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A taxonomic revision of the southwestern Pacific subgenus
Hebridosimulum (Diptera: Simuliidae: *Simulium*)

DOUGLAS A. CRAIG, DOUGLAS C. CURRIE, FIONA F. HUNTER &
MIKE SPIRONELLO



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A taxonomic revision of the southwestern Pacific subgenus *Hebridosimulium* (Diptera: Simuliidae: *Simulium*)

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Abstract

Sixteen species, of which 13 are new, in the subgenus *Hebridosimulium* Grenier & Rageau are now known. Fiji has only *Simulium laciniatum*, which is widely distributed on five islands. Tahiti has only one species, the enigmatic *S. anatomicum*. The remaining species are in Vanuatu and known from nine islands, ranging the full length and breadth of the archipelago. *Hebridosimulium* species are divided among two species groups. The *callipygum* species group is characterized, in part, by a smooth posterior abdomen in the larvae, and all but one species possess dorsal tubercles on the larval abdomen. *Simulium callipygum* is the type species, with the tuberculate species in a subgroup comprised of *S. banksi*, *S. johnfrumi*, *S. pankumuense*, and *S. tuberculum*. The second species group has larvae with the posteroventral abdomen markedly expanded, and all species lack dorsal tubercles. Constituents of the *steatopygium* species group are *S. anatomicum*, *S. jolyi*, *S. laciniatum*, *S. lucyae*, *S. paradisium*, *S. steatopygium*, *S. subparadisium*, *S. supercilium*, and *S. undulatum*. Two other species of this group, *S. adsonense* and *S. spiroi*, of which larvae have markedly pigmented heads, are assigned to the *adsonense* species subgroup. A chromosome map for *Hebridosimulium* is established for the first time.

Key words: Southwestern Pacific, Simuliidae, *Hebridosimulium*, taxonomy, cytology, ecology