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SALTICIDAE (ARACHNIDA: ARANEAE) FROM ORIENTAL, AUSTRALIAN AND PACIFIC REGIONS. GENUS *COSMOPHASIS* SIMON, 1901

MAREK ŻABKA[1] and JULIANNE WALDOCK[2]

[1]*Katedra Zoologii, Uniwersytet Przyrodniczo-Humanistyczny, 08-110 Siedlce, Poland; e-mail: marekzabka@uph.edu.pl*
[2]*Western Australian Museum, Locked Bag 49, Welshpool D.C., Western Australia, 6986 Australia; e-mail: julianne.waldock@museum.wa.gov.au*

Abstract.— The genus *Cosmophasis* Simon, 1901 is reviewed for Australia and some localities in Papua New Guinea, southeast Asia and the Pacific islands. The study is based on new and type material and includes 24 species, of which 17 are described as new: *C. baehrae*, *C. banika*, *C. colemani*, *C. courti*, *C. darwini*, *C. harveyi*, *C. hortoni*, *C. humphreysi*, *C. kairiru*, *C. kohi*, *C. lungga*, *C. motmot*, *C. panjangensis*, *C. rakata*, *C. sertungensis*, *C. tavurvur* and *C. trobriand*. *C. micans* (L. Koch, 1880) and *C. modesta* (L. Koch, 1880), described from Australia, have neither been located in the collections nor in field and have not been included here, however, according to their original description, both seem to be valid species. *Amycus tristriatus* L. Koch, 1880 and *Maevia ombria* Thorell, 1877 are reinstated as *Cosmophasis tristriatus* (L. K.) and *C. ombria* (Th.), respectively. *C. marxii* (Thorell, 1890) is synonymised with *C. ombria* (Thorell, 1877) and *C. muralis* Berry, Beatty & Prószyński, 1997 with *C. tristriatus* (L. Koch, 1880). For all species complete documentation is given, including diagnoses, the data on intraspecific variation and the maps of actual and predicted distributions. The key for species is not included because the genitalic characters are too complex to describe concisely. Based upon morphological criteria, five species groups are proposed. Remarks on relationships and distribution of *Cosmophasis* are given.

Key words.— Salticidae, *Cosmophasis*, new species, species groups, Australia, New Guinea, Indonesia, Krakatau, southeast Asia, Pacific islands, taxonomy, biogeography.

INTRODUCTION

The genus *Cosmophasis* was proposed by Simon (1901) for *Plexippus thalassinus* C. L. Koch, 1846 and includes some 45 nominal species recorded from India, tropical Himalayas, continental SE Asia, islands of Indonesia, New Guinea, Australia, the western Pacific archipelagos and Africa (e.g. Berry *et al*. 1997; Żabka 1988, 1991b; Patoleta & Żabka 1999; Prószyński & Deeleman-Reinhold 2010; Prószyński 2011: complete data; Platnick 2011). The majority of *Cosmophasis* species are forest vegetation dwellers, some are also found in gardens, orchards and other human-related habitats.

Most species are known for their spectacular colours and UV-reflecting body markings that play an important role in communication and mate-choice (Lim *et al*. 2007).

C. bitaeniata (Keyserling, 1882) and *C. micarioides* (L. Koch, 1880) show distinctive colour polymorphism, most likely the case of polymorphic mimicry – as the result of association with different ant models (for review see Cushing 1997). Other aspects of biology of both species are given below.

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The aim of the paper is mostly to review the genus from Australia. To get fully comprehensive picture of *Cosmophasis* diversity, distribution and relationships, it would be necessary to include the material from Indonesia, to verify the status of the African species and to extend molecular analysis on all species groups.

MATERIAL AND METHODS

The material for this study was provided by the curators and institutions listed below. Methods of specimen examination are as described by Żabka (1991a). Photographs were taken with a Canon A620 camera and Nikon 800 stereomicroscope, and digitally processed with ZoomBrowser and HeliconFocus software. For some Australian species with sufficient field records, the distributional maps were generated on the basis of each species' bioclimatic envelope, using the boxcar version of BioClim (Richardson *et al*. 2006) available in BioLink (version 2.0; Shattuck & Fitzsimmons 2002).

Abbreviations used:

AEW – anterior eyes width,
ag – accessory gland,
AL – abdomen length,
AW – abdomen width,
cb – clypeal bristles,
CH – cephalothorax height,
chs – cheliceral spur,
CL – cephalothorax length,
CW – cephalothorax width,
EFL – eye-field length,
e – embolus,
ep – epigynal pocket,
f – fringe above anterior eyes,
fk – fangal keel,
ef – epigynal fossae,
id – insemination duct,
itd – intermediate duct connecting insemination duct and spermatheca,
L – leg length,
mg – epigynal median guide,
PEW – posterior eyes width,
psd – proximal part of (palpal) sperm duct,
s – spermatheca,
sd – sperm duct,
ta – tibial apophysis,
tb – tegular bump,
thb – thoracic bristles,
ts – tegular sclerite,
vta – ventral tibial apophysis.

Collections studied:

ANIC – Australian National Insect Collection, Canberra;
AMS – Australian Museum, Sydney;
JK – private collection of Joseph Koh;
MNHN – Muséum National d'Histoire Naturelle, Paris;
MCSN – Museo Civico di Storia Naturale Giacomo Doria, Genoa;
NHMB – Naturhistorisches Museum der Burgergemeinde, Bern;
QMB – Queensland Museum, Brisbane;
SMNH – Swedish Museum of Natural History, Stockholm;
WAMP – Western Australian Museum, Perth;
ZMB – Zoologisches Museum der Humboldt-Universität, Berlin;
ZMH – Zoologisches Institut und Zoologisches Museum, Universität Hamburg.

TAXONOMY

Genus *Cosmophasis* Simon, 1901

Sobara Keyserling, 1882: 1365, type: *S. bitaeniata*, (praeoc.).
Selaophora Keyserling, 1882: 1374, type not designated, originally included species: *Selaophora obscura* Keyserling, 1882 and *Selaophora rubra* Keyserling, 1882.
Cosmophasis Simon, 1901: 553, nom. nov. for *Sobara* Keyserling, 1882.

Type species. *Plexippus thalassinus* C. L. Koch, 1846, designated by Simon (1901) as *C. thalassina* (C. L. Koch).

Diagnosis. Spiders from 3.80 to 8.00 mm long (Tab. 2). Dorsal aspect of most species with transverse or longitudinal stripes of shiny iridescent scales. Thorax with three pairs of upright protruding bristles (Fig. 17D, 34A: thb). Some males with a fringe above anterior eyes (Fig. 1C: f). Cephalothorax pear-shaped (some males) or rectangular, relatively high, with distinctive posterior slope. Fovea just behind PLE. AEW and PEW +- equal. Abdomen and spinneret structure not distinctive. Clypeus in males either wide (wider than AME diameter) or narrower, showing variation within species groups. In some species females with three central bristles protruding below AME (Fig. 7B: cb). Chelicerae unidentate, vertical or slightly projecting, with two promarginal teeth and single retromarginal tooth, in males basal segment usually with frontal concavity, transverse ribs and longitudinal ridge terminating in a spur (Fig. 30C, 39E: chs). In *C. micarioides* spp. group male cheliceral fang with keel (Fig. 39E: fk), elsewhere keel not defined or absent. Maxillae, labium, sternum and venter not distinctive. Legs rather slender, in males legs 1 or 4 longest, in females legs 4 longest. Palpal retrolateral tibial apophysis large, single (Fig. 40B: ta) or bifurcate (Fig. 3B: ta), sometimes ventral apophysis (Fig. 12D: vta) also present. Tegulum ovoid, round or elongate, with or without bump (Fig. 9B: tb), sometimes with sclerite (Fig. 47A: ts). Median part of sperm duct (Fig. 53A: sd) not meandering.

Embolus long or very long, ribbon-like, spiniform or dagger-like. Epigyne posterior edge not distiunctive or strongly sclerotised (Fig. 35C: arrow) with pockets (Fig. 3E: ep). Fossae (Fig. 3D: ef) round, ovoid or elongate, divided by median guide (Fig. 3D: mg). Insemination ducts C-shaped (Fig. 35BDF), S-shaped (Fig. 6AB, 7FG) or long and multi-coiled (Fig. 29F). Spermathecae (usually) pear-shaped (Fig. 35BDF, 43G, 48ABD) or longitudinal and coiled (Fig. 3DG, 6B).

Relationships. Since its formal description, the views on relationships of *Cosmophasis* have been rather stable. Simon (1901) included the genus in Chrysillae, together with *Phintella* (*Phintia*), *Heliophanus*, *Epocilla* and *Orsima*. Prószyński (1976), on the basis of the genitalic structures, placed *Cosmophasis* in Heliophaninae, with most of Simon's Chrysillae genera. The latter views have partly been supported by Maddison (1987) and co-workers (2008) on the basis of morphological and molecular data, respectively. In the case of *Cosmophasis*, *C. micarioides* is the only one with proper molecular data. In addition, some morphological characters for Heliophaninae such as tegular bump and stridulatory structures are not consistent. Thus, to construct a phylogenetic tree for *Cosmophasis* and related genera, complete molecular, morphological and distributional data are required. Despite all those limitations, using morphological criteria (habitus, genitalia, leg structure) and "nervous" behaviour, we agree with Prószyński and especially with Maddison and consider the Heliophaninae clade to include the following genera: *Heliophanus* (Ethiopian, Palearctic), *Chrysilla*, *Epocilla* and *Bristowia* (SE Oriental), *Orsima* (Ethiopian, Oriental?), *Cylobellus* + *Natta* (Ethiopian), *Siler* + *Silerella* (E Palearctic, Oriental), *Pseudicius* (Ethiopian, Palaearctic, Oriental, Pacific), *Afraflacilla* (Ethiopian, Palaearctic, Oriental, Pacific, Australian), *Icius* (Ethiopian, Palaearctic), *Helicius* (Himalaya, E Palaearctic), *Mexcala* (Ethiopian), *Cosmophasis* (Oriental, Pacific, Australian) and *Helvetia* (Neotropical).

Distribution. The genus *Cosmophasis,* as delimited here, occurs in India, subtropical Himalayas, SE Asia, Philippines, Australia, New Guinea, the western Pacific islands and archipelagoes. The species are recorded either from single or multiple localities, reflecting their real distribution (species' history and biotic requirements) or location of the main arachnological centres and their research areas. A few widespread species have been found in human-related habitats or on coral islands (Patoleta & Żabka 1999) – probably as the result of human-assisted dispersal.

For within Australia, BioClim distributional maps were generated, showing currently recorded localities and potential distributions.

Reinstated species

C. ombria (Thorell, 1877)
C. tristriatus (L. Koch, 1880)

Newly synonymised species

C. marxii (Thorell, 1890) = *C. ombria* (Thorell, 1877), **syn. nov.**

C. muralis Berry, Beatty & Prószyński, 1997 = *C. tristriatus* (L. Koch, 1880), **syn. nov.**

Species groups (proposed on the basis of the genitalic structure):

C. thalassina (C. L. Koch, 1846) spp. group
C. bitaeniata (Keyserling, 1882) spp. group
C. micarioides (L. Koch, 1880), spp. group
C. tristriatus (L. Koch, 1880) spp. group
C. rakata spp. group

Table 1. Diagnostic characters: summary for *Cosmophasis* species groups.

Species group	Abdomen transverse stripes	Chelic. with spur	Fang with keel	Apophysis bifurcate	Apophysis single	Ventral apophysis	Tegular bump	Tegular sclerite	Embolus spiniform
				Males					
thalassina	-	+	+-	+	-	-	+-	-	+
bitaeniata	+-	+	-	+	-	+	-	-	+
tristriatus	-	+	-	-	+	+-	-	-	+
micarioides	+	+	+	-	+	-	+	+	+
rakata	+-	+	-	+-	+-	-	-	-	-
				Females					
thalassina	+-	-	-	+	+	+-		-	+
bitaeniata	+-	-	+	+	+	+		-	+
tristriatus	+-	+	+	-	-	+-		+	-
micarioides	+	-	-	-	-	-		+	-
rakata	-	-	-	-	-	-		+-	+-

Cosmophasis thalassina (C. L. Koch, 1846) spp. group

Diagnosis. Colour pattern made of longitudinal (males) or transverse (some females) stripes, sometimes not distinctive. Male chelicerae with distal spur, fang usually without keel or with fine ridge. Tegulum ovoid, without sclerite, tegular bump present or not. Embolus spiniform, long, bent or wavy in its distal part. Ventral tibial apophysis missing, retrolateral one bifurcate: dorsal part spatulate, ventral one pointed. Posterior edge of epigyne not distinctly sclerotised. Copulatory openings widely separated, insemination ducts wide, S-shaped, running laterally, then anteriorly, increasingly sclerotised, joining into single- or multichambered anterior spermathecae.

List of species considered here

C. thalassina (C. L. Koch, 1846): Malaysia; Singapore; Indonesia; Papua New Guinea: Central Province, Milne Bay Province; Australia: Western Australia, Northern Territory, Queensland; SW Pacific islands.

C. obscura (Keyserling, 1882): Papua New Guinea: Central Province; Australia: New South Wales, Sydney.

C. sertungensis sp. nov.: Indonesia: Krakatau Islands.

C. panjangensis sp. nov.: Indonesia: Krakatau Islands.

Other species of the group not treated here

C. cypria (Thorell, 1890), Indonesia: Java.

C. estrellaensis Barrion & Litsinger, 1995, Philippines: Palawan Island.

C. valerieae Prószyński & Deeleman-Reinhold, 2010, Indonesia: Sumbwa (Samokat).

Cosmophasis thalassina (C. L. Koch, 1846)
Figs 1–4, 61A

Plexippus thalassinus C. L. Koch, 1846: 124, Fig. 1184, type locality: Malaysia, Inseln Bintang.
Thiania thalassina: Simon 1864: 326.
Amycus splendidus L. Koch, 1880: 1171, Pl. 101, Fig. 6, type locaity: Cape York.
C. splendens Simon 1901: 549 [lapsus pro *splendidus*].
Maevia thalassina: Thorell 1881: 468.
C. splendidus: Bonnet 1956: 1244.
C. thalassina: Simon 1901: 548, 558; Reimoser 1934: 16; Żabka 1988: 444, 1991b: 24; Davies & Żabka 1989: 247; Żabka & Nentwig 2002: 446, 447; Prószyński 2011; Platnick 2011.

Type material. **MALAYSIA**: 1♂ holotype, Inseln Bintang [Pulau Bintan, 01°05'N, 104°29'E], Rottz. [sic.], ZMB 1747.

Other material. **AUSTRALIA, Northern Territory**: 1♂, Adelaide River, 13°14'S, 131°28'E, 3 July 1991, A.F. Longbottom, S.701, WAMP T89602; 1♀, Darwin, [12°27'S, 130°50'E], Shady Gum Caravan Park, 8 Mar. 1989, E.S.C. Smith, AMS KS45091; 1♀, Litchfield National Park, Florence Falls, 13°09'S, 130°46'E, on foliage, FN14050, 19 May 1999, M. Gray, G. Milledge, H. Smith, AMS KS56400; 2♀, Marrara, 12°23'44"S, 130°52'56"E, host: *Decaisnina signata* on *Alstronia actinophylla*, S. Anderson, ANIC 42001251; 1♂, Nhulunbuy, 12°11'S, 136°47'E, 31 July 1991, A.F. Longbottom, S.742, WAMP T44883; 1♀, same locality, on garden shrub, 6 Aug. 1991, A.F. Longbottom, S.744, WAMP T89608; 1♀, same locality, 7 Aug. 1991, A.F. Longbottom, S.753, WAMP T44886; 1♂, Radon C[ree]k, 12°45'S, 132°53'E, rainforest, 14–16 July 1979, G. Monteith, D. Cook, QMB S64657; 1♀, Tiwi, 12°23'44"S, 130°52'50"E, host: *Decaisnina signata* on *Alstonia actinophyll*a, 16 Sep. 2006, S. Anderson, ANIC 42001243; 1♀, West Alligator [River] mouth, site WA2, 12°11'S, 132°16'E, 20–22 July 1979, rainforest, G. Monteith, D. Cook, QMB S64683. **Queensland**: 1♀, 3 juv., Cairns, Ellis Beach, 16°43'S, 145°37'E, beating & sweeping grass & trees behind beach, 1–5 July 2003, B. Richardson, ANIC 42000136; 1♀, Cairns, 16°56'S, 146°46'E, beating in yard, B. Richardson, 24 July 2004, ANIC 42000103; 1♂, Cairns, 16°55'S, 145°46'E, 1951, J.G. Brooks, AMS KS19242; 1♀, same locality, July 1967, J. Child, AMS KS70324; 1♂, same locality, 20 Feb. 1974, QMB S64678; 1♂, Cairns, Smithfield, 16°51'S, 145°42'E, June 1967, J. Child, AMS KS70327; 1♀, Cape York, Dividing Range, 15 km N Capt[ain] Billy Creek, [*c.* 11°39'S, 142°51'E], G.B. Monteith, 4–9 July 1975, QMB S64685; 1♀, Cape York, Weipa, [12°37'S, 142°03'E], 5–7 Feb. 1975, R. Raven, QMB S83724; 20♂, 4 juv. [wrongly identified as *C. micans*], Cooktown, 20.001, MNHN; 1♂, Cooktown, Botanical Gardens, 15°28'18"S, 145°15'18"E, 18 May 2000, G. Milledge, H. Smith, FN14772, AMS KS66421; 1♂, Davies Creek, [*c.* 17°13'S, 145°55'E], summer 1971–72, [N.C.] Coleman, QMB S64694; 1♂, Edmonton, [17°01'S, 145°44'E], 5 July 1978, R. Mascord, AMS KS4160; 1♀, same locality, 12 Aug. 1971, R.E. Mascord, AMS KS18322; 1♀, same locality, 12 Sep. 1976, R. Mascord, AMS KS104270; 1♂, same locality, 18 Aug. 1978, R.E. Mascord, AMS KS4161; 1♀, 3 juv., Fitzroy Island, 16°56'S, 146°00'E, 30 Sep. 1971, collector unknown, AMS KS18997; 1♂, same data as above, AMS KS65825; 1♂, 1♀, 3 juv., Fitzroy Island, 16°56'S, 146°00'E, J.G. Brooks, AMS KS19012; 1♂, Great Barrier Reef, Budy [= Bushy] Island, [11°15'S, 142°52'E], 20 Dec. 1979, R. Buckley, QMB S64700; 1♀, Hammond Island, [10°32'S, 142°12'E], grassland and paperbark swamp, 28 Feb. 1975, E. Cameron, QMB S64680; 2♂, Helenvale, [15°43'S, 145°13'E], 21 km S of Cooktown, 18 June 1951, A. Musgrave, AMS KS21232; 1♀, Helenvale, [15°43'S, 145°13'E], 21 km S of Cooktown, 1951, J. Leary, AMS

KS17900; 1♀, Holloways Beach, [16°50'S, 145°44'E], 6 Feb. 1972, N.C. Coleman, AMS KS21233; 1♂, 1.6 km W of junction of Hope Vale and Lakefield N[ational] P[ark] roads, S facing rocky slope, 15°19'19"S, 145°01'4"2E, 18 May 2000, G. Milledge, H. Smith, AMS KS57829; 1♂, Kuranda [16°49'S, 145°38'E], 1 Aug. 1969, N.C. Coleman, AMS KS21154; 1♂, Lakefield N[ational] P[ark], [15°04'S, 144°08'E], 20 km E of Old Laura, 30 May 1993, B. Baehr, QMB S83725; 1♂, 1 juv., Lockerbie, [10°48'S, 142°27'E], 30 Jan. – 2 Feb. 1975, R. Raven, QMB S64677; 1♀, Mossman, [16°27'S, 145°22'E], 2 Feb. 1972, [N.C.] Coleman, QMB S64696; 1♀, roadside by Mt Elliot N[ational] P[ar]k, 20. 3 km N of Woodstock/Giro crossroads on Bruce H[igh]way, Telstra access road, 19°23'50"S, 147°00'54"E, FN14919, 25 May 2000, G. Milledge, H. Smith, AMS KS57835; 2♂, 1♀, 9 km ENE of Mt Tozer [12°45'11"S, 143°12'38"E], 5–10 July 1986, T. Weir, A. Calder, ANIC 42000099, 42000100; 1♂, Tinaroo Dam [Lake], [17°10'S, 145°35'E], 17 Apr. 1981, [N.C. Coleman], Thompson collection, QMB S66704; 1♂, 6 km N of Tolga, [*c*. 17°11'S, 145°28'E], 21 June 1987, E.C. Dahuss, G. Sarues, QMB S64688; 1♂, Torres Strait, Moa Island, [10°11'S, 142°16'E], 24 Feb. 1975, E. Cameron, QMB S64676; 2♀, 3 juv., Torres Strait, Moa Island, [10°11'S, 142°16'E], beating strand vegetation, 26 Feb. 1975, E. Cameron, QM S83726; 1♂, Torres Strait, Murray Island, [09°56'S, 144°02'E], July 1974, G. Ingram, QMB S64659; 2♂, 1♀, Torres Strait, Murray Island, [09°56'S, 144°02'E], H. H[eatwole], E. C[ameron], Jul–Aug. 1974, QMB S64679; 1♀, Torres Strait, Thursday Island, [10°34'S, 142°13'E], 14 Dec. 1976, H. Heatwole *et al*., QMB S64661; 2♀, Townsville, [19°15'S, 146°49'E], date unknown AMS KS34906; 1♂, Townsville, [19°15'S, 146°49'E], 15 July 1986, J. Rienks, QMB S64686; 1♀, Townsville, [19°15'S 146°48'E], Nov. 1927, collector unknown, AMS KS32455; 1♂, Townsville, 19°14'S, 146°48'E, date and collector unknown, AMS KS34901; 2♂, 4♀, Trinity Beach, [16°47'S, 145°41'E], summer 1971–1972, [N.C.] Coleman, QMB S64693; 1♂, Walkamin, [17°07'S, 145°25'E], N of Mareeba, 2 Jan. 1991, B.J. Day, AMS KS30295; 1♂, 1 juv., Wallaby Creek [Home Rule], [15°44'S, 145°15'E], on stones near creek, 1 Nov. 1974, T. Tebble, QMB S64675; 1♂, Wolfram [Creek], [17°32'S, 144°22'E], 8 Aug. 1971, R.E. Mascord, AMS KS21229; 1♂, 1♀, Yarrabah, [16°54'S, 145°52'E], May 1913, J. Mjöberg, SMNH; 2♀, Yule Point, [10°46'S, 142°09'E], 15 Jan. 1972, [N.C.] Coleman, QMB S64652; 1♀, no locality data, 25 Jan. 1988, Thompson collection, QMB S83723. **Western Australia**: 1♀, Bonaparte Archipelago, Middle Osborn Island, site MOMH01, 14°20'24"S, 126°01'16"E, under mangrove bark, 3 Sep. 2002, M.S. Harvey, WAMP T56300; 1♂, Coastal Camp, opposite Walsh Point, Mitchell Plateau, 14°34'S, 125°55'E, 23–25 Sep. 1995, on rocks, A.F. Longbottom, S.1833h, WAMP T47879; 1♂, Kalumburu, 14°17'S, 126°38'E, Resilin knockdown, mango tree, 24 Oct. 2002, A. Postle, WAM T56302; 6♂, 2♀, 4 juv., edge of Kona Lake, Ord River, 15°47`30"S, 128°43`20"E, 6 Feb. 2008, G. Byrne, on wall, WAMP T109734; 1♂, 1♀, Mt McCrann area, Drysdale River Station, 15°51'S, 125°57'E, off buggies and truck, 28–30 Sep. 1995, A.F. Longbottom, S.1854d, WAMP T44860; 1♂, Walcott Inlet (South), 16°27'06"S, 124°45'44"E, May 1996, D. Knowles, F. Knowles, WAMP T44871. **PAPUA NEW GUINEA**: 1♀, [Central Province], Bisianumu Falls, [*c*. 08°43'S, 147°25'E], D[epartment of] P[rimary] I[ndustry] Station, 23 Mar. 1986, D.J. Court, QMB S90040 2♂, 1 juv., National Capital District, Boroko, [09°28'S, 147°12'E], 12 July 1988, D.J. Court, QMB S83719; 2♀, Central Province, Iflers [= Idlers] Bay, [09°28'S, 147°05'E], coastal vegetation, 2 Mar. 1986, D.J. Court, QMB S83711; 1♀, Central Province, Laloki, [09°24'S, 147°18'E], Department of Primary Industry, ex sprayed tree, 9 Feb. 1979, anonymous collector, QMB S83712; 4♂, Central Province, Laloki DPI, [09°24'S, 147°18'E], ex *Citrus*, 3 Dec. 1979, L.S. Mitkita, QMB S83718; 2♀, Central Province, Laloki, [09°24'S, 147°18'E], ex citrus, 3 Dec. 1979, L.S. Mitkita, QMB S83714; 2♂, [Milne Bay Province], Misima [Island], [10°40'S, 152°45'E], 1 Nov. 1985, anonymous collector, QMB S83720; 1♂, Central Province, N[ational] C[apitol] D[istrict], Port Moresby, [09°28'S, 147°11'E], 1 July 1985, D.J. Court, QMB S83717; 1♂, [Central Province], University of Papua New Guinea, [Port Moresby], [09°28'S, 147°11'E], agricultural garden, 12 Nov. 1982, QMB S83721; 1♀, Central Province, National Capital District, 1 Sep. 1985, D.J. Court, QMB S83713. **SINGAPORE**: 1♂, Lim Chu Kang Road, [01°26'N, 103°42'E], mangrove edge, 10 Nov. 1990, J.M. Waldock, J. Koh, WAMP T44891; 1♂, Stevens Road, park opposite stairs near Dhoby Ghat, [01°17'N, 103°51'E], under tree bark, 19 Dec. 1989, J.M. Waldock, WAMP T44890; 1♂, Orchard Road, [01°26'N, 103°42'E], 19 Dec. 1989, J.M. Waldock, WAMP T47880; 1♂, 1♀, Pulau Ubin [01°25'N, 103°58'E], 12 Nov. 1990, J. Koh, JK coll.; 1♂, Bukit Timah Hill, [01°21'N, 103°47'E], 15 May 1987, J. Koh, JK coll.; 2♂, 3♀, Kent Ridge, [01°18'N, 103°46'E], 22 Jan. 1986, 24 Mar. 1986, 23 Feb. 1988, 7 Feb. 1989, J. Koh, JK coll.; 1♂, Greenwood Avenue, garden, [01°20'N, 103°48'E], 24 Aug. 1989, J. Koh, JK coll.

Diagnosis. Male abdomen with light anterior band extending to two pairs of spots and central longitudinal stripe. Female abdomen with more or less distinctive medial and posterior transverse stripes. Male chelicerae with distal spur. Fang with no keel, sometimes with fine ridge. Tegulum without bump. Embolus set posteriorly (6.30 o'clock), bent, not wavy. Ventral part of tibial apophysis hooked, dorsal one spatulate. Semicircular epigynal fossae divided with median guide, insemination ducts S-shaped, spermathecae multi-chambered, coiled and located anteriorly to fossae.

Male (Figs 1–3), described: 4160. Cephalothorax brown, eye-field dark brown, eyes surrounded by black. Thick short-haired fringe present above AME. Band of iridescent pink scale-hairs behind anterior eyes. Remainder of ocular area with golden iridescent scale-hairs. Second band of iridescent pink scale-hairs behind PLE, extending to lateral edge of thorax. Abdomen dark brown, with paler medial stripe extending to just anterior of spinnerets. Anterior cream-coloured abdominal patch extending as lateral stripes for two-thirds of abdomen length, terminating in white spots. Spinnerets dark grey. Clypeus orange, with numerous white hairs extending laterally beside ALE, fewer hairs below AME. Chelicerae brown, with shallow excavation bordered by lateral ridge terminating in large distal spur. Cheliceral fang with small distal ridge. Maxillae dark orange-brown, distally paler. Labium brown, paler distally. Sternum grey. Venter light grey to dark grey, with three pairs of elongate creamy-coloured patches. Pedipalps yellow, with darker tarsus. Legs 1 speckled orange, remainder yellow. Palpal organ as illustrated in Figs 1E, 3A–C. Dimensions: CL 2.86, CW 2.18, EFL 0.93, AEW 1.71, PEW 1.71, CH 1.40, AL 3.32, AW 1.45, L1 6.90 (2.08+1.30+1.50+1.56+0.46), L2 6.90 (1.97+0.98+1.61+1.82+0.52), L3 5.69 (1.66+0.88+1.19+1.50+0.46), L4 5.28 (1.82+0.78+1.40+1.76+0.52).

Female (Figs 3, 4), described: 56300. Cephalothorax speckled dark brown to orange, eye-field dark brown with eyes surrounded by black. Entire cephalothorax covered with cream-coloured scale-hairs. Fringe above anterior eyes absent. Dorsal abdomen with two transverse cream-coloured bands medially and posteriorly and a narrow band of white hairs across anterior of abdomen. Remainder of dorsum dark, with brown, grey and dark orange hair-scales. Greyish iridescent spot of scale-hairs anterior to spinnerets. Venter speckled orange with two narrow grey lines extending from epigastric fold towards spinnerets. The latter orange-grey. Clypeus orange, with numerous white hairs, chelicerae pale orange. Pedipalps yellow. Maxillae and labium orange, lighter distally. Sternum speckled yellow. All legs yellow-orange without markings. Genitalia as illustrated in Figs 3D–G. Dimensions: CL 2.28, CW 1.82, EFL 0.88, AEW 1.45, PEW 1.50, CH 1.09, AL 2.96, AW 1.76, L1 4.09 (1.35+0.88+0.83+0.72+0.31), L2 3.67 (1.19+0.67+0.78+0.67+0.36), L3 4.19 (1.40+0.67+0.67+0.93+0.52), L4 4.01 (1.50+0.67+0.98+1.24+0.52).

Remarks. There is considerable colour variation, especially for females: sometimes the abdomen is entirely dark brown, otherwise with a pattern of lighter transverse stripes.

Distribution (Fig. 61A). Widespread: from Malaysia to Australia, Papua New Guinea and adjacent islands. The presence in human-related habitats makes the species susceptible to anthropodispersal (and *vivce versa*).

Cosmophasis obscura (Keyserling, 1882)
Figs 5–6, 61B

Selaophora obscura Keyserling, 1882: 1376, Pl. 117, Fig. 1, type locality: Peak Downs.
C. obscurus: Rainbow 1911: 285.
C. obscura: Bonnet 1956: 1243; Roewer 1954: 1153; Żabka 1991b: 23; Prószyński 2011; Platnick 2011.

Material. **PAPUA NEW GUINEA**: 1♀, Central Province, National Capital District, East Boroko, [09°28'S, 147°12'E], garden vegetation, 14 Apr. 1988, D.J. Court, QMB S90041; 1♀, Central Province, National Capital District, Boroko, Port Moresby International High School, [09°28'S, 147°11'E], orchid leaf, 21 Feb. 1987, D.J. Court, QMB S90042; 1♀, Central Province, Laloki, [09°24'S, 147°18'E], ex *Citrus*, 31 Jan. 1980, anonymous collector, QMB S90043.

Diagnosis. Dense hairs covering entire dorsal body, abdominal pattern not distinctive. Copulatory openings bordered by diagonal ridges (see arrow, Fig. 6).

Female (Figs 5, 6), described: 90041. Cephalothorax brown, surrounding of eyes black. Cephalothorax covered with silvery scale-hairs. Fringe above anterior eyes absent. Abdomen covered with dense grey-brown hairs, darker towards spinnerets, with posterior transverse pale grey stripe and anterior band of white hairs. Clypeus orange, darker below medial eyes, densely covered with scale-hairs and a few longer white and brown bristles. Chelicerae orange. Pedipalps yellow. Maxillae orange, labium brown, both distally yellow. Sternum grey-brown. Venter beige-grey, with a pair of elongate creamy patches laterally. Dark grey area around spinnerets bordered with light stripe. Spinnerets dark grey. All legs speckled yellow, with greyish lateral patches and joint areas. Genitalia as illustrated in Figs 5H, 6AB. Dimensions: CL 2.34, CW 1.82, EFL 0.88, AEW 1.45, PEW 1.50, CH 1.19, AL 3.22, AW 1.76, L1 4.29 (1.35+0.88+0.83+0.72+0.31), L2 3.67 (1.19+0.67+0.78+0.67+0.36), L3 4.19 (1.40+0.67+0.67+0.93+0.52), L4 4.91 (1.50+0.67+0.98+1.24+0.52).

Male unknown.

Distribution (Fig. 61B). Known from Peak Downs, Queensland and localities in Central Province, Papua New Guinea.

Cosmophasis sertungensis sp. nov.
Figs 7, 61B

Type material. **INDONESIA**, **Krakatau Islands**: 1♀ holotype, [Pulau] Sertung, [06°06'S, 105°22'E], 491,

18 Aug. 1985, leg. W. Nentwig, NHMB AR6820 [1 juv. in the same vial].

Etymology. Named for the type-locality, [Pulau] Sertung, Indonesia.

Diagnosis. Abdomen creamy-yellow, with no distinctive pattern. Epigynal fossae round, larger than in *C. thalassina* and *C. obscura*, median guide very narrow. Insemination ducts S-shaped, distally strongly sclerotised, terminating in single-chambered spermathecae.

Female (Fig. 7). Cephalothorax orange with darker speckles, eye-field with two central dark spots and anterior brown bristles, eye surroundings dark. Abdomen faded, creamy-yellow, distally darkening to brown, spinnerets black. Clypeus centrally yellow, laterally orange, with a few light brown protruding bristles. Chelicerae yellow-orange, pedipalps creamy, maxillae yellow distally lighter, labium grey-brown with yellow tip, sternum pale grey, venter as dorsum. Legs yellow. Genitalia as illustrated in Figs 7E–G. Dimensions: CL 2.39, CW 1.58, EFL 0.93, AEW 1.50, PEW 1.56, CH 0.98, AL 3.58, AW 1.66, L1 3.73 (1.09+0.72, 0.78+0.78+0.36), L2 3.78 (1.19+0.57+0.83+0.83+0.36), L3 4.41 (1.30+0.62+0.88+1.04+0.57), L4 4.61 (1.66+0.67+0.78+0.98+0.52).

Male unknown.

Distribution (Fig. 61B). Known only from the type-locality.

Cosmophasis panjangensis sp. nov.
Figs 8–9, 61C

Type material. **INDONESIA, Krakatau Islands**: 1♂ holotype, Panjang [= Pulau Krakatua Kitjil], [06°06'S, 105°27'E], 543, La Trobe University Expedition, 16 Aug. 1985, NHMB AR6808; 1♂ paratype, [Pulau] Rakata, [06°09'S, 105°26'E], La Trobe University Expedition, 575, 19 Sep. 1984, NHMB AR6801.

Etymology. Named for the type-locality, Panjang [= Pulau Krakatua Kitjil], Krakatau Islands, Indonesia.

Diagnosis. Abdomen with mosaic of dark grey spots, with no distinctive iridescent scales-hairs. Tegulum with bump (Fig. 9B: tb). Embolus thin, distally wavy, chelicerae without distal spur.

Male (Figs 8, 9), described: holotype 6808. Cephalothorax, especially thoracic part and sides, covered with scale-like pearly hairs. Eye-field dark brown. Thoracic region brown. No fringe above anterior eyes. Abdomen (in poor condition) covered with greyish-brown scale-hairs, with creamy anterior marginal band. Terminal area greyish-black with lighter spot just anterior to spinnerets. The latter almost black. Clypeus brown, chelicerae light brown, distal spur small, fang with no keel. Maxillae light brown, labium mottled brown, sternum speckled grey-brown. Venter speckled light brown with three pairs of yellow spots. Legs creamy with dark grey sides. Palpal organ as illustrated in Fig. 9. Dimensions: CL 2.13, CW 1.76, EFL 0.93, AEW 1.50, PEW 1.56, CH 1.24, AL 3.12, AW 1.40, L1 4.99 (1.56+0.78+1.09+1.09+0.47), L2 4.93 (1.56+0.72+1.09+1.09+0.47), L3 4.71 (1.40+0.67+1.09+1.14+0.41), L4 5.55 (1.66+0.62+1.24+1.66+0.37).

Female unknown.

Remarks. Palpal organ similar to *Cosmophasis estrellaensis* Barrion & Litsinger, 1995 from Philippines but body shape, details of genitalia and colouration with no distinctive pattern.

C. sertungensis and *C. panjangensis* represent the same group of species and are known from close localities within the Krakatau Islands. However, they differ in abdomen shape and the palpal organ structure of the latter is rather distant from *C. thalassina*.

Distribution (Fig. 61C). Known only from the type locality.

Cosmophasis bitaeniata (Keyserling, 1882) spp. group

Diagnosis. Colour patterns vary from transverse to longitudinal stripes or not distinctive. Male chelicerae with spur, fang with no keel. Tegulum from round to ovoid, without sclerite and bump. Embolus spiniform, differing in lengths and settings, distally straight or wavy. In most species ventral tibial apophysis present, retrolateral apophysis bifurcate: each part of different size and shape. Epigynal fossae divided by longitudinal guide. Copulatory openings close to median guide. Insemination ducts long (coiled) or very long (twisted), their proximal parts membranous and wide, distal ones more and more sclerotised, usually with distinctive accessory glands. Spermathecae elongate, C-shaped, U-shaped or with several loops and meanders.

List of species considered here

C. bitaeniata (Keyserling, 1882.): Australia: NSW, Queensland, Northern Territory; Papua New Guinea: Central Province; Micronesia; Indonesia: Merauke, Kei Island; Fiji.

C. harveyi sp. nov.: Papua New Guinea: Morobe Province.

C. lami Berry, Beatty & Prószyński, 1997: Australia: Western Australia, Cocos Islands; Fiji: Viti Levu; Singapore.

C. hortoni sp. nov.: Solomon Islands.

C. kohi sp. nov.: Papua New Guinea: Morobe Province.

C. tavurvur sp. nov.: Papua New Guinea: East New Britain Province, Madang Province.

C. motmot sp. nov.: Papua New Guinea: Madang Province.

C. banika sp. nov.: Solomon Islands.

C. kairiru sp. nov.: Papua New Guinea: East Sepik Province.

C. lungga sp. nov.: Solomon Islands.

Other species of the group, not treated here

C. estrellaensis Barrion & Litsinger, 1995: Philippines: Palawan Island.

C. micans (L. Koch, 1880): Australia: Queensland, Cape York (good species, types not located).

C. modesta (L. Koch, 1880): Australia: Queensland, Cape York (good species, types not located).

C. squamata Kulczyński, 1910: Solomon Islands.

C. umbratica Simon, 1903: Indonesia: Sumatra; Malaysia; Brunei.

C. viridifasciata (Doleschall, 1859): Indonesia: Sumatra, Java, Celebes, Ambon; Papua New Guinea.

Cosmophasis bitaeniata (Keyserling, 1882)
Figs 10–14, 61D

Sobara bitaeniata Keyserling, 1882: 1365, Pl. 115, Fig. 8, type-locality: Sydney area [probably mislabelled].

Selaophora rubra Keyserling, 1882: 1374, Pl. 116, Fig. 5, type-locality: Cape York.

Cosmophasis bitaeniata: Simon 1901: 549; Strand 1911: 181; Chrysanthus 1968: 65. *Cosmophasis rubra* Simon 1901: 553; Nakatsudi 1943: 170, Fig. 18.

Type material. **AUSTRALIA, New South Wales**: 1♂, 1♀ syntypes, [female subadult] *Cosmophasis bitaeniata* (Keyserling, 1882), Sydney, Mus. Godeffroy 7804, ZMH.

Other material. **AUSTRALIA**, **Northern Territory**: 1♂, 2 juv., Nhulunbuy, 12°11'S, 136°47'E, on pandanus, 29 July 1991, A.F. Longbottom, S.738, WAMP T44882; 1♂, 1♀, same data except S.744, 745, on garden shrub, 6 Aug. 1991, WAMP T44884. **Queensland**: 1♀, Cairns, Holloways Beach, [16°50'S, 145°44'E], 9 Sep. 1972, M. Baehr QMB S90121; 1♂, 3 juv., Cape York, Jardine River, [10°55'S, 142°12'E], 26 July 1985, M. Bennie, QMB S64667; 1♂, 2♀, 1 juv., Carlisle Island, [20°47'S, 149°17'E], 15 Dec. 1966, mangrove/Melaleuca track at night, M. Bennie, QMB S64662; 1♂, 3♀, 5 juv., Clifton Beach, [16°46'S, 145°40''E], summer 1971–1972, [N.C.] Coleman, QMB S64670; 1♂, Edmonton, [17°01'S, 145°44'E], 4 Apr. 1976, N.C. Coleman, AMS KS21235; 1♀, Edmonton, [17°01'S, 145°44'E], 17 Sep. 1971, R. Mascord, AMS KS21237; 1♂, Edmonton, [17°01'S, 145°44'E], 13 July 1969, N.C. Coleman, AMS KS21236; 1♂, 1♀, Fitzroy Island, [16°56'S, 145°59'E], 29 Sep. 1971, R.E. Mascord, AMS KS21234; 1♂, Gordonvale, [17°05'S, 145°46'E], 3 Jan. 1972, [N.C.] Coleman, QMB S64664; 1♀, Great Barrier Reef, Sherrard Island, [12°59'S, 143°36'E], 12 Dec. 1979, R. Buckley, QMB S64665; 1♂, 1♀, Oyster Park, Helensvale, 27°54'S, 153°22'E, 30 June 2004, ex *Oecophylla smaragdina* nest on *Ficus* (Moraceae), C.J. Burwell, S.G. Wright, WAMP T62132; 1♀, L[ittle] Mulgrave River, [*c*. 17°08'S, 145°44'E], 19 Sep. 1971, [N.C.] Coleman, QMB S64669; 1♀, Lockerbie, [10°48'S, 142°27'E], 30 Jan.–1 Feb. 1975, R. Raven, QMB S64671; 1♀, 2 juv., Moa Island, [10°11'S, 142°16'E], strand mangrove and savannah woodland, 22 Feb. 1976, E. Cameron, QMB S64668; 1♀, Rockhampton, Kershaw Gardens, [23°22'S, 150°30'E], 2 Dec. 1999, A. Rix, QMB S66701; 1♀, Townsville, [19°15'S, 146°49'E], 18 Jan. 1988, QMB S66698; 1♂, 1♀, Trinity Beach, [16°47'S, 145°41'E], summer 1971–1972, [N.C.] Coleman, QMB S64663; 1♂, 1♀, no locality data, 25 Jan. 1988, Thompson collection, QMB S66703. **PAPUA NEW GUINEA**: 1♀, Central Province, Lion Island, [09°32'S, 147°16'E], on mangroves, 7 Dec. 1985, D.J. Court, QMB S90044; 2♀, Central Province, N[ational] C[apital] D[istrict], 10 May 1986, D.J. Court QMB S90045; 1♂, [Central Province], National Capital District, Port Moresby, [09°28'S, 147°11'E], International High School, 18 Feb. 1986, D.J. Court (#16), QMB S90046.

