



Description of the male of *Oxyporus bautistae* Márquez & Asiain (Coleoptera: Staphylinidae, Oxyporinae)

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Abstract

The male of *Oxyporus bautistae* Márquez and Asiain, 2006 is described based on one specimen from San José del Pacífico, southern Oaxaca, Mexico. *Oxyporus bautistae* shares with *O. mexicanus* Fauvel, 1865 the bicolored color pattern in legs (black and orange). The male of *O. bautistae* has six black spots on tergites and the female has only two black spots; but we cannot explain whether the number of black spots represents a sexual character or individual variation.

Key words: Staphylinidae, *Oxyporus*, Mexico, taxonomy

Resumen

Se describe el macho de *Oxyporus bautistae* Márquez y Asiain, 2006 con base en el estudio de un espécimen procedente de San José del Pacífico, sur de Oaxaca, México. *Oxyporus bautistae* y *O. mexicanus* Fauvel, 1865 son las únicas dos especies mexicanas que comparten el patrón de coloración en las patas (negro y anaranjado). El macho de *O. bautistae* muestra seis manchas negras en los terguitos, y la hembra solo tiene dos manchas negras, pero desconocemos si la variación en el número de manchas abdominales es un carácter sexual o variación individual.

Palabras clave: Staphylinidae, *Oxyporus*, México, taxonomía

Introduction

The subfamily Oxyporinae (Coleoptera: Staphylinidae) is recognized as a monophyletic taxon whose members share at least the following evident apomorphies: mentum with long anterior projections, enlarged and crescent-shaped apical labial palpomeres and mesocoxae widely separated by a large metaventrite (Thayer 2005). All extant members are grouped in a single genus, *Oxyporus* plus two extinct genera from the Early Cretaceous of China: *Protoxyporus* and *Cretoxyporus* (Cai & Huang 2014). Species richness is about 100 species divided in two subgenera: *Oxyporus* and *Pseudoxyporus* (Campbell 1969).

Larvae and adults exhibit an obligate association with mature mushrooms, primarily Agaricales, Boletales and Polyporales; they feed on the spore-producing layer (Hanley & Goodrich 1995). Species of this genus are more diverse in the Holarctic and Oriental biogeographical regions but few species are recorded from the Neotropics with one interesting and extreme record from South America: *Oxyporus bolivianus* Scheerpeltz, 1960: 79.

In Mexico *Oxyporus* is represented by eight species, two of them described in the last ten years: *Oxyporus delgadoi* Márquez, Asiain & Fierros-López, 2005 from Hidalgo, Zacualtipán, road to Santo Domingo and *O. bautistae* Márquez & Asiain, 2006 from Oaxaca, Santiago Yosondúa, road to El Vergel, La Cascada (Fig. 1).

Oxyporus bautistae was described based on three female specimens. No males were collected after several attempts sampling mushrooms and flight intercept traps at the type locality (Márquez & Asiain 2006). As part of the curatorial work at the Entomological Collection in the Centro de Estudios en Zoología, one male specimen

(retained as donation by the Instituto de Biología, Universidad Nacional Autónoma de México) was identified as *Oxyporus bautistae*. So, the goal of this paper is to describe and illustrate the male of that species. Description follows Márquez and Asiain (2006). The specimen was compared with the holotype and paratypes deposited at CC-UAEH.

Depositories

CC-UAEH Colección de Coleoptera, Universidad Autónoma del Estado de Hidalgo, Pachuca, Hidalgo, México
CZUG Colección Entomológica, Centro de Estudios en Zoología, CUCBA, Universidad de Guadalajara, Zapopan, Jalisco, México

Oxyporus bautistae Márquez & Asiain, 2006

(Figs. 2 & 3)

Description of the male. Total body length 10.5 mm. Head length 1.85 mm; maximum width 2.3 mm (behind the eyes). Pronotum length 1.6 mm, maximum width 2.2 mm (at upper angles level).

Coloration. Head and pronotum black, except for: maxillary and labial palps, and second to apical antennomeres orange (basal antennomere black); scutellum black, elytra orange with an oblique black spot from almost the posterior quarter of lateral border to near the inner hind corner; prosternum, mesosternum and anterior half of metasternum black, posterior half of metasternum orange; anterior and middle legs with coxae, trochanter and femur black, tibiae and tarsi orange; posterior legs with inner half of coxae, trochanter and femur black, external half of coxae, tibiae and tarsi orange; first three visible abdominal tergites orange, fourth and fifth visible abdominal tergites each with two black spots near to lateral borders (largest in fourth tergite), not touching any borders of each tergite, in addition to two small and longitudinal dark spots on the midline; sixth to last visible tergites orange; all abdominal sternites orange.

