

Leiodinae (Coleoptera: Leiodidae) of Laos. Part II.

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Taxonomy, new species, Leiodidae, Leiodinae, *Zeadolopus*, *Cyrtusoma*, Laos, Oman

Abstract. *Zeadolopus quadrifoveatus*, *Z. immutabilis*, *Z. ventrifoveatus*, *Z. tristriatus*, *Z. multistriatus*, *Z. subglobosus*, *Z. solitarius*, *Z. variabilis* spp. nov. from Laos, *Z. paveli* sp. nov. from Oman and *Cyrtusoma* (*Paracyrtusoma*) *laotiana* sp. nov. from Laos, are described and distinguished from all similar species. Both genera have been discovered in Laos for the first time and the genus *Zeadolopus* is recorded newly for Oman and the Arabian Peninsula.

INTRODUCTION

The present paper deals with the taxa of the *Cyrtusa* genus group (Daffner 1982, Peck & Cook 2013) belonging to the tribe Leiodini and follows up on the previous work on the Laotian Leiodinae (Švec 2026). No representative of Leiodini has been known from Laos up to now. Ongoing studies of leiodid material from Laos discovered species new to science of the two genera belonging to the informal *Cyrtusa* group - eight species of the genus *Zeadolopus* Broun, 1903 and one *Cyrtusoma* Daffner, 1982. Both mentioned genera have been discovered for the first time in Laos.

While *Zeadolopus* belongs to the widespread leiodid genus rich in the number of the species with 96 taxa (Švec personal database), *Cyrtusoma* comprises only three species, all of them known only from the Oriental realm (Daffner 1982). Both genera differ in several morphological characters; the most striking one is the number of their tarsomeres: 5-5-4 in *Zeadolopus* while *Cyrtusoma* possess the tarsal formula 4-4-4.

The occurrence of the *Zeadolopus* species in Oman and in Laos as well as *Cyrtusoma* in Laos is recorded for the first time.

MATERIAL AND METHODS

This paper is based on the material collected in Laos by the Czech entomologist Vít Kubáň (Brno) in the year 2007 and later, and on material collected by my Czech entomological colleague Filip Pavel (Vysoká nad Labem). The material collected by Kubáň in the year 2007 was donated to the author of the present paper by the late Wolker Assing, specialist in Staphylinidae. The other material collected by Kubáň later than 2007 comes from the collection of the National Museum, Prague, Czech Republic.

Abbreviations of the collections:

NMPC National Museum, Praha, Czech Republic;

ZSPC Zdeněk Švec, private collection, Praha, Czech Republic.

The types have been deposited in NMPC and ZSPC.

Collecting data cited in quotation marks are taken from the locality labels accompanying the examined type examples. Each holotype or paratype is indicated by a red label bearing the status of the specimen (holotypus or paratypus respectively), the name of the species, name of the author, year 2026 and is attached to the same pin as the relevant specimen. The labels of the holotypes are signed by the author.

The specimens had been relaxed in 4% acetic acid first, then rinsed in water and dissected in a drop of water. The genitalia were mounted in the water soluble media polyvinylpyrrolidin or dimethyl hydantoin formaldehyd on a transparent label added to the same pin as the dissected specimen. The photographs of the aedeagi were taken in dorsal view.

The descriptions are based on the holotypes. Variability is mentioned in the paragraph "Variation and sexual dimorphism" if necessary and includes features exhibited by the paratypes. Also the important characters of the sexual dimorphism are included in the mentioned paragraph.

The measurements of the total body length were taken from all specimens examined. Specific measurements of the individual body parts were taken from the holotypes only except of the data about the variation and the spermatheca. The measurements of morphologic body parts were measured to the first decimal place of millimetre, the measurements of the genitalia were measured to the second decimal place of millimetre. The aedeagus was measured in dorsal view.

Those morphological characters that are very variable (see also the paragraph "Discussion") and also those features that are common or very similar in all the examined *Zeadolopus* species e.g. - straight anterior margin of clypeus, anterolateral position of the eyes, setosity and/or thorniness of antennae and legs, conical shape of mid- and hind tarsi, larger width of mid- and hind tibiae compared to anterior tibiae, further detectable number of the antennomeres, number of the elytral punctured striae (eight including the sutural stria), position of stria VIII that is more distant from lateral margin than from stria VII that is curved toward lateral margin at basal third of the elytral length, are not repeated in the individual descriptions.

Abbreviations of body parts and measurements:

AX and AXI - the ultimate antennomere is marked as antennomere XI, penultimate antennomere as AX although the AVII is not detectable in the genera *Zeadolopus* and *Cyrtusoma*;

W - width.

Terminology:

aedeagus = male genitalia composed of median lobe and pair of lateral lobes;

endophallus = sclerite(s) located inside median lobe in quiescent state of the aedeagus;

lateral lobes = paramera;

median lobe = tegmen;

metaventral formula = number of foveae or large punctures arranged usually in transversal rows, counted from the anterior to the posterior half of the metaventrite, simulated divided by the central vertical. E.g. when its left half possess only two rows - four large fovea

located anteriorly e.g. behind mid-coxa, no foveae in the middle of the metaventrite and with 5 foveae caudally just above hind coxa (Fig. 2), then metaventral formula is 4-0-5. stria (striae) = longitudinal, usually not deepened, rows of punctures on elytra; sutural stria = deepened caudal part of first stria counted from the elytral suture.

DESCRIPTIONS

Zeadolopus quadrifoveatus sp. nov.

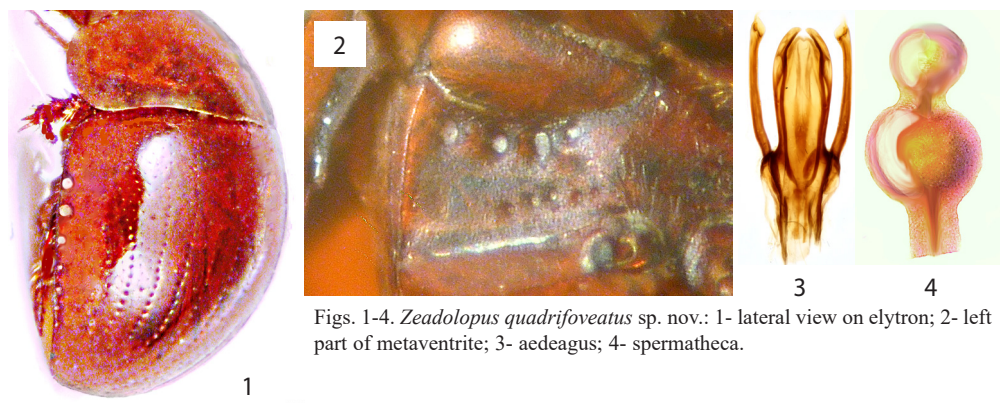
(Figs. 1-4)

Type material. Holotype (♂): “LAOS - NE Xieng Kouan prov., 19°38.20'N 103°20.20'E, Phousavan (30 km NE), Phou Save Mt., 10.-30.v.2009, 1420 m, V. Kubáň lgt. // Secondary mountain forest, flight intercept trap, Laos 2009 Expedition, MHMB Basel, NMPC Prague”, (NMPC). Paratypes: (21 ♂♂, 18 ♀♀, 41 spec. sex indet.): same data as holotype, (NMPC, ZSPC); (1 ♀): “LAOS - NE Houa Phan prov., 20°13'09-19°N 103°59'54"-104°00'03"E, 1480-1510 m, Phou Pane Mt., 2.-22.vi. 2011 Vít Kubáň leg. // Primary mountain forest / *flight intercept trap*, LAOS 2011 Expedition National Museum Prague, Czech Republic”, (NMPC); (1 ♀): “LAOS-Houa Phan prov. Phu Phan Mt. 20°12'N, 104°01'E, ca 1750 m, 17.V.-3.VI. 2007, leg Vít Kubáň”, (ZSPC).

