



# Habitat study of Snow cock in Sikkim Himalaya

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## Abstract

*Tetraogallus himalayensis* G.R.Gray, Snow Cock, is a bird of alpine habitat that lives in the Tibetan plateaus and adjoining hills.

The vegetation matrix of habitat of this species studied and enumerated for understanding the vegetation of alpine regions of Sikkim.

**Keywords:** Sikkim Himalaya, Snow Cock, *Tetraogallus himalayensis*, Vegetation Matrix.

## Introduction

The snow cock is the one of the bird species that lives at the alpine priares, the bases of mountains in Sikkim Himalaya, India (Gulia, 2005; Chandra *et al.*, 2018; Jha, 2021). The study conducted in the North Sikkim where the Snow Cock is dwelling in the unique habitats. It mostly found in the alpine regions preferentially around the networks of lakes. It breeds onset of April and May and caters young from July and September.

The information on vegetation matrix of habitat of this species is less documented thus, the paper is presented.

## Materials and Methods

Renaissance of the data obtained from the field survey of North Sikkim is presented. The vegetation matrix of the region studied (Hooker, 1872-1897; Hooker and Thompson, 1855 Hara, 1966) referring to the specimens of SSFH (Sikkim State Forest Herbarium), Gangtok.

## TAXONOMY

**Scientific Name:** *Tetraogallus himalayensis* G.R.Gray, 1843. In : Zoology Accessions Register: Aves (Skins): 1837 -1853: page 80.

**Syntype:** *Tetraogallus himalayensis* G.R.Gray, 1843 NHMUK ZOO 1838.7.9.10

**Distribution:** INDIA: SIKKIM: Singa Pokari, North Sikkim. At the base of Lamaongden Peak.

**Specimen sighted:** Near to the two lakes of Lamaongden Peak, North Sikkim.

## Results and Discussion

The Himalayan Snowcock feeds leaves, shoots, seed, fruit and berries of the different plant species. Maintaining the undisturbed ecological balance in the pristine forest, this species are living in the alpine forest. Biodiversity is the core for functional ecological unit. Thus, the vegetational matrix of the region presented.

Enumerated species which cover the splendid forest habitat of Snow cock are follows:

1. *Allardia glabra* Decne [Compositae] Lhonak Valley, North Sikkim 5000m;
2. *Cassiope selaginoides* Hook.f. & Thomson, [Ericaceae], Upper Thangu, North Sikkim, 4500m;
3. *Hypericum elodeoides* Choisy [Hypericaceae] Thangu, North Sikkim, 4600m;
4. *Fritillaria cirrhosa* D.Don, [Liliaceae], Upper Thangu, North Sikkim, 4800m;
5. *Hemiphragma heterophyllum* Wall, [Plantaginaceae], Thangu, North Sikkim, 4800m;
6. *Caltha scaposa* Hook. F. & Thomson, [Ranunculaceae], Lhonak Valley, 4800 m;
7. *Erigeron multiradiatus* Lindl. ex DC [Compositae], Lhonak Valley, North Sikkim 4800m;
8. *Cotoneaster microphylla* Wall ex Lindl [Rosaceae], Thangu, North Sikkim, 4100m;
9. *Bupleurum dalhousianum* (C.B. Clarke) Koso-Pol, [Umbelliferae], Thangu, North Sikkim, 4500m;
10. *Cerastium glomertum* Thuiiu [Caryophyllaceae], Thangu, North Sikkim, 4500m;
11. *Chenopodium album* L [Chenopodiaceae], Near Kalapathar, North Sikkim, 4200m;
12. *Cotoneaster microphylla* Wall ex Lindl, [Rosaceae], Kalapathar, North Sikkim, 4100m;
13. *Cyananthus incanus* var *orientalis* Hook.f & Thomson [Campanulaceae], Thangu, North Sikkim 4500m;
14. *Cyanotis vaga* (Lour) Schult.& Schult. f [Commelinaceae], Thangu-Jakthang, North Sikkim, 4500m;
15. *Diplarche multiflora* Hook f. & Thomson [Ericaceae], Lhonak Valley, North Sikkim, 4900m;
16. *Eriophytum wallichii* Benth, [Lamiaceae], Upper Thangu, North Sikkim, 4100m
17. *Fragaria vesca* L [Rosaceae]; Thangu, North Sikkim, 4000m;
18. *Gallium mollugo* L., [Rubiaceae], Thangu, North Sikkim, 4500m;
19. *Gallium acutum* Edgew, [Rubiaceae], Thangu, North Sikkim, 4500m;
20. *Gaultheria hookeri* C.B Clarke [Ericaceae] Thangu, North Sikkim, 4000m;
21. *Gentiana elwesii* C.B Clarke [Gentianaceae], Lhonak Valley, North Sikkim 4800m;
22. *Gentiana infelix* C.B Clarke, [Gentianaceae] Lhonak Valley, North Sikkim, 4800m;
23. *Geranium nepalense* Sweet. [Geraniaceae] Chopta Valley, North Sikkim, 4100m;
24. *Gentiana nubigena* Edgew., [Gentianaceae], Lhonak Valley, North Sikkim, 4800m;
25. *Gentiana robusta* King ex Hook.f [Gentianaceae], Lhonak Valley, North Sikkim, 5000m;

