

VIERAEA	Vol. 30	115-145	Santa Cruz de Tenerife, diciembre 2002	ISSN 0210-945X
---------	---------	---------	--	----------------

## Chalcids from Madeira, Canary Islands and Azores (Hymenoptera, Chalcidoidea)

M. KOPONEN\* & R. R. ASKEW\*\*

\**Department of Applied Biology (former Zoology), P.O. Box 27, FIN  
00014 University of Helsinki, Finland. E-mail:  
martti.a.koponen@helsinki.fi*

\*\**5 Beeston Hall Mews, Beeston, Tarporley, Cheshire CW6 9TZ, U.K.*

KOPONEN, M. & R. R. ASKEW (2002). Calcidoideos de Madeira, Canarias y Azores (Hymenoptera, Chalcidoidea). *VIERAEA* 30: 115-145.

RESUMEN: En este trabajo añadimos 57 especies de Chalcidoidea (Hymenoptera) a la fauna de las islas Canarias, 19 especies a la de Madeira y 5 a la de Azores. Otras 6 son nuevas para La Gomera, 24 para La Palma y 7 para Tenerife. Una *Psilocera* de La Palma se describe como nueva especie. *Anagyrus orbitalis* (Ruscka, 1923) es sinónima de *Anagyrus matritensis* (Mercet, 1921).

Palabras clave: Hymenoptera, Chalcidoidea, islas Canarias, Madeira, Azores, *Psilocera*.

ABSTRACT: In this paper we add 57 species of Chalcidoidea (Hymenoptera) to the faunal list of the Canary Islands, 19 species for Madeira and 5 for Azores. Further 6 species are new for La Gomera, 24 for La Palma and 7 for Tenerife. A species of *Psilocera* from La Palma and Tenerife is described as new. *Anagyrus orbitalis* (Ruschka, 1923) is synonymised with *Anagyrus matritensis* (Mercet, 1921).

Key words: Hymenoptera, Chalcidoidea, Canary Islands, Madeira, Azores, *Psilocera*

### INTRODUCTION

Author Koponen has visited Madeira seven times (10 weeks): in March 1980, April 1990, December 1991, December 1994, April and December 1995 and November 1996. He has collected insects, mainly Hymenoptera from Tenerife ten times (16 weeks): in December 1986, March-April 1988, February 1989, November-December 1992, March-April and December 1993, December 1997, March-April 1999, November 2000, and March 2002, and from La Palma two times (4 weeks): in February-March 1997 and March-April 1998, and from La Gomera once in March 1999. The collecting was made mainly by sweeping and with aspirator.

The material is mostly deposited in the collection of Department of Applied Biology, University of Helsinki. Some specimens are in collection of author Askew. Some specimens have been given to the Museo de Ciencias Naturales in Santa Cruz de Tenerife (TFMC). Unless indicated to the contrary, all listed specimens were collected by M. Koponen. Genera and species are arranged alphabetically within families or subfamilies.

The material now studied allows us to add 57 species new for the Canary Islands, 19 for Madeira and 5 for the Azores. Further 6 species are new for La Gomera, 24 for La Palma and 7 for Tenerife. Although many new species were listed from the Canary Islands by Báez *et al.* (2001), the new records are presented here. Several species, not included in the numbers above, have not yet been confidently or fully identified. A new species of *Psilocera* (Pteromalidae) is described.

## LIST OF SPECIES

### Fam. CHALCIDIDAE

*Proconura aeneonitens* (Graham, 1983)

La Palma: Villa de Mazo, Las Toscas, 26.2.1997, 1 ♀.

Tenerife: Puerto de la Cruz, Parque Tajinaste, 8.12.1997, 1 ♂ 7 ♀; 18.12.1997, 1 ♂.

Recorded from Tenerife by Báez & Askew (1999).

Differs from Madeiran *P. aeneonitens* in having yellow (not black) tegulae.

### Fam. TORYMIDAE

*Adontomerus confusus* Askew, 2000

Tenerife: Punta de Teno, 14.12.1997, 35 ♂ 6 ♀, 23.3.1999, 1 ♂ 1 ♀.

*Idiomacromerus nitens* (Bouček, 1982)

La Gomera: Antoncojo, 26.3.1999, 2 ♂ 6 ♀ (R. R. Askew), 5 ♂ 5 ♀ (M. Koponen); above Santiago, 28.3.1999, 4 ♀, (R. R. Askew).

Tenerife: Punta de Teno, 22.3.1999, 1 ♀, 23.3.1999, 1 ♀ (R. R. Askew).

A new species for La Gomera and Tenerife. Reported from Fuerteventura (Báez & Askew, 1999).

*Megastigmus transvaalensis* (Hussey, 1956)

La Palma: Breña Baja, Los Cancajos, 1.3.1997, 2 ♀, 26.3.1998, 1 ♂, 4.4.1998, 3 ♀.

A new species for La Palma. Reported from Lanzarote and Tenerife by Báez & Askew (1999).

*Monodontomerus obscurus* Westwood, 1833

Azores: Pico, Porto Cachorro, 8-12.8.1987 (N.P. Ashmole).

Mentioned as *Monodontomerus* sp. by Ashmole *et al.* (1996).

*Podagrionella lichtensteini* (Picard, 1933)

Tenerife: Aguamansa, 6.4.1993, 1 ♀.

Recorded from Tenerife by Báez & Askew (1999) and listed as *Podagrion splendens* by Báez *et al.* (2001).

*Pseuderimerus?* sp.

La Palma: Breña Baja, Los Cancajos, 29.3.1998, 1 ♂.

Reduced eyes and basal 6 (nodulose with hair whorls) flagellar segments anelliform, but no yellow on body (?except clypeus), and thoracic dorsum shining without white scale-hairs.

*Pseudotorymus* sp.

Tenerife: Icor, 21.3.1999, 3 ♂, (R. R. Askew). At least two unidentified *Pseudotorymus* species occur on the Canary Islands.

#### Fam. AGAONIDAE

*Eupristina verticillata* (Waterston, 1921)

Madeira: Estreito de Câmara de Lobos, Levada do Norte, 12.12.1994, 2 ♀; Machico, Facho, 16.12.1995, 1 ♀.

La Palma: Breña Baja, Los Cancajos, 1.3.1997, 1 ♀.

Tenerife: Adeje, 2.2.1989, 1 ♀. Cruz del Carmen, 21.3.2002, 3 ♀. Puerto de La Cruz, 5.4.1988, 2 ♀; 8.4.1988, 1 ♀; 30.11.1992, 2 ♀; 29.3.1993, 1 ♀; 18.12.1997, 1 ♀; 18.11.2000, 1 ♀. Santa Úrsula, 8.12.1993, 1 ♀.

A new species for Madeira, La Palma and Tenerife. Reported from Fuerteventura and Gran Canaria (Báez, 1998; Carnero *et al.*, 1998).

?*Sycotreta* sp.

Tenerife: Puerto de la Cruz, Parque Taoro, 20.12.1997, 1 ♂.

Looks like ♀ but no *Epichrysomallinae* has 5 funicles, 4 tarsal segments in female. Runs to *Sycotetra* ♂ in Bouček, Watsham & Wiebes (1981) but not *S. serricornis* Bouček (the only sp.) because pronotum too short.

#### Fam. PERILAMPIDAE

*Chrysolampus rufitarsis* (Förster, 1859)

Tenerife: Arafo, 21.3.1999, 3 ♂ 10 ♀ (R. R. Askew).

A new species for the Canary Islands.

*Perilampus* sp. A

La Palma: Breña Baja, Los Cancajos, 4.3.1997, 1 ♀.

Will not run in Argamon (1990). Superficially like *aeneus* but no preorbital ridge, front edge of prepectus without pits, no horizontal shelf in front of mid coxa.

*Perilampus* sp. B (nr. *intermedius* Bouček, 1956)

La Palma: Breña Baja, Los Cancajos, 2.3.1997, 1 ♂.

Black with weak metallic tinge. Vertex with horizontal pad behind anterior ocellus; face hairy. Reported from Tenerife (Báez & Askew, 1999).

*Perilampus* sp. C

La Palma: Breña Baja, Los Cancajos, 2.3.1997, 1 ♂, 4.3.1997, 3 ♂.

Tenerife: Santa Úrsula, La Quinta, 8.12.1993, 1 ♀; 9.12.1993, 1 ♂.

Green; prepectus quite large but no pits along pronotal edge; genal sulcus = anterior margin of malar depression; flagellum testaceous beneath; vertex declived almost immediately behind anterior ocellus. Previously recorded, as *Perilampus* sp. 1, from Tenerife (Báez & Askew, 1999).

**Fam. PTEROMALIDAE**

CLEONYMINAE

*Cleonymus* sp.

Madeira: Funchal, Santa Catarina Park, 16.4.1990, 1 ♀.

ORMOCERINAE

*Systasis* ?*parvula* Thomson, 1876

Tenerife: Puerto de la Cruz, Parque Tajinaste, 17.12.1997, 1 ♀.

NEODIPARINAE

*Neodipara* *hispanica* Hedqvist, 1971

La Palma: El Paso, Cumbre Nueva (850-1000m), 28.2.1997, 1 ♂; Los Sauces (380-475m), 7.4.1998, 1 ♀.

A new species for the Canary Islands. Previously recorded only from mainland Spain.

CEROCEPHALINAE

*Theocolax* *formiciformis* Westwood, 1832

La Palma: Breña Baja, Los Cancajos, reared from twigs of *Ficus carica* in 1997, 20 ♂ 15 ♀.

Tenerife: 2 km west of Buenavista, reared from stems of *Euphorbia bourgeauana*, 12.1992, 4 ♀; Puerto de la Cruz, from twigs of *Euphorbia* (taken 15.12.1986), 1 ♂ 6 ♀.

A new species for the Canary Islands.

#### SPALANGIINAE

*Spalangia cameroni* Perkins, 1910

Tenerife: Puerto de la Cruz, Parque Taoro, 19.12.1997, 1 ♀.

A new species for the Canary Islands.

*Spalangia endius* Walker, 1839

La Palma: Breña Baja, Los Cancajos, 22.2.1997, 1 ♀.

A new species for the Canary Islands.

*Spalangia fuscipes* Nees, 1834

La Palma: El Paso, Cumbre Nueva (870-910m), 31.3.1998, 1 ♀.

A new species for La Palma. Reported from Lanzarote and Tenerife (Báez & Askew, 1999).

*Spalangia subpunctata* Förster, 1850

Madeira: Funchal, Quinta do Pomar (600 m), 22.12.1995, 1 ♀.