Description. Length of body 1.4 mm, head 0.2 mm, pronotum 0.5 mm, elytra 0.7 mm, aedeagus 0.38 mm, maximum width of head 0.6 mm, pronotum 1.0 mm, elytra 1.1 mm. Dorsum light chestnut, legs and antennae yellowish-brown, with antennomere AXI a little lighter than remaining antennomeres. Venter yellowish-brown, a little darker than legs and antennae.

Head. Broadest at eyes. Punctured. Punctures separated by about 2-3 times their diameter. Surface with traces of shagreen. Last antennomere narrower than previous one. Ratio of width of antennomeres AX/AXI = 1.1.

Pronotum. Broadest at base. Posterior angles rounded, distinctly obtuse in dorsal view; very broadly rounded, obtuse in lateral view. Lateral outline regularly roundly narrowed anteriorly in dorsal and lateral view. Base feebly emarginate before posterior angles. Surface very feebly shagreened with puncturation similar as on head, a little sparser. Punctures separated by about 4-6 times their diameter.



Figs. 1-4. *Zeadolopus quadrifoveatus* sp. nov.: 1- lateral view on elytron; 2- left part of metaventrite; 3- aedeagus; 4- spermatheca.

Elytra. Widest approximately at mid-length. Surface superficially shagreened. Elytra possess eight longitudinal striae consisting of punctures. Strial punctures gradually become sparser and smaller toward base, separated by about 4-5 times of their diameter on anterior half of elytra, therefore hardly recognizable from interval punctures there. Strial punctures gradually becoming larger and denser posteriorly, spaced by about 2 times their diameter close to elytral apex. SVI and SVIII merge apically, terminating before apex. Elytral intervals punctured by sparse, irregularly distributed punctures sparser and a little smaller than those in striae becoming larger toward elytral base. Each of odd intervals with several large punctures, larger than those in rows. Lateral margin of elytron with three large foveae starting at basal fifth, being followed five much smaller foveae, vanishing at apical fifth of elytral length (Fig. 1). Sutural stria confined on posterior third of elytral length continuing as regular row of punctures anteriorly reaching elytral base.

Metaventricle. Metaventral formula 4-0-5. Three large foveae accompanied by one smaller but deep fovea located just behind mid-coxa and with 5 small, but distinct, punctures foveae just above hind coxa (Fig. 2). Metaventricle with sparse adjacent setae medially.

Legs. Mid- and hind tibiae approximately of same width. Mid-tibiae broadest at mid-length, hind tibiae almost parallel-sided, slightly widened distally. Hind femur with long, curved, hook-like apical process reaching up to mid-length of tibia.

Abdomen. First visible abdominal ventrite with row of conspicuous foveae located just behind meta-coxae, smaller than those at anterior margin of mesoventrite. Also four following visible abdominal ventrites possess row of foveae. Foveal diameters equal approximately half of individual ventrite length.

Genitalia. Tegmen almost closed apically by its lateral marginal ribs (Fig. 3). Paramera as long as tegmen apically widened with two short inconspicuous terminal seta.

Variation and sexual dimorphism. Colour of dorsum varies in the type series from yellow to dark chestnut. Density of the strial puncturation varies - some of the paratypes possess elytral striae more densely punctured than those in the holotype with punctures separated approximately by one time their diameter or even less. Elytral striae are better expressed also near base due to the presence of sparser and smaller interval punctures in some paratypes. Number of the lateral elytral foveae varies between 5 and 9. Third large fovea missing in some of the paratypes. Number of smaller, basally located metaventral foveae varies from four to six. Abdominal foveae varies in the size of their diameter from one third up to half of the length of the individual abdominal ventrites. Length of body varies between 1.2 and 1.5 mm. Female hind femora simple, lacking terminal process. Basal and distal parts of the spermatheca are globose, the diameter of the spermathecal basal part 1.5 times larger than distal part. Length of spermatheca 0.13 mm (Fig. 4).

Differential diagnosis. *Zeadolopus quadrioveatus* sp. nov. is morphologically similar to the North Indian *Z. multipunctatus* Daffner, 1983 in the light antennal club, in the similar arrangement of the foveae on the metaventricle, the foveae on the lateral margins of elytra and mainly in the presence of large foveae on the abdominal ventrites. The shape of the aedeagus in *Zeadolopus quadrioveatus* sp. nov. differs from that in *Z. multipunctatus* by

almost apically closed tegmen that is distinctly opened in *Z. multipunctatus* and mainly by the shape of the paramera that are slim with widened, obliquely truncate apex in the new species, while the paramera are wide along entire length in *Z. multipunctatus*.

Name derivation. The name of the new species is based on the arrangement of the foveae on its metaventrite. The Latin adjective *quadrifoveatus* means with four foveae.

***Zeadolopus immutabilis* sp. nov.**

(Figs. 5-7)

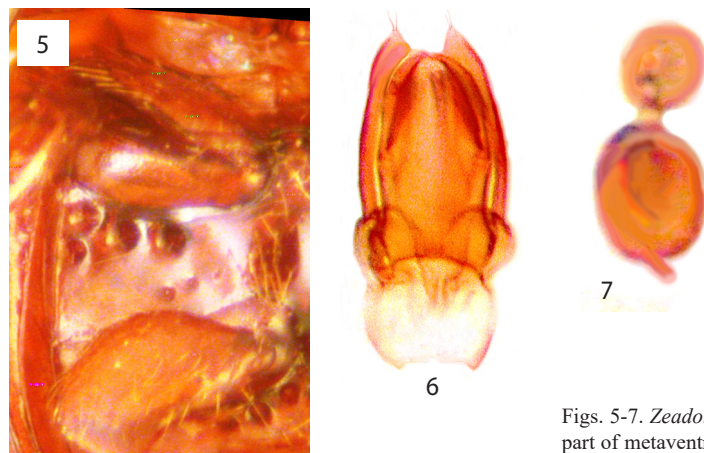
Type material. Holotype (♂): “LAOS-Houa Phan prov. Phu Phan Mt. 20°12’N, 104°01’E, ca 1750 m, 17.V.-3. VI. 2007, leg Vít Kubáň”, (ZSPC). Paratypes (1♂, 1♀): same data, (ZSPC); (2 ♂, ♀): “LAOS - NE Houa Phan prov., 20°13’09-19”N 103°59’54”-104°00’03”E, 1480-1510 m, Phou Pane Mt., 2.-22.vi. 2011 Vít Kubáň leg. // Primary mountain forest, *flight intercept trap*, LAOS 2011 Expedition National Museum Prague, Czech Republic”, (NMPC, ZSPC).

Description. Dorsum and legs chestnut, antennae unicolor, yellowish-red. Venter chestnut. Length of body 1.5 mm, head 0.2 mm, pronotum 0.4 mm, elytra 0.9 mm, aedeagus 0.45 mm, maximum width of head 0.6 mm, pronotum 1.1 mm, elytra 1.1 mm. Dorsal surface without any micro-sculpture.

Head. Broadest just before posterior margin at eyes. Punctuation distinct. Punctures separated by about 2 times their diameter. Last antennomere narrower than previous one. Relative width of AX/AXI = 1.2.

Pronotum. Broadest at base. Posterior angles very closely rounded, obtuse in dorsal view; broadly rounded, obtuse in lateral view. Lateral outline regularly roundly narrowed anteriorly in dorsal view, almost straight in lateral view. Base very short, very feebly emarginate just before posterior angles in dorsal view. Punctuation fine and sparser than on head, pronotal punctures separated by about 3-4 times their diameter.

Elytra. Widest approximately at mid-length. Striae SII-SV shortened, terminated close to elytral apex, barely distinguishable from interval punctures on basal sixth of elytra.



Figs. 5-7. *Zeadolopus immutabilis* sp. nov.: 5- left part of metaventrite; 6- aedeagus; 7- spermatheca.

