



## *Paracladopelma* Harnisch from the Sino-Indian Region (Diptera: Chironomidae)

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### Abstract

The genus *Paracladopelma* Harnisch from the Sino-Indian region is reviewed. Five new species, *P. binum*, *P. bui*, *P. cirratum*, *P. crenum*, and *P. digitum* are described and illustrated as males. Five species, *P. aratrum* Chaudhuri et Chattopadhyay, *P. furudoprimum* Sasa et Arakawa, *P. hibarasecundum* Sasa, *P. simantodeea* Sasa, Suzuki et Sakai, and *P. tamahikawai* Sasa are reexamined. *Parachironomus tamanipparai* (Sasa) is again placed in *Paracladopelma*. *P. tokaradiae* Sasa et Suzuki is a new synonym of *P. kuramaclarum* Sasa. Five species, *P. daitoiea* Sasa et Suzuki, *P. inahieia* Sasa, Kitami et Suzuki, *P. misumaiprima* Sasa et Suzuki, *P. tokaraefea* Sasa et Suzuki, and *P. tonewabea* Sasa et Tanaka are placed in the genus *Cryptochironomus* as new combinations. *P. laminatum* (Kieffer) is recorded for the first time from China. A key to all known males of *Paracladopelma* is presented.

**Key words:** Chironomidae, *Paracladopelma*, new species, new synonym, new combinations, key, Sino-Indian region

### Introduction

The genus *Paracladopelma* was established by Harnisch (1923) based on *Tendipes camptolabis* Kieffer, 1913. Among the 19 described genera in the *Harnischia* generic complex, *Paracladopelma* is most similar to *Saetheria* Jackson, 1977. The males are separable from *Saetheria* by having a single median stripe or very shallow Y- or T-shaped bands on tergite IX, while the bands in *Saetheria* are deeply Y-shaped. Characters in the larva and pupa, like the number of segments of the larval antennae, the number of premandibular teeth in the larvae, and the number of lateral setae on pupal segment VIII, separate the two genera more clearly.

The genus was regarded as a species group of the subgenus *Cryptochironomus* of the genus *Tendipes* by Goetghebuer (1937–1954), and as a group of the subgenus *Cladopelma* of the genus *Harnischia* by Townes (1945). Lenz (1959) outlined the generic delimitation for larvae, pupae, and adults for the six European species. Later, he split the genus into the *P. camptolabis* and the *P. nigrifulum* (= *obscurum*) groups based on adult, pupal, and larval morphology (Lenz 1960). Beck and Beck (1969) gave full generic rank to the North American species. Sæther (1977) presented keys to the males, larvae and pupae, which successfully separated the species of *Paracladopelma* from all other species in the *Harnischia* complex. Jackson (1977) reviewed the Holarctic *Paracladopelma* species and described the new genus *Saetheria*. He split *Paracladopelma* in two species groups following Lenz (1960), and presented keys to males, larvae and pupae.

Based on freshwater animals, Banarescu (1992) recognized eight zoogeographical regions. The Sino-Indian region includes most of the traditional Oriental region and the southeastern parts of the Palaearctic region. Before this study, 30 species of *Paracladopelma* were recorded from the Sino-Indian region (Chaudhuri et al. 2001; Kawai 1991; Makarchenko et al. 2005; Sasa 1998; Sasa & Kikuchi 1995; Sasa & Suzuki 2001; Sasa & Tanaka 2002; Sasa et al. 1998, 2001; Wang 2000; Zorina 2006). Of these, 16 species are