**World genera of aquatic Platygastridae (Hymenoptera: Platygastroidea).**

**Introduction**

Most wasps are terrestrial only, but some **egg parasitoids** enter the water, swimming with their legs and wings, in search of their hosts. We refer to these as "aquatic".

A number of genera, by virtue of their morphology, are inferred to fall into this ecological guild. These include:
- **Acolomorpha** Dodd
- **Tanaodytes** Masner
- **Thoran** Haliday
- **Pseudanteris** Fouts
- **Tiphodytes** Bradley
- **Thoraniea** Masner
- **Torthorionella** Masner
- **Telenomus** Haliday (some)

**Aquatic or Not?**

**Tiphodytes** swim underwater to locate and parasitize the eggs of water striders. Similarly, at least one species of **Thoranea** has been shown to parasitize the submerged eggs of some dragonflies (Odonata: Aeshnidae).

Two genera are sometimes associated with water, but are not truly aquatic.
- **Telenomus** Haliday:
  - *tabanivorus* group – parasitize eggs of horse flies and Lepidopteran stem borers.
- **Trimorus** Förster:
  - Several species found along shorelines. This genus is known only to parasitize the eggs of ground beetles (Coleoptera: Carabidae).

**Systematics**

**Synonyms.** Several names represent multiple descriptions of the genus **Acolomorpha** Dodd, 1914:
- Microthoran
- **Narendraionia** Rajmahana
- **Paleothoran** Mineo, O'Connor & Ashe
- **Nimiothorax** Mineo, O'Connor & Ashe.

**New Genera.** We have discovered three taxa for which we believe new genera are warranted. Two from southeast Asia in which the association with the aquatic guild is supported both by morphology and collecting data. A third genus is found worldwide and its aquatic nature is more tentatively inferred.

**Methodologies.** The phylogeny of Platygastroidea was investigated using morphological data and 4 molecular markers: 18S and 28S rDNA, the mitochondrial gene CO1, and the F2 copy of the nuclear protein coding gene EF1-α. Over 200 in-group taxa were examined (maximum 5 species/genus. Data explored using maximum likelihood (RAxML) and Bayesian techniques (MrBayes, BayesPhylogenies). A range of coding and partitioning schemes were also explored (see Taekul et al. 2013).


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