

New genera of Alleculinae (Coleoptera: Tenebrionidae) from Palaearctic and Oriental Regions IX - *Psis* gen. nov.

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Abstract. A new genus of Alleculini Laporte, 1840 - *Psis* gen. nov. is described to include the following new species *Psis nanensis* sp. nov. as a type species from Malaysia and Thailand, *Psis bheriensis* sp. nov. from India, Nepal and Pakistan and *Psis mechiensis* sp. nov. from Nepal. The new genus is compared with similar genus *Cistelopsis* Fairmaire, 1896 and new species are described, keyed and 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 parts of Palaearctic Region and mainly in the Oriental Region. Borchmann (1910) in *Coleopterorum Catalogus* listed 2 species, Novák & Pettersson (2008) presented four species from the Palaearctic Region. A majority of more than 60 species of this genus from the Oriental Region were described as small (body length smaller than 8 mm), oval, egg-shaped species with dark unicolored dorsal surface with dense setation and short antennae. Antennomeres are strong and broad, ratio length / maximum width for antennomeres 3-11 is almost lower than 2.

The new genus *Psis* gen. nov. is described to include the new species *Psis bheriensis* sp. nov. from India, Nepal and Pakistan, *Psis mechiensis* sp. nov. from Nepal and *Psis nanensis* sp. nov. from Malaysia and Thailand as a type species.

The new genus is compared with a similar genus *Cistelopsis* Fairmaire, 1896. The differentiating characters are mainly more elongate and narrow body, lateral sides of elytra almost parallel, prosternal process between anterior coxae not extended against mesosternum, pronotum convex, base of pronotum distinctly wider than base of elytra, antennomere 3 approximately as long as or longer than each of antennomeres 4-6 and RL/WA of antennomeres 3-11 are higher than 2.

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 type or examined material, a slash (/) separates data in separate rows.

The following collection codens are used:

- APEG private collection of Andreas Pütz, Eisenhüttenstadt, Germany;
- KMTJ private collection of Kimio Masumoto, Tokio, Japan;
- NMED collection of Naturkundemuseum, Erfurt, Germany;
- NMPC collection of National Museum, Praha, Czech Republic;

NMTJ collection of National Museum, Tokio, Japan;

SMNS collection of Staatliches Museum für Naturkunde, Stuttgart, Germany;

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).

Other abbreviations used in text are as follows: pb= printed black, wl= white label, yl= yellow label.

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

DESCRIPTION OF THE GENUS *PSIS* GEN. NOV.

Genus *Psis* gen. nov.

Type species: *Psis nanensis* sp. nov.

Description. Habitus as in Figs. 1, 6 and 11, body small, elongate, sides parallel, slightly convex, dorsal surface with punctuation, fine microgranulation and pale setation, BL 5.4-6.7 mm. Widest near half elytra length. Head (Figs. 2, 7 and 12) relatively large, transverse, distinctly wider than long, with long, pale setation, dense punctuation and fine microgranulation. Clypeus slightly paler than head, shiny with long pale setation, fine microgranulation, rounded apically. Widest through the eyes, eyes large, transverse, excised, space between eyes relatively wide, as wide as or wider than length of each antennomere; OI between 28-49. Antennae (Figs. 3, 8 and 13) short and strong, not reaching half body length, with long, pale setation, shallow punctures and very fine microgranulation. Antennomeres 1-4 slightly shiny, antennomeres 5-11 rather matte, antennomeres 3-10 distinctly widest at apex, ultimate antennomere drop-shaped, widest near apex. Antennomere 2 shortest, antennomere 11 longest. Antennomeres almost more than two times and not more than three times longer than wide in widest place. Ultimate palpomere widely triangular, palpomeres 2 and 3 distinctly dilated anteriorly. Pronotum (Figs. 2, 7 and 12) wide, transverse, approximately as wide as elytra, in base slightly wider than elytron in base, almost semicircular, convex, with dense, semierect, pale setation, dense punctuation, punctures relatively large and slightly coarse, interspaces between punctures narrow, distinctly narrower than diameter of punctures. Border lines very narrow, but distinct and complete. Lateral and anterior margins arcuate, posterior margin bisinuate, anterior angles indistinct, posterior angles obtuse. PI in range 56-69. Ventral side of body with punctures and pale setae. Prosternal process between anterior coxae not extended against mesosternum. Abdomen with dense, pale setation, dense punctuation, punctures small and shallow, slightly shiny. Elytron elongate oval, sides parallel, widest near middle, slightly convex. Dorsal surface with long and dense, semierect pale setation. Rows of punctures in elytral striae not clearly conspicuous, punctures only slightly larger

than those in flat elytral interspaces. Elytral interspaces with microgranulation and relatively dense punctuation. Scutellum triangular with a few punctures. Elytral epipleura well-developed, with long, pale setation and punctures, leads parallel from mesosternum. Legs relatively short, with dense, pale setation, small punctures and very fine microgranulation. Femora strong, tibiae with short and strong setae on outer side. Penultimate tarsomeres and pro- and mesotarsomeres 3 widened and lobed. Anterior tarsal claws with 9-12 visible teeth. Aedeagus (Figs. 4, 5, 9, 10, 14 and 15). Small, ochre yellow, shiny. Basal piece distinctly narrowing dorsally. Apical piece elongate triangular, beak-shaped dorsally and laterally.

