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A new species of stag beetle (Coleoptera: Lucanidae) from California

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A new species of stag beetle (Coleoptera: Lucanidae) from California

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Abstract. A new species of *Platyceroides* Benesh, *P. potax*, **n. sp.**, is described from the northern Sierra Nevada Mountains in California, USA, and compared to the most similar species, *Platyceroides opacus* (Fall).

Introduction

The tribe Platyceroidini (Coleoptera: Lucanidae: Lucaninae) currently contains two genera from western North America (Paulsen and Hawks 2008). Benesh (1946) created the genera *Platyceroides* (seven species) and the monotypic *Platyceropsis* to contain species distributed from British Columbia, Canada to California, USA, throughout the Cascade, Sierra Nevada, and Pacific Coast mountain ranges. Species of *Platyceroides* have fully-winged males, while males of *Platyceropsis* and females in both genera are brachypterous.

My current revision of the tribe has uncovered numerous specimens of an undescribed species of *Platyceroides*, which is described below. The new species is most similar to *P. opacus* (Fall) from the southern Sierra Nevada Mountains. Both species are black in color with elytra that are somewhat or completely dull and irregularly punctate, thereby lacking the distinctly impressed striae of species such as *P. aeneus* (Van Dyke) and *P. thoracicus* (Casey). The description and diagnosis of the new species were crafted to highlight the differences between it and *P. opacus*. All species of *Platyceroides* will be treated in my upcoming revision of the tribe.

Materials and Methods

Even with the material from numerous collections being studied during the generic revision, I encountered specimens of the new species in only three collections. These are the California State Collection of Arthropods, Sacramento, CA (CDFA), California Academy of Sciences, San Francisco, CA (CASC), and the Bohart Museum of Entomology at the University of California-Davis (UCD). The CDFA material included two particularly large series. Due to the large number of paratypes, some paratypes will be distributed to major collections of Lucanidae, which include the Natural History Museum, London, UK; Field Museum, Chicago, IL, USA; M.J. Paulsen Collection, Lincoln, NE, USA; Canadian Museum of Nature, Ottawa, ON, Canada; Luca Bartolozzi Collection, Florence, Italy; and Paschoal C. Grossi Collection, Recife, Brazil.

Taxonomic Treatment

Platyceroides potax Paulsen, new species

Holotype male (CDFA) labeled: a) "USA: CA: Butte Co. / Coutolene [sic] Park; Paradise / 1-JUN-2006; R. Penrose / Ex: EtOH trap in forested area"; b) on red paper, "*Platyceroides* / *potax* Paulsen / HOLOTYPE".

Paratype males (CDFA, n = 142) labeled: a) as holotype. Paratype males (CDFA, n = 40) labeled: a) "USA: CA: Butte Co. / Coutolenc Park, 6.VI.2006 / ex: ETOH & pinene / coll: J. Osbourne & R. Iseri / Hood". Paratype males (CDFA, n = 22) labeled: a) "USA: CA: Butte Co. / Coutolenc Park, 6.VI.2006 / ex: EtOH & pineae [sic] / coll: J. Osbourne & R. Iseri / Hood". Paratype male (CASC, n = 1) labeled: a)

"Brownsville / Cal. V-25"; b) "EDWIN R. LEACH / COLLECTION / 1971 Gift to the / California Acad- / emy of Sciences". Paratype male (CASC, n = 1) labeled: a) "Oroville / V-8-35 / Cal."; b) "J.J. du Bois / Collector"; c) "EDWIN R. LEACH / COLLECTION / 1971 Gift to the / California Acad- / emy of Sciences". Paratype male (UCD, n = 1) labeled: a) "Feather Falls / Butte Co. Cal. / [V-16-1971]; b) "D.S. Chandler / Colr". Paratype males (UCD, n = 2) labeled: a) "Feather Falls / Butte Co. Cal. / 12 APRIL 1965"; b) "E.E. Grissell / Collector". All paratypes labeled, on yellow paper: "*Platyceroides* / *potax* Paulsen / PARATYPE".

Description, holotype. Coleoptera: Scarabaeoidea: Lucanidae: Lucaninae. *Length:* 12.0 mm. *Width:* 5.1 mm. *Color:* Black, with subtle green metallic reflection. *Head:* Antennal club small (about 1/2 length of scape), antennomeres of club not entirely tomentose. Labrum short. Mandibles abruptly curved inwards in basal fourth. *Pronotum:* Surface shiny with moderately deep punctures. *Elytra:* Surface alutaceous but weakly shiny with moderately deep punctures, some in vague rows, but striae not distinctly impressed. *Legs:* Meso- and metatibiae distinctly slender. *Abdomen:* Male genitalia with permanently everted internal sac narrowed abruptly before apex, apex wider in lateral view than in *P. opacus*.

