

## A contribution to the knowledge of Dryinidae of the Neotropical and Australian regions

(Insecta, Hymenoptera, Chrysidoidea)

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Seven new species of Dryinidae are described: *Anteon zurquianum*, from Colombia; *Anteon yanegai*, from Honduras; *Anteon searsi*, *Pseudodryinus papuensis*, *Echthrodelphax guineensis*, from Papua New Guinea; *Dryinus gordli* and *Gonatopus victorien-sis*, from Australia. The males of *Anteon ellisense* Olmi from Australia, and *Dryinus gulfensis* Olmi, from Papua New Guinea, are described for the first time.

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### Introduction

The Dryinidae are parasitoids of Homoptera Auchenorrhyncha (Guglielmino & Olmi 1997, Olmi 1984, 1994, 1999a). The species of the Neotropical and Australian regions are insufficiently known. For the Neotropical species the most recent catalogue is that of Olmi, Virla & Fernandez (2000), in addition to two more recent papers (Olmi 2003, 2004). For the Australian species the most recent catalogue is that of Olmi (1984), in addition to a number of more or less large papers published after 1984 in many magazines (Olmi 1986, 1987a, 1987b, 1987c, 1990, 1992a, 1992b, 1993, 1998a, 1998b, 1999b, 2001, 2003, 2004).

In recent years new investigations in Colombia, Honduras, Australia, and Papua New Guinea resulted in the discovery of seven new species that are described below. In addition, the males of two species previously known only as females are described. The descriptions follow the terminology used by Olmi (1984, 1994, 1999a). The measurements are relative, except for the total length (head to abdominal tip, without antennae), which is expressed in millimetres.

In the descriptions POL is the distance between the inner edges of the two lateral ocelli; OL is the distance between the inner edges of a lateral ocellus and the median ocellus; OOL is the distance from the outer edge of a lateral ocellus to the compound eye; OPL is the distance from the posterior edge of a lateral ocellus to the occipital carina; TL is the distance from the posterior edge of a eye to the occipital carina.

The study techniques were those proposed by Olmi (1984).

The material studied in this paper is deposited in the following collections: DA: Department of Entomology, University of California, Davis, California, U.S.A.; OL: Massimo Olmi's collection, c/o Department of Plant Protection, University of Tuscia, Viterbo, Italy; TG: U.W. Insect Museum, University of Wyoming, Laramie, Wyoming, U.S.A.; TL: Department of Entomology, University of California, Riverside, California, U.S.A.

**Subfamily Anteoniinae**

***Anteon yanegai*, spec. nov.**

Fig. 1B

***Anteon zurquianum*, spec. nov.**

Fig. 1A

**Types.** Holotype: ♀, Costa Rica, San José Prov., Zurquí de Moravia, 1600 m, II.1994, Paul Hanson coll. (TG).

**Description**

♀. Fully winged; length 2.50 mm.

Head black, with mandibles and part of clypeus testaceous; antennae testaceous; mesosoma black; gaster brown; legs testaceous.

Antennae clavate; antennal segments in the following proportions: 11:5:9:8:7:7:6.5:6.5:6.5:9; head completely granulated; frons without lateral longitudinal keels along the orbits and directed towards the antennal toruli; frontal line incomplete, only present in front of the anterior ocellus; occipital carina complete; POL=4; OL=2; OOL=5; OPL=3; TL=4.

Pronotum with posterior surface dull, hairy, reticulate rugose; posterior surface of pronotum short and transverse, much shorter than scutum (6:15), much broader than long; pronotal tubercles reaching the tegulae; scutum dull, smooth, slightly granulated, with a few striae near the parapsidal furrows; notauli incomplete, reaching approximately 0.20 length of scutum; scutellum and metanotum shiny, smooth, without sculpture; propodeum reticulate rugose, with a strong transverse keel between dorsal and posterior surface; posterior surface of propodeum with two longitudinal keels, with median area as rugose as lateral areas.

Forewing with a slight dark transverse band beneath the pterostigma; distal part of stigmal vein much shorter than proximal part (4:11).

Protarsus with the following proportions of tarsomeres: 9:2:3:7:16; tarsomere 5 of protarsus (Fig. 1A) with basal part much shorter than distal part (55:95); enlarged claw (Fig. 1A) with a proximal prominence bearing a long bristle; segment 5 of front tarsus (Fig. 1A) with 2 rows of approximately 48 lamellae; distal apex with a group of approximately 4 lamellae; tibial spurs 1,1,2.

♂ unknown.

**Remarks.** *Anteon zurquianum* resembles *A. evansi* Olmi, 1987, described from Jamaica. From this species it may be distinguished by the different length of the notauli (they reach 0.75 length of scutum in *A. evansi* and 0.20 length of scutum in *A. zurquianum*) and the length of the frontal line (it is complete in *A. evansi* and incomplete and only present in front of the anterior ocellus in *A. zurquianum*).

**Types.** Holotype: ♀, Honduras, Olancho Dept., La Murralla Nat. Park, 15°05.49'N 86°44.17'W, 1480 m, 4-7.VII.2002, D. Yanega coll. (TL). – Paratypes: 3♀♀, same locality label (TL); 1♀, same locality label (OL).

