

A new species of the genus *Spilomena* Shuckard, 1838 (Hymenoptera: Crabronidae: Pemphredoninae) from Guatemala

Новый вид рода *Spilomena* Shuckard, 1838 (Hymenoptera: Crabronidae: Pemphredoninae) из Гватемалы

A.V. Antropov* & R.A. Cambra T.**
А.В. Антропов*, Р.А. Камбра Т.**

* Zoological Museum of Moscow Lomonosov State University, Bol'shaya Nikitskaya str. 6, Moscow. 125009, Russia. E-mail: antropov@zmmu.msu.ru

** Museo de Invertebrados G. B. Fairchild, Universidad de Panama, Estafeta Universitaria, Panama, Republica de Panama. E-mail: rcambra@ancon.up.ac.pa

* Зоологический музей Московского государственного университета им. М.В. Ломоносова, ул. Б. Никитская, 6 Москва 125009 Россия.

KEY WORDS: taxonomy, Hymenoptera, Crabronidae, Pemphredoninae, *Spilomena*, new species.

КЛЮЧЕВЫЕ СЛОВА: таксономия, Hymenoptera, Crabronidae, Pemphredoninae, *Spilomena*, новый вид.

ABSTRACT. A new species of the digger wasp genus *Spilomena* Shuckard, 1838 is described from Guatemala. *Spilomena quinteroi* sp.n. is the first record of the genus from Guatemala, differing from the related South American (Peru) *S. spinosa* Antropov, 1993 by the shape of the clypeus and pronotal collar, the sculpture of the propodeum, and by the developed pygidial furrow.

РЕЗЮМЕ. Из Гватемалы описан новый вид роющих ос рода *Spilomena* Shuckard, 1838. *Spilomena quinteroi* sp.n. является первым видом рода из Гватемалы, отличающимся от сходного южноамериканского вида *S. spinosa* Antropov, 1993 из Перу формой наличника и валика переднеспинки, скульптурой проподеума и развитой пигидиальной бороздкой.

Introduction

Spilomena Shuckard, 1838 is a cosmopolitan genus of digger wasps, with 32 species described from the New World [Bohart, Smith, 1995; Amarante, 2002], including 19 species known in the Neotropical Region [Herbst, 1920; Dollfuss, 1982; Antropov, 1991, 1992, 1993; Amarante, 2002]. The first and only specimen of *Spilomena* collected in Guatemala is described below.

