

***Pseudocistela pulchra* sp. nov.**  
**(Coleoptera: Tenebrionidae: Alleculinae: Gonoderina) from Laos**

Vladimír NOVÁK

Nepasické náměstí 796, CZ-190 14 Prague 9 - Klánovice, Czech Republic  
e-mail: alleculinae.vn@centrum.cz

**Taxonomy, new species, description, Coleoptera, Tenebrionidae, Alleculinae, Gonoderina, *Pseudocistela*, Oriental Region, Laos**

**Abstract.** *Pseudocistela pulchra* sp. nov. from Laos (Houphanh Province) is described, illustrated (including male genitalia) and compared with *Pseudocistela ornata* Novák, 2017 from Houaphanh Province (Laos).

### INTRODUCTION

The genus *Pseudocistela* was introduced by Crotch (1873), the species of this genus living in all zoogeographical Regions except Australian Region with more than 120 known species (Novák 2017). Novák (2020) presently listed 8 species in the Palaearctic Region. One species from Laos (Houa Phan) was described as *Pseudocistela ornata* Novák, 2017. New species described as *Pseudocistela pulchra* sp. nov. is illustrated (including male genitalia) and compared mainly with further species from Houa Phan Province - *P. ornata* and with other known Indochina species *Pseudocistela angustior* Pic, 1926, *Pseudocistela atritarsis* Pic, 1927 and *Pseudocistela limbatipennis* Pic, 1909.

### MATERIAL AND METHODS

Two important morphometric characteristics used for the descriptions of species of the subfamily Alleculinae, the ‘ocular index’ dorsally (Campbell & Marshall 1964) and ‘pronotal index’ (Campbell 1965), are used in this paper as well. The ocular index equals  $(100 \times \text{minimum dorsal distance between eyes}) / (\text{maximum width of head across eyes})$ . The pronotal index is calculated as  $(100 \times \text{length of pronotum along midline}) / (\text{width across basal angles of pronotum})$ .

In the list of material, a slash (/) separates data in separate rows, a double slash (//) separates different labels.

The following collection code is used: BMNH (British Museum Natural History, London, England).

Measurements of body parts and corresponding abbreviations used in text are as follows: AL - total antennae length, BL - maximum body length, EL - maximum elytral length, EW - maximum elytral width, HL - maximum length of head (visible part), HW - maximum width of head, OI - ocular index dorsally, PI - pronotal index dorsally, PL - maximum pronotal

length, PW - pronotal width at base, RLA - ratios of relative lengths of antennomeres 1-11 from base to apex (3=1.00), RL/WA - ratios of length / maximum width of antennomeres 1-11 from base to apex, RLT - ratios of relative lengths of tarsomeres 1-5 respectively 1-4 from base to apex (1=1.00).

Measurements were made with Olympus SZ 40 stereoscopic microscope with continuous magnification and with Soft Imaging System AnalySIS. Snapshots were taken by using camera Canon EOS 550 D, and Canon Macro Photo Lens MP-E and software Helicon Focus 7.7.5.

## TAXONOMY

### Genus *Pseudocistela* Crotch, 1873

**Type species:** *Cistela brevis* Say, 1823: 269.

#### *Pseudocistela pulchra* sp. nov.

(Figs. 1-5)

**Type locality.** Northeastern Laos, Houaphanh Province, Mount Phu Pane, environ of Ban Saluei, 1200-1600 m.

**Type material.** Holotype (♂): NE LAOS: Hua Phan prov. / Ban Saleui, Phou Pan (Mt.) / ~ N20°12' E104°01' / 1300-1900m, 3-30.iv.2014 / C. Holzschuh leg. // C. Holzschuh / B.M. 2015-38, (BMNH). The type is provided with a printed red label: 'Pseudocistela pulchra sp. nov. / HOLOTYPUS / V. Novák det. 2022'.

