

**New genera of Alleculinae
(Coleoptera: Tenebrionidae: Alleculinae: Alleculini)
from the Oriental Region. Part XV - *Palpistela* gen. nov.**

Vladimír NOVÁK

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

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Abstract. A new genus of Alleculinae (subtribe Alleculina Laporte, 1840) - *Palpistela* gen. nov. with the type species *Palpistela hoanglienica* sp. nov. from North Vietnam (Lao Cai Province) is described and illustrated. Main characters distinguishing it from the species of a similar genus *Palpichara* Borchmann, 1932 are as follows: body elongate oval, unusually long shoe-shaped ultimate maxillary palpomere without protuberance, antennomeres 4-10 filiform, antennomeres 4-11 approximately as long as antennomere 3 and space between eyes wide, wider than diameter of one eye.

INTRODUCTION

Borchmann (1932) described the genus *Palpichara* Borchmann, 1932 with the type species *Palpichara serricornis* Borchmann, 1932 from Singapore. Further species were described by Novák (2017) from peninsular Malaysia and Borneo (Sabah). Species of that genus have body elongate, ultimate maxillary palpomere is shoe shaped with protuberance in males, space between eyes is very narrow, antennomeres 4-10 are serrate and antennomeres 4-11 are distinctly longer than antennomere 3.

Palpistela gen. nov. with the type species *Palpistela hoanglienica* sp. nov. from North Vietnam (Lao Cai Province) is described, illustrated and compared with species of the genus *Palpichara* in the present work. Distinguishing characters are as follows: body elongate oval, unusually long shoe shaped ultimate maxillary palpomere without protuberance, wide space between eyes, distinctly wider than diameter of one eye, antenna filiform, antennomeres 5-11 approximately as long as antennomere 3.

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 the present 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 type material, a slash (/) separates data in separate rows, a double slash (//) separates different labels.

The following collection codes is used:

MNFI Museo di Storia Naturale, Firenze, Italy;

VNPC private collection of Vladimír Novák, Praha, Czech Republic.

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 5.2.

TAXONOMY

Palpistela gen. nov.

(Figs. 1-7)

Type species. *Palpistela hoanglienica* sp. nov.

Description. Habitus as in Fig. 1, body outline as in Fig. 2, body small, elongate oval, dorsal surface with punctuation, fine microgranulation and pale setation, widest near middle elytra length. Head (Fig. 3) small, slightly wider than long, distinctly narrower than pronotum at base. Eyes relatively large, transverse, excised, space between eyes distinctly wider than diameter of one eye and approximately as long as length of antennomere 3. Antenna (Fig. 4) long, filiform, distinctly exceeding half body length. Antennomeres with long, pale setation, microgranulation and small punctures. Antennomere 2 shortest, antennomere 4 longest, antennomeres 5-10 approximately as long as antennomere 3 (0.80-1.05 times). Maxillary palpus (Fig. 5) rather matte, with long, pale setae and fine microgranulation. Ultimate maxillary palpomere very wide, unusually long shoe shaped. Pronotum (Fig. 3) almost semicircular, in basal part slightly narrower than elytra in base. Elytra oval, slightly convex, widest near middle. Elytral striae with distinct rows of punctures, elytral intervals with fine microgranulation and punctures. Scutellum roundly triangular, matte, with microgranulation and pale setae. Elytral epipleura well developed, with punctures and long, pale setae in basal part regularly narrowing to ventrite 1, then relatively wide leads parallel. Legs long and narrow. Pro- and mesotarsomeres 3, 4 and metatarsomeres 3 distinctly widened and lobed. Tarsal claws with visible teeth. Ventral side of body with sparse punctures and sparse pale setae. Abdominal ventrites with pale setae, fine microgranulation and sparse, shallow punctures. Aedeagus (Figs. 6 and 7).

Female unknown.

Differential diagnosis. Similar species with unusually shoe-shaped ultimate maxillary palpus are in the genus *Palpichara* Borchmann, 1932.

Species of *Palpistela* gen. nov. distinctly differs from similar species of *Palpichara* mainly by body elongate oval (BL/EW less than 3), by unusually long, shoe-shaped ultimate maxillary palpomere without protuberance in males, by antennomeres 4-10 filiform, by antennomeres 5-11 approximately as long as antennomere 3 (0.80-1.05 times) by space between eyes wide, wider than diameter of one eye; while species of *Palpichara* have body elongate (BL/EW more than 3.2), ultimate maxillary palpomere has protuberance in males, antennomeres 4-10 are serrate, antennomeres 5-11 are distinctly longer than antennomere 3 (1.35-2.69 times), space between eyes is very narrow, distinctly narrower than diameter of one eye (see Novák 2017: figs. 1-21).

Etymology. The compound name *Palpistela* is taken from *Palpi*- marking its main differentiating character of the genus (unusually shaped ultimate maxillary palpomere) and ending *-stela* resembling an old name of Alleculids (*Cistela*). Gender: feminine.