Female without distinct differences.

Differential diagnosis. Species of the new genus *Psis* gen. nov. are similar to those of the genus *Cistelopsis* Fairmaire, 1896.

Species of *Psis* differ from species of *Cistelopsis* mainly by its habitus more elongate, lateral sides of elytra almost parallel (Figs. 1, 6 and 11), prosternal process between anterior coxae not extended against mesosternum, pronotum convex, base of pronotum distinctly wider than base of elytra (Figs. 2, 7 and 12), antennomere 3 approximately as long as or longer than each of antennomeres 4-6 and RL/WA of antennomeres 3-11 are higher than 2; while species of *Cistelopsis* have egg-shaped, oval body, widest near base or in basal half of elytra, lateral sides are arcuate, prosternal process between anterior coxae distinctly extended against mesosternum, pronotum slightly convex, base of elytra as wide as or wider than base of pronotum, antennomeres 4-6 are each distinctly longer than antennomere 3 and RL/WA of antennomeres 3-11 are lower than 2.

Etymology. The name *Psis* is taken from *Cistelopsis* as its ending and marking its similarity to the genus *Cistelopsis* Fairmaire, 1896. Gender: masculine.

Distribution. India, Malaysia, Nepal, Pakistan and Thailand.

KEY TO THE SPECIES OF *PSIS* GEN. NOV.

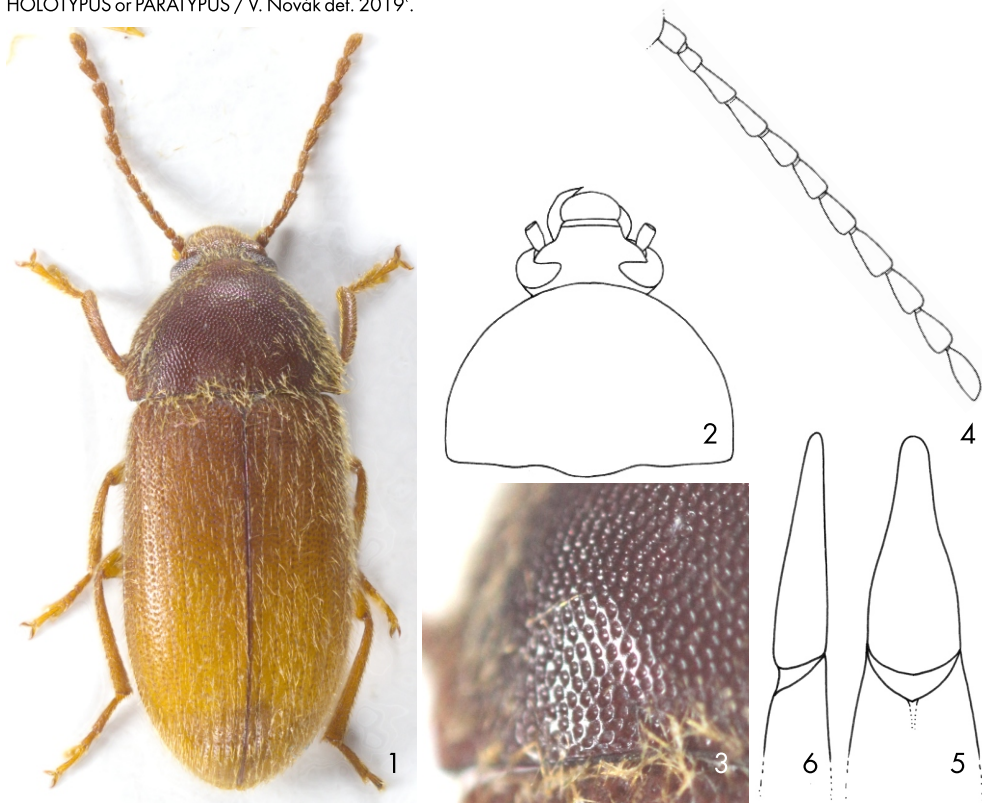
- A (B) Body oval, prosternal process between anterior coxae extended against mesosternum, lateral sides of elytra arcuate. *Cistelopsis* Fairmaire, 1896
- B (A) Body elongate oval, prosternal process between anterior coxae not extended against mesosternum, lateral sides of elytra parallel. *Psis* gen. nov. 1
- 1 (2) Space between eyes narrow, distinctly narrower than transverse length of one eye (OI 28-31). Habitus as in Fig. 7, head and pronotum (Fig. 8), punctuation of pronotum (Fig. 9), antenna (Fig. 10) and aedeagus as in Figs. 11 and 12. Nepal (Mechi province). *Psis mechiensis* sp. nov.
- 2 (1) Space between eyes wider than transverse length of one eye (OI 39-49). 3
- 3 (4) Body large (BL 6.0-6.7), punctures of pronotum larger and coarser. Habitus as in Fig. 1, head and pronotum (Fig. 2), punctuation of pronotum (Fig. 3), antenna (Fig. 4) and aedeagus as in Figs. 5 and 6. Nepal (Bheri province). *Psis bheriensis* sp. nov.
- 4 (3) Body small (BL 5.4-5.8), punctures on pronotum smaller and shallower. Habitus as in Fig. 13, head and pronotum (Fig. 14), punctuation of pronotum (Fig. 15), antenna (Fig. 16) and aedeagus as in Figs. 17 and 18. Malaysia, Thailand. *Psis nanensis* sp. nov.

