



A new species of *Lelegeis* Champion, 1886 from lowland natural forest of the Amazon basin of Peru (Coleoptera: Tenebrionidae, Diaperini)

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Species of the genus *Lelegeis* Champion, 1886 with the type species *Platydema aeneipennis* Champion, 1886 occur only in the subtropical and tropical areas of the New World. They are very similar to species of the frequently collected and widely distributed *Platydema* Laporte & Brullé, 1831. The only character which separates species of *Lelegeis* from *Platydema* is an abnormally wide and flattened basal protarsomere in males and, in some species, also an abnormally wide basal mesotarsomere. Female specimens are identical to specimens of *Platydema* by external characters.

The first species described was *Lelegeis aeneipennis* Champion, 1886. Its description based on a single specimen collected near Cordoba, Mexico. More recently Triplehorn (1962) transferred *Platydema apicalis* Laporte & Brullé, 1831, known only from Cuba, to *Lelegeis*. In the same paper, Triplehorn also described *Lelegeis hispaniolae* from Haiti and the Dominican Republic. Triplehorn (2009) also transferred *Platydema nigrifrons* Chevrolat, 1878 to *Lelegeis*. This species is frequently collected and widely distributed in Mexico, Panama, Venezuela, the Amazon areas of Brazil and Peru (Aloquio & Lopes-Andrade 2017).

A further species, *Lelegeis pytanga* Aloquio & Lopes-Andrade, 2017, was described from the Atlantic Forest of Brazil. By color and shape the newly described species, *Lelegeis helenavictoriae* sp. n., is very similar to *Lelegeis pytanga*. However, the body lengths and the shapes of basal protarsomeres and basal mesotarsomeres show significant differences.

Material and methods

Specimens were examined using a Leica MZ12.5 stereomicroscope. Images were processed with a Canon EOS 550D digital camera using Canon's MP-E 65 macro lens. Image stacks of the same specimen or structure at different focal planes were combined using Helicon Focus 6.0.3 software.

The following abbreviations are used for the depositories of the examined specimens:

MHNSM Museo de Historia Natural Javier Prado of the University San Marcos, Lima, Peru

ZSM Zoological State Collection, Munich, Germany

Taxonomy

Lelegeis helenavictoriae sp. n.

(Figs 1a, 2a, c, 3a)

Type material. Holotype, ♂, MHNSM: Peru, Dept. Huánuco, Panguana ACP, 9.6121°S 74.9357°W, 230 m, XII.2017, | Fogging, leg. Floren, ZSM-HYM-FOG, 171210 | HOLOTYPE, *Lelegeis helenavictoriae* sp. nov., Bremer & Hauth 2023.

Paratype, ♂, ZSM: Peru, Dept. Huánuco, Panguana ACP, Río Yuyapichis, 9°37'S–74°56'W, 230 m, 28.VIII.2018, A. Floren leg., | Fogging, B 104 ZSM-HYM-Fog1809104 | PARATYPE, *Lelegeis helenavictoriae* sp. nov., Bremer & Hauth 2023 | SNSB-Zoologische Staatssammlung München (ZSM) ZSM-COL-00073.

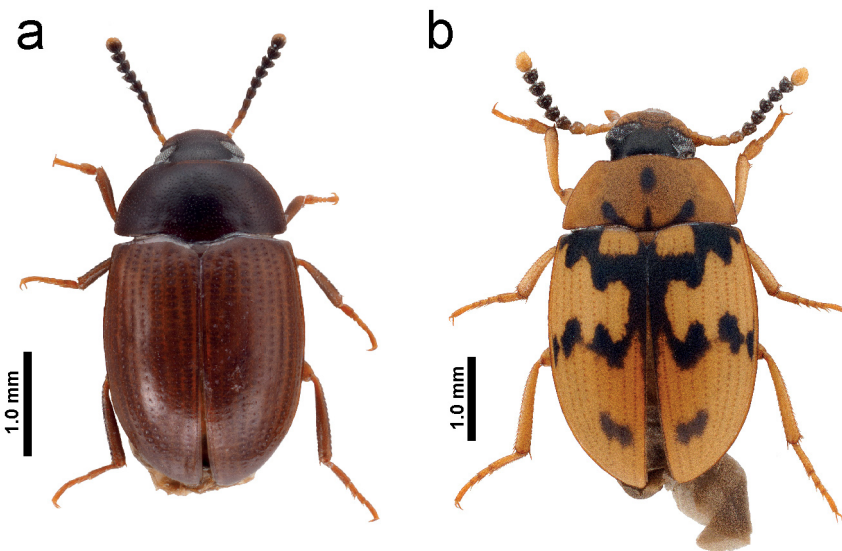


FIGURE 1. *Legeleis* spp., habitus. a—*L. helenavictoriae* sp. n., male; b—*L. nigrifrons* (Chevrolat, 1878), male from Panguana.

