

# Taxkorgan Nature Reserve



## General features

<b>Country:</b>	China
<b>Date of establishment:</b>	1984
<b>Area:</b>	15,863 km <sup>2</sup>
<b>Geographic location:</b>	Latitude: 37°30'N; Longitude: 76°00'E
<b>IUCN category:</b>	IV

## Overview

Taxkorgan Nature Reserve (TNR) is located in the east Pamir Plateau, Xinjiang Uygur Autonomous Region (XUAR) in China. The reserve is in Taxkorgan Tajik Autonomous County, within the jurisdiction of Kashgar Prefecture. The reserve is mountainous, with about half lying at or above 4,500 masl. It includes the northern flanks of the Karakoram, the western edge of the Kunlun, and the eastern rim of the Pamir Plateau. The climate is generally cool and dry.

## People

Tajik, Han, Kyrgyz, and Uygur

## Flora

Much of the terrain is too high or arid to support vegetation. However, there are extensive sedge barrens dominated by

*Kobresia* spp. and *Carex* spp. with moisture-tolerant forbs (*Ranunculus* spp., *Gentiana* spp., *Oxytropis* spp., *Potentilla* spp., *Primula* spp., and *Pedicularis* spp.) and grassy steppe vegetation (*Festuca* spp., *Stipa* spp., *Poa* spp., and *Ptilagrostis* spp.). Trees (*Salix* spp., *Tamarix* spp., *Populus* spp., and *Betula* spp.) are found only in low-lying valleys.

## Fauna

A number of flagship mammal species have been observed in the reserve, including ibex (*Capra sibirica*), blue sheep (*Pseudois nayaur*), snow leopard (*Panthera uncia*), Himalayan brown bear (*Ursus arctos*), and Himalayan lynx (*Lynx lynx isabellinus*) with some endangered species including the markhor (*Capra falconeri*) and Marco Polo sheep (*Ovis ammon polii*). There are 159 reported bird species in the reserve.

## Threats

- Overgrazing – endangers vertebrates such as the brown bear (*Ursus arctos*), snow leopard (*Panthera uncia*), wolf (*Canis lupus*), and Marco Polo sheep (*Ovis ammon polii*).
- Desertification of the alpine steppe habitat as a result of overgrazing and fuelwood collection.



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*Photos: Tao Zhang*

# Zorkul Nature Reserve



## General features

<b>Country:</b>	Tajikistan
<b>Date of establishment:</b>	1972
<b>Area:</b>	1,610 km <sup>2</sup>
<b>Geographic location:</b>	Latitude: 37°30'N; Longitude: 73°45'E
<b>IUCN category:</b>	I

## Overview

Zorkul Nature Reserve (ZNR) is located in south-eastern Gorno-Badakhshan Autonomous Province, bordering Afghanistan's Wakhan District. The reserve occupies a 320 km wide valley between the southern Alichur and Vahan ridges of the eastern Pamir Mountains. It lies east of the provincial capital of Khorog at an altitude of 4,000–5,460 masl. The landscape consists of gentle slopes of sparsely vegetated alpine steppe. A core feature of the reserve is the 3,900 ha freshwater Zorkul Lake (4,125 masl). The area was initially managed as a protected area for the conservation of bar-headed geese and was upgraded to a full nature reserve in 2000.

## People

Pamiri and Kyrgyz

## Flora

Vegetation is sparse, primarily consisting of high-mountain desert cryophytic meadow and wetland species. The floristic composition does not exceed 250–300 species.

## Fauna

The reserve has important populations of mammals including long-tailed marmot (*Marmota caudata*), juniper vole (*Microtus juldaschi*), Marco Polo sheep (*Ovis ammon polii*), Siberian ibex (*Capra sibirica*), snow leopard (*Panthera uncia*), grey wolf (*Canis lupus*), red fox (*Vulpes vulpes*), weasel (*Mustela altaica*), and brown bear (*Ursus arctos*).

BirdLife International has declared the reserve an Important Bird Area (IBA) because it supports significant populations of several bird species – either as residents or as overwintering, breeding, or passage migrants – including Tibetan snowcock (*Tetraogallus tibetanus*), Himalayan snowcock (*Tetraogallus himalayensis*), and bar-headed goose (*Anser indicus*).

## Threats

- Habitat degradation and biodiversity loss due to illegal logging, fuelwood harvesting, and the timber trade.
- Reduction in species diversity, habitat degradation, and erosion as a result of overgrazing.



