Introduction

The taxonomic position of most genera included in this family has been always quite uncertain within the suborder Bibionomorpha (sensu Amorim & Yeates, 2006) (Jaschhof, 2011). The family Rangomaramidae was raised by Jaschhof & Didham (2002) for a group of five species from New Zealand described under the genus Rangomarama Jaschhof & Didham. The concept of the family has been revised by Amorim & Rindal’s (2007) based on a phylogenetic study of the Mycetophiliformia, adding genera that previously had controversial positions. According to Amorim & Rindal’s (2007) hypothesis, these genera are classified as follows: Rangomarama in a subfamily of its own, Rangomarinae; Heterotricha Loew in another separate subfamily, Heterotrichiinae; several genera proposed for species most of which were originally described as Heterotricha, including Chiletricha Chandler, Eratomyia Amorim & Rindal, Rhynchoheterotricha Freeman, Kenyatricha Chandler, and Insulatricha Jaschhof in the subfamily Chiletrichiinae; and Ohakunea Tonnoir & Edwards and obviously related genera, such as Colonomyia Colless, Cabamofa Jaschhof, and Rogambara Jaschhof in the subfamily Ohakuneinae. Other genera with wing venation quite plesiomorphic when compared, e.g., to mycetophilids and keroplatids, might belong to the family, as Anisotricha Chandler, Nepaletricha Chandler, Madagotricha Jaschhof & Jaschhof, Sciarosoma Chandler, Sciaropota Chandler, Freemanomyia Jaschhof and Starkomyia Jaschhof.

The monophyly of the clades referred to here as Chiletrichiinae and Ohakuneinae is more or less clear. Grouping these four subfamilies (i.e., additionally the Rangomarinae and Heterotrichiinae), however, does not find unanimous approval. The connection of these four groups in a clade, proposed by Amorim & Rindal (2007), differs from the hypotheses of Chandler (2002), Hippa & Vilkamaa (2005) and Hippa & Vilkamaa (2006). Different aspects of the analysis by Amorim & Rindal (2007), e.g., the question of undersampling of cecids and sciarids, have been criticized by Jaschhof (2011). Conversely the family Rangomaramidae, with this composition, has been accepted by Evenhuis (2007), Pape et al. (2009), Hippa et al. (2009) and Pape & Thompson (2010).

As a catalogue, this is not exactly the place for a deeper discussion of problems of monophyly, but it is fair enough to indicate that, on the one hand, gathering these genera is taxonomically adequate (in the sense that it brings together genera that were spread or equivocally fit in other families) and comes out from a strict cladistic analysis. On the other hand, the problem involving these genera is considerably complex and the position of these four main clades, as explicitly demonstrated by Amorim & Rindal (2007), in a single group is not extremely stable, so this topology may be challenged by

1 Edited by Dr. Guilherme Cunha Ribeiro.
2 This project was supported by FAPESP grants # 2003/10.274-9 and 2007/59466-8.
wider analyses, with better sampling of large families, additional information from not well known genera, and additional characters.

Very little is known about the biology of Rangomaramidae and nothing is known about their immature stages. Rangomarama species are mainly confined to Nothofagus forests, sometimes mixed with podocarps and broadleaf trees, although one species is present in Podocarpus-broadleaf forests without southern beeches (Jaschhof & Didham, 2002). Adults are usually collected with Malaise traps and sweepnetting in damp and umbrageous forests, where there is dead and rotting wood. It is supposed that the immature forms of rangomaramids would be found in these substrates, as often happens in other Mycetophiliformia species. Jaschhof (2004) refers to the species of Insulatricha and Anisotricha, in New Zealand, to occur in podocarp, broadleaf and southern beech forests, as well as in shrubland nearby native forests. Adults fly in the warmer seasons and males are collected much more often than females. The species of Eratomyia known from Colombia (Amorim & Falaschi, 2010) was collected above 2,000 m of altitude, but in higher latitudes the rangomaramids are usually collected at middle elevations (Jaschhof, 2004). Chiletricha marginata (Edwards), from southern Brazil, is found only in areas with temperate climate in higher altitudes, with a distribution concurrent with that of the Araucariaceae conifer Araucaria angustifolia O. Kuntze and of some Podocarpaceae.

