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## The multiform genus *Psyrassa* Pascoe (Coleoptera: Cerambycidae: Elaphidiini): new species, new records, synonyms and transfers

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Abstract. *Megapsyrassa* Linsley, 1961 is synonymized with *Psyrassa* Pascoe, 1866 (Coleoptera: Cerambycidae). *Aneflomorpha martini* Chemsak and Linsley, 1968 is synonymized with *Psyrassa sinaloae* Linsley, 1935, and the species is transferred to *Aneflomorpha* Casey, 1912, **new combination**. Morphological and chromatic variations in *Psyrassa cylindricollis* Linsley, 1935 are reported, and a new state record is provided. New records are provided for the following species: *Psyrassa atkinsoni* (Chemsak and Giesbert, 1986) **new combination**; *P. ebenina* Linsley, 1935; and *P. nigripes* Linsley, 1935. Lastly, four **new species** of *Psyrassa* Pascoe, 1866 are described: *Psyrassa wappesi* García and Santos-Silva, from Mexico (Jalisco); and *P. ocularis* García and Santos-Silva, from Guatemala (Zacapa).

Key words. Central America, Neotropical, North America, taxonomy.

ZooBank registration. urn:lsid:zoobank.org:pub:194F7545-EF7C-44B7-9783-286A8BDEB1EC

#### Introduction

*Psyrassa* Pascoe, 1866 is an exclusively American genus, occurring from the United States of America to northern South America, including the Caribbean. The genus currently comprises 48 species (Monné 2022; Tavakilian and Chevillotte 2021). The review of *Psyrassa* by Toledo (2005) is an essential tool for anyone who needs to identify specimens of this extremely difficult genus. According to Toledo (2005) (translated): "In the phylogenetic aspect, there is only the work by Lingafelter (1998), where the monophyly of the Elaphidiini tribe was analyzed and the genealogical relationships between their genera were established. In this study, *Psyrassa* was represented with three species and was presented as a monophyletic group." However, although only three species appeared in the trees by Lingafelter (1998), he examined 17 species. Furthermore, the definition of some features of *Psyrassa* in Lingafelter (1998) does not agree with that in Toledo (2005). For example, Lingafelter (1998) reported the procoxal cavities open posteriorly, while Toledo (2005) reported them as open or closed.

Also, the key to species of this review needs to be used carefully, as some features are often at least variable in the species. During the process of identification of a large number of specimens from Mexico and Central America sent by the late James E. Wappes, we noted some of these variations in known and new species. Some of the intraspecific variations we were able to find were the shape of the apex of the spine of the antennomere III, which may be distinctly blunt or more acute, and the length of the spine of the basal antennomeres, which may be variable when compared with the same structure in other specimens or when compared with pedicel length. No useful key can include all possible variations in a given group, as it would become extremely complex. However, we think it is important to mention these variations. Additionally, the species included in the second option of the alternative of couplet "1," (head slender, genae large), are not true *Psyrassa*, and may belong to one or two different genera, especially when considering the shape of the last palpomeres in males (securiform or campaniform). However, as we have few specimens from this group of species, we prefer to keep them provisionally in *Psyrassa*.

### Materials and Methods

Photographs were taken in the MZSP with a Canon EOS Rebel T3i DSLR camera, Canon MP-E  $65mm f/2.8 1-5 \times macro lens$ , controlled by Zerene Stacker AutoMontage software. Measurements were taken in "mm" using a measuring ocular Hensoldt/Wetzlar - Mess 10 in the Leica MZ6 stereomicroscope, also used in the study of the specimens.

Identifications were made studying original descriptions, redescriptions, photographs of type specimens, and specimens from MZSP collection (see acronym below). The terminology used herein for morphological structures follows Lawrence et al. (2010).

The acronyms used in the text are as follows:

ACMT James E. Wappes, American Coleoptera Museum (currently deposited in the FSCA)

- EMEC Essig Museum of Entomology, University of California, Berkeley, California, USA
- FSCA Florida State Collection of Arthropods, Gainesville, Florida, USA

FWSC Frederick W. Skillman Collection, Phoenix, Arizona, USA

LGBC Larry G. Bezark Collection, Sacramento, California, USA

MZSP Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil

RCPC Ronald Cave Private Collection, Florida

USNM National Museum of Natural History, Washington, D.C., USA

WHTC William H. Tyson Collection, Coarsegold, California, USA

#### Results

#### On the Differences Between *Psyrassa* Pascoe, 1866 and *Megapsyrassa* Linsley, 1961

Remarks. Linsley (1961) separated Psyrassa from Megapsyrassa in his keys as follows: "Episterna of metasternum not covered by elytra," leading to Psyrassa; "Episterna of metasternum very narrow, covered by elytra, except toward base; spines of third and fourth antennal segments stout and recurved, that of third segment not disproportionately larger than that of fourth segment," leading to Megapsyrassa. Linsley (op. cit.) described Megapsyrassa as follows: "Integument polished, shining, sparsely punctate, very thinly pubescent. Pronotum cylindrical, smooth, without a lateral tubercle. Antennae of male not attaining elytral apices, eleventh segment appendiculate, grooves and carinae indistinct, spines of third and fourth segments, coarse, curved, acute, spine of fourth segment a little shorter than that of third, those of fifth and sixth segments straight, successively shorter, that of seventh segment minute. Elytral apices emarginate, inner angle sub-dentiform, outer angle acute but not spinose. Intermediate and posterior femora gradually enlarged, not clavate or pedunculate, apices not spinose, posterior tibiae carinate. Prosternum with intercoxal process arcuately declivous, apex expanded but not closing coxal cavities. Mesosternum with intercoxal process concave in front; intermediate coxal cavities closed. Metasternum with episterna very narrow, covered by elytra except toward base." And pointed out: "The affinities of this genus are not clear. It should probably be placed next to *Psyrassa*, from which it differs in the extremely narrow metathoracic episterna, the unusually heavy, recurved spines of the third and fourth antennal segments (in Psyrassa the spines are nearly always slender and that of the third segment is usually disproportionately long) and the large size of the included species."

Later, Chemsak and Linsley (1963) described *Pseudaneflus* to include their new species: *P. auricomis* and *P. puncticollis*. Martins (1967) synonymized *Pseudaneflus* with *Megapsyrassa* and reported (translated): "The features used to separate *Pseudoaneflus* [*sic*] from *Megapsyrassa* are inoperative for *Megapsyrassa xestioides*, type of

the genus *Megapsyrassa xestioides* separates from *M. auricomis* and *M. puncticollis* by the absence of sericeous pubescence on the vertex, pronotum, elytra, and sides of the abdominal ventrites."

Lingafelter (1998) reported that "*Psyrassa* generally are smaller, have a posterolateral pronotal constriction, have linear antennae (usually slightly expanded apically in *Megapsyrassa*) and have the metepisternum completely exposed below the keel."

After examination of a large number of specimens from both genera, we realized that the features currently reported to separate Megapsyrassa from Psyrassa are not reliable. In fact, considering the species currently included in Megapsyrassa, there is not a single difference to support it as different from Psyrassa Pascoe, 1866. The length of the spines of the antennomeres III and IV in Psyrassa are extremely variable, and may be identical to that in the type species of Megapsyrassa, as well as in other species included in it. The antennae are variable in males of *Psyrassa*, from not reaching elytral apex to distinctly surpassing. The apex of the basal flagellomeres is variable in *Psyrassa*, in some cases, identical to that in *Megapsyrassa*. The metanepisternum in *Psyrassa* (Fig. 4–7), not rare, is only distinctly seen in the anterior region (Fig. 6-7), as in the type species of Megapsyrassa, in which the shape of the metanepisternum is intraspecifically variable (Fig. 2–3). The posterolateral constriction is also present in some species of Megapsyrassa, including the type species (Fig. 1). The apex of the meso- and metafemora is variable in *Psyrassa* and may be identical to that in *Megapsyrassa*. Thus, following the original description of Megapsyrassa, only one feature may be somewhat helpful: the size of the species. However, we believe that this is a very poor feature to allow separating genera. Also, it is important to note that there are species in Megapsyrassa, for example M. atkinsoni Chemsak and Giesbert, 1986 (Fig. 13) that do not follow the features originally reported to the genus, for example, the body size (much shorter than in the type species) and size of the antennae in male, which surpass the elytral apex. Although *Psyrassa* appears to be a group of genera due to the different body, prothoracic, eyes, genal, femoral and elytral shapes, we think it is more coherent to synonymize Megapsyrassa with it due to the absence of reliable features separating them. Notwithstanding, if the concept of Megapsyrassa by Martins (1967) is accepted, Pseudaneflus equal to Megapsyrassa, then the separation between Psyrassa and Aneflomorpha Casey, 1912 is also questionable. This is because only the abundant decumbent pubescence on the pronotum and elytra may be used to separate Psyrassa from Aneflomorpha. As we have no specimens of M. auricomis and M. puncticollis, it was not possible to exclude or confirm them in Psyrassa.

