



## Nomenclatural changes in Mymaridae (Hymenoptera: Chalcidoidea)

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### Abstract

Three New World species are transferred from *Polynema* Haliday to other genera of Mymaridae and redescribed based on examination of their type specimens: *Polynema albicoxa* Ashmead to *Acmopolynema* Ogloblin as *Acmopolynema albicoxa* (Ashmead), **comb. n.**, *Polynema porteri* (Brèthes) to *Agalmopolynema* Ogloblin as *Agalmopolynema porteri* (Brèthes), **comb. n.**, and *Polynema giraulti* Perkins, for which a lectotype is designated, to *Stephanodes* Enock as *Stephanodes giraulti* (Perkins), **comb. n.** *Agalmopolynema shajovskoi* Fidalgo, **syn. n.** is synonymized under *Agalmopolynema porteri*; *Polynema* (*Dorypolynema*) *gaucho* Triapitsyn & Aquino, **syn. n.** and *P. grenadensis* Ashmead, **syn. n.**, are synonymized under *Polynema* (*Dorypolynema*) *magniceps* Ashmead, for which taxonomic notes are given. *Caenomymar* Yoshimoto, **syn. n.** is synonymized under *Omyomymar* Schauff, and its only species *Caenomymar howdeni* Yoshimoto is transferred to *Omyomymar* as *Omyomymar howdeni* (Yoshimoto), **comb. n.** *Gonatocerus chula* Triapitsyn & Bernal is transferred to *Cosmocomoidea* Howard as *Cosmocomoidea chula* (Triapitsyn & Bernal), **comb. n.** *Erythmelus mirus* Girault is transferred to *Cleruchoides* Lin & Huber as *Cleruchoides mirus* (Girault), **comb. n.** and compared with *Cleruchoides noackae* Lin & Huber, a species introduced from Australia into South America as a biological control agent of *Thaumastocoris peregrinus* Carpintero & Dellapé (Hemiptera: Thaumastocoridae), an introduced pest of *Eucalyptus*. Four spelling corrections are made to species names in *Cosmocomoidea* and *Lymaenon* Walker.

**Key words:** taxonomy, fairyflies, egg parasitoid, synonymy

### Introduction

Species of Mymaridae, or fairyflies, are minute parasitoid wasps that are almost all egg parasitoids of other insects. The family is among the best defined families of Chalcidoidea (Hymenoptera). According to the classification proposed by Lin *et al.* (2007), the genera of Mymaridae can be arranged in twelve informal groups. Eleven of these occur in the Neotropical region.

Changes among species or genera in the *Polynema*, *Gonatocerus*, *Anagrus* and *Cleruchus* groups of genera are proposed here. Only the *Polynema* group can be defined reasonably well based on putative apomorphies. The remaining groups are ill-defined or, for the *Gonatocerus* group (*Gonatocerini sensu* Huber (2015)), defined on only a couple of putative synapomorphies. Except for the *Polynema* group, no further attempt to define these groups of genera is given here.

The *Polynema* group of genera, with *Polynema* Haliday, *Acmopolynema* Ogloblin, *Agalmopolynema* Ogloblin, *Stephanodes* Enock, and several other genera is characterized as follows: gracile wasps with relatively long appendages, with body well sclerotized and usually dark colored but sometimes yellowish; petiole narrow, distinct, tubular, and longer than wide; fore wing venation short, the marginal vein almost punctiform, much less than half length of submarginal vein. The most speciose genus, *Polynema*, is an unmanageable conglomerate of about 310 nominal species classified in several closely related, poorly defined groups (Triapitsyn & Fidalgo 2006). Some species classified in *Polynema* would be better placed in other genera. Three are transferred here to the proper

genera, redescribed, and illustrated based mainly on their type specimens. Their hosts are unknown, as is unfortunately the case for most species of *Polynema*.

For the *Anagrus* group, one genus described from South America is synonymized here under *Omyomymar* Schauff. For the *Cleruchus* group, *Erythmelus mirus* Girault from Australia is transferred to *Cleruchoides* Lin & Huber, illustrated, briefly redescribed and compared to another, congeneric, Australian species, *C. noackae* Lin & Huber. The latter was introduced into South America as a biological control agent of *Thaumastocoris peregrinus* Carpintero & Dellapé (Hemiptera: Thaumastocoridae), a pest of *Eucalyptus* accidentally imported into several countries in Africa and South America and at least one country (Italy) in Europe. For the *Gonatocerus* group, taxonomic changes proposed include one addition and several corrections to the species lists for the world genera of Gonatocerini by Huber (2015).

Specimens are deposited in the following collections:

BMNH	The Natural History Museum, London, England, UK.
BPBM	Bernice Pauahi Bishop Museum, Honolulu, Hawaii, USA.
CNC	Canadian National Collection of Insects, Arachnids and Nematodes, Ottawa, Ontario, Canada.
MACN	Museo Argentino de Ciencias Naturales “Bernardino Rivadavia”, Buenos Aires, Argentina.
MLPA	Museo de La Plata, La Plata, Buenos Aires, Argentina.
QMB	Queensland Museum, Brisbane, Queensland, Australia.
UCDC	R.M. Bohart Museum of Entomology, University of California, Davis, California, USA.
UCRC	Entomology Research Museum, University of California, Riverside, California, USA.