Diagnosis. Reddish-orange spiders with transverse stripes. Dorsal abdomen with dark posterior spot. Male chelicerae with distal spur, fang without keel. Palpal embolus spiniform, set at posterior part of tegulum (6 o'clock), proximal part of sperm duct (psd) visible (Fig. 12A). Tibia with ventral and retrolateral apophyses, the former more or less marked, the latter bifurcate. Epigynal fossae elongate, divided by wide median guide, insemination ducts U-shaped, connecting spermathecae via short intermediate duct (itd), accessory glands (ag) distinctive (Fig. 14B).

Male (Figs 10, 11), described: 62132. Cephalothorax orange, eye-field with two central dark areas. Eyes surrounded by black, fringe above anterior eyes absent. Anterior eye-field with numerous creamy scale-hairs, thoracic area with medial longitudinal stripe of creamy scale-hairs extending posteriorly. Abdomen orange, with a central transverse creamy stripe and a more posterior stripe that borders a central patch of dark grey scale-hairs. Anterior of abdomen with a band of creamy hairs and a central longitudinal white stripe. A whitish patch occurs just anterior to the spinnerets. Spinnerets orange. Clypeus orange, with white hairs between and below anterior eyes. Chelicerae vertical, pale orange, with shallow excavation and longitudinal ridge terminating with spur. Cheliceral fang without keel. Maxillae and labium yellow-orange, distally paler. Sternum yellow, venter pale orange. Pedipalps orange. All legs orange with dark grey stripes prolaterally on femora 1–4 and retrolaterally on tibia, metatarsus and

tarsus 3 and 4. Prolateral tarsus 3 and metatarsus 3 and 4 darker, orange-grey. Palpal organ as illustrated in Figs 10EF, 11E–G, 12A–E. Dimensions: CL 2.39, CW 1.87, EFL 0.88, AEW 1.40, PEW 1.45, CH 1.24, AL 3.01, AW 1.45, L1 5.44 (1.71+0.93+1.19+1.09+0.52), L2 4.93 (1.56+0.78+1.09+1.04+0.46), L3 4.71 (1.45+0.67+0.93+1.14+0.52), L4 5.49 (1.66+0.67+1.24+1.40+0.52).

Female (Fig. 13), described: 62132. Cephalothorax colour pattern similar to male, eye-field paler. Fringe above anterior eyes absent. Clypeus, maxilla, labium, sternum and pedipalps as in male. All legs coloured as in male. Genitalia as illustrated in Figs 13DH, 14A–D. Dimensions: CL 2.49, CW 1.97, EFL 0.93, AEW 1.45, PEW 1.56, CH 1.19, AL 3.38, AW 1.87, L1 4.45 (1.45+0.88+0.88+0.83+0.41), L2 4.25 (1.35+0.78+0.88+0.83+0.41), L3 4.61 (1.50+0.78+0.88+1.04+0.41), L4 5.23 (1.56+0.72+1.14+1.24+0.57).

Remarks. Myrmecophilous, *C. bitaeniata* was reported to use specific cuticular hydrocarbons to camouflage presence in tree ant nests (Allan & Elgar 2001, Allan *et al*. 2002, Elgar & Allan 2004, 2006).

Distribution (Fig. 61D). The original description of this species as *Sobara bitaeniata* listed Sydney (NSW) as the collection locality, however the majority of material comes from subtropical Australia, New Guinea and adjacent islands, which seems to indicate that the locality of Sydney is a mislabelling. Subtropical and tropical distribution of the species is also confirmed by BioClim predictions. Other localities come from Micronesia (Nakatsudi 1943), Merauke (Indonesian Irian Jaya) (Chrysanthus 1968), Kei Island (Indonesia) (Strand 1911) and Fiji (Patoleta 2002).

Cosmophasis harveyi sp. nov.
Figs 15–16, 61B

Type material **PAPUA NEW GUINEA**: 1♂ holotype, Morobe Province, [Markham Valley], Waritsian Village, [near Marawasa Village, 06°08'S, 146°04'E], village gardens, 20 Dec. 1979–5 Jan. 1980, V.T. Read, AMS KS56415.

Etymology. This species is named in honour of Dr. Mark S. Harvey, distinguished Australian arachnologist (Western Australian Museum and University of Western Australia), collector of part of the material studied here.

Diagnosis. Colour pattern longitudinal, made of creamy band bordering anterior edge of abdomen and extending two-thirds length of abdominal sides with pair of lateral posterior spots. Chelicerae with distal concavity, ridge and terminal spur. Palpal organ similar to *C. bitaeniata* (Keys.) and *C. modesta* (L. Koch, 1880) (see Koch 1880: Pl. 102, Fig. 1). Tegulum almost round, embolus set at 6 o'clock, ventral apophysis distinctive, retrolateral one bifurcate, the dorsal part lobe-like.

Male (Figs 15), described: holotype 56415. Cephalothorax dark grey with black eye-field. Above AME grey-brown fringe present. Separate bands of greyish iridescent scale-hairs occur just posterior to anterior eyes and PLE eyes. Remainder of cephalothorax covered with greyish scale-hairs. Abdomen grey-brown, anteriorly with creamy band extending laterally for two-thirds of abdomen. Posterior to lateral band a pair of lateral creamy spots. Anterior to spinnerets some iridescent scale-hairs. Spinnerets black. Clypeus brown, with scattered central white hairs and numerous white scale-hairs extending laterally. Chelicerae brown, vertical, with ridge extending to distal spur and with shallow excavation. Cheliceral fang with fine ridge, no keel. Maxillae brown, labium dark brown, distally paler. Sternum dark brown, venter dark grey, with two pairs of elongate cream-coloured patches and pair of spots anterior to spinnerets. Pedipalps orange-brown. Legs 1 light brown, lateral femora and remaining leg segments grey-brown. Legs 2 lighter, with same markings, legs 3 missing, legs 4 mottled orange, sides grey-orange. Palpal organ as illustrated in Figs 16AB. Dimensions: CL 2.70, CW 2.08, EFL 1.40, AEW 1.61, PEW 1.61, CH 1.30, AL 3.22, AW 1.56, L1 7.57 (2.13+1.24+1.87+1.71+0.62), L2 7.20 (1.97+0.98+1.76+1.82+0.62), L3 missing, L4 6.34 (1.82+0.78+1.35+1.82+0.57).

Female unknown.

Distribution (Fig. 61B). Known only from the type-locality in Morobe Province (PNG).

Cosmophasis lami Berry, Beatty & Prószyński, 1997
Figs 17–19, 61B

C. lami Berry, Beatty & Prószyński, 1997: 123.

Material. **AUSTRALIA, Western Australia**: 1♂, 1♀, Cocos (Keeling) Islands: West Island, [12°09'S, 096°49'E], airport, direct search of *Argusia*, 8 June 2005, Cocos (Keeling) Islands Invertebrate Survey, WAMP T89553; 2♀, Home Island, [12°07'S, 096°53'E], N of jetty, direct search of *Terminalia*, 7 June 2005, Cocos (Keeling) Islands Invertebrate Survey, WAMP T89555; 1♀, 1 juv., Home Island, [12°07'S, 096°53'E], medical centre, direct search of *Calophyllum*, 7 June 2005, Cocos (Keeling) Islands Invertebrate Survey, WAMP T89556; 1♂, North Keeling Island, [11°49'S, 096°49'E], lagoon, direct search of *Scaevola*, 20 June 2005, Cocos (Keeling) Islands Invertebrate Survey, WAMP T89554; 1♂, West Island, [12°09'S, 096°49'E], airport, direct search of *Hibiscus*, 8 June 2005, Cocos (Keeling) Islands Invertebrate Survey, WAMP T89551; 2♀, West Island, [12°09'S, 096°49'E], airport, direct search of *Guvetterola* [sic.], 8 June 2005, Cocos

(Keeling) Islands Invertebrate Survey, WAMP T89552. **SINGAPORE:** 1♀, [Changi] airport, [01°23'N, 103°59'E], 28 Oct. 1984, [B. Baehr] (#54), QMB S90047.

Diagnosis. Reddish spiders with darker eye-field, colour pattern with no stripes. Cheliceral spur and fangal keel absent. Palpal organ similar to *C. hortoni* but tegulum relatively larger, proximal sperm duct (psd) visible, embolus long, set at 4.30 o'clock, ventral apophysis present, dorsal part of retrolateral apophysis pointed. Insemination ducts C-shaped, connecting duct-like spermathecae with short intermediate duct (itd). Accessory glands not distinctive.

Male (Fig. 17), described: 89553. Cephalothorax dull orange, with greyish markings around margin and radiating from fovea. Eye-field black, with grey scale-hairs, thoracic part covered with silvery scale-hairs. Abdomen with greyish-orange scale-hairs, darkening laterally. Spinnerets dark grey. Clypeus orange, with a few brownish scattered hairs. Chelicerae orange, distal spur absent, fang without keel. Maxillae yellow, labium orange, both paler distally. Sternum greyish-yellow with narrow dark grey border. Venter beige, darkening towards spinnerets. Pedipalps yellow, darker distally. All legs yellow, without markings. Palpal organ as illustrated in Figs 17C, 18AB. Dimensions: CL 1.97, CW 1.45, EFL 0.78, AEW 1.24, PEW 1.30, CH 0.88, AL 2.70, AW 0.98, L1 3.83 (1.14+0.67+0.83+0.78+0.41), L2 2.71 (1.14+0.52+0.67+0.72+0.36), L3 3.25 (1.24+0.52+ 0.72+0.88+0.36), L4 4.56 (1.30+0.67+0.98+1.09+ 0.52).

Female (Figs 17–19), described: 89553. Cephalothorax dark orange. with silvery scale-hairs. Eye-field black, with numerous light grey scales. Eyes surrounded by black hairs. Abdomen with central broad patch of orange scale-hairs, with dark brown border. Wide anterior creamy-coloured band extends laterally, almost reaching spinnerets but broken by a pair of narrow transverse brown stripes of scale-hairs that curve around abdomen towards venter. Spinnerets dark orange, anterior to them a narrow small grey patch of scale-hairs present. Clypeus, chelicerae and maxillae coloured as in male. Labium brown, distally paler. Sternum speckled yellow, venter beige, darker towards spinnerets. Pedipalps pale yellow. All legs yellow. Genitalia as illustrated in Figs 17F, 18CD, 19EF. Dimensions: CL 2.28, CW 1.71, EFL 0.88, AEW 1.35, PEW 1.45, CH 1.14, AL 3.95, AW 1.82, L1 3.83 (1.24+0.78+0.72+ 0.78+0.31), L2 3.56 (1.19+0.62+0.62+0.67+0.41), L3 4.13 (1.24+0.72+0.78+0.98+0.41), L4 5.23 (1.50+ 0.67+1.09+1.40+0.57).

Remarks. The species has been identified on the basis of the original paper by Berry *et al*. (1997).

Distribution (Fig. 61B). Known from Fiji (Viti Levu), Cocos (Keeling) Islands and Singapore. The occurrence in human habitats suggests human-assisted dispersal.

Cosmophasis hortoni sp. nov.
Figs 20–21, 61E

Type material. **SOLOMON ISLANDS**: 1♂ holotype, Russell Island[s], [09°04'S, 159°12'E], AMS KS21148.

Etymology. This species is named in honour of Dr. David Horton, Australian zoologist, archaeologist and writer.

Diagnosis. Colour pattern with of long and transverse stripes. Chelicerae with spur, without fangal keel. Tegulum smaller than in *C. bitaeniata*, proximal sperm duct not visible. Embolus long, distally bent, set at 4 o'clock. .

Male (Fig. 20), described: holotype 21148. Cephalothorax dull orange with white scale-hairs. Eye-field dark orange with two dark patches. Fringe above anterior eyes present. Eye-field with transverse stripe of golden iridescent scale-hairs. Abdomen grey-brown, with cream-coloured band along anterior that extends laterally and terminates in a creamy spot on either side. Anterior dorsum with paler area and broad cream-coloured band above spinnerets, the latter tan. Clypeus orange, scattered with a few brownish hairs. Chelicerae orange, vertical with ridge extending to distal spur, and with shallow excavation. Cheliceral fangs both broken. Maxillae dull orange, labium brown, paler distally. Sternum dull orange, venter beige, with two pairs of pale creamy patches laterally, similar band encircling spinnerets. Pedipalps yellow. All legs yellow. Legs 1 and 2 with grey-orange lateral patches, other legs darker, yellow at joints. Palpal organ as illustrated in Figs 20F, 21AB. Dimensions: CL 3.22, CW 2.49, EFL 1.14, AEW 1.97, PEW 2.02, CH 1.40, AL 4.52, AW 1.76, L1 7.99 (2.44+1.09+1.92+1.87+0.67), L2 7.78 (2.39+1.14+1.76+1.92+0.57), L3 6.78 (1.97+0.98+ 1.50+1.71+0.62), L4 7.67 (2.23+0.98+1.76+2.08+ 0.62).

Female unknown.

Distribution (Fig. 61E). Known only from the type-locality.

Cosmophasis kohi sp. nov.
Figs 22, 61E

Type material. **PAPUA NEW GUINEA**: 1♂ holotype, Morobe Province, [Markham Valley], Waritsian Village, [near Marawasa Village, 06°08'S, 146°04'E], village gardens, 20 Dec. 1979–5 Jan. 1980, V.T. Read, AMS KS56418.

Etymology. This species is named in honour of Dr. Joseph K.H. Koh of Singapore, arachnologist, photographer and diplomat, collector of part of the material studied here.

Diagnosis. Colour pattern, similar to *C. bitaeniata*, but dark abdominal spot less distinctive, also

ventral tibial apophysis smaller. Tegulum ovoid, proximal sperm duct not visible. Embolus very long, set at 3 o'clock.

Male (Fig. 22). Cephalothorax orange. Eye-field with two darker central areas, eyes surrounded by black, behind PLE paler areas and anteriorly numerous creamy scale-hairs. Abdomen patchy yellow with cream-coloured anterior band extending along lateral margin to merge with central transverse stripe. Second cream transverse band posterior to central one and a narrow central patch of dark-grey scale-hairs. Cream-coloured bands outlined with darker hairs. Small patch of iridescent hairs anterior to spinnerets, the latter dull yellow. Clypeus orange, with patches of white hairs between and below anterior eyes. Chelicerae with frontal ridge and distal spur, without medial excavation, fang without keel. Maxillae and labium orange, paler distally. Sternum and venter yellow. Pedipalps orange-brown. Legs 1 orange, laterally dull orange. Legs 2–4 yellow to orange, distally with dark grey prolateral stripes on femora 2–4 and tibia, metatarsi laterally orange-grey. Palpal organ as illustrated in Figs 22FG. Dimensions: CL 2.91, CW 2.28, EFL 1.04, AEW 1.61, PEW 1.66, CH 1.50, AL 3.95, AW 1.61, L1 7.53 (2.39+1.30+1.87+1.61+0.36), L2 7.26 (2.18+1.09+1.76+1.71+0.52), L3 6.38 (1.97+ 0.93+ 1.35+1.56+0.57), L4 7.21 (2.08+0.88+1.66+1.97+ 0.62).

Female unknown.

Distribution (Fig. 61E). Known only from the type-locality in Morobe Province (PNG).

Cosmophasis tavurvur sp. nov.
Figs 23–24, 61E

Type material. **PAPUA NEW GUINEA**: 1♂ holotype, East New Britain Province, Tavurvur Volcano, [approx. 1 km NE Sulphur Point, *c*. 04°15'S, 152°12'E], 15 Apr. 1986, D.J. Court, QMB S83715. **Paratypes**: 2♀, East New Britain Province, Rabaul, [04°12'S, 152°11'E], 14 Apr. 1986, D.J. Court, QMB S83716; 1♀, Madang Province, Madang, [05°13'S, 145°48'E], Jais Aben Resort/Christensen Research Institute, 16 July 1986, D.J. Court, QMB S90048.

Etymology. Named for the type-locality, Tavurvur Volcano, Papua New Guinea.

Diagnosis. Abdominal pattern of broad transverse stripes outlined with darker hairs. Insemination ducts and spermathecae relatively short, both U-shaped, accessory glands distinctive, intermediate ducts (itd) not apparent.

Female (Fig. 23), described: holotype 83715. Cephalothorax dark orange, with greyish markings along lateral margins and radiating from fovea. Eye-field orange, with golden iridescent scale-hairs behind anterior eyes and greenish iridescent hairs between PLE. Eyes surrounded by black. Remainder of cephalothorax covered with silvery scale-hairs. Abdomen orange, with cream-coloured anterior band extending laterally. Anterior third of abdomen with central cream-coloured elongate patch of pinkish iridescent scales bordered with brown scale-hairs. Two transverse creamy bands bordered with brown scale-hairs posterior to elongate patch. Spinnerets encircled with green to grey iridescent ring. Spinnerets dark grey-brown. Clypeus light orange, with white scale-hairs and a few long brown scattered hairs. Chelicerae light orange. Maxillae yellow, labium greyish-brown, distally yellow. Sternum dull grey-brown, venter speckled beige, with one pair of cream-coloured spots. Pedipalps pale yellow. All legs yellow, femora 1–4 with prolateral grey stripes and retrolateral dark grey stripe on patella, tibia and metatarsus 1–4. Patellae 1 and 4 with prolateral dark grey stripes. Genitalia as illustrated in Figs 23DE, 24AB. Dimensions: CL 2.23, CW 1.76, EFL 0.83, AEW 1.50, PEW 1.56, CH 1.14, AL 2.70, AW 1.30, L1 3.98 (1.30+0.72+0.83+0.72+0.41), L2 3.88 (1.30+0.67+0.83+0.72+0.36), L3 4.19 (1.30+0.57+ 0.93+0.98+0.41), L4 5.40 (1.56+0.78+1.14+1.40+ 0.52).

Male unknown.

Distribution (Fig. 61E). Known from Madang and East New Britain provinces of Papua New Guinea.

Cosmophasis motmot sp. nov.
Figs 25–26, 61E

Type material. **PAPUA NEW GUINEA**: 1♀ holotype, [Madang Province], Motmot Island, Lake Wisdom, [05°20'S, 147°07'E], Long Island, 20 Nov. 1985, E. Ball, AMS KS21347 [1 juv. in same vial].

Etymology. Named for the type-locality, Motmot Island, Papua New Guinea.

Diagnosis. Abdomen with light transverse stripes and marginal belt. Epigynal fossae and median guide only slightly marked. Insemination ducts and spermathecae U-shaped as in previous species but extending anteriorly. Accessory glands large.

Female (Fig. 25). Cephalothorax brown, eye-field paler with pink iridescent scale-hairs behind anterior eyes and a broken band of iridescent scale-hairs behind PLE. Eye surroundings black. Remainder of cephalothorax with silvery scale-hairs. Abdomen covered with dark brown scale-hairs. Abdominal colour pattern of anterior light band (extending laterally), central anterior elongate patch and two transverse stripes. Grey-brown spinnerets encircled with greyish patch. Clypeus orange, with pale scale-hairs and some long brown hairs medially. Chelicerae and maxillae orange, labium greyish-brown, paler distally. Sternum

yellow, with grey posterior half, venter pale brown, with three pairs of cream-coloured spots, posterior pair almost merging medially above spinnerets. Greyish scale-hairs encircling spinnerets. Pedipalps pale yellow, coxae and femora with grey lateral markings. All legs yellow, femora with prolateral grey stripes and grey patches at joints. Genitalia as illustrated in Figs 26AB. Dimensions: CL 2.18, CW 1.61, EFL 0.88, AEW 1.40, PEW 1.45, CH 0.83, AL 3.22, AW 1.61, L1 3.76 (1.19+0.72+0.72+0.72+0.41), L2 3.72 (1.09+0.57+0.72+0.98+0.36), L3 3.83 (1.14+0.57+ 0.83+0.88+0.41), L4 4.66 (1.40+0.62+1.09+1.14+ 0.41).

Male unknown.

Distribution (Fig. 61E). Known only from the type-locality.

Cosmophasis banika sp. nov.
Figs 27, 61F

Type material. **SOLOMON ISLANDS**: 1♀ holotype, Banika Island, [09°05'S, 159°12'E], 5 Mar. 1990, M. Tio, AMS KS32378.

Etymology. Named for the type-locality, Banika Island, Solomon Islands.

Diagnosis. Abdominal colour pattern with transverse stripes and a light marginal belt. Insemination ducts form two C-shaped loops, spermathecae long, meandering, accessory glands visible.

Female (Fig. 27). Cephalothorax brown, eye-field dark brown, with pink iridescent scale-hairs, eyes surrounded by black. Sides of cephalothorax with numerous silvery scale-hairs. Abdomen covered with numerous brown scale-hairs, with light creamy anterior band extending laterally to two-thirds of length. Two transverse creamy stripes across central abdomen and posterior third, posterior stripe made of iridescent scale-hairs. Posterior to this stripe is another broad cream-coloured patch and a strip of iridescent hairs anterior to spinnerets. Spinnerets dark grey. Clypeus pale brown, with scattered light and brown hairs. Chelicerae orange. Maxillae yellow, labium grey-brown, paler distally. Sternum dark grey, venter beige, darker towards spinnerets. Spinnerets encircled in black. Pedipalps yellow. All legs yellow-orange, darkening distally, legs 3 and 4 with grey joints. Genitalia as illustrated in Figs 27DE. Dimensions: CL 2.60, CW 1.92, EFL 1.09, AEW 1.56, PEW 1.66, CH 1.04, AL 3.32, AW 1.87, L1 4.35 (1.45+0.83+0.88+0.78+0.41), L2 4.20 (1.35+ 0.78+0.83+0.83+0.41), L3 4.75 (1.50+ 0.72+ 0.93+ 1.19+0.41), L4 5.65 (1.71+0.78+1.24+1.40+ 0.52).

Male unknown.

Distribution (Fig. 61F). Known only from the type-locality.

Cosmophasis kairiru sp. nov.
Figs 28, 61F

Type material. **PAPUA NEW GUINEA**: 1♀ holotype, [East Sepik Province], Kairiru Island, 03°20'S, 143°33'E, 23 Apr. 1976, O.W. Borrell, AMS KS7995.

Etymology. Named for the type-locality, Kairiru Island, Papua New Guinea.

Diagnosis. Abdomen orange with two transverse stripes. Genitalia similar to *C. banika* but spermathecae much longer.

Female (Fig. 28), described: holotype 7995. Cephalothorax orange. Eye-field pale orange, outlined with green iridescent scale-hairs, eyes surrounded by black. Posterior to PLE a radiating pattern of silvery scale-hairs, with darker orange hairless areas between and extending down sides and to posterior edge of cephalothorax. Abdomen with orange-brown scale-hairs, light creamy lateral band from anterior and two transverse stripes. Small patch of pale grey scale-hairs with iridescent scale-hairs on either side of mid-line above spinnerets. Spinnerets orange. Clypeus pale orange, with numerous white hairs concentrated mid-line and a few longer brown hairs. Chelicerae and maxillae orange, labium dark orange, paler distally. Sternum yellowish, venter beige. Pedipalps orange. All legs orange, femora with prolateral grey stripes. Genitalia as illustrated in Figs 28DE. Dimensions: CL 2.44, CW 1.82, EFL 0.93, AEW 1.40, PEW 1.45, CH 1.14, AL 3.90, AW 2.23, L1 4.25 (1.40+0.78+0.88+0.78+0.41), L2 3.51 (0.78+0.67+0.88+0.72+0.46), L3 4.55 (1.45+0.62+ 0.88+1.14+0.46), L4 5.49 (1.66+0.72+1.30+1.35+ 0.46).

Male unknown.

Distribution (Fig. 61F). Known only from the type-locality.

Cosmophasis lungga sp. nov.
Figs 29, 61F

Type material. **SOLOMON ISLANDS**: 1♀ holotype, [Guadalcanal], Lungga, [09°25'S, 160°02'E], 25 Feb. 1990, M. Tio, AMS KS32358.

Etymology. Named for the type-locality, Lungga, Solomon Islands.

Diagnosis. Abdominal pattern similar to *C. kairiru*, but colouration generally darker. Insemination ducts the longest of all species considered in this paper, making three loops, spermathecae very long, meandering.

Female (Fig. 29). Cephalothorax brown, eye-field dark brown, eye surroundings black, fringe above anterior eyes absent. Eye-field with pink iridescent scale-hairs. Rest of cephalothorax covered with scale-hairs. Abdomen with reddish-brown scale-hairs and light

transverse stripes. Iridescent scale-hairs anterior to spinnerets, the latter dark grey. Clypeus pale orange with creamy hairs, concentrated mid-line. Chelicerae dark yellow. Maxillae orange, labium dark grey, paler distally. Sternum dark grey-brown. Venter beige with light dots. Spinnerets surrounded by black and anterior to that a cream-coloured circular band. Pedipalps yellow. All legs yellow to orange distally, without markings, except tibia and tarsus 4, which are grey at joints. Genitalia as illustrated in Figs 29EF. Dimensions: CL 2.34, CW 1.71, EFL 0.98, AEW 1.50, PEW 1.61, CH 0.78, AL 4.05, AW 2.34, L1 3.98 (1.24+0.78+0.83+0.72+0.41), L2 3.06 (1.19+0.72+0.78+0.67+0.41), L3 4.36 (1.30+0.62+0.88+1.14+0.41), L4 5.29 (1.56+0.67+1.09+1.40+0.57).

Male unknown.

Distribution (Fig. 61F). Known only from the type-locality.

Cosmophasis tristriatus (L. Koch, 1880) spp. group

Diagnosis. Abdomen colour pattern made of light marginal belt, lateral spots and median light stripe. Male chelicerae with spur and with no fangal keel. Ventral apophysis poorly marked, retrolateral one large, single, pointed or hooked, with dorsal or ventral outgrowth. Tegulum rather angular, with neither bump nor sclerite. Embolus spiniform, straight or wavy. Posterior epigynal edge strongly sclerotised, insemination ducts relatively short, extending anteriorly and turning posteriorly towards single-chambered spermathecae.

List of species considered here

C. tristriatus (L. Koch, 1880), reinstated: Palau (Caroline Islands).

C. baehrae sp. nov.: Australia: Western Australia, Northern Territory.

C. ombria (Thorell, 1877), reinstated: Indonesia: Sumatra, Java, Celebes [= Sulawesi], Krakatau Islands.

Other species of the group, not treated here

C. arborea Berry, Beatty & Prószyński, 1997: Micronesia: Yap Island.

C. triopina Barrion & Litsinger, 1995: Philippines: Mindanao Island.

Cosmophasis tristriatus (L. Koch, 1880) (reinstated)
Figs 30–31, 61F

Amycus tristriatus L. Koch, 1880: 1181, Pl. 102, Fig. 4, type-locality: Pelew Inseln.

Maevia tristriata: Thorell, 1881: 468.

C. tristriatus: Simon, 1901: 548, 558; Reimoser, 1934: 16.

Amycus tristriatus: Nakatsudi, 1943: 167.

C. muralis Berry, Beatty & Prószyński, 1997: 124, **syn. nov.**

Type material. 1♂ holotype, Pelewinseln, [07°21'N, 134°28'E], Mus. Godeffroy 8349, ZMH.

Diagnosis. Tegulum squat. Embolus straight, set at top of tegulum (11 o'clock). Retrolateral tibial apophysis large, dorsally expanding to a broad step-like outgrowth.

Male (Figs 30, 31). Specimen in poor condition, cephalothorax light brown, with band of white hairs along the lower margin and similar white hairs just behind eye-field. Clypeus yellow-orange, with white hairs along lower margin extending laterally. Chelicerae, maxillae, labium and sternum yellow-orange, former with distal spur, no keel on fang. Abdomen missing. Legs yellowish. Palpal organ as illustrated in Figs 30DE, 31AB. Dimensions: CL 3.12, CW 2.65, EFL 1.19, AEW 2.08, PEW 1.97, CH 1.71, abdomen missing, L1 2.86+1.97+2.34 (other leg segments missing), L2 7.17 (2.70+1.97+2.18+2.08+0.67), L3 6.38 (2.08+0.98+1.30+1.45+0.57), L4 7.37 (2.08+0.98+1.56+1.97+0.78).

Female unknown.

Remark. For unclear reason, the species has wrongly been synonymised with *C. thalassina* (C. L. K.). After studying the type-material of both species, we reinstate *C. tristriatus* (L. K.).

The synonymy of *C. muralis* Berry et al. is proposed on the basis of the original paper. No type specimens have been studied here.

Distribution (Fig. 61F). Known only from Palau (Caroline Islands).

Cosmophasis baehrae sp. nov.
Figs 32–35, 62A

Type material. **AUSTRALIA, Western Australia**: 1♂ holotype, Barrow Island, Base, 20°49'14"S, 115°23'08"E, on fig tree, 1–5 Nov. 1993, M.S. Harvey, J.M. Waldock, WAMP T44850. **Paratypes: Northern Territory**: 3♂, Adelaide River, 13°14'S, 131°28'E, on garden plants & structures, S.701, 3 July 1991, A.F. Longbottom, WAMP T44876; 1♀, Baroalba Springs, 12°49'30"S, 132°53'00"E, 30 May 1992, M.S. Harvey, J.M. Waldock, WAMP T44877; 1♂, 13 km S of Jabiru, [*c*. 12°40'S, 132°50'E], 3 Nov. 1984, 7, [B. Baehr, M. Baehr, #97], QMB S83710; 1♂, Katherine Gorge, [14°19'S 132°28'E], on fruit fly trap, 13 Nov. 1989, M. Smith, AMS KS45090; 1♂, Katherine Gorge, 14°19'S 132°28'E, 29 May 1991, A.F. Longbottom, S.681, inside picnic shelter, WAMP T44880; 1♀, [Magela Creek], 3 km N [of] Mudjinberri, 12°29'S, 132°52'E, 4 Nov. 1984, [B. & M. Baehr, #220] QMB S83709; 1♂, Mt Cahill,

12°52'S 132°42'E, Jan. 1992, G. Harold, WAMP T44881; 1♂, 1♀, 1 juv., Nhulunbuy, 12°11'S, 136°47'E, on garden shrub, A.F. Longbottom, 8 Aug. 1991, WAMP T44885; 1♂, Shoal Bay, 12°17'S, 131°01'E, rainforest/mangrove patch, 24 May 1992, M.S. Harvey, J.M. Waldock, WAMP T44888; 2♀, 2 juv., Victoria River, 170 km W of Willeroo, [15°00'S, 129°35'E], 26 July 1986, M. Bennie, QMB S18444; 2♂, 3♀, 2 miles ENE Victoria [River] Downs H[ome] S[tead], 16°24'00"S,131°02'00"E, ANIC 42000315; 1♂, 4♀, 2 miles ENE of Vict[oria] River Downs H[ome]S[tead], 16°24'S, 131°02'E, 8 June 1969, M. Mendum, ANIC 42000107; 1♀, Winnellie, 12°25'33"S, 130°53'40"E, host: *Decaisnina signata* on *Planchonia careya*, S. Anderson, ANIC 42001244. **Queensland**: 3♂, Almaden, Chillagoe Distr[ict], 17°21'S, 144°41'E, Mar. 1929, W.D. Campbell, AMS KS21146; 1♀, Cairns, 16°56'S, 146°46'E, beating in yard, B. Richardson, 24 July 2004, ANIC 42000103; 1♀, Hann River, [14°44'S, 144°04'E], 10 June 1972, V.E. Davies, QMB S64682; 4♂, 1♀, Port Stewart, [14°04'S, 143°41'E], 24 May 1973, V.E. Davies, QMB S64655; 1♀, Weipa area, [*c*. 12°37'S, 141°52'E], AMS KS9571.**Western Australia**: 3♀, 1 juv., Ashmore Reef, West Island, 12°16'S, 123°02'E, 22 Feb. 2000, A. Postle (ACP000222-1), WAMP T44849; 2♀, Barn Hill, 18°21'57"S, 122°02'23"E, 4 Oct. 2007, disturbed red sand plain, G. Byrne, WAMP T88765; 1♂, Barrow Island, WAPET Camp, 20°49'45"S, 115°26'40"E, 1–5 Nov. 1993, M.S. Harvey, J.M. Waldock, WAMP T44852; 1♂, Barrow Island, WAPET Camp, indoors, 20°49'43"S, 115°26'40"E, M.S. Harvey, J.M. Waldock, WAMP T44851; 1♂, Broome, Cable Beach, [17°57'S, 122°12'E], 21 July 1987, J. Powdrill, WAMP T44854; 1♀, Broome, Pearl Coast Zoo, 17°58'S, 122°14'E, on wall, 24 Aug. 1987, J. Powdrill, WAMP T44853; 1♀, Broome, 17°58'S, 122°14'E, 11 Sep. 1987, J. Powdrill, WAMP T47878; 1♀, Buccaneer Archipelago, King Hall Island, 16°05'S, 123°25'E, D. Robinson, B. Maryan, 19 Aug. 1992, hummock grass (*Plectrachne*), WAMP T44864; 1♀, *c*. 15 km NW of Cape Dussejour, 14°38'51"S, 128°06'09"E, on beach grass, 22 Apr. 2003, A. Postle, WAMP T56303; 1♂, Cape Range, outside cave C.225, 21°57'S, 114°06'E, A.J. Humphreys (CR'89#3811), WAMP T44895; 1♂, Cape Rulhieres, *c*. 80 km NW of Wyndham, 13°54'S, 127°21'E, Apr. 2003, M. Widmer, WAMP T56304; 1♀, 2 juv., Cassini Island, Bonaparte Archipelago, 13°56'S, 125°37'E, on *Ipomoea micrantha*, 25 Feb. 2000, A. Postle, WAMP T56299; 2♀, 1 juv., Cassini Island, Bonaparte Archipelago, 13°56'S, 125°37'E, on *Ipomaea micrantha*, 25 Feb. 2000, A. Postle, WAMP T56301; 1♂, Dampier Downs, 18°31'S, 123°27'E, 21 July 1991, D. Friend, WAMP T44856; 1♀, Drysdale River Station, [15°42'S, 126°22'E], (S.1523), on scrap metal at shed, 28 Dec. 1993, A.F. Longbottom, WAMP T44858; 1♂, Drysdale River Station, [*c*. 15°51'S, 125°57'E], Xavier Creek area, S.1358, 8–12 Sep. 1993, A.F. Longbottom, WAMP T44857; 1♂, Fenelon Island, Bonaparte Archipelago, site FERT01, 14°08'14"S, 125°41'57"E, on tree trunk, vine thicket, 27 Aug. 2002, M.S. Harvey, WAMP T56298; 1♂, Fitzroy River, [near] Fitzroy Crossing, [18°10'S, 125°35'E], 18–20 Nov. 1984, 29, [B. Baehr, M. Baehr (#63)], WAMP T89603; 2♀, same data, (#69), WAMP 89604; 1♂, Gibb R[iver] Road, Durack River Homestead, Jack's Waterhole, 15°48'S, 127°25'E, 9 June 1992, M.S. Harvey, J.M. Waldock, WAMP T44861; 1♂, Gibb River Road, *c*. 15°59'S, 126°29'E, 19 Aug. 1992, A.E. De Jong, WAMP T44863; 1♂, Karijini N[ational] P[ark], Fortesque Falls, 22°28'S, 118°33'E, on *Melaleuca* trunk, 21 Apr. 2003, B.J. Richardson, BJR5, ANIC42000091; 3♀, 5 juv., same data, beating native fig, R. Oberpreiler, ANIC 42000105; 1♀, same locality, beating fig, 24 Apr. 2003, ANIC 42000093; 1♂, same data, ANIC 420000101; 1♂, 1 juv., same data, ANIC 42000098; 2♀, same data, ANIC 42000102; 2♀, 4 juv., same data, ANIC 42000097; 1♂, 1 juv., same locality, beating grass, 21 Apr. 2003, C. Lambkin, ANIC 42000090; 1♀, Kimberley distr[ict], on bushes at the river, 5 Jan. 1911, E. Mjöberg, SMNH; 1♂, Koolan Island, 16°09'S, 123°45'E, Sandstone Gully, amongst leaf litter, 21 Aug. 1992, B. Maryan, D. Robinson, WAMP T44865; 1♂, 1 juv., Kununurra, 15°46'S, 128°44'E, caravan park ablution block, 16 Oct. 1993, A.F. Longbottom, WAMP T44866; 1♀, Kununurra camping ground, [15°46'S, 128°44'E], 9 July, 1997, G. Wishart, AMS KS51198; 1♂, Kuri Bay, 15°29'S, 124°30'E, 3 Apr. 1991, J. Powdrill, WAMP T44870; 2♂, donated July 1990, same data, WAMP T44868; 1♂, same data, 28–29 Apr. 1990, WAMP T44867; 1♀, Noonkanbah, [18°30'S, 124°49'E], 19 Dec. 1910, E. Mjöberg, SMNH; 1♀, North Maret Island, NMAR 19, 14°24'29.9"S, 124°58'47.9"E, on shrub, lower gully, "Lost World", 22 Mar. 2007, J.M. Waldock, K. Edward, WAM T56312; 1♀, North-West Cape Peninsula, near cave C.171, 22°09'S, 114°00'E, in fig tree, 18 May 1998, J.M. Waldock, WAMP T44894; 1♀, NW Cape Peninsula, Cave C.68, antechamber, 22°06'S, 113°59'E, 17 May 1990, J. Waldock, WAMP T44893; 1♀, Ord River Creek, [near] Ivanhoe, [15°41'S, 128°41'E], 11–13 Nov. 1984, 21, B. Baehr, M. Baehr (#24), WAMP T89605; 1♀, same data except (#95), WAMP T89606; 1♀, Prince Frederick Harbour, "Marun", C[onservation] A[nd] L[and] M[anagement Department] site 8/4, 15°00'S, 125°21'E, closed forest margin, yellow dishes, 6–11 June 1988, I.D. Naumann, WAMP T44869; 1♀, South Maret Island, SMAR 15, 14°26'15.2"S, 124°59'25.9"E, under bark of *Corymbia clavigera* tree on plateau above North-east Beach, 21 Mar. 2007, J.M. Waldock, K. Edward, WAM T56310; 2♀, same data, WAMP T56311; 1♂, 1♀, 2 juv., Walcott Inlet (South), 16°27'06"S, 124°45'44"E, May 1996, D. Knowles, F. Knowles, WAMP T44872; 1♀, Weaber Plain via Kununurra, 15°26'S, 128°55'E, ex mango tree, 27 Oct. 1999, A. Postle, WAMP T44873; 1♂,

1♀, Windjana Gorge, [17°25'S, 124°57'E], 150 km E Derby, 21–23 Nov. 1984, 31, B. Baehr, M. Baehr, WAMP T89607; 3♂, Windjana Gorge, 17°25'S, 124°57'E, 21 Aug. 1987, 21 July 1990, A.E. De Jong, WAMP T44874, T44875; 1♀, Augustus Island, Bonaparte Archipelago, 15°20`S, 124°32`E, 20–26 May 2008, Start, D. Pearson, P. Kendrick, WAM T92170. **INDONESIA**: 2♂, Maluku [Province], Kei [Kai, sic.] Kecil, Langgur, [05°40'S, 132°43'E], 15 Feb. 1987, QMB S66702.

Etymology. This species is named in honour of Dr. Barbara Baehr, distinguished arachnologist specialising in Australian Hersiliidae, Zodariidae, Prodidomidae and Oonopidae, collector of some of the material studied in this paper.

Diagnosis Male abdomen with full-length light longitudinal stripe. Embolus wavy, set at 11 o'clock. Retrolateral tibial apophysis single, with no step-like outgrowth. Posterior edge of epigyne strongly sclerotised, insemination ducts running anteriorly and turning posteriorly and joining ovoid/pear-shaped spermathecae.

Male (Figs 32, 33), described: holotype T44850. Cephalothorax brown, eye-field dark brown, eye surroundings black. Sparse fringe above AME and behind anterior eyes silvery scale-hairs present. Patches of white hairs behind PLE and distally. Entire cephalothorax covered in small scale-hairs, longer in ocular area. Abdomen mottled dark brown, with cream-coloured medial stripe, similar anterior patch and two spots with some white hairs posteriorly on sides. Spinnerets black. Clypeus brown, with scattered brown and creamy hairs. Fringe above anterior eyes creamy to orange. Chelicerae brown, distally orange, with shallow excavation in central region, bordered by lateral ridge terminating in large distal spur. Cheliceral fang without keel. Maxillae and labium mottled dark brown, with orange chewing margins. Sternum mottled brown, with light grey marginal hairs, venter mottled brown with pair of contrasting white spots. Pedipalps proximally and distally mottled orange, remainder yellow. Legs 1 orange, with darker lateral patches on femora. Legs 2–4 mottled yellow-orange, legs 4 with darker sides. Palpal organ as illustrated in Figs 32F, 33A–C. Dimensions: CL 2.23, CW 1.76, EFL 0.93, AEW 1.45, PEW 1.45, CH 1.14, AL 2.80, AW 1.19, L1 5.59 (1.66+0.93+1.19+1.14+0.67), L2 4.72 (1.50+0.78+1.04+1.04+0.36), L3 4.61 (1.35+0.67+0.93+1.19+0.47), L4 5.29 (1.61+0.72+1.09+1.40+0.47).

Female (Figs 34, 35), described: paratype 44893. Cephalothorax similar to male but lighter. Fringe above AME and patches of light hairs behind PLE absent. Abdomen mottled brown with light anterior and lateral band, transverse posterior stripes and central light patches. Clypeus orange with white hairs. Chelicerae orange, lighter distally. Pedipalps pale yellow. Maxillae yellow, labium brown, lighter distally, sternum grey, with scattered light hairs. Venter with cream-coloured longitudinal stripes on either side of grey-brown centre and with dark grey distal patch. Spinnerets speckled brown. All legs pale yellow. Legs 1 with dark grey patches on lateral femora, retrolateral patella and tibia. Remaining legs with grey areas at all joints. Genitalia as illustrated in Fig. 35. Dimensions: CL 1.82, CW 1.61, EFL 0.78, AEW 1.14, PEW 1.19, CH 0.78, AL 2.02, AW 1.04, L1 3.26 (1.04+0.57+0.72+0.52+0.31), L2 3.10 (0.98+0.57+0.62+0.62+0.31), L3 3.82 (1.14+0.52+0.72+0.83+0.41), L4 4.59 (1.24+0.62+0.93+0.98+0.41).

Remarks. The species shows a large variety of colouration, sometimes abdomen with distinctive light and dark pattern as in figures.

Distribution (Fig. 62A). Known from subtropical and tropical areas and in variety of biota, including human habitats in Queensland, Northern Territory, north-western Australia and Maluku Province, Indonesia.

Cosmophasis ombria (Thorell, 1877), reinstated
Figs 36–38, 62B

Maevia ombria Thorell, 1877.
Maevia Marxii Thorell, 1890.
C. marxi syn. nov.: Reimoser, 1931: 749; Bonnet 1956: 1242; Prószyński 1984: 22; 2011; Platnick 2011.

Material. **INDONESIA: Celebes [= Sulawesi]**: 1♂, *Maevia ombria* Thorell, type, Kandari [= Kendari], [08°40'S, 150°55'E], 1874, O. Beccari, MCSN, documentation provided by J. Gardzińska; **Krakatau Islands:** 1♀, Anak Krakatau, [06°06'S, 105°25'E], 474, La Trobe University Expedition, 15 Aug. 1985, NHMB AR6804; 1♀, Anak Krakatau, [06°06'S, 105°25'E], La Trobe University Expedition, W. Nentwig, Apr. 1991, NHMB AR6805; 1♂, Anak Krakatau, [06°06'S, 105°25'E], La Trobe University Expedition, W. Nentwig, IV [Apr.] 1991, NHMB AR6807; 1♂, same data, NHMB AR6809; 1♀, Panjang [= Pulau Krakatau Kitjil], [06°06'S, 105°27'E] 673, La Trobe University Expedition, 18 Aug. 1985, NHMB AR6806; 1♀, [Pulau] Sertung, [06°06'S, 105°22'E], 469, rainforest, beating, La Trobe University Expedition, 29 Aug. 1985, NHMB AR6802; 1♂, [Pulau] Sertung, [06°06'S, 105°22'E], 611, La Trobe University Expedition, 15 Sep. 1984, NHMB AR6803.

