

## Distributional Record of Orthopteran Diversity in the Pin Valley National Park, Western Himalaya

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Among insects, Orthoptera is one of the largest orders, having over 20,000 species from whole world and about 1,750 species (Tandon & Hazra, 1998), which is about 10% of the total world species. A number of remarkable endemic genera and species of Orthopterans occur in the Himalaya. In the North West Himalaya, highest elevation at which these insects have been found is between 4775 and 4875m (Mani, 1968).

The Pin Valley national park is situated between 31° 44' 57" and 32° 59' 57" N latitude, and between 76° 46' 29" and 78° 41' 34" E longitude, at the altitude 3,300 to 6,632 meters in Trans Himalaya. The temperature of this park varies from 19.7° to -10° C. Pin valley National Park is a cold desert, interspersed with a few alpine meadows, but there is a heavy pressure on the meadows, the seasonal influx of livestock of migratory graziers. It was declared as a National Park on 9th January 1987. It occupies the area of 67,500 hectares. Forest types found include, Dry Alpine, Scrub and Dwarf Juniper scrub. The Mammal fauna of area includes- Red India fox, Ibex, Tibetan gazelle, Snow Leopard, Himalayan Marmot, Himalayan Mouse-hare, Indian Hodgson's Blue Sheep, wolf etc.

Present studies were conducted by collecting grasshopper samples from different localities, at different altitudes and climatic conditions. Grasshoppers were collected using insect net, by sweeping, light-trap and hand picking. In laboratory, the specimens were relaxed in a specially prepared relaxing chamber, stretched, pinned and then allowed to dry in a desiccator for 2-3 weeks depending on climatic conditions. All identified specimens were deposited in the Sociobiology and Behavioural Ecology research laboratory of Department of Biosciences, Himachal Pradesh University, Shimla. All specimens were collected by S.K. Thakur.

Present study reveals ten species of Orthoptera under five subfamilies and one family. Earlier Shishodia (2008) recorded five species (2 up to generic level) distributed under one family and five genera. Five species are new record (marked with asterisks \*) for the state of Himachal Pradesh.

**Order: Orthoptera**

**Family: Acrididae**

**Subfamily: Acridinae**

1. *Anaptygus rectus* Ragge\*

Material examined: 1 ex male, 03. vi. 2002, near forest hut Kaza (3400m).

**Subfamily: Oedipodinae**

2. *Oedipoda himalayana* Uvarov

Material examined: 1 ex male, 3 ex female, 1 Nymph, 10.x.2002, Sagnum (3500m).

3. *Sphingonotus longipennis* Saussure

Material examined: 2 ex male, 09.x.2002, Mudh Sagnum (3500m); 1ex, 10. x. 2002, (3900m), Thango (3900m).

4. *Sphingonotus* sp.\*

Material examined: 1 ex, 09.x.2002, Mudh Sagnum (3500m).

5. *Gastrimargus africanus sulphureus* (Bei-Bienko)\*

Material examined: 1 ex male, 03. vi. 2002, near forest hut Kaza (3400m).

**Subfamily: Catantopinae**

6. *Paraconophyma sacabra* (Walker)

Material examined: 1 ex. 09.x.2002, Mudh (3500m).

7. *Catantops humalis humilis*\*

Material examined: 1 ex male, 03. vi. 2002, near forest hut Kaza (3400m).

8. *Bryodema luctuosum indum* (Saussure)\*

Material examined: 1 ex female, 1 ex male, 09. xi. 2002, Thango (3900M).

**Subfamily: Gomphocerinae**

9. *Dnopherula (Aulacobothrus)* sp.

Material examined: 1 ex male, 03. vi. 2002, Mudh (3500m); 1 ex female, 09.x.2002, Thango (3900m).

10. *Chorthipus (Chorthipus)* sp.

Material examined: 1 ex male, 4 ex female, 11. x. 2002, Manthang Sagnum (3500m).

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