

## Preliminary Checklist of the Tipuloidea (Diptera) of Fiji, with New Combinations<sup>1,2</sup>

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**Abstract.** In keeping with the family classification standards developed by the Biosystematic Database of World Diptera, the known Tipulidae (*s. lat.*) of Fiji are separated into Tipulidae and Limoniidae. The subgenera of *Limonia* recorded from Fiji are raised to generic status resulting in the following 16 new combinations: *Degeneromyia thais* Alexander, **n. comb.** (from *Limonia*), *Doaneomyia fijiensis* Alexander, **n. comb.** (from *Limonia*), *Geranomyia vitiella* Alexander, **n. comb.** (from *Limonia*), *Goniodineura apsella* Alexander, **n. comb.** (from *Limonia*), *G. kraussiana* Alexander, **n. comb.** (from *Limonia*), *G. lacrimula* Alexander, **n. comb.** (from *Limonia*), *G. veitchi* Alexander, **n. comb.** (from *Limonia*), *Libnotes colossa* Alexander, **n. comb.** (from *Limonia*), *Limnobia vitiana* Alexander, **n. comb.** (from *Limonia*), *Metalibnotes fijiensis* Alexander, **n. comb.** (from *Limonia*), *M. persetosa* Alexander, **n. comb.** (from *Limonia*), *M. persetosa decemsetosa* Alexander, **n. comb.** (from *Limonia*), *Nealexandriaria anisota* Alexander, **n. comb.** (from *Limonia*), *N. ochricapilla* Alexander, **n. comb.** (from *Limonia*), *Thrypticomomyia substaltens* Alexander, **n. comb.** (from *Limonia*). A checklist of the known Tipulidae and Limoniidae of Fiji is presented.

The latest catalog that enumerates the Diptera found in Fiji is Evenhuis (1989). In that work, Tipulidae were considered as one family. Recent phylogenetic evidence (Theowald & Oosterbroek, 1991; Oosterbroek & Courtney, 1995) has shown the Tipulidae *s. lat.* to be represented by four families: Cylandrotomidae, Tipulidae, Pedicidiidae, and Limoniidae. This classification has been adopted by the Biosystematic Database of World Diptera (Thompson, 2004) and is followed here. This change in family classification has been reflected in regional surveys and checklists ongoing in the Pacific (e.g., Hawai'i: Evenhuis, 2003; Tahiti: Englund, 2004) and the change is formally made here for Fiji.

In Fiji, only two of the tipuloid families have been discovered thus far (Tipulidae, and Limoniidae). Further rigorous surveying in different parts of Fiji may reveal the presence of the Pedicidiidae (thus far, found in the Pacific mainly in New Zealand) and Cylandrotomidae (known in the Pacific from New Guinea and Australia). The listing below follows the treatment of these separate families as well as the concept of genera within these families by recent catalogers. As a result of following the generic concepts of these works as well as those of contemporary European specialists, the subgenera of *Limonia* Meigen are here recognized as separate genera. This results in several new combinations for species formally described in *Limonia* (*s. lat.*).

Tipulidae are represented in Fiji by 5 known species (all endemic to Fiji) in 1 genus; Limoniidae are represented by 58 known species (78% endemic; 45 spp.) in 22 genera. Limoniidae currently is the most speciose family of Diptera known from Fiji.

