A new species of *Sesioctonus* Viereck (Hymenoptera, Braconidae, Agathidinae) from Peru

*Una Nueva especie de Sesioctonus* Viereck (Hymenoptera, Braconidae, Agathidinae) del Perú

**Abstract**
A new species of *Sesioctonus* (Braconidae: Agathidinae), *Sesioctonus alvaradae* sp. nov. from Peru, is described and illustrated. With the addition of this new species, *Sesioctonus* genus has 36 species.

**Resumen**
Una nueva especie de *Sesioctonus* (Braconidae: Agathidinae), *Sesioctonus alvaradae* sp. nov. para Perú, es descrita e ilustrada. Con la adición de esta nueva especie, el género *Sesioctonus* tiene 36 especies.

**Key words:** Insect; taxonomy; biodiversity; parasitoid; Neotropical.

**Palabras claves:** Insecto; taxonomía; biodiversidad; parasitoide; Neotropical.

**Introduction**
*Sesioctonus* Viereck, 1912 is a Neotropical genus of the Agathidinae subfamily. Its biology is largely unknown, and the only species with a known host is *S. parathyridis* Viereck, 1912 recorded as a larval parasitoid of the moth *Arrhenophanes perspicilla* Stoll, 1790 (Lepidoptera, Arrhenophanidae) (Viereck 1912, 1914). Briceño (2003) revised the species of *Sesioctonus* and found 26 new species. Later, Sharkey and Briceño (2005) described five new species from Colombia, and Sulca and Sharkey (2012) described three new species from Peru. With the addition of this new species, *Sesioctonus* now comprises 36 species.

The majority of *Sesioctonus* species were collected between 100m and 2800 m above sea level, but *S. philipi* Sharkey and Briceño 2005 was collected at 3350 m. The material used in this study comes from collections between 4000 – 4500m above sea level, representing the...
highest elevation records of the genus. Here I present the
description of a new Andean species, and an extended
key to *Sesioctonus* species of the world, modified from
Sulca and Sharkey (2012).

**Material and methods**

Morphological terminology follows that of Sharkey and
Wharton (1997) and the key to genera follows that of
Sharkey et al. (2021). Figures mentioned in this pa-
ter that are followed by the letter ‘B’ refer to those in
Briceno (2003). The species description is based on the
holotype, with variation given in parenthesis. Specimens
are deposited in the Museo de Historia Natural, Univer-
sidad Nacional Mayor de San Marcos (MUSM) collection
in Lima, Peru.

**Taxonomy and descriptions**

*Sesioctonus* Viereck, 1912

Viereck 1912:1. Type species: *Sesioctonus parathyri-
dis* Viereck. (Monobasic and original designation). Vi-
reck 1914: 133.

**Diagnosis.** *Sesioctonus* species may be distin-
guished from other agathidines using the following combination
of characters: Mesoscutum smooth, lacking notauli; tar-
sal claws simple, lacking a distinctive basal claw; hind
coxal cavities open, sharing a common opening with the
metasomal foramen.

**Distribution.** Members of *Sesioctonus* are restricted
to the Neotropical Region.

**List of all *Sesioctonus* species described**

*Sesioctonus acrolophus* Briceno, 2003; *S. alvaradae*
sp. nov; *S. amazonesis* Briceno, 2003; *S. ammosakron*
Briceno, 2003; *S. analogus* Briceno, 2003; *S. areolatus*
Briceno, 2003; *S. arias* Briceno, 2003; *S. armandoi* Bri-
ceño, 2003; *S. bina Sulca & Sharkey, 2012; S. biospleres*
Briceno, 2003; *S. boliviensis* Briceno, 2012; *S. brasili-
ensis* Briceno, 2003; *S. chacoensis* Briceno, 2003; *S. chro-
tos* Briceno, 2003; *S. clavigoi* Briceno, 2003; *S. diazi* Bri-
ceño, 2003; *S. dichromus* Briceno, 2003; *S. dominions* Bri-
ceño, 2003; *S. eumenetes* Briceno, 2003; *S. galeos* Bri-
ceño, 2003; *S. garciai* Briceno, 2003; *S. grandis* Briceno,
2003; *S. huggerti Sulca & Sharkey, 2012; S. kompsos*
Briceno, 2003; *S. longinoi* Briceno & Sharkey, 2000; *S. mi-
yayensis* Briceno, 2003; *S. parathyriidis* Viereck, 1912; *S.
peruviensis* Briceno, 2003; *S. philipi* Sharkey & Briceno,
2005; *S. qui* Briceno, 2003; *S. thekulos* Briceno, 2003; *S.
venezuelensis* Briceno, 2003; *S. torresi* Sharkey & Briceno,
2005; *S. susanai* Sharkey & Briceno, 2005 and *S. wayque-