Head. Dorsal surface smooth and glossy, with sparse, fine punctures. Eyes 1/3 as long as cephalic length. First antennomere longer than second and third antennomere together, second shorter than third and fourth, third and fourth subequal, antennomeres 5–10 transverse, and antennomeres 5–11 with fine, pale setae distributed laterally, in addition to some dispersed long setae. Labrum orange, bilobed and with dense, fine setae on apex. Mandibles 1.19 times as long as cephalic length; with microsculpture like a mesh; internal margin finely serrated. Ventral surface with microsculpture like a mesh. Post-mandibular ridge visible from the eye to the cephalic ventral area; neck ridge visible before the gular sutures; area between post-mandibular and neck ridges with a moderately long yellow seta.

Thorax. Pronotum transverse, 1.34 times as wide as long, narrowing toward the posterior angles, which are 0.82 times as wide as anterior angles; surface smooth and glossy, with scarce fine punctures; lateral borders without line, anterior and posterior borders with line completely visible; line of posterior border weakly sinuate at middle; all borders with scarce setae; lateral borders with a faint constriction near their middle portion. Elytra with sparse punctation, punctures shallow and slightly wider; each elytron with two sunken lines almost at middle part, with several punctures; internal border of each elytrum with a parallel sunken line. Prosternum and mesosternum smooth; metasternum with some long setae on posterior area, below metacoxae. Tibiae of all legs covered with pale setae, and with fine spines on apical 3/4 of external borders; mesotibiae slightly curved. Tarsi of all legs slightly flattened dorso-ventrally, apical tarsomere largest, as long as previous four tarsomeres together.

Abdomen. Abdominal tergites with microsculpture like a mesh and sparse, fine setae, except the sixth visible tergite with several long and dark setae, in addition to several fine setae. Each tergite with carinate lines. Sternites with microsculpture as on tergites; with long and dark setae, denser laterally and at middle of anterior and posterior borders; the setae also are denser on the last two visible sternites; sixth visible sternite slightly sinuated at posterior border. Genital segment with several long setae and dispersed fine setae on the apical region; genital sternite longer, sinuate at base, with rounded apex, with sparse long setae and some fine setae on apical region (Fig. 3A).

Aedeagus. Total length 0.85 mm; apex of median lobe slightly wide; parameres small; base of median lobe arched with respect to its apex in lateral view; internal sac conspicuous, but with very fine microsculpture that is scarcely visible (Fig. 3B and C).

Specimen examined. MEXICO: Oaxaca, San José del Pacífico, San Sebastián, 30.V.[19]87 (1 male; CZUG).



FIGURE 1. La Cascada, Santiago Yosondua, Oaxaca, Mexico. Type locality for *Oxyporus bautistae*.