#### Synonymy and Transference

#### Aneflomorpha sinaloae (Linsley, 1935), new combination

(Fig. 8–12)

- Psyrassa sinaloae Linsley 1935a: 145; Blackwelder 1946: 567 (checklist); Franz 1954: 219 (distr.); Chemsak et al. 1992: 47 (cat.); Monné 1993: 12 (cat.); Monné and Giesbert 1994: 61 (checklist); Noguera and Chemsak 1996: 399 (checklist); Monné 2005: 242 (cat.); Toledo 2005: 48; Monné and Hovore 2006: 72 (checklist); Monné 2022: 425 (cat.).
- Aneflomorpha martini Chemsak and Linsley 1968: 32; Ruette 1970: 18 (type); Chemsak et al. 1992: 37 (checklist); Monné 1993: 29 (cat.); Monné and Giesbert 1994: 48 (checklist); Noguera and Chemsak 1996: 398 (checklist.); Noguera et al. 2002: 623 (distr.); Monné 2005: 184 (cat.); Monné and Hovore 2006: 60 (checklist); Monné 2022: 322 (cat.). New synonym.

**Remarks.** *Psyrassa sinaloae* Linsley, 1935 and *Aneflomorpha martini* Chemsak and Linsley, 1968 (see photographs on Bezark 2022) were described from Sinaloa (Mexico). Comparing photographs of the holotypes as well as original descriptions and redescription of the former, we conclude that they are the same species. Therefore, they are synonymized herein. The differences between *Psyrassa* Pascoe, 1866 and *Aneflomorpha* Casey, 1912 are questionable. Linsley (1961) separated these two genera in his key as follows: "Pronotum polished, glabrous, sparsely punctate," leading to *Psyrassa*; "Pronotum densely punctate or pubescent, or punctate with smooth spaces or polished dorsal callosities," leading to *Aneflomorpha*. However, the sculpturing of the pronotum in *Psyrassa* is very variable, and may be identical to that in species of *Aneflomorpha*, sometimes with distinct smooth area; the pubescence on the pronotum may or may not be present in *Psyrassa*, although when present, always sparse or restricted to the posterior region. According to Lingafelter (1998): "*Aneflomorpha* strongly resembles *Psyrassa*; indeed, the two genera share many characters ... Both of these genera are species and probably are polyphyletic; each containing some taxa that should belong in the other ... The lack of a strong pronotal constriction,

more heavily punctate and pubescent pronotum, general openness of the procoxal cavities posteriorly, and longer third antennomere in *Aneflomorpha* distinguish it from *Psyrassa*". We agree that these two genera appear to be polyphyletic and that there are species of *Psyrassa* in *Aneflomorpha* as well as vice versa. However, the shape of the procoxal cavities posteriorly and the length of the antennomere III cannot be used to separate them. This is because these features are very variable in *Psyrassa*. Furthermore, the prothorax may or may not be strongly constricted in *Psyrassa*. For now, the only reliable difference between *Psyrassa* and *Aneflomorpha* is decumbent pubescence on the pronotum and elytra, sparser or absent in the former, abundant in the latter (Fig. 8, 12).

Based on the pronotal and elytral pubescence in *Psyrassa sinaloae*, it is transferred to *Aneflomorpha*. Currently, it is known from Mexico (Sinaloa, Morelos, Michoacán, Jalisco) (Monné 2022; Tavakilian and Chevillotte 2021).

**Material examined.** MEXICO, MICHOACÁN: Hwy MX37, 98 km S Nueva Italia, 1 female, 13.VII.2006, F. Skillman and D.C. Hildebrant leg. (MZSP, formerly FWSC); 2 females, 15.VII.2006, F. Skillman and D.C. Hildebrant leg. (FWSC). JALISCO: 7 km N Autlán de Navarro, rd. to Microondas de San Francisco, 19.83506N 104.34757W, 1 female, F. Skillman and J.F. Limon leg. (FWSC).

#### New records and Taxonomic Notes

#### Psyrassa atkinsoni (Chemsak and Giesbert, 1986), new combination

(Fig. 13-14)

Megapsyrassa atkinsoni Chemsak and Giesbert 1986: 31; Chemsak et al. 1992: 44 (cat.); Monné 1993: 15 (cat.); Monné and Giesbert 1994: 55 (checklist); Chemsak and Noguera 1995: 59 (distr.); Noguera and Chemsak 1996: 398 (checklist); Monné 2005: 219 (cat.); Monné and Hovore 2006: 68 (checklist); Audureau 2008: 7 (distr.); Swift et al. 2010: 17 (distr.); Maes et al. 2010: 207 (distr.; part); Zaragoza-Caballero and Pérez-Hernández 2017: 35 (holotype).

**Remarks.** The figures on page 212 from Maes et al. (2010) do not correspond to *P. atkinsoni*. In fact, the two figures at the top of the page do not even belong to *Psyrassa*.

*Psyrassa atkinsoni* was described from Mexico (Jalisco, Chiapas) and Costa Rica. Currently, it is also known from Nicaragua (Monné 2022; Tavakilian and Chevillotte 2021).

**Material examined.** GUATEMALA (**new country record**), ZACAPA: Quarry road to San Lorenzo, Sierra Las Minas, 15°04′N 89°67′W, 555 m, 1 female, 29.V.2019, Wappes, Monzón and Skillman leg. (FSCA, formerly ACMT).

#### Psyrassa cylindricollis Linsley, 1935

(Fig. 19-57)

Psyrassa cylindricollis Linsley 1935a: 144; Franz 1954: 219 (distr.); Chemsak et al. 1988: 292 (distr.); Chemsak et al. 1992: 46 (checklist); Monné 1993: 11 (cat.); Monné and Giesbert 1994: 60 (checklist); Chemsak and Noguera 1995: 59 (distr.); Noguera and Chemsak 1996: 399 (checklist); Monné 2005: 240 (cat.); Toledo 2005: 27; Monné and Hovore 2006: 72 (checklist); Monné 2022: 422 (cat.).

**Remarks.** Linsley (1935a) described *P. cylindricollis* based on a pair from Mexico (Sinaloa). Franz (1954) recorded this species from El Salvador; Chemsak et al. (1988) recorded the Mexican state of Jalisco; and Toledo (2005) included the Mexican states of Colima and Sonora. Although Toledo (2005) included Franz (1954) in the *P. cylindricollis* references, he only listed the species from Mexico.

We examined 11 specimens from the Mexican states of Michoacán and Jalisco. At first glance, there are apparently at least two species in this batch of specimens. However, a further examination revealed that they belong to a single, variable species. Specimens at the extremes appear to be distinctly different, but there are specimens linking these extremes. Notwithstanding, the general appearance, shape of the prothorax (not length), color of the antennae, head, prothorax, and legs (varying only in tone), sculpturing of the prothorax, gulamentum, elytra, and ventral surface of the thorax, are very constant. Consequently, the only possible conclusion is that there is dramatic intraspecific variation.

The most remarkable variations observed were:

- 1. Proportion between length of prothorax and elytra: elytra from 3.30 to 3.85 times prothoracic length (e.g. Fig. 19, 45);
- 2. Length of the spine of the antennomere III (e.g. Fig. 19, 23, 28, 33, 40, 46–57): from about as long as pedicel to slightly longer than twice pedicel length;
- 3. Apex of the spine of the antennomere III: from acute to distinctly blunt (e.g. Fig. 46–57);
- 4. Spine on the apex of the antennomere IV from 0.37 to 0.75 times pedicel length;
- 5. Antennomere V with spicule on the apex or with spine 0.5 times pedicel length;
- 6. Antennomere VI without spine or spicule or with spicule (e.g. Fig. 28);
- 7. Antennae in male from distinctly long, surpassing elytral apex about middle of antennomere IX, to shorter, surpassing elytral apex about base of antennomere XI;
- 8. Antennae in female from not reaching elytral apex to surpassing elytral apex;
- 9. Head, scape, and prothorax from light reddish-brown to dark reddish-brown (sometimes yellowish-brown);
- 10. Femora from orangish brown to dark reddish-brown;
- 11. Elytra from bluish-black to reddish-brown (often, with both colors irregularly distributed);
- 12. Metaventrite and abdominal ventrites from reddish-brown to blackish;
- 13. Sutural projection of the elytral apex from blunt to acute.

**Material examined.** MEXICO, MICHOACÁN (**new state record**): Hwy MX37, 98 km S Nueva Italia, 2 males, 2 females, 15.VII.2006, F.W. Skillman and D.C. Hildebrandt leg. (FWSC; 1 male MZSP, formerly FWSC). JALISCO: José Maria Morelos, km 5, Carr 200, 174 ft., 1 male, 1 female, 29.VI-3.VII.2004, J.F. Limón leg. (FWSC); 19.2387N 104.70944W, jct. MX200 and MX80, @Pemex, 1 male, 5.VII.2018, Skillman and Limón leg. (MZSP, formerly FWSC); 2 km WNW Manzanilla, 19.29835N 104.77167W, 1 male, 1 female, 6.VII.2018, Skillman and Limón leg. (FWSC); MX200, 21 km N Melaque, 1 male, 1 female, 6.VII.2006, Skillman and Hildebrandt leg. (FWSC). SINALOA: Mazatlan, 2 females, 22.VII.1954, no collector indicated (MZSP); 5 mi. N Mazatlan, 1 female, 28.VII.1964, no collector indicated (MZSP); 4 mi. S Villa Union, 1 male, 23.VI.1963, no collector indicated (MZSP).

