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Genera of Pentatomidae (Hemiptera: Pentatomoidea) from south India—an illustrated key to genera and checklist of species

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Abstract

Family Pentatomidae is represented by four subfamilies (Asopinae, Pentatominae, Phyllocephalinae and Podopinae) and 86 genera in south India. Pentatominae are the dominant group represented by 29 tribes and 72 genera. An illustrated key including the habitus of majority of genera as well as illustrations of important diagnostic features are given for the subfamilies, tribes and genera occurring in south India. In addition, a key to families of Pentatomoidea and a checklist of species of Pentatomidae occurring in south India are also included.

Key words: Pentatomoidea, Pentatomidae, Asopinae, Pentatominae, Phyllocephalinae, Podopinae

Introduction

South India is a peninsula in the shape of a vast inverted triangle, delimited by the Arabian sea on the west, the Bay of Bengal on the east and the Vindhya and Satpura ranges on the north. The geography of south India is diverse and comprises of two mountain ranges namely the Western and Eastern Ghats. The narrow strip of verdant land between the Western Ghats and the Arabian Sea is the Konkan region. Altitude varies from 250–900 m above mean sea level in most parts whereas it is 1525–2743 m in mountain regions such as Nilgiris or Palani hills. Major forest types of south India include tropical rain forest, tropical dry-evergreen forest, subtropical and temperate forest and the major soil types such as red soils or Acrisols constitutes the major cropping belt of south India followed by black clayey soils or Vertisols. South India has tropical climate and agriculture in this region mainly depends on the rainfall from two monsoon seasons such as South-West monsoon from June to September and North-East monsoon from October to November or December. The beginning of winter season falls sometime in the end of October and summer starts from the end of February and the temperature can go up to 40–42°C during summer and can dip to even 2–3°C during winter in few parts of south India. The southern coastal region has an average minimum temperature of 20°C and maximum of 35°C. Major groups of crops cultivated for various regions of south India include cereals, pulses, fruit crops, vegetables, plantation crops, spices, medicinal and aromatic plants, ornamental crops, cash crops etc. (Pullaiah, 2002; Krishna, 2010).

Pentatomidae, commonly known as stink bugs, are the most diverse among Pentatomomorpha, and are found in all major zoogeographic regions. The majority of pentatomids are phytophagous, but a few are predatory. Colouration of these insects is variable, few are brilliantly coloured with metallic sheen, but others are brownish ochraceous to dark or black. These insects are also known for their cryptic and warning colouration. Though Pentatomidae are usually considered as minor and occasional pests, on several occasions, these bugs attain pest status, especially when attacking economically important plant parts like developing grains and immature fruits of cultivated crops. The aggregated feeding behavior of quite a few of these species, aggravate the injury to crops. The feeding injuries caused by these bugs vary from plant to plant, for example, minute dark spots on seeds due to feeding punctures in soybean, formation of chaffy grains and chalky discolouration around the feeding sites resulting pecky rice in paddy, premature fruit ripening and formation of cocoa beans without sugary mucilage

***Scotinophara* Stål, 1867**

- bispinosa* (Fabricius, 1798) Karnataka: Bengaluru (Salini, 2006). Maharashtra: Mumbai (Distant, 1902). Puducherry: Karaikal (Wongsiri, 1975). Tranquebar (Atkinson, 1887). Deccan Plateau (Distant, 1902).
- ceylonica* (Distant, 1901d) Tamil Nadu: Coimbatore (Wongsiri, 1975).
- coarctata* (Fabricius, 1798) Bihar (Lefroy and Howlett, 1909). Tamil Nadu: Salem (Azim, 2011). Tranquebar (Atkinson, 1887).
- longispina* Schouteden, 1905 Karnataka: Mysore (Hegde, 1995). Tamil Nadu: Tiruchirappalli (Distant, 1908).
- lurida* (Burmeister, 1834) Assam (Atkinson, 1887). Odisha (Wongsiri, 1975). Rajasthan: Jaipur, Tamil Nadu: Coimbatore (Wongsiri, 1975). South India (Wongsiri, 1975). Central East India (Wongsiri, 1975). North East India (Datta *et al.*, 1985).
- nigra* (Dallas, 1851) Tamil Nadu: Coimbatore (Wongsiri, 1975). South India (Wongsiri, 1975).
- obscura* (Dallas, 1851) Assam (Atkinson, 1887). Odisha (Wongsiri, 1975). Rajasthan: Jaipur (Wongsiri, 1975). Nagaland: Naga Hills (Distant, 1902). Tamil Nadu: Coimbatore (Wongsiri, 1975). South India (Wongsiri, 1975).

***Storthechoris* Horváth, 1883**

- nigriceps* Horváth, 1883 Assam: Sibsagar (Distant, 1902). Karnataka: Bengaluru (Salini, 2006). Meghalaya: Khasi Hills (Distant, 1902).

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