Terms used for morphological features are those of Gibson (1997). All measurements were taken from slide-mounted specimens unless stated otherwise, and are given in micrometers ( $\mu\text{m}$ ), as length or length: width. Abbreviations used are: F = funicular segment of the female antenna or flagellomere of the male antenna; mps = multiporous plate sensillum or sensilla on the antennal flagellar segments (= longitudinal sensillum or sensilla or sensory ridge(s)). Point-mounted material is indicated as (PM).

***Acmopolynema albicoxa* (Ashmead, 1900), comb. n.**  
(Figs 1a–c)

*Polynema albicoxa* Ashmead, 1900: 266. Type locality: Saint Vincent and the Grenadines, Saint Vincent Island, unspecified.  
*Polynema albicoxa*: De Santis, 1979: 376 (catalog); Yoshimoto, 1990: 83 (list).

**Type material examined.** Holotype female [BMNH] on point labeled: 1, “St. Vincent, W. I., H. H. Smith 241”; 2, “W. Indies 99–331”; 3, “Type H. T.”; 4, “*Polynema albicoxa* ♀ Type Ashm”; 5, “B. M. Type Hym. 5.1454”.

**Diagnosis.** *Acmopolynema albicoxa*, described only from the holotype, is characterized by the following combination of features: general body color dark brown, appendages light brown except clava dark brown; scape slightly wider than pedicel and transversely striate on the inner surface; clava (poorly mounted so its width could not be measured and mps could not be counted) as long as combined length of three preceding segments; pronotum entire, each side with one seta at posterior margin; scutellar campaniform sensilla closer to anterior than posterior margin of scutellum; propodeum with complete V-shaped submedian carinae; fore wing with infusate spot in middle of disc, the discal setae near the middle and distal half brown; ovipositor exerted beyond gastral apex by about 0.2× total length of gaster.

**Redescription.** FEMALE (holotype, Figs 1a–c). Head and body dark brown; appendages light brown except clava dark brown.

Antenna (Fig. 1c). Scape excluding radicle about 2.4× as long as wide, slightly wider than pedicel and transversely striate on inner surface; F1 as long as pedicel; F2 the longest funicular segment; F4–F6 progressively decreasing in length and increasing in width; clava as long as combined length of three preceding segments.

Mesosoma with inconspicuous elongate mesh-like sculpture on pronotum, mesoscutum and scutellum; pronotum entire, each side with one seta at posterior margin; mesoscutum wider than long (1.6:1); scutellum wider than long (1.1:1), scutellar campaniform sensilla closer to anterior than posterior margin of scutellum; propodeum with complete V-shaped submedian carinae (Fig. 1a).

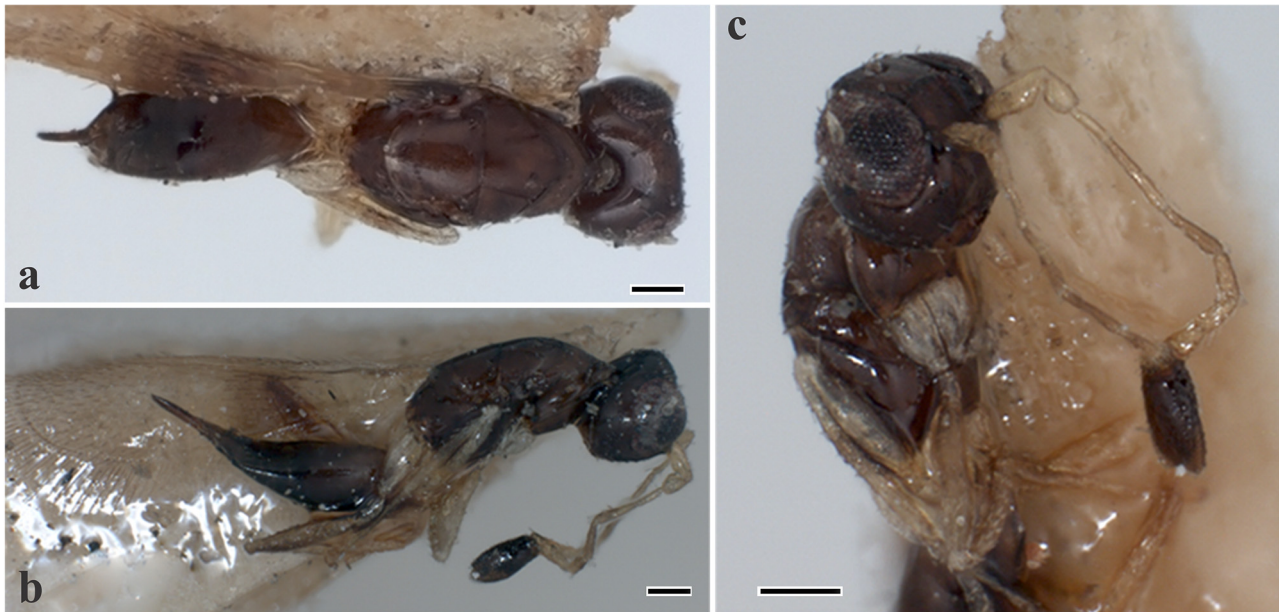
Wings. Fore wing (Fig. 1b) with infusate spot in middle of disc and distal half brown, the discal setae near middle of wing. Hind wing not visible.

Metasoma. Ovipositor exerted beyond gastral apex by about 0.2× total length of gaster.

Holotype measurements. Body, 1000: mesosoma, 475; gaster, 525. Antenna: scape (excluding radicle), 125; pedicel, 63; F1, 63; F2, 113; F3, 93; F4, 63; F5, 50; F6, (unknown, not possible to measure correctly); clava 163. Fore wing 1075.

