Евразиатский энтомол. журнал 15. Прил. 1: 137–151

Review of the Oriental species of the genus *Arescon* Walker, 1846 (Hymenoptera: Mymaridae)

Обзор ориентальных видов рода *Arescon* Walker, 1846 (Hymenoptera: Mymaridae)

S.V. Triapitsyn
С.В. Тряпицын

Entomology Research Museum, Department of Entomology, University of California, Riverside, California 92521 USA. E-mail: serguei.triapitsyn@ucr.edu.

Исследовательский музей энтомологии, департамент энтомологии, Калифорнийский университет, Риверсайд, Калифорния 92521 США.

Key words: Hymenoptera, Chalcidoidea, Mymaridae, *Arescon*, taxonomy, key, parasitoid.

Ключевые слова: Hymenoptera, Chalcidoidea, Mymaridae, *Arescon*, таксономия, определительная таблица, паразитоид.

Abstract. The Oriental species of the fairyfly genus *Arescon* Walker, 1846 (Hymenoptera: Mymaridae) are reviewed, and a key to its females in Eurasia and Micronesia is provided. Four new species are described: *A. chuk* **sp.n.** (Thailand), *A. confusus* **sp.n.** (India), *A. gek* **sp.n.** (Thailand), and *A. leleji* **sp.n.** (Brunei). *Arescon enocki* (Subba Rao et Kaur, 1959), *A. mudigerensis* Subba Rao, 1989, both originally described from India, and also the extralimital *A. clarkei* Doutt, 1955 (Kosrae Island, Federated States of Micronesia) are redescribed and illustrated. A lectotype is designated for the European species *Neurotes iridescens* Enock, 1914, now *Arescon iridescens* (Enock, 1914). *Arescon peregrinus* (Perkins, 1910) nomen dubium (Oahu Island, Hawaiian Islands [Hawaii, USA]) is transferred to *Alaptus* Westwood, 1839 as *Alaptus peregrinus* (Perkins, 1910) **comb. n.**, nomen dubium.

Резюме. Дан обзор ориентальных видов наездников-мимарид рода *Arescon* Walker, 1846 (Hymenoptera: Mymaridae) и приведена определительная таблица его видов для Евразии и Микронезии. Описаны 4 новых вида: *A. chuk* **sp.n.** (Таиланд), *A. confusus* **sp.n.** (Индия), *A. gek* **sp.n.** (Таиланд) и *A. leleji* **sp.n.** (Бруней). Переописаны и проиллюстрированы *A. enocki* (Subba Rao et Kaur, 1959), *A. mudigerensis* Subba Rao, 1989 (оба впервые описаны из Индии), а также относящийся к другой экозоне *A. clarkei* Doutt, 1955 (остров Косраэ, Федеративные Штаты Микронезии). Выделен лектотип для *Neurotes iridescens* Enock, 1914 — теперь *Arescon iridescens* (Enock, 1914). *Arescon peregrinus* (Perkins, 1910), nomen dubium (остров Оаху, Гавайские острова [Гавайи, США]) переведен в *Alaptus* Westwood, 1839 как *Alaptus peregrinus* (Perkins, 1910) **comb. n.**, nomen dubium.

Introduction

The genus *Arescon* Walker, 1846 (Hymenoptera: Mymaridae) is poorly known in the Oriental region, so in the recent years I have been receiving a number of inquiries from taxonomists in China, India, and Japan about the identities of some of its species in those countries. Its members are quite easily recognizable from other fairyflies using available generic keys for the family, such as Annecke and Doutt [1961], and the diagnoses cited in Triapitsyn and Berezovskiy [2003] who also indicated its taxonomic history, revised and keyed the Palearctic species (also see Triapitsyn and Berezovskiy [2004] and Lin et al. [2007]). However, at the species level their identification has been difficult primarily because the original descriptions and illustrations of some of the described species from this and other ecozones, such as Australasia and Oceania, are inadequate for their recognition, and also because many of them belong to undescribed taxa. The aim of this contribution is thus to fill that gap in our knowledge of the genus and to describe several new species which have been recently recognized from the Oriental region. More species are expected to be discovered there eventually, and I have already seen several undescribed species from Brunei, Cambodia, Singapore, and Thailand that are not included in this review because they are represented mostly by poorly mounted singletons. To make sure the new taxa described herein are not the same that occur in Australia (Lin et al. [2007] listed the described species from there), I have also examined many unidentified specimens of *Arescon* from that country and found no conspecific ones.

Recently, Jin et al. [2016] described three new species from China, two from its Oriental part (Yunnan Province), and one from its Palearctic part (Tibet (Xizang) Autonomous Region). They also included the European *A. iridescens* (Enock, 1914) in their key to *Arescon* species in China, based on the report of this species from Hainan Province by Tian [2009], but that record without any doubt was an obvious misidentification of an Oriental species that is just similarly looking to *A. iridescens*.

The gender of *Arescon* is masculine [Triapitsyn, Berezovskiy, 2003; Huber, 2005], following Walker [1846].

Acronyms of the depositories of the specimens are as follows: BMNH, The Natural History Museum, London, England, UK; DEZA, Dipartimento di Entomologia

e Zoologia Agraria «Filippo Silvestri», Università degli Studi di Napoli «Federico II», Portici, Italy; KUIC, Kagoshima University, Kagoshima, Japan; MMUE, Manchester Museum, The University of Manchester, Manchester, England, UK; NEFU, Northeast Forestry University, Harbin, Heilongjiang, China; NMID, National Museum of Ireland — Natural History, Dublin, Ireland; NPC, National Pusa Collection, Division of Entomology, Indian Agricultural Research Institute, New Delhi, India; UCRC, Entomology Research Museum, Department of Entomology, University of California, Riverside, California, USA; USNM, National Museum of Natural History, Washington, District of Columbia, USA.

All measurements were taken from the slide-mounted specimens, unless stated otherwise, and are given in micrometers (μm), as length or, for the wings, as length: width. Abbreviations used are: F = funicle segment of the female antenna or flagellomere of the male antenna; mps = multiporous plate sensillum or sensilla on the antennal flagellar segments (= longitudinal sensillum or sensilla or sensory ridge(s) of authors).

Results

KEY TO THE EURASIAN AND MICRONESIAN SPECIES OF *ARESCON* (FEMALES)

1. Fore wing with venation extending to about 1/2 length of wing 2
— Fore wing with venation extending to at least 2/3 length of wing 3
2(1). F4 with 2 mps; fore wing at least 5.9 times as long as wide (Europe) ..... *A. dimidiatus* (Curtis, 1832)
— F4 with 1 mps; fore wing at most 5.4 times as long as wide (China [Tibet]) ..... *A. stenopterus* Jin et Li, 2016
3(1). Fore wing with venation extending to about 2/3 length of wing 4
— Fore wing with venation extending to about 3/4 length of wing 7
4(3). Fore wing disc almost bare behind venation, with just a few setae near posterior margin (Fig. 19) (China [Yunnan], Thailand) ..... *A. sparsiciliatus* Jin et Li, 2016
— Fore wing disc notably more setose, with many setae behind and beyond venation 5
5(4). Body mostly brown to dark brown (Fig. 36); fore wing disc with a distinct bare area in the middle; the longest marginal seta about 0.8 times maximum width of wing (Europe) ..... *A. iridescens* (Enock, 1914)
— Body mostly yellowish-brown; fore wing disc usually without a distinct bare area in the middle; the longest marginal seta at least 0.95 times maximum width of wing 6
6(5). Ovipositor about 2.1 times length of metatibia (China [Yunnan]) ..... *A. gaoligongensis* Jin et Li, 2016
— Ovipositor at most 1.7 times length of metatibia (India, Pakistan) ..... *A. enocki* (Subba Rao et Kaur, 1959)
7(3). Ovipositor very long, longer than body and at least 3.2 times length of metatibia, and projecting markedly beyond gastral apex (Figs 12, 16, 24, 28) 8
— Ovipositor shorter than body, at most 2.4 times length of metatibia, and at most projecting a little beyond gastral apex 9
8(7). Scape (excluding radicle) notably narrowing towards apex (Fig. 13), 5.2 times as long as wide; fore wing disc with a short row of six setae behind apex of marginal vein (Fig. 14) (Thailand) ..... *A. gek* **sp.n.**
— Scape (excluding radicle) cylindrical (Fig. 25), 10.0 times as long as wide; fore wing disc bare behind marginal vein (Fig. 26) (Brunei) ..... *A. leleji* **sp.n.**
9(7). Fore wing disc uniformly setose beyond venation (India) (Fig. 6) ..... *A. confusus* **sp.n.**
— Fore wing disc with distinct bare area(s) beyond venation 10
10(9). Ovipositor conspicuously projecting under propodeum anteriorly (Fig. 38), ovipositor length : metatibia length ratio at least 2.2 : 1.0 (Thailand) ..... *A. chuk* **sp.n.**
— Ovipositor not projecting under propodeum anteriorly, ovipositor length : metatibia length ratio less than 2.0 : 1.0 11
11(10). Fore wing with at least 15 setae in the middle of disc behind venation, arranged in about three irregular rows (Fig. 30) (Far East of Russia, Japan) ..... *A. zenit* Triapitsyn et Berezovskiy, 2003
— Fore wing with at most 12 setae in the middle of disc behind venation, arranged in at most two irregular rows 12
12(11). Fore wing disc with setae at apex relatively more scattered (Fig. 29) (India, Thailand) ..... *A. mudigerensis* Subba Rao, 1989
— Fore wing disc with setae at apex relatively more clustered (Fig. 31) (Kosrae Island, Federated States of Micronesia) ..... *A. clarkei* Doutt, 1955

Alphabetical synopsis of species

Arescon chuk Triapitsyn, **sp.n.**

Figs 1–4, 38.

Type material. Holotype: ♀ (UCRC), on slide (Fig. 4) labeled: 1. «THAILAND: Satun Pr. Ko Tarutao, nr Ao Son 6°38'59" N 99°37'29" E 14.III.2010 G. Ballmer MT»; 2. «Mounted by V. V. Berezovskiy 2015 in Canada balsam»; 3. [database label] «Univ. Calif. Riverside Ent. Res. Museum UCRC ENT 270907»; 4. [magenta] «*Arescon chuk* S. Triapitsyn HOLOTYPE ♀»; 5. «dry body L.: 0.63 mm Det. by S.V. Triapitsyn 2015». The holotype is complete, dissected under 2 coverslips. Paratypes: same data as the holotype [3♀♀ on slides and 4♀♀ on points, UCRC].

Description. Female (holotype). Body and appendages brown.

Mandible 4-dentate, with all teeth acute.