***Psis bheriensis* sp. nov.**

(Figs. 1-6)

Type locality. Nepal, province Bheri, Nepalganj, N 28°04'97'', E 81°38'56'', 140 m.

Type material. Holotype (♂): wl: NEPAL, Prov. Bheri / D: Banke, Nepalganj / Hotel Kitchen Hut // wl: 140m NN, N 28°04'97'' / E 81°38'56'', on light / 23.-25.VI.2011 / leg. M. Hartmann #02 // yl: collection / NATURKUNDE - / MUSEUM ERFURT, (NMED). Paratypes: (1 ♂): Nepal P: Bheri/D: Banke / Nepalganj, Hotel Sneha / 05.VII.2009 LF / leg. D. Mattern // N28°02'53'' / E81°36'54'' / 125m NN (#64), (VNPC); (1 spec.): wl: NEPAL Bheri/Banke / Nepalganj, Hotel Sneha / N28°02'53'', E 81°36'54'' / 125m, 05.VII.2009 by / light leg. A. Weigel #64, (NMED); (1 spec.): wl: NEPAL Bheri zone / Nepalgunj 200m 17.- / 20.6.95 lg. Ahrens & Pommeranz, (NMED); (1 ♀): wl: INDIA occ., 7.-11.x.2005 / Maharashtra state / MULSHI env.F.Kantner leg. / 40 km of Pune, (SMNS); (2 spec.): INDIA W, 7.-11.x.2005, / Maharashtra state, / 40 km W of Pune, / Mulshi env., J. Bezděk leg., (NMPC, VNPC); (2 spec.): wl: Pakistan: / Rawalpindi / Ayub – Park / 7.-8.IX.1988 / Heinz leg. [hb], (APEG, VNPC). The types are provided with a printed red label: '*Psis* / *bheriensis* sp. nov. / HOLOTYPE or PARATYPE / V. Novák det. 2019'.



Figs. 1-6. *Psis bheriensis* sp. nov.: 1-4: male holotype: 1- Habitus; 2- head and pronotum; 3- punctation of pronotum; 4- antenna; 5- aedeagus, dorsal view; 6- aedeagus, lateral view.

Description of holotype. Habitus as in Fig. 1, body small, elongate oval, sides parallel, slightly convex, dorsal surface from pale brown to dark brown, with punctuation, fine microgranulation, long and dense ochre yellow setation, matte; BL 6.51 mm. Widest near half elytra length; BL/EW 2.55.

Head (Fig. 2) relatively small, transverse, slightly shiny, distinctly wider than long, with dense and long, ochre yellow setation and dense punctuation, punctures medium sized. Posterior part dark brown, with punctures distinctly larger and coarser than those in brown anterior part. Intervals between punctures narrow. Clypeus shiny, pale brown, with fine microgranulation and very small

and shallow punctures, distinctly paler than anterior part, apex of clypeus arcuate. Mandibles shiny, pale reddish brown, glabrous from dorsal view, sides with pale setation. Widest through the eyes, HW 1.20 mm; HW/PW 0.51. HL (visible part) 0.89 mm. Eyes very large, transverse, excised, space between eyes relatively wide, distinctly wider than length of one eye, wider than length of each antennomere; OI equal to 39.47.

Antennae (Fig. 4). Short, brown (AL 2.73 mm, not reaching half body length, AL/BL 0.42), with long and dense, semierect, ochre yellow setation, very fine microgranulation and sparse, small punctures. Antennomeres 1-3 slightly shiny, antennomeres 4-11 more matte, antennomeres 4-10 slightly serrate. Ultimate antennomere arcuate, drop shaped, widest near apex. Antennomere 2 shortest.

RLA (1-1 1) equal to: 0.77 : 0.50 : 1.00 : 1.09 : 0.93 : 0.95 : 1.01 : 1.24 : 1.16 : 1.08 : 1.30.

