

KHANGCHENDZONGA NATIONAL PARK AND BIOSPHERE RESERVE



IBA Site Code	:	IN-SK-04
State	:	Sikkim
District	:	North and West Sikkim
Coordinates	:	27° 37' 51" N, 88° 12' 10" E
Ownership	:	State Forest Department
Area	:	28,500 ha
Altitude	:	1,300-8,598 m
Rainfall	:	Not available
Temperature	:	Not available
Biogeographic Zones	:	Trans-Himalaya/ Himalaya
Habitats	:	Subtropical Broadleaf Hill Forest, Himalayan Moist Forest, Himalayan Dry Temperate Forest and Alpine Moist Scrub

IBA CRITERIA: A1 (Threatened Species), A2 (Endemic Bird Area 130: Eastern Himalayas), A3 (Biome-5: Eurasian High Montane; Biome-7: Sino-Himalayan Temperate Forest; Biome-8: Sino-Himalayan Subtropical Forest)
PROTECTION STATUS: National Park, established in 1977

GENERAL DESCRIPTION

The Khangchendzonga National Park (KNP) is a part of Khangchendzonga Biosphere Reserve (KBR). The KNP/KBR complex situated in North and West Sikkim districts is the biggest IBA in Sikkim, occupying nearly 40% of the State. It lies entirely along the Sikkim-Nepal border and includes the Khangchendzonga Range from the South Lhonak Glacier in trans-Himalayan Sikkim down to Barsey Rhododendron Sanctuary in the South Sikkim. This IBA stretches eastwards up to Tsunghang in North Sikkim with the Tista river flowing south from the Tso Lhamo cold desert forming its eastern boundary for most part.

The Rathong-Rangit valleys in the southern part of this IBA are a trekkers paradise with flora from lowland subtropical forests to alpine meadows and snowcapped peaks and glaciers. This IBA has the world's third highest (and India's highest) peak Mt. Khangchendzonga (8,598 m) and is hence the highest altitude wildlife protected area in India. Most of the core area of this IBA is permanently snowbound with a large number of peaks which are climbers' delights, while the peripheral areas including buffer zones and habitation are more important wildlife habitats.

The area is a spectacular wilderness, with snowy peaks towering above some fine forests that remain virtually undisturbed (Khacher 1980). The Park must rank as one of the most important protected areas in the entire Himalayas (Rodgers and Panwar 1988). Khangchendzonga is considered to be the finest example of an independent mountain having its own glacial system radiating from its several summits. It also boasts some of the most magnificent snow and ice scenery in the world (Smythe 1930).

AVIFAUNA

Some important birding habitats here are Dentam-Uttarey-Chitrey-Chewabhanjyang, the Rathong Chu Valley along the Yoksum-Dzongri-Goecha La trekking trail, Tashiding, Rabdentse, Dubdi, Khecheopalri all in West Sikkim; Tholung Valley in Dzongu, Tsunghang-Menshihang-Lachen-Thangu, the Muguthang-Green Lake route including the Zemu Glacier-Zemu Chu Valley, all in North Sikkim.

Due to the size and altitude elevations in this IBA, birds recorded are from at least four biomes. Thus this IBA has at least 127 bird species of conservation concern including seven globally

threatened and restricted range species, 24 species of Biome-5, 67 of Biome-7, 26 of Biome-8 and three listed in Biome-9.

Birds like Lesser Kestrel *Falco naumanni* have been recorded from northern Trans-Himalayan part of the IBA while Baer's Pochard *Aythya baeri* has been sighted in Lake Khecheopalri along with wintering Mergansers *Mergus merganser* and Little Grebe *Tachybaptus ruficollis* (Ganguli-Lachungpa 1991), Mallard *Anas platyrhynchos*, Common Teal *Anas crecca* and Tufted Pochard *Aythya fuligula*.

The Osprey *Pandion haliaetus*, protected under Schedule-I of the Indian Wildlife (Protection) Act 1972, was killed at Yoksum while fishing in the State Forest Department's fishpond (Ganguli-Lachungpa 1990). Black-necked Crane *Grus nigricollis* has been recorded from the Muguthang area of Lhonak Valley IBA contiguous to the north (Ganguli-Lachungpa 1998). A large loose flock of dark eagles (unidentified) was videographed, during a trek to Dzongri in December 1999, flying southwards along with Himalayan Griffon Gyps *himalayensis* and Lammergeier or Bearded Vulture *Gypaetus barbatus* (U. Lachungpa pers. comm. 2003).

