife species in adjacent mountains. Uncontrolled fishing in winter is contributing to water pollution.



Importance for birds

The site is important for two Globally Threatened species: Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU); and Saker Falcon *Falco cherrug* (EN). The site supports assemblages of species restricted to the Eurasian steppe and desert and Eurasian high montane biomes. The site also supports at least 1% of the flyway populations of the following congregatory waterbird species: Great Cormorant *Phalacrocorax carbo*; Whooper Swan *Cygnus cygnus*; Bar-headed Goose *Anser indicus*; Ruddy Shelduck *Tadorna ferruginea*; Common Goldeneye *Bucephala clangula*; and Northern Lapwing *Vanellus vanellus*.

Importance for other fauna and flora

Grey Wolf *Canis lupus*, Red Fox *Vulpes vulpes* and Pallas's Cat *Felis manul* all occur at the site.

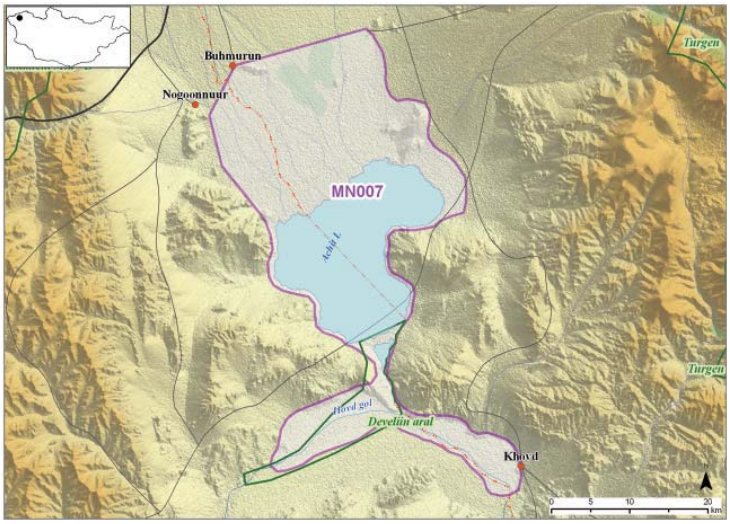
Photo: N.Tseveenmyadag

IBA CODE: MN007 IBA NAME: ACHIT LAKE

Aimag(s): Bayan-Olgii, Uvs **Criteria:** A1, A3, A4i **Area:** 98,278 ha
Coordinates: 49°30′N 90°32′E **Altitude:** 1,435-1,863 m

Protection status

Partially protected by Deevel Aral Nature Reserve



Site description

Achit Lake is a shallow, tectonic lake, located at the boundary of Uvs and Bayan-Olgii aimags. There are a variety of habitats from semi-desert habitat near the lake, through steppe habitat to meadows. The lake is frozen from November until May. The Tsagaan, Khatuugiin, Bukhmurun and Uliastai rivers and many other streams are tributaries of the lake. Parts of the site (specifically the channel between Achit Lake and the Khovd River and Dewel Island along the Khovd River) are designated as a nature reserve, and most of the site lies within Lake Achit and its surrounding wetlands Ramsar Site. Along the Bukhmurun River basin and delta, households from Nogoon and Bukhmurun practice nomadic animal husbandry during the winter and spring. In winter, people practice small-scale commercial fishing. This is a suitable site for recreation, sport hunting and ecotourism development. Threats to biodiversity include destruction of lakeshore vegetation by livestock, poorly managed tourism and uncontrolled commercial fishing. The water level of the lake has fallen in recent years due to drought.

Importance for birds

Globally Threatened species using the site comprise Swan Goose *Anser cygnoides* (EN), Houbara Bustard *Chlamydotis undulata* (EN), Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU), Lesser Kestrel *Falco naumanni* (VU) and Great Bustard *Otis tarda* (VU). The site supports assemblages of species restricted to the Eurasian steppe and desert and Eurasian high montane biomes. The site regularly supports at least 1% of the flyway populations of Great Crested Grebe *Podiceps cristatus* and Ruddy Shelduck *Tadorna ferruginea.*

Importance for other fauna and flora

Several nationally threatened fish species occur at the site, such as Lake Osman *Oreoleuciscus angusticephalus*, Small Osman *O. humilis* and Mongolian Grayling *Thymallus revirostris*. In the 1970s, Mongolian Beaver *Castor fiber birulai* was successfully introduced into the waters of Khovd River and now inhabits Dewel Island.

Photo: N.Tseveenmyadag

IBA CODE: MN008 IBA NAME: UUREG LAKE

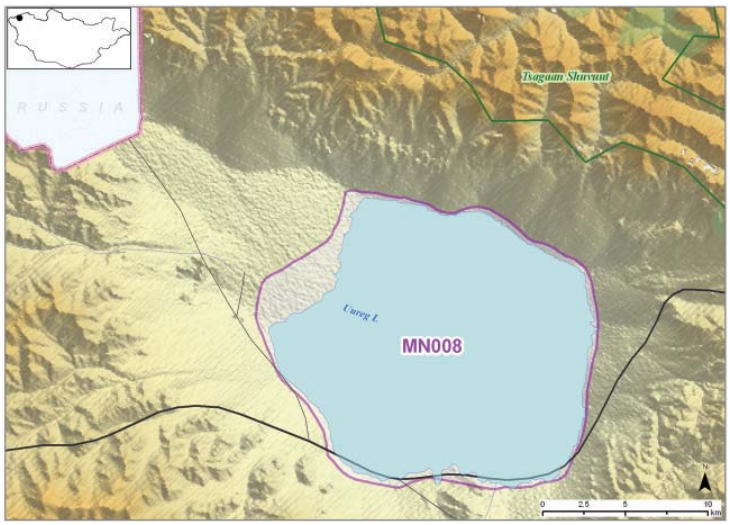
Aimag(s): Uvs **Criteria:** A1, A3, A4i **Area:** 28,308 ha
Coordinates: 50°07′N 90°57′E **Altitude:** 1,425-1,911 m

Protection status

Unprotected

Site description

Uureg Lake is situated in a tectonic, semi-desert hollow located between Tsagaanshuvut and Turgen mountains of Sagil and Turgen soums. The lake is fed mainly by the Kharig River from Russia. There are meadows on the northwestern side of the lake. The lake is frozen from October to May. There are two small barren rocky islands in the lake. The lake is surrounded by semi-desert and arid desert steppe vegetation. The main land use is livestock grazing.



Importance for birds

Globally Threatened species using the site are Swan Goose *Anser cygnoides* (EN), Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU) and Lesser Kestrel *Falco naumanni* (VU). The site supports species typical of the Eurasian steppe and desert and Eurasian high montane biomes. Ruddy Shelduck *Tadorna ferruginea* regularly occurs in numbers exceeding 1% of the flyway population.

Importance for other fauna and flora

Red Fox *Vulpes vulpes* and Pallas's Cat *Felis manul* occur in the area surrounding the lake.

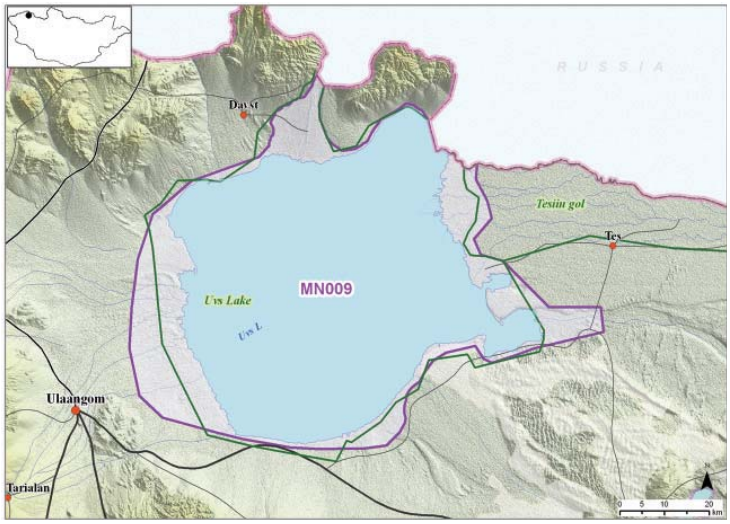
Photo: N. Tseveenmyadag

IBA CODE: MN009 IBA NAME: UVS LAKE

Aimag(s): Uvs **Criteria:** A1, A3, A4i, A4iii **Area:** 502,462 ha
Coordinates: 50°12′N 92°17′E **Altitude:** 758-908 m

Protection status

Partially protected by Uvs Lake Strictly Protected Area



Site description

Uvs Lake, the largest saltwater lake in Mongolia, is fed by the Kharkhiraa, Khondlon Sagil, Borsoo, Khandgait, Torkhilog, Tes and Nariin Rivers. The lake is frozen from mid-November to mid-May. There are sandbars along the shore, with willows growing along the numerous river beds. Many small pools can be found around the lake. Many of these pools and ponds, which used to be suitable places for feeding and breeding of birds, have dried out due to drought and a warmer climate. The main land use is livestock grazing. The lake has good potential for the development of ecotourism. Unfortunately, travellers and tourists have trashed certain locations with their garbage, and willow trees have been cut by herders. Uvs Lake is designated as a Ramsar Site, a natural World Heritage Site and a UNESCO biosphere reserve.

Importance for birds

There are many Globally Threatened species occurring at Uvs Lake, such as Dalmatian Pelican *Pelecanus crispus* (VU), White-headed Duck *Oxyura leucocephala* (EN), Swan Goose *Anser cygnoides* (EN), Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU), Greater Spotted Eagle *Aquila clanga* (VU), Eastern Imperial Eagle *A. heliaca* (VU), Lesser Kestrel *Falco naumanni* (VU), White-naped Crane *Grus vipio* (VU), Great Bustard *Otis tarda* (VU) and Relict Gull *Larus relictus* (VU). The site supports species typical of the Eurasian steppe and desert biome. The site regularly supports at least 1% of the flyway populations of Great Crested Grebe *Podiceps cristatus*, Dalmatian Pelican *Pelecanus crispus*, Great Cormorant *Phalacrocorax carbo*, White Spoonbill *Platalea leucorodia*, White-headed Duck *Oxyura leucocephala*, Greylag Goose *Anser anser*, Ruddy Shelduck *Tadorna ferruginea*, Red-breasted Pochard *Netta rufina*, Common Goldeneye *Bucephala clangula*, Common Crane *Grus grus*, Common Coot *Fulica atra*, Little-ringed Plover *Charadrius dubius*, Northern Lapwing *Vanellus vanellus* and Great Black-headed Gull *Larus ichthyaetus.*

Importance for other fauna and flora

The site is not known to have special significance for species other than birds.

Photo: B.Nyambayar

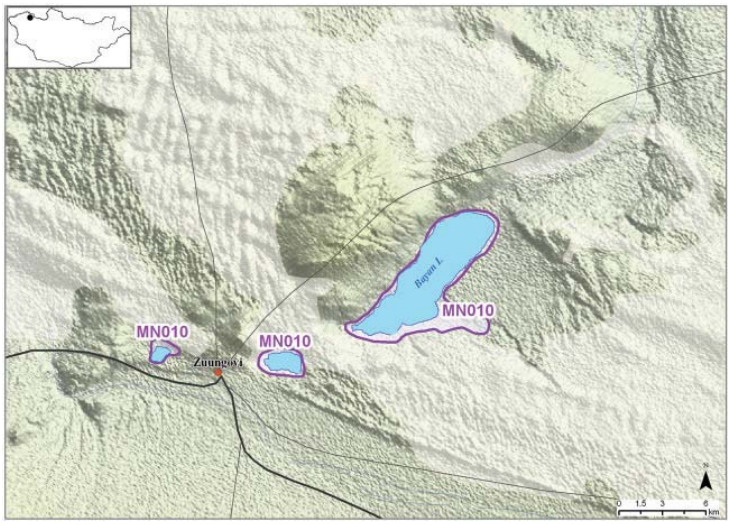
IBA CODE: MN010 IBA NAME: BAGA AND BAYAN LAKES

Aimag(s): Uvs **Criteria:** A3, A4i **Area:** 5,317 ha
Coordinates: 49°57′N 93°55′E **Altitude:** 932-1,176 m

Protection status

Unprotected

Site description



Baga and Bayan Lakes are located in the northeast of Zuungobi soum, Uvs aimag. There is also a third, smaller, lake, called Shavart, to the west of the soum centre. Baga Lake is fed by small springs. This lake has dense reed vegetation along its western, northern and southern shores and numerous bays and islands. Bayan Lake is a freshwater lake, located 10 km to the northeast of Baga Lake, in the Borig Del sand dunes. Both lakes are frozen from November until April. There are sand dunes and grasslands in the surrounding area. Agricultural fields of the Baruun Turuun state farm are located not far from the lakes and provide habitat for feeding waterbirds. There is also livestock grazing taking place in the area. The site is considered suitable for recreation and ecotourism development. Pressures include overgrazing and trampling of lake-shore vegetation, and tourism at present is poorly regulated. The lake levels have fallen recently because of drought.

Importance for birds

The site supports an assemblage of species restricted to the Eurasian steppe and desert biome. Congregatory waterbirds that occur in numbers exceeding 1% of their flyway populations are Great Crested Grebe *Podiceps cristatus*, White Spoonbill *Platalea leucorodia*, Greylag Goose *Anser anser*, Ruddy Shelduck *Tadorna ferruginea*, Red-crested Pochard *Netta rufina*, Demoiselle Crane *Anthropoides virgo* and Common Crane *Grus grus*.

Importance for other fauna and flora

Potanin's Osman *Oreoleuciscus potanini* probably occurs at the site. Fishery research has never been carried out, however, and a number of rare and threatened species may occur.

Photo: B.Nyambayar

IBA CODE: MN011 IBA NAME: UVSIIN KHAR US LAKE

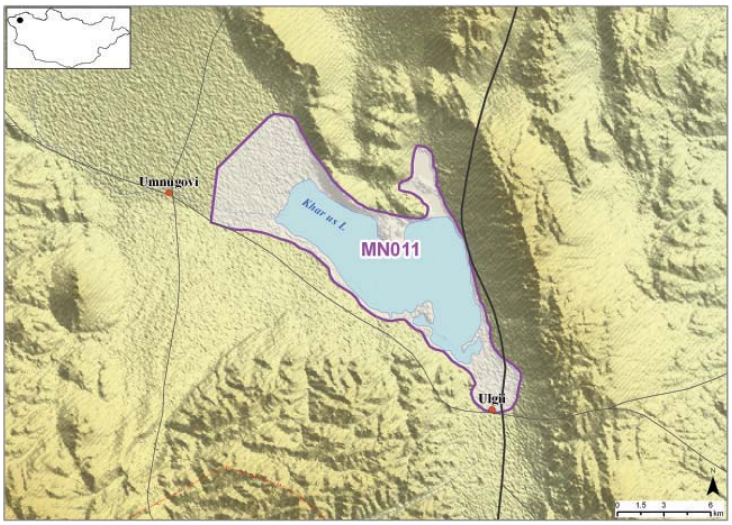
Aimag(s): Uvs **Criteria:** A1, A4i **Area:** 13,601 ha
Coordinates: 49°05′N 91°55′E **Altitude:** 1,574 m

Protection status

Unprotected

Site description

Uvsiin Khar Us Lake is a beautiful freshwater lake with abundant reed and tall grass habitat along its shoreline. The tall grasses provide good shelter for breeding birds. The lake is replenished by water from the Namiraa River, which originates from snow-capped Kharkhiraa Mountain. The lake is located close to main roads between Ugii and Umnogobi soums.



Importance for birds

Thousands of birds over-summer at the lake or pass through on migration. Globally Threatened and near threatened species occurring include White-headed Duck *Oxyura leucocephala* (EN), Falcated Duck *Anas falcata* (NT), Swan Goose *Anser cygnoides* (EN), Dalmatian Pelican *Pelecanus crispus* (VU) and Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU). Nationally threatened species include Whooper Swan *Cygnus cygnus* and Mongolian Ground Jay *Podoces hendersoni*. Congregatory waterbirds that probably occur in numbers exceeding 1% of their flyway populations comprise Northern Pintail *Anas acuta*, Eurasian Wigeon *A. penelope*, Gadwall *Anas strepera* and Northern Lapwing *Vanellus vanellus*.

Importance for other fauna and flora

The site is not known to have special significance for other fauna and flora.

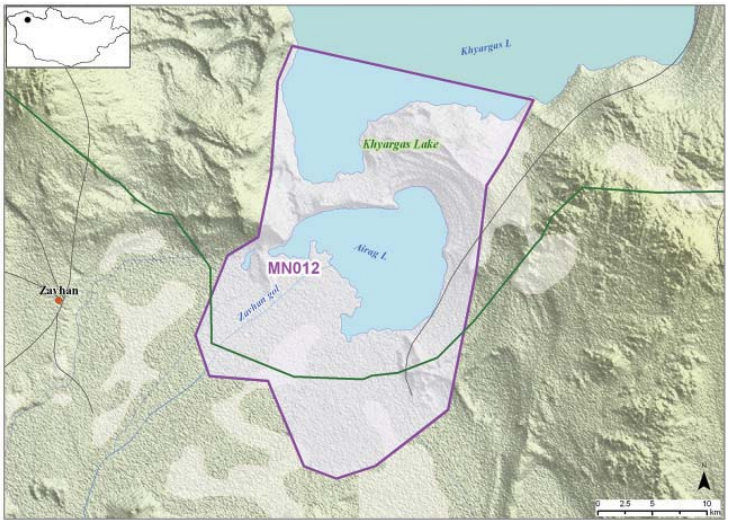
Photo: B.Nyambayar

IBA CODE: MN012 IBA NAME: AIRAG LAKE

Aimag(s): Uvs **Criteria:** A1, A3, A4i, A4iii **Area:** 73,348 ha
Coordinates: 48°54'N 93°26'E **Altitude:** 1,030-1,079 m

Protection status

Partially protected by Khyargas Lake National Park



Site description

Airag Lake is located in the Khyargas Lake Depression, and is an excellent example of the freshwater lakes of the Great Lakes Depression. The site comprises Airag Lake, the channel connecting it to nearby Khyargas Lake, the wet meadows of Zavkhan River delta, and the surrounding, sparsely vegetated, semi-desert landscape. Airag Lake is frozen from mid-November until April. The main land uses are livestock grazing and seasonal small-scale commercial fishing. Because of access difficulties, there is hardly any local tourism. The area is subject to overgrazing and pasture degradation leading to desertification. Although Airag Lake is under government protection, there are no management plans or protection measures in place at present. Hunting may be a threat at this site. For instance, in 2006, a juvenile Dalmatian Pelican *Pelecanus crispus* was hunted. Airag Lake is a Ramsar Site.

Importance for birds

Several Globally Threatened species occur at the site, including Dalmatian Pelican (VU), White-headed Duck *Oxyura leucocephala* (EN), Swan Goose *Anser cygnoides* (EN), Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU) and Relict Gull *Larus relictus* (VU). The site supports species typical of the Eurasian steppe and desert biome. The wetland regularly harbours more than 20,000 waterbirds. Congregatory waterbirds occurring in numbers exceeding 1% of their flyway populations are Great Crested Grebe *Podiceps cristatus*, Dalmatian Pelican *Pelecanus crispus*, White Spoonbill *Platalea leucorodia*, White-headed Duck *Oxyura leucocephala*, Ruddy Shelduck *Tadorna ferruginea*, Red-crested Pochard *Netta rufina*, Common Pochard *Aythya ferina*, Kentish Plover *Charadrius alexandrinus*, Greater Sand Plover *C. leschenaultii* and Northern Lapwing *Vanellus vanellus*. The site also supports a colony of Asian Dowitcher *Limnodromus semipalmatus* (NT), and may trigger the A4i criterion for this species.

Importance for other fauna and flora

Several nationally threatened fish species occur at the site, such as Mongolian Grayling *Thymallus revirostris*, Lake Osman *Oreoleuciscus angusticephalus* and Small Osman *O. humilis*. Some rare xerophytic plants grow in the surrounding semi-arid steppe. Rare mammals, such as Goitered Gazelle *Gazella subgutturosa* (VU), Mongolian Gazelle *Procapra gutturosa* and Thick-tailed Pygmy Jerboa *Salpingotus crassicauda* (DD) occur near to the lake.

Photo: Henry Mix

IBA CODE: MN013 IBA NAME: KHONGIL

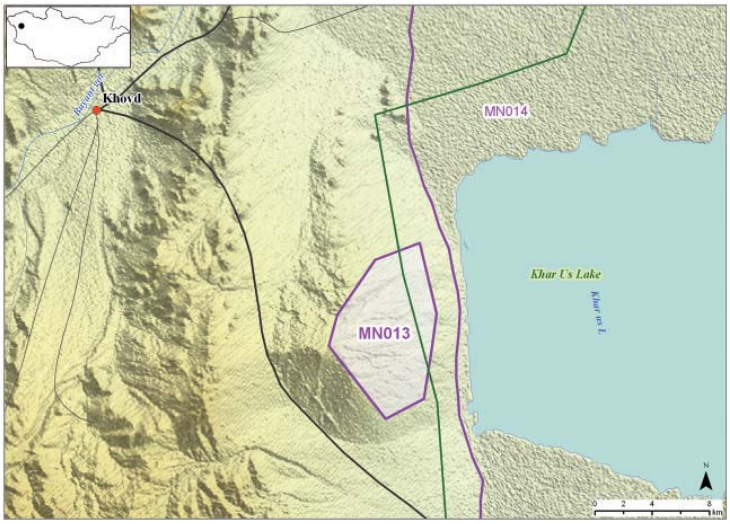
Aimag(s): Khovd **Criteria:** A1 **Area:** 6,027 ha
Coordinates: 47°51′N 91°49′E **Altitude:** 1,220-1,527 m

Protection status

Unprotected

Site description

The site is a dry, hilly area criss-crossed by rocky canyons. These canyons provide good breeding and roosting habitat for many birds, including the Globally Threatened Lesser Kestrel *Falco naumanni*. A road passing through the main canyon might be a source of disturbance to the breeding colony of Lesser Kestrel.



Importance for birds

The site supports a breeding colony of Lesser Kestrel (VU). Mongolian Ground Jay *Podoces hendersoni*, a species listed in the *Red Data Book of Mongolia*, occurs here.

Importance for other fauna and flora

The site is not thought to be particularly important for other fauna and flora.

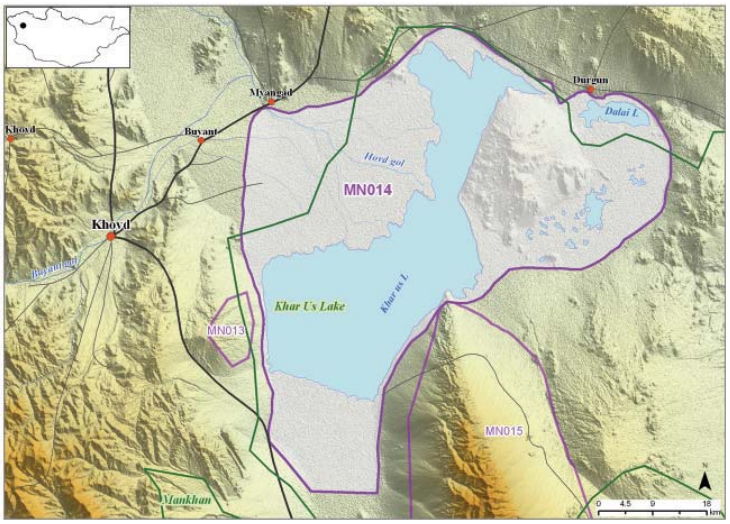
Photo: B.Nyambayar

IBA CODE: MN014 IBA NAME: KHAR US LAKE

Aimag(s): Khovd **Criteria:** A1, A3, A4i, A4iii **Area:** 297,265 ha
Coordinates: 47°45′N 92°10′E **Altitude:** 1,157-1,452 m

Protection status

Partially protected by Khar Us Lake National Park



Site description

Khar Us Lake lies 20 km to the east of Khovd City. It is a freshwater lake, fed by the Khovd, Buyant and Tsenkher Rivers, and drained by the Chono-kharaikh River. There are over 20 islands in the lake, of which Agbash Island is the largest. The lake is frozen from November until April. There are extensive reed beds along the southern, western and eastern shores. Surrounding the lake is desert steppe, dry steppe, and semi-desert. At the southeastern edge of the lake is a high mountain, Jargalant Khairkhan, with mountain steppe vegetation. The site is used mainly as pasture for livestock. Problems at the site include burning of reeds, off-road driving and clear-cutting of vegetation, resulting in desertification around the lake. Muskrat *Ondatra zibethicus* was introduced to the lake in the 1980s, and is now having a negative impact on the lake ecosystem. The IBA overlaps with Khar Us Lake National Park Ramsar Site. There is an elevated concern about the construction of Dorgon Hydropower Project. Although the dam is outside of the IBA, the water level increase after the dam is built may cause some environmental problems. WWF is conducting a monitoring project at the dam site.

Importance for birds

Globally Threatened species include Dalmatian Pelican *Pelecanus crispus* (VU), White-headed Duck *Oxyura leucocephala* (EN), Swan Goose *Anser cygnoides* (EN), Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU), Lesser Kestrel *Falco naumanni* (VU), White-naped Crane *Grus vipio* (VU) and Relict Gull *Larus relictus* (VU). The site also supports species typical of the Eurasian steppe and desert biome. The site regularly supports at least 1% of the flyway populations of Great Crested Grebe *Podiceps cristatus*, Dalmatian Pelican *Pelecanus crispus*, Great Cormorant *Phalacrocorax carbo*, Great Egret *Egretta alba*, White Spoonbill *Platalea leucorodia*, White-headed Duck *Oxyura leucocephala*, Whooper Swan *Cygnus cygnus*, Greylag Goose *Anser anser*, Bar-headed Goose *A. indicus*, Ruddy Shelduck *Tadorna ferruginea*, Common Shelduck *T. tadorna*, Gadwall *Anas strepera*, Eurasian Wigeon *A. penelope*, Mallard *A. platyrhynchos*, Northern Shoveler *A. clypeata*, Northern Pintail *A. acuta*, Green-winged Teal *A. crecca*, Red-crested Pochard *Netta rufina*, Common Pochard *Aythya ferina*, Tufted Duck *A. fuligula*, Common Goldeneye *Bucephala clangula*, Common Merganser *Mergus merganser*, Common Crane *Grus grus*, Northern Lapwing *Vanellus vanellus*, Temminck's Stint *Calidris temminckii*, Great Black-headed Gull *Larus ichthyaetus* and Caspian Tern *Sterna caspia.*

Importance for other fauna and flora

Several fish species endemic to western Mongolia inhabit the lake, namely Lake Osman *Oreoleuciscus angusticephalus*, Potanin's Osman *O. potanini*, Small Osman *O. humilis* and Mongolian Grayling *Thymallus revirostris*.

Photo: B.Nyambayar

IBA CODE: MN015 IBA NAME: JARGALANT KHAIRKHAN MOUNTAIN

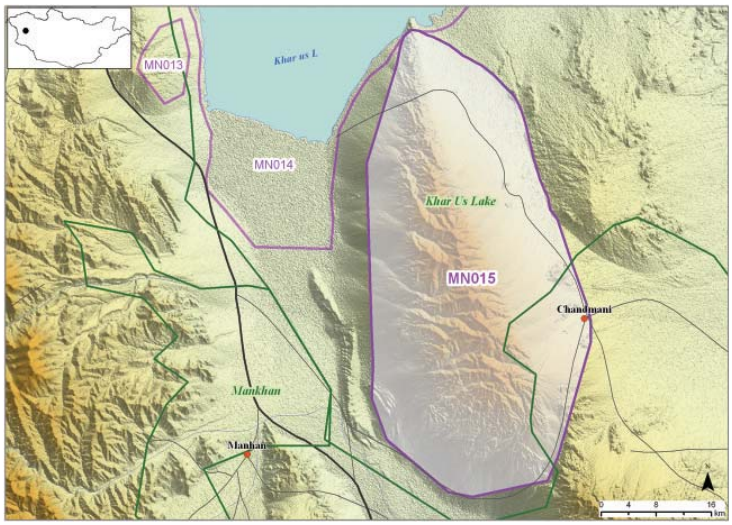
Aimag(s): Khovd **Criteria:** A1, A2, A3 **Area:** 162,264 ha
Coordinates: 47°56′N 92°24′E **Altitude:** 1,219-3,796 m

Protection status

Partially protected by Khar Us Lake National Park

Site description

Jargalant Khairkhan Mountain is an isolated extension of the Mongol Altai mountain range. Located in the middle of Khar Us Lake Depression, the diversity of habitats and wildlife at the site is rich in many ways. Habitats vary from high-mountain tundra, alpine meadows and high-mountain steppe to arid steppe. There is year-round grazing of domestic livestock, which is leading to degradation of the pastures and competition with the rare wild ungulates that occur there.