RL/WA (1-1 1) equal to: 1.33 : 1.37 : 2.50 : 2.33 : 2.54 : 2.54 : 2.80 : 2.58 : 2.35 : 2.43 : 3.08.

Maxillary palpus ochre yellow, slightly shiny, with long, pale setae. Ultimate palpomere widely triangular, palpomeres 2 and 3 distinctly dilated anteriorly.

Pronotum (Fig. 2). Dark brown, transverse, almost semicircular, wider in base than elytron in base, convex, with dense and long, semierect, ochre yellow setation, dense punctuation (Fig. 3), punctures relatively large and coarse, distinctly larger than those on head, interspaces between punctures very narrow. Border lines very narrow, but distinct and complete, only in the middle of anterior margin not clearly conspicuous. Lateral and anterior margins arcuate, posterior margin bisinuate, anterior angles indistinct, posterior angles roundly rectangular. PL 1.49 mm; widest at base, PW 2.36 mm; PI equal to 63.14.

Ventral side of body with pale setation. Prothorax dark brown, with setation distinctly denser and longer than those in mesothorax and metathorax. Mesothorax with punctures distinctly larger than those on metathorax. Abdomen pale brown, with pale setation, dense punctuation, punctures small and shallow, shiny.

Elytra pale brown, elongate oval, sides more parallel, widest near middle, slightly convex, rather matte. Dorsal surface with long, semierect, ochre yellow setation. Elytral striae with distinct rows of coarse punctures, distinctly smaller than those in disc of pronotum, elytral interspaces with microgranulation and dense punctuation, punctures distinctly smaller than those in striae. EL 4.25 mm; EW 2.55 mm. EL/EW 1.67.

Scutellum. Brown as elytron itself with sides narrowly darker, roundly triangular with long ochre yellow setae, microgranulation and small punctures.

Elytral epipleura well-developed, parallel, brown as elytron itself, with dense and long ochre yellow setation and punctuation.

Legs brown, narrow, with dense and long, ochre yellow setation, small punctures and microgranulation. Outer edge and ventral side of protibiae with strong, short setae, meso- and metatibiae with long, strong setae in outer side. Tarsi pale brown, distinctly paler than tibiae, pro- and mesotarsomeres 3, 4 and metatarsomere 3 widened and lobed. RLT (1-5 or 1-4) equal to: 1.00 : 0.84 : 1.12 : 2.16 : 3.46 (protarsus), 1.00 : 0.48 : 0.46 : 0.71 : 1.26 (mesotarsus), and 1.00 : 0.43 : 0.46 : 0.76 (metatarsus).

Anterior tarsal claws with 12 and 11 visible teeth.

Aedeagus (Figs. 5 and 6). Small, ochre yellow, shiny. Basal piece distinctly narrowing dorsally. Apical piece triangular with rounded top and beak-shaped dorsally and laterally. Ratio of length of apical piece to length of basal piece from dorsal view 1 : 3.71.

Female without distinct differences.

Variability. The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Specimens (n=9). BL 6.31 mm (5.97-6.68 mm); HL 0.72 mm (0.66-0.85 mm); HW 1.15 mm (1.06-1.36 mm); OI 42.35 (39.39-46.67); PL 1.36 mm (1.21-1.49 mm); PW 2.24 mm (2.04-2.41 mm); PI 60.92 (56.43-63.14); EL 4.22 mm (3.98-4.40 mm); EW 2.44 mm (2.16-2.55 mm).

Differential diagnosis. Similar species are *Psis mechiensis* sp. nov. from Nepal and *Psis nanensis* sp. nov. from Thailand and Malaysia.

The new species *Psis bheriensis* sp. nov. is clearly different from similar species *Psis mechiensis* sp. nov. mainly by wide space between eyes, distinctly wider than transverse length of one eye (OI 39-47) and by shape of aedeagus (as in Figs. 5 and 6); while *P. mechiensis* has space between eyes narrow, distinctly narrower than transverse length of one eye (OI 28-31) and shape of aedeagus as in Figs. 11 and 12.

New species *P. bheriensis* distinctly differs from *P. nanensis* mainly by shape and punctuation of pronotum, which is widest at base and punctures are larger and coarser than in *P. nanensis*, by shape of aedeagus (as in Figs. 4 and 5) and larger body than has *P. nanensis* (it has pronotum widest approximately in one quarter from base to apex, punctures more shallow and smaller than those in pronotum of *P. bheriensis*), aedeagus of *P. nanensis* as in Figs. 17 and 18.

Etymology. Toponymic, named after province Bheri in Nepal.

Distribution. India (Maharashtra state), Nepal (Bheri province), Pakistan.

Psis mechiensis sp. nov.