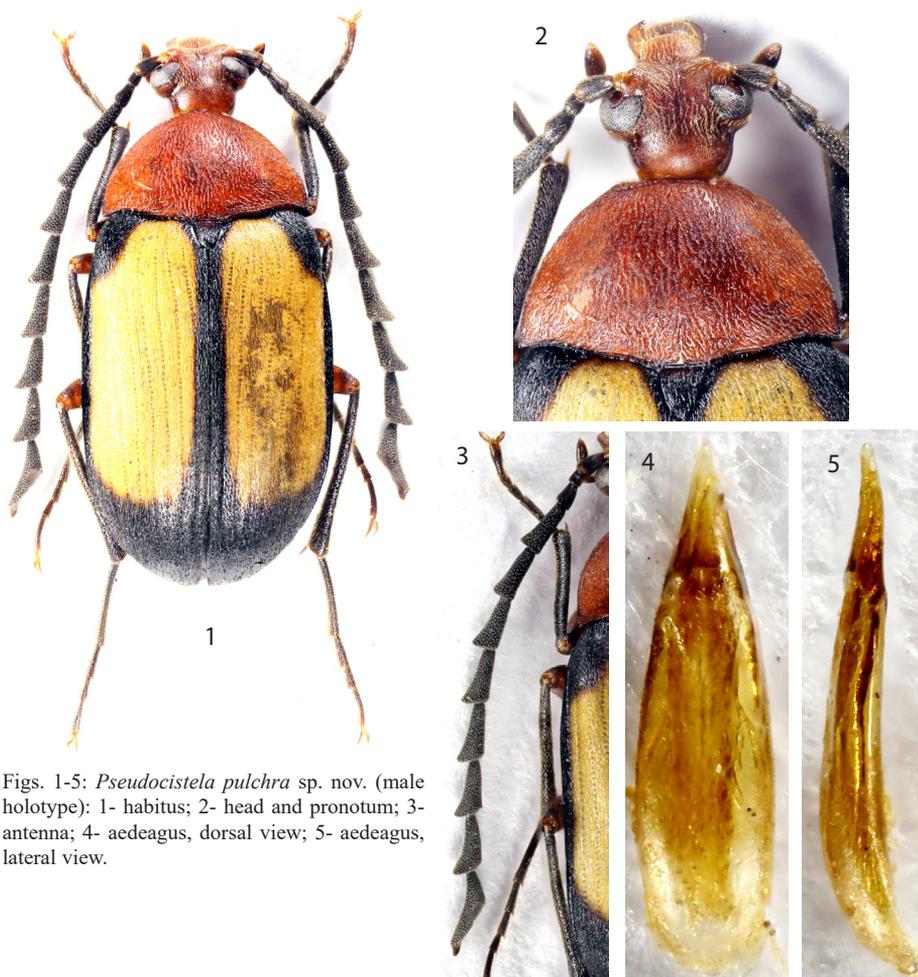
**Description of holotype.** Habitus as in Fig. 1, body smaller, oval, convex, semi-matte, dorsal surface from yellow to black, with pale setation, fine microgranulation, small punctures and longitudinal rugosities. BL 8.01 mm. Widest near middle elytra length, BL/EW 2.35.

Head (Fig. 2) orange, distinctly wider than anterior margin of pronotum, dorsal surface slightly shiny, with dense small punctures, fine microgranulation, recumbent, pale setation denser in apical part than in posterior part. Clypeus with rounded lateral margins, slightly darker than anterior part, surface with long, pale setae, fine microgranulation and small, shallow punctures. Mandibles pale reddish brown, shiny, glabrous, with sides and apex darker and pale setae in sides. HL 1.32 (visible part); HW 1.48 mm; HW/PW 0.50. Eyes large, transverse, deeply excised, space between eyes narrow; finely wider than diameter of one eye, wider than length of antennomere 1. OI equal to 35.71.

Antenna (Fig. 3). Long, unicolored blackish brown, matte, surface with short, recumbent pale setation, microgranulation and small punctures, AL(1-11) 7.09 mm; AL(1-11)/BL 0.89, distinctly longer than three quarters body length. Antennomeres 1-3 short, slightly widened in apex. Antennomeres 4-10 longer, strongly serrate apically. Antennomere 2 shortest, antennomere 1 distinctly longer than antennomere 3, antennomeres 4-11 each distinctly longer than antennomere 3. Antennomeres 4-10 less than 2.6 times longer than wide in apex. Ultimate antennomere longest and widest before middle.

RLA (1-11): 1.36 : 0.64 : 1.00 : 2.36 : 2.43 : 2.36 : 2.36 : 2.57 : 2.36 : 2.57 : 3.71.

RL/WA (1-11): 2.11 : 1.13 : 1.40 : 2.36 : 2.43 : 2.20 : 2.06 : 2.40 : 2.02 : 2.12 : 4.33.



Figs. 1-5: *Pseudocistela pulchra* sp. nov. (male holotype): 1- habitus; 2- head and pronotum; 3- antenna; 4- aedeagus, dorsal view; 5- aedeagus, lateral view.

Maxillary palpus pale reddish brown, with pale setation and fine microgranulation. Palpomeres 2, 3 distinctly narrowest in base and widest in apex. Ultimate palpomere distinctly darker than penultimate, widest near middle, knife-shaped.

Pronotum (Fig. 2). Wide, transverse, semi-circular, orange, semi-matte, convex, with pale setae, longitudinal rugosities and microgranulation. PL 1.68; PW 2.84; PI equal to 59.16. Border lines very narrow, in apical part of lateral margins not clearly conspicuous. Anterior margin straight, base finely bisinuate. Lateral margins arcuate, posterior angles sharp. Anterior angles almost indistinct, obtuse.

Ventral side of body orange, with short, pale setae. Abdomen orange, with short, pale setae and microgranulation.

Elytron. Yellow, with black apex, longitudinal strips, one near suture, second one in lateral margin and blackish brown spot in humeri (as in Figs. 1 - 3), oval, dorsal surface convex,

with short, pale setae. EL 5.01 mm; EW 3.38 mm. EL/EW 1.48. Elytral striae with distinct rows of small-sized punctures, elytral intervals with not clearly distinct microgranulation.

