

# Conalysia n. gen. and Remarks on *Heratemis filosa* Walk. (Hymenoptera, Braconidae, Alysiainae)

By

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In the material of the genus *Heratemis* WALK. loaned from the Museums of Budapest, Berlin, London, and Washington, there were 23 specimens differing from that genus. On examining these specimens they proved to belong to a new genus, named as *Conalysia*.

The description of *Conalysia* n. gen. together with the three new species are given in the following.

## *Conalysia* n. gen.

Bfró (in litteris)

Second flagellar joint generally a slightly longer than first. Tempora narrow. Occiput laterally with two tubercles (Figs. 3, 7). Faces with disperse but rather deep punctation. Antennae in both sexes longer than body. Mandible with 3 teeth and between upper and median teeth with a subtooth. Maxillar palpi about the height of head. Parapside deep, median lobe of mesonotum conspicuously prominent. Scutellum without any spine. Propodeum fully areolated. Legs slender, inner side of hind coxae dentated. Stigma elongated,  $r_2$  longer (or at least somewhat longer) than  $cuqu_1$ . *B* closed, *n. par.* not interstitial, *n. rec.* almost interstitial (somewhat antefurcal). Abdomen elongated, always narrower than thorax. Tergite 1 aciculated, about twice longer than its hind width, with fine longitudinal striation. Rest of abdomen smooth and shiny, apically hairy. Ovipositor of variable length, with setiform long hairs. Body generally brown or fuscous, legs yellowish brown, antennae blackish with a white ring before its end. Ovipositor black.

The new genus is closely related to *Heratemis* WALK. but differs from it by the lack of the scutellar horn-like spine, and the nearly equal length of flagellar joints 1-2. It is differentiated from *Phaenocarpa* FÖRST. by its

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occipital tubercles, and the nearly equal length of flagellar joints 1-2. Similar to *Oenonogastra* ASHM. but without any sculpture on tergites 2-7.

The new genus may be ranged into Group C according to FISCHER (1967).

The name of the new genus was proposed by L. BÍRÓ, however, he never published it.

Type-species: *Conalysia laticeps* n. sp.

*Conalysia bakeri* n. sp., ♀

(Figs. 1-2)

The new species stands nearest to *C. laticeps* n. sp. but differs from it by the following marks: large occipital tubercle, denture of mandible, venation of wing, outline of 1st tergite, and colour of body.

♀: Head transverse, almost twice broader than long (2 : 1.12), wider than thorax (1 : 0.7). Occipital tubercle large (Fig. 2). Eyes normal, not protruding from the outline of head, nearly round, bare. Stemmaticum isosceles triangular, its base somewhat longer than its two sides. Punctuation of face relatively fine, together with clypeus and mandible, hairy. Head smooth, together with face polished, almost bare. Dentation of mandible (Fig. 1) specific. Tempora narrow, as wide as length of tubercle. Antennae longer than body (damaged: left antenna with 34, right one with 24 segments). Ratio of 1st and 2nd flagellar joints as 0.8 : 1, farther joints gradually shortening. All joints with pubescence. Labial palpi somewhat longer than height of head.

Proportional length, width, and height of thorax as 4 : 1.6 : 2.8, smooth and polished. Metapleura, propodeum, and sternal side hairy. Parapsides impressed, uncrenulated. Lateral lobe of mesonotum with long spine at hind margin. Prescutellar furrow deep, with one median crenula. Scutellum semi-circular, its hind portion somewhat projected. Propodeum fully areolated, area superomedia laterally with spines. Sternauli impressed, uncrenulated. Legs slender, proportional length of hind femora and tibiae as 1 : 1.54.

Fore wing as long as body. Stigma elongated,  $r_1$  issues distally,  $r_3$  twice longer than  $r_2$  ( $r_3 : r_2$  as 2.1 : 1), both veins almost straight,  $r_3$  reaches apex of wing,  $r_2$  and  $cu_2$  somewhat converging distally,  $r_2$  to  $cuqu_1$  as 1 : 0.75,  $cuqu_1$  arched.

Abdomen elongated, as long as head and thorax together. Tergite 1 twice longer than its hind breadth. 2 converging keels extend beyond midlength. Scutum with very fine longitudinal striation. 2nd tergite almost as long as farther tergites. Ovipositor somewhat longer than half of abdomen (0.75 : 1).