(Figs. 7-12)

Type locality. Nepal, Mechi province, district Taplejung, from Phumphe to Khesewa, 1900-2200 m, 27°22'30"N, 87°48'54"E, deciduous forest.

Type material. Holotype (♂): wl: NEPAL, P: Mechi D: Taple- / jung, 20-15 km E Taplejung, / Phumphe to Khesewa 1900- / 2200m, 27°22'30"N, 87°48' / 54"E, 25.V.2003, deciduous / forest, leg. A. Weigel [pb] // yl: collection / Naturkunde / museum Erfurt [pb], (NMED). Paratypes: (1 ♂ and 2 spec.): same data as holotype, (NMED, VNPC). The types are provided with a printed red label: 'Psis / mechiensis sp. nov. / HOLOTYPUS or PARATYPUS / V. Novák det. 2019'.

Description of holotype. Habitus as in Fig. 7, body small, elongate oval, sides parallel, slightly convex, dorsal surface from ochre yellow to brown, with punctuation, fine microgranulation and ochre yellow setation, BL 5.67 mm. Widest near half elytra length; BL/EW 2.58.

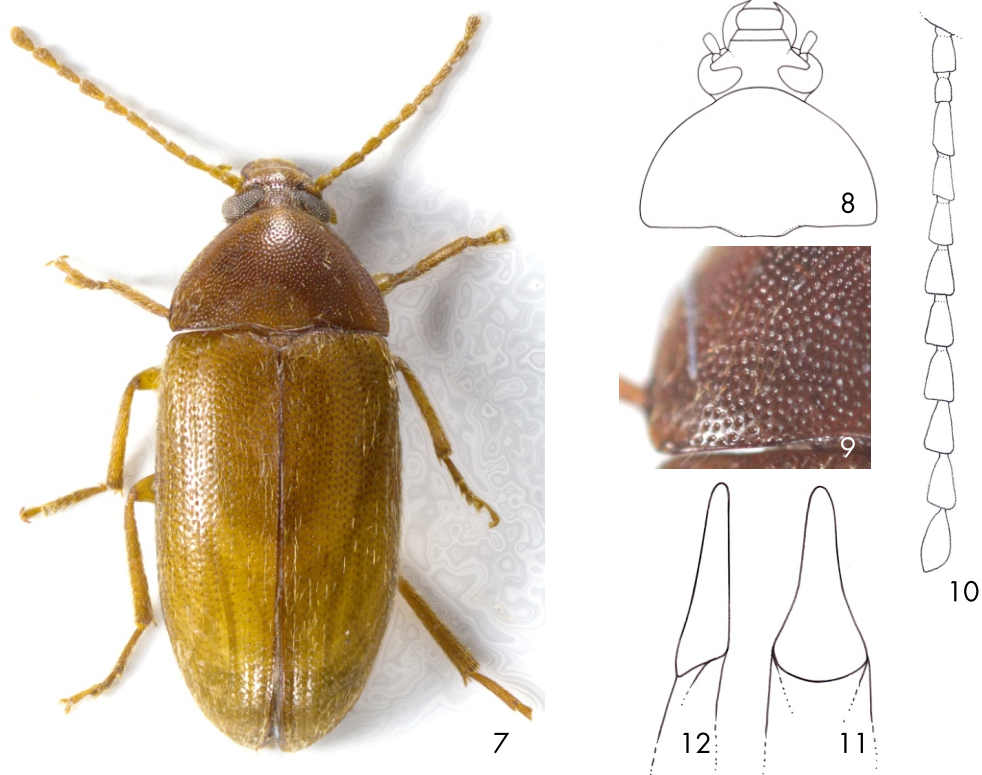
Head (Fig. 8) relatively large, transverse, distinctly wider than long, brown, with long, ochre yellow, semierect setation, fine microgranulation and microrugosities. Dorsal surface with dense punctuation, punctures larger and coarser in posterior part than in pale brown anterior half. Clypeus pale brown and shiny with long ochre yellow setation and fine microgranulation, straight in apex. Mandibles pale brown, shiny with long pale setae near sides. Widest through the eyes, HW 1.01 mm; HW/PW 0.52. HL (visible part) 0.66 mm. Eyes very large, transverse, excised, space between eyes narrow, distinctly narrower than length of one eye, approximately as wide as length of antennomere 3; OI equal to 28.15.

Antennae (Fig. 10). Short, ochre yellow, antennomeres 8-11 slightly darker pale brown (AL 2.53 mm, not reaching half body length, AL/BL 0.45), with long ochre yellow setation, fine

microgranulation and shallow punctures. Antennomeres 1 and 2 very slightly shiny, antennomeres 3-11 rather matte, antennomeres 3-10 distinctly widest in apex, ultimate antennomere longest and drop-shaped, widest near apex. Antennomere 2 shortest.

RLA(1-11): 0.74 : 0.55 : 1.00 : 0.92 : 0.90 : 0.97 : 0.95 : 1.14 : 1.06 : 1.03 : 1.15.

