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Afronyrus gen. n. (Coleoptera: Phalacridae) with descriptions of new Phalacridae from Africa and Asia

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Abstract. *Afronyrus* gen. n. with the type species *A. snizeki* sp. n. from Kenya are described and distinguished from similar taxa, as well as *Phalacrus capreolus* sp. n. from South Africa, *Ph. rolciki* sp. n. from Tanzania and *Ph. snizeki* sp. n. from Kenya, *Ph. cooteri* sp. n. from Kazakhstan, *Ph. curticornis* sp. n. and *Ph. saueri* sp. n. from India, *Ph. havai* sp. n. from Sumba Island and Thailand, *Litotarsus tibialis* sp. n. from Malaysia and *Biophytus snizeki* sp. n. from Uganda. Their significant characters are figured.

INTRODUCTION

African and Asian species of the genus *Phalacrus* Paykull, 1800 were studied mainly by Guilebeau (1894a, 1894b, 1896), Champion (1924, 1925a, 1925b) and finaly by Lyubarsky (1993b, 1994). Altogether 84 species of the genus *Phalacrus* have been known up to now, among them 12 species from Africa and 21 species from Asia. Three new species from Africa and four new species from Asia are added in this paper. Since the year 1925 no paper, with one exception (Lyubarsky, 1993a) have been published on the genera *Ganyrus* Guillebeau, 1894, *Litotarsus* Champion, 1925 or *Biophytus* Guillebeau, 1894. Genus *Ganyrus* comprises 4 species (Africa, Central America, Asia), *Litotarsus* 3 (Asia) and *Biophytus* 1 species (Africa - Zanzibar) at present. Newly described genus *Afronyrus* seems to be similar to *Ganyrus*.

MATERIAL AND METHODS

The present paper is mainly based on the material recently collected by Miroslav Snížek (České Budějovice) and some other Czech entomologists. The type material, with one exception mentioned in the taxonomy part, is deposited in the author's collection (SC). One paratype of *Phalacrus havai* sp. n. is deposited in the collection of Jiří Háva (Prague) - HAC.
The author studied the type material deposited in the Muséum National d'Histoire Naturelle, Paris (MNHP). He also had at his disposal results of studies of some Champion's types (*Phalacrus immarginatus* Champion, 1925 - cotype, *P. tenuicornis* Champion, 1925 - cotypes) and other material determined by Champion deposited in the The Natural History Museum, London (BMNH) that Ernest Lewis (Chagford) had done and communicated with the author.
Male and female genitalia were dissected; tegmen and median lobe separated and then mounted in the Canada balsam or in gum arabic.

Locality data for the type material are given in quotation marks.
Morphological terminology follows that published by Švec (2002).
The measurements were taken from all specimens examined. Mandibulae were not included in the length of the species described. Measurements were approximated to the nearest 1st decimal place; the ratios were taken from holotypes only and were reckoned from unaproximated measures. The ratios represent the holotypes only and should be considered as indicating the relative lengths of antennal club segments. Except for measurements the descriptions are based on the holotypes. The differences occurring in paratypes are mentioned, when necessary, in the paragraph "Variation".

RESULTS

Afronyrus gen. n.

Type species. *Afronyrus snizeki* sp. n. by monotypy, masculine gender.

Description. Shape of body oblong oval, with continuous outline. Dorsum partly microstrigosed, punctate, punctures with very fine and short setae. Anterio-lateral margin of head slightly emarginate above articulation of antennae. Eyes large, coarsely faceted. Base of pronotum bisinuate, with developed median lobe. Scutellum of usual shape and size. Sutura not bordered. Elytra with sutural stria, no other striae developed. Elytral E-punctures arranged in rows gradually getting smaller anteriorly; at basal third of elytra simple punctures. Row punctures become wider laterally and gradually shallower and larger posteriorly, not reaching elytral apex. Legs short, antennae long. Antenna with 3- segmented conspicuous long club (as in Fig. 1). Mouth parts as in Figs 3, 4, 7. Mandibulae short, wide at base, simply strongly curved at half of their length, simple without tooth. Last maxillar segment ovoid, truncate apically, very slightly concave medially before apex. Lacinia and galea developed, setose. Antennal club longer than rest of antenna. Last antennal segment depressed dorso-ventrally. Tarsal formula: 5-5-4. Protibiae straight, tarsal segment 2 longer than any of remaining ones. Meso-tibiae simple, slightly curved, with apical crown of approximately equally long spurs. Two of them standing medially longer than the others. Segment 2 longer than segment 1 of mesotarsi. Meta-tibiae with two spurs situated medially. Second segment longer than 1st one.

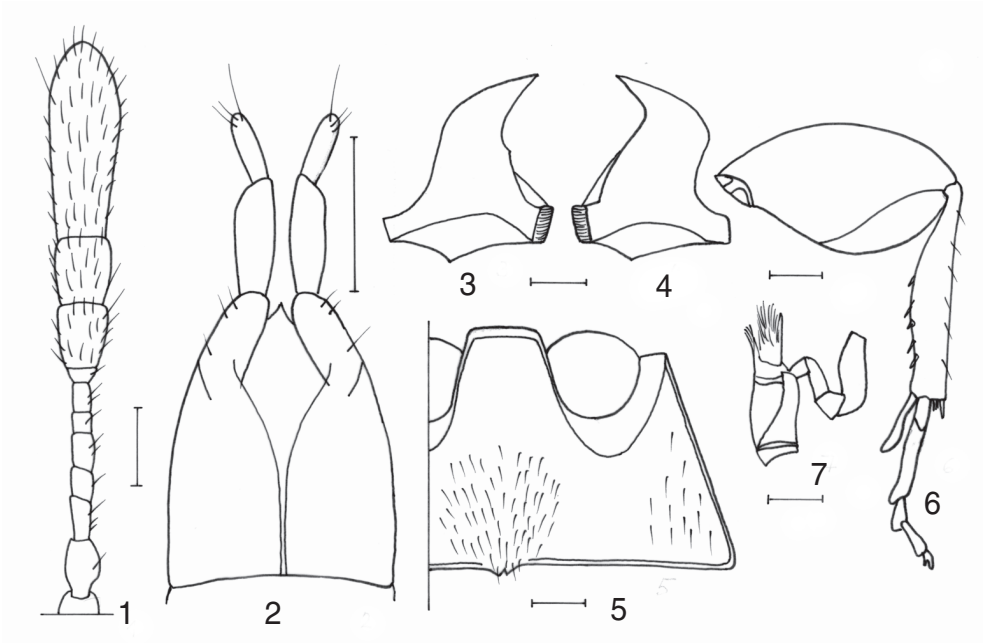
Shape of both tegmen and median lobe as well as endophallic sclerites resembling those in *Olibrus* Erichson, 1845. Endophallic sclerites feebly developed. Male genitalia as in Figs 8 - 10.