A new species for Madeira.

#### EUNOTINAE

?*Eunotus merceti* Masi, 1931

Tenerife: Cruz del Carmen, 21.3.2002, 1 ♀.

*Moranila californica* (Howard, 1881)

Madeira: Funchal, Magnolia Park, 18.12.1995, 1 ♀.

La Palma: Breña Baja, Los Cancajos, 29.3.1998, 1 ♂.

Tenerife: Puerto de la Cruz, Parque Taoro, 19.12.1997, 1 ♀; 15.11.2000, 1 ♀; Parque Tajinaste, 26.11.2000, 1 ♀.

A new species for the Canary Islands and Madeira.

#### PTEROMALINAE

?*Ablaxia* sp.

Tenerife: Aguamansa, 2.12.1992, 1 ♀.

*Callitula bicolor* Spinola, 1811

Tenerife: Agumansa, 6.4.1993, 1 ♀; 12.12.1997, 1 ♀; Puerto de la Cruz, Parque Taoro, 19.12.1997, 2 ♀.

A new species for the Canary Islands.

Reported from Madeira by Graham (1981).

*Cheiopachus quadrum* (Fabricius, 1787)

La Palma: El Paso, Los Barros (700-800m), 24.2.1997, 1 ♀.

A new species for the Canary Islands.

*Chlorocytus* sp.

La Palma: Santa Cruz de La Palma, Las Nieves, 8.4.1998, 1 ♂.

*Cyrtogaster degener* (Walker, 1872)

Azores: Pico, Caldeira (water trap), 7.-11.8.1987 (N. P. Ashmole). Pico, Porto Cachorro (water trap), 26.7.-22.8.1987, 1 ♀ (N. P. Ashmole).

A new species for the Azores. Well-documented from Madeira and the Canary Islands.

*Fedeliã nebulosa* Delucchi, 1962

Tenerife: Punta de Teno, 1.12.1992, 1 ♂.

A new species for the Canary Islands. Known from Morocco and Algeria.

## Pteromalinae genus indet. sp.

Madeira: Machico Facho (200-270m), 16.12.1995, 3 ♀.

## Pteromalinae genus indet. sp.

La Palma: Villa de Mazo, Montes de Luna (750-850m), 5.3.1997, 1 ♀.

genus near ? *Metastenus* Walker, 1834

Madeira: Funchal, São Martinho (200-250m), 17.12.1995, 1 ♂.

*Homoporus ?cephalotes* Szélnyi, 1956

Tenerife: La Esperanza, Pico de las Flores (1200m), 10.4.1993, 1 ♀.

*Homoporus fulviventris* (Walker, 1835)

La Gomera: Las Toscas, 26.3.1999, 1 ♂.

Reported from Tenerife by Gijswijt (1990). A new species for La Gomera.

*Homoporus ? fulviventris* (Walker, 1835)

Madeira: Palheiro Ferreiro - Babosas, 17.4.1990, 1 ♂ with elongated body, femora dark-banded.

Tenerife: Punta de Teno, 14.12.1997, 3 ♂ with femora all pale and with yellow subbasal spot on gaster. Otherwise resembles Madeiran material of *H. fulviventris* and is very probably conspecific. Puerto de la Cruz, Parque Taoro, 19.12.1997, 1 ♂ with femora basally darkened and gaster more or less immaculate, but otherwise close to males from Punta de Teno (above).

*Homoporus* sp. indet.

Tenerife: Aguamansa (1000-1300m), 6.4.1993, 5 ♂.

*Homoporus* sp. near *semiluteus* (Walker, 1872)

Gran Canaria: Puerto Rico, 31.12.1986, 1 ♀ (I. Rutanen).

genus nr ?*Kaleva* Graham, 1957

Madeira: Monte (550m), 3.11.1996, 1 ♀.

*Makaronesa* sp. indescrita

Tenerife: La Esperanza, Pico de las Flores (1200m), 10.4.1993, 1 ♀; Santa Úrsula, La Quinta, 11.12.1993, 1 ♀.

Closest to *tetraspila* Graham, 1975 but has funicles 3 & 4 paler than rest of flagellum, different wing pattern, stigma smaller, propodeum shinier, hind tibia with more extensive apical darkening.

?*Merismorpha* sp.

La Palma: Breña Baja, Los Cancajos, 4.3.1997, 2 ♂ 3 ♀, 26.3.1998, 1 ♀.

Tenerife: Puerto de la Cruz, Parque Tajinaste, 8.12.1997, 1 ♂ 1 ♀, Parque Taoro, 19.12.1997, 1 ♂ 1 ♀, 20.12.1997, 4 ♂; La Laguna, 11.12.1997, 1 ♂.

Both sexes have a long, smooth petiole, expanded slightly medially and lacking anterior teeth; sculpture of head and thoracic dorsum weak, these parts shiny; ♂ with 6 and ♀ with 5 funicle segments; clypeus with anterior margin narrow, weakly emarginate and produced forwards; pronotal collar with anterior edge bluntly rounded; ♀ gaster almost as long as rest of body. The blackish body colour, pale legs and general facies give this species a superficial resemblance to *Toxeomorpha nigricola* (see note under that species).

*Merismorpha* Girault, 1915 is allied to *Sphegigaster* and was previously known from India (1 sp.) and Australia (11 spp.) (Bouček, 1988).

*Mesopolobus adrianae* Gijswijt, 1990

La Palma: Breña Baja, Los Cancajos, 1.3.1997, 1 ♂; 29.3.1998, 3 ♂ 1 ♀.

A new species for La Palma. Reported from La Gomera, Gran Canaria and Tenerife (Gijswijt, 1990, Báez & Askew, 1999).

*Mesopolobus aequus* (Walker, 1834)

La Palma: Breña Baja, Los Cancajos, 29.3.1998, 1 ♂ 1 ♀, 30.3.1998, 1 ♀.

A new species for La Palma. Reported from Tenerife (Báez & Askew, 1999).

*Mesopolobus fuscipes* (Walker, 1834)

La Gomera: Buen Paso, 26.3.1999, 2 ♂ 1 ♀, Las Toscas, 26.3.1999, 1 ♂.

A new species for the Canary Islands. Reported from Madeira (Graham, 1983b).

*Mesopolobus* sp. near *prasinus* (Walker, 1834)

La Palma: Breña Baja, Los Cancajos, 22.2.1997, 6 ♂ 1 ♀, 1.3.1997, 1 ♂ 1 ♀, 2.3.1997, 10 ♂ 7 ♀, 4.3.1997, 2 ♂ 2 ♀, 5.3.1997, 3 ♂ 7 ♀, 26.3.1998, 1 ♀, 1.4.1998, 1 ♂, 4.4.1998, 1 ♂; Los Cancajos - El Fuerte, 21.2.1997, 1 ♀. Breña Baja, Monte Breña, 27.2.1997, 1 ♀. El Paso, Cumbre Nueva, 31.3.1998, 1 ♀. Los Llanos de Aridane, Los Barros, 6.4.1998, 1 ♀.

Tenerife: Puerto de La Cruz, Parque Taoro, 11.12.1986, 1 ♀, 20.12.1997, 1 ♀.

*Mesopolobus* sp. near *incultus* (Walker, 1834)

Tenerife: Santa Úrsula, La Quinta, 30.11.1992, 1 ♂.

*Norbanus* sp. indet. A

La Gomera: Antoncojo, 26.3.1999, 1 ♂ (R. R. Askew).

*Norbanus* sp. indet. B

Tenerife: Santa Úrsula, La Quinta, 3.12.1992, 2 ♂ with 6 funicles.

La Palma: Breña Baja, Los Cancajos, 29.3.1998, 1 ♂.

*Norbanus* sp. near *meridionalis* (Masi, 1922)

Tenerife: Punta de Teno, 1.12.1992, 2 ♀.

*Norbanus* sp. near *scabriculus* (Nees, 1834)

Tenerife: Punta de Teno, 14.12.1997, 1 ♂.

*Norbanus tenuicornis* Bouček, 1970

La Palma: Breña Baja, Los Cancajos, 26.3.1998, 1 ♀.

A new species for La Palma. Reported from Gran Canaria (Gijswijt, 1990).



? *Peridesmia* sp.

Tenerife: El Rosario near San Juan de Rambla, 24.3.1999, 1 ♀ (R. R. Askew).

*Pseudocatolaccus nitescens* (Walker, 1834)

Madeira: Boa Morte – Quinta Grande, 21.4.1995, 1 ♀.

La Palma: Breña Baja, Los Cancajos, 29.3.1998, 1 ♀.

A new species for Madeira and La Palma. Reported from Gran Canaria and Tenerife by Gijswijt (1990).

*Psilocera caldericola* Askew sp. nov.

*Female*. Body black with purple reflections. Antennal scape, pedicel and anelli testaceous; flagellum dark brown. Mandibles basally testaceous, teeth brown. Coxae concolorous with thorax; rest of legs reddish testaceous to brownish with claws darker brown. Tegulae testaceous, apically brown; wings subhyaline, faintly brownish. Length 2.0-2.5 mm.

Head in dorsal view 1.2. times as broad as mesoscutum, 2.3 times as broad as long with temples convergent, 0.4 times as long as eyes; POL 1.16 HOL, ocelli in a triangle of about  $12HO^\circ$ . Malar space almost half length of eye, gena weakly convex with hollow above base of mandible occupying about half of malar space. Mandibles large, both with three acute teeth of which the ventralmost is largest. Clypeus (and frons immediately above it) very weakly sculptured and shining with radiating striae laterally only, its anterior margin bidentate. Frons with reticulate sculpture becoming strigose laterad of clypeus, with relatively long and sparse white hairs, each about an ocellar diameter in length and mostly separated by more than this. Antenna (fig. 2) with scape three-quarters the length of an eye, not quite reaching the median ocellus; length of pedicel plus flagellum 0.82 times breadth of head; funicle with six segments, the first narrower than pedicel, thereafter increasingly broad so that sixth is about 2.5 times as broad as first; clava (fig. 3) with ventral pad of micropilosity occupying about half its total length.

Mesosoma only 1.25 times as long as broad. Pronotal collar narrow, anteriorly rounded into neck and without a posterior smooth strip. Mesoscutum fully twice as broad as long, only about as long as scutellum; reticulate sculpture strong with hairs increasing in length posteriorly; notauli distinct in anterior half. Scutellum 1.25 times as broad as long, sloping anteriorly shallowly so that sides visible in dorsal view; frenal area defined by weaker reticulate sculpture. Propodeum about 0.6 times as long as scutellum; median area reticulate with large and shallow antero-lateral foveae delimited externally by complete costula; median carina complete but sharp only anteriorly; spiracles small and round, separated from metanotum by their diameter; nucha large, occupying almost half propodeal length, coarsely reticulate. Mesosoma in lateral view with dorsal surfaces of mesoscutum and scutellum both convex, the propodeum in same plane as posterior of scutellum.