**Distribution.** Saint Vincent and the Grenadines (Saint Vincent Island).

**Remarks.** The V-shaped carinae on the propodeum and the modified setae on the fore wing disc clearly places this species in *Acmopolynema*. Whether it is conspecific with one of the South American *Acmopolynema* species (Fidalgo 1989) will require a thorough investigation as part of a forthcoming revision of the Neotropical species of this genus (S.V. Triapitsyn and V.V. Berezovskiy, in preparation).



**FIGURES 1a–c.** *Acmopolynema albicoxa* holotype: a, habitus, dorsal view; b, habitus, lateral view; c, head, antenna and mesosoma, ventral view.

***Agalmopolynema porteri* (Brèthes, 1917), comb. n.**

(Figs 2a–e)

*Anagrus Porteri* [sic] Brèthes, 1917: 82–84. Type locality: Chile, Región Metropolitana de Santiago, San Bernardo.

*Barypolynema porteri*: Ogloblin, 1964: 39.

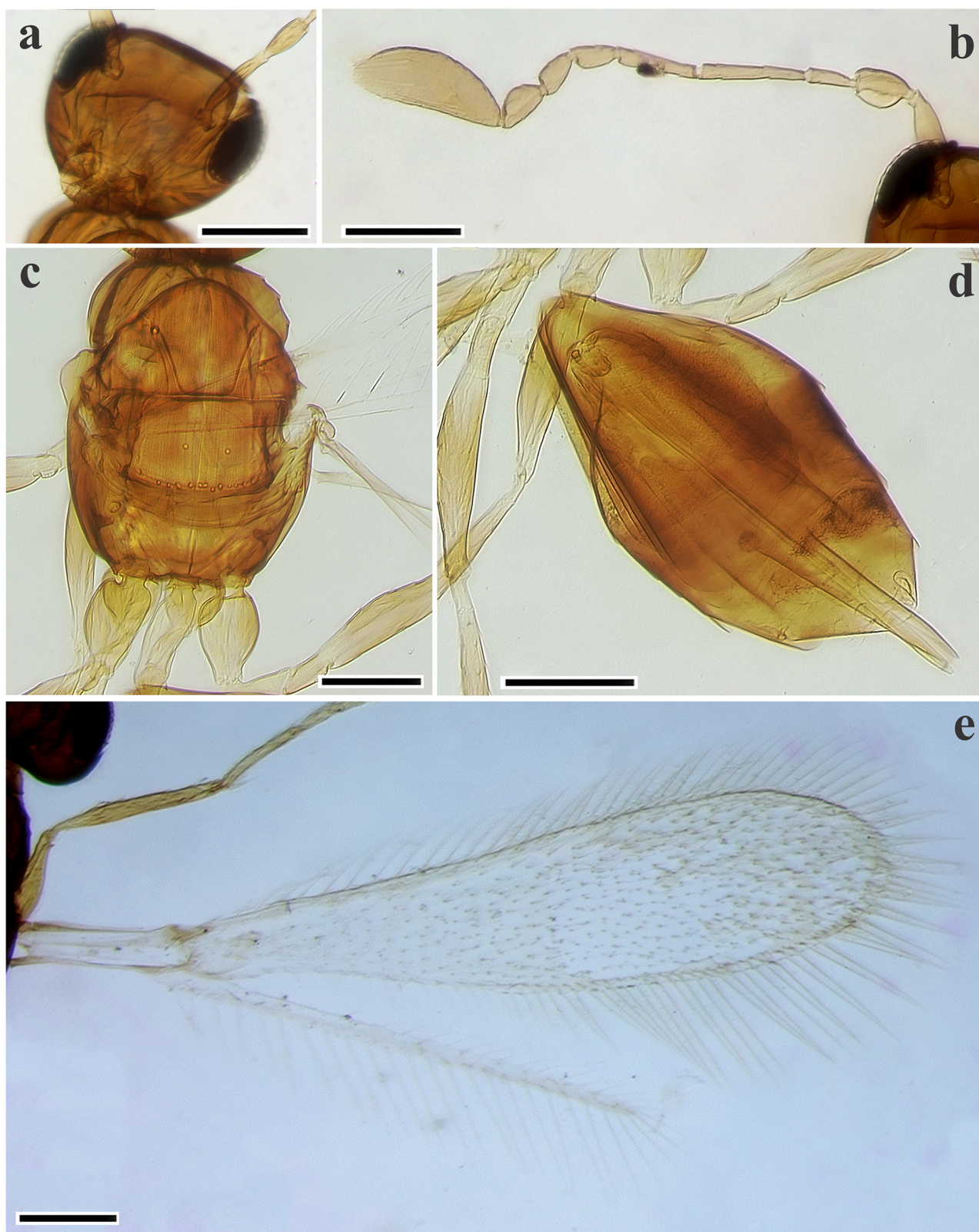
*Polynema porteri*: Triapitsyn, 1997: 11.

*Agalmopolynema shajovskoi* Fidalgo, 1988: 46, 54 (illustrations), 62–63. **Syn. n.**

**Type material examined.** Holotype ♀ of *Anagrus porteri* [MACN] on a broken slide in Canada balsam, mounted more or less dorsoventrally, labeled: 1, “*Anagrus Porteri* Br S. Bernardo Set. 1916 Type Porter”; 2, “A 13”; 3, “*Barypolynema porteri* (Breth). ♀ Det. A. Ogloblin”; 4, “*Polynema porteri* (Brèthes) ♀ Det. S. Triapitsyn March 1995”.