Antenna (Fig. 1) with scape almost smooth, 3.7 times as long as wide (excluding radicle); pedicel longitudinally striate, 2.0 times as long as wide, much longer than F1; all funicle segments longer than wide, F1 the shortest, without mps; F2–F4 equal in length, each with 2 mps (except F2 with 1 mps), F5 a little shorter than F4, with 2 mps; F2–F5 each with a pair of sickle-shaped sensilla (modified setae) apically; clava entire, 4.1 times as long as wide, apparently with 5 mps and at least with 1 modified seta (sensillum) subapically on the ventral side, a little shorter than combined length of F4 and F5.

Pronotum short. Mesoscutum with faint cell-like sculpture, its midlobe almost as long as wide, with a pair of adnotaular setae. Dorsellum rather small, rhomboidal; mesophragma reaching posterior margin of propodeum.

Fore wing (Fig. 2) 8.4 times as long as wide, with venation extending to 3/4 length of wing; disc strongly infuscate and mostly bare except for a group of 12 irregularly arranged

setae in the middle and a few setae at apex; longest marginal seta 2.8 times greatest width of wing. Hind wing about 29 times as long as wide; disc infuscate, mostly bare except for rows of admarginal setae; longest marginal seta 6.7 times greatest width of wing.

Petiole very short, inconspicuous. Gaster (Fig. 3) much longer than mesosoma; ovipositor occupying entire length of gaster, projecting under propodeum anteriorly (Fig. 38) (extending almost to propodeal anterior margin) and exserted beyond gastral apex posteriorly by 0.18 times own total length; ovipositor length: metatibia length ratio 2.3:1.

Measurements of the holotype (μm). Body (of the dry-mounted, critical point dried specimen before slide-mounting): 630; head: 124; mesosoma: 242; gaster: 424; ovipositor: 500. Antenna: radicle: 51; rest of scape: 103; pedicel: 48; F1: 15; F2: 79; F3: 79; F4: 79; F5: 70; clava: 127. Fore wing: 539: 64; venation: 403; longest marginal seta: 181. Hind wing: 518: 18; longest marginal seta: 121.

Variation (paratypes). Body length: 495–660 μm (dry-mounted, critical point dried specimens, n=6) or 720 μm (slide-mounted specimen). Fore wing 7.9–8.4 times as long as wide, with a group of 11 to 16 irregularly arranged setae in the middle of disc. Ovipositor exserted beyond gastral apex posteriorly by 0.13–0.15 times own total length; length: metatibia length ratio 2.2–2.4:1.

Male. Unknown.

***Diagnosis*.** This new taxon can be distinguished from *A. mudigerensis* Subba Rao, 1989 and similar species by a long ovipositor which is conspicuously projecting under the propodeum anteriorly (Fig. 38).

***Hosts*.** Unknown.

***Etymology*.** The name of this new taxon is a noun in apposition which is a male name.

Arescon confusus Triapitsyn, **sp.n.**

Figs 5–7.

Arescon mudigerensis Subba Rao, 1989: 166–167 (in part, misidentification, paratype only), 181 (figs 65–68, illustrations of the slide-mounted paratype).

***Type material*.** Holotype: ♀ (BMNH), on slide (Fig. 7) labeled: 1. «INDIA: Kerala Periyar Anim. Sanc. 5–5.x.1979 JS Noyes BM 1979–518 9 Mar 87 [the date when the slide was made by J.S. Noyes]»; 2. «1988 *Arescon mudigerensis* sp.nov. ♀ B.R. Subba Rao det»; 3. [a yellow circle] «Para-type»; 4. «BMNH(E) #1414689»; 5. [bar code] «010157547 NHMUK»; 6. [magenta] «*Arescon confusus* S. Triapitsyn Holotype ♀». The holotype is in good condition, complete, dissected under 4 coverslips. The type locality is in Periyar National Park and Wildlife Sanctuary.

***Description*.** Female (holotype). Body mostly brown, appendages light brown (cleared, slide-mounted specimen).

Mandible apparently 3-dentate.

Antenna (Fig. 5) with scape almost smooth, 3.9 times as long as wide (excluding radicle); pedicel longitudinally striate, 2.1 times as long as wide, much longer than F1; all funicle segments longer than wide, F1 the shortest, without mps; F2–F4 subequal in length, each with 2 mps, F5 a little shorter than F4, with 2 mps; clava entire, 2.6 times as long as wide, with only 4 visible mps and 2 modified setae (sensilla) subapically on the ventral side, shorter than combined length of F4 and F5.

Mesoscutum with faint cell-like sculpture, its midlobe a little longer than wide, with a pair of adnotaular setae.

Fore wing (Fig. 6) 5.8 times as long as wide, with venation extending to 0.72 length of wing; disc uniformly infuscate and mostly setose except bare behind submarginal vein and base of marginal vein; longest marginal seta 2.0 times greatest width of wing. Hind wing about 27 times as long as wide; disc infuscate, mostly bare except for rows of admarginal setae and a few setae at apex; longest marginal seta 6.4 times greatest width of wing.

Petiole very short, inconspicuous. Gaster a little longer than mesosoma; ovipositor occupying a little less than 0.8 length of gaster, exserted slightly beyond gastral apex; ovipositor length: metatibia length ratio 1.2:1.

Measurements of the holotype (μm). Mesosoma: 227; gaster: 248; ovipositor: 203. Antenna: radicle: 30; rest of scape: 100; pedicel: 42; F1: 21; F2: 65; F3: 64; F4: 61; F5: 55; clava: 88. Fore wing: 485: 84; venation: 348; longest marginal seta: 167. Hind wing: 455: 17; longest marginal seta: 109.

Male. Unknown.

Diagnosis. Among the Eurasian species of *Arescon* with the marginal vein of the fore wing extending to about 3/4 length of the wing, female of *A. confusus* is recognizable by the disc being uniformly setose beyond the venation (Fig. 6).

Hosts. Unknown.

Etymology. The name of this new taxon is an adjective referring to the prior confusion about its true identity (see comments on *A. mudigerensis*): it was described and illustrated as belonging to the latter species.

Arescon enocki (Subba Rao et Kaur, 1959)

Figs 8–11.

Neurotes enocki Subba Rao et Kaur, 1959: 233 (illustrations, Fig. 4), 235–237, 238 (key). Type locality: Indian Agricultural Research Institute, New Delhi, National Capital Territory of Delhi, India. Holotype female on slide [NPC] (not examined).

Arescon enocki (Subba Rao et Kaur): Subba Rao, 1966: 187–189 (description of the male, illustration of the female, distribution, host association); Subba Rao, 1989: 167 (compared with *A. mudigerensis*); Triapitsyn, Berezovskiy, 2003: 9 (compared with *A. zenit* Triapitsyn et Berezovskiy, 2003; distribution, host association).

Material examined. India: Karnataka: Bangalore (Bengaluru) Rural District, Budigere, S.K. Rajeshwari, «ex. *Empoasca signata* (Haupt) on castor bean»: 16–17.IV.1984 (1♀, 1♂, UCRC); 17–18.IV.1984 (3♂♂, UCRC) (University of California, Riverside (UCR) Quarantine S & R No. 84–16–1); 6–7.V.1984 (9♀♀, 13 ♂♂, UCRC) (det. by S. Krishnaswamy; S & R No. 84–19–1). Bangalore (Bengaluru) Urban District, Bangalore (Bengaluru), 11.VI.1984, S.K. Rajeshwari, from eggs of «*Empoasca signata*» on castor bean in a dairy farm (6♀♀, 3♂♂, UCRC) (S & R No. 84–27). National Capital Territory of Delhi, New Delhi, Indian Agricultural Research Institute, 28°37'59"N 77°09'38"E, 220 m, 4.XI.2003, J. Heraty (1♀, UCRC).

Diagnosis. (Based on non-type specimens from India). Female. Body length 450–660 μm (dry-mounted, air-dried specimens).

Body (Fig. 8) mostly yellow to light brownish except pronotum and anterior part of mesoscutum brown, anterior scutellum orange, and dorsellum and propodeum often a little darker (brownish), in addition to several small brown spots on sides of mesosoma and gaster; antenna mostly yellowish-brown except clava darker; legs yellowish. Mandible 4-dentate, with three of the teeth acute and one obtuse. Antenna with scape (minus radicle) 3.0–3.3 times as long as wide and with distinct cross-ridges; pedicel finely longitudinally striate, notably longer than F1; all funicle segments longer than wide, F1 the shortest and without mps; F2 slightly shorter than following funicle segments, usually with 1 mps but occasionally lacking it on one antenna; F3–F5 subequal in

length (F4 the longest) and each with 2 mps; clava entire, 3.7–3.8 times as long as wide, about as long as combined length of F4 and F5, apparently with 6 mps. Mesosoma almost as long as metasoma; midlobe of mesoscutum with a pair of adnotaular setae. Fore wing 3.4–3.8 times as long as wide, with venation extending to about 2/3 length of wing; disc slightly infumate (almost hyaline), usually more or less uniformly setose behind (except basally) and beyond venation but sometimes with a bare area in the widest part near posterior margin and occasionally also with a small, indistinct bare area in the middle; longest marginal seta 0.95–1.2 times greatest width of wing. Hind wing about 27 times as long as wide; disc almost hyaline; longest marginal seta about 6.0 times greatest width of wing. Ovipositor occupying 0.7–0.8 length of gaster, barely exserted beyond gastral apex, ovipositor length: metatibia length ratio 1.5–1.7:1.

Male. Body length 470–600 µm (dry-mounted, air-dried specimens). Similar to female except for the normal sexually dimorphic characters and the following. Propodeum and apical half or so of gaster brown (Fig. 9). Antenna with F1 and sometimes F11 shortest of flagellar segments. Fore wing 3.5–3.8 times as long as wide, disc occasionally with two distinct bare areas in the widest part (Fig. 10); longest marginal seta 1.0–1.2 times greatest width of wing. Genitalia (Fig. 11) occupying 0.5–0.6 length of gaster; aedeagus and parameres usually projecting out a little from apex of gaster.

Diagnosis. *Arescon enocki* belongs to the same (*iridescens*) informal species group as the European *A. iridescens* (Enock, 1914), which was recently redescribed, based on specimens from Italy, by Triapitsyn, Berezovskiy [2004]. Members of this group, which corresponds to the former genus *Neurotes* Enock, 1914, have a relatively wide fore wing (less than 5x as long as wide) with venation extending to about 2/3 length of the wing.

Distribution. India [Subba Rao, Kaur, 1959; Subba Rao, 1966] and Pakistan [Saeed et al., 2015].