Forewing basal cell bare, open below; basal vein with 2-4 hairs; speculum open below, not extending anteriorly beyond base of parastigma; lengths of costal cell: marginal: stigmal: postmarginal veins as 36:20:11:16.

Gaster (excluding petiole) shorter than rest of body; petiole (fig. 4) two-thirds as long as propodeum; gastral tergites 1-5 medially incised; last tergite distinctly shorter than its basal breadth; tip of hypopygium at 0.9 gaster length; ovipositor sheaths projecting about 1.4 times length of last tergite.

*Male.* Differs from female in structure of antenna (fig. 1); scape almost as long as eye and reaching distinctly above vertex; length of pedicel plus flagellum about 1.9 times breadth of head and 0.86 times body length; funicle of seven pedunculate segments, each with subbasal and subapical whorls of long, curved setae; clava two-segmented. Gaster including petiole about as long as mesosoma, obovate without ventral plica.

*Holotype* ♀: Canary Islands: La Palma, Parque Nacional de la Caldera de Taburiente, Roque de la Cumbrecita, parcela de los Helianthemum, 1377m (UTM 28RBS2177), Malaise trap, 12.8.1999, T. Domingo-Quero. Deposited in Museo Nacional de Ciencias Naturales (Madrid).

*Allotype* ♂: La Palma, Parque Nacional de la Caldera de Taburiente, Malaise trap, 31.8.2000, T. Domingo-Quero. In TFMC.

*Paratypes:* 2♀ 3♂. Same data as allotype; 1♂ 3♀, same data except collected 25.8.2000; 1♀, same data except collected 21.9.2000; 1♀, same data except collected 28.9.2000; 3♀, same data except collected 4.10.2000; 1♀, same locality in pitfall trap (trampa de caída) 4.10.2000. In MNCN, Natural History Museum (London) and Askew's collection.

*Additional material:* Canary Islands: La Palma, Parque Nacional de la Caldera de Taburiente, yellow pan trap, 20.8.1999, 1♀ (damaged).

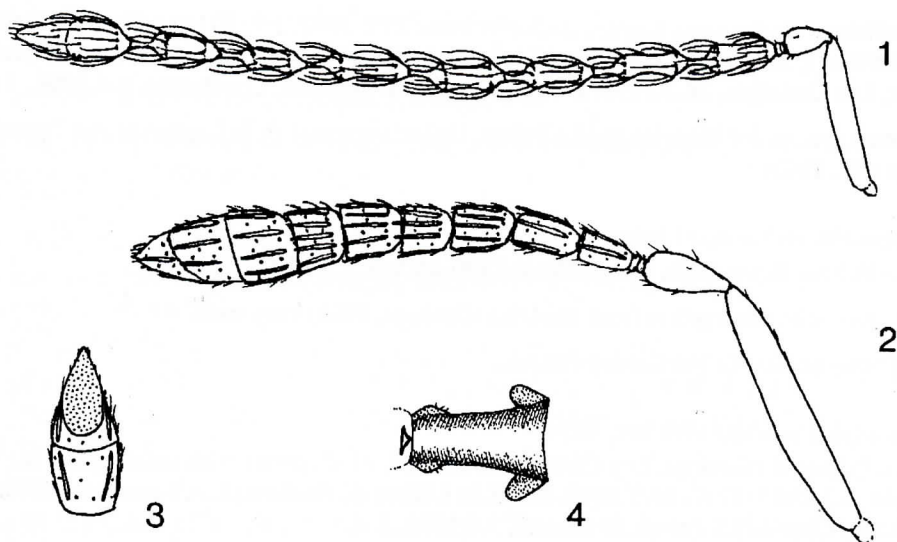
Breña Baja, Los Cancajos, 29.3.1998, 1♀ (M. Koponen). ?Tenerife: Arafo, 21.3.1999, 1♀ (R. R. Askew).

*Diagnosis.* In Graham's (1992) key to female *Psilocera*, *P. caldericola* runs to couplet 3 but differs from *P. punctifrons* (Thomson) in its more clavate flagellum with the first funicle segment narrower than pedicel and with fewer sensillae (fig. 2). From species following the second part of couplet 3, *P. caldericola* may be distinguished from *P. rufipes* Graham by its relatively short gaster (fully as long as rest of body in *rufipes*), from *P. crassispina* (Thomson) by its bare forewing basal cell (distal third or more pilose in *crassispina*), and from *P. confusa* Graham by its reddish legs and basal parts of antenna (these parts mainly infuscate in *crassispina*). *P. caldericola* most closely resembles *P. confusa* (type locality Madeira) but the male antenna of *P. caldericola* and *P. confusa* are different, that of *P. confusa* having six funicle segments and a 3-segmented clava. The curved setae on the funicle segments of *P. confusa* are mostly arranged in three whorls, and the combined length of pedicel and flagellum is relatively shorter in *P. confusa*, only 1.5 times the breadth of the head and 0.68 times body length.

*Pteromalus amage* (Walker, 1849)

La Gomera: San Sebastián, on *Schinus*, 25.3.1999, 1♂ (R. R. Askew).

La Palma: Breña Baja, Los Cancajos - El Fuerte, 21.2.1997, 8♂ 1♀. 3.4.1998, 1♀; Los Cancajos, 22.2.1997, 1♂, 1.3.1997, 7♂ 1♀, 2.3.1997, 1♂, 5.3.1997, 1♀, 26.3.1998, 5♂, 27.3.1998, 1♂ 1♀, 28.3.1998, 3♂, 29.3.1998, 30♂ 1♀, 1.4.1998, 8♂ 1♀, 4.4.1998,



Figs. 1-4. *Psilocera caldericola* sp. nov. Fig. 1. ♂ left antenna. Fig. 2. ♀ left antenna (drawn to 2x scale of ♂ antenna). Fig. 3. ♀ clava, ventral view. Fig. 4. ♀ petiole of gaster, dorsal view with anterior to left.

6 ♂ 1 ♀, 5.4.1998, 1 ♂; Monte Breña, 27.2.1997, 1 ♂, 3.3.1997, 2 ♂ 1 ♀, 30.3.1998, 3 ♂ 1 ♀; Santa Cruz de la Palma, Molinos de Bellido, 8.4.1998, 3 ♂; Santa Cruz de La Palma, Las Nieves, 8.4.1998, 1 ♂; Los Sauces, 7.4.1998, 1 ♀.

Tenerife: Puerto de la Cruz, Parque Taoro, 20.12.1997, 1 ♂; Aguamansa, 12.12.1997, 1 ♂; Punta de Teno, 23.3.1999, 1 ♂ (R. R. Askew); Santa Úrsula, La Quinta, 11.12.1993, 1 ♀.

Recorded from La Palma, Tenerife and Gran Canaria (Báez & Askew, 1999). First record for La Gomera. *P. amage* was originally described from Madeira; it is closely allied to the widespread *P. platyphilus* Walker, 1874 (Graham 1975), a parasitoid in spider egg-sacks. Whilst *P. amage* is common, *P. platyphilus* does not seem to occur on the Canary Islands. *P. amage* is distinguishable from *P. platyphilus* in both sexes by its longer pronotal collar, less compact flagellum and partial closure below of the forewing basal cell. The ♀ head in dorsal view of *P. amage* has shorter and more posteriorly convergent temples, and the genal hollow above the base of the mandibles is more distinct. Males of both species have the genae just laterad of the clypeus ventrally produced into a lobe or blunt tooth (development variable), but the ♂ gaster of *P. amage* has ventral plica (absent in *P. platyphilus*), and the antennal funicle of *P. amage* often has F1 smaller than F2, sometimes anelliform so that the funicle appears 5-segmented. Biologically, the two species appear to differ in their ♀:♂ ratios; in the sample of 102 *P. amage* listed above only 12 (11.8 percent) are female, but of 20 *P. platyphilus* caught in the field in mainland Europe, 14 (70 percent) are females.

#### *Pteromalus intermedius* (Walker, 1834)

Madeira: Curral dos Romeiros, 22.12.1995, 2 ♀; Monte (550m), 3.11.1996, 1 ♂ 2 ♀; Monte - Terreiro da Luta, 5.11.1996, 1 ♂.

La Palma: Barlovento, Laguna de Barlovento, 25.2.1997, 1 ♀; El Paso, Cumbre Nueva (870-908m), 31.3.1998, 2 ♀; Santa Cruz de La Palma, El Puente, 3.4.1998, 1 ♀; Breña Baja, Los Cancajos, 28.3.1998, 2 ♀; Los Llanos de Aridane, Los Barros, 6.4.1998, 1 ♀.

A new species for Madeira and La Palma. Uncertain report from Lanzarote and Tenerife (Gijswijt, 1990).

*Pteromalus poisoensis* Graham, 1983

La Palma: Breña Baja, Monte Breña (390-450m), 3.3.1997, 2 ♀.

Agrees with description from Madeira (Graham, 1983) very well.

A new species for the Canary Islands.

*Pteromalus semotus* (Walker, 1834)

La Palma: Breña Baja, Los Cancajos, 5.3.1997, ?1 ♂ (gaster with small spot); Monte Breña, 3.3.1997, 17 ♀, 30.3.1998, 2 ♀; Los Llanos de Aridane, Los Barros, 6.4.1998, 2 ♂; Santa Cruz de La Palma, El Puente, 3.4.1998, 1 ♂.

A new species for the Canary Islands.

*Pteromalus* sp. cf. *alternipes* Walker, 1872

La Palma: Breña Baja, Los Cancajos, 26.3.1998, 1 ♀.

*Pteromalus* sp. nr. *elevatus* (Walker, 1834)

La Palma: Los Llanos de Aridane, Los Barros, 6.4.1998, 1 ♀.

*Pteromalus* sp. ?*sequester* Walker, 1835 group

La Palma: Los Sauces (380-475m), 7.4.1998, 1 ♀.

*Pteromalus speculifer* Graham, 1981

La Palma: Breña Baja, Monte Breña, 27.2.1997, 1 ♀.

A new species for La Palma.

*Pteromalus vibulenus* (Walker, 1839)

La Palma: El Paso, Cumbre Nueva (870-908m), 31.3.1998, 1 ♀.

