

Expedition Tsheling Gor 2013



A Preliminary Survey Report on the Biodiversity of Northern Pemagatshel

BHUTAN

DOCUMENTATION

Institutions: Bhutan Ecological Society (BEST), Ugyen Wangchuck Institute for Conservation & Environment (DoFPS, MoAF), Wildlife Conservation Division (DoFPS, MoFA)

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Acknowledgement

The Expedition TshelingGor Team expresses their gratitude to the Ugyen Wangchuck Institute (UWICE) for supporting this expedition in the January-February 2013.



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Expedition TshelingGor 2013: A Survey Report on the Biodiversity

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Background:

Stories of *the Yeti* abound in folklore and many rural people in Bhutan believe in its existence. However, given the lack of evidence, scientists, both at home and abroad are not convinced of its presence. Given Bhutan's isolation and intact forest cover and encouraged by discoveries of new species in neighbouring countries, a few natural historians and enthusiasts still believe that the folklores could be true and that the yeti exists for real. In Bhutan, His Majesty Jigme Singye Wangchuck, the 4th Druk Gyalpo and his team have been following the stories of *Yeti's* appearances and looking up evidences left in remote country sides for the last 30 years.

TshelingGor, a well forested locality north of Pemagatshel is also a place with lots of Yeti stories. At noon, in mid January 2012, Mr. Sonam Dorji⁶, while driving his *i20* car from Gayzor towards Dolepchen, accompanied by his wife enroute to Pemagatshel observed an ape like mammal. At a road bend, one kilometer prior to Dolepchen, he saw an animal settled on four limbs at the edge of the roadside. The animal which had pitch black body then stood erect standing taller than 5 feet. Sonam and the animal exchanged piercing looks at each other, after which the animal turned around and disappeared into the forest.

This observation was reported to Dasho Paljor J. Dorji (Special Advisor to the National Environment Commission Secretariat). Dasho Paljor (also President of the Bhutan Ecological Society) coordinated to field an expedition from the Department of Forests and Park Services consisting of field experts from UWICE and WCD.

The TshelingGor Expedition: Rationale

Objectives:

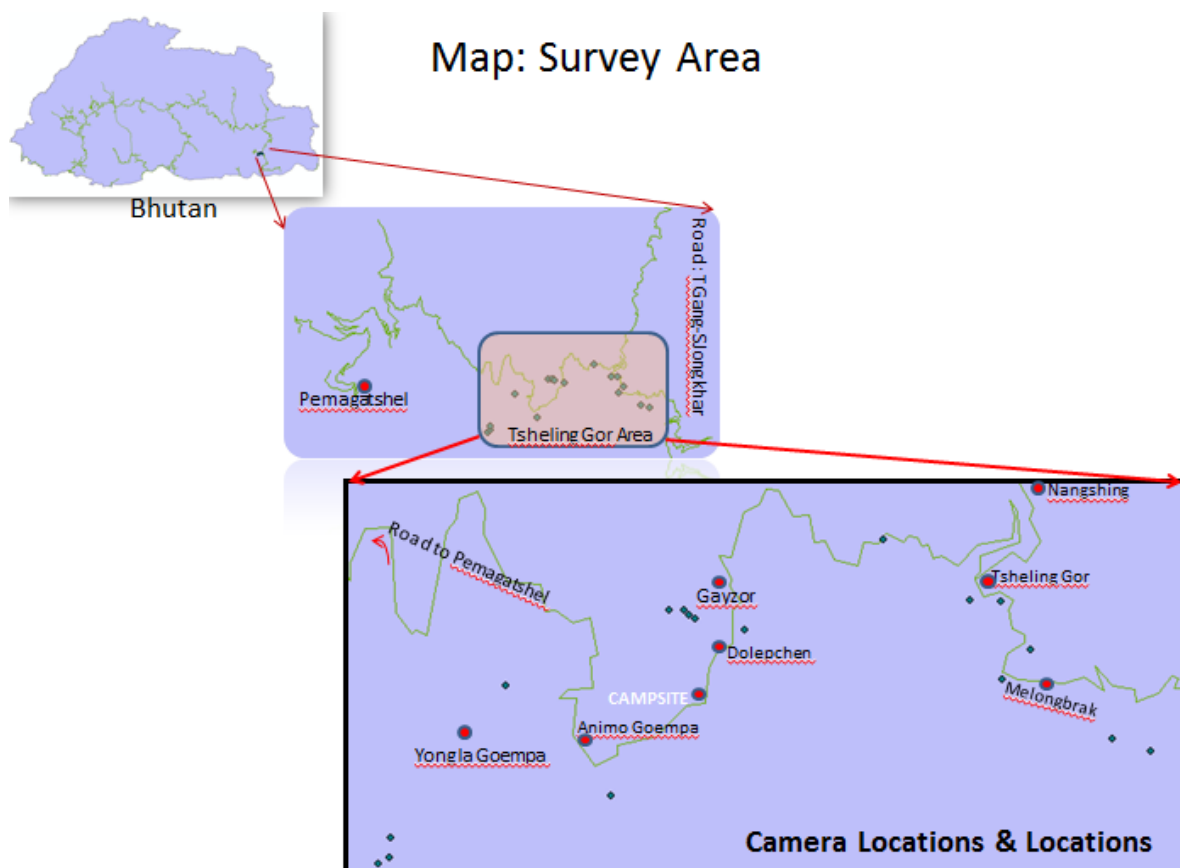
- To perform a first cut biodiversity documentation in the northern part of Pemagatshel,
- To understand habitat types and natural resources that sustains ape-like mammals,
- To document disturbance regimes to habitats and wildlife,
- To engage camera traps to remotely document wildlife in the expedition area,
- To provide on-the-job training of the forestry officials of Pemagatshel Range, and
- To explore for occurrence of an ape like mammal – supposedly the Yeti in the area.