Hosts. Hemiptera: Cicadellidae: *Amrasca biguttula* (Ishida, 1912) (= *Amrasca biguttula biguttula* (Shiraki, 1912)) [Subba Rao, 1966; Subba Rao et al., 1968 (as *Empoasca devastans* Distant, 1918); Saeed et al., 2015 (as *Amrasca devastans* (Distant, 1918))] and *Jacobiasca lybica* (de Bergevin et Zanon, 1922) (= *Empoasca signata* (Haupt, 1927)) [Triapitsyn, Berezovskiy, 2003 (as *Empoasca libyca* [sic] (de Bergevin et Zanon, 1922)].

Comments. Live specimens of this species were sent, along with another mymarid, *Stethynium empoascae* Subba Rao, 1966, to UCR Quarantine laboratory (Dale E. Meyerdirk) from Karnataka, India, several times during the first half of 1984, most likely for testing as a potential biological control agent against the beet leafhopper, *Neoaliturus* (*Circulifer*) *tenellus* (Baker, 1896) (Cicadellidae). According to the UCR quarantine records, which are under my care, the first shipment, under UCR Quarantine S & R number 84–16–1, contained only dead specimens of *A. enocki*; the second one, under S & R number 84–19–1, had only 2 specimens that were alive and these were not propagated, and the last shipment, under UCR Quarantine S & R number 84–27–2, contained many alive specimens of both sexes but any data about their further fate, like possible propagation, are lacking. Other relevant, very thorough UCR records lack any mentioning about consignment of *A. enocki* from the quarantine or any field releases, so therefore it can be concluded without any doubt that this species was not introduced into the environment in the USA and thus has not been established there.

Arescon gaoligongensis Jin et Li, 2016

Arescon gaoligongensis Jin et Li in Jin et al., 2016: 85–87. Type locality: Baihualing, Mt. Gaoligong, Baoshan City, Yunnan, China. Holotype female on slide [NEFU] (not examined).

Diagnosis. *Arescon gaoligongensis* is a tentative member of the *iridescens* species group; among the Eurasian species of which its female is characterized by a yellowish-brown body color and the ovipositor about 2.1 times metatibia length [Jin et al., 2016].

Distribution. China (Yunnan) [Jin et al., 2016].

Hosts. Unknown.

Arescon gek Triapitsyn, **sp.n.**

Figs 12–16.

Type material. Holotype: female (UCRC), on slide (Fig. 15) labeled: 1. «THAILAND: Phang Nga Prov. Koh Ra, 09°10'47"N, 98°16'00"E, 20 m, 29.i–3.ii.2003 G. Ballmer, YPT»; 2. «Mounted by V. V. Berezovskiy 2015 in Canada balsam»; 3. [magenta] «*Arescon gek* S. Triapitsyn HOLOTYPE ♀»; 4. «Det. by S. V. Triapitsyn 2015»; 5. [database label] «Univ. Calif. Riverside Ent. Res. Museum UCRC ENT 285524». The holotype (Fig. 12) is in fair condition, lacking one antenna, and dissected under 3 coverslips.

Description. Female (holotype). Body (Fig. 12) yellowish-brown except stemmaticum dark brown and midlobe of mesoscutum and gaster brown; antenna mostly brown except clava somewhat paler; coxae brown, rest of leg segments yellowish-brown (light brown).

Head in dorsal view a little wider than long, with vertex very long.

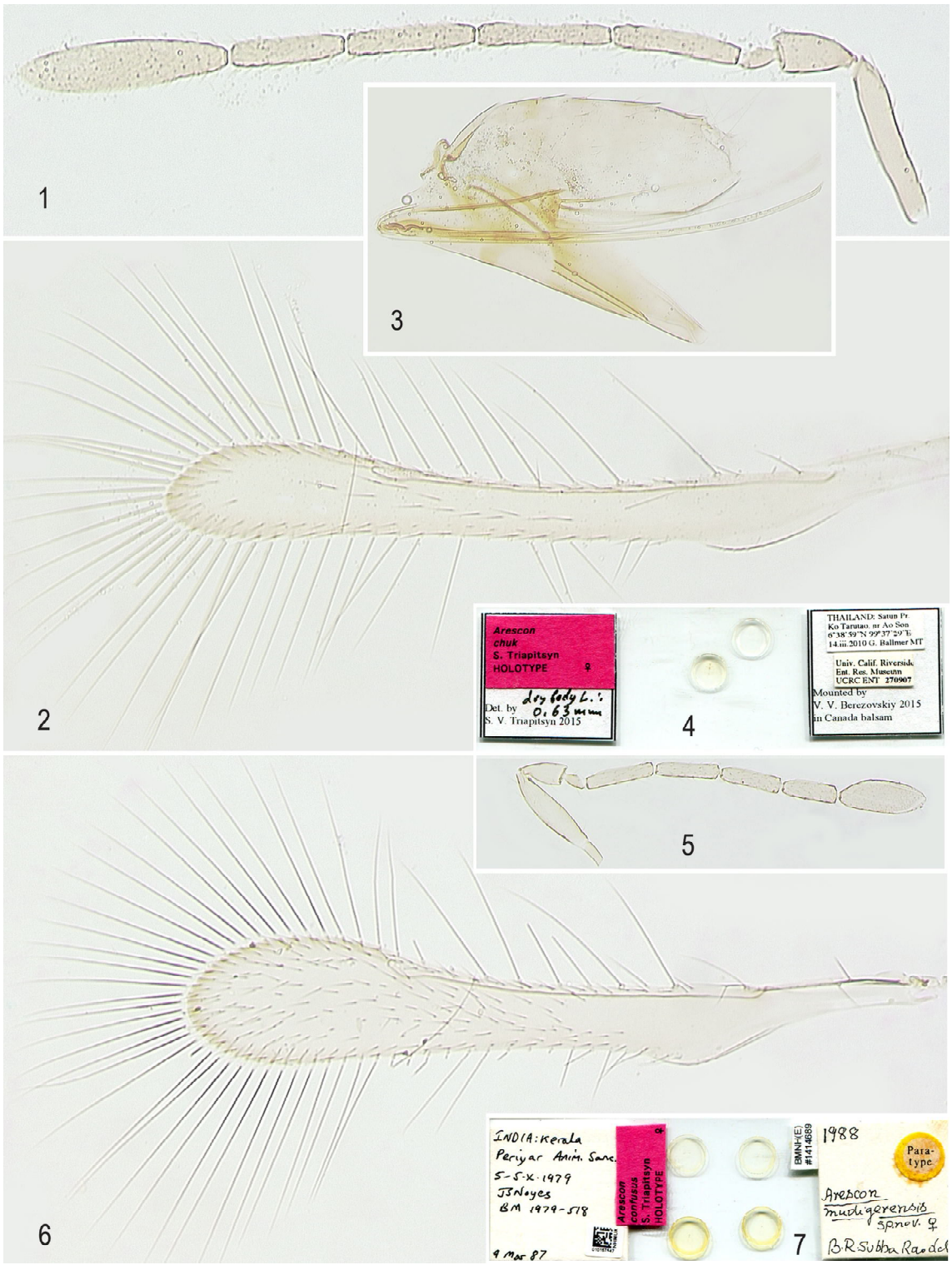
Antenna (Fig. 13) with scape almost smooth, notably narrowing towards apex, 5.2 times as long as wide (excluding radicle); pedicel longitudinally striate, about 1.8 times as long as wide, a little longer than F1; all funicle segments longer than wide, F1 the shortest, without mps; F2 the longest, following funicle segments a little shorter than preceding one, F2–F5 each with 2 mps; clava entire, 3.2 times as long as wide, with at least 5 mps, notably shorter than combined length of F4 and F5.

Fore wing (Fig. 14) 7.6 times as long as wide, with venation extending to 0.78 length of wing; disc strongly infuscate (brown), more intensely so apically, and mostly bare except for a short row of 6 setae behind apex of marginal vein and a few setae at apex of wing; longest marginal seta 1.8 times greatest width of wing. Hind wing (Fig. 14) about 33 times as long as wide; disc strongly infuscate, mostly bare except for rows of admarginal setae and a few setae at apex; longest marginal seta 5.6 times greatest width of wing.

Petiole very short, inconspicuous but visible when slide-mounted (Fig. 16). Gaster much longer than mesosoma; ovipositor (Figs 12, 16) very long (longer than body), occupying about 0.8 length of gaster, markedly exserted beyond gastral apex (by 0.63 times own total length); ovipositor length: metatibia length ratio 3.2:1; ovipositor sheath with setae apically.

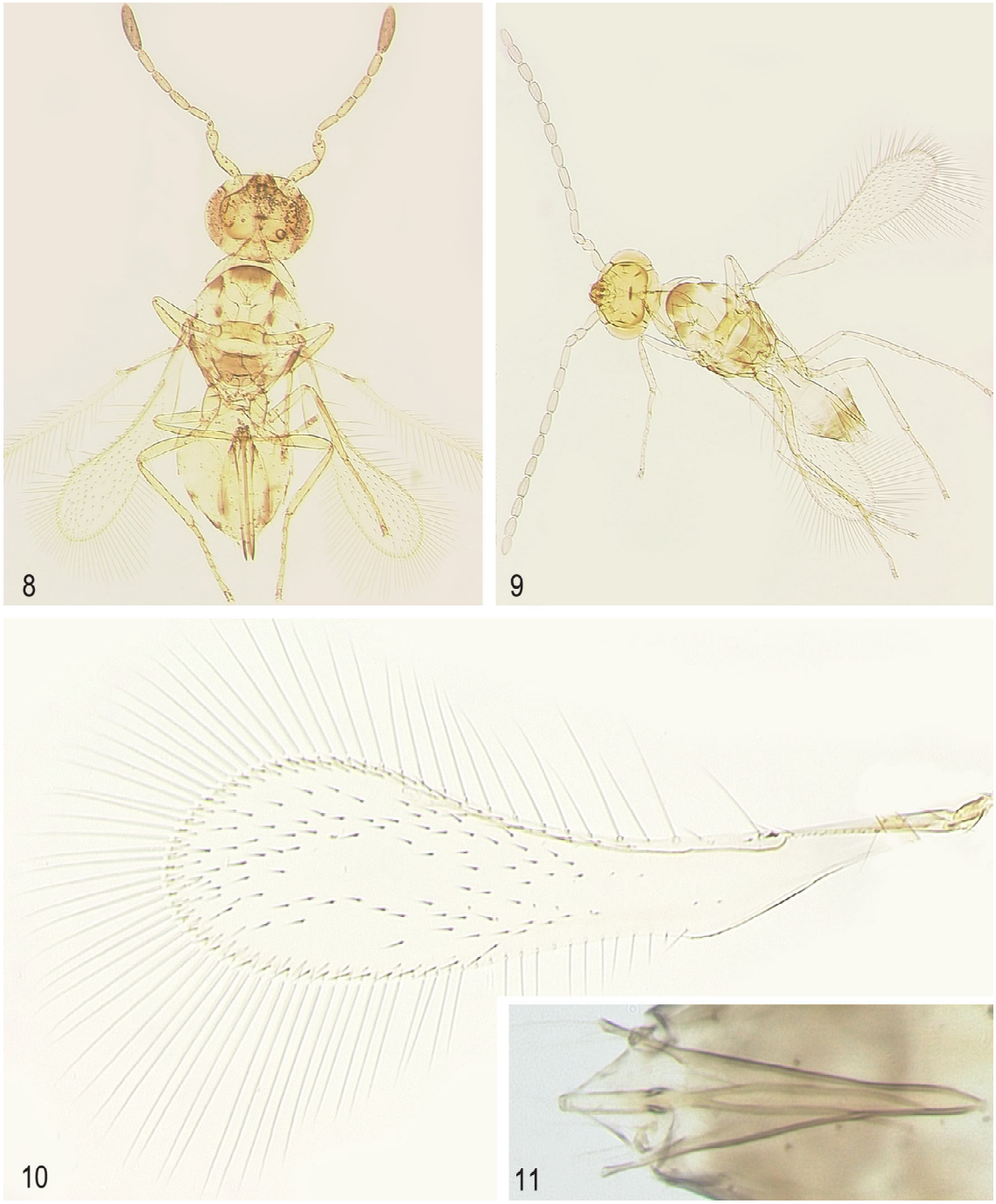
Measurements of the holotype (µm). Body (of the dry-mounted, critical point dried specimen before slide-mounting): 792 (excluding the exserted part of ovipositor) or 1420 (including the ovipositor); head: 160; mesosoma: 246; petiole: 15; gaster: 455; ovipositor: 984. Antenna: radicle: 30; rest of scape: 165; pedicel: 49; F1: 30; F2: 124; F3: 112; F4: 101; F5: 90; clava: 130. Fore wing: 695: 91; venation: 546; longest marginal seta: 167. Hind wing: 665: 20; longest marginal seta: 112.

