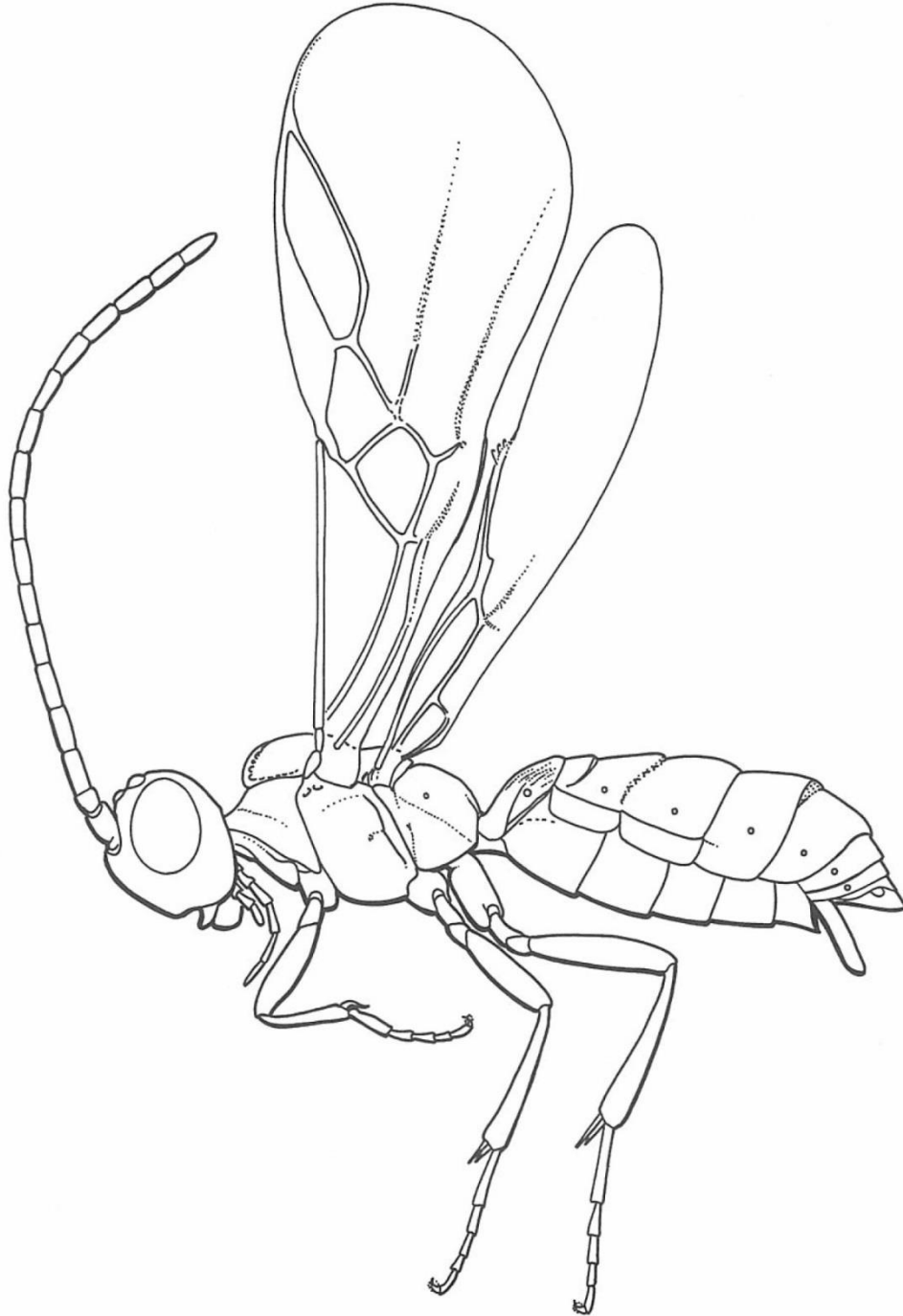


SUBFAMILY GNAMPTODONTINAE

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INTRODUCTION. The subfamily Gnamptodontinae was established by van Achterberg (1983a) to accommodate a small group of species variously placed with the Opiinae, the Rogadinae (in the broad sense), or the Exothecinae (Marsh, 1979). There are three New World genera including *Exodontiella* Wharton, 1978 which was included in the Opiinae chapter in the last version of the Manual of New World Genera (Wharton et al., 1997). Two exclusively Old World genera, *Gnaptogaster* Tobias, 1976 and *Neognamptodon* Belokobylskij, 1999 are also included in the subfamily. The use of the names *Gnamptodon* Haliday and Gnamptodontinae (rather than the widely used *Gnaptodon* and Gnaptodontinae) is based on Opinion 1424 (1987) of the Commission on Zoological Nomenclature. Van Achterberg (1983a), following Fischer (1972, 1977, 1981) provisionally included *Liparophleps* Enderlein (= *Plesademon* Fischer) in the Gnamptodontinae. However, Wharton (1997) confirmed the sexually dimorphic nature of the wing vein pattern, and concurred with Marsh (1976) that *Liparophleps* is a synonym of *Semirhytus* Szépligeti and belongs in Doryctinae.

