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## Original article

## A checklist of soldierflies (Diptera, Stratiomyidae) in India

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## ABSTRACT

The Indian soldierfly fauna is rich and diverse, yet it is poorly studied as most species were described in the 19<sup>th</sup> century. Soldierflies, like most other organisms, especially in developing nations such as India, have been largely overlooked in recent times. In this study, we present an inventory of all names so far validly published in Indian Stratiomyidae. Synonyms, notes about type localities, depositories, and distribution are included. The study revealed that the soldierfly species list from India comprises 84 valid species, distributed in 35 genera and seven subfamilies. The present study provides a synopsis of the regional taxonomical work carried out until now, and can serve as a baseline survey for future studies. The study indicates that most areas of the vast Indian territory are unexplored for soldierflies, and perhaps the majority of the soldierflies in India are still to be discovered.

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## Introduction

India is one of the world's most biodiverse regions with a total area of about 3,287,263 km<sup>2</sup>. The faunal diversity of India is rich and diversified because of a variety of eco-zones ranging from deserts to high mountains and tropical to temperate forests (Shah et al 2014). The Indian soldierfly fauna has been poorly known as most species were described in the 19<sup>th</sup> century. Apart from treatment by Brunetti (1920, 1923), the fauna has been neglected taxonomically. The majority of soldierflies, like most of the other organisms, were collected during early expeditions undertaken by European taxonomists and collectors. The study indicates that most of the species have been collected in selected regions of India, typically from Northeast Himalaya, whereas most of the other areas have not been explored for soldierflies. As such, perhaps the majority of the soldierflies in India are still to be discovered.

The aim of this paper is to correct the errors in the study of Mitra (2012) so as to reduce confusion by eliminating future misinformation associated with Indian Stratiomyidae and facilitate forthcoming research on Indian soldierfly fauna by providing the first comprehensively researched species inventory. The species list

presented here includes the names of all soldierfly species recorded from the region that are available in the literature. Altogether, 35 genera and 84 valid species distributed in seven subfamilies are currently known from the area (Table 1).

## Material and methods

The present study brings together scattered knowledge on the soldierflies described from India. The study is based on the available literature rather than on extensive new taxonomic work. Most of the names of the described species presented are in accordance with the most recent Stratiomyidae classification following Systema Dipteroorum (Woodley 2001; Pape and Evenhuis 2013). The list is arranged systematically to subfamily level and alphabetically thereafter, to make the search easier for a given taxon. Main references to the original description and distributions are listed. The acronyms used for collections follow the standard of the Systema Dipteroorum (Woodley 2001; Pape and Evenhuis, 2013), and their equivalents are as follows: BMNH—Natural History Museum, London, UK; BPBM—Department of Natural Sciences, Bernice P. Bishop Museum, Honolulu, HI, USA; CNC—Canadian National Collection, Ottawa, Ontario, Canada; FSMU—Faculty of Science, Masaryk University, Brno, Czech Republic; HNHM—Hungarian Natural History Museum, Budapest, Hungary; IEME—Institute of Evolution, Morphology and Ecology of Animals, Moscow, Russia; MHC—Martin Hauser Collection, USA; MNHNP—Museum National d'Histoire Naturelle, Paris, France; NMW—Naturhistorisches

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**Table 1.** Soldierflies in India.