Importance for birds

The site supports two Globally Threatened species, Saker Falcon *Falco cherrug* (EN) and White-throated Bushchat *Saxicola insignis* (VU), as well as the Near Threatened Cinereous Vulture *Aegypius monachus* (NT). The site also supports species typical of the Eurasian steppe and desert and Eurasian high montane biomes, such as Altai Snowcock *Tetraogallus altaicus*. Finally, the site supports Mongolian Accentor *Prunella koslowi*, whose breeding range defines the Mongolian Mountains Secondary Area.

Importance for other fauna and flora

Rare mammals found on the mountain include Argali *Ovis ammon* (NT), Siberian Ibex *Capra sibirica* and Snow Leopard *Uncia uncia* (EN). Goitered Gazelle *Gazella subgutturosa* (VU) occurs in the foothills, and Siberian Marmot *Marmota sibirica* (EN) occurs in the middle and lower part of the foothills. Rare plants, like Altai Onion *Allium altaicum* and Roseroot *Rhodiola rosea*, can also be found at the site.

Photo: B.Nyambayar

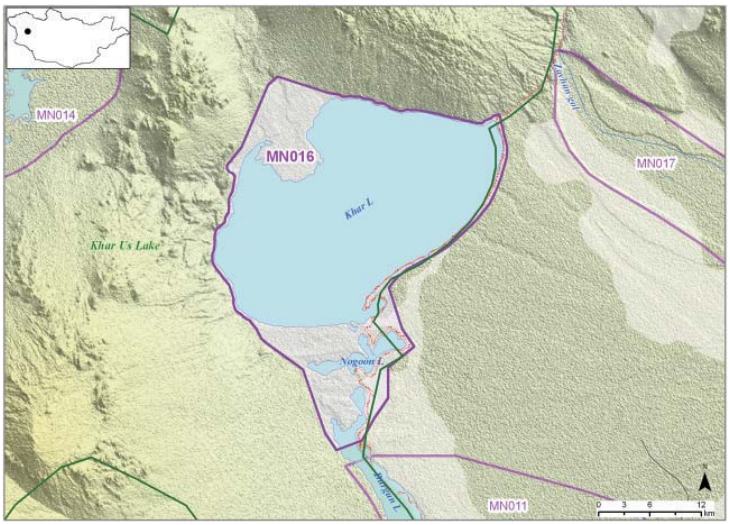
IBA CODE: MN016 IBA NAME: KHAR LAKE

Aimag(s): Khovd, Zavkhan **Criteria:** A1, A4i **Area:** 83,798 ha
Coordinates: 48°10′N 93°05′E **Altitude:** 1,132-1,254 m

Protection status

Fully protected by Khar Us Lake National Park

Site description



Khar Lake is a freshwater lake, located at the boundary of Khovd and Zawkhan aimags, in the Great Lakes Depression. The Chono Kharah River flows into the lake. Khar Lake drains into the Zawkhan River via the Tatakhan-Teel River, and it is connected to Durgun Lake through the Khom Channel and Nogoon Lake. There are marshes and reed beds around the Shuwuun Aral peninsula. The lake is frozen from November until April. The lake is surrounded by semi-desert vegetation. Livestock grazing is the main land use at the site, with some hay meadows, and a commercial Potanin's Osman *Oreoleuciscus potanini* fishery. Commercial fishing is unregulated and fish stocks are not well assessed. There are also concerns about the growth of poisonous algae in the lake and an introduced fish species. The IBA overlaps with Khar Us Lake National Park Ramsar Site.

Importance for birds

Khar Lake regularly supports the following Globally Threatened species: Dalmatian Pelican *Pelecanus crispus* (VU); White-headed Duck *Oxyura leucocephala* (EN); Swan Goose *Anser cygnoides* (EN); and Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU). The lake regularly supports at least 1% of the flyway populations of Great Crested Grebe *Podiceps cristatus*, Dalmatian Pelican *Pelecanus crispus*, Great Cormorant *Phalacrocorax carbo*, White-headed Duck *Oxyura leucocephala*, Greylag Goose *Anser anser*, Bar-headed Goose *A. indicus*, Ruddy Shelduck *Tadorna ferruginea*, Common Goldeneye *Bucephala clangula*, Common Merganser *Mergus merganser*, Common Crane *Grus grus*, Northern Lapwing *Vanellus vanellus* and Caspian Tern *Sterna caspia.*

Importance for other fauna and flora

Two nationally threatened fish species, Lake Osman *Oreoleuciscus angusticephalus* and Mongolian Grayling *Thymallus revirostris*, inhabit the lake. A small group of young saxaul trees is found in southwest of the area. This is the northernmost location of this plant species.

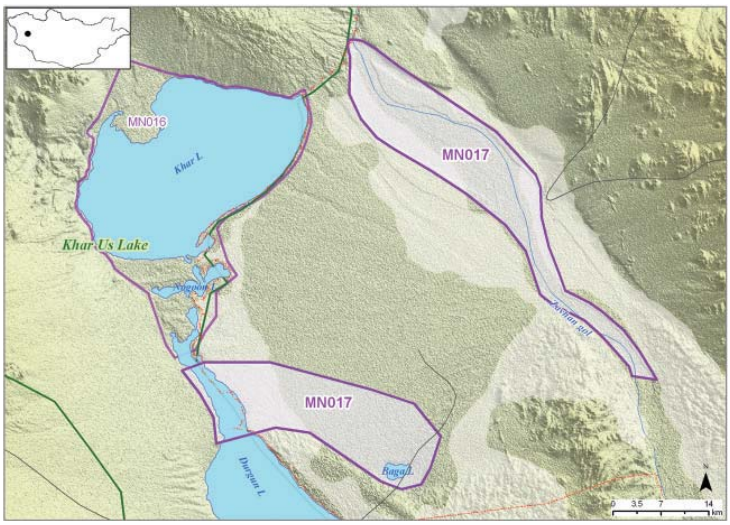
Photo: B.Nyambayar

IBA CODE: MN017 IBA NAME: KHOMIIN TAL

Aimag(s): Khovd, Zavkhan **Criteria:** A1, A3, A4i **Area:** 78,059 ha
Coordinates: 48°13′N 93°40′E **Altitude:** 1,132-1,249 m

Protection status

Partially protected by Khar Us Lake National Park



Site description

Khomiin Tal is a plain, surrounded by Khar and Durgun Lakes in the west, Zawkhan River and Teeliin River in the east and north, and by the great sand dunes of Mongol Els in the south. In the southern part of the site, there is the small Baga Lake, which is an important site for many breeding and migrating birds. At the centre of Khomiin Tal, desert and steppe vegetation dominates. However, there are reed beds along the shores of Khar and Durgun Lakes. In the northern part of the plain, along the Zavkhan River valley, there are wet grasslands and some reed beds. The extent of sand dunes is increasing in the area. Human habitation and livestock grazing are limited due to the harsh conditions, and past attempts at irrigated agriculture have failed. There has, however, been a small increase in people and livestock, and this is leading to degradation of pastures, destruction of nests along the lake shores, poaching and human disturbance. The IBA overlaps with Khar Us Lake National Park Ramsar Site.

Importance for birds

The site is important for the following Globally Threatened species: Dalmatian Pelican *Pelecanus crispus* (VU); Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU); Lesser Kestrel *Falco naumanni* (VU); and Relict Gull *Larus relictus* (VU). Dalmatian Pelicans bred at the site in 1997 and 1998, and continue to occur each summer. Other species that occur at the site include White Spoonbill *Platalea leucorodia*, White-tailed Eagle *Haliaeetus albicilla* and Asian Dowitcher *Limnodromus semipalmatus*. The site supports an assemblage of species restricted to the Eurasian steppe and desert biome. The site regularly supports at least 1% of the flyway populations of Dalmatian Pelican, Ruddy Shelduck *Tadorna ferruginea* and Common Shelduck *T. tadorna.*

Importance for other fauna and flora

Mongolian Gazelle *Procapra gutturosa* and Przewalski's Wild Horse *Equus przewalskii* (CR) have been successfully introduced into the northern part of the site. Recently, a few herds of Saiga *Saiga tatarica* (CR) have been recorded.

Photo: B.Nyambayar

IBA CODE: MN018 IBA NAME: SANTMARGATSIIN BAYAN LAKE

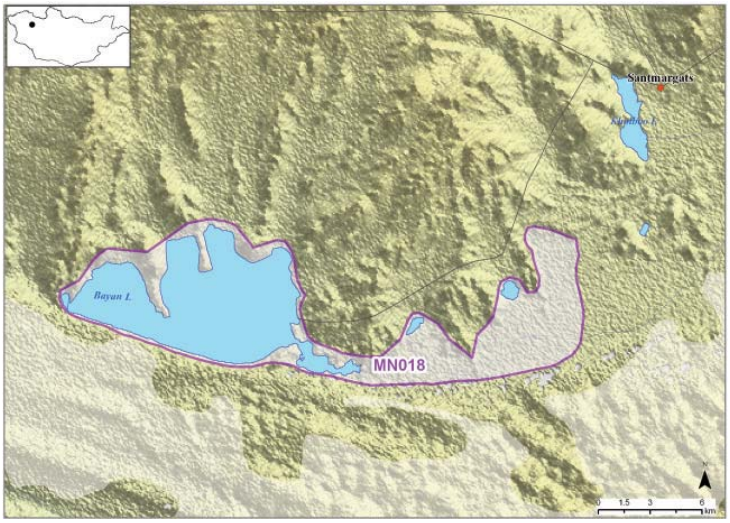
Aimag(s): Zavkhan **Criteria:** A1, A4i **Area:** 14,205 ha
Coordinates: 48°27'N 95°07'E **Altitude:** 1,491-1,781 m

Protection status

Unprotected

Site description

The site comprises a freshwater lake in the southwest of Santmargats soum. Only the Mukhar Khunguin River enters the lake, and there is no outflow. The Mukhar Khunguin River delta is a rich wetland. The lake is frozen from November to May. The lake is surrounded by mountains, and the Bor Khar sand dunes lie to the south. The primary land use is livestock grazing. The lake has good recreational potential.



Importance for birds

Three Globally Threatened species are found at the site: Dalmatian Pelican *Pelecanus crispus* (VU); Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU); and Saker Falcon *Falco cherrug* (VU). The site regularly supports at least 1% of the flyway populations of Great Crested Grebe *Podiceps cristatus* and Dalmatian Pelican.

Importance for other fauna and flora

No information is available on other fauna and flora.

Photo: B.Nyambayar

IBA CODE: MN019 IBA NAME: ULAAGCHINII KHAR LAKE

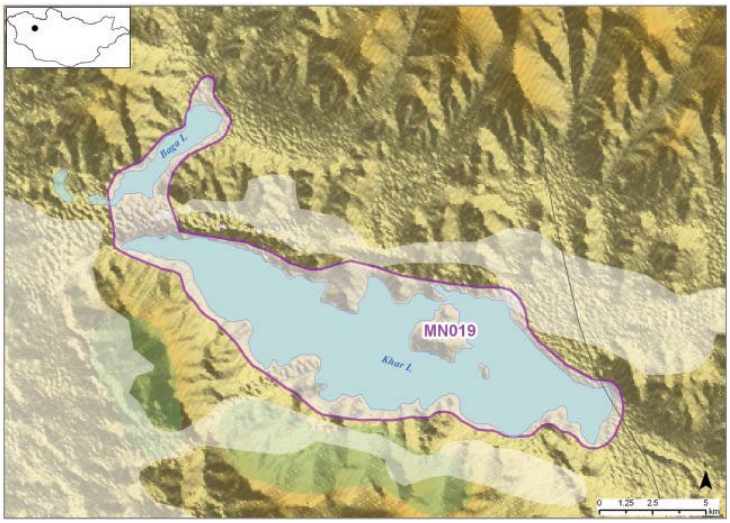
Aimag(s): Zavkhan **Criteria:** A1 **Area:** 13,439 ha
Coordinates: 48°20′N 96°06′E **Altitude:** 1,980-2,170 m

Protection status

Unprotected

Site description

The site comprises Khar Lake and the smaller, isolated Baga Lake, which lies to the northwest. Khar Lake is a freshwater lake surrounded by sand dunes to the north and by hills to the south. The lake is 24 km long and 6 km wide. A small stream enters the lake from the east. Baga Lake is a freshwater lake with no outflow surrounded by sand dunes and hill slopes. There is a small island in the lake. The movement and build-up of sand near the shorelines of the two lakes has increased in recent years.



Importance for birds

The following Globally Threatened species occur at the site: White-headed Duck *Oxyura leucocephala* (EN), Great Bustard *Otis tarda* (VU) and White-throated Bushchat *Saxicola insignis* (VU). The nationally threatened White-tailed Eagle *Haliaeetus albicilla* also occurs.

Importance for other fauna and flora

No information on other fauna and flora is available.

Photo: N.Batsaikhan

IBA CODE: MN020 IBA NAME: OIGON LAKE

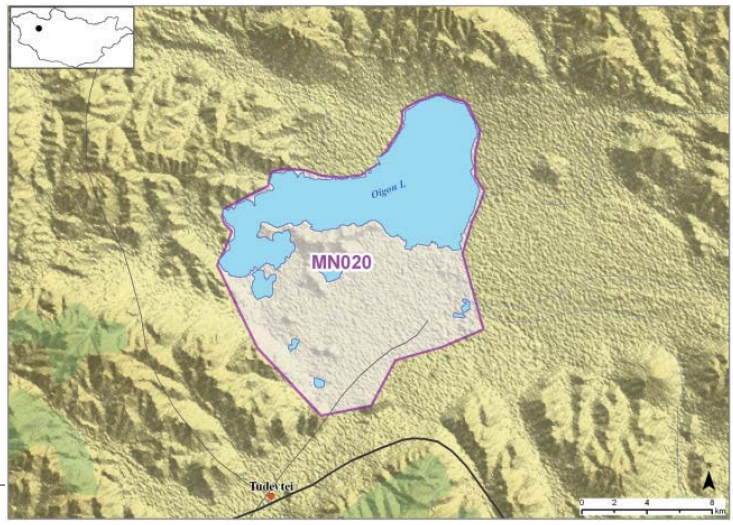
Aimag(s): Zavkhan **Criteria:** A1, A4i **Area:** 20,189 ha
Coordinates: 49°17'N 96°66'E **Altitude:** 1,664 m

Protection status

Unprotected

Site description

This is a beautiful steppe lake located in a valley between Bulnai and Khan Khokhii mountains. The site comprises Oigon Lake and two nearby lakes: Shorbog Nuur; and Nogoon Nuur. Several small rivers enter the lake from the north, creating a marshy and wet grassland delta. Some streams have stopped running because of drought, however.



Importance for birds

The Globally Threatened Saker Falcon *Falco cherrug* (EN) occurs at the site. The site regularly supports at least 1% of the flyway population of Ruddy Shelduck *Tadorna ferruginea*, while Common Goldeneye *Bucephala clangula* and Herring Gull *Larus argentatus* occur in numbers that almost meet the 1% threshold.

Importance for other fauna and flora

Grey Wolf *Canis lupus*, Red Fox *Vulpes vulpes*, Pallas's Cat *Felis manul* (NT) and Siberian Marmot *Marmota sibirica* (EN) occur at the site.

Photo: B.Nyambayar

IBA CODE: MN021 IBA NAME: TELMEN LAKE

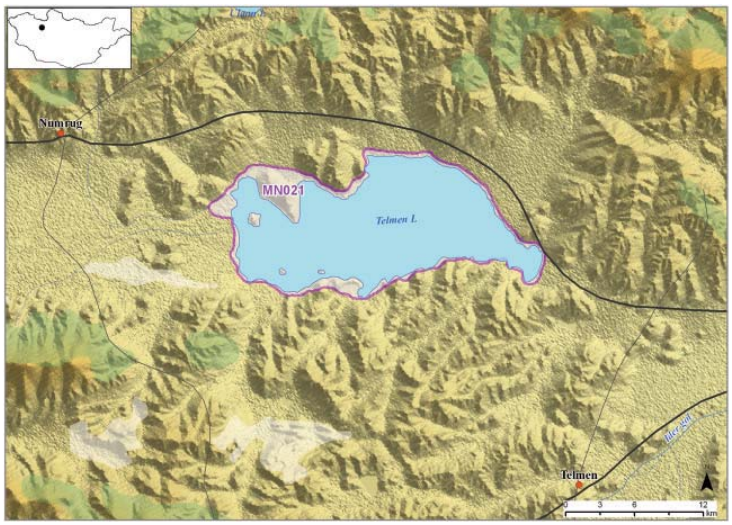
Aimag(s): Zavkhan **Criteria:** A1, A3, A4i **Area:** 24,175 ha
Coordinates: 48°56′N 99°21′E **Altitude:** 1,789-2,305 m

Protection status

Unprotected

Site description

Telmen Lake, located on the boundary between Numrug and Telmen soums, is a mineral lake of tectonic origin. The northern and southern shores are mountainous and have numerous peninsulas, while the eastern and western shores are relatively flat with salt marshes, sand dunes and three small islands where water birds gather in vast numbers. Nomadic animal husbandry is the primary land use in the area.



Importance for birds

Swan Goose *Anser cygnoides* (EN) breeds at the site, Saker Falcon *Falco cherrug* (EN) and Lesser Kestrel *F. naumanni* (VU) also occur there, while Siberian Crane *Grus leucogeranus* (CR) has been recorded on migration. The site supports an assemblage of species restricted to the Eurasian steppe and desert biome. The site regularly supports at least 1% of the flyway population of Ruddy Shelduck *Tadorna ferruginea.*

Importance for other fauna and flora

No information is available about other fauna and flora.

Photo: B.Nyambayar

IBA CODE: MN022 IBA NAME: OTGONTENGER MOUNTAIN

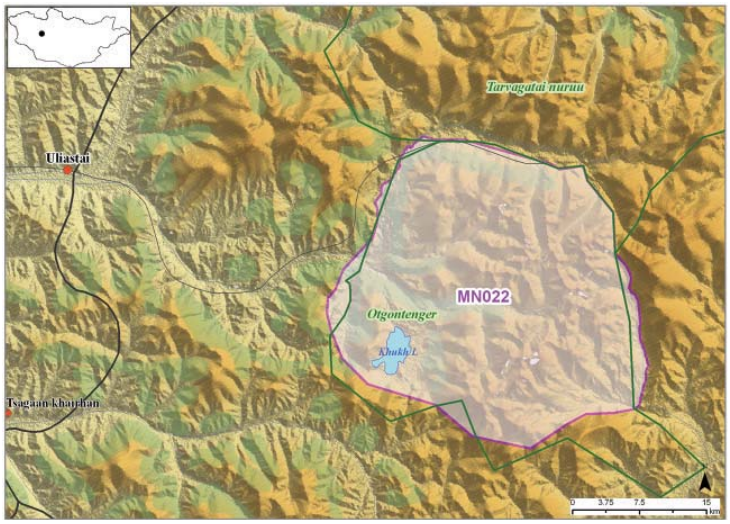
Aimag(s): Zavkhan **Criteria:** A1, A2, A3, A4i **Area:** 88,753 ha
Coordinates: 47°40′N 97°30′E **Altitude:** 2,140-3,905 m

Protection status

Partially protected by Otgontenger Strictly Protected Area

Site description

Otgontenger Mountain is the highest peak in the Khangai mountain range, and is worshiped by local people. Habitats include steppe, arid steppe, forest steppe, broadleaf and coniferous forest with rich understorey, rocky slopes and ravines, and alpine tundra and peat lands near mountain peaks. The Shurgiin, Bogdin and Yaruugiin Rivers rise on the Otgontenger Mountain. Livestock are grazed in surrounding areas. There are medicinal hot springs in the area, which attract many people.



Importance for birds

Globally Threatened species include White-throated Bushchat *Saxicola insignis* (VU). The site supports assemblages of species restricted to the Eurasian steppe and desert, Eurasian high montane biomes and boreal forest (taiga) biomes. The site also supports Mongolian Accentor *Prunella koslowi*, whose breeding range defines the Mongolian Mountains Secondary Area. Bar-headed Geese *Anser indicus* breed, moult and occur in high numbers during migration. Mallard *Anas platyrhynchos* and Common Goldeneye *Bucephala clangula* also congregate in large numbers. Populations of all three species reach at least 1% of their flyway populations.

Importance for other fauna and flora

Rare species of mammal include Argali *Ovis ammon* (NT), Siberian Ibex *Capra sibirica*, Snow Leopard *Uncia uncia* (EN) and Siberian Marmot *Marmota sibirica* (EN).

Photo: Sch.Boldbaatar

IBA CODE: MN023 IBA NAME: ZAVKHAN RIVER - EREEN LAKE

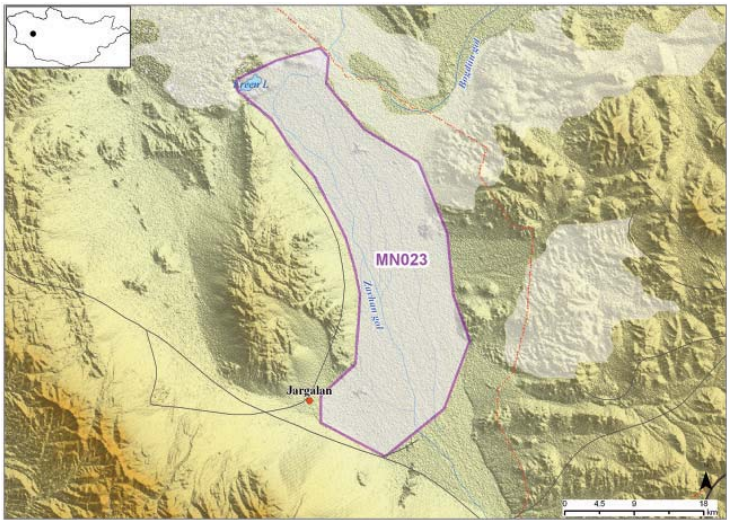
Aimag(s): Gobi-Altai **Criteria:** A1, A4i **Area:** 65,735 ha
Coordinates: 47°00′N 96°05′E **Altitude:** 1,482-1,696 m

Protection status

Unprotected

Site description

The site is composed of several small lakes and a 12 km-wide wetland area surrounding Chandmani hill in Zavkhan River valley. There is a soum centre close to the site. The largest lake in the area is Ereen Lake, which is an important stopover site for Dalmatian Pelican *Pelecanus crispus*. Lakes, wet grassy meadows, and tall grassy areas provide excellent breeding habitat for a variety of birds. A tour camp is being built by the shore of Ereen Lake, which may cause disturbance to birds.



Importance for birds

Two Globally Threatened species are known from the site: Dalmatian Pelican (VU); and Swan Goose *Anser cygnoides* (EN). The site regularly supports at least 1% of the flyway populations of the following congregatory waterbirds: Great Crested Grebe *Podiceps cristatus*; Dalmatian Pelican; Great Cormorant *Phalacrocorax carbo*; Bar-headed Goose *Anser indicus*; and Ruddy Shelduck *Tadorna ferruginea.*

Importance for other fauna and flora

The site is not known to have special significance for species other than birds.

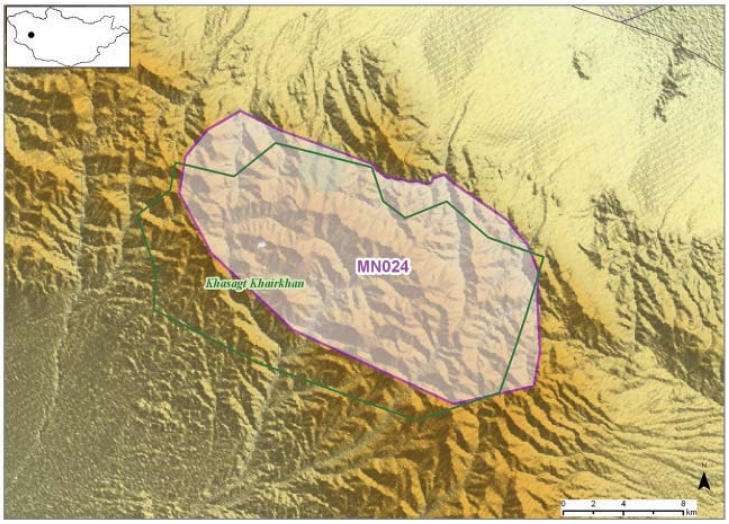
Photo: B.Nyambayar

IBA CODE: MN024 IBA NAME: KHASAGT KHAIRKHAN MOUNTAIN

Aimag(s): Gobi-Altai **Criteria:** A1, A3 **Area:** 28,309 ha
Coordinates: 46°45′N 95°48′E **Altitude:** 1,270-3,578 m

Protection status

Partially protected by Khasagt Khairkhan Strictly Protected Area



Site description

The site comprises Khasagt Khairkhan Mountain and its southern foothills. Khasagt Khairkhan is an isolated massif of the Mongol Altai mountain range that extends into the Great Lakes Basin. It is separated from main Altai mountains by Sharga and Khuisiin Gobi, and from Khangai mountains by Guzeen Teel valley and the Zavkhan River. Mountainous areas are barren, with rocky outcrops and cliffs. In general, there is a strong altitudinal habitat change. Forests are distributed on high upland areas, up to 2,800 m, mostly on north-facing slopes. There are also alpine meadows and alpine steppe in upland areas. Lower elevations are characterised by steppe and semi-desert vegetation, with sparse or dense bushes. Poaching for rare animals is a major threat. There is competition for grazing areas between livestock and wildlife at low and mid-elevations.

Importance for birds

Globally Threatened species occurring at the site are Saker Falcon *Falco cherrug* (EN), Lesser Kestrel *F. naumanni* (VU), Houbara Bustard *Chlamydotis undulata* (VU) and White-throated Bushchat *Saxicola insignis* (VU). Cinereous Vulture *Aegypius monachus* (NT), Himalayan Griffon *Gyps himalayensis* and Altai Snowcock *Tetraogallus altaicus* also occur. The bird communities of the lower foothills and steppe areas are a good example of the Eurasian steppe and desert biome, with such biome-restricted species as Pallas's Sandgrouse *Syrrhaptes paradoxus*, Mongolian Ground Jay *Podoces hendersoni*, Greater Sand Plover *Charadrius leschenaultii*, Steppe Eagle *Aquila nipalensis*, Demoiselle Crane *Anthropoides virgo* and Pied Wheatear *Oenanthe pleschanka*.

Importance for other fauna and flora

There are many rare and threatened wildlife species at the site. In mountainous areas, there are Snow Leopard *Uncia uncia* (EN), Siberian Ibex *Capra sibirica*, Argali *Ovis ammon* (NT), Red Deer *Cervus elaphus* and Stone Marten *Martes foina*. In lower-lying steppe and semi-desert habitats, Goitered Gazelle *Gazella subgutturosa* (VU), Pallas's Cat *Felis manul* (NT), Eurasian Lynx *Lynx lynx* and Siberian Marmot *Marmota sibirica* (EN) occur.