**Key to *Sesioctonus* species of the world modified from Sulca & Sharkey (2012)**

<table>
<thead>
<tr>
<th>Character</th>
<th>Species</th>
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<td>1. Occipital tubercles present (Figs. 16B–18B)</td>
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<td>5(4). Interantennal space lack of longitudinal keel, face with median longitudinal carinae</td>
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<tr>
<td><em>huggertii Sulca &amp; Sharkey</em></td>
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<td><em>acropolphus Briceno</em></td>
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<td><em>bina Sulca &amp; Sharkey</em></td>
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<td>12(11). Mesoscutum melanic</td>
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Sesioctonus alvaradai sp. nov.

(Fig. 1–8)

Holotype. 1 ♀, PERU: AP [APURIMAC]: Mina Las Bambas, Sector Sagrapeña, 14°37.24".S/ 72°18’33”W, 4265 m, 01.iii.2020, L. Pérez.


Diagnosis. Distinguished from all other known species of Sesioctonus by the following combination of characters: occipital tubercles absent, occiput excavated, gena moderately expanded posteroventrally, subpronope elongate-oval, epicnemial carina complete and straight mediadly, propodeum with a central areola.

Sesioctonus alvaradae sp. nov. is similar to S. eumenetes, as they are the only two species that have an occiput excavated; but the first one has a central areola on the propodeum that is lacking in S. eumenetes.

Briceño (2003) indicates in the S. eumenetes diagnosis the presence of a median longitudinal carina on the propodeum, but contradicts the description indicating absence. I was able to verify the absence of a longitudinal carina by reviewing the photos of the S. eumenetes holotype hosted in the website of the Canadian National Collection (https://www.cnc.agr.gc.ca/taxonomy/Semen.php?id=5878).

♀ Length. Length of body, excluding ovipositor, 4.1 mm.

Figures 1–6. Details of Sesioctonus alvaradae sp. nov. Holotype:(1) habitus; (2) head, frontal; (3) head, dorsal; (4) metasomal tergo (5); mesonotum, dorsal; (6) propodeum and metasomal terga 1–2.
New species of Sesioctonus (Hymenoptera, Braconidae, Agathidinae) from Peru


**Male.** As in the female (above) with the color of the metasomal terga slightly different. First metasomal tergum melanic. Second metasomal tergum yellowish orange. Third -to fifth metasomal terga yellowish orange with melanic spot. Sixth and to eighth metasomal terga melanic.

**Variation.** Legs with variable color, but always melanic to yellow. Sometimes propodeum with a yellow spot medially.

**Etymology.** Named in honor of Mabel Alvarado, a Peruvian specialist in ichneumonoid wasps, for her support during the author’s entomological studies.

**Distribution.** Known only from Apurimac and Cusco, in southeastern Peru.

**Literature cited**


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**Figures 7 – 8.** Details of *Sesioctonus alvaradae* sp. nov. Paratype:(7) Propodeum with central areola present (indicated by arrow); (8) Epicnemial carina straight medially (indicated by arrow).

Viereck HL. 1912. New genus and species of Hymenoptera of the family Braconidae from Panama. Smithsonian miscellaneous collections. 59(5):1–2. https://repository.si.edu/handle/10088/23460

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