Male. Unknown.



Figs 1–7. *Arescon chuk* **sp.n.,** female, holotype (1–4) and *A. confusus* sp.n., female, holotype (5–7): 1, 5 — antenna; 2, 6 — fore wing; 3 — metasoma (lateral view); 4, 7 — slide.

Рис. 1–7. *Arescon chuk* **sp.n.**, самка, голотип (1–4) и *A. confusus* sp.n., самка, голотип (5–7): 1, 5 — усик; 2, 6 — переднее крыло; 3 — метасома (вид сбоку); 4, 7 — препарат.



Figs 8–11. *Arescon enocki* (Budigere, Bangalore Rural District, Karnataka, India): 8 — female habitus; 9 — male habitus; 10 — male fore wing (variant); 11 — male genitalia.

Рис. 8–11. *Arescon enocki* (Будигере, Сельский район Бангалоре, Карнатака, Индия): 8 — габитус самки; 9 — габитус самца; 10 — переднее крыло самца (вариант); 11 — гениталии самца.

Diagnosis. This taxon, along with *A. leleji* (from which it differs by the characters indicated in the key), is quite similar to a likely undescribed Oriental *Arescon* sp. from Ryukyu Islands, Japan, which also has a very long ovipositor and body length of about 0.86 mm [Toshio Muroi, personal communication; specimens in KUIC (not examined but a digital photograph seen)]. They all belong to the informal *gek* species group of *Arescon* which is characterized by a relatively large body size (more than 0.7 mm) and a very long (longer than body), markedly exserted ovipositor.

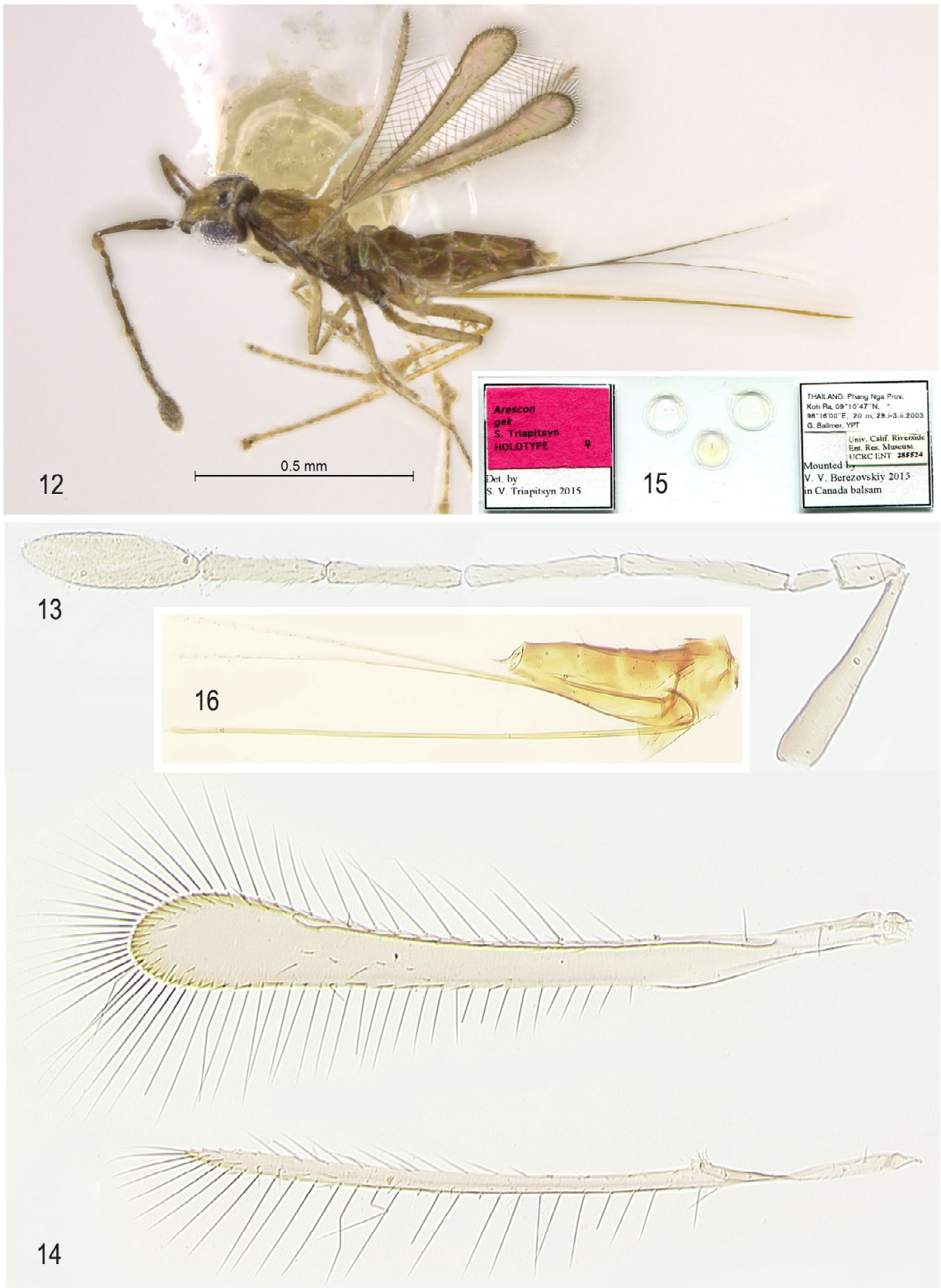
Hosts. Unknown.

Etymology. The name of this new species is a noun in apposition referring to a male name.

Arescon leleji Triapitsyn, **sp.n.**

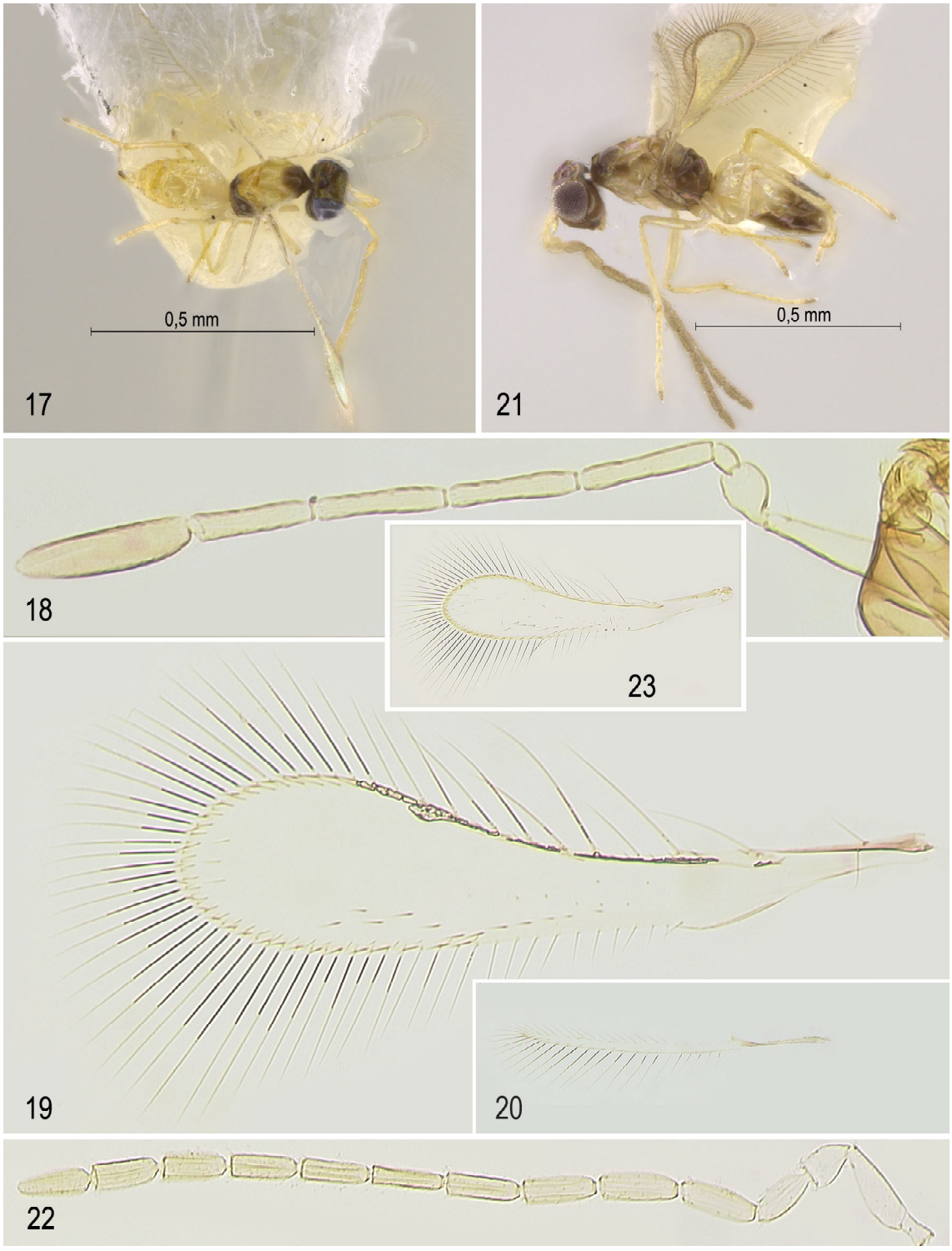
Figs 24–28.

