

Fauna of protected areas - 27:
**ORTHOPTERAN DIVERSITY OF
 PIN VALLEY NATIONAL PARK,
 LAHAUL AND SPITI, INDIA**

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Among insects, the order Orthoptera is one of the largest having over 20,000 species worldwide with about 10% of the total world species (1,750 species; Tandon & Hazra, 1998) recorded from India. A number of remarkable endemic genera and species of Orthopterans occur in Himalaya. The highest elevation at which these insects have been found in north west Himalaya is between 4775 and 4875m (Mani, 1968). Bhowmik and Rui (1982), Bhowmik and Halder (1984), Tandon and Shishodia (1995), Shishodia *et al.* (2002), and Mehta *et al.* (2002) have worked on the orthopteran fauna of western Himalaya.

Orthopteran fauna of Pin Valley National Park (PVNP), Lahaul and Spiti were collected from different localities. Grasshoppers were collected using insect nets, by sweeping, light-trap and hand picking methods. Collected specimens were preserved in paradichloro benzene. In the laboratory, specimens were relaxed and allowed to dry in a desiccator for 2-3 weeks depending on climatic conditions. The dried specimens were transferred to airtight boxes, treated with benzene and powdered naphthalene and permanently labeled. All the preserved specimens of grasshoppers from different parts of Pin Valley National Park were identified based on their diagnostic morphological features, genitalia and other taxonomic features and based on the taxonomic key for identification of families, genera and species by Kirby (1914). Identification was also carried out with the help of earlier records of Sociobiology and Behavioural Ecology Research Laboratory of Department of Biosciences, Himachal Pradesh University, Shimla; High Altitude Zoology Field Station, Zoological Survey of India, Solan; Zoological Survey of India, Kolkata; and the Indian Agricultural Research Institute, New Delhi.

Physiography: Situated between 31°44'57"-32°59'57"N & 76°46'29"-78°41'34"E at an altitude of 3,300 to 6,632m, Lahaul-Spiti is a cold desert (temperature 19.7°-10°C), interspersed with a few alpine meadows. There is heavy pressure on the meadows during the seasonal influx of livestock of migratory graziers. The National Park (established on 9 January 1987) occupies an area of 67,500ha. The forest types include dry alpine, scrub and dwarf juniper scrub. Big mammal fauna of area are Red Indian Fox, Ibex, Tibetan Gazelle, Snow Leopard, Himalayan Marmot, Himalayan Mouse-hare, Indian Hodgsoris Blue Sheep and Indian Wolf.

Orthopterans of Pin Valley National Park, Lahaul and Spiti

Order: Orthoptera

Family: Acrididae

Subfamily: Acridinae

***Anaptygus rectus* Ragge**

Material examined: 1M, 3.vi.2002., near forest hut Kaza Spiti, coll. S.K. Thakur.

Sub-family: Oedipodinae

***Oedipoda himalayana* Uvarov**

Material examined: 5M, 3F, 2 nymph, 10.x.2002, Gechang Sagnum, coll. S.K. Thakur

***Sphingonotus longipennis* Saussure**

Material examined: 2M, 9.x.2002, Mudh, Sagnum; 1F, 10.x.2002, Thango (Core zone), coll. S.K. Thakur

***Sphingonotus* sp.**

Material examined: 1F, 9.x.2002, Mudh, Sagnum

***Gastrimargus africanus sulphureus* (Bei-Bienko)**

Material examined: 1M, 3.vi.2002, Near forest hut Kaza Spiti, coll. S.K. Thakur.

***Bryodema luctuosum indum* (Saussure)**

Material examined: 1F, 1M, 9.xi.2002, core zone PVNP, S.K. Thakur

Subfamily: Catantopinae

***Paraconophyma scabra* (Walk.)**

Material examined: 1F, 9.x.2002, Mudh, coll. S.K. Thakur.

Catantops humilis humilis

Material examined: 1M, 3.vi.2002, Near forest hut Kaza Spiti, coll. S.K. Thakur.

Subfamily: Gomphocerinae

***Dnopherula (Aulacobothrus)* sp.**

Material examined: 1M (Nymph) 3.vi.2002, Mudh; 1F, 9.x.2002, Thango.
Remarks: One nymph was collected in Nov. 2002 below 0°C.

***Chorthipus (Chorthipus)* sp.**

Material examined: 1M, 4F (Nymph), 11.x.2002, Manthang Sagnum coll. S.K. Thakur.

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