#### Psyrassa ebenina Linsley, 1935

(Fig. 91–94, 97–100)

*Psyrassa ebenina* Linsley 1935a: 143; Blackwelder 1946: 567 (checklist); Franz 1954: 219 (distr.); Chemsak et al. 1980: 29 (distr.); Chemsak et al. 1992: 46 (cat.); Monné 1993: 11 (cat.); Monné and Giesbert 1994: 60 (checklist); Turnbow et al. 2003: 10 (distr.); Monné 2005: 241 (cat.); Toledo 2005: 29; Monné and Hovore 2006: 72 (checklist); Lingafelter et al. 2014: 56 (holotype); Bezark et al. 2019: 121 (distr.); Santos-Silva et al. 2019: 4 (key); Monné 2022: 422 (cat.).

**Remarks.** *Psyrassa ebenina* was described from El Salvador. Currently, it is also known from Honduras and Guatemala (Suchitepéquez) (Monné 2022; Tavakilian and Chevillotte 2021). Herein, we record it (Fig. 91–94) for Baja Verapaz in Guatemala.

**Material examined.** GUATEMALA, BAJA VERAPAZ (**new department record**): 3 km S Purulha, 1658 m, montane forest, 15°12.965'N 90°13.142'W, 1 male, 27–30.VI.2012, E. Fuller leg. (WHTC). Specimens examined through photographs: 1 female from Guatemala (Suchitepéquez) (LGBC); 2 males from El Salvador (Ahuachapan) (LGBC); 1 female from El Salvador (San Salvador) (EMEC); 2 specimens from Honduras (RCPC); 3 specimens from El Salvador (RCPC); holotype female from El Salvador (San Salvador) (USNM).

#### Psyrassa nigripes Linsley, 1935

(Fig. 15)

*Psyrassa nigripes* Linsley 1935b: 78; Blackwelder 1946: 567 (checklist); Chemsak et al. 1992: 47 (cat.); Monné 1993: 11 (cat.); Monné and Giesbert 1994: 61 (checklist); Noguera and Chemsak 1996: 399 (checklist); Monné 2005: 241 (cat.); Toledo 2005: 38; Monné and Hovore 2006: 72 (checklist); Monné 2022: 423 (cat.).

**Remarks.** *Psyrassa nigripes* was described and previously recorded only from the Mexican state of Mexico (Tavakilian and Chevillotte 2021; Monné 2022). **Material examined.** MEXICO, JALISCO (**new state record**): jct. MX200 and MX80, @Pemex, 1 female, 6.VII.2018, Skillman and Limón leg. (FWSC); MX200, Los Angeles Locos sign, 19.32000N 104.82654W, 1 male, 6.VII.2018, Skillman and Limón leg. (FWSC); MX200, 21 km N Melaque, Los Angeles Locos sign, 1 female, Skillman and Hildebrandt leg. (MZSP, formerly FWSC).

#### **New Species Descriptions**

#### Psyrassa wappesi García and Santos-Silva, new species

#### (Fig. 58–64)

**Description. Holotype male.** Head capsule, mandibles and prothorax black; posterocentral region of ventral surface of head brown; anteclypeus dark brown close to postclypeus, brownish on wide area close to labrum; labrum testaceous laterally, black centrally close to anteclypeus, reddish-brown anterocentrally; ventral mouth-parts brown with dark brown areas interspersed posteriorly, yellowish-brown anteriorly, except palpi reddish with yellowish apex; antennae black basally, gradually light reddish-brown toward apex. Ventral surface of meso-and metathorax dark brown with blackish margins, and brown posterior area of mesoventrite and central area of metaventrite. Elytra mostly black, with sutural and epipleural regions more dark reddish-brown. Femora reddish-brown basally, gradually reddish-brown toward club; tibiae blackish on basal half, gradually reddish-brown toward apex; tarsi mostly brown, darker on pro- and mesotarsi. Ventral surface of abdomen mostly dark reddish-brown with irregular blackish areas interspersed.

Head. Frontal plate smooth, glabrous; remaining surface of frons nearly smooth centrally, coarsely punctate laterally; nearly all punctures with a short white seta. Area between antennal tubercles and upper eye lobes finely, sparsely punctate, each puncture with a short whitish seta, and a few long, erect yellowish-brown setae close to eyes; dorsal area close to prothorax coarsely, abundantly punctate, punctures mostly transverse, with a few short yellowish-white seta. Antennal tubercles smooth, glabrous frontally and on apex, finely, sparsely punctate on remaining surface; each puncture with short white seta. Area behind eyes smooth on narrow area close to eye, coarsely, densely punctate on remaining surface behind upper eye lobe, transversely striate behind lower eye lobes, with a few fine punctures interspersed; area behind upper eye lobes with sparse, short, decumbent yellowish-brown setae, and a few long, erect setae of same color interspersed close to eye; area behind lower eye lobes glabrous, except a few short yellowish-white setae inferiorly. Genae short, with the anterior margin of lower eye lobe almost touching distal margin at middle; finely, sparsely punctate, with a few short, decumbent yellowishwhite setae, except smooth and glabrous apex. Maxillary palpomere IV and labial palpomere III securiform. Median groove distinct from clypeus to area between upper eye lobes. Wide central area of postclypeus coarsely, abundantly, shallowly punctate; with short, decumbent white setae, and one long, erect yellowish-brown seta on each side. Sides of postclypeus smooth, glabrous. Labrum finely, densely punctate on central area of posterior and anterior thirds, smooth on remaining surface; posterior punctate area with short white setae not obscuring integument, and a few long, erect yellowish-brown setae laterally; anterior punctate area with abundant, somewhat long, bristly yellowish-brown setae; remaining surface glabrous. Gulamentum smooth, glabrous on posterior third, somewhat transversely striate, glabrous on central third, transversely striate punctate, with sparse, both white and short, long and erect brownish setae on anterior third. Outer side of mandibles coarsely, densely punctate, except smooth apex, with decumbent, sparse yellowish-white setae and long, erect yellowish-brown setae interspersed on punctate area, glabrous on smooth area. Upper eye lobes with four rows of ommatidia (three only at apex); distance between upper eye lobes 0.38 times distance between outer margins of eyes; in frontal view, distance between lower eye lobes 0.51 times distance between outer margins of eyes. Antennae 1.6 times elytral length, reaching elytral apex at posterior quarter of antennomere X. Scape coarsely, abundantly punctate, except smooth apex of dorsal surface and upper region of the outer margin (this area projected toward anterior third laterally); nearly all punctures with short yellowish seta, and a few punctures with long, erect seta of the same color (erect setae more abundant ventrally). Pedicel and antennomeres III-XI with abundant yellowish-white pubescence not obscuring integument, denser from IV; pedicel and antennomeres III-VII with long, erect, sparse yellow setae ventrally, gradually sparser toward VII; apex of antennomeres III-X with long, erect, sparse setae on dorsal apex; antennomere III weakly longitudinally carinate dorsally; antennomere IV weakly longitudinally carinate dorsally; remaining antennomeres not carinate dorsally; inner apex of antennomere III with spine 1.5 times pedicel length, with acute apex; inner apex of antennomere IV with spine distinctly shorter than pedicel, with acute apex; inner apex of antennomeres V–VI with spicule (shorter on VI). Antennal formula (ratio) based on length of antennomere III (excluding spine): scape = 0.89; pedicel = 0.24; IV = 0.97; V = 1.13; VI = 1.16; VII = 1.21; VIII = 1.16; IX = 1.03; XI = 1.21.

Thorax. Prothorax distinctly longer than wide; anterior and posterior constrictions well-marked. Pronotum with three gibbosities, one on each side of anterior third, another less distinct, located centrally from after middle to near posterior constriction; punctation coarse and sparse, however absent centrally from apex of anterior third to apex of central gibbosity, and almost absent on anterolateral gibbosities; some punctures with minute white seta, and others with long, erect yellowish seta. Sides of prothorax coarsely, abundantly punctate on wide central area, obliquely striate-punctate on posterior quarter, and partially transversely striate on anterior quarter; with long, erect, somewhat abundant yellowish-brown setae on wide central area, almost absent on anterior and posterior quarters. Prosternum rugose, finely, abundant punctate on posterior half, transversely striate on anterior half, less so on center of this area; posterior half with abundant whitish pubescence not obscuring integument, forming irregular U-shaped band, and long, erect yellowish setae interspersed; remaining surface with a few short white setae, and a few long, erect yellowish setae laterally. Prosternal process with abundant whitish pubescence not obscuring integument; narrowest area 0.25 times procoxal width. Procoxal cavities distinctly opened posteriorly. Mesoventrite with very sparse whitish pubescence centrally, dense laterally. Mesanepisternum, mesepimeron, metanepisternum, and sides of metaventrite with dense whitish pubescence partially obscuring integument; wide central area of metaventrite coarsely, sparsely punctate, except smooth area close to metathoracic discrimen, and long, erect yellowish seta on nearly all puncture. Scutellum with dense white pubescence.