Distribution. North Vietnam (Lao Cai Province).

***Palpistela hoanglienica* sp. nov.**

(Figs. 1-7)

Type locality. North Vietnam, Lao Cai Province, Hoang Lien Natural Park, Sa Pa pass, 1900 m.

Type material. Holotype (♂): N VIETNAM - Lao Cai / province, Hoang Lien Natl / Park: surr. Sa Pa pass - / (- 1900 m) 27.VI.2011 // L. Bartolozzi, S. Bambi / F. Fabiano, E. Orbach leg. / (Num. Magazzino 2909), (MNFI). Paratype: (1 ♂): same data as holotype, (VNPC). The types are provided with a printed red label: '*Palpistela / hoanglienica* sp. nov. / HOLOTYPE [or PARATYPE] / V. Novák det. 2021'.

Description of holotype. Habitus as in Fig. 1, body outline as in Fig. 2, body small, elongate oval, dorsal surface bicolor, slightly shiny, from ochre yellow to blackish brown, with punctuation, fine microgranulation and pale setation, BL 5.34 mm. Widest near middle elytra length; BL/EW 2.81.

Head (Fig. 3) relatively small, slightly wider than long, distinctly narrower than pronotum at base. Dorsal surface with sparse, pale setae and microgranulation, shiny. Posterior part reddish brown, distinctly darker than ochre yellow anterior part, punctuation of posterior part denser than in anterior part. Clypeus ochre yellow, half heart shaped, shiny, with pale setation, small, shallow punctures and fine microgranulation, slightly excised in apex. Mandibles strong, glabrous dorsally, shiny, lateral margins and apex dark. HW 0.86 mm; HW/PW 0.67. HL (visible part) 0.69 mm. Eyes relatively large, transverse, excised, space between eyes distinctly wider than diameter of one eye and approximately as long as length of antennomere 3; OI equal to 39.56.

Antenna (Fig. 4). Long, filiform (AL 3.25 mm; distinctly exceeding half body length AL(1-11)/BL 0.61), antennomeres narrow, with long, pale setation, microgranulation and small punctures. Antennomeres 1 and 2 ochre yellow, antennomeres 3-11 brown, apex of antennomeres 7-11 pale. Antennomere 2 shortest, antennomere 4 distinctly longer than antennomere 3, antennomeres 5-11 approximately as long as antennomere 3.

RLA(1-11): 0.64 : 0.47 : 1.00 : 1.30 : 1.02 : 1.05 : 1.02 : 0.96 : 0.94 : 0.80 : 1.05.

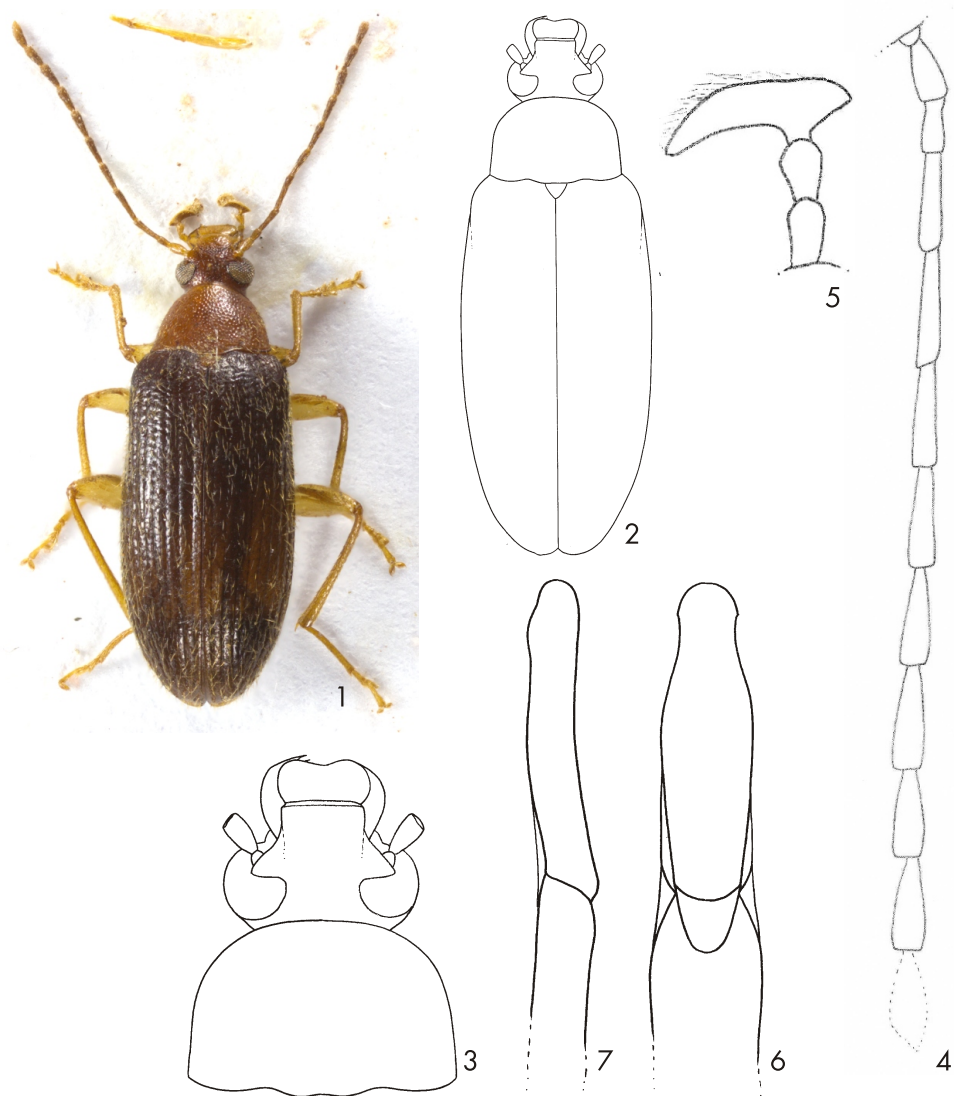
RL/WA(1-11): 1.89 : 2.17 : 4.61 : 6.75 : 4.47 : 4.35 : 3.70 : 2.58 : 3.12 : 3.00 : 3.11.