**Description**

♀. Fully winged; length 2.56-3.31 mm (holotype 3.31 mm).

Head black, with mandibles testaceous; antennae testaceous, with segments 7-10 slightly darkened; mesosoma black; gaster testaceous-brown; legs testaceous.

Antennae clavate; antennal segments in the following proportions: 13:7:9:9:8:7.5:8:8:11; head completely granulated and sculptured by many irregular longitudinal keels; frons and vertex partly reticulate rugose; frons without lateral longitudinal keels along the orbits and directed towards the antennal toruli; frontal line complete; occipital carina complete; POL=7; OL=4.5; OOL=7; OPL=4; TL=5; major diameter of the posterior ocelli: 3.

Pronotum with posterior surface dull, hairy, reticulate rugose, except posterior third smooth, shiny and without sculpture; posterior surface of pronotum longer than half of scutum (11:16) and much broader than long; pronotal tubercles reaching the tegulae; scutum shiny, smooth, finely punctate, without sculpture among the punctures; notauli incomplete, reaching approximately 0.30 length of scutum; scutellum shiny, smooth, without sculpture, with a transverse row of punctures parallel and close to the posterior margin; metanotum shiny, smooth, without sculpture, with a rugose median area; propodeum reticulate rugose, with a strong transverse keel between dorsal and posterior surface; posterior surface of propodeum without longitudinal keels, completely reticulate rugose.

Forewing hyaline, without dark transverse bands; distal part of stigmal vein much shorter than proximal part (4:16).

Protarsus with the following proportions of tarsomeres: 9:3:3.5:9:19; tarsomere 5 of protarsus (Fig. 1B) with basal part large, forming an obtuse angle with the distal part; enlarged claw (Fig. 1B) with a proximal prominence bearing a long bristle; segment 5 of front tarsus (Fig. 1B) with 1 row of 17 long lamellae; distal apex of segment 5 with a group of 3 lamellae; tibial spurs 1,1,2.

♂ unknown.

**Remarks.** The species is named after the collector of the type material, Dr. Doug Yanega. *Anteon yanegai*

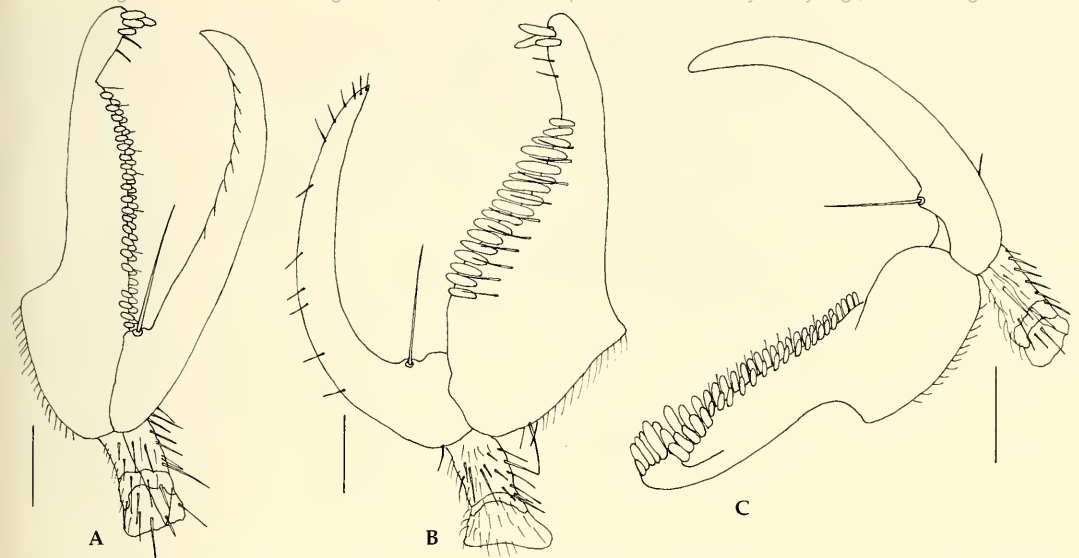


Fig. 1A-C. Chelae. A. *Anteon zurquianum*, spec. nov., holotype. B. *Anteon yanegai*, spec. nov., holotype. C. *Anteon searsi*, spec. nov., holotype. Scale bars: A: 0.07 mm, B: 0.08 mm, C: 0.10 mm.

resembles *A. molle* Olmi, 1984, *A. albitarse* (Cameron, 1888), *A. triste* Olmi, 1990, and *A. parkeri* Olmi, 1998. From these species it may be distinguished by the shape of the tarsomere 5 of protarsus (with basal part very large and forming an obtuse angle with the distal part (Fig. 1B) in *A. yanegai*; with basal part smaller and about parallel to the distal part (Figs 311, 326, 327 in Olmi 1984, fig. 37 in Olmi 1998b) in *A. molle* Olmi, *A. albitarse* (Cameron), *A. triste* Olmi and *A. parkeri* Olmi).