Female genitalia as in Fig. 2.

Prosternal process with unobtrusive margin, not extending behind anterior coxae. Swollen part of mesosternum reduced as a narrow border of metasternal process. Metasternal process overreaching anterior level of mesocoxae, metasternum with arcuate coxal lines (Fig. 5).

The genus can be characterized and distinguished by the combination of following characters:

1. Compact antennal club 3- segmented conspicuously long. 2. Last maxillary segment truncate at apex, widened medially before preapical constriction. 3. Prosternal process not extended



Figs 1-7: *Afronyrus snizeki* sp. n. 1- antenna; 2- ovipositor; 3- left mandible; 4- right mandible; 5- metasternum; 6- hind leg of male; 7- maxilla with maxillar palpus. Material figured: 1, 5 holotype; rest paratypes. Scale = 0.1 mm.

behind anterior coxae. 4. Swollen part of mesosternum strongly reduced; mesosternum abruptly sloping dorsad anteriorly and thus, anterior portion of mesosternum deeply excavate. 6. Base of pronotum bisinuate. 7. Scutellum of usual shape and size. 8. Only sutural stria developed on each elytron. 9. Suture not bordered. 10. Metasternum with process overreaching anterior level of mesocoxae. 11. Arcuate metasternal lines continuous. 12. Both parameres fused in parameral sclerite; parameral sclerite separated from basal piece by transverse suture. 13. Ovipositor slightly sclerotised but visible. 14. Styli inserted at tips of coxites. 15. Second segment of all tarsi longer than 1st .

Discussion. The taxonomic concept of the family Phalacridae is still unclear at present. Švec (2002) reviewed the history and present knowledge of the taxonomy of the family. *Afronyrus* gen. n. seems to be belonging to Phalacrinae due to tarsal formula and due some other characters described above. Taking into account shape of clypeus and anterio-lateral margin of head, number of club antennal segments, shape of meso- and metacoxa, sternal structures and length of segment 2 of posterior tarsi, the new genus is obviously similar to the genus *Ganyrus*.
Although the generic type - *Ganyrus rubellus* Guillebeau, 1894 had been studied, the characters mentioned above that make the new genus *Afronyrus* similar to *Ganyrus* were taken from the original description of *Ganyrus*. Two type specimens of *Ganyrus rubellus* labelled as: "Type; Alluaud; Diego Suarez; coll. Générale; type; Ganyrus rubellus" are preserved in the MNHP. In

fact, the information about the type of *Ganyrus rubellus* given in the riginal description is quite different from information obtained by studies of both specimens mentined. Firstly there was mentioned only one specimen in the original description and secondly also the original locality did not agree with the data on labels following both specimens. The locality mentioned in the original description was "Abysinie (Raffray)". This means that the examples labelled as types, preserved in MNHP, couldnot be types in reality. The examination of the types showed that the examples belong to *Augasmus* Motchulsky, 1858.

Differential diagnosis. *Afronyrus* gen. n. differs from the genus *Ganyrus* by structure of antennae having extremely long, compact and obtrusive club and by presence of coxal lines.

Name derivation. The name is derived from the words Africa and *Ganyrus*; it reminds of the continent of the occurrence and the name of the most similar phalacrid genus.

Afronyrus snizeki sp. n.
(Figs 1-10)

Type material. Holotype (♂): "Kenya, Taita Hills, Wundanyi, 23.3.97, M. Snížek lgt.". Paratypes (18 ♂♂, 2 ♀♀): the same data.

Other material examined. *Ganyrus rubellus* Guillebeau, 1894, 2 examples, labelled as "Type; Alluaud; Diego Suarez; coll. Générale; type; Ganyrus rubellus".

Description. Length of body 1.5-2.2 mm, in holotype 2,0 mm, head 0.1 mm, pronotum 0.5 mm, elytra 1.4 mm, antenna 0.8 mm, maximum width of head 0.5 mm, pronotum 1.1 mm at base, elytra 1.2 mm shortly behind shoulders.

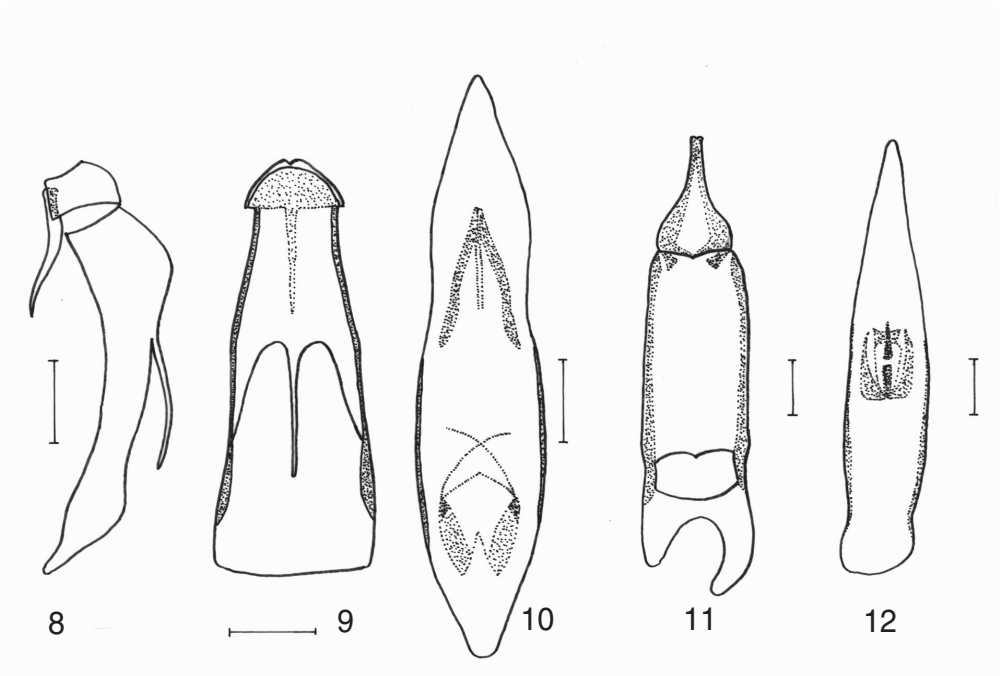
Oblong oval, red-yellow including appendages, ventrally red-yellow with darker metasternum.

