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Revision of the Vietnamese Potamanthidae (Ephemeroptera)

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The family Potamanthidae is widely distributed throughout the Holarctic and Oriental regions and contains 23 species in the world. The larvae of Potamanthidae are characterized by unique mandibular tusks projecting in front of head and fringed and bilobed gills on abdominal segments 2-7. The adults and subimagos are distinguished primarily by wing characters (strongly arched MP2 and CuA and distinctly forked A1) (Bae and McCafferty, 1991).

In Southeast Asia, members of the family have been studied by Eaton (1883-1888), Ulmer (1920, 1924, 1925, 1939), Navas (1922), Lestage (1930), Bae, McCafferty & Edmunds (1990), and Bae and McCafferty (1991) and resulted in six nominal species in two genera and two subgenera: *Rhoenanthus obscurus* Navas, *R. speciosus* Eaton, *R. manicus* Ulmer, *R. distafurcus* Bae & McCafferty, *Potamanthus (Potamanthodes) formosus* Eaton, and *P. (Stygifloris) sabahensis* Bae, McCafferty & Edmunds. In Vietnam, *R. obscurus*, *R. manicus*, *R. distafurcus*, and *P. formosus* were recorded.

In this study, the Vietnamese Potamanthidae are comprehensively reviewed using materials collected from ca. 30 localities throughout Vietnam during 2000-2002 as well as the materials housed in SWU-Aquatic Insect Collection. The following species are newly recognized: *Rhoenanthus* sp. 1 (n. sp.), *Rhoenanthus* sp. 3 (n. sp.), and *Potamanthus* sp. 1 (n. sp.). For all known Vietnamese potamanthid species, descriptions, larval habitus, line-drawings of key characters, identification keys, and distributional and taxonomic discussions are provided.