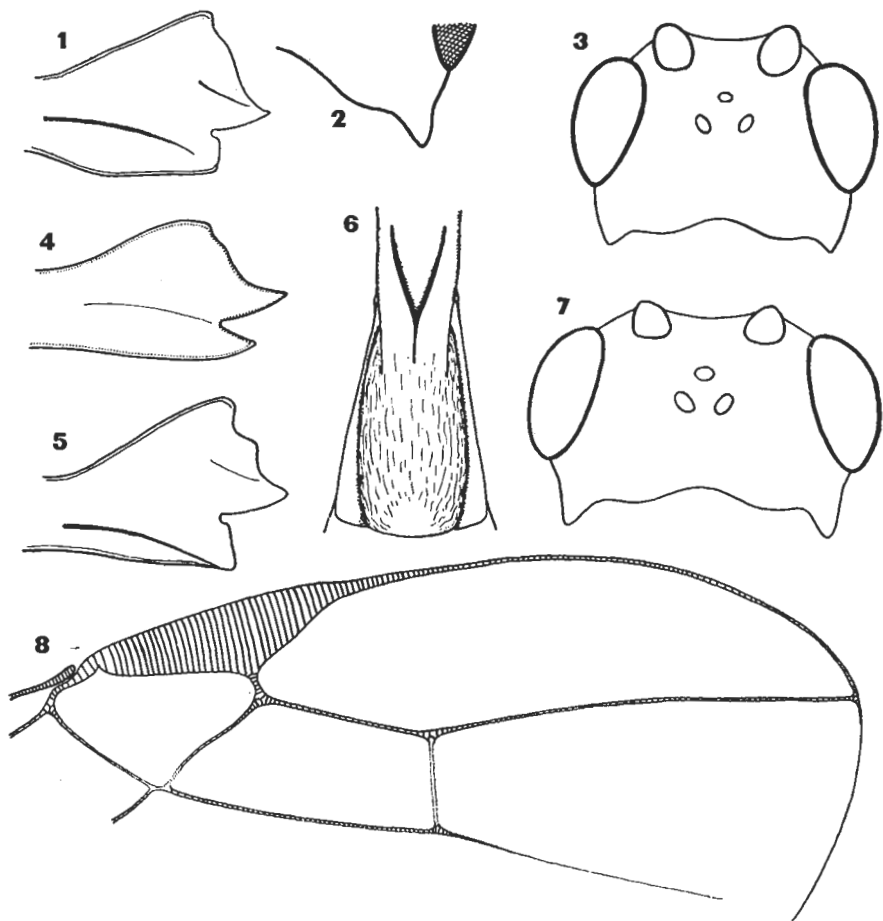
Body brown, head blackish. Propodeum, pleural and sternal side of thorax, and tergite 1 dark brown. Scape and pedicel brownish yellow, flagellar joints 1-12-15 darkening brown, farther ones blackish, joints 20-27 white. Mandible brown, palpi pale. Legs brownish yellow, hind tibia and tarsus brown. Wings hyaline, stigma and veins yellowish brown.

Length 4.1 mm, alar expanse 8.8 mm.

♂ and host unknown.

Type locality: Buruan, Mindanao, Philippines, 1 ♀ (holotype), leg. BAKER.

Holotype in the U.S. National Museum, Washington (USNM Typ. nr. 70 436).



Figs. 1-2. *Conalysia bakeri* n. sp. ♀: 1: Mandible, 2: Right occiput with tubercle. — Figs. 3-4. *C. cubiceps* n. sp. ♀: 3: Head, 4: Mandible. — Figs. 5-8. *C. laticeps* n. sp. ♀ ♂: 5: Mandible, 6: Tergite 1, 7: Head, 8: Part of right fore wing

*Conalysia cubiceps* n. sp., ♀

(Figs. 3-4)

The new species stands nearest to *Ph. laticeps* n. sp., but differs from it by the following mark: cubic head, denture of mandible, venation of wing, aciculate and smooth 1st tergite, colour of body.

♀: Head cubic (Fig. 3), proportion of cephalic width to length as 2 : 1.5, only somewhat wider than thorax (1 : 0.96). Occipital tubercles small. Eyes somewhat protruding from the outline of head, almost round, bare. Stemmaticum similar to that of *C. bakeri* n. sp. Face punctated, together with clypeus and mandible hairy. Head smooth, almost bare, together with face polished. Denture of mandible (Fig. 4) specific, subtooth little. Tempora narrow, as wide as base of mandible. Antennae about 3 times longer than body, with

63 joints. 2nd flagellar joint somewhat longer than 1st (1.13:1), farther joints gradually shortening, however, last joints twice longer than broad. Apical joint spiky. All joints with pubescence.