Head. Without microsculpture, very finely punctate, short setae bearing punctures separated by 2-6 times their own diameter. Eyes convex. Antennal segments 2-7 longer than wide, segment 8 wider than long. Ratios of length of antennal club segments 9-11 (9^{th} segment equals to 1.0): 1.0-1.2-2.9. The same ratio of widths: 1.0-1.1-1.1. Ratio of width : length of antennal segments 9-11: 1.0-0.9-0.4. Antenna as in Fig. 1, mouth-parts as in Figs 3, 4, 7.

Pronotum. Without microsculpture. More finely and sparserly punctate than head, punctures bearing short setae. Base not bordered. Posterior angles acute, with pointed tip in dorsal view; slightly acute pointed in tip laterally seen.

Scutellum. With traces of transverse microsculpture and few small punctures.

Elytra. Widest just behind shoulders, lateral margins straightly narrowed up to apical third, then roundly narrowed tovard apex. Both lateral margins visible seeing dorsally. Extremly finely transversely microstrigose. Opalescent. Suture not bordered. Sutural stria confining to apical 3/5 of elytral length. Space between stria and suture convex. No other striae developed. Row punctures unobtrusively developed. Rows consist of small setae-bearing puntures spaced by about 6 their own diameters. Row punctures becoming E-shaped on disc. Toward apex and lateral



Figs 8-12: *Afronyrus snizeki* sp. n. (8-10). 8- tegmen laterally; 9- tegmen dorsally; 10- median lobe. *Phalacrus cooteri* sp. n. (11, 12). 11- tegmen; 12- median lobe. Material figured: holotypes. Scale = 0.1 mm.

margins punctures become larger and opener; evanescent at apex, fusing each other laterally on caudal two thirds of elytral length, resembling transverse wrinkles. Intervals with two types of punctures. Larger ones - disordered E-punctures present at apical half of elytra longitudinally spaced by 5 or more their own diameter; very small puctures interposed.

Metasternum. Metasternal process truncate at apex, smooth anteriorly, distinctly punctate and setose at posterior half (Fig. 5). Laterally obliquely microsculptured with irregular cells. Distance between the metasternal lines and mesocoxae almost half the coxal diameter. Abdomen transversally microsculptured with irregular cells, setose, without striking characters.

Legs. Femora wide without striking characters. Anterior tibiae narow, straigth. Meso-tibiae feebly simply curved, apically obliquely truncate with crown of long strong setae. Posterior tibiae laterally straight, medially convex. With several long setae at lateral outline. Medio-apically with 2 long spurs. Smaller spur as long as 1st tarsal segment, second one widened clavate, curvate, longer than 1st segment. Second segment more than twice as long as segment 1 (Fig. 6).

Genitalia. Male genitalia as in Figs 8 – 10.

Female genitalia as in Fig. 2.

Bionomics. Not known.

Variation. Some of the paratypes with darker strip along suture and base of pronotum. Sexually dimorphous. Both apical spurs of hind tibiae simple in females. Shape of antennal club in females were not detected due to damage of both female paratypes.

Name derivation. The species is dedicated to the collector Miroslav Snížek (České Budějovice), specialist in Chrysomelidae.

Phalacrus cooteri sp. n.
(Figs 11-12)

Type material. Holotype (♂): "Kazakhstan, W. Tian Shan, Chimkent Reg., Aksu-Dzhabagly State N. R., Kalbuidjailav, 70°41', 42°25' 16.vi. 1999, leg. J. Cooter".

Description. Length of body 2.8 mm, head 0.3 mm, pronotum 0.7 mm, elytra 1.8 mm, antenna 0.8 mm, maximum width of head 0.6 mm, pronotum 1.6 mm at base, elytra 1.7 mm closely behind shoulders.

Oval, black, antennae and legs black-brown, apex of antennal segment 9, tibial base and claws lighter colored, ventrally black.

Head. Without microsculpture, finely punctate, punctures separated by 2-4 or more times their own diameter. Ratios of length of antennal club segments 9-11 (9^{th} segment equal to 1.0): 1.0-0.9-2.6. The same ratio of widths: 1.0-1.3-0.9. Ratio of width : length of antennal segments 9-11: 1.1-1.5-0.4.

Pronotum. Without microsculpture. Extremely finely punctate, punctures separated by 6-8 or more times their own diameter, toward margins punctures denser. Base bordered on median third of its length. Posterior angles rectangular, with pointed tip in dorsal view; acute pointed in tip laterally seen.

Scutellum. Smooth, punctured as on head.

Elytra. Lateral margins parallel up to apical third, then roundly narrowed tovard apex. Feebly reticulate. Sutural stria confined to apical 4/5 of elytral length. Traces of elytral striae detectable. Elytral rows consist of elongate puntures spaced by about 0.5 (first row close to sutural stria) or 1-1.5 times their own diameters (other rows). Rows of punctures reaching base, toward apex becoming smaller and evanescent. Intervals with two types of punctures. Larger ones - punctures a little bit smaller than those in primary rows tending to form 1-3 irregularly arranged rows in each interval. Between them some small punctures interposed.

Metasternum. Without striking characters.