Striae SVI-SVIII shortened also anteriorly reaching up to basal third of elytral length. Strial punctures small and sparse, separated by about 4-5 times of their diameter on anterior half of elytra, gradually become larger and denser posteriorly, spaced less than 2 times their diameter on apical third of elytra. Elytral intervals punctured by sparse, irregularly distributed punctures separated by 6-8 times their diameter. These punctures become stronger and denser toward elytral base. Each of odd intervals with several large punctures, larger than those in striae. Lateral margin of elytra without any foveae, possessing one large puncture approximately as strong as row punctures near elytral apex. Epipleura with short sparse inconspicuous setae barely visible in dorsal view. Sutural stria confined to posterior third of elytral length continuing as regular row of punctures anteriorly reaching elytral base.

Metaventricle. Three large fovea located anteriorly, one similar located in middle at outmost lateral margin of metaventricle and two foveal large punctures near posterior margin represent formula 3-1-2 (Fig. 5). With sparse adjacent setae medially.

Legs. Mid- and hind tibiae approximately of same width. Mid-tibiae broadest at their apex, hind tibiae almost parallel-sided, broadest apically. Hind femur with long, curved, hook-like apical process longer than half of tibial length.

Abdomen. First visible abdominal ventrite with transversal row of large conspicuous foveae. Following visible abdominal ventrites without any foveae.

Genitalia. Tegmen closed apically by its lateral marginal ribs (Fig. 6). Paramera a little longer than tegmen, gradually getting broader apically with obliquely truncate apex bearing two terminal setae. Endophallus barely distinguishable, V-shaped.

Variation and sexual dimorphism. Colour of the dorsum varies between yellow and chestnut. Lateral elytral puncture missing in some of the paratypes. Unusual morphological variability was detected in the width of ultimate antennomere and in the shape of the femur in one of the male paratypes collected on the Phou Pane Mountain, 20°13'09"-19°N, 103°59'54"-104°00'03"E in 1480-1510 m. Hind femur gradually broadened distally forming broad triangle, therefore hook-like apical process that is usual in the majority of the *Zeadolopus* various species males is not developed in the mentioned paratype. Length of body varies between 1.6 and 1.9 mm. Length of spermatheca (Fig. 7) 0.13 mm. The diameter of the basal spermathecal bulb 1.3 times larger than the apical one. Female femora simple, lacking terminal process.

Differential diagnosis. *Zeadolopus immutabilis* sp. nov. is morphologically similar to the Oriental species *Z. arcuatus* Cooter & Švec, 2002 and *Z. impunctatus* Cooter & Švec, 2002 sharing lack of foveae along lateral margins of their elytra, narrower AXI than AX and shortened punctured rows on elytra. *Z. immutabilis* can be distinguished from both compared species by quite different type of the aedeagus due to the presence of lateral ribs bordering and closing apically the tegmen, by the widened, apically truncate paramera that are simply slim in *Z. arcuatus* and *Z. impunctatus* and by the single transversal row of foveae on the first visible abdominal ventrite. All three compared species differ also by the size of their bodies.

Name derivation. The name of the new species refers to the stability of the number, size and location of the metaventral foveae. The Latin adjective *immutabilis* means invariable.

***Zeadolopus ventrifoveatus* sp. nov.**

(Figs. 8-10)

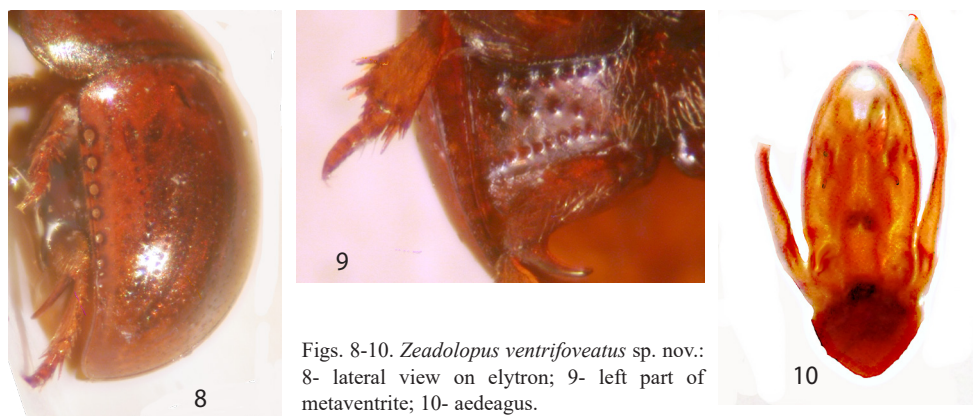
Type material. Holotype (♂): "LAOS-Houa Phan prov. Phu Phan Mt. 20°12'N, 104°01'E, ca 1750 m, 17.V.-3.VI. 2007, leg Vít Kubáň", (ZSPC).

Description. Dorsum and legs light chestnut, antennae unicolorous, yellowish-red. Venter chestnut. Length of body 1.9 mm, head 0.3 mm, pronotum 0.5 mm, elytra 1.1 mm, aedeagus 0.50 mm, maximum width of head 0.6 mm, pronotum 1.1 mm, elytra 1.2 mm. Dorsal surface without any micro-sculpture.

Head. Broadest at posterior level of eyes. Punctuation distinct. Punctures separated by about 1-2 times their diameter. Last antennomere narrower than previous one. Relative width of $AX/AXI = 1.1$.

Pronotum. Broadest at base. Posterior angles closely rounded, obtuse in dorsal view; broadly rounded, obtuse in lateral view. Lateral outline regularly roundly narrowed anteriorly in dorsal view, round in lateral view. Surface smooth with punctuation much finer and sparser than on head, pronotal punctures separated by about 6-10 times their diameter.

Elytra. Widest approximately at basal third. All striae well developed on disc and also laterally and caudally. SIII-SVI barely distinguishable from interval punctures on basal sixth of elytra, slightly shortened terminating close to elytral apex. SVII - SVIII shortened -anteriorly reaching up to basal third of elytral length, posteriorly merging with each other far from elytral apex. Strial punctures small and sparse separated by about 2-4 times of their diameter on middle third of elytra gradually becoming larger and denser posteriorly, spaced less than 2 times their diameter on apical third of elytra and gradually becoming smaller in their size and density toward elytral base. Elytral intervals punctured by sparse, irregularly distributed punctures separated by 3-6 times their diameter. Interval punctures twice as strong as pronotal punctures, a little smaller than those in elytral striae, becoming



Figs. 8-10. *Zeadolopus ventrifoveatus* sp. nov.: 8- lateral view on elytron; 9- left part of metaventrite; 10- aedeagus.

stronger and denser toward elytral base. Each of odd intervals with few large punctures, as large as those in rows. Lateral margin of elytron with longitudinal row of 6 foveae on one side, with 7 foveae on the other side of elytra, following with 2-3 large punctures gradually smaller toward elytral apex (Fig. 8). Sutural stria confined on posterior third of elytral length continuing as regular row of punctures anteriorly shortened, not reaching elytral base.

Metaventricle. Metaventral formula as follows: 6-4-8. Six large fovea arranged anteriorly, 4 running obliquely medio-caudally and 8 distinctly smaller located just above posterior coxae (Fig. 9). With sparse long adjacent setae medially.

Legs. Mid- tibiae broadest shortly before apex, a little broader than subparallel, broadest at mid-length, hind tibiae. Hind femur with long, curved, hook-like apical process longer than half of tibial length.

Abdomen. First visible abdominal ventrite with transversal row of conspicuous foveae a little smaller than those at anterior margin of mesoventrite, located just behind meta-coxae. Following visible abdominal ventrites without any foveae.

Genitalia. Tegmen almost closed apically by its lateral marginal ribs (Fig. 10). Paramera longer than tegmen, gradually getting broader apically with obliquely truncate apex bearing one terminal seta. Endophallus well distinguished, with long X-shaped largest sclerite accompanying the lateral and basal symmetrical ones.