RL/WA(1-11): 1.74 : 1.82 : 2.70 : 2.23 : 2.75 : 2.84 : 2.48 : 2.31 : 2.33 : 2.50 : 2.80.



Figs. 7-12. *Psis mechiensis* sp. nov.: Figs. 7-10: male holotype: 7- Habitus; 8- head and pronotum; 9- punctuation of pronotum; 10- antenna; 11- aedeagus, dorsal view; 12- aedeagus, lateral view.

Maxillary palpus ochre yellow, shiny, with pale setation. Ultimate palpomere widely triangular, palpomeres 2 and 3 distinctly dilated anteriorly with long setae near apex.

Pronotum (Fig. 8). Brown, transverse, semicircular, widest near one fifth from base to apex, slightly convex, with sparse, long, ochre yellow setae, setation slightly denser in apex and near lateral margins. Dorsal surface with dense punctation (Fig. 9), punctures medium-sized and slightly coarse, interspaces between punctures narrow, with fine microgranulation. Border lines very narrow, distinct and complete. Lateral and anterior margins arcuate, posterior margin bisinuate, anterior angles indistinct, posterior angles roundly obtuse. PL 1.17 mm; PW 1.96 mm; Pl equal to 59.18.

Ventral side of body. Prothorax and mesothorax reddish brown with punctation and pale setation. Setation of prothorax denser than in meso- and metathorax. Abdomen ochre yellow, shiny, with long, pale setae, small and dense, shallow punctures. Apical half of ultimate sternite

brown, distinctly darker than ventrites 1-4 with distinct microgranulation.

Elytron ochre yellow, elongate oval, sides parallel, widest near middle, slightly convex. Dorsal surface with relatively long and dense, recumbent, ochre yellow setation. Rows of punctures in elytral striae not clearly conspicuous everywhere, elytral interspaces flat, with microgranulation and relatively dense punctures slightly smaller than those in striae. EL 3.84 mm; EW 2.20 mm. EL/EW 1.75.

Scutellum. Ochre yellow as elytron itself with margins dark, pentagonally shaped with microrugosities and a few long, pale setae.

Elytral epipleura well-developed, ochre yellow as elytron itself, shiny with long, pale setae and large punctures, relatively wide leads parallel from metasternum.

Legs pale brown, relatively short, with dense, ochre yellow setation, sparse punctures and very fine microgranulation. Femora strong, protibiae with shorter strong setae in outer side. Penultimate tarsomeres and pro- and mesotarsomeres 3 widened and lobed. RLT: 1.00 : 0.87 : 1.19 : 1.48 : 2.74 (protarsus); 1.00 : 0.32 : 0.41 : 0.50 : 1.02 (mesotarsus); 1.00 : 0.29 : 0.23 : 0.47 (metatarsus).

Anterior tarsal claws with 8 visible teeth.

Aedeagus (Figs. 11 and 12). Small, ochre yellow, shiny. Basal piece slightly narrowing dorsally. Apical piece elongate triangular with rounded top dorsally and laterally. Ratio of length of apical piece to length of basal piece from dorsal view 1 : 4.59.

Female without distinct differences.

Variability. The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Specimens (n=4). BL 6.02 mm (5.67-6.24 mm); HL 0.69 mm (0.66-0.71 mm); HW 1.01 mm (0.99-1.03 mm); OI 29.35 (28.15-30.64); PL 1.27 mm (1.17-1.34 mm); PW 2.15 mm (1.96-2.24 mm); PI 58.86 (56.70-59.82); EL 4.06 mm (3.84-4.19 mm); EW 2.35 mm (2.20-2.46 mm).

Differential diagnosis. Similar species are *Psis bheriensis* sp. nov. from India, Nepal and Pakistan and *Psis nanensis* sp. nov. from Malaysia and Thailand.

The new species *Psis mechiensis* sp. nov. is clearly different from both similar species *Psis bheriensis* sp. nov. and *Psis nanensis* sp. nov. mainly by narrow space between eyes, distinctly narrower than transverse length of one eye (OI 28-31); while *P. bheriensis* and *P. mechiensis* have space between eyes wide, distinctly wider than transverse length of one eye (OI 39-49) and by shape of aedeagus (Figs. 5 and 6 respectively Figs. 17 and 18).

Etymology. Toponymic, named after Mechi province in Nepal.

Distribution. Nepal (Mechi province).

