

***Euagathis tobiasi* sp. n. (Hymenoptera: Braconidae, Agathidinae)
from Sulawesi**

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***Euagathis tobiasi* sp. n. (Hymenoptera: Braconidae, Agathidinae)
с о. Сулавеси**

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Abstract. *Euagathis tobiasi* sp. n. from Indonesia (Sulawesi) is described and illustrated. It is the first known species of the former genus *Balцемена* Cameron, 1903, from Wallacea.

Key words. Hymenoptera, Braconidae, Agathidinae, Disophrini, *Euagathis*, distribution, new species, Sulawesi.

Резюме. Описывается новый вид *Euagathis tobiasi* sp. n. из Индонезии (о. Сулавеси). Это первый вид бывшего рода *Balцемена* Cameron, 1903 из Восточной Индонезии.

Ключевые слова. Hymenoptera, Braconidae, Agathidinae, Disophrini, *Euagathis*, распространение, новый вид, Сулавеси.

Introduction

The members of the subfamily Agathidinae Nees, 1814 (Hymenoptera: Braconidae) from East Indonesia (now generally known as Wallacea and consisting of Sulawesi, the Moluccas or Spice Islands and the Lesser Sunda Islands) and the Papuan region (New Guinea, Solomon Islands and Northeast Australia) are hardly known and, consequently, no reliable keys to the species are available, except for the genus *Euagathis* Szépligeti, 1900, from Sulawesi (Simbolotti, van Achterberg, 1990). In this area, most members of the genus *Euagathis* are conspicuous among the braconids, but rather rarely collected. The genus *Euagathis* belongs to the tribe Disophrini Sharkey, 1992. Members of the tribe Disophrini have the ovipositor curved and short (length of its sheath less than half the length of the metasoma), the hind basitarsus with a serrate ventral row of setae, and the tarsal claws are not pectinate. The genus *Euagathis* has a Palaeotropical and SE Palaearctic distribution, with most of the species in the Indo-Australian Region. The most recent keys to part of the SE Asian *Euagathis* species has been published by Simbolotti and van Achterberg (1990, 1995) and van Achterberg and Chen (2002) for the species from Sulawesi, the Sunda area, and China and northern Vietnam, respectively. Recently, van Achterberg and Chen (2002) synonymized the genus *Balцемена* Cameron, 1903, with the genus *Euagathis*. So far this group is only known from the Sunda area and the continental part of the Oriental region. In this paper the first known species from Sulawesi belonging to this group is described and illustrated: *Euagathis tobiasi* sp. n.

Obviously, members of the genus *Euagathis* seem to be specialized for parasitizing more or less exposed hosts (Sharkey, 1992), which agrees with the few hosts known for *Euagathis* species. The biology of most species is unknown, but in general the Agathidinae are endoparasitoids of larvae of Lepidoptera. Some species of the genus *Euagathis* Szépligeti have been reared as larval parasitoids of Lymantriidae and Arctiidae (Bhat, Gupta, 1977; Simbolotti, van Achterberg, 1995; van Achterberg, Chen, 2002).

For the identification of the subfamily Agathidinae, see van Achterberg (1990, 1993, 1997) and for the terminology used in this paper (except for the stigmal spot), see van Achterberg (1988, 1993). The stigmal spot is a well defined and more or less circular dark brown patch below the parastigma present in many species (Fig. 113 in: Bhat, Gupta, 1977; Figs 19–21, 26–28 in: Simbolotti, van Achterberg, 1995). The ramellus is the short vein externally connected to the second submarginal cell of the fore wing.

RMNH stands for the Nationaal Natuurhistorisch Museum (formerly Rijksmuseum van Natuurlijke Historie), Leiden, The Netherlands.

Genus *Euagathis* Szépligeti, 1900

Euagathis Szépligeti, 1900 (Jan.): 62; Shenefelt, 1970: 408; Bhat, Gupta, 1977: 183; Chou, Sharkey, 1989: 186; Sharkey, 1992: 441; Simbolotti, van Achterberg, 1995: 6; Sharkey, 1996: 21, 1998: 531; van Achterberg, Chen, 2002: 311. Type species (designated by Viereck, 1914): *Euagathis bifasciatus* Szépligeti, 1900 (examined).

Chromomicrodus Ashmead, 1900 (July): 129; Shenefelt, 1970: 409. Type species (by original designation): *Chromomicrodus abboti* Ashmead, 1900 (examined). Synonymized by Baltazar, 1961.

Holcotroticus Cameron, 1902: 41; Shenefelt, 1970: 417; Sharkey, 1992: 441. Type species (by original designation): *Holcotroticus ruficollis* Cameron, 1902 (examined). Synonymized by Simbolotti, van Achterberg, 1995.

Balcmena Cameron, 1903: 130; Shenefelt, 1970: 368; Sharkey, 1992: 441. Type species (by original designation): *Balcmena longicollis* Cameron, 1903 (examined). Synonymized by van Achterberg, Chen, 2002.