Photo: D.Suran

IBA CODE: MN025 IBA NAME: TAIGAM LAKE

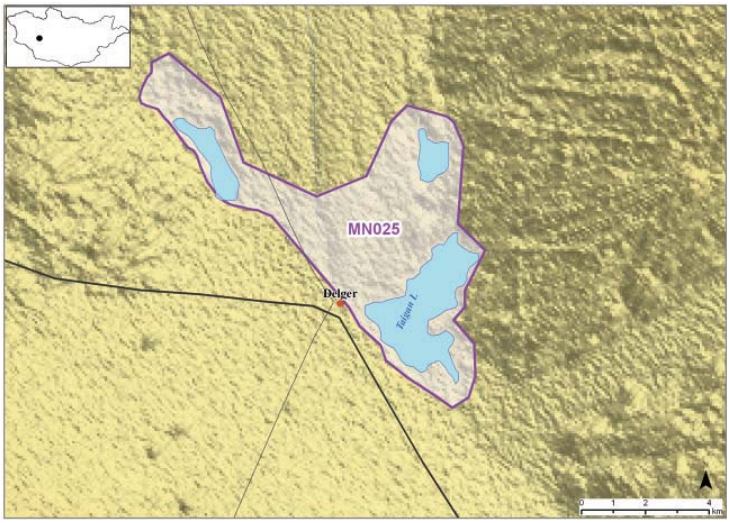
Aimag(s): Gobi-Altai **Criteria:** A1, A4i **Area:** 4,170 ha
Coordinates: 46°22′N 97°22′E **Altitude:** 1,780 m

Protection status

Unprotected

Site description

Taigam Lake (also known as Bayansan Lake) is a saline lake and located very close to Delger soum centre in Gobi-Altai aimag. The northwestern part of the lake is covered with dense tussocks of tall grass, while the rest is covered with short steppe and semi-desert vegetation.



Importance for birds

Taigam Lake is an important site for Dalmatian Pelican *Pelecanus crispus* (VU) on migration (especially given the critical situation of the east Asian population of the species, which has declined to less than 100 birds). Other Globally Threatened species occurring at the site are Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU), Saker Falcon *Falco cherrug* (EN) and Relict Gull *Larus relictus* (VU). Nationally threatened species occurring there are Mute Swan *Cygnus olor* and Whooper Swan *Cygnus cygnus*. Large numbers of waterfowl use the site during migration, including Greylag Goose *Anser anser* and Bar-headed Goose *A. indicus*. Taigam Lake supports more than 1% of the flyway populations of Common Shelduck *Tadorna tadorna*, Ruddy Shelduck *T. ferruginea* and Common Black-headed Gull *Larus ridibundus*.

Importance for other fauna and flora

The site is not known to have special significance for species other than birds.

Photo: B.Nyambayar

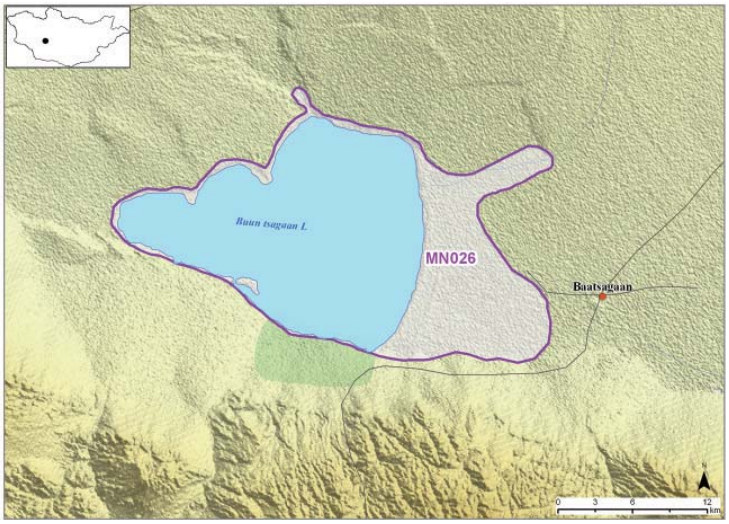
IBA CODE: MN026 IBA NAME: BOON TSAGAAN LAKE

Aimag(s): Bayankhongor **Criteria:** A1, A3, A4i **Area:** 43,262 ha
Coordinates: 45°35′N 99°11′E **Altitude:** 1,312-1,384 m

Protection status

Unprotected

Site description



Boon Tsagaan Lake is located in Baatsagaan soum. It receives water from the Baidrag River. The lake lies between Ikh Bogd Mountain in the south and the semi-desert steppe of the Gobi Lakes valley in the north. The lake is frozen from December until late April. There is a large area of saxaul forest along the southern shore of the lake, whereas bushy steppe is common in the north. In the southeast, there is a small lake surrounded by dense reeds and tall grasses. This location is called Myangan Shuvuunii Aral (Thousand Bird Island) by locals, because of the high number of birds breeding there. Nomadic animal grazing is the main land use. The site is considered to be suitable for the development of recreation and ecotourism. Pressures include grazing and trampling of lakeside reed beds, and poorly managed tourism. The water level of the lake has fallen as a result of drought. Boon Tsagaan Lake is located within the Valley of Lakes Ramsar Site.

Importance for birds

Globally Threatened species using the site are Dalmatian Pelican *Pelecanus crispus* (VU), Swan Goose *Anser cygnoides* (EN), Houbara Bustard *Chlamydotis undulata* (EN), Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU) and Relict Gull *Larus relictus* (VU). The site supports an assemblage of species restricted to the Eurasian steppe and desert biome. The site regularly supports at least 1% of the flyway populations of Great Cormorant *Phalacrocorax carbo* and Common Shelduck *Tadorna tadorna.* Great Crested Grebe *Podiceps cristatus*, White Spoonbill *Platalea leucorodia*, Greylag Goose *Anser anser*, Ruddy Shelduck *Tadorna ferruginea*, Red-crested Pochard *Netta rufina* and Demoiselle Crane *Anthropoides virgo* possibly also reach the 1% threshold. Tens of thousands of Pallas's Sandgrouse *Syrrhaptes paradoxus* occur in autumn.

Importance for other fauna and flora

Several rare mammal species occur at the site, including Mongolian Gazelle *Procapra gutturosa* and Goitered Gazelle *Gazella subgutturosa* (VU). Also Saiga *Saiga tatarica* (CR) is occasionally recorded. Two nationally threatened species of fish, Lake Osman *Oreoleuciscus angusticephalus* and Small Osman *O. humilis* inhabit in the lake.

Photo: N.Tseveenmyadag

IBA CODE: MN027 IBA NAME: IKH BOGD MOUNTAIN

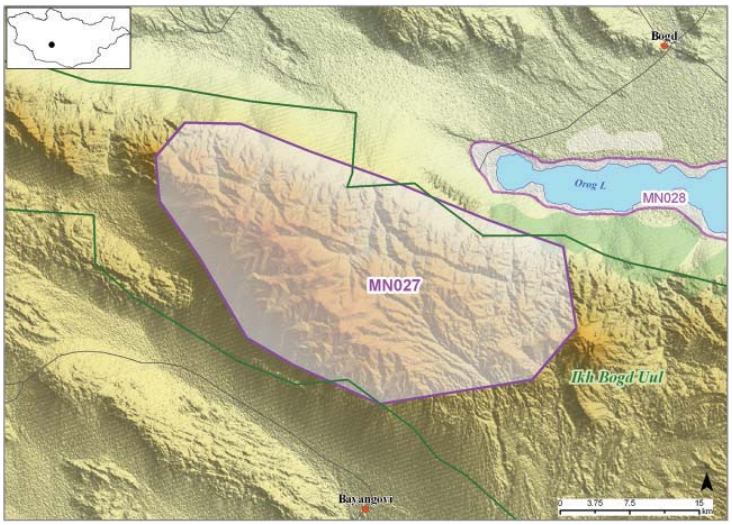
Aimag(s): Bayanhongor **Criteria:** À1, A3 **Area:** 86,440 ha
Coordinates: 51°01′N, 99°27′E **Altitude:** 1,538-3,957 m

Protection status

Unprotected

Site description

The site comprises the highest ranges of the Gobi-Altai Mountains, on the borders of Bogd, Jinst and Bayangobi soums. The highest peak of the mountain is Terguun, which has a flat, vegetation-free plateau. There are semi-desert habitats to the north and south of the mountain range. South-facing slopes have many wide, open valleys, while north-facing slopes are steeper and have narrow rocky valleys. Subalpine grassy meadows and montane steppe dominate from mid to high elevations. In 1975, a major earthquake resulted in the creation of several small lakes. The only significant land use is livestock grazing.



Importance for birds

Globally Threatened species include White-throated Bushchat *Saxicola insignis* (VU). The site supports assemblages of bird species restricted to the Eurasian steppe and desert biome, such as Mongolian Ground Jay *Podoces hendersoni*, as well as species restricted to the Eurasian high montane biome, such as Altai Snowcock *Tetraogallus altaicus*.

Importance for other fauna and flora

Ikh Bogd Mountain is rich in rare and elusive wildlife species, such as Argali *Ovis ammon* (NT), Siberian Ibex *Capra sibirica*, Stone Marten *Martes foina*, Pallas's Cat *Felis manul* (NT), Eurasian Lynx *Lynx lynx* and Snow Leopard *Uncia uncia* (EN). The site is rich in rare alpine plants. So far, a total of 500 vascular plants in 218 genera and 51 families have been recorded.

Photo: S.Shar

IBA CODE: MN028 IBA NAME: OROG LAKE

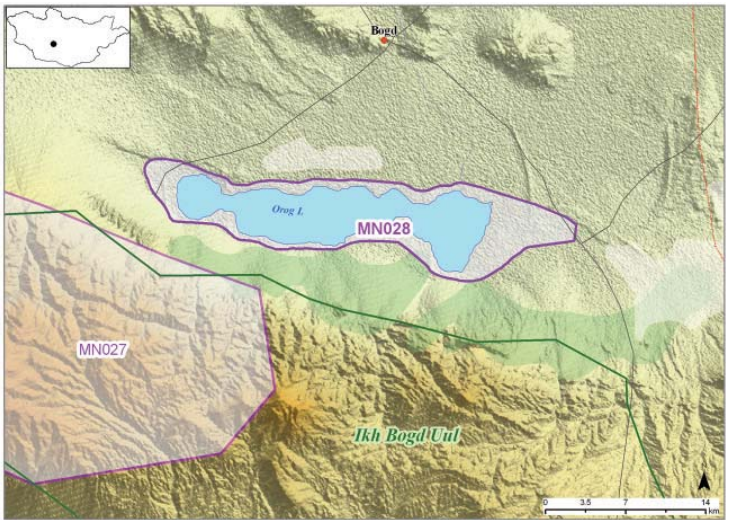
Aimag(s): Bayankhongor **Criteria:** A1, A3, A4i **Area:** 20,195 ha
Coordinates: 45°04′N 100°45′E **Altitude:** 1,217-1,244 m

Protection status

Unprotected

Site description

Orog Lake is a saltwater lake. Water levels vary, depending on in-flow from the Tuin River, which rises in the Khangai mountain range. The lake is frozen from November until May. The Tuin River creates a large wetland on north side of the lake. To the south, the lake is bordered by the slopes of Ikh Bogd Mountain, which support desert steppe, and give rise to several streams with associated wetlands. On the northern side of the lake, there is a wide sand dune which stretches along the shore. Orog Lake is located within the Valley of Lakes Ramsar Site.



Importance for birds

Globally Threatened species occurring at the site are Dalmatian Pelican *Pelecanus crispus* (VU), Swan Goose *Anser cygnoides* (VU), Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU), Saker Falcon *Falco cherrug* (EN), Lesser Kestrel *F. naumanni* (VU) and Relict Gull *Larus relictus* (VU). The site supports an assemblage of species restricted to the Eurasian steppe and desert biome. The site supports at least 1% of the flyway populations of the following congregatory waterbirds: Great Crested Grebe *Podiceps cristatus*; Common Shelduck *Tadorna tadorna*; and Ruddy Shelduck *T. ferruginea.*

Importance for other fauna and flora

No information on other fauna and flora is available.

Photo: B.Nyambayar

IBA CODE: MN029 IBA NAME: TAATSIIN TSAGAAN LAKE

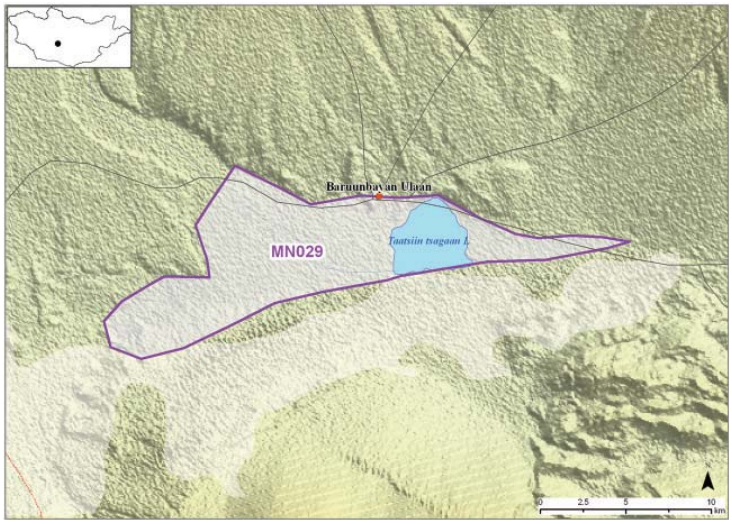
Aimag(s): Ovorkhangai **Criteria:** A1, A3, A4i **Area:** 12,385 ha
Coordinates: 45°08′N, 101°26′E **Altitude:** 1,234-1,478 m

Protection status

Unprotected

Site description

The site is located in an arid, semi-desert area with sparse vegetation. Until recently, the lake was filled with water and supported large numbers of migratory birds. The lake is currently dry, and may no longer meet IBA criteria A1 and A4i; further assessment is required. Taatsiin Tsagaan Lake lies within the Valley of Lakes Ramsar Site.



Importance for birds

The site was formerly an important stopover site for Globally Threatened species, such as Dalmatian Pelican *Pelecanus crispus* (VU) and Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU). The site used to support at least 1% of the flyway populations of Common Shelduck *Tadorna tadorna* and Ruddy Shelduck *Tadorna ferruginea.* The site still supports an assemblage of species restricted to the Eurasian steppe and desert biome.

Importance for other fauna and flora

The site is not known to have special significance for species other than birds.

Photo: B.Nyambayar

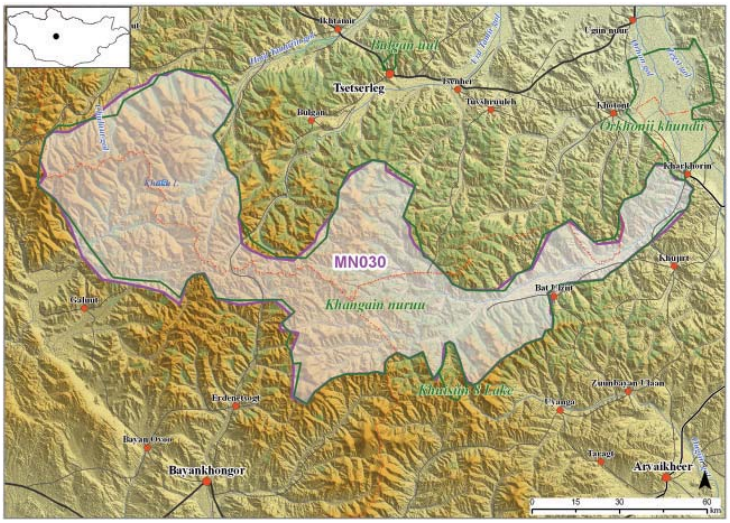
IBA CODE: MN030 IBA NAME: KHANGAIN NURUU NATIONAL PARK

Aimag(s): Arkhangai, Bayankhongor, Ovorkhangai **Criteria:** A1, A3 **Area:** 897,840 ha
Coordinates: 47°17′N 101°15′E **Altitude:** 1,750-4,021 m

Protection status

Fully protected by Khangain Nuruu National Park

Site description



Khangain Nuruu National Park preserves the best representative area of the Khangai mountain range and its biodiversity. The Khangai mountain range supports a variety of habitat types, ranging from steppe through taiga to alpine vegetation. Mountaintops are rounded, with bare or rocky peaks, some with alpine meadows and lakes. The forests are mostly larch and pine but mixed forest is common. Steppe vegetation is found in the foothills. Many large rivers originate from the Khangai mountains and, at lower elevations, these are flanked by dense riparian forests. The main land use is livestock husbandry. There are several settlements in the area. Pollution of water sources from mining and forestry are the main threats. Overgrazing is also becoming an increasing threat, resulting in land degradation in the lower foothills. Poaching for wildlife is widespread.

Importance for birds

Globally Threatened species occurring at the site include Swan Goose *Anser cygnoides* (EN), Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU), Eastern Imperial Eagle *Aquila heliaca* (VU), Saker Falcon *Falco cherrug* (EN) and Lesser Kestrel *F. naumanni* (VU). Falcated Duck *Anas falcata* (NT) also occurs. The site also supports an assemblage of species restricted to the boreal forest (taiga) biome, including Ural Owl *Strix uralensis*, Pallas's Rosefinch *Carpodacus roseus*, Arctic Warbler *Phylloscopus borealis*, Western Capercaillie *Tetrao urogallus* and Black-billed Capercaillie *T. parvirostris*.

Importance for other fauna and flora

Rare and threatened wildlife species occurring include Siberian Ibex *Capra sibirica*, Argali *Ovis ammon* (NT), Eurasian Lynx *Lynx lynx*, Red Deer *Cervus elaphus*, Snow Leopard *Uncia uncia* (EN), Wild Boar *Sus scrofa* and Pallas's Cat *Felis manul* (NT). Many plants and insects found in the *Red Data Book of Mongolia* occur at the site.

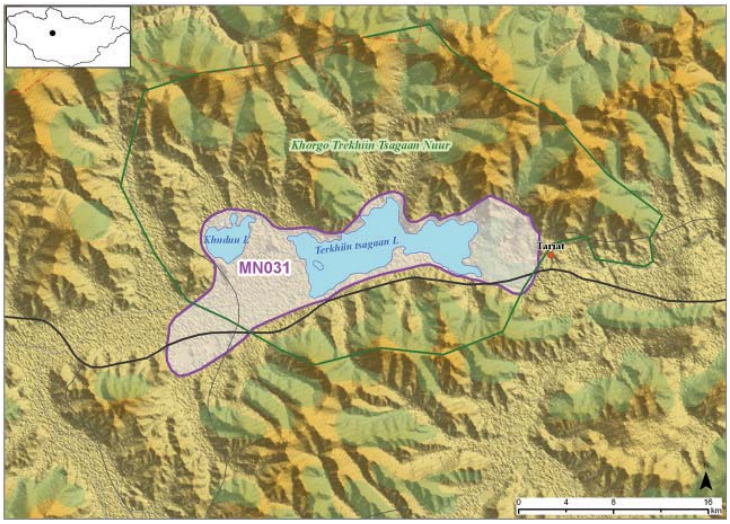
Photo: N.Batsaikhan

IBA CODE: MN031 IBA NAME: TERKHIIN TSAGAAN LAKE

Aimag(s): Arkhangai **Criteria:** A1, A4i **Area:** 21,072 ha
Coordinates: 48°10′N 99°45′E **Altitude:** 2,060-2,703 m

Protection status

Partially protected by Khorgo Terkhiin Tsagaan Lake National Park



Site description

The site is a large freshwater lake in the Khangai Mountain Range. The lake is fed by 10 tributary rivers, including the Khoid Terkh and Urd Terkh Rivers. The lake has a single outlet: the Suman River. There are numerous bays and peninsulas along the northern shore, with a large bay, Jooroin Bay, in the south. The lake has a number of islands and the largest island is called Nuuriin Tolgoi (Chandmani Tolgoi). The lake starts freezing from late October and is frozen until mid-May. To the west, there are a number of smaller lakes (the largest being Khodoo Lake). There is larch-dominated coniferous forest in the surrounding mountains. The main land-use is livestock grazing. Several small-scale tourist camps operate to the northeast of the lake, and there is small-scale commercial fishing and sport-fishing. The dry steppe areas surrounding the lake are subject to overgrazing. There is concern about tourism development, particularly the development of a new camp close to the shore at 'Swan Lake', increase in boats, including motor boats, on the lake, and the impact of tourist vehicles. There is also concern about the drying up of small lakes in the west. Due to lower rainfall, the seasonal rivers feeding the lake have dried up. Part of the IBA is designated as Terkhiin Tsagaan Lake Ramsar Site.

Importance for birds

Globally Threatened species occurring at the site include Swan Goose *Anser cygnoides* (EN), Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU), Saker Falcon *Falco cherrug* (EN), Hooded Crane *Grus monacha* (VU) and Great Bustard *Otis tarda* (VU). The site supports at least 1% of the flyway populations of the following congregatory waterbirds: Great Cormorant *Phalacrocorax carbo*; Ruddy Shelduck *Tadorna ferruginea*; Common Goldeneye *Bucephala clangula*; Common Merganser *Mergus merganser*; and Northern Lapwing *Vanellus vanellus*. About 4-5% of the global population of Bar-headed Goose *Anser indicus* occurs at the site.

Importance for other fauna and flora

There are many species of beautiful flowering plants along the lake shore. Pallas's Cat *Felis manul* (NT), Grey Wolf *Canis lupus*, Red Fox *Vulpes vulpes*, Corsac Fox *V. corsac* and Siberian Marmot *Marmota sibirica* (EN) can be seen at the site.

Photo: B.Nyambayar

IBA CODE: MN032 IBA NAME: KHOVSGOLIIN SANGIIN DALAI LAKE

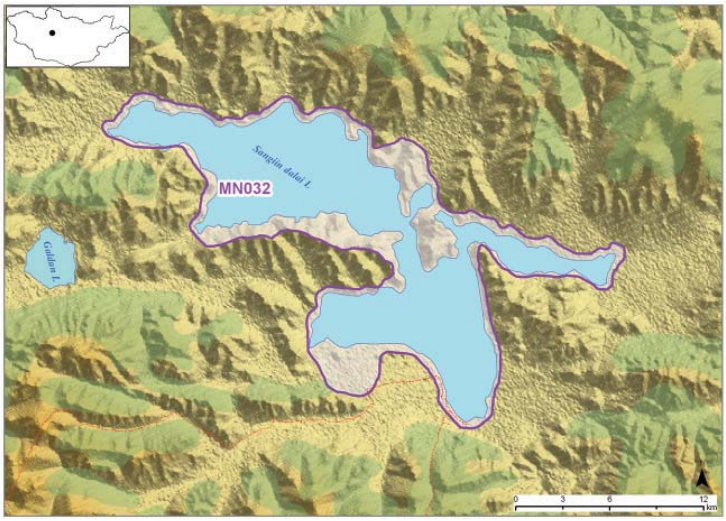
Aimag(s): Khovsgol, Zavkhan **Criteria:** A1, A4i **Area:** 25,194 ha
Coordinates: 49°15'N 99°00'E **Altitude:** 1,889-2,612 m

Protection status

Unprotected

Site description

The site is a freshwater lake on the border of Zavkhan and Khovsgol Aimags, in a depression to the north of the Bulnai Mountains. About 20 rivers and streams drain into the lake, creating wetlands favoured by waterbirds. There is no outflow from the lake, which is frozen from November to May. The water level has increased over the last decade, submerging two major islands: Dalain Ovoo; and Khar Nuden Bulag. The main land use in the surrounding area is livestock grazing.



Importance for birds

The Globally Threatened Great Bustard *Otis tarda* (VN) occurs around the lake. The site supports at least 1% of the flyway populations of Whooper Swan *Cygnus cygnus*, Bar-headed Goose *Anser indicus* and Ruddy Shelduck *Tadorna ferruginea.*

Importance for other fauna and flora

Pallas's Cat *Felis manul* (NT), Grey Wolf *Canis lupus*, Corsac Fox *Vulpes corsac* and Red Fox *V. vulpes* are found near the lake.

Photo: N.Tseveenmyadag

IBA CODE: MN033 IBA NAME: ERKHEL LAKE

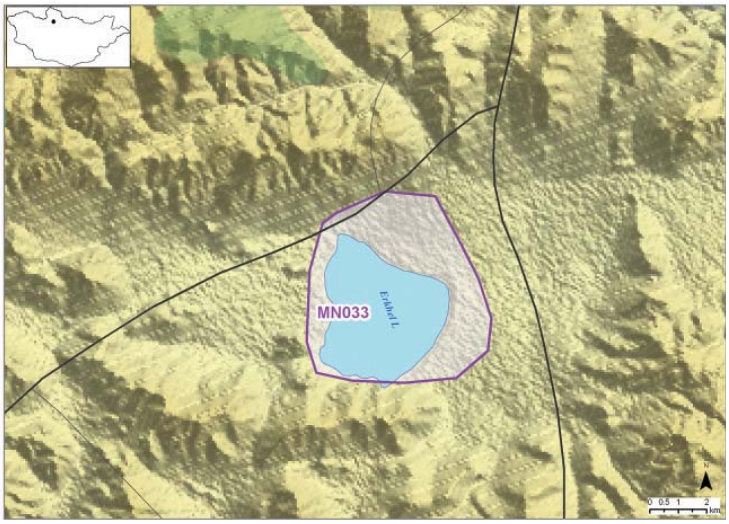
Aimag(s): Khovsgol **Criteria:** A1, A3, A4i **Area:** 3,537 ha
Coordinates: 49°56′N 99°56′E **Altitude:** 1,544-1,850 m

Protection status

Unprotected

Site description

Erkhel Lake is a saline lake surrounded by grassy steppe in Alag-Erdene soum. Freshwater springs feed the lake on the northwestern side, and the bay and islands in this area are favoured by waterbirds. There is no cultivation in the area, and the land is used for nomadic animal husbandry. Salt and soda from the lake are used as mineral additives for local livestock. Consecutive outbreaks of avian influenza were reported from the site in 2005 and 2006.



Importance for birds

Globally Threatened species that occur at the site are Saker Falcon *Falco cherrug* (EN), Lesser Kestrel *F. naumanni* (VU) and Great Bustard *Otis tarda* (VU). The site supports an assemblage of species restricted to the Eurasian steppe and desert biome. Ruddy Shelduck *Tadorna ferruginea* and Herring Gull *Larus argentatus* occur in numbers exceeding the 1% of their flyway populations. Good numbers of Whooper Swans *Cygnus cygnus* and Bar-headed Geese *Anser indicus* moult at the site. Several raptor species were observed passing through the site during southward migration in September 2006, including Steppe Eagle *Aquila nipalensis*, Northern Goshawk *Accipiter gentilis*, Hen Harrier *Circus cyaneus*, Saker Falcon *Falco cherrug* (EN), Eurasian Hobby *F. subbuteo*, Common Kestrel *F. tinnunculus* and Peregrine Falcon *F. peregrinus*. Further raptor observation is needed.

Importance for other fauna and flora

The site is not known to be important for other fauna and flora.