Tenerife: Buenavista, Punta de Teno, 14.12.1997, 1 damaged ♂.

A new species for the Canary Islands.

*Sphegigaster nigricornis* (Nees, 1834)

Tenerife: Playa de las Américas, 5.2.1989, 1 ♂.

A new species for the Canary Islands. Reported from Madeira by Graham (1979).

*Spilomalus atlanticus* Gijswijt & Graham, 1986

La Palma: Breña Baja, Los Cancajos, 29.3.1998, 2 ♂.

Tenerife: Santa Úrsula, La Quinta, 5.4.1993, 5 ♂.

Males have pale subbasal spots on gasters, contrary to original description, although taken in same locality as ♀ paratype.

*Toxeumorpha nigricola* (Ferrière, 1936)

La Palma: Breña Baja, Los Cancajos, 1.4.1998, 1 ♀; 5.4.1998, 1 ♂ 1 ♀; Monte Breña, 27.2.1977, 1 ♂.

Tenerife: La Orotava, El Rincón, 26.3.2002, 1 ♀. Puerto de la Cruz, 9.4.1988, 1 ♀; 20.12.1997, 2 ♂; 18.11.2000, 5 ♂ 1 ♀; 23.11.2000, 2 ♂; 26.11.2000, 1 ♂ 1 ♀, 18.3.2002, 7 ♂. Punta de Teno, 23.3.1999, 2 ♂ (R. R. Askew); Santa Úrsula, La Quinta, 5.4.1993, 1 ♂ 1 ♀.

Madeira: Funchal, Amparo, 17.12.1995, 1 ♂; Chamorra - Santo Amaro, 12.12.1991, 1 ♀; São Martinho, 4.11.1996, 5 ♂ 1 ♀. Monte - Terreiro da Luta, 5.11.1996, 1 ♂. Old Monte Gardens, 8.11.1996, 1 ♀.

Gaster with long, reticulate, tripartite petiole which has a tooth anteriorly on each side; sculpture of head and thoracic dorsum quite strong, these parts relatively dull; both sexes with 6 funicle segments, although F1 in ♀ is distinctly smaller than F2 and appears to lack linear sensillae; clypeus with central part somewhat produced, weakly emarginate; pronotal collar with anterior edge bluntly rounded; apex of first gastral tergite evenly curved. Superficially similar to *Merismorpha* but dorsum much less shiny, petiole reticulate, pronotal collar longer, ♀ gaster relatively shorter and forewing in both sexes with a short break in pigmentation between parastigma and marginal vein.

A new species for the Canary Islands and Madeira.

Mentioned from Morocco by Bouček & Rasplus (1991) but not previously known from Atlantic Islands.

*Trichomalus elongatus* Delucchi & Graham, 1956

La Palma: Breña Baja, Los Cancajos, 29.3.1998, 1 ♀.

A new species for the Canary Islands.

## MISCOGASTERINAE

*Halticoptera aenea* (Walker, 1833)

La Palma: Breña Baja, Los Cancajos, 21.2.1997, 3 ♀; El Paso, Cumbre Nueva, 31.3.1998, 1 ♀.

Tenerife: Aguamansa, 31.3.1988, 17 ♀, 6.4.1993, 1 ♀; Erjos - Portela Baja, 4.4.1988 1 ♀.

A new species for the Canary Islands.

*Halticoptera? patellana* (Dalman, 1818)

Tenerife: Puerto de la Cruz, Parque Tajinaste, 8.12.1997, 1 ♂.

*Halticoptera* sp. indet.

La Palma: Breña Baja, Los Cancajos, 5.3.1997, 1 ♀, 28.3.1998, 1 ♀.

*Miscogaster glabricula* Graham, 1979

La Gomera: Buen Paso, 26.3.1999, 1 ♂, M. Koponen.

La Palma: Barlovento, 25.2.1997, 3 ♂ 8 ♀; Breña Baja, Los Cancajos, 22.2.1997, 1 ♀, 4.3.1997, 1 ♀; Monte Breña, 27.2.1997, 4 ♂ 2 ♀. El Paso, Cumbre Nueva, 31.3.1998, 3 ♂ 11 ♀.

A new species for La Gomera and La Palma. Reported from Tenerife by Báez & Askew (1999).

*Rhincocoelia impar* (Walker, 1836)

Tenerife: Puerto de la Cruz, Parque Tajinaste, 10.12.1997, 1 ♀.

A new species for the Canary Islands. Reported from Madeira by Graham (1981).

*?Sphaeripalpus* sp.

Tenerife, Puerto de la Cruz, Parque Tajinaste, 10.12.1997, 1 ♂; Parque Taoro, 19.12.1997, 1 ♂, 20.12.1997, 1 ♀.

Clypeus with 2 rounded lobes flanking median blunt point, almost symmetrical, notauli moderately deep; petiole smooth, transverse; speculum large & basal cell bare, stigma triangular, large, deep; male maxillary palps (not stipites) modified; frenum with irregular longitudinal carinulae and reticulation. Has features of both *Lamprotatus* and *Sphaeripalpus*.

## Miscogasterinae gen.? sp.?

Tenerife: Puerto de La Cruz, Parque Taoro, 20.12.1997, 4 ♂.

Petiole small, smooth, transverse; stigma triangular, large; penultimate segment of maxillary palp swollen; notauli complete; propodeum reticulate; frenal area with carinulae; speculum large, basal cell bare; clypeus more or less trilobed with off-centre median tooth (short).

## PIRENINAE

*Gastrancistrus* sp. A

Tenerife: Playa de las Américas, 3-4.2.1989, 2 ♂ 2 ♀.

Femora and tibiae yellow. Keys (Graham, 1969) no further than *G. vernalis* because marginal vein less than 2x stigmal and postmarginal about = stigmal. Body bright green, gaster long.

*Gastrancistrus* sp. B

Tenerife: Puerto de la Cruz, Parque Tajinaste, 10.12.1997, 1 ♂; La Laguna, 11.12.1997, 1 ♀.

*Gastrancistrus* sp. C

La Palma: Breña Baja, Los Cancajos, 29.3.1998, 2 ♂; Santa Cruz de La Palma, El Puente, 3.4.1998, 1 ♂.

*Gastrancistrus* sp. ?near *acontes* Walker, 1840

La Gomera: Vallehermoso, La Culata, 28.3.1999, 1 ♂ (R. R. Askew).

*Gastrancistrus* sp. near *hirtulus* Graham, 1969

Tenerife: Santa Úrsula, La Quinta, 28-29.3.1993, 2 ♂ 2 ♀.

*Gastrancistrus* sp. ?cf. *puncticollis* (Thomson, 1876)

Tenerife: Cruz del Carmen, 21.3.2002, 2 ♂ 25 ♀. El Bailadero, 13.12.1997, 1 ♀.

*Gastrancistrus* sp. near *venustus* Graham, 1969

La Palma: Barlovento, Laguna de Barlovento (732m), 25.2.1997, 7 ♀; Breña Baja, Monte Breña (390-540m), 27.2.1997, 1 ♂.

Tenerife: Cruz del Carmen, 21.3.2002, 10 ♀.

Differs from British *G. venustus* only in longer gaster and ovipositor, and somewhat less heavily darkened femora and scape.

*Gastrancistrus* sp. ?near *venustus* Graham, 1969

Tenerife: Aguamansa, 12.12.1997, 1 ♀.

**Fam. EUPELMIDAE***Eupelmus microzonus* Förster, 1860

La Gomera: Antoncojo, 26.3.1999, 1 ♀ (R. R. Askew).

A new species for the Canary Islands.

*Eupelmus* sp. indet.

Tenerife: Playa de las Américas, 4.2.1989, 1 ♂.

*Eupelmus testaceiventris* (Motschulsky, 1863)

La Gomera: Antoncojo, Buen Paso, La Culata, Playa del Inglés, Playa de Santiago, San Sebastián, Las Toscas.

La Palma: Breña Baja, Los Cancajos, Los Llanos de Aridane, Los Sauces, Santa Cruz de La Palma.

Tenerife: Buenavista, Cruz del Carmen, Playa de las Américas, Puerto de la Cruz, Punta de Teno, San Andrés, Santa Úrsula, El Médano.

Recorded from the above islands, and also Gran Canaria, by Askew & Nieves-Aldrey (2000). Plentiful in Canary Islands where it is associated with grasses, in particular *Hyparenia hirta*, in which it is a parasitoid of Cecidomyiidae. A swept sample of 103 *E. testaceiventris* included 77 females. *E. moroderi* (Bolivar, 1933) is frequently found in the same places as *E. testaceiventris*.

*Neanastatus turneri* Ferrière, 1938

La Palma: Breña Baja, Los Cancajos, 21.2.1997, 1 ♂ 4 ♀, 25.2.1997, 1 ♂ 5 ♀; Los Llanos de Aridane, Los Barros, 6.4.1998, 2 ♂ 1 ♀.

A new species for La Palma. Reported from Gran Canaria and Tenerife (Gijswijt, 1990).

## Fam. ENCYRTIDAE

### TETRACNEMINAE

*Anagyrus bohemani* (Westwood, 1837)

Madeira: Funchal, Magnolia Park, 8.11.1996, 2 ♀; Monte, 8.11.1996, 7 ♀.

A new species for Madeira. Reported from Tenerife by Arozarena (1966a, 1978).

*Anagyrus diversicornis* Mercet, 1921

La Palma: Breña Baja, Los Cancajos, 29.3.1998, 1 ♀.

Tenerife: Puerto de la Cruz, Parque Taoro, 19.12.1997, 49 ♀, 20.12.1997, 55 ♀; Punta de Teno, 14.12.1997, 13 ♀.

Madeira: Boa Morte - Quinta Grande, 21.4.1995, 1 ♀. Funchal, 21.12.1994, 5 ♀, 11.12.1995, 1 ♀; 15.12.1995, 2 ♀. Vale do Paraíso, 6.11.1996, 2 ♂ 2 ♀.

A new species for the Canary Islands and Madeira.

*Anagyrus matritensis* (Mercet, 1921) = *Anagyrus orbitalis* (Ruschka, 1923), **n. syn.**

La Gomera: Playa del Inglés, 27.3.1999, 1 ♀ (R. R. Askew); Santiago, 28.3.1999, 2 ♀ (R. R. Askew).

La Palma: Breña Baja, Los Cancajos, 21.2.1997, 1 ♀, 29.3.1998, 1 ♀, 4.4.1998, 2 ♀.