Euagathis tobiasi Achterberg, sp. n. (Figs 1–8).

Diagnosis. The new species differs from other species of the *Balcmena* group by having the vertex and the frons (including setae) black, the vertex punctulate, the eye in dorsal view about 1.2 times as long as the temple and the temples slightly concave laterally (Fig. 7); the first subdiscal cell of fore wing largely yellowish, and the third-sixth tergites black.

The key by Simbolotti and van Achterberg (1990) should be amended as follows to include the new species:

- 1a. Second metasomal suture deeply impressed (Fig. 2); first tergite of female longitudinally depressed sublaterally near middle of tergite (Fig. 2); metapleural flange absent; notauli distinctly crenulate, ending submedially and mesoscutum flat medio-posteriorly (Fig. 3); costulae of propodeum absent or nearly so (Fig. 3); length of fore wing 15.1 mm. (“*Balcmena* Cameron, 1903”). — North Sulawesi ...
.....*E. tobiasi* sp. n.
- Second metasomal suture absent or obsolescent; first tergite of female without or with weak sublateral depressions and no median crest; metapleural flange present, more or less protruding; notauli smooth, or if finely crenulate, then ending more posteriorly and mesoscutum depressed medio-posteriorly; costulae of propodeum usually present. (*Euagathis* Szépligeti, 1900 s. s.)..... 1

Description. Male. Length of body 15.1 mm, of fore wing 15.1 mm.

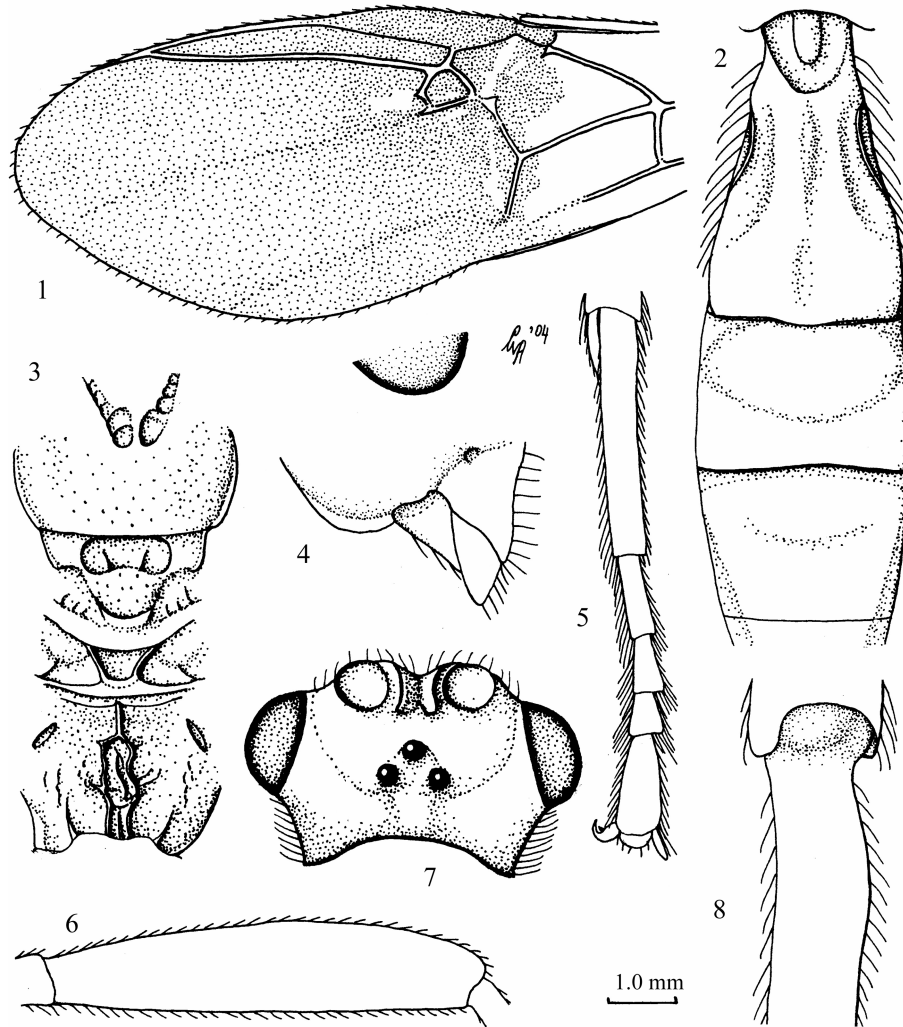
Head. Antenna incomplete, 30 segments remaining; length of third antennal segment 1.1 times fourth segment; length of third and fourth segments 3.4 and 3.0 times their width, respectively; length of maxillary palp 0.8 times height of head, palpi rather slender; length of eye in dorsal view 1.2 times temple; temples slightly concave laterally and gradually narrowed behind eyes (Fig. 7), in lateral view behind eye angulated posteriorly, in frontal view gradually narrowed; OOL : diameter of ocellus : POL = 18 : 4 : 7 (Fig. 7); face rather densely and finely punctate, medially punctulate and with shallow longitudinal depression; clypeus rather sparsely finely punctate, medially flattened and not differentiated from face; stemmaticum not protruding; vertex sparsely punctulate; crests between antennal sockets somewhat converging, strong; occipital flange large, lamelliform, wide, its ventral margin oblique; length of malar space 1.8 times basal width of mandible (Fig. 4); malar space long and densely setose.

