

CHECK-LIST OF MECOPTERA FROM INDIA

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INTRODUCTION

The order Mecoptera includes the insects, which are commonly known as scorpion flies. These insects are recognized on the presence of upturning of terminal abdominal segments like scorpion. They have beak like prolongations of head and often maculated wings. The adults are omnivorous and feed on nectar, pollens, petals, fruits, mosses and small insects. They are also known as hanging flies, because some species of *Bittacus*, which hang from the vegetation with their front legs and catch small insects they prey on in their hind legs.

Today, the order Mecoptera in the world is represented by about 500 species, which is one-hundredth of one % of living species, but in Permian period, they accounted for more than 40% of known fossils. They are among the oldest holometabolous insects dating from the Lower Permian 250 million years ago. All the known species of order Mecoptera belong to nine families, of which, 23 species belonging to 2 genera under two families viz., Bittacidae and Panorpidae are recorded from India (Penny and Byers, 1979). They are relatively more palaearctic in distribution. Out of 23 species, 20 are confined to India and three species i.e. *Bittacus henryi*, *Neopanorpa effusa* and *N. nipalica* are also distributed in Sri Lanka, Bhutan and Nepal respectively.

Only one suborder Eumecoptera is represented in India, which includes two families. The family Bittacidae has a cosmopolitan distribution in India and five species under genus *Bittacus* are known. The member of this genus are *Tipula* like insects having prehensile tarsi and very prominent bulbous swelling of male abdominal end. However, the family Panorpidae is represented by genus *Neopanorpa*, which includes 18 species from India. The species earlier described under genus *Panorpa* in India have been kept under the genus *Neopanorpa* (Rust and Byers, 1976).

This order is poorly studied in India. During early period before 1950, Westwood (1846), Walker (1853), Gerstaecker (1885), Nav'as (1908, 1910, 1914, 1929, 1935), Needham (1909), Erbes-Petersen (1915), Kimmins (1928) and Crampton (1931) described 15 species, whereas after 1950, Cheng (1953), Penny (1969) and Rust and Byers (1976) described 8 species from India. But after 1976, no taxonomic work has been carried out in any region of India. Hence, the check-listing of all the species of the order has been taken up to undertake the detail study on the group subsequently. The list of Indian Mecoptera is given in Table 1.

Table 1. : List of species of Indian Mecoptera.

S.N.	Family / Species / Author / Year	Distribution
	Family : BITTACIDAE	
1	<i>Bittacus henryi</i> Kimmins 1928	India; Pondicherry; Tamil Nadu (Coimbatore) : Sri Lanka
2	<i>B. indicus</i> Walker 1853	E. India
3	<i>B. latipennis</i> Gerstaecker 1885	India; West Bengal (Darjeeling)
4	<i>B. nodosus</i> Rust and Byers 1976	India; Gujrat (Deesa)
5	<i>B. teraiensis</i> Penny 1969	India; Uttaranchal (Nainital)
	Family : PANORPIDAE	
6	<i>Neopanorpa appendiculata</i> (Westwood) 1846 = <i>Panorpa appendiculata</i> Westwood 1846	India; Tamil Nadu (Chennai, Nilgiri Hills)
7	<i>N. benaci</i> Nav'as 1935	India; West Bengal (Kurseong)
8	<i>N. contracta</i> Cheng 1953	India; West Bengal (Darjeeling)
9	<i>N. cornuta</i> Esben-Peterson 1915	India; Assam (N. Khasi Hills)
10	<i>N. denticulata</i> Rust and Byers 1976	India; Tamil Nadu (Nilgiri Hills); Kerala (Walayar Forests)
11	<i>N. echinata</i> Rust and Byers 1976	India; Tamil Nadu (Nilgiri Hills)
12	<i>N. effusa</i> (Nav'as) 1914 = <i>Panorpa effusa</i> Nav'as 1914	India ; Sikkim : Bhutan (Phuntsholing)
13	<i>N. fenestrata</i> (Needham) 1909 = <i>Panorpa fenestrata</i> Needham 1909	India; Assam
14	<i>N. flava</i> Esben-Peterson 1915	India; Sikkim
15	<i>N. gibbosa</i> Rust and Byers 1976	India; Himachal Pradesh (Shimla)
16	<i>N. hirsuta</i> (Crampton) 1931	India; Karnataka (Mysore); Kerala; Tamil Nadu (Nilgiri hills)

Table 1. : Cont'd.

S.N.	Family / Species / Author / Year	Distribution
17	<i>N. indica</i> Rust and Byers 1976	India; Tamil Nadu (Nilgiri Hills); Maharashtra (Mumbai)
18	<i>N. nipalica</i> (Nav'as) 1910	India; Sikkim : Nepal
19	<i>N. ocellaris</i> (Nav'as) 1908 = <i>Panorpa ocellaris</i> Nav'as 1908	India; Sikkim
20	<i>N. ochrura</i> Rust and Byers 1976	India; Himachal Pradesh (Shimla)
21	<i>N. salai</i> Nav'as 1929	India; Maharashtra (Khandala, Mumbai); Tamil Nadu (Coimbatore)
22	<i>N. sordida</i> (Needham) 1909 = <i>Panorpa sordida</i> Needham 1909	India; Assam (Khasi Hills)
23	<i>N. zebrata</i> Esben-Peterson 1915	India; Kerala (Periyar Dam)

SUMMARY

The present paper reports the list of scorpion flies and hanging flies (Order-Mecoptera) so far known from India.

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