*Anteon searsi*, spec. nov.  
Figs 1C, 2A, 2B

**Types.** Holotype: ♀, Papua New Guinea, Gulf Prov., Ivimka Research Station, Lakekamu Basin, 07°44'S 146°30'E, 120 m, Malaise trap, 1-6.III.2000, T. Sears coll. (DA). – Paratypes: 1♀, same locality label, 1-5.III.2000, T. Sears coll. (DA); 1♂, same locality label, 2-8.XI.1999, S.L. Heydon, N. Schiff & T. Sears coll. (DA); 1♂, same locality label, 13.IV.2000, T.A. Sears coll. (OL); 1♀, Papua New Guinea, Morobe Prov., Tekadu, 07°38'S 146°34'E, I.2000, T. Sears, binatung brigade, Malaise trap (OL); 1♀, Papua New Guinea, Gulf and Morobe Prov., Lakekamu Basin, XI.1999-IV.2000, T.A. Sears & S.L. Heydon coll. (DA).

**Description**

♀. Fully winged; length 2.18-3.00 mm (holotype 3.00 mm).

Head black, with mandibles testaceous; antennae testaceous; mesosoma black, with sides of pronotum

brown-testaceous; gaster and legs testaceous.

Antennae clavate; antennal segments of the holotype in the following proportions: 10:5:6.5:6.5:6.5:6:6:5.5:5:8; head convex, dull, covered with short hairs (very dense between the antennal toruli), completely reticulate rugose; frontal line complete; frons with two lateral keels situated around the orbits and directed towards the antennal toruli; occipital carina complete; POL=5; OL=3.5; OOL=3; OPL=4; TL=3; major diameter of the posterior ocelli: 2.5; pronotum hairy, anteriorly crossed by a slight transverse impression, shiny, rugose; posterior surface of pronotum shorter than scutum (8:14), with posterior half smooth and without sculpture; pronotal tubercles reaching the tegulae; scutum smooth, shiny, punctate, without sculpture among the punctures; notauli incomplete, reaching approximately 0.3 length of scutum; scutellum and metanotum shiny, smooth, without sculpture; propodeum with a strong transverse keel between dorsal and posterior surface; dorsal keel surface dull, reticulate rugose; posterior surface of propodeum dull, with two complete longitudinal keels and with median and lateral areas reticulate rugose.

Forewing hyaline, without dark transverse bands; distal part of stigmal vein much shorter than proximal part (4:11).

Protarsus of the holotype with the following proportions of tarsomeres: 8:2.5:3.5:6.5:18; enlarged claw (Fig. 1C) with a proximal prominence bearing a long bristle; tarsomere 5 of protarsus

(Fig. 1C) with 2 rows of approximately 45 lamellae without interruption until the distal apex, with inner side almost rectilinear and with basal part slightly shorter than distal part (Fig. 1C), distal apex with a deep furrow evident in ventral view (it contains the distal apex of the enlarged claw when the chela is closed) (Fig. 2A); tibial spurs 1, 1, 2.

♂. Fully winged; length 1.68-2.12 mm.

Head black, with mandibles testaceous; antennae brown-testaceous; mesosoma black; gaster brown; legs testaceous.

Antennae filiform, hairy; antennal segments in the following proportions: 6:3.5:5.5:4:4:4.5:4.5:4.5:4.5:6.5; head dull, completely reticulate rugose; frontal line complete; frons with two lateral keels situated around the orbits and directed towards the antennal toruli; occipital carina complete; POL=5; OL=3; OOL=4; OPL=2; TL=2; major diameter of the posterior ocelli: 2; scutum, scutellum and metanotum shiny, smooth, finely punctate, without sculpture among the punctures; notauli incomplete, reaching approximately 0.4 length of scutum; propodeum with a strong transverse keel between dorsal and posterior surface; dorsal surface of propodeum reticulate rugose; posterior surface of propodeum dull, reticulate rugose, with 2 longitudinal keels and with median area as rugose as lateral areas

Forewing hyaline, without dark transverse bands; distal part of stigmal vein much shorter than proximal part (1.5:6)

Tibial spurs 1, 1, 2.

Parameres (Fig. 2B) with a very large expansion

**Remarks.** The species is named after the collector of the holotype, T. Sears. The furrow present at the distal apex of tarsomere 5 of protarsus (Fig. 2A) is also present in the female of the Palaearctic *Anteon pinetellum* De Rond, 1998. The female of *Anteon searsi* resembles those of *A. destructor* (Perkins, 1905) and *A. superbum* Dodd, 1913. From these species it may be distinguished by the shape of the tarsomere 5 of protarsus (with inner side almost rectilinear and basal part slightly shorter than distal part (Fig. 1C) in *A. searsi*; with inner side not rectilinear and basal part much shorter (Fig. 352 in Olmi 1984) or longer than distal part (Fig. 382 in Olmi 1984) in *A. destructor* (Perkins) and *A. superbum* Dodd; with a deep furrow at the distal apex of tarsomere 5 of protarsus in *A. searsi*; without the above furrow in *A. destructor* and *A. superbum*). The male of *Anteon searsi* resembles that of *A. destructor* (Perkins, 1905). From this species it may be distinguished by the shape of the parameres (they are very broad in dorsal view

because of a large lateral expansion (Fig. 2B) present in *A. searsi*; they are less broad in dorsal view because the above expansion is not present or it is very reduced (Figs 353, 354 in Olmi 1984) in *A. destructor*).

