DESCRIPTIONS OF A NEW SUBSPECIES AND AN IMPERFECTLY KNOWN SPECIES OF *APANTELES* FROM NIPPON
(*HYMENOPTERA* : *BRACONIDAE*)

By

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Apanteles sibyllarum WILKINSON

Apanteles sibyllarum WILKINSON, Proc. Roy. Ent. Soc. London, Ser. B, V, p. 174, ♀ ♂, Figs. 1–2 (1936).

Host: *Limenitis sibylla* (LINNÉ).

Distribution: Europe (England and Germany, after WILKINSON).

Apanteles sibyllarum nipponensis subsp. nov.

♀ ♂. Black; antennae dark brown; palpi, tibial spurs, lateral margins of the 2 basal tergites and belly at the base testaceous; legs red testaceous, all the coxae black, the extreme apex of the hind femora, the apical two-fifths of the hind tibiae and the major part of the hind tarsi dark brown to black. Wings hyaline, slightly infumated; stigma and veins brown; tegulae dark brown.

Head minutely punctate; face strongly punctate; antennae of the female as long as the body, and those of the male rather shorter than the body. Mesonotum and scutellum strongly punctate, the punctures of the latter more widely separated than those of the former; scutellar sulcus virtually straight, with certainly twelve crenulations. Propodeum reticulate-rugose, with a median longitudinal carina and with transverse carinae near the base. First abscissa of the radius longer than the intercubitus; stigma as long as the metacarp. Hind coxae strongly punctate; the longer tibital spur two-thirds and the shorter spur half the length of the metatarsus. First tergite 1.5 times as long as broad at the apex, gradually narrowed towards the base, shallowly excavated at the base, with scattered punctures near the apex; 2nd tergite more or less rugose, with the sulci well marked; 3rd and following tergites smooth and shining; hypopygium truncate at the apex; ovipositor sheath rather shorter

than the hind metatarsus. Length, 2.75–3.25 mm.

Holotype (♀), **Allotype** (♂) and **Paratypes** (12 ♀♀, 6 ♂♂): Sapporo, 31. V, 1941, C. WATANABE leg.

Host: *Limenitis sibylla japonicus* MÉNÉTRIÉS.

This species is a gregarious parasite, 4 to 10 individuals issuing from a single host larva.

Cocoons: Lemon-yellow, but soon trun almost white when exposed to light, and attached loosely to the host larva. Furthermore, according to WILKINSON the cocoons of the typical series are white, attached loosely to the host larva.

Habitat: Hokkaido (Sapporo).

Distribution: Nippon.

Remarks: Through the kindness of Mr. D. S. WILKINSON I have been able to examine certain cotypes of *Apanteles sibyllarum* WILKINSON, and I know that the present subspecies may be distinguished from the typical series as in the following respects:–

♀ ♂. Darker in colour than the typical series; scape almost dark brown; apical two-fifths of the hind tibiae fuscous; belly not so broadly testaceous as that of the typical series; stigma as long as the metacarp; median longitudinal carina of the propodeum more strongly indicated, extending from the base to the middle; sculpture of the 1st and 2nd tergite not so strong as that of the typical series, while the lateral sulci of the 2nd tergite and the 2nd suture well marked as in the typical series.

Apanteles awanomeigae [1] nom. nov.

Glyptapanteles politus ASHMEAD, Proc. U. S. Nat. Mus., XXX, p. 192, ♀ ♂ (1906) (nec *Apanteles politus* RILEY,[2] 1881).

Apanteles politus WATANABE, Ins. Mats., VII, p. 99 (1932); FAHRINGER, Opusc. bracon., IV, p. 246, ♀ ♂ (1935); WATANABE, Jour. Facul. Agr., Hokkaido Imp. Univ., XLII, p. 127 (1937) (nec RILEY).

♀. Black; antennae dark brown; mouthparts, tegulae, lateral margins of the 2 basal tergites and belly at the base red-testaceous; hind coxae dark brown to black; hind femora at the extreme apex, hind tibiae at the apical fourth and their tarsi fuscous; palpi and tibial spurs pale; wings hyaline; stigma and veins brown.

Head minutely punctate; face not especially prominent; vertex almost smooth and shining; antennae a little shorter than the thorax and abdomen united, the apical joints submoniliform like those of *Apanteles minor* (ASHMEAD).

1) The "Awanomeiga" is a popular name of *Pyrausta nubilalis* (HÜBNER) in Nippon.

2) Trans. Acad. Sci. St. Louis, IV, p. 307 (1881).