**Elytra.** Coarsely, abundantly punctate on basal half, punctures gradually finer, sparser toward apex on posterior half; distance between punctures on anterior half distinctly larger than diameter of a puncture, often more than three times; some punctures with long, erect yellow setae, and some punctures with minute yellowish-white seta (more abundant on posterior third); apex widely concave, with outer and sutural angles triangularly projected (projection shorter on sutural angle).

Legs. Femora finely, sparsely punctate on basal third, coarsely, abundantly punctate on remaining surface, punctures coarser and confluent on posterior third, especially on meso- and metafemora; with long, suberect yellow setae, more abundant on posterior <sup>3/3</sup> of meso- and metafemora, and yellowish-white decumbent setae interspersed, especially on basal third and ventral surface. Tibiae carinate, with abundant, long, erect yellow setae, sparser on basal third of protibiae, and denser, bristly yellow pubescence on ventral surface of posterior third. Metatarsomere I shorter than II–III together.

**Abdomen.** Ventrites finely, somewhat abundant punctate; sides with dense grayish-white pubescence, sparsely projected toward central region from ventrite 2, and long, erect yellow setae on wide central region. Apex of ventrite 5 widely emarginate centrally.

**Dimensions in mm (holotype male).** Total length, 16.35; prothoracic length, 3.00; anterior prothoracic width, 2.00; posterior prothoracic width, 2.10; maximum prothoracic width, 2.45; humeral width, 3.00; elytral length, 11.20.

**Type material.** Holotype male from MEXICO, MICHOACÁN: Hwy MX37, 98 km S Nueva Italia, 13.VII.2006, F.W. Skillman and D.C. Hildebrandt leg. (FSCA, formerly FWSC).

**Etymology.** The specific epithet "*wappesi*" is in honor to the late James Wappes, who sent a great number of specimens used in this study.

**Remarks.** According to Toledo's key to species (2005), *Psyrassa wappesi* **new species**, could follow both options of couplet "18", since the genal length is between the two lengths mentioned: equal or smaller than <sup>1</sup>/<sub>5</sub>; or about <sup>2</sup>/<sub>3</sub>. If the first option is followed, *P. wappesi* **new species** could be included in the alternative of couplet "19" and compared to *P. ebenina* Linsley, 1935 (see photograph on Bezark 2022); *P. wappesi* **new species** differs from this species especially by the slender body (stouter in *P. ebenina*), elytral punctures and setae sparser (denser in *P. ebenina*), and absence of abundant decumbent elytral setae (present in *P. ebenina*). If the second option of the alternative of couplet "18" was followed, the new species can be compared to *P. oaxacae* Toledo, 2002, from which

it differs noticeable by the slender body (stouter in *P. oaxacae*), and prothorax without distinct basal constriction (present in *P. oaxacae*). *Psyrassa wappesi* **new species** also resembles *P. nigroaenea* Bates, 1892 (see photograph of the holotype on Bezark 2022; Fig. 65–67), but differs by the sparser elytral punctures (denser in *P. nigroaenea*), and only the antennomere III distinctly carinate dorsally (antennomeres III–VII dorsally carinate in *P. nigroaenea*).

As we already discussed, there is variation in the shape of the apex of the spine of antennomere III. If it was considered as not acute, *P. wappesi* **new species** could be included in the alternative of couplet "15" from Toledo (2005), and compared to *P. cylindricollis* Linsley, 1935, and *P. brevicornis* Linsley, 1934. It differs from both especially by the scape not contrasting in color with the basal flagellomeres (distinctly contrasting in *P. cylindricollis* (e.g. Fig. 30) and *P. brevicornis*).

#### Psyrassa sonorensis García and Santos-Silva, new species

#### (Fig. 68–73)

**Description. Holotype male.** Head capsule (lighter ventrally), clypeus, and prothorax dark reddish-brown, with some areas darker; mandibles reddish-brown on basal <sup>3</sup>/<sub>3</sub>, black on apical third; labrum dark reddish-brown on anterocentral region, with some areas darkened, and yellowish-brown on margins; ventral mouthparts mostly reddish-brown, except yellowish-brown palpomeres; antennae reddish-brown, gradually lighter toward apex. Ely-tra dark reddish-brown on basal quarter, reddish-brown on remaining surface, except posterior quarter slightly darker. Apices of mesoventral process orangish-brown. Legs reddish-brown. Abdominal ventrites 1–3 dark brown, except base reddish-brown, apex of ventrites 1–2 reddish-brown, and apex of ventrite 3 yellowish-brown; ventrite 4 dark reddish-brown, except reddish-brown base and yellowish-brown apex; ventrite 5 reddish-brown.

Head. Frontal plate narrow, smooth, glabrous; remaining surface of frons coarsely, sparsely punctate, except rugose-punctate area between antennal tubercles and clypeus; punctures on central area with both short and long, decumbent yellowish-white seta; rugose-punctate area with short, decumbent, sparse yellowish-white setae. Area between antennal tubercles and middle of area between upper eye lobes, somewhat coarsely, sparsely punctate, except for smooth center, punctures with short, decumbent yellowish-white seta; remaining surface of vertex coarsely, abundantly punctate, punctures coarser close to prothorax, confluent laterally; part of punctures with short, decumbent yellowish-white seta, and area close to eyes with long, erect setae of same color interspersed. Antennal tubercles somewhat finely, sparsely punctate, except smooth apex; each puncture with short, decumbent yellowish-white seta. Area behind upper eye lobes coarsely, densely punctate, except smooth narrow area close to eye; some punctures with short, decumbent yellowish-white seta. Area behind lower eye lobes almost smooth close to eye, coarsely, abundantly punctate close to prothorax, punctures finer toward ventral surface; with short, sparse yellowish-white setae on punctate area, and both short and long, erect and sparse yellowishwhite setae close to lower region of eye. Genae short, with the anterior margin of lower eye lobe touching distal margin close to clypeus; finely rugose-punctate, except smooth apex, with short, decumbent, sparse yellowishwhite setae, except glabrous smooth area. Maxillary palpomere IV and labial palpomere III securiform. Median groove distinct from frontal plate to area between upper eye lobes. Wide central area of postclypeus coarsely, abundantly punctate; with sparse, decumbent yellowish-white setae, and a few long, erect yellowish-brown setae on each side. Sides of postclypeus smooth, glabrous. Apical margin of postclypeus smooth. Posterocentral area of labrum finely, abundantly punctate, and remaining surface smooth; with short, bristly white setae on punctate area, except sides with a few long, erect yellowish-brown setae, and short, suberect, abundant yellowish-brown setae on anterocentral area. Gulamentum smooth, glabrous on posterior 3/4, rugose-punctate, with long, erect, abundant yellowish setae on anterior third. Outer side of mandibles coarsely, densely punctate, except smooth apex, with decumbent, somewhat sparse yellowish-white setae and long, erect yellowish-brown setae interspersed on punctate area, glabrous on smooth area. Upper eye lobes with three rows of ommatidia; distance between upper eye lobes 0.41 times distance between outer margins of eyes; in frontal view, distance between lower eye lobes 0.52 times distance between outer margins of eyes. Antennae 1.5 times elytral length, reaching elytral apex at base of antennomere XI. Scape coarsely, abundantly punctate, except smooth apex (this area widened toward outer side of dorsal surface); some punctures with short, decumbent yellowish-white seta dorsally, laterally, and on basal half of ventral surface; with a few long, erect seta of same color dorsally and laterally, and long, erect seta of same color on posterior half of ventral surface. Pedicel and antennomeres III-XI with yellowish pubescence

not obscuring integument; pedicel and antennomeres III–X with long, erect pale yellow setae ventrally and apex of dorsal surface, erect setae gradually shorter and sparser toward antennomere X; antennomeres III–VI with distinct longitudinal carina dorsally; inner apex of antennomere III with spine 1.5 times pedicel length, with blunt apex; inner apex of antennomere IV with spine 0.7 times pedicel length, with acute apex; inner apex of antennomere V with spine 0.4 times pedicel length, with acute apex; inner apex of antennomere VI–VII with spicule, shorter on VII. Antennal formula (ratio) based on length of antennomere III (excluding spine): scape = 0.67; pedicel = 0.29; IV = 0.79; V = 0.91; VI = 0.94; VII = 0.97; VIII = 0.91; IX = 0.85; X = 0.76; XI = 0.88.