⁶ Liaison Officer, SDEBFS Pvt., Samdrupjongkhar

Methods:

Informal consultative communications and meetings were held with village elders and field staffs of the Forestry Range Office, Pemagatshel to understand the likely locations of animal presence and movement. Location information on weird nocturnal acoustics, particularly of wildlife were gathered to further strengthen our reconnaissance of the area. The “Expedition-TshelingGor Team” performed a careful scouting of the TshelingGor area to understand its wildlife and habitats. Upon the performance of reconnaissance, a complete opportunistic method was engaged to install camera traps at locations where maximum animal traffic was probable (based on animal tracks and evidences).

18 camera traps were installed and run for 30 trap nights (25th Dec. – 24th Jan., 2013). A combination of Moultrie (n=1), Reconyx (n=8) and Cuddyback (n=9) cameras were used in the area (Map). A camera was tethered with bungee ropes or nylon straps on a live tree, at 3 meters above the ground and about 5 meters away from the focus point of the camera view on the ground. Mountain ridgelines and saddles, waterholes and saltlick sites were selected for installation of camera traps.



Results:

Habitat: The survey area covered mountain ridges of Nangshing, Tsheling Gor, Gayzor, Dolepchen, Animo Goempa and Yongla Goempa. Forest types in the survey area are mainly warm (1850-2150m) and cool (2150-2500m) broadleaf forests. The primary species in the

warm broadleaf forests are: *Quercus lanata*, *Lithocarpus elegans*, *Alnus nepalensis*, *Rhododendron arboreum*, *Exbucklandia populnea*, *Toona ciliata*, *Juglan regia*, *Bischofia javanica*, *Castanopsis indica*, *Mussaenda roxburghii*, *Ostedes paniculata*, *Schima wallichii*, *Engelhardtia spicata*, and *Rhaphidophora grandis*. The following were noted in cool broadleaf forests: *Quercus lamellose*, *Q. semicarpifolia*, *Q. glauca*, *Castanopsis hystrix*, *Michelia excelsa*, *M. champaca*, *Persea clarkeana*, *P. bootanica*, *Acer cambellii*, *A. sterculiaceum*, *Betula alnoides*, *Brassaiopsis alpina*, *Debregeasia longifolia*, and *Beilschmiedia sikkimensis*.