Thorax compressed dorso-ventrally, wider between tegulae than thick dorso-ventrally, the mesonotum, scutellum, metathorax and anterior half of the propodeum more or less on the same plane; mesonotum minutely punctate, the punctures becoming weaker and sparser posteriorly; mesopleura almost smooth and shining, with punctures along the anterior margin; scutellum smooth and shining, with scattered minute punctures. Propodeum almost smooth and shining, sparsely punctate, with some aciculations medianly at the apex. Metacarp as long as the stigma; breadth of the stigma 1.5 times as long as the 1st abscissa of the radius, which forms an angle with the intercubitus and is nearly equal to, or a little shorter than the intercubitus; recurrent nervure as long as the intercubitus; pigmented portion of the 1st abscissa of the cubitus. Hind coxae smooth, with the outer face minutely punctate; the longer tibial spur three-fifths and the shorter spur just less than half the length of the metatarsus. First tergite parallel-sided, suddenly narrowed from the middle to the apex, 2 times as long as broad at the base, almost smooth and shining, shallowly excavated at the base, with some aciculations on the lateral margins near the apex, and with scattered punctures; 2nd tergite shorter than the 3rd, almost smooth and shining, with some aciculations along the lateral sulci, which are well marked, definitly straight; 3rd and following tergites smooth and shining; hypopygium (as viewed from the side) rounded at the apex, not acute; ovipositor sheath as long as the hind metatarsus. Length, 2.75–3 mm.

♂. Closely resembles the female in general structure and colour, except that the antennae are longer than the body, filiform. Length, 2.5–2.75 mm.

Described from 13 females and 7 males.

Host: *Pyrausta nubilalis* (HÜBNER).

The present material was bred from a hibernated larva of the European Corn Borer, *Pyrausta nubilalis* (HÜBNER). This species is a gregarious parasite, as many as 20 individuals issuing from a single host.

Cocoon: Pure white, woolly, loosely bound together and attached to the inside of the plant tunnel in which the host larva hibernated.

Habitat: Honshu (Gifu, after ASHMEAD); Hokkaido (Ôno near Hakodate, 13 ♀♀, 7 ♂♂, 17. V, 1937, C. WATANABE leg.).

Distribution: Nippon.

Remarks: This species was originally described from three specimens by ASHMEAD from Gifu, Japan, without host record, and the type-specimens are preserved in the United States National Museum, Washington, D. C., U. S. A. Although I have not seen the type-specimens, my observations have convinced me that the present material may be identical with this species. The original description is rather short, and yet it agrees with the present material, save

only in the length of the female antennae. It is, I consider, probable that Dr. ASHMEAD was in error in describing the female antennae as in the case of *Apanteles minor* (ASHMEAD)[1], which is a parasite of the Mulberry Pyralid Moth, *Margaronia pyloalis* (WALKER). These species bear a stricking resemblance to each other as ASHMEAD described, but are distinguishable as in the following key. Moreover, on account of the flattened notum and of the short, stout antennae of the females, these two species obviously fall in WILKINSON's Group G[2].

First tergite parallel-sided, suddenly narrowed from the middle to the apex, 2 times as long as broad at the base, the punctures rather strong, with some aciculations on the lateral margins near the apex; 2nd tergite with some aciculations along the lateral sulci, which are comparatively strongly indicated and definitely straight; belly only testaceous at the base. First abscissa of the radius as long as or a little shorter than the intercubitus. Length, 2.5–3 mm. .... *A. awanomeigae* nom. nov.

First tergite gradually narrowed from the base to the apex, 2.5 times as long as broad at the base, without aciculations, the punctures rather weak; 2nd tergite without aciculations, the lateral sulci not straight, but slightly curved; belly broadly testaceous. First abscissa of the radius a little longer than the intercubitus. Length, 2–3 mm. .... *A. minor* (ASHMEAD)

Furthermore, this species is also closely allied to *Apanteles thompsoni* LYLE[3] which belongs also to WILKINSON's Group G and is a parasite of the same host, *Pyrausta nubilalis*, and of which the reproduction is thelyotokous[4]. It is, however, impossible to give a definite conclusion in regard to their relationships in the present state of my knowledge without an opportunity to examine any authentic representatives of that species.

1) Proc. U. S. Nat. Mus., XXX, p. 192, ♀ (1906) (as *Glyptapanteles minor*); WATANABE, Ins. Mats., XIV, p. 89, ♀ ♂, fig. 2 (1940).

2) See: Stylops, III, p. 155 (1934); Proc. Roy. Ent. Soc. London, B, V, pp. 85–86 (1936).

3) Bull. Ent. Res., XVII, p. 415, ♀ (1927).

4) See: VANCE, A. M., *Apanteles thompsoni* LYLE, a Braconid parasite of the European Corn Borer. (U. S. Dept. Agr., Tech. Bull. No. 233, pp. 22–23, 1931).