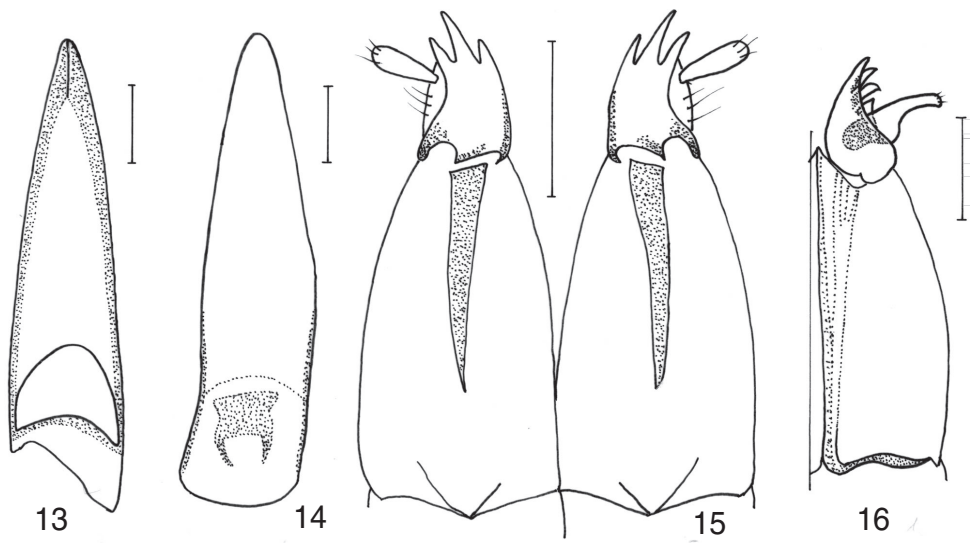
Abdomen. Visible sternites coarsely punctate, distinctly setose. Sternites 2-4 with bunch of red long, denselly arranged setae medio-caudally.

Legs. Anterior tibiae with 3 spines laterally before apex.

Genitalia. Male genitalia as in Figs 11, 12.

Bionomics. Not known.

Variation. Although female is not known, bunches of abdominal setae can be regarded as a character of sexual dimorphism.



Figs 13-16: *Phalacrus curticornis* sp. n. (13-15). 13- tegmen; 14- median lobe; 15- ovipositor. *Phalacrus havai* sp. n. (16). 16- ovipositor right part. Material figured: 13, 14 holotype, rest paratypes. Scale = 0.1 mm.

Differential diagnosis. *Phalacrus cooteri* sp. n. is similar to *Ph. brunnipes* Brisout de Barneville, 1863 in shape of body type of punctuation and shape of paramerae. Nevertheless, parameral segment shows some specific characters in *Ph. cooteri* that also differs in the presence of bunches of setae on abdomen and in bordered median part of pronotum.

Name derivation. The species is dedicated to the collector, my friend, Jonathan Cooter (Hereford), well known specialist in Leiodidae.

***Phalacrus curticornis* sp. n.**
(Figs 13-15)

Type material. Holotype (♂): "S-India, T. Nadu, Nilgiri Hills, 15 km SE Kotagiri, Kunchappanai, 100 m, 76°56' E, 11°22' N, 17-28.xi.1993, Boukal D.+ Kejval Z. lgt.". Paratypes: (4 ♀♀): the same data as holotype.

Description. Length of body 1.9-2.3 mm, in holotype 1.9 mm, head 0.2 mm, pronotum 0.5 mm, elytra 1.2 mm, antenna 0.5 mm, maximum width of head 0.7 mm, pronotum 1.3 mm at base, elytra 1.3 mm at shoulders.
Broadly oval, black, mouth-parts, antennae and legs brown. Ventrally black-brown.
Head. Microsculpture consists of oblique very narrow iregular cells, finely sparsely punctate, punctures separated by 6-8 times their own diameter. Ratios of lengths of antennal club segments

9-11 (9th segment equal to 1.0): 1.0-0.8-2.7. The same ratio of width: 1.0-1.4-1.1. Ratio of width: lengths of antennal segments 9-11: 1.3-2.2-0.6.

Pronotum. Microsculpture similar to that of head but finer, namely toward anterior margin. Irregularly finely punctate, punctures separated by 2-10 or more times their own diameter. Base almost straight with very feeble trace of margin on median third of its length. Posterior angles acute, with pointed tip in dorsal view; obtuse pointed in tip laterarally seen.

Scutellum. Transversely microsculptured, bearing some very small and sparse punctures.

Elytra. Lateral margins straightly narrowed up to apical third of elytral length, then roundly narrowed toward apex. Transversely microsculptured at base, microsculpture becomes almost regular microreticulation apically. Beside well developed sutural stria, some traces of other striae detectable. Elytral rows consist of E-puntures becoming larger backwards, longitudinaly separated by about 2 times their diameter on most of posterior half of elytra, evanescent at apex. Row punctures become smaller anteriorly, evenescent before base. Punctures similar those in primary rows, irregularly distributed in intervals tending to arrange in rows. First interval with double or triple irregular row. Small punctures rarely interposed.

Metasternum and abdomen. Without striking characters.

Legs. Anterior tibiae with 2 spines laterally far before apex.

Genitalia. Male genitalia as in Figs 13-14, ovipositor as in Fig. 15.

Bionomics. Not known.

Variation. Simply curved mandibulae detectable dorsally seen in one of female paratype.

Differential diagnosis. *Ph. curticornis* sp. n. is similar to *Ph. luteicornis* Champion, 1925 in shape of body, size etc. It differs by distinctly shorter last antennal segment and by the pronotal microsculpture.

Name derivation. The name attracts attention to shorter last antennal segment in the comparision to the closest species.

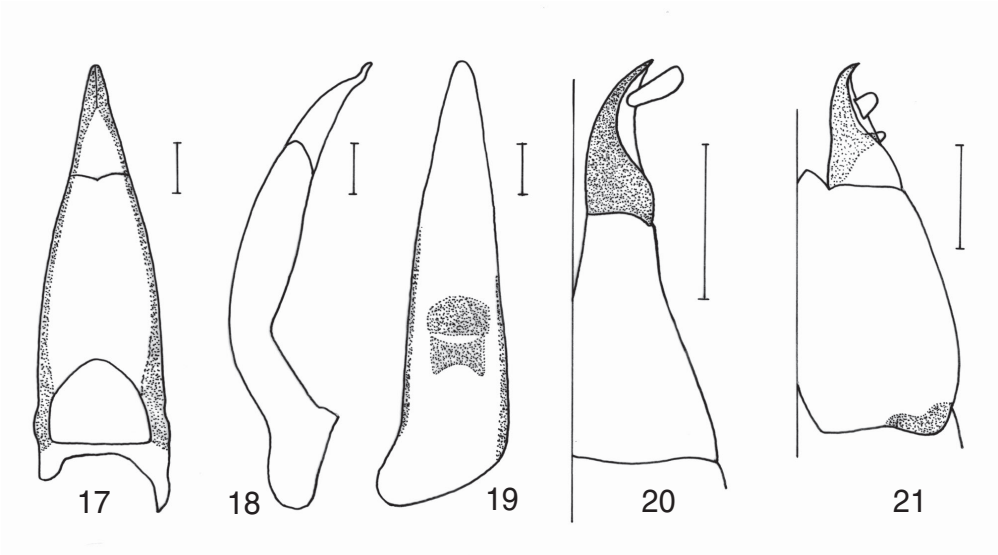
Phalacrus havai **sp. n.**

(Figs 16-19)

Type material. Holotype (♂): "Sumba South, Tarimbang env. 0-100 m, 2.-3.2.2001, P. Votruba lgt.". Paratypes: (5 ♂, 1 ♀, 2 specimens sex indet.): the same data as holotype; (2 ♂♂, 1 ♀): " Thailand, Chiangmai 56 NW, 99.25E, 19.05N, 7.-14.6.1995, M. Snížek lgt.". One male paratype from Sumba deposited in HAC, rest in SC.