Diagnosis. Tegulum relatively small, embolus long and wavy, set at 9 o'clock. Epigynal fossae without distinctive borders, divided by wide median guide. Posterior epigynal edge strongly sclerotised, spermathecae elongate, L-shaped.

Male (Fig. 36), described: 6807. Cephalothorax covered in pearly scale-hairs, more numerous on sides and to anterior of eye-field, the latter with metallic shine. Lower cephalothorax edge with incision at the base of

third legs. Eye-field dark brown, eye surroundings black. Fringe above anterior eyes present. Abdomen mottled brown, darkening posteriorly, with light creamy belt around anterior half, cream central longitudinal stripe and a pair of spots on sides. Spinnerets almost black. Clypeus brown, chelicerae dark brown with distal spur, fang without keel. Proximal and distal pedipalp segments mottled brown, the rest yellow. Maxillae and labium mottled dark brown with lighter chewing margins. Sternum mottled dark brown. Venter lighter, with 3 pairs of longitudinal yellow spots. Legs 1 with brownish sides, and dorsal and ventral surfaces mottled orange. All other legs mottled orange, darker on sides and at joint areas. Palpal organ as illustrated in Figs 36GH. Dimensions: CL 2.18, CW 1.71, EFL 0.83, AEW 1.40, PEW 1.45, CH 1.19, AL 2.86, AW 1.30, L1 4.83 (1.50+0.83+1.04+ 0.98+ 0.47), L2 4.20 (1.30+0.62+ 0.98+0.88+0.42), L3 4.36 (1.30+0.62+0.83+1.14+ 0.47), L4 5.03 (1.50+0.67+ 1.09+1.30+0.47).

Female (Figs 37, 38), described: 6805. Cephalothorax brown, eye-field greyish-light brown with numerous creamy scales and scattered brown bristles. Thoracic area and sides lighter, mottled orange with white scales. Abdomen covered with brownish scale-hairs, with pattern of 3 yellow transverse stripes joining a central longitudinal stripe. A wide yellow stripe also borders anterior abdomen and extends laterally almost to spinnerets. Spinnerets mottled yellow. Clypeus yellow with a few brownish hairs. Chelicerae yellow-orange, pedipalps whitish. Maxillae yellow, labium mottled yellow, both with lighter chewing margins. Sternum mottled yellow, venter pale yellow. Legs yellow. Genitalia as illustrated in Figs 37G, 38AB. Dimensions: CL 1.97, CW 1.50, EFL 0.72, AEW 1.24, PEW 1.35, CH 0.93, AL 2.75, CW 1.30. L1 3.32 (1.04+0.62+ 0.72+0.62+0.32), L2 -, L3 3.43 (1.04+ 0.52+0.72+0.78+ 0.37), L4 3.46 (1.24+0.57+0.93+ 1.14+0.42).

Distribution (Fig. 62B). Known from Sumatra, Java, Celebes [= Sulawesi] and the Krakatau Islands.

Cosmophasis micarioides (L. Koch, 1880) spp. group

Diagnosis. Male chelicerae usually with terminal spur, fang often with keel. Colour pattern highly variable. Ventral tibial apophysis absent, retrolateral one large, spatulate, pointed, sometimes ventrally bent. Tegulum with sclerite and bump. Embolus long, spiniform or ribbon-like, wavy. Insemination ducts C-shaped, U-shaped or looped, running anteriorly and than turning back towards spermathecae. The latter usually pear-shaped, with accessory glands.

List of species considered here

C. micarioides (L. Koch, 1880): Australia: N Queensland and Northern Territory; Papua New Guinea.
C. colemani sp. nov.: Australia: Queensland.
C. humphreysi sp. nov.: Papua New Guinea.
C. courti sp. nov.: Papua New Guinea.
C. darwini sp. nov.: Australia: Northern Territory.
C. trobriand sp. nov.: Papua New Guinea.

Other species of the group, not treated here

C. laticlavia (Thorell, 1892): Indonesia: Sumatra.

Cosmophasis micarioides (L. Koch, 1880)
Figs 39–48, 62C

Amycus micarioides L. Koch, 1880: 1178, Pl. 102, Fig. 3, type-localities: Port Mackay and Cape York.
Cosmophasis micarioides: Simon, 1901: 543; Chrysanthus, 1968: 67, Figs 82–85; Jackson, 1986: 1–12, 1987: 1–10; Harland *et al*., 1999: 357–364; Patoleta & Żabka, 1999: 232; Prószyński, 2011; Platnick, 2011.

Type material. **AUSTRALIA, Queensland:** 1♂ holotype, Port Mackay, Mus. Godeffroy 8346, ZMH.

Other material. **AUSTRALIA, Northern Territory**: 1♀, Magela Creek, 3 km N [of] Mudjinberri, [12°29'S, 132°52'E], billabong, 4 Nov. 1984, B. Baehr, M. Baehr, (#40) QMB S90049. **Queensland:** 1♂, Brandy Creek, camp site, [20°20'S, 145°15'E], QM party, 21–26 June 1975, QMB S64656; 1♀, same data, QMB S90122; 1♀, Cape York, Weipa, [12°37'S, 142°03'E], 5–7 Feb. 1975, R. Raven, QMB S64699; 1♂, 1♀, Saibai [Island], [09°23'S, 142°37'E], sweeping mangroves, 15 July 1975, H. H[eatwole], E. C[ameron], QMB S64690; 1♂, Torres Strait, Moa Island, [10°11'S, 142°16'E], beating strand vegetation, 26 Feb. 1975, E. Cameron, QMB S64687; 1♂, 1 juv., Aloomba, [17°06'S, 145°49'E], 3 Jan. 1972, N.C. Coleman, AMS KS21150; 2♂, Bellenden Ker, [17°14'S, 145°52'E], May 1913, E. Mjöberg, SMNH; 1♂, Cairns, [16°55'S, 145°46'E], R. Mascord, 30 Mar. 1968, AMS KS21147; 1♀, Cape Tribulation, [16°01'S, 145°26'E], 22 Sep. – 7 Oct. 1982, [Qld Mus. party], QMB S64672; 1♀, Cape York, Burster Creek, [10°56'S, 142°20'E], 28 Aug. 1985, M. Bennie, QMB S64701; 1♀, 1 juv., Cape York, N of Jardine River, Sanamere Swamp, [11°04'S, 142°18'E], 3 Sep. 1985, M. Bennie, QMB S64673; 1♂, Cape York, Jardine River, [10°55'S, 142°12'E], 26 Aug.–5 Sep. 1985, M. Bennie, QMB S64702.1♂, 2♀, 2 juv., Centenary Lakes, Cairns, [16°55'S, 145°46'E], cohabit [sic.], Jan. 1981, R.R. Jackson, QMB S64703; 3♂, 1♀, Edmonton, [17°01'S, 145°44'E], 12 Sep. 1976, R. Mascord, AMS KS21152; 1♀,

same locality, 5 July 1978, R.E. Mascord, AMS KS104271; 1♀, same locality, 17 Aug. 1971, R.E. Mascord, AMS KS21230; 1♂, Edmonton, [17°01'S, 145°44'E], 28 Sep. 1969, N.C. Coleman, AMS KS21151; 1♂, 1♀, same locality, 18 Sep. 1976, R.E. Mascord, AMS KS21153; 2♀, Gap Creek, Bob Radnells campsite, [15°50'S, 145°19'E], 28 Nov. 1975, V.E. D[avies], QMB S64666; 1♀. 1 juv., Gap Creek, Bob Radnells campsite, [15°50'S, 145°19'E], 28 Nov. 1975, V.E. D[avies], QMB S83727; 1♂, Gap Creek, Bob Radnells campsite, [15°50'S, 145°19'E], 28 Nov. 1975, J. C[ovacevich], V.E. D[avies], QMB S64692; 1♀, Heathlands, 11°45'S, 142°35'E, 15–26 Jan. 1992, I. Naumann, T. Weir, ANIC 42000108; 1♂, Mission Beach, 17°55'S, 146°06'E, sweeping roadside grasses in rainforest, 25 June 2004, B.J. Richardson, ANIC 42000094; 1 ♂, Mossman Gorge National Park site MOSS1, 16°28`21"S, 145°19`53"E, 1 Apr. 2009, K. Edward, J.M. Waldock, sifted litter, base of fern, WAMP T111671; 1 ♂, Mossman Gorge National Park, picnic area, site MOSS1, 16°28`20.6"S, 145°19`53.3"E, 1 Apr. 2009, K. Edward, J.M. Waldock, WAMP T111670; 1 ♀, [Mt] Molloy, Rifle Creek, [16°39'S, 145°11'E], 19 Aug. 1978, R.E. Mascord, AMS KS4184; 12♂, North Camp Beagle, 45 km N of Arakun, frangipani, 12°51'S, 141°50'E, Mar. 1982, M. Robinson, AMS KS9059; 1♂, Percy Is[les], [21°40'S, 150°18'E], no date, White, QMB S64698; 1♂, same data, QMB S64689; 1♂, 1♀, Rockhampton, Rockhampton Botanic Gardens, [23°22'S, 150°30'E], 4 Dec. 1999, M. Rix, QMB S66697; 1♂, Shiptons Flat, campsite, [15°48'S, 145°15'E], 16–21 Nov. 1975, Qld Museum [party], QMB S64697; 1♀, Toohey Forest, [27°32'S, 153°02'E], cat# 232, 15 Aug. 1986, J. Rienks, Hill, AMS KS19493; 1♀, Toohey Forest, 27°28'S, 153°01'E, J. Rienks, Aug. 1986, AMS KS75502; 1♀, Weipa area, 12°41'S, 141°53'E, 22 June 1982, L. Cameron, H. Cogger, AMS KS9979. **PAPUA NEW GUINEA**: 2♂, British New Guinea, AMS KS21149; 1♀, Nunumai, 10°11'S, 149°22'E, ANIC 42000095; 1♂, [Central Province], University of Papua New Guinea, [Port Moresby], [09°28'S, 147°11'E], agricultural garden, 12 Nov. 1982, A. Pumuye, QMB S90050; 1♂, Central Province, Moreguina, Cape Rodney, [10°12'S, 148°24'E], 1 Nov. 1985, D.J. Court, QMB S90051.

Diagnosis. Male cephalothorax with transverse iridescent stripes, abdomen usually with light longitudinal pattern and lateral band. Fringe above anterior eyes more or less defined. Chelicerae with distal spur and fang with keel. Female with dark abdomen and contrasting pattern of great variety. Insemination ducts proximally wide and membranous, distally much narrower and more sclerotised.

Male (Figs 39–42, 45, 47), described: 66697. Cephalothorax mottled dark brown, eye-field darker, thick fringe above AME present, band of iridescent hairs posterior to anterior eye-field, second band of iridescent hairs posterior to PLE and extending to lateral edge of cephalothorax and third band of iridescent hairs anterior to pedicel. Area between middle iridescent hair band brown with dark brown hairs. Abdomen with indistinct anterior scutal area, mottled dark brown with indistinct narrow transverse stripes and narrow band of white hairs extending laterally for two-thirds abdominal length. Terminal spot of white hairs anterior to spinnerets. Spinnerets black. Clypeus tan-coloured, covered with short white hairs forming bands below AME and ALE. Fringe above anterior eyes dark brown. Anterior of chelicerae brown, vertical with deep excavated central region bordered by lateral ridge terminating at centrally-directed large distal spur. Cheliceral fang with distal keel. Maxillae and labium dark brown with orange edges, sternum dark brown with silvery scales, venter speckled dark brown with three pairs of spots of silvery scales, laterally posterior to epigastric furrow. Pedipalps yellow, femur brownish. Legs 1–4 dull orange, with darker patches laterally. Palpal organ as illustrated in Figs 39HI, 40A–C, 41HI, 45FG, 47AB. Dimensions: CL 2.60, CW 2.13, EFL 0.98, AEW 1.71, PEW 1.71, CW 1.40, CH 1.19, PLE 1.19, AL 3.12, AW 1.40, L1 8.72 (2.60+1.35+2.18+2.02+0.57), L2 5.86 (1.82+0.83+1.40+1.35+0.46), L3 5.63 (1.76+0.72+1.19+1.50+0.46), L4 6.27 (1.71+0.78+1.56+1.76+0.46).

Female (Figs 42–44, 46, 48), described: S66697. Cephalothorax colour pattern similar to male but not as contrasting. Fringe above anterior eyes absent. Abdomen, mottled dark brown, with two transverse stripes, a central anterior spot of white hairs between stripes. Elongate, central whitish patch anterior to medial stripe. Narrow band of white hairs across abdomen anterior edge extending laterally for two-thirds of abdominal length. Terminal spot of silvery hairs anterior to spinnerets. Spinnerets black. Clypeus mottled brown without white hairs, chelicerae orange. Pedipalps dark grey proximally and yellow distally. Maxillae, labium as in male, sternum dark brown, without hairs, venter as in male. All legs yellow, femora 1–4, patella 1 and 2, with dark grey lateral patches. Genitalia as illustrated in Figs 42FG, 43FG, 44F, 48. Dimensions: CL 2.08, CW 1.71, EFL 0.93, AEW 1.40, PEW 1.50, CH 0.98, AL 2.70, AW 1.66, L1 3.99 (1.30+0.72+0.83+0.78+0.36), L2 3.46 (1.09+0.62+0.72+0.72+0.31), L3 3.73 (1.14+0.52+0.78+0.93+0.36), L4 4.72 (1.40+0.62+1.14+1.10+0.46).

Distribution (Fig. 62C). Recorded from tropical Queensland and Papua New Guinea.

Remarks. *C. micarioides* shows variation in colour and male palpal organ. The species is found on vegetation (e.g. palms), constructing silk nests in crevices on leaves. Its mating behaviour includes 3 different tactics, depending on the female's maturity and location (Jackson 1986).

Cosmophasis colemani sp. nov.
Figs 49, 62D

Type material. **AUSTRALIA, Queensland**: 1♀ holotype, Gordonvale, [17°05'S, 145°46'E], 3 Jan. 1972, [N.C.] Coleman, QMB S90052.

Etymology. This species is named in honour of Neville Clyde Coleman, Queensland arachnologist and naturalist, collector of this species and many specimens studied in this paper.

Diagnosis Distinguished by twisted insemination ducts (Fig. 49G: arrows).

Female (Fig. 49), described: holotype 90052. Cephalothorax light brown, eye-field brown with black eye surroundings. Green iridescent scales scattered on eye-field and white scale-hairs numerous on sides. Abdomen faded, darkening distally, with anterior light band. Spinnerets brown-grey. Clypeus orange with scattered light bristles. Chelicerae, maxillae and labium orange, pedipalps yellow. Sternum mottled brown, venter yellow. Legs 1 grey on sides, yellow dorsally and ventrally, distal segments lighter. Legs 2 and 3 almost uniformly yellow. Legs 4 similar with parts of proximal and distal tibia and sides of metatarsus darker. Epigyne and internal genitalia as illustrated in Figs 49E–H. Dimensions: CL 1.97, CW 1.71, EFL 0.98, AEW 1.45, PEW 1.66, CH 1.04, AL 3.27, AW 1.82, L1 3.82 (1.14+0.72+0.83+0.72+0.41), L2 3.46 (1.14+0.62+0.62+0.72+0.36), L3 3.92 (1.19+0.67+0.67+0.98+0.41), L4 4.65 (1.40+0.67+0.98+1.19+0.41).

Male unknown.

Distribution (Fig. 62D). Known only from the type-locality.

Cosmophasis humphreysi sp. nov.
Figs 50–51, 62B

Type material. **PAPUA NEW GUINEA**: 1♀ holotype, [Madang Province], Rampi Bomasa, site G, 05°02'14"S, 145°47'56"E, 1 May 1990, W.F. Humphreys, WAMP T44889.

Etymology. This species is named in honour of Dr. William (Bill) Humphreys, zoologist at the Western Australian Museum and the University of Western Australia, collector of some of the material studied in this paper.

Diagnosis Body similar to *C. micarioides*. Insemination ducts looped, spermathecae pear-shaped.

Female (Fig. 50), described: holotype 44889. Cephalothorax mottled orange-brown, eye-field greyish-brown, covered with beige scale-hairs, forming an iridescent belt across anterior eye-field. Eye surroundings black. Abdomen patchy dark brown, with characteristic pattern of light transverse spots that merge into two stripes and with light lateral stripes. Anterior to spinnerets is blue iridescent patch. Spinnerets mottled dark brown. Clypeus greyish-orange with brown bristles. Pedipalps white. Maxillae speckled orange. Labium and sternum mottled brown. Venter grey, with 3 pairs of light spots laterally. Legs pale, with dark grey sides and joint areas. Epigyne and internal genitalia as illustrated in Fig. 51. Dimensions: CL 2.44, CW 1.92, EFL 0.93, AEW 1.66, PEW 1.66, CH 1.14, AL 3.79, AW 1.82, L1 4.87 (1.61+0.85+1.01+0.93+0.47), L2 4.60 (1.45+0.67+0.93+1.14+0.41), L3 4.66 (1.45+0.67+0.93+1.14+0.47), L4 6.18 (1.92+0.83+1.35+1.56+ 0.52).

Male unknown.

Distribution (Fig. 62B). Known only from the type-locality.

Cosmophasis courti sp. nov.
Figs 52–53, 62B

Type material. **PAPUA NEW GUINEA**: 1♂ holotype, Central Province, Musgrave River, 300 m [alt.], Awarere Plantation, [09°26'S, 147°31'E], 3 July 1988, M. Żabka, D.J. Court, QMB S83708; 1♀ paratype, same data as holotype, QMB S90123.

Etymology. Named in honour of Mr David J. Court, arachnologist and photographer (Honorary Research Associate, Raffles Museum of Biodiversity & Research, Singapore), collector of part of the material studied here.

Diagnosis. Defined by genitalia: in male, tegulum elongate, tegular sclerite small, sperm duct sinuous. In female, insemination ducts meandering with a loop, spermathecae round, not pear-shaped.

Male (Figs 52, 53). Cephalothorax brown, eye surroundings black. Transverse bands of blue and red iridescent scale-hairs in anterior eye-field, behind eye-field and in posterior part of thorax. Sides with white scale-hairs. Dark fringe above AME and tufts of white hairs between AME. Abdomen speckled beige-brown with lighter longitudinal central area and light anterior marginal belt. Spinnerets speckled grey-brown. Clypeus and chelicerae brown, the latter with distal spur. Cheliceral fang with keel. Maxillae and labium speckled dark brown with yellowish tips. Sternum mottled dark brown with marginal pearly hairs and scale-hairs. Venter speckled beige, with iridescent scale-hairs along median part. Legs 1 speckled brown, lighter distally, dorsally and ventrally. Other legs lighter with darker sides and joint areas, all legs with greenish iridescence, especially proximal segments. Palpal organ as illustrated in Figs 52C, 53AB. Dimensions: CL 2.49, CW 2.15, EFL 1.04, AEW 1.71, PEW 1.71, CH 1.19, AL 3.43, AW 1.40, L1 7.01 (2.18+1.09+1.56+1.56+0.62), L2 5.09 (1.56+0.78+1.19+1.09+0.47), L3 5.24 (1.56+0.67+1.19+1.40+0.42), L4 6.17 (1.71+0.78+1.45+1.76+0.47).

Female (Figs 52, 53), described: paratype 90123. Cephalothorax light brown, eye surroundings black, above anterior eyes strong and stout brown fringe. In the anterior part of eye-field, behind it and in posterior part of thorax, transverse bands of hairs, those in eye-field with reddish iridescence. Sides with white scale-hairs. Abdomen colouration not preserved, with beige background and single greyish brown scale-hairs. Spinnerets mottled brownish-grey. Clypeus mottled light brown with brown bristles. Pedipalps light yellow, chelicerae greyish-orange. Maxillae and labium mottled brown with lighter tips. Sternum speckled grey-brown. Venter beige with scattered darker scale-hairs. Legs 1 with grey brown sides and yellowish dorsally and ventrally. Other legs lighter, with darker sides and joint areas. Genitalia as illustrated in Figs 52H, 53CD. Dimensions: CL 2.49, CW 1.92, EFL 0.98, AEW 1.61, PEW 1.71, CH 1.19, AL 4.41, AW 2.44, L1 4.25 (1.30+0.67+1.04+0.88+0.36), L2 4.56 (1.45+0.67+0.88+1.04+0.52), L3 4.25 (1.30+0.67+1.04+0.88+0.36), L4 5.49 (1.61+0.72+1.30+1.45+0.41).

Distribution (Fig. 62B). Known only from the type-locality.

Cosmophasis darwini sp. nov.
Figs 54, 62D

Type material. **AUSTRALIA. Northern Territory**: 1♂ holotype, Edith Falls, 14°11'S, 132°11'E, Lower Falls, 31 May 1991, A.F. Longbottom, WAMP T44879. **Paratypes**: 1♂, same data as holotype, WAMP T111673; 1 ♂, Charles Darwin National Park, first left-hand road after gate, 12°26`12.2"S, 130°52`36.5"E, 15–16 Jan. 2009, S. Crews, G. Brown, WAMP T94018.

Etymology. Named in honour of Charles Robert Darwin (1809–1882), renowned researcher and author of 'The Origin of Species' and other seminal works on animal and plant diversity.

Diagnosis. Abdomen with longitudinal light central stripe. Fringe above anterior eyes present, chelicerae with distal spur, fang keel absent. Tibial apophysis large, spatulate, pointed ventrally. Tegular sclerite petal-like, bump present. Embolus short, set at 11 o'clock.

Male (Fig. 54), described: holotype 44879. Cephalothorax brown, eye surroundings black, eye-field with patches of blue iridescent scale-hairs. Fringe above AME and tufts of white hairs between anterior eyes. Abdomen grey-brown with longitudinal cream-coloured median stripe and light patch on anterior thorax-facing surface. Clypeus brown with white scale-hairs. Chelicerae brown, with distal spur. Maxillae and labium light brown, with yellowish tips, sternum mottled beige, venter pale. Legs 1 with speckled brown sides, dark joint areas and speckled orange dorsal and ventral surfaces, other legs gradually lighter, with similar colour gradation. Palpal organ as illustrated in Figs 54FG. Dimensions: CL 3.01, CW 2.54, EFL 1.30, AEW 2.02, PEW 2.02, CH 1.45, AL 4.78, AW 2.08, L1 8.08 (2.44+1.30+2.02+1.61+0.67), L2 7.62 (2.39+1.24+1.92+1.50+0.57), L3 6.57 (2.02+0.98+1.50+1.45+0.62), L4 7.48 (2.08+1.04+1.82+2.02+0.52).

Distribution (Fig. 62D). Known from localities in the Northern Territory, Australia.

Cosmophasis trobriand sp. nov.
Figs 55–56, 62D

Type material. **PAPUA NEW GUINEA**: 1♂ holotype, Milne Bay Province, Trobriand Islands, Kiriwina [Island], [08°31'S, 150°55'E], mixed garden, 27 Oct. 1985, T. Mala, QMB S90053.; 1♀ paratype, same data as holotype, QMB S90124.

Etymology. Named for the type-locality, Trobriand Islands, Papua New Guinea.

Diagnosis. Male chelicerae with frontal spur, fangal keel absent. Tibial apophysis spatulate with ventral point, hooked ventrally (side view). Tegular sclerite hooked. Embolus thick, short, distally curved, with rounded tip. Insemination ducts C-shaped, shorter than in any other species of the group, spermathecae pear-shaped, oriented almost transversely.

Male (Figs 55, 56). Cephalothorax dark brown, eye surroundings darker. Transverse bands of light bluish scale-hairs in anterior eye-field, behind eye-field and in posterior part of thorax. Above anterior eyes fringe of short brown and grey hairs and longer brown bristles. Abdomen with beige central area, darker lateral spots and black tip. Iridescent scale-hairs not numerous, scattered centrally and distally. Spinnerets dark brown. Clypeus light brown with central patch and lateral band of white hairs. Chelicerae light brown with yellow tips and deep excavated central region bordered by lateral ridge terminating at fang-directed large distal spur. Pedipalps yellow, cymbium brownish. Maxillae speckled brown, labium dark grey-brown, with yellow tips. Sternum mottled orange with white hairs. Venter silvery iridescent, speckled brown with 3 pairs of yellowish spots laterally and distally. Legs generally orangey-yellow with lighter and darker indistinct shades. Patellae 3 and 4 and tibiae lighter. Palpal organ as illustrated in Figs 56AB. Dimensions: CL 2.49, CW 1.87, EFL 1.09, AEW 1.61, PEW 1.61, CH 1.14, AL 2.91, AW 1.24, L1 6.85 (2.13+1.04+1.61+1.50+0.57), L2 5.60 (1.71+0.78+1.09+1.50+0.52), L3 5.07 (1.66+0.72+1.14+1.14+0.41), L4 6.12 (1.87+0.67+1.40+1.71+0.47).

Female (Figs 55, 56). Cephalothorax brown, eye surroundings black. Eye-field with numerous reddish-beige scale-hairs, iridescent anteriorly. Band of white,

silvery iridescent scale-hairs posterior to eye-field extending to sides. Similar band of white scale-hairs in the posterior part of thorax. Abdominal pattern of patchy brown scale-hairs, with white band on anterior edge of abdomen, extending laterally and three dorsal stripes and two patches, one anterior to the stripes the other anterior to spinnerets. The transverse bands white but patch above spinnerets has bluish iridescent scale-hairs, also found in a longitudinal patch on anterior half of abdomen. Spinnerets almost black. Clypeus brown with white hairs and scattered brown bristles. Chelicerae orange, pedipalps pale yellow. Maxillae orange, labium speckled brown, both with yellow tips. Sternum speckled dark brown with white hairs. Venter mottled beige with three pairs of lighter lateral patches. Legs 1 dorso-ventrally pale, sides grey-brown. Other legs similar, dark colours on sides of proximal and distal parts of leg segments. Epigyne and internal genitalia as illustrated in Figs 56CD, with much shorter insemination ducts than in other species of the group. Dimensions: CL 2.08, CW 1.61, EFL 0.88, AEW 1.40, PEW 1.45, CH 0.98, AL 3.38, AW 1.24, L1 3.68 (1.24+0.72+0.72+0.67+0.33), L2 3.41 (1.09+0.62+ 0.72+0.67+0.31), L3 3.84 (1.19+0.52+0.72+1.04+ 0.37), L4 4.97 (1.45+0.67+1.04+1.35+0.46).

Distribution (Fig. 62D). Known only from the type-locality.

Cosmophasis rakata spp. group

Diagnosis. Defined by genitalia: embolus short, dagger-like, with wide base, narrowing distally. Tegular sclerite, bump and ventral tibial apophysis absent. Female spermathecae kidney-shaped with distinctive accessory glands and fertilisation ducts (**Fig**.).

Cosmophasis rakata sp. nov.
Figs 57–59, 62D

Type material. **INDONESIA, Krakatau Islands**: 1♀ holotype, [Pulau] Rakata, [06°09'S, 105°26'E], 535, La Trobe University Expedition, 26 Aug. 1985, NHMB AR6811. **Paratypes**: 1♂, same data as holotype, NHMB AR6811 (in same vial as holotype); 1♂, same data, NHMB AR6812; 1♀, [Pulau] Rakata, [06°09'S, 105°26'E], 611, 15 Sep. 1984, NHMB AR8613; 1♂, 1♀, 1 juv., [Pulau] Rakata, [06°09'S, 105°26'E], 500, 12 Sep. 1984, NHMB AR6814; 1♀, 2 juv., [Pulau] Rakata, [06°09'S, 105°26'E], 596, 13 Sep. 1984, NHMB AR6815; 1♀, [Pulau] Rakata, [06°09'S, 105°26'E], 672, 25 Aug. 1985, NHMB AR8616; 1♀, [Pulau] Rakata, [06°09'S, 105°26'E], 569, 25 Aug. 1985, NHMB AR6818; 1♂, [Pulau] Rakata, [06°09'S, 105°26'E], 662, 15 Sep. 1984, NHMB AR6819; 1♂, Krakatau I. [= Pulau], [06°06'S, 105°27'E], 163, NHMB AR6810; 1♀, 2 juv., [Pulau] Krakatau, [06°06'S, 105°27'E], 1984–91, NHMB AR8617.

Etymology. Named for the type-locality, [Pulau] Rakata, Krakatau Islands, Indonesia.

Diagnosis. Male with dorsal abdominal pattern of central light stripe and light anterior band. Embolus short, spiniform, straight. Ventral tibial apophysis absent, retrolateral apophysis broad-based, developed into ventrally-directed point. Female with two transverse light stripes, light anterior abdominal band. Spermathecae kidney-shaped, anterior to fossae.

Male (Figs 57, 58), described: paratype 6819. Cephalothorax pear-shaped with metallic green and blue scale-hairs and brown longer hairs anteriorly. Eye-field dark brown with fringe above anterior eyes, eye surroundings black. Thoracic region orange-grey with darker scale-hairs and two pairs of protruding bristles. Extending from below ALE and along sides of cephalothorax are dense patches of white scale-hairs. Abdomen mottled light brown with light anterior stripe that narrows along abdominal sides, also central longitudinal light stripe. Spinnerets long, coloured as abdomen. Clypeus dark orange with scattered brown hairs. Chelicerae light brown, basal segment with distal spur, fang without keel. Maxillae mottled yellow, labium darker, both with light chewing margins. Sternum and venter beige, the latter with two pairs of light longitudinal patches on sides and one pair of light spots in front of spinnerets. Legs yellow. Palpal organ as illustrated in Figs 57GH, 58. Dimensions: CL 3.17, CW 2.60, EFL 1.14, AEW 2.02, PEW 2.08, CH 1.66, AL 4.47, AW 1.65, L1 8.46 (2.60+1.45+1.92+1.87+0.62), L2 7.52 (2.18+1.14+1.71+1.82+0.67), L3 6.79 (2.08+ 0.93+1.45+1.76+0.57), L4 7.68 (2.18+1.04+1.71+ 2.13+0.62).

Female (Fig. 59), described: holotype 6811. Cephalothorax reddish-beige with dark eye surroundings, covered with beige setae and brown bristles on eye-field. Abdomen red with cream-coloured anterior band extending along lateral margins to meet central transverse band, a bifurcated longitudinal cream stripe in anterior half of abdomen and two transverse stripes, all bordered with brown, scale-hairs. Whole surface with brown bristles. Spinneret area dark grey, with iridescent greenish scale-hairs. Spinnerets dark grey-brown. Clypeus speckled orange, lighter towards sides. Chelicerae yellow, pedipalps whitish, maxillae pale yellow, labium and sternum speckled light grey. Venter ivory, with scattered silvery scale-hairs. Legs yellow. Genitalia as illustrated in Figs 59F–H. Dimensions: CL 2.49, CW 1.92, EFL 1.09, AEW 1.66, PEW 1.71, CH 1.04, AL 3.17, AW 1.45, L1 4.35 (1.35+0.83+0.93+0.83+ 0.41), L2 4.20 (1.35+ 0.78+0.88+0.83+0.36), L3 4.71 (1.45+0.78+0.88+1.19+0.41), L4 5.55 (1.71+0.78+ 1.09+1.50+0.47).

Table 2. Dimensions of *Cosmophasis* species.

Species	CL	CW	EFL	AEW	PEW	CH	AL	AW	L1	L2	L3	L4
C. baehrae ♀	1.82	1.61	0.78	1.14	1.19	0.78	2.02	1.04	3.26	3.10	3.82	4.59
C. baehrae ♂	2.23	1.76	0.93	1.45	1.45	1.14	2.80	1.19	5.59	4.72	4.61	5.29
C. banika ♀	2.60	1.92	1.09	1.56	1.66	1.04	3.32	1.87	4.35	4.20	4.75	5.65
C. bitaeniata ♀	2.49	1.97	0.93	1.45	1.56	1.19	3.38	1.87	4.45	4.25	4.61	5.23
C. bitaeniata ♂	2.39	1.87	0.88	1.40	1.45	1.24	3.01	1.45	5.44	4.93	4.71	5.49
C. colemani ♀	1.97	1.71	0.98	1.45	1.66	1.04	3.27	1.82	3.82	3.46	3.92	4.65
C. courti ♀	2.49	1.92	0.98	1.61	1.71	1.19	4.41	2.44	4.25	4.56	4.25	5.49
C. courti ♂	2.49	2.15	1.04	1.71	1.71	1.19	3.43	1.40	7.01	5.09	5.24	6.17
C. darwini ♂	3.01	2.54	1.30	2.02	2.02	1.45	4.78	2.08	8.08	7.62	6.57	7.48
C. harveyi ♂	2.70	2.08	1.40	1.61	1.61	1.30	3.22	1.56	7.57	7.20	–	6.34
C. hortoni ♂	3.22	2.49	1.14	1.97	2.02	1.40	4.52	1.76	7.99	7.78	6.78	7.67
C. humphreysi ♀	2.44	1.92	0.93	1.66	1.66	1.14	3.79	1.82	4.87	4.60	4.66	6.18
C. kairiru ♀	2.44	1.82	0.93	1.40	1.45	1.14	3.90	2.23	4.25	3.51	4.55	5.49
C. kohi ♂	2.91	2.28	1.04	1.61	1.66	1.50	3.95	1.61	7.53	7.26	6.38	7.21
C. lami ♀	2.28	1.71	0.88	1.35	1.45	1.14	3.95	1.82	3.83	3.56	4.13	5.23
C. lami ♂	1.97	1.45	0.78	1.24	1.30	0.88	2.70	0.98	3.83	2.71	3.25	4.56
C. lungga ♀	2.34	1.71	0.98	1.50	1.61	0.78	4.05	2.34	3.98	3.06	4.36	5.29
C. micarioides ♀	2.08	1.71	0.93	1.40	1.50	0.98	2.70	1.66	3.99	3.46	3.73	4.72
C. micarioides ♂	2.60	2.13	0.98	1.71	1.71	1.19	3.12	1.40	8.72	5.86	5.63	6.27
C. motmot ♀	2.18	1.61	0.88	1.40	1.45	0.83	3.22	1.61	3.76	3.72	3.83	4.66
C. obscura ♀	2.34	1.82	0.88	1.45	1.50	1.19	3.22	1.76	4.29	3.67	4.19	4.91
C. ombria ♀	1.97	1.50	0.72	1.24	1.35	0.93	2.75	1.30	3.32	–	3.43	3.46
C. ombria ♂	2.18	1.71	0.83	1.40	1.45	1.19	2.86	1.30	4.83	4.20	4.36	5.03
C. panjangensis ♂	2.13	1.76	0.93	1.50	1.56	1.24	3.12	1.40	4.99	4.93	4.71	5.55
C. rakata ♀	2.49	1.92	1.09	1.66	1.71	1.04	3.17	1.45	4.35	4.20	4.71	5.55
C. rakata ♂	3.17	2.60	1.14	2.02	2.08	1.66	4.47	1.65	8.46	7.52	6.79	7.68
C. sertungensis ♀	2.39	1.58	0.93	1.50	1.56	0.98	3.58	1.66	3.73	3.78	4.41	4.61
C. tavurvur ♀	2.23	1.76	0.83	1.50	1.56	1.14	2.70	1.30	3.98	3.88	4.19	5.40
C. thalassina ♀	2.28	1.82	0.88	1.45	1.50	1.09	2.96	1.76	4.09	3.67	4.19	4.01
C. thalassina ♂	2.86	2.18	0.93	1.71	1.71	1.40	3.32	1.45	6.90	6.90	5.69	5.28
C. trobriand ♀	2.08	1.61	0.88	1.40	1.45	0.98	3.38	1.24	3.68	3.41	3.84	4.97
C. trobriand ♂	2.49	1.87	1.09	1.61	1.61	1.14	2.91	1.24	6.85	5.60	5.07	6.12
C. tristriatus ♂	3.12	2.65	1.19	2.08	1.97	1.71	–	–	–	7.17	6.38	7.37

Remarks. As their colour patterns are completely different, the conspecificity of males and females described here has to be confirmed.

Distribution (Fig. 62D). Known only from type locality.

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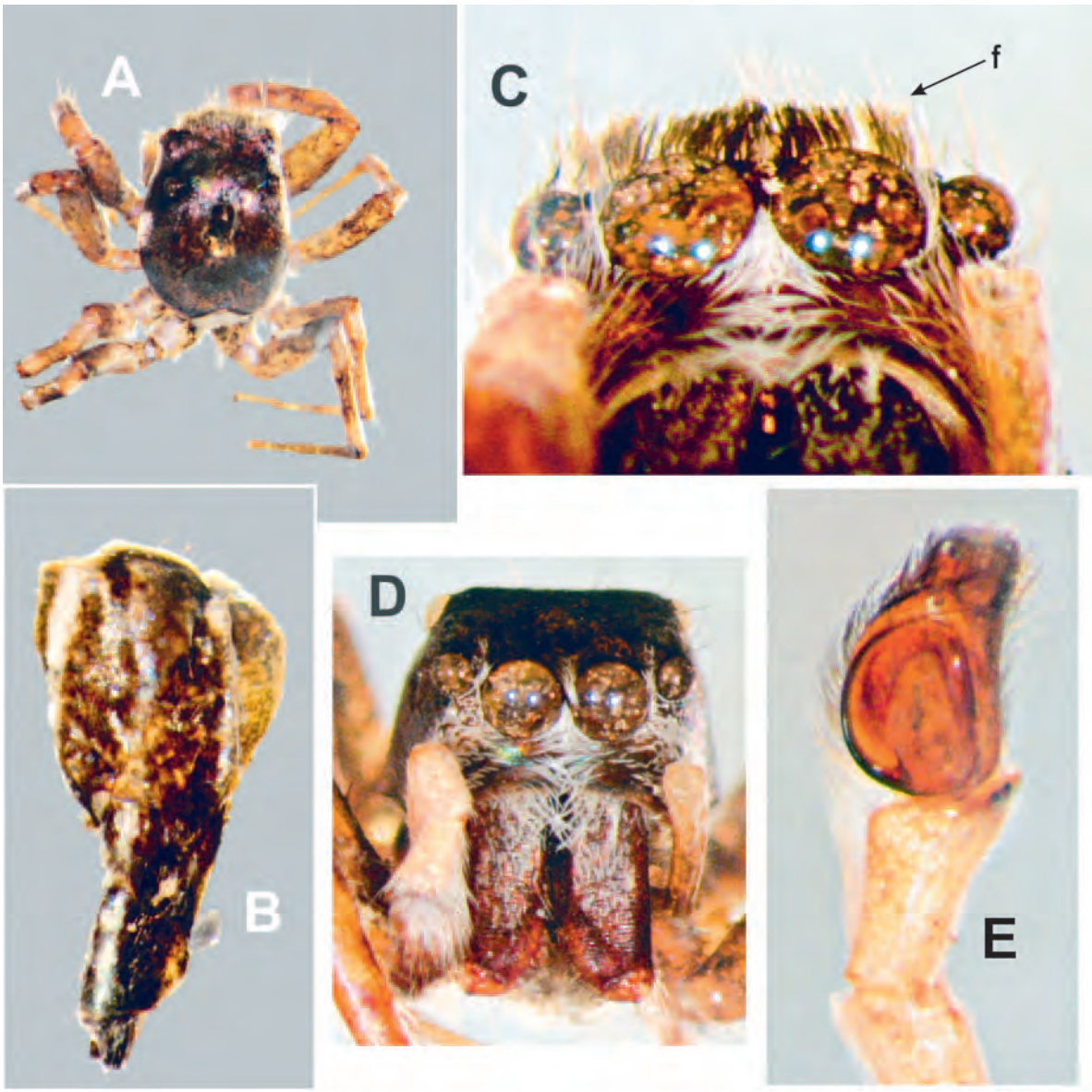

Figure 1. *C. thalassina*, male holotype 1747: A – cephalothorax; B – dorsal abdomen; CD – frontal view; E – palpal organ; f – fringe.

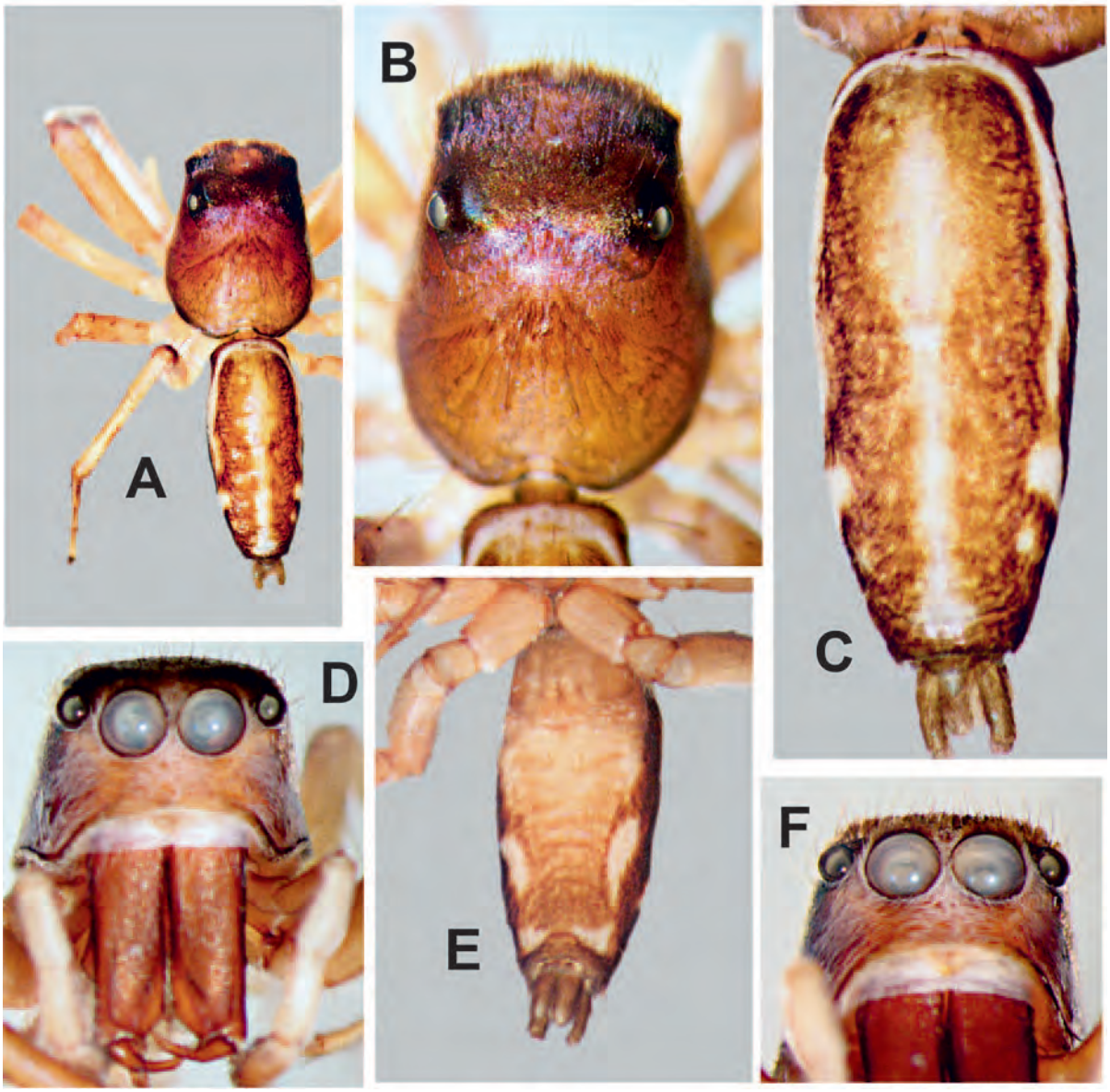

Figure 2. *C. thalassina*, male 4160: A–C – dorsal view; DF – frontal view; E – ventral abdomen.