The Neotropical region has rangomamid species belonging to the genera Chiletricha, Eratomyia, Ohakunea, Colonomyia, Cabamofa and Rogambara. The number of Neotropical species in each genus is given below. An undescribed specimen of Rogambara is known from Dominican amber. The acronyms of the depositary institutions of the types are given below.

NHM – The Natural History Museum, Department of Entomology, London
CAS – California Academy of Sciences, Department of Entomology, San Francisco
IAvH – Alexander von Humboldt Biological Resources Research Institute, Bogota
INBio – Instituto Nacional de Biodiversidad, Santo Domingo de Heredia
MNHN – Museum National d’Histoire Naturelle, Paris
MZUSP – Museu de Zoologia da Universidade de São Paulo, São Paulo

Synopsis of the Neotropical diversity of the family

<table>
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<th>Chiletrichinae</th>
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<td>Colonomyia Colless</td>
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<td>Cabamofa Jaschhof</td>
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<tr>
<td>Rogambara Jaschhof</td>
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</tbody>
</table>

Total 20
Family RANGOMARAMIDAE Jaschhof & Didham, 2002


Ref. – Amorim & Rindal, 2007.

Subfamily Chiletrichinae Amorim & Rindal, 2007


Genus Chiletricha Chandler, 2002

Chiletricha Chandler, 2002: 113. Type-species: *Chiletricha marginata* Edwards, 1940 (orig. des.).

Ref. – Amorim & Rindal, 2007.

dureti Chandler, 2002: 117, figs. 35 (♂ terminalia), 36 (wing). Type-locality: Chile, Linares, Fundo Molcho. Distr. – Chile (Linares), Argentina (Neuquén). Holotype ♀, MNHN.

equalis (Freeman, 1951): 28, fig. 8 (♂ terminalia) (*Heterotricha*). Type-locality: Chile, Chiloé, Castro. Ref. – Chandler, 2002, figs. 28 (wing), 29-30 (♀ terminalia) (new comb., redescri., distr.). Distr. – Chile (Chiloé, Malleco), Argentina (Neuquén). Holotype ♀, NHM.

fremani Chandler, 2002: 116, figs. 46 (wing), 26 (♀ terminalia), 33-34 (♂ terminalia). Type-locality: Argentina, Neuquén, Pucará, Parque Nacional Lanín. Distr. – Argentina (Neuquén), Chile (Marga-marga). Holotype ♂, MNHN.


nudicostalis (Freeman, 1951): 28, fig. 7 (♂ terminalia) (*Heterotricha*). Type-locality: Chile, Chiloé, Mechuque I. Ref. – Chandler, 2002, figs. 23 (♂ terminalia), 27 (wing) (new comb., distr.). Distr. – Chile (Chiloé, Valdivia, Osorno). Holotype ♂, NHM.

penae Chandler, 2002: 117, figs. 37 (wing), 39-41 (♂ terminalia). Type-locality: Chile, Santiago, Cerro el Roble. Distr. – Chile (Santiago). Holotype ♂, MNHN.

seminuda (Freeman, 1951): 27, fig. 6 (♂ terminalia), 270 (wing) (*Heterotricha*). Type-locality: Chile, Chiloé, Ancud. Ref. – Chandler, 2002, figs. 20 (wing), 22 (♂ terminalia), 25 (♀ terminalia) (new comb., redescri., distr.); Amorim & Rindal, 2007, figs. 16 (wing), 17 (mouthparts), 154 (wing). Distr. – Chile (Chiloé, Tierra del Fuego, Cautín, Osorno, Malleco), Argentina (Neuquén, Chubut). Holotype ♂, NHM.

spinulosa Chandler, 2002: 118, figs. 1 (thorax), 38 (wing), 31-32 (♀ terminalia), 42-45 (♂ terminalia). Type-locality: Chile, Curicó, El Coigual. Distr. – Chile (Curicó). Holotype ♂, MNHN.