Thorax. Prothorax distinctly longer than wide; anterior and posterior constrictions well-marked, especially posterior one. Pronotum with four slightly distinct rounded gibbosities, one on each side of anterior and posterior thirds, another more distinct, elongated, located centrally on posterior half; coarsely, somewhat abundant punctate, except smooth central gibbosity and almost smooth on apex of posterolateral gibbosities; punctures with three types of erect yellowish setae, minute, short, or long, but a few punctures lacking seta. Sides of prothorax coarsely, abundantly punctate on wide central area, striate on posterior quarter, and striate-punctate on anterior quarter; with long, erect, abundant yellowish setae. Prosternum coarsely, slightly rugose on posterior <sup>2</sup>/<sub>2</sub>, transversely striate-punctate close to anterior margin, and transversely striate, with a few punctures interspersed between the former two areas; posterior <sup>2</sup>/<sub>3</sub> with abundant grayish-white pubescence not obscuring integument, and long, erect yellowish setae interspersed; area close to anterior margin with bristly, both short and long yellowish-white setae, yellower laterally, and remaining anterior third almost glabrous. Prosternal process with grayish-white pubescence not obscuring integument, slightly yellower toward apex; narrowest area 0.23 times procoxal width. Procoxal cavities distinctly opened posteriorly (Fig. 71). Mesoventrite, mesanepisternum, mesepimeron, metanepisternum, and sides of metaventrite and areas close to meso- and metacoxae with abundant grayish-white pubescence, partially obscuring integument on some areas, except glabrous area of mesanepisternum close to metaventrite; remaining surface of metaventrite with long, erect pale yellow setae, except glabrous area close to metathoracic discrimen; metaventrite coarsely, somewhat abundant punctate, except smooth area close to metathoracic discrimen. Scutellum with abundant yellowish-white pubescence.

**Elytra.** Coarsely, abundantly punctate on anterior third, punctures gradually finer, sparser toward apex, especially on posterior quarter; some punctures with short or minute yellowish seta, and others with long, erect yellowish seta; elytral apex slightly obliquely truncate, with outer angle rounded, and sutural angle roundly projected.

Legs. Femora coarsely rugose-punctate, especially toward apex, more transversely striate on inner lateral surface of profemora; with somewhat abundant yellowish setae, mostly short and decumbent basally, and long, erect on remaining surface; inner and outer apex of meso- and metafemora with rounded projection. Tibiae with abundant, long, erect yellow setae, sparser on basal third of protibia, and denser, bristly yellowish-brown pubescence on ventral surface of protibiae and posterior third of meso- and metatibiae. Metatarsomere I slightly shorter than II–III together.

**Abdomen.** Ventrites somewhat finely, abundantly punctate; sides of ventrites 1–4 with dense grayish-white pubescence, gradually narrowed from base to apex, and remaining surface with sparse grayish-white pubescence and long, erect yellowish-brown setae interspersed, except glabrous apex; ventrite 5 with abundant grayish-white pubescence not obscuring integument, and long, erect yellowish-brown setae interspersed, especially on posterior third. Apex of ventrite 5 widely emarginate centrally.

**Variation.** Antennomere VII without spicule in one paratype; elytral apex straightly truncate; elytral sutural apex subacute.

**Dimensions in mm (holotype male/paratypes male).** Total length, 12.80/11.60–12.30; prothoracic length, 2.30/2.15–2.30; anterior prothoracic width, 1.60/1.40–1.60; posterior prothoracic width, 1.55/1.45–1.60; maximum prothoracic width, 1.85/1.65–1.80; humeral width, 2.45/2.30–2.50; elytral length, 8.65/7.95–8.35.

**Type material.** Holotype male from MEXICO, SONORA: San Javier, 4.VII.2008, F.W. Skillman, O'Brien and Ribardo leg. (FSCA, formerly FWSC). Paratypes – 3 males, same data as holotype (2, FWSC; 1, MZSP, formerly FWSC).

Etymology. The specific epithet "sonorensis" comes from the state of the type locality "Sonora" in Mexico.

**Remarks.** *Psyrassa sonorensis* **new species** can be included in the alternative of couplet "17" from Toledo (2005). It differs from males of *P. katsurae* Chemsak and Noguera, 1995 (see photographs of the holotype on Bezark 2022) especially by the distance between lower eye lobes distinctly larger, in ventral view (Fig. 69), larger than half of the distance between outer margins of the eyes (distinctly shorter than half in males of *P. katsurae*); and from *P. nigroaenea* Bates, 1892 (see photograph on Bezark 2022; Fig. 65–67) it differs by the tibiae not contrasting in color with the femora (contrasting in *P. nigroaenea*), basal antennomeres reddish (dark brow to black in *P. nigroaenea*), and antennomere V with apical spine (Fig. 73) (absent in *P. nigroaenea* (Fig. 67)).

#### Psyrassa obscuriventris García and Santos-Silva, new species

#### (Fig. 74–82)

**Description. Holotype female** (Fig. 74–80). Head capsule dark reddish-brown, except gradually yellowish-brown posterior half of gulamentum, and partially dark brown apex of antennal tubercles; mandibles reddish-brown on posterior <sup>3</sup>/<sub>2</sub>, except dark brown lower margin, and black on anterior third; scape orangish brown; pedicel and antennomere III blackish; antennomeres IV–V mostly blackish with irregular dark reddish-brown areas; antennomeres VI–XI dark reddish-brown, with some irregular areas blackish; ventral mouthparts light reddish-brown, except maxillary palpomeres I–III and labial palpomeres yellowish-brown, and maxillary palpomere IV mostly dark brown. Prothorax and ventral surface of meso- and metathorax reddish-brown, except orangish brown apex of prosternal process. Elytra dark reddish-brown, with some irregular areas darkened. Coxae, trochanters, and femora orangish brown; tibiae blackish on basal half, gradually dark reddish-brown on remaining surface; tarsi mostly brown. Abdominal ventrites 1–3 mostly black, posterior area with pale transverse band close to dark reddish-brown apex, posterocentral region of ventrites 1–2 dark reddish-brown, and central region of ventrite 3 mostly dark reddish-brown, with irregular blackish areas interspersed, except pale apex of ventrite 4.

Head. Frontal plate smooth, glabrous; remaining surface of frons coarsely, somewhat abundantly punctate, except denser, confluently punctate area between antennal tubercles and clypeus; with short, bristly, sparse yellowish-white setae on wide central area, more abundant between antennal tubercles and clypeus. Vertex coarsely, abundantly punctate; with short, decumbent, sparse yellowish-white setae and long, erect setae of same color interspersed. Antennal tubercles coarsely, somewhat abundantly punctate, except smooth apex; punctate area with sparse, decumbent yellowish-white setae, glabrous on smooth area. Area behind upper eye lobes coarsely, shallowly, abundantly punctate; setae as on vertex. Area behind lower eye lobes smooth close to eye, except rugosepunctate area close to lower margin, coarsely striate punctate on remaining surface; glabrous, except sparse long, erect yellowish setae close to lower margin of eye. Genae short, with the lower eye lobe almost reaching the clypeus; finely, somewhat abundantly punctate, except smooth apex; with sparse, decumbent yellowish-white setae on punctate area, glabrous on smooth area. Maxillary palpomere IV and labial palpomere III securiform. Median groove distinct from frontal plate to area between antennal tubercles. Wide central area of postclypeus rugosepunctate, with bristly yellowish-white setae not obscuring integument, a few long, erect yellowish-brown setae interspersed laterally, and one very long, erect yellowish-brown seta on each side. Sides of postclypeus smooth, glabrous. Posterocentral area of labrum finely, abundantly punctate, and remaining surface smooth; with short, bristly yellowish-white setae not obscuring integument on punctate area, and long, erect yellowish-brown setae laterally, and fringe of short yellowish-brown setae anteriorly. Gulamentum smooth, glabrous posteriorly, with sparse, coarse and shallow punctures laterally; coarsely striate-punctate anteriorly, with long, erect, somewhat sparse yellowish setae between eyes. Outer side of mandibles coarsely, densely punctate, except smooth apex, with decumbent, somewhat abundant yellowish-white setae and long, erect yellowish-brown setae interspersed on punctate area, glabrous on smooth area. Upper eye lobes with three rows of ommatidia; distance between upper eye lobes 0.39 times distance between outer margins of eyes; in frontal view, distance between lower eye lobes 0.52 times distance between outer margins of eyes. Antennae 1.3 times elytral length, almost reaching elytral apex. Scape coarsely, somewhat rugose-punctate, except smooth apex (this area widened toward outer side of dorsal surface); with short, decumbent, sparse pale yellow setae dorsally and laterally, with a few long, erect setae of same color interspersed, except glabrous smooth area, and long, erect pale yellow setae ventrally. Pedicel and antennomeres III-XI with decumbent pale yellow setae not obscuring integument, gradually denser toward

antennomere XI; antennomeres III–X with long, erect pale yellow setae ventrally, gradually sparser toward X, and somewhat long erect pale yellow setae on dorsal apex; antennomere III slightly carinate dorsally; antennomeres IV–V slightly distinctly carinate on basal third of dorsal surface; inner apex of antennomere III with spine about twice pedicel length, with distinct blunt apex; inner apex of antennomere IV 0.9 times pedicel length, with acute apex; inner apex of antennomere V with spicule. Antennal formula (ratio) based on length of antennomere III (excluding spine): scape = 0.75; pedicel = 0.18; IV = 0.81; V = 0.90; VI = 0.87; VII = 0.87; VIII = 0.81; IX = 0.78; X = 0.68; XI = 0.87.