Differential diagnosis. *Zeadolopus ventrifoventus* sp. nov. is similar to the Indonesian *Z. similis* Cooter & Švec, 2002 in the size of body, in the presence of the elytral lateral foveae, in three rows of metaventral foveae and also in the shape of the aedeagus. *Z. ventrifoventus* can be distinguished from *Z. similis* by stronger and denser puncturation of the elytral intervals, by strongly widened paramera that are four times as wide apically than in the middle while the apex of the paramera in *Z. similis* is twice as wide as the paramera in its mid-length in the dorsal view. Both species differ also in the shape of the endophallus.

Name derivation. The name of the new species refers to the characteristically developed metaventral foveae. The name combines Latin adjective *ventralis* (ventral) and noun *fovea*.

***Zeadolopus tristriatus* sp. nov.**

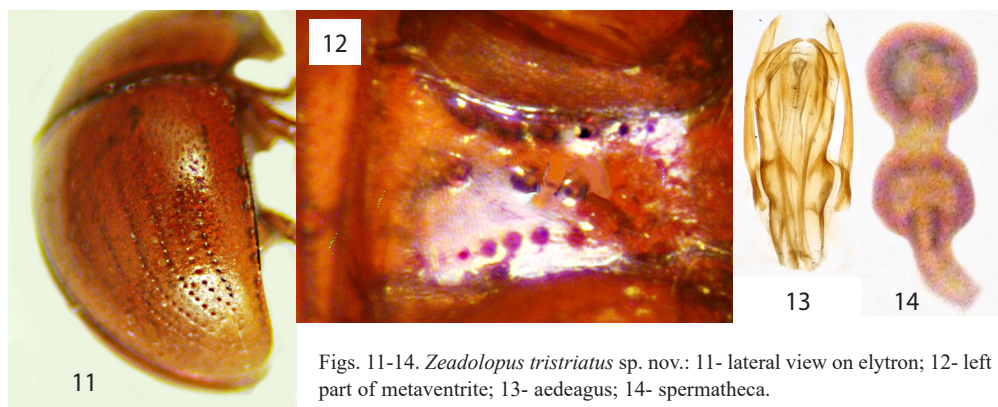
(Figs. 11-14)

Type material. Holotype (♂): “LAOS - NE Xieng Kouan prov., 19°38.20'N 103°20.20'E, Phousavan (30 km NE), Phou Save Mt., 10.-30.v.2009, 1420 m, V. Kubán lgt. // Secondary mountain forest, flight intercept trap, Laos 2009 Expedition, MHMB Basel, NMPC Prague”, (NMPC). Paratypes (2 ♀♀), same data, (NMPC, ZSPC).

Description. Dorsum and appendages yellowish-red. Venter lightly yellowish-brown, a little darker than legs and antennae. Length of body 2.0 mm, head 0.3 mm, pronotum 0.5 mm, elytra 1.2 mm, aedeagus 0.58 mm, maximum width of head 0.6 mm, pronotum 1.2 mm, elytra 1.5 mm. Dorsal surface partly with faint micro-sculpture.

Head. Broadest at eyes. Punctures separated by about 2-3 times their diameter. Interstices smooth. Last antennomere as wide as previous one.

Pronotum. Broadest at base. Posterior angles rounded, distinctly obtuse in dorsal view;



Figs. 11-14. *Zeadolopus tristriatus* sp. nov.: 11- lateral view on elytron; 12- left part of metaventrite; 13- aedeagus; 14- spermatheca.

very broadly rounded, obtuse in lateral view. Lateral outline regularly roundly narrowed anteriorly in dorsal and lateral view. Base flatly feebly emarginate before posterior angles in dorsal view. Surface smooth with puncturation finer than on head. Puncturation sparser than that on head and also in elytral intervals, punctures separated by about 4-6 or more times their diameter on disc. Puncturation becomes denser toward lateral sides where punctures separated by 3-4 times their diameter. Surface smooth.

Elytra. Widest approximately at anterior third. Surface superficially shagreened. Sutural stria confined to posterior third of elytral length continuing as regular row of punctures anteriorly reaching elytral base. Elytral striae hardly recognizable from interval punctures on basal sixth of elytra being of similar size and strength as interval punctures, separated by about 4-5 times of their diameter. Strial punctures gradually becoming larger and denser posteriorly, spaced by about 1-2 times their diameter close to elytral apex. Striae SVII and SVIII merge apically, terminated before apex, vanishing anteriorly before humeral part. Elytral intervals punctured by very small, sparse, irregularly distributed, punctures separated by 4-8 or even more times their diameter. Each of odd intervals with several large punctures, larger than those in rows. Lateral margin of elytra with eight fovea gradually decrease in size and turn into punctures vanishing close to apex of elytra (Fig. 11). Epipleura with row of short setae visible in dorsal view.

Metaventrite. Sculptural metaventral formula 5-3-5. Three large fovea in middle at each side of metaventrite accompanied by five anterior and five smaller posterior foveae (Fig. 12). A few adjacent setae medially.

Legs. Mid- and hind tibiae approximately of same width. Mid-tibiae broadest at apex, hind tibiae almost parallel-sided, widest at mid-length. Hind femur with feebly curved, acute, apical process reaching approximately mid-length of tibia.

Abdomen. First visible abdominal ventrite with row of shallow large punctures becoming gradually larger laterad. Following visible abdominal ventrites without foveae or large punctures

Genitalia. Tegmen almost closed apically by its lateral marginal ribs, endophallus possess centrally located sclerite (Fig. 13). Paramera much longer than tegmen, apically slim with one short inconspicuous terminal seta.

Variation and sexual dimorphism. Traces of shagreen detected on elytra in both paratypes. Number of the lateral elytral foveae varies between 9 and 10. Number of metaventral foveae varies a little in one of the paratypes (formula 5-3-4). Length of body varies between 1.9 and 2.0 mm. Length of spermatheca (Fig. 14) 0.12 mm. Both sphaerical parts of spermatheca are almost of equal diameter. Apex of the female's femora widened in round ventral lobe in one of the paratypes and in large triangular process in the second one.

Differential diagnosis. *Zeadolopus tristriatus* sp. nov. is morphologically the most similar to the Oriental species *Z. insignis* Cooter & Švec, 2012 in the three metaventral rows of foveae on the metaventrite, and in the shape of the tegmen and in the slim paramera. Both species can be distinguished by size of the antennomere XI that is almost as wide as AX in *Z. tristriatus* while *Z. insignis* possess AXI distinctly narrower than AX. Also the absence of detectable endophallus in *Z. tristriatus* differs the new species from *Z. insignis* that possess well developed unpaired endophallic sclerite.

Name derivation. The name of the new species was inspired by the arrangement of foveae located in three rows on the metaventrite. It is composed of the Latin numerus *tri* (three) and adjective *striatum* (striate).

***Zeadolopus multistriatus* sp. nov.**
(Figs. 15-18)

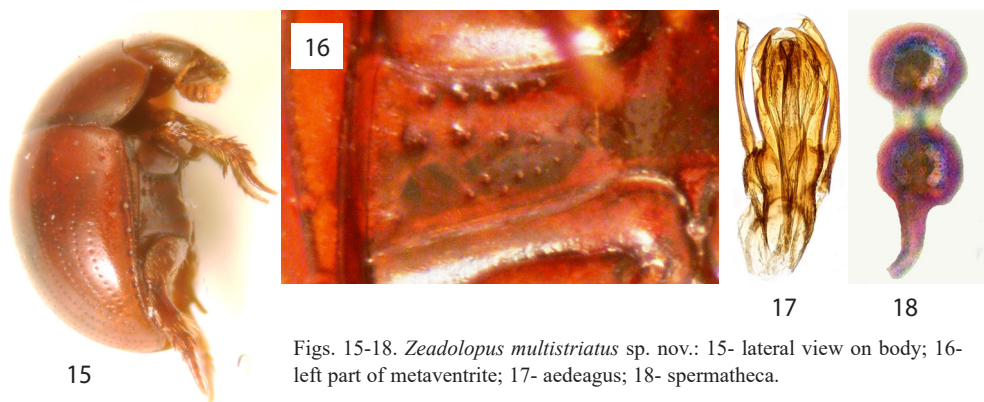
Type material. Holotype (♂): "LAOS - NE Xieng Kouan prov., 19°38.20'N 103°20.20'E, Phousavan (30 km NE), Phou Save Mt., 10.-30.v.2009, 1420 m, V. Kubán lgt. // Secondary mountain forest, flight intercept trap, Laos 2009 Expedition, MHMB Basel, NMPC Prague", (NMPC). Paratypes: (2 ♀♀): same data as holotype, (NMPC, ZSPC).