Holotype ♀ of *Agalmopolynema shajovskoi* [MLPA] on slide labeled: 1, [in A.A. Ogloblin’s handwriting] “*Pseudopolynema shajovskoi* A. Ogl. ♀♀ Pucará, Lago Lácar, Ter. de Neuquén. 27.II.1953 V. K. O. y A. A. O”; 2, “*Agalmopolynema shajovskoi* sp. n. HOLOTIPO ♀ PARATIPO ♀ det. P. Fidalgo’86”; 3, [MLPA catalog type number] “5113/1”. The holotype is circled in black ink; it is in fair condition, perfectly spread out, mounted dorsoventrally. Paratypes of *A. shajovskoi*—**Argentina**: Neuquén, Pucará, Lago Lácar, 21.ii.1953, 23.ii.1953, 25.ii.1953, 26.ii.1953, 27.ii.1953, V.K. Ogloblina and A.A. Ogloblin [15 ♀♀, MLPA].





**FIGURES 2a–e.** *Agalmopolynema porteri* holotype: a, head, anterior view; b, antenna; c, mesosoma; d, metasoma; e, ♀ a pair of wings.

Additional material examined. **Argentina:** NEUQUÉN, Parque Nacional Lanín, Pucará, near van Heden Nursery at Lago Lácar, 40°09'59.3"S 71°37'50.4"W, 664 m, 8.iii.2007, J. Parra, G.A. Logarzo, S.V. Triapitsyn, E.G. Virla [1 ♀, UCRC]. **Chile:** REGIÓN IX, Parque Nacional Nahuelbuta, 37°49'30"S 72°58'24"W, 1168 m, 10–24.ii.2005, J.M. Heraty *et al.* [1 ♀ (PM), UCRC], UCR ATol, meadow & *Nothofagus*, MT [1 ♂, UCRC].

**Diagnosis.** *Agalmopolynema porteri* is characterized by the following combination of features: general color light brown with petiole, scape, pedicel, and legs light brown; scape smooth; clava a little longer than combined length of 3 preceding segments, with 7 mps; pronotum divided mediolongitudinally; mesosoma smooth; propodeum with an inconspicuous, incomplete median carina at posterior margin; petiole transversely striate; fore wing hyaline; petiole attached to gastral sternum.

Although it is difficult to see whether the prosternum in the holotype is “closed” anteriorly, it is likely to be the case because this is clearly visible in the additional, conspecific material examined. We therefore assign *P. porteri* to *Agalmopolynema*, which is a very common genus in Chile. Position of the scutellar campaniform sensilla in this species is about in the middle of scutellum, as in many other species of *Agalmopolynema* but also in the Neotropical members of *Polynema* (*Doriclytus* Foerster) (Triapitsyn & Fidalgo 2006), but the face clearly lacks a pit next to each torulus (Fig. 2a).

**Redescription** (holotype of *A. porteri*). Head and body brown; petiole, scape, pedicel, and legs light brown.

Antenna (Fig. 2b). Scape excluding radicle about  $3.5\times$  as long as wide and smooth, slightly narrower than pedicel; F1 shorter than pedicel; F2 the longest funicular segment; F4 about as long as F6, the latter slightly longer than F5; clava about  $2.7\times$  as long as wide, a little longer than combined length of three preceding segments, with 7 mps.

Mesosoma (Fig. 2c) short and smooth. Pronotum short, divided mediolongitudinally, each lobe with 1 visible short seta; mesoscutum wider than long, notauli short and wide; axillar seta short and weak; scutellum wider than long; scutellar campaniform sensilla about midway between anterior and posterior margins of scutellum and with irregular frenal row of 14–16 foveae; propodeum with inconspicuous, complete or incomplete (difficult to assess) median carina at posterior margin.

Wings (Fig. 2e). Fore wing  $4.1\times$  as long as wide, rather slender beyond venation; marginal vein rather short; disc hyaline, densely setose, the discal setae numerous and comparatively short; longest marginal seta about  $0.8\times$  as long as greatest wing width. Hind wing about  $30\times$  as long as wide; disc hyaline, with a complete row of setae along each margin (not counting long and short marginal setae); longest marginal seta about  $6\times$  greatest width of wing.

Legs. Protibia with 6 conical sensilla; metacoxa sparsely setose, as long as petiole.

Metasoma (Fig. 2d). Petiole transversely striate. Ovipositor longer than gaster, exerted beyond gastral apex by about  $0.14\times$  total length of ovipositor; ovipositor  $1.3\times$  length of metatibia.

Holotype measurements. Body (excluding head), 776; mesosoma, 320; gaster, 400; ovipositor, 408. Antenna: scape (including radicle), 90; pedicel, 48; F1, 42; F2, 92; F3, 70; F4, 40; F5, 38; F6, 46; clava, 134. Fore wing, 900:200; longest marginal seta, 170. Hind wing, 680:22; longest marginal seta, 136.

MALE (previously unknown, specimen from Chile). Body length: 704 (slide-mounted specimen). Similar to female except for normal sexually dimorphic features. Antenna with scape about as long as or slightly shorter than a flagellomere. Fore wing  $4.5\times$  as long as wide; longest marginal seta slightly shorter than greatest fore wing width.

Measurements. Mesosoma, 352; gaster, 264; protibia, 216; metatibia, 320. Fore wing, 909:200; hind wing, 664:19. Antenna: scape (including radicle), 83; pedicel, 54; F1, 79; F2, 92; F3, 98; F4, 96; F5, 96; F6, 92; F7, 92; F8, 87; F9, 81; F10, 83; F11, 90. Head, 171:208.