Photo: N.Tseveenmyadag

IBA CODE: MN034 IBA NAME: DARKHAD DEPRESSION

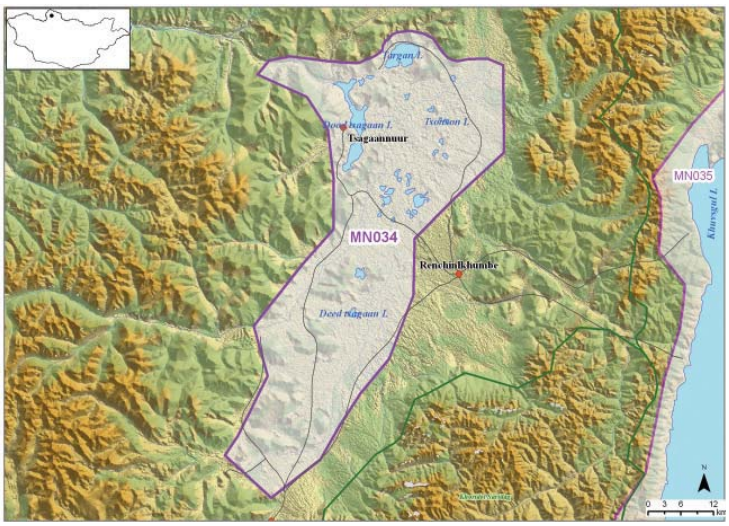
Aimag(s): Khovsgol **Criteria:** A1, A3, A4i **Area:** 195,223 ha
Coordinates: 51°01′N 99°27′E **Altitude:** 1,538-1,970 m

Protection status

Unprotected

Site description

This beautiful depression in northern Mongolia contains a group of freshwater lakes, situated in Ulaan Uul, Renchinlkhumbe and Tsagaan Nuur soums of Khovsgol aimag. The depression is about 150 km long and 40 km wide, and is surrounded by high mountains. The depression receives water from many montane rivers, such as the Bagtakh, Khug, Ar Khoridol, Arsai, Sharga, Tengis and Shishkhed Rivers, and is thus rich in wetlands and lakes. These are surrounded by diverse habitats, including dry steppe, boreal forest (taiga) and alpine vegetation. The land is used as pasture for livestock and for preparing fodder. The area is suitable for recreation and ecotourism development.



Importance for birds

Globally Threatened species found at the site are Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU), Greater Spotted Eagle *Aquila clanga* (VU), Saker Falcon *Falco cherrug* (EN), Lesser Kestrel *F. naumanni* (VU) and Great Bustard *Otis tarda* (VU). Also occurring are several species listed in the *Red Data Book of Mongolia*, such as Black Stork *Ciconia nigra*, Osprey *Pandion haliaetus*, Whooper Swan *Cygnus cygnus*, Bar-headed Goose *Anser indicus* and White Spoonbill *Platalea leucorodia*. The following congregatory waterbird species occur in concentrations equivalent to at least 1% of their flyway populations: Bar-headed Goose *Anser indicus*, Ruddy Shelduck *Tadorna ferruginea*, Gadwall *Anas strepera* and Common Goldeneye *Bucephala clangula.* The site supports an assemblage of species restricted to the Eurasian steppe and desert biome, including Daurian Partridge *Perdix dauurica*, Steppe Eagle *Aquila nipalensis*, Demoiselle Crane *Anthropoides virgo*, Great Bustard and Pied Wheatear *Oenanthe pleschanka*.

Importance for other fauna and flora

The site is not known to have special significance for species other than birds.

Photo: Mongolia-Japan Darkhad Basin Ecosystem Project

IBA CODE: MN035 IBA NAME: KHOVSGOL LAKE

Aimag(s): Khovsgol **Criteria:** A1, A4i **Area:** 380,212 ha
Coordinates: 50°32′N 100°20′E **Altitude:** 1,645-2,094 m

Protection status

Fully protected by Khovsgol Lake National Park

Site description

Khovsgol Lake is a beautiful freshwater lake, fed by many in-flowing rivers and drained by a single outlet, Eg River, which flows into the Selenge tributary of Lake Baikal. The lake is frozen from late November until May. The high mountains of Bayan, Khoridol Saridag and Munkh Saridag rise from the northwestern shores of the lake. There are a lot of cliffs, bays, islands and peninsulas along the shore, and the lake also contains a number of islands, such as Dalain Khuis, Modon Khuis, Khadan Khuis and Baga Khuis. Out of these, Dalain Khuis is the largest and is covered by forest. There are forests of Siberian Larch and cedar in the surrounding area. There are two small settlements, Khankh and Khatgal, on the southern and northern shores of the lake, respectively. In recent years, recreation, tourism and sport fishing have increased rapidly, and the lake has become a popular destination for foreign tourists. Pressures include habitat degradation due to overgrazing, and drying out due to a warmer climate. There is also over-fishing, and an accumulation of waste in tourist areas. There are number of motor and jet boats being used for scientific research, tourism, cargo and human transportation purposes, which result in disturbance and water pollution. A phosphorite deposit, discovered in the late 1980s, has lead to intensive prospecting, resulting in some damage to the area. Wastewater leakages from wool processing factories and oil tanks are also polluting the lake.

Importance for birds

Globally Threatened species occurring at the site are Swan Goose *Anser cygnoides* (EN), Baikal Teal *Anas formosa* (VU), Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU), Eastern Imperial Eagle *Aquila heliaca* (VU), Lesser Kestrel *Falco naumanni* (VU), Hooded Crane *Grus monacha* (VU) and Great Bustard *Otis tarda* (VU). The site supports at least 1% of the flyway populations of Great Crested Grebe *Podiceps cristatus*, Bar-headed Goose *Anser indicus*, Ruddy Shelduck *Tadorna ferruginea*, Common Goldeneye *Bucephala clangula* and Common Merganser *Mergus merganser.*

Importance for other fauna and flora

Some mammals can be found in nearby mountains, including European Elk *Alces alces*, Siberian Musk Deer *Moschus moschiferus* (VU), Eurasian Lynx *Lynx lynx* and Stone Marten *Martes foina*. Diversity of invertebrates, especially insects, is rich and there are many rare species present in the lake.

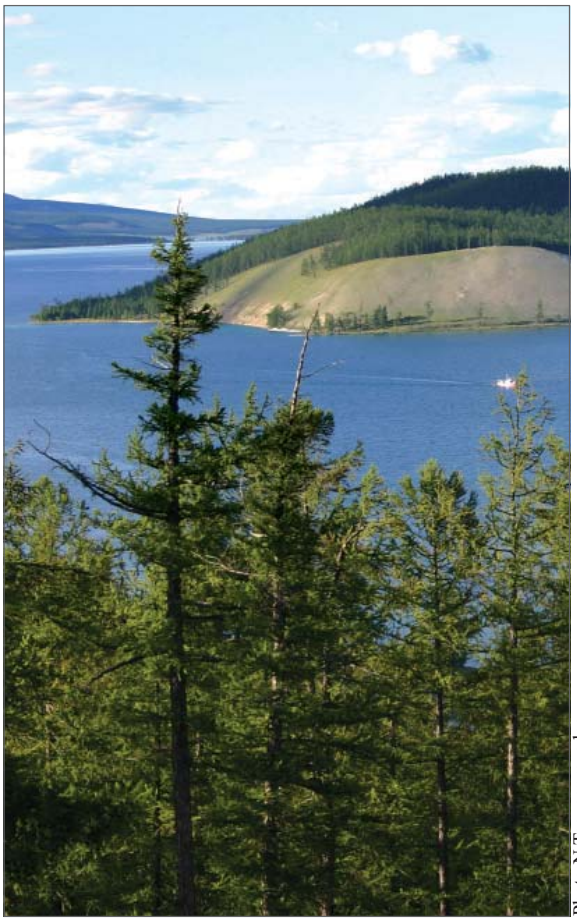


Photo:N.Tseveenmyadag

IBA CODE: MN036 IBA NAME: BULGAN TAL

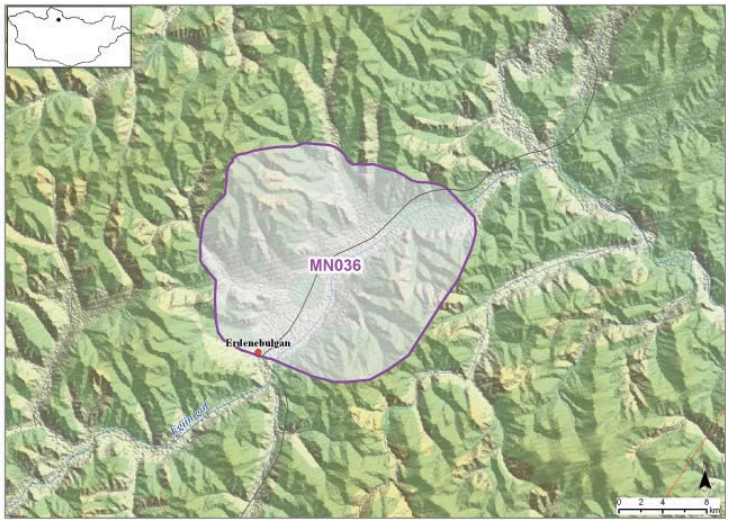
Aimag(s): Khovsgol **Criteria:** A1 **Area:** 40,445 ha
Coordinates: 50°11′N 101°33′E **Altitude:** 1,132-1,254 m

Protection status

Unprotected

Site description

Located in the north of Erdenebulgan soum, the site extends west from the Eg River to Oliin Davaa, and northeast along the valley of the Eg River until it narrows into a canyon. In addition to the Eg River, a small river, the Sair, runs through the site. The site comprises a wide valley, with wheat fields, fallow and pasture, surrounded by hillsides with birch and larch forest. The site includes small lake, called Nuuriin Hotgor, and fields close to Erdenebulgan soum centre called Borog Tolgoi. The land is privately farmed in summer.



Importance for birds

The site is important for Great Bustard *Otis tarda* (VU) and Saker Falcon *Falco cherrug* (EN). Eastern Imperial Eagle *Aquila heliaca* (VU) and Greater Spotted Eagle *A. clanga* (VU) have both been seen at the site during the breeding season and probably nest there. Osprey *Pandion haliaetus*, a *Red Data Book of Mongolia* species, nests in good numbers along the Eg River. Demoiselle Cranes *Anthropoides virgo* congregate in large numbers during migration but are not thought to exceed the 1% threshold for IBA criterion A4i. Destruction of Great Bustard nests and chicks by agricultural machinery is a concern.

Importance for other fauna and flora

The nationally threatened fish species, Taimen *Hucho taimen*, occurs in nearby rivers. Siberian Musk Deer *Moschus moschiferus* (VU), Red Deer *Cervus elaphus*, Grey Wolf *Canis lupus* and Siberian Roe Deer *Capreolus pygargus* occur in the forest. Poaching is the biggest threat to the forest-dwelling mammals.

Photo: Mimi Kessler

IBA CODE: MN037 IBA NAME: TESHIGIIN OLON LAKES

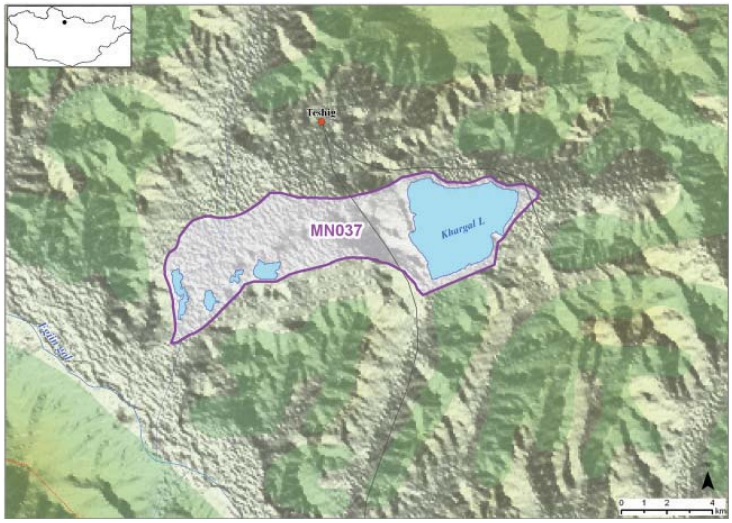
Aimag(s): Bulgan **Criteria:** A1, A4i **Area:** 5,774 ha
Coordinates: 49°54′N 102°40′E **Altitude:** 983-1,525 m

Protection status

Unprotected

Site description

The site is located in the south-east of Teshig soum, and comprises many small lakes plus one larger lake, called Khargal. Several small streams enter Khargal Lake but there is no outflow. This lake is rich in aquatic vegetation. There are about 20 small lakes, grouped close to the soum centre. They are all connected to each other, and eventually drain into the Eg River. Bird habitats include reed-fringed lake shores and wet meadows with tall grasses. A large area of agricultural land lies close to these lakes. Livestock herding is also common in the surrounding area.



Importance for birds

Globally Threatened species found at the site include Swan Goose *Anser cygnoides* (EN), Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU), Eastern Imperial Eagle *Aquila heliaca* (VU), White-naped Crane *Grus vipio* (VU) and Great Bustard *Otis tarda* (VU). The site supports at least 1% of the flyway populations of the following congregatory waterbirds: Common Goldeneye *Bucephala clangula*; Ruddy Shelduck *Tadorna ferruginea*; Mallard *Anas platyrhynchos*; Green-winged Teal *A. crecca*; Northern Lapwing *Vanellus vanellus*; and Common Crane *Grus grus*.

Importance for other fauna and flora

Grey Wolf *Canis lupus*, Red Fox *Vulpes vulpes*, Corsac Fox *V. corsac* and Siberian Marmot *Marmota sibirica* (EN) are found in the habitats surrounding the lakes.

Photo: B.Bayarjargal

IBA CODE: MN038 IBA NAME: AIRKHAN LAKE

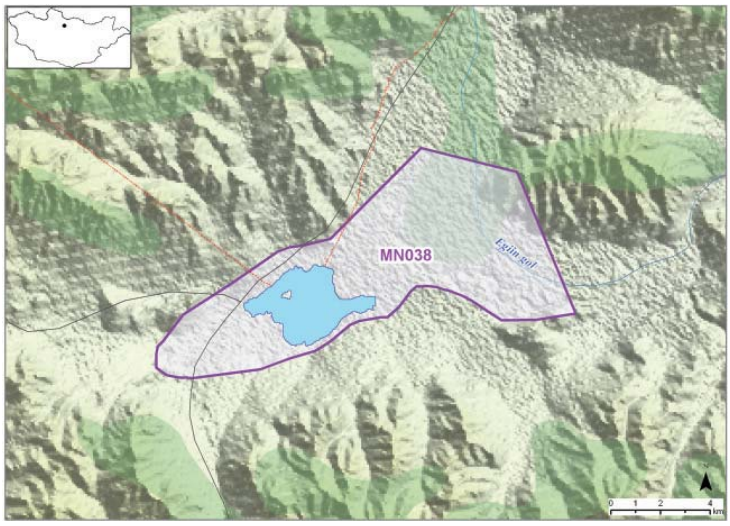
Aimag(s): Bulgan, Khovsgol **Criteria:** A1, A4i **Area:** 7,212 ha
Coordinates: 49°37′N 102°40′E **Altitude:** 936-1,319 m

Protection status

Unprotected

Site description

Airkhan Lake is located south of a major tributary of the Eg River. The lake is largely dependent on rainfall, and, in dry years, it becomes two separate pools. There are agricultural fields, mainly for wheat, near the lake. Local people use water from the lake for domestic use and livestock. Trampling of reeds and wet grassland by livestock is a serious threat to the site. The water level has fallen, a phenomenon that has been attributed to a warmer climate.



Importance for birds

Globally Threatened bird species recorded at the site comprise Swan Goose *Anser cygnoides* (EN), Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU), Eastern Imperial Eagle *Aquila heliaca* (VU) and Great Bustard *Otis tarda* (VU). The site also supports at least 1% of the flyway populations of Ruddy Shelduck *Tadorna ferruginea*, Common Crane *Grus grus* and Northern Lapwing *Vanellus vanellus*.

Importance for other fauna and flora

No information is available on other fauna and flora.

Photo: B.Nyambayar

IBA CODE: MN039 IBA NAME: TARIALAN

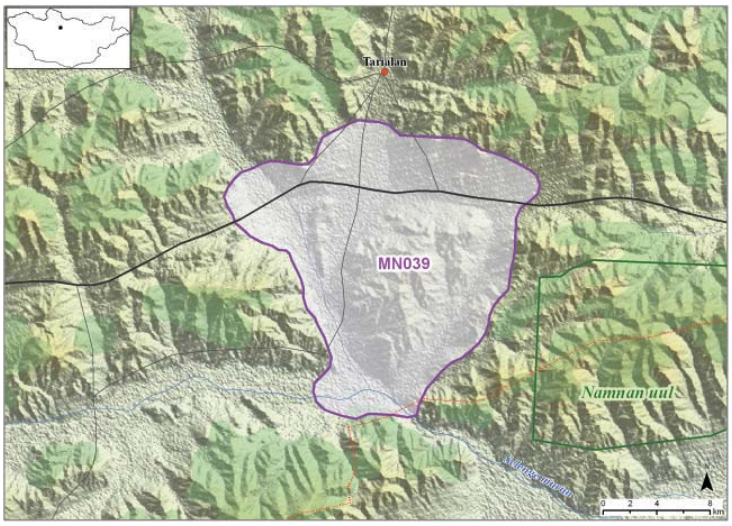
Aimag(s): Khovsgol **Criteria:** A1, A4i **Area:** 31,630 ha
Coordinates: 49°31′N 101°55′E **Altitude:** 1,500-1,600 m

Protection status

Unprotected

Site description

The site is composed of a wide, roughly circular valley of the Zulegt River, which surrounds Tarialan soum, part of the Selenge River valley and large areas of private farmland. The site extends south to the Selenge River, and north, west and east as far as forested mountains. The valley is surrounded by hills, some of which are forested or with rocky outcrops. The site is bisected by a major road from Moron to Hutag Ondor. Threats include disturbance due to heavy traffic along the road, destruction of eggs and chicks by agricultural machinery, and, probably, poaching.



Importance for birds

The site is important for Eastern Imperial Eagle *Aquila heliaca* (VU), Saker Falcon *Falco cherrug* (EN), Lesser Falcon *F. naumanni* (VU) and Great Bustard *Otis tarda* (VU). Hundreds of Demoiselle Crane *Anthropoides virgo* gather before autumn migration, with at least 1% of the flyway population of this species thought to occur annually.

Importance for other fauna and flora

No information is available on other fauna and flora.

Photo: Mimi Kessler

IBA CODE: MN040 IBA NAME: SELENGE - TEEL

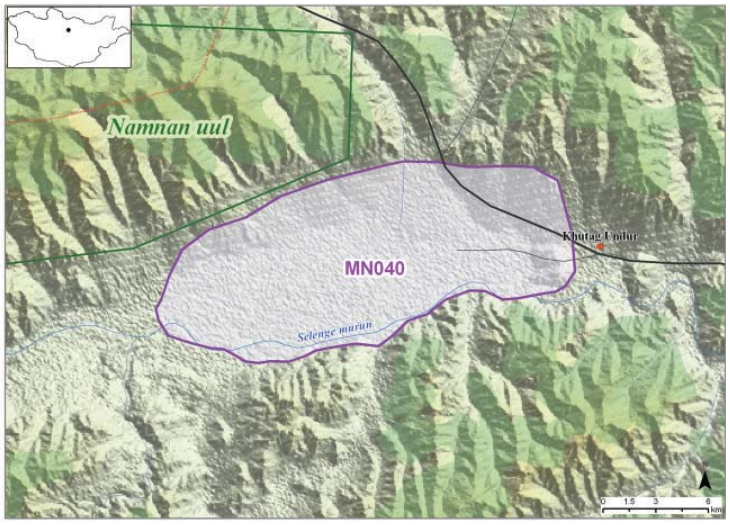
Aimag(s): Bulgan **Criteria:** A1, A3 **Area:** 18,568 ha
Coordinates: 49°27'N 102°33'E **Altitude:** 940-980 m

Protection status

Unprotected

Site description

The site comprises summer pasture, which is grazed by livestock, and also private wheat fields and fallow. The site borders Namnangiin Uul Nature Reserve to the north and extends west until the valley narrows, east until Hutag Ondor Sum, and northeast to hills and the major road from Moron. The site also includes the valley northward to Jantsan Uul, and southern branches of the Selenge River. Threats to biodiversity include disturbance to nesting birds (due to a major road, the nearby large population centre of Hutag Ongor, and summer grazing), accidental destruction of eggs and nests by agricultural machinery, and, probably, poaching.



Importance for birds

The site is important for the Globally Threatened Great Bustard *Otis tarda* (VU). Significant numbers of Demoiselle Crane *Anthropoides virgo* gather in wheat fields before migration but this species is not thought to meet the 1% threshold for IBA criterion A4i. The riparian forest along the Selenge River provides good habitat for many bird species during the breeding season and migration.

Importance for other fauna and flora

The nationally endangered Taimen *Hucho taimen* occurs in the Selenge River.

Photo: B.Nyambayar

IBA CODE: MN041 IBA NAME: SHARGA LAKE

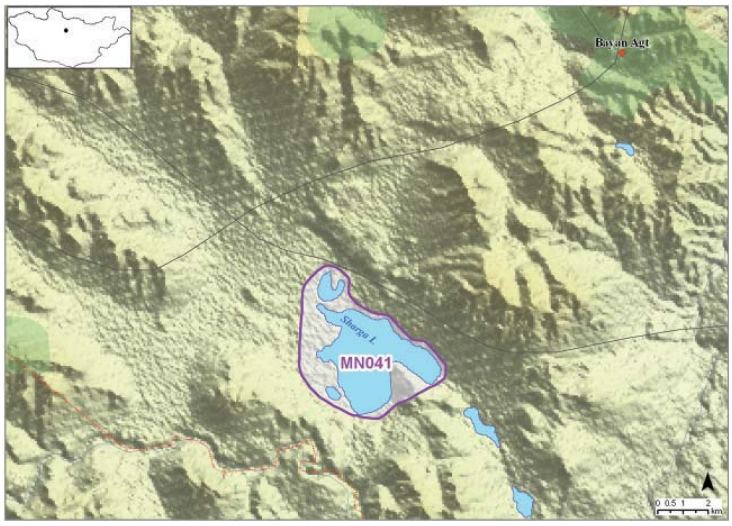
Aimag(s): Bulgan **Criteria:** A1, A4i **Area:** 2,118 ha
Coordinates: 48°55′N 101°57′E **Altitude:** 1,334 m

Protection status

Unprotected

Site description

The site is composed of a lake located in a beautiful valley. There is also a small shallow lake, rich in aquatic vegetation, separated by a narrow spit from the main lake. Many small pools are found along the western side of the lake. There is a high cliff along the southern shore of the lake. The north and northwestern shores of the lake have many peninsulas and inlets with good aquatic vegetation. The southern shore is sandy with fine gravel. The surrounding area is grassy steppe, where the main land use is livestock husbandry. There are no obvious potential threats to the site.



Importance for birds

Globally Threatened species occurring at Sharga Lake include Swan Goose *Anser cygnoides* (EN), Saker Falcon *Falco cherrug* (EN), Lesser Kestrel *F. naumanni* (VU) and Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU). Thousands of ducks and grebes use the site during migration, including Black-necked Grebe *Podiceps nigricollis*. A recent count of 432 Black-necked Grebes exceeds 1% of the flyway population. The most common ducks at the site comprise Common Goldeneye *Bucephala clangula*, Common Pochard *Aythya ferina* and Green-winged Teal *Anas crecca*.

Importance for other fauna and flora

No information on other fauna and flora is available.

Photo:N.Tseveenmyadag

IBA CODE: MN042 IBA NAME: OGII LAKE

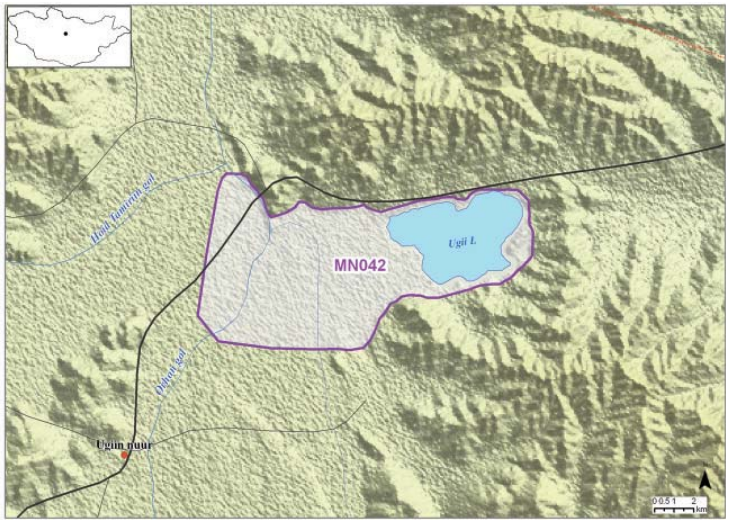
Aimag(s): Arkhangai **Criteria:** A1, A4i, A4iii **Area:** 10,189 ha
Coordinates: 47°46′N 102°42′E **Altitude:** 1,332-1,454 m

Protection status

Unprotected

Site description

Ogii Lake is located in the valley of the Orkhon River, 350 km west of Ulaanbaatar. The site is a mesotrophic, freshwater lake with an extensive alluvial plain. The Khogshin Orkhon River enters the lake from the west. A small river, Khooloin Gol, drains the lake. There are extensive wet grasslands along the valleys of these rivers, and small pools and marshy areas along the western side of the lake. The remainder of the site comprises grassland and mountain steppe. Intensive livestock grazing takes place throughout the year. A small-scale commercial fishery operates in winter, and recreation and tourism activities are on the increase. Overgrazing, grassland degradation in dry summers, poorly managed tourism activities and steppe fires pose serious threats to the site. The IBA contains Ogii Lake Ramsar Site.



Importance for birds

The site regularly supports significant populations of the following Globally Threatened species: Dalmatian Pelican *Pelecanus crispus* (VU); Swan Goose *Anser cygnoides* (EN); Baikal Teal *Anas formosa* (VU); Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU); Lesser Kestrel *Falco naumanni* (VU); Siberian Crane *Grus leucogeranus* (CR); White-naped Crane *G. vipio* (VU); Hooded Crane *G. monacha* (VU); Great Bustard *Otis tarda* (VU); and Relict Gull *Larus relictus* (VU). The site also supports at least 1% of the flyway populations of the following congregatory waterbird species: Great Crested Grebe *Podiceps cristatus*; Whooper Swan *Cygnus cygnus*; Swan Goose *Anser cygnoides*; Bar-headed Goose *Anser indicus*; Ruddy Shelduck *Tadorna ferruginea*; Common Goldeneye *Bucephala clangula*; Common Crane *Grus grus*; and Northern Lapwing *Vanellus vanellus.*

Importance for other fauna and flora

Siberian Marmot *Marmota sibirica* (EN), Grey Wolf *Canis lupus*, Corsac Fox *Vulpes corsac*, Red Fox *V. vulpes* and Pallas's Cat *Felis manul* (NT) occur around the lake. Fish are abundant at the site, and include the nationally threatened Taimen *Hucho taimen* and Mongolian Grayling *Thymallus revirostris*.

Photo: Hitoshi Iriyama / Ogiinuur Ecosystem conservation project, JICA

IBA CODE: MN043 IBA NAME: DASHINCHILEN BAYAN LAKE

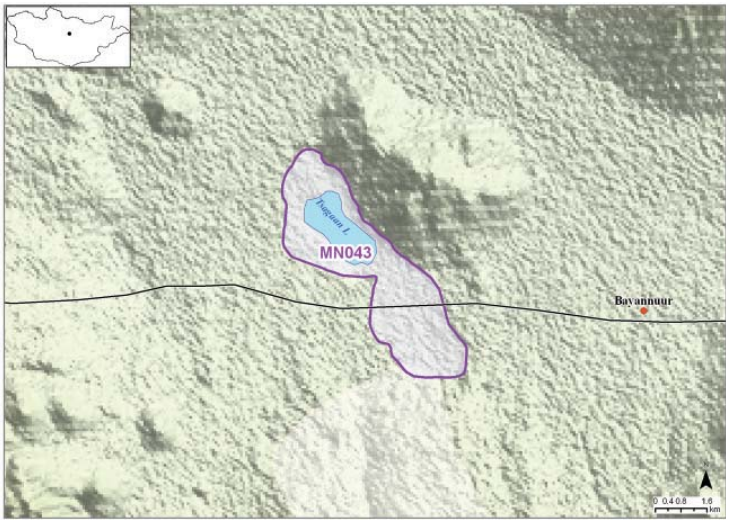
Aimag(s): Bulgan **Criteria:** A1, A4i **Area:** 1,598 ha
Coordinates: 47°51′N 104°03′E **Altitude:** 1,088-1,164 m

Protection status

Unprotected

Site description

Dashinchilen Bayan Lake is a small saline steppe lake surrounded by extensive steppe grassland. The southeastern side of the lake is marshy with reeds and tall grasses. After heavy rain, the whole valley becomes flooded. The main land use is livestock grazing. A highway passes just south of the lake. A small freshwater lake to the south-east is used by local people and livestock. The water level in Dashinchilen Bayan Lake has decreased significantly because of drought. Overgrazing is a serious threat to surrounding steppe habitats.