In the winter season, water resources for wildlife or people become scarce as most water resources are fed by monsoon rains. Salt lick sites in the survey area are a rare resource.

Wildlife: 18 camera traps were installed in three areas within the TshelingGor complex. 7 camera traps were fixed along the ridgeline from Nangshing to Melongbrak; 3 were installed on the ridgeline from Tsheling Gor to Animo Goempa; 4 cameras were secured in the forests of Gayzor; and 4 camera traps were fixed on two ridgelines distributed from Yongla Goempa summit.

14 mammal species were recorded in the survey area (Checklist 2). The three-striped Himalayan squirrel was an additional observation during the survey. A likely mongoose and an unknown mammal (just the picture of tail) species were also photographed. Assamese macaque (*Macaca assamensis*) and capped langur (*Trachypithecus pileatus*) were also found. (Plate: *The Apes*).

The highlights of this survey were 3 individuals of Common Leopard (*Panthera pardus*), wherein both the usual and melanistic morphs are found in the area (Plate: *The Cats*).

Among the carnivores, abundance can be ranked in the declining order of yellow-throated marten(n=8), wild dog(n=4), common leopard (n=3) to leopard cat (n=1). Although foraging signs of the black bear were found, no pictures were obtained on camera traps. The most abundant ungulate species is wild pig(n=>15), followed by the barking deer (n=>8), serow (n=3) and goral(n=2) (Plate: *The Ungulates*).

3 bird species were also captured. They were the mountain hawk eagle (*Spizaetus nipalensis*), blue whistling thrush (*Myophonus caeruleus*) and hill partridge (*Arborophila torqueola*) (Plate: *The Birds*). However, during the camera installation period 77 bird species were observed (Checklist 3).

3 cameras fixed in the high forests with least human disturbances had the least number of photographs recorded.

Strange Evidence: About a 20 minute-walk from the telecommunication facilities at Yongla Goempa, on the southerly ridgeline was a 5 by 3 meters corral (Plate: *The Strange Animal Sign*). This corral has been built with fallen branches of the trees. The stacked branches of the corral have no signs of knife use or other tools. On the outside of the corral were signs of leopard loitering around.

A pile of lithocarpus acorn was observed on a small flat boulder on one of the hillocks at Melongbrak. The team had no idea of a wildlife species that does such gathering activity (Plate: *The Strange Animal Sign*).

Conclusion and Future Expedition:

The ape like mammal observed and witnessed in the locality could not be detected during this camera trapping exercise. The checklist of species diversity documented in this report is a bare minimum representation of biodiversity that occurs in the Tsheling Gor complex. Given the potential to discover new species, the “Expedition Tsheling Gor Team” highly recommends the carrying out of a more systematic and intensive biodiversity survey of this area. In particular, investigation of the strange animal corral may lead to the discovery of the long awaited Yeti.



A corral like structure

Checklist 1: Plant of Northern part of Pema Gatshel: Expedition Tsheling Gor (20-24 Jan 2013)

