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NOTES ON THE GENERA *ASPIGONUS* WESMAEL AND *BAEACIS* FOERSTER WITH SPECIAL REFERENCE TO THE JAPANESE SPECIES (HYMENOPTERA, BRACONIDAE)

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In the course of my studies on the Helconini of Japan I have found that three Japanese species originally placed in genera of the Helconini are to be transferred to *Aspigonus* Wesmael and *Baeacis* Foerster, both of which are usually treated as components of the Diospilini. On this occasion notes on these genera with their Japanese species will be given hereinafter.

Subfamily Helconinae Tribe Diospilini Genus *Aspigonus* Wesmael

Aspigonus Wesmael, Mém. Acad. Sci. Brux. 9: 186, 1835 [type-species—*Aspigonus diversicornis* Wesmael]. *Aspidogonus* Agassiz, Nomen. Zool. Index Univ. 36, 1846 [emend. for *Aspigonus*].

The genus *Aspigonus* Wesmael was originally proposed by Wesmael (1835) for the European *Aspigonus diversicornis* Wesmael. On account of the 2nd cubital cell being rhomboid and the frontal excavation being shallow it has been placed near the genus *Diospilus* Haliday in the Diospilini by previous authors. The writer has seen no authentic material of the type-species. By courtesy of Muesebeck, however, I have had the opportunity to read Muesebeck's unpublished notes made on the type-series of *A. diversicornis* in Wesmael collection, Brussels Museum. According to Muesebeck there are 3 ♀♀ and 5 ♂♂ labelled "Coll. Wesmael, *Aspigonus diversicornis* mihi, det. C. Wesmael, Type" in that museum. On the basis of the notes with material of two Japanese congeneric species this genus may be characterized as follows:—

Head with front at most shallowly excavated; anterior margin of clypeus produced medially, angulate; maxillary palpus 5-segmented, the 3rd segment being inserted in the 2nd far behind extreme apex; 2nd segment dilated, the apical lobe projecting inwardly; antennae in female filiform and in male not filiform, with four apical segments strikingly broadened and compressed; 1st discoidal cell sessile; 2nd cubital cell rhomboid; 2nd abscissa of radius a little longer than 2nd abscissa of cubitus; anal cell with two short transverse nervures.

This genus is closely related to *Baeacis* Foerster and *Diospilus* Haliday, from both of which it is readily distinguished by the structure of the palpi and by the tarsal claws with a basal tooth. It resembles also *Aspicolpus* Wesmael belonging to the Helconini. In fact Hellén (1956) treated *Aspicolpus* as a subgenus of *Aspigonus*, but since both genera may be easily separated by the combination of the characters stated in the present key to genera it is best, I believe, to retain both good genera. In Japan this genus is represented by two species, of which one is new to science. They may be distinguished by the following key:—

Key to the Japanese species of *Aspigonus* ♀♀

1. Clypeus with apical margin projecting acutely at middle; palpi brown; hind and middle legs brown to dark brown; hind tibia without a pale yellow ring at base; antennae shorter, 30~31-segmented; 1st abdominal tergite at apex 2 times as broad as at base; ovipositor

- as long as propodeum and abdomen united. Length 8~10 mm. *Aspigonus aino* (Watanabe)
- Clypeus with apical margin projecting bluntly at middle; palpi pale yellow; hind and middle legs including coxae reddish yellow; hind tibia with a broad pale yellow ring at base; antennae longer, 42~48-segmented; 1st abdominal tergite at apex a little broader than at base; ovipositor as long as propodeum and abdomen united. Length 9~10 mm. *Aspigonus japonicus* sp. nov.

***Aspigonus aino* (Watanabe), comb. nov.**

Helcon (*Aspidocolpus*) *aino* Watanabe, Ins. Mats. 6: 29, Fig. 2, 1951; *ibid.*, Jour. Facul. Agr., Hokkaido Imp. Univ. 42: 154, 1937.

