

NOTE

Validation of *Potamocloeon macafertiorum* Lugo-Ortiz (Ephemeroptera: Baetidae)

The genus *Potamocloeon* Gillies (1990) (Ephemeroptera: Baetidae) was described for the species *Cloeon dentatum* Kimmins, which had been based on adults from Uganda (Kimmins 1956). Gillies (1988) associated distinctive larvae with adults from Guinea that he attributed to *C. dentatum*. A second species, *P. macafertiorum* Lugo-Ortiz, was described based on a larva from South Africa (Lugo-Ortiz and McCafferty 1996). Gattolliat (2003) described two unnamed *Potamocloeon* species from Madagascar—one from a larva and the other from a male adult.

Gattolliat (2003) considered *P. macafertiorum* to be synonymous with *P. dentatum*. Gattolliat's hypothesis of the equivalency of *P. macafertiorum* and *P. dentatum* was not based on variability that he observed in specimens of the two species in question. Rather, he cited variability that had been documented for species in some other genera. In particular, he noted the sexually dimorphic presence or absence of hindwings in *Cheleocloeon* Wuillot and Gillies and the variation in the length of maxillary palp segment 2 of certain *Cloeodes* Traver species.

We examined the specimens on which Gillies (1988) based his larval description of *P. dentatum*. These specimens match the illustrations and descriptions he provided (Gillies 1988: figs. 14–30). Comparison of this associated larval material to the type specimen of *P. macafertiorum* indicates that the two species are distinctive. Additional material of *P. macafertiorum* confirmed this observation. The presence or absence of hindwingpads (regardless of gender) and the shape and relative length of maxillary palp segments appear to be constant within individual *Potamocloeon* species.

Based on comparative study, we must reinstate *P. macafertiorum* as a valid species. *Potamocloeon dentatum* larvae have no hindwingpads, segment 2 of the maxillary palp $0.55\times$ the length of segment 1, and little to no speckling or coloration on terga or sterna. In contrast, *P. macafertiorum* larvae have conspicuous hindwingpads, segment 2 of the maxillary palp $0.85\times$ the length of segment 1, some median and submedian speckling on the terga, and lateral longitudinal dashes on the sterna.

Material examined.—*P. dentatum*: GAMBIA: R. Gambia, Fatoko, 19-II-1993, "Y127–8," one larva [The Natural History Museum, London, England (BMNH)]. GUINEA: R. Niandam, Sassambaya, on sand, 13-II-1986, "X265," one larva [BMNH]. IVORY COAST: R. Bouaflé, Maraóíé (spelling?), VI-1976, JM Elouard, "W625–6," three larvae [BMNH]. *P. macafertiorum*: SOUTH AFRICA: Mooi R., above Rosetta, $29^{\circ}18'10''\text{S}$, $29^{\circ}57'50''\text{E}$, stones out of current, III-1995, C Dickens, "MOI27AE," seven larvae [Albany Museum, Grahamstown, South Africa (AMGS)]; Mooi R., Hornet Corner, $28^{\circ}56'45''\text{S}$, $30^{\circ}22'33''\text{E}$, stones in current, III-1995, C Dickens, "MOI22AP, MOI23AD," nine larvae [AMGS]; Mpumalanga Prov., Kruger NP, Sabie R., NE Corner of Old Rhino Camp, 24-X-1990, WP&N McCafferty, one larva (*P. macafertiorum* holotype; mouthparts, right foreleg, paraproct on slide SA37) [Purdue University Entomological Research Collection, West Lafayette, Indiana, USA (PERC)].

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LITERATURE CITED

- Gattolliat, J.-L. 2003. The genera *Demoulina* Gillies and *Potamocloeon* Gillies (Ephemeroptera: Baetidae) in Madagascar. *Zootaxa* 184: 1–18.

Gillies, M. T. 1988. Descriptions of the nymphs of some Afrotropical Baetidae (Ephemeroptera), I. *Cloeon* Leach and *Rhithrocloeon* Gillies. Aquatic Insects 10: 49–59.

———. 1990. A new genus for the Afrotropical mayfly, *Cloeon dentatum* Kimmins (Ephem., Baetidae). Entomologist's Monthly Magazine 126: 207–208.

Kimmins, D. E. 1956. New species of Ephemeroptera from Uganda. Bulletin of the British Museum (Natural History) Entomology 4: 71–87.

Lugo-Ortiz, C. R. and W. P. McCafferty. 1996. The *Bugilliesia* complex of African Baetidae (Ephemeroptera). Transactions of the American Entomological Society 122: 175–197.

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