Sl no.	Plant Species (botanical names)	Habit	Food Source for Wildlife
1	<i>Quercus lamellosa</i>	Tree	Acorn
2	<i>Quercus lanata</i>	Tree	Acorn
3	<i>Quercus semicarpifolia</i>	Tree	Acorn
4	<i>Quercus glauca</i>	Tree	Acorn
6	<i>Castanopsis hystrix</i>	Tree	Acorn
7	<i>Castanopsis indica</i>	Tree	Acorn
8	<i>Michelia champaca</i>	Tree	
9	<i>Michelia excelsa</i>	Tree	
10	<i>Toona ciliata</i>	Tree	
11	<i>Rhus chinensis</i>	Tree	
12	<i>Juglan regia</i>	Tree	Nut
13	<i>Persea bootanica</i>	Tree	Fruit
14	<i>Persea clarkeana</i>	Tree	Fruit
15	<i>Schima wallichii</i>	Tree	
16	<i>Nisha japonica</i>	Tree	
17	<i>Eurya cerasifolia</i>	Tree	
18	<i>Symplocos lucida</i>	Tree	Fruit
19	<i>Symplocos glomerata</i>	Tree	Fruit
20	<i>Daphniphyllum chartaceum</i>	Tree	Fruit
21	<i>Rhododendron arboreum</i>	Tree	Buds
22	<i>Rhodoendron grande</i>	Tree	Buds
23	<i>Alnus nepalensis</i>	Tree	
24	<i>Betula alnoides</i>	Tree	Fruit
25	<i>Elaeocarpus laneafolius</i>	Tree	
26	<i>Pinus bhutanica</i>	Tree	
27	<i>Beilschmiedia sikkimensis</i>	Tree	
28	<i>Lyonia ovalifolia</i>	Tree	
29	<i>Cinamomum glaucescens</i>	Tree	
30	<i>Acer campbellii</i>	Tree	
31	<i>Exbucklandia populnea</i>	Tree	
32	<i>Toricellia tillifolia</i>	Tree	
33	<i>Debregeasia longifolia</i>	Tree	
34	<i>Ficus semicordata</i>	Tree	Fruit
35	<i>Hoveina acerba</i>	Tree	
36	<i>Engelhardtia spicata</i>	Tree	
37	<i>Lithocarpus elegans</i>	Tree	Acorn
38	<i>Morus alba</i>	Tree	Fruit
39	<i>Rhus paniculata</i>	Tree	
40	<i>Sauraja napaulensis</i>	Tree	
41	<i>Talauama hodgsonii</i>	Tree	
42	<i>Macaranga denticulata</i>	Tree	
43	<i>Macaranga peltata</i>	Tree	
44	<i>Docynia indica</i>	Tree	Fruit
45	<i>Calanthe plantaginea</i>	Ground orchid	
46	<i>Artemesia bulgaries</i>	Herb/ Shrub	
47	<i>Pteridium sp.</i>	Herb/ Shrub	
48	<i>Piptanthus nepalesis</i>	Herb/ Shrub	

49	<i>Daphne bholua</i>	Herb/ Shrub	Fruit
50	<i>Viburnum cylindricum</i>	Herb/ Shrub	Fruit
51	<i>Euphorbia royleana</i>	Herb/ Shrub	
52	<i>Eupatorium odoratum</i>	Herb/ Shrub	
53	<i>Elsholtzia fruticosa</i>	Herb/ Shrub	
54	<i>Gerardinia diversifolia</i>	Herb/ Shrub	
55	<i>Buddleja asiatica</i>	Herb/ Shrub	
56	<i>Elatostema lineolatum</i>	Herb/ Shrub	
57	<i>Aconogonum molle</i>	Herb/ Shrub	
58	<i>Arisaema flavum</i>	Herb/ Shrub	
59	<i>Gultheria fragrantissima</i>	Herb/ Shrub	Fruit
60	<i>Cirsium falconeri</i>	Herb/ Shrub	
61	<i>Hedychium spicatum</i>	Herb/ Shrub	
62	<i>Rubus ellipticus</i>	Herb/ Shrub	
63	<i>Rumex nepalensis</i>	Herb/ Shrub	
64	<i>Ardesia macrocarpa</i>	Herb/ Shrub	
65	<i>Geranium sp.</i>	Herb/ Shrub	
66	<i>Hydrangea macrophylla</i>	Herb/ Shrub	
67	<i>Luculia gratissima</i>	Herb/ Shrub	
68	<i>Luculia grandifolia</i>	Herb/ Shrub	
69	<i>Rhododendron virgatum</i>	Herb/ Shrub	
70	<i>Chinomobambusa callosa</i>	Herb/ Shrub	
71	<i>Rhododenron maddenii</i>	Herb/ Shrub	
72	<i>Rhododendron triflorum</i>	Herb/ Shrub	
73	<i>Rhododendron rhabdotum</i>	Herb/ Shrub	
74	<i>Rhododendron griffithianum</i>	Herb/ Shrub	
75	<i>Rhododendron lindleyi</i>	Herb/ Shrub	
76	<i>Dichroa febrifuga</i>	Herb/ Shrub	
77	<i>Primula denticulata</i>	Herb/ Shrub	
78	<i>Borinda grossa</i>	Grass	
79	<i>Miscanthus sp.</i>	Grass	
80	<i>Agrostis sp.</i>	Grass	
81	<i>Eragrostis nigra</i>	Grass	
82	<i>Clamagrostis sp.</i>	Grass	
83	<i>Pennisetum sp.</i>	Grass	
84	<i>Danthonia sp.</i>	Grass	
85	<i>Musa sikkimensis</i>	Banana	
86	<i>Rhaphidofora glauca/grandis</i>	Climber	
87	<i>Clematis sp.</i>	Climber	
88	<i>Crawfordia speciosa</i>	Climber	
89	<i>Rubia cordifolia</i>	Climber	
90	<i>Smilax ovalifolia</i>	Climber	
91	<i>Gastrochilus distichus</i>	Orchid	
92	<i>Cymbidium sp.</i>	Orchid	
93	<i>Dendrobium longicornu</i>	Orchid	
94	<i>Dendrobium falconeri</i>	Orchid	
95	<i>Dendrobium frimbiatum</i>	Orchid	
96	<i>Dendrobium chrysanthum</i>	Orchid	
97	<i>Dendrobium densiflorum</i>	Orchid	
98	<i>Bulbophyllum sp.</i>	Orchid	