Subfamily	Genus	Species	Author(s)
Beridinae	<i>Actina</i>	<i>compta</i>	(Enderlein, 1921)
		<i>assamensis</i>	Brunetti, 1920
	<i>Allognosta</i>	<i>inermis</i>	Brunetti, 1912
		<i>stigmatalis</i>	Enderlein, 1921
Clitellariinae	<i>Beris</i>	<i>annulipes</i>	Brunetti, 1912
		<i>bistriata</i>	(Brunetti, 1912)
	<i>Adoxomyia</i>	<i>stylata</i>	(Brunetti, 1923)
		<i>heminopla</i>	(Wiedemann, 1819)
		<i>longispina</i>	(Brunetti, 1913)
	<i>Campeprosopa</i>	<i>bilineata</i>	(Fabricius, 1805)
		<i>Clitellaria</i>	<i>ignifera</i>
	<i>Cyphomyia</i>	<i>indica</i>	Brunetti, 1920
		<i>Eudmeta</i>	<i>brunnea</i>
	<i>Nigritomyia</i>	<i>diademipennis</i>	Brunetti, 1923
		<i>marginata</i>	(Fabricius, 1805)
		<i>andamanensis</i>	Das, Sharma, & Dev Roy, 1984
<i>Ruba</i>	<i>cincta</i>	Brunetti, 1923	
	<i>inflata</i>	Walker, 1859	
Pachygastrinae	<i>Cibotogaster</i>	<i>argenthirta</i>	(Brunetti, 1907)
		<i>auricollis</i>	(Brunetti, 1907)
		<i>azurea</i>	(Gerstaecker, 1857)
	<i>Craspedometopon</i>	<i>frontale</i>	Kertész, 1909
		<i>orientale</i>	Rozkošný & Kovac, 2007
	<i>Culcua</i>	<i>ornans</i>	Rozkošný & Kozanek, 2007
		<i>Evaza</i>	<i>bipars</i>
	<i>flavipes</i>		Bigot, 1879
	<i>Gabaza</i>	<i>indica</i>	Kertész, 1906
		<i>albiseta</i>	(Meijere, 1907)
		<i>argentea</i>	Walker, 1858
	<i>Monacanthomyia</i>	<i>annandalei</i>	(Brunetti, 1912)
<i>Pachygaster</i>		<i>annulipes</i>	Brunetti, 1920
<i>Paracechorisemus</i>	<i>albipes</i>	(Brunetti, 1907)	
	<i>Parastratiosphecomyia</i>	<i>freidbergi</i>	Woodley, 2012
<i>Ptilocera</i>	<i>continua</i>	Walker, 1851	
	<i>simplex</i>	Mason & Rozkošný, 2011	
<i>Rosapha</i>	<i>bimaculata</i>	Wulp, 1904	
	<i>flavistigmatica</i>	Kovac & Rozkošný, 2012	
<i>Stratiosphecomyia</i>	<i>habilis</i>	Walker, 1859	
	<i>variegata</i>	Brunetti, 1913	
<i>Tinda</i>	<i>indica</i>	(Walker, 1851)	
	<i>Zabrachia</i>	<i>annulifemur</i>	Brunetti, 1920
Hermetiinae	<i>Hermetia</i>	<i>illucens</i>	(Linnaeus, 1758)
		<i>laeta</i>	Meijere, 1904
Sarginae	<i>Microchrysa</i>	<i>calopa</i>	Brunetti, 1912
		<i>dichoptica</i>	James, 1957
		<i>flaviventris</i>	(Wiedemann, 1824)
	<i>Ptecticus</i>	<i>assamensis</i>	Brunetti, 1923
		<i>aurifer</i>	(Walker, 1854)
		<i>aurobrunneus</i>	Brunetti, 1920
		<i>australis</i>	Schiner, 1868
		<i>cingulatus</i>	Loew, 1855
		<i>indicus</i>	Rozkošný & Hauser, 2009
		<i>kerteszi</i>	Meijere, 1924
	<i>Sargus</i>	<i>longipennis</i>	(Wiedemann, 1824)
		<i>melanurus</i>	(Walker, 1848)
<i>rogans</i>		(Walker, 1858)	
<i>srilankai</i>		Rozkošný & Hauser, 2001	
<i>tricolor</i>		Wulp, 1904	
<i>Sargus</i>	<i>vulpianus</i>	(Enderlein, 1914)	
	<i>cyaneus</i>	(Brunetti, 1912)	
	<i>gemmifer</i>	Walker, 1849	
	<i>mactans</i>	Walker, 1859	
	<i>metallinus</i>	Fabricius, 1805	
	<i>rufitarsis</i>	(Macquart, 1846)	
Stratiomyinae	<i>Afrodontomyia</i>	<i>splendidus</i>	Brunetti, 1925
		<i>rufoabdominalis</i>	(Brunetti, 1913)
		<i>cyanea</i>	Brunetti, 1920