**Distribution.** Argentina (new record) and Chile.

**Comments.** Type material of *A. shajovskoi* is almost identical to the holotype of *A. porteri*, and hence the synonymy. However, the holotype and some other specimens of the former have the ovipositor about the same length as the metatibia, whereas the examined paratypes of *A. shajovskoi* have the ovipositor  $0.75\text{--}1.2\times$  length of the metatibia, the exerted part of ovipositor can be up to  $0.16\times$  its total length, and the fore wing is  $4.8\times$  as long as wide. Consequently, these parameters in the holotype of *A. porteri* almost fit the rather wide range of intraspecific variability within *A. shajovskoi*.

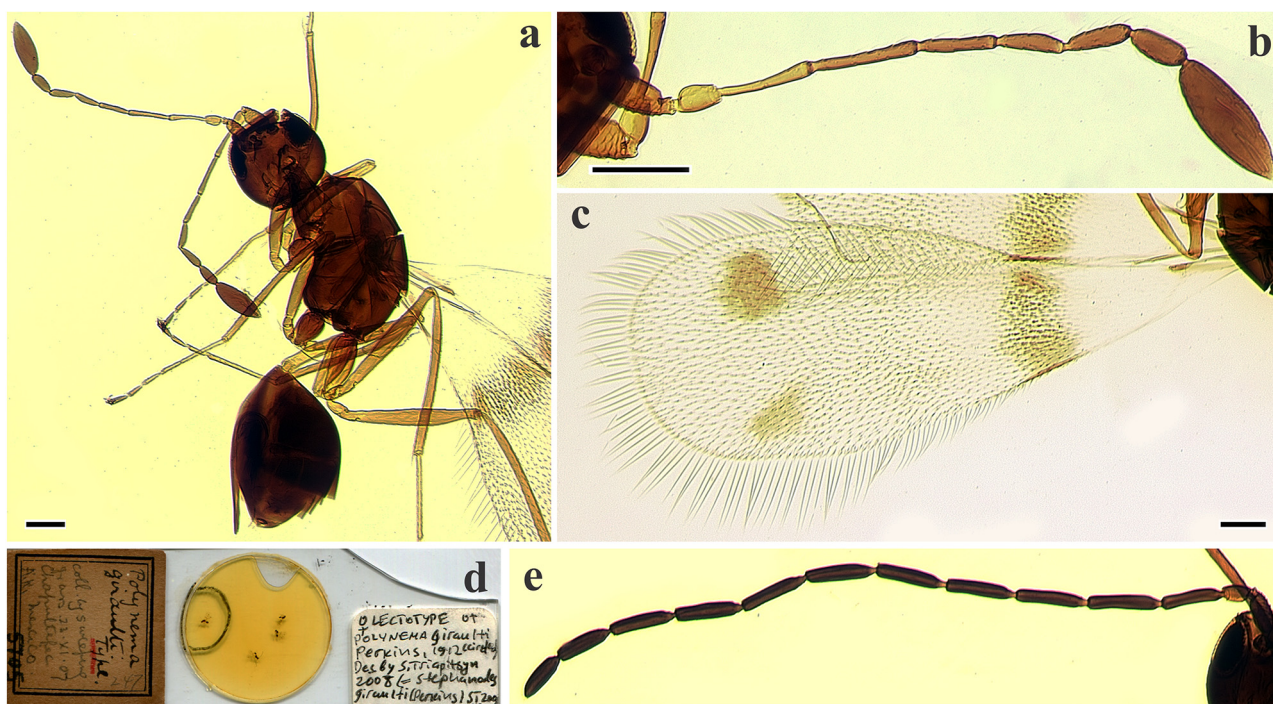
### ***Stephanodes giraulti* (Perkins, 1912), comb. n.**

(Figs 3a–e)

*Polynema giraulti* Perkins, 1912: 24–25. Type locality: Mexico, Distrito Federal, Mexico City, Chapultepec [Park].

*Polynema giraulti*: De Santis, 1979: 376 (catalog); Yoshimoto, 1990: 83 (list); Triapitsyn *et al.*, 2004: 746 (list).





**FIGURES 3a–e.** *Stephanodes giraulti*: a, ♀ habitus (lectotype), lateral view; b, ♀ antenna (lectotype); c, ♂ fore wing (paralectotype); d, lectotype slide; e, ♂ antenna (paralectotype).

**Type material examined.** Lectotype ♀ [BPBM], here designated to avoid confusion about the status of the type specimens of this species, on slide (Fig. 3d) with the single original label: “*Polynema giraulti*. Type. [underlined in red pencil] coll. by sweeping grass 23.xi.07 Chapultepec, A.K. [Albert Koebele] Mexico [collecting data all in pencil] 247 [?an incomplete A. Koebele’s number] 5705”. The lectotype (the leftmost female, circled in black ink) is almost complete (Fig. 3a) although lacking an apical part of one fore wing, otherwise it is in a relatively good condition, mounted laterally. Paralectotypes: 2 females and 1 male on the same slide and under the same coverslip with the lectotype. All the original syntypes were slide-mounted rather poorly.

**Additional material examined.** **Mexico:** DISTRITO FEDERAL, 12 mi. W of Texcoco, 2300 m, 28.x.1982, J.T. Huber [2 ♀♀, UCRC]. PUEBLA, 3.7 mi. S. Zacapoaxtla, 23.vii.1985, J.B. Woolley, G. Zolnerowich [1 ♂, CNC].