Importance for birds

The site is used by the following Globally Threatened species: Swan Goose *Anser cygnoides* (EN); White-naped Crane *Grus vipio* (VU); and Great Bustard *Otis tarda* (VU). The site also supports at least 1% of the flyway populations of the following congregatory waterbird species: Ruddy Shelduck *Tadorna ferruginea*; Common Goldeneye *Bucephala clangula*; Demoiselle Crane *Anthropoides virgo*; Common Crane *Grus grus*; Northern Lapwing *Vanellus vanellus*; Pied Avocet *Recurvirostra avosetta*; Pacific Golden Plover *Pluvialis fulva*; and Herring Gull *Larus argentatus.*

Importance for other fauna and flora

Nationally threatened mammalian species, such as Red Fox *Vulpes vulpes*, Corsac Fox *V. corsac*, Grey Wolf *Canis lupus* and Siberian Marmot *Marmota sibirica* (EN), can be seen around the lake.

Photo: B.Nyambayar

IBA CODE: MN044 IBA NAME: ERDENESANT MOUNTAINS

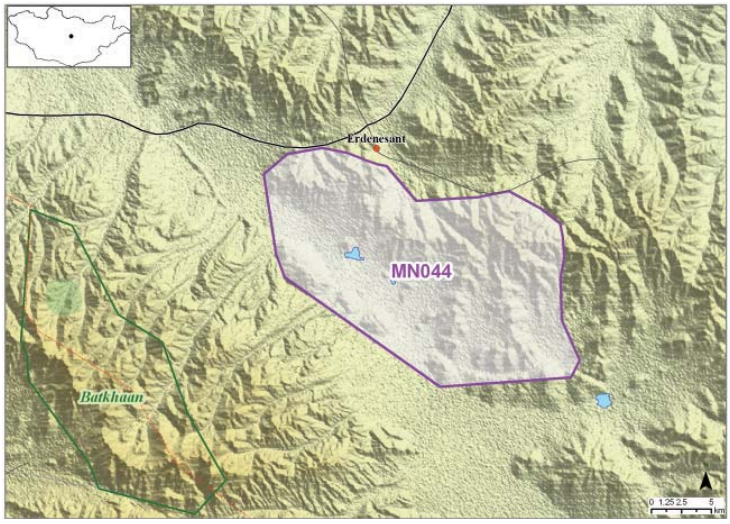
Aimag(s): Tov **Criteria:** A1, A3, A4i **Area:** 34,776 ha
Coordinates: 47°26′N 104°57′E **Altitude:** 1,000-1,748 m

Protection status

Unprotected

Site description

Erdenesant is an area of mountain steppe, rocky mountain and grassland, characterised by a chain of narrow mountain ranges. Extensive rock formations are found mostly on south-facing slopes; north-facing slopes are less steep. The adjacent areas are dominated by grassy steppe. There is a small lake on the south side of the mountains, which dries out in some years. Livestock husbandry is the main land use. Increasing livestock numbers pose a serious threat to the steppe habitat. In addition, the number of vehicles used by herders has dramatically increased in recent years, causing soil erosion. Erdenesant lies close to Batkhaan Nature Reserve, which is a regional level sacred site. There have been suggestions that Erdenesant should be included within this nature reserve.



Importance for birds

Over 110 bird species have been recorded at the site, including three Globally Threatened species: Eastern Imperial Eagle *Aquila heliaca* (VU); Saker Falcon *Falco cherrug* (EN); and Lesser Kestrel *F. naumanni* (VU). The site is particularly important for Cinereous Vulture *Aegypius monachus* (NT). Other *Red Data Book of Mongolia* species recorded at the site include Bar-headed Goose *Anser indicus*, Lammergeier *Gypaetus barbatus* and Himalayan Vulture *Gyps himalayensis*. Hundreds of Demoiselle Cranes *Anthropoides virgo* congregate before fall migration, amounting to at least 1% of the flyway population of this species. In total, 19 diurnal raptor species are found at Erdenesant, with Cinereous Vulture being the most abundant breeding species, with one of the highest nesting densities anywhere in Mongolia.

Importance for other fauna and flora

Small herds of Mongolian Gazelle *Procapra gutturosa* winter in the area. The site represents the northernmost extent of the range of Stone Marten *Martes foina* in Mongolia. Red Deer *Cervus elaphus*, Siberian Ibex *Capra sibirica* and Argali *Ovis ammon* (NT) can also be seen as they move among adjacent mountains.

Photo: B.Nyambayar

IBA CODE: MN045 IBA NAME: ULZIITIIN SANGIIN DALAI LAKE

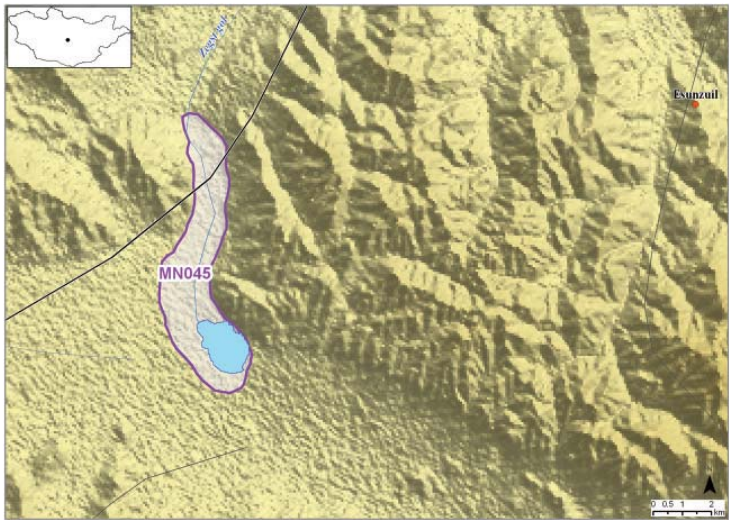
Aimag(s): Ovorkhangai **Criteria:** A1, A3, A4i **Area:** 1,491 ha
Coordinates: 46°42′N 103°17′E **Altitude:** 1,704-1,863 m

Protection status

Unprotected

Site description

Sangiin Dalai Lake is located in north of Ulziit soum. It is surrounded by arid steppe. In wet years, a small river, the Zegst, runs out of the lake to the northwest. In drier years, the river valley supports wet meadow habitat. The lake shore and surrounding area is barren, with sparse vegetation. The wet meadows, however, are excellent habitat for breeding and summering birds.



Importance for birds

Two Globally Threatened species, Swan Goose *Anser cygnoides* (EN) and Great Bustard *Otis tarda* (VU), regularly occur at the site. The site also supports an assemblage of species restricted to the Eurasian steppe and desert biome. Furthermore, the site supports at least 1% of the flyway populations of Common Shelduck *Tadorna tadorna*, Demoiselle Crane *Anthropoides virgo* and Northern Lapwing *Vanellus vanellus.*

Importance for other fauna and flora

No information is available on the importance of the site for other fauna and flora.

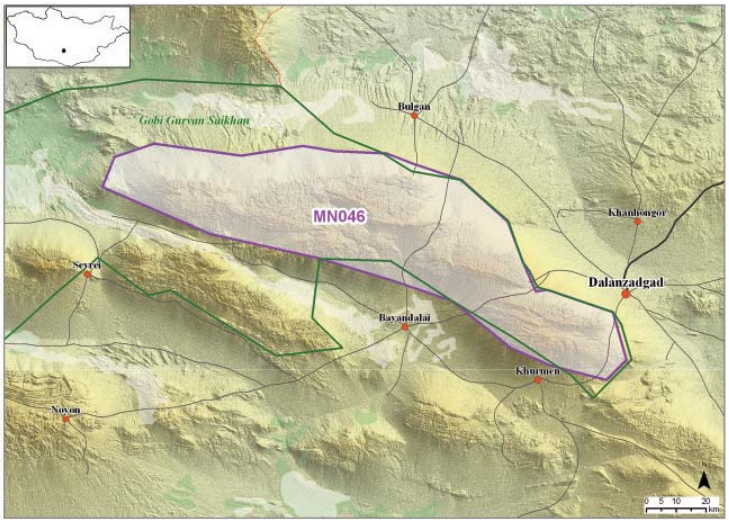
Photo: B.Nyambayar

IBA CODE: MN046 IBA NAME: GOBI GURVAN SAIKHAN MOUNTAIN

Aimag(s): Omnogobi **Criteria:** A1, A2, A3 **Area:** 544,794 ha
Coordinates: 43°45′N 102°55′E **Altitude:** 1,000-2,835 m

Protection status

Fully protected by Gobi Gurvan Saikhan National Park



Site description

The site is composed of mountainous areas in the eastern part of Gobi Gurvan Saikhan National Park. The national park is an area of natural beauty and an invaluable natural and cultural resource. The site is characterized as a high upland (around 1,000 m in elevation) with dry stream beds, punctuated by mountain ranges rising to 2,835 m, mountain massifs, hummocks and rocky outcrops. The site plays an important role in protecting the biodiversity of the region. Currently, the national park is used by over 1,000 herding households and 200,000 to 300,000 head of livestock. Controlling livestock grazing is difficult because of political and social constraints, but the park administration has started adopting a participatory approach towards management planning with local herders. Apart from a few tourist camps and one small natural history museum, there are no permanent structures within the park. Illegal and unregulated mining, livestock grazing and uncontrolled tourism are potential threats to the site.

Importance for birds

Globally Threatened bird species found at the site comprise Saker Falcon *Falco cherrug* (EN), Lesser Kestrel *F. naumanni* (VU) and White-throated Bushchat *Saxicola insignis* (VU). The Near Threatened Cinereous Vulture *Aegypius monachus* also occurs. Nationally threatened species found at the site include Lammergeier *Gypaetus barbatus* and Mongolian Accentor *Prunella koslowi*, a restricted-range species. The site also supports species restricted to the Eurasian high montane (alpine and Tibetan) biome, such as Altai Snowcock *Tetraogallus altaicus*.

Importance for other fauna and flora

Several mammal species of conservation concern survive at the site, including Siberian Ibex *Capra sibirica*, Snow Leopard *Uncia uncia* (EN), Argali *Ovis ammon* (NT), Eurasian Lynx *Lynx lynx*, Pallas's Cat *Felis manul* (NT) and Stone Marten *Martes foina*.

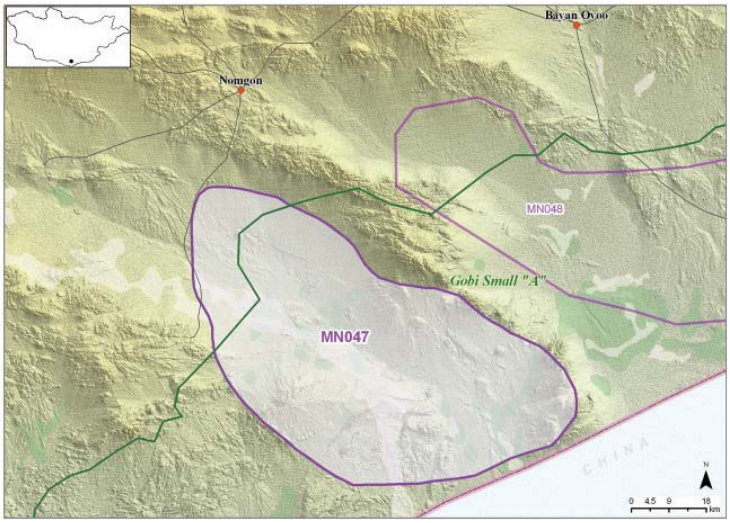
Photo: B.Nyambayar

IBA CODE: MN047 IBA NAME: BORZON GOBI

Aimag(s): Omnogobi **Criteria:** A1, A3 **Area:** 399,467 ha
Coordinates: 42°20′N 105°30′E **Altitude:** 1,000-1,200 m

Protection status

Partially protected by Small Gobi Strictly Protected Area (Part A)



Site description

The Borzon Gobi is a fine example of a desert landscape. The site is characterized by semi-desert steppe, valleys and plains with rolling hills, sand dunes, and dry river beds with elm and saxaul trees. Some rocky hills and oases are found in the area. Rocky hills and elms along the dry river beds provide good nesting habitats for large raptors and other birds, while the oases are important for thousands of migratory waterbirds, as well as other wildlife. Illegal hunting of ungulates and unsustainable cutting of saxaul trees for firewood are the main threats to biodiversity at the site.

Importance for birds

Globally Threatened birds found at the site include Saker Falcon *Falco cherrug* (EN), Lesser Kestrel *F. naumanni* (VU) and Houbara Bustard *Chlamydotis undulata* (VU). The site also supports an assemblage of species restricted to the Eurasian steppe and desert biome, including Mongolian Ground Jay *Podoces hendersoni* and Saxaul Sparrow *Passer ammodendri*.

Importance for other fauna and flora

There are many rare and threatened wildlife species at the site, such as Asiatic Wild Ass *Equus hemionus* (EN), Goitered Gazelle *Gazella subgutturosa* (VU), Mongolian Gazelle *Procapra gutturosa*, Argali *Ovis ammon* (NT), Siberian Ibex *Capra sibirica*, Daurian Hedgehog *Mesechinus dauuricus* and Long-eared Jerboa *Euchoreutes naso*.

Photo: N.Batsaikhan

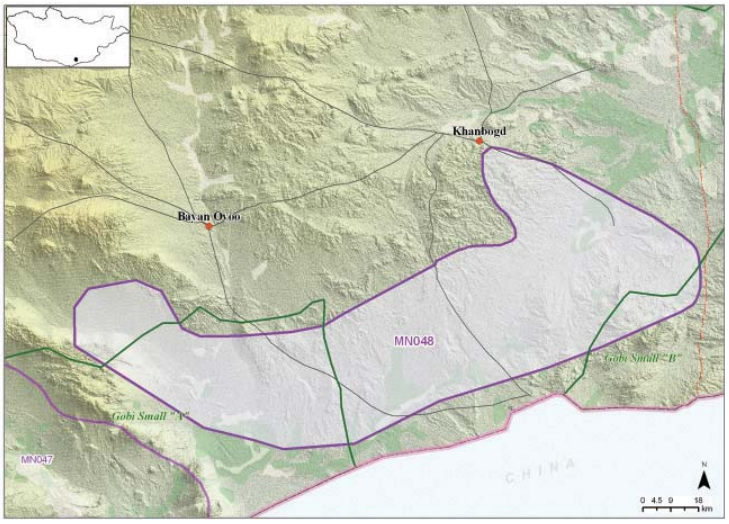
IBA CODE: MN048 IBA NAME: GALBA GOBI

Aimag(s): Omnogobi **Criteria:** A1, A3 **Area:** 828,328 ha
Coordinates: 43°05′N 107°40′E **Altitude:** 800-1,000 m

Protection status

Partially protected by Small Gobi Strictly Protected Area (Parts A and B)

Site description



This site is similar to Borzon Gobi (MN047). The site is characterized by a 100 km-long desert valley, with rolling hills, sand dunes and dry river beds with elm and saxaul trees. Some rocky hills and oases are found in the area. Poaching of Asiatic Wild Ass *Equus hemionus* and other wildlife species is on the increase. The grazing areas of livestock and Asiatic Wild Ass overlap, resulting in competition for food and water. The site is bisected by an existing road linking mines in Omnogobi aimag with the Chinese border. Future development of these mines could lead to the upgrading of this transport corridor, with potentially severe impacts on biodiversity, such as increased hunting and creation of physical barriers to animal movements.

Importance for birds

Globally Threatened species found at the site include Saker Falcon *Falco cherrug* (EN), Lesser Kestrel *F. naumanni* (VU) and Houbara Bustard *Chlamydotis undulata* (VU). In addition to these species, Cinereous Vulture *Aegypius monachus* (NT), Short-toed Eagle *Circaetus gallicus*, Booted Eagle *Hieraaetus pennatus* and Amur Falcon *Falco amurensis* breed at the site. The site also supports species typical of the Eurasian steppe and desert biome, such as Mongolian Ground Jay *Podoces hendersoni*, Saxaul Sparrow *Passer ammodendri* and Pallas's Sandgrouse *Syrrhaptes paradoxus*.

Importance for other fauna and flora

Several globally and nationally threatened species occur at the site, including Asiatic Wild Ass (EN), Goitered Gazelle *Gazella subgutturosa* (VU), Mongolian Gazelle *Procapra gutturosa*, Argali *Ovis ammon* (NT), Siberian Ibex *Capra sibirica* and Long-eared Jerboa *Euchoreutes naso*.

Photo: N.Batsaikhan

IBA CODE: MN049 IBA NAME: IKH GAZRIIN CHULUU

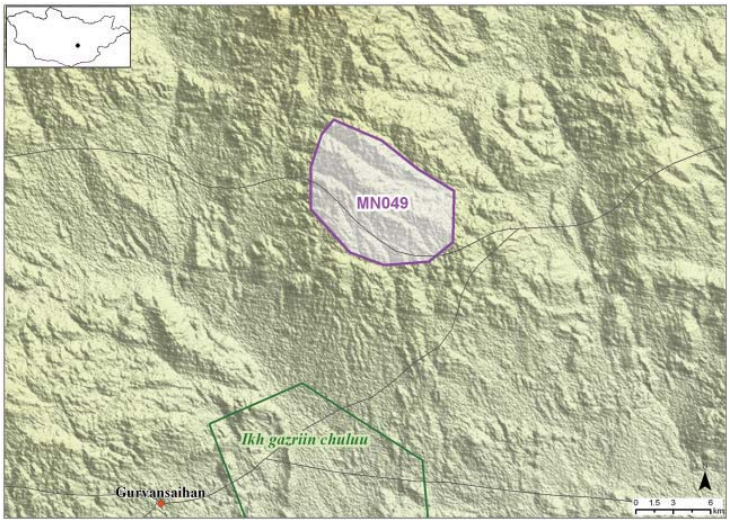
Aimag(s): Dundgobi **Criteria:** A1 **Area:** 9,300 ha
Coordinates: 45°45′N 107°15′E **Altitude:** 1,706 m

Protection status

Unprotected

Site description

The site comprises an area of rocky mountains, semi-desert and dry riverbeds with elm trees. The site is characterised by extensive granite rock formations, surrounded by steppe habitat. The site provides good stopover habitat for many nesting and migrating raptors and other birds. The main land uses are livestock husbandry and tourism. Livestock numbers around the site are increasing rapidly, and a tourist camp is being constructed.



Importance for birds

Globally Threatened species found at the site include Saker Falcon *Falco cherrug* (EN) and Lesser Kestrel *F. naumanni* (VU). Cinereous Vulture *Aegypius monachus* (NT) also occurs.

Importance for other fauna and flora

Globally and nationally rare and threatened wildlife species found at the site include Siberian Ibex *Capra sibirica*, Argali *Ovis ammon* (NT), Mongolian Gazelle *Procapra gutturosa* and Siberian Marmot *Marmota sibirica* (EN).

Photo: Sch.Boldbaatar

IBA CODE: MN050 IBA NAME: IKH NARTIIN CHULUU NATURE RESERVE

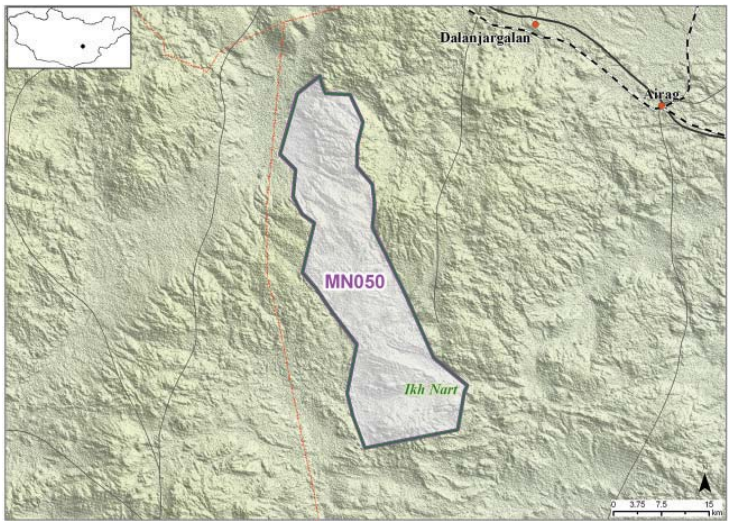
Aimag(s): Dornogobi **Criteria:** A1, A3 **Area:** 66,601 m
Coordinates: 45°43′N 108°38′E **Altitude:** 800-1,000 m

Protection status

Fully protected by Ikh Nartiin Chuluu Nature Reserve

Site description

Ikh Nartiin Chuluu is located 300 km southeast of Ulaanbaatar in Dalanjargalan and Airag soums, Dornogobi aimag. The site is an 'island' of rocky terrain and canyons, rising up from the surrounding desert steppe. Willow and elm trees grow among the rocks and ravines. Freshwater springs supply the Ikh Nart valley, where there are many streams and ponds. Khalzan, a historical spar, is located in the northwest of the site. This area is an important winter shelter for local people and their livestock. There are many abandoned mines at the site, which, in the absence of rehabilitation activities, have contributed to soil erosion. Disturbance, poaching and pollution from artisanal mining are the main threats to biodiversity at the site. Livestock and human waste are polluting the freshwater springs, while illegal hunting and domestic dogs are threatening the populations of wild ungulates.



Importance for birds

The site supports one Globally Threatened bird species, Lesser Kestrel *Falco naumanni* (VU), as well as the Near Threatened Cinereous Vulture *Aegypius monachus* (NT). The site also supports an assemblage of species restricted to the Eurasian steppe and desert biome.

Importance for other fauna and flora

Several Globally Threatened mammals occur at the site, including Argali *Ovis ammon* (NT), Siberian Ibex *Capra sibirica*, Goitered Gazelle *Gazella subgutturosa* (VU), Mongolian Gazelle *Procapra gutturosa* and Asiatic Wild Ass *Equus hemionus* (EN). In winter, hundreds of Mongolian Gazelle remain in the area.

Photo: Richard Reading

IBA CODE: MN051 IBA NAME: EEJ KHAD

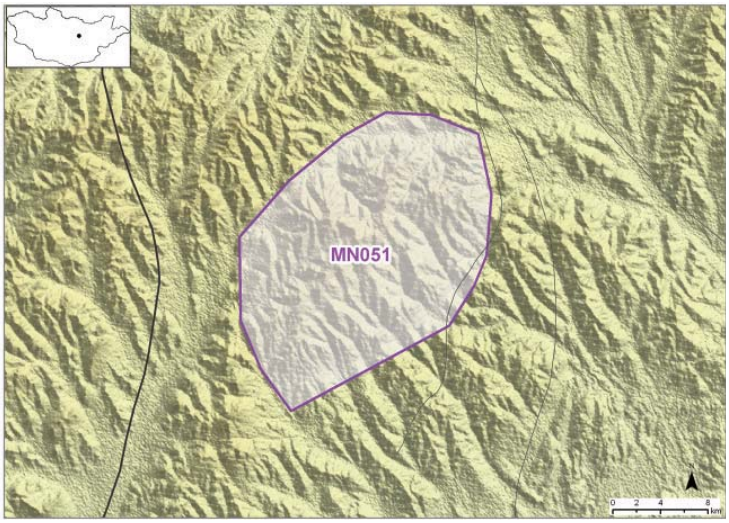
Aimag(s): Tov **Criteria:** A1 **Area:** 36,867 ha
Coordinates: 47°19′N 106°53′E **Altitude:** 1,400-1,885 m

Protection status

Unprotected

Site description

The site comprises an area of mountain steppe with rolling hills. Rocky outcrops, located on hill tops, provide suitable nesting habitats for various birds of prey. The IBA contains a sacred site, known as Eej Khad or 'Mother Rock'. Mongolians visit this rock to make offerings and seek solace and advice. Pilgrims ask for three wishes to be granted, circle the rock three times and make three separate visits. There are several other places within the IBA that are thought to generate good luck, including 'Dog Rock', which Mongolians rub their body against to cure ailments, and 'Rich Rock', which locals touch their wallet against to ensure financial security. According to local tradition the earth around the Mother Rock is sacred, so any rubbish that is dropped cannot be picked up. Because of this tradition the area is now extremely dirty with rubbish and broken bottles laying everywhere. Although the main wildlife habitat is away from the Mother Rock area, the increasing number of visitors has a negative impact on wildlife. For instance, nesting attempts by raptors often fail due to disturbance.



Importance for birds

Two Globally Threatened bird species use the site: Saker Falcon *Falco cherrug* (EN); and Lesser Kestrel *F. naumanni* (VU). Other raptor species found at the site include Upland Buzzard *Buteo hemilasius*, Golden Eagle *Aquila chrysaetos* and Steppe Eagle *A. nipalensis*.

Importance for other fauna and flora

Rare mammals include Argali *Ovis ammon* (NT) and Daurian Hedgehog *Mesechinus dauuricus*. Small herds of up to 200 Mongolian Gazelles *Procapra gutturosa* can be seen year around. Common mammals include Brandt's Vole *Lasiopodomys brandtii*, Grey Wolf *Canis lupus*, Red Fox *Vulpes vulpes* and Corsac Fox *V. corsac*.

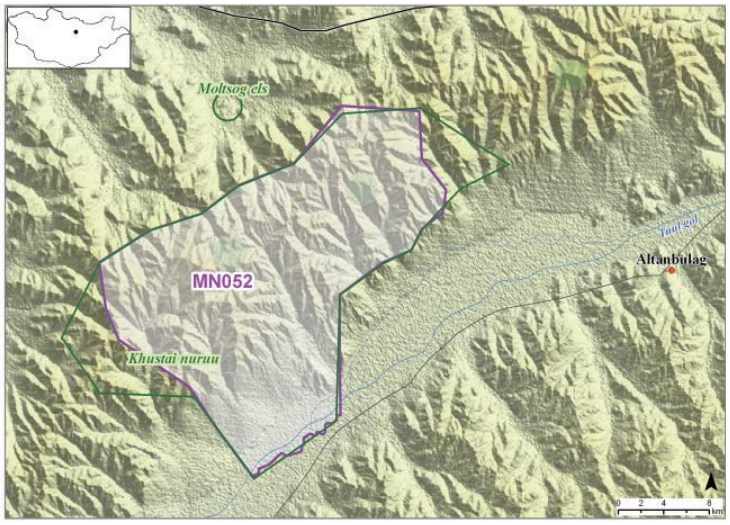
Photo: Gabor Papp

IBA CODE: MN052 IBA NAME: KHUSTAIN NURUU NATIONAL PARK

Aimag(s): Tov **Criteria:** A1, A3 **Area:** 49,932 ha
Coordinates: 47°42′N 105°52′E **Altitude:** 1,100-1,842 m

Protection status

Fully protected by Khustain Nuruu National Park



Site description

The site comprises an area of mountain forest steppe, grassland steppe and river valley, located in a southwestern extension of the Khentii Mountains. The central part of the site is mountainous with steep south-facing slopes and shallow north-facing slopes. The Tuul River runs to the south of the mountains, separated from them by areas of steppe and mountain steppe. There are also isolated forests of birch and aspen, mainly in the centre of the site. In 1993, the site was designated as a national park for the reintroduction of Przewalski's Wild Horse *Equus przewalskii*, which was once extinct in the wild. The site is a popular destination for domestic and foreign tourists due to the successful reintroduction project. The site was also designated as a biosphere reserve core area in 2003. Poaching for Siberian Marmot *Marmota sibirica* and Red Deer *Cervus elaphus* is the main threat to wildlife populations. Otherwise, the site is one of the best protected national parks in Mongolia.