Proportional length, width, and height of thorax as 3.5:1.6:2.2. Thorax smooth and shiny. Metapleura, propodeum, and sternal surface hairy. Parapsides deep, uncrenulated. Lateral two lobes of mesonotum with spines at hind margin. Scutellum semicircular. Propodeum fully areolated, lateral angle of area superomedia dentiferous. Sternauli impressed, uncrenulated. Legs slender, hind femoral and tibial length as 1:1.4.

Fore wing somewhat longer than body (1:1.09). Stigma elongated,  $r_1$  issues distally,  $r_2$  to  $r_3$  as 1:2.7,  $r_2$  and  $r_3$  almost straight,  $r_3$  reaches apex of wing,  $r_2$  and  $cu_2$  distally somewhat converging,  $r_2$  and  $cuqu_1$  of equal length,  $cuqu_1$  arched.

Abdomen elongated, narrower than thorax (0.9:1), shorter than head and thorax together (1:1.12), but longer than thorax (1:0.87). Tergite 1 rather aciculated, 2.5 times longer than its hind width (1:0.4), without keels, smooth and shiny together with all tergites. Ovipositor longer than half of abdomen (0.75:1).

Body fuscous. Head blackish, propodeum and 1st tergite dark. Scape and pedicel yellowish brown. Flagellum blackish brown, 1–16–18 joints dark brown, 31–42 joints white. Mandible yellowish brown, palpi pale. Legs yellowish brown, coxae brownish yellow. Hind tibiae and all tarsi black. Wings hyaline, stigma and veins yellowish brown.

Length 3.2 mm, alar expanse 7.4 mm.

♂ and host unknown.

Type locality: Kuala Lumpur, Malaya, at light, Feb. 20, 1924, 1 ♀ (holotype), H. M. PEDLEBURY Coll.: F.M.S. Museums.

Holotype in the British Museum (Natural History), London.

Remark: Abdomen of the holotype sagittally compressed, therefore impossible to see the relations of tergites 2–6 to each others.

### *Conalysia laticeps* n. sp., ♀♂

(Figs. 5–8)

The new species stands nearest to *C. bakeri* n. sp., but differs from it by following marks: relatively little occipital tubercles, denture of mandibles, venation of wing, outline of 1st tergite, and colour of body.

♀. Head (Fig. 7) transverse, its breadth to length as 2:1.28, wider than width of thorax (at tegulae). Occipital tubercles relatively small. Eyes not protruding from the outline of head, nearly round (1:1.12), bare. Stemmaticum triangular, its base somewhat longer than diameter of hind ocelli, its sides somewhat shorter than base. Face and mandibles hairy, otherwise head almost bare. Facial puncture relatively deep. Dentation of mandible (Fig. 5) specific. Tempora narrow, as wide as length of antennal penultimate joint. Antennae very long, twice longer than body, 38 jointed. 1st and 2nd flagellar joints of equal length, farther joints gradually shortening, however, the last joints about twice longer than their width. Last joint spiky. All joints with pubescence.

Proportion of thoracic length, width, and height as 4 : 2 : 3.2, proportion of thoracic to cephalic width as 2 : 2.6. Thorax smooth and polished. Metapleura, propodeum, and sternal surface hairy. Parapsides deep, uncrenulated, median lobe of mesonotum prominent. Prescutellar furrow with 3 strong crenulae. Lateral lobes of mesonotum with spiky spine at hind margin. Scutellum rounded, three-sided. Propodeum fully areolated, lateral angle of area supermedia projected spiculously. Sternauli impressed, almost uncrenulated. Legs slender, proportional length of hind femora and tibiae as 1 : 1.43.

Fore wing somewhat longer than body (1 : 0.94). Stigma elongated,  $r_1$  issues distally,  $r_2$  to  $r_3$  as 1 : 2.4,  $r_2$  straight,  $r_3$  almost straight, reaches apex of wing,  $r_2$  and  $cu_2$  parallel-sided,  $r_2$  to  $cuqu_1$  as 1 : 0.81,  $cuqu_1$  arched (Fig. 8).

Abdomen elongated, as long as head and thorax together, narrower than thorax (0.8 : 1). Tergite 1 (Fig. 6) posteriorly widening, proportion of its length to hind breadth as 1 : 0.48. Two converging keels extend somewhat beyond midlength. Spiracles before midlength. Almost entire tergite with fine longitudinal striation. 2nd tergite as long as tergites 3–6. Ovipositor about the length of abdomen (or somewhat shorter).