99	<i>Pleione humilis</i>	Ground orchid	
100	<i>Scurulla parasitica</i>	mistletoe	
101	<i>Viscum album</i>	mistletoe	

Checklist 2: Mammals of Northern part of Pema Gatschel: Expedition Tsheling Gor (24 Jan-25 Feb 2013)

Sl no.	Scientific Name	Common Name	Remarks
1	<i>Muntiacus muntjak</i>	Barking Deer	
2	<i>Naemorhedus goral</i>	Goral	
3	<i>Naemorhedus sumatraensis</i>	Serow	
4	<i>Panthera pardus</i>	Common Leopard	
5	<i>Panthera pardus</i>	Black Panther	melanistic morph
6	<i>Prionailurus bengalensis</i>	Leopard Cat	
7	<i>Cuon alpinus</i>	Wild Dog	
8	<i>Paguma larvata</i>	Himalayan Palm Civet	
9	<i>Martes flavigula</i>	Yellow-throated Martin	
10	<i>Macaca assamensis</i>	Assamese Macaque	
11	<i>Trachypithus pileatus</i>	Capped Langur	
12	<i>Funambulus palmarum</i>	Three-striped Himalayan Squirrel	
13	<i>Dremomys lokriah</i>	Orange-bellied Squirrel	
14		Mongoose	
15	<i>Unknown</i>	Unknown	Just a long tail is visible



Checklist 3: Birds of Northern part of Pema Gatshel: Expedition Tsheling Gor (20-25 Jan 2013)