Description. Length of body 2.8-3.7 mm, in holotype 3.4 mm, head 0.4 mm, pronotum 0.9 mm, elytra 2.1 mm, antenna 0.9 mm, maximum width of head 1.2 mm, pronotum 2.2 mm at base, elytra 2.3 mm at basal quarter. Mandibulae as long as head.

Broadly oval, black, mouth-parts, antennal club red-brown, legs and rest of antennae brown, ventrally black.



Figs 17-21: *Phalacrus havai* sp. n. (17-19). 17- tegmen dorsally; 18- tegmen laterally; 19- median lobe. *Phalacrus saueri* sp. n. (20). 20 - ovipositor right part. *Phalacrus rolciki* sp. n. (21). 21- ovipositor right part. Material figured: holotypes. Scale = 0.1 mm.

Head. Microsculpture feeble, consisting of oblique, very narrow irregular cells, double punctate, larger punctures separated by 4-6 or more times their own diameter. Very small punctures interposed. Ratios of lengths of antennal club segments 9-11 (9^{th} segment equal to 1.0): 1.0-0.8-2.7. The same ratio of widths: 1.0-1.1-1.1. Ratio of width : length of antennal segments 9-11: 1.5-2.0-0.4.

Pronotum. Microsculpture similar to that of head. Similarly punctate as head, punctures sparser, larger punctures separated by about 10 or more times their own diameter. Small punctures interposed. Base lobed above scutellum, not bordered. Posterior angles feebly acute, with pointed tip in dorsal view; rectangular, pointed in tip laterally seen.

Scutellum. More distinctly microsculptured than pronotum. Punctures separated by 2-10 times their own diameter.

Elytra. Lateral margins paralell in basal half. Microsculpture similar to that of pronotum but more distinctive at base, becoming almost reticulate on disc, apicaly transverse. Sutural stria well developed, other striae shallow. Elytral rows consist of E-puntures becoming larger backwards and laterally. Punctures gradually smaller toward base becoming simply oval. Punctures longitudinaly separated by about 2 times on disc of elytra, evanescent at apex. Row punctures larger toward lateral margins almost fusing with large similar punctures in intervals. Large interval punctures irregularly distributed; well distant from punctures in primary rows, tending to arrange interval rows. Laterally arranged regularly not differ from primary rows. Small punctures rarely interposed.

Metasternum. Without striking characters.

Abdomen: Last visible sternite with dense bunch of red setae medio-caudally.
Legs. Anterior tibiae with 1 spine laterally before apex.
Genitalia. Male genitalia as in Figs 17 - 19, ovipositor as in Fig. 16.

Bionomics. Not known.

Variation. Mandibulae as long as head detected in one of female paratypes from Sumba. A male paratype from Thailand with triple punctured pronotum and reddish tarsi. Abdominal bunch of setae developed in males only.

Differential diagnosis. *Ph. havai* sp. n. is similar to *Ph. indus* Motschulsky, 1858 and *Ph. immarginatus* Champion, 1925 in shape of body, size, immarginate base of pronotum and type of elytral microsculpture. From *Ph. indus* it differs by simply curved aedeagus laterally seen and by presence of microsculpture of head and pronotum. From *Ph. immarginatus* it differs by well separated row punctures from those in intervals and by the shape of styli distinctly concave before apex.

Name derivation. The species is dedicated to Jiří Háva (Prague), specialist in Nosodendridae and Dermestidae.

Phalacrus saueri sp. n.
(Fig. 20)

Type material. Holotype (♀): "S. India, Tamil Nadu, Codaicanal, 10°15', 77°30', 26.-27.6.1994, R. Sauer leg."

Description. Length of body 2.4 mm, head 0.1 mm, pronotum 0.6 mm, elytra 1.7 mm, antenna 0.6 mm, maximum width of head 0.7 mm, pronotum 1.5 mm at base, elytra 1.5 mm at base.

Oval, black, mouth-parts, legs and antennae but club reddish, club red-brown, ventrally black.

Head. Feeble transverse microstrigosity on anterior half of head. Punctures of unequal size, separated by 3-4 times their own diameter. Ratios of lengths of antennal club segments 9-11 (9^{th} segment equal to 1.0): 1.0-1.0-2.9. The same ratio of widths: 1.0-1.2-1.2. Ratio of width : length of antennal segments 9-11: 1.4-1.7-0.6.

Pronotum. Feebly microstrigose on disc and anterior part of pronotum; microsculpture becomes very narrow, transverse irregular cells basally and laterally. Finely punctate, punctures separated by about 4-7 times their own diameter. Base feebly lobed above scutellum, bordered along median third. Posterior angles feebly acute with rounded tip in dorsal view; acute, closely rounded laterally seen.

Scutellum. Microsculptured and punctate as pronotum.

Elytra. Lateral margins narrowed from shoulders apically. Microsculpture consists of transverse irregular cells. Beside well developed sutural stria other striae very feebly expressed. Elytral rows consist of E-puntures becoming larger backwards and laterally. Punctures gradually smaller, toward base becoming simply oval. Punctures longitudinaly separated by about 2 times on disc of elytra, evanescent at apex, almost fusing laterally with large interval punctures. Interval

punctures irregularly distributed, well distant from punctures of primary rows on disc, tending to arrange interval rows. Those rows arranged regularly not differing from primary rows laterally. Very small punctures rarely interposed.

Metasternum and abdomen. Without striking characters.

Legs. Anterior tibiae with 2 spines laterally before apex.

Genitalia. Ovipositor as in Fig. 20.

Bionomics. Not known.