Description. Dorsum light chestnut, antennae and legs yellowish-brown. Venter chestnut. Length of body 1.9 mm, head 0.3 mm, pronotum 0.5 mm, elytra 1.1 mm, aedeagus 0.61 mm, maximum width of head 0.8 mm, pronotum 1.6 mm, elytra 1.7 mm. Dorsal surface without any micro-sculpture.

Head. Broadest at eyes. Punctures separated by about 2-3 times their diameter. Last antennomere as wide as previous one.

Pronotum. Broadest at base. Posterior angles rounded, obtuse in dorsal view; very broadly rounded, obtuse in lateral view. Lateral outline regularly roundly narrowed anteriorly in dorsal and lateral view. Base shortly feebly emarginate before posterior angles in dorsal view. Puncturation sparser and distinctly finer than that on head, punctures separated by about 3-6 times their diameter.

Elytra. Widest approximately at anterior third of elytral length. Sutural stria confined to posterior half of elytral length continuing as regular row of punctures anteriorly reaching elytral base. Punctures become sparser and smaller toward base. Elytral striae SI-SV reaching base of elytra. SVII and SVIII vanish before humeral part. Strial punctures small and sparse, separated by about 3-4 times of their diameter on anterior third of elytra, becoming larger and denser posteriorly, spaced by about 2 times or less their diameter close to elytral apex. SV-SVIII merge apically, terminating before apex. Also SII and SIII not reaching apex of



Figs. 15-18. *Zeadolopus multistriatus* sp. nov.: 15- lateral view on body; 16- left part of metaventricle; 17- aedeagus; 18- spermatheca.

elytra. Elytral intervals punctured by very small, sparse, irregularly distributed punctures, separated by about 8-10 or more times their diameter. Odd intervals with several large punctures, as large as those in rows. Epipleurae of elytra possess row of short light setae detectable in dorsal view. Lateral margin with regular row of 10 foveae gradually getting smaller apically, vanishing before elytral apex (Fig. 15).

Metaventricle. Three rows of foveae and large punctures present. Middle row oblique, antero-medially oriented. Metaventral formula as follows: 5-5-6 (Fig. 16).

Legs. Mid- and hind tibiae approximately of same width, broadest approximately in mid-length. Hind femur with long, curved, hook-like apical process far overreaching mid-length of tibia.

Abdomen. First visible abdominal ventrite with transversal row of small foveae. Second ventrite with row of smaller and shallower foveae. The remaining abdominal ventrites possess transversal row of small shallow punctures.

Genitalia. Tegmen almost closed apically by its lateral marginal ribs, endophallus looks like wide central siphon apically with small half-moon sclerites. Paramera much longer than tegmen, apically slim with one long preapical and two short apical setae (Fig. 17).

Variation and sexual dimorphism. Number of the lateral elytral foveae varies from 9-10. Metaventral formula in one female paratype is 7-4-5. Length of body varies between 1.7 and 1.9 mm. Female femora simple, lacking terminal process. Spermatheca 0.13 mm, both of its parts of equal size and shape (Fig. 18).

Differential diagnosis. *Zeadolopus multistriatus* sp. nov. is morphologically most similar to the Oriental species *Z. multipunctatus* Daffner, 1983, in the stout antennal club with AXI almost as wide as AX, three rows of foveae on the metaventricle and in the shape of the tegmen. Both species can best be distinguished by the shape of the paramera that are slim in *Z. multistriatus* while the same are stout, apically truncate in *Z. multipunctatus*.

Name derivation. The name of the new species should attract the attention to the present of the foveal rows on each of the abdominal ventrites. Therefore the name is composed of the Latin prefix *multi* (many in English) and adjective *striatus* (striated in English).

***Zeadolopus subglobosus* sp. nov.**

(Figs. 19-22)

Type material. Holotype (♂): “LAOS - NE Xieng Kouan prov., 19°38.20'N 103°20.20'E, Phousavan (30 km NE), Phou Save Mt., 10.-30.v.2009, 1420 m, V. Kubán lgt. // Secondary mountain forest, flight intercept trap/ Laos 2009 Expedition, MHMB Basel, NMPC Prague”, (NMPC). Paratypes (1 ♂, 1 ♀): same data as holotype, (NMPC, ZSPC).

Description. Dorsum, antennae and legs light chestnut. Venter chestnut, coxae darker. Length of body 1.5 mm, head 0.2 mm, pronotum 0.4 mm, elytra 0.9 mm, aedeagus 0.29 mm, maximum width of head 0.5 mm, pronotum 0.8 mm, elytra 0.9 mm. Dorsal surface partly with traces of micro-sculpture.

Head. Broadest at eyes. Punctures separated by about 3-4 times their diameter. Last antennomere narrower than previous one. W ratio AXI/AX=1.2.

Pronotum. Broadest at base. Posterior angles rounded, obtuse; in both dorsal and lateral view. Lateral outline regularly roundly narrowed anteriorly in dorsal and lateral view. Base not emarginate before posterior angles in dorsal view. Puncturation a little sparser and distinctly finer than that on head, punctures separated by about 3-6 times their diameter.

Elytra. Widest just behind humeri. Sutural stria confined to third of elytral length continuing as regular row of punctures anteriorly reaching elytral base. Elytra possess regular punctured striae, distinct from interval punctures rows. Striae SII-SVI reaching basal fourth of elytra. Punctures of all elytral striae separated about 2 times their diameter in mid-third of elytral length gradually becoming sparser, smaller and finely vanishing toward base becoming denser and stronger toward elytral apex, separated by one time their diameter there. SVII and SVIII vanish before humeral part anteriorly, both merge before apex of elytra posteriorly. No striae reach elytral apex. Elytral intervals punctured by small, sparse, irregularly distributed punctures, separated by about 6-10 or more times their diameter. Odd intervals with several large punctures, as large as those in rows. Elytra near lateral margin with several short light setae. Lateral margin with regular row of 5 foveae (Fig. 19).

Metaventrte. Two transversal rows of foveae present. Basal row missing. Metaventral formula as follows: 5-2-0 (Fig. 20). Distinctly punctured medially, setose. Punctures separated by 1-2 times their diameter.

Legs. Mid- and hind tibiae approximately of same width, mid-tibiae broadest just before apex, hind tibiae approximately in mid-length. Hind femur with long, curved, hook-like apical process far overreaching approximately mid-length of tibia.

Abdomen. First visible abdominal ventrite with row of conspicuous foveae as strong as those at anterior and mid-row on mesoventrite. Following visible abdominal ventrites without any foveae, only with transversal row of punctures much smaller than those on first ventrite.

Genitalia. Tegmen semi-globose apically, very broadly rounded, endophallus with small paired sclerites (Fig. 21). Paramera much longer than tegmen, apically widened, truncate with two inconspicuous subapical and apical seta.

Variation and sexual dimorphism. Number of the lateral elytral foveae varies between 4 and 5. Number of metaventral foveae varies: 5-2-0, 5-3-0, 6-3-0. Length of body varies



Figs. 19-22. *Zeadolopus subglobosus* sp. nov.: 19- lateral view on elytron; 20- left part of metaventricle; 21- aedeagus; 22- spermatheca.

between 1.2 and 1.5 mm. Length of spermatheca 0.06 mm (Fig. 22). Diameter of basal bulb 1.5 times larger than distal one. Female femora simple, lobbed apically lacking terminal process.