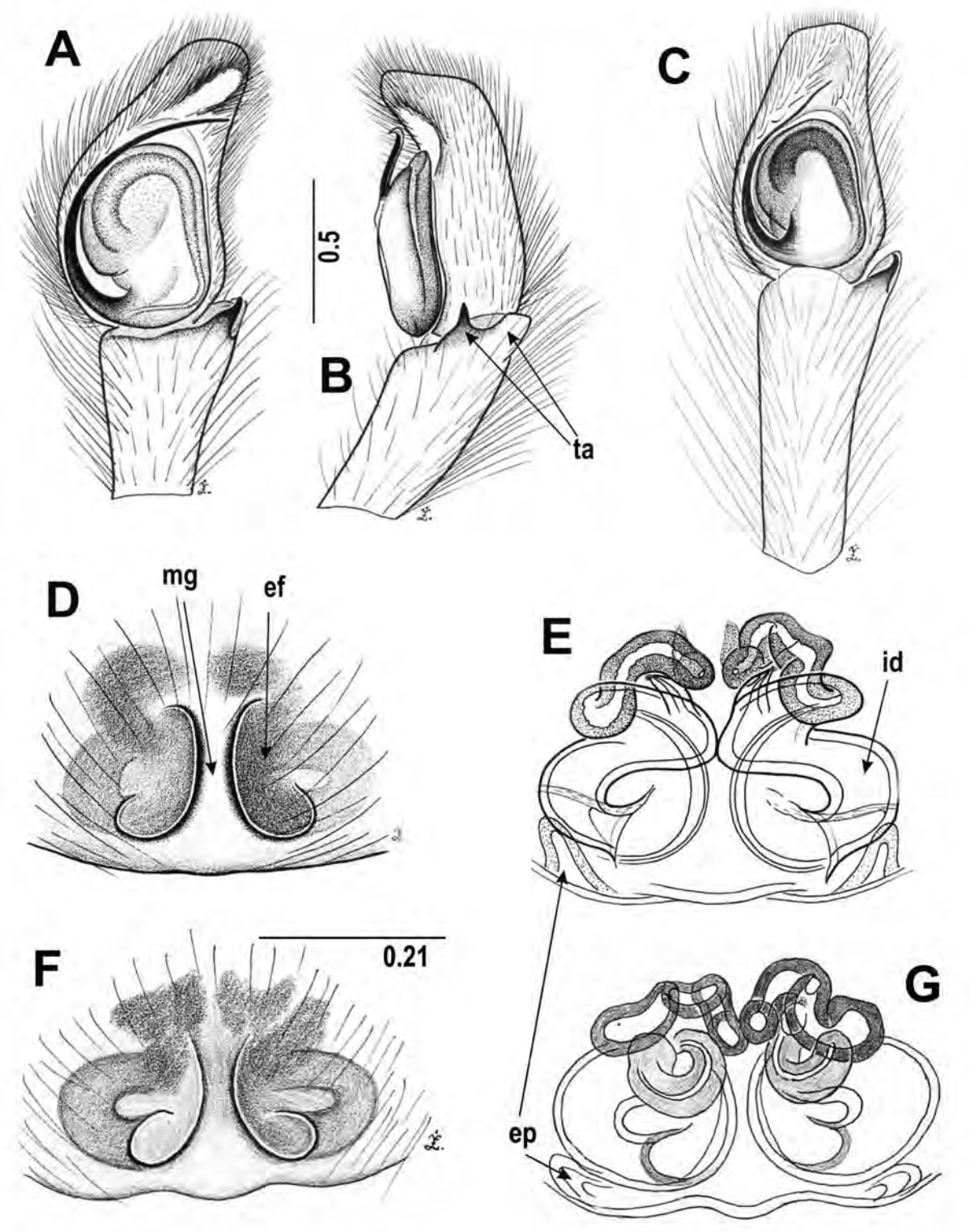

Figure 3. *C. thalassina*, male holotype 1747: AB – palpal organ. Male 83725: C – palpal organ. Female 32455: DE – epigyne and internal genitalia. Female 104270: FG – epigyne and internal genitalia.

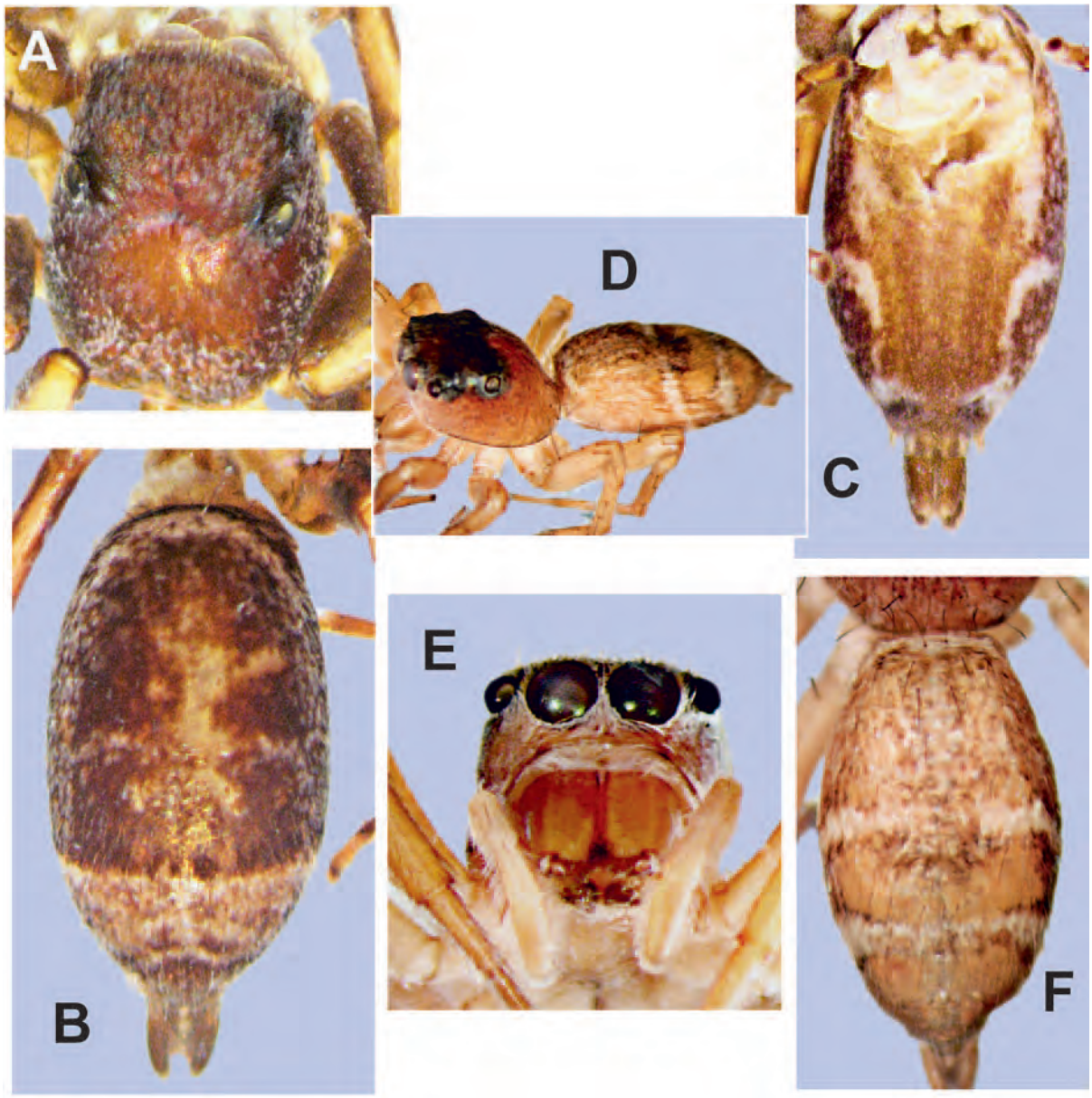

Figure 4. *C. thalassina*, female 32455: AB – dorsal view; C – ventral abdomen. Female 56300: D – lateral view; E – frontal view; F – dorsal abdomen.

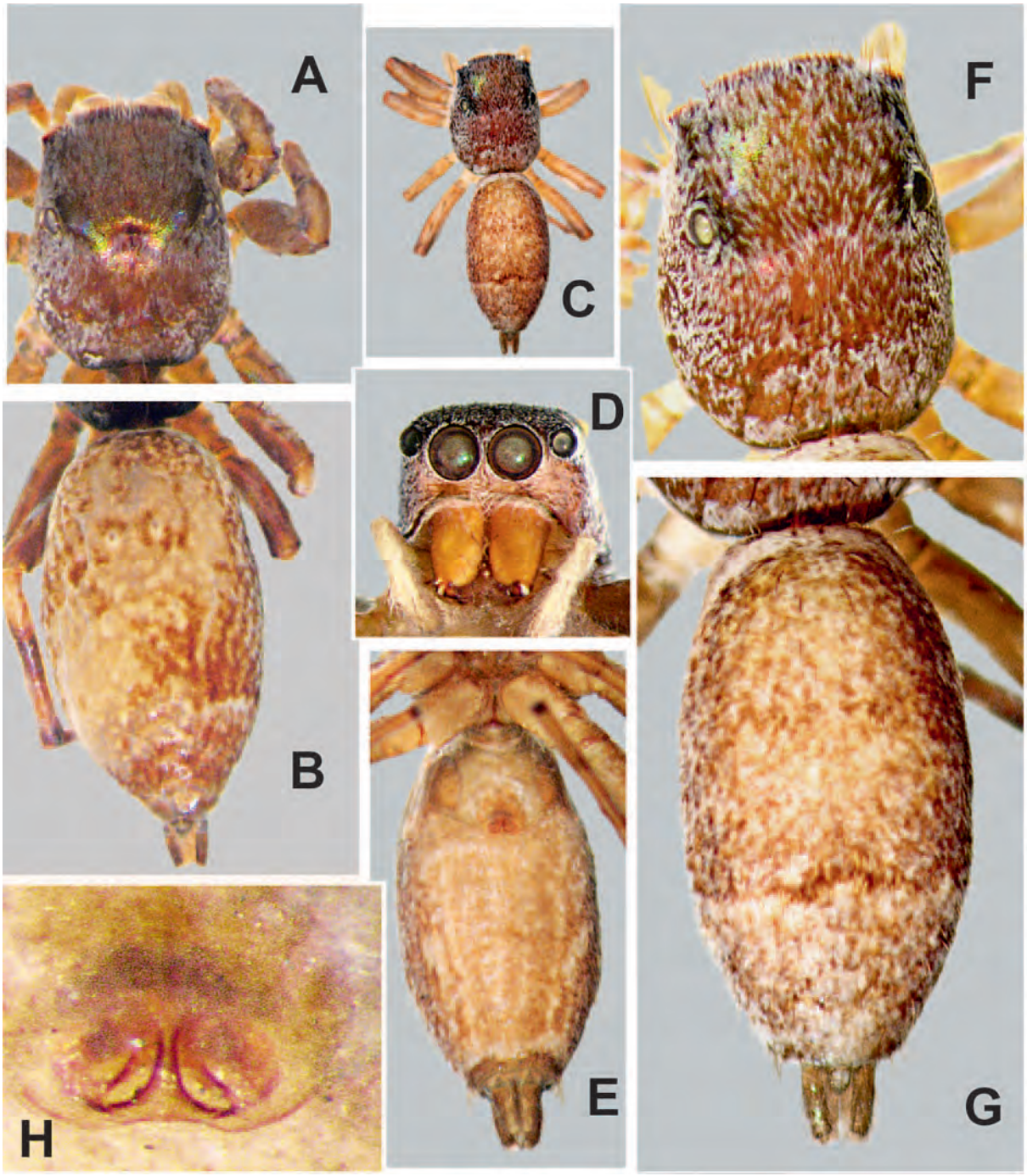

Figure 5. *C. obscura*, female 90043: AB dorsal view; H – epigyne. Female 90041; CFG – dorsal view; D – frontal view; E – ventral abdomen.

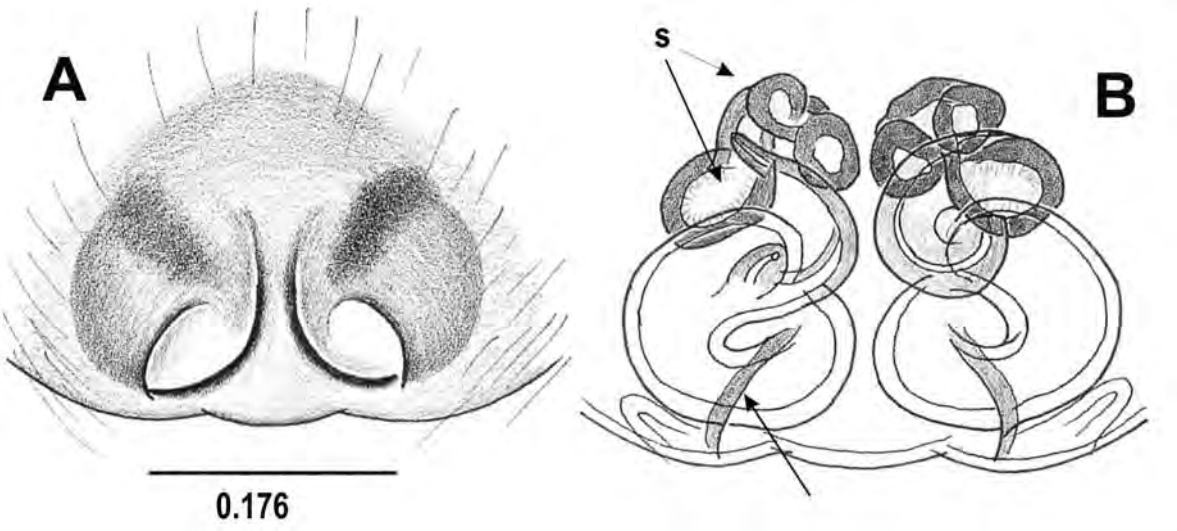

Figure 6. *C. obscura*, female 90043: AB – epigyne and internal genitalia.

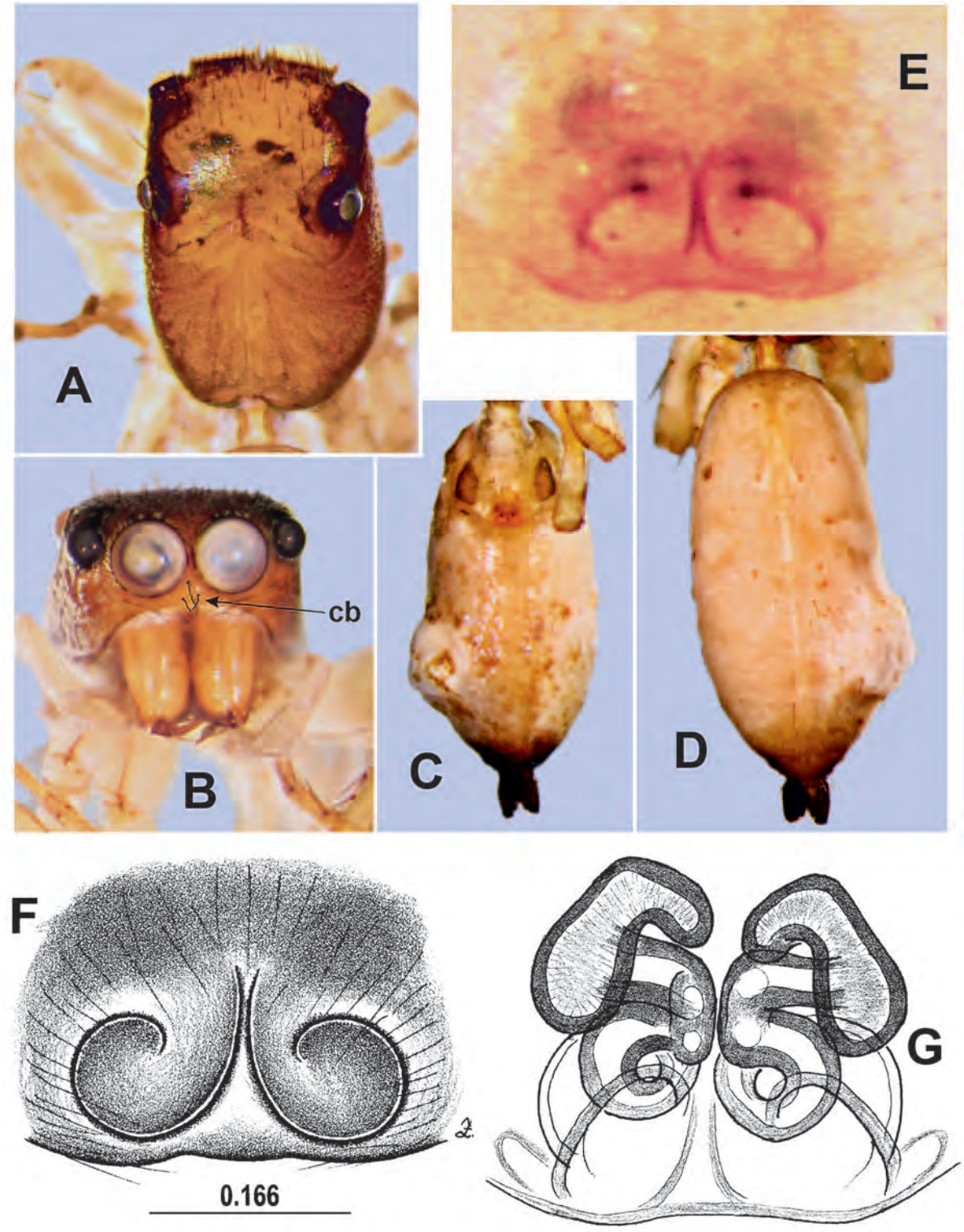

Figure 7. *C. sertungensis* sp. nov., female holotype 6820: AD – dorsal view, B – frontal view, C – ventral abdomen, E-G – epigyne and internal genitalia.

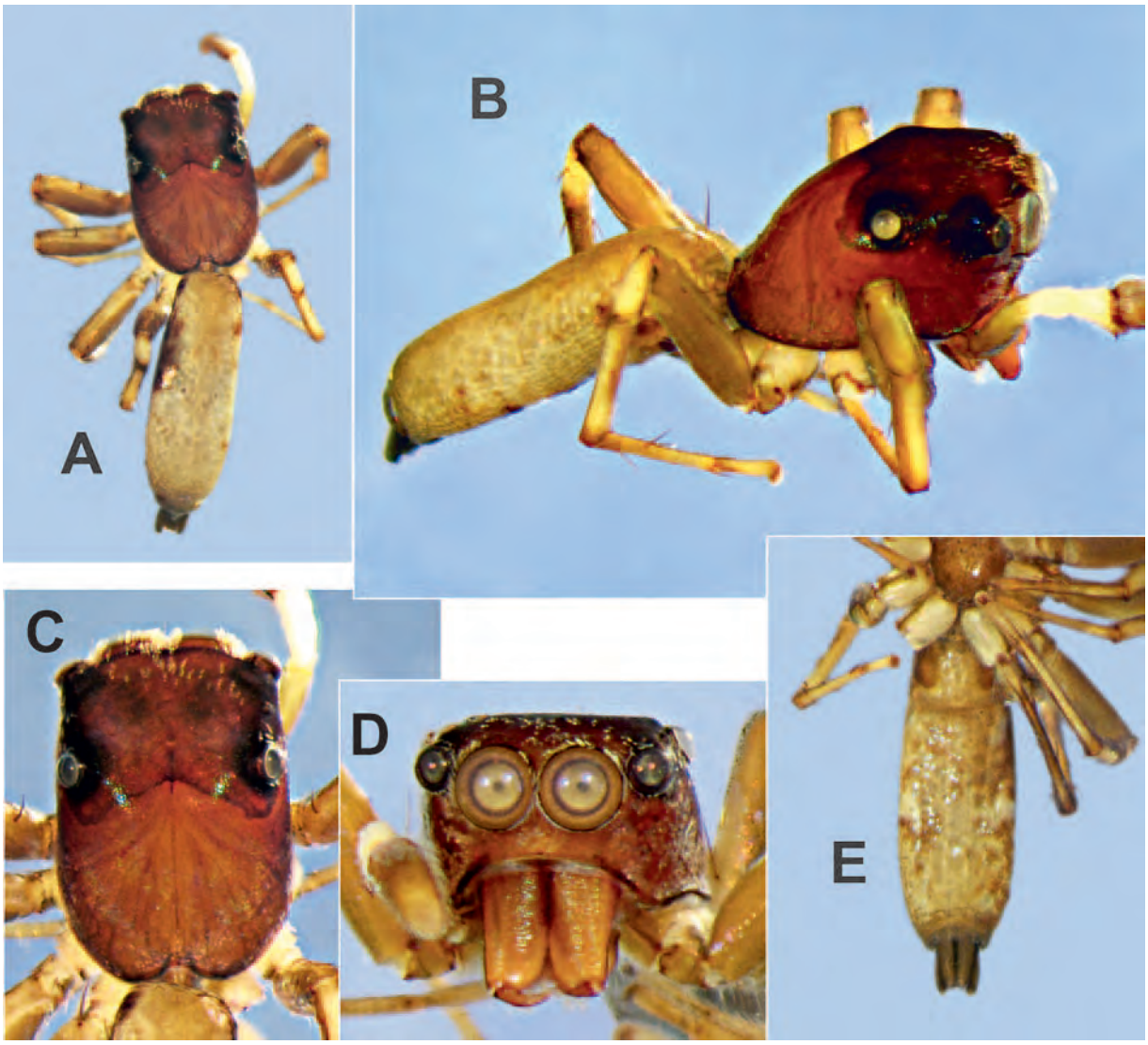

Figure 8. *C. panjangensis* sp. nov., male holotype 6808: AC – dorsal view; B – lateral view; D – frontal view; E – ventral abdomen.

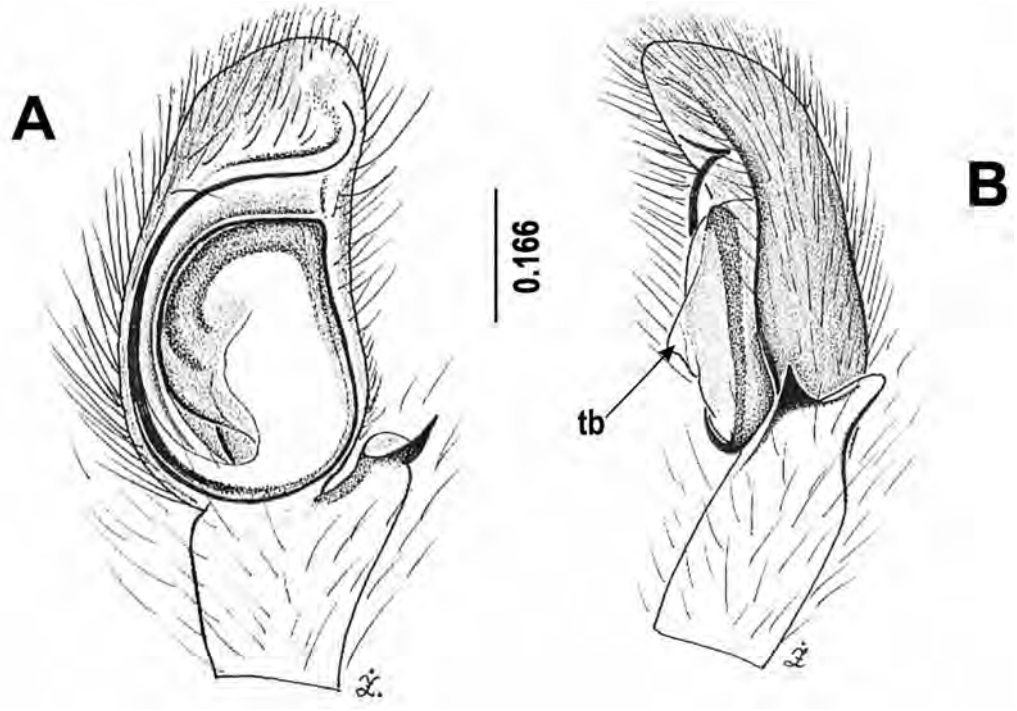

Figure 9. *C. panjangensis*, male holotype 6808: A, B – palpal organ.

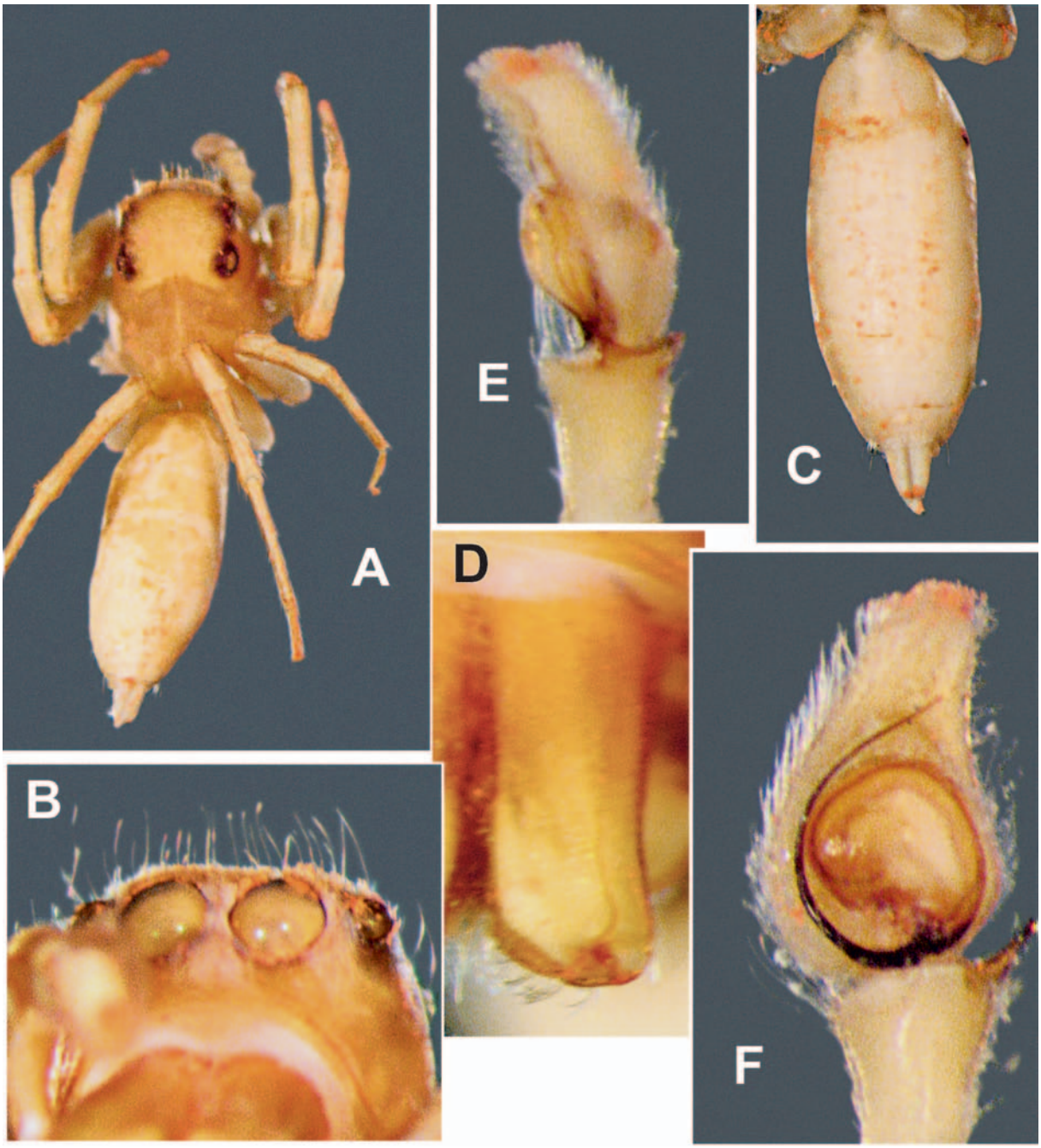

Figure 10. *C. bitaeniata*, male syntype 7804: A – dorsal view; BD – frontal view; C – ventral abdomen; EF – palpal organ.

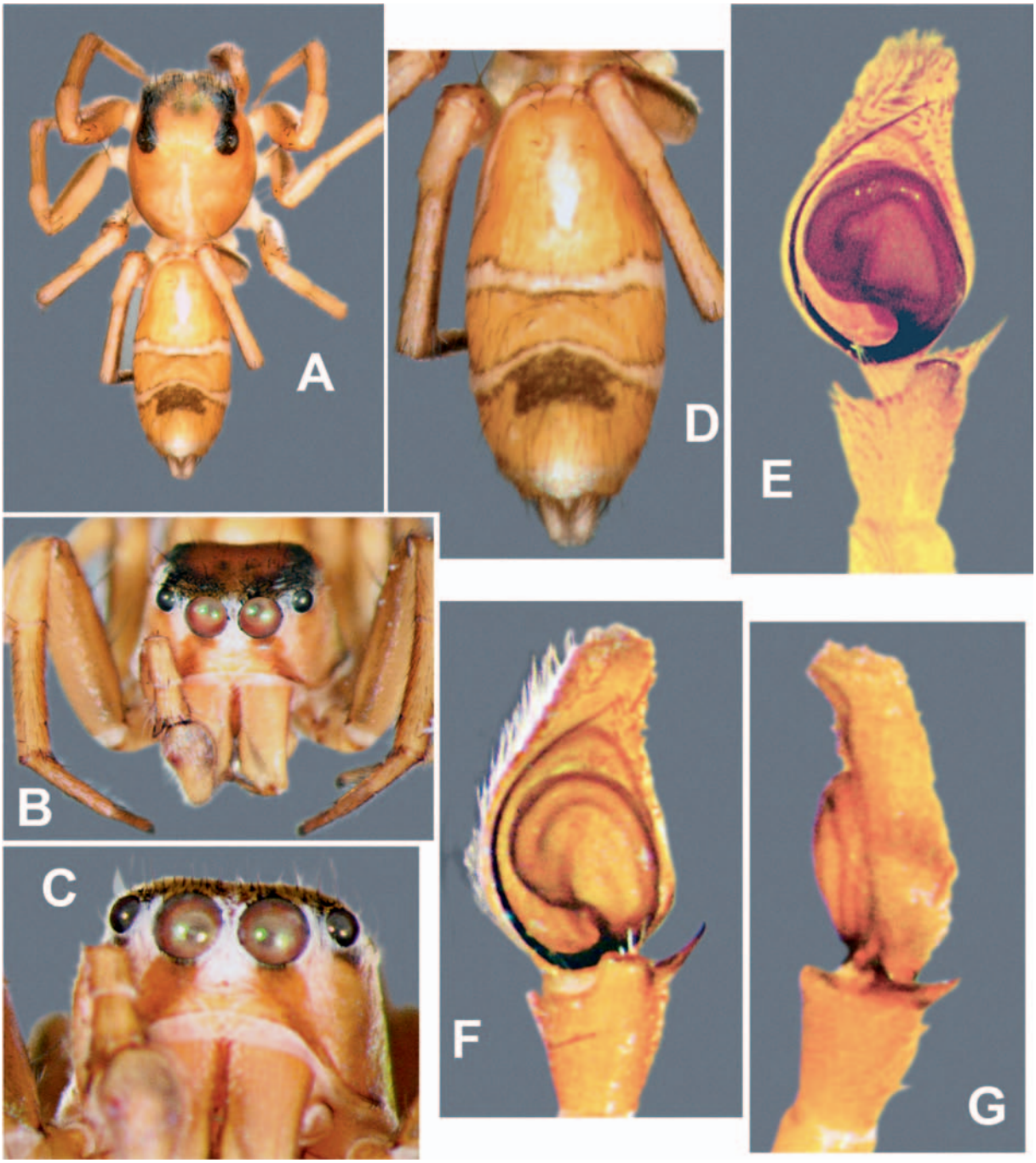

Figure 11. *C. bitaeniata*, male 62132: AD – dorsal view; BC – frontal view; E – palpal organ. Male 21234: FG – palpal organ.

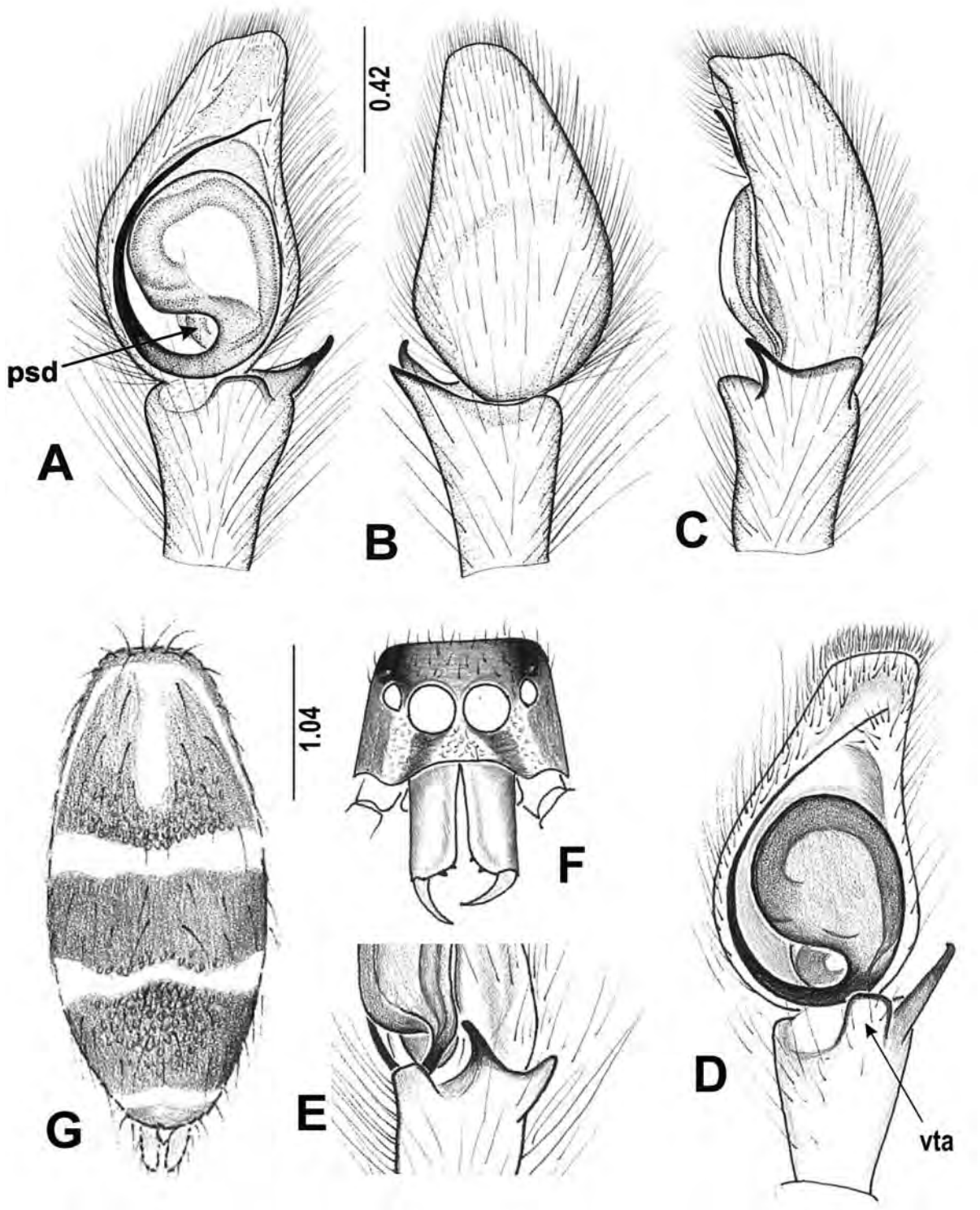

Figure 12. *C. bitaeniata*, male syntype 7804: A-C – palpal organ. Male 44882: D-E – palpal organ; F – frontal view; G – dorsal abdomen.

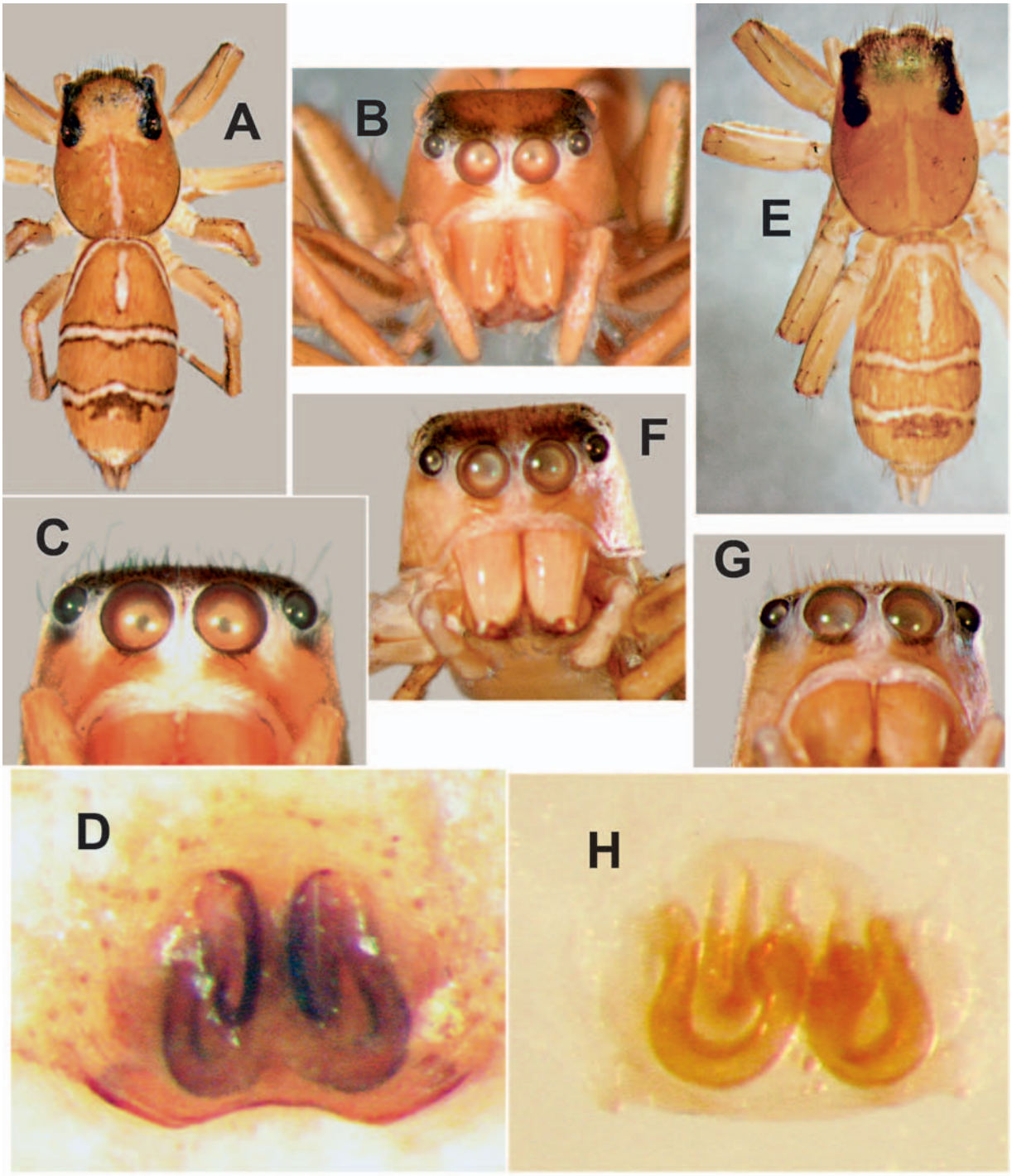

Figure 13. *C. bitaeniata*, female 62132: A – dorsal view; BC – frontal view; D – Epigyne. Female 21234: E – dorsal view; FG – frontal view; H – epigyne.

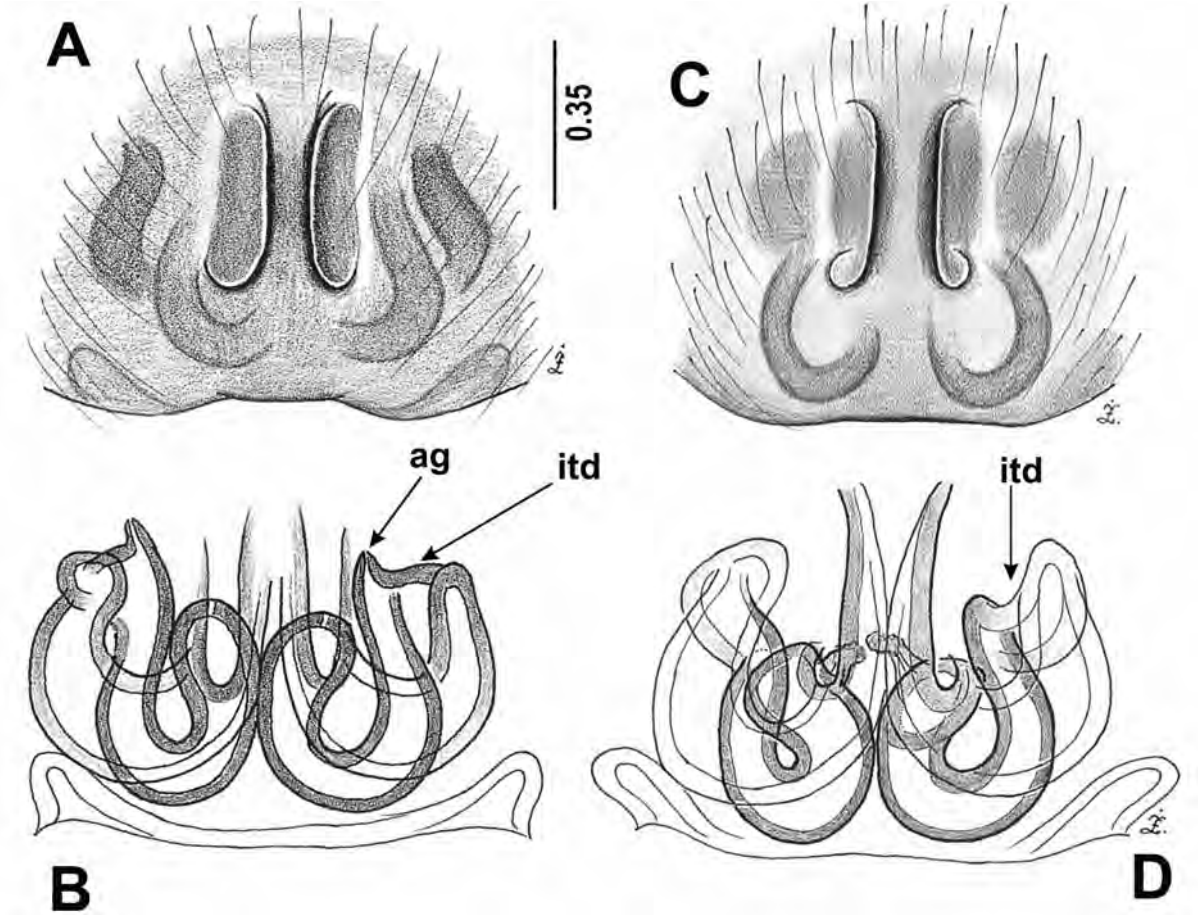

Figure 14. *C. bitaeniata*, female 21234: AB – epigyne and internal genitalia. Female 90121: CD – epigyne and internal genitalia.