Importance for birds

The area is important for a variety of bird species during the breeding season and on migration, due to the diversity of habitats in a relatively small area. To date, a total of 169 bird species have been recorded. Globally Threatened species occurring at the site include Saker Falcon *Falco cherrug* (EN), Lesser Kestrel *F. naumanni* (VU) and Great Bustard *Otis tarda* (VU). Cinereous Vulture *Aegypius monachus* (NT) also occurs. The site also supports an assemblage of species restricted to the Eurasian steppe and desert biome.

Importance for other fauna and flora

To date, two amphibian, three reptile, 44 mammal and 16 fish species have been recorded at the site. Globally Threatened mammal species found at the site include Przewalski's Wild Horse (CR) and Siberian Marmot (EN). Other species listed in the *Red Data Book of Mongolia* include Red Deer, Eurasian Lynx *Lynx lynx* and Wild Boar *Sus scrofa*.

Photo: B.Nyambayar

IBA CODE: MN053 IBA NAME: SELENGIIN TSAGAAN LAKE

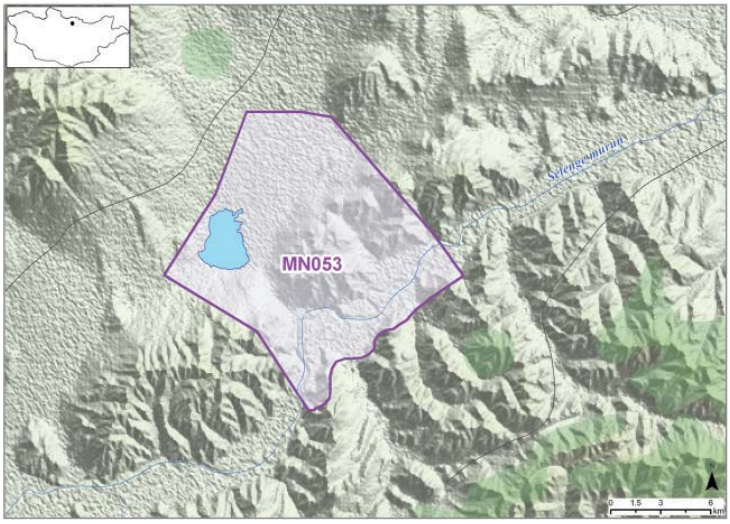
Aimag(s): Selenge **Criteria:** A1, A4i **Area:** 17,143 ha
Coordinates: 49°57′N 105°21′E **Altitude:** 662-1,077 m

Protection status

Unprotected

Site description

The site comprises a saltwater lake, located in the north of the Selenge River valley. There are extensive agricultural fields to the west and southwest of the lake, while, on the other side of the lake, there is a large wetland area with grassy meadows. Reed grows in some locations. In wet years, floodwater from the Selenge River enters the lake and the water level rises.



Importance for birds

Many waterbirds, mostly ducks, use the site as a breeding, moulting and stopover site during migration. In addition, the agricultural fields provide feeding habitats for birds on migration. Globally Threatened species found at the site comprise Swan Goose *Anser cygnoides* (EN) and Great Bustard *Otis tarda* (VU). Congregatory waterbirds that regularly occur in numbers exceeding 1% of their flyway populations include Mallard *Anas platyrhynchos*, Northern Shoveler *A. clypeata*, Green-winged Teal *A. crecca*, Gadwall *A. strepera*, Bean Goose *Anser fabalis*, Greylag Goose *A. anser* and Ruddy Shelduck *Tadorna ferruginea.* In addition, thousands of Demoiselle Cranes *Anthropoides virgo* congregate near the site during their autumn migration.

Importance for other fauna and flora

Mammal species found around the lake include Red Fox *Vulpes vulpes*, Corsac Fox *V. corsac*, Grey Wolf *Canis lupus* and Siberian Marmot *Marmota sibirica* (EN).

Photo: Gabor Papp

IBA CODE: MN054 IBA NAME: DELTA OF ORKHON AND SELENGE RIVERS

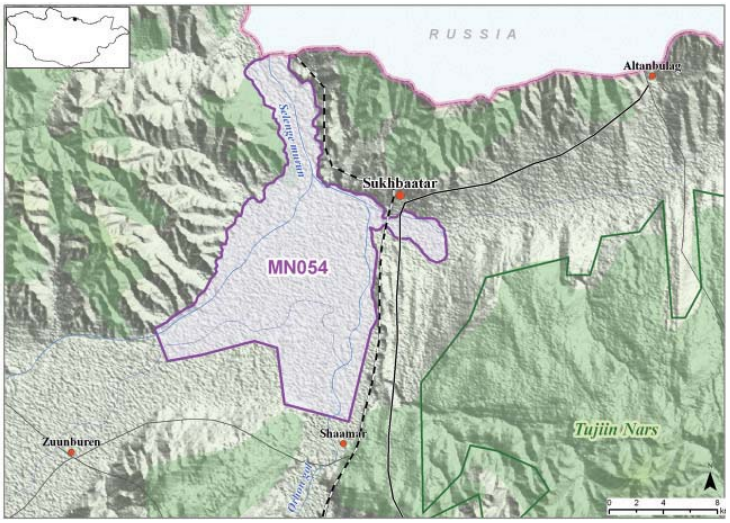
Aimag(s): Selenge **Criteria:** A1, A4i **Area:** 21,405 ha
Coordinates: 50°12′N 106°08′E **Altitude:** 594-894 m

Protection status

Unprotected

Site description

The delta of the Orkhon and Selenge Rivers is formed at the junction of the two largest rivers in Mongolia. The surrounding areas support wet grassland, steppe and mountain steppe. The Orkhon-Selenge region is the most important agricultural zone in Mongolia, and there is a lot of cultivation and human settlements along the river valleys. The most serious threat to biodiversity at the site is the discharge of waste, including heavy metals from nearby gold mines. A further concern is human settlement on islands in the rivers. Many fallow fields have been abandoned, which is resulting in the loss of top soil.



Importance for birds

The site supports the following Globally Threatened bird species: Swan Goose *Anser cygnoides* (EN); Baikal Teal *Anas formosa* (VU); Lesser Kestrel *Falco naumanni* (VU); and Great Bustard *Otis tarda* (VU). The site also supports at least 1% of the flyway populations of the following congregatory waterbirds: Bean Goose *Anser fabalis*; Greylag Goose *A. anser*; Ruddy Shelduck *Tadorna ferruginea*; and Demoiselle Crane *Anthropoides virgo*.

Importance for other fauna and flora

Nationally threatened mammal species, including Red Fox *Vulpes vulpes*, Corsac Fox *V. corsac*, Grey Wolf *Canis lupus* and Siberian Marmot *Marmota sibirica* (EN), are commonly seen at this site. Furthermore, nationally threatened fish species, such as Mongolian Grayling *Thymallus revirostris*, Lenok *Brachymystax lenok* and Taimen *Hucho taimen*, occur in the rivers.

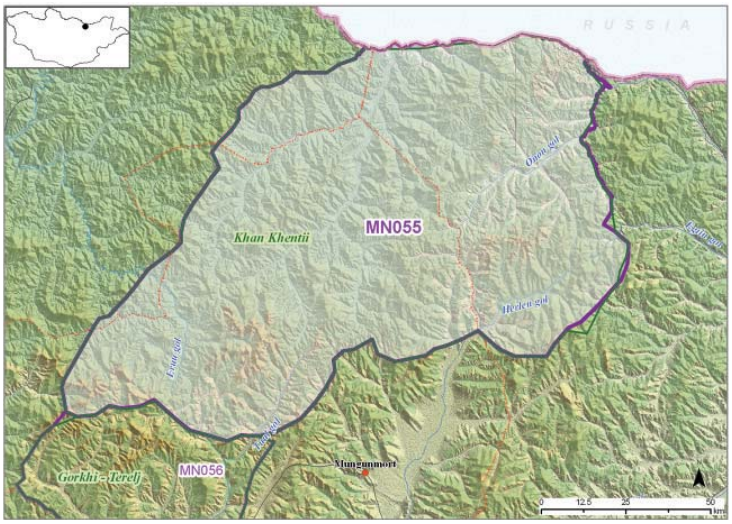
Photo: N.Tseveenmyadag

IBA CODE: MN055 IBA NAME: KHAN-KHENTII STRICTLY PROTECTED AREA

Aimag(s): Khentii, Selenge, Tov **Criteria:** A1, A3 **Area:** 1,234,755 ha
Coordinates: 48°48′N 108°10′E **Altitude:** 969-2,799 m

Protection status

Fully protected by Khan Khentii Strictly Protected Area



Site description

This site, which is contiguous with Gorkhi-Terelj National Park (MN056), is an area of great natural beauty lying between the Daurian steppes and the Siberian taiga. Altitudinal variation at the site is significant, leading to the development of different habitats, including boreal forest (taiga), forest-steppe, steppe and tundra (on mountain peaks). The area is rich in rivers and streams, including tributaries of the Onon, Kherlen and Tuul Rivers. Many fine riparian forests are distributed along rivers, while deciduous and coniferous forests occupy large areas at high elevations. Over 30% of Mongolia's forest resources are found in the Khentii Mountains. The site has been held in high esteem by Mongolians for centuries. A state ceremony is held every year for Burkhan Khaldun Mountain, which has been a sacred site since the time of Chinggis Khan. Pine nut collection has become a major threat to biodiversity, because thousands of nut collectors damage large number of trees every year and are presumed to be the cause of forest fires. Every year, forest fires destroy many hectares of forest. Poaching for animals, including globally and nationally threatened species, is widespread. The impacts of mining and timber extraction are also of major concern.

Importance for birds

The avifauna of the site is very species rich, due to its large area and the diversity of habitats present. Globally Threatened species include Greater Spotted Eagle *Aquila clanga* (VU), Eastern Imperial Eagle *A. heliaca* (VU), Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU), Saker Falcon *Falco cherrug* (EN), Lesser Kestrel *F. naumanni* (VU), White-naped Crane *Grus vipio* (VU) and Yellow-breasted Bunting *Emberiza aureola* (VU). Cinereous Vulture *Aegypius monachus* (NT) also occurs. The site supports an assemblage of species restricted to the boreal forest (taiga) biome, including Black-billed Capercaillie *Tetrao parvirostris*, Ural Owl *Strix uralensis*, Northern Hawk Owl *Surnia ulula*, Eurasian Pygmy-owl *Glaucidium passerinum* and Rufous-tailed Robin *Luscinia sibilans*.

Importance for other fauna and flora

Over 50 species of mammal, five reptiles, four amphibians and 30 fish have been recorded at the site, together with more than 200 insect species. The mammal list for the site includes Siberian Musk Deer *Moschus moschiferus* (VU), Wolverine *Gulo gulo* (NT), Eurasian Lynx *Lynx lynx*, Pallas's Cat *Felis manul* (NT) and Eurasian Otter *Lutra lutra* (NT). The site also supports a number of species listed in the *Red Data Book of Mongolia*, such as European Elk *Alces alces*, Red Deer *Cervus elaphus*, Brown Bear *Ursus arctos* and Taimen *Hucho taimen*.

Photo: B.Nyambayar

IBA CODE: MN056 IBA NAME: GORKHI-TERELJ NATIONAL PARK

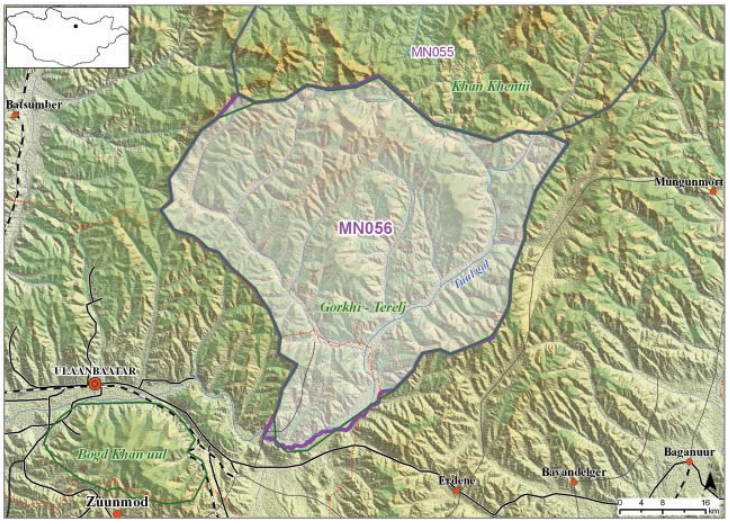
Aimag(s): Tov **Criteria:** A1, A3 **Area:** 293,937 ha
Coordinates: 47°57′N 107°25′E **Altitude:** 1,300-2,664 m

Protection status

Fully protected by Gorkhi-Terelj National Park

Site description

This site is contiguous with Khan-Khentii Strictly Protected Area (MN055), and the two sites are similar. Gorkhi-Terelj National Park supports large areas of forest steppe and mountain steppe, with alpine habitats on higher peaks. The site is located close to Ulaanbaatar, so many tourists visit tour camps, and urban-dwellers organise day trips during weekends. Threats to biodiversity include poaching, forest fires, pollution and disturbance to wildlife and its habitats from uncontrolled tourism. Many permanent structures and tour camps have been built within the national park, which are contributing to overgrazing and land degradation at the site.



Importance for birds

Globally Threatened species found at the site include Saker Falcon *Falco cherrug* (EN), Lesser Kestrel *F. naumanni* (VU) and Yellow-breasted Bunting *Emberiza aureola* (VU). Cinereous Vulture *Aegypius monachus* (NT) also occurs. The site supports an assemblage of species restricted to the boreal forest (taiga) biome, including Black-billed Capercaillie *Tetrao parvirostris*, Ural Owl *Strix uralensis*, Northern Hawk Owl *Surnia ulula*, Eurasian Pygmy-owl *Glaucidium passerinum* and Rufous-tailed Robin *Luscinia sibilans.*

Importance for other fauna and flora

Over 50 species of mammal, five reptiles, four amphibians and 30 fish have been recorded at the site, as well as more than 200 species of insect. Rare and threatened species found at the site include Siberian Musk Deer *Moschus moschiferus* (VU), European Elk *Alces alces*, Red Deer *Cervus elaphus*, Brown Bear *Ursus arctos*, Wolverine *Gulo gulo* (NT), Eurasian Lynx *Lynx lynx*, Pallas's Cat *Felis manul* (NT), Eurasian Otter *Lutra lutra* (NT) and Taimen *Hucho taimen*.

Photo: B.Nyambayar

IBA CODE: MN057 IBA NAME: MAIKHANT MOUNTAIN

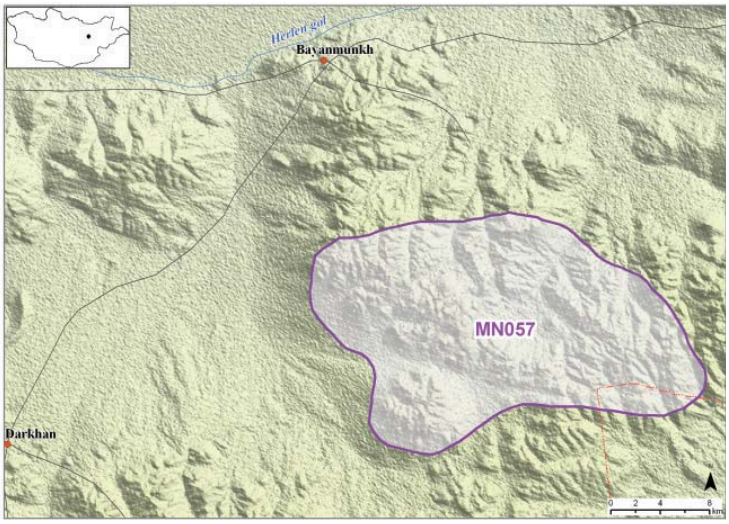
Aimag(s): Dornogobi, Khentii **Criteria:** A1 **Area:** 42,015 ha
Coordinates: 46°40′N 109°55′E **Altitude:** 1,200-1,527 m

Protection status

Unprotected

Site description

The site is composed of mountain steppe, rocky hills, river valleys and grassland steppe. It provides important breeding and roosting habitats for many species during breeding and migration. Livestock husbandry is the main land use.



Importance for birds

The site supports several Globally Threatened species, including Saker Falcon *Falco cherrug* (EN), Lesser Kestrel *F. naumanni* (VU), White-naped Crane *Grus vipio* (VU) and Swan Goose *Anser cygnoides* (EN). In addition, Cinereous Vulture *Aegypius monachus* (NT), Lammergeier *Gypaetus barbatus*, Demoiselle Crane *Anthropoides virgo*, Steppe Eagle *Aquila nipalensis* and Upland Buzzard *Buteo hemilasius* regularly nest at the site.

Importance for other fauna and flora

Mammals that occur at the site include Argali *Ovis ammon* (NT), Red Deer *Cervus elaphus*, Grey Wolf *Canis lupus*, Siberian Marmot *Marmota sibirica* (EN), Red Fox *Vulpes vulpes*, Corsac Fox *V. corsac*, Pallas's Cat *Felis manul* (NT), Asian Badger *Meles leucurus*, Least Weasel *Mustela nivalis* and Daurian Ground Squirrel *Spermophilus dauricus.*

Photo: Gabor Papp

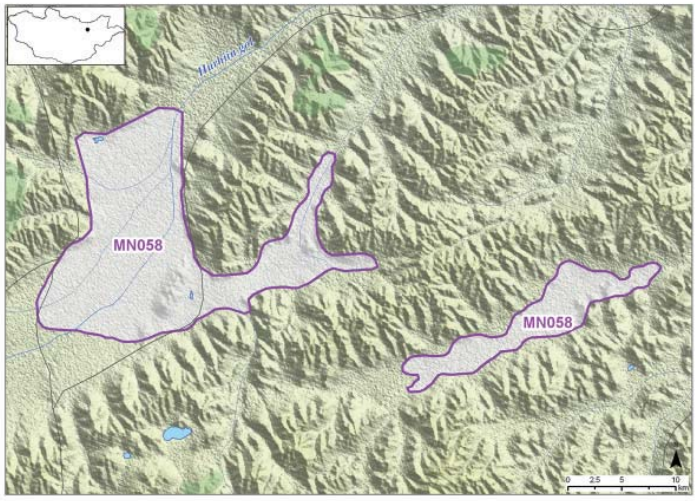
IBA CODE: MN058 IBA NAME: VALLEY OF KHURKH-KHUITEN RIVERS

Aimag(s): Khentii **Criteria:** A1, A4i **Area:** 35,722 ha
Coordinates: 48°19′N 110°22′E **Altitude:** 1,074-1,361 m

Protection status

Unprotected

Site description



This site, which was nominated as a Ramsar Site in 2004, is located on the boundaries of Batshireet, Binder, Bayan-Adraga and Umnu-Delger soums of Khentii aimag. The site contains many small lakes important for birds, which concentrated in two river valleys. For this reason, the site is divided into "A" and "B" sectors. Sector "A" includes lakes in the Khurkh River valley, such as Binder, Duut, Khulst, Bayan and Bayan Burd, while Sector "B" includes lakes along the Khuiten River, such as Ikh Burd, Ulaan Toirom, Khulst, Tsagaan, Ulaan-Undur and Khuh. There are reed beds and willow groves in both sectors. The site is principally used for livestock grazing and hay making, with many small-scale farms growing wheat, barley and oats. The site also has potential for ecotourism development. Pressures on the site include unmanaged burning and expansion of agricultural areas, leading to soil erosion and degradation. These impacts are being compounded by the fact that the area is becoming drier, leading to changes in the vegetation.

Importance for birds

Globally Threatened species occurring at the site comprise Swan Goose *Anser cygnoides* (EN), Lesser White-fronted Goose *A. erythropus* (VU), Eastern Imperial Eagle *Aquila heliaca* (VU), Siberian Crane *Grus leucogeranus* (CR), White-naped Crane *G. vipio* (VU), Hooded Crane *G. monacha* (VU), Red-crowned Crane *G. japonensis* (EN), Saker Falcon *Falco cherrug* (EN) and Great Bustard *Otis tarda* (VU). The site also supports at least 1% of the flyway populations of Great Crested Grebe *Podiceps cristatus*, Swan Goose *Anser cygnoides*, Bean Goose *A. fabalis*, Ruddy Shelduck *Tadorna ferruginea*, White-naped Crane *Grus vipio*, Demoiselle Crane *Anthropoides virgo*, Common Crane *Grus grus*, Northern Lapwing *Vanellus vanellus*, Black Stork *Ciconia nigra* and Whooper Swan *Cygnus cygnus*.

Importance for other fauna and flora

Mammal species seen commonly at the site include Red Fox *Vulpes vulpes*, Corsac Fox *V. corsac*, Grey Wolf *Canis lupus*, Siberian Marmot *Marmota sibirica* (EN) and Daurian Hedgehog *Mesechinus dauuricus*.

Photo: N.Tseveenmyadag

IBA CODE: MN059 IBA NAME: VALLEY OF ONON-BALJ RIVERS

Aimag(s): Dornod, Khentii **Criteria:** A1, A3, A4i **Area:** 104,841 ha
Coordinates: 49°07′N 111°08′E **Altitude:** 860-1,385 m

Protection status

Partially protected by Onon-Balj National Park (Parts A and B)

Site description

The site comprises the valley of the Onon and Balj Rivers in Dadal soum, Khentii aimag. It includes the confluence of the Balj and Galttai Rivers, Ikh Tsagaan and Baga Tsagaan Lake, and the area around Khurkheree Lake, the Onon and Agats Rivers and their confluence. The site supports diverse vegetation types, including steppe, willow groves and numerous small-sized rivers, streams, lakes and ponds. There is no agriculture and the area is used only for livestock pasture and hay making. At present, livestock grazing takes place at a comparatively low level. Tourism is starting to develop rapidly, however. The most serious problem at the site is forest and steppe fires, which often occur in spring when birds are nesting.

Importance for birds

The following Globally Threatened species regularly occur at the site: Swan Goose *Anser cygnoides* (EN, breeding); Baikal Teal *Anas formosa* (VU, passage); Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU); Greater Spotted Eagle *Aquila clanga* (VU); Eastern Imperial Eagle *A. heliaca* (VU, breeding); Saker Falcon *Falco cherrug* (EN); Lesser Kestrel *F. naumanni* (VU, breeding); Siberian Crane *Grus leucogeranus* (CR, passage); White-naped Crane *G. vipio* (VU, breeding); Hooded Crane *G. monacha* (VU, passage); and Great Bustard *Otis tarda* (VU, breeding). The site supports an assemblage of species restricted to the Eurasian steppe and desert biome. The site also supports at least 1% of the flyway populations of the following congregatory waterbird species: Swan Goose *Anser cygnoides*; Ruddy Shelduck *Tadorna ferruginea*; Common Pochard *Aythya ferina*; Common Goldeneye *Bucephala clangula*; White-naped Crane *Grus vipio*; Demoiselle Crane *Anthropoides virgo*; and Common Crane *Grus grus.*

Importance for other fauna and flora

Mammals occurring at the site include Daurian Ground Squirrel *Spermophilus dauricus*, Grey Wolf *Canis lupus* and Raccoon Dog *Nyctereutes procyonoides*. Rare fish species found in the Onon and Balj Rivers include Eastern Brook Lamprey *Lampetra reissneri*, Amur Sturgeon *Acipenser schrenckii*, Chadary *Coregonus chadary*, Haitej Sculpin *Mesocottus haitej* and Alpine Bullhead *Cottus poecilopus*.

Photo: N.Tseveenmyadag

IBA CODE: MN060 IBA NAME: KHAR YAMAAT NATURE RESERVE

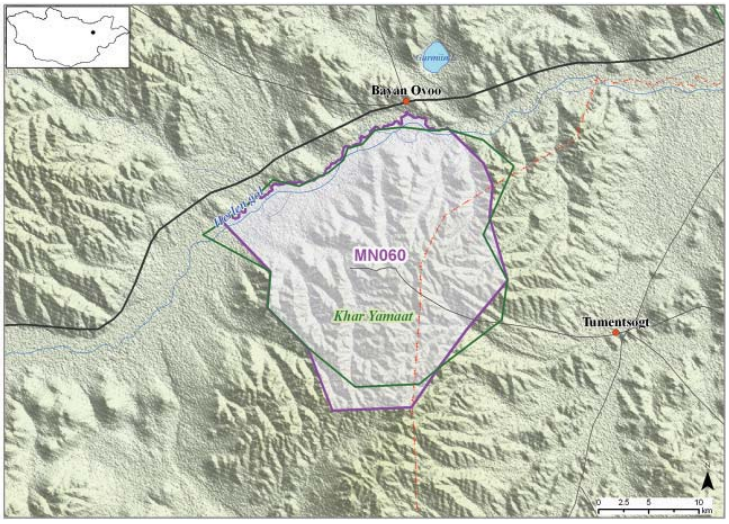
Aimag(s): Khentii, Sukhbaatar **Criteria:** A1 **Area:** 51,404 ha
Coordinates: 47°38'E 112°07'N **Altitude:** 930-1,358 m

Protection status

Fully protected by Khar Yamaat Nature Reserve

Site description

The site is composed of the Khar Yamaat, Tumentsogt, Turuu Ondor mountains, plus the valley of the Kherlen River. The main habitats present are mountain steppe, rock outcrops and cliffs, with wet meadows and other riparian habitats along the Kherlen River valley. The formation of the site and its range of biological diversity are unique in the eastern Mongolia. The mountains at the site represent the easternmost extent of the Khentii mountain range and are the highest peaks in the area.



Importance for birds

Globally Threatened and Near Threatened species that have been recorded at the site include Swan Goose *Anser cygnoides* (EN, breeding), Falcated Duck *Anas falcata* (NT), Saker Falcon *Falco cherrug* (EN, breeding), Lesser Kestrel *F. naumanni* (VU, breeding), White-naped Crane *Grus vipio* (VU, breeding), Hooded Crane *G. monacha* (VU), Great Bustard *Otis tarda* (VU), Asiatic Dowitcher *Limnodromus semipalmatus* (NT) and Bar-tailed Godwit *Limosa limosa* (NT). Black Stork *Ciconia nigra* and Whooper Swan *Cygnus cygnus* also occur. The riparian habitat is used by thousands of waterbirds during the breeding and migration seasons.

Importance for other fauna and flora

The site is a meeting point for wildlife representatives from the Manchurian, Daguur, and Central Mongolian ecoregions. Small herds of Siberian Roe Deer *Capreolus pygargus* and Red Deer *Cervus elaphus* are found at the site, and large herds of Mongolian Gazelle *Procapra gutturosa* frequent the area in winter. The site was once considered to be a suitable site for reintroducing Przewalski's Wild Horse *Equus przewalskii*. The Mongolian Academy of Sciences has been studying and monitoring the ecology of the area for more than two decades.

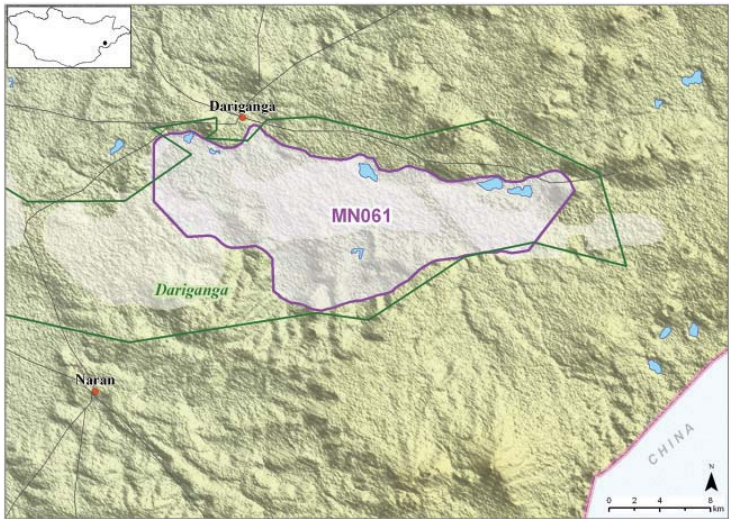
Photo: Jargalsaikhan

IBA CODE: MN061 IBA NAME: GANGA LAKE

Aimag(s): Sukhbaatar **Criteria:** A1, A3, A4i **Area:** 26,841 ha
Coordinates: 45°15′N 114°00′E **Altitude:** 1,227-1,537 m

Protection status

Fully protected by Dariganga National Park.