***Psis nanensis* sp. nov.**

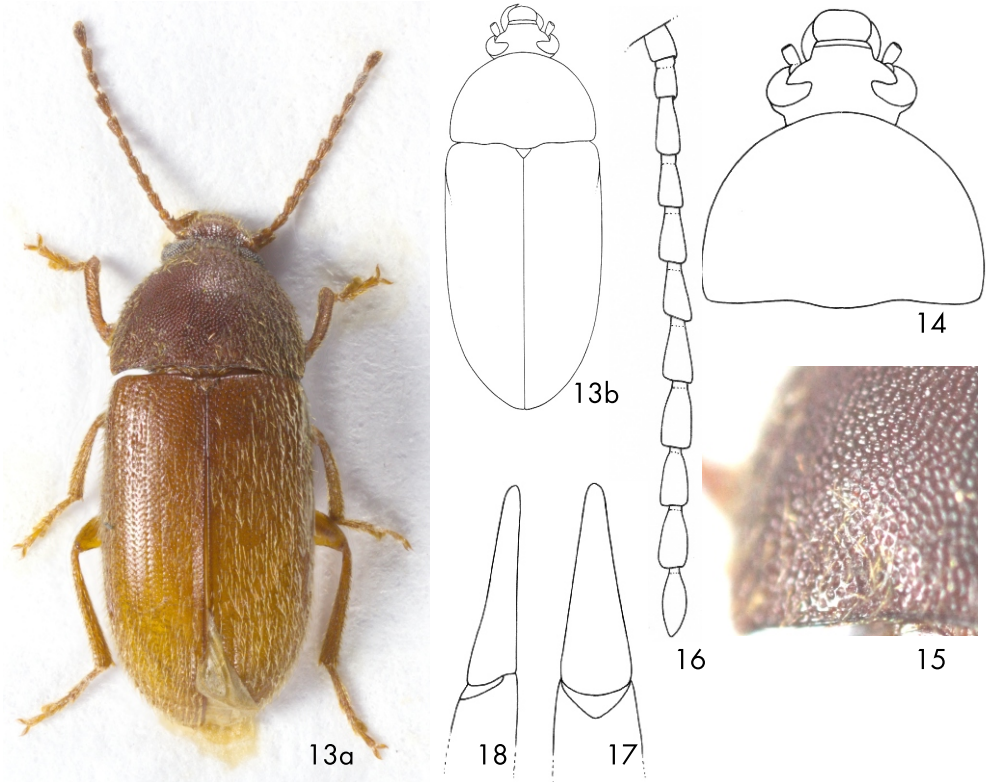
(Figs. 13-18)

Type locality. Northern Thailand, district Nan.

Type material. Holotype (♂): wl: N-THAILAND / Nan / 22.-24.V.1999 / leg.R.GRIMM, (SMNS). Paratypes: (38 spec.): same data as holotype, (SMNS, VNPC); (3 spec.): yl: N-THAILAND: Lom Sak / 40 km N Phetchabun / ca 120m August 1987 / leg. W. THIELEN, (SMNS, VNPC); (1 ♂): wl: Thailand, Chiang Mai, / Ban Huai Tueng Thao, / 6. XI.2012 / K. Takahashi

leg., (NMTJ); (1 ♀): same data as penultimate, but K. Masumoto & / K. Takahashi leg., (KMTJ); (1 ♀): wl: MALAYSIA W., KELANTAN / 90 km N of Gua Musang / Gunung Basor, 1700 m / Kampong Kubur Datu / 10.iv.-5.v.2016 / Petr Cechovsky lgt, (VNPC). The types are provided with a printed red label: '*Psis / nanensis* sp. nov. / HOLOTYPE [or PARATYPE] / V. Novák det. 2019'.

Description of holotype. Habitus as in Fig. 13a, b, body small, elongate oval, sides parallel, slightly convex, dorsal surface from pale brown to reddish brown, with punctuation, fine microgranulation and ochre yellow setation, BL 5.80 mm. Widest near half elytra length; BL/EW 2.97.



Figs. 13-18. *Psis nanensis* sp. nov.: Figs. 13-16: male holotype: 13a, b-Habitus; 14- head and pronotum; 15- punctuation of pronotum; 16-antenna; 17-aedeagus, dorsal view; 18-aedeagus, lateral view.

Head (Fig. 14) relatively large, transverse, distinctly wider than long, reddish brown, with long, ochre yellow, semierect setation, fine microgranulation and dense punctuation, punctures larger and coarser in posterior part than in anterior half. Clypeus slightly paler than head, shiny with long ochre yellow setation, fine microgranulation, rounded in apex. Widest through the eyes, HW 1.04 mm; HW/PW 0.55. HL (visible part) 0.77 mm. Eyes very large, transverse, excised, space between eyes wide, distinctly wider than length of one eye, distinctly wider than length of each antennomere; OI equal to 48.91.

Antennae (Fig. 16). Short, brown, antennomeres 8-11 slightly darker apically (AL 2.40 mm, not reaching half body length, AL/BL 0.41), with long ochre yellow setation, fine microgranulation

and shallow punctures. Antennomeres 1 and 2 slightly shiny, antennomeres 3-11 rather matte, antennomeres 3-10 distinctly widest in apex, pale brown, ultimate antennomere arcuate, drop shaped, widest near apex. Antennomere 2 shortest.