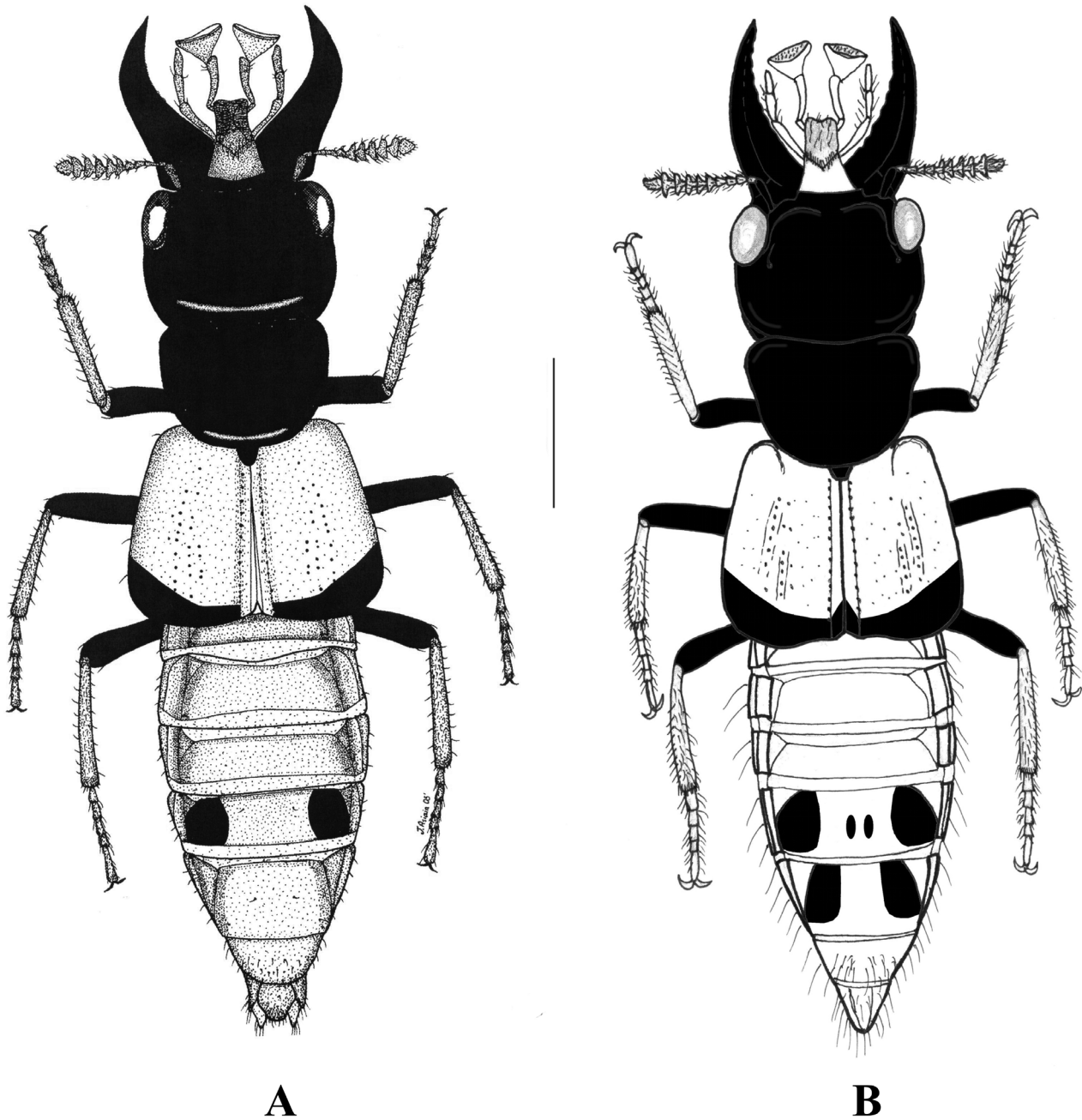


FIGURE 2. Dorsal view of *Oxyporus bautistae*: A) female (redrawn from Márquez and Asiain, 2006), B) male. Scale bar: 2.0 mm.

Discussion

The male examined clearly agrees with the description of *O. bautistae*, except for the presence of fourth and fifth visible tergites with two black spots each instead of a single pair on the fourth tergite. Additionally there are two small longitudinal spots at middle of the fourth visible tergite (Fig. 2A and B). Close comparison with type material led us to assume that this is a variation of the species but we cannot conclude whether this is a variation of this specimen or associated with male sex. Current evidence suggests this species is restricted to the Sierra Madre del Sur in Oaxaca State: San José del Pacífico, San Sebastián (male) and Santiago Yosondúa, road to El Vergel, La Cascada (females), localities that are separated by a distance of approximately 150 km in a straight line (Fig. 4).

Also, *O. bautistae* is not the only species with bicolored legs (coxa, tranchaners and femora black, tibiae and tarsi orange) as was stated by Márquez and Asiain (2006: 55). This condition is also present in *O. mexicanus* as

Fauvel (1865) stated: "*femoribus nigro-piceis*" and as is recognized in Fig. 1 of the Table 18 of the Biologia Centrali-Americana (Sharp 1887).