Having examined the type of *aino* and other specimens I have been convinced that this species is to be placed in *Aspigonus* on account of the characteristic structure of the clypeus, palpi and tarsal claws and the shape of the 2nd cubital cell. The male has not yet been described. In 1937 I erroneously described the male on the basis of several specimens, which are not males of *A. aino*, but, in reality, those of *Baeacis semanoti* (Watanabe) as I already pointed out in 1954.

Specimens examined. Japan: Hokkaido–Sôunkyo, 1 ♀, (holotype of *Helcon aino*), 16-vii-30, C. Watanabe; Soranuma, 1 ♀, 17-vi-67, K. Kusigemati. Honshu–Dainichi-tôge, Shizuoka-ken, 1 ♀, 16-vi-51, J. Minamikawa. Shikoku–Kajigamori, Kôchi-ken, 1 ♀, 14-vi-31, Y. Sugihara.

Host. No host record has been given.

Distribution. Japan.

***Aspigonus japonicus* sp. nov. (Figs. 1 & 2)**

♀. Head rather subquadrate; occiput margined; front shallowly excavated, irregularly striate-rugose; ocelli moderate in size, the distance between posterior ocelli being as long as diameter of an ocellus; face strongly punctate-rugose; vertex and temples smooth and shining with scattered punctures; clypeus punctate, the apical margin projecting bluntly at middle; malar space as long as breadth of mandible; antennae as long as body, 42~48-segmented. Thorax rather stout; notauli strongly foveolate; mesoscutum smooth and shining, with some scattered punctures; disc of scutellum smooth and shining with a few punctures; mesopleuron largely smooth, with apical part and longitudinal impression strongly punctate; metapleuron and propodeum strongly reticulate-rugose. Fore wing (Fig. 1) with 1st abscissa of radius very short; 2nd cubital cell rhomboid; 2nd abscissa of radius a little longer than 2nd abscissa of cubitus; nervulus interstitial; anal cell with two short transverse nervures. Hind wing (Fig. 2) with radial cell petiolate; nervulus almost straight. Tarsal claws with a basal tooth. Abdomen rather stout, as long as thorax; 1st tergite a little longer than broad at apex, slightly widened towards apex, strongly reticulate-rugose except at base medially, the longitudinal carinae being weakly indicated, extending from base to middle of tergite; 2nd and following tergites smooth and shining; ovipositor as long as propodeum and abdomen united. Length 9~10 mm.