**Table 1 (continued)**

Subfamily	Genus	Species	Author(s)
Nemotelinae	<i>Oplodontha</i>	<i>kashmirensis</i>	Brunetti, 1920
		<i>lutatius</i>	Walker, 1849
		<i>ochropa</i>	Thomson, 1869
		<i>pulcherrima</i>	Brunetti, 1920
		<i>quadrata</i>	(Lindner, 1937)
		<i>solennis</i>	Walker, 1851
	<i>Oxycera</i>	<i>transversa</i>	Brunetti, 1920
		<i>viridana</i>	(Wiedemann, 1824)
		<i>minuta</i>	(Fabricius, 1794)
	<i>Prosopochrysa</i>	<i>rubrithorax</i>	(Macquart, 1838)
		<i>binotata</i>	(Séguy, 1934)
		<i>fumipennis</i>	(Kertész, 1923)
<i>Stratiomys</i>	<i>signata</i>	Brunetti, 1920	
	<i>vitripennis</i>	(Doleschall, 1856)	
<i>Brachycara</i>	<i>approximata</i>	Brunetti, 1923	
	<i>ventralis</i>	Thomson, 1869	

Museum, Vienna, Austria; NRS—Naturhistoriska Riksmuseet, Stockholm, Sweden; PAN—Polska Akademia Nauk, Warsaw, Poland; RNH—Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands; SMF—Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt, Germany; SMNS—Museum für Naturkunde, Stuttgart, Germany; UMO—Oxford University Museum of Natural History, England; USNM—National Museum of Natural History, Washington, DC, USA; UNK—Unknown depository of type material; UZMC—Universitetets Zoologiske Museum, Copenhagen, Denmark; ZIB—Zuse Institute Berlin, Germany; ZMAN—Zoologische Museum, Universiteit van Amsterdam, Amsterdam, The Netherlands; ZMHU—Museum für Naturkunde der Humboldt-Universität, Berlin, Germany; and ZSI—Zoological Survey of India, Kolkata, India.

### Taxonomic accounts

#### Subfamily Beridinae

##### *Actina compta* (Enderlein, 1921)

*Hoplacantha compta* Enderlein, 1921: 203. Type locality (TL): Darjeeling (India: West Bengal) [Holotype ♀: ZMHU]; Brunetti 1923: 165; Woodley 2001: 52.

*Distribution.* India (West Bengal).

##### *Allognosta assamensis* Brunetti, 1920

*Allognosta assamensis* Brunetti, 1920: 95. TL: Tura, Garo Hills (India: Meghalaya) [Holotype ♀: ZSI]; Brunetti 1923: 164; Woodley 2001: 54; Papp et al 2006: 146.

*Distribution.* India (Meghalaya), Thailand.

##### *Allognosta inermis* Brunetti, 1912

*Allognosta inermis* Brunetti, 1912: 455. TL: Darjeeling (India: West Bengal) [Holotype ♂: ZSI]; Brunetti 1920: 94, 1923: 163; Woodley 2001: 56.

*Distribution.* China, India (West Bengal).

##### *Allognosta stigmatalis* Enderlein, 1921

*Allognosta stigmatalis* Enderlein, 1921: 184. TL: Darjeeling (India: West Bengal) [Syntypes 2 ♂, 3 ♀: ZMHU]; Brunetti 1923: 164; Woodley 2001: 57.

*Distribution.* India (West Bengal).

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