Sl no.	Scientific Name	Common Name	Remarks
1	<i>Arborophilla torqueola</i>	Hill Partridge	
2	<i>Lophura melanota lathamii</i>	Kalij Pheasant	
3	<i>Blythipicus pyrrhotis</i>	Bay Woodpecker	
4	<i>Dencrocopos hyperithrus</i>	Rufous-bellied Woodpecker	
5	<i>Picus flavinucha</i>	Greater Yellownappe	
6	<i>Dendrocopos darjellensis</i>	Drajeeling Woodpecker	
7	<i>Megalaima virens</i>	Great Barbet	
8	<i>Megalaima franklinii</i>	Golden-throated Barbet	
9	<i>Megalaima asiatica</i>	Blue-throated Barbet	
10	<i>Otus bakkamoena</i>	Collared Scops Owl	
11	<i>Glaucidium brodiei</i>	Collared Owlet	
12	<i>Strix aluco</i>	Himalayan Wood Owl	
13	<i>Strix leptogrammica</i>	Brown Wood Owl	
14	<i>Streptopelia orientalis</i>	Oriental Turtle Dove	
15	<i>Macropygia unchall</i>	Barred Cuckoo Dove	
16	<i>Treron sphenura</i>	Wedge-tailed Green Pigeon	
17	<i>Ictinaetus malayensis</i>	Black Eagle	
18	<i>Gyps himalayensi</i>	Himalayan Griffon	
19	<i>Buteo buteo</i>	Common Buzzard	
20	<i>Spizaetus nipalensis</i>	Mountain Hawk Eagle	
21	<i>Harpactes wardii</i>	Ward's Trogon	
22	<i>Urocissa flavirostris</i>	Yellow-billed Blue Magpie	
23	<i>Cissa chinensis</i>	Common Green Magpie	
24	<i>Cissa glandarius</i>	Eurasian Jay	
25	<i>Corvus macrorhynchos</i>	Large-billed Crow	
26	<i>Rhipidura hypoxantha</i>	Yellow-bellied Fantail	
27	<i>Rhipidura albicollis</i>	White-throated Fantail	
28	<i>Dicrurus remifer</i>	Lesser Racket-tailed Drongo	
29	<i>Monticola rufiventris</i>	Chestnut-bellied Rock Thrush	
30	<i>Myophonus caeruleus</i>	Blue Whistling Thrush	
31	<i>Zoothera mollissima</i>	Plain-backed Thrush	
32	<i>Muscicapa sibirica</i>	Dark-sided Flycatcher	
33	<i>Ficedula strophilata</i>	Rufous-gorgeted Flycatcher	
34	<i>Tarsiger cyanurus</i>	Orange-flanked Bush Robin	
35	<i>Phoenicurus frontalis</i>	Blue-fronted Redstart	
36	<i>Chaimarrornis leucocephalus</i>	White-capped Water Redstart	
37	<i>Sitta himalayensis</i>	White-tailed Nuthatch	
38	<i>Troglodytes troglodytes</i>	Winter Wren	
39	<i>Parus monticolus</i>	Green-backed Tit	
40	<i>Parus spilonotus</i>	Yellow-cheeked Tit	
41	<i>Aegithalos concinnus</i>	Black-throated Tit	
42	<i>Pycnonotus striatus</i>	Striated Bulbul	
43	<i>Hypsipetes mcclllandii</i>	Mountain Bulbul	
44	<i>Arboscopus schisticeps</i>	Black-faced Warbler	
45	<i>Phylloscopus maculipennis</i>	Ashy-throated Warbler	
46	<i>Garrulax albogularis</i>	White-throated Laughingthrush	
47	<i>Garrulax striatus</i>	Striated Laughingthrush	

48	<i>Garrulax leucogenys</i>	Grey-sided Laughingthrush	
48	<i>Grallax lineatus</i>	Bhutan Laughingthrush	
50	<i>Garrulax erythrocephalus</i>	Chestnut-crowned Laughingthrush	
51	<i>Pomatorhinus ruficollis</i>	Streak-breasted Scimitar Babbler	
52	<i>Leiothrix lutea</i>	Red-billed Leiothrix	
53	<i>Myzornis pyrrhoura</i>	Fire-tailed Myzornis	
54	<i>Cutia nipalensis</i>	Cutia	
55	<i>Pteruthis rufiventor</i>	Black-headed Shrike-Babbler	
56	<i>Actinodura egertoni</i>	Rusty-fronted Barwing	
57	<i>Actinodura nepalensis</i>	Hoary-throated Barwing	
58	<i>Minla strigula</i>	Chestnut-tailed Minla	
59	<i>Minla ignotincta</i>	Red-tailed Minla	
60	<i>Alcippe cinerea</i>	Yellow-throated Fulvetta	
61	<i>Alcippe castaneiceps</i>	Rufous-winged Fulvetta	
62	<i>Alcippe nipalensis</i>	Nepal Fulvetta	
63	<i>Yuhina flavicollis</i>	Whiskered Yuhina	
64	<i>Yuhina gularis</i>	Stripe-throated Yuhina	
65	<i>Yuhina occipitalis</i>	Rufous-vented Yuhina	
66	<i>Stachyris ruficeps</i>	Rufous-capped Babbler	
67	<i>Heterophasia capistrata</i>	Rufous Sibia	
68	<i>Dicaeum ignipectus</i>	Fire-breasted Flowerpecker	
69	<i>Aethopyga nipalensis</i>	Green-tailed Sunbird	
70	<i>Passer rutilans</i>	Russet Sparrow	
71	<i>Prunella strophiata</i>	Rufous-breasted Accentor	
72	<i>Prunella immaculata</i>	Maroon-backed Accentor	
73	<i>Motacilla alba</i>	White Wagtail	
74	<i>Motacilla cinerea</i>	Grey Wagtail	
75	<i>Anthus hodgsoni</i>	Olive-backed Pipit	
76	<i>Propyrrhula subhimachala</i>	Crimson-browed Finch	
77	<i>Pyrrhula erythrocephala</i>	Red-headed Bullfinch	