### *Anteon ellisense* Olmi

Fig. 2C

*Anteon ellisense* Olmi, 1999, was described from Australia, NE Queensland, 9.7 Km N Ellis Bay. Only two females of this uncommon species were known. However, in recent years I examined a small series composed of both sexes, so that I can give the following description of the male.

**Material examined:** 1♀, 2♂♂, Australia, NE Queensland, 3.4 Km S Port Douglas, 17.XI.1979, open forest, E.C. Dahms, J.B. Woolley & J. LaSalle coll. (TL).

### Description

♂. Fully winged; length 2.00-2.06 mm.

Head black, with mandibles testaceous; antennae testaceous-darkened, with segments 1-2 testaceous; mesosoma black; gaster brown; legs testaceous.

Antennae filiform, hairy; antennal segments in the following proportions: 7:4:4:4:4:4:4:4:4:5; head dull, completely granulated and sculptured by slight irregular keels forming slight areolae more visible near the orbits; frontal line complete; frons with two slight lateral keels situated around the orbits and directed towards the antennal toruli; occipital carina complete; POL=6; OL=3; OOL=4; OPL=2; TL=3; major diameter of the posterior ocelli: 2; scutum, scutellum and metanotum shiny, smooth, finely punctate, without sculpture among the punctures; notauli incomplete, reaching approximately 0.25 length of scutum; propodeum with a strong transverse keel between dorsal and posterior surface; dorsal surface of propodeum reticulate rugose; posterior surface of propodeum dull, reticulate rugose, with 2 longitudinal keels, with median area as rugose as lateral areas.

Forewing hyaline, without dark transverse bands; distal part of stigmal vein much shorter than proximal part (2:7).

Tibial spurs 1, 1, 2.

Parameres (Fig. 2C) with an inner medial expansion provided of papillae.

**Remarks.** The male of *Anteon ellisense* resembles those of *A. destructor* (R. Perkins, 1905) and *A. searsi*, spec. nov. (see the previous description). From these species it may be distinguished by the shape and sculpture of the parameres (with an inner medial

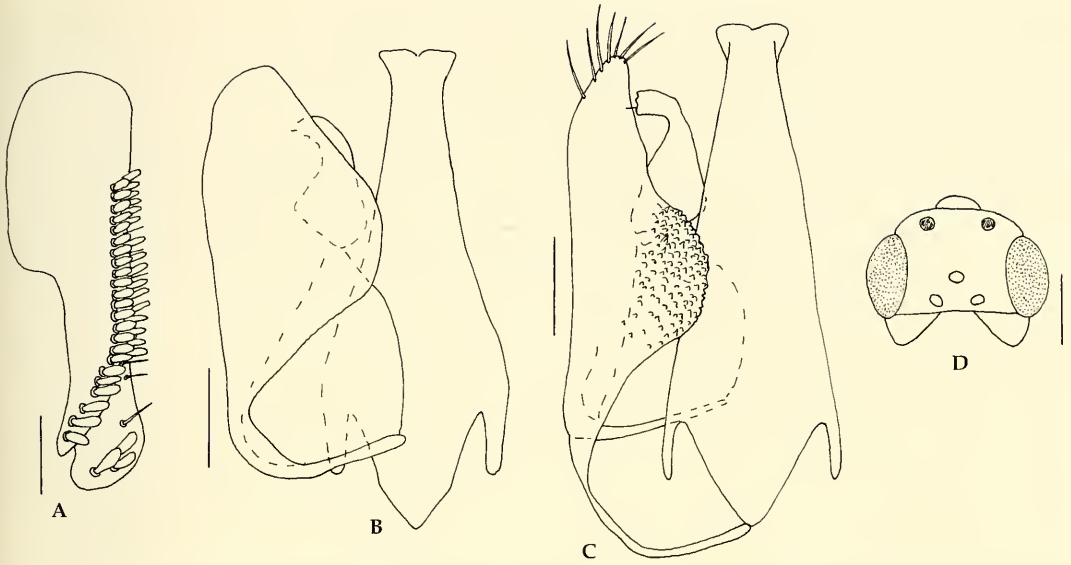


Fig. 2. **A.** *Anteon searsi*, spec. nov., ♀ paratype, tarsomere 5 of protarsus in ventral view. **B-C.** Male genital armatures (right half removed). **B.** *Anteon searsi*, spec. nov., ♂ paratype. **C.** *Anteon ellisense* Olmi, specimen from Australia, 3.4 Km S Port Douglas. **D.** Head (in dorsal view) of male of *Dryinus gulfensis* Olmi from Papua New Guinea, 07°44'S 146°30'E. Scale bars: A: 0.07 mm, B: 0.05 mm, C: 0.06 mm, D: 0.29 mm.

expansion provided of many papillae (Fig. 2C) in *A. ellisense*; with no expansions provided of papillae in *A. destructor* and *A. searsi* (Fig. 2A; figs 353, 354 in Olmi 1984).