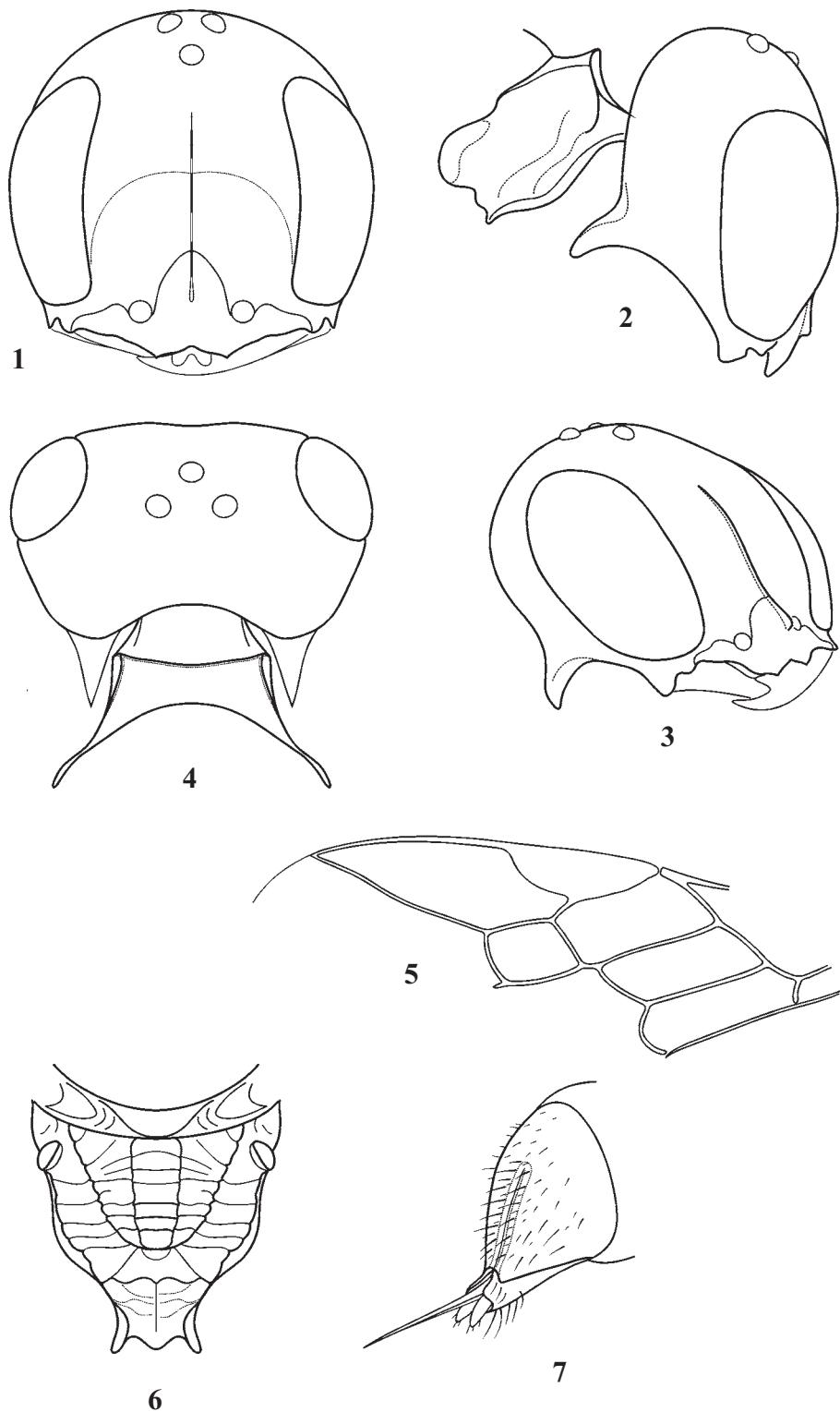
Taxonomic part

Spilomena quinteroi Antropov et Cambra, sp.n. Figs. 1–7.

MATERIAL. Holotype, ♀: "GUATEMALA: Suchitepeque, Finca Moca Grande, 23–24 feb 1995. Malaise (D. Quintero)." Deposited in the collection of the Zoological Museum of Moscow Lomonosov State University (Moscow, Russia).

DESCRIPTION. FEMALE. Head in frontal view oblong; inner eye orbits almost parallel, slightly converging above (Fig. 1); lower frons moderately concave, upper frons weakly convex; vertex strongly convex; temples considerably widened, with two sharp spine-like projections posteriorly (Fig. 2); clypeal medial lobe with obtuse-triangular apical notch, weakly convex anteriorly, and strongly convex posteriorly, with sharp and truncate anteriorly medial carina, continuing posteriorly on lower frons up to scapal apices (Fig. 3); pronotal collar with acute, but not elongate anterolateral angles, without distinct median notch, slightly concave anteriorly and almost straight laterally (Fig. 4); lateral sides of pronotum deeply concave in front of pronotal lobes; scutum without deepened prolonged lines, convex anteriorly, flattened postero-medially, and concave in postero-lateral angles; prescutellar furrow ecarinate; scutellum moderately convex; postscutellum weakly convex medially, deeply concave laterally; mesopleuron evenly convex, with a trace of hypersternalis in the form of a broad pit; metapleuron concave; recurrent vein joining 1st submarginal cell near its posterior angle (Fig. 5); propodeal dorsal area completely surrounded by with sharp ridges, transversely carinate, with two complete parallel admedial carinae (Fig. 6); posterior end of propodeum with a weak longitudinal carina, weakly and mostly irregularly striate, separated dorsally by a sinuate transverse ridge; abdominal segment I elongate, petiole-like narrowed anteriorly; tergum VI apically with moderately setose prolong furrow, bearing a thin medial carina (Fig. 7).

Clypeus weakly sculptured, shiny; frons very densely coriaceous, mat; vertex delicately transversely striate, mat; temples prolongly microstriate ventrally, shiny; lateral sides of pronotum and pronotal collar smooth and shiny dorsally; mesoscutum densely microcoriaceous, semi-mat, with a pair of smooth stripes anteriorly, marking admedian lines; scutellum irregularly microstriate, shiny; mesopleuron densely and smoothly prolongately microstriate, shiny; metapleuron mainly smooth and shiny, prolongately carinate dorsally; propodeum densely obliquely microstriate laterally, with smooth and irregular sculpture between carinae dorsally and posteriorly;



Figs. 1–7. *Spilomena quinteroi* sp.n., ♀: 1 — head, frontal view; 2 — head and pronotum, lateral view; 3 — head, oblique view; 4 — head and pronotum, dorsal view; 5 — forewing venation; 6 — propodeum, dorsal view; 7 — abdominal segment VI, oblique view.

Рис. 1–7. *Spilomena quinteroi* sp.n., ♀: 1 — голова спереди; 2 — голова и переднеспинка сбоку; 3 — голова спереди-справа; 4 — голова и переднеспинка сверху; 5 — жилкование переднего крыла; 6 — проподеум сверху; 7 — VI сегмент брюшка сзади-сбоку.

abdomen with terga I-II polished, tergum I unsculptured, tergum II sparsely punctate, terga III-V shiny, micropunctate and transversely microstriate.

Body pubescence mainly short and sparse, not covering sculpture. Clypeus with a pair of very long preapical bristles. Thorax ventrally and apical abdominal tergum mostly densely setose, though setae of tergum VI not forming regular rows.