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*Photos: Srijana Joshi, Zhang Lixun*

# Wakhan National Park



## General features

<b>Country:</b>	Afghanistan Wakhan District
<b>Date of establishment:</b>	2014
<b>Area:</b>	10,878 km <sup>2</sup>
<b>Geographic location:</b>	Latitude: 37°00'N; Longitude: 73°30'E
<b>IUCN category:</b>	NA

## Overview

Wakhan National Park (WNP) is home to about 15,000 people. The park borders China, Pakistan, and Tajikistan. It is home to the headwaters of the Amu Darya River and is the meeting place of the Hindu Kush and Pamir mountains. This relatively new protected area is co-managed by the Afghanistan Government and local communities. The park provides ecosystem services and supports livelihoods in one of the world's poorest and most isolated regions. It is in one of the most remote areas of Afghanistan, with soaring mountains, alpine grasslands, and unique wildlife.

## People

Wakhi and Kyrgyz

## Flora

Primary mountain grazing slopes up to an altitude of 4,000 masl are dominated by perennial species such as *Artemisia spp.*, *Astragalus spp.*, *Ephedra spp.*, *Cousinia spp.*, and *Oryzopsis spp.*, with grasses such as *Stipa* and ephemerals such as *Poa*. Polo 'sedge meadows' on higher valley flats are dominated by *Carex spp.*, *Kobresia spp.*, and *Festuca spp.* Slopes above 4,800 masl have rich alpine flora including *Thymus spp.*, *Saxifraga spp.*, *Aster spp.*, *Potentilla spp.*, *Pedicularis spp.* and *Primula spp.*

## Fauna

The park provides protection and habitat for rare and vulnerable wildlife including Marco Polo sheep (*Ovis ammon polii*) and seventeen other mammal species, as well as carnivores like wolf (*Canis lupus*), red fox (*Vulpes vulpes*), brown bear (*Ursus arctos*), stoat (*Mustela ermina*), lynx (*Lynx lynx*), and snow leopard (*Panthera uncia*). Mountain ungulate species include the markhor (*Capra falconeri*) and Himalayan ibex (*Capra sibirica*).

## Threats

- Reduced vegetative cover over large areas due to overgrazing, shrub collection, and forest destruction.
- Hunting and trapping are a threat to many large mammals and birds



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*Photos: Yi Shaoliang*

# Qurumbar National Park



## General features

<b>Country:</b>	Pakistan
<b>Date of establishment:</b>	2011
<b>Area:</b>	740 km <sup>2</sup>
<b>Geographic location:</b>	Latitude: 36°45'N; Longitude: 74°45'E
<b>IUCN category:</b>	NA

## Overview

Qurumbar National Park (QNP) falls in the Western Tibetan Plateau Alpine Steppe and includes a high altitude lake of Gilgit-Baltistan, Lake Qurumbar. The Gilgit-Baltistan Government declared the national park in 2011. It borders the Hindu Kush and Karakoram ranges.

Lake Qurumbar is the second highest lake in Pakistan (4,304 masl) and supports rich biodiversity. The lake is fed by melt from surrounding mountain glaciers, and water from the lake flows into the Qurumbar valley. The lake is surrounded by mountains with lush green grass and flowers. The lake has crystal clear water with trout fish. There is no road access. Livestock are left to graze around the lake in the spring and summer.

## People

Khawar, Tajik, Kyrgyz, Wakhi, Sheena, and Brushaski

## Flora

Most of the area can be categorized as dry alpine grass type vegetation with species like *Poa bulbosa*, *Ephedra* spp., and *Festuca ovina*. The reserve supports broadleaf species, mainly *Salix* spp. and *Betula utilis*.

## Fauna

A number of the flagship mammal species of the region have been observed in the QNP, including snow leopard (*Panthera uncia*), Himalayan ibex (*Capra sibirica*), Himalayan brown bear (*Ursus arctos*), wolf (*Canis lupus*). QNP is a staging ground for most migratory birds.

## Threats

- Confined distribution of Marco Polo sheep and lack of knowledge about their movement.
- Rapid decline of the Marco Polo sheep population.
- Local dependence on natural resources, livestock herding, trade activities, and widening of the Karakoram Highway.
- Geographic constraints, including a trans-border fence and the exclusion of the Kilik Pass from the park.



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*Photos: Alex Treadway , Tika Khan*

# Khunjerab National Park



## General features

<b>Country:</b>	Pakistan, Hunza-Nagar District
<b>Date of establishment:</b>	1975
<b>Area:</b>	4,455 km <sup>2</sup>
<b>Geographic location:</b>	Latitude: 36°30'N; Longitude: 75°30'E
<b>IUCN category:</b>	IV

## Overview

Khunjerab National Park (KNP) is located in the extreme north of Pakistan. The high-altitude park covers about 4,445 km<sup>2</sup>, making it Pakistan's third largest national park. It was set up to protect rare and unique species of the Pamir and Tibetan Plateau. The elevation within the park ranges from 3,200 to 7,700 masl. Khunjerab Pass, the gateway to China via the Karakoram Highway, lies at 4,934 masl.