Head brownish black, thorax light brown (propodeum dark), abdomen fuscous, sternites rather yellowish brown. Scape and pedicel brownish yellow. Flagellar joints 1–5–6 brown, joints 6–7–8–10 darkening, farther joints blackish, joints 20–26 white. Mandibles yellowish brown, palpi pale. Legs yellowish brown, coxae brownish yellow. Wings subhyaline, stigma and veins (yellowish) brown.

Length 4–4.3 mm, alar expanse 8.6–9.2 mm.

♂: Similar to female, however, not so long as female, antennae three times longer than body, with 53 joints,  $Cu_2$  somewhat more elongated, colour of body somewhat lighter.

Length 3.6–3.7 mm, alar expanse 7.6–7.8 mm.

Host unknown.

**Localities:** 1) Polisha, Formosa (type locality), Oct. 1909, 2 ♀ (1 ♀ holotype and 1 ♀ paratype), leg. SAUTER. 2) Mt. Hoozan, Formosa, Dec. 1909, 2 ♀ (paratypes); Jan. 1910, 2 ♂ (1 ♂ allotype and 1 ♂ paratype); March 1910, 4 ♂ (paratypes), leg. SAUTER. 3) Chip-chip, Formosa, Febr. 1909, 1 ♂ (paratype), leg. SAUTER. 4) Fuhosho, Formosa, Sept. 1909, 1 ♂ (paratype); Oct. 1909, 1 ♀ and 2 ♂ (paratypes), leg. SAUTER. 5) Koshun, Formosa, Aug. 1908, 1 ♂ (paratype), leg. SAUTER. 6) West Flores, Rana Mese (Indonesia), 20–30. June 1927, 1 ♀ and 3 ♂ (paratypes), leg. S. G. RENSCH. 7) Polisha, Formosa, Oct. 1909. 1 ♀ (paratype), leg. SAUTER. — Altogether 7 ♀ and 14 ♂.

**Holotype**, allotype, and paratypes from the localities 1–4 in the Hungarian Natural History Museum, Budapest, Hym. Typ. Nr. 1447–1462 (holotype: 1447, allotype: 1452, paratypes: 1448–1451 & 1453–1462). Paratypes from the localities 6–7 in the Zoologisches Museum, Berlin.

**Remarks:** Antennae and legs of several paratypes damaged (or missing). Specimens (1 ♀ and 3 ♂) of Rana Mese, West Flores differ from the specimens of Formosa by their somewhat narrower head (2 : 1.3) and somewhat smaller 1st tergite. This minute differences, however, are only of infraspecific value, taxonomically perhaps a variety.

## *Heratemis* WALKER

*Heratemis* WALKER, 1860, Ann. Mag. Nat. Hist., (3) 5, p. 310.

*Heratemis*: 1931, MUESEBECK, Proc. U. S. Nat. Mus., 79, p. 12.

*Heratemis*: 1966, FISCHER, Ann. Naturhist. Mus. Wien, 69, p. 177.

*Hoplitalysia* ASHMEAD, 1900, Proc. U. S. Nat. Mus., 23, p. 105, syn. n..

In the material loaned from the Museums of Washington and Berlin I found 11 specimens identified as *Heratemis filosa* WALK. on the bases of FISCHER's and MUESEBECK's re-description. According to my later examinations I established that *Hoplitalysia* ASHM. is a synonym of *Heratemis* WALK. ASHMEAD (l.c.) introduced this genus in a key of his paper without any further description, and (in the same paper) he enumerated "*Heratemis*" in the genera unknown to him (p. 151). All marks in the key for *Hoplitalysia* ASHM. agree with the respective characters of *Heratemis* WALK. The type-species of *Hoplitalysia* is *H. slossonae* ASHM. (its description remained in "manuscript", ASHMEAD l.c.) and distributed in the USA (MUESEBECK-KROMBEIN-TOWNES, 1951, p. 151). The new arrangement for that species is as follows: *Heratemis slossonae* (ASHM.).

### *Heratemis filosa* WALK., ♀ new

*Heratemis filosa* WALKER, 1860, Ann. Mag. Nat. Hist., (3) 5, p. 310, ♂.

*Heratemis filosa*: 1931, MUESEBECK, Proc. U. S. Nat. Mus., 79, p. 12.

*Heratemis filosa*: 1966, FISCHER, Ann. Naturhist. Mus. Wien, 69, p. 178-180, ♂.