Differential diagnosis. *Ph. saueri* sp. n. is similar to *Ph. luteicornis* Champion, 1925 and *Ph. curticornis* sp. n. in shape of body, size, bordered median part of pronotal base and type of elytral microsculpture. From *Ph. luteicornis* it differs by long and stout styli overreaching coxites; from *Ph. curticornis* it differs by the shape of coxites that are simple while 3 toothed in the species mentioned.

Name derivation. Dedicated to the collector of the new species Roman Sauer (Prague).

***Phalacrus capreolus* sp. n.**
(Figs 22-23)

Type material. Holotype (♂): "Dragon Mts., Natal, Afr. m. xii. 1938, Dr. Baum"

Description. Length of body 2.7 mm, head 0.3 mm, pronotum 0.9 mm, elytra 1.5 mm, antenna 0.7 mm, maximum width of head 1.0 mm, pronotum 1.8 mm at base, elytra 1.8 mm at shoulders. Mandibulae as long as head.

Broadly oval, black, mouth-parts, legs and antennae brown, ventrally black-brown.

Head. Feebly transversely microsculptured by long irregular cells. Punctures dense, fine, separated by 2-3 times their own diameter. Ratios of lengths of antennal club segments 9-11 (9^{th} segment equal to 1.0): 1.0-0.9-2.6. The same ratio of widths: 1.0-1.2-1.2. Ratio of width : length of antennal segments 9-11: 1.3-1.8-0.6.

Pronotum. Distinctly transversely microsculptured by long irregular cells. Finely punctate. Punctures separated by about 6 times or more their own diameter. Some large punctures interposed. Base lobed above scutellum, immarginate. Posterior angles feebly obtuse with rounded tip in dorsal view; feebly obtuse, closely rounded laterally seen.

Scutellum. Microsculture and punctures as on pronotum.

Elytra. Lateral margins narrowed apically from shoulders. Microsculpture consists of transverse irregular cells. Beside well impressed sutural stria next one developed. Unobtrusive elytral rows consist of E-puntures becoming larger backwards and laterally. Punctures gradually smaller and evanescent toward base. Punctures longitudinaly separated by about 4 times their diameter on disc of elytra, evanescent at apex, becoming larger and shallower laterally. Intervals with similar punctures arranged less regularly. Very small punctures rarely interposed.

Metasternum and abdomen. Without striking characters.

Legs. Anterior tibiae with 3 spines laterally before apex.

Genitalia. Male genitalia as in Figs 22, 23.

Bionomics. Not known.

Differential diagnosis. *Ph. capreolus* sp. n. is similar to *Ph. cervus* Champion, 1925 in shape of body, size, immarginate pronotal base and type of elytral microsculpture. It differs by unobtrusive elytral rows, very long terminal antennal segment that is distinctly longer as both previous segments altogether. Also the shape of aedeagus shows specific characters.

Name derivation. The name of the species draws attention to its long mandibulae.

***Phalacrus rolciki* sp. n.**
(Fig. 21)

Type material. Holotype (♀): "Tanzania, Tanga distr., Usambara Mts., Lushoto env., 27.3-1.4.1997, J. Rolčík lgt."

Description. Length of body 2.7 mm, head 0.2 mm, pronotum 0.7 mm, elytra 1.8 mm, antenna 0.7 mm, maximum width of head 0.8 mm, pronotum 1.6 mm at base, elytra 1.9 mm at shoulders.

Broadly oval, red-brown, head and adjacent part of pronotum brown, scutellum and basal part of elytra around scutellum chest-nut coloured, mouth parts, legs and antennae yellow-red. Ventrally yellow-red.

Head. Smooth, punctate. Punctures dense, fine, separated by 2-4 times their own diameter; some larger punctures interposed. Pair of large punctures medially placed near each eye. Ratios of lengths of antennal club segments 9-11 (9^{th} segment equal to 1.0): 1.0-1.0-3.6. The same ratio of widths: 1.0-1.3-1.4. Ratio of width:length of antennal segments 9-11: 1.4-1.8-0.5.

Pronotum. Microsculpture lacking. Distinctly finely punctate, punctures separated by about 4-8 times or more their own diameter. Some large punctures interposed. Base lobed above scutellum, lobe immarginate, base bordered shortly at each side above scutellum; border evanescent toward hind angles. Posterior angles feebly obtuse, with rounded tip in dorsal view, feebly obtuse, pointed laterally seen.

Scutellum. Smooth, punctures separated by about 4-6 times their own diameter.

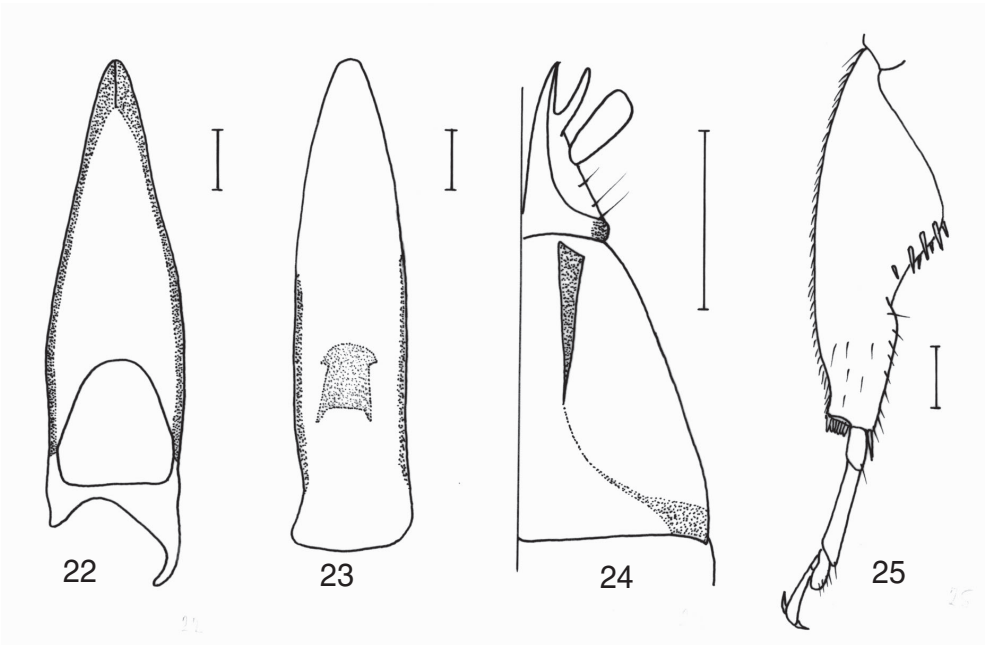
Elytra. Lateral margins roundly narrowed apically from shoulders. Microsculpture lacking. Beside well impressed sutural stria no one developed. Elytral rows consist of elongate punctures of usual shape longitudinally separated by about 4 times their own diameter on disc of elytra. Punctures gradually larger and denser laterally. Intervals with similar punctures arranged less regularly on disc, tending to form regular and densely punctate rows, laterally quite similar to primary rows. Small punctures rarely interposed.