PHYLOGENY. The presence of Hagen's glands suggested a relationship to opiines (Buckingham and Sharkey, 1988), but gnamptodontines parasitize leaf-mining lepidopterans rather than cyclorrhaphous Diptera. Zaldívar-Riverón *et al.* (2006) recovered Gnamptodontinae in a clade consisting of Telengaiinae, Exothecinae, Alysiiinae, Opiinae, and Braconinae in most analyses, with Gnamptodontinae and Telengaiinae resolved as sister taxa. Wharton *et al.* (2006) found Gnamptodontinae sister to either Braconinae or a clade consisting of Alysiiinae, Opiinae, and Exothecinae. *Exodontiella* Wharton was recovered with Gnamptodontinae in all analyses and, therefore, Wharton *et al.* (2006) transferred it from Opiinae. Sharanowski *et al.* (2011) consistently recovered a clade composed of Gnamptodontinae, Exothecinae, Alysiiinae, and Opiinae. Unlike Zaldívar-Riverón *et al.* (2006), species of *Telengaia* Tobias were not included in either Wharton *et al.* (2006) or Sharanowski *et al.* (2011).

BIOLOGY. Gnamptodontines are primarily parasitoids of leaf-mining lepidopterans of Nepticulidae (Yu *et al.*, 2016; van Achterberg, 1983a, b; Whitfield and Wagner, 1991; Shaw and Huddleston, 1991) but also attack Gracillariidae (Balevski and Tomov, 1997) and Heliozelidae (Williams, 2004). They are apparently koinobiont parasitoids (Shaw and Huddleston, 1991), but it is not yet known whether they are endo- or ectoparasitic.

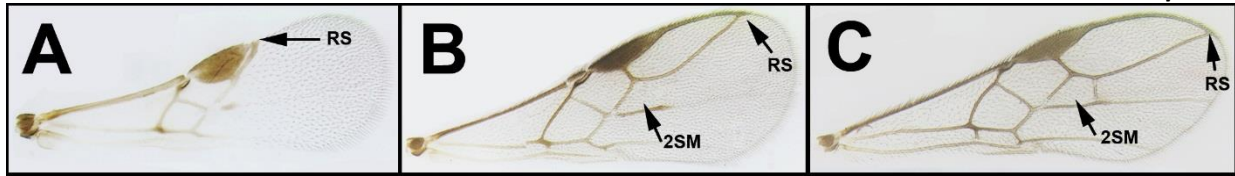
COMMON GENERA. Both *Gnamptodon* and *Pseudognamptodon* are moderately common and widespread in the New World. Both are composed of rather small specimens and are easily overlooked by collectors.

DISTRIBUTION. Cosmopolitan.

DISTINGUISHING FEATURES. With the inclusion of *Exodontiella* there it is difficult to diagnose the subfamily morphologically. *Exodontiella* has exodont mandibles and unique forewing venation that distinguish it from all other braconids. All other gnamptodontines are characterized by the presence of a well-defined line or groove delimiting a basal-median, somewhat rectangular area on the second metasomal tergum. Images of these can be found in the plates below for *Gnamptodon* and *Pseudognamptodon*. This basal-median area is described in some publications as a raised swelling or elevation, but in several species it is fairly flat. Additionally, all species are quite small (usually less than 3mm), lack an epicnemial carina, and usually lack an occipital carina.

KEY TO THE NEW WORLD GENERA OF THE SUBFAMILY GNAMPTODONTINAE

1. **A.** RS vein of forewing ending next to apex of stigma *Exodontiella*
 - **B.** RS of forewing ending far from apex of stigma; 2nd submarginal cell (2SM) not closed apically.
 *Pseudognaptodon*
 - **C.** RS of forewing ending far from apex of stigma and 2nd submarginal cell (2SM) present.
 *Gnamptodon*



GENERIC TREATMENTS

Exodontiella Wharton, 1978

Diagnosis. Mandibles exodont (teeth facing laterally and mandibles not touching when closed); RS vein of forewing meeting margin of wing immediately apical to stigma.