Type material. Holotype: female (UCRC), on slide (Fig. 27) labeled: 1. «BRUNEI: Belait District Labi Rd., Rumah Teraja,



Figs 12–16. *Arescon gek* **sp.n.**, female, holotype: 12 — habitus (dry-mounted specimen, prior to slide-mounting); 13 — antenna; 14 — fore and hind wings; 15 — slide; 16 — metasoma (lateral view).

Рис. 12–16. *Arescon gek* **sp.n.**, самка, голотип: 12 — габитус (сухой экземпляр, до приготовления препарата); 13 — усик; 14 — переднее и заднее крылья; 15 — препарат; 16 — метасома (вид сбоку).



Figs 17–23. *Arescon sparsiciliatus*: 17 — female habitus (8°54'26" N 98°31'59" E, Sok River, Surat Thani, Thailand); 18 — female antenna (12.80° N, 99.45° E, Kaeng Krachan National Park, Phetchaburi, Thailand); 19 — female fore wing (same specimen); 20 — female hind wing (same specimen); 21 — male habitus (12°53'09" N 102°06'38" E, Khlong Paiboon Falls, Khao Kitchakut National Park, Chanthaburi, Thailand); 22 — male antenna (same specimen); 23 — male fore wing (same specimen).

Рис. 17–23. *Arescon sparsiciliatus*: 17 — габитус самки (8°54'26" N 98°31'59" E, река Сок, Сурат Тани, Таиланд); 18 — усик самки (12,80° N, 99,45° E, национальный парк Каенг Крачан, Чантабури, Таиланд); 19 — переднее крыло самки (тот же экземпляр); 20 — заднее крыло самки (тот же экземпляр); 21 — габитус самца (12°53'09" N 102°06'38" E, водопады Хлонг Паибун, национальный парк Хао Китчакут, Чантабури, Таиланд); 22 — усик самца (тот же экземпляр); 23 — переднее крыло самца (тот же экземпляр).

40 m 4°16'59"N, 114°25'22"E 2.vii.2010, J. Heraty sweep dipterocarp forest H10–084»; 2. «Mounted by V. V. Berezovskiy 2015 in Canada balsam»; 3. [magenta] «*Arescon leleji* S. Triapitsyn HOLOTYPE ♀»; 4. «Det. by S. V. Triapitsyn 2015»; 5. [database label] «Univ. Calif. Riverside Ent. Res. Museum UCRC ENT 284351». The holotype (Fig. 24) is in fair condition, almost complete, dissected under 3 coverslips.

***Description*.** Female (holotype). Head brownish, rest of body (Fig. 24) mostly light brown except gastral terga paler; appendages brownish.

Antenna (Fig. 25) with scape almost smooth, cylindrical, 10.0 times as long as wide (excluding radicle); pedicel longitudinally striate, about 2.0 times as long as wide, longer than F1; all funicle segments longer than wide, F1 the shortest, without mps; F2 the longest, following funicle segments slightly shorter than preceding one except F5 more so, F2–F5 each with 2 mps; clava entire, 3.6 times as long as wide, with at least 5 mps, notably shorter than combined length of F4 and F5.

Fore wing (Fig. 26) 8.1 times as long as wide, with venation extending to 0.76 length of wing; disc strongly infuscate (brown) throughout and bare except for rows of admarginal setae; longest marginal seta 2.2 times greatest width of wing. Hind wing about 32 times as long as wide; disc strongly infuscate and bare except for rows of admarginal setae; longest marginal seta 5.6 times greatest width of wing.

Petiole very short, inconspicuous. Gaster longer than mesosoma; ovipositor extraordinarily long (longer than body), occupying entire length of gaster (Figs 24, 28), markedly exserted beyond gastral apex (by 0.64 times own total length); ovipositor length: metatibia length ratio 3.3:1; ovipositor sheath with setae apically.

Measurements of the holotype (μm). Body 900 (825 of the dry-mounted, critical point dried specimen before slide-mounting excluding the exserted part of ovipositor, or about 1600 including the ovipositor); head: 141; mesosoma: 320; gaster: 455; ovipositor: 1205. Antenna: radicle: 61; rest of scape: 197; pedicel: 55; F1: 24; F2: 123; F3: 121; F4: 118; F5: 103; clava: 162. Fore wing: 721: 89; venation: 548; longest marginal seta: 194. Hind wing: 695: 22; longest marginal seta: 124.

Male. Unknown.

***Diagnosis*.** See that of *A. gek* and the key.

***Hosts*.** Unknown.

***Etymology*.** The new species is named in honor of Prof. Arkadiy Stepanovich Lelej (Institute of Biology and Soil Science of the Far East Branch of the Russian Academy of Sciences, Vladivostok, Russia), an outstanding hymenopterist.

Arescon mudigerensis Subba Rao, 1989

Fig. 29.

Arescon mudigerensis Subba Rao, 1989: 166–167 (card-mounted holotype only). Type locality: Mudigere, Karnataka, India.

***Type material*.** Holotype: female (BMNH) (not examined, but digital photographs of its habitus and labels (Fig. 29) were examined), on card labeled: 1. «INDIA: Karnataka Mudigere 26.x–4.xi.1979»; 2. GJ.S. Noyes B.M. 1979–518»; 3. [a red circle] «Holo-type»; 4. «*Arescon* sp. det. B.R. Subba Rao, 1981»; 5. «*Arescon mudigerensis* Subba Rao»; 6. «B.M. TYPE HYM 5.3506»; 7. «BMNH(E) #1414696». The holotype (Fig. 29) is in good condition, complete, mounted laterally.

Material examined. THAILAND, Trang, Khao Chong (near Nam Tok Ton Prew), 7°32'15"N 99°47'38"E, 140 m, 4–11.II.2005, D. Lohman [1♀, UCRC] (lacking flagella of both antennae).

Diagnosis. Female (holotype, Fig. 29). Body length about 500 μm. Fore wing about 7 times as long as wide, with venation extending to about 3/4 length of wing; disc infumate, with about 12 setae behind apex of marginal vein and several scattered setae at apex; longest marginal seta about 2 times maximum wing width. Ovipositor not projecting under propodeum anteriorly and posteriorly projecting a little beyond gastral apex.

Arescon mudigerensis is superficially very similar to the extralimital *A. clarkei* Doutt, 1955 and *A. zenit* Triapitsyn et Berezovskiy, 2003, but it is impossible for me to further comment about their possible conspecificity (or otherwise) without re-mounting of the holotype of *A. mudigerensis* onto a permanent slide in Canada balsam to allow for its more detailed redescription and measurements; of particular importance would be information on presence and number of mps on F2–F5 and relative length of the flagellar segments and the ovipositor. For the time being, these three species are separated in the key based on some minor differences in fore wing chaetotaxy.

***Distribution*.** India [Subba Rao, 1989], Thailand (new record).

***Hosts*.** Unknown.

***Comments*.** Upon examination, the female paratype of this species turned out not to be conspecific with the holotype, so the former is described here as *A. confusus*. It appears that the original description of *A. mudigerensis* was based mostly on the slide-mounted paratype, which was the specimen illustrated by Subba Rao [1989, p. 181 (Figs 65–68)], thus creating an unnecessary confusion.

Arescon sparsiciliatus Jin et Li, 2016

Figs 17–23.

Arescon sparsiciliatus Jin et Li in Jin et al., 2016: 90–93. Type locality: Mengxiu Township, Ruili City, Yunnan, China. Holotype female on slide [NEFU] (not examined).

Material examined. **Thailand:** Chanthaburi, Khao Kitchakut National Park, Khlong Paiboon Falls, 12°53'09"N 102°06'38"E, 90 m, 1–2.vii.2008, B.V. Brown (1♂, UCRC). Chiang Mai, Toong Tha Tam, Amphur Mae Wang, 1–10.x.1997, S. Sonthichai (2♀♀, UCRC). Phetchaburi, Kaeng Krachan National Park, Ban Krang: check-point 2, 12.80°N, 99.45°E, 336m, 24–26.vi.2008, TIGER training course (1♀, UCRC); 12°47.896'N 99°27.196'E, 322 m, 24.vi.2008: B.V. Brown (1♂, UCRC); M. Sharkey (1♀, UCRC). Surat Thani, Sok River, N of Hwy 401, 8°54'26"N 98°31'59"E, 20–21.ii.2005, D. Yanega (2♀♀, UCRC). Trang, Khao Chong (near Nam Tok Ton Prew), 7°32'15"N 99°47'38"E, 140 m, 20–27.ii.2005, D. Lohman (1♂, UCRC).

***Redescription*.** Female (specimens from Thailand). Body length of slide-mounted individuals 570–683 μm (430–500 μm of dry-mounted, critical point dried specimens, n=5). Head brown; pronotum, anterior part of mesoscutum, dorsellum, and propodeum light brown to brown; rest of body (Fig. 17) yellow except apex of gaster sometimes brownish yellow; antenna brownish, legs yellowish.

Mandible apparently 4-dentate, with 3 teeth acute.

Antenna (Fig. 18) with scape smooth, 5.0 times as long as wide (excluding radicle); pedicel faintly longitudinally striate, 1.4 times as long as wide, much longer than F1; all funicle segments longer than wide except F1 barely so; F1 the shortest, without mps; F2–F4 subequal in length (F2 the longest), F5 a little shorter than F4, F2–F5 each with 2 mps; clava entire, 2.8 times as long as wide, with 5 mps, notably shorter than combined length of F4 and F5.

Mesoscutum almost smooth, its midlobe with a pair of rather strong adnotaular setae.

Fore wing (Fig. 19) 4.3–4.6 times as long as wide, with venation extending to 0.68 length of wing; disc almost hyaline

and mostly bare except for 10 to 16 larger setae along posterior margin, a few very short, inconspicuous setae behind marginal vein, and 3 or 4 setae at apex; longest marginal seta 1.2 times greatest width of wing. Hind wing (Fig. 20) about 32 times as long as wide; disc almost hyaline, mostly bare except for rows of admarginal setae; longest marginal seta 6.5 times greatest width of wing.