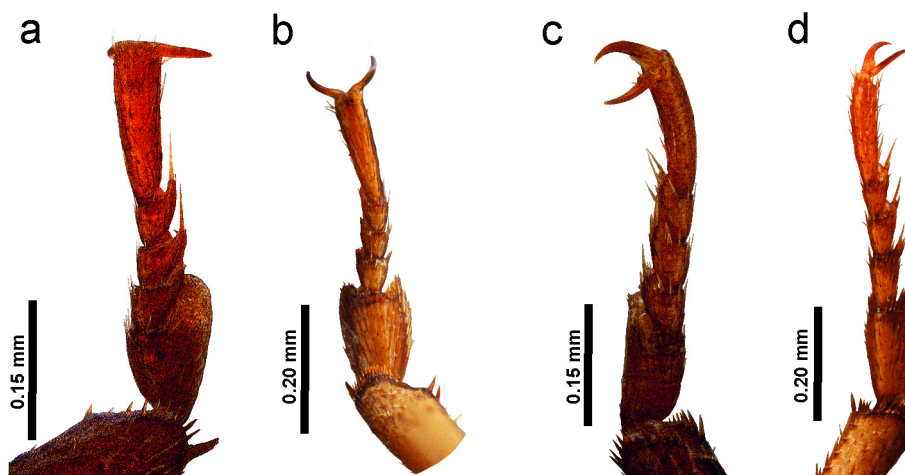


FIGURE 2. *Legeleis* spp., tarsi of male. a—protarsus of *L. helenavictoriae* sp. n.; b—protarsus of *L. nigrifrons* (Chevrolat, 1878); c—mesotarsus of *L. helenavictoriae* sp. n.; d—mesotarsus of *L. nigrifrons* (Chevrolat, 1878).

Body length 3.13+3.45 mm. Body width 1.94+2.00 mm. Width/length pronotum 1.94+1.99 mm; length/width elytra 1.25+1.32 mm.

Coloration. Pronotum and frons black, with slightly reduced luster, clypeus dark brown to brown. Elytra brown, luster somewhat reduced. Legs brown; antennomeres 1–4 yellow, 5–10 black, 11 except the darker base yellow; underside dark brown.

Head. Frons somewhat convex longitudinally, epistome nearly flat, not separated by a grooved epistomal suture from frons. Frons with relatively dense, minute punctures, origin of tiny, recumbent hairs; punctures on clypeus somewhat larger, also with similar hairs. Eyes large, reniform, frons somewhat higher situated than eyes. Antennae short, bent backwards just reach to the elytral base; starting with antennomere 6 somewhat widened, antennomere 10 wider than long; antennomere 11 rounded.

Pronotum wide, uniformly convex transversely, slightly micro reticulated, with small, but distinct punctures.

Elytra. Scutellar shield indicated pentagonal. Elytra relatively short, very convex transversely but elytral borders visible from above, moderately convex longitudinally. Eight rows of small punctures, punctures situated within translucent darker-colored areas; rows 4 plus 5 unconnected, 24 punctures in row 4; intervals flat, allusively micro reticulated.

Ventral side. Prosternum closely punctured, punctures large; episterna of prosternum with only a few tiny punctures; prosternal process elongate oval, with its greatest width at the procoxae, protruding horizontally posteriorly.

Legs. Tibiae short. Outer side of protibiae not dentate, meso and metatibiae dentate. In males basal protarsomeres widened and flattened, their soles are pushed underneath the protarsomeres 2; protarsomeres 3–5 of usual shape; basal mesotarsomeres prolonged and widened and pushed underneath mesotarsomeres 2; mesotarsomeres 3–5 of usual shape; metatarsomeres in males of usual shape, lengths of metatarsomeres 1 to metatarsomeres 2–4 15/25.

Etymology. This species is dedicated to Helena Victoria Nagy in gratitude for the support of the research institution ACP Panguana.

Differential diagnosis. By shape and coloration *Lelegeis helenavictoriae* **sp. n.** (Fig. 1a) resembles *Lelegeis pytanga* collected in remnants of the Atlantic Forests of Southeast Brazil.

Lelegeis helenavictoriae **sp. n.** differs from *L. pytanga* by body size: body length of *L. pytanga* 6.32–8.00 mm versus *L. helenavictoriae* 3.13–3.45 mm, furthermore, the basal mesotarsomere is not widened in males in *L. pytanga* (widened in *L. helenavictoriae*) (Fig. 2c)). The shape of aedeagus of *L. pytanga* (the image presented in Aloquio & Lopes-Andrade 2017) is very similar to the shape of aedeagus of *L. helenavictoriae*; (Fig. 3a), the shape of aedeagus of *L. helenavictoriae* is quite different from the shape of aedeagus of *L. nigrifrons*.



FIGURE 3. *Lelegeis* spp., aedeagus. a—*L. helenavictoriae* **sp. n.**, b—*L. nigrifrons* (Chevrolat, 1878).

The photograph of *L. nigrifrons* is from a specimen which was collected at same location where also *L. helenavictoriae* **sp. n.** was collected.

Acknowledgements

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