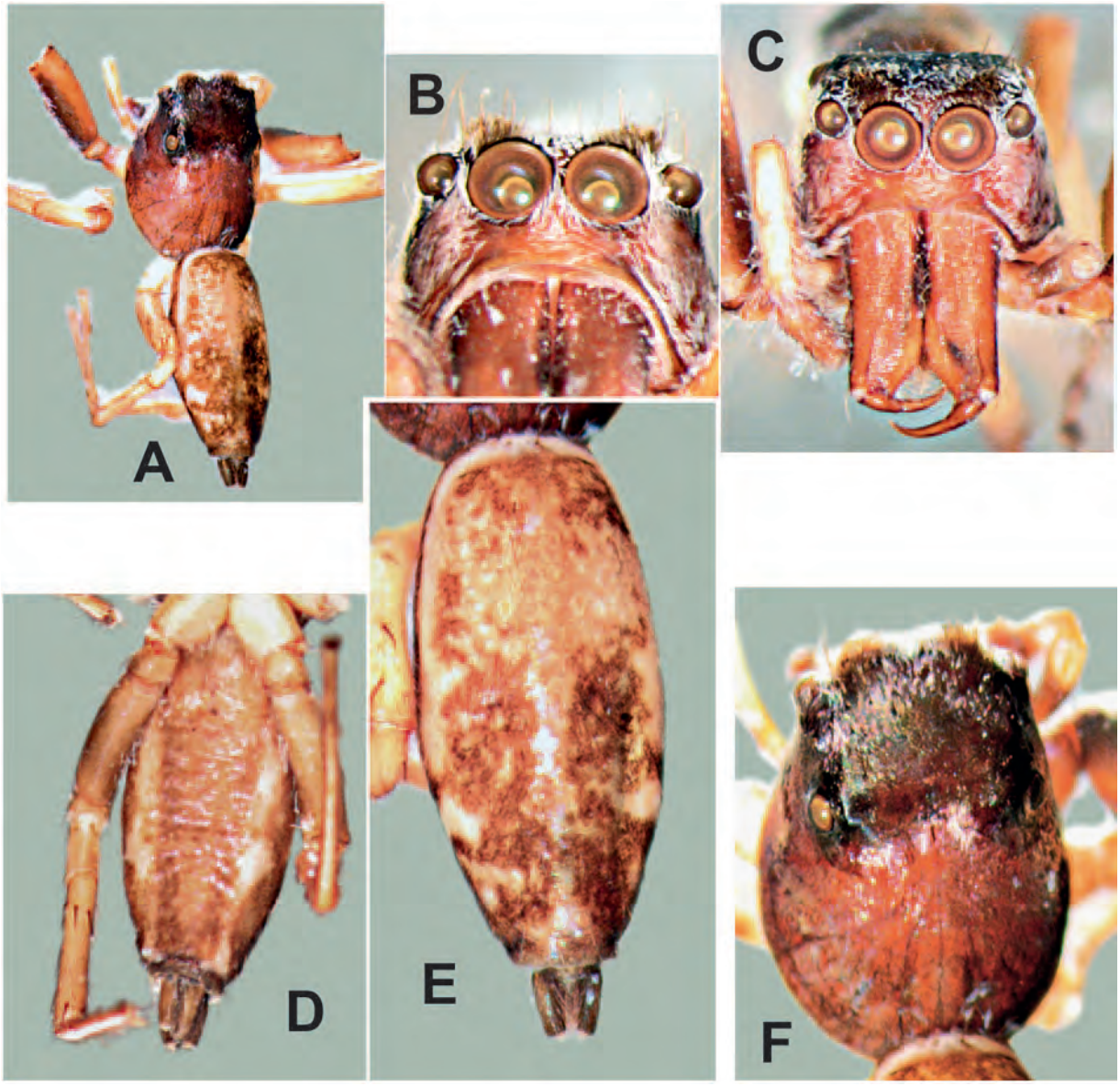

Figure 15. *C. harveyi*, male holotype 56415: AEF – dorsal view; BC – frontal view; D – ventral abdomen.

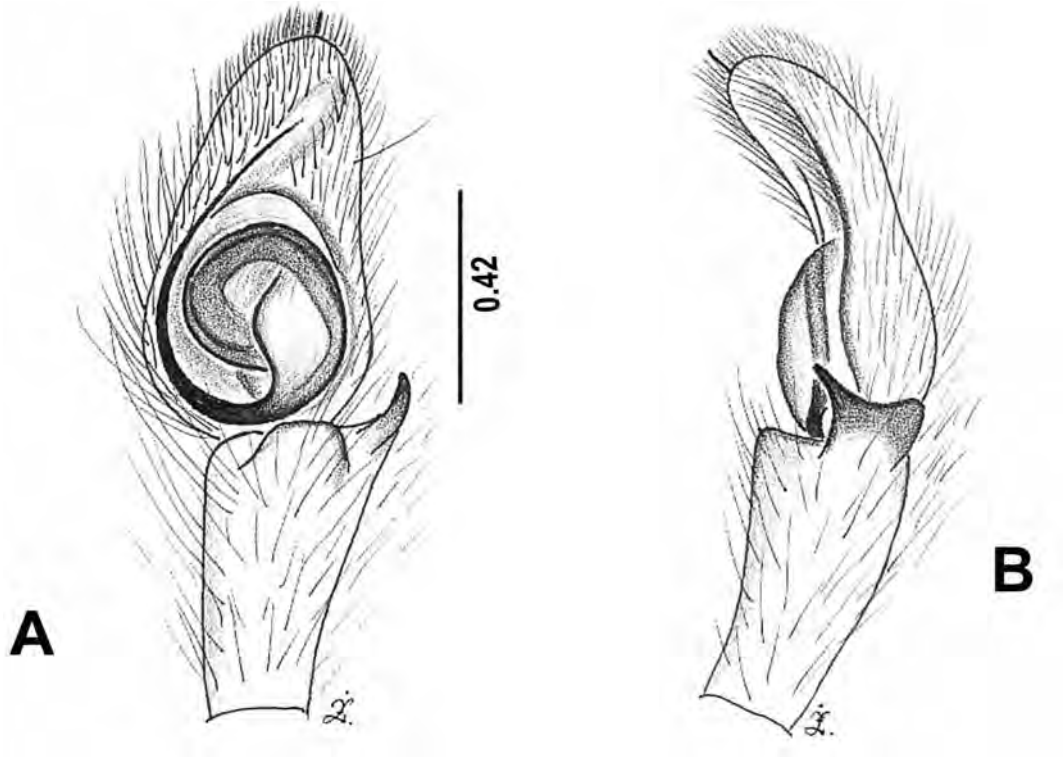

Figure 16. *C. harveyi*, male holotype 56415: AB – palpal organ.

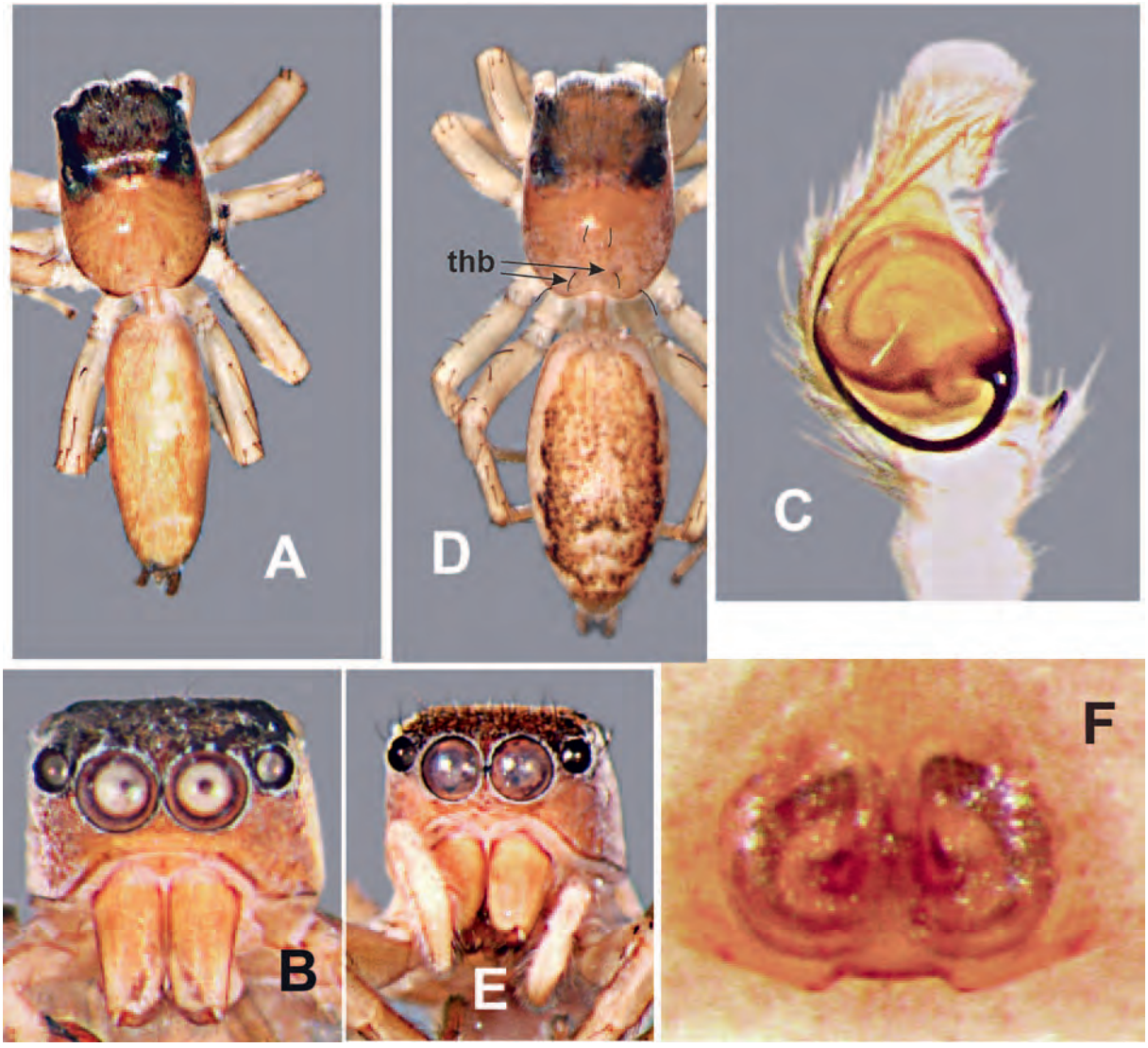

Figure 17. *C. lami*, male 89553: A – dorsal view; B – frontal view; C – palpal organ. Female 89555: D – dorsal view; E – frontal view; F – epigyne.

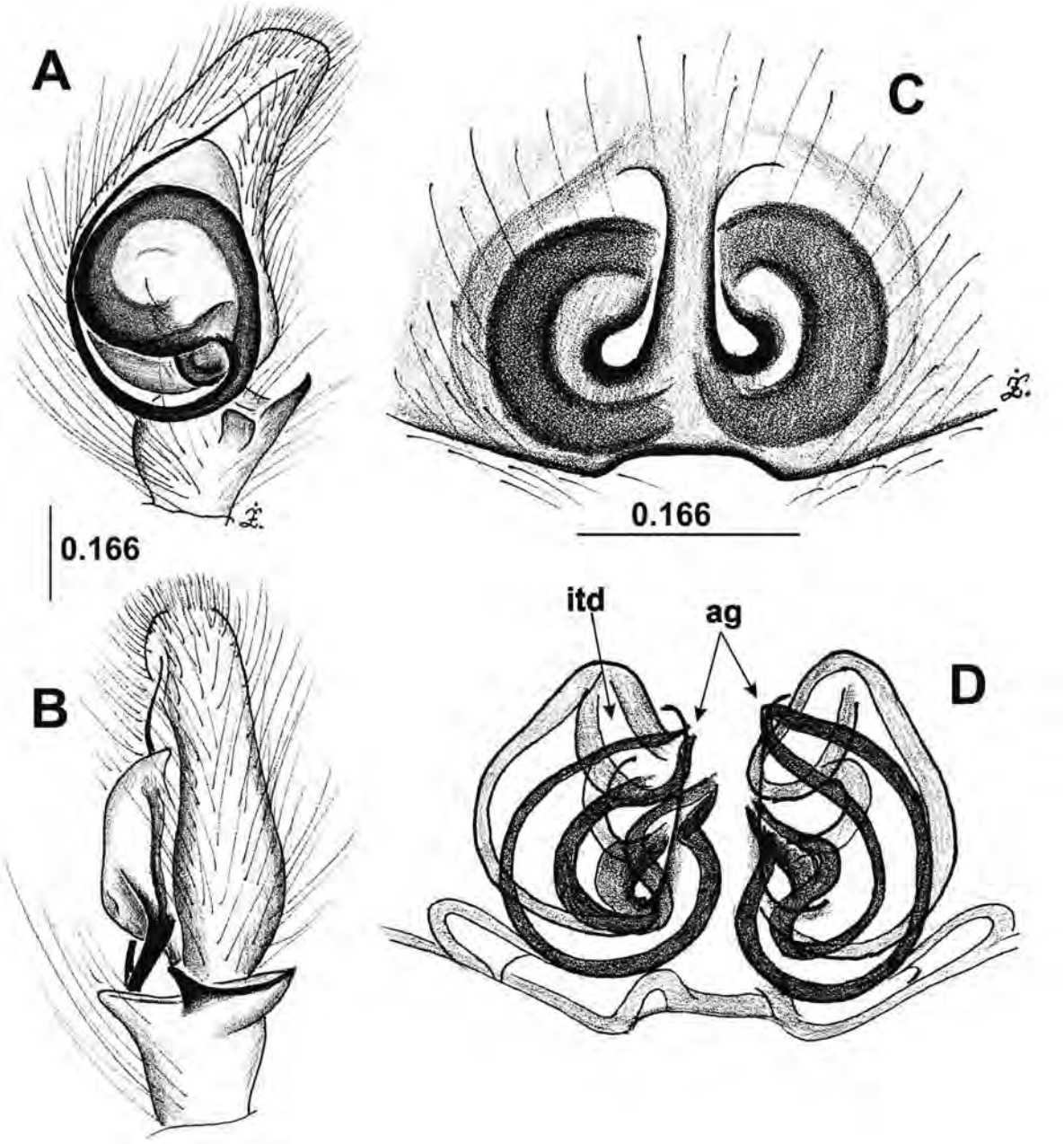

Figure 18. *C. lami*, male 89553: AB – palpal organ. Female 89555: CD – epigyne and internal genitalia.

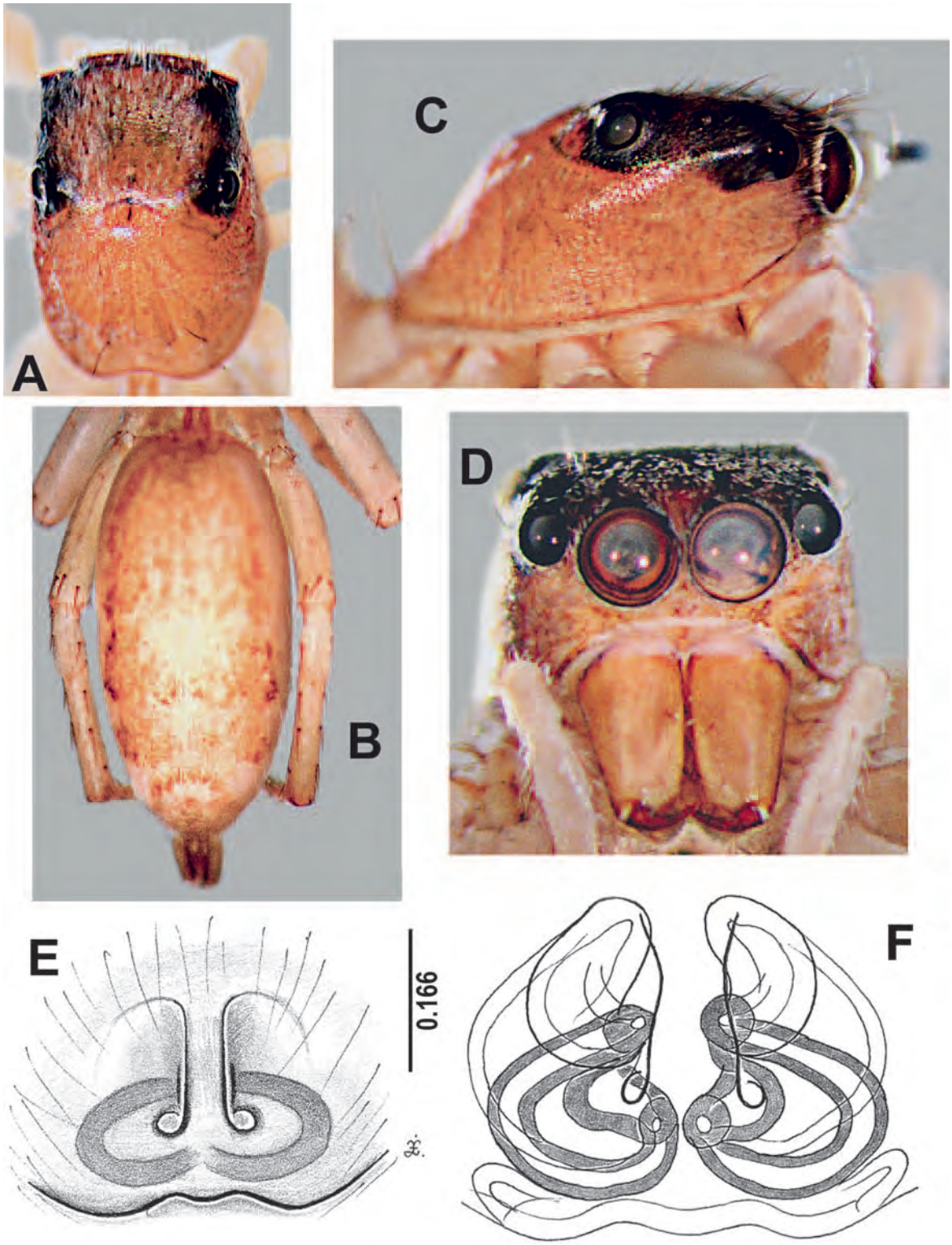

Figure 19. *C. lami*, female 90047: AB – dorsal view; C – lateral view; D – frontal view; EF – epigyne and internal genitalia.

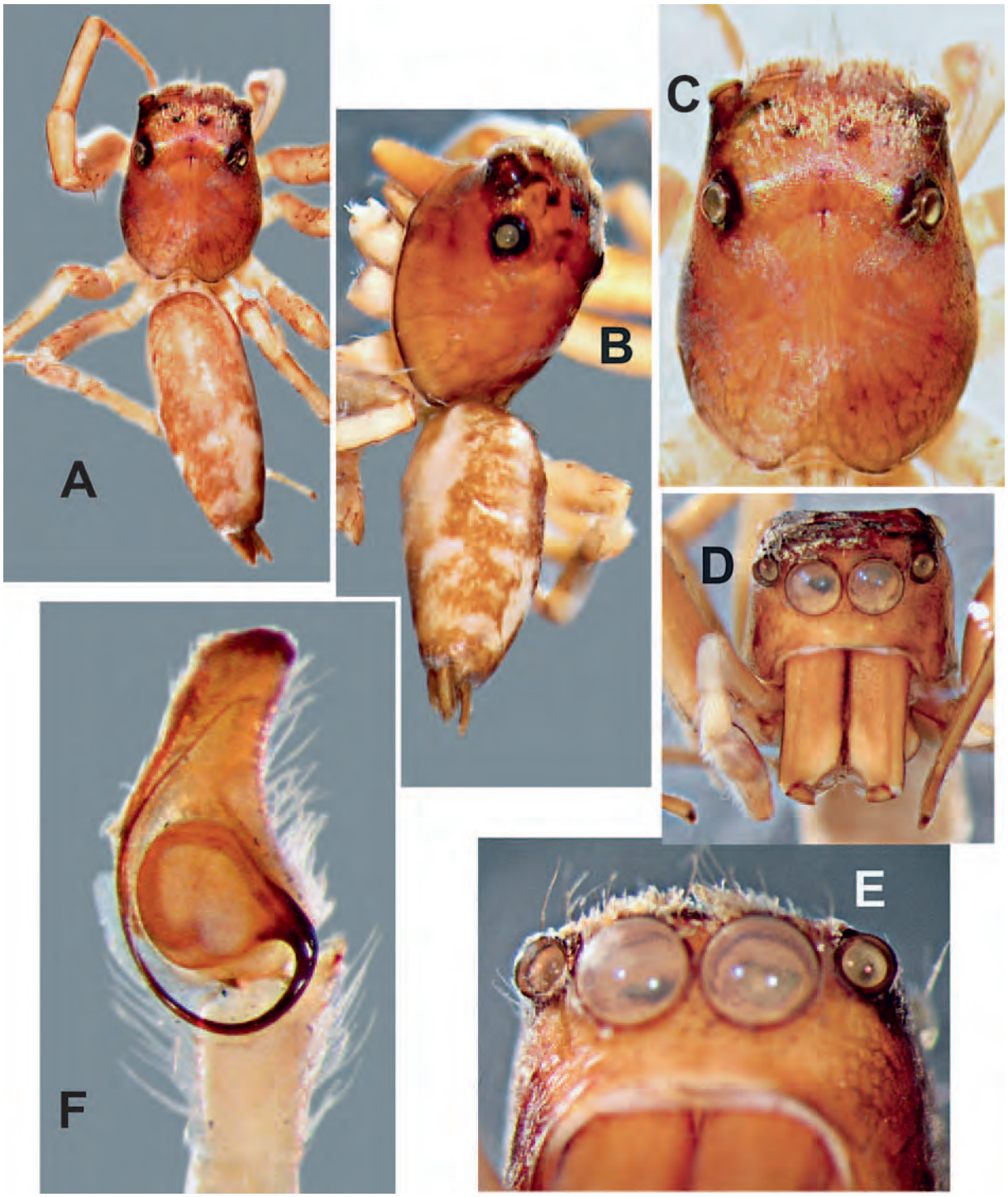

Figure 20. *C. hortoni*, male holotype 21148: AC – dorsal view; B – dorso-lateral view; DE – frontal view; F – palpal organ.

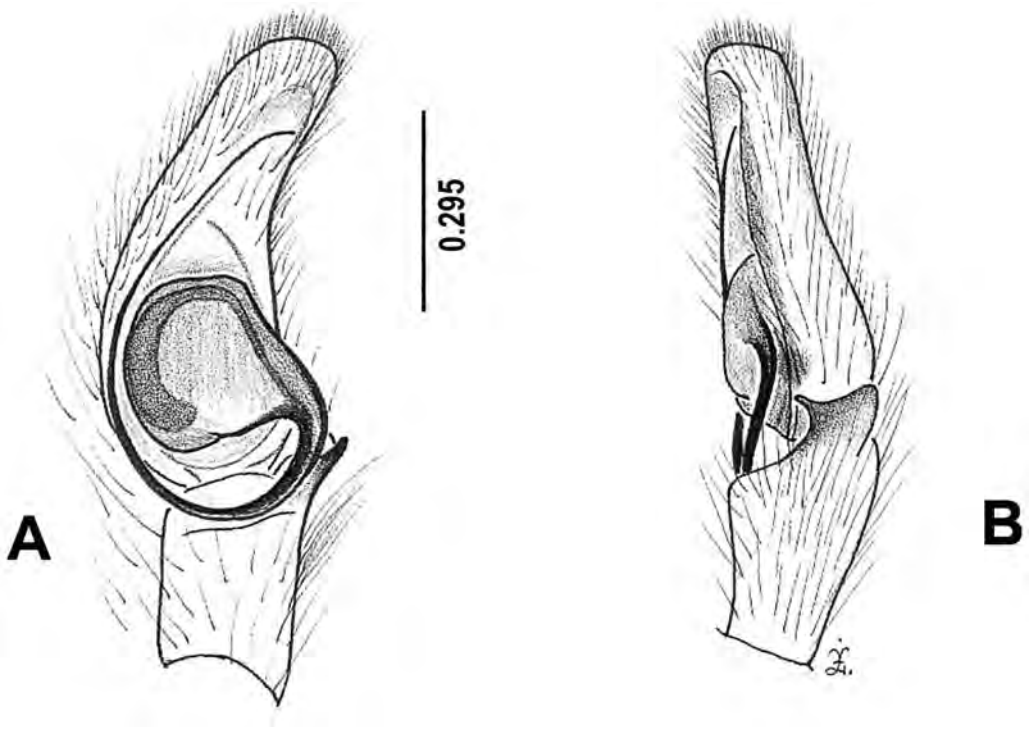

Figure 21. *C. hortoni*, male holotype 21148: AB – palpal organ.

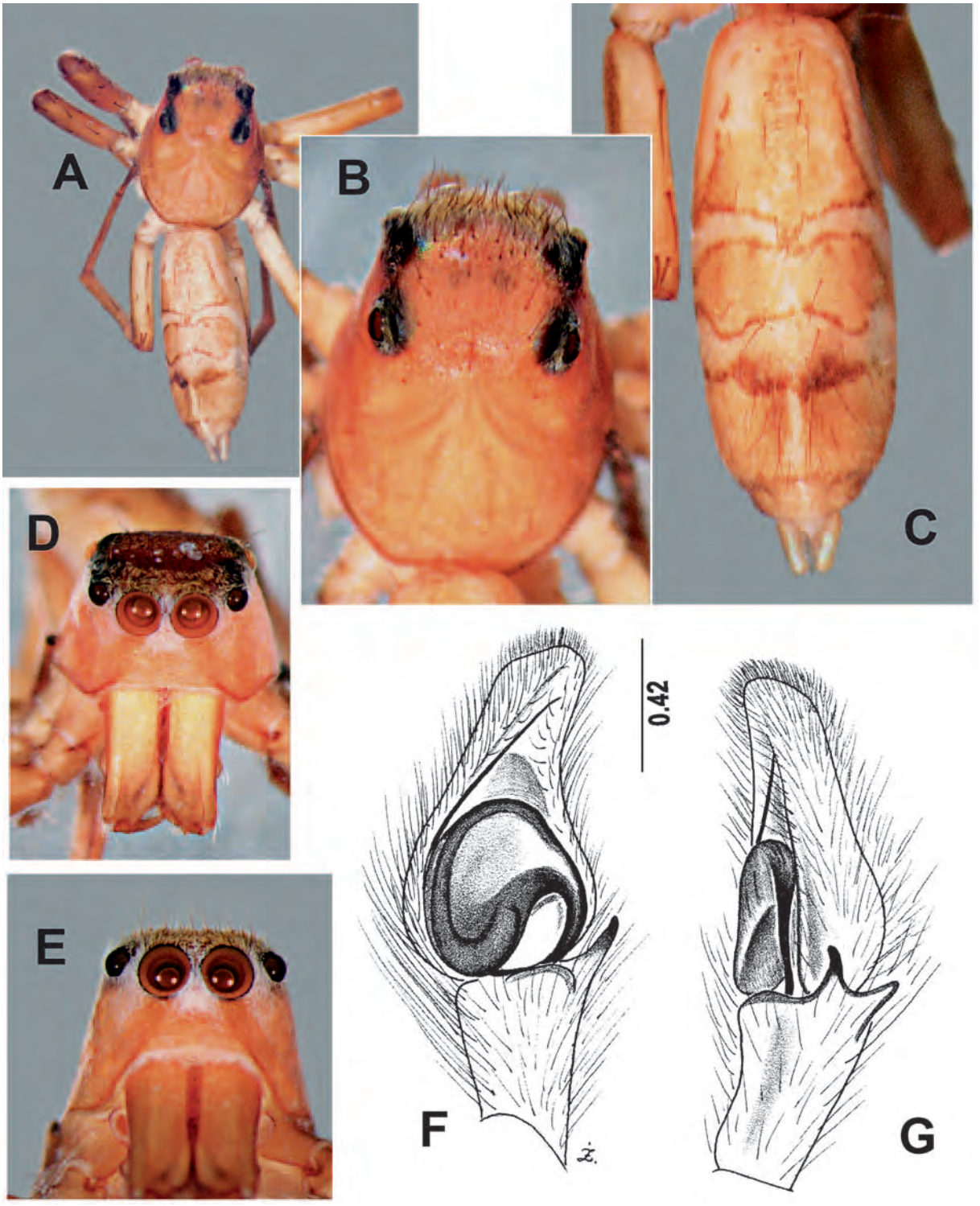

Figure 22. *C. kohi*, male holotype 56418: A-C – dorsal view; DE – frontal view; FG – palpal organ.

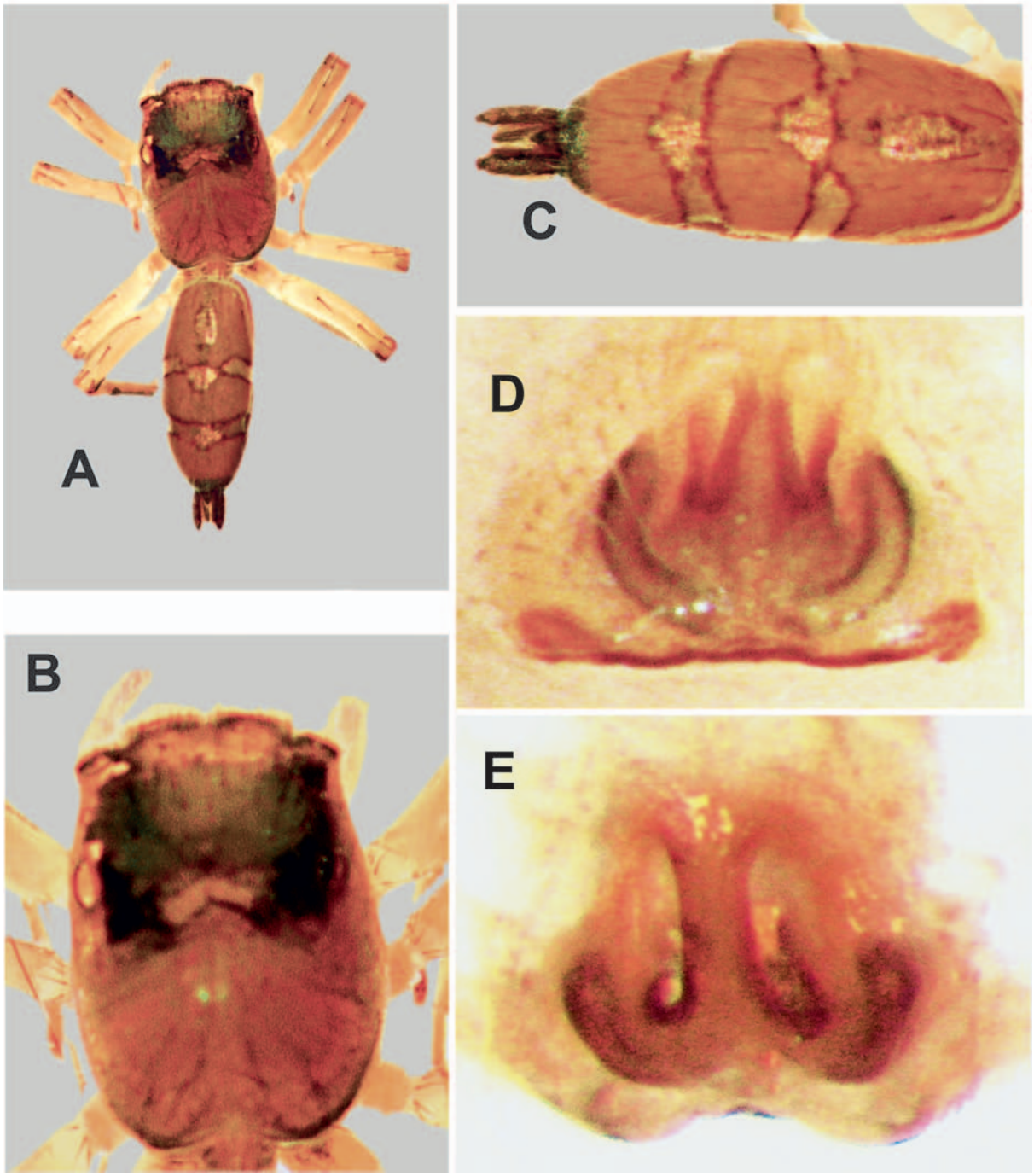

Figure 23. *C. tavurvur*, female holotype 83715: A-C – dorsal view. Female 83716: epigyne. Female from Madang: E – epigyne.

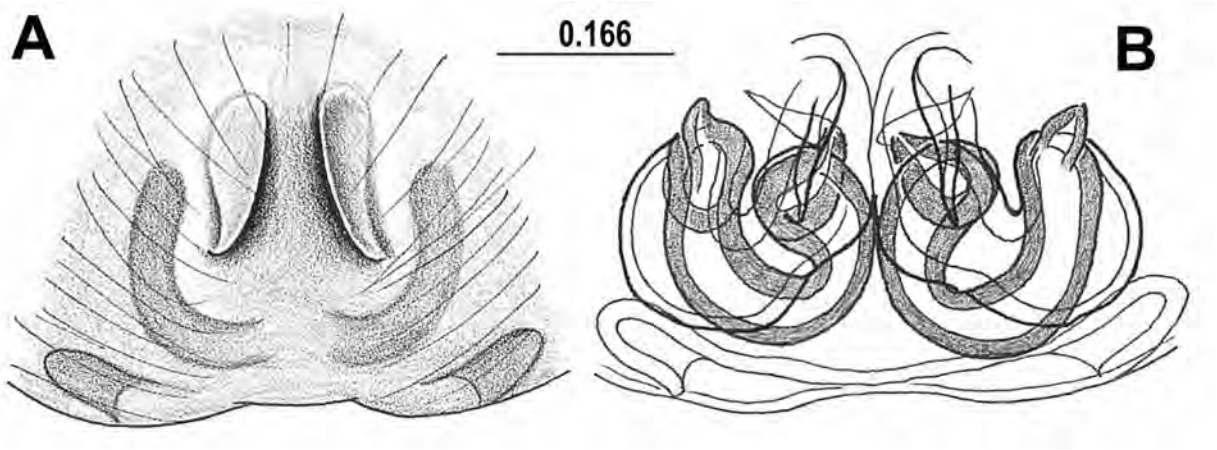

Figure 24. *C. tavurvur*, female holotype 83715: AB – epigyne and internal genitalia.

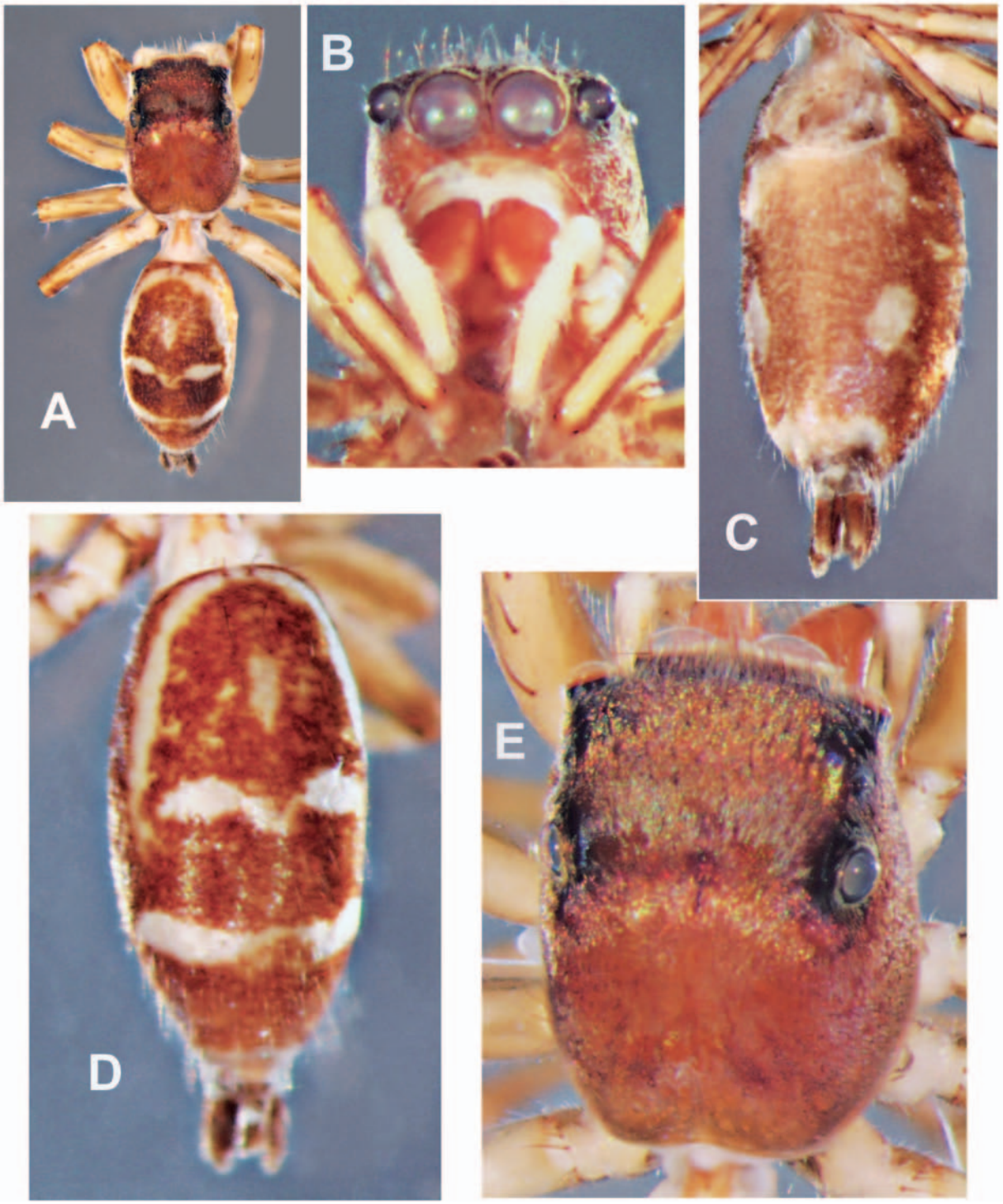

Figure 25. *C. motmot*, female holotype 21347: ADE – dorsal view; B – frontal view; C – ventral abdomen.

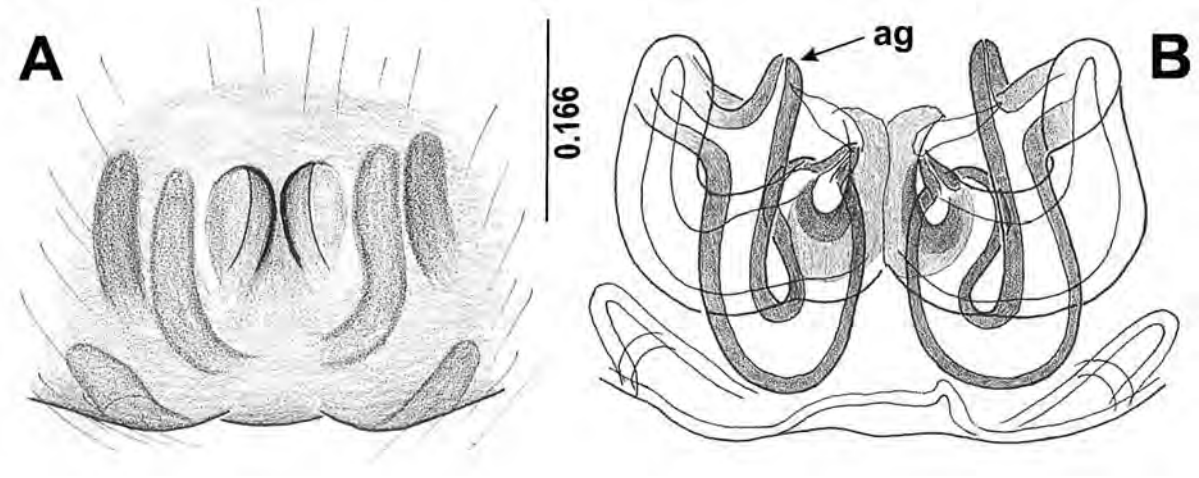

Figure 26. *C. motmot*, female holotype 21347: AB – epigyne and internal genitalia.

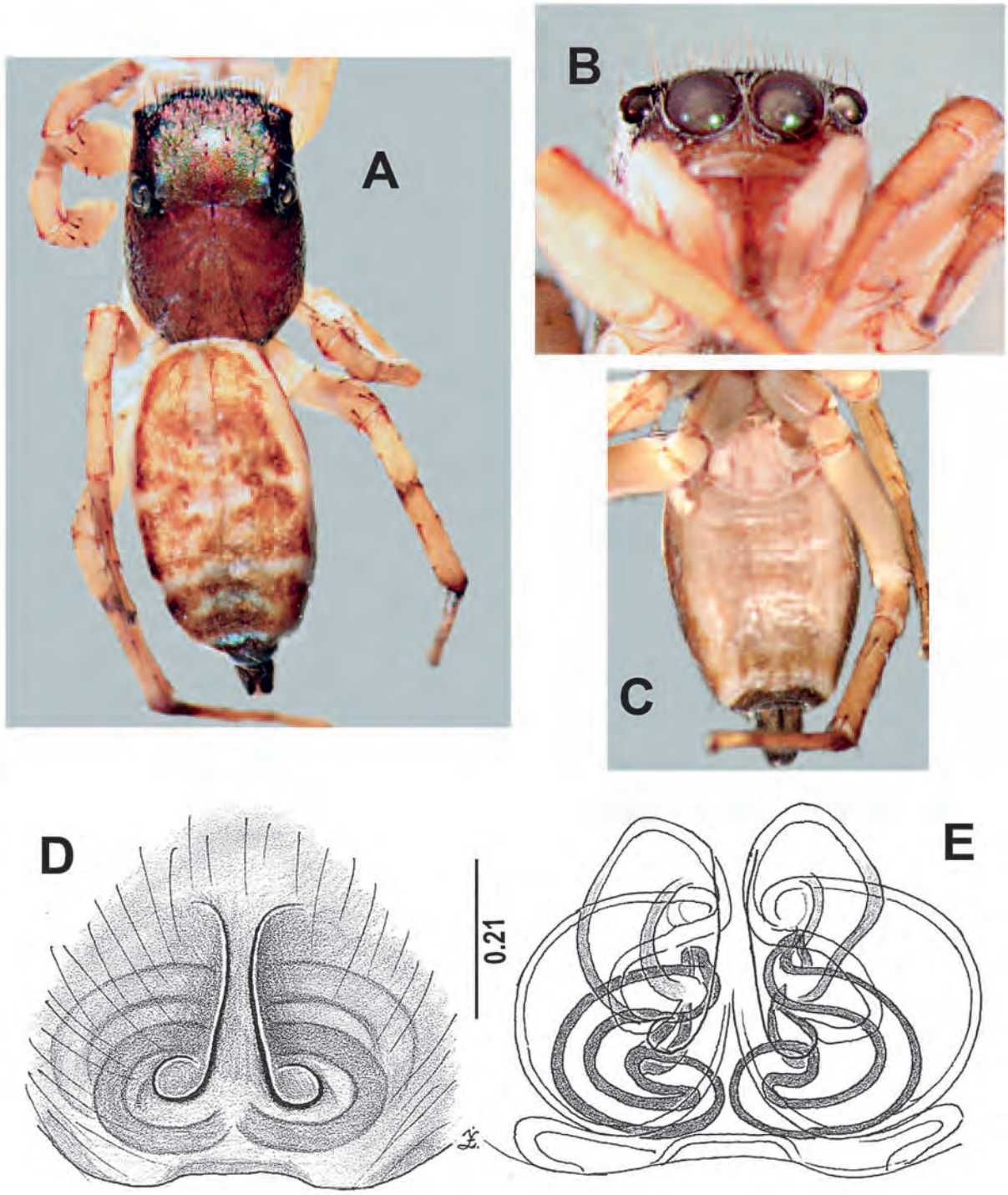

Figure 27. *C. banika*, female holotype 32378: A – dorsal view; B – frontal view; C – ventral abdomen; D – epigyne; E – internal genitalia.

