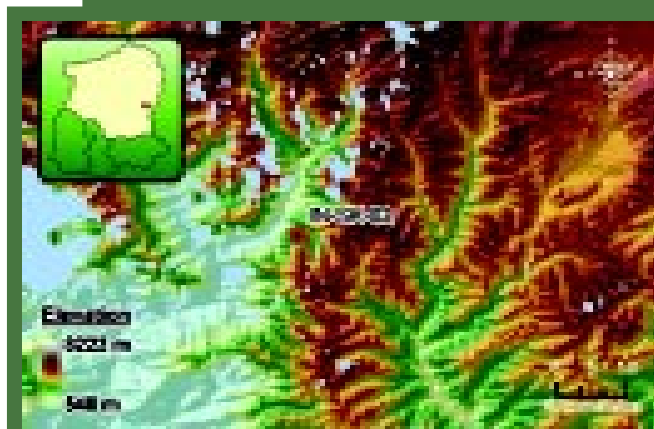


DOMBANG VALLEY- LACHUNG- LEMA- TSUNGTHANG



IBA Site Code	:	IN-SK-02
State	:	Sikkim
District	:	North Sikkim
Coordinates	:	27° 37' 60" N, 88° 45' 00" E
Ownership	:	Mixed (Village, Forest, GREF and Army Land)
Area	:	approx 60,000 ha
Altitude	:	av. 2,679 m
Rainfall	:	Not Available
Temperature	:	-10 °C to 25 °C
Biogeographic Zone	:	Trans-Himalaya
Habitats	:	Hilly Evergreen Forest, Montane Broadleaf Evergreen and Deciduous Forest, Montane Mixed Broadleaf-Coniferous Forest

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: Not officially protected

GENERAL DESCRIPTION

This is a large IBA on village land, Forest Department land and land under the control of the army and GREF. The total area could be more than 60,000 ha. Starting from the small township of Tsungthang, there are small hamlets at Bop, Maltin, Khedum, Lema, Lachung, Sharchok and Dombang along the Lachung river in North Sikkim. Lachung is the northernmost frontier village in this Valley. Hence, there is heavy army deployment in the area. This IBA is subjected to seasonal grazing by livestock such as highland cows, yak and horses.

From subtropical Tsungthang to temperate Dombang Valley with hamlets and villages along Lachung Chu and forest patches under-planted with Large Cardamom *Ammomum subulatum*, there are mostly village lands with subsistence cultivation. The Mixed Coniferous Forests of Hemlock, Spruce, Pine, Fir and Junipers with shrubby undergrowth of Rhododendron and *Arundinaria* at Dombang give way to open Alder *Alnus nipalensis* towards Tsungthang. The degraded areas are overtaken by the ubiquitous *Eupatorium* an exotic invasive weed locally called 'Ban-Mara' or 'Forest Killer'.

AVI FAUNA

A full checklist of this site is not available but the bird records maintained by U. Lachungpa (pers. comm. 2002) show that this area could have significant populations of Vulnerable Beautiful Nuthatch *Sitta formosa* and Wood Snipe *Gallinago nemoricola*.

The site lies in Eastern Himalayas Endemic Bird Area (EBA 130) where Stattersfield et al. (1998) have identified 21 restricted range species. Only one such species, White-naped Yuhina *Yuhina bakeri* has been noticed till now (U. Lachungpa pers. comm. 2002), but looking at the extent of pristine habitat still available in this site, more restricted range species are likely to be found here.

This complex, with wide altitudinal variation, basically lies in Biome-7 (Sino-Himalayan Temperate Forest), but avian elements of Biome-5 (Eurasian High Montane - Alpine and Tibetan) and Biome-8 (Sino-Himalayan Subtropical Forest) are also found as these biomes merge with Biome-7, and secondly, many birds show seasonal altitudinal movement. Seventeen out of the 48 species listed in Biome-5 (BirdLife International, undated) are found in

this site. Similarly, 47 out of 112 species listed in Biome-7 are found here. As this site also has Montane Mixed Broadleaf-Coniferous Forest, Broadleaf Evergreen Forest and Deciduous Forest, many species of Biome-8 are also found here. Thus, this site perhaps has the most numerous biome restricted species among all the sites of Sikkim.

The important birds of the valley are Himalayan Griffon Gyps *himalayensis*, Wood Snipe *Gallinago nemoricola*, Snow Pigeon *Columba leuconota*, Grandala *Grandala coelicolor*, Plain Mountain-Finch *Leucosticte nemoricola* and Hill Partridge *Arborophila torqueola*. A specimen of Tibetan Horned Owl (Eurasian Eagle-Owl) *Bubo bubo* from Lema was collected and deposited with BNHS (Ganguli-Lachungpa 2002).