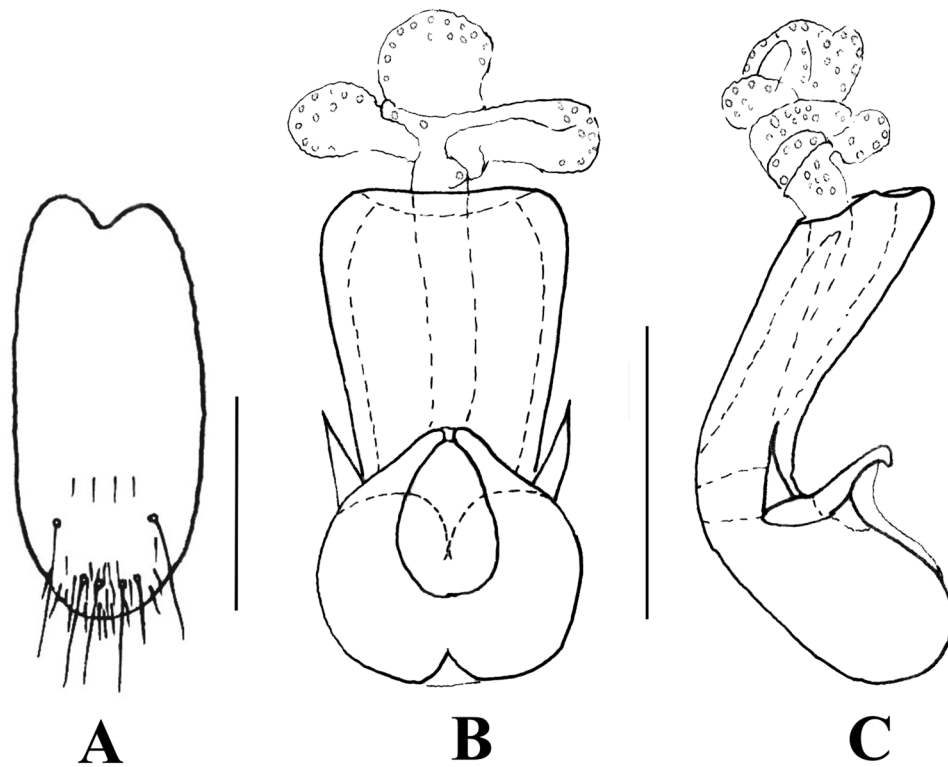


FIGURE 3. *Oxyporus bautistae*: A) Male genital sternite, B) ventral view and C) lateral view of the aedeagus. Scale bar: 0.5 mm.

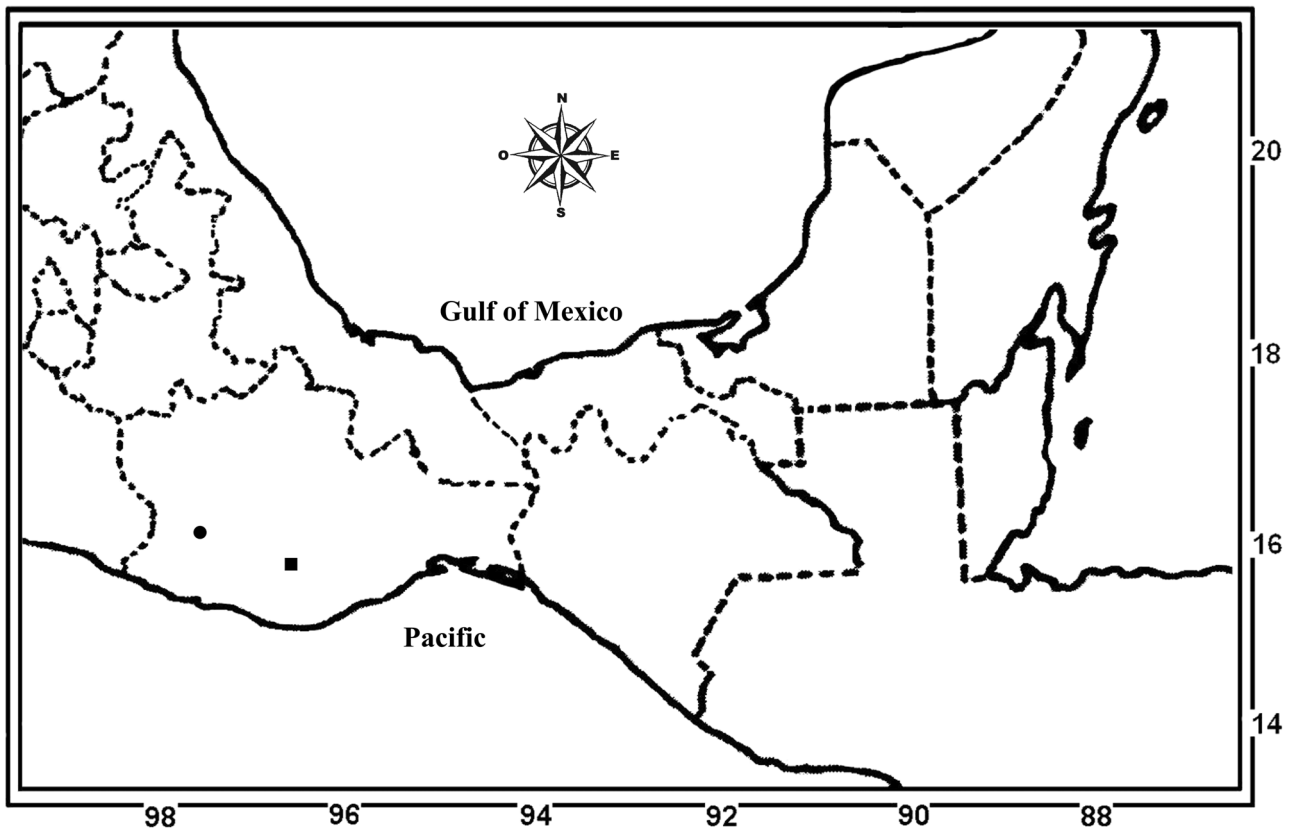


FIGURE 4. Records for *Oxyporus bautistae* in Oaxaca, Mexico. Circle, type locality (females), square (male).

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