Tenerife: Playa de las Américas, 5.2.1989, 1 ♀; Punta de Teno, 14.12.1997, 1 ♂.

A new species for La Gomera and La Palma. Reported from Tenerife (Arozarena, 1966; Báez & Askew, 1999).

Author Koponen has got reference material of *Anagyrus orbitalis* from Dr. V. I. Trjapitzin and seen in TFMC specimens from Tenerife determined as *Gyranusa matritensis* by R. Arozarena. They seem conspecific.



*Anagyrus pseudococci* (Girault, 1915)

Tenerife: Playa de las Américas, 5.2.1989, 2 ♀; 6.2.1989, 1 ♀. Puerto de la Cruz, 19.11.2000, 1 ♀, 15.3.2002, 4 ♀. Santa Úrsula, 29.11.1992, 1 ♀.

A new species for the Canary Islands.

*Ericydnus pilosulus* Graham, 1991

Tenerife: Playa de las Américas, 4.2.1989, 1 ♀, 6.2.1989, 1 ♀.

A new species for the Canary Islands.

*Rhopus* sp.

La Gomera: Antonocojo, 26.3.1999, 1 ♂.

La Palma: Breña Baja, Los Cancajos, 21.2.1997, 1 ♀, 22.2.1997, 1 ♀, 2.3.1997, 1 ♀; 28.3.1998, 2 ♀; 4.4.1998, 1 ♀.

Tenerife: Cruz del Carmen, 21.3.2002, 1 ♀. Punta de Teno, 14.12.1997, 10 ♂.

A new genus to the Canary Islands. Reported from Madeira by Graham (1979).

*Tetracnemoidea* sp. cf. *bicolor* (Girault, 1915)

Madeira: Monte - Terreiro da Luta, 5.11.1996, 1 ♀. Vale do Paraíso, 6.11.1996, 1 ♀.

Tenerife: Playa de las Américas, 4.2.1989, 1 ♀, 5.2.1989, 1 ♀; Puerto de la Cruz, El Durazno, 18.3.2002, 2 ♀; Parque Tajinaste, 10.12.1997, 1 ♀, 20.12.1997, 2 ♀; Parque Taoro, 19.12.1997, 1 ♀.

*Tetracnemoidea* (= *Arhopoideus*) *peregrina* (Compere, 1939)

La Palma: Barlovento, 25.2.1997, 2 ♂. Breña Baja, Los Cancajos, 4.3.1997, 1 ♂, 6.3.1997, 3 ♂, 4.4.1998, 1 ♂. El Paso, 24.2.1997, 1 ♂, 28.2.1997, 5 ♂.

Tenerife: Playa de las Américas, 5.2.1989, 1 ♂. Puerto de la Cruz, 14.12.1986, 2 ♂, 30.11.1992, 6 ♂, 30.3.1993, 2 ♂, 19.12.1997, 2 ♂ 1 ♀.

A new species for the Canary Islands. Reported from Madeira (Graham, 1979).

*Tetracnemus bifasciatellus* (Mercet, 1919)

Tenerife: Punta de Teno, 14.12.1997, 57 ♂ 30 ♀.

A new species for the Canary Islands.

## ENCYRTINAE

*Anicetus ?aquilus* (Annecke, 1967)

La Gomera: Playa de Santiago, 26.3.1999, 1 ♀.

*Cerapterocerus mirabilis* Westwood, 1833

Tenerife: Punta de Teno, 14.12.1997, 1 ♀.

A new species for the Canary Islands.

*Cerchysiella centennalis* (Erdős, 1956).

Tenerife: Puerto de la Cruz, El Durazno, 18.3.2002, 1 ♀; Parque Taoro, 15.11.2000, 1 ♀.

A new species for the Canary Islands. Reported from Madeira (Graham, 1986).

*Cerchysius subplanus* (Dalman, 1820)

Tenerife: Esperanza, Pico de las Flores, 10.4.1993, 1 ♀; Puerto de la Cruz, Parque Taoro, 19.12.1997, 9 ♂ 6 ♀; 20.12.1997, 1 ♂ 4 ♀; 31.3.1999, 1 ♂. Santa Úrsula, La Quinta, 5.4.1993, 1 ♂.

A new species for the Canary islands. Reported from Madeira by Graham (1981).

*Copidosoma chalconotum* (Dalman, 1820)

Tenerife: Esperanza, Pico de las Flores, 10.4.1993, 1 ♂; Santa Úrsula, La Quinta, 1.4.1993, 18 ♂ 1 ♀, 3.4.1993, 1 ♂ 1 ♀, 4.4.1993, 5 ♂, 5.4.1993, 2 ♂ 2 ♀, 7.4.1993, 4 ♂ 6 ♀, 9.4.1993, 2 ♀, 8.12.1993, 11 ♂ 12 ♀, 9.12.1993, 15 ♂ 3 ♀, 10.12.1993, 5 ♂ 12 ♀.

A new species for the Canary Islands. Mentioned as *Copidosoma* sp. by Báez & Askew (1999).

*Ectroma koponeni* Trjapitzin, 1989

Madeira: Funchal, Amparo (Pico da Cruz, 150m), 16.3.1980, 2 ♀ (types), 18.12.1994, 1 ♂.

La Palma: La Caldera de Taburiente, 12.7.2000, 1 ♀ (T. Domingo-Quero).

The male is undescribed. Female described from Madeiran specimens. New species for the Canary Islands, the single ♀ from La Palma submitted for identification by J. L. Nieves-Aldrey.

*Homalotylus nigricornis* Mercet, 1921

La Palma: Santa Cruz de La Palma, Las Nieves, 8.4.1998, 1 ♀.

A new species for La Palma. Reported from Tenerife by Báez & Askew (1999).

*Metaphycus insidiosus* (Mercet, 1921)

La Palma: Breña Baja, Monte Breña, 30.3.1998, 1 ♀.

A new species for La Palma. Reported from Tenerife (Guerrini & Noyes, 2000).

*Ooencyrtus* sp.

Tenerife: Playa de las Américas, 4.2.1989, 1 ♀, 5.2.1989, 1 ♂ 1 ♀.

Graham (1983) reported *Ooencyrtus telenomicida* (Vassilev, 1904) from Madeira.

*Parechthrodryinus comara* (Walker, 1837)

La Palma: Breña Baja, Los Cancajos, 1.3.1997, 1 ♀; 26.3.1998, 1 ♀.

Tenerife: Playa de las Américas, 4.2.1989, 1 ♂ 1 ♀; 5.2.1989, 1 ♂ 30 ♀. Puerto de la Cruz, 8.12.1997, 1 ♀; 10.12.1997, 1 ♂ 2 ♀; 18.12.1997, 2 ♂ 1 ♀; 19.12.1997, 9 ♂ 43 ♀; 20.12.1997, 11 ♂ 54 ♀.

A new species for the Canary Islands.

*Plagiomerus diaspidis* Crawford, 1910

Madeira: Funchal, Sao Martinho (200-250 m), 19.12.1995, 1 ♀.

La Palma: Breña Baja, Los Cancajos, 1.3.1997, 1 ♀, 2.3.1997, 2 ♀.

Tenerife: Los Silos, Monte del Agua, 16.11.2000, 1 ♀. Playa de las Américas, 4.2.1989, 1 ♀. Puerto de la Cruz, 9.12.1997, 1 ♀; 22.11.2000, 2 ♀. Santa Úrsula, La Quinta, 28.3.1993, 1 ♀, 8.12.1993, 2 ♀, 10.12.1993, 1 ♀, 11.12.1993, 1 ♀.

A new species for Madeira and the Canary Islands.

*Prionomitus mitratus* (Dalman, 1820)

La Palma: Breña Baja, Los Cancajos, 22.2.1997, 1 ♀, 25.2.1997, 1 ♀; Villa de Mazo, Montes de Luna, 5.3.1997, 2 ♀.

Tenerife: Santa Úrsula, La Quinta, 28.3.1993, 1 ♀; mt Teide snowfield, 1.5.1984, 1 ♀ (N. P. Ashmole).

A new species for the Canary Islands.

*Pseudaphycus maculipennis* Mercet, 1923

Madeira: Fajã de Nogueira, 15.4.1981, 2 ♀ (R. R. Askew). Boa Morte - Quinta Grande, 21.4.1995, 1 ♂. Cural dos Romeiros, 22.12.1995, 1 ♀. Funchal, 20.4.1995, 1 ♀; 19.12.1995, 1 ♀; 8.11.1996, 2 ♀. Monte, 3.11.1996, 1 ♀. Vale do Paraíso, 6.11.1996, 1 ♀.

A new species for Madeira. Reported from La Palma and Tenerife by Mercet (1919, 1923).

*Tachinaephagus zealandicus* Ashmead, 1904

La Palma: Breña Baja, Los Cancajos, 4.3.1997, 1 ♂.

Tenerife: Güímar, 20.3.1998, 1 ♀, 17.4.1998, 1 ♀ (Guerrero, E. R., TFMC). Puerto de la Cruz, 30.3.1993, 1 ♀; 17.12.1997, 8 ♂ 1 ♀; 18.12.1997, 1 ♀; 15.11.2000, 1 ♂, 19.11.2000, 1 ♀. Santa Úrsula, 8.12.1993, 1 ♂, 11.12.1993, 1 ♂.

Azores: Pico, Soldão Colada, 6.10.1987, 1 ♀ (N. P. Ashmole).

A new species for the Canary Islands and Azores. Reported from Madeira (Graham, 1981).

**Fam. APHELINIDAE***Aphelinus abdominalis* Dalman, 1820

La Palma: Breña Baja, 25.2.1997, 1 ♀. El Paso, Cumbre Nueva (850-1000 m), 28.2.1997, 1 ♀. Los Sauces, 7.4.1998, 1 ♀.

A new species for La Palma. Reported from Tenerife by Báez & Askew (1999).

*Aphelinus asychis* Walker, 1839

La Palma: Barlovento, 25.2.1997, 8 ♀. Breña Baja, 21.2.1997, 8 ♂ 2 ♀; 22.2.1997, 4 ♂ 7 ♀; 25.2.1997, 2 ♀; 1.3.1997, 4 ♂ 8 ♀; 2.3.1997, 9 ♂ 7 ♀; 4.3.1997, 11 ♂ 10 ♀; 4.4.1998, 1 ♀. Los Llanos de Aridane, 6.4.1998, 1 ♀.

A new species for La Palma. Reported from Tenerife (Báez & Askew, 1999).

*Aphelinus chaonia* Walker, 1841

La Gomera: Antoncojo, 26.3.1999, 1 ♀ (R. R. Askew).