## People

Tajik and Brushu

## Flora

Due to the protected area's high elevation, floral species diversity is relatively low, but the area is rich in alpine species such as cushion plants adapted to high and dry habitats. Species include *Thylacospermum caespitosum*, *Sibbaldia tetrandra*, *Androsa cetapete*, *Psychogeton poncinsii*, *Leontopodium nanum*, *Saussurea thordii*, and *Saussurea subulata*. The area is dominated by dry alpine scrub type

vegetation, with *Juniper* spp., *Rosa webbiana*, and *Polygonum* spp. occurring on dry slopes, and *Myricaria germanica* and *Hippophae rhamnoides* along stream beds. Broadleaf species mainly consist of *Salix* sp. and *Betula utilis*.

## Fauna

Fourteen mammalian species have been recorded in the park, of which three are critically endangered and two are endangered. Marco Polo sheep (*Ovis ammon polii*), cape hare (*Lepus capensis*), common pipistrelle (*Pipistrellus pipistrellus*), grey long-eared bat (*Plecotus austriacus*), common red fox (*Vulpes vulpes*), field mouse (*Apodemus sylvaticus*), Himalayan ibex (*Capra sibirica*), long-tailed marmot (*Marmota caudata*), large-eared pika (*Ochotona macrotis*), migratory hamster (*Cricetulus migratorius*), blue sheep (*Pseudois nayaur*), brown bear (*Ursus arctos*), snow leopard (*Panthera uncia*), and Indian wolf (*Canis lupus pallipes*). The park has some of the most diverse avifauna in mountain regions, with 48 avian species having been recorded in the park.

## Threats

- Decline of Marco Polo sheep population, largely as a result of hunting and general disturbance from the Karakoram Highway which runs through the park.
- Overgrazing leading to a reduction in species diversity, habitat degradation, and soil erosion in rangeland ecosystems.
- Degradation of vegetation cover as a result of commercial logging and overexploitation of forests.



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*Photos: Tao Zhang, Zhang Lixun*

# Broghil National Park



## General features

<b>Country:</b>	Pakistan, Chitral District
<b>Date of establishment:</b>	2010
<b>Area:</b>	1,348 km <sup>2</sup>
<b>Geographic location:</b>	Latitude: 36°45'N; Longitude: 73°30'E
<b>IUCN category:</b>	NA

## Overview

Broghil National Park (BNP) encompasses the Broghil valley and a small part of the Yarkhun valley. It has a number of peatland areas. Broghil is in a strategic location: it borders the Wakhan Strip of Afghanistan and is connected to Afghanistan in the northwest via the famous Broghil and Darwaza passes. Located above 3,000 masl, BNP has relatively harsh climatic conditions. The valley is globally significant role as the gateway of the Indus flyway for birds migrating to South Asia.

**People** Wakhi

## Flora

Pastures consist of grasslands, sparse grasses and trees, and peatlands. A survey identified 93 species of higher plants belonging to 40 families and 75 genera. Plant communities in the Broghil valley include small herb community and

peatland-fen community. The flora is dominated by Haemicryptophytes and Chaemiphytes. Some rare and narrow endemic flora have been recently reported in the national park. Forests are limited, consisting mainly of birch, poplar, juniper, willow, and small shrubs. The valley is rich in medicinal plants, with more than 80 recorded species.

## Fauna

Alpine pastures and rocky slopes are interspersed with wetlands providing a congenial habitat for many mammals, some endangered, such as snow leopard (*Panthera uncia*), urial (*Ovis orientalis*), Himalayan ibex (*Capra sibirica*), brown bear (*Ursus arctos*), blue sheep (*Pseudois nayaur*), wolf (*Canis lupus*), red fox (*Vulpus vulpus*), long-tailed marmot (*Marmota caudata*), and lynx (*Felis lynx*). Bird species include ruddy shelduck (*Tadorna ferruginea*), Himalayan snowcock (*Tetraogallus himalayensis*), chukar (*Alectoris chukar*), golden eagle (*Aquila chrysaetos*), griffon vulture (*Gyps fulvus*), alpine chough (*Pyrrhocorax graculus*) and snow pigeon (*Columba leuconota*).

## Threats

- Excessive use of peatlands leading to loss of habitat for key wildlife.
- Reduced productivity of grazing lands and decline in wildlife due to poaching and competition with livestock.
- Habitat loss due to destruction and habitat degradation.



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*Photos: Ajaz Ahmed, Zhang Lixun*