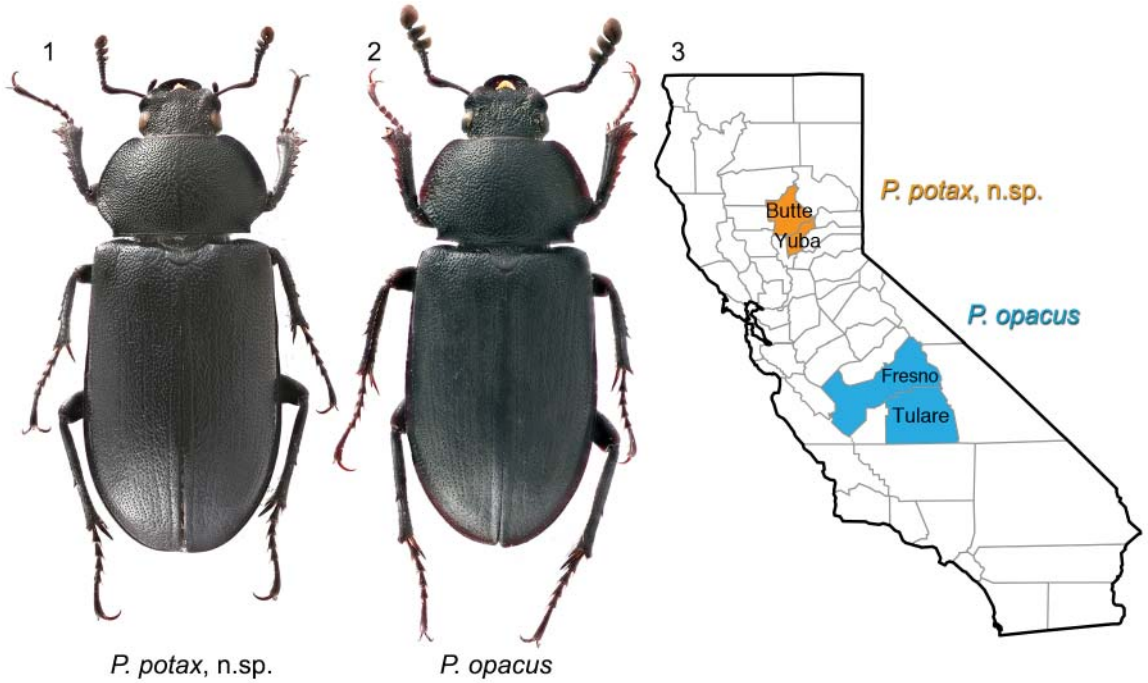
Variation in paratypes. Length: 10.2–13.0 mm. Width: 4.3–5.5 mm.

Etymology. The name is derived from the Latin *potax*, a masculine adjective in the nominative singular meaning 'fond of drink', in reference to the large series collected at ethanol traps. [latinlexicon.org]

Diagnosis. Compared to *P. opacus,* the pronotum and elytra are more deeply punctate and weakly shiny, although alutaceous. The antennal club is extremely small, about 1/2 the size of that of *P. opacus*. The meso- and metatibiae are markedly more slender than in *P. opacus*.

Distribution. United States: California: *Butte*: Coutolenc Park (205), Feather Falls (3), Oroville (1); *Yuba*: Brownsville (1).

Temporal distribution. April (2), May (3), June (205).



Figures 1-3. Species of *Platyceroides*. **1)** *Platyceroides potax*, new species. **2)** *P. opacus* (Fall). **3)** County distributions of *P. potax* n.sp. (orange) and *P. opacus* (blue) in California.

Remarks. According to the label data, the two large series were collected at ethanol traps and ethanol/pinene traps that are generally used to sample for bark beetles. It is not known if this collection method would be useful for males of other species in the genus, but it supports anecdotal evidence that some species are attracted to newly tarred roads or pine tar. The flightless females cannot be collected in such traps, and the females of the new species remain unknown.

Acknowledgments

I thank the late Dr. Charles Bellamy (CDFA) for providing the first loan of specimens from the CDFA for my research and Dr. Andrew Cline (CDFA) for locating additional specimens and permitting the distribution of paratypes from the very large type series to other institutions and research collections. I also thank David C. Hawks (Riverside, CA), Dr. Andrew B.T. Smith (Canadian Museum of Nature), and Dr. Brett Ratcliffe (University of Nebraska State Museum) for reviewing the manuscript.

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