26. *Geranium donianum* Sweet, [Geraniaceae] Thangu, North Sikkim, 4500m;
27. *Lancea tibetica* Hook.f & Thomson [Phrymaceae], Kalapathar, Chopta Valley, North Sikkim, 4100m-4800m;
28. *Leontopodium alpinum* Colm.ex Cass. [Compositae] Lhonak Valley, North Sikkim 5000m;
29. *Myricaria rosea* W.W Sm. [Tamaricaceae], Upper Pink, North Sikkim 4500m;
30. *Neillia rubiflora* D.Don, [Rosaceae], Thangu, North Sikkim, 4000m;
31. *Pedicularis longiflora* Rudolph, [Scrophulariaceae], Lhonak Valley, North Sikkim, 4800m;
32. *Potamogeton javanicus* Hassk. [Potamogetonaceae], Thangu, North Sikkim, 4300m;
33. *Primula capitata* Hook, [Primulaceae], Thangu, North Sikkim, 4200 m;
34. *Potamogeton nodosus* Poir., [Kalapathar], Thangu, North Sikkim, 4100m;
35. *Potentilla cuneata* Wall. ex Lemn., [Rosaceae], Thangu- Munguthang, Lhonak Valley, Kalapathar, North Sikkim, 4800m
36. *Potentilla fruticosa* var *asbuscula* (D.Don) Maxim [Rosaceae], Muguthang, North Sikkim, 4000m;
37. *Potentilla fruticosa* L., [Rosaceae] Lhonak Valley, North Sikkim, 5200m;
38. *Potentilla polyphylla* Wall ex Letim, [Rosaceae], Chopta Valley, North Sikkim 4100m;
39. *Primula minutissima* Lacquem ex Duby, [Primulaceae], Chopta Valley, North Sikkim, 4000m;
40. *Potentilla polyphylla* Wall ex Lehm, [Rosaceae] Thangu, North Sikkim, 4200m;
41. *Primula primulina* (Spreng.) H.Hara, [Primulaceae], Chopta Valley, Thangu, North Sikkim, 4100m-4200m,
42. *Ranunculus brotherusi* Freyn, [Ranunculaceae] Chopta Valley, North Sikkim 4100m;
43. *Ranunculus diffusus* DC, [Ranunculaceae], Chopta Valley, North Sikkim, 4100m;
44. *Ranunculus sardous* Crantz, [Ranunculaceae], Kalapathar, North Sikkim, 4200m;
45. *Rhodiola bupleuroides* Wall ex. Hook. f. & Thomson) S.H. Fu, Crassulaceae, Chopta Valley, North Sikkim, 4100m;
46. *Rhodiola himalensis* (D.Don) S.H. Fu [Crassulaceae], Upper Thangu, North Sikkim 4000m;
47. *Ribes lacinatedum* Hook.f and Thomson, [Rosaceae], Chopta Valley, North Sikkim, 4100m;
48. *Rubus mocilentus* Jacque ex Cambess, [Rosaceae], Chopta Valley, North
49. *Sagina japonica* (Sw ) Ohwi. [Caryophyllaceae], Lhonak Valley, North Sikkim, 4800 m;
50. *Saxifraga mucronulata* Royle, [Saxifragaceae] Thangu, North Sikkim, 4500m;

51. *Silene gonosperma* s.sp *humalayensis* (Rohrb.) Bocquet [Caryophyllaceae], Lhonak Valley, North Sikkim, 4800m;
52. *Thalictrum virgatum* Hook. F & Thomson [Ranunculaceae] Chopta Valley, North Sikkim, 4100m;
53. *Thuja orientalis* L. [Cupressaceae] Thangu, North Sikkim, 4500m to name a few.

The inventory of these species documented to discourse the habitat of Snow cock. The specimens mentioned are exceptional for maintaining habitat of Snow Cock that can be referred in future for the prospective planning.

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