A new species for the Canary Islands. Reported from Madeira by Graham (1983).

*Aphelinus varipes* (Förster, 1841)

La Palma: El Paso, Cumbre Nueva, 31.3.1998, 2 ♀.

Tenerife: Puerto de la Cruz, Parque Taoro, 19.12.1997, 1 ♀.

Azores: Pico, Caldeira, 7.-15.8.1981, 3 ♀ (N. P. Ashmole); Terceira, Cantera Colada, water trap, 26.-30.7.1987, 5 ♂ 5 ♀ (N. P. Ashmole); Agulhas Colada, water trap, 29.7.-2.8.1987, 1 ♂ (N. P. Ashmole).

A new species for the Canary Islands and Azores. Reported from Madeira by Graham (1983).

*Eretmocerus* sp.

Madeira: Cural dos Romeiros, 22.12.1995, 1 ♀. Estreito de Câmara Lobos, 13.12.1995, 1 ♀. Monte, 3.11.1996, 2 ♀.

**Fam. SIGNIPHORIDAE***Chartocerus subaeneus* (Förster, 1878)

La Palma: Breña Baja, Los Cancajos, 27.3.1998, 1 ♀.

A new species for the Canary Islands. Differs from *C. conjugalis* (Mercet, 1916), reported from La Palma (Báez & Askew, 1999), in having the forewing apical fringe longer than half the width of the wing.

**Fam. ELASMIDAE***Elasmus maderae* Graham, 1976

Lanzarote: Pleitito, 30.3-3.4.1985, 1 ♂ (N. P. Ashmole).

La Palma: Breña Baja, Los Cancajos, 21.2-2.3.1997, 3 ♂ 5 ♀, 29.3-3.4.1998, 8 ♂ 6 ♀.

Tenerife: Aguamansa, 6.4.1993, 1 ♂; El Bailadero, 4.12.1992, 1 ♂; Buenavista, 8.4.1993, 1 ♂ 2 ♀; Santa Úrsula, La Quinta, 1-9.4.1993, 5 ♂ 2 ♀; Chimiche, 20.3.1999, 1 ♀ (R. R. Askew).

Madeiran specimens are consistently darker than Canary specimens with more exerted ovipositors and shorter funicles, but we believe that they are conspecific.

A new species for the Canary Islands. Described from Madeira (Graham, 1976).

*Elasmus nudus* (Nees, 1834)

La Palma: Breña Baja, Los Cancajos, 27.3.1998, 1 ♀.

A new species for the Canary Islands.

*Elasmus platyedrae* Ferrière, 1935

La Gomera: Antoncojo, 26.3.1999 (R. R. Askew).

Tenerife: 12.1997.

A new species for the Canary Islands. Reported from Madeira by Graham (1981, 1995).

## Fam. TETRACAMPIDAE

*Epiclerus panyas* (Walker, 1839)

La Palma: Villa de Mazo, Las Toscas, 26.2.1997, 1 ♀.

*E. panyas* is recorded from Tenerife by Gijswijt (1990), and citations of *E. femoralis* Walker, 1872 from Madeira and La Gomera (Báez & Askew, 1999) probably also refer to this species. The record for La Palma is new.

*Platynochelilus cuprifrons* (Nees, 1834)

La Palma: El Paso, Cumbre Nueva, 28.2.1997, 1 ♂.

A new species for La Palma. Reported from Lanzarote and Tenerife by Gijswijt (1990).

## Fam. EULOPHIDAE

### EULOPHINAE

*Cirrospilus elongatus* Bouček, 1959

Madeira: Between João Frino and Aguas Mansas (820 m), 19.12.1994, 1 ♂. Funchal, Pico da Cruz, 11.3.1980, 1 ♂.

A new species for Madeira.

*Cirrospilus variegatus* (Masi, 1907)

Tenerife: Chimiche, 20.3.1999, 1 ♀, (R. R. Askew).

A new species for the Canary islands.

*Cirrospilus vittatus* Walker, 1838 f. *pulcherrimus* (García Mercet, 1916)

La Palma: Breña Baja, Los Cancajos, 2.3.1997, 1 ♀; 5.3.1997, 1 ♀; 29.3.1998, 3 ♀; 4.4.1998, 1 ♀.

Tenerife: Santa Úrsula, La Quinta, 5.4.1993, 1 ♀.

Stigma pale, dark thoracic stripes thin, the median not or hardly broader than notaular stripes.

*Cirrospilus vittatus* Walker, 1838 agg.

La Palma: Breña Baja, Los Cancajos, 4.4.1998, 1 ♀. El Paso, Cumbre Nueva (850-1000m), 28.2.1997, 1 ♂ 1 ♀. Villa de Mazo, Las Toscas (440-650m), 26.2.1997, 1 ♀; Montes de Luna (750-850m), 5.3.1997, 1 ♀.

Tenerife: Puerto de la Cruz, 5.4.1988, 1 ♀.

Form with infumate cloud about dark stigma, gastral venter dark, otherwise like typical *vittatus*.

*Diaulinopsis arenaria* (Erdős, 1951)

La Gomera: Antoncojo, 26.3.1999, 1 ♀.

Tenerife: Santa Úrsula, La Quinta, 5.4.1993, 1 ♀.

A new species for La Gomera and Tenerife. Reported from Lanzarote and La Palma (Gijswijt, 1990; Báez & Askew, 1999)

*Dicladocerus ? westwoodi* Westwood, 1832

La Palma: Villa de Mazo, Las Toscas (440-650m), 26.2.1997, 1 ♀.

Large propodeal spiracles, scape and tibiae pale, dorsellum shining with very weak sculpture.

*Diglyphus begini* (Ashmead, 1902)

La Palma: Breña Baja, Los Cancajos, 3.4.1998, 1 ♀.

A new species for the Canary Islands.

*Diglyphus chabrias* (Walker, 1838)

La Palma: Breña Baja, Los Cancajos, 2.3.1997, 2 ♀, 4.3.1997, 20 ♂ 15 ♀, 5.3.1997, 1 ♂ 14 ♀, 26.3.1998, 7 ♂ 6 ♀, 27.3.1998, 1 ♂, 28.3.1998, 1 ♀, 29.3.1998, 26 ♂, 4.4.1998, 8 ♂, 5.4.1998, 2 ♂; El Paso, Cumbre Nueva, 28.2.1997, 2 ♀; Santa Cruz de La Palma, El Puente, 3.4.1998, 1 ♂.

Tenerife: Cruz del Carmen, 21.3.2002, 1 ♂ 1 ♀. La Orotava, El Rincón, 26.3.2002, 2 ♂ 1 ♀. Playa de las Américas, 5.2.1989, 1 ♀; Puerto de la Cruz, 8.12.1997, 1 ♀, 2.4.1999, 1 ♂, 15.3.2002, 1 ♀, 18.3.2002, 1 ♂.

A new species for the Canary Islands. Reported from Madeira by Graham (1983).

*Diglyphus eleanorae* Graham, 1981

La Palma: Breña Baja, Los Cancajos, 4.3.1997, 4 ♂,

A new species for La Palma. Described from Madeira and recorded from Tenerife (Gijswijt, 1990).

*Diglyphus poppoea* (Walker, 1848)

La Palma: Breña Baja, Los Cancajos, 4.3.1997, 2 ♂ 3 ♀, 5.3.1997, 5 ♀, 27.3.1998, 1 ♀, 29.3.1998. 8 ♀.

A new species for the Canary Islands.

*Elachertus isadas* (Walker, 1839)

Tenerife: Santa Úrsula, La Quinta, 4.4.1993, 1 ♀.

Confirmed as a new species for Tenerife. *E. sp. nr isadas* is recorded from Tenerife by Báez & Askew (1999).

*Elachertus lateralis* (Spinola, 1808) (= *artaeus* Walker, 1839)

La Palma: Breña Baja, Los Cancajos, 29.3.1998, 1 ♂ 1 ♀.

Tenerife: El Bailadero, 4.12.1992, 1 ♀.

A new species for the Canary Islands.

*Elachertus pulcher* Erdős, 1961

Madeira: Funchal, Amparo-Quebradas, 16.4.1995, 1 ♂ 1 ♀; Funchal, São Martinho, 4.11.1996, 1 ♂ 1 ♀.

Colour pattern a little different to that seen in specimens from Spain and France.

Reported from Madeira by Graham (1986)

*Elachertus sobrius* (Walker, 1872)

Madeira: Funchal, Preces - Faja, 11.12.1994, 1 ♂.

Male of *sobrius* appears to be undescribed.

*Elachertus sylvarum* Graham, 1983

Madeira: Funchal, Preces - Faja, 11.12.1994, 1 ♀; Boa Morte - Quinta Grande, 21.4.1995, 1 ♀.

*Hemiptarsenus ornatus* (Nees, 1834) (= *dropion* Walker, 1839)

Tenerife: Buenavista, 8.4.1993, 1 ♂. Puerto de la Cruz, 13.12.1986, 1 ♂, 29.3.1993, 1 ♀, 19.12.1997, 5 ♂, 20.12.1997, 3 ♂; 25.11.2000, 2 ♂ (M. Koponen). Güímar, 13.9.1998, 1 ♀, 26.9.1998, 2 ♀, (E. R. Guerrero, TFMC).

A new species for the Canary Islands. Reported from Madeira by Graham (1981, 1983) and Askew (1982).

*Hemiptarsenus varicornis* (Girault, 1913) (= *semialbiclavatus* Girault, 1916)

La Palma: Breña Baja, Los Cancajos, 21.2.1997, 1 ♀, 2.3.1997, 1 ♂, 3.4.1998, 1 ♀.

Tenerife: Playa de las Américas, 5.2.1989, 1 ♂. Puerto de la Cruz, 15.12.1986, 1 ♀. 19.12.1997, 5 ♂ 1 ♀, 20.12.1997, 1 ♂ 4 ♀, 1.4.1999, 1 ♀, 15.11.2000, 2 ♀; 22.11.2000, 15 ♂ 12 ♀; 25.11.2000, 23 ♂ 47 ♀ (M. Koponen). Güímar, 8.5.1998, 1 ♀, (E. R. Guerrero, TFMC).

A new species for the Canary Islands. Reported from Madeira by Graham (1981).

*Microlycus* sp. *indescripta*

Tenerife: Puerto de la Cruz, East of Botanical Garden, 15.3.2002, 1 ♂. Santa Úrsula, La Quinta, 5.-7.4.1993, 3 ♂.

