



Baetidae have the highest species diversity among mayflies, comprising more than 1000 species in 104 genera, which is approximately one quarter of all mayfly species worldwide. *Labiobaetis* is one of the richest genera of Baetidae with 79 described species. Its distribution is nearly worldwide, with the exception of the Neotropical realm and a few islands. The authors furthermore describe 26 new species of *Labiobaetis* based on recently collected larvae from different locations in New Guinea, including both Papua New Guinea and the Papua Province of Indonesia. Species delimitation is mostly based on morphological characters and genetic data of the DNA barcode. Seven species groups are proposed, mainly defined by a combination of two morphological characters, and a key to all species in New Guinea is provided. Despite covering an important part of New Guinea, the sampling effort and the number of localities and different habitats is still limited and there are big areas without any collection activities so far. Therefore we may assume, that the number of *Labiobaetis* species in New Guinea will continue to increase substantially with further collections.

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THE INCREDIBLE DIVERSITY OF *LABIOBAETIS* NOVIKOVA & KLUGE IN NEW GUINEA REVEALED BY INTEGRATIVE TAXONOMY (EPHEMEROPTERA, BAETIDAE)

BY

THOMAS KALTENBACH, JEAN-LUC GATTOLLIAT



Labiobaetis claudiae Kaltenbach & Gattolliat, sp. n.

Labiobaetis wilhelmensis Kaltenbach & Gattolliat, sp. n.

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