Genus Eratomyia Amorim & Rindal, 2007


magnifica Amorim & Rindal, 2007: 14, figs. 7 (head), 8 (thorax), 9 (apex of anterior tibia), 10 (wing), 11-15 (♂ terminalia). Type-locality: Ecuador, Quito-Baeza, E. Papallacta, 2,900 m. Distr. – Ecuador. Type ♂, MZUSP.

risaralda Amorim & Falaschi, 2010: 56, figs. 1 (wing), 2-3 (♂ terminalia), 4 (♀ terminalia). Type-locality: Colombia, Risaralda SFF, Otún Quimbaya, El Molinillo, 2,220 m. Type ♂, IAvH.

Subfamily Ohakuneinae Amorim & Rindal, 2007

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Ref. – Chandler, 2002 (before the publication of Cabamofa and Rogambara, composing a clade with Ohakunea and Colonomyia); Jaschhof, 2005 (dealing with a “group of genera” including Ohakunea that corresponds to the composition of the Ohakuneinae)

**Genus Cabamofa** Jaschhof, 2005


Ref. – Amorim & Rindal, 2007.

*mira* Jaschhof, 2005: 330, figs. 16-17 (head), 18 (maxillary palpus), 19 (antenna), 20 (thorax), 21-22 (apex of fore tibia), 23 (flagellomere), 24-25 (wing), 26 (♂ terminalia). Type-locality: Costa Rica, Prov. Puntarenas, Parque Nacional Corcovado, Quebrada Ceniza, 300 m. Ref. – Amorim & Rindal, 2007, figs. 38 (thorax), 39 (head), 40-41 (wing), 42 (apex of fore tibia), 43 (tarsal claw), 44-47 (♂ terminalia) (descr. of male terminalia). Distr. – Costa Rica. Holotype ♀, INBio

**Genus Colonomyia** Colless, 1963


*acutistyla* Matile & Duret, 1994: 144, fig. 4 (♂ terminalia). Type-locality: Chile, Osorno, Pucatrihué. Distr. – Chile (Osorno). Holotype ♀, MNHN.  


*brasiliana* Amorim & Rindal, 2007: 15, figs. 20 (thorax), 21 (♂ terminalia). Type-locality: Brazil, São Paulo, Salesópolis, Boracéia. Distr. – Brazil (São Paulo). Holotype ♀, MZUSP.

*freemani* Amorim & Rindal, 2007: 16, figs. 22 (head), 23-24 (wing), 25 (thorax), 26 (♂ terminalia), 27 (♀ terminalia). Type-locality: Brazil, São Paulo, Salesópolis, Boracéia. Distr. – Brazil (São Paulo). Holotype ♀, MZUSP.


*sp.* Amorim & Rindal, 2007: 17, figs. 28 (head), 29-30 (wing), 31 (♀ terminalia). Distr. – Argentina (Río Negro) and Chile (Magallanes).

**Genus Ohakunea** Tonnoir & Edwards, 1927


*chilensis* Freeman, 1951: 28, fig. 9 (♂ terminalia). Type-locality: Chile, L. Correntoso. Ref. – Jaschhof & Hippa, 2003, figs. 17 (apex of fore tibia), 18 (♂ terminalia) (redesc.). Amorim & Rindal, 2007: 18, figs. 32-33 (mouthparts), 34 (wing), 35 (thorax), 36-37 (♂ terminalia) (distr.). Distr. – Chile (Llanquihue, Dalcahue), Argentina (Río Negro). Holotype ♀, NHM.

**Genus Rogambara** Jaschhof, 2005

Ref. – Amorim & Rindal, 2007. As stated above, there is an undescribed specimen of *Rogambara* in Dominican amber.

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