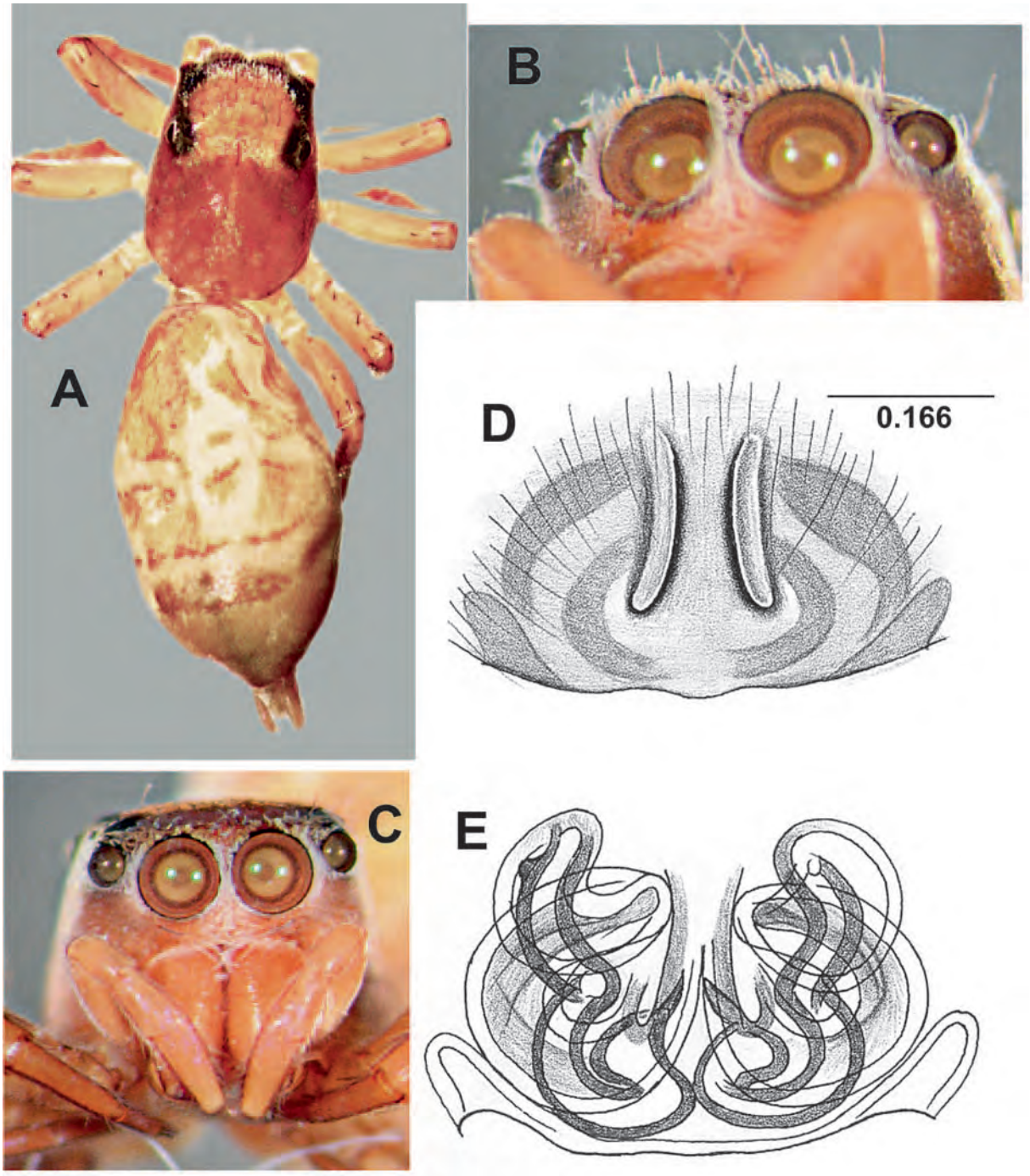

Figure 28. *C. kairiru*, female holotype 7995: A – dorsal view; BC – frontal views; D – epigyne; E – internal genitalia.

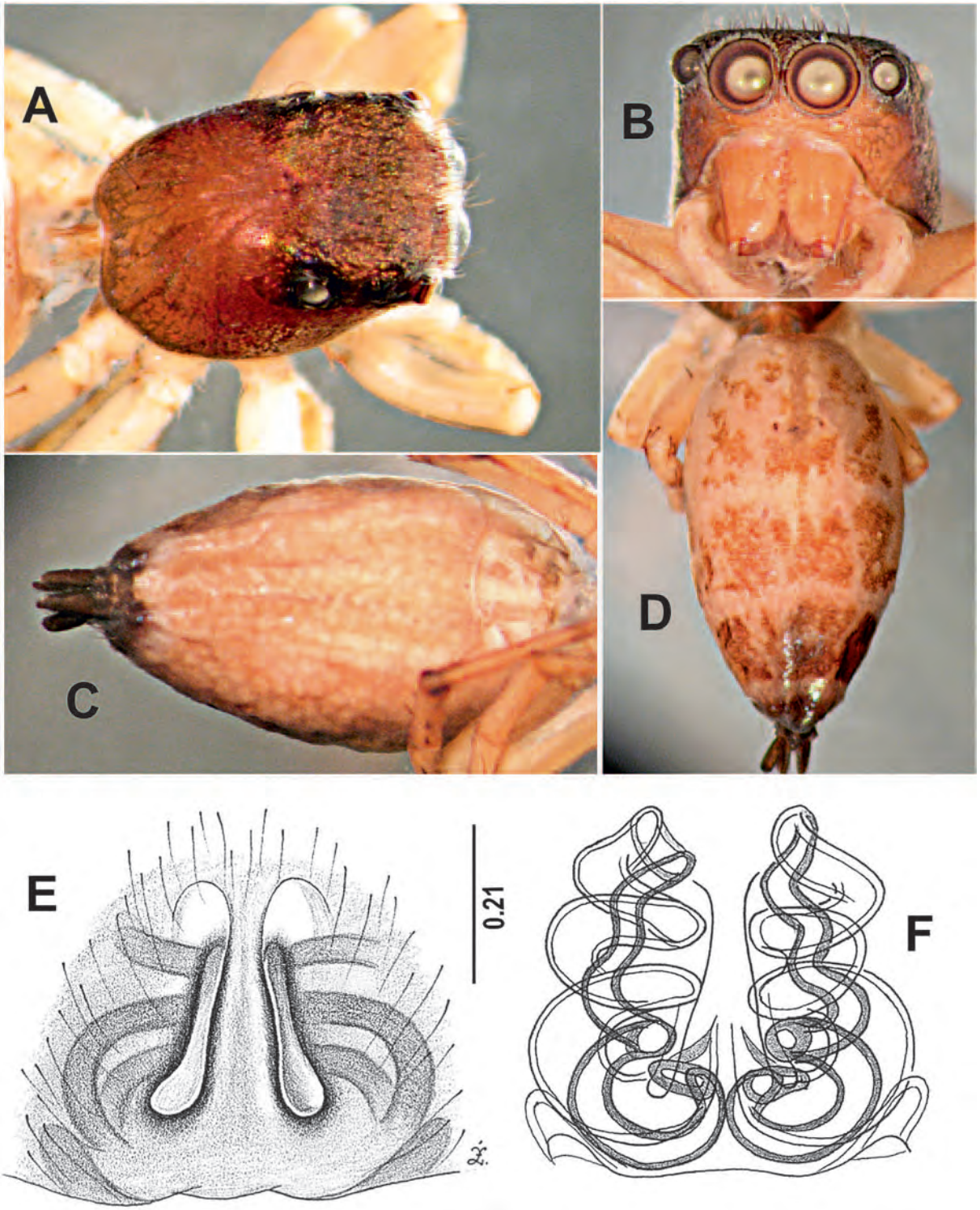

Figure 29. *C. lungga*, female holotype 32358: AD – dorsal view; B – frontal view; C – ventral abdomen; E – epigyne, F – internal genitalia.

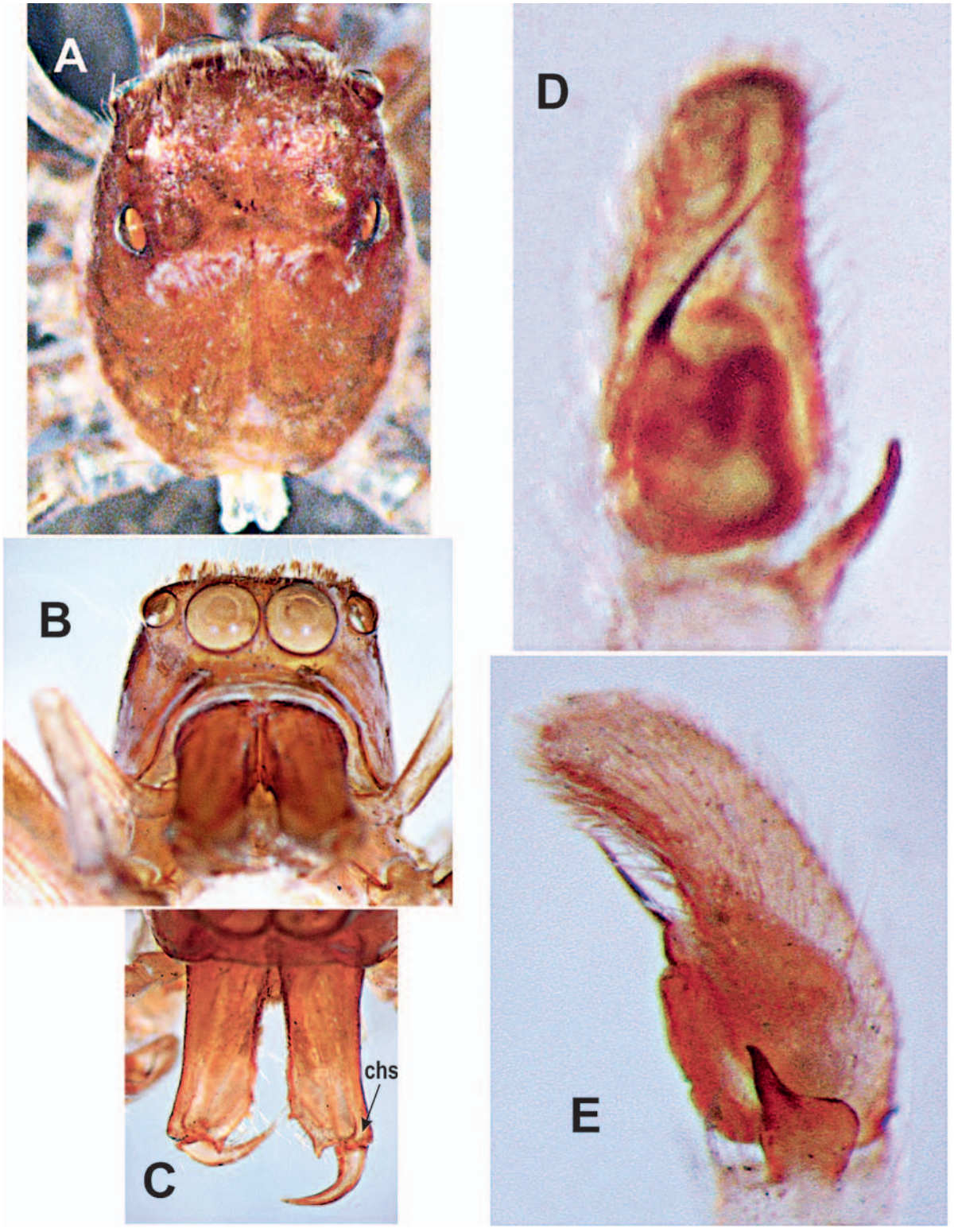

Figure 30. *C. tristriatus*, male holotype 8349: A – dorsal view; B – frontal view; C – frontal chelicerae; DE – palpal organ.

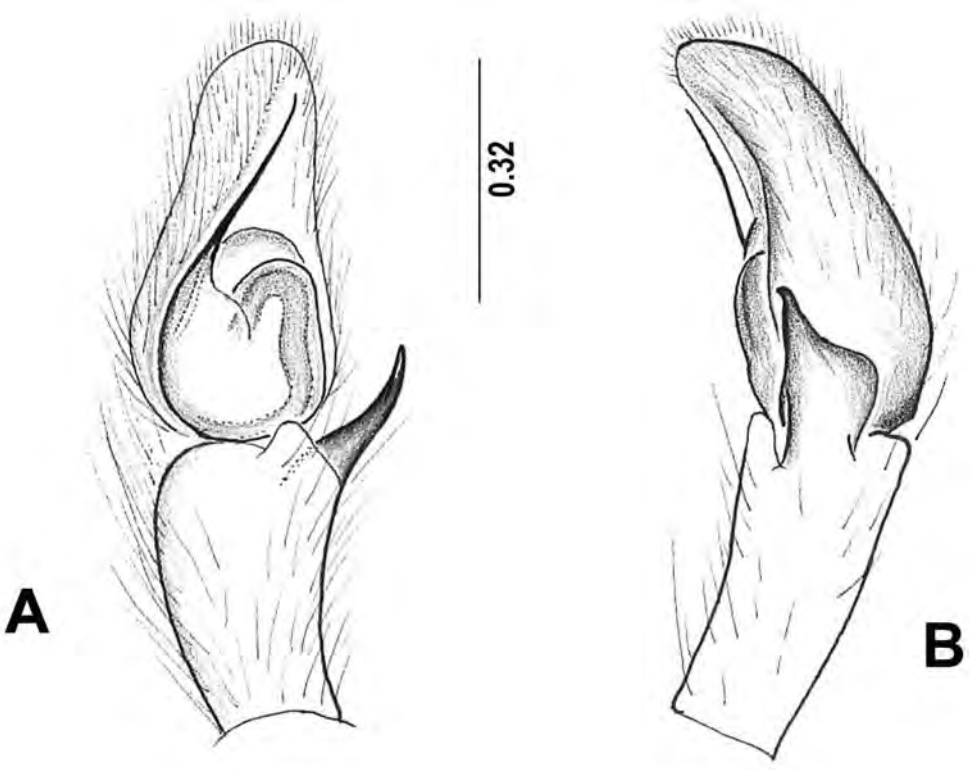

Figure 31. *C. tristriatus*, male holotype 8349: AB – palpal organ.

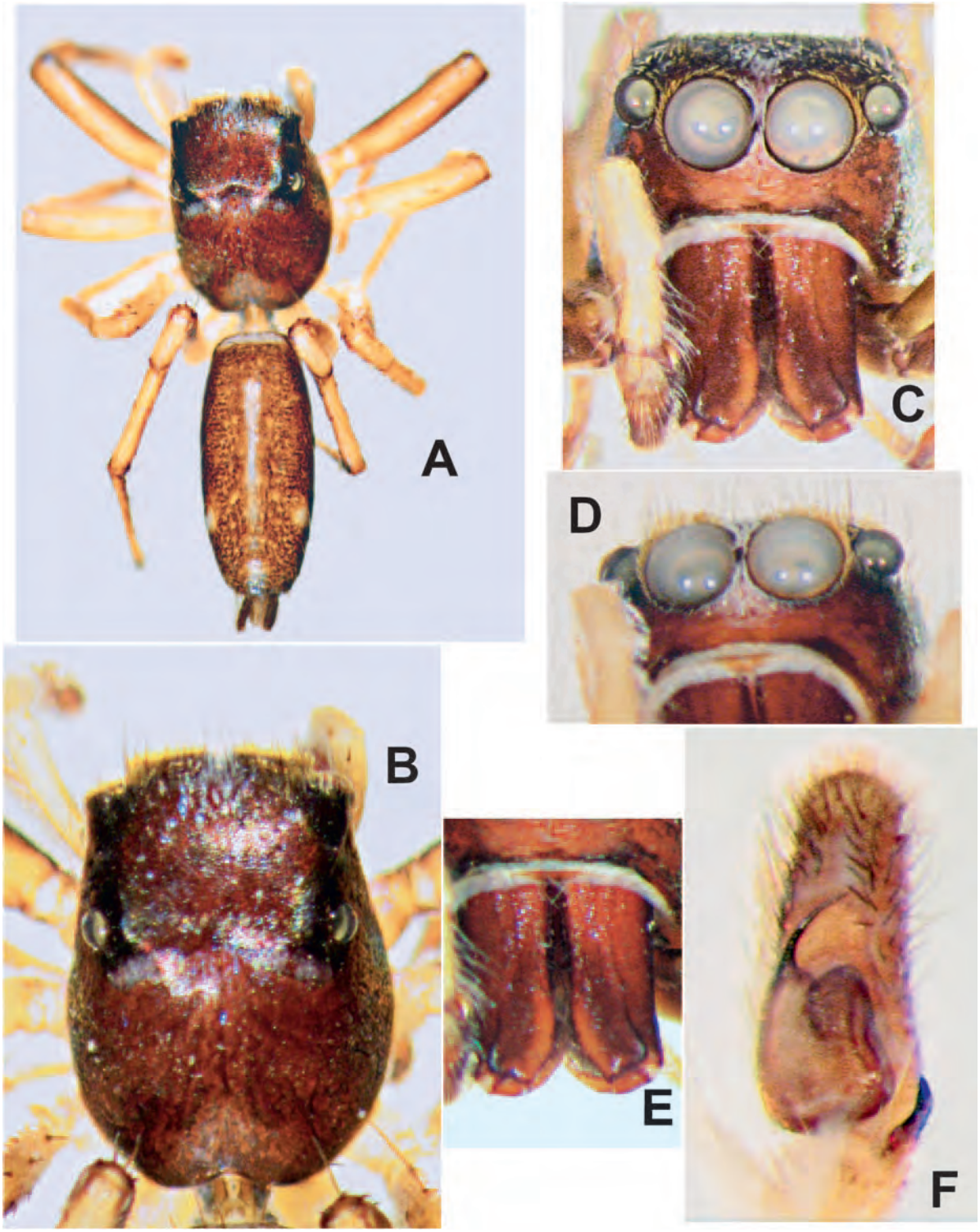

Figure 32. *C. baehrae*, male holotype 44850: AB – dorsal view; CD – frontal view; E – frontal chelicerae. Male paratype 66702: F – palpal organ.

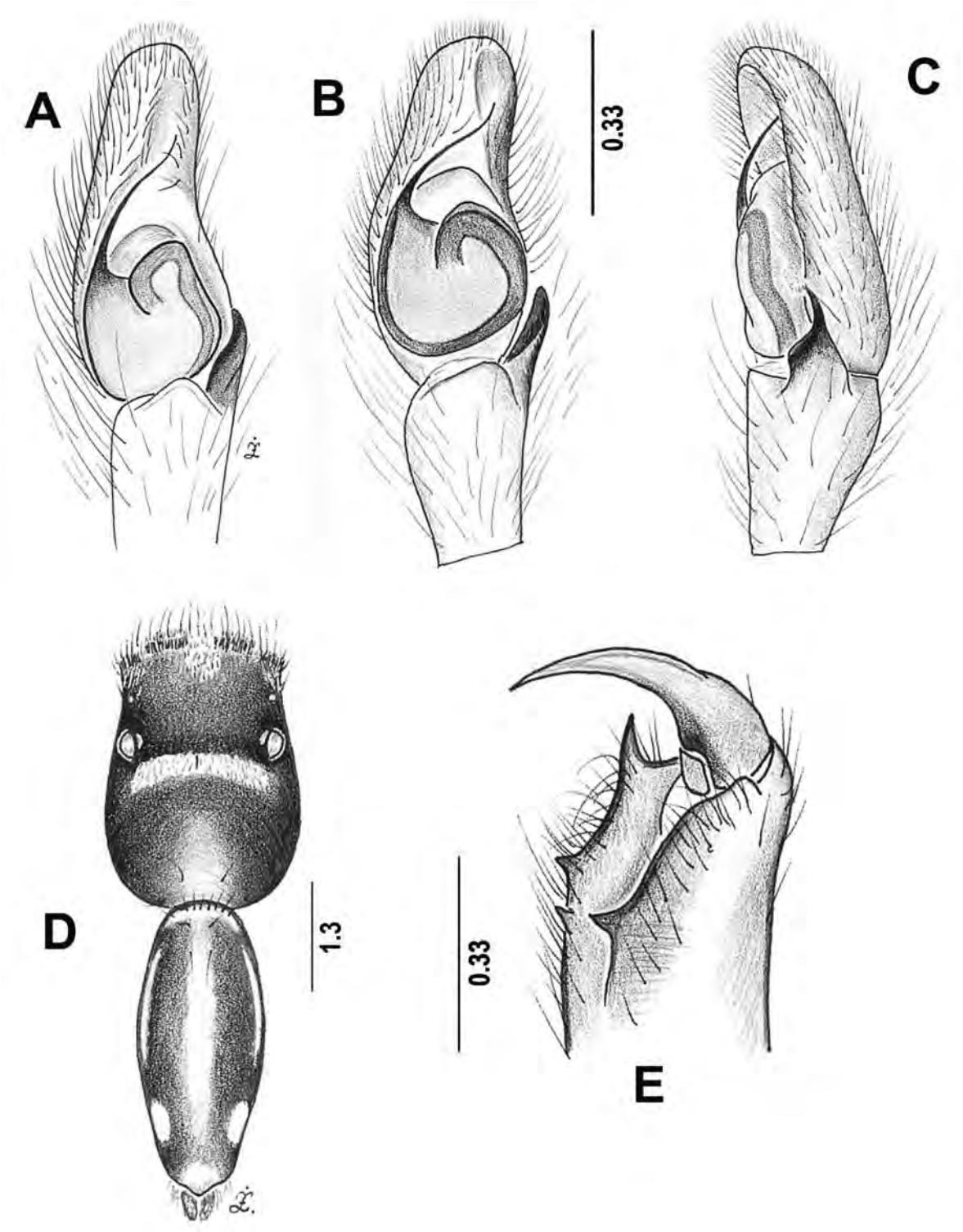

Figure 33. *C. baehrae*, male paratype 21149: A – palpal organ. Male paratype 89607: BC – palpal organ. Male paratype 44870: D – dorsal view. Male paratype 21146: E – chelicera.

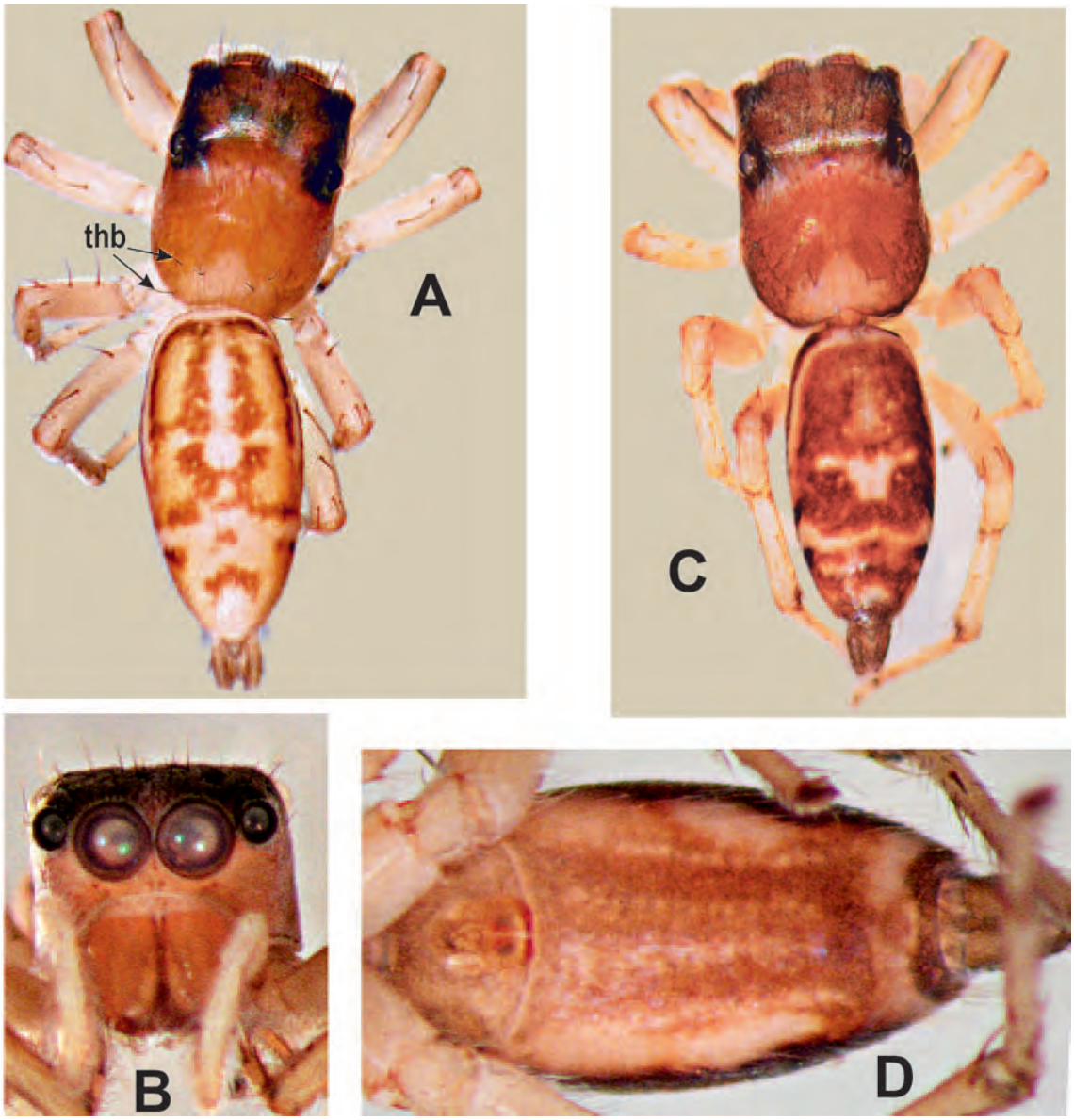

Figure 34. *C. baehrae*, female paratype 18444: A – dorsal view; B – frontal view. Female paratype 44893: C – dorsal view; D – ventral abdomen.

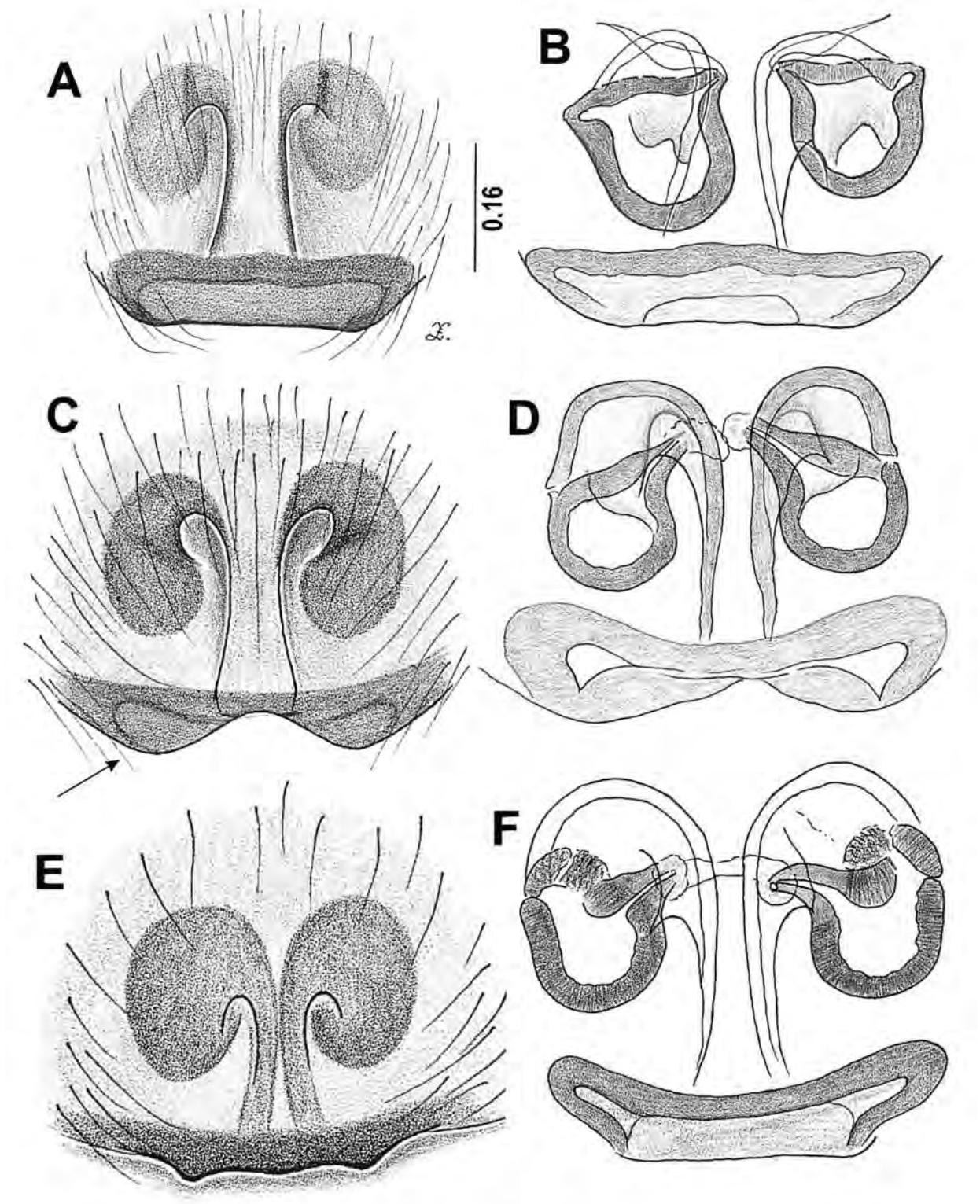

Figure 35. *C. baehrae*, female paratype 44853: AB – epigyne and internal genitalia. Female paratype 89606: CD – epigyne and internal genitalia. Female paratype 89607: EF – epigyne and internal genitalia.

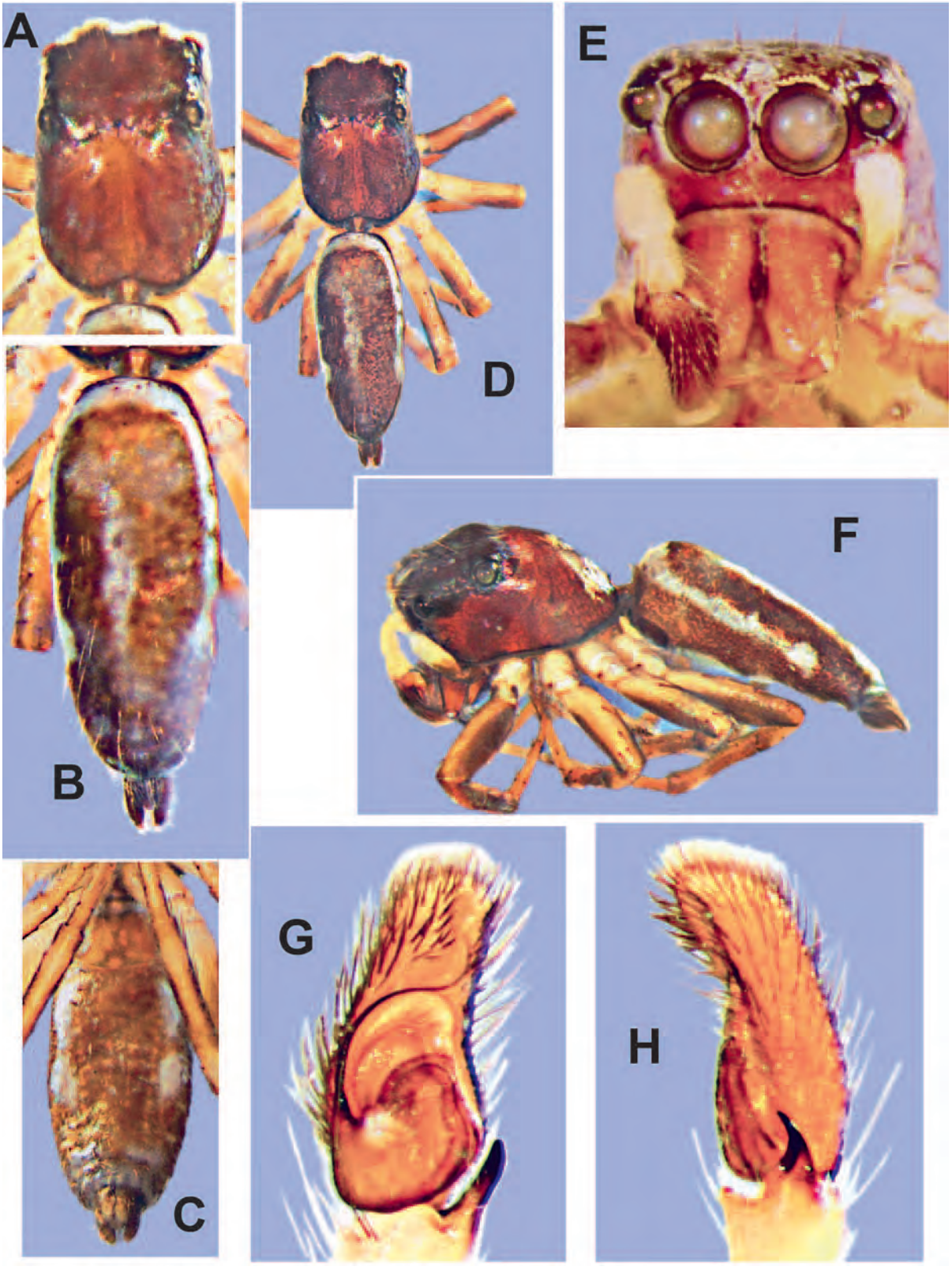

Figure 36. *C. ombria*, male 6807: ABD – dorsal view; C – ventral abdomen; E – frontal view; F – lateral view. Male 6809: GH – palpal organ.

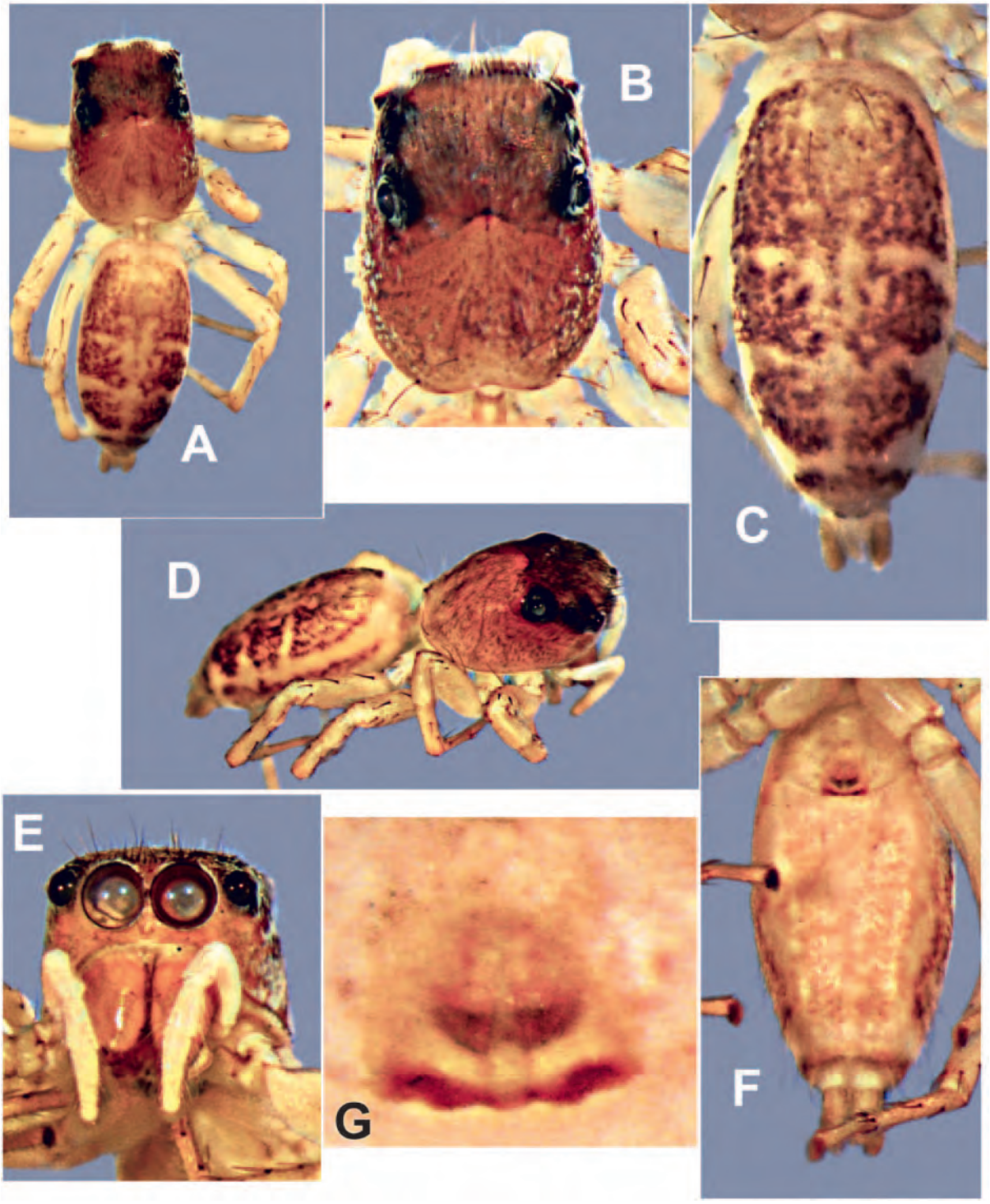

Figure 37. *C. ombria*, female 6805: A-C – dorsal view; D – lateral view; E – frontal view; F – ventral abdomen; G – epigyne.

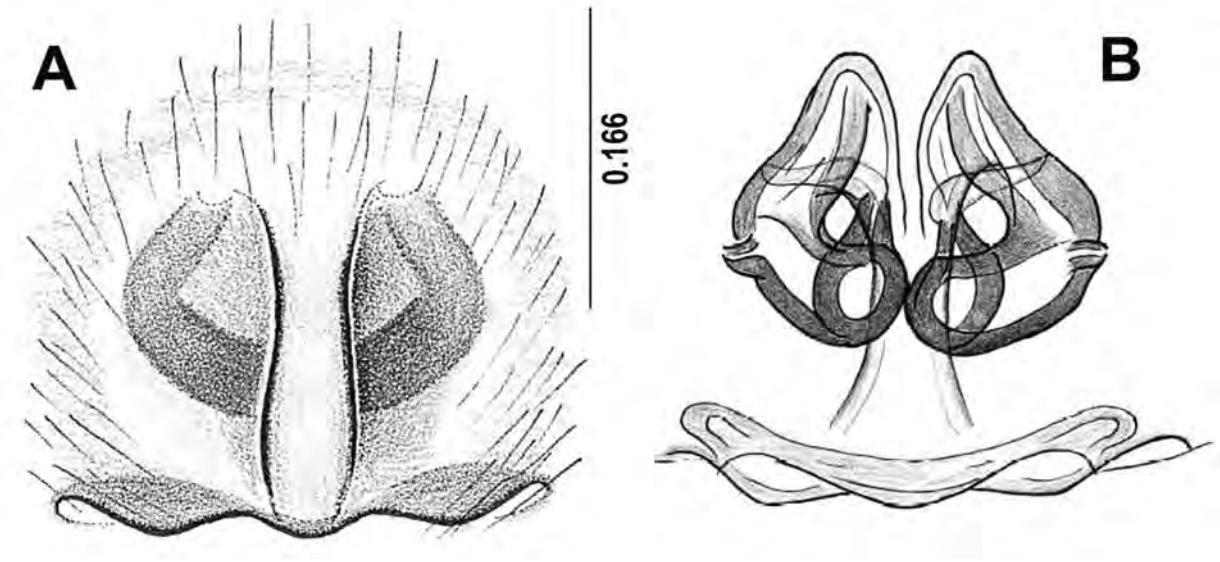

Figure 38. *C. ombria*, female 6805: AB – epigyne and internal genitalia.

