



New records of Acridoidea (Insecta : Orthoptera) from Punjab, India

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Abstract

Six species of short-horned grasshoppers *i.e.*, *Leva indica* (Bolivar), *Gelastorhinus filatus* (Walker), *Pusana ruglosa* (Uvarov), *Eucoptacra praemorsa* (Stal), *Chondracris rosea* (De Geer), *Xenocatantops karnyi* (Kirby) under family Acrididae and superfamily Acridoidea have been reported for the first time from the state Punjab.

Keywords: Orthoptera, Acridoidea, Oedipodinae, Catantopinae, Punjab

Grasshoppers constitute an interesting and agriculturally important group of insects. They are widely distributed in all ecological regions. The order Orthoptera is one of the largest orders of insects, having approximately 24000 species worldwide of which 1033 species/subspecies are recorded from India (Shishodia *et al.*, 2010). Acridoidea is one of the most sought after superfamilies of the order Orthoptera. Short-horned grasshoppers are included in the superfamily Acridoidea. They constitute an interesting and agriculturally important group of insects. They are moderate in size, but range from less than 10 mm to 65 mm. The form of body shape, head and thorax are diverse; antennae are filiform but sometimes ensiform; tarsi three segmented; hind femora long, slender and thick towards base and adapted for leaping; wings are either fully developed or reduced or absent; forewings in the form of leathery tegmina; hind wings fan like; male external genitalia complex, symmetrical and concealed, when not in use, by the enlarged ninth abdominal sternum (subgenital plate).

The most notable work on Indian grasshoppers was made by Kirby (1914) in "Fauna of British India, including Ceylon and Burma" wherein 329 species belonging to 124 genera under 8 subfamilies were dealt with. Thakur *et al.* (2004) listed 21 species of Acridoidea from Ropar Wetland, Punjab. Shishodia *et al.* (2006) gave an account of 40 species of Acridoidea from Punjab Shivaliks. Kumar & Usmani (2012) listed 60 species of Acridoidea from

Punjab. Usmani & Kumar (2013) reported 12 species of the family Pyrgomorphidae from different localities of Punjab.

The present paper deals with 6 new records of Acridoidea and 6 genera under family Acrididae from the state, Punjab. Classification followed here is according to Uvarov (1966) and Shishodia *et al.* (2010).

Abbreviations Used: Coll.– Name of the Collector.

Systematic Account

Order ORTHOPTERA
Superfamily ACRIDOIDEA
Family ACRIDIDAE
Subfamily GOMPHOCERINAE

1. *Leva indica* (Bolivar)

1902. *Gymnobothrus indicus* Bolivar, *Ann. Soc. ent. Fr., Paris*, **70** : 596.

1929. *Leva cruciata* : Uvarov, *Revue suisse Zool.* **36** : 540.

2003. *Leva indica* : Dey & Hazra, *Memoirs zool. Surv. India*, **19**(3) : 20.

Material examined: Punjab: Distt. Hoshiarpur: Dholbaha Dam Area, 1 male, 13.xi.2011, coll. P.C. Tak & party. Distt. Ludhiana: Ludhiana, Abohar Canal, 1 female, Reg. no. A-11821, 20.ii.1970, coll. A Singh & party.

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Distribution: India : Andhra Pradesh, Bihar, Chhattisgarh, Delhi, Karnataka, Madhya Pradesh, Orissa, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere:* Sri Lanka.

2. *Gelastorhinus filatus* (Walker)

1870. *Mesops filatus* Walker, *Cat. Derm. Salt. Brit. Mus.*, **3** : 502.

1910. *Gelastorhinus filatus* : Kirby, *Syn. Cat. Orth.*, **3**(2) : 409.

Material examined: Punjab: Distt. Hoshiarpur: Manguwal, 1 female, Reg. no. A-12251, 10.ix.1967, coll. A. Singh & party.

Distribution: India: Punjab, North India.