Differential diagnosis. *Zeadolopus subglobosus* sp. nov. is similar to *Z. variabilis* sp. nov. in its two rows of foveae on the metaventricle, in the small size of the body, apically closed, broadly rounded, subglobose shaped stout tegmen with curved lateral outline. Both species can be distinguished by the paramera which far exceed the apex of the tegmen in *Z. subglobosus* while the same as long as tegmen in *Z. variabilis*.

Name derivation. The name of the new species is intended to emphasise the sub-globose (= Latin adjective *subglobosus*) shape of the apical part of its tegmen.

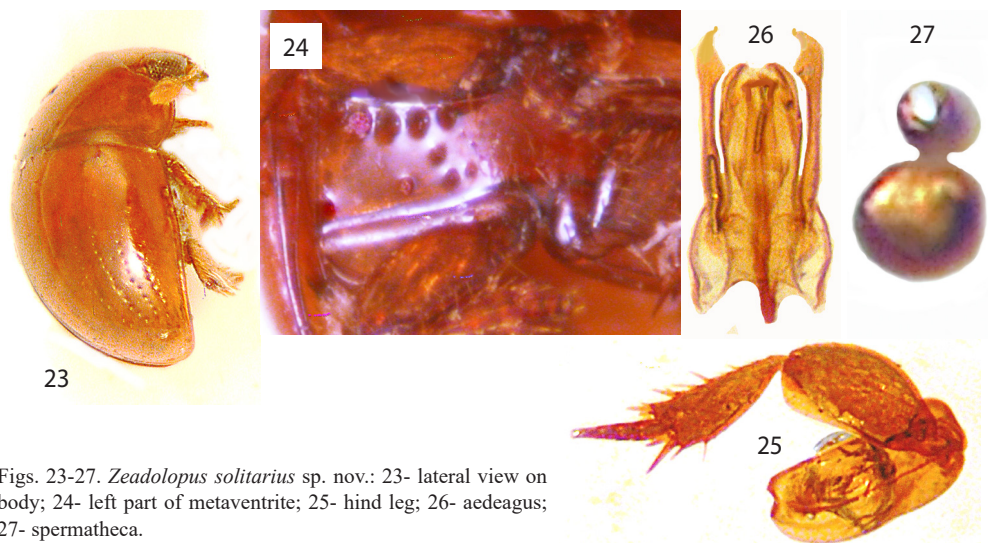
***Zeadolopus solitarius* sp. nov.**
(Figs. 23-27)

Type material. Holotype (♂): “LAOS - NE, Houa Phan prov., 20°13'09-19"N 103°59'54"-104°00'03"E, 1480-1510 m. Phou Pane Mt., 2.-22.vi. 2011 Vít Kubáň leg. // Primary mountain forest, *flight intercept trap*, LAOS 2011 Expedition National Museum Prague, Czech Republic”, (NMPC). Paratypes (1 ♂, 1 ♀): same data as holotype, (NMPC, ZSPC).

Description. Dorsum, venter and legs reddish, antennae yellow-red. Length of body 1.5 mm, head 0.2 mm, pronotum 0.4 mm, elytra 0.9 mm, aedeagus 0.49 mm, maximum width of head 0.5 mm, pronotum 0.9 mm, elytra 1.2 mm.

Head. Broadest at eyes. Punctures separated by about 3-5 times their diameter. Last antennomere as wide as previous one.

Pronotum. Broadest at base. Posterior angles closely rounded, obtuse; in both dorsal and lateral view. Lateral outline regularly roundly narrowed anteriorly in dorsal and lateral view. Base feebly emarginate before posterior angles in dorsal view. Punctuation similar to that on head, punctures separated by about 3-6 times their diameter.



Figs. 23-27. *Zeadolopus solitarius* sp. nov.: 23- lateral view on body; 24- left part of metaventricle; 25- hind leg; 26- aedeagus; 27- spermatheca.

Elytra. Widest approximately at basal third. Sutural stria confined to apical third of elytral length continuing as regular row of punctures anteriorly reaching elytral base. Elytra possess eight regular punctured striae, distinct from interval punctures. SII-SV reach basal fifth of elytra. SVI and SVII vanish at anterior fourth, SVIII even more shortened, hardly reaching up to basal third of elytra. Punctures of all elytral striae separated about 1-2 times their diameter in mid-third becoming sparser, smaller and finely vanishing toward base while they becoming denser and stronger toward elytral apex, separated by less than one time their diameter. No stria reaches elytral apex. SVI and SVIII merge before elytral apex. Elytral intervals punctured by small, moderately sparse, irregularly distributed punctures, separated by about 4-6 their diameter. Odd intervals with several large punctures, a little larger than those in rows. Elytra near lateral margin with several short light setae. Lateral margin of elytra equipped with 2 large foveae (Fig. 23) followed by large punctures toward apex.

Metaventricle. Large foveae arranged as follows: 4-1-4 (Fig. 24). Metaventricle with sparse fine punctures and few adjacent setae medially.

Legs. Mid- and hind tibiae approximately of same width, broadest just before apex. Hind femora with broad rounded lobe at their apex (Fig. 25).

Abdomen. First visible abdominal ventrite with transversal row of foveae smaller than those on metaventricle. Each of following visible abdominal ventrites with transversal row of punctures much smaller than those on first ventrite.

Genitalia. Tegmen almost parallel-sided, opened apically, semi-globose apically, very broadly rounded, endophallus with slightly curved central siphon, paramera much longer than tegmen, apically widened, truncate with sickle-shaped apex (Fig. 26). Apical setae not detected.

Variation and sexual dimorphism. Size of the body varies 1.4-1.5 mm. The morphological variation is described in more details in the paragraph Discussion. Spermatheca 0.09 mm (Fig. 27).

Differential diagnosis. *Zeadolopus solitarius* sp. nov. is the species most similar to the Indian and Sinhalese *Z. nanulus* Daffner, 1982 sharing small size of the body and mainly the shape of the parameral apex. Both species differ by the outmost top of paramera that possess in *Z. solitarius* small curved process missing in *Z. nanulus*. Also endophalli of the both species are distinctly different in their shape. While the endophallus in *Z. solitarius* possesses a central siphon, the endophallic sclerite is Y-shaped in the compared species. *Z. solitarius* is also similar to *Zeadolopus variabilis* sp. nov. due to the small size of the body. Both species can be differentiated by the shape of the paramera that are uniquely shaped in *Z. solitarius*.

Name derivation. The new species should draw attention to the arrangement of the metaventral foveae, one of which is solitary and placed at the most posterior corner of metaventrum. The Latin adjective *solitarius* means solitary in English.

***Zeadolopus variabilis* sp. nov.**

(Figs. 28-31)

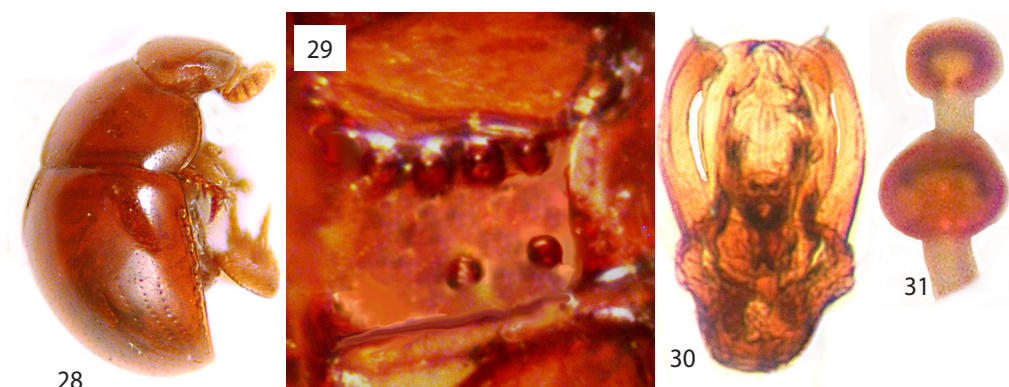
Type material. Holotype (♂): “LAOS-NE, Houa Phan prov. 20°12-13.5'50"N, 103°59.5'-104°0.1'E Ban Saluei → Phou Pane Mt. 1340-1870 m, 22.iv.-15.v. 2008 Vit Kubáň & Lao coll. leg. // Primary mountain forest, *intercept trap*, Laos 2008 Expedition National Museum Prague, Czech Republic”, (NMPC). Paratypes (spec. sex indet.): same data as holotype, (ZSPC); (2 ♀♀): “LAOS - NE, Houa Phan prov., 20°13'09-19"N 103°59'54"-104°00'03"E, 1480-1510 m, Phou Pane Mt., 2.-22.vi. 2011 Vit Kubáň leg. // Primary mountain forest, *flight intercept trap*, LAOS 2011 Expedition National Museum Prague, Czech Republic”, (NMPC, ZSPC); (2 ♀♀): “LAOS - NE Xieng Kouan prov., 19°38.20'N 103°20.20'E, Phousavan (30 km NE), Phou Save Mt., 10-30.v.2009, 1420 m, V. Kubáň lgt. // Secondary mountain forest, flight intercept trap, Laos 2009 Expedition, MHMB Basel, NMPC Prague”, (NMPC).

