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

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**Abstract.** A new genus of Alleculinae *Pseudocistelopsis* gen. nov. is described to include the following two new species: *Pseudocistelopsis jakli* sp. nov. from Indonesia (Kalimantan Isl.) as a type species and *Pseudocistelopsis malayensis* sp. nov. from Malaysia. The new genus is compared with a similar genus, *Cistelopsis* Fairmaire, 1896. New species are illustrated.

**INTRODUCTION**

Fairmaire (1896) established new genus *Cistelopsis* Fairmaire, 1896 with type species *Cistelopsis rufina* Fairmaire, 1896. Species of this genus live in south-eastern Palaeartic Region and mainly in Oriental Region. Borchmann (1910) in Coleopterorum Catalogus listed two species, Novák & Pettersson (2008) presented four species from Palaeartic Region (Borchmann 1915, Mařan 1944 and Pic 1930a, 1955). Majority of more than 60 species in this genus from Oriental Region (Borchmann 1915, 1925, 1928, 1929, 1932, 1935 and 1937, Fairmaire 1896 and Pic 1914, 1916, 1922, 1923, 1928, 1930b, 1932, 1934, 1939 and 1956) were described as small (body length smaller than 8 mm), oval species with dark dorsal surface, dense setation and short antennae. Antennomeres are strong and broad, only a few species have dorsal surface bicolour - *Cistelopsis maculata* Borchmann, 1925 from Indonesia (Java), and three new species described from Malaysia by Novák (2014) as *Cistelopsis pribiki*, *C. ululatensis* and *C. xandri*.

New genus *Pseudocistelopsis* gen. nov. is described to include the following two species as follows: *Pseudocistelopsis jakli* sp. nov. from Indonesia (S. Kalimantan Isl.) as a type species and *Pseudocistelopsis malayensis* sp. nov. from Malaysia. Species of new genus *Pseudocistelopsis* gen. nov. are similar to those of the genus *Cistelopsis* Fairmaire, 1896. They differ mainly by very short antennomeres 2 and 3, antennomere 3 shortest, RL/WA of antennomeres 4-11 is higher than 2, by very narrow space between eyes (OI in males 8-11), by slightly widened and lobed only penultimate tarsomere and by bicolor dorsal surface of elytra; while species of genus *Cistelopsis* have antennomere 2 shortest and antennomere 3 distinctly longer than antennomere 2, RL/WA of antennomeres 4-11 is lower than 2, space between eyes wider than length of shortest antennomere and distinctly lobed and widened protarsomere and mesotarsomere 3 and 4, dorsal surface is usually unicolored dark.
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 or examined material, a slash (/) separates data in separate lines, a double slash (//) separates different labels.

The following collection codens are used:

- DHBC  private collection of David Hauck, Brno, Czech Republic;
- 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

Genus *Pseudocistelopsis* gen. nov.

Type species: *Pseudocistelopsis jakli* sp. nov.

**Description.** Habitus of male as in Figs. 1 and 9, body small, oval, slightly convex, dorsal surface setose, with punctuation, microgranulation and microrugosities, more matte. Widest near half elytra length. Head (Figs. 3 and 11) wide, distinctly wider than long, with shallow punctuation, microrugosities and microgranulation and sparse, long yellowish setation. Eyes very large, transverse, strongly excised, space between eyes very narrow; narrower than diameter of one eye, approximately as wide as length of the shortest antennomere (3); OI 8-11. Antenna (Figs. 5 and 13) relatively long, distinctly exceeding half body length. Shiny antennomeres 1 and 2 distinctly paler than matte antennomeres 4-10. Antennomeres 4-11 with dense and long pale setation are distinctly longer than very short antennomeres 2 or 3, antennomeres 4-10 widest at apex. Antennomere 3 shortest. RL/WA of antennomeres 4-11 is higher than 2. Maxillary palpus slightly shiny with sparse setation and microgranulation.
Palpomeres 2 and 3 distinctly narrowest at base and widest at apex, with a few long setae. Ultimate palpomere broadly triangular. Pronotum (Figs. 3 and 11) wide, transverse, approximately semicircular, widest in base, with microrugosities, sparse setation and dense punctuation. Lateral margins arcuate, base bisinuate, as wide as base of elytra. Anterior margin arcuate. Posterior angles roundly rectangular or roundly obtuse, anterior angles indistinct. Elytron wide, oval, slightly convex, dorsal surface with long, adjacent setation. Elytral striae with not clearly distinct rows of small punctures, elytral intervals with microgranulation and small punctures approximately as large as in striae. Scutellum small, transverse, pentagonal, with fine microgranulation or microrugosities, slightly shiny. Elytral epipleura well developed, wider in basal half, narrowing to ventrite 1, then parallel. Legs short, narrow, slightly shiny, with longer setation, microgranulation and sparse punctuation, punctures small. Penultimate tarsomere of each tarsus slightly but distinctly widened and lobed. Anterior tarsal claws long with visible teeth. Aedeagus (Figs. 7, 8, 15, 16) small, pale, shiny. Apical piece elongate, narrowly triangular dorsally, beak shaped dorsally and laterally.