Subfamily OEDIPODINAE

3. *Pusana ruglosa* (Uvarov)

1921. *Pusa ruglosa* Uvarov, *Ann. Mag. nat. Hist. London*, **7**(9) : 492.

1963. *Pusana ruglosa* : Shumakov, *Trudy Vses. Entomol. Obshch.*, **49** : 150.

1985. *Pusana ruglosa* : Bhowmik, *Rec. zool. Surv. India, Occ. Pap. No.*, **78** : 38.

Material examined: Punjab: Distt. Ludhiana: Abohar Canal, 1 female, Reg. no. A-12249, 20.ii.1970, coll. A. Singh & party.

Distribution: India: Bihar, Punjab & Uttarakhand. *Elsewhere:* Afghanistan.

Subfamily COPTACRIDINAE

4. *Eucoptacra praemorsa* (Stål)

1860. *Acridium (Catantops) praemorsum* Stål, *Kongl. Fregat. Eugen. Res. Omkring Jorden*, **3**: 330.

1870. *Acridium saturatum* Walker, *Cat. Derm. Salt. Brit. Mus.* **4**: 704.

1914. *Eucoptacra praemorsa* : Kirby, *Faun Brit. India, Orth.* : 240.

Material examined: Punjab: Distt. Rupnagar: Rupnagar, Samrala Bridge, 1 female, Reg. no. A-12310, 13.xi.2013, coll. N. Sharma & party. Distt. Pathankot: Nagdhar, 1 male, Reg. no. A-12311, 9.xi.2013, coll. N. Sharma & party; Kutera Dhar, 1 male, Reg. no. A-12312, 7.xi.2013, coll. N. Sharma & party. Distt. Hoshiarpur: Takhni-Rehmapur WLS, 1 female, Reg. no. A-12313, 10.xi.2013, coll. N. Sharma & party.

Distribution: India : Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Punjab, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal.

Elsewhere: China, Myanmar, Taiwan and Tenassaerim.

Subfamily CYRTACANTHACRIDINAE

Genus *Chondracris* Uvarov, 1923

5. *Chondracris rosea* (De Geer)

1773. *Acridium roseum* de Geer, *Mem. Ins.*, **3** : 488.

1923. *Chondracris rosea*: Uvarov, *Bull. ent. Res. London*, **14** (1) : 39.

2007. *Chondracris rosea*: Chandra *et al.*, *Zoos' Print Journal*, **22**(5) : 2686

Material examined: Punjab: Distt. Pathankot: Kutera Dhar, 1 Male, Reg. no. A-12302, 7.xi.2013, coll. N. Sharma & party.

Distribution: India : Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Goa, Haryana, Himachal Pradesh, Kerala, Madhya Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal. *Elsewhere:* Bangladesh, Bhutan, China, Hainan Islands, Indonesia, Japan, Korea, Manchuria, Philipines, Taiwan, Thailand and Vietnam.

Subfamily CATANTOPINAE

6. *Xenocatantops karnyi* (Kirby)

1910. *Catantops karnyi* Kirby, *Syn. Cat. Orthopt.*, **3**: 483.

1982. *Xenocatantops karnyi* : Jago, *Trans. Am. ent. Soc.*, **108** (3): 454.

2000. *Xenocatantops karnyi* : Shishodia, *Rec.zool. Surv. India*, **98**(1) :62.

2007. *Xenocatantops karnyi* : Chandra *et al.*, *Zoos' Print Journal*, **22**(5) : 2686

Material examined: Distt. Pathankot: Kutera Dhar, 2 male, Reg. Nos. A-12285, A-12287, 7.xi.2013, coll. N. Sharma & party. Distt. Patiala: Bhadson WLS, 1 female, Reg. No. A-12286, 7.iii.2013, coll. P.C. Tak & party.

Distribution: India : Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Delhi, Haryana, Himachal Pradesh, Maharashtra, Orissa, Tamil Nadu, Tripura, Uttarakhand and Uttar Pradesh. *Elsewhere:* Nepal.

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