RLA (1-11) equal to: 0.65 : 0.43 : 1.00 : 0.99 : 0.98 : 0.99 : 1.11 : 1.22 : 1.10 : 1.08 : 1.24.

RL/WA (1-11) equal to: 1.43 : 1.27 : 2.12 : 2.17 : 1.88 : 1.89 : 2.19 : 2.29 : 1.98 : 1.99 : 2.24.

Maxillary palpus brown, slightly shiny, with fine microgranulation and pale setation. Ultimate palpomere widely triangular, palpomeres 2 and 3 distinctly dilated anteriorly.

Pronotum (Fig. 14). Reddish brown, slightly transverse, slightly longer than semicircular, widest near one fifth from base to apex, slightly convex, with dense, semierect, ochre yellow setation, dense punctuation (Fig. 15), punctures relatively large and slightly coarse, interspaces between punctures narrow, with microgranulation. Border lines very narrow, but distinct and complete. Lateral and anterior margins arcuate, posterior margin bisinuate, anterior angles indistinct, posterior angles roundly obtuse. PL 1.26 mm; PW 1.84 mm; PI equal to 66.67.

Ventral side of body. Prothorax and mesothorax reddish brown, distinctly darker than metathorax. Prothorax with dense and long, pale setation, mesothorax with dense punctuation, punctures large. Abdomen pale reddish brown, with relatively dense, pale setation, small, shallow punctures and fine microgranulation, shiny.

Elytron pale reddish brown, elongate oval, sides parallel, widest near middle, slightly convex. Dorsal surface with long and dense, semierect, ochre yellow setation. Rows of punctures in elytral striae not clearly conspicuous, elytral interspaces flat, with microgranulation and relatively dense punctures slightly smaller than those in striae. EL 3.83 mm; EW 1.95 mm. EL/EW 1.96.

Scutellum. Pale reddish brown as elytron itself, roundly triangular with microgranulation and a few long, pale setae.

Elytral epipleura well-developed, pale reddish brown as elytron itself, with long, pale setae and large punctures, leads parallel from mesosternum.

Legs pale reddish brown, relatively short, with dense, ochre yellow setation, very small punctures and very fine microgranulation. Femora strong, tibiae with shorter strong setae in outer side. Penultimate tarsomeres and pro- and mesotarsomeres 3 widened and lobed. RLT (1-5 or 1-4) equal to: 1.00 : 0.63 : 0.65 : 1.16 : 1.87 (protarsus), 1.00 : 0.31 : 0.38 : 0.58 : 1.15 (mesotarsus), and 1.00 : 0.50 : 0.63 : 0.96 (metatarsus).

Anterior tarsal claws with 9 and 10 visible teeth.

Aedeagus (Figs. 17 and 18). Small, ochre yellow, shiny. Basal piece distinctly narrowing dorsally. Apical piece elongate triangular. Ratio of length of apical piece to length of basal piece from dorsal view 1 : 3.75.

Female without distinct differences.

Variability. The type specimens somewhat vary in size; each character is given as its mean value, with full range in parentheses. Specimens (n=45). BL 5.56 mm (5.41-5.80 mm); HL 0.69 mm (0.67-0.71 mm); HW 1.01 mm (0.98-1.04 mm); OI 44.91 (41.70-48.91); PL 1.20 mm (1.08-1.26 mm); PW 1.86 mm (1.78-1.93 mm); PI 64.51 (60.67-68.51); EL 3.67 mm (3.53-3.87 mm); EW 1.99 mm (1.94-2.09 mm).

Differential diagnosis. A similar species are *Psis bheriensis* sp. nov. from India, Nepal and Pakistan and *Psis mechiensis* sp. nov. from Nepal.

The new species *Psis nanensis* sp. nov. distinctly differs from *P. bheriensis* mainly by pronotum

widest approximately at one quarter from base to apex, punctures more shallow and small, by small body (BL 5.4-5.8) and by shape of aedeagus (Figs. 17 and 18); while *P. bheriensis* has pronotum widest in base, larger body (BL 6.0-6.7) and surface of pronotum with larger and coarser punctures than those in *P. nanensis* and shape of aedeagus as in Figs. 5 and 6.

New species *Psis nanensis* sp. nov. is clearly different from similar species *Psis mechiensis* sp. nov. mainly by wide space between eyes, distinctly wider than transverse length of one eye (OI 42-49) and by shape of aedeagus (as in Figs. 17 and 18); while *P. mechiensis* has space between eyes narrow, distinctly narrower than transverse length of one eye (OI 28-31) and shape of aedeagus is in Figs. 11 and 12.

Etymology. Toponymic, named after district Nan in Thailand.

Distribution. Malaysia (Kelantan), Thailand (Chiang Mai, Nan).

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