As the above citations show *Heratemis filosa* was described by WALKER in 1860, and the type locality of that species is "Ceylon". In their catalogue DALLA TORRE (1898, p. 30) and SZÉPLIGETI (1904, p. 199) ranged this species (together with the genus) into the subfamily Dacnusinæ. MUESEBECK (l.c.) was the first to transfer it into subfamily Alysiniæ and supplemented the original description. FISCHER (l.c.) published a characterization of the genus *Heratemis* together with a detailed description of the species *H. filosa*, and pointed out the status of that genus in the inner system of Alysiniæ. GRIFFITHS (1966, p. 930) shares this opinion remarking that the type of this species is in the British Museum (Nat. Hist.), London.

Among the 27 *Heratemis filosa* specimens there are 12 females and 15 males. The female is similar to the male, however, the ovipositor is about the length of abdomen and colour of body somewhat lighter.

According to FISCHER (l.c.) "Kopf ohne besondere Auszeichnungen...". On the other hand, MUESEBECK (l.c.) noticed firstly one of the most characteristic mark of that genus, namely "temples with a weak but distinct posterior tubercle". On my 27 specimens this tubercle is also seen as a short spine, resp. on female spine-like and on male tubercleform.

New localities: 1) Zamboanga, Mindanao, Philippines, 1 ♀, leg. BAKER. 2) Butuan, Mindanao, Philippines, 1 ♀, leg. BAKER. 3) Tjibodas, Mt. Gede (altitude 8000 ft), Java (Indonesia), June 9, 1909, 1 ♀, BRYANT & PALMER Coll. 4) Tjibodas, Mt. Gede (altitude 4500 ft), Java (Indonesia), 1909, 1 ♀, BRYANT & PALMER Coll. 5) Los Baños, Philippines, 2 ♂, leg. BAKER. 6) Mt. Makiling, Luzon, Philippines, 1 ♀ & 1 ♂, leg. BAKER. 7) Taihorin, Formosa, Oct. 10, 1 ♂; Nov. 10, 1 ♂, leg. S. G. SAUTER. 8) Mt.

Hoozan, Formosa, Nov. 10, 1 ♂, leg. S. G. SAUTER. 9) Taihorinsho, Formosa, Oct. 1909, 2 ♀; Nov. 1909, 1 ♀, leg. SAUTER. 10) Fuhosho, Formosa, Sept. 1909, 2 ♀, leg. SAUTER. 11) Chip-Chip, Formosa, Febr. 1909, 1 ♀, leg. SAUTER. 12) Kosempo, Formosa, Febr. 1908, 1 ♀; April 1908, 1 ♂, leg. SAUTER. 13) Mt. Hoozan, Formosa, Dec. 1909, 5 ♂; Jan. 1910, 2 ♂, leg. SAUTER. 14) Teraso, Formosa, Febr. 1909, 1 ♂, leg. SAUTER.

Specimens from localities 1–6 are in the U.S. National Museum, Washington; 1 ♀ and 1 ♂ from localities 4–5 are in the Hungarian Natural History Museum, Budapest. Specimens from localities 7–8 are in the Zoologisches Museum, Berlin; and specimens from the localities 9–14 are also in the Hungarian Natural History Museum, Budapest.

Remarks: One male from Los Baños was identified by BALTAZAR in 1957 as "*Alysiinae* n. g. *B. sp. 1*". The female from Mt. Makiling, Luzon may be a new variety on viewing its rufous head.

## ZUSAMMENFASSUNG

### *Conalysia* n. gen. und einige Bemerkungen über die Art *Heratemis filosa* Walk. (Hymenoptera, Braconidae, Alysiinae)

Im ersten Teil beschreibt der Verfasser *Conalysia*, eine neue Gattung der Unterfamilie Alysiinae, und die zu diesem Genus gereihten drei neuen Arten: *C. bakeri*, *C. cubiceps* und *C. laticeps* n. spp. Alle drei Arten sind aus der orientalischen Faunenregion bekannt geworden.

Im zweiten Teil wird das Genus *Hoplitalysia* ASHM. mit dem Genus *Heratemis* WALK. synonymisiert. Nach den auf die systematische Stellung der Art *Heratemis filosa* WALK. bezüglichen Feststellungen bereichert die Abhandlung unsere Kenntnisse über die Verbreitung der Art durch die Mitteilung von 12 neuen orientalischen Fundorten im wesentlichen Maße.

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