Thorax. Prothorax distinctly longer than wide; anterior and posterior constrictions well-marked, especially anterior one. Pronotum with one slightly distinct gibbosity on each side of anterior and posterior quarters; coarsely, somewhat abundantly punctate except smooth longitudinal area centrally on posterior half (not reaching posterior margin), and posterior fifth with abundant fine punctures; punctures with three types of erect yellowish setae, minute, short, or long, but a few punctures lacking seta. Sides of prothorax coarsely, abundantly punctate on wide central area, obliquely striate on posterior region, obliquely striate-punctate on anterior region, these two last regions gradually widened toward ventral surface; with both, short and long, erect pale yellow setae, distinctly more abundant on wide central region. Prosternum coarsely rugose-punctate on posterior <sup>2</sup>/<sub>3</sub>, transversely striate with a few coarse punctures interspersed on anterior third; posterior <sup>2</sup>/<sub>3</sub> with abundant grayish-white decumbent pubescence not obscuring integument, and long, erect yellowish setae interspersed; anterior third with sparse, bristly, both short and long yellowish setae. Prosternal process with abundant grayish-white pubescence not obscuring integument; narrowest area 0.17 times procoxal width. Procoxal cavities distinctly opened posteriorly (Fig. 78). Ventral surface of mesothorax with grayish-white pubescence, sparse on center, denser laterally. Metanepisternum, and sides and areas close to meso- and metacoxae of metaventrite with abundant grayishwhite pubescence partially obscuring integument; remaining surface of metaventrite with long, erect yellowish setae, except glabrous central area; metaventrite coarsely, somewhat sparsely punctate, except smooth area close to metathoracic discrimen. Scutellum with dense white pubescence.

**Elytra.** Coarsely, abundantly punctate, punctures slightly finer and sparser on posterior quarter; punctures with short, bristly pale yellow seta, except a few punctures with long, erect seta of same color; apex obliquely concave, with outer and sutural angles projected.

**Legs.** Femora coarsely rugose-punctate, especially toward apex; with short, decumbent, sparse yellowishwhite pubescence on basal third, and long, erect pale yellow setae throughout, more abundant ventrally and posterior <sup>2</sup>/<sub>3</sub> of dorsal and lateral surfaces; inner and outer apex of meso- and metafemora with rounded projection. Tibiae with abundant, long, erect yellow setae, sparser on basal third of protibiae, and denser, bristly yellowish-brown pubescence on ventral surface of protibiae and posterior third of meso- and metatibiae. Metatarsomere I about as long as II–III together.

**Abdomen.** Ventrites 1–4 coarsely, sparsely punctate; ventrite 5 finely, sparsely punctate; ventrites with abundant grayish-white pubescence laterally, partially obscuring integument; with both, short and long, sparse yellowish setae on wide central area, except glabrous apex; apex of ventrite 5 rounded.

**Variation.** Maxillary palpomere IV yellowish-brown; scape dark reddish-brown, but lighter than head capsule; pedicel and antennomeres III–VI black; elytra blackish basally; sides of ventral surface of meso- and metathorax dark brown; coxae, trochanters, and femora reddish-brown; tibiae black; abdominal ventrites mostly blackish; antennae surpassing elytral apex at base of antennomere XI; elytral apex concave but not oblique.

**Dimensions in mm (holotype female/paratype female).** Total length, 13.10/11.00; prothoracic length, 2.20/1.90; anterior prothoracic width, 1.60/1.30; posterior prothoracic width, 1.55/1.30; maximum prothoracic width, 1.80/1.55; humeral width, 2.35/2.00; elytral length, 9.25/7.80.

**Type material.** Holotype male from MEXICO, JALISCO: MX80, 7 km N Autlán on road to Microondas de San Francisco, 19.VII.2006, Skillman and Hildebrandt leg. (FSCA, formerly FWSC). Paratype female, same data as holotype, except 27.VII.2011, Skillman and Turnbow leg. (FWSC).

**Etymology.** The specific epithet comes from the Latin "obscurus" (dark) + "venter" (belly), referring to the dark abdominal ventrites of the species, which contrasts with the rest of the integument coloration.

**Remarks.** *Psyrassa obscuriventris* **new species** can be included in the alternative of couplet "15" from Toledo (2005), with *P. brevicornis* and *P. cylindricollis*. It differs from *P. brevicornis* (see photograph on Bezark 2022) by

the antennae surpassing the elytral apex in females (not reaching in females of *P. brevicornis*), and body distinctly slender (stouter in females of *P. brevicornis*). The new species differs from *P. cylindricollis* (Fig. 19–57) by the elytra four times the prothoracic length or slightly longer (at most, 3.5 times in *P. cylindricollis*), pronotal sculpturing denser (Fig. 74, 82) (sparser in *P. cylindricollis* (e.g. Fig. 19, 26, 29, 30)), and sculpturing on sides of the prothorax distinctly denser (Fig. 78) (sparser in *P. cylindricollis* (Fig. 32)). The general appearance resembles that of *P. basicornis* Pascoe, 1866 (see photographs on Bezark 2022), but differs by the spine of the antennomere III distinctly blunt apically (acute in *P. basicornis*), and elytra at least four times longer than prothorax (at most slightly longer than three times in *P. basicornis*).

#### Psyrassa ocularis García and Santos-Silva, new species

#### (Fig. 83-90, 95-96)

**Description. Holotype male** (Fig. 83–90). Integument mostly black; ventral mouthparts reddish-brown, except pale yellow apex of palpomeres; anteclypeus and labrum brownish, with irregular dark brown maculae; scape dark brown except brown apex; pedicel dark brown; antennomeres dark brown, gradually lighter toward XI. Coxae and trochanters mostly reddish-brown; femora reddish-brown; tibiae mostly dark brown on basal <sup>2</sup>/<sub>3</sub>, reddish-brown on apical third; tarsi mostly dark brown.

Head. Frontal plate almost smooth, slightly transversely striate laterally, glabrous; remaining surface of frons coarsely, densely punctate, anastomosed laterally, except smooth central area; with a few short, decumbent yellowish-white setae. Area between antennal tubercles coarsely, abundantly punctate laterally, smooth centrally; with short, sparse, whitish setae on punctate area, glabrous centrally. Remaining surface of vertex coarsely, densely punctate; with short, sparse, decumbent yellowish-white setae arising from punctures, and a few long, erect yellowish setae close to eyes. Antennal tubercles coarsely, sparsely punctate, except smooth apex; with a few short, decumbent whitish setae, absent on apex. Area behind upper eye lobes with sculpturing and setae as on vertex on upper half, smooth close to eye, coarsely, shallowly punctate close to prothorax on lower half; with a few short decumbent yellowish-white setae on upper half, glabrous on lower half. Area behind lower eye lobes smooth close to eye on upper region, coarsely, shallowly punctate close to eye on lower region, somewhat rugose close to prothorax; glabrous, except a few yellowish setae close to eye on lower region. Genae very short, posterior margin rounded; with the anterior margin of lower eye lobe distinctly separating it from clypeus; finely, somewhat abundant punctate; with short, yellowish-white setae not obscuring integument. Maxillary palpomere IV and labial palpomere III securiform. Median groove from frontal plate to area between upper eye lobes. Wide central area of postclypeus coarsely, shallowly, confluently punctate; with short, sparse, decumbent whitish setae, and one long, erect yellowish-brown seta on each side. Sides of postclypeus smooth, glabrous. Posterocentral area of labrum finely, somewhat sparsely punctate; anterior region finely abundantly punctate; with both short and minute, sparse whitish setae posteriorly, tuft of long, erect yellowish-brown setae on sides of middle, and abundant, short, bristly yellowish-brown setae anteriorly. Gulamentum smooth, glabrous on posterior half; anterior half coarsely, transversely striate-punctate, with somewhat short and abundant yellowish-brown setae, and long, erect setae of same color interspersed. Outer side of mandibles coarsely, partially confluently punctate, except smooth apex; with short, decumbent yellowish-white setae, and a few long, erect yellowish-brown setae interspersed on punctate region, and tuft of yellowish-brown setae close to smooth apex. Upper eye lobes with five rows of ommatidia; distance between upper eye lobes 0.22 times distance between outer margins of eyes (1.25 times maximum diameter of scape); in frontal view, distance between lower eye lobes 0.38 times distance between outer margins of eyes. Antennae 1.85 times elytral length, reaching elytral apex at posterior third of antennomere IX. Scape coarsely, densely punctate, except smooth apex (this area widened toward side of dorsal surface); with short, decumbent, sparse yellowish-white setae dorsally and laterally, and somewhat long, erect yellowish-brown setae on posterior half of ventral surface. Pedicel and antennomeres III-XI with abundant yellowish-white setae not obscuring integument, denser toward distal segments; antennomeres III-VI with long, erect, sparse yellowishbrown setae ventrally, gradually sparser toward VI; antennomeres III-X with a few long, erect yellowish-brown setae apically; antennomeres III-XI not carinate dorsally; inner apex of antennomere III spine as long as pedicel, with acute apex; inner apex of antennomere IV with spicule. Antennal formula (ratio) based on length of antennomere III (excluding spine): scape = 0.70; pedicel = 0.17; IV = 0.97; V = 1.07; VI = 1.11; VII = 1.07; VIII = 1.07; IX = 1.00; X = 0.97; XI = 1.27.