Female. Without distinct differences, only space between eyes slightly wider. Habitus as in Figs. 2 and 10, head and pronotum (Figs. 4 and 12), antenna (Figs. 6, 14).

**Differential diagnosis.** Species of new genus *Pseudocistelopsis* gen. nov. are similar to those of the genus *Cistelopsis* Fairmaire, 1896. They differ mainly by very short antennomeres 2 and 3, antennomere 3 shortest, RL/WA of antennomeres 4-11 is higher than 2, by very narrow space between eyes (OI in males 8-11), by slightly widened and lobed only penultimate tarsomere and by bicolor dorsal surface of elytra; while species of genus *Cistelopsis* have antennomere 2 shortest and antennomere 3 distinctly longer than antennomere 2, RL/WA of antennomeres 4-11 is lower than 2, space between eyes wider than length of shortest antennomere and distinctly lobed and widened protarsomere and mesotarsomere 3 and 4, dorsal surface is usually unicolored dark.

**Etymology.** Compound name - *pseudo-* (false) and *Cistelopsis-* indicating the resembling appearance to *Cistelopsis* species. Gender masculine.

**Distribution.** Indonesia (S. Kalimantan Is.) and Malaysia.

**Pseudocistelopsis jakli** sp. nov.

(Figs. 1-8)

**Type locality.** Indonesia, S Kalimantan, Kandangan district, 17 km NE Loksado.

**Type material.** Holotype (♀): INDONESIA / S Kalimantan / Kandangan district / 17 km NE Loksado / 3.-22.9.1997 / St. Jákl lgt, (VNPC). Paratypes: (14 ♂♂, 1 ♀): same data as holotype, (DHBC, VNPC); (2 ♂♂, 2 ♀♀): same data as holotype, but 23.9.-30.10.1997, (DHBC, VNPC). The types are provided with a printed red label: 'Pseudocistelopsis jakli sp. nov. HOLOTPUS [or PARATYPUS] V. Novák det. 2017'.

**Description of holotype.** Habitus as in Fig. 1, body small, oval, slightly convex, from pale brown to black, more matte, dorsal surface setose, with punctuation and microgranulation. BL 4.41 mm. Widest near half elytra length; BL/EW 2.37.
Head (Fig. 3) wide, distinctly wider than long, reddish brown, with shallow punctuation, microrugosities and microgranulation and sparse, long yellowish setation. Clypeus and mandibles pale brown, mandibles with dark margins and apex. HL (visible part) 0.60 mm; HW 0.88 mm; HW/PW 0.54. Eyes very large, transverse, strongly excised, space between eyes very narrow; narrower than diameter of one eye, approximately as wide as length of antennomere 3; OI equal to 8.22.

Antenna (Fig. 5). Relatively long, AL 2.56 mm; AL/BL 0.58. Antennomeres 1 and 2 pale brown, with a few long, pale setae, shiny. Antennomeres 3-11 dark brown, matte, with dense and long pale setation, antennomeres 4-10 distinctly widest at apex. Antennomeres 2 and 3 very short, antennomere 3 shortest.


