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. cirmatum, P. crenum, and P. digitum are described and illustrated as males. Five species, P. aratum Chaudhuri et Chattopadhyay, P. furudoprimum Sasa et Arakawa, P. hibarasecundum Sasa, Suzuki et Sakai, and P. tanamikawai Sasa are reexamined. Parachironomus tamanipparai (Sasa) is again placed in Paracladopelma. P. tokaradiea Sasa et Suzuki is a new synonym of P. kuramaclarum Sasa. Five species, P. daitoijea Sasa et Suzuki, P. inaheia 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 larva, 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 Goetghhebuer (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. nigritulum (= 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 Palearctic 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