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New Records of the Mayfly Genus Baetodes, with Notes on the Genus

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The mayfly genus *Baetodes* was described by Needham and Murphy with its genotype as *Baetodes serratus* Needham and Murphy (1924; Bull. Lloyd Libr., 24, Ent. Series, 4: 55, Pl. 13),

a Brazilian species described from nymphal specimens only. Adults have never been reared from Baetodes nymphs, but Traver (1934; Bol. Ent. Venez., 2:94, fig. 8) has placed adults of a new species which she described from Venezuela in the genus (viz., Baetodes spiniferum) on morphological evidence. In this paper she also reported the occurrence of nymphs of this genus collected by Berner in northeastern Mexico, and speculated that the genus was probably widespread in the Neotropical region.

Dr. Traver has kindly permitted me to examine and report at this time on a nymph which represents the first record of this genus for North America north of Mexico. The specimen was collected by Dr. J. G. Needham from the Rio Frio, Garner State Park, Texas on March 6, 1936. I should also like to report on a second Mexican record which is represented in my collection by a series of *Baetodes* nymphs collected by S. Mulaik at Culinevara, south of Mexico City, January 1, 1948.

Nymphs of this genus can be readily distinguished from all other North American Baetinae by the following characters: ventrally-directed gills on segments 1-5 only; middle tail reduced to a stub, lateral tails bare or at the most with only a few inconspicuous setae; usually with a row of median raised projections on the middle abdominal tergites (lacking in Baetodes nymph number 1 of Needham and Murphy). The nymphs will not run to Baetinae in Traver's key to the subfamilies of nymphal Baetidae (1935; Biology of Mayflies: 428); because of the nearly bare tails, one comes to an impasse at couplet 2. It should be noted that it is difficult to place several genera properly in couplet 7 of this key. The footnotes aid in correctly placing Ameletus and Parameletus, but some species of Callibaetis may run to Siphlonurinae. Some of the difficulties of this couplet may be obviated by using the form of the distal margin of the labrum as a key character. All Baetinae seem to be characterized by a distinct notch in this margin while the same margin in the Siphlonurinae is straight, rounded, or shallowly emarginate.

Adult males of *Baetodes* will run to *Pseudocloeon* in Traver's key to the North American genera of the Baetinae (op. cit.: 655), but apparently can be separated by adding the following couplet:

5a—Fore tibia $1\frac{1}{2}$ to $1\frac{5}{7}$ times as long as femur.. Pseudocloeon —Fore tibia more than 2 times as long as femur.. Baetodes

The adult of *B. spiniferum* is also characterized by having middorsal abdominal spines on tergites 2–5, a feature of the nymphal genotype.

It is probable that both the new records presented above are representatives of undescribed species the naming of which should await the discovery of adult specimens.