Head and thorax mainly black; clypeus brown apically; mandible mainly yellow; scape pale yellow; flagellum reddish-yellow ventrally, except brown apical joint, reddish-brown dorsally towards apex; pronotum brown, pronotal lobe pale yellow posteriorly; tegulae and wing lamellae pale yellow; fore and mid coxae pale yellow, hind coxae brown; trochanters pale yellow; fore femora pale yellow anteriorly, brownish posteriorly; mid femora mainly brownish, pale yellow basally and apically; hind femora brown, whitish only apically; tibiae and tarsi, except brown apical tarsomeres, pale yellow; abdomen brown, paler apically.

Body length 2.6 mm.

MALE unknown.

BIOLOGY. Unknown, but Thysanoptera, Psylloidea, Coccoidea, and Aphidoidea are known as prey of several other species of the genus *Spilomena*, whose females either build their nests in the borings of various xylophagous insects, or rarely dig nests in the ground [McCorquodale, Naumann, 1988; Hanson, Menke, 1995].

DIAGNOSIS. *Spilomena quinteroi* sp.n. from Guatemala is similar to *S. spinosa* Antropov, 1993 from Peru in having of a pair of long spine-like projections on their temples (the only two New World species of the genus with this character).

Spilomena quinteroi sp.n. differs from *S. spinosa* by the obtuse-triangular apical emargination of the clypeus (deep oval-triangular in *S. spinosa*), by the sharp and truncate anteriorly medial carina of the lower frons (bifurcate in *S. spinosa*), by the acute and not elongate anterolateral angles of the pronotal collar without a distinct median notch (strongly elongate laterally and with a small but distinct median notch in *S. spinosa*), by the recurrent vein ending not far from the 2nd submarginal cell (very far in *S. spinosa*), by the admedial parallel carinae of the transversely carinate propodeal dorsal enclosure reaching its apex (not reaching the apex of the partly radially carinate dorsal enclosure in *S. spinosa*), and also by the medially carinate pygidial furrow of the abdominal tergum VI bearing elongate irregular setae (not carinate and with a row of short uniform setae in *S. spinosa*).

ETYMOLOGY. The species is dedicated to Professor Dr. Diomedes Quintero A. (Universidad de Panama), the collector of the specimen, for his contributions to the research of Hymenoptera.

ACKNOWLEDGMENTS. We would like to thank Annette Aiello (Smithsonian Tropical Research Institute) for reviewing the manuscript and Dr. Diomedes Quintero A. (Universidad de Panama) for donation of the specimen to the Zoological Museum of Moscow Lomonosov State University.

References

- Amarante S.T.P. 2002. A synonymic catalog of the neotropical Crabronidae and Sphecidae (Hymenoptera: Apoidea) // Arquivos de Zootologia. Vol.37. Fasc.1. P.1–139.
- Antropov A.V. 1991. Contribution to the knowledge of *Spilomena* digger wasps (Hymenoptera, Sphecidae) of South America // Zoologicheskiy Zhurnal. Vol.70. No.11. P.57–62 [in Russian, with English summary].
- Antropov A.V. 1992. Five new neotropical species of the genus *Spilomena* (Hymenoptera Crabronidae Pemphredoninae), with additional comments on the previously described species // Russian Entomological Journal. Vol.1. No.1. P.67–73.
- Antropov A.V. 1993. Further supplements to the knowledge of the neotropical fauna of digger wasps of the genus *Spilomena* Shuckard (Hymenoptera Crabronidae Pemphredoninae) // Russian Entomological Journal. Vol.1 (for 1992). No.2. P.41–57.
- Bohart R.M., Smith N.J. 1995. Contributions to the knowledge of the genus *Spilomena* Shuckard in America North of Mexico (Hymenoptera, Sphecidae, Pemphredoninae) // Journal of the Kansas Entomological Society. Vol.64 (for 1994). No.4. P.318–330.
- Dollfuss H. 1982. *Spilomena peruvensis* n. sp., a sphecid wasp from Peru (Hymenoptera, Sphecidae) // Zeitschrift der Arbeitsgemeinschaft Oesterreichischer Entomologen. Bd.33 (für 1981). S.77–78.
- Hanson P.E., Menke A.S. 1995. The sphecid wasps (Sphecidae) // P.E. Hanson and I.D. Gauld (eds.). The Hymenoptera of Costa Rica Oxford University Press. P.621–649.
- Herbst P. 1920. Neue chilenische Grabwespen (Sphegidae) // Revista Chilena de Historia Natural Pura y Aplicada. Vol.24. P.35–36.
- McCorquodale D.B., Naumann I.D. 1988. A new Australian species of communal ground nesting wasp, in the genus *Spilomena* Shuckard (Hymenoptera: Sphecidae: Pemphredoninae) // Journal of the Australian Entomological Society. Vol.27. P.221–231.