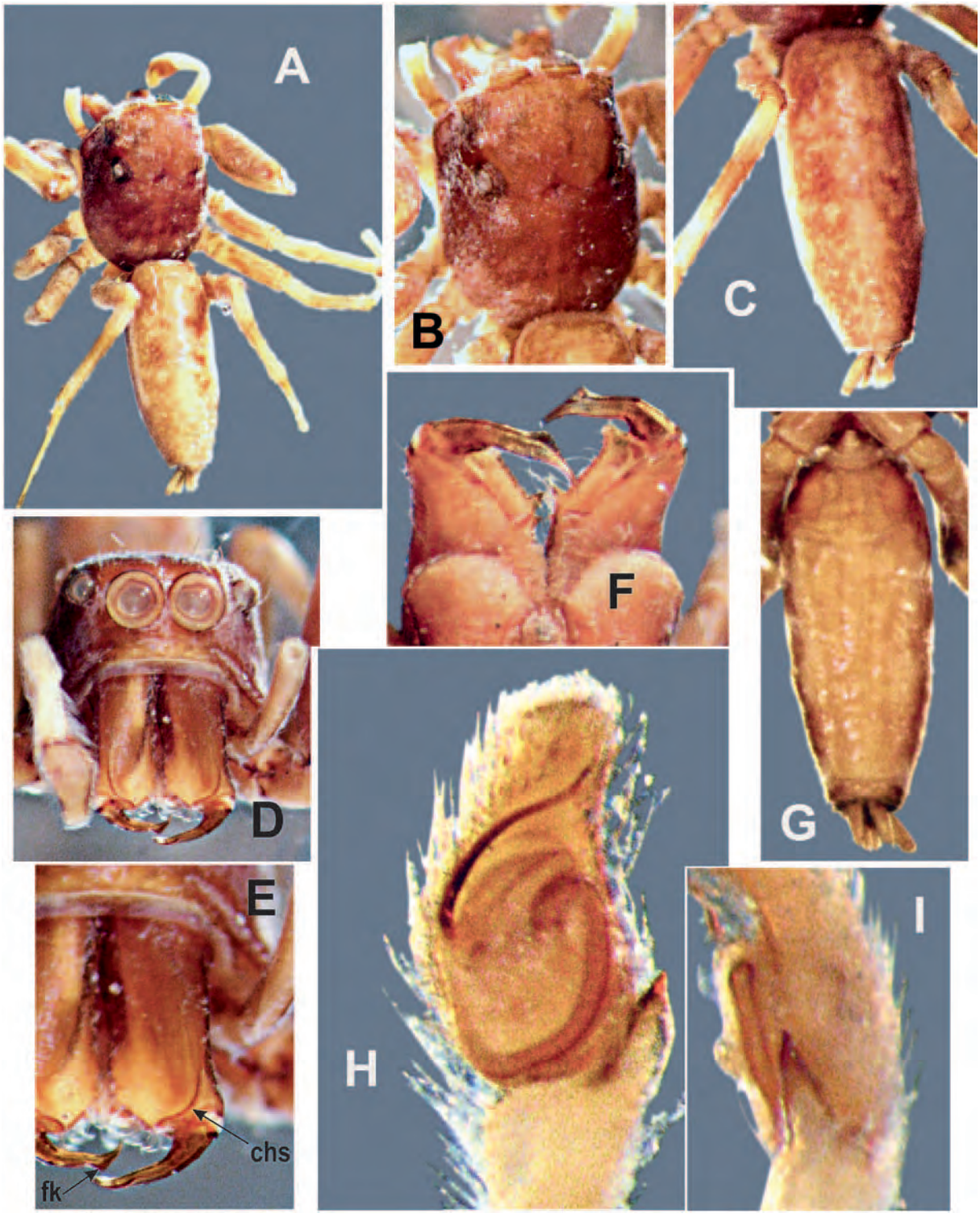

Figure 39. *C. micarioides*, male holotype 8346: A-C – dorsal view; DE –frontal view; F – chelicerae; G – ventral abdomen; HI – palpal organ.

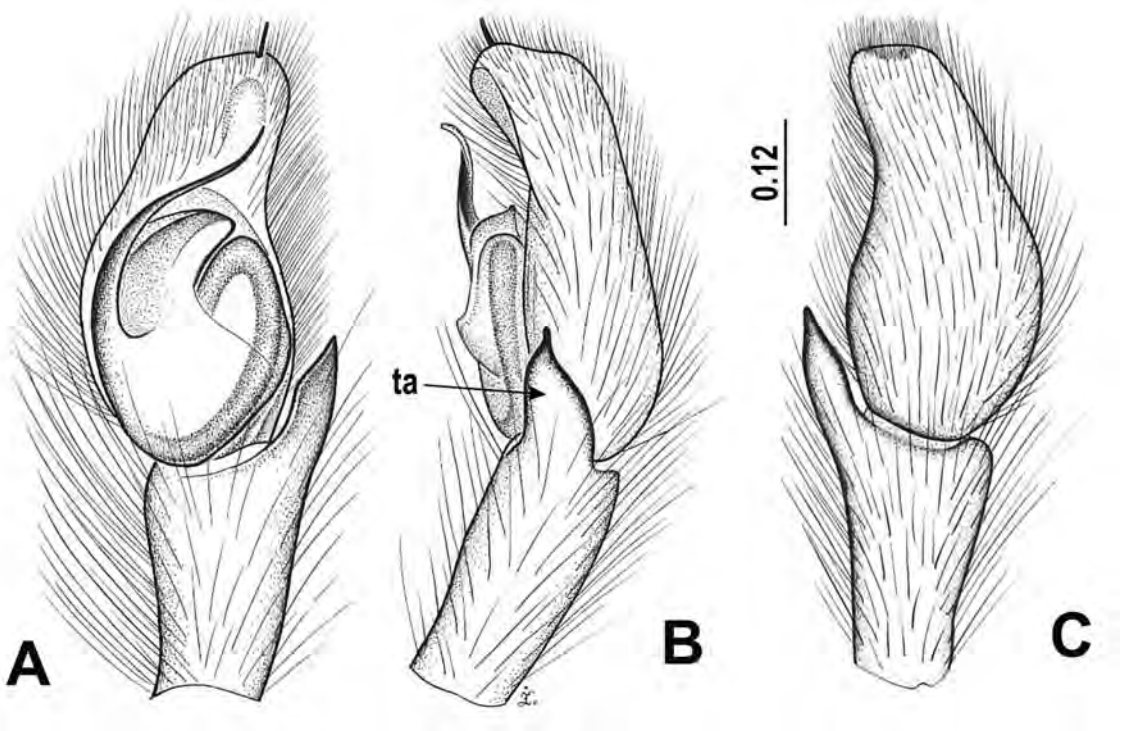

Figure 40. *C. micarioides*, male holotype 8346: A-C – palpal organ.

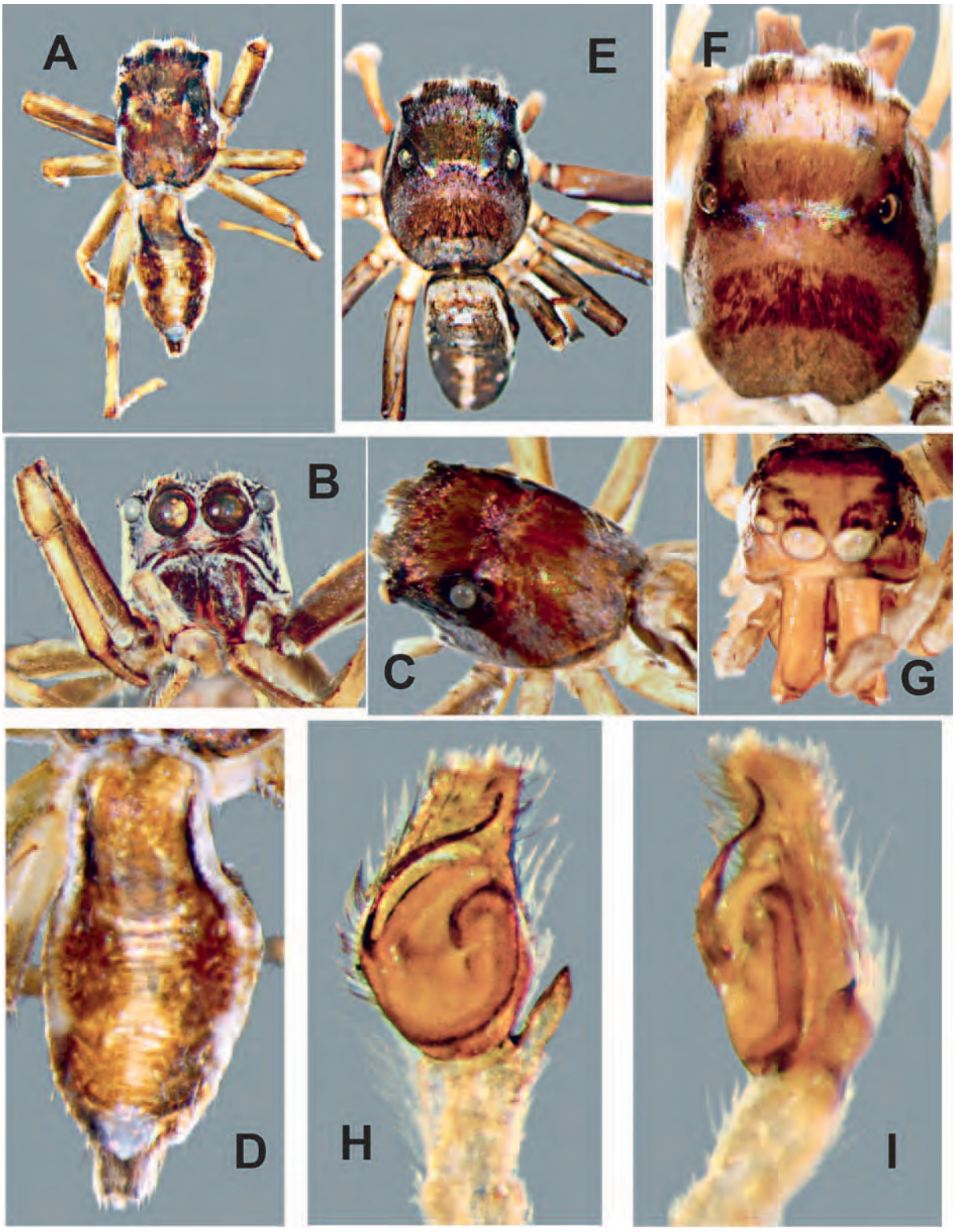

Figure 41. *C. micarioides*, male 9979: A – dorsal view; B – frontal view; C – lateral view; D – dorsal abdomen; H, I – palpal organ. Male 66697: E – dorsal view. Male 9059: F – dorsal cephalothorax; G – frontal view.

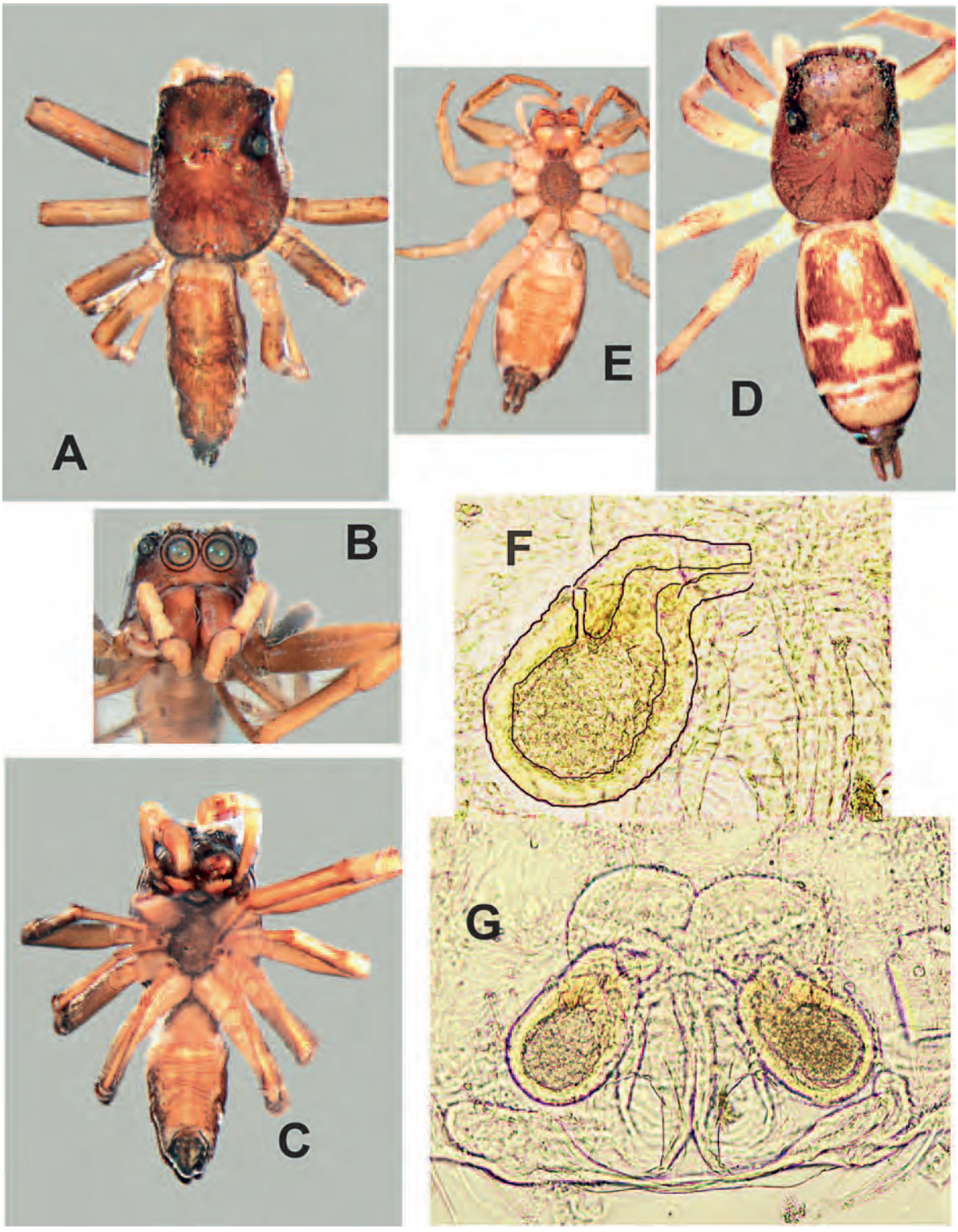

Figure 42. *C. micarioides*, male 21153: A – dorsal view; B – frontal view; C – ventral. Female 21153: D – dorsal view; E – ventral view; FG – internal genitalia.

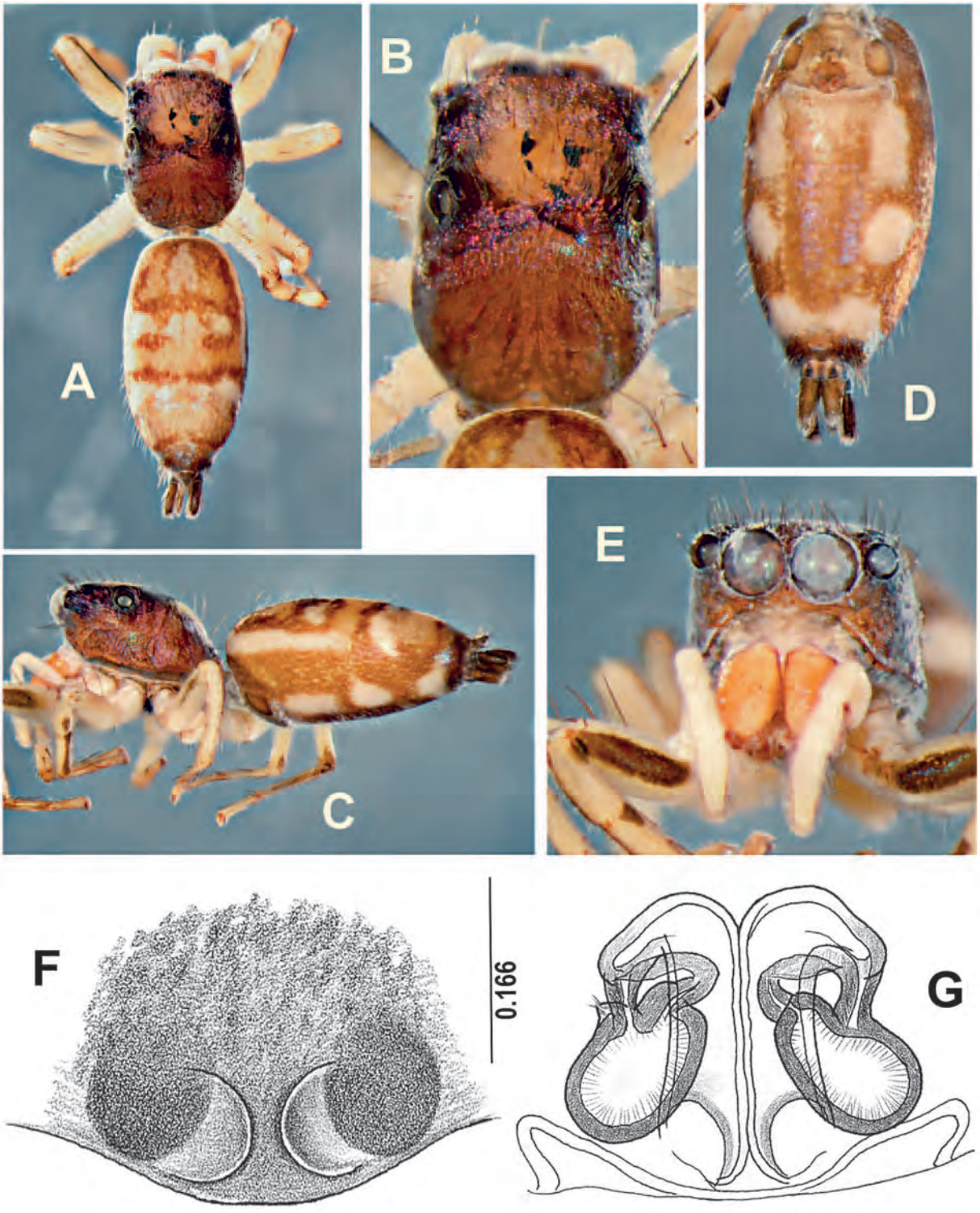

Figure 43. *C. micarioides*, female 64673: A – dorsal view; B – dorsal cephalothorax; C – lateral view; D – ventral abdomen; E – frontal view. Female 19493: FG – epigyne and internal genitalia.

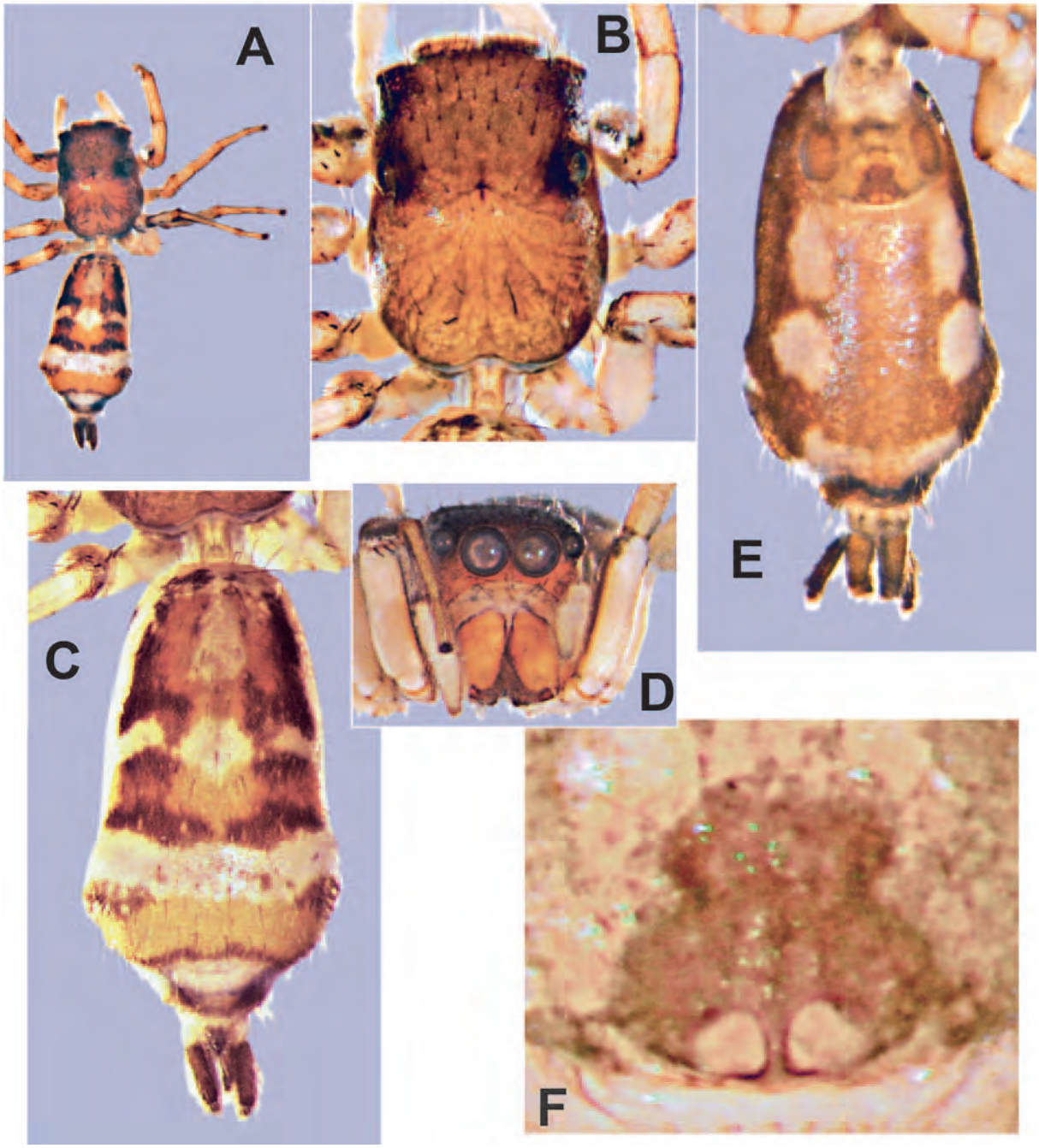

Figure 44. *C. micarioides*, female 42000108: A-C – dorsal view; D – frontal view; E – ventral abdomen; F – epigyne.

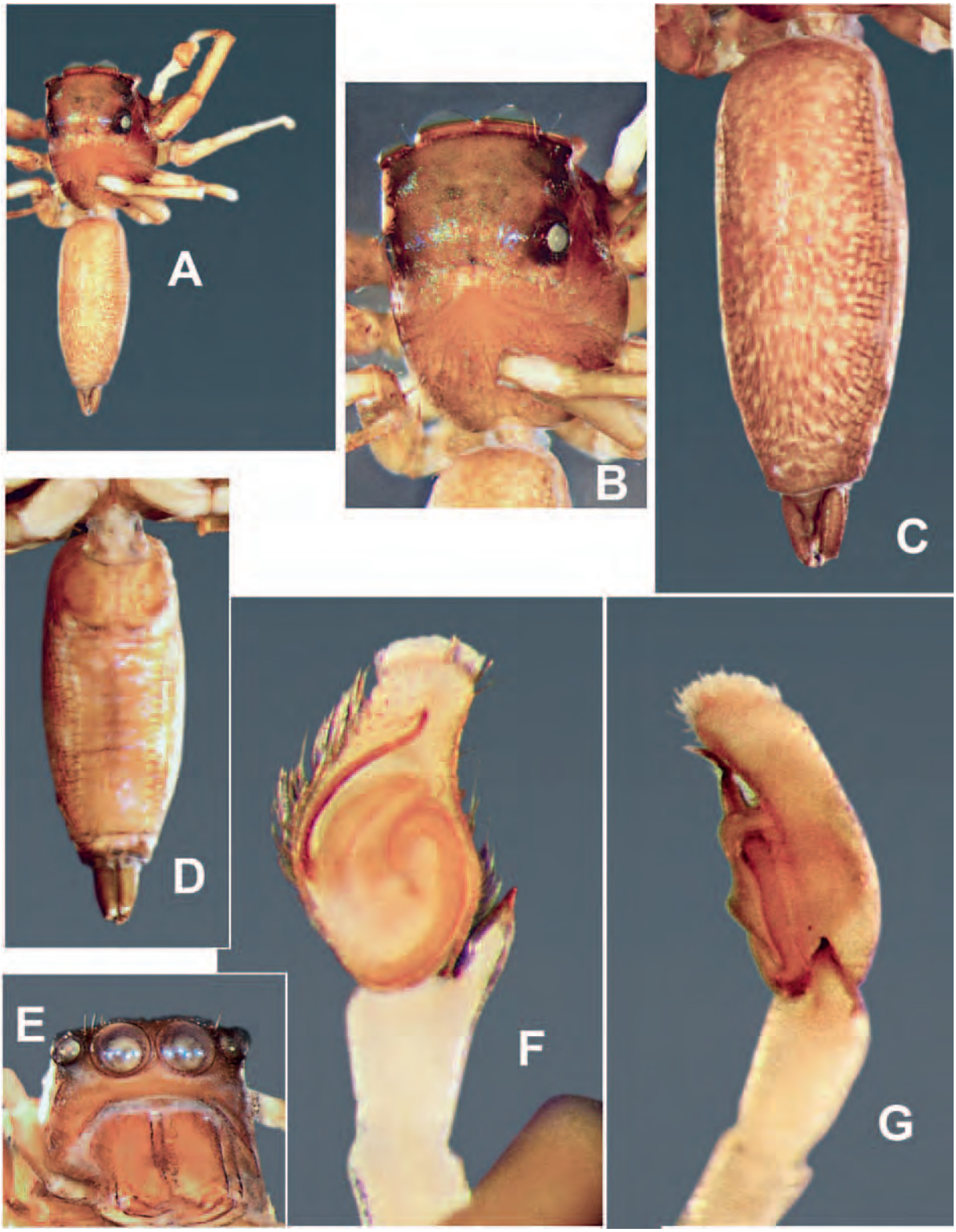

Figure 45. *C. micarioides*, male holotype S64656: A-C – dorsal view; D – ventral abdomen; E – frontal view; FG – palpal organ.

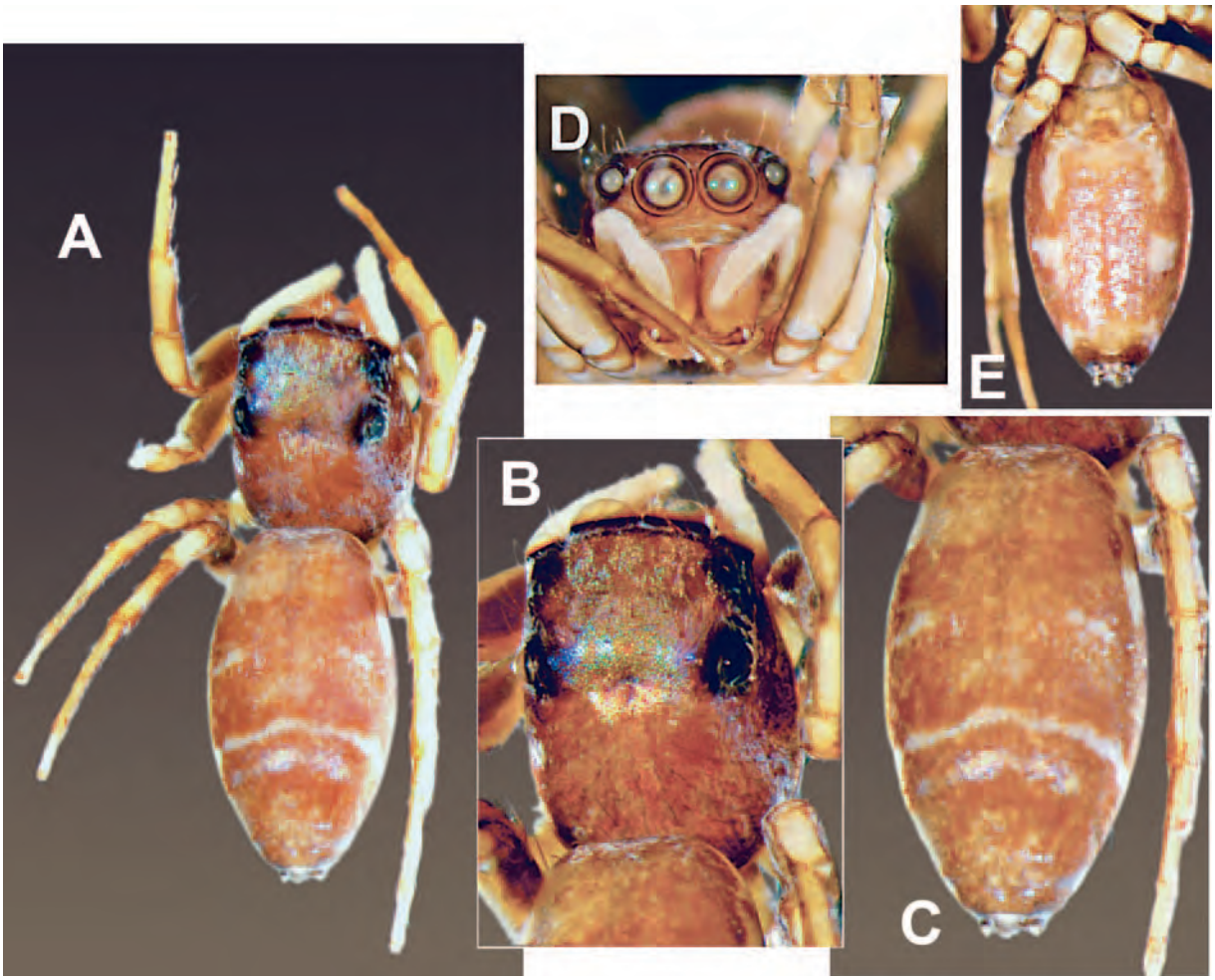

Figure 46. *C. micarioides*, female paratype 90122: A-C – dorsal view; D – frontal view; E – ventral abdomen.

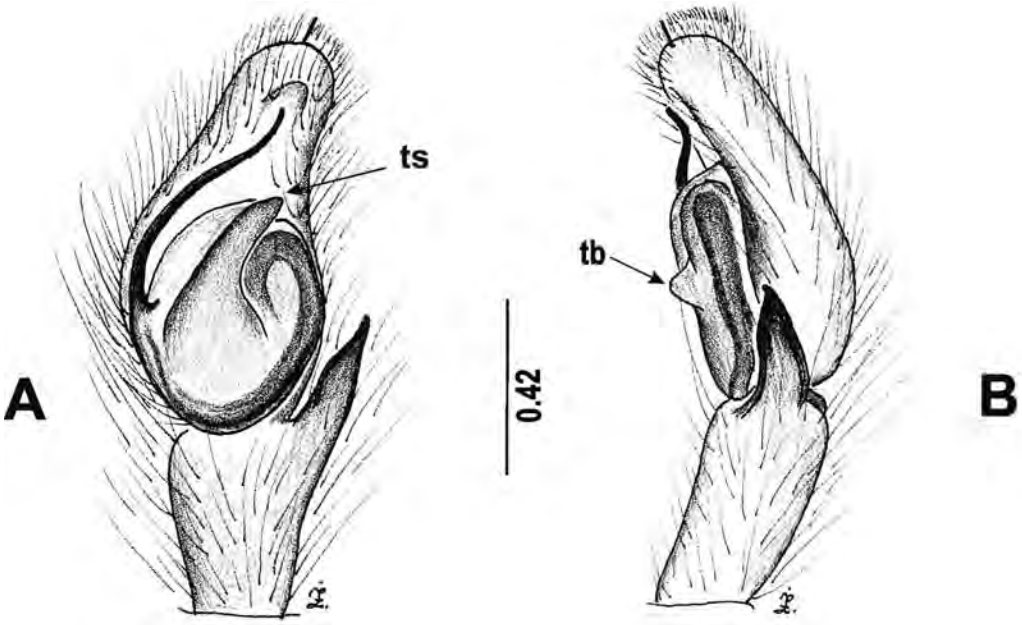

Figure 47. *C. micarioides*, male holotype 64656: AB – palpal organ.

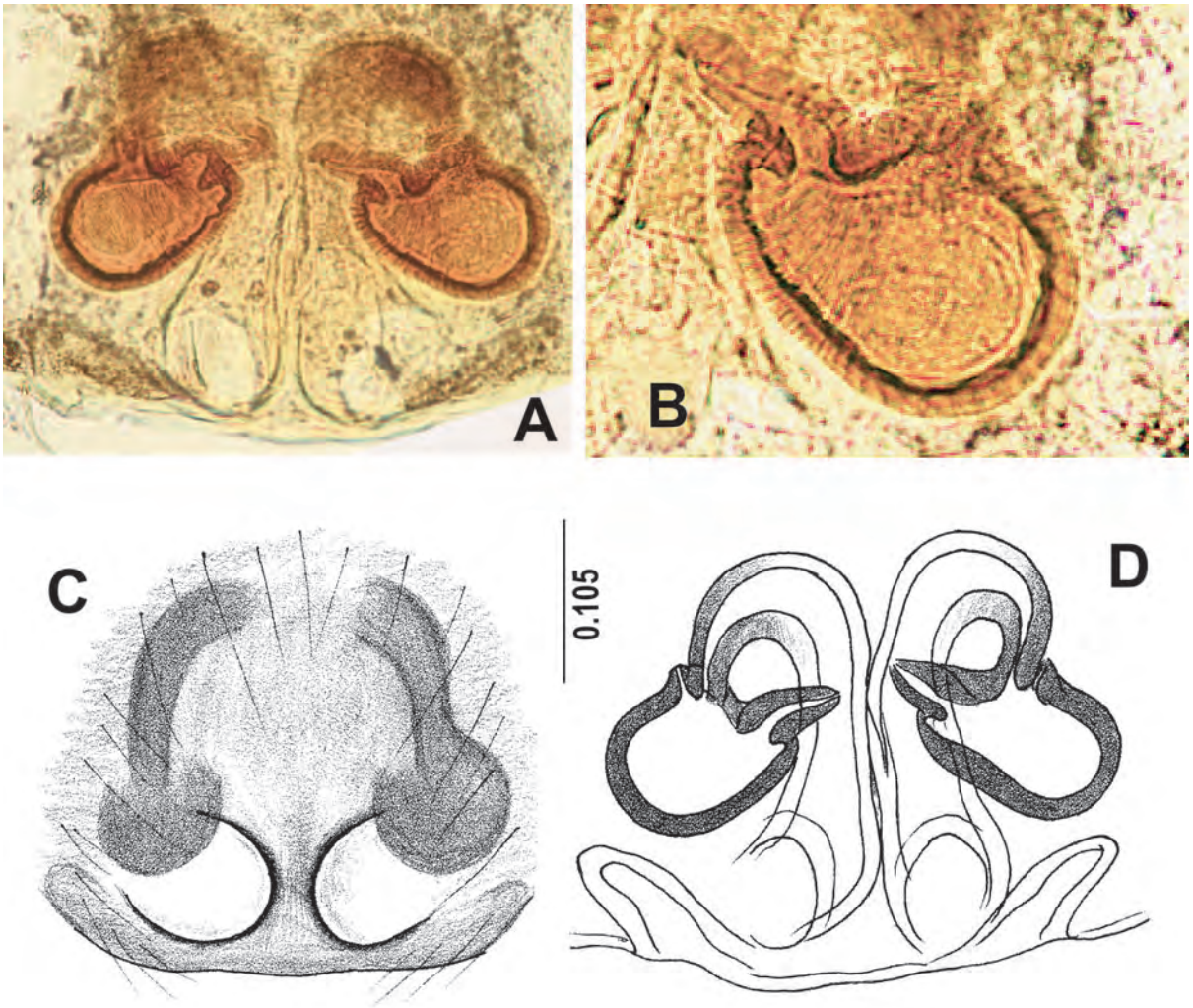

Figure 48. *C. micarioides*, female paratype 64690: A-D – epigyne and internal genitalia.

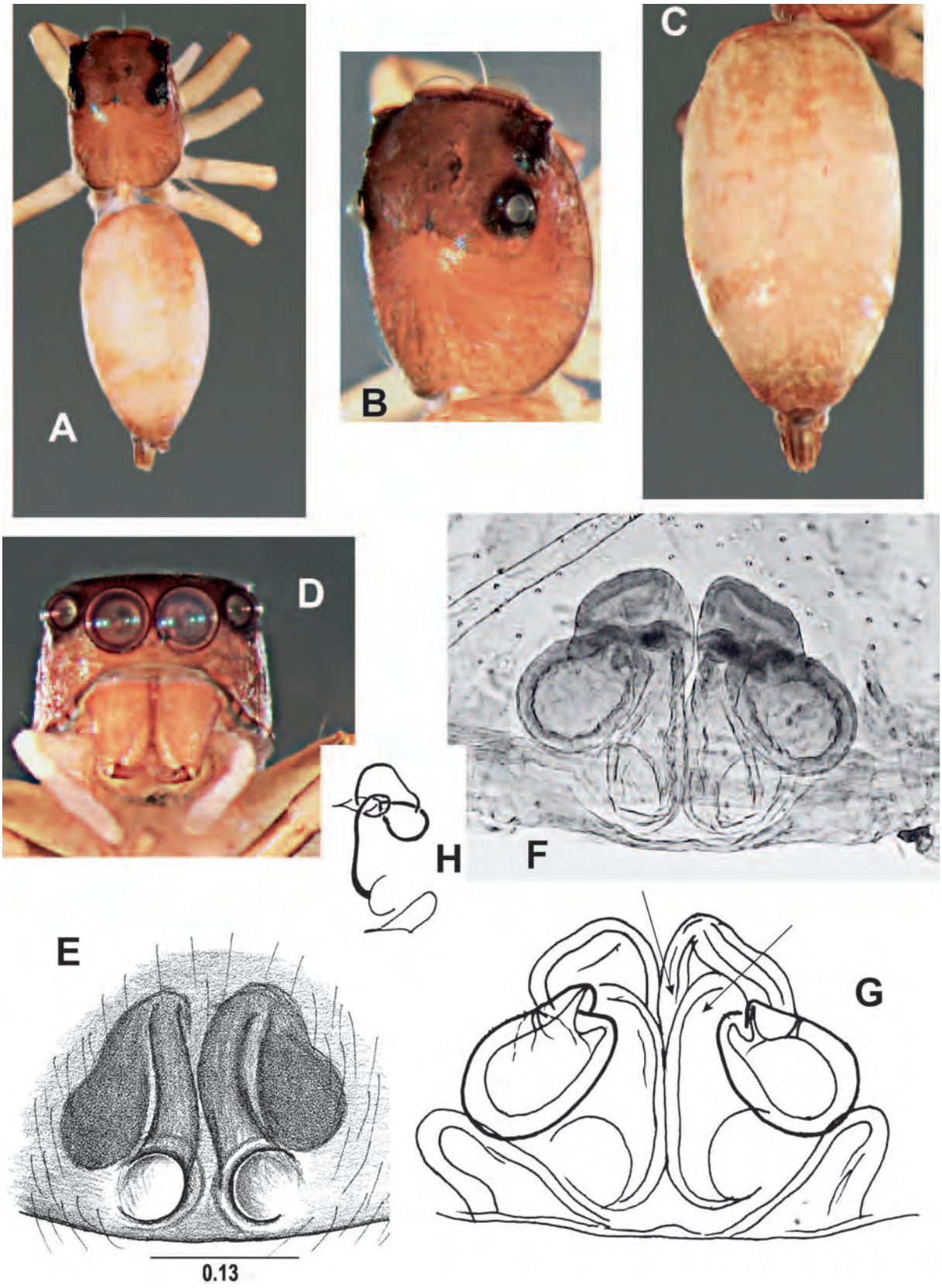

Figure 49. *C. colemani*, female holotype 90052: A-C – dorsal view; D – frontal view; E-H – epigyne and internal genitalia.

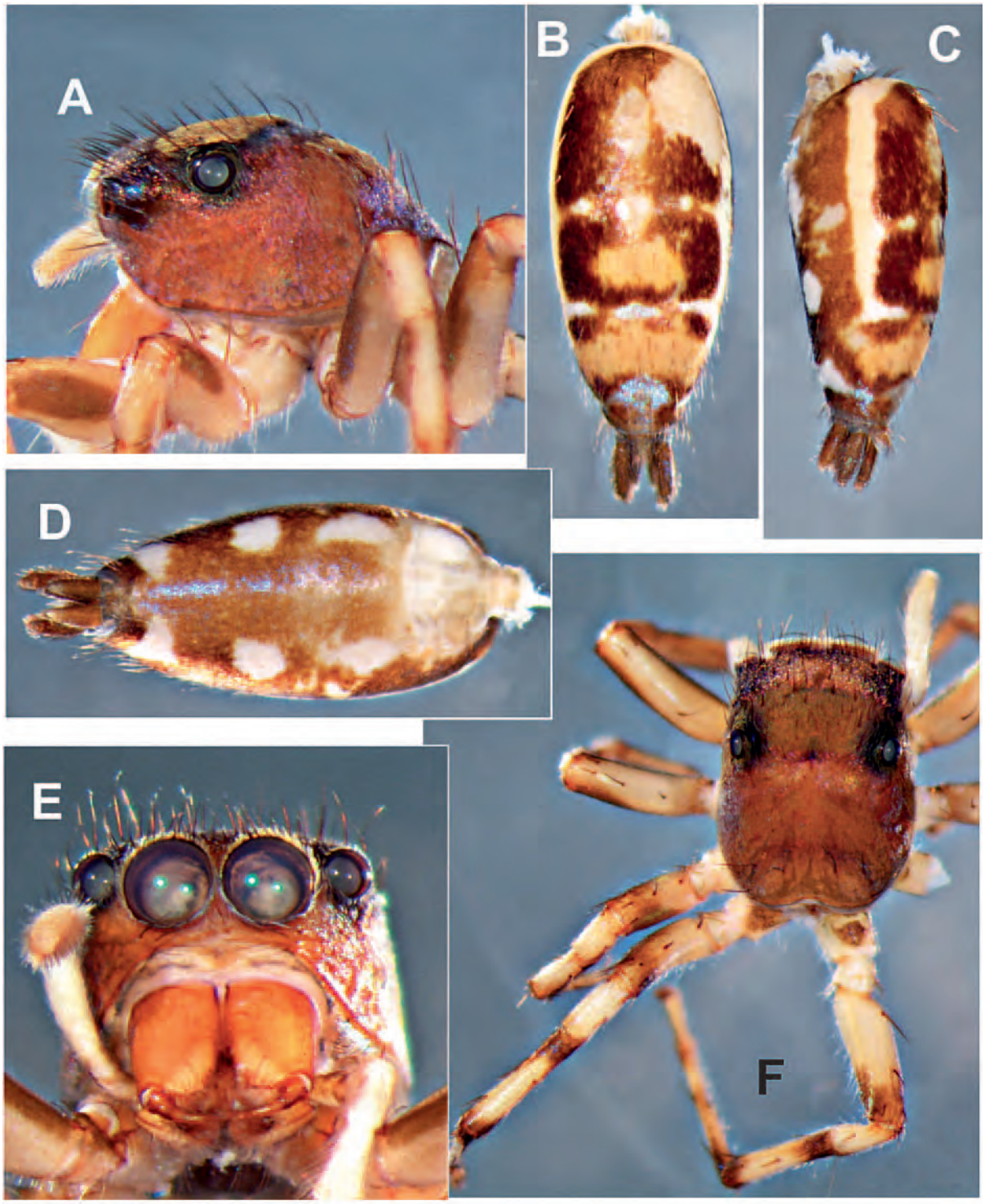

Figure 50. *C. humphreysi*, female holotype 44889: AC – lateral view; BG – dorsal view; D – ventral abdomen; F – frontal view.

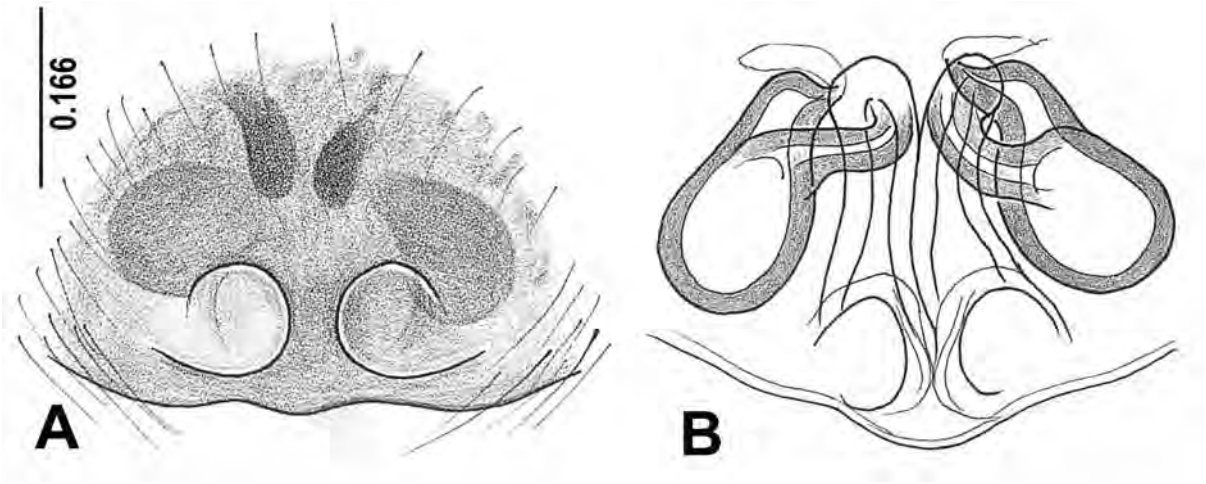

Figure 51. *C. humphreysi*, female holotype 44889: AB – epigyne and internal genitalia.