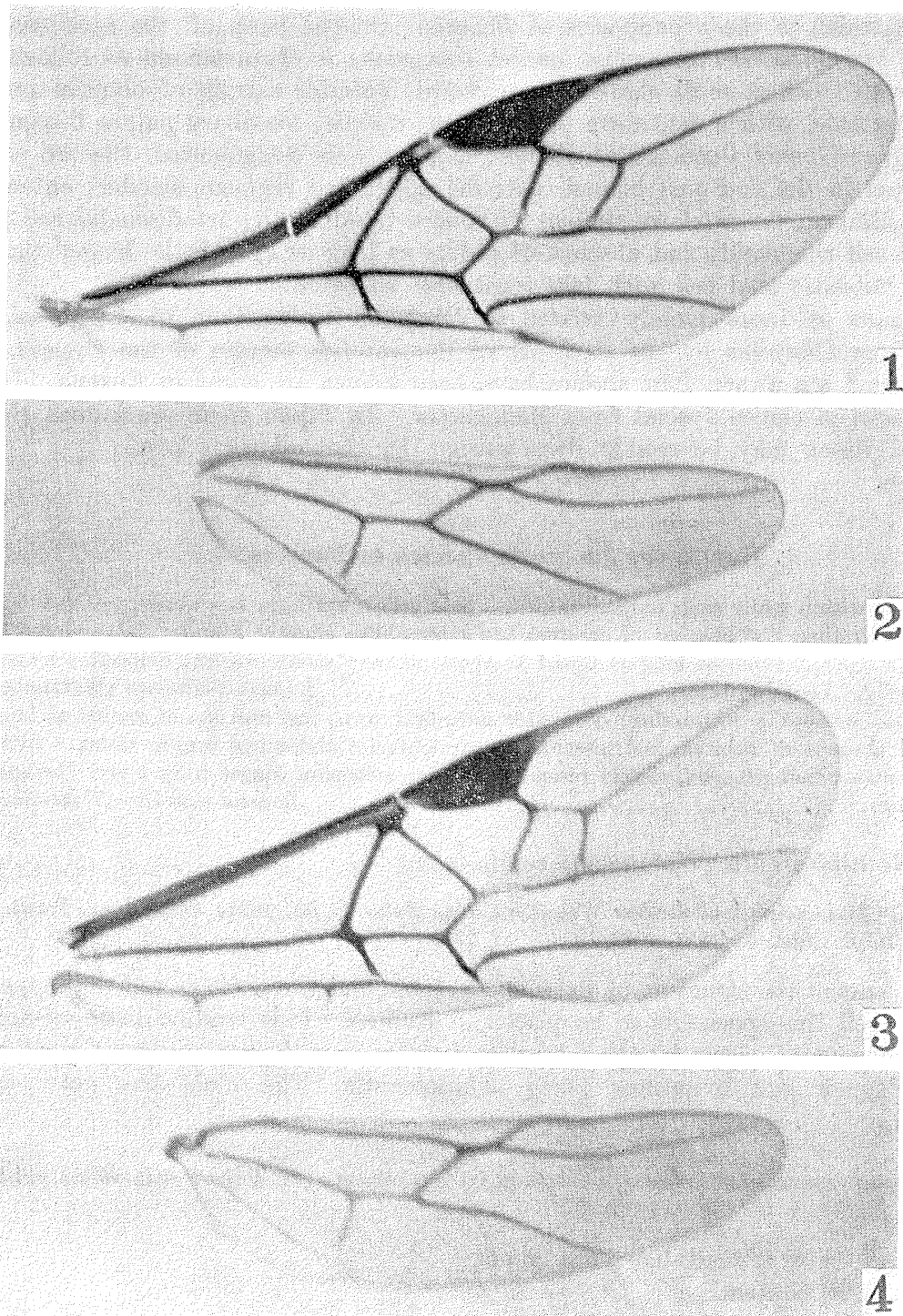
Black; palpi and tegulae pale yellow; antennae brown; fore and middle legs including coxae reddish yellow; hind leg brown; hind trochanters and tibia at base pale yellow; abdomen broadly pale yellow ventrally; wings hyaline; stigma and veins brown.

♂. Unknown.

Type-series. Japan: Hokkaido–Yamabe, 1 ♀, 28-vi-60, K. Kamijo. Honshu–Sugadaira, Nagano-ken, 2 ♀♀ (one the holotype), 2~6-vii-52, J. Minamikawa; Yutanaka, Nagano-ken, 1 ♀, 7-vii-52, J. Minamikawa; Shigakôgen, Nagano-ken, 1 ♀, 7-vii-52, J. Minamikawa. Kyushu–Kuzuû, Ôita-ken, 1 ♀, 13-v-57, H. Takizawa. The holotype is deposited in the collection of the Entomological Institute, Hokkaido University, Sapporo.

Host. No host of this parasite has been discovered.

This species is immediately distinguished from the preceding species, *A. aino*, by the characters mentioned in the present key, the structure of the apical margin of the clypeus and the colouration of the palpi and legs being characteristic.



Figs. 1 & 2. Wings of *Aspigonus japonicus* sp. nov.: 1, fore wing. 2, hind wing.
Figs. 3 & 4. Wings of *Bacacis semanoti* (Watanabe): 3, fore wing. 4, hind wing.

Genus *Baeacis* Foerster

Baeacis Foerster, Verh. Naturh. Ver. Preuss. Rheinl. 35: 70, 1878 [type-species—*Aspigonus abietis* Ratzeburg].