Many mesoscutal hairs, lower face yellow, femora and tibiae dark, funicle branches relatively long, stigma rather large, mesoscutal sculpture very fine but strong. Not conspecific with *M. virens* or *M. gyoerfii* (the other spp. with yellow on head).

*Necremnus tidius* (Walker, 1839)

La Gomera: Buen Paso, 26.3.1999, 2 ♂ 1 ♀.

A new species for La Gomera. Reported from Lanzarote and Tenerife (Gijswijt, 1990; Báez & Askew, 1999).

*Pnigalio* sp. nr. *soemius* (Walker, 1839)

Madeira: Funchal, Amparo (150m), 20.12.1994, 1 ♂; Santo Amaro - Fajã (250-350m), 19.4.1995, 1 ♀. Curral dos Romeiros ("Romeiros to Monte", 550-600m), 14.12.1994, 1 ♀. Monte (550-750m), 17.12.1994, 1 ♀.

*P. soemius* is recorded from Madeira by Graham (1981).

*Pnigalio* ?*soemius* (Walker, 1839)

Tenerife: Buenavista, Punta de Teno, 14.12.1997, 1 ♀.

*P. soemius* has not previously been recorded from Canary Islands.

*Pnigalio* sp. near *longulus* (Zetterstedt, 1838)

Madeira: São Martinho (250m), 4.11.1996, 1 ♂.



Perhaps the “possibly undescribed species near *longulus*” mentioned by Graham (1979).

*Pnigalio* sp. indet.

La Palma: El Paso, Cumbre Nueva (870-908m), 31.3.1998, 1 ♂.

*Sympiesis gregori* Bouček, 1959

La Palma: Breña Baja, Monte Breña, 30.3.1998, 2 ♀.

A new species for La Palma. Reported from La Gomera and Tenerife by Gijswijt (1990) and Báez & Askew (1999).

*Sympiesis* sp. indet.

Tenerife: Santa Úrsula, La Quinta, 5.4.1993, 1 ♂.

*Sympiesis* sp. nr *viridula* (Thomson, 1878)

Tenerife: Santa Úrsula, La Quinta, 5.4.1993, 1 ♀.

Tibiae yellow, propodeum shining with weak sculpture, faint wing spot. This same species is recorded from Tenerife by Báez & Askew (1999).

#### EUDERINAE

*Euderus brevicornis* Bouček, 1963

La Gomera: Playa del Inglés, 27.3.1999, 4 ♀, (R. R. Askew).

A new species for the Canary Islands.

*Wichmannia pictipennis* Bouček, 1972

Madeira: Funchal, 11.12.1994, 1 ♀. Levada do Norte between Boa Morte and Quinta Grande, 21.4.1995, 1 ♀.

A new species for Madeira. Reported from La Palma and Tenerife by Bouček (1972) and Báez & Askew (1999).

#### TETRASTICHINAE

*Apotetrastichus contractus* (Walker, 1872)

La Palma: Breña Baja, Monte Breña, 27.2.1997, 1 ♂.

Tenerife: Buenavista, 31.3.1993, 1 ♂. Punta de Teno, 14.12.1997, 4 ♂.

A new species for the Canary Islands. Described from Madeira (Walker, 1872).

*Aprostocetus grylli* (Erdős, 1954)

La Gomera: Antoncojo, 26.3.1999, 2 ♂ 25 ♀. La Culata, 28.3.1999, 1 ♀. Las Toscas, 26.3.1999, 1 ♂ 3 ♀. Playa del Inglés, 27.3.1999, 5 ♂ 8 ♀. Playa de Santiago, 26.3.1999, 1 ♀.

La Palma: Breña Baja, Los Cancajos, 21.2.-3.3.1997, 16 ♂ 10 ♀; El Paso, Cumbre Nueva, 28.2.1997, 4 ♂ 15 ♀.

Tenerife: Aguamansa, 6.4.1993, 1 ♀. Puerto de La Cruz, 8.4.1988, 1 ♀, 29.3.1993, 1 ♂. Punta de Teno, 1.12.1992, 1 ♀. San Andrés, 13.12.1997, 1 ♀. Santa Úrsula, 28.3.1993, 1 ♂ 15 ♀, 1.4.1993, 10 ♂ 5 ♀, 3.4.1993, 1 ♀, 4.4.1993, 2 ♂ 2 ♀, 5.4.1993, 11 ♂ 10 ♀.

A new species for the Canary Islands. Reported from Madeira by Graham (1981, 1987).

*Aprostocetus occidentalis* Graham, 1987

Madeira: Funchal, 11.12.1991, 1 ♀; 18.12.1994, 15 ♀; 20.12.1994, 85 ♀; 21.12.1994, 264 ♀; 22.12.1994, 101 ♀; 23.12.1994, 32 ♀; 17.12.1995, 1 ♀; 19.12.1995, 9 ♀.

A new species for Madeira. Reported from La Gomera and Tenerife by Graham (1997).

*Aprostocetus* sp. of *microcosmus*-group

Tenerife: Güímar, 13.1.1998, 1 ♀ (E. R. Guerrero, TFMC). La Laguna, 11.12.1997, 1 ♀ (M. Koponen). Puerto de la Cruz, Parque Tajinaste, 18.12.1997, 1 ♀; 20.12.1997, 1 ♀; La Paz, 19.11.2000, 5 ♂ 1 ♀; Barranco San Felipe, 25.11.2000, 1 ♀.

*Baryscapus galactopus* (Ratzeburg, 1844)

Azores: Pico, Madalena, ex '*Apanteles ?glomeratus* cocoons ex *Pieris brassicae*', 26.7.1987, 7 ♂ 6 ♀ (J. Feltwell).

The species is reported from Azores (Horta) by Graham (1991).

*Melittobia acasta* (Walker, 1839)

Azores: Terceira, Agulhas Colado, 29.7-2.8.1987, 1 ♀ (N. P. Ashmole).

A new species for Azores. Ashmole *et al.* (1996) recorded this species as '*Tetrastichine* near *Melittobia*'.

*Neotrichoporoides dispersus* Graham, 1986

La Palma: El Paso, Cumbre Nueva, 28.2.1997, 1 ♂ 5 ♀. Santa Cruz de La Palma, 1.4.1998, 1 ♀; 3.4.1998, 4 ♀.

Tenerife: Santa Úrsula, La Quinta, 30.3.1993, 1 ♀, 4.4.1993, 1 ♀, 5.4.1993, 1 ♂ 1 ♀, (Koponen, M., DAZH). Güímar, 13.1.1998, 1 ♀, (Guerrero, E. R., TFMC).

A new species for the Canary Islands. Reported from Madeira by Graham (1986, 1987).

*Pronotalia* sp.

La Gomera: Antoncojo, 26.3.1999, 1 ♂ (R. R. Askew).

*Quadrastichodella nova* Girault, 1922 (= *eucalypti* Timberlake, 1957)

Tenerife, Puerto de La Cruz, Parque Taoro, 13.12.1986, 4 ♀, 14.12.1986, 5 ♀, 15.12.1986, 1 ♀.

A new species for Tenerife. Reported from La Palma by Gijswijt (1990).

#### ENTEDONINAE

*Achrysocharoides atys* (Walker, 1839)

Madeira: Monte (550-750m), 17.12.1994, 1 ♀, 17.4.1995, 1 ♂.

A new species for Madeira.

*Ceranisis menes* (Walker, 1839)

La Palma: Breña Baja, El Fuerte, 22.2.1997, 1 ♂; Los Cancajos, 5.3.1997, 3 ♂, 27.3.1998, 1 ♀, 29.3.1998, 2 ♀; El Paso, Cumbre Nueva (850-1000m), 28.2.1997, 2 ♂.

A new species for La Palma. Reported from Tenerife and Lanzarote by Báez & Askew (1999).

*Chrysocharis gemma* (Walker, 1839)

La Palma: El Paso, Cumbre Nueva, 31.3.1998, 1 ♀, M. Koponen.

A new species for La Palma. Reported from Gran Canaria and Tenerife by Hansson (1985), Gijswijt (1990) and Báez & Askew (1999).

*Chrysocharis pallipes* (Nees, 1834) (= *chilo* Walker, 1839)

La Palma: Breña Baja, Los Cancajos, 2.3.1997, 1 ♂.

A new species for La Palma. Reported from La Gomera, Gran Canaria and Tenerife by Gijswijt (1990) and Báez & Askew (1999).

*Chrysocharis pentheus* (Walker, 1839)

Tenerife: Puerto de la Cruz, Parque Tajinaste, 10.12.1997, 1 ♀.

A new species for the Canary Islands.

*Chrysocharis* sp. nr. *pubicornis* (Zetterstedt, 1838)

Tenerife: Santa Úrsula, La Quinta, 3.4.1993, 1 ♂.

Hind tibia not darkened, hind coxa not strongly sculptured, only 2 setae on pronotal callus.

*Entedon ?cionobius* Thomson, 1878

La Palma: Breña Baja, Los Cancajos, 29.3.1998, 1 ♂.

*Entedon* sp. in *costalis* Dalman group

La Palma: Breña Baja, Los Cancajos, 2.3.1997, 1 ♂.

*Entedon* sp. nr *urticarii* Erdős, 1951

Tenerife: Puerto de la Cruz, Taoro, 13.12.1986, 1 ♀.

*Eugerium isander* (Walker, 1839)

La Palma: Breña Baja, Los Cancajos, 25.2.1997 1 ♂, 29.3.1998, 1 ♂.

Tenerife: Puerto de la Cruz, East of Botanical Garden, 15.3.2002, 1 ♂.

New species for the Canary Islands.

*Ionympha carne* (Walker, 1839)

La Palma: Breña Baja, Monte Breña, 30.3.1998, 1 ♂. Santa Cruz de La Palma, El Puente, 3.4.1998, 1 ♂.

A new species for the Canary Islands. Reported from Madeira by Askew (1982).

*Neochrysocharis aratus* (Walker, 1838)

La Palma: El Paso, Cumbre Nueva, 28.2.1997, 1 ♂ 1 ♀; Villa de Mazo, Monte de Luna, 5.3.1997, 2 ♀.

Tenerife: Aguamansa, 30.-31.3.1988, 2 ♀; Arafo, 21.3.1999, 1 ♂ (R. R. Askew); Cruz del Carmen, 21.3.2002, 4 ♀. Puerto de La Cruz, Parque Taoro, 11.-15.12.1986, 3 ♂; Santa Úrsula, La Quinta, 1.12.1992, 1 ♂, 3.12.1992, 1 ♀.

Body more brightly coloured with tibiae less infumate than in north European specimens.