Scutellum blackish brown with orange part near pronotum, relatively large, long, triangular, surface elevated up level of elytra, slightly shiny.

Elytral epipleura well developed, black, wide, narrowing to ventrite 1, then relatively wide leads parallel.

Legs blackish brown, with pale reddish brown claws, narrow, long, with short, pale setation, small, shallow punctures and fine microgranulation. Tibiae distinctly widened anteriorly. Femora orange with blackish apex. Protarsomere 1 very long, slightly longer than protarsomeres 2-4 together. RLT: 1.00 : 0.39 : 0.30 : 0.22 : 0.80 (protarsus); 1.00 : 0.50 : 0.40 : 0.30 : 1.00 (mesotarsus); 1.00 : 0.40 : 0.25 : 0.56 (metatarsus).

Anterior tarsal claws with 5 and 7 visible teeth.

Aedeagus (Figs. 4, 5). Relatively small and short, ochre yellow, slightly shiny. Basal piece slightly rounded laterally and narrowing dorsally. Apical piece triangular and beak-shaped in dorsal and lateral views. Ratio of length of apical piece to length of basal piece from dorsal view 1 : 2.55.

**Female.** Unknown.

**Differential diagnosis.** *Pseudocistela pulchra* sp. nov. is a unique species with tricolor dorsal surface (yellow, orange and black or blackish brown) and orange ventral side of body including abdomen. Similar species are *Pseudocistela ornata* Novák, 2017 from Laos (Houa Phanh Province), *Pseudocistela angustior* Pic, 1926, *Pseudocistela atritarsis* Pic, 1927 and *Pseudocistela limbatipennis* Pic, 1909, all from Tonkin (Vietnam).

*P. pulchra* sp. nov. distinctly differs from all similar species mainly by ventral side of body, head and greater part of femora orange and by dorsal surface tricolor. Similar species have at least some parts of head or ventral side of body black, dorsal surface is not tricolor.

*P. pulchra* sp. nov. is clearly different from similar species *P. ornata* from Houa Phanh Province in Laos mainly by tricolor dorsal surface of pronotum and elytra (Fig. 1), by ventral side of body and greater part of femora orange, by lateral margins of pronotum arcuate, by posterior angles of pronotum not extended backwards (Fig. 2), by smaller body (BL approximately 8 mm and by shape of apical piece of aedeagus as in Figs. 4 and 5; while *P. ornata* has ventral side of body and femora black, dorsal surface of pronotum and elytra is unicolored reddish orange (see Novák 2017: 449: fig. 1), lateral margins of pronotum before backwards extended posterior angles are distinctly excised (see Novák 2017: 449: fig. 2), body is larger (BL approximately 10.7 mm) and shape of apical piece of aedeagus is as in Novák 2017: 449: figs. 4 and 5.

**Etymology.** From latin, *pulchra* (meaning 'beautiful').

**Distribution.** Laos (Houaphanh Province).

ACKNOWLEDGEMENTS. Sincere thanks are due to Maxwell Barclay and Dmitry Telnov (BMNH) for loaning me a new material under their care and to Lukáš Sekerka (National Museum Prague, Czech Republic) for help with delivery of type material.

## REFERENCES

- CROTCH G. R. 1873: *Check-List of the Coleoptera of America, North of Mexico*. Salem: Massachusetts Naturalists' Agency, 136 pp.
- CAMPBELL J. M. 1965: A revision of the genus *Charisius* (Coleoptera: Alleculidae). *The Coleopterist's Bulletin* 19: 43-56.
- CAMPBELL J. M. & MARSHALL J. D. 1964: The ocular index and its applications to the taxonomy of the Alleculidae (Coleoptera). *The Coleopterist's Bulletin* 18: 42.
- NOVÁK V. 2017: *Pseudocistela ornata* sp. nov. from Laos and new nomenclatory acts in Gonoderini (Coleoptera: Tenebrionidae: Alleculinae). *Studies and Reports, Taxonomical Series* 13(2): 447-453.
- NOVÁK V. 2020: Subfamily Alleculinae Laporte, 1840, pp. 417-453. In: IWAN D. & LÖBL I. (eds.): *Catalogue of Palaearctic Coleoptera. Volume 5. Revised and Updated Second Edition. Tenebrionoidea*. Brill, Leiden/Boston, 945 pp.
- PIC M. 1909: Coléoptères exotiques nouveaux ou peu connus. *L'Échange, Revue Linnéenne* 25: 133-134.
- PIC M. 1926: Coléoptères exotiques nouveaux ou peu connus. *Annales de la Société Linnéenne de Lyon* 72: 73-75.
- PIC M. 1927: Coléoptères de L'Indochine. *Mélanges Exotico-Entomologiques* 49: 1-36.

*Received: 30.11.2022*

*Accepted: 10.12.2022*

*Printed: 31.3.2023*