Metasternum and abdomen. Without striking characters.

Legs. Anterior tibiae with 2 spines laterally before apex.

Genitalia. Ovipositor as in Fig. 21.

Bionomics. Not known.



Figs 22-25: *Phalacrus capreolus* sp. n. (22, 23). 22- tegmen; 23- median lobe. *Phalacrus snizeki* sp. n. (24). 24- ovipositor right part. *Litotarsus tibialis* sp. n. (25). 25- hind tibia with tarsus of male. Material figured: holotypes. Scale = 0.1 mm.

Differential diagnosis. *Ph. rolciki* sp. n. is similar to *Ph. atterimus* Wollaston, 1867 in shape of body and type of pronotal basal border. It differs by light colour, lack of elytral striae and elytral microsculpture.

Name derivation. Dedicated to the collector of the new species Jakub Rolčík (Prague), specialist in Cleridae.

***Phalacrus snizeki* sp. n.**

(Fig. 24)

Type material. Holotype (♀): "Kenya, Taita Hills, Wundanyi, 23.iii.1997 M. Snížek lgt.". Paratype: (1 ♀): "Kenya, Voi (Tsavo), 22.xi.-2.xii.1996, M. Snížek lgt.".

Description. Length of body 2.2-2.3 mm, in holotype 2.2 mm, head 0.3 mm, pronotum 0.6 mm, elytra 1.3 mm, antenna 0.5 mm, maximum width of head 0.7 mm, pronotum 1.2 mm at base, elytra 1.3 mm at basal quarter.

Broadly oval, black, hind pronotal angles and elytral apex black-brown, mouth parts, legs and antennae red-brown. Last tarsal segment black-brown, ventrally black-brown.

Head. Traces of transverse microsculpture. Densely finely punctate. Punctures separated by

2-4 times their own diameter, toward eyes punctures coarser. Ratios of lengths of antennal club segments 9-11 (9^{th} segment equal to 1.0): 1.0-0.9-3.0.. The same ratio of widths: 1.0-1.3-1.3. Ratio of width : length of antennal segments 9-11: 1.4-2.2-0.6. Mandibulae detectable dorsally seen, left one longer.

Pronotum. Very fine microsculpture consisting of transverse irregular cells; basally and laterally more distinct. Distinctly finely punctate, punctures separated by about 6-8 times their own diameter; laterally more densely arranged. Few large punctures located before base. Base lobed above scutellum; bordered along median third of base. Posterior angles obtuse, with broadly rounded tip in dorsal view; strongly obtuse, pointed laterally seen.

Scutellum. Microsculpture stronger than on pronotum; punctures separated by about 5-6 times their own diameter.

Elytra. Lateral margins roundly narrowed apically from basal quarter of their length. Microsculpture consisting of tranverse irregular cells forming almost regular microreticulation on elytral disc. Beside well developed sutural stria with traces of other striae. Elytral rows consist of E-punctures longitudinally separated by about 2 times their own diameter on disc. E-puntures becoming larger backwards and laterally; gradually smaller and evanescent toward base and at apex as well. Row punctures becoming larger and shallower laterally, in some places fusing similar interval E-punctures. Intervals beside very small rare punctures with E- punctures tending to form irregular row in each interval on disc. First interval with disordered E-punctures.

Metasternum and abdomen. Without striking characters.

Legs. Anterior tibiae with 2 spines laterally before apex.

Genitalia. Ovipositor as in Fig. 24.

Bionomics. Not known.

Differential diagnosis. *Ph. snizeki* sp. n. is similar to *Ph. lateralis* Guillebeau, 1893 in shape of body, coloration and type of pronotal basal border. It differs by microsculpture developed on entire elytra.

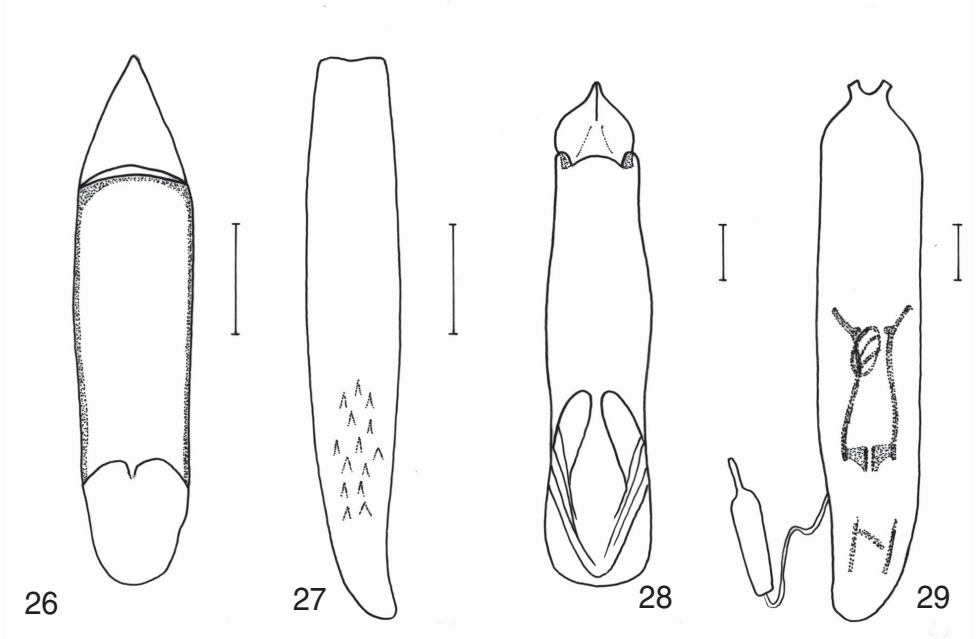
Name derivation. Dedicated to the collector of the species Miroslav Snížek (České Budějovice), specialist in Chrysomelidae.