Maxillary palpus (Fig. 5) pale brown, rather matte, with long, pale setae and fine microgranulation. Palpomeres 2 and 3 narrowest at base, widest in apex. Ultimate palpomere, very wide, unusually long, shoe shaped, slightly darker than penultimate palpomere.

Pronotum (Fig. 3) orange or reddish brown, shiny, narrow, almost semicircular, in basal part slightly narrower than elytra at base. Dorsal surface with long, pale setae and dense punctuation, punctures relatively large, distinctly larger than those in head, intervals between punctures very small. Border lines narrow, but distinct. Lateral margins almost straight in posterior part, arcuate in apical half. Posterior margin bisinuate, anterior margin arcuate, posterior angles obtuse, anterior angles indistinct, rounded. PL 0.79 mm; PW 1.29 mm; PI equal to 61.24.

Elytra blackish brown, oval, slightly convex, widest near middle. Dorsal surface slightly shiny, with long, pale, semierect setation. Elytral striae with distinct rows of relatively large and coarse punctures, elytral intervals with fine microgranulation and punctures, distinctly smaller than those in elytral striae. EL 3.86 mm; EW 1.90 mm; EL/EW 2.03.

Scutellum. Orange, roundly triangular, matte, with microgranulation and pale setae.



Figs. 1-7. *Palpistela hoanglienica* sp. nov. (male holotype): 1- habitus; 2- body outline; 3- head and pronotum; 4- antenna; 5- maxillary palpus; 6- apical piece of aedeagus, dorsal view; 7- apical piece of aedeagus, lateral view.

Elytral epipleura well developed, dark reddish brown, with punctures and long, pale setae in basal part, regularly narrowing to ventrite 1, then relatively wide leads parallel.

Legs long and narrow, ochre yellow. Dorsal surface with pale setation, small and shallow punctures and microgranulation. Pro- and mesotarsomeres 3, 4 and metatarsomeres 3 distinctly widened and lobed. RLT: 1.00 : 0.44 : 0.57 : 0.74 : 1.61 (protarsus); 1.00 : 0.21 : 0.28 : 0.31 : 0.75 (mesotarsus); 1.00 : 0.24 : 0.22 : 0.54 (metatarsus).

Anterior tarsal claws with 10 and 11 visible teeth.

Ventral side of body dark reddish brown, with sparse punctures and sparse pale setae. Abdomen reddish brown, ventrites 1-4 in middle slightly darker, surface with pale setae, fine microgranulation and sparse, shallow punctures.

Aedeagus (Figs. 6 and 7). Ochre yellow, slightly shiny. Basal piece slightly narrowing in dorsal view. Apical piece beak shaped from dorsal and lateral view. Ratio of length of apical piece to length of basal piece from dorsal view 1 : 5.21.

Female unknown.

Variability. The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Males (n=2). BL 5.32 mm (5.29-5.34 mm); HL 0.70 mm (0.69-0.71 mm); HW 0.88 mm (0.86-0.89 mm); OI 38.37 (37.18-39.56); PL 0.81 mm (0.79-0.83 mm); PW 1.30 mm (1.29-1.30 mm); PI 62.55 (61.24-63.85); EL 3.81 mm (3.75-3.86 mm); EW 1.89 mm (1.88-1.90 mm).

Differential diagnosis. See the differential diagnosis of the genus *Palpistela* gen. nov.

Etymology. Toponymic, named after the type locality Hoang Lien Natural Park in North Vietnam (Lao Cai Province).

Distribution. North Vietnam, Lao Cai Province.

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