RL/WA: 1.30 : 0.97 : 0.82 : 2.13 : 2.22 : 3.09 : 2.76 : 2.63 : 2.34 : 2.16 : 2.69.

Figs. 1-8: Pseudocistelopsis jakli sp. nov.: 1- habitus of male holotype; 2- habitus of female; 3- head and pronotum of male holotype; 4- head and pronotum of female; 5- antenna of male holotype; 6- antenna of female; 7- aedeagus, dorsal view; 8- aedeagus, lateral view.
Maxillary palpus. Pale brown, with sparse, pale setation and microgranulation, slightly shiny. Palpomeres 2 and 3 distinctly narrowest at base and widest at apex, with a few long pale setae. Ultimate palpomere broadly triangular.

Pronotum (Fig. 3). Reddish brown, wide, transverse, approximately semicircular, widest in base, with microrugosities, sparse yellowish setation and dense punctuation, punctures medium-sized. PL 0.76 mm; PW 1.62 mm; PI equal to 46.91. Border lines complete, lateral margins arcuate, base bisinuate, as wide as base of elytra. Anterior margin arcuate. Posterior angles rounded rectangular, anterior angles indistinct.

Ventral side of body pale brown, with short, sparse setation and dense punctuation, punctures medium-sized. Abdomen with sparser pale brown setation, sparse punctuation, punctures very small. Ventrites 1-3 pale brown, ventrites 4 and 5 distinctly darker with microrugosities.

Elytron. Wide, oval, slightly convex, dorsal surface with long, yellowish, adjacent setation, posterior three quarters pale brown, anterior quarter black. Elytral striae with not clearly distinct rows of small-sized punctures, elytral intervals with microgranulation and small punctures approximately as large as in striae. EL 3.05 mm; EW 1.86 mm. EL/EW 1.64.

Scutellum. Smaller, transverse, pentagonal, reddish brown, with fine microgranulation, slightly shiny.

Elytral epipleura. Well developed, wide and pale brown with microrugosities and pale setae in basal half, narrowing to ventrite 1, then black, parallel with pale setae in apical part.

Legs. Pale brown, short, narrow, slightly shiny, with longer, yellowish setation, microgranulation and sparse punctuation, punctures small. Penultimate tarsomere of each tarsus distinctly widened and lobed. RLT: 1.00 : 0.48 : 0.50 : 0.60 : 1.04 (protarsus); 1.00 : 0.45 : 0.40 : 0.40 : 0.94 (mesotarsus); 1.00 : 0.27 : 0.21 : 0.29 (metatarsus).

Anterior tarsal claws long with 6 visible teeth.

Aedeagus (Figs. 7, 8). Pale, shiny. Basal piece long, slightly narrowing dorsally. Apical piece short, elongate, narrowly triangular dorsally, beak shaped dorsally and laterally. Ratio of length of apical piece to length of basal piece 1 : 5.49.

**Female.** Habitus as in Fig. 2, head and pronotum (Fig. 4), antenna (Fig. 6). Without distinct differences, only space between eyes slightly wider. Anterior tarsal claws with 4 visible teeth. RLA(1-10): 1.08 : 0.85 : 1.00 : 1.51 : 1.53 : 1.77 : 1.67 : 1.82 : 1.64 : 1.54.


RLT: 1.00 : 0.48 : 0.55 : 0.60 : 1.04 (protarsus); 1.00 : 0.45 : 0.40 : 0.40 : 0.94 (mesotarsus); 1.00 : 0.27 : 0.21 : 0.29 (metatarsus).

**Variability.** The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Males (n=17). BL 4.41 mm (4.25-4.49 mm); HL 0.59 mm (0.58-0.60 mm); HW 0.86 mm (0.83-0.88 mm); OI 9.37 (7.84-10.92); PL 0.74 mm (0.71-0.78 mm); PW 1.53 mm (1.43-1.62 mm); PI 48.49 (45.22-54.55); EL 3.00 mm (2.92-3.09 mm); EW 1.86 mm (1.82-1.89 mm). Females (n=3). BL 4.34 mm (4.20-4.60 mm); HL 0.60 mm (0.58-0.65 mm); HW 0.84 mm (0.82-0.87 mm); OI 15.82 (13.40-18.38); PL 0.79 mm (0.77-0.82 mm); PW 1.60 mm (1.55-1.68 mm); PI 49.60 (48.81-50.32); EL 2.95 mm (2.83-3.13 mm); EW 1.96 mm (1.86-2.01 mm).
Differential diagnosis. *Pseudocistelopsis jakli* sp. nov. clearly differs from the species *Pseudocistelopsis malayensis* sp. nov. mainly by colouring of dorsal surface of elytra (see Figs. 1, 2 and 9, 10) and by shapes of aedeagi (see and compare Figs. 7, 8 and 15, 16).