Plate: Pictures of the Wildlife from the Expedition Tsheling Gor (25th Jan – 24th Feb 2013)

The Cats: in camera trap



Common Leopard (melanistic morph)



Common Leopard (usual morph)

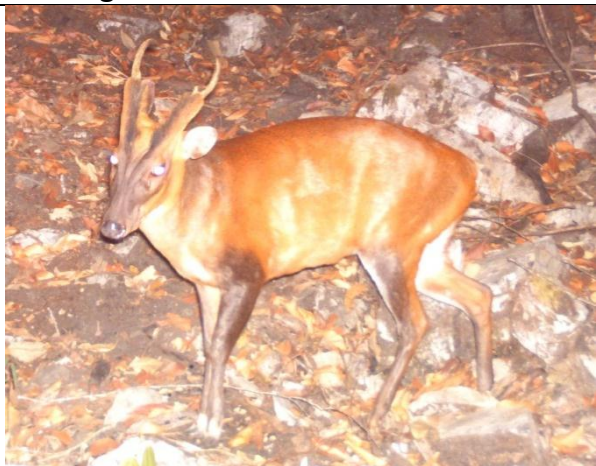


Common Leopard (usual morph)



Leopard Cat

The Ungulates



Barking Deer (male)



Barking Deer (a pair)



2/5/2013 6:44 PM

Serow (a pregnant female)



1/27/2013 11:26 PM

Serow (male)



Serow (female)



Goral



1/26/2013 6:16 PM

Wild Pig (boar)



2/12/2013 7:00 AM

Wild Pig (group)

The Canids, Martens & Civets: in camera trap



Wild Dog



Yellow-throated Martin



RF IRE

Himalayan Palm Civet



Unknown

The Primates: in camera trap



Assamese Macaque



Capped Langur

The Birds: in camera trap



Mountain Hawk Eagle

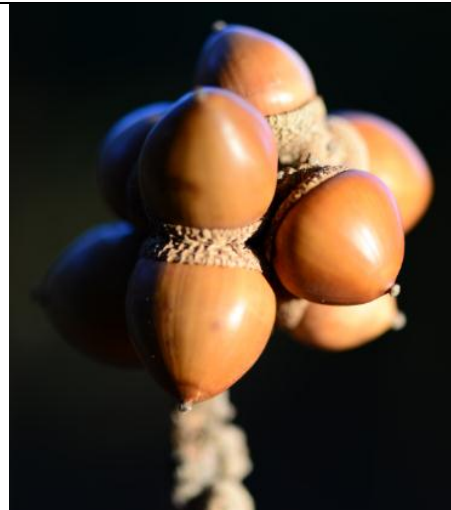


Blue Whistling Thrush

The Plant



Rhododendron grande



Lithocarpus elegans



Castanopsis hystrix



Quercus lanata

The Strange Wildlife Sign



A pile of lithocarpus acron



Corral like structure