Local Lepcha people at Tholung report a unique phenomenon of congregations of either Ashy Wood-Pigeon *Columba pulchricollis* or Common Wood-Pigeon *Columba palumbus* near the Tholung hot-springs (a day's trek from jeepable road) in summer (Chumden Nangpa pers. comm. 2000), an annual event that has got disrupted due to development of the area for tourism (U. Lachungpa pers. comm. 2003).

High altitude lakes at Kishong La are important stopover sites not only for migratory waterfowl but also for resident breeding birds like Brahminy Shelduck *Tadorna ferruginea* {ducklings collected from here in 1986 survived for around five years at Gangtok's Deer Park enclosure at Tashiling Secretariat (C. B. Bhujel pers. comm. 2000)}.

Vulnerable	
Baer's Pochard	<i>Aythya baeri</i>
Pallas's Fish-Eagle	<i>Haliaeetus leucoryphus</i>
Lesser Kestrel	<i>Falco naumanni</i>
Black-breasted Parrotbill	<i>Paradoxornis flavirostris</i>

Endemic Bird Area- 130: Eastern Himalayas

Hoary-throated Barwing	Actinodura nipalensis
White-naped Yuhina	Yuhina bakeri
Black-browed Leaf-Warbler	Phylloscopus cantator

Biome- 5: Eurasian High Montane (Alpine and Tibetan)

Himalayan Griffon	Gyps himalayensis
Snow Partridge	Lerwa lerwa
Tibetan Snowcock	Tetraogallus tibetanus
Tibetan Partridge	Perdix hodgsoniae
Solitary Snipe	Gallinago solitaria
Snow Pigeon	Columba leuconota
Long-billed Calandra-Lark	Melanocorypha maxima
Rosy Pipit	Anthus roseatus
Grey-backed Shrike	Lanius tephronotus
Alpine Accentor	Prunella collaris
Altai Accentor	Prunella himalayana
Robin Accentor	Prunella rubeculoides
Plain-backed Thrush	Zoothera mollissima
Hodgson's Redstart	Phoenicurus hodgsoni
Grandala	Grandala coelicolor
Smoky Warbler	Phylloscopus fulgiventis
Tickell's Warbler	Phylloscopus affinis
Wallcreeper	Tichodroma muraria
Hodgson's Mountain-Finch	Leucosticte nemoricola
Black-headed Mountain-Finch	Leucosticte brandti
Streaked Great Rosefinch	Carpodacus rubicilloides
Common Great Rosefinch	Carpodacus rubicilla
Red-fronted Rosefinch	Carpodacus puniceus
Yellow-billed Chough	Pyrrhocorax graculus

Biome- 7: Si no- Hi mal ayan Temperate Forest

Common Hill-Partridge	Arborophila torqueola
Blood Pheasant	Ithaginis cruentus
Satyr Tragopan	Tragopan satyra
Himalayan Monal	Lophophorus impejanus
Speckled Wood-Pigeon	Columba hodgsonii
Yellow-rumped Honeyguide	Indicator xanthonotus
Darjeeling Pied Woodpecker	Dendrocopos darjellensis
Nepal House-Martin	Delichon nipalensis
Rufous-breasted Accentor	Prunella strophiaata
Maroon-backed Accentor	Prunella immaculata
Long-tailed Thrush	Zoothera dixonii
Greater Long-billed Thrush	Zoothera monticola
White-collared Blackbird	Turdus albocinctus
Gould's Shortwing	Brachypteryx stellata
Indian Blue Robin	Luscinia brunnea
Golden Bush-Robin	Tarsiger chrysaeus
White-browed Bush-Robin	Tarsiger indicus
Rufous-breasted Bush-Robin	Tarsiger hyperythrus
White-throated Redstart	Phoenicurus schisticeps
White-throated Laughingthrush	Garrulax albogularis
Striated Laughingthrush	Garrulax striatus
Scaly Laughingthrush	Garrulax subunicolor
Black-faced Laughingthrush	Garrulax affinis
Slender-billed Scimitar-Babbler	Xiphirhynchus superciliaris
Greater Scaly-breasted Wren-Babbler	Pnoepyga albiventer
Green Shrike-Babbler	Pteruthius xanthochlorus
Bar-throated Minla	Minla strigula
Red-tailed Minla	Minla ignotincta