Petiole very short, inconspicuous. Gaster longer than mesosoma; ovipositor occupying about 0.8 length of gaster and exserted a little beyond gastral apex (by about 0.1 times own total length); ovipositor length: metatibia length ratio 1.6–1.7:1.

Male (specimens from Thailand). Body length 560–594 μm (dry-mounted, critical point dried specimens). Similar to female except for the normal sexually dimorphic characters and the following. Head, pronotum, anterior part of mesoscutum, dorsellum and propodeum brown, remainder of mesosoma yellowish; basal gastral terga yellow and apical ones brown; scape, pedicel and F1 yellowish-brown, rest of flagellum brownish; legs light yellowish-brownish (Fig. 21). Antenna (Fig. 22) with F1 not significantly shorter than other flagellar segments. Fore wing (Fig. 23) 4.3 times as long as wide, with disc notably more setose than in female; longest marginal seta 1.3 times greatest width of wing. Genitalia occupying about 0.7 length of gaster; aedeagus and parameres projecting out from apex of gaster.

Diagnosis. *Arescon sparsiciliatus* is a tentative member of the *iridescens* species group; among the Eurasian species of which it is characterized by an almost bare fore wing (Figs 19, 23).

Distribution. China (Yunnan) [Jin et al., 2016], Thailand (new record).

Hosts. Unknown.

Comments. The following specimen is superficially very similar to *A. sparsiciliatus*, yet it cannot be absolutely positively identified as such: TAIWAN: Nantou Co., «Pilu Chi», Hydroelectric Station, 24°23'N 121°31'E, 1742 m, 15–30.vi.1997, M. Yang (1 ♂, UCRC).

Taxonomic notes on some extralimital species of *Arescon*

Arescon clarkei Doutt, 1955

Figs 31–34.

Arescon clarkei Doutt, 1955: 15–17. Type locality: at 330 m, «Hill 1575», Kosrae Island, Kosrae State, Federated States of Micronesia (as Kusaie, Eastern Caroline Islands in the original description).

Type material. (Only digital images were examined). Holotype: female (USNM), on slide (Fig. 34) labeled: 1. «ex trash from forest floor Kusaie, Hill 1575 330 m. II–26–1953 J. F. G. Clarke #KU67B»; 2. «*Arescon* [in India ink, crossed out in pencil] *Xenomymar clarkei* Type [in pencil]». The holotype (USNM ENT 01119478) is in poor condition (not cleared), dissected into many parts under the same coverslip.

Diagnosis. Female (holotype). Antenna (Figs 31, 32): F1 the shortest funicle segment, longer than wide and without mps; other funicle segments subequal in length except F5 a little shorter, F2–F4 each apparently with 2 mps, F5 apparently with 3 mps; clava about 3.4 times as long as wide, apparently with 5 mps, slightly shorter than combined length of F4 and F5. Fore wing (Fig. 31) about 6.9 times as long as wide, with venation extending to 3/4 length of wing; disc notably infumate, with 11 or 12 setae behind apex of marginal vein and several rather clustered setae at apex; longest marginal seta about 2.2 times maximum wing width. Ovipositor originating near base of gaster (Fig. 33), not projecting under propodeum anteriorly and posteriorly projecting beyond gastral apex by 0.13x own total length; ovipositor length: metatibia length ratio 1.45:1.

Male. Possibly known [Doutt, 1955] (see comments below).

Distribution. Federated States of Micronesia: Kosrae Island and quite possibly Pohnpei Island (indicated by its former name Ponape in the original description, now within Pohnpei State, Senyavin Islands), both part of Caroline Islands. Doutt [1955, p. 16] provided a habitus drawing of the male, collected at 180 m on Mount Temwetemwensekir, Pohnpei Island, but not included in in the type series as he was not completely sure about its conspecificity with the female holotype from Kosrae Island.

Hosts. Unknown.

Arescon iridescens (Enock, 1914)

Figs 35–37.

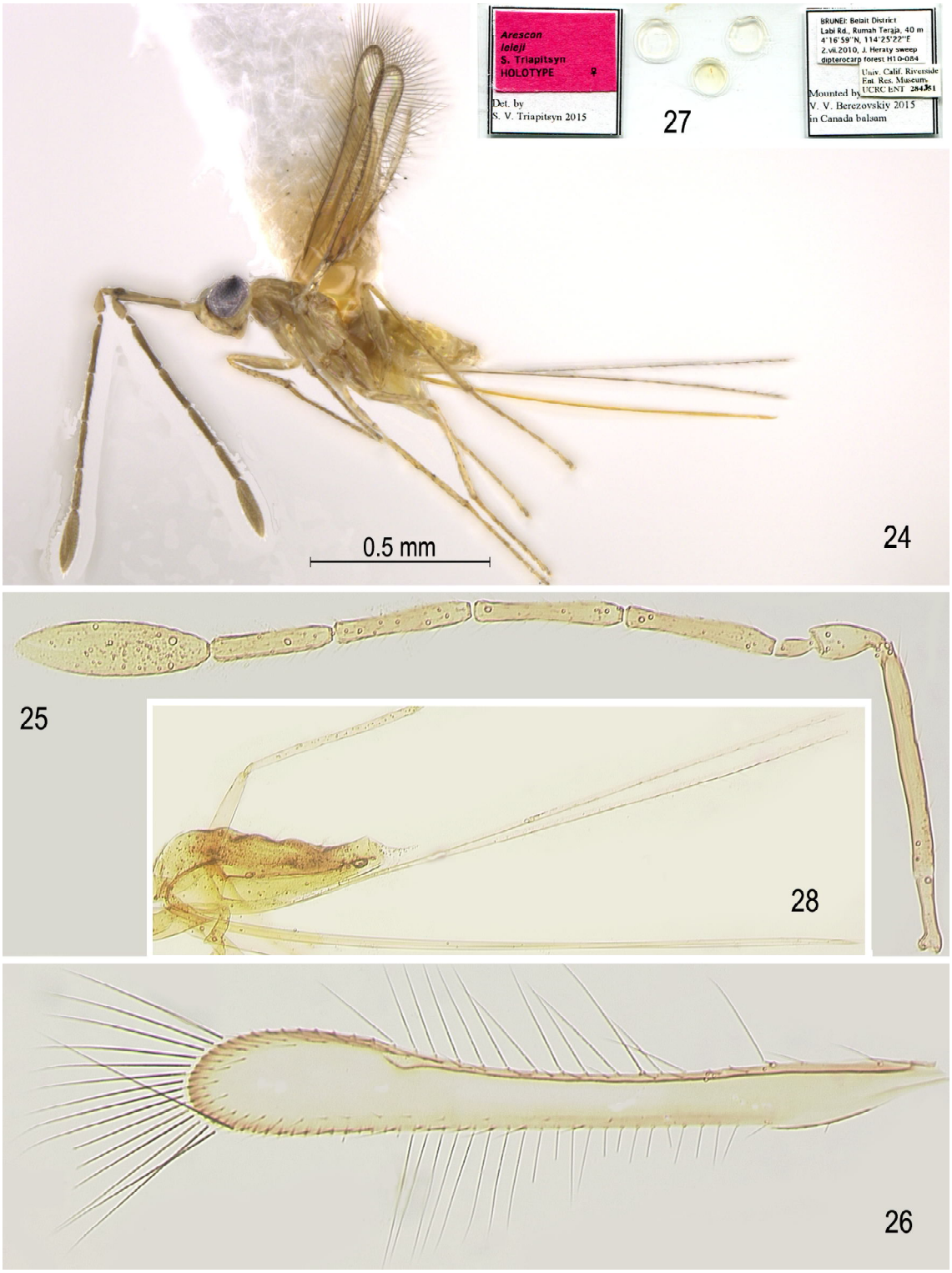
Neurotes iridescens Enock, 1914: cxxxiv, pl. A, Figs 1 and 2. Type locality: Hollington Church Wood, Hastings, East Sussex, England, UK.

Neurotes iridescens Enock: Subba Rao, Kaur, 1959: 238 (key).

Arescon iridescens (Enock): Triapitsyn, Berezovskiy, 2003: 4 (key), 6–7 (taxonomic history, diagnosis, distribution); Triapitsyn, Berezovskiy, 2004: 17–19 (distribution, detailed diagnosis and illustrations, based on specimens from Italy).

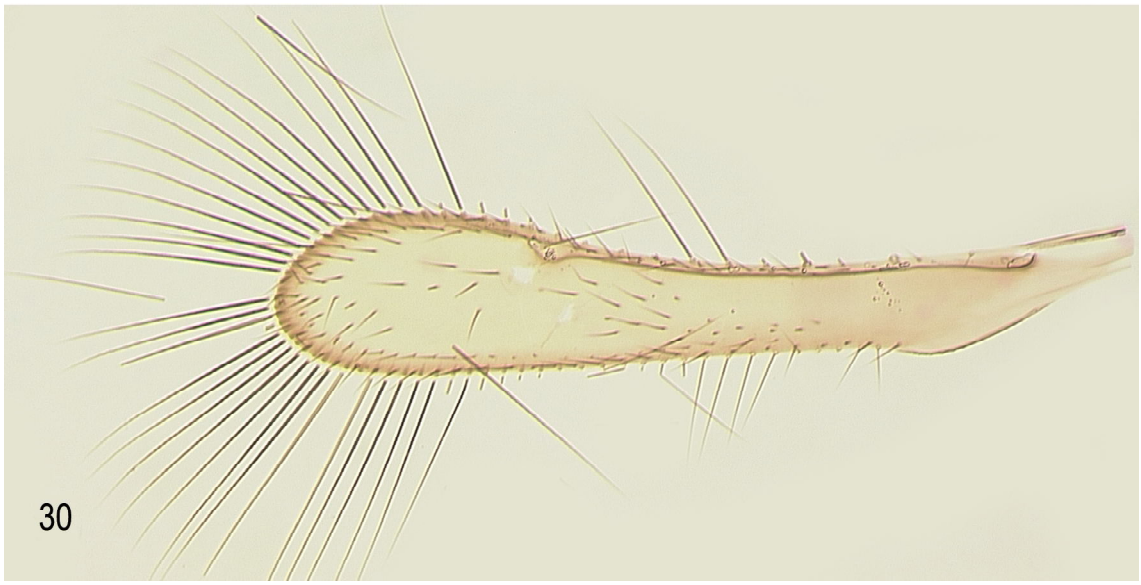
Type material. Using this opportunity, I hereby designate a lectotype for *Neurotes iridescens* Enock, 1914 to avoid any ambiguity about the type specimens of this species (originally described from one male and one female syntypes) and their identity: female on slide (Fig. 35) (BMNH), examined during my visit of this collection in August 2014, labeled: 1. «FRED^{c} ENOCK PREPARER. *Neurotes iridescens* Type ♀. FE Holotype [added later in India ink] 5.1699 [in red ink, BMNH primary type number added later]»; 2. «N^{o}27972. Hollington Wood Hastings Aug^{t}28/13.»; 3. [red circle] «Type»; 4. [bar code] «010157560 NHMUK»; 5. [F. Enock's slide number engraved on the underside] «27972»; 6. [magenta, attached to the underside] «*Neurotes iridescens* Enock, 1914 LECTOTYPE ♀ Des. S.V. Triapitsyn 2015 = *Arescon iridescens* (Enock)». The lectotype (Fig. 36) is poorly cleared but otherwise in perfect condition, beautifully spread out and complete. Paralectotype: 1 male (Fig. 37) (BMNH), on slide labeled: 1. «FRED^{c} ENOCK PREPARER. *Arescon* [pasted over the original name *Neurotes*] *iridescens* Type ♂. FE Allo-type [added later in India ink]»; 2. «N^{o}27962. Hollington Wood Hastings Aug^{t}28/13»; 3. [yellow circle] «Para-type»; 4. [bar code] «010157546 NHMUK»; 5. [F. Enock's slide number engraved on the underside] «27962»; 6. [pink, attached to the underside] «*Neurotes iridescens* Enock, 1914 PARALECTOTYPE ♂ Des. S.V. Triapitsyn 2015 = *Arescon iridescens* (Enock)».