Description. Dorsum, venter and legs light chestnut, antennae yellow-red. Length of body 1.5 mm, head 0.2 mm, pronotum 0.3 mm, elytra 1.0 mm, aedeagus 0.31 mm. Maximum width of head 0.6 mm, pronotum 0.9 mm, elytra 0.9 mm.

Head. Broadest at eyes. Punctures distinct, separated by about 2-3 times their diameter. Last antennomere narrower than previous one. Width ratio AX/AXI=1.4.

Pronotum. Broadest at base. Posterior angles closely rounded, obtuse; in both dorsal and lateral view. Lateral outline regularly roundly narrowed anteriorly in dorsal and lateral view. Base straight before posterior angles in dorsal view. Punctuation distinctly finer and sparser than that on head, punctures separated by about 6-8 times their diameter.

Elytra. Widest approximately just behind humeri. Sutural stria confined to apical third of elytral length continuing as regular row of punctures anteriorly reaching elytral base. Elytra possess regular striae of punctures, distinct from interval punctures on apical 4/5 of elytral length. Strial punctures separated approximately by 2 times their diameter in mid-length of elytra, becoming smaller and sparser toward base, separated by 8-10 times their diameter on basal fifth of elytral length. SVII and SVIII completely vanish at anterior third of elytral length. No stria reaches base of elytra. SVI and SVIII merge before elytral apex, remaining ones almost reach elytral apex. Elytral intervals punctured by small, fine, sparse, irregularly distributed punctures, separated by about 8-10 times their diameter. Odd intervals with several large punctures, a little smaller than those in rows. Elytra near lateral margin with several short light setae. Epipleura with short horizontally oriented light setae detectable



Figs. 28-31. *Zeadolopus variabilis* sp. nov.: 28- lateral view on body; 29- left part of metaventrite; 30- aedeagus; 31- spermatheca.

in dorsal view. Lateral margin of elytra with 7 large, regularly arranged foveae, gradually becoming smaller posteriorly (Fig. 28).

Metaventrite. Large foveae arranged as follows: 4-0-3 (Fig. 29). Small single basal fovea located in outmost postero-lateral corner of metaventrite. Metaventrite with sparse fine punctures; each of medially located puncture has a seta.

Legs. Mid- and hind tibiae approximately of same width, mid-tibiae broadest in mid-length, hind tibiae broadest just before apex. Hind femur with sharp thin bowed process at the apex reaching mid-length of tibiae.

Abdomen. Only first visible abdominal ventrite with transversal row of conspicuous foveae approximately as large as those near base of metaventrite.

Genitalia. Tegmen stout, closed apically, its lateral outline emarginate at distal third of its length. Paramera bisetose, stout, short, as long as tegmen. Largest of endophallic sclerites U-shaped (Fig. 30).

Variation and sexual dimorphism. Lateral margins possess six large foveae in all the paratypes except one female having five lateral foveae. Number and also position of metaventral foveae distinctly vary. Numbers of foveae in the individual rows varies in the type series as follows: 3-2-0 (holotype) - 4-2-0 - 3-1-3 - 3-1-2 - 4-1-3. Spermatheca 0.14 mm (Fig. 31).

Differential diagnosis. *Zeadolopus variabilis* sp. nov. is similar to *Zeadolopus subglobosus* sp. nov. in the small size of the body, apically closed, broadly rounded, subglobose shaped tegmen with curved lateral outline. Both species can be distinguished by the paramera which far exceed the apex of the tegmen in *Z. subglobosus* while the same in *Z. variabilis* as long as tegmen.

Name derivation. The new species is rather variable in the number of the metaventral foveae. Therefore the Latin adjective *variabilis* has been chosen as the species name.

***Zeadolopus paveli* sp. nov.**

(Figs. 32-33)

Type material. Holotype (♂): "Sultanate of Oman / Sohar env. 23.3.2018, Pavel a Kazdová leg. // N 24°17'49.3'', E 056°46'21.0''", (ZSPC).

Description. Dorsum, antennae, femora and tibiae yellow-red, tarsi brownish. Venter yellowish-red. Length of body 1.9 mm, head 0.3 mm, pronotum 0.6 mm, elytra 1.0 mm, antenna 0.5 mm, aedeagus 0.46 mm, maximum width of head 0.6 mm, pronotum 1.1 mm, elytra 1.3 mm. Entire dorsal surface smooth except of puncturation.

Head. Broadest at eyes. Densely punctured. Punctures separated by about one time their diameter. Last antennomere narrower than previous one. Width ratio of antennomeres AXI/AXII = 1.1.

Pronotum. Broadest just before base. Posterior angles rounded, distinctly obtuse in dorsal view; broadly rounded, obtuse in lateral view. Lateral outline regularly roundly narrowed anteriorly in dorsal and lateral view. Puncturation much sparser and finer than that on head, punctures separated by about 4-6 times their diameter.

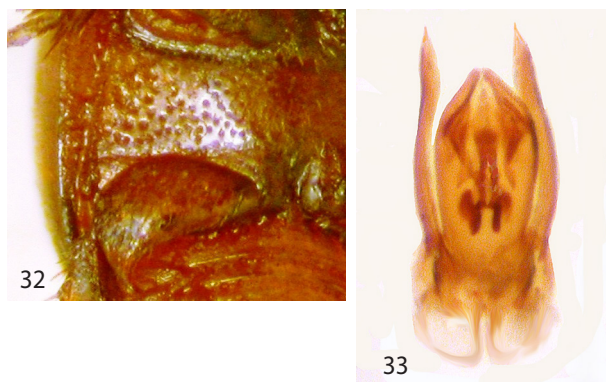
Elytra. Widest just behind humeri. Sutural stria confined caudal three fifth of elytral length continuing as regular row of punctures divergent laterad, anteriorly reaching elytral base. Punctures becoming distinctly sparser and smaller toward base. Elytra possess eight punctured striae hardly recognizable from interval punctures on basal sixth of elytra vanishing before elytral base at level of scutellar tip. Strial punctures small and sparse separated by about 4-5 times their diameter on anterior half of elytra, becoming larger and denser posteriorly, spaced by about 2 times their diameter close to elytral apex. Medial striae SII and SIII almost reach apex, SIV-SVIII terminate before elytral apex. Striae SVII and SVIII turn toward lateral margins of elytra in basal fourth. Elytral intervals punctured by sparse, irregularly distributed, punctures sparser and a little smaller than those in striae. Interval punctures become larger toward elytral base. Each of odd intervals with several large punctures, a little smaller than those in rows. Lateral margin of elytra without any large fovea.

Metaventricle. Densely, deeply punctured. Punctures predominantly separated by one time their diameter or less laterally, by 1-2 times their diameter medially (Fig. 32).