Biology. Unknown.

Diversity. Two described species, perhaps a few more undescribed.

Distribution. Nearctic.

Publications. Wharton (1978) described and diagnosed the two known species. Wharton et al. (2006) confirmed that the genus belongs in the Gnamptodontinae.



Figure 1. *Exodontiella deserticola* Wharton, 1978.

Gnamptodon Haliday, 1837

Diagnosis. Forewing with 2nd submarginal cell closed distally.

Biology. Reared from Nepticulidae (Lepidoptera).

Diversity. 7 Nearctic and 1 Neotropical species are described. Many more, perhaps hundreds, remain undescribed.

Distribution. Worldwide.

Publications. Fisher (1977) treated the 8 known species New World species.

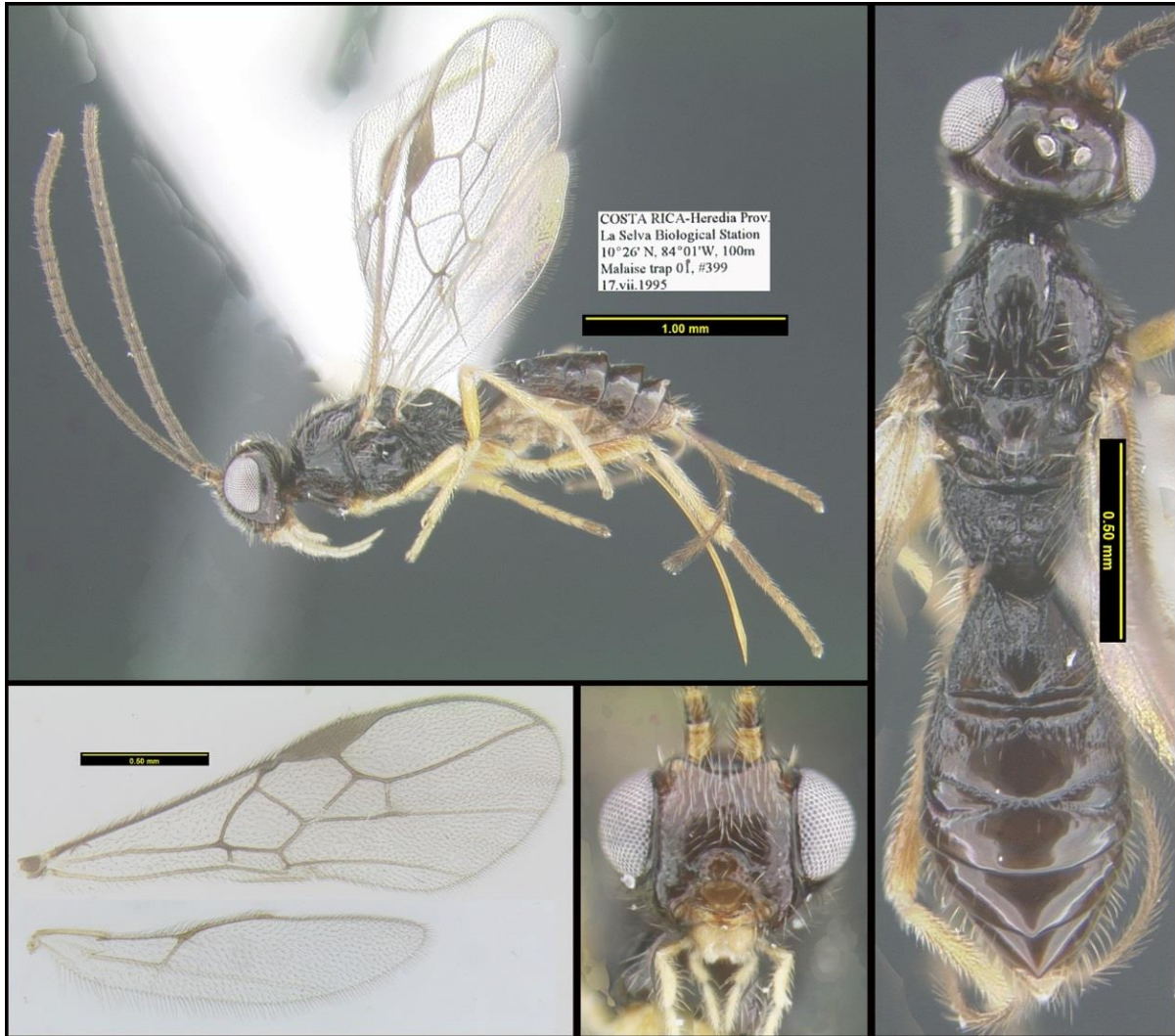


Figure 2. *Gnamptodon* sp.

