

**AGATHIS THOMPSONI N. SP., A NEARCTIC SPECIES OF
AGATHIDINAE (HYMENOPTERA: BRACONIDAE)
PARASITIC ON GREYA SUBALBA (BRAUN)
(LEPIDOPTERA: INCURVARIIDAE)**

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Abstract.—Adults of *Agathis thompsoni* n. sp. (Braconidae: Agathidinae) from north-western U.S.A. are described and illustrated. Larvae are parasitic on *Greya subalba* (Braun), which feeds on the schizocarps of *Lomatium* spp. (Umbelliferae). Females of the new species are differentiated from those of both European and North American species.

Among the many undescribed species of *Agathis* Latreille in North America is one that has been studied by J. N. Thompson (Thompson, 1986). It is to compliment his research on oviposition behaviour and searching efficiency that I describe this new species.

Agathis thompsoni Sharkey, NEW SPECIES

Diagnosis.—*Agathis thompsoni* is distinguished from other species of *Agathis* by the following combination of character states: basal flagellomere 1.6 × longer than following flagellomere; malar space 0.6 × greatest diameter of eye; ovipositor 1.2 × as long as metasoma when fully extended.

Description, holotype ♀.—(Intraspecific variation is given in parentheses). *Color:* Black except metasoma slightly paler laterally and yellowish-orange as follows: mandible, all femora over distal 0.7, fore and middle tibiae, hind tibia except for basal and apical melanic bands, basal 0.2 of all basitarsomeres; fore wing hyaline. *Head* (Fig. 1): Antenna with 26 (23–26) flagellomeres; basal flagellomere 1.6 × longer than following flagellomere; head subrostriform, malar space 0.6 × greatest diameter of eye; weak, V-shaped depression anterior to median ocellus; smooth, longitudinal ridge

from near median ocellus to level of antennal insertion; galea 2.2 × longer than maximum width. *Mesosoma* (Figs. 2, 3): Notauli deeply impressed, pitted, scutellar groove with numerous longitudinal ridges; pronotum smooth except for crenulae along posterior margin; sternaulus 0.7 × length of mesopleuron and complete to posterior margin; metapleuron rugose over ventral 0.2 (0.2–0.3); propodeum with transverse, anterolateral ridge and with 3 longitudinal ridges, medial ridge weak; (propodeum may be somewhat rougher than in Fig. 2); mid tibia with 3 (2–3) preapical spines; hind tibia with 6 (4–6) apical spines; hind tarsal claw with strong basal tooth. *Metasoma* (Fig. 4): First tergum as long as wide, with pair of weak longitudinal ridges and weak striae over anterior 0.5; tergum 2 + 3 mostly smooth with basal swelling; ovipositor 1.2 × longer than metasoma when fully extended; ovipositor sheaths slightly shorter (0.9 ×) than metasoma. *Length:* 3.7 (3.5–4.3) mm.

Allotype ♂.—As for the holotype except antenna with 23 flagellomeres. (Left hind leg missing after coxa).

This species is named after John N. Thompson.

Material examined.—Holotype ♀, U.S.A., Washington, Whitman Co., Smoot Hill Biol.



Figs. 1, 2. *Agathis thompsoni*. 1, Head, lateral. 2, Metanotum and propodeum, dorsal.

Pres. nr. Albion. ex. *Greya subalba* (Braun). 5.VI.1985. J. N. Thompson. (United States National Museum). Allotype ♂. same data as holotype except date. 17.VI.80. Paratypes: 38 ♀. same data as holotype. (Canadian National Collection. United States National Museum). 1 ♂. same data as allotype. (Canadian National Collection).

Discussion.—In a recent paper (Sharkey, 1985) I defined my concept of *Agathis* Latreille. The following Nearctic and Holarctic species belong to this genus: *A. brevicornis* (Muesebeck), *A. cupressi* Muesebeck and Walkley, *A. gibbosa* (Say), *A. malvacearum* Lair., *A. pumila* (Ratzburg), *A. rubripes* Cresson, *A. terminata* Cresson, *A. thompsoni* Sharkey, *A. tibiator* Provancher.

Females of *A. thompsoni* differ from those of most other North American species of *Agathis* by their short ovipositor, which is only 1.2× as long as the metasoma when

fully extended. Other species have the ovipositor fully as long as the body except *A. pumila*, a Holarctic species. Unlike *A. thompsoni*, *A. pumila* has the two most basal antennal flagellomeres subequal in length.

In Nixon's (1986) key to the European females of *Agathis*, *A. thompsoni* keys to couplet number 30. Females differ from those of five of the six species that key through this couplet by their short ovipositor. Females of *A. melpomene* Nixon, which also have a short ovipositor, differ in that the first tergum of the metasoma is mostly smooth, though sometimes with weak rugosity medially. Females of *A. thompsoni* have striae in the anterior 0.6 of the first metasomal tergum.

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Figs. 3, 4. *Agathis thompsoni*. 3, Mesosoma, lateral. 4, Metasoma, dorsal.

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