Thorax. Prothorax distinctly longer than wide; anterior and posterior constrictions well-marked, especially posterior one. Pronotum with one slightly distinct gibbosity on each side of anterior and posterior quarters; coarsely, sparsely punctate except smooth longitudinal central area from about middle to posterior constriction, and punctures slightly more abundant close to posterior margin; punctures with three types of yellowish setae, minute and decumbent, short and decumbent, or long and erect, but a few punctures lacking seta. Sides of prothorax coarsely, somewhat sparsely punctate on wide central area, coarsely, abundantly punctate close to posterior constriction, striate punctate close to posterior margin, somewhat rugose punctate close to anterior margin; setae as on pronotum. Prosternum coarsely, somewhat rugose-punctate on posterior half, transversely striate, with a few punctures interspersed on anterior half; with abundant grayish-white pubescence not obscuring integument on posterior half, and sparse, both short and decumbent and long and erect yellowish-white setae on anterior half. Prosternal process with grayish-white pubescence not obscuring integument; narrowest area 0.09 times procoxal width. Procoxal cavities distinctly opened posteriorly (Fig. 88). Ventral surface of mesothorax with grayish-white pubescence not obscuring integument, denser laterally. Metanepisternum and sides of metaventrite with abundant grayish-white pubescence not obscuring integument; remaining surface of metaventrite with somewhat long and sparse, erect yellowish setae, absent on center of posterior half, close to metathoracic discrimen; metaventrite coarsely, somewhat abundantly punctate (general appearance somewhat rugose). Scutellum with yellowish-white pubescence not obscuring integument.

**Elytra.** Coarsely, abundantly punctate on anterior half, punctures gradually finer, sparser on posterior half; punctures with short, decumbent yellowish-white seta, but some punctures with long, erect yellowish-brown seta, especially on basal and apical quarters, and a few punctures lacking seta; apex emarginate centrally, with outer and sutural angles shortly, triangularly projected.

Legs. Femora with somewhat long, bristly yellowish-white setae, longer and more abundant ventrally, and long, erect yellowish-brown setae interspersed; inner and outer apex of meso- and metafemora with rounded projection. Tibiae with abundant, long, erect yellow setae, and denser, bristly yellowish-brown pubescence on ventral surface, more distinctly apically on meso- and metatibiae. Metatarsomere I shorter than II–III together.

**Abdomen.** Ventrites coarsely, somewhat abundantly punctate; with abundant grayish-white pubescence not obscuring integument laterally, sparser on central area of ventrites 2–5, and somewhat long, erect, sparse yellowish setae on wide central area; apex of ventrite 5 widely emarginated centrally.

**Dimensions in mm (holotype male/paratype male).** Total length, 10.80/8.20; prothoracic length, 1.90/1.45; anterior prothoracic width, 1.35/1.10; posterior prothoracic width, 1.35/1.10; maximum prothoracic width, 1.50/1.25; humeral width, 2.15/1.65; elytral length, 7.25/5.60.

**Type material.** Holotype male from GUATEMALA, ZACAPA: San Lorenzo Quarry Rd., Sierra Las Minas, 15.050609 -89.670787, 675 m, MV/UV lights, 29–31.V.2019, Skillman, Wappes and Monzón leg. (FSCA, formerly FWSC). Paratype male from GUATEMALA, ZACAPA: El Arenal, Heloderma Conservation Reserve, 14°18'N 89°78'W, 530 m, MV/UV lights, 23–25.V.2019, Skillman, Wappes and Monzón leg. (FWSC).

**Etymology.** The specific epithet "*ocularis*" comes from the Latin (of the eyes), referring to the ommatidia, which are a diagnostic character of the new species.

**Remarks.** *Psyrassa ocularis* **new species** can be included in the alternative of couplet "19" from Toledo (2005), with *P. ebenina* Linsley, 1935 and *P. levicollis* Chemsak and Noguera, 1995. The new species is more similar to *P. ebenina* for having black integument on the prothorax and elytra and reddish femora, but differs as follows: ommatidia proportionally coarser (Fig. 89); and distance between upper eye lobes slightly wider than maximum diameter of the scape in males (Fig. 90). In *P. ebenina*, the ommatidia are finer (Fig. 91), and the distance between upper eye lobes in males 1.5 times maximum diameter of the scape (Fig. 94).

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### Literature Cited

- Audureau A. 2008. Contribution a la connaisance des Cerambycidae de la reserve privee forestiere de Domitila (Nicaragua). Lambillionea (supplement) 108(3): 3–21.
- **Bezark LG. 2022.** A Photographic Catalog of the Cerambycidae of the World. New World Cerambycidae Catalog. Available at http://bezbycids.com/byciddb/wdefault.asp?w=n/ (Last accessed 7 May 2022.)
- Bezark LG, Zack RS, Monzón-Sierra J, Landolt PJ. 2019. Known and new records of Disteniidae and Cerambycidae (Coleoptera) from Guatemala. The Pan-Pacific Entomologist 95(3/4): 117–125.
- Blackwelder RE. 1946. Checklist of the coleopterous insects of Mexico, Central America, the West Indies and South America. Part 4. Bulletin of the United States National Museum 185: 551–763.
- Chemsak JA, Giesbert EF. 1986. New species of Cerambycidae from the Estación de Biologia de Chamela, Jalisco, Mexico (Coleoptera). Folia Entomológica Mexicana 69: 19–39.
- **Chemsak JA, Linsley EG. 1963.** A new genus and two new species of Mexican Elaphidionini (Coleoptera: Cerambycidae). Entomological News 74(4): 85–88.
- **Chemsak JA, Linsley EG. 1968.** New species of Elaphidionini from Mexico (Coleoptera, Cerambycidae). The Pan-Pacific Entomologist 44(1): 26–34.
- Chemsak JA, Linsley EG, Hovore FT. 1988. A concentration site for Cerambycidae in Jalisco, Mexico (Coleoptera). The Pan-Pacific Entomologist 64(3): 291–295.
- Chemsak JA, Linsley EG, Mankins JV. 1980. Records of some Cerambycidae from Honduras (Coleoptera). The Pan-Pacific Entomologist 56(1): 26–37.
- Chemsak JA, Linsley EG, Noguera FA. 1992. Listados faunísticos de México. II. Los Cerambycidae y Disteniidae de Norteamérica, Centroamérica y las Indias Occidentales (Coleoptera). Universidad Nacional Autónoma; Mexico City. 204 p.
- **Chemsak JA, Noguera FA. 1995.** Annotated checklist of the Cerambycidae of the Estación de Biologia Chamela, Jalisco, Mexico (Coleoptera), with descriptions of a new genera and species. Folia Entomológica Mexicana 89: 55–102.
- Franz E. 1954. Cerambycidae (Ins., Col.) aus El Salvador. Senckenbergiana 34(4-6): 213-229.
- Lawrence JF, Beutel RG, Leschen RAB, Ślipiński A. 2010. Glossary of morphological terms. p. 9–20. In: Leschen RAB, Beutel RG, Lawrence JF (eds.). Handbook of zoology, Arthropoda Insecta. Coleoptera, beetles, morphology and systematics (Elateroidea, Bostrichiformia, Cucujiformia partim). Vol. 2. De Gruyter; Berlin and New York. xii + 812 p.
- Lingafelter SW. 1998. The genera of Elaphidiini Thomson, 1864 (Coleoptera: Cerambycidae). Memoirs of the Entomological Society of Washington 20: 1–118.
- Lingafelter SW, Nearns EH, Tavakilian GL, Monné MA, Biondi M. 2014. Longhorned woodboring beetles (Coleoptera, Cerambycidae and Disteniidae) primary types of the Smithsonian Institution. Smithsonian Institution Scholarly Press; Washington DC. 390 p.
- Linsley EG. 1935a. Notes and descriptions of new or little known Neotropical Sphaerionini (Coleoptera, Cerambycidae). Revista de Entomologia 5(2): 139–149.
- Linsley EG. 1935b. Studies in the Longicornia of Mexico (Coleoptera: Cerambycidae). Transactions of the American Entomological Society 61: 67–102.
- Linsley EG. 1961. A reclassification of the described Mexican and Central American Sphaerionine Cerambycidae (Coleoptera). The Pan-Pacific Entomologist 37(3): 165–183.
- Maes J-M, Berghe E, Dauber D, Audureau A, Nearns E, Skillman F, Heffern D, Monné MA. 2010. Catalogo ilustrado de los Cerambycidae (Coleoptera) de Nicaragua. Parte II Cerambycinae. Revista Nicaraguense de Entomologia 70(Suplemento 1-2): 1-640.
- Martins UR. 1967. Notas sôbre Cerambycinae (Coleoptera, Cerambycidae). Papéis Avulsos de Zoologia 21(5): 43-53.
- Monné MA. 1993. Catalogue of the Cerambycidae (Coleoptera) of the Western Hemisphere. Part IV. Subfamily Cerambycinae: Tribe Elaphidionini. Sociedade Brasileira de Entomologia; São Paulo. 129 p.
- Monné MA. 2005. Catalogue of the Cerambycidae (Coleoptera) of the Neotropical region. Part I. Subfamily Cerambycinae. Zootaxa 946: 1–765.