**Diagnosis.** *Stephanodes giraulti* is similar to *S. polynemoides* (Yoshimoto), recorded from Costa Rica, Ecuador, Guatemala, Central Mexico, Panama, and Venezuela (Yoshimoto 1990; Huber & Fidalgo 1997), but differs from the latter in having relatively much smaller apical dark spots on the fore wing disc in both sexes, particularly the one that is close to the posterior margin of the wing, which is notably smaller than the spot that is close to the anterior margin, unlike in *S. polynemoides*. Huber & Fidalgo (1997) mentioned that the two female specimens of *Stephanodes* from Guatemala, also collected at high altitudes, have very small apical dark spots on the fore wing disc but considered this to be intraspecific variation within *S. polynemoides*. Although that might be the case, these specimens, as well as the unlisted material from Central Mexico mentioned by Huber & Fidalgo (1997) under *S. polynemoides*, most likely belong to *S. giraulti*. In the latter, F1 is 2.0–2.2× length of pedicel, F2 is 1.1–1.2× length of F1, and the clava bears at most 7 mps, whereas in the non-type specimens of *S. polynemoides* from Costa Rica and Panama, examined by S.V. Triapitsyn (material in UCRC), F1 is 1.4–1.6× length of pedicel, F2 is 1.3×1.5× length of F1, and the clava bears 9 mps. Thus, at least for the present, we consider the specimens to represent two separate species.

**Redescription.** Female (lectotype, paralectotypes, and non-type specimens). Body length 990–1100. Head, mesosoma and gaster shining dark brown, petiole light brown, antenna brown to dark brown except pedicel and F1 a little lighter (light brown to brown), legs mostly light brown (Fig. 3a).

Antenna (Fig. 3b). Scape plus radicle 2.0–2.1× as long as wide, pedicel much shorter than F1 (F1 2.0–2.2× length of pedicel); F2 the longest funicular segment and 1.1–1.2× length of F1; F1–F5 without mps; F6 the widest of funicular segments and at least sometimes with 1 mps (very difficult to see); clava 2.8–2.9× as long as wide, at least a little longer than combined length of F5 and F6, with at least 6 mps but apparently with 7.

Fore wing (Fig. 3c) 2.8–2.9× as long as wide; disc densely setose beyond venation, with a narrow, transverse, brown band beyond venation and two apical brown spots, the anterior spot more or less circular and larger than the posterior spot; longest marginal seta 0.35–0.39× greatest width of disc. Hind wing 33–34× as long as wide; longest marginal seta about 5.8× greatest width of disc.

Metasoma. Ovipositor occupying about 0.7× length of gaster, not or at most barely exerted beyond gastral apex; ovipositor 0.8–0.9× length of metatibia.

Lectotype measurements. Body, 1100: mesosoma, 450; petiole, 210; gaster, 437; ovipositor, 320. Antenna: scape, 88; pedicel, 45; F1, 97; F2, 109; F3, 79; F4, 67; F5, 68; F6, 62; clava, 152. Fore wing, 1408:492; longest marginal seta, 173. Hind wing, 1015:30; longest marginal seta, 175.

MALE (paralectotype). Body length 1095. Similar to female except for normal sexually dimorphic features of antenna and genitalia and the following. Scape and pedicel light brown to brown, flagellum dark brown (Fig. 3e). Fore wing about 2.9× as long as wide.

**Distribution.** Nearctic region: Mexico (Distrito Federal and Puebla), and possibly Guatemala (Neotropical region).

**Remarks.** Apparently by mistake, Perkins (1912, p. 25) indicated that this species was collected by A. Koebele (one of the pioneers of biological control) “amongst grass in cane-fields” in Mexico, without mentioning the locality. However, from the label data on the original syntype slide (Fig. 3d) that is highly unlikely because almost certainly there were no sugar cane fields in Chapultepec Park (= Bosque de Chapultepec) in Mexico City, which is well outside the cane-growing areas of the country. It is far more likely for the fields to be corn fields.

### *Polynema (Dorypolynema) magniceps* (Ashmead, 1900)

(Figs 4a–e)

*Polynema magniceps* Ashmead 1900: 265–266. Type locality: Saint Vincent and the Grenadines, Saint Vincent Island, unspecified.

*Polynema grenadensis* Ashmead 1900: 266. Type locality: Grenada, Mirabeau Estate (Windward side). **Syn. n.**

*Polynema (Dorypolynema) gaucho* Triapitsyn & Aquino 2010: 63–67. Holotype female [MLPA], examined (Triapitsyn & Aquino 2010). Type locality: Argentina, Formosa, Estancia Guaycolec (25 km N of Formosa), 25°59'S 58°12'W. **Syn. n.**

**Type material examined.** Holotype male of *P. magniceps* [BMNH] on point labeled: 1, “Leward side St. Vincent, W. I., H.H. Smith 200”; 2, “Type H. T.”; 3, “*Polynema magniceps* ♂ Type Ashm”; 4, “B.M. Type Hym”; 5, “1455”.

Holotype female of *P. grenadensis* [BMNH] on point labeled: 1, “Mirabeau Est. (Windward side) Grenada, W. I. H. H. Smith”; 2, “Type H. T.”; 3, “W. Indies. 99-331.”; 4, “*Polynema grenadensis* ♀ Type”; 5, “B. M. TYPE HYM. 5. 1456”; 6, “NHMUK 010198633”.