Etymology. The new species is dedicated to the collector of type series - Stanislav Jákl (Praha, Czech Republic), my friend and well known expert in the beetle subfamily Cetoniinae.

Distribution. Indonesia (S. Kalimantan Isl.).

*Pseudocistelopsis malayensis* sp. nov.  
(Figs. 9-16)

Type locality. W Malaysia, Pahang, 30 km SE Ipoh, Banjaran Titi Wangsa, Tanah Rata.

Type material. Holotype (♂): MALAYSIA-W Pahang, / 30km SE IPOH, 1500m, / Banjaran Titi Wangsa / TANAH RATA, 14-15.iii. / 2002, P. Čechovský leg., (VNPC). Paratypes: (1 ♀): same data as holotype, (VNPC); (1 ♂): MALAYSIA-W, Perak, / 25 km NE IPOH, 1200 m, / Banjaran Titi Wangsa mts., / KORBU mt., 27.i-2.ii. / 1999, P. Čechovský leg., (DHBC); (1 ♀): MALAYSIA-W, Perak, / 25 km NE IPOH, 1200 m, / Banjaran Titi Wangsa mts., / KORBU mt., 27.i-2.ii. / 1999, P. Čechovský leg., (DHBC); (1 ♀): same data as penultimate, but 2100 m and 4.-13.iii.1998, (DHBC); (1 ♀): MALAYSIA; PAHANG; / Benom Mts.; / 24.iii.-15.iv.1998;300-1000m; / D. Hauck leg., (VNPC); (1 ♀): same data as penultimate, but 2100 m and 4.-13.iii.1998, (DHBC); (1 ♀): MALAYSIA; PAHANG; / Benom Mts.; / 3,53N 102,01E; / 300-1000m; / D. Hauck leg., (DHBC). The types are provided with a printed red label: 'Pseudocistelopsis malayensis sp. nov. HOLOTYPUS [or PARATYPUS] V. Novák det. 2017'.

Description of holotype. Habitus as in Fig. 9, body small, oval, slightly convex, from pale brown to black, slightly shiny, dorsal surface setose, with punctuation and microgranulation. BL 4.17 mm. Widest near half elytra length; BL/EW 2.41.

Head (Fig. 11) wide, distinctly wider than long, with shallow punctuation, microrugosities and sparse, long yellowish setation. Posterior part brown, anterior part reddish brown and clypeus pale brown. HL (visible part) 0.60 mm; HW 0.83 mm; HW/PW 0.56. Eyes very large, transverse, strongly excised, space between eyes very narrow; narrower than diameter of one eye, slightly narrower than length of antennomere 3; OI equal to 8.39.

Antenna (Fig. 13). Relatively long, AL 2.46 mm; AL/BL 0.59. Antennomeres 1-3 pale brown, with a few long, pale setae, shiny. Antennomeres 4-11 distinctly darker, reddish brown, matte, with dense and long pale setation, punctuation and fine microgranulation, antennomeres 4-10 distinctly widest at apex. Antennomeres 2 and 3 very short, antennomere 3 shortest.

RLA: 2.11 : 1.09 : 1.00 : 2.89 : 3.21 : 3.32 : 3.46 : 3.32 : 3.36 : 3.14 : 3.64.


Maxillary palpus. Pale brown, with sparse, pale setation and microgranulation, slightly shiny. Palpomeres 2 and 3 distinctly narrowest at base and widest at apex, with a few long setae. Ultimate palpomere broadly triangular.