- Monné MA. 2022. Catalogue of the Cerambycidae (Coleoptera) of the Neotropical region. Part I. Subfamily Cerambycinae. Available at https://cerambycids.com/catalog/ (Last accessed 7 May 2022.)
- Monné MA, Giesbert EF. 1994. Checklist of the Cerambycidae and Disteniidae (Coleoptera) of the Western Hemisphere. Wolfsgarden Books; Burbank, CA. 409 p.
- Monné MA, Hovore FT. 2006. A Checklist of the Cerambycidae, or longhorned wood-boring beetles, of the Western Hemisphere. Bio Quip Publications; Rancho Dominguez, CA. 393 p.
- Noguera FA, Chemsak JA. 1996. Cerambycidae (Coleoptera). p. 381–409. In: Llorente Bousquets JE (ed.). Biodiversidad taxonomía, y biogeografía de artrópodos de México: Hacia una síntesis de su conocimiento. Volumen I. Universidad Nacional Autónoma de México; Mexico City. 660 p.
- Noguera FA, Zaragoza-Caballero S, Chemsak JA, Rodríguez-Palafox A, Ramírez E, González-Soriano E, Ayala R. 2002. Diversity of the family Cerambycidae (Coleoptera) of the tropical dry forest of Mexico, I. Sierra de Huautla, Morelos. Annals of the Entomological Society of America 95(5): 617–627.
- Ruette R. 1970. A catalogue of types of Coleoptera in the Canadian National collection of insects. Memoirs of the Entomological Society of Canada 72: 1–134.
- Santos-Silva A, Nascimento FEL, Drumont A, Kozlov AO. 2019. Descriptions, notes and new records in South American Cerambycidae (Coleoptera). Papéis Avulsos de Zoologia 59(e20195915): 1–13.
- Swift I, Bezark LG, Nearns EH, Solís A, Hovore FT. 2010. Checklist of the Cerambycidae (Coleoptera) of Costa Rica. Insecta Mundi 131: 1–68.
- Tavakilian GL, Chevillotte H. 2021. Titan: base de données internationales sur les Cerambycidae ou Longicornes. Available at http://titan.gbif.fr/ (Last accessed 7 May 2022.)
- **Toledo VH. 2005.** Revisión taxonómica del género *Psyrassa* Pascoe (Coleoptera: Cerambycidae). Acta Zoológica Mexicana (n.s.) 21(3): 1–64.
- **Turnbow RH, Cave RD, Thomas MC. 2003.** A list of Cerambycidae of Honduras, with additions of previously unrecorded species. Ceiba 44(1): 1–43.
- Zaragoza-Caballero S, Pérez Hernández CX. 2017. An annotated catalogue of the Coleoptera types deposited in the National Insect Collection (CNIN) of the National Autonomous University of Mexico. Zootaxa 4288(1): 1–128.

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**Figures 1–7.** *Psyrassa* spp. **1–3**) *Psyrassa xestioides* (Bates, 1872), female. **1**) Specimen 1, dorsal habitus. **2**) Specimen 1, metanepisternum. **3**) Specimen 2, metanepisternum. **4–7**) Metanepisternum. **4**) *Psyrassa basicornis* Pascoe, 1866, male from Nicaragua (Granada). **5**) *P. testacea* Linsley, 1935, male from Costa Rica (Limón). **6**) *P. ludmilakozlovae* Santos-Silva et al., 2017, holotype female from Colombia (Boyacá). **7**) *P. subpicea* (White, 1853), male from Honduras (Olancho).



**Figures 8–12.** *Aneflomorpha sinaloae* (Linsley, 1935), female from Mexico (Michoacán): **8**) Dorsal habitus. **9**) Ventral habitus. **10**) Lateral habitus. **11**) Head, frontal view. **12**) Pronotum.



**Figures 13–18.** *Psyrassa* spp. **13–14**) *Psyrassa atkinsoni* (Chemsak and Giesbert, 1986), female from Guatemala (Zacapa): **13**) Dorsal habitus. **14**) Antennomeres III–IV. **15**) *Psyrassa nigripes* Linsley, 1935, female from Mexico (Jalisco), dorsal habitus. **16–18**) *Psyrassa nigricornis* Bates, 1892, male from Mexico (Sinaloa): **16**) Dorsal habitus. **17**) Procoxal cavities. **18**) Antennomeres III–IV.



**Figures 19–29.** *Psyrassa cylindricollis* Linsley, 1935, specimens from Mexico (Michoacán). **19–24)** Male: **19**) Dorsal habitus. **20**) Ventral habitus. **21**) Lateral habitus. **22**) Procoxal cavities. **23**) Apical spine of the antennomere III and IV. **24**) Head, frontal view. **25**) Male, dorsal habitus. **26–28**) Female 1: **26**) Dorsal habitus. **27**) Ventral habitus. **28**) Antennomeres III–VI. **29**) Female 2, dorsal habitus.



**Figures 30–40.** *Psyrassa cylindricollis* Linsley, 1935, specimens from Mexico (Jalisco). **30–33**) Female (1): **30**) Dorsal habitus. **31**) Ventral habitus. **32**) Prothorax, lateral view. **33**) Antennomeres III–V. **34**) Female (2), dorsal habitus. **35**) Female (3), dorsal habitus. **36–40**) Male: **36**) Lateral habitus. **37**) Dorsal habitus. **38**) Ventral habitus. **39**) Head, frontal view. **40**) Apical spine of the antennomeres III–V.



**Figures 41–57.** *Psyrassa cylindricollis* Linsley, 1935, specimens from Mexico (Jalisco). **41**) Male, procoxal cavities. **42**) Male (1), dorsal habitus. **43**) Male (2), dorsal habitus. **44**) Male (3), dorsal habitus. **45**) Female, dorsal habitus. **46–57**) Spine of the antennomere III, variation.



**Figures 58–67.** *Psyrassa* spp. **58–64**) *Psyrassa wappesi* sp. nov., holotype male. **58**) Dorsal habitus. **59**) Ventral habitus. **60**) Lateral habitus. **61**) Spine of the antennomeres III–V. **62**) Head, frontal view. **63**) Procoxal cavities. **64**) Apex of the antennomere VI. **65–67**) *Psyrassa nigroaenea* Bates, 1892, male from Mexico (Jalisco, Morelos): **65**) Dorsal habitus. **66**) Procoxal cavities. **67**) Antennomeres III–V.



**Figures 68–73.** *Psyrassa sonorensis* sp. nov., holotype male. **68**) Dorsal habitus. **69**) Ventral habitus. **70**) Lateral habitus. **71**) Procoxal cavities. **72**) Head, frontal view. **73**) Spine of the antennomeres III–V.



**Figures 74–82.** *Psyrassa obscuriventris* sp. nov. **74–80**) Holotype female: **74**) Dorsal habitus. **75**) Ventral habitus. **76**) Lateral habitus. **77**) Head, frontal view. **78**) Procoxal cavities. **79**) Antennomeres III–IV. **80**) Antennomeres V–VII. **81–82**) Paratype female. **81**) Prothorax, lateral view. **82**) Paratype female, dorsal habitus.



**Figures 83–94.** *Psyrassa* spp. **83–90**) *Psyrassa ocularis* sp. nov., holotype male: **83**) Dorsal habitus. **84**) Ventral habitus. **85**) Lateral habitus. **86**) Antennomeres III–V. **87**) Head, frontal view. **88**) Procoxal cavities. **89**) Lower eye lobes. **90**) Upper eye lobes. **91–94**) *Psyrassa ebenina* Linsley, 1935, male from Guatemala: **91**) Lower eye lobes. **92**) Dorsal habitus. **93**) Ventral habitus. **94**) Upper eye lobes.



**Figures 95–100.** *Psyrassa* spp. **95–96**) *Psyrassa ocularis* sp. nov., paratype male: **95**) Dorsal habitus. **96**) Ventral habitus. **97–98**) *Psyrassa ebenina* Linsley, 1935, female from El Salvador (det. Toledo (2005)), by Peter Oboyski: **97**) Dorsal habitus. **98**) Ventral habitus. **99–100**) *Psyrassa ebenina*, males from El Salvador (LGBC), by Larry G. Bezark: **99**) Specimen 1, dorsal habitus. **100**) Specimen 2, dorsal habitus.