Vulnerable	
Wood Snipe	<i>Gallinago nemoricola</i>
Beautiful Nuthatch	<i>Sitta formosa</i>
Endemic Bird Area 130: Eastern Himalayas	
White-naped Yuhina	<i>Yuhina bakeri</i>
Biome-5: Eurasian High Montane (Alpine and Tibetan)	
Himalayan Griffon	<i>Gyps himalayensis</i>
Snow Partridge	<i>Lerwa lerwa</i>
Solitary Snipe	<i>Gallinago solitaria</i>
Ibisbill	<i>Ibidorhyncha struthersii</i>
Snow Pigeon	<i>Columba leuconota</i>
Grey-backed Shrike	<i>Lanius tephronotus</i>
Alpine Accentor	<i>Prunella collaris</i>
Altai Accentor	<i>Prunella himalayana</i>
Plain-backed Thrush	<i>Zoothera mollissima</i>
Hodgson's Redstart	<i>Phoenicurus hodgsoni</i>
Guldenstadt's Redstart	<i>Phoenicurus erythrogaster</i>
Grandala	<i>Grandala coelicolor</i>
Wallcreeper	<i>Tichodroma muraria</i>
Hodgson's Mountain-Finch	<i>Leucosticte nemoricola</i>
Beautiful Rosefinch	<i>Carpodacus pulcherrimus</i>
Common Great Rosefinch	<i>Carpodacus rubicilla</i>
Yellow-billed Chough	<i>Pyrrhocorax graculus</i>

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

Common Hill-Partridge	<i>Arborophila torqueola</i>
Blood Pheasant	<i>Ithaginis cruentus</i>
Satyr Tragopan	<i>Tragopan satyra</i>
Himalayan Monal	<i>Lophophorus impejanus</i>
Speckled Wood-Pigeon	<i>Columba hodgsonii</i>
Darjeeling Pied Woodpecker	<i>Dendrocopos darjellensis</i>
Nepal House-Martin	<i>Delichon nipalensis</i>
Rufous-breasted Accentor	<i>Prunella strophciata</i>
Long-tailed Thrush	<i>Zoothera dixonii</i>
Indian Blue Robin	<i>Luscinia brunnea</i>
White-browed Bush-Robin	<i>Tarsiger indicus</i>
Rufous-breasted Bush-Robin	<i>Tarsiger hyperythrus</i>
White-throated Redstart	<i>Phoenicurus schisticeps</i>
White-throated Laughingthrush	<i>Garrulax albogularis</i>
Striated Laughingthrush	<i>Garrulax striatus</i>
Spotted Laughingthrush	<i>Garrulax ocellatus</i>
Scaly Laughingthrush	<i>Garrulax subunicolor</i>
Black-faced Laughingthrush	<i>Garrulax affinis</i>
Slender-billed Scimitar-Babbler	<i>Xiphirhynchus superciliaris</i>
Greater Scaly-breasted Wren-Babbler	<i>Pnoepyga albiventer</i>
Green Shrike-Babbler	<i>Pteruthius xanthochlorus</i>
Bar-throated Minla	<i>Minla strigula</i>
Red-tailed Minla	<i>Minla ignotincta</i>
Gold-breasted Tit-Babbler	<i>Alcippe chrysotis</i>
White-browed Tit-Babbler	<i>Alcippe vinipectus</i>
Rufous Sibia	<i>Heterophasia capistrata</i>
Stripe-throated Yuhina	<i>Yuhina gularis</i>
Rufous-vented Yuhina	<i>Yuhina occipitalis</i>
Brown Parrotbill	<i>Paradoxornis unicolor</i>
Chestnut-crowned Bush-Warbler	<i>Cettia major</i>
Grey-sided Bush-Warbler	<i>Cettia brunnifrons</i>
Grey-faced Leaf-Warbler	<i>Phylloscopus maculipennis</i>
Rufous-fronted Tit	<i>Aegithalos iouschistos</i>
Rufous-bellied Crested Tit	<i>Parus rubidiventris</i>
Brown Crested Tit	<i>Parus dichrous</i>
Green-backed Tit	<i>Parus monticolus</i>
Yellow-browed Tit	<i>Sylviparus modestus</i>
White-tailed Nuthatch	<i>Sitta himalayensis</i>
Rusty-flanked Tree-Creeper	<i>Certhia nipalensis</i>
Fire-tailed Sunbird	<i>Aethopyga ignicauda</i>
Yellow-breasted Greenfinch	<i>Carduelis spinoides</i>
Dark-rumped Rosefinch	<i>Carpodacus edwardsii</i>
White-browed Rosefinch	<i>Carpodacus thura</i>
Brown Bullfinch	<i>Pyrrhula nipalensis</i>
Red-headed Bullfinch	<i>Pyrrhula erythrocephala</i>
White-winged Grosbeak	<i>Mycerobas carnipes</i>
Yellow-billed Blue Magpie	<i>Urocissa flavirostris</i>

An old unconfirmed record of Oriental Stork *Ciconia boyciana* from Lachung (U. Lachungpa pers. comm. 2003), winter sightings of male Mallard *Anas platyrhynchos* at Chuba, Dombang, Common Merganser *Mergus merganser* at a fish pond near Sharchok, Lachung and Gadwall caught from Lachung a few years ago suggest that the valley could be a regular flyway for migratory waterbirds (U. Lachungpa pers. comm. 2003).