Additional material examined. ITALY: Campania, Napoli Province, Portici, Parco Gussone: 24.vi.1967, G. Viggiani (2♀♀, DEZA); 30.VI.1967, G. Viggiani (3♀♀, 1♂, DEZA); 26.VI.1968, G. Viggiani (2♀♀, 2♂♂, DEZA); 3–4.VI.2003, J. Munro, A. Owen, J. Pinto (1♀, UCRC). Lazio, Roma Province, Castelporziano Presidential Estate, La Focetta, 41°41.47'N 12°22.63'E, 10 m, 11–12.VI.2003, M. Bologna, J. Munro, A. Owen, J. Pinto (5♀♀, 4♂♂, UCRC). UK, England, East Sussex Co., Hastings, 29.VII.1914, F. Enock (his slide # 28667) (1♂, MMUE) (this is a non-type specimen because it was captured in the same locality but later than the two syntypes, which had been collected in August 1913 [Enock, 1914]).



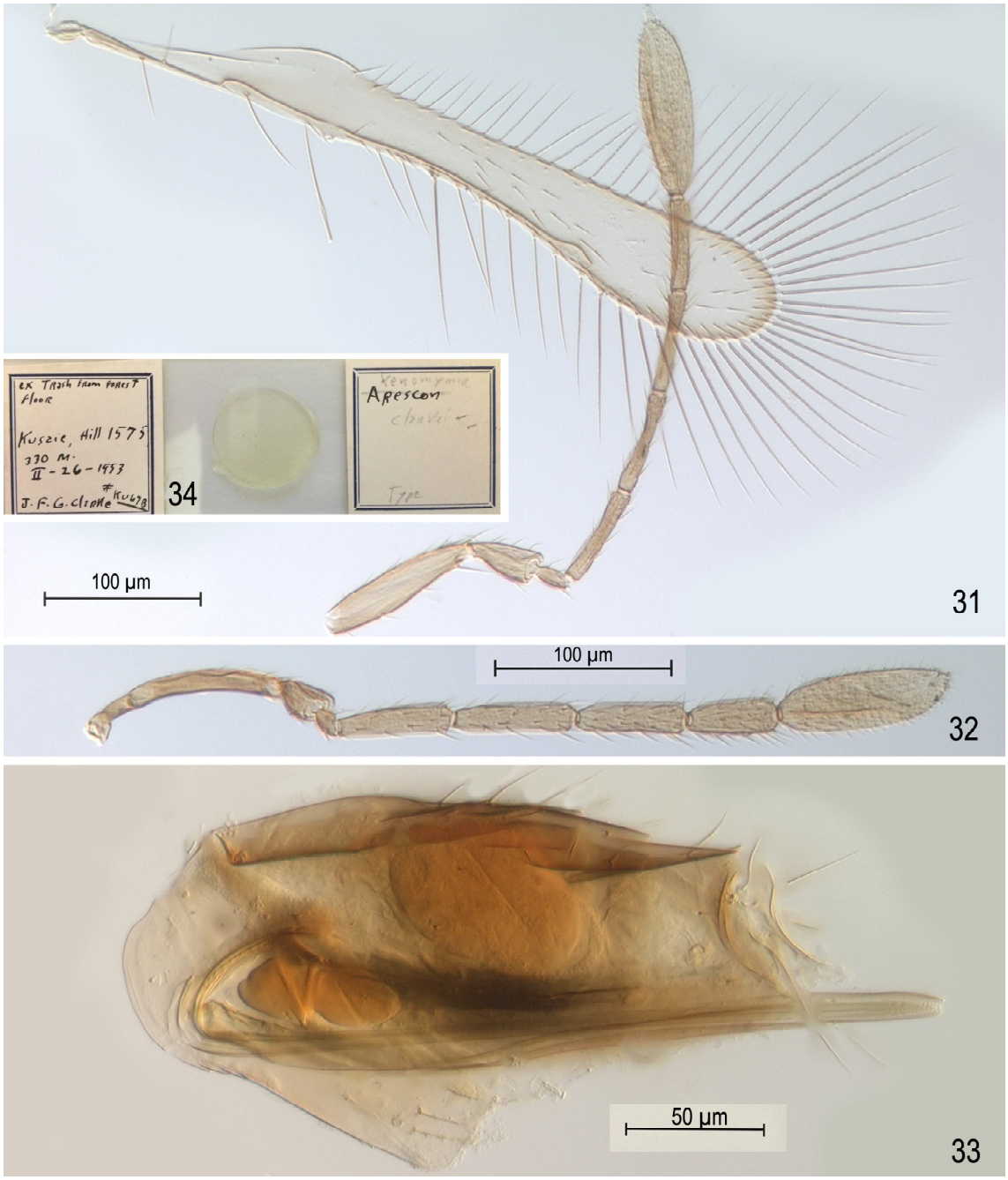
Figs 24–28. *Arescon leleji* **sp.n.**, female, holotype: 24 — habitus (dry-mounted specimen, prior to slide-mounting); 25 — antenna; 26 — fore wing; 27 — slide; 28 — metasoma (lateral view).

Рис. 24–28. *Arescon leleji* **sp.n.**, самка, голотип: 24 — габитус (сухой экземпляр, до приготовления препарата); 25 — усик; 26 — переднее крыло; 27 — препарат; 28 — метасома (вид сбоку).



Figs 29–30. 29 — *Arescon mudigerensis* (female), habitus (holotype, including labels); 30 — *A. zenit* Triapitsyn et Berezovskiy (female), fore wing (paratype).

Рис. 29–30. 29 — *Arescon mudigerensis* (самка), габитус (голотип, включая этикетки); 30 — *A. zenit* Triapitsyn et Berezovskiy (самка), переднее крыло (паратип).

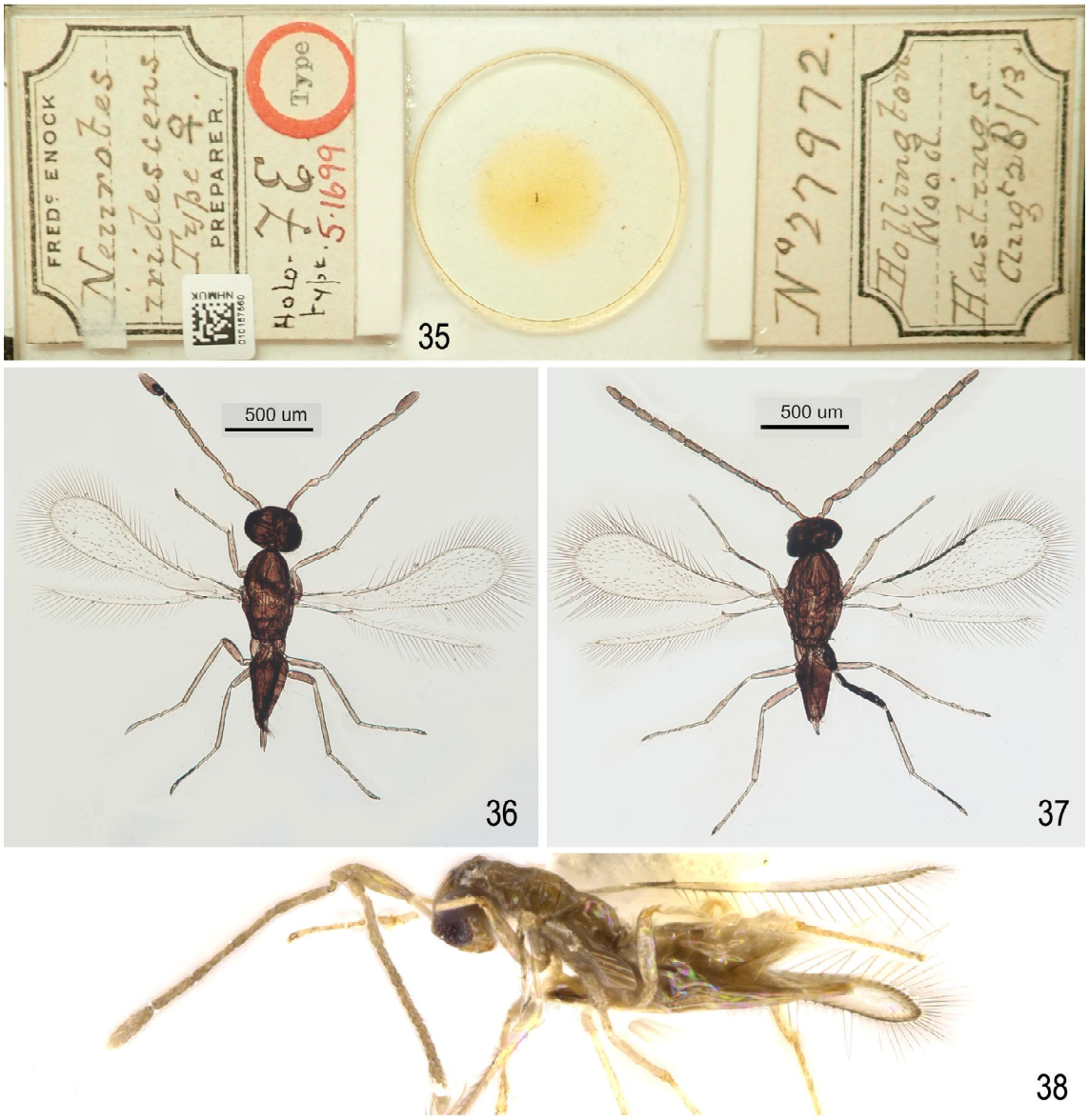


Figs 31–34. *Arescon clarkei*, female, holotype: 31 — antenna and fore wing; 32 — the other antenna; 33 — gaster (lateral view); 34 — slide.