### Subfamily Dryininae

#### *Dryinus gulfensis* Olmi

Figs 2D, 3A, 3B

*Dryinus gulfensis* Olmi, 1998, was described from Papua New Guinea, Gulf Prov., Ivimka Research Station, Lakekamu Basin, 07°07'S 146°08'E. One only female of this rare species was known. However, in recent years, I examined a small series composed of both sexes, so that I can give the following description of the male.

**Material examined.** 1♂, Papua New Guinea, Gulf Prov., Ivimka Research Station, Lakekamu Basin, 07°44'S 146°30'E, 120 m, 10.XI.1999, S.L. Heydon, T. A. Sears, N. Schiff fogging (DA); 1♀, Papua New Guinea, Gulf Prov., Ivimka Research Station, Lakekamu Basin, 07°44'S 146°30'E, 120 m, 26-30.III.2000, Malaise trap, Sears and binatung brigade (DA).

### Description

♂. Fully winged; length 3.00 mm.

Head black, with mandibles, clypeus and anterior third of the face testaceous; antennae brown, with segments 1-2 yellow-testaceous; prothorax brown, with posterior tubercles and lateral margins near coxae testaceous; rest of mesosoma black; gaster brown; legs completely yellow-testaceous.

Antennae filiform, very slender and long, slightly shorter than body (44:48); antennal segments in the following proportions: 7:5:16:11:13:12:11:10:9:10; head convex, dull, granulated; occiput very concave, smooth, without sculpture except for a granulated stripe near the occipital carina; frontal line complete; occipital carina complete, hardly evident on the temples and laterally reaching the eyes; POL=4.5; OL=2.5; OOL=3; OPL=1; TL=6; major diameter of the posterior ocelli: 3; temples very long and almost pointed, shorter than eyes (6:12 in dorsal view) (Fig. 2D); clypeus smooth, without a median longitudinal keel; mandibles with three teeth progressing larger from anterior one to posterior (Fig. 3A); scutum dull, completely granulated; notauli incomplete, reaching approximately 0.70 length of scutum; scutellum shiny, with anterior half granulated and posterior half without sculpture; metanotum shiny, smooth, without sculpture; propodeum reticulate rugose, with a transverse keel between dorsal and posterior surface; on the

posterior surface of propodeum the areolae are larger than on the dorsal surface.

Forewing and hind wing hyaline, without a dark transverse band; distal part of stigmal vein longer than proximal part (14:9.5); marginal cell open.

Tibial spurs 1, 1, 2.

Parameres (Fig. 3B) with an inner proximal branch showing a mosaic drawing, because this branch is covered with rounded papillae.

**Remarks.** Because of the extraordinary length of the temples (Fig. 2D) the male of *Dryinus gulfensis* is different from all known males of Dryininae, so that it is easily recognizable. The head in fact is similar to that of *Bocchopsis* (Apodryininae); for this reason, at first sight this male seems to be an apodryinine; however, the genitalia are completely different. A further extraordinary character of this male is the branch covered of papillae present on the parameres (Fig. 3B); similar branches are characteristic of *Deinodryinus* (Anteoninae) and are not present in Dryininae.

*Dryinus gordhi*, spec. nov.

Fig. 3C

**Types.** Holotype: ♀, Australia, Queensland, Capalaba, 1.IX.1979, G. Gordh & C. Dahms coll. (TL).

**Description**

♀. Fully winged; length 5.00 mm.

Head black, with sides of clypeus and mandibles testaceous; antennae testaceous; mesosoma black, with sides and posterior collar of pronotum testaceous; gaster brown; legs brown, with tarsi testaceous, except for 5<sup>th</sup> segment of mid and hind tarsi brown.

Antennae clavate; antennal segments in the following proportions: 9:6:42:22:17:10:8:6.5:5.5:8.5; rhinaria present on the antennal segments 5-10; head slightly excavated, dull, strongly punctate, without sculpture among the punctures; frons sculptured by tracks of many irregular keels; frontal line complete; occipital carina incomplete, only present behind and on the sides of the posterior ocelli; occiput smooth, shiny, hairy, punctate and without sculpture among the punctures; POL=4; OL=3; OOL=11; OPL=1; TL=6; major diameter of the posterior ocelli: 2; pronotum smooth, shiny, punctate, without sculpture among the punctures; pronotum humped, crossed by two transverse deep furrows; pronotum with posterior collar long, punctate, densely hairy, and anterior collar very short; pronotal tubercles not reaching the tegulae; scutum dull, reticulate rugose;

notauli incomplete, reaching approximately 0.70 length of scutum; scutellum smooth, shiny, hairy, punctate and without sculpture among the punctures; metanotum rugose, dull; propodeum completely reticulate rugose; dorsal surface of propodeum approximately as long as posterior surface; posterior surface of propodeum without longitudinal keels, sculptured by many transverse keels; mesopleura shiny, densely hairy, without sculpture among the punctures; metapleura dull, reticulate rugose.

Forewing with 2 dark transverse bands; distal part of stigmal vein longer than proximal part (16:6).