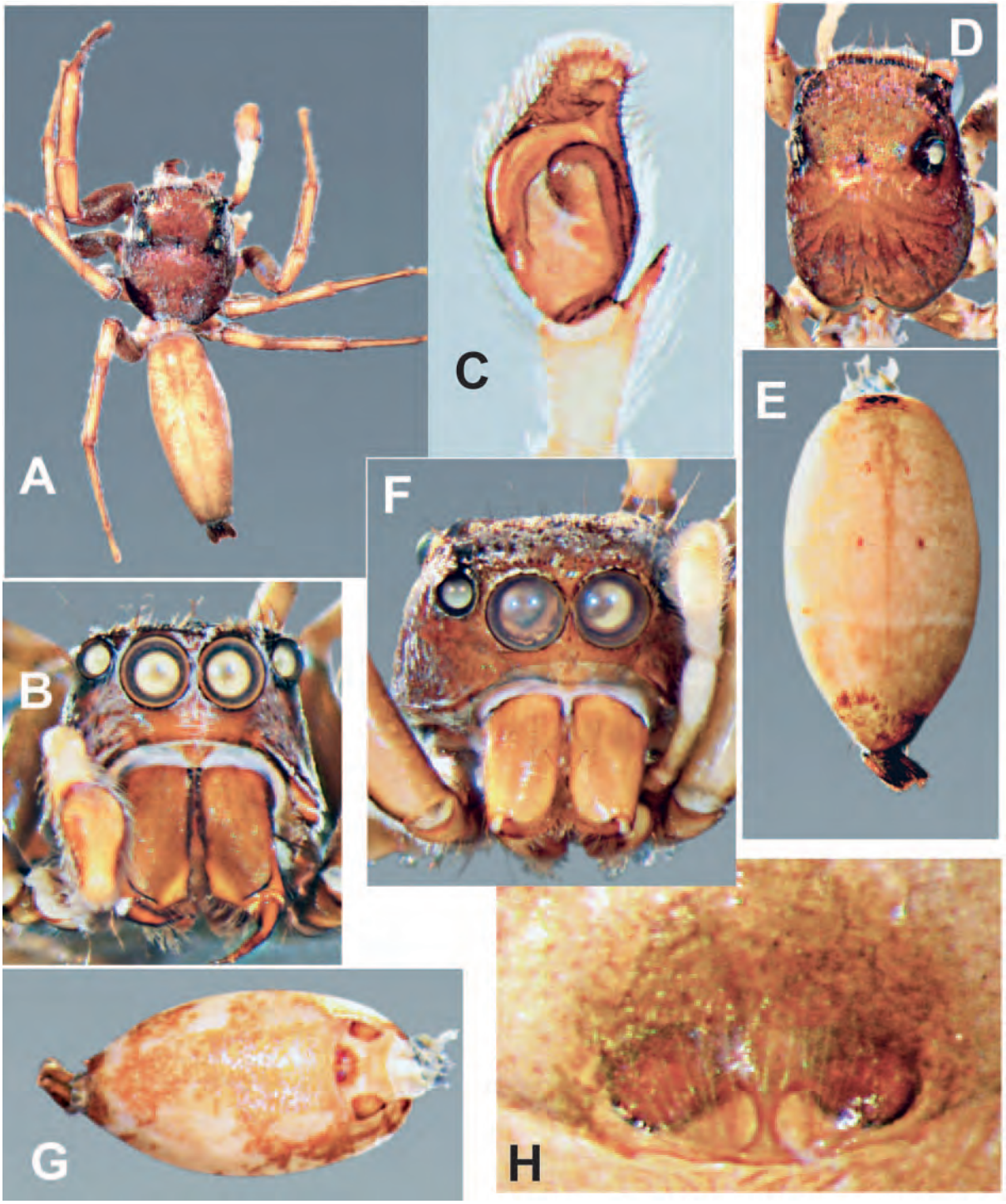

Figure 52. *C. courti*, male holotype 83708: A – dorsal view; B – frontal view; C – palpal organ. Female allotype 83708: DE – dorsal view; F – frontal view; G – ventral abdomen; H – epigyne.

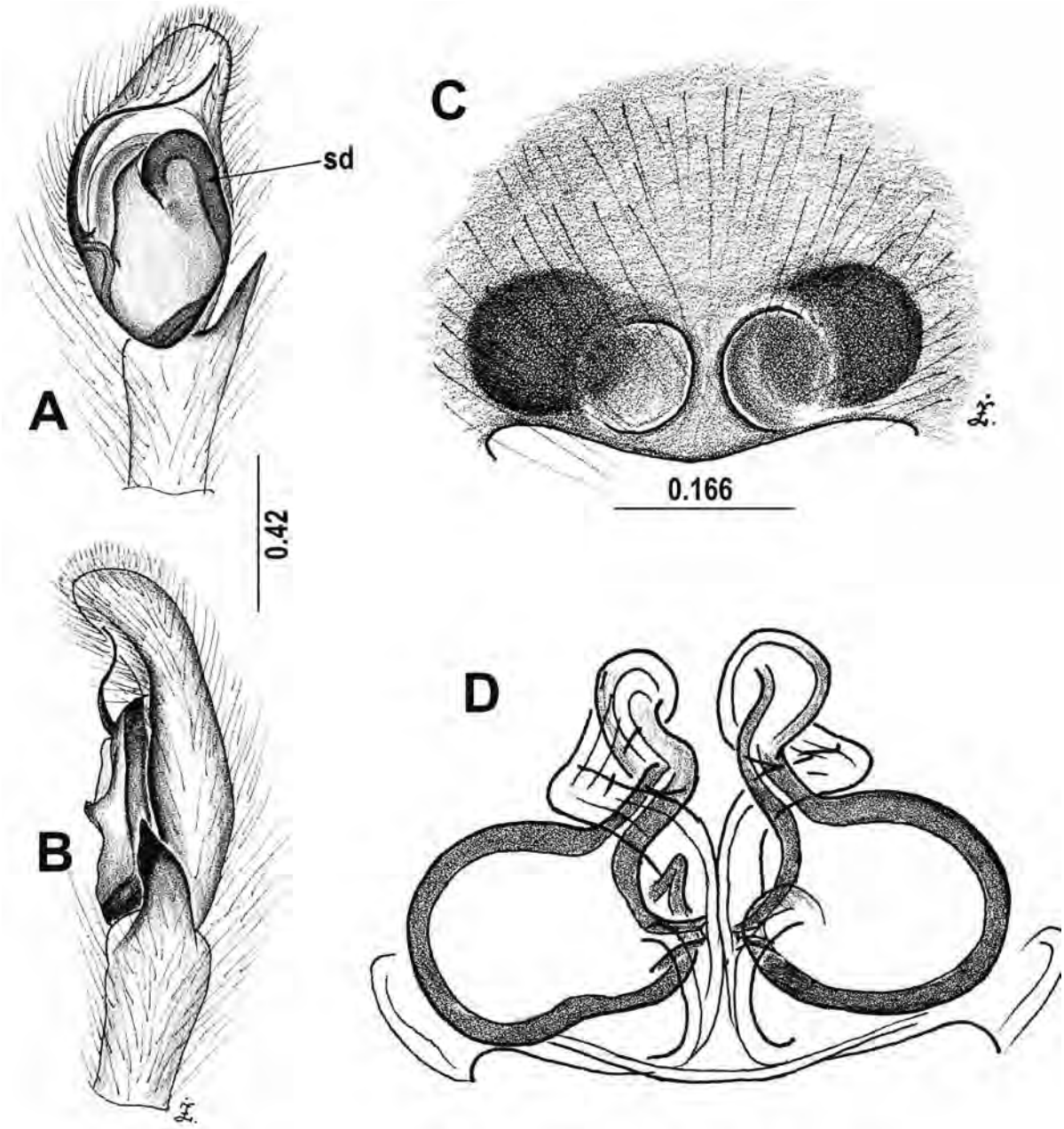

Figure 53. *C. courti*, male holotype 83708: AB – palpal organ. Female allotype 83708: CD – epigyne and internal genitalia.

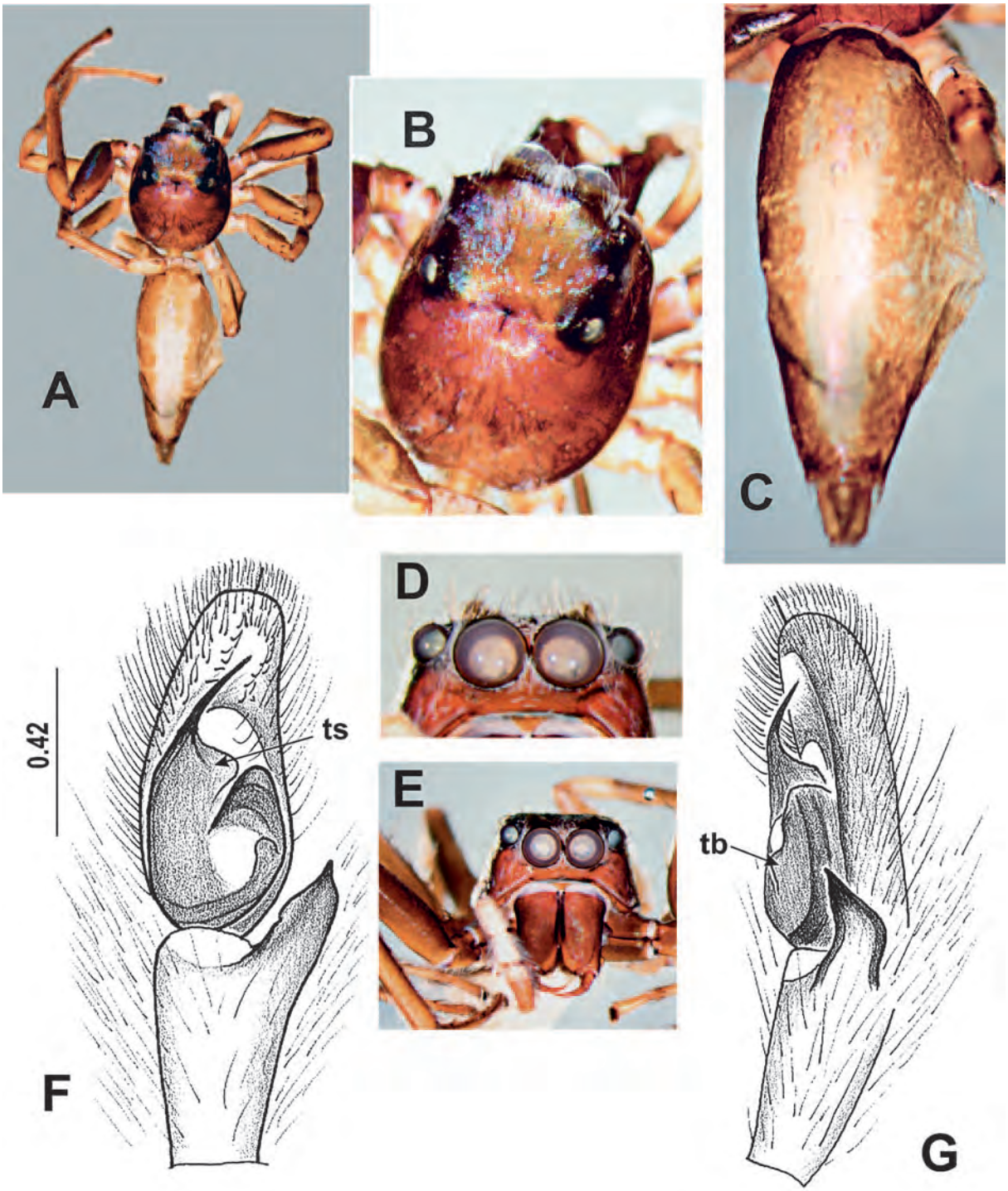

Figure 54. *C. darwini*, male holotype 44879: A-C – dorsal view; DE – frontal view; FG – palpal organ.

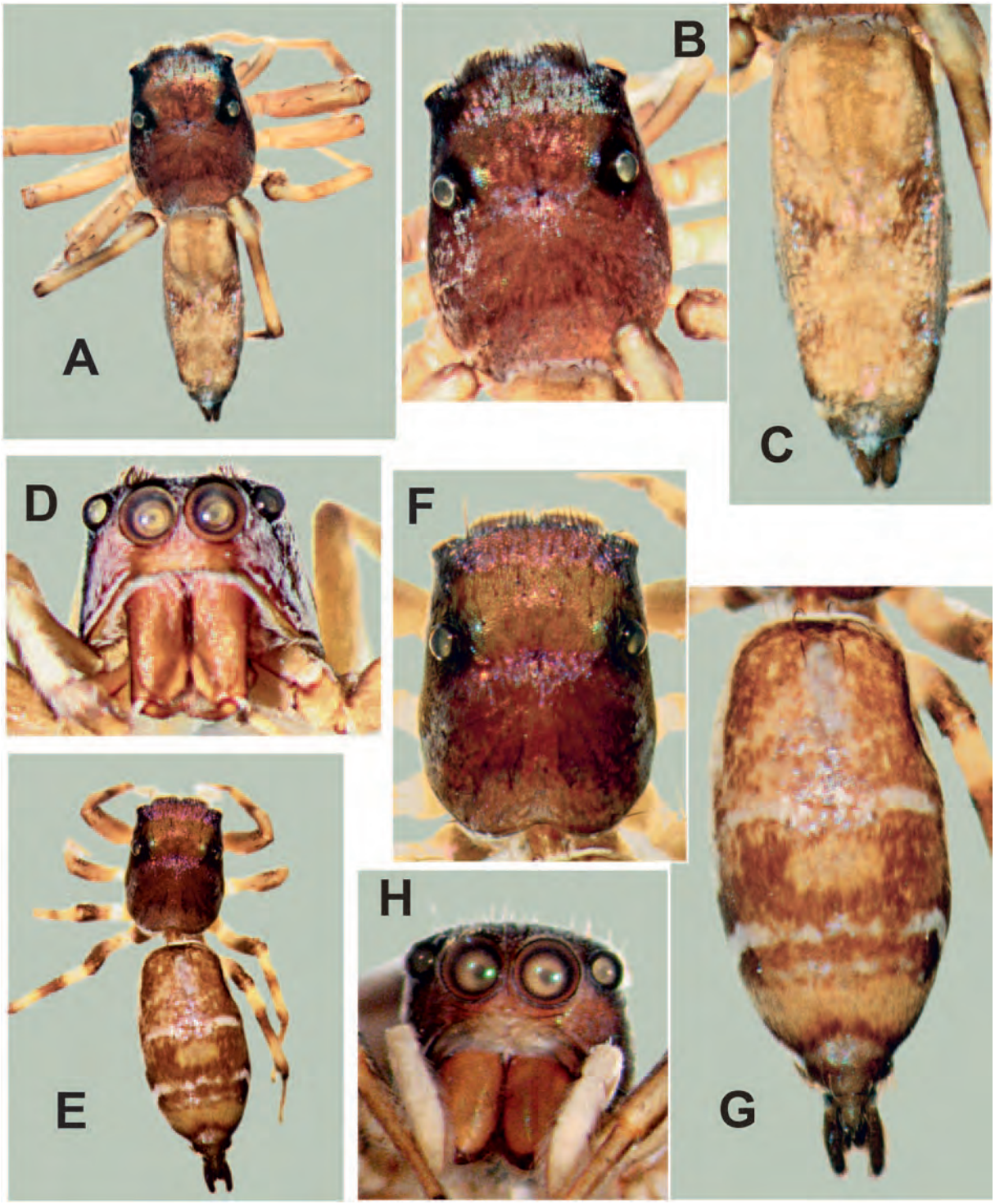

Figure 55. *C. trobriand*, male holotype 90053: A-C – dorsal view; D – frontal view. Female paratype 901214: E-G – dorsal view; H – frontal view.

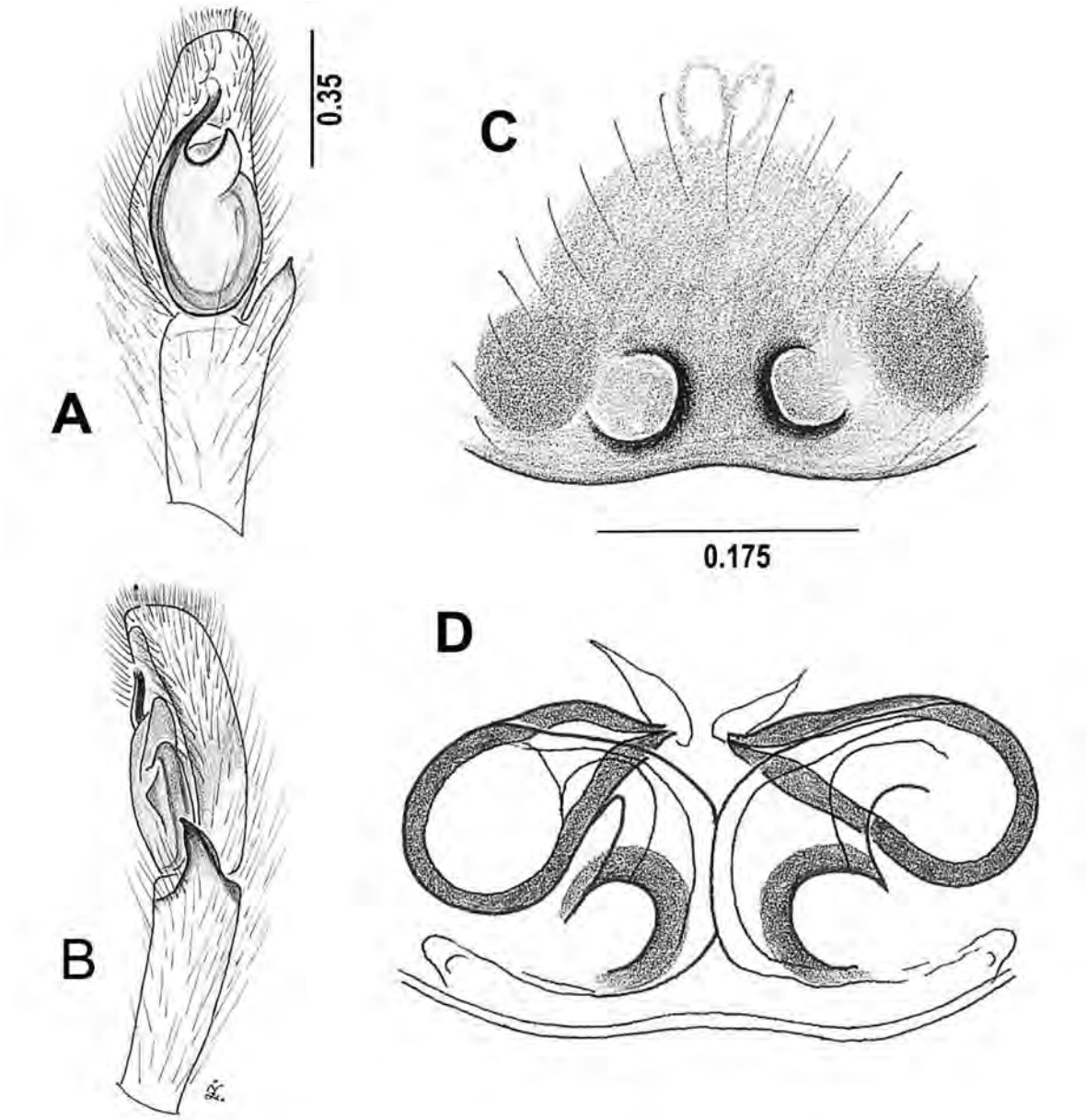

Figure 56. *C. trobriand*, male holotype: AB – palpal organ. Female paratype 90124: CD – epigyne and internal genitalia.

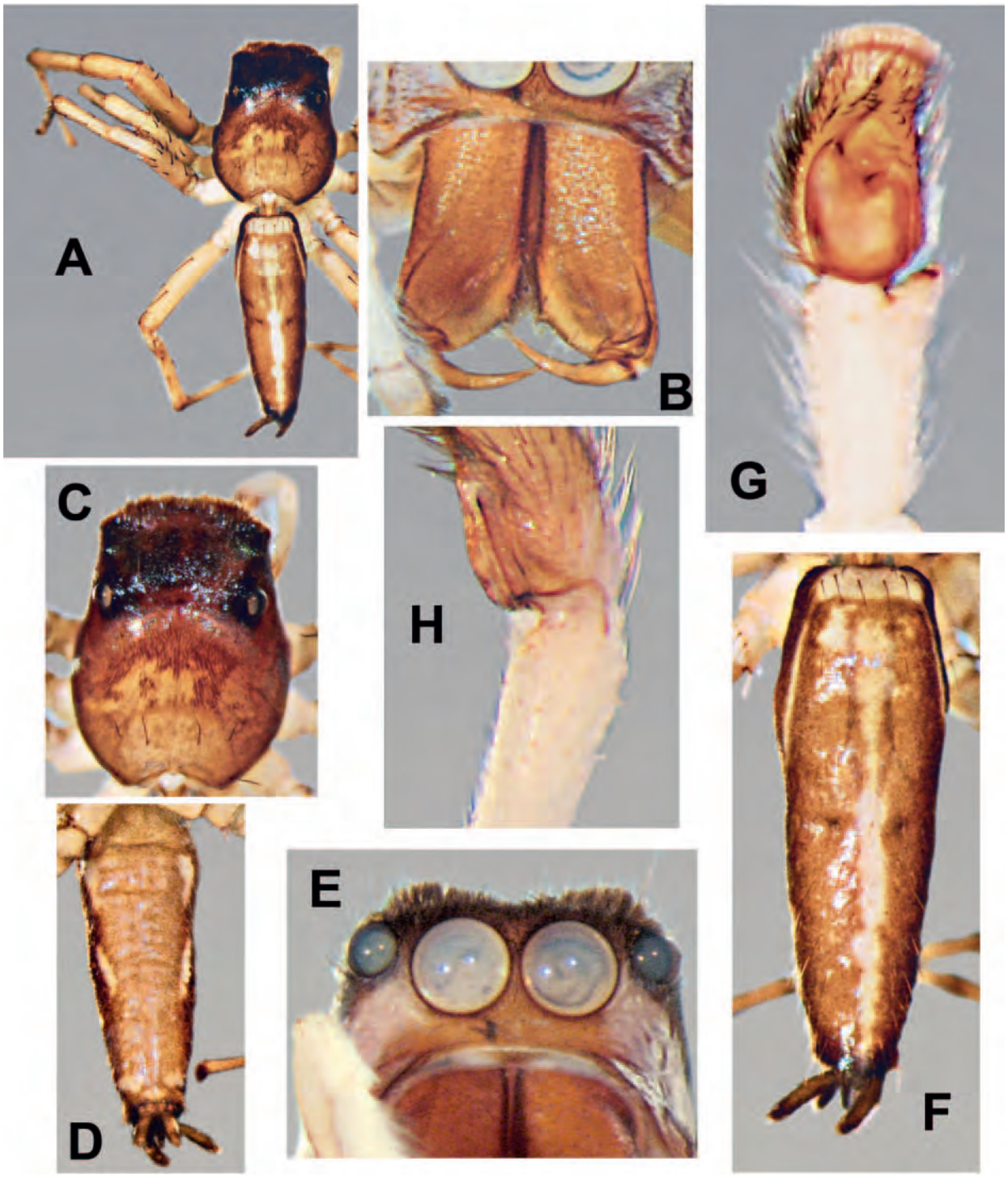

Figure 57. *C. rakata*, male paratype 6819: ACF – dorsal view; BE – frontal view; GH – palpal organ.

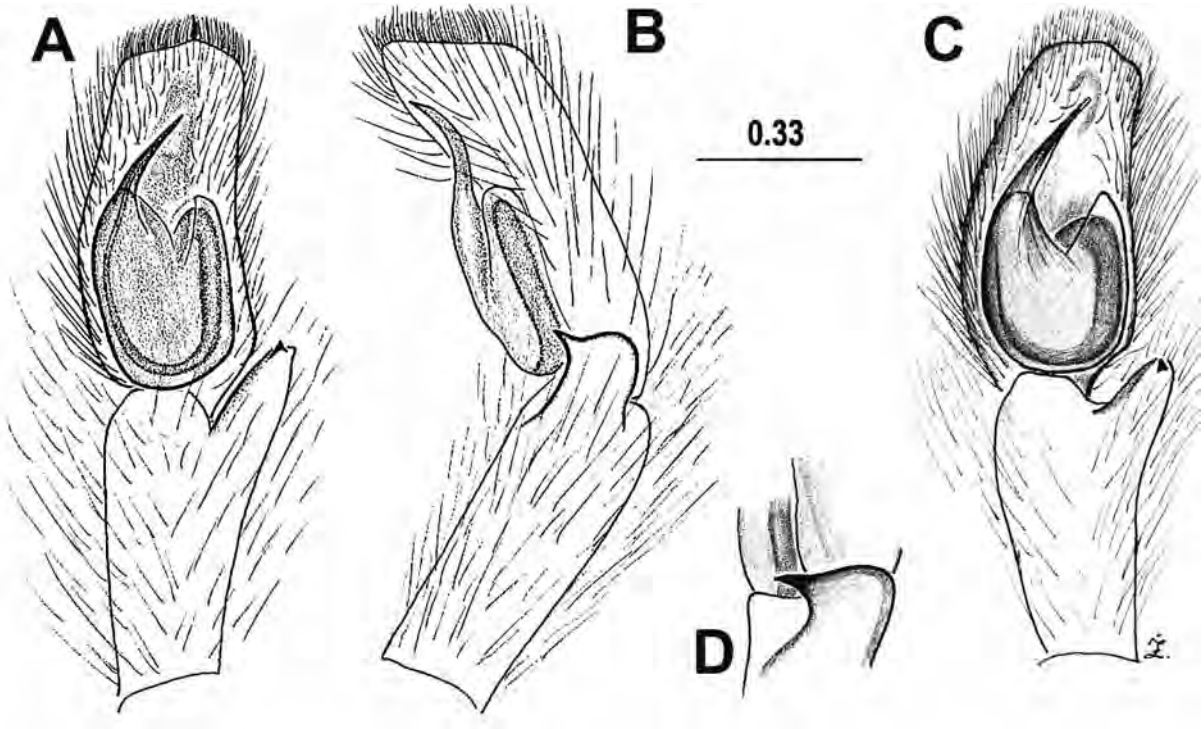

Figure 58. *C. rakata*, male paratype 6811: AB – palpal organ. Male paratype 6819: CD – palpal organ.

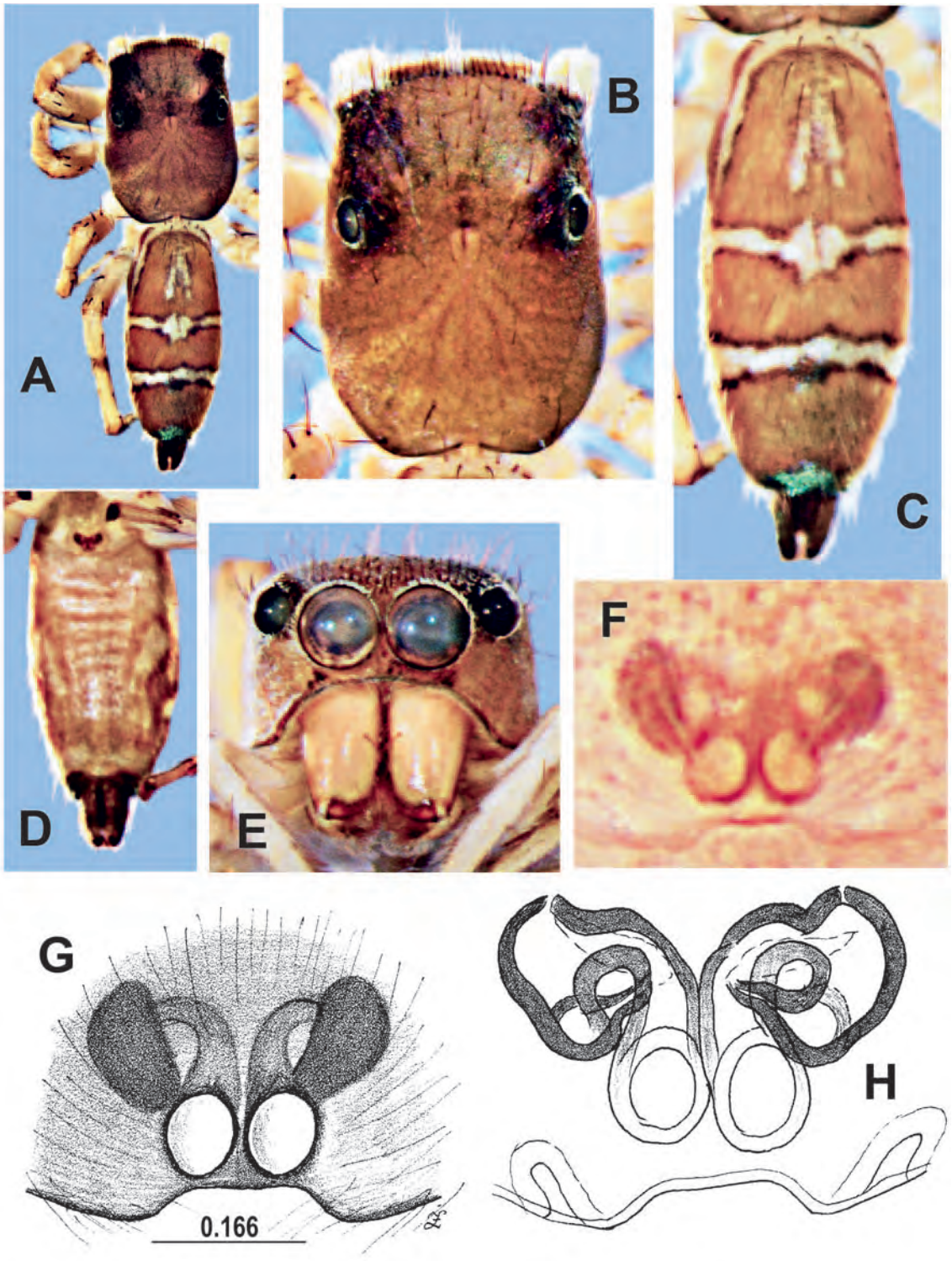

Figure 59. *C. rakata*, female holotype 6811: A-C – dorsal view; D – ventral abdomen; E – frontal view; F-H – epigyne and internal genitalia.

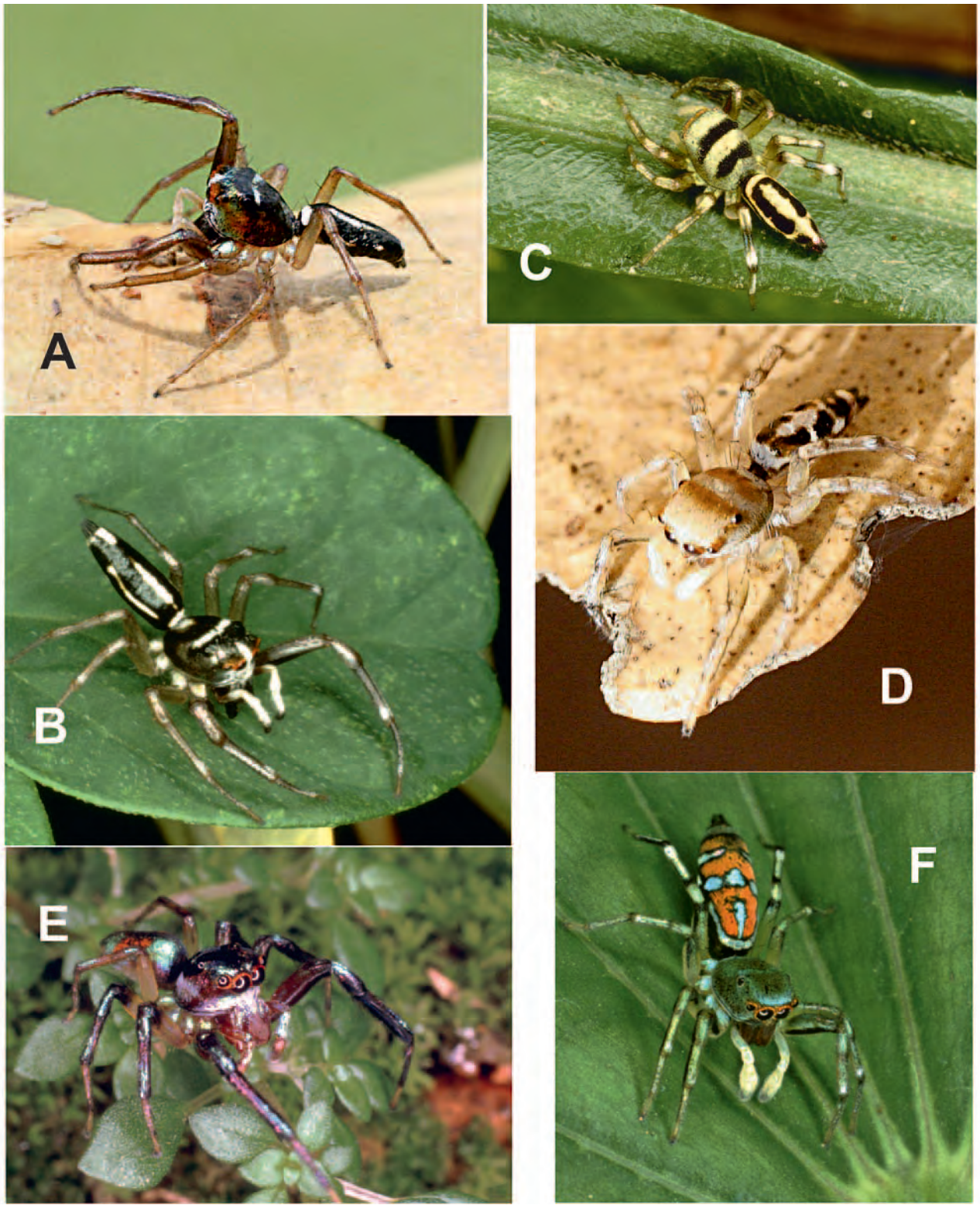

Figure 60. Live representatives of *C. thalassina,* AB – Kona Lake; C. – *C.* sp., Bali; D – *C. baehrae*, Barn Hill; E – *C.* sp.; F – *C.* sp., Bali. AD – photo & © Geoff Byrne, BE – photo & © Mike Gray, CF – photo & © David Knowles

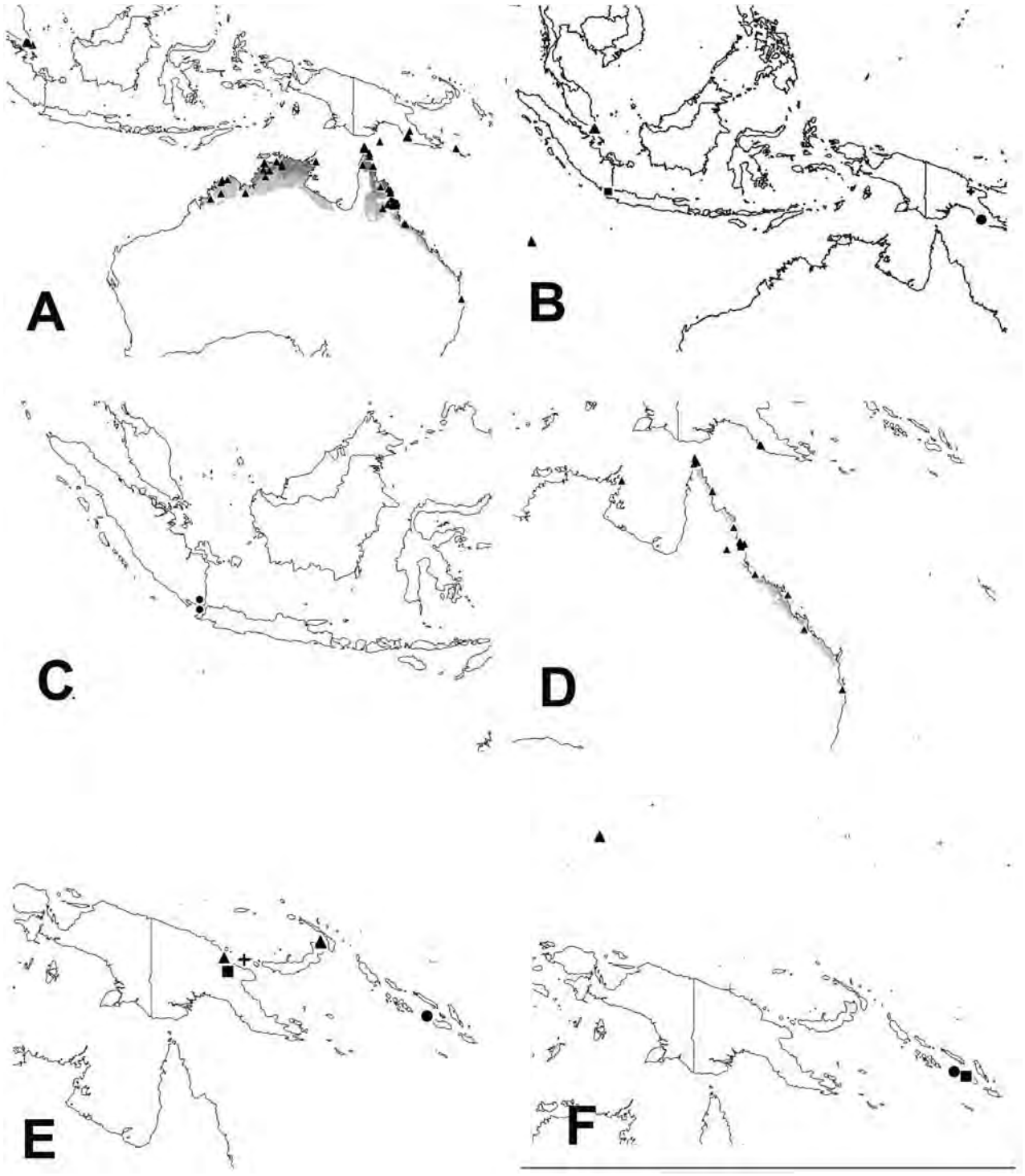

Figure 61. Distribution of *C. thalassina* (A); *C. obscura* (B: triangle); *C. sertungensis* (B: square); *C. harveyi* (B: cross); *C. lami* (B: circle); *C. panjangensis* (C); *C. bitaeniata* (D); *C. hortoni* (E: circle); *C. kohi* (E: square); *C. tavurvur* (E: triangle); *C. motmot* (E: cross); *C. banika* (F: circle); *C. kairiru* (F: cross); *C. lungga* (F: square); *C. tristriatus* (F: triangle). The intensity of shades shows the likelihood of occurrence in Australia.

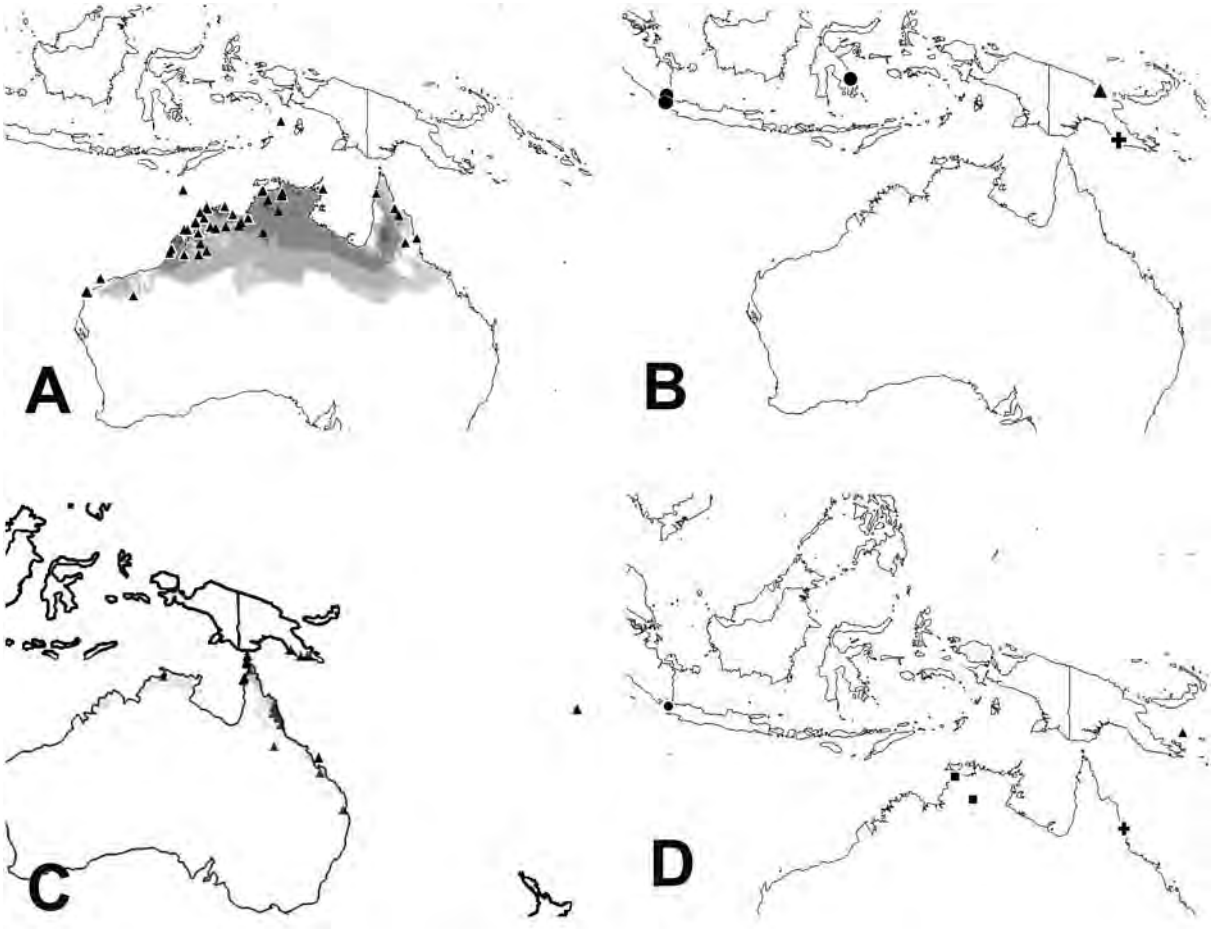

Figure 62. Distribution of *C. baehrae* (A); *C. ombria* (B: circle); *C. humphreysi* (B: triangle); *C. courti* (B: cross); *C. micarioides* (C); *C. colemani* (D: cross); *C. darwini* (D: square); *C. trobriand* (D: triangle); *C. rakata* (D: circle). The intensity of shades shows the likelihood of occurrence in Australia.