A new species for the Canary Islands.

*Neochrysocharis formosa* (Westwood, 1833)

La Gomera: Antoncojo, 26.3.1999, 7 ♂ 5 ♀, (R. R. Askew), 1 ♂ 1 ♀, (M. Koponen). Santiago, 28.3.1999, 1 ♀, (R. R. Askew).

La Palma: Breña Baja, Monte Breña (390-450m), 3.3.1997, 1 ♀ sp; Breña Baja, El Fuerte, 22.2.1997, 2 ♀; Breña Baja, Los Cancajos, 25.2.1997, 1 ♀, 27.3.1998, 1 ♀, 29.3.1998, 4 ♂ (M. Koponen).

A new species for La Gomera and La Palma. Reported from Tenerife by Hansson (1990) and Báez & Askew (1999). Some of the specimens from La Palma are very large.

*Neochrysocharis* sp. A

Tenerife: Santa Úrsula, La Quinta, 28.3.1993, 1 ♀.

*Neochrysocharis* sp. B

Tenerife: Santa Úrsula, La Quinta, 10.12.1993, 1 ♀.

*Omphale clypealis* (Thomson, 1878)

Tenerife: Puerto de la Cruz, El Botánico, 28.3.1988, 1 ♀.

A new species for Tenerife. Reported from Lanzarote by Gijswijt (1990).

*Pediobius metallicus* (Nees, 1834) (= *acantha* Walker, 1839)

Tenerife: Puerto de la Cruz, 17.12.1997, 1 ♀. Santa Úrsula, 7.4.1993, 2 ♂, 10.12.1993, 1 ♀.

Azores: Pico, Caldeira, 7-15.8.1987, 1 ♀ (N. P. Ashmole).

A new species for Tenerife. Reported from La Palma by Gijswijt (1990) and from the Azores (as *Pediobius* sp.) by Ashmole *et al.* (1996).

*Euderomphale flavimedia* (Howard, 1881)

La Palma: Breña Baja, Monte Breña, 30.3.1998, 1 ♀.

Tenerife: El Bailadero, 13.12.1997, 2 ♀.

A new species for the Canary Islands.

### Fam. MYMARIDAE

*Gonatocerus* sp.

La Gomera: Las Toscas, 26.3.1999, 1 ♀ (R. R. Askew).

*Mymar taprobanicum* Ward, 1875

La Palma: Breña Baja, Los Cancajos, 1.3.1997, 3 ♀, 2.3.1997, 2 ♀.

Tenerife: Puerto de la Cruz, Barranco San Felipe, 25.11.2000, 1 ♀.

Madeira: Jardim da Serra, 10.12.1991, 1 ♀.

A new species for the Canary Islands and Madeira. Reported from the Azores by Pintureau & Calvin (1996).

### ACKNOWLEDGEMENTS

We are grateful to several persons. Dr V. A. Trjapitzin (St. Petersburg) and Dr J. S. Noyes (London) have helped in determining Encyrtidae. Dr Marcos Báez (La Laguna) and Dr Gloria Ortega (Santa Cruz de Tenerife) have helped us in many ways in getting collecting licences and arranging some collecting trips. Some reference material has been obtained from Dr. Báez and from Museo de Ciencias Naturales in Santa Cruz de Tenerife (Dr G. Ortega), and some specimens have kindly been donated by Dr N. P. Ashmole. We are grateful to Dr I. L. Nieves-Aldrey and the team from the Museo Nacional de Ciencias Naturales (Madrid) for making available, from their collections made in the National Park of Caldera de Taburiente on La Palma, material of the *Psilocera* species described above.

## REFERENCES

- ARÓZARENA, R. (1966). Nuevas citas para Canarias de la subfamilia Encirtinae (Hymenoptera). *Graellsia* 22: 47-56.
- ARÓZARENA, R. (1978). Aportaciones de la subfamilia Chalcidoidea a la lucha biológica en la isla de Tenerife (Hym. Chalcidoidea). *Vieraea* 7: 191-200.
- ASHMOLE, N. P., P. OROMI, M. J. ASHMOLE & J. L. MARTIN (1996). The invertebrate fauna of early successional volcanic habitats in the Azores. *Bol. Mus. Mun. Funchal* 48: 5-39.
- ASKEW, R. R. (1982). New species of Eulophidae (Hymenoptera, Chalcidoidea) from Madeira, with some observations on the fauna. *Bocagiana Mus. Municipal Funchal* No. 64: 1-9.
- ASKEW, R. R. & J. L. NIEVES-ALDREY (2000). The genus *Eupelmus* Dalman, 1820 (Hymenoptera, Chalcidoidea, Eupelmidae) in peninsular Spain and the Canary Islands, with taxonomic notes and descriptions of new species. *Graellsia* 56: 49-61.
- BÁEZ, M. (1998). Sobre la presencia del Himenóptero Polinizador de los "Laureles de Indias" en Canarias. *Boln. Asoc. Esp. Entomol.* 22 (1-2): 225.
- BÁEZ, M. & R. R. ASKEW (1999). New records of Chalcidoidea (Hymenoptera) from the Canary Islands. *Boln. Asoc. Esp. Entomol.* 23 (1-2): 65-82.
- BÁEZ, M., M. KOPONEN, A. GARCÍA & E. MARTÍN (2001). Hymenoptera. - pp. 267-284, in: IZQUIERDO, I., J. L. MARTÍN & M. ARECHAVALETA (eds.) *Lista de especies silvestres de Canarias (hongos, plantas y animales terrestres) 2001*. Consejería de Política Territorial y Medio Ambiente de Canarias. 437 pp.
- BÁEZ, M. & G. ORTEGA (1978). Lista preliminar de los Himenópteros de las Islas Canarias. *Bol. Asoc. Esp. Entomol.* 2: 185-199.
- BOUČEK, Z. (1972). Descriptions of new eulophid parasites (Hym., Chalcidoidea) from Africa and the Canary Islands. *Entomol. Res.* 62: 199-205.
- BOUČEK, Z. (1988). *Australasian Chalcidoidea (Hymenoptera) a biosystematic revision of fourteen families, with a reclassification of species*. C.A.B. International, Wallingford. 832 pp.
- BOUČEK, Z. & J. Y. RASPLUS (1991). *Illustrated key to West Palearctic genera of Pteromalidae*. Paris, 140 pp.
- CARNERO, H. A., G. M. HERNÁNDEZ, P. F. PÉREZ & S. E. HERNÁNDEZ (1998). *Walkerella microcarpa*, inquilino y *Eupristina (Parapristina) verticillata*, agente polinizador, causantes de la maduración de los frutos del laurel de Indias en Canarias. *Boln. Asoc. Esp. Entomol.* 22 (3-4): 255.
- GIJSWIJT, M. J. (1990). Chalcidoidea of Canary Islands (Hymenoptera). *Vieraea* 18: 103-112.
- GRAHAM M. W. R. DE V. (1969). The Pteromalidae of North-western Europe (Hymenoptera: Chalcidoidea). *Bull. Br. Mus. (Nat. Hist.) Entomol. Suppl.* 16. 908 pp.
- GRAHAM, M. W. R. DE V. (1975). Some Chalcidoidea (Hymenoptera) from Madeira, including a new genus and two new species. *Entomol. Gaz.* 26: 47-58.

- GRAHAM, M. W. R. DE V. (1976). Notes on the type material of some European *Elasmus* (Hymenoptera: Chalcidoidea) and description of a new species from Madeira. *Bull. Mus. Natn. Hist. Nat.* (3) 362 Zool. 255: 293-301.
- GRAHAM, M. W. R. DE V. (1979). The Chalcidoidea (Hymenoptera) of Madeira: a preliminary list. *Entomol. Gaz.* 30:271-287.
- GRAHAM, M. W. R. DE V. (1981). A survey of Madeiran Chalcidoidea (Insecta: Hymenoptera) with additions and descriptions of new taxa. *Bocagiana Mus. Mun. Funchal* No. 58: 1-20.
- GRAHAM, M. W. R. DE V. (1983). Madeira insects: faunal notes and descriptions of new species of Chalcidoidea (Hymenoptera). *Bol. Mus. Mun. Funchal* No. 35: 5-40.
- GRAHAM, M. W. R. DE V. (1986). Four new species of Eulophidae (Insecta, Hymenoptera) from Madeira and Europe. *Bocagiana Mus. Mun. Funchal* No. 95: 1-9.
- GRAHAM, M. W. R. DE V. (1987). A reclassification of the European Tetrastichinae (Hymenoptera: Eulophidae), with a revision of certain genera. *Bull. Br. Mus. (Nat. Hist.) Entomol.* 55: 1-392.
- GRAHAM, M. W. R. DE V. (1991). A reclassification of the European Tetrastichinae (Hymenoptera: Eulophidae). Revision of the remaining genera. *Mem. Amer. Entomol. Inst.* 49: 322 pp.
- GRAHAM, M. W. R. DE V. (1992). Second revision of Western European *Psilocera* (Hym., Pteromalidae) with descriptions of three new species. *Entomol. Mon. Mag.* 128: 15-21.
- GRAHAM, M. W. R. DE V. (1995). European *Elasmus* (Hymenoptera: Chalcidoidea, Elasmidae) with a key and descriptions of five new species. *Entomol. Mon. Mag.* 131: 1-23.
- GUERRINI, E. & J. S. NOYES (2000). Revision of European species of genus *Metaphycus* Mercet (Hymenoptera: Chalcidoidea: Encyrtidae), parasitoids of scale insects (Homoptera: Coccoidea). *Syst. Entomol.* 25: 147-222.
- HANSSON, C. (1985). Taxonomy and biology of the Palearctic species of *Chrysocharis* Foerster, 1856 (Hymenoptera: Eulophidae). *Entomol. Scand. Suppl.* 26: 1-130.
- HANSSON, C. (1990). A taxonomic study on the Palearctic species of *Chrysonotomyia* Ashmead and *Neochrysocharis* Kurdjumov (Hymenoptera: Eulophidae). *Entomol. Scand.* 20: 29-52.
- MERCET, R. G. (1919). Notas sobre Encírtidos (Hym. Chalcidoidea). *Bol. Soc. Esp. Hist. Nat.* 19: 470-479.
- MERCET, R. G. (1923). Encírtidos de Canarias. *Bol. Soc. Esp. Hist. Nat.* 23: 138-143.
- PINTUREAU, B. & M. del P. I. CALVIN (1996). Review of the European species of *Mymar* Curtis (Hymenoptera: Mymaridae: Mymarini). *The Entomologist* 115 (2): 114-123.