***Biophytus snizeki* sp. n.**
(Figs 26-27)

Type material. Holotype (♂): "Uganda occ., Kasese, 600 m, 13.-19.xi.1994, M. Snížek lgt.".

Other material examined. Holotype of *Biophytus grouvellei* Guillebeau, 1894, labelled as "Holotypus; Grouvelle; Zanzibar, Raffray; Mus. Paris, coll. générale". One label illegible. Deposited in MNHP.

Description. Length of body 2.2 mm, head 0.3 mm, pronotum 0.5 mm, elytra 1.4 mm, antenna 0.7 mm, maximum width of head 0.7 mm, pronotum 1.2 mm at base, elytra 1.3 mm at shoulders.



Figs 26-29: *Biophytus snizeki* sp. n. (26, 27). 26- tegmen; 27- median lobe. *Litotarsus tibialis* sp. n. (28, 29). 28- tegmen; 29- median lobe. Material figured: holotypes. Scale = 0.1 mm in 26, 27; 0.2 mm in 28, 29.

Oblong oval, chest-nut coloured, pronotal base, suture, elytral apex, mouth parts, legs and antennae red-yellow. Ventrally yellow-brown, metasternum darker.

Head. Microsculpture lacking. Densely finely punctate. Short setae bearing punctures separated by 2-4 times their own diameter. Eyes angularly convex. Ratios of lengths of antennal club segments 9-11 (9^{th} segment equal to 1.0): 1.0-0.8-1.8. The same ratio of widths: 1.0-1.1-1.1. Ratio of width : length of antennal segments 9-11: 1.3-1.8-0.8.

Pronotum. Without microsculpture. Finely densely punctate, setae bearing punctures separated by about 2-4 times their own diameter; caudally more densely arranged. Base almost straight; immarginate. Posterior angles acute, with closely rounded tip in dorsal view; rectangular with rounded tip laterally seen.

Scutellum. With traces of transverse strigosity and few small punctures.

Elytra. Lateral margins almost straight on basal half of their length. Microsculpture consisting of tranverse irregular cells. Nine distinct striae present. First and second striae shortened anteriorly and posteriorly, 9^{th} stria indicated on disc only. Striae evanescent before base. First and second stria fusing before apex. Second stria oblique, pointing medially toward apex of elytra. Also other striae oblique. Intervals beside microsculpture with oblique sparse scratches connecting longitudinal striae. Small setae bearing disordered punctures present in scratches. Scratches stronger laterally, feebler apically, evanescent toward base.

Mesosternum not excavated.

Metasternum. Metasternal process reaching middle of mesocoxae.

Abdomen. Without striking characters.

Legs. Anterior tibiae straight, narrow, without any striking spines or thorns. Tarsal segments 2nd and 3rd widened in male. Mid- and hind-tibiae slightly curved. Both tibiae apically with crown of spines, 2 lateral ones longer than the others. Segment 1 almost twice as long as 2nd segment of hind tarsi.

Genitalia. Aedeagus as in Figs 26, 27.

Bionomics. Not known.

Differential diagnosis. *Biophytus snizeki* sp. n. differs from the only known species of the genus *B. grouvellei* Guillebeau, 1893 by rectangular hind angles in lateral view and by presence of elytral microsculpture.

Name derivation. Dedicated to the collector of the species Miroslav Snížek (České Budějovice), specialist in Chrysomelidae.

***Litotarsus tibialis* sp. n.**

(Figs 28-29)

Type material. Holotype (♂): "Malaysia, 6.-9.xi. 1999, Pahang prov. Kuala Tahan env., P. Kočárek lgt."

Description. Length of body 4.8 mm, head 0.3 mm, pronotum 1.1 mm, elytra 3.4 mm, antenna 1.4 mm, maximum width of head 1.3 mm, pronotum 2.6 mm at base, elytra 2.7 mm at basal quarter.

Oblong oval, reddish, antennal club brown. Shape of body as in Fig. 30. Ventrally red-yellow metasternum darker.

Head. Microsculpture lacking. Densely finely punctate. Punctures separated by 2-3 times their own diameter. Last segment of maxillar palpi strongly dilated just behind base, then paralell. Ratios of lengths of antennal club segments 9-11 (9th segment equal to 1.0): 1.0-1-0-1.8. The same ratio of widths: 1.0-1.0-1.0. Ratio of width : length of antennal segments 9-11: 1.0-1.1-0.6.

Pronotum. Base bisinuate, not bordered. Without microsculpture. Double punctate, smaller punctures separated by about 4-6 their diameter larger punctures separated by about 2-5 times their own diameter; denser laterally. Posterior angles acute with pointed tip in dorsal view; acute with closely rounded tip laterally seen.

Scutellum. Smooth, with few small punctures.

Elytra. Widest at basal quarter, then lateral margins strongly narrowed toward apex without microsculpture, with feeble opalescence. Nine distinct punctate striae including sutural stria developed on each elytron. Basal part of 9th stria turns aside medially, at its basal quarter fusing with 8th one. Striae but 9th one reach base of elytra. Punctures in striae feebly elongate, separated

longitudinally by 1-3 times their own diameter. Intervals with small punctures similar to those on pronotum separated by about 5-10 times their own diameter. Beside them rarely punctures similar to those in striae distributed.

Mesosternum not excavated; coxae standing close each other.

Metasternum. Metasternal process reaching middle of mesocoxae.

Abdomen. Without striking characters.

Legs. Anterior tibiae straight, distinctly dilated apically, with widely rounded anterolateral edge. Striking row of closely standing thick spines along entire lateral margin. Mid-tibiae slightly curved, apically strongly dilated with crown of spines. Segment 1 of fore and mid tarsi strikingly setose beneath. Hind tibiae medially strinkingly dilated in basal third (Fig. 25). 2nd segment of posterior tarsi 3 times as long as 1st one.

Genitalia. Aedeagus as in Figs 28, 29.

Fig. 30. *Litotarsus tibialis* sp. n.: 30- habitus dorsal aspect.

Bionomics. Not known.

Differential diagnosis. *Litotarsus tibialis* sp. n. differs from *L. dilutus* Champion, 1925 by immarginate base of pronotum and segment 2 of posterior tarsi 3 times as long as 1st one while the same segment in *L. dilutus* is 4 times as long as 1st segment. Further *L. tibialis* differs from *L. anisotomoides* Champion, 1925 by distinctly larger size and by strongly narroved elytra posteriorly.

Name derivation. The name is inspired by the unusual shape of hind tibiae.

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