Site description

Ganga Lake lies on the Dariganga plateau in Dariganga soum. The area has characteristics of both Gobi and steppe ecosystems. There are a number of small lakes at the site, including Ganga, Duut, Kholboo, Zegst, Tsagaan, Erdene, Sumt and Khoshmog Lakes, as well as sand dunes, for example Moltsog, Owoon and Kholboogiin Baruun. Zegst and Duut Lakes are fed by Dagsin spring waters and surrounded by reeds. Ganga Lake's southern shore is covered by shrubs and woodland. The rest of the area supports dry steppe and desert steppe. Tourism is being developed at the site, and the use of off-road vehicles is having a negative impact on the vegetation and fragile soils. Ganga Lake and its surrounding wetlands were nominated as a Ramsar Site in 2004.

Importance for birds

Globally Threatened species that regularly use the site comprise Swan Goose *Anser cygnoides* (EN), White-naped Crane *Grus vipio* (VU) and Great Bustard *Otis tarda* (VU). The site supports an assemblage of species restricted to the Eurasian steppe and desert. The site also supports at least 1% of the flyway populations of Great Crested Grebe *Podiceps cristatus*, Whooper Swan *Cygnus cygnus*, Swan Goose *Anser cygnoides*, Ruddy Shelduck *Tadorna ferruginea*, Common Shelduck *T. tadorna* and Demoiselle Crane *Anthropoides virgo*.

Importance for other fauna and flora

The site is not thought to be particularly important for other fauna and flora.

Photo: N.Tseveenmyadag

IBA CODE: MN062 IBA NAME: SHAAZAN LAKE

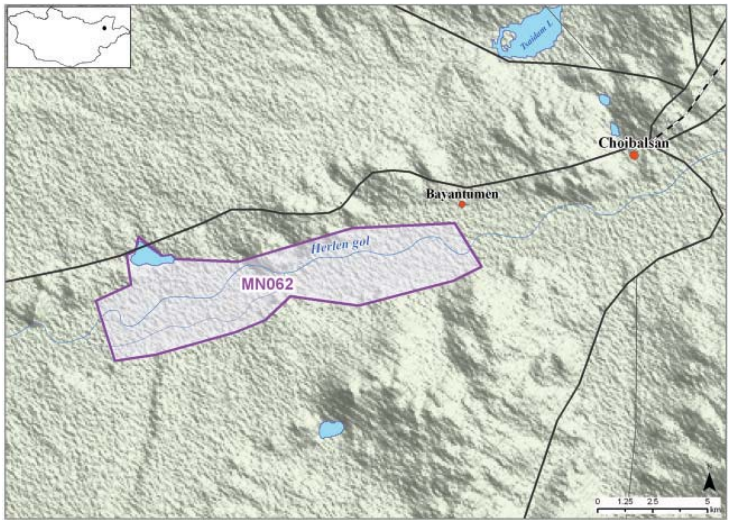
Aimag(s): Dornod **Criteria:** A1, A4i **Area:** 5,485 ha
Coordinates: 48°04′N 114°16′E **Altitude:** 800 m

Protection status

Unprotected

Site description

The site comprises a small lake, plus a section of the Kherlen River valley to the south. The surrounding area is dominated by tall grassy steppe, although water from the lake is used to irrigate wheat fields located to the north. There is a tour camp located on the eastern shore of the lake. Domestic dogs are a threat to the waterfowl using the site. Another potential source of disturbance is the main highway between Dornod and Ulaanbaatar, which runs close to the lake.



Importance for birds

Two Globally Threatened species, Swan Goose *Anser cygnoides* (EN) and White-naped Crane *Grus vipio* (VU), regularly breed at the site. Asiatic Dowitcher *Limnodromus semipalmatus* (NT) and Bar-tailed Godwit *Limosa limosa* (NT) also occur there, as do a number of species listed in the *Red Data Book of Mongolia*, such as Whooper Swan *Cygnus cygnus* and Black Stork *Ciconia nigra* occur. Thousands of Demoiselle Cranes *Anthropoides virgo* congregate near the wheat fields and along the river valley each year. Swan Geese *Anser cygnoides* nesting on the river move to Shaazan Lake with their young. Moreover, various species of ducks and geese use this site as a stopover during migration.

Importance for other fauna and flora

Siberian Marmot *Marmota sibirica* (EN) and Asian Badger *Meles leucurus* both occur at the site.

Photo: N.Tseveenmyadag

IBA CODE: MN063 IBA NAME: TSENGELEG LAKES

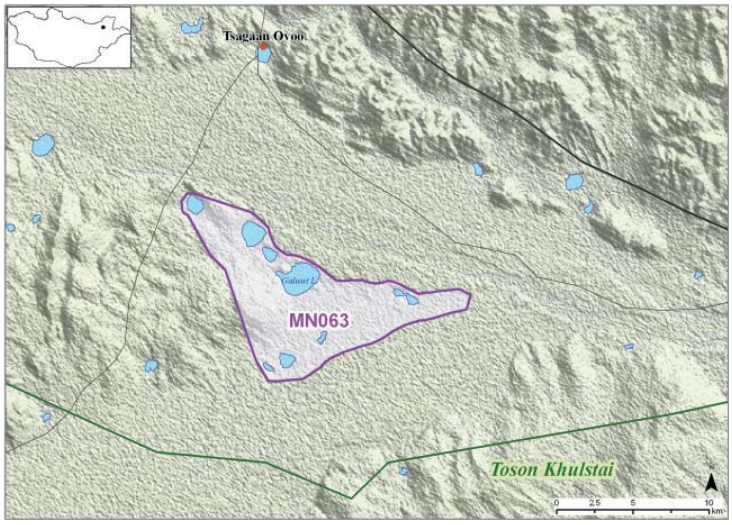
Aimag(s): Dornod **Criteria:** A1, A3, A4i **Area:** 8,877 ha
Coordinates: 48°27′N 113°28′E **Altitude:** 825-896 m

Protection status

Unprotected

Site description

The site, which is located 30 km west of Tsagaan Ovoo soum centre, includes several steppe lakes, such as Gun Tsengeleg, Gun Galuut and Erveekhei. Gun Galuut Lake is the largest and has some reed and tall grassy vegetation on its northern shores. Other lake shores are barren with sandy or fine gravel bars. The surrounding area is characterised by steppe with short grass. Only four to six households inhabit the site year round. The main land use is livestock grazing. Livestock numbers around the lakes are increasing, and this is resulting in overgrazing and land degradation. In recent years, the water level of the lakes has dropped due to drought and a warmer climate.



Importance for birds

The following Globally Threatened species occur at the site: Swan Goose *Anser cygnoides* (EN); White-naped Crane *Grus vipio* (VU); and Great Bustard *Otis tarda* (VU). The site supports an assemblage of species restricted to the Eurasian steppe and desert biome. The site also supports at least 1% of the flyway populations of Swan Goose *Anser cygnoides*, Ruddy Shelduck *Tadorna ferruginea*, Common Shelduck *T. tadorna*, Demoiselle Crane *Anthropoides virgo* and Northern Lapwing *Vanellus vanellus*

Importance for other fauna and flora

The site is not known to be important for other fauna and flora.

Photo: N.Tseveenmyadag

IBA CODE: MN064 IBA NAME: ULZ RIVER AND TURGEN TSAGAAN LAKES

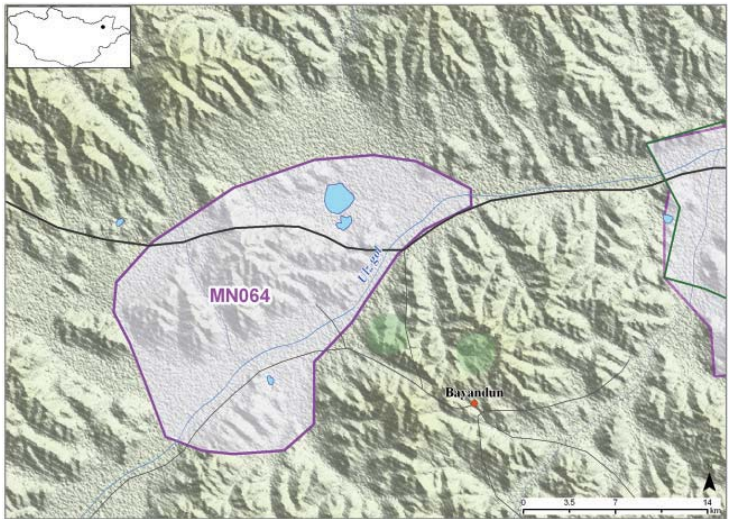
Aimag(s): Dornod **Criteria:** A1 **Area:** 35,282 ha
Coordinates: 49°23′N 113°15′E **Altitude:** 812-890 m

Protection status

Unprotected

Site description

The site is comprises an area of grassland steppe, rolling hills and several small lakes in the Ulz River valley. The site supports a number of crane species, and is an important area for their breeding and congregation before migration. Livestock husbandry is the main land use.



Importance for birds

Globally Threatened species occurring at the site comprise White-naped Crane *Grus vipio* (VU), Siberian Crane *G. leucogeranus* (CR), Hooded Crane *G. monacha* (VU) and Great Bustard *Otis tarda* (VU). Populations of some waterbirds may reach 1% of their flyway populations.

Importance for other fauna and flora

Mongolian Gazelle *Procapra gutturosa*, Siberian Marmot *Marmota sibirica* (EN), Pallas's Cat *Felis manul* (NT), Grey Wolf *Canis lupus* and Daurian Hedgehog *Mesechinus dauuricus* are all common at the site.

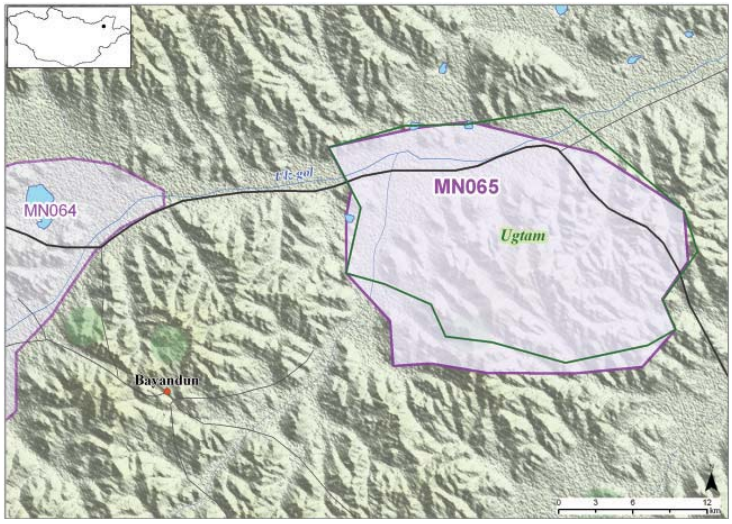
Photo: N.Tseveenmyadag

IBA CODE: MN065 IBA NAME: UGTAM MOUNTAIN NATURE RESERVE

Aimag(s): Dornod **Criteria:** A1, A4i **Area:** 46,162 ha
Coordinates: 49°17′N 113°44′E **Altitude:** 700-1,200 m

Protection status

Fully protected by Ugtam Mountain Nature Reserve



Site description

The site is composed of small lakes and a section of the Ulz River valley to the north, together with mountain steppe, forest steppe and grassland steppe to the south. Willow trees in the river valley provide good habitat for various bird species. Although Ugtam Mountain Nature Reserve is relatively well protected and threats are relatively low, there is very little active management at present. Livestock husbandry and hay making are the main land uses. There is also an active monastery on the mountain. Local residents use wood from forest for firewood and building livestock shelters. Forest fires occur frequently, and disturb the forest heavily.

Importance for birds

Over 250 bird species have been recorded at the site. Globally Threatened species include Swan Goose *Anser cygnoides* (EN), Saker Falcon *Falco cherrug* (EN), Lesser Kestrel *F. naumanni* (VU), White-naped Crane *Grus vipio* (VU), Hooded Crane *G. monacha* (VU) and Great Bustard *Otis tarda* (VU). The site also supports breeding Black Storks *Ciconia nigra*, Steppe Eagles *Aquila nipalensis* and White-tailed Eagles *Haliaeetus albicilla*. In addition, the site meets the 1% threshold for Demoiselle Crane *Anthropoides virgo*, thousands of which occur here before migration. Furthermore, the site also meets the 1% threshold for White-naped Crane.

Importance for other fauna and flora

Nationally threatened species that can be found at the site include Red Deer *Cervus elaphus*, Wild Boar *Sus scrofa*, Mongolian Gazelle *Procapra gutturosa*, Eurasian Lynx *Lynx lynx*, Pallas's Cat *Felis manul*, Raccoon Dog *Nyctereutes procyonoides* and Daurian Hedgehog *Mesechinus dauuricus*. Large herds of Mongolian Gazelle migrate through the site in autumn and spring.

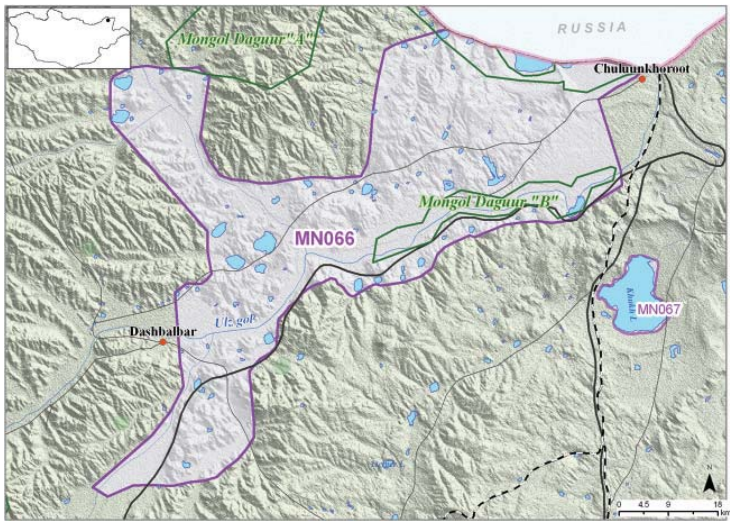
Photo:B.Nyambayar

IBA CODE: MN066 IBA NAME: MONGOL DAGUUR

Aimag(s): Dornod **Criteria:** A1, A3, A4i **Area:** 309,440 ha
Coordinates: 49°43'N 115°15'E **Altitude:** 610-821 m

Protection status

Partially protected by Mongol Daguur Strictly Protected Area (Parts A and B)



Site description

Mongol Daguur is a flat plain with rolling hills lying in the Ulz River basin. It is an area of moist Daurian steppe (distinct from the rest of the Eastern Mongolian Steppe), with lakes and ponds of different sizes, rivers, streams and wetland areas including reed beds. The largest lakes at the site are Khaitsiin Tsagaan (7.6 km²), Mongol Tsagaan (7.2 km²), Galuut (6.5 km²), Doroo (6.5 km²), Tari and Khokh. Most of these lakes are fed by rainwater, although some are fed by rivers and streams; their size and water levels vary depending upon rainfall. The main land use at the site is animal husbandry. In addition, a small amount of land is cultivated, with a more extensive area of cultivation now abandoned. The density of human settlement is low but it is higher near lakes and river valleys. The greatest threat to biodiversity at the site is steppe fires, which mainly originate from Russia. Steppe fires occur every year and cover very large areas. In 2000, the whole Mongol Daguur area was burnt by a fire started from Russia. The impact of livestock grazing and disturbance is increasing at important nesting areas due to a lack of management. There has also been recent mineral exploration, targeting gold. Over the last three years, the Ulz River has ceased to flow in several places, and, as a result, some small lakes have dried up. The water levels of many lakes at the site have fallen, presumably because of a warming climate. There were previously several large crop fields where cranes used to gather in large numbers but now most of these are abandoned. Illegal hunting of animals, especially Mongolian Gazelle *Procapra gutturosa*, is a problem throughout the year. A large proportion of the IBA is included within Mongol Daguur Ramsar Site, nominated in 1997.

Importance for birds

Mongol Daguur is the only site in Mongolia where six species of crane can be observed together at same time. Mongol Daguur holds a significant proportion of the global breeding population of White-naped Crane *Grus vipio* (VU) and Swan Goose *Anser cygnoides* (EN). Other Globally Threatened species occurring at the site are Siberian Crane *Grus leucogeranus* (CR), Hooded Crane *G. monacha* (VU), Red-crowned Crane *G. japonensis* (EN), Great Bustard *Otis tarda* (VU), Relict Gull *Larus relictus* (VU) and Marsh Grassbird *Locustella pryeri* (VU) The site also supports an assemblage of species restricted to the Eurasian steppe and desert biome. The larger lakes support tens of thousands of moulting waterbirds in summer. Congregatory waterbirds occurring at the site in numbers exceeding 1% of their flyway populations include Great Crested Grebe *Podiceps cristatus*, Great Cormorant *Phalacrocorax carbo*, Whooper Swan *Cygnus cygnus*, Bean Goose *Anser fabalis*, Ruddy Shelduck *Tadorna ferruginea*, White-naped Crane *Grus vipio*, Common Crane *G. grus*, Hooded Crane *G. monacha*, Demoiselle Crane *Anthropoides virgo* and Northern Lapwing *Vanellus vanellus.* Hundreds of Demoiselle Crane and White-naped Crane can be seen in many locations in Mongol Daguur. Because of the large number of cranes occurring there, the site was designated as an Important Crane Site in North-East Asia.

Importance for other fauna and flora

Daurian Hedgehog *Mesechinus dauuricus*, which is a species listed in the *Red Data Book of Mongolia*, is very common at the site. In addition, Mongolian Gazelle *Procapra gutturosa* is found everywhere and can form herds of hundreds or thousands of animals. Siberian Marmot *Marmota sibirica* (EN), Red Fox *Vulpes vulpes*, Corsac Fox *V. corsac* and Grey Wolf *Canis lupus* also occur.

Photo: N.Tseveenmyadag

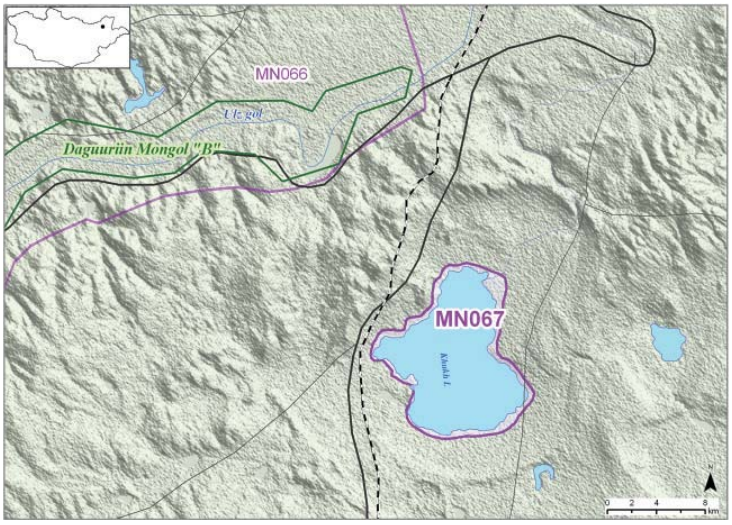
IBA CODE: MN067 IBA NAME: KHUKH LAKE

Aimag(s): Dornod **Criteria:** A1, A3, A4i **Area:** 11,548 ha
Coordinates: 49°31′N 115°35′E **Altitude:** 566-615 m

Protection status

Unprotected

Site description



Khukh Lake lies in the southwest of Ereentsav soum, Dornod aimag. The lake is fed by the Teel River, and has no outflow. The lake is surrounded by grassland steppe and low rolling hills. There are marshes with reed beds where the Teel River enters the lake. The main land uses at the site are hay collection and livestock grazing. The railway from Ereentsav to Choibalsan passes along the western side of the lake. Since the 1990s, commercial fishing has become widespread, with the bulk of the catch being exported to China. Uncontrolled and illegal fishing poses a serious threat to the fish diversity in Khukh Lake. Steppe fires occur almost every year and destroy vegetation surrounding the lake. Khukh Lake lies within Mongol Daguur Ramsar Site.

Importance for birds

The following Globally Threatened species occur at the site in significant numbers: Swan Goose *Anser cygnoides* (EN); White-naped Crane *Grus vipio* (VU); Hooded Crane *G. monacha* (VU); Great Bustard *Otis tarda* (VU); and Relict Gull *Larus relictus* (VU). In addition, Siberian Crane *Grus leucogeranus* (CR) is a regular passage migrant and summer visitor to this site. The site supports an assemblage of species restricted to the Eurasian steppe and desert biome.

The following congregatory waterbirds occur in numbers exceeding 1% of their flyway populations: Great Crested Grebe *Podiceps cristatus*; Great Cormorant *Phalacrocorax carbo*; Whooper Swan *Cygnus cygnus*; Swan Goose *Anser cygnoides*; Common Pochard *Aythya ferina*; Demoiselle Crane *Anthropoides virgo*; and Northern Lapwing *Vanellus vanellus.*

Importance for other fauna and flora

In winter, large herds of Mongolian Gazelle *Procapra gutturosa* can be seen in the area surrounding the lake. Also, Grey Wolf *Canis lupus*, Red Fox *Vulpes vulpes* and Corsac Fox *V. corsac* are frequently observed in the area. flora.

Photo: N.Tseveenmyadag

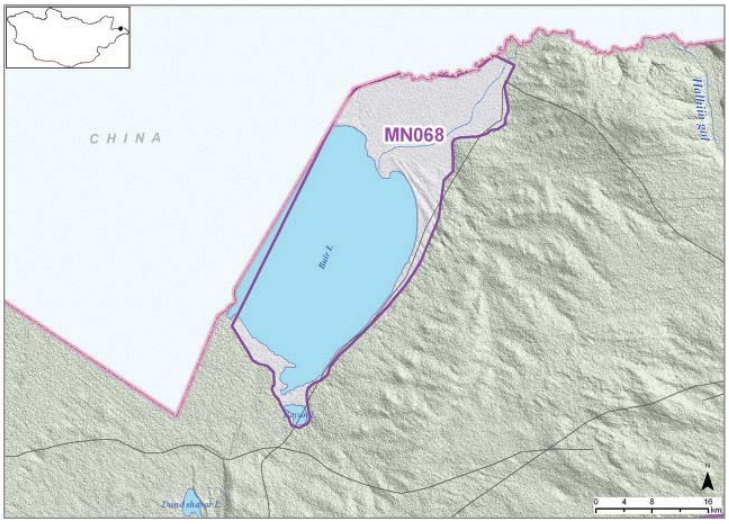
IBA CODE: MN068 IBA NAME: BUIR LAKE

Aimag(s): Dornod **Criteria:** A1, A3, A4i, A4iii **Area:** 90,476 ha
Coordinates: 47°46′N 117°48′E **Altitude:** 583-609 m

Protection status

Unprotected

Site description



Buir Lake is one of the largest freshwater lakes in Mongolia. The lake is located on the border with China, with a narrow band of the northwest of the lake extending into Chinese territory. There are extensive areas of wet grassland, reed beds and willows in the Khalkh River delta. There is only one outflow from the lake: the Orshuun River. The lake is frozen between November and the end of April. There are sand dunes at the southern end of the lake, containing several small lakes, and with steppe habitat beyond them. The site is an important area for fishing, and illegal fishing from the Chinese side is often reported. There are some recreational and tourism activities at the site, which is located along the main road from Choibalsan to Khalkhgol soum, and the number of visitors is increasing. Buir Lake and its surrounding wetlands were nominated as a Ramsar Site in 2004.

Importance for birds

Globally Threatened species found at Buir Lake comprise Oriental Stork *Ciconia boyciana* (EN), Swan Goose *Anser cygnoides* (EN; in summer 2002, over half of the global population was recorded on the lake), Baikal Teal *Anas formosa* (VU), Pallas's Fish-eagle *Haliaeetus leucoryphus* (VU), Lesser Kestrel *Falco naumanni* (VU), Siberian Crane *Grus leucogeranus* (CR), White-naped Crane *G. vipio* (VU), Great Bustard *Otis tarda* (VU) and Relict Gull *Larus relictus* (VU). The site supports an assemblage of species restricted to the Eurasian steppe and desert biome. The site also supports at least 1% of the flyway populations of Great Crested Grebe *Podiceps cristatus*, Great Cormorant *Phalacrocorax carbo*, Grey Heron *Ardea cinerea*, Swan Goose *Anser cygnoides*, Ruddy Shelduck *Tadorna ferruginea*, Common Shelduck *T. tadorna* and Northern Lapwing *Vanellus vanellus.*

Importance for other fauna and flora

Mongolian Gazelle *Procapra gutturosa*, Eurasian Otter *Lutra lutra* and Taimen *Hucho taimen* are a few of the nationally threatened species that inhabit the site. Large herds of Mongolian Gazelle frequent the area south of the lake all year around.

Photo: N.Tseveenmyadag

IBA CODE: MN069 IBA NAME: TASHGAIN TAVAN LAKES

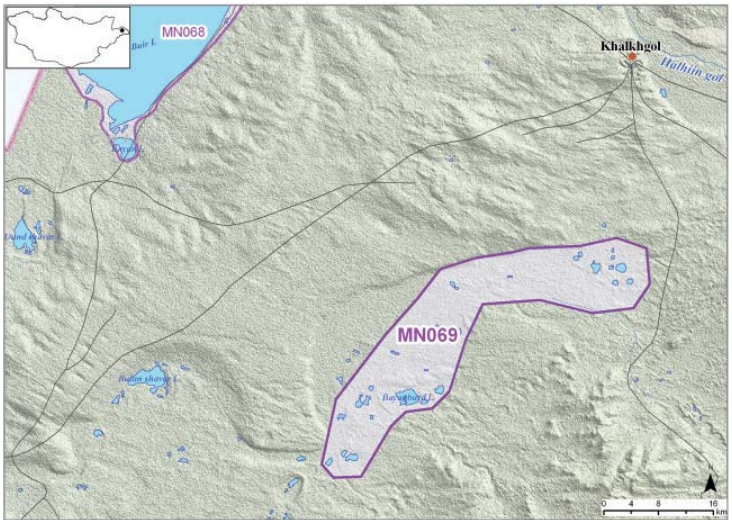
Aimag(s): Dornod **Criteria:** A1, A3, A4i **Area:** 53,304 ha
Coordinates: 47°22′N 118°27′E **Altitude:** 714 m

Protection status

Unprotected

Site description

The site is located in Tamsag depression, 30 km southwest of Sumber soum centre. It comprises several small lakes (Shuumar, Bayan, and Bayanburd), which are partly covered by reeds. The lakes are surrounded by steppe. The main land uses are livestock grazing and hay collection, and small areas are cultivated. Steppe fires and livestock grazing damage the reed beds and remaining willow trees. The lakes are drying out because of a warmer climate. In addition, illegal hunting of birds has been reported. Other significant threats to biodiversity at the site comprise oil exploitation and steppe fires.