Biome- 7: Si no- Hi mal ayan Temperate Forest

Gold-breasted Tit-Babbler	Alcippe chrysotis
White-browed Tit-Babbler	Alcippe vinipectus
Rufous Sibia	Heterophasia capistrata
Stripe-throated Yuhina	Yuhina gularis
Rufous-vented Yuhina	Yuhina occipitalis
Myzornis	Myzornis pyrrhoura
Brown Parrotbill	Paradoxornis unicolor
Chestnut-headed Tesia	Tesia castaneocoronata
Chestnut-crowned Bush-Warbler	Cettia major
Aberrant Bush-Warbler	Cettia flavolivacea
Grey-sided Bush-Warbler	Cettia brunnifrons
Orange-barred Leaf-Warbler	Phylloscopus pulcher
Grey-faced Leaf-Warbler	Phylloscopus maculipennis
Large-billed Leaf-Warbler	Phylloscopus magnirostris
Grey-cheeked Flycatcher-Warbler	Seicercus poliogenys
Slaty-backed Flycatcher	Ficedula hodgsonii
Orange-gorgeted Flycatcher	Ficedula strophiaata
Slaty-blue Flycatcher	Ficedula tricolor
Rufous-bellied Niltava	Niltava sundara
Rufous-fronted Tit	Aegithalos iouschistos
Rufous-bellied Crested Tit	Parus rubidiventris
Brown Crested Tit	Parus dichrous
Green-backed Tit	Parus monticolus
White-tailed Nuthatch	Sitta himalayensis
Rusty-flanked Tree-Creeper	Certhia nipalensis
Yellow-bellied Flower-pecker	Dicaeummelanoxanthum
Fire-tailed Sunbird	Aethopyga ignicauda
Yellow-breasted Greenfinch	Carduelis spinoides
Tibetan Siskin	Serinusthibetanus
Dark-breasted Rosefinch	Carpodacus nipalensis
Dark-rumped Rosefinch	Carpodacus edwardsii
White-browed Rosefinch	Carpodacus thura
Scarlet Finch	Haematospiza sipahi
Brown Bullfinch	Pyrrhula nipalensis
Red-headed Bullfinch	Pyrrhula erythrocephala
Collared Grosbeak	Mycerobas affinis
White-winged Grosbeak	Mycerobas carnipes
Gold-naped Black Finch	Pyrrhoptes epauletta
Yellow-billed Blue Magpie	Urocissa flavirostris
Slaty-headed Parakeet	Psittacula himalayana
Golden-throated Barbet	Megalaima franklinii
Black-winged Cuckoo-Shrike	Coracina melaschistos
Short-billed Minivet	Pericrocotus brevirostris
Black Bulbul	Hypsipetes leucocephalus
Grey-winged Blackbird	Turdus boulboul
White-tailed Robin	Miomela leucurum
Green Cochoa	Cochoa viridis
Grey-sided Laughingthrush	Garrulax caerulatus
Rusty-cheeked Scimitar-Babbler	Pomatorhinus erythrogenys
Red-billed Leiothrix	Leiothrix lutea
Cutia	Cutia nipalensis
Rufous-bellied Shrike-Babbler	Pteruthius rufiventer
Rusty-fronted Barwing	Actinodura egertoni
Blue-winged Minla	Minla cyanouroptera
Yellow-throated Tit-Babbler	Alcippe cinerea
Nepal Tit-Babbler	Alcippe nipalensis
Black-chinned Yuhina	Yuhina nigrimenta

Bio-me- 7: Sino-Himalayan Temperate Forest

Grey-headed Flycatcher-Warbler	Seicercus xanthoschistos
Black-faced Flycatcher-Warbler	Abroscopus schisticeps
Small Niltava	Niltava macgrigoriae
Red-headed Tit	Aegithalos concinnus
Black-spotted Yellow Tit	Parus spilonotus
Black-throated Sunbird	Aethopyga saturata
Maroon Oriole	Oriolus traillii
Grey Treepie	Dendrocitta formosae
Lesser Necklaced Laughingthrush	Garrulax monileger
Greater Necklaced Laughingthrush	Garrulax pectoralis
Sultan Tit	Melanochlora sultanea

OTHER KEY FAUNA

Given the size and altitudinal range of this IBA, most of the representative species of wildlife in Sikkim, barring those found on the Tibetan plateau such as Tibetan Wild Ass *Equus hemionus* kiang and some found east of the Tista river such as Takin *Budorcas taxicolor*, could be found here. Around 19 mammals protected under Schedule-I of the Indian Wildlife (Protection) Act, 1972 including Bharal *Pseudois nayaur*, Himalayan Tahr *Hemitragus jemlahicus*, Tibetan Wolf *Canis lupus*, Python *Python molurus*, beetles and butterflies, also protected species, are reported; but there have been no systematic surveys other than sporadic collection trips of the Zoological Survey of India in the past two decades.

