



Article

urn:lsid:zoobank.org:pub:E803B918-5F8C-486A-A924-5947F1602F62

Seven new species of the genus *Chimarra* Stephens (Trichoptera: Philopotamidae) from India

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Abstract

Seven new species belonging to the genus *Chimarra* are added to the Trichoptera fauna of India. Newly described species include *Chimarra lakhwinderae*, *C. rifati*, *C. nakkiensis*, *C. mawsmiensiensis*, *C. sikkimensis*, *C. rongliensis*, and *C. soloi*. Males of these species are distinguishable from each other and from previously known species by consistent variation in the structure of the inferior appendages, tergite X and the phallic apparatus.

Keywords: Chimarrinae, Oriental, Himalayan region, Sikkim, Meghalaya

Introduction

With about 736 species in the world, 308 species of the genus *Chimarra* Stephens 1829 are recorded from the Oriental Region (Morse 2012, personal communication). The genus is the second largest caddisfly genus in terms of species diversity, second only to *Rhyacophila* Pictet 1834 (Rhyacophilidae), and is known from all biogeographical regions except Antarctica. About 2/3rds of the species in the genus *Chimarra* are restricted to the Oriental and Neotropical Regions and the lowest diversity (less than 3% of the species) is in the Palearctic Region.

The genus *Chimarra* is divided into 4 subgenera: *Chimarra*, *Chimarrita* Blahnik 1997, *Curgia* Walker 1860 and *Otarrha* Blahnik 2002 (Blahnik 1998, 2002). The last 3 subgenera occur only in the Neotropical Region, whereas the subgenus *Chimarra* occurs worldwide, is especially abundant in tropical regions, and is the only subgenus of the subfamily Chimarrinae distributed in India.

Most of the Oriental species of *Chimarra* were described in the past 21 years. In the Oriental Region, Malicky (1979, 1989, 1993, 1994, 1995, 1997, 1998, 2000, 2006, 2007, 2008, 2009, 2010, 2011) described 162 species. Works co-authored by Malicky and others, in which many new species for science and first national species records in the Orient were made include those of Sun & Malicky (2002), Malicky & Chantaramongkol (1989, 1993a, 1993b, 2003) and Malicky *et al.* (2004). Other works describing Oriental species of *Chimarra* include those of Banks (1913, 1931, 1937), Blahnik *et al.* (2009, 2012), Ghosh & Chaudhury (1999), Hagen (1858, 1859), Hwang (1957), Jacquemart (1979), Kimmins (1955, 1957, 1964), Martynov (1935), Melnitsky (2005), Mey (1900, 1995, 1998a, 1998b, 2003, 2006), Mosely (1942), Navas (1922, 1932a, 1932b), Olah (1993), Saini *et al.* (2010, 2011a, 2011b), Pandher & Saini (2012), Schmid (1958, 1960), Sun (2007), Ulmer (1905, 1906, 1907, 1915, 1951, 1930, 1951), Wang *et al.* (1998), and Yang *et al.* (2001). These species were described from Nepal, China, Cambodia, Thailand, Indonesia (Ambon, Bali, Irian Jaya, Java, Kalimantan, Lombok, Sulawesi, Sumatra), Vietnam, Bhutan, Malaysia (Sabah), Pakistan, Philippines, Sri Lanka and India (Andaman Islands, Great Nicobar Island, South Andaman Island). Immature stages of this genus were described by Hoang & Bae (2008) from Vietnam.

So far 29 species of this genus have been recorded from India. Among these previously described species, 22 have been reported from the Himalayan region alone. Contributors to these species include; Kimmins (1957, 5 species), Martynov (1935, 4 species), Ghosh & Chaudhary (1999, 2 species), Saini *et al.* (2010, 2011a, 2011b, 8 species) and Pandher & Saini (2012, 3 species) respectively. Four species occurring in mountain springs of the