Protarsus with the following proportions of tarsomeres: 24:3:8:20:31; enlarged claw (Fig. 3C) with a large subdistal tooth and a row of 13 lamellae; tarsomere 5 of protarsus (Fig. 3C) with 2 rows of 15+24 lamellae and with distal apex provided of a group of at least 17 lamellae; tibial spurs 1, 1, 2.

♀ unknown.

**Remarks.** The species is named after one of the collectors of the holotype, Dr. Gordon Gordh. *Dryinus gordhi* resembles *D. swartensis* Olmi, 1990. From this species it may be distinguished by the sculpture of temples and occiput (sculptured by short and longitudinal keels in *D. swartensis*; smooth and not sculptured by keels in *D. gordhi*) and the sculpture of the scutellum and metanotum (reticulate rugose in *D. swartensis*; punctate, without sculpture among the punctures, not reticulate rugose in *D. gordhi*).

*Pseudodryinus papuensis*, spec. nov.

Fig. 3D

**Types.** Holotype: ♀, Papua New Guinea, Morobe Prov., Tekadu, 07°38'S 146°34'E, 400 m, 7.II.2000, T. A. Sears & binatang brigade, Malaise trap (DA).

**Description**

♀. Fully winged; length 4.50 mm.

Head black, with ventral side, mandibles, clypeus and the frontal region between and on the sides of the antennal toruli testaceous; antennae brown, with segments 1-2 testaceous; mesosoma black, with lateral and posterior margins of pronotum testaceous; gaster brown; legs testaceous, with clubs of femora and distal extremities of fore tibiae darkened.

Antennae clavate; antennal segments in the following proportions: 10:7:60:43:27:18:9:7:6.5:9; rhinaria present on antennal segments 6-10; antennal segments 8-10 with a few long setae among shorter

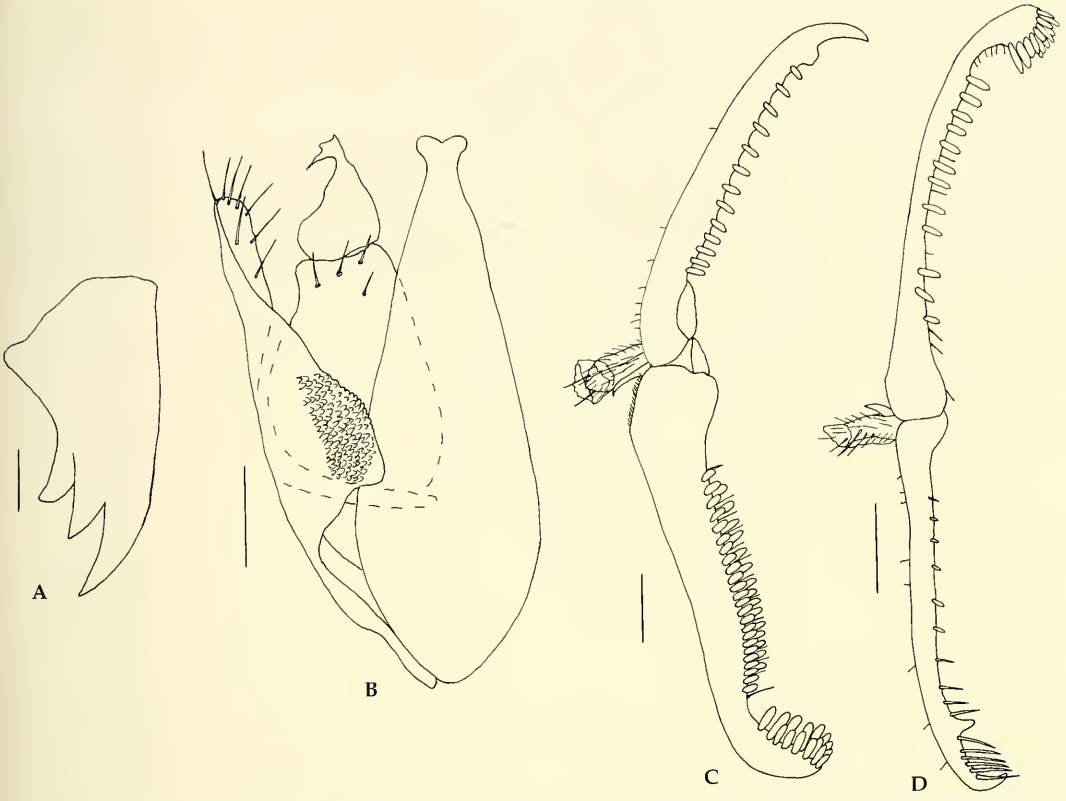


Fig. 3. A-B. Male of *Dryinus gulfensis* Olmi from Papua New Guinea, 07°44'S 146°30'E. A. Mandibles. B. Genital armature (right half removed). C-D. Chelae of holotypes. C. *Dryinus gordhi*, spec. nov. D. *Pseudodryinus papuensis*, spec. nov. Scale bars: A: 0.05 mm, B: 0.04 mm, C: 0.11 mm, D: 0.25 mm.