Biome-8: Si no-Hi mal ayan Subtropical Forest

Asian Emerald Cuckoo	<i>Chrysococcyx maculates</i>
Golden-throated Barbet	<i>Megalaima franklinii</i>
Blue-throated Barbet	<i>Megalaima asiatica</i>
Bay Woodpecker	<i>Blythipicus pyrrhotis</i>
Striated Bulbul	<i>Pycnonotus striatus</i>
Black Bulbul	<i>Hypsipetes leucocephalus</i>
Grey-winged Blackbird	<i>Turdus boulboul</i>
Purple Cochoa	<i>Cochoa purpurea</i>
Green Cochoa	<i>Cochoa viridis</i>
Rufous-chinned Laughingthrush	<i>Garrulax rufogularis</i>
Grey-sided Laughingthrush	<i>Garrulax caerulatus</i>
Rufous-capped Babbler	<i>Stachyris ruficeps</i>
Red-billed Leiothrix	<i>Leiothrix lutea</i>
Yellow-throated Tit-Babbler	<i>Alcippe cinerea</i>
Grey-headed Flycatcher-Warbler	<i>Seicercus xanthoschistos</i>
Red-headed Tit	<i>Aegithalos concinnus</i>
Black-throated Sunbird	<i>Aethopyga saturata</i>
Streaked Spiderhunter	<i>Arachnothera magna</i>
Maroon Oriole	<i>Oriolus traili</i>

OTHER KEY FAUNA

Notable mammals are Yellow-throated Marten *Martes flavigula*, Leopard Cat *Prionailurus bengalensis*, Spotted Linsang *Prionodon pardicolor*, Asiatic Black Bear *Ursus thibetanus*, Goral *Nemorhaedus goral*, Barking Deer *Muntiacus muntjak*, Weasels *Mustela* spp., Orange-bellied Squirrel *Dremomys lokriah* and Himalayan Palm Civet *Paguma larvata*. The Himalayan Pit Viper *Gloydius himalayanus* and other herpetofauna found in this IBA need further study.

LAND USE

- q Agriculture
- q Fisheries and aquaculture
- q Forestry
- q Military
- q Tourism and recreation

CONSERVATION ISSUES

- q Landslides and gully formation due to road construction and maintenance activities
- q Poaching of wildlife
- q Stray dogs
- q River pollution
- q Uncontrolled tourism

Subsistence farming of wheat, barley and maize is practised while potato, cabbage and cardamom are grown as cash crops. Some amount of cattle rearing is practiced with stall-fed hybrid milch cows and the rest grazed in forest areas. Farm trials of exotic Lilies, Angora Rabbits and improved livestock breeds are conducted here by the government. Handloom cottage industry for making blankets, rugs and carpets provides alternative employment.

As the area is near the international border with China, there is heavy army deployment. Their role so far has been limited to border security, but now they have to be given a major role in the protection of the area's biodiversity in collaboration with the State Forest Department and local communities. The State Forest Department lacks manpower and infrastructure to patrol these areas.

Constant heavy traffic on the roads in this IBA and faulty practices of road construction often using dynamite are responsible for many landslips and slides causing much loss of vegetation cover, besides destabilizing the landscape.

Road maintenance workers of the Border Roads Organisation often depend on easily available fuel wood around their shifting camps instead of kerosene that has to be purchased. There are also reports of poaching of wildlife from such areas.

So far there is no efficient system of waste disposal from the cantonments such as Pegong or the villages and townships between Lachung and Tsunghang and garbage is more often disposed off the hillside into the Lachung river. More non-biodegradable waste is noticeable nowadays with increase in tourism pressure and the change from tinned milk products to cartons and tetrapacks.

KEY CONTRIBUTOR

Usha Lachungpa

KEY REFERENCES

- BirdLife International (undated) Important Bird Areas (IBAs) in Asia: Project briefing book. BirdLife International, Cambridge, U.K., unpublished.
- Ganguli-Lachungpa, U. (2002) Eurasian Eagle-Owl *Bubo bubo tibetanus* Bianchi at 2100 m in North Sikkim. *J. Bombay Nat. Hist. Soc.* 99 (2): 305-306.
- Stattersfield, A. J., Crosby, M. J., Long, A. J. and Wege, D. C. (1998) Endemic Bird Areas of the World: Priorities for Biodiversity Conservation. BirdLife Conservation Series No. 7. BirdLife International, Cambridge, U.K.