Pronotum (Fig. 11). Reddish brown, wide, transverse, approximately semicircular, widest in base, with microrugosities, long yellowish setation and dense punctuation, punctures medium-sized. PL 0.67 mm; PW 1.48 mm; PI equal to 45.27. Border lines complete only in the middle of anterior margin not clearly distinct, lateral margins arcuate, base bisinuate, as wide as base of elytra. Anterior margin arcuate. Posterior angles roundly rectangular, anterior angles indistinct.
Ventral side of body reddish brown with short, pale setation and punctures. Abdomen with sparse, longer pale setae, fine microgranulation and microrugosities, shiny. Ventrites 1 and 2 pale reddish brown, ventrites 3-5 distinctly darker, blackish brown.

Elytron. Wide, oval, distinctly convex, dorsal surface with long and dense, yellowish setation, dorsal surface black with large orange red spot near suture (as in Fig. 9). Elytral striae with not clearly distinct rows of punctures, elytral intervals with microgranulation and punctures approximately as large as in striae. EL 2.90 mm; EW 1.73 mm. EL/EW 1.68.

Scutellum. Smaller, transverse, pentagonal, reddish brown, with microrugosities, slightly shiny.

Elytral epipleura. Well developed, pale reddish brown, very wide in basal half, with pale setae and punctures, regularly narrowing to ventrite 1, then leads parallel.

Legs. Pale brown, short, narrow, slightly shiny, with longer, yellowish setation, microgranulation and sparse punctuation, punctures small. Penultimate tarsomere of each tarsus distinctly widened and lobed. RLT: 1.00 : 0.63 : 0.51 : 1.05 : 1.73 (protarsus); 1.00 : 0.39 : 0.31 : 0.41 : 0.70 (mesotarsus); 1.00 : 0.24 : 0.12 : 0.33 (metatarsus).

Anterior tarsal claws long with 6 visible teeth.

Figs. 9-16: *Pseudocistelopsis malayensis* sp. nov.: 9- habitus of male holotype; 10- habitus of female; 11- head and pronotum of male holotype; 12- head and pronotum of female; 13- antenna of male holotype; 14- antenna of female; 15- aedeagus, dorsal view; 16- aedeagus, lateral view.

**Female.** Without distinct differences, only space between eyes slightly wider. Anterior tarsal claws with 5 visible teeth. Habitus as in Fig. 10, head and pronotum (Fig. 12) and antenna as in Fig. 14.

RLA: 1.08 : 0.78 : 1.00 : 1.58 : 1.63 : 1.58 : 1.55 : 1.78.
RLT: 1.00 : 0.49 : 0.53 : 0.62 : 1.03 (protarsus); 1.00 : 0.36 : 0.33 : 0.33 : 0.55 (mesotarsus); 1.00 : 0.30 : 0.25 : 0.39 (metatarsus).

**Variability.** The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Males (n=3). BL 4.13 mm (3.90-4.32 mm); HL 0.63 mm (0.60-0.67 mm); HW 0.80 mm (0.77-0.83 mm); OI 9.44 (8.39-11.14); PL 0.70 mm (0.66-0.76 mm); PW 1.45 mm (1.39-1.49 mm); PI 47.92 (45.27-51.01); EL 2.81 mm (2.63-2.90 mm); EW 1.72 mm (1.65-1.77 mm). Females (n=3). BL 4.14 mm (4.08-4.21 mm); HL 0.62 mm (0.60-0.63 mm); HW 0.79 mm (0.76-0.82 mm); OI 12.44 (11.81-12.95); PL 0.70 mm (0.64-0.74 mm); PW 1.48 mm (1.44-1.51 mm); PI 46.92 (44.44-49.01); EL 2.83 mm (2.79-2.87 mm); EW 1.76 mm (1.67-1.81 mm).

**Differential diagnosis.** *Pseudocistelopsis malayensis* sp. nov. clearly differs from the species *Pseudocistelopsis jakli* sp. nov. mainly by colouring of dorsal surface of elytra (see Figs. 9, 10 and 1, 2) and by shape of aedeagi (see and compare Figs. 15, 16 and 7, 8).

**Etymology.** Named after the type locality - country of origin Malaysia.

**Distribution.** Malaysia.

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