Additional material examined. **Argentina:** FORMOSA: Estancia Guaycolec, 25 km N of Formosa, 25°59'S 58°12'W, 17–20.xii.1998, 185 m, S.L. Heydon [1 non-type ♀, UCRC]. **Chile:** X REGIÓN, Isla Grande de Chiloé, Río Dongo, 19.i.2000, T. Cekalovic [1 ♀, UCDC].

**Diagnosis.** The holotype male of *Polynema (Dorypolynema) magniceps* is characterized by the following combination of features: general body color dark brown with appendages yellowish brown except funicular segments and procoxa yellow; antennal scape with transverse striation on inner surface; pronotum divided mediolongitudinally, each lobe with 4 setae at posterior margin; mesoscutum and scutellum smooth; scutellar campaniform sensilla about in middle of scutellum; propodeum with complete median carina; fore wing hyaline, narrow, 5.2× as long as wide.

**Redescription.** Female (holotype of *P. grenadensis*). Similar to male except for normal sexually dimorphic features: antenna with scape smooth, 1.2× longer than F2, the latter the longest funicular segment and 2.2× as long as F1; F4–F6 similar in length and width; clava a little shorter than 3 preceding segments; ovipositor strongly exerted; fore wing hyaline, about 4.2× as long as wide.

**Comments.** Ashmead (1900) described *Polynema magniceps* from Saint Vincent Island based on a single male, which is in a very poor condition, so a more detailed diagnosis or redescription cannot be provided. Ashmead (1900) also described *Polynema grenadensis* from the neighboring island of Grenada based on a single female. We consider *P. grenadensis* to be a synonym of *P. magniceps* because the types are similar in general morphological features except for the normal sexually dimorphic ones.



*Polynema magniceps* definitely belongs to *Polynema* (*Dorypolynema* Hayat & Anis) and is very similar to the widespread Neotropical species *P. gaucho* Triapitsyn & Aquino. The female described as *P. grenadensis* differs from the latter by the slightly shorter F2 relative to the length of F1 (about 2.0×), whereas in *P. gaucho* F2 is about 2.2× length of F1 (Triapitsyn & Aquino 2010). However, it seems that this morphological character is subject to intraspecific variability in the specimens from Formosa, Argentina, which fit both these nominal species, so *P. (Dorypolynema) gaucho* is here synonymized under *P. (Dorypolynema) magniceps*.

**Distribution.** Grenada (Ashmead 1900, as *P. grenadensis*) and Saint Vincent and the Grenadines (Saint Vincent Island), as well as Argentina (Formosa), Brazil, Costa Rica, Ecuador, Peru (Triapitsyn & Aquino 2010, as *P. (Dorypolynema) gaucho*), and Chile (new record).



**FIGURES 4a–e.** *Polynema (Dorypolynema) magniceps*: a, ♀ habitus; b, ♂ habitus (holotype); c, ♀ antenna; d, ♂ head and antenna (holotype); e, ♀ mesosoma and antenna.

### *Omyomymar* Schauff, 1983

*Omyomymar* Schauff, 1983: 544–545. Type species: *Paranaphoidea silvana* Ogloblin, by original designation. Subsequent taxonomic reference: Lin & Chiappini 1996: 301–307 (Chinese species).

*Caenomymar* Yoshimoto, 1990: 49–50. Type species: *Caenomymar howdeni* Yoshimoto, by monotypy. **Syn. n.**

### *Omyomymar howdeni* (Yoshimoto, 1990), comb. n.

*Caenomymar howdeni* Yoshimoto, 1990: 91–92. Type locality: Panama, Chiriqui, 15 km NW of Hato del Volcán.

The holotype (CNC) of *C. howdeni* has a two-segmented clava, not entire (i.e., 1-segmented) as erroneously indicated in Yoshimoto (1990), and it also has a small apical projection. Thus, the only features that purportedly



distinguished *Caenomymar* from *Omyomymar* were based on incorrect description of the female clava. This is perhaps not unexpected because the clava of *O. howdeni* is white, so the fine suture separating the two segments and the smaller than usual apical projection of the clava are difficult to see on the slide-mounted holotype and are scarcely visible in Yoshimoto (1990, fig. 31). Other features such as the fore wing shape (Yoshimoto, 1990, figs 84 and 75 [the latter accidentally duplicated; it is supposed to be a *Cleruchus* Enock fore wing, which is not illustrated]), mesosomal structure, and distinctly exerted ovipositor are the same in both genera so we are confident that the generic synonymy is correct. Incidentally, fig. 72 in Yoshimoto (1990) was incorrectly labelled as *Omyomymar* (it is an *Ooctonus* Haliday fore wing) and fig. 62, which is supposed to be a *Camptoptera* Foerster fore wing (but is not illustrated), is a duplication of fig. 59, a *Dicopus* Enock fore wing.

### ***Cleruchoides mirus* (Girault), comb. n.**

(Figs 5a–b)

*Erythmelus mirus* Girault, 1938: 390. Holotype in QMB. Type locality: Australia, Queensland, Indooroopilly.

*Erythmelus mirus*: Dahms, 1984: 827 (holotype data); Lin *et al.*, 2007: 32 (list).

The holotype is in poor condition (Fig. 5b), under its own coverslip fragment, together with another specimen that belongs to another species of *Erythmelus* Enock under a second coverslip fragment on a messily labelled slide, as shown in Fig. 5a.