The genus *Baeacis* was originally proposed for three European species by Foerster, being separated from *Aspigonus*. By courtesy of Muesebeck I have had the opportunity to examine authentic specimens (1♀, 1♂) determined by Fischer as *Baeacis abietis* (Ratzeburg) which is the type-species of *Baeacis*. On the basis of the specimens with material of two Japanese congeneric species this genus is characterized as follows:—

Head with front at most shallowly excavated; anterior margin of clypeus produced medially, angulate, with a dentiform projection at middle; maxillary palpus 5-segmented, the 2nd segment being slender, not dilated; labial palpus 3-segmented, the 3rd segment being inserted in the 2nd just behind extreme apex; 2nd segment slender; antennae of both sexes filiform; tarsal claws simple, without a basal tooth; 1st discoidal cell sessile; 2nd cubital cell rhomboid; 2nd abscissa of radius as long as or a little longer than 2nd abscissa of cubitus; anal cell with two transverse nervures.

This genus is more closely related to *Diospilus* rather than to *Aspigonus*, being separated from *Diospilus* by the structure of the anterior margin of the clypeus.

So far as I am aware, four species have been known to occur in Europe. In 1948 Granger described eleven species from Madagascar. In Japan there are known to occur two species, which may be readily distinguished by the following key:—

Key to the Japanese species of *Baeacis* ♀♀

1. Antennae with a white ring; ovipositor sheath pale yellow apically; 2nd abscissa of radius a little longer than 2nd abscissa of cubitus; 2nd intercubitus slightly sinuate; 1st abdominal tergite slender, 2 times as long as broad at apex, coarsely striate-rugose; ovipositor longer than body. Length 10 mm. *Baeacis albiterebra* (Watanabe)
- Antennae without a white ring; ovipositor entirely brown; 2nd abscissa of radius as long as 2nd abscissa of cubitus; 2nd intercubitus straight; 1st abdominal tergite stout, a little longer than broad at apex, closely reticulate-rugose; ovipositor longer than body. Length 5~7 mm. *Baeacis semanoti* (Watanabe)

Baeacis albiterebra (Watanabe), comb. nov.

Helcon (*Aspidocolpus*) *albiterebra* Watanabe, Ins. Mats. 6: 50, 1931; *ibid.*, Jour. Facul. Agr., Hokkaido Imp. Univ. 42: 154, 1937.

On account of the structure of the clypeus, palpi and tarsal claws and the shape of the 2nd cubital cell this species is to be placed in *Baeacis*. It is readily distinguished from any other congeneric species by the characters mentioned in the present key, the colouration of the antennae and ovipositor being characteristic. The male has not yet been discovered.

Specimens examined. Honshu-Wakayama, 1♀ (holotype of *Helcon albiterebra*), viii-12, S. Issiki.

Host. No host record has been given.

Distribution. Japan.

Baeacis semanoti (Watanabe), comb. nov. (Figs. 3 & 4)

Aspidocolpus semanoti Watanabe, Ins. Mats. 18: 81, 82 (as *seminoti*) & 83 (as *semanoti*), 1954; *ibid.*, Ins. Mats. 25: 43, 1962.

This species is to be placed in *Baeacis* on account of the structure of the clypeus, palpi and tarsal claws, and the shape of the 2nd cubital cell. As indicated above two names, *seminoti* and *semanoti*, are given to the single species in the original description. In 1962 I chose *semanoti* as the name of this species since the names are multiple original spellings. In this species both sexes are described, the antennae in the male being filiform as in the female.