hairs; antennal segment 10 with a tuft of very long distal setae; head slightly convex, shiny, punctate, without sculpture among the punctures; frontal line complete; occipital carina complete; POL = 4; OL = 2; OOL = 10; OPL = 2; TL = 5; major diameter of the posterior ocelli: 4.5; pronotum shiny, smooth, humped, crossed by a strong anterior transverse impression and a little deep posterior transverse furrow; pronotum punctate, without sculpture among the punctures, with anterior collar long and posterior collar very short; pronotal tubercles reaching the tegulae; scutum, scutellum and metanotum shiny, punctate, without sculpture among the punctures; notauli complete, posteriorly separated; minimum distance between the notauli shorter than breadth of the posterior ocelli (3:4.5); propodeum with a transversal keel between dorsal and posterior surface; dorsal surface of propodeum approximately as long as posterior surface, with two median subparallel longitudinal keels; the regions on the sides of the above keels are smooth, punctate, without sculpture among the punctures; posterior surface of

propodeum with two complete longitudinal keels, with median area smooth, shiny, without sculpture and with lateral areas shiny, sculptured by irregular keels limiting large areolae.

Forewing hyaline, without dark transverse bands; distal part of stigmal vein longer than proximal part (38:13).

Protarsus with the following proportions of tarsomeres: 18:4:10:36:52; enlarged claw (Fig. 3D) with a large subdistal tooth and a row of 16 lamellae (the most distal lamellae are similar to broad bristles); tarsomere 5 of protarsus (Fig. 3D) with 2 rows of 1+11 lamellae and with distal apex provided of a group of at least 12 lamellae; tibial spurs 1, 1, 2.

♂ unknown.

**Remarks.** After *Pseudodryinus australis* Olmi, 1998, described from Australia, Queensland, 11°51'S 142°38'E, *P. papuensis* is the second species of *Pseudodryinus* known from the Australian region. From *P. australis* it may be distinguished by the length of

the 1<sup>st</sup> and 4<sup>th</sup> tarsomeres of the protarsi (tarsomere 4 of protarsus approximately twice as long as tarsomere 1 in *P. papuensis*; tarsomere 4 of protarsus slightly longer than tarsomere 1 in *P. australis*).

### Subfamily Gonatopodinae

#### *Echthrodelpfax guineensis*, spec. nov.

Fig. 4A

**Types.** Holotype: ♀, Papua New Guinea, Morobe Prov., Tekadu, 07°38'S 146°34'E, I.2000, T. A. Sears & binatung brigade (DA).

#### Description

♀. Fully winged; length 2.50 mm.

Head testaceous-reddish, with mandibles and clypeus testaceous; part of ventral side of the head brown; antennae brown, with segments 1-3 testaceous; prothorax brown, with sides of pronotum and sides of disc of pronotum yellow-testaceous; scutum and epicnemium testaceous-reddish; rest of mesosoma black; gaster brown; legs brown, with tarsi, fore coxae and fore trochanters testaceous.

Antennae clavate; antennal segments in the following proportions: 7:4:11:6:4:4:4:4:6; palpal ratio 6/3; head flat, shiny, slightly granulated; frontal line incomplete, not present on the anterior half of the frons; occipital carina incomplete, only present behind the ocellar triangle and shortly on the sides of the posterior ocelli; POL=1; OL=3; OOL=5; posterior ocelli touching the occipital carina; temples distinct; pronotum crossed by a strong transverse impression, with anterior collar and sides shiny, smooth, without sculpture; disc of pronotum dull, strongly granulated, almost rugose; posterior edges of pronotum rounded, not produced into lobes; scutum shiny, smooth, without sculpture; notauli hardly evident (two tracks of incomplete notauli are hardly visible; they reach approximately 0.40 length of scutum); scutellum with anterior half dull, reticulate rugose, and posterior half shiny, smooth, without sculpture; metanotum shiny, smooth, without sculpture; propodeum with dorsal surface dull and reticulate rugose; posterior surface of propodeum shiny and almost completely smooth and without sculpture; mesopleura dull, reticulate rugose; metapleura partly smooth and without sculpture and partly transversely striate.

Forewing with two dark transverse bands; distal part of stigmal vein longer than proximal part (15:5).

Protarsus with the following proportions of tarsomeres: 12:2.5:3:8:13; enlarged claw (Fig. 4A) with a large subapical tooth and 1 row of 4 lamellae;

tarsomere 5 of protarsus (Fig. 4A) with one row of 7 lamellae and with distal apex provided of a group of approximately 7 lamellae; tibial spurs 1, 0, 1.

♂ unknown.

**Remarks.** *Echthrodelpfax guineensis* is different from all other known Australian species of *Echthrodelpfax* mainly because its notauli are incomplete and hardly visible, whereas in the other four species the notauli are always complete and distinctly visible.

#### *Gonatopus victoriensis*, spec. nov.

Figs 4B, 4D

**Types.** Holotype: ♀, Australia, Victoria, 30 Km W Hershaw, 1.III.1984, E. R. Oatman coll. (TL).

#### Description

♀. Apterous; length 3.06 mm.