Lin *et al.* (2007) listed *E. mirus* under *Erythmelus* but noted that it was incorrectly placed generically. They failed to associate it with any described genus, including their own new genus *Cleruchoides*. Re-examination of the holotype of *E. mirus* allows us to place it correctly in *Cleruchoides*, which is quite similar to *Cleruchus* but differs from *Erythmelus* in several features, notably: hypopygium inconspicuous, not extending to apex of gaster (*versus* conspicuous, extending to apex of gaster), fore wing with posterior margin distinctly lobed behind venation (*versus* lobe much less distinct), parastigma–stigmal vein with posterior margin strongly sinuate, such that the parastigma and stigmal vein are much wider than the narrow marginal vein (*versus* venation with posterior margin straight), venation with 2 apical macrochaetae (*versus* 1 apical macrochaeta), mandible clearly developed with 1 or 2 small apical teeth and as long as maxilla (Fig. 6a) (*versus* mandible a minute stub, much shorter than elongate maxilla), and tentorium oval (Fig. 5a), with narrowest point—the junction between anterior and posterior arms—close to occiput (*versus* tentorium almost X-shaped, with narrowest point midway between arms), and gena in lateral view present and distinguishable (*versus* absent in *Erythmelus*).

**Diagnosis.** In *C. mirus*, fore wing wider, about 4.9× as long as wide (6.0× in *C. noackae*), with fewer discal microtrichia in one row at wing apex (a few more, and more scattered, microtrichia in *C. noackae*), and first distal macrochaeta about midway between proximal macrochaeta and second distal macrochaeta (first distal macrochaeta much closer to second distal macrochaeta than to proximal macrochaeta in *C. noackae*). The fore wing and female antenna of *C. noackae* are illustrated in Lin *et al.* (2007, figs 268, 269).

**Redescription** (holotype). Body length about 545 (head detached and mounted face up so its length estimated). Color fairly uniform brown (Fig. 5b) with leg joints slightly lighter (if the subantennal grooves are black, as in *C. noackae*, there is no longer any indication of this on the holotype of *C. mirus*).

Holotype measurements. Body length, 545; ovipositor, 130. Antenna (Fig. 6a) (number of mps in parentheses): scape, 121:37; pedicel, 45:26; F1, 16:17; F2, 30:17; F3, 29:17; F4, 27:20; F5, 28:25(1); F6, 33:31(2); clava, 121:37(6). Fore wing, 477:98, 4.87× as long as wide; longest marginal setae, 153, venation length, 180; wing surface with one submedian longitudinal row of about 9–12 (counted on both fore wings) microtrichia and 2 isolated microtrichia more posteriorly. Hind wing, 466:32; longest marginal setae, 120. Ovipositor 0.8× length of metatibia (160).

**Comments.** Several publications on *C. noackae* have appeared over the past few years because of its potential importance as a biological control agent of *T. peregrinus* (Nadel & Noack 2012; Nadel *et al.* 2012; Mutitu *et al.* 2013; de Souza *et al.* 2016). If the host of *C. mirus* is discovered it may also be potentially useful as a biocontrol agent, assuming it also parasitizes a pest species of Thaumastocoridae.



FIGURES 5 a–b. *Erythmelus mirus* holotype: a, slide; b, head, antennae and rest of body.

***Cosmocomoidea chula* (Triapitsyn & Bernal, 2009), comb. n.**

*Gonatocerus chula* Triapitsyn & Bernal, 2009: 4–6. Holotype ♀ [UCRC], examined (Triapitsyn & Bernal, 2009). Type locality: Mexico, Sonora, “Campo Nuevo” (near Miguel Alemán), 28°50'15"N 111°28'25"W.

*Gonatocerus* (*Cosmocomoidea*) *chula*: Triapitsyn, 2013: 213 (key).

**Remarks.** This species was inadvertently omitted from Huber (2015) and, according to his classification, is transferred to its proper genus, *Cosmocomoidea* Howard.

Four additional corrections to the lists of species in *Cosmocomoidea* and *Lymaenon* Walker in Huber (2015) are made here.

***Cosmocomoidea brachyurus* (Ogloblin, 1938)**

*Lymaenon brachyurus* Ogloblin, 1938: 32–35. Type locality: Argentina, Buenos Aires, Tigre.

*Gonatocerus* (*Gonatocerus*) *brachyurus*: De Santis, 1967: 103 (catalog).

*Gonatocerus brachyurus*: Yoshimoto, 1990: 39 (list); Luft Albarracin *et al.*, 2009: 9 (list, distribution in Argentina).  
*Lymaenon brachyurus*: Loíacono *et al.*, 2005: 13 (type information).  
*Cosmocomoidea brachyura*: Huber, 2015: 18, 74.

The compound word most likely means “short tail” and is a noun in apposition, not an adjective (“short-tailed”), so it does not change case even though it was transferred from a masculine genus (*Gonatocerus* Nees ab Esenbeck) to a feminine genus.

### ***Cosmocomoidea udakamandus* (Mani & Saraswat, 1973)**

*Gonatocerus udakamandus* Mani & Saraswat in Mani *et al.*, 1973: 96–97.  
*Cosmocomoidea udakamanda*: Huber, 2015: 22.

The name is a noun in apposition, not an adjective, so it does not change case.

### ***Lymaenon hoplites* Debauche, 1948**

*Lymaenon hoplitis* Debauche: Huber, 2015: 46, 76 (*lapsus calami*).

### ***Lymaenon spinozai* (Girault, 1912)**

*Gonatocerus spinozai* Girault, 1912: 140.  
*Lymaenon spinozae*: Huber, 2015: 50, 79 (*lapsus calami*).

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