Legs. Anterior tibiae almost parallel-sided, broadest in mid-length, narrower than mid- and hind tibiae. Mid- tibiae narrower than hind-tibiae. Mid-tibiae broadest at apex, hind tibiae broadest in their middle with thorny twins on lateral side. Hind femur with long, curved, hook-like apical process reaching approximately mid-length of tibia.

Abdomen. First visible abdominal ventrite with row of conspicuous foveae located just behind meta-coxae except of smooth short middle part. Foveal diameters equal approximately to half of individual ventrite length. Also each of four following visible abdominal ventrites possess similar row. Size of foveae gradually becomes smaller caudally.

Genitalia. Tegmen almost closed apically by its lateral strongly convergent marginal ribs (Fig. 33). Paramera much longer than tegmen, apically with two short inconspicuous terminal seta.



Figs. 32-33. *Zeadolopus paveli* sp. nov.:
32- left part of metaventricle; 33- aedeagus.

Differential diagnosis. *Zeadolopus paveli* sp. nov. is morphologically similar to the eastern Palaearctic *Z. inflatipes* (Reitter, 1891) in the light coloured antennal club, in the double-thorned lateral margins of the posterior tibiae, in the lack of the foveae on its metaventricle and the lateral margins of the elytra. Both species differ by the shape of the aedeagus. *Zeadolopus paveli* sp. nov. possesses shortly rounded, apically closed tegmen that is distinctly broadly rounded and distinctly opened in *Z. inflatipes*. *Z. paveli* sp. nov. can be recognized from *Z. inflatipes* also by the foveate abdominal ventrites.

Name derivation. The new species is dedicated to its collector, my entomological colleague, Filip Pavel (Czech Republic).

Remark. The occurrence of the *Zeadolopus* is recorded for the country and the Arabian Peninsula for the first time.

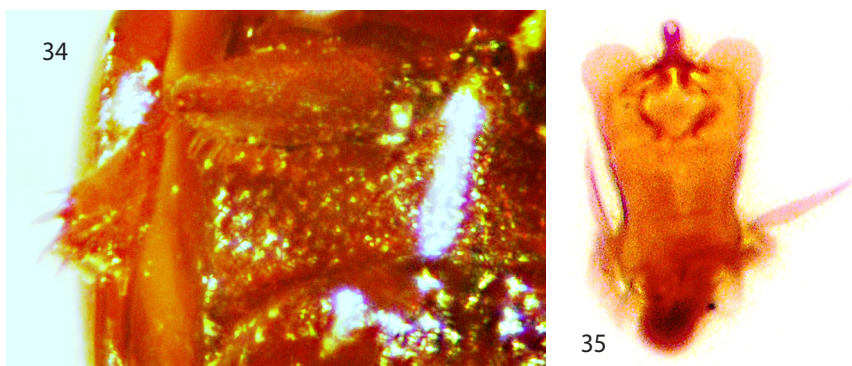
***Cyrtusoma (Paracyrtusoma) laotiana* sp. nov.**
(Figs. 34-35)

Type material. Holotype (♂): "LAOS-Houa Phan prov. Phu Phan Mt. 20°12'N, 104°01'E, ca 1750 m, 17.V.-3.VI. 2007, leg Vít Kubáň", (ZSPC).

Description. Body short broad oval, convex. Dorsum, venter and legs light chestnut, antennae yellowish-red. Length of body 1.4 mm, head 0.2, pronotum 0.5 mm, elytra 0.7 mm, aedeagus 0.21 mm. Maximum width of head 0.6 mm, pronotum 0.8 mm, elytra 1.0 mm.

Head. Widest at posterior margin of flat, not prominent eyes. Punctures distinct, separated by about 2-3 times their diameter. Last antennomere distinctly narrower than previous one. Width ratio AX/AXI=1.3.

Pronotum. Widest at base. Posterior angles broadly rounded, obtuse in dorsal view, obtuse, closely rounded in lateral view. Lateral outline regularly roundly narrowed anteriorly in both dorsal and lateral view. Base straight before posterior angles in dorsal view. Punctuation distinctly finer and sparser than that on head, punctures separated by about 4-6 times their diameter.



Figs. 34-35. *Cyrtusoma (Paracyrtusoma) laotiana* sp. nov.: 34- left part of metaventrite; 35- aedeagus.

Elytra. Widest in basal fifth of elytral length. Sutural stria confined to apical half of elytral length first being closely adjacent to elytral suture, becoming divergent anteriorly, continuing as regular row of punctures, not reaching tip of scutellum. Elytra possess regular striae of punctures, distinct from interval punctures on apical 4/5 of elytral length. Punctures of all striae become smaller and sparser anterad. Striae SVII and SVIII strongly curved on basal half of elytral length being shortest of all of others, completely vanishing at anterior third of elytral length and shortened far before elytral apex. SII-SVI almost reach base, barely distinguishable there from interval punctures, with punctures similar in strength, size and density to those in rows. Interval punctures separated by 6-8 times their diameter on elytral disc, puncturation denser toward base. Lateral margin of elytra without any foveae or strikingly large punctures.

Metaventrite. Distinctly densely punctured medially with punctures separated by about 2-3 times their diameter. Punctures become stronger and larger laterally separated by 2 times their diameter (Fig. 34).

Legs. Anterior tibiae almost parallel-sided, widest approximately in their mid-length, narrower than mid- and hind tibiae. Mid- and hind tibiae approximately of same width, hind tibiae broadest far from roundly oblique apex as is usual in the subgenus *Paracyrtusoma* Daffner, 1982.

Abdomen. Without any striking morphological character.

Genitalia. Tegmen stout with broad large round lobes antero-laterally and central apical process (Fig. 35). Paramera slim, short, with apical thin and short setae.

Differential diagnosis. *Cyrtusoma laotiana* sp. nov. is the second up to now known species of the subgenus *Paracyrtusoma*. The first one is *Cyrtusoma (Paracyrtusoma) bullata* Daffner, 1982. Both species differ by the size of their body and by the shape of some of their punctured elytral striae - while *C. laotiana* with curved rows VI and VII is smaller (1.9 mm), the body length of *C. bullata*, possessing curved row III, is 2.0-2.9 mm. The shape of the aedeagi is quite different in both compared species.

Name derivation. The name of the new species is derived from the country of the origin, Laos.

DISCUSSION

The *Zeadolopus* species are small leiodids generally of the uniform broadly rounded shape, highly convex body, seemingly ten segmented antennae and strikingly widened mid- and hind tibiae and very characteristic doubly sphaeric spermathecae. Within their uniform body shape, individual species have striking shapes and structures of some body parts, which are useful in taxonomy, but are also subject to variability. The following text draws attention to those morphological characters that are commonly used in the taxonomical differentiation within the genus, but which can sometimes be variable in a rather broad rank.

Although or just because there are known only three specimens of the *Zeadolopus solitarius* sp. nov. type series, the species can be chosen as an example of the morphological variability in the *Zeadolopus* species. The metaventrite of the holotype possess three rows of large foveae with the formula 4-1-4. The fourth basal fovea is a little smaller than the anterior foveae and it is located at latero-basal outmost edge of the metaventrite. The metaventrite of the male paratype possess the following arrangement of the foveae: 5-3-2 and the solitary latero-basal fovea is much smaller than that in the holotype. The female paratype possesses the formula 5-2-4 on one side of the metaventrite, while it is 5-1-3 on the other side. Also in this paratype, the latero-basal corner of the metasternum contains fovea, but of small size, half the size of the foveae on the anterior margin of metaventrite. The dorsum of the holotype is smooth except for the puncturation, however the female paratype has its elytra superficially unclear micro-sculptured. The number of foveae at the lateral margins of elytra varies between 2 and 3; large foveae are followed by 1-3 large shallow punctures toward the apex of the elytra..

A similar range of variability can be detected in *Z. variabilis* sp. nov. and also in some others.

The examples described above document the difficulties in the determination of the *Zeadolopus* species. Therefore the proper identification should be based, in addition to standard morphological characters, on the shapes of the genitalia.

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