Head black, with anterior region of frons and mandibles testaceous; clypeus testaceous, with a brown central spot; antennae brown, with segments 1-2 testaceous; mesosoma black; gaster brown-black; legs brown, with junctions and fore tarsi testaceous.

Antennae clavate; antennal segments of the holotype in the following proportions: 6:4.5:12:8:7:7:5:5:4.5:6; maxillary palpi with 6 segments; labial palpi with 3 segments; head very slightly excavated, shiny, smooth, without sculpture, almost completely hairless; frontal line incomplete, only present in the anterior half of the frons; occipital carina absent; temples distinct; POL=2.5; OL=3; OOL=7; pronotum shiny, smooth, crossed by a strong transverse impression; pronotum without sculpture, except for the anterior collar partly granulated; scutum shiny, smooth, without lateral pointed apophyses; scutellum shiny, smooth, inclined; metanotum slightly hollow behind the scutellum, flat, dull, granulated, slightly transversely striate; metathorax + propodeum (Fig. 4B) dull, with anterior surface granulated and sculptured by slight longitudinal striae and with disc and posterior surface slightly transversely striate; mesopleura and metapleura shiny, slightly transversely striate; meso-metapleural suture distinct and complete.

Protarsus with the following proportions of tarsomeres: 11:2.5:2.5:12:18; enlarged claw (Fig. 4D) with a very small subdistal tooth and a row of 3 proximal bristles; tarsomere 5 of protarsus (Fig. 4D) with two rows of 4+13 lamellae situated in the distal half; distal apex of tarsomere 5 with a group of approximately 4 lamellae; tibial spurs 1, 0, 1.

♂ unknown.



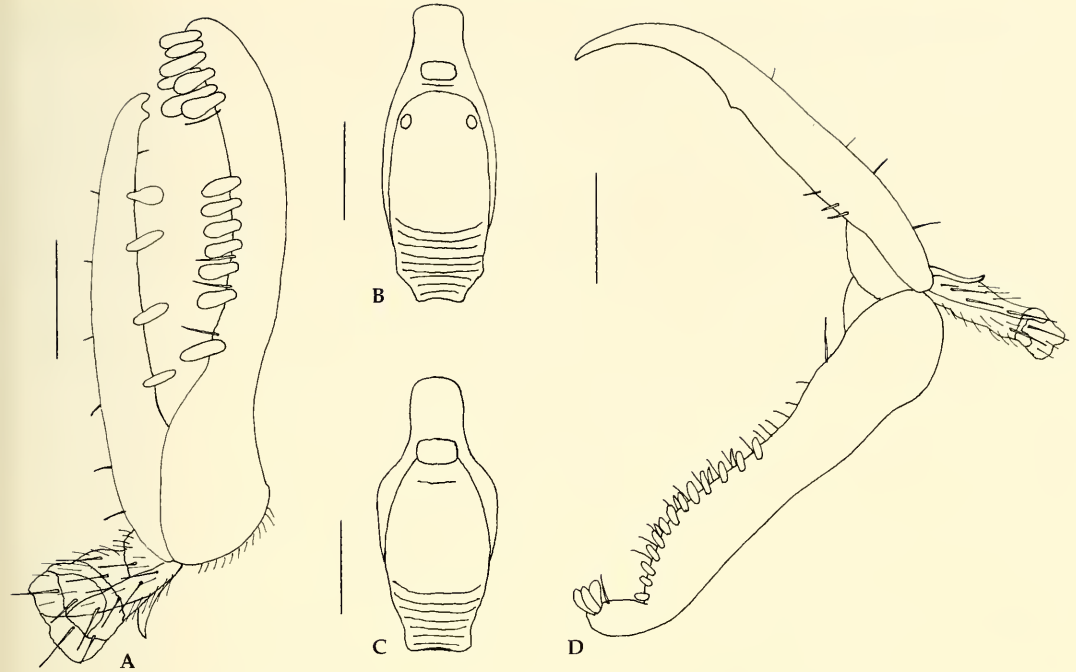


Fig. 4. A,D. Chelae. A. *Echthrodelphax guineensis*, spec. nov., holotype. D. *Gonatopus victoriensis*, spec. nov., holotype. B,C. Scutum, scutellum and metathorax + propodeum. B. *Gonatopus victoriensis*, spec. nov., holotype. C. *Gonatopus dahmsi* Olmi, holotype. Scale bars: A: 0.06 mm, B: 0.28 mm, C: 0.25 mm, D: 0.10 mm.

**Remarks.** *Gonatopus victoriensis* belongs to the *Gonatopus optabilis* group and resembles *G. dahmsi* Olmi, 2001. From this species it may be distinguished by the shape of the enlarged claw (with the subapical tooth situated very close to the distal apex in *G. dahmsi* (Fig. 1 in Olmi 2001); with the subapical tooth farther from the distal apex in *G. victoriensis* (Fig. 4D), the shape of metathorax + propodeum (broader in *G. dahmsi* (Fig. 4C); more slender in *G. victoriensis* (Fig. 4B) and the length of the frontal line (frontal line complete in *G. dahmsi*; incomplete and only present on the anterior half of the frons in *G. victoriensis*).

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