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## World revision of *Iteaphila macquarti* group (Diptera: Empididae)

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## Abstract

Nineteen species are recognized in the *Iteaphila macquarti* group, including ten new species (*I. bulbosa* Sinclair **sp. nov.** (British Columbia, Canada), *I. californica* Sinclair **sp. nov.** (Baja California, Mexico), *I. chvalai* Shamshev **sp. nov.** (Kazakhstan), *I. cirrata* Shamshev **sp. nov.** (British Columbia, Canada), *I. falcata* Sinclair **sp. nov.** (British Columbia, Canada), *I. furcata* (Zetterstedt), *I. macquarti* Zetterstedt, *I. napaea* Melander, *I. nepalensis* Shamshev **sp. nov.** (Nepal), *I. nitidula* Zetterstedt, *I. orchestris* Melander, *I. pumila* Sinclair **sp. nov.** (Alaska, USA), *I. rasnitsyni* Shamshev **sp. nov.** (south Primorsk Territory, Russia), *I. saigusai* Shamshev **sp. nov.** (Nagano, Japan), *I. sicamous* Sinclair **sp. nov.** (British Columbia, Canada), *I. taiwanensis* Shamshev **sp. nov.** (Taiwan), *I. testacea* Melander, *I. triangula* (Coquillett), *I. vetula* Melander). *Iteaphila maackii* Loew is considered a *nomen dubium* due to loss of holotype. *Empis luctuosa* Kirby is considered also a *nomen dubium* and proposed as a doubtful species of *Iteaphila*. The following new synonyms are proposed: (*Empis cormus* Walker, *I. cana* Melander, *I. fulginosa* Melander) = *I. macquarti*; (*Hilara carbonella* Zetterstedt, *Empis conjuncta* Coquillett) = *I. nitidula*. Lectotypes are designated for *I. furcata*, *I. cana*, *I. carbonella* (Zetterstedt), *I. conjuncta*, *I. orchestris*, *I. testacea* and *I. triangula*. The male of *I. testacea* is described for the first time, keys to Palearctic and Nearctic faunas are provided, and species are sorted into five monophyletic subgroups. The distributions of all species are mapped and five Holarctic species are identified (*I. cirrata*, *I. macquarti*, *I. nitidula*, *I. orchestris*, *I. pumila*). *Iteaphila* is recorded for the first time from the Oriental Region. Feeding habits for adult *Iteaphila* are summarized and reviewed, and the genus appears to be exclusively anthophilous (pollen feeding) and never predaceous.

**Key words:** Palaearctic, Nearctic, Holarctic (Europe, North America, Japan, Kazakhstan, Taiwan, Mongolia, Nepal, Russia), *Iteaphila*, Empididae, new species, anthophily