LAND USE

- q Forestry and Wildlife Management
- q Military deployment
- q Road maintenance
- q Nature conservation and research
- q Tourism/recreation/mountaineering expeditions

THREATS AND CONSERVATION ISSUES

- q Accumulation of non-biodegradable garbage along trekking/mountaineering trails
- q Stray dogs around tourism and army camps
- q Road construction and maintenance
- q Collection of wild medicinal plants
- q Spread of disease to wildlife
- q Cattle grazing, poaching/snaring of wildlife
- q Military deployment, ammunitions depot
- q Hydroelectric power projects by NHPC

Threats to this IBA are similar to those in Barsey Rhododendron Sanctuary to the south, namely, shepherds' activities, firewood and fodder collection, cattle incursions from Nepal and landslides with resultant habitat degradation. In addition, there is tremendous pressure of tourism in the form of trekkers and hikers especially along the trekking trails.

The Himalayan Mountaineering Institute, Darjeeling has been holding regular courses in the core area of the IBA at the Khangchendzonga Base Camp since its inception over four decades ago. Just this activity has been responsible for large-scale removal of Rhododendron and Junipers for fuel wood, especially for the porters. Recently, this activity is being monitored with the help of a local NGO, the Khangchendzonga Conservation Committee (KCC) based at Yoksum (Sonam Uden pers. comm. 2003). The KCC has also been successful in projecting the entire Rathong Chu Valley as a sacred landscape for biodiversity conservation. A hydroelectric project here was scrapped keeping these sentiments

in mind. Under the National Biodiversity Strategy and Action Plan (NBSAP) exercise, a separate action plan was devised for this area (Sandeep Tambe pers. comm. 2003).

Park infrastructure and staffing is insufficient. This was amply demonstrated when the KCC apprehended two Russian poachers in August 2001 on an illegal insect collection expedition inside the National Park (Sonam Uden pers. comm. 2003).

Lack of coordination between the Tourism Department and the State Forest Department and uncontrolled flow of tourists into the western part of the IBA, garbage management, wild harvesting of medicinal plants and plants used for burning as incense, stray dogs around army and tourist campsites, damage due to graziers' camps in forests including incursions of yak herders from Nepal into the IBA were some of the important issues addressed in the Sikkim State BSAP exercise (Anon. 2003). The State Forest Department has also facilitated Joint Forest Management and Ecocodevelopment Committees in the villages fringing the IBA.

In the northern part of the IBA, the impact of road construction and maintenance labour force of the Border Roads Organization, construction of an alternative road through the National Park for military exigencies and resultant damage to the hitherto pristine habitat, excessive use of dynamite in these fragile Himalayan zones and resultant permanent landslide zones, encroachment by the labourers, poaching of birds and other wildlife and habitat degradation, and part of the National Park being occupied by the military for use as an ammunitions depot are some of the issues of concern. New hydroelectric power projects are planned or underway in an effort to harness the entire potential of the Tista River Valley.

Mountaineering expeditions to Green Lake in the northern part of the IBA have left large amounts of non-biodegradable litter along the trail (Gut Lepcha pers. comm. 2001). This, coupled with wild harvesting of Junipers and Rhododendron, medicinal plants including the capless mushroom *Cordyceps sinensis* ('Caterpillar-fungus'), has opened up good forest areas. Veterinary staff at the Angora Rabbit breeding centre at Rabom, North Sikkim have reported occasional instances of Goral with skin disease coming out of the forest to die in the area (Passang Bhutia pers. comm. 2002). It is evident that much research input is required in this IBA which is the most famous wildlife protected area in Sikkim about which perhaps the least is known as far as its recent biodiversity status is concerned.

KEY CONTRIBUTORS

Sandeep Tambe and Usha Lachungpa

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