Specimens examined. Japan: Honshu—Kamabuchi, Yamagata-ken, 1 ♀ (holotype of *Aspicolpus semanoti*), 23-v-52, & 2♀♀, 13-vi-52, bred from *Callidium rufipennis*, M. Yogo; Kyôto, 1♀, 2-vii-30, K. Takeuchi, 1♀, no date, M. Yamanaka, & 1 ♀ 5-v-56, K. Iwata; Sasayama, Hyôgo-ken, 1♀, 30-v-56, bred from *Callidium rufipennis*, K. Iwata; Sasamado, Kawane-chô, Shizuoka-ken, 2♀♀, 5♂♂, 29-iv-54, J. Minamikawa; Senzu, Kawane-chô, Shizuoka-ken, 7♂♂, 25-v-52, J. Minamikawa; Fukuyo, Kanaya-chô, Shizuoka-ken, 10 ♀♀, 3-v-52, J. Minamikawa. Shikoku—Kôchi, Kôchi-ken, 9♂♂, 22-iv-33, Y. Sugihara; Hirooka, Kôchi-ken, 1♂, 28-iv-34, H. Okamoto.

Host. *Callidium rufipennis* Motschulsky (Cerambycidae).

Distribution. Japan.

In conclusion, *Aspigonus* and *Baeacis* are usually treated as components of the *Diospilini*, which are separated from the *Helconini* by the differences in the frontal excavation and the position of the anterior ocellus. However, these characters are not always available for the separation of the tribes. Especially *Aspicolpus* and *Brulleia* belonging to the *Helconini*, and *Aspigonus*, *Baeacis* and *Diospilus* to the *Diospilini* are too closely allied to warrant such a separation. I am inclined to the opinion that the *Diospilini* might be rather combined with *Helconini*, since this classification is preferable in several respects. The above-mentioned genera are distinguished by the following key:—

Key to the genera

1. Fore wing with 2nd cubital cell trapezoid; 2nd abscissa of radius shorter than 2nd abscissa of cubitus; anal cell with one or two short transverse nervures; apical margin of clypeus truncate; tarsal claws simple. 2
 - Fore wing with 2nd cubital cell rhomboid; 2nd abscissa of radius as long as or a little longer than 2nd abscissa of cubitus; anal cell with two short transverse nervures..... 3
2. Recurrent nervure inserted in 2nd cubital cell, which is very large; anal cell with two transverse nervures. *Brulleia* Szépligeti
 - Recurrent nervure inserted in 1st cubital cell; 2nd cubital cell small; anal cell with one transverse nervure. *Aspicolpus* Wesmael
3. Tarsal claws with a basal tooth; palpi of abnormal form; labial palpus with 2nd segment dilated and with 3rd segment inserted in the 2nd far behind extreme apex; maxillary palpus with 2nd segment dilated. *Aspigonus* Wesmael
 - Tarsal claws simple without a basal tooth; palpi of normal form. 4
4. Clypeus with apical margin rounded or truncate..... *Diospilus* Haliday
 - Clypeus with apical margin angulate, produced medially with a dentiform projection at middle. *Baeacis* Foerster

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A NEW SPECIES OF THE GENUS *ONESIA* FROM KOREA (DIPTERA: CALLIPHORIDAE)

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The species described below was found in Park's collection and examined by the present authors. It is the first species of the genus *Onesia* Rob.-Desvoidy from Korea. The male abdomen which is not metallic blue or green is so characteristic of this new species that it is possible to separate this form from the other Palaearctic species of *Onesia* by this character.

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Onesia koreana sp. nov. (Fig. 1)

♂.—Head: eyes bare or almost so, closely approximated, separated at narrowest point of frons by a distance slightly less than $2\times$ the width of anterior ocellus, equal to 0.05–0.06 of the head-width; frontal stripe blackish brown, more or less obliterated at narrowest point; parafrontalia and parafacialia yellowish-silver dusted, blackish setulose especially along anterior margins; face dark, thinly grey-dusted, without median carina; facialia red, with black setulae on lower half; vibrissae strongly developed; vibrissaria and medianae red, slightly silver-dusted; epistome not projecting forward, brown; jowls black, covered with silver-grey dusting, clothed with black hairs; post-jowls concolorous with jowls, covered with black hairs, posterior parts of post-jowls and central portion of occiput yellowish haired;