Importance for birds

The following Globally Threatened species occur at the site in significant numbers: Swan Goose *Anser cygnoides* (EN); White-naped Crane *Grus vipio* (VU); Hooded Crane *G. monacha* (VU); Great Bustard *Otis tarda* (VU); and Relict Gull *Larus relictus* (VU). In addition, Siberian Crane *Grus leucogeranus* (CR) is a regular passage migrant and summer visitor to this site. The site supports an assemblage of species restricted to the Eurasian steppe and desert biome. The following congregatory waterbirds occur in numbers exceeding 1% of their flyway populations: Great Crested Grebe *Podiceps cristatus*; Whooper Swan *Cygnus cygnus*; Swan Goose *Anser cygnoides*; Common Pochard *Aythya ferina*; Demoiselle Crane *Anthropoides virgo*; and Northern Lapwing *Vanellus vanellus*.

Importance for other fauna and flora

Mammals commonly found at the site include Mongolian Gazelle *Procapra gutturosa*, Grey Wolf *Canis lupus* and Raccoon Dog *Nyctereutes procyonoides*. In winter, thousands of Mongolian Gazelle remain in the area. In 1996, a new fish species to Mongolia, Lefua *Lefua costata*, was found at Shine Gol. This species was hitherto known only from the Amur drainage of China and Russia.

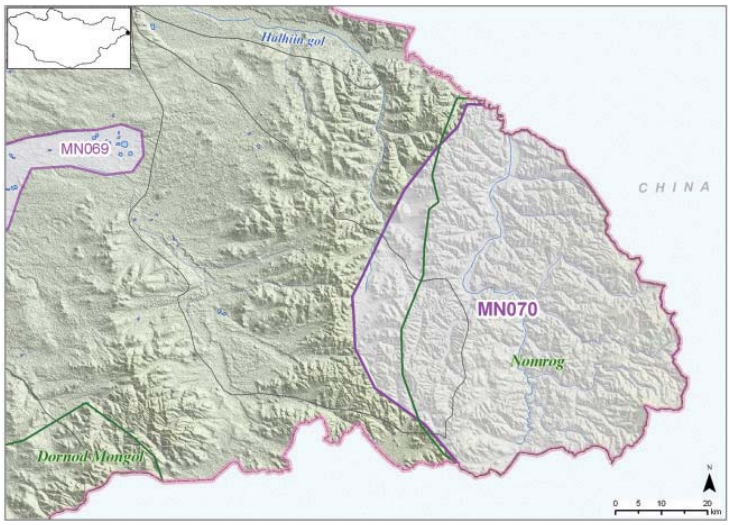
Photo: N.Tseveenmyadag

IBA CODE: MN070 IBA NAME: NOMROG

Aimag(s): Dornod **Criteria:** A1, A3 **Area:** 378,097 ha
Coordinates: 46°37′N 119°33′E **Altitude:** 1,000-1,500 m

Protection status

Partially protected by Nomrog Strictly Protected Area



Site description

Nomrog lies at the edge of the steppe and the forest steppe zones, in the foothills of the Khyangan mountains in the extreme east of Mongolia. The site is composed of rocky mountains, mountain steppe, river valleys with willow trees, small lakes, grass steppe, and pine and birch forests. Here, the seamless grasslands of the eastern steppe merges with the Khyangan mountain range, which is clothed in deciduous woodland and pine forest characteristic of the Manchurian hills. There are numerous streams and rivers lined with willow, aspen and birch meandering along wide valleys. Habitats for birds are remarkably diverse and pristine. Threats to biodiversity are currently relatively minor, and there is very little conservation management at present. In general, Nomrog Strictly Protected Area is in the enviable position of requiring relatively little input to protect its habitats and species. Nevertheless it is necessary to implement some management activities, especially to address threats posed by poaching and fire.

Importance for birds

Globally Threatened bird species occurring at the site comprise Swan Goose *Anser cygnoides* (EN), Saker Falcon *Falco cherrug* (EN), Great Bustard *Otis tarda* (VU) and White-naped Crane *Grus vipio* (VU). Nomrog is one of only a handful of sites in Mongolia to support Common Pheasant *Phasianus colchicus*. The site is also the only IBA in Mongolia to support an assemblage of bird species restricted to the North-East Asian temperate forest biome.

Importance for other fauna and flora

Many nationally threatened mammals occur at the site, including Eurasian Otter *Lutra lutra* (NT), European Elk *Alces alces*, Brown Bear *Ursus arctos*, Wild Boar *Sus scrofa*, Siberian Roe Deer *Capreolus pygargus*, Red Deer *Cervus elaphus*, Grey Wolf *Canis lupus*, Red Fox *Vulpes vulpes*, Corsac Fox *V. corsac* and Siberian Marmot *Marmota sibirica* (EN). In addition, fish species, such as Taimen *Hucho taimen* and Amur Pike *Esox reichertii*, and many insects listed in the *Red Data Book of Mongolia* can be seen in great abundance.

Photo: B.Nyambayar

APPENDICES

Appendix 1: Globally Threatened bird species in IBAs in Mongolia

Common Name	Scientific Name	Status	MN001	MN002	MN003	MN004	MN005	MN006	MN007	MN008	MN009	MN010	MN011	MN012	MN013	MN014	MN015	MN016	MN017	MN018	MN019	MN020	MN021	MN022	MN023	MN024
Dalmatian Pelican	*Pelecanus crispus*	VU	X								X		X	X		X		X	X	X					X	
Oriental Stork	*Ciconia boyciana*	EN																								
White-headed Duck	*Oxyura leucocephala*	EN									X		X	X		X		X			X					
Swan Goose	*Anser cygnoides*	VU				X			X	X	X		X	X		X		X					X		X	
Lesser White-fronted Goose	*Anser erythropus*	VU																								
Baikal Teal	*Anas formosa*	VU																								
Baer's Pochard	*Aythya baeri*	EN																								
Pallas's Fish-eagle	*Haliaeetus leucoryphus*	VU						X	X	X	X		X	X		X		X	X	X						
Egyptian Vulture	*Neophron percnopterus*	EN																								
Greater Spotted Eagle	*Aquila clanga*	VU									X															
Eastern Imperial Eagle	*Aquila heliaca*	VU				X					X															
Lesser Kestrel	*Falco naumanni*	VU			X	X			X	X	X				X	X			X				X			X
Saker Falcon	*Falco cherrug*	EN		X	X		X	X									X			X		X	X			X
Siberian Crane	*Grus leucogeranus*	CR																					X			
White-naped Crane	*Grus vipio*	VU									X					X										
Hooded Crane	*Grus monacha*	VU																								
Red-crowned Crane	*Grus japonensis*	EN																								
Great Bustard	*Otis tarda*	VU							X		X										X					
Houbara Bustard	*Chlamydotis undulata*	VU							X																	X
Sociable Lapwing	*Vanellus gregarius*	CR																								
Relict Gull	*Larus relictus*	VU									X			X		X			X							
White-throated Bushchat	*Saxicola insignis*	VU	X		X		X										X				X			X		X
Marsh Grassbird	*Locustella pryeri*	VU																								
Yellow-breasted Bunting	*Emberiza aureola*	VU					X																			

Common Name	Scientific Name	Status	MN025	MN026	MN027	MN028	MN029	MN030	MN031	MN032	MN033	MN034	MN035	MN036	MN037	MN038	MN039	MN040	MN041	MN042	MN043	MN044	MN045	MN046	MN047	MN048
Dalmatian Pelican	*Pelecanus crispus*	VU	X	X		X	X													X						
Oriental Stork	*Ciconia boyciana*	EN																								
White-headed Duck	*Oxyura leucocephala*	EN																								
Swan Goose	*Anser cygnoides*	VU		X		X		X	X				X		X	X			X	X	X		X			
Lesser White-fronted Goose	*Anser erythropus*	VU																								
Baikal Teal	*Anas formosa*	VU											X							X						
Baer's Pochard	*Aythya baeri*	EN																								
Pallas's Fish-eagle	*Haliaeetus leucoryphus*	VU	X	X		X	X	X	X			X	X		X	X			X	X						
Egyptian Vulture	*Neophron percnopterus*	EN																								
Greater Spotted Eagle	*Aquila clanga*	VU										X		X												
Eastern Imperial Eagle	*Aquila heliaca*	VU						X					X	X	X	X	X					X				
Lesser Kestrel	*Falco naumanni*	VU				X		X			X	X	X				X		X	X		X		X	X	X
Saker Falcon	*Falco cherrug*	EN	X			X		X	X		X	X		X			X		X			X		X	X	X
Siberian Crane	*Grus leucogeranus*	CR																		X						
White-naped Crane	*Grus vipio*	VU													X					X	X					
Hooded Crane	*Grus monacha*	VU							X				X							X						
Red-crowned Crane	*Grus japonensis*	EN																								
Great Bustard	*Otis tarda*	VU							X	X	X	X	X	X	X	X	X	X		X	X		X			
Houbara Bustard	*Chlamydotis undulata*	VU		X																					X	X
Sociable Lapwing	*Vanellus gregarius*	CR																								
Relict Gull	*Larus relictus*	VU	X	X		X														X						
White-throated Bushchat	*Saxicola insignis*	VU			X																			X		
Marsh Grassbird	*Locustella pryeri*	VU																								
Yellow-breasted Bunting	*Emberiza aureola*	VU																								

Common Name	Scientific Name	Status	MN049	MN050	MN051	MN052	MN053	MN054	MN055	MN056	MN057	MN058	MN059	MN060	MN061	MN062	MN063	MN064	MN065	MN066	MN067	MN068	MN069	MN070	No. of IBAs
Dalmatian Pelican	*Pelecanus crispus*	VU																							14
Oriental Stork	*Ciconia boyciana*	EN																				X			1
White-headed Duck	*Oxyura leucocephala*	EN																							6
Swan Goose	*Anser cygnoides*	VU					X	X			X	X	X	X	X	X	X		X	X	X	X	X	X	36
Lesser White-fronted Goose	*Anser erythropus*	VU										X													1
Baikal Teal	*Anas formosa*	VU						X					X									X			5
Baer's Pochard	*Aythya baeri*	EN																					X		1
Pallas's Fish-eagle	*Haliaeetus leucoryphus*	VU							X				X									X			25
Egyptian Vulture	*Neophron percnopterus*	EN																							0
Greater Spotted Eagle	*Aquila clanga*	VU							X				X												5
Eastern Imperial Eagle	*Aquila heliaca*	VU							X			X	X												12
Lesser Kestrel	*Falco naumanni*	VU	X	X	X	X		X	X	X	X		X	X					X			X			34
Saker Falcon	*Falco cherrug*	EN	X		X	X			X	X	X	X	X	X					X					X	33
Siberian Crane	*Grus leucogeranus*	CR										X	X					X		X	X	X			8
White-naped Crane	*Grus vipio*	VU							X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	20
Hooded Crane	*Grus monacha*	VU										X	X	X				X	X	X	X				10
Red-crowned Crane	*Grus japonensis*	EN										X								X			X		3
Great Bustard	*Otis tarda*	VU				X	X	X				X	X	X	X		X	X	X	X	X	X	X	X	31
Houbara Bustard	*Chlamydotis undulata*	VU																							5
Sociable Lapwing	*Vanellus gregarius*	CR																							0
Relict Gull	*Larus relictus*	VU																		X	X	X			11
White-throated Bushchat	*Saxicola insignis*	VU																							9
Marsh Grassbird	*Locustella pryeri*	VU																		X					1
Yellow-breasted Bunting	*Emberiza aureola*	VU							X	X															3

Notes: X = considered to occur regularly in significant numbers; CR = Critical; EN = Endangered; VU = Vulnerable, following BirdLife International (2008).

Appendix 2: Restricted–range bird species in IBAs in Mongolia

Mongolian Mountains Secondary Area (SA077)

Restricted-range Species	IBAs
Mongolian Accentor *Prunella koslowi*	MN001 - Khoton-Khorgon Lakes
	MN002 - Tsengel Khairkhan Mountain
	MN003 - Dayan Lake
	MN005 - Khokh Serkhiin Nuruu SPA
	MN015 - Jargalant Khairkhan Mountain
	MN022 - Otgontenger Mountain
	MN046 - Govi Gurvan Saikhan Mountain

Appendix 3: Biome-restricted bird species found in Mongolia

AS02 Boreal forest (taiga)

Description: Includes coniferous, mixed broadleaf-coniferous and broadleaf deciduous forest, forest tundra, forest steppe and associated wetland habitats. Extends across Russia, northern Mongolia, north-eastern China and northern Japan (and outside the Asia region to northern Europe and North America).

Common Name	Scientific Name
Horned Grebe	*Podiceps auritus*
Whooper Swan	*Cygnus cygnus*
Falcated Duck	*Anas falcata*
Eurasian Wigeon	*Anas penelope*
Common Goldeneye	*Bucephala clangula*
Smew	*Mergus albellus*
Western Capercaillie	*Tetrao urogallus*
Black-billed Capercaillie	*Tetrao parvirostris*
Common Crane	*Grus grus*
Hooded Crane	*Grus monacha*
Green Sandpiper	*Tringa ochropus*
Common Greenshank	*Tringa nebularia*
Terek Sandpiper	*Xenus cinereus*
Long-toed Stint	*Calidris subminuta*
Jack Snipe	*Lymnocryptes minimus*
Swinhoe's Snipe	*Gallinago megala*
Pintail Snipe	*Gallinago stenura*
Far Eastern Curlew	*Numenius madagascariensis*
Eurasian Pygmy-owl	*Glaucidium passerinum*
Northern Hawk Owl	*Surnia ulula*
Ural Owl	*Strix uralensis*
Great Grey Owl	*Strix nebulosa*
Siberian Jay	*Perisoreus infaustus*
Bohemian Waxwing	*Bombycilla garrulus*
Japanese Waxwing	*Bombycilla japonica*

Common Name	Scientific Name
Siberian Accentor	*Prunella montanella*
Gray's Grasshopper-warbler	*Locustella fasciolata*
Middendorff's Grasshopper-warbler	*Locustella ochotensis*
Lanceolated Warbler	*Locustella lanceolata*
Arctic Warbler	*Phylloscopus borealis*
Radde's Warbler	*Phylloscopus schwarzi*
Mugimaki Flycatcher	*Ficedula mugimaki*
Grey-spotted Flycatcher	*Muscicapa griseisticta*
Siberian Blue Robin	*Luscinia cyane*
Rufous-tailed Robin	*Luscinia sibilans*
Eye-browed Dark Thrush	*Turdus obscurus*
Naumann's Thrush	*Turdus naumanni*
Siberian Ground Thrush	*Turdus sibiricus*
Siberian Tit	*Parus cinctus*
Brambling	*Fringilla montifringilla*
Asian Rosy-finch	*Leucosticte arctoa*
Pallas's Rosefinch	*Carpodacus roseus*
Pine Grosbeak	*Pinicola enucleator*
White-winged Crossbill	*Loxia leucoptera*
Pallas's Reed Bunting	*Emberiza pallasi*
Yellow-browed Bunting	*Emberiza chrysophrys*
Rustic Bunting	*Emberiza rustica*
Little Bunting	*Emberiza pusilla*
Yellow-breasted Bunting	*Emberiza aureola*
Chestnut Bunting	*Emberiza rutila*

AS03 North-East Asian temperate forest

Description: Includes broadleaf and mixed broadleaf-coniferous forests and associated wetlands in far eastern Russia, Japan, north-eastern China, North Korea, South Korea and eastern Mongolia.

Common Name	Scientific Name
Schrenck's Bittern	*Ixobrychus eurhythmus*
Oriental Stork	*Ciconia boyciana*
Mandarin Duck	*Aix galericulata*
Baer's Pochard	*Aythya baeri*
Grey-faced Buzzard-eagle	*Butastur indicus*
Red-crowned Crane	*Grus japonensis*
Grey-headed Lapwing	*Microsarcops cinereus*
Forest Wagtail	*Dendronanthus indicus*
Bull-headed Shrike	*Lanius bucephalus*
Purple-backed Starling	*Sturnia sturnina*
White-cheeked Starling	*Sturnus cineraceus*

Common Name	Scientific Name
Marsh Grassbird	*Locustella pryeri*
Pale-legged Leaf Warbler	*Phylloscopus tenellipes*
Yellow-rumped Flycatcher	*Ficedula zanthopygia*
Narcissus Flycatcher	*Ficedula narcissina*
White-throated Rock-thrush	*Petrophila gularis*
Pale Thrush	*Turdus pallidus*
Reed Parrotbill	*Paradoxornis heudei*
Yellow-billed Grosbeak	*Eophona migratoria*
Japanese Reed Bunting	*Emberiza yessoensis*
Tristram's Bunting	*Emberiza tristrami*

AS04 Eurasian steppe and desert

Description: Includes steppe, forest steppe, saline lakes and marshes, desert (dunes, gravel and sand plains, oases) and semi-desert scrub. Distributed in southern Russia, Mongolia and northern China (as well as through Central Asia to eastern Europe, the Middle East and, marginally, North Africa).

Common Name	Scientific Name
Pallid Harrier	*Circus macrourus*
Pied Harrier	*Circus melanoleucos*
Steppe Eagle	*Aquila nipalensis*
Daurian Partridge	*Perdix dauurica*
White-naped Crane	*Grus vipio*
Demoiselle Crane	*Anthropoides virgo*
Great Bustard	*Otis tarda*
Greater Sand Plover	*Charadrius leschenaultii*
Oriental Plover	*Charadrius veredus*
Sociable Lapwing	*Vanellus gregarius*
Asian Dowitcher	*Limnodromus semipalmatus*
Pallas's Sandgrouse	*Syrrhaptes paradoxus*

Common Name	Scientific Name
Mongolian Lark	*Melanocorypha mongolica*
White-winged Lark	*Melanocorypha leucoptera*
Blyth's Pipit	*Anthus godlewskii*
Rosy Starling	*Sturnus roseus*
Mongolian Ground Jay	*Podoces hendersoni*
Paddyfield Reed Warbler	*Acrocephalus agricola*
Pied Wheatear	*Oenanthe pleschanka*
Turkestan Tit	*Parus bokharensis*
Saxaul Sparrow	*Passer ammodendri*
Small Snowfinch	*Pyrgilauda davidiana*
Red-headed Bunting	*Emberiza bruniceps*

AS05 Eurasian high montane (alpine and Tibetan)

Description: Comprises scrub and open habitats at and above the tree-line, including alpine and subalpine scrub and grassland, inland cliffs, rocky slopes and montane wetlands. Distributed mainly above 3,600 m in the Altai-Sayan mountains in south-eastern Russia, western Mongolia and north-western China, the Tien Shan and Qinghai-Tibetan Plateau in China, and northern (Trans-Himalayan) Pakistan, India, Nepal, Bhutan, and Myanmar (outside the Asia region, extends to Central Asia, the Middle East and Europe). Contains Mongolian mountains (SA077).

Common Name	Scientific Name
Himalayan Griffon	*Gyps himalayensis*
Altai Snowcock	*Tetraogallus altaicus*
Solitary Snipe	*Gallinago solitaria*
Brown-headed Gull	*Larus brunnicephalus*
Water Pipit	*Anthus spinoletta*
Alpine Accentor	*Prunella collaris*
Rufous-streaked Accentor	*Prunella himalayana*
Brown Accentor	*Prunella fulvescens*
Sulphur-bellied Warbler	*Phylloscopus griseolus*

Common Name	Scientific Name
White-throated Bushchat	*Saxicola insignis*
White-winged Redstart	*Phoenicurus erythrogaster*
Wallcreeper	*Tichodroma muraria*
White-winged Snowfinch	*Montifringilla nivalis*
Plain Mountain-finch	*Leucosticte nemoricola*
Black-headed Mountain-finch	*Leucosticte brandti*
Red-mantled Rosefinch	*Carpodacus rhodochlamys*
Beautiful Rosefinch	*Carpodacus pulcherrimus*
Caucasian Great Rosefinch	*Carpodacus rubicilla*

Appendix 4: Congregatory waterbird species exceeding the 1% population threshold in IBAs in Mongolia

IBAs MN001 to MN033

Common Name	Scientific Name	SA	EA	MN001	MN003	MN006	MN007	MN008	MN009	MN010	MN011	MN012	MN014	MN016	MN017	MN018	MN020	MN021	MN022	MN023	MN025	MN026	MN028	MN029	MN031	MN032	MN033
Black-necked Grebe	*Podiceps nigricollis*	250	250																								
Great Crested Grebe	*Podiceps cristatus*	150	250				X		X	X		X	X	X		X				X			X				
Dalmatian Pelican	*Pelecanus crispus*	40	40	X					X			X	X	X	X	X				X							
Great Cormorant	*Phalacrocorax carbo*	500	500			X			X				X	X						X		X			X		
Great Egret	*Egretta alba*		5,000										X														
Grey Heron	*Ardea cinerea*	200	5,000																								
White Spoonbill	*Platalea leucorodia*	230	65						X	X		X	X														
Black Stork	*Ciconia nigra*	50	1																								
Greylag Goose	*Anser anser*	150	750						X	X			X	X													
Bean Goose	*Anser fabalis*		600																								
Bar-headed Goose	*Anser indicus*	560	560		X	X							X	X					X	X					X	X	
Swan Goose	*Anser cygnoides*		550																								
Whooper Swan	*Cygnus cygnus*		600			X							X													X	
Ruddy Shelduck	*Tadorna ferruginea*	500	750	X	X	X	X	X	X	X		X	X	X	X		X	X		X	X		X	X	X	X	X
Common Shelduck	*Tadorna tadorna*	500	1,300										X		X						X	X	X	X			
Mallard	*Anas platyrhynchos*	750	15,000										X						X								
Green-winged Teal	*Anas crecca*	4,000	8,000										X														
Gadwall	*Anas strepera*	1,500	7,500								X		X														
Eurasian Wigeon	*Anas penelope*	2,500	7,500								X		X														
Northern Pintail	*Anas acuta*	10,000	7,500								X		X														
Northern Shoveler	*Anas clypeata*	5,000	7,500										X														
Red-crested Pochard	*Netta rufina*	500	500						X	X		X	X														
Common Pochard	*Aythya ferina*	5,000	8,000									X	X														
Tufted Duck	*Aythya fuligula*	5,000	7,500										X														
Common Goldeneye	*Bucephala clangula*	250	750	X		X			X				X	X					X						X		
White-headed Duck	*Oxyura leucocephala*	1	1						X			X	X	X													
Common Merganser	*Mergus merganser*	60	750										X	X											X		
Common Crane	*Grus grus*	700	110						X	X			X	X													
White-naped Crane	*Grus vipio*		40																								
Hooded Crane	*Grus monacha*		85																								
Demoiselle Crane	*Anthropoides virgo*	1,000	850							X																	
Common Coot	*Fulica atra*	15,000	10,000						X																		

Common Name	Scientific Name	SA	EA	MN001	MN003	MN006	MN007	MN008	MN009	MN010	MN011	MN012	MN014	MN016	MN017	MN018	MN020	MN021	MN022	MN023	MN025	MN026	MN028	MN029	MN031	MN032	MN033
Pacific Golden Plover	*Pluvialis fulva*	750	1,000																								
Little Ringed Plover	*Charadrius dubius*	500	500						X																		
Greater Sand Plover	*Charadrius leschenaultii*	500	1,000									X															
Kentish Plover	*Charadrius alexandrinus*	500	1,000									X															
Northern Lapwing	*Vanellus vanellus*	150	500	X	X	X			X		X	X	X	X											X		
Pied Avocet	*Recurvirostra avosetta*	250	500																								
Temminck's Stint	*Calidris temminckii*	500	250										X														
Great Black-headed Gull	*Larus ichthyaetus*	500	500						X				X														
Common Black-headed Gull	*Larus ridibundus*	1,000	10,000																		X						
Herring Gull	*Larus argentatus*		2,000																								X
Caspian Tern	*Hydroprogne caspia*	250	150										X	X													

Notes: X = confirmed to regularly occur in numbers exceeding the 1% population threshold; SA = 1% threshold for the South Asia-Central Asia flyway; EA = 1% threshold for the East Asia flyway, following BirdLife International (2004).

IBAs MN034 to MN069

Common Name	Scientific Name	SA	EA	MN034	MN035	MN037	MN038	MN039	MN041	MN042	MN043	MN044	MN045	MN053	MN054	MN058	MN059	MN061	MN062	MN063	MN065	MN066	MN067	MN068	MN069	No. of IBAs
Black-necked Grebe	*Podiceps nigricollis*	250	250						X																	1
Great Crested Grebe	*Podiceps cristatus*	150	250		X					X						X		X				X	X	X	X	17
Dalmatian Pelican	*Pelecanus crispus*	40	40																							8
Great Cormorant	*Phalacrocorax carbo*	500	500																			X	X	X		10
Great Egret	*Egretta alba*		5,000																							1
Grey Heron	*Ardea cinerea*	200	5,000																					X		1
White Spoonbill	*Platalea leucorodia*	230	65																							4
Black Stork	*Ciconia nigra*	50	1													X										1
Greylag Goose	*Anser anser*	150	750											X	X											6
Bean Goose	*Anser fabalis*		600											X	X	X						X				4
Bar-headed Goose	*Anser indicus*	560	560	X	X					X																11
Swan Goose	*Anser cygnoides*		550							X						X	X	X	X	X			X	X	X	9
Whooper Swan	*Cygnus cygnus*		600							X						X		X				X	X			8
Ruddy Shelduck	*Tadorna ferruginea*	500	750	X	X	X	X			X	X			X	X	X	X	X		X		X		X	X	35
Common Shelduck	*Tadorna tadorna*	500	1,300										X					X		X				X	X	11
Mallard	*Anas platyrhynchos*	750	15,000			X								X												4
Green-winged Teal	*Anas crecca*	4,000	8,000			X								X												3
Gadwall	*Anas strepera*	1,500	7,500	X										X											X	5
Eurasian Wigeon	*Anas penelope*	2,500	7,500																							2
Northern Pintail	*Anas acuta*	10,000	7,500																							2
Northern Shoveler	*Anas clypeata*	5,000	7,500											X												2
Red-crested Pochard	*Netta rufina*	500	500																							4
Common Pochard	*Aythya ferina*	5,000	8,000														X						X		X	5
Tufted Duck	*Aythya fuligula*	5,000	7,500																							1
Common Goldeneye	*Bucephala clangula*	250	750	X	X	X				X	X						X									13
White-headed Duck	*Oxyura leucocephala*	1	1																							4
Common Merganser	*Mergus merganser*	60	750		X																					4
Common Crane	*Grus grus*	700	110				X			X	X					X	X					X				10
White-naped Crane	*Grus vipio*		40													X	X				X	X			X	5
Hooded Crane	*Grus monacha*		85																			X				1
Demoiselle Crane	*Anthropoides virgo*	1,000	850					X			X	X	X	X	X	X	X		X	X	X	X	X		X	15
Common Coot	*Fulica atra*	15,000	10,000																							1
Pacific Golden Plover	*Pluvialis fulva*	750	1,000								X															1
Little Ringed Plover	*Charadrius dubius*	500	500																							1
Greater Sand Plover	*Charadrius leschenaultii*	500	1,000																							1
Kentish Plover	*Charadrius alexandrinus*	500	1,000																							1

Common Name	Scientific Name	SA	EA	MN034	MN035	MN037	MN038	MN039	MN041	MN042	MN043	MN044	MN045	MN053	MN054	MN058	MN059	MN061	MN062	MN063	MN065	MN066	MN067	MN068	MN069	No. of IBAs
Northern Lapwing	*Vanellus vanellus*	150	500			X	X			X	X		X			X				X		X	X	X	X	20
Pied Avocet	*Recurvirostra avosetta*	250	500								X															1
Temminck's Stint	*Calidris temminckii*	500	250																							1
Great Black-headed Gull	*Larus ichthyaetus*	500	500																							2
Common Black-headed Gull	*Larus ridibundus*	1,000	10,000																							1
Herring Gull	*Larus argentatus*		2,000								X															2
Caspian Tern	*Hydroprogne caspia*	250	150																							2

Notes: X = confirmed to regularly occur in numbers exceeding the 1% population threshold; SA = 1% threshold for the South Asia-Central Asia flyway; EA = 1% threshold for the East Asia flyway, following BirdLife International (2004).

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