Pseudognaptodon Fisher, 1977

Diagnosis. 2nd submarginal cell of forewing not closed apically; apex of RS vein of forewing hitting wing margin remote from apex of stigma.

Biology. Biology: reared from Nepticulidae, but no specific host records have been published (Fischer, 1977).

Diversity. 28 described New World species and many more, perhaps hundreds, are undescribed.

Distribution. Widespread in the New World and also recorded from Vietnam.

Publications. Cirelli et al. (2002) described eight species of *Pseudognaptodon* from Brazil and provided a key to New World species. Williams (2004) described 17 species of *Pseudognaptodon* from the New World and divided the genus into two species groups. A key to New World species was provided but did not include the species described in Cirelli et al. (2002).

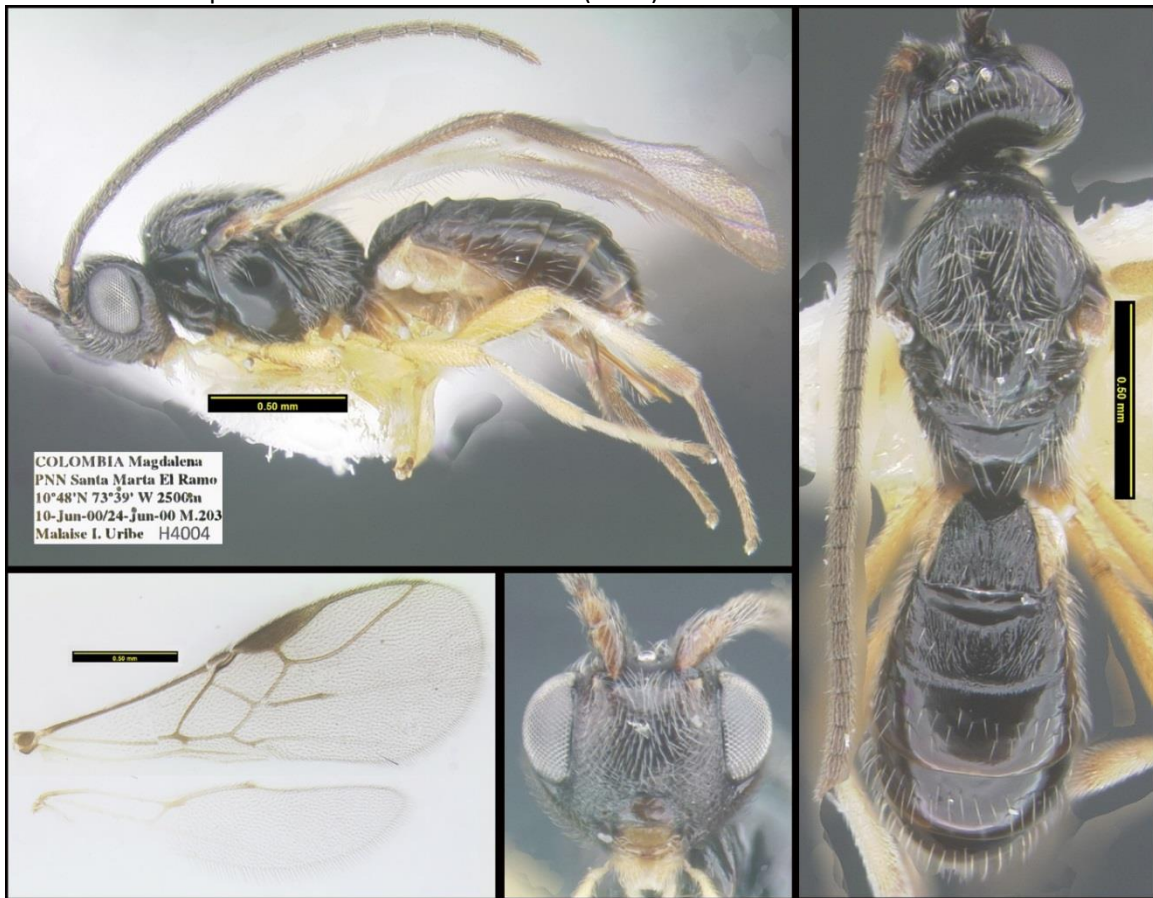


Figure 3. *Pseudognaptodon* sp.

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