Mesosoma. Length of mesosoma 1.4 times its height; laterally pronotum sparsely punctulate upper, with some crenulae anteriorly and postero-ventrally and remainder smooth; subpronope deep, large; epomia single; mesoscutum sparsely punctate with interspaces much wider than diameter of punctures, medio-posterior third flat and lateral lobes flat

tened and laterally smooth, its middle lobe distinctly convex, smooth posteriorly, with a shallow median groove anteriorly; notauli distinctly impressed, complete and coarsely crenulate (Fig. 3); scutellar sulcus only with 2 sublateral rather strong carinae; scutellum flattened, partly smooth and partly coarsely and rather densely punctate, steep and angulate anteriorly, no lateral carina, and subposteriorly with strong curved, crest-like carina (Fig. 3); mesopleuron below precoxal sulcus sparsely and finely punctate with interspaces mostly much more than diameter of punctures, this area moderately yellowish pilose, above sulcus similarly punctate (interspaces more than diameter of punctures) or smooth; precoxal sulcus with medium-sized and very strong crenulae, deep; metapleural flange absent; metapleuron finely and sparsely punctate, not obscured by long yellowish setae and anteriorly with some coarse rugae; propodeum coarsely areolate medially, areola narrow and with coarse irregular rugae, without costulae in front of middle of propodeum (Fig. 3); spiracles large elliptical.

Wings. Fore wing: second submarginal cell quadrangular, without ramellus (Fig. 1); $r : 3-SR : SRI = 3 : 2 : 63$; $2-SR : 3-SR : r-m = 11 : 2 : 10$. Hind wing: $M+CU : I-M = 1 : 2$; surroundings of *cu-a* normally setose.

Legs. Length of hind femur (Fig. 6), tibia and basitarsus 4.4, 8.8 and 10.4 times their width, respectively; hind femur densely and moderately punctate, with moderately long and dense yellowish setosity, tibia and tarsus with shorter (and of tarsus dark brown) setae; hind tibia robust, hardly narrowed subbasally and rather convex apically; length of outer and inner



Figs 1-8. *Euagathis tibiarsi* sp. n., ♂, holotype. 1 — apical half of fore wing; 2 — first-third metasomal tergites, dorsal view; 3 — mesosoma, dorsal view; 4 — malar space; 5 — fore tarsus, dorsal view; 6 — hind femur, lateral view; 7 — head, dorsal view; 8 — base of hind tibia, dorsal view. 1 — 1.0 x scale-line; 2, 3 — 1.5 x; 4, 5, 8 — 3.0 x; 7 — 1.9 x.

spur of middle tibia 0.35 and 0.60 times their basitarsus, slender; length of outer and inner spur of hind tibia 0.25 and 0.40 times hind basitarsus, respectively, rather slender; fore and middle tarsi slender (Fig. 5).

Metasoma. Slender, smooth; length of first tergite 1.5 times its apical width, distinctly depressed sublaterally behind spiracles and with a median crest near it (Fig. 2); second tergite with shallow transverse curved groove; second metasomal suture deep and rather narrow (Fig. 2); third tergite with sparsely setose apical band; parameres long and densely yellowish setose.

Colour. Yellowish-brown; antenna, head, patch on second epipleuron, third-sixth tergites, seventh tergite basally and hind tarsus black; mesosternum, middle lobe of mesoscutum, lateral lobes anteriorly, inner and dorsal side of apex of hind femur, hind tibia (but outer side basally brownish), veins of apical half of wings, vein *C+SC+R* apically and pterostigma (including setae) dark brown; parastigma brown; basal half of wing membrane yellow (including vein *I-M*), without stigmal spot (Fig. 1); vein *I-R1* of fore wing and its setae dark brown.

Female unknown.

Material. Holotype: ♂, "Indonesia: N Sulaw[esi], 20 km N Bitung, Tangkoko N.P., 0–200 m, 1°34'N 125°12'E, 19.iv.1988, R. Hensen" (RMNH).

Distribution. Indonesia (Sulawesi).

Notes. It is a pleasure to name this beautiful species after Prof. V.I. Tobias at the occasion of his 75th birthday in recognition of his very important contribution to our knowledge of the Palaearctic and Australian Braconidae.

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