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**Table 1. Checklist of Tipuloidea of Fiji.****Family Tipulidae***Holorusia* Loew, 1863*Holorusia degeneri* Alexander, 1978\**Holorusia fijensis* Alexander, 1921\**Holorusia lepida* Alexander, 1924\**Holorusia vittana* Alexander, 1978\**Holorusia walkeriana* (Alexander, 1924)\***Family Limoniidae***Degeneromyia* Alexander, 1956, **n. stat.***Degeneromyia thais* (Alexander, 1956), **n. comb.\****Dicranomyia* Stephens, 1829*Dicranomyia fijiana* Alexander, 1924*Dicranomyia fullawayi* Alexander, 1915*Dicranomyia illingworthi* Alexander, 1914*Dicranomyia sordida* Brunetti, 1912*Doaneomyia* Alexander, 1921*Doaneomyia fijicola* (Alexander, 1953), **n. comb.\****Geranomyia* Haliday, 1833*Geranomyia vitiella* (Alexander, 1956), **n. comb.\****Goniodineura* Wulp, 1896*Goniodineura apsellia* (Alexander, 1978), **n. comb.\****Goniodineura kraussiana* (Alexander, 1972), **n. comb.\****Goniodineura lacrimula* (Alexander, 1956), **n. comb.\****Goniodineura veitchi* (Alexander, 1924), **n. comb.\****Helius* Lepeletier & Serville, 1828*Eurhamphidia* Alexander, 1915*Helius* (*Eurhamphidia*) *perlongatus* Alexander, 1978\**Helius* (*Eurhamphidia*) *perlongatus vitiensis* Alexander, 1956\**Idioglochina* Alexander, 1921*Idioglochina* sp.\**Libnotes* Westwood, 1876*Libnotes colossa* (Alexander, 1971), **n. comb.***Libnotes greenwoodi* Alexander, 1924\**Limnobia* Meigen, 1818*Limnobia perkinsi* Grimshaw, 1901*Limnobia strigivena* Walker, 1861*Limnobia vitiana* (Alexander, 1956), **n. comb.\****Limonia* Meigen, 1803*Limonia bipendula* Alexander, 1978\**Limonia dactylolabis* (Alexander, 1921)\**Limonia perextensa* Alexander, 1971\**Limonia prolixisetosa* Alexander, 1971\**Limonia stoneri* Alexander, 1925*Limonia viticola* Alexander, 1978*Metalibnotes* Alexander, 1972, **n. stat.***Metalibnotes fijensis* (Alexander, 1914), **n. comb.\****Metalibnotes persetosae persetosae* (Alexander, 1956), **n. comb.\****Metalibnotes persetosae decemsetosa* (Alexander, 1956), **n. comb.\****Metalibnotes veitchiana* (Edwards, 1924), **n. comb.\****Nealexandriaria* Alexander, 1967*Nealexandriaria anisota* (Alexander, 1973), **n. comb.\****Nealexandriaria ochricapilla* (Alexander, 1956)\*

**Table 1 (continued).**

- Orimarga* Osten Sacken, 1869  
*Orimarga carnosus* Alexander, 1956\*  
*Orimarga niveibasis* Alexander, 1956\*  
*Orimarga sanguinicolour* Alexander, 1956\*  
*Thrypticomylia* Skuse, 1890, **n. stat.**  
*Thrypticomylia subsaltens* (Alexander, 1924), **n. comb.\***  
*Conosia* Wulp, 1880  
*Conosia insularis* Alexander, 1942  
*Conosia irrorata* Wiedemann, 1828  
*Cheilotrichia* Rossi, 1848  
*Empeda* Osten Sacken, 1869  
*Cheilotrichia (Empeda) zimmermani* Alexander, 1971\*  
*Erioptera* Meigen, 1803  
*Erioptera* Meigen, 1803  
*Erioptera (Erioptera) oceanica* Alexander, 1914\*  
*Meterioptera* Alexander, 1934  
*Erioptera (Meterioptera) sp.\**  
*Gonomyia* Meigen, 1818  
*Gonomyia* Meigen, 1818  
*Gonomyia (Gonomyia) varipes* Alexander, 1914\*  
*Lipophleps* Bergroth, 1915  
*Gonomyia (Lipophleps) degeneri* Alexander, 1956\*  
*Gonomyia (Lipophleps) digitifera* Alexander, 1924\*  
*Gonomyia (Lipophleps) fijiensis* Alexander, 1914\*  
*Gonomyia (Lipophleps) kraussi* Alexander, 1956\*  
*Gonomyia (Lipophleps) pietatis* Alexander, 1940  
*Gonomyia (Lipophleps) vanuana* Alexander, 1956\*  
*Gonomyia (Lipophleps) victorina* Alexander, 1956\*  
*Gonomyia (Lipophleps) zimmermani* Alexander, 1956\*  
*Riedelomyia* Alexander, 1928  
*Riedelomyia teucholabina* Alexander, 1921\*  
*Styrgomyia* Loew, 1845  
*Styrgomyia didyma* Grimshaw, 1901  
*Styrgomyia fumosa* Edwards, 1924\*  
*Toxorhina* Loew, 1850  
*Eutoxorhina* Alexander, 1934  
*Toxorhina (Eutoxorhina) simplex* Alexander, 1934\*  
*Toxorhina* Loew, 1850  
*Toxorhina (Toxorhina) basiseta* Alexander, 1978\*  
*Toxorhina (Toxorhina) noeliana* Alexander, 1956\*  
*Toxorhina (Toxorhina) perproducta* Alexander, 1956\*  
*Trentepohlia* Bigot, 1854  
*Mongoma* Westwood, 1881  
*Trentepohlia (Mongoma) brevicellula* Alexander, 1924  
*Trentepohlia (Mongoma) monacantha* Alexander, 1978\*  
*Trentepohlia (Mongoma) parvicellula* Alexander, 1973\*  
*Trentepohlia* Bigot, 1854  
*Trentepohlia (Trentepohlia) fijiensis* (Alexander, 1914)\*

\* species endemic to Fiji.

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