Рис. 31–34. *Arescon clarkei*, самка, голотип: 31 — усик и переднее крыло; 32 — другой усик; 33 — гастер (вид сбоку); 34 — препарат.

Additional (to those in Triapitsyn, Berezovskiy [2003]) records of *A. dimidiatus* from Russia are: Moskovskaya oblast': Noginskiy rayon, Fryazevo: 7–15.VII.2000, M.E. Tretiakov» (3♀♀, 1♂, UCRC); 20.VI.2001, M.E. Tretiakov (1♀, UCRC); 20.VII.2001, M.E. Tretiakov (1♀, 1♂, UCRC); 23–25.VI.2002, S.V. Triapitsyn (2♀♀, 6♂♂, UCRC); 13.VII.2002, S.V. Triapitsyn (1♀, 2♂♂, UCRC); 14.VII.2002, M.E. Tretiakov (3♀♀, UCRC); 25.VII.2002, M.E. Tretiakov (1♀, UCRC); 1.VIII.2002, M.E. Tretiakov (1♀, 1♂, UCRC). Pushkino District, Pushkino, Mamontovka, Sosnovka (E.Ya. Shuvakhina): 25.IV–5.V.2001 (1♀, UCRC); 5–16.V.2001 (2♀♀, UCRC); 16–26.V.2001 (1♀, UCRC); 6–26.VI.2001 (7♀♀, 2♂♂, UCRC); 5–15.VII.2001 (2♀♀, 4♂♂, UCRC); 10.VIII.2001 (3♂♂, UCRC); 25.VIII–10.IX.2001 (2♀♀, 1♂, UCRC).

Comments. I have also examined the lectotype of *Mymar dimidiatus* Curtis, 1832, now *Arescon dimidiatus* (Curtis, 1832), designated by Graham [1982, p. 217]. It is a female (NMID) that was remounted by Csaba Thuróczy (Kőszeg, Hungary) onto a new, larger card except for one antenna and a pair of wings, which were mounted on a micro-slide inserted in a card placed on the same pin underneath the card with this



Figs 35–38. *Arescon iridescens* (35–37): 35 — lectotype slide; 36 — female habitus (lectotype); 37 — male habitus (paralectotype). 38 — *Arescon chuk* **sp.n.,** female habitus (dry-mounted paratype, lateral view).

Рис. 35–38. *Arescon iridescens* (35–37): 35 — препарат лектотипа; 36 — габитус самки (лектотип); 37 — габитус самца (паралектотип). 38 — *Arescon chuk* **sp.n.**, габитус самки (сухой паратип, вид сбоку).

dry-mounted specimen. There are following labels on this pin (all seem to be non-original): 1. «Haliday», 2. «1683», 3. «*Mymar dimidiatus* Curtis LECTOTYPE ♀ M. de V. Graham det. 1972», 4. «Remounted by Thuróczy 2005», 5. «*Arescon dimidiatus* (Curtis) Det. Thuróczy 2005»; the previous label with the same number is on a separate, otherwise empty, pin.

Along with the quite similar *A. stenopterus* Jin et Li, 2016 from Tibet, China [Jin et al., 2016], *A. dimidiatus* is a member of the informal *dimidiatus* species group within *Arescon*, which is characterized by the fore wing with venation extending to about half length of the wing.

Alaptus peregrinus (Perkins, 1910) **comb.n.,** nomen dubium

Leimacis peregrina Perkins, 1910: 661. Type locality: Honolulu, Oahu Island, Hawaiian Islands (USA: Hawaii).

Arescon peregrina (Perkins), nomen dubium: Beardsley, Huber, 2000: 11 (subsequent references, history, discussion).

Remarks. A presumably single type female of this species (neither type material nor its sex were indicated in the poor original description without any illustrations) is lost according to Beardsley, Huber [2000], who also discussed its status as a nomen dubium and a possible identity (*Arescon* has not been found in the Hawaiian Islands). In my opinion, if it is indeed a mymarid, it cannot possibly be a member of *Arescon* because of its minute body size (length only 0.25 mm) and some other features specified in the original description such as the clava being about the same length as funicle and the longest marginal seta being 4.0 or 5.0 times as long as the greatest width of the wing: no *Arescon* species has that. Considering that, and as discussed by Beardsley, Huber [2000], *A. peregrinus* could rather be a member of *Alaptus*

Westwood, 1839, hence the reluctant new combination proposed herein. Some species of the latter genus indeed have only a single row of three or four setae on the fore wing disc, but Perkins [1910, p. 661], who was familiar with some *Alaptus* species, specified that the "marginal vein [was] long", so this vaguely defined character apparently prompted him not to assign this species to *Alaptus*. A very long marginal vein is found in *Kikiki huna* Huber, 2000, also a minute fairyfly known from Oahu Island, but its fore wing is a little more setose and its funicle of the female antenna is 4-segmented (clava is 2-segmented, so the antenna is 8-segmented, as also indicated for *Leimacis peregrinus*) and has somewhat different proportions of the flagellomeres, as illustrated by Huber, Beardsley [2000], than those vaguely described by Perkins [1910] for his *Leimacis peregrinus*. Yet because the «long» marginal vein in this nomen dubium may be the key feature, in the future its case could be settled, as perhaps a better option than the one proposed here, by designating the holotype of *K. huna* also as a neotype of *Leimacis peregrinus*, and the former species to be synonymized under the latter.

Acknowledgments

I thank Natalie Dale-Skey Papilloud (BMNH) for the loan of the paratype of *A. mudigerensis* and the digital images of the holotype of that species, Jason L. Mottern (USNM) for the photographs of the holotype of *A. clarkei*, Dmitri V. Logunov and Phillip Rispin for providing access to F. Enock collection in MMUE, James P. O'Connor for the opportunity to examine the A.H. Haliday fairyfly collection in NMID, and Gennaro Viggiani for access to his collection in DEZA. Vladimir V. Berezovskiy (UCRC) kindly made several slide mounts. Roger A. Burks (UCRC) critically reviewed the manuscript and made suggestions for its improvement.

References

Annecke D.P., Doutt, R.L. 1961. The genera of the Mymaridae Hymenoptera: Chalcidoidea. Entomological Memoirs (Department of Agricultural Technical Services, Republic of South Africa). Vol.5. P.1–71.

Beardsley J.W., Huber J.T. 2000. Key to genera of Mymaridae in the Hawaiian Islands, with notes on some of the species (Hymenoptera: Chalcidoidea) // Proceedings of the Hawaiian Entomological Society. Vol.34. P.1–22.

Curtis J. 1832. British Entomology. Vol.9. Plates 386–433 (with text). London.

Doutt R.L. 1955. Insects of Micronesia Hymenoptera: Trichogrammatidae and Mymaridae // Insects of Micronesia. Vol.19. No.1. Map on an unnumbered page + P.1–17.

Enock F. 1914. On a new genus of Mymaridae // The Transactions of the Entomological Society of London (for year 1913). P.cxxxiv. Plate A.

Graham M.W.R. de V. 1982. The Haliday collection of Mymaridae (Insecta, Hymenoptera, Chalcidoidea) with taxonomic notes on some material in other collections // Proceedings of the Royal Irish Academy, Section B — Biological, Geological and Chemical Science. Vol.82. No.12. P.189–243.

Huber J.T. 2005. The gender and derivation of genus-group names in Mymaridae and Mymarommatidae // Acta Societatis Zoologicae Bohemoslovenicae. Vol.69. No.1/2. P.167–183.

Huber J.T., Beardsley J.W. 2000. A new genus of fairyfly, *Kikiki*, from the Hawaiian Islands (Hymenoptera: Mymaridae) // Proceedings of the Hawaiian Entomological Society. Vol.34. P.65–70.

Jin X.-X., Li C.-D., Yang J.-C. 2016. Description of three new species of *Arescon* Walker (Hymenoptera, Mymaridae) from China // ZooKeys. Iss.584. P.83–94.

Lin N.-Q., Huber J.T., La Salle J. 2007. The Australian genera of Mymaridae (Hymenoptera: Chalcidoidea) // Zootaxa. No.1596. P.1–111.

Perkins R.C.L. 1910. Supplement to Hymenoptera. Previously treated in Vol. I // Fauna Hawaiiensis. Vol.2. Pt.4. P.600–686.

Saeed R., Razaq M., Hardy I.C.W. 2015. The importance of alternative host plants as reservoirs of the cotton leaf hopper, *Amrasca devastans*, and its natural enemies // Journal of Pest Science. Vol.88. No.3. P.517–531.

Subba Rao B.R. 1966. Records of known and new species of mymarid parasites of *Empoasca devastans* Distant from India // The Indian Journal of Entomology. Vol.28. Pt.II. P.187–196.

Subba Rao B.R. 1989. On a collection of Indian Mymaridae (Chalcidoidea: Hymenoptera) // Hexapoda. Vol.1. P.139–186.

Subba Rao B.R., Baldev Parshad, Atma Ram, Singh R.P., Srivastava M.L. 1968. Distribution of *Empoasca devastans* and its egg parasites in the Indian Union // Entomologia Experimentalis et Applicata. Vol.11. No.2. P.250–254.

Subba Rao B.R., Kaur R.B. 1959. Studies on Indian Mymaridæ — part I // Proceedings of the Indian Academy of Sciences. Vol.B49. P.227–238.

Tian H.-X. 2009. Systematic studies on Trichogrammatidae and Mymaridae from Hainan (Hymenoptera: Chalcidoidea). Ph.D. thesis, Fujian Agriculture and Forestry University, Jinshan, Fuzhou, Fujian, China. [In Chinese].

Triapitsyn S.V., Berezovskiy V.V. 2003. Review of the Mymaridae (Hymenoptera, Chalcidoidea) of Primorskii krai: genera *Arescon* Walker and *Dicopomorpha* Ogloblin // Far Eastern Entomologist. No.124. P.1–15.

Triapitsyn S.V., Berezovskiy V.V. 2004. Review of the genus *Litus* Haliday, 1833 in the Holarctic and Oriental regions, with notes on the Palaearctic species of *Arescon* Walker, 1846 (Hymenoptera, Mymaridae) // Far Eastern Entomologist. No.141. P.1–24.

Walker F. 1846. VIII. — Descriptions of the Mymaridae // The Annals and Magazine of Natural History. Vol.18. P.49–54 + viii (Errata and Addenda).

Поступила в редакцию 28.03.2016