New Taxa and Host Associations of the Weevil Subfamily Ceutorhynchinae (Coleoptera, Curculionidae) from Thailand¹

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Abstract—A new subgenus of Mecysmoderes Sch., Enzoellus Korotyaev, subgen. n. (type species Mecysmoderes carinatus Faust), two new genera of the tribe Hypohypurini Colonnelli, Siamohypurus Korotyaev, gen. n. (type species S. samuelsoni Korotyaev, sp. n.), Glikmanellus Korotyaev, gen. n. (type species G. rosti Korotyaev, sp. n.) and eleven new species of the weevil subfamily Ceutorhynchinae are described: Mecysmoderes (Memecyderes) sarukhanovi Korotyaev, sp. n. from Thailand, M. (Enzoellus) gressitti Korotyaev, sp. n. from Thailand and Laos, M. (Enzoellus) muratovi Korotyaev, sp. n., Megahypurus oroszi Korotyaev, sp. n., Cyphohypurus suppantschitschi Korotyaev, sp. n., Siamohypurus samuelsoni Korotyaev, sp. n., S. attilai Korotyaev, sp. n., Glikmanellus rosti Korotyaev, sp. n., all from Thailand; G. baloghi Korotyaev, sp. n. from Sri Lanka; G. obrieni Korotyaev, sp. n. and G. louisae Korotyaev, sp. n., both from India. A key to three species of Megahypurus from Thailand is given. Host plants are determined for Megahypurus alexandri Kor. and Glikmanellus rosti sp. n. from Koh Kood Island in southern Thailand, which were repeatedly collected from a tree of the family Rubiaceae.

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In January 2018, E.L. Glikman carried out a research project on phytophagous insects on Koh Kood Island in the Trat Province of Thailand. Her primary goal was revealing the host plants of at least a few of the commonest tropical Asian species of the weevil subfamily Ceutorhynchinae. This subfamily comprised over 1300 described species up to 2003 (Colonnelli, 2004). In the temperate regions of Eurasia they prefer herbaceous plants and especially coenophobic (the term of Razumovskiy, 1981) species, i. e., those usually not present or subordinate in mature plant communities but dominating those in disturbed or newly created (recently released from water, by fires, etc.; also ploughed soils) habitats (Korotyaev, 2006). Almost nothing is known even of the habitats of Ceutorhynchinae in tropical Asia, to say nothing of their host associations, although collections from this region usually contain considerable numbers of species. Weevils of this subfamily have perfect locomotory abilities (Korotyaev, 2006): they are one of the two weevil family-group taxa including considerable numbers of aquatic forms with highly developed morphological adaptations (together with

the authors in English Collecting on the island was performed on January 8–18, 2018. January is usually dry and hot with only

the Bagoinae of Curculionidae); several tribes of Ceutorhynchinae include jumping species (numerous outside this subfamily only in the tribe Rhamphini of the Curculioninae), which are especially diverse in the tropical forests. The robust body of most tropical Ceutorhynchinae with strongly convex humeral prominences of the elytra ("shoulders") evidences their good flying abilities (supported by field observations of the authors and other explorers of the tropical faunas). The large eyes of many tropical Ceutorhynchinae make them difficult subjects for collectors, so that species of the two genera from the Old World (Cyphosenus Schultze) and the New World (Panophthalmus Buchanan) tropical forests with the largest eyes (very narrowly separated on frons) are among those most rarely collected. One of the most advanced species in Asia, Cyphosenus citricola Korotyaev et Egorov, 1981 from Vietnam, is known only from a series reared from a Citrus fruit (Korotyaev, 1981), and a single specimen of the very closely related Cyphosenus kabakovi Korotyaev, 1981 was described from Vietnam from a single female with one eye severely damaged, which apparently facilitated its capture by the collector.

¹ This article was originally submitted by the authors in English and is first published here.

one or two rain showers. In the mid-month the night temperature in 2018 fell to the non-typical 22-25 °C. All the specimens of the four species of Ceutorhynchinae were collected in the central part of Koh Kood, remote from dwellings and plantations, in rather shaded jungle (Fig. 1). All of them were taken from trees; these trees were tall, with even the lowest branches starting high above ground, directed vertically, and rarely accessible to the sweeping-net. All the four species jump well and fly very fast, so it was not easy to catch them in the net. Two species of the different genera, Megahypurus alexandri Korotyaev, 1989, and an undescribed species of a new genus erected in this paper, were repeatedly collected from the same host, a tree of the family Rubiaceae (Fig. 2). The lack of the generative organs of the plant hampers its identification and thus additional examination of Rubiaceae as possible hosts of Ceutorhynchinae in South Asia is most desirable.

Finding of the new host family for the Old World is of particular interest because Rubiaceae are rarely attacked by herbivores due to their efficient chemical protection provided by secondary compounds. Yet a fairly diverse fauna of Ceutorhynchinae, all belonging to the endemic tribe Cnemogonini, is associated with Rubiaceae in the New World (Colonnelli, 2004). Two Oriental genera whose representatives were found on Rubiaceae in Thailand do not belong to Cnemogonini and are apparently related to the predominantly African tribe Egriini. If their association with Rubiaceae is confirmed, then either the affinities between Egriini and Cnemogonini are overlooked in the modern classification, or different lineages of Ceutorhynchinae have independently become adapted to development on Rubiaceae in the Old World and in the New World. The latter, if proved, would emphasize the strong preference of well chemically and morphologically protected plant taxa as hosts by Ceutorhynchinae (Korotyaev, 2006).

Although records of single individuals of the actively flying and strongly jumping Ceutorhynchinae from particular plants may well be occasional, it is possible that the repeated collections of the recently emerged individuals of the two rarely collected species may correctly indicate their hosts.

MATERIALS AND METHODS

The body length of the specimens was measured in dorsal view from the posterior margin of pygidium (when visible) or the elytra to the base of rostrum or, when it is hidden in the rostral channel, to anterior visible margin of the head. The length of pronotum and of its basal spine was measured from basal margin of the elytron opposite the base of the 1st stria. The length of the outer margin of tibiae was rather conventionally measured in profile from the base of tibia to the apex, including spines on the apical margin.

The names of the depositories of the material are abbreviated as follows.

APCB—Attila Podlussány private collection, Budapest, Hungary;

BMH—Bishop Museum, Honolulu, Hawaii, U.S.A.; COBR—C.W. O'Brien collection, Green Valley, Arizona, U.S.A.;

HNNM—Hungarian Natural History Museum, Budapest, Hungary;

MNHN—Museum national d'Histoire naturelle, Paris, France;

NHML—Natural History Museum, London, United Kingdom;

ZIN—Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia.

TRIBE MECYSMODERINI WAGNER, 1938

Genus Mecysmoderes Schoenherr, 1837

Subgenus Memecyderes Korotyaev, 2015

Mecysmoderes sarukhanovi Korotyaev, sp. n. (Fig. 3)

Description. Female. Rostrum 1.03 times as long as pronotum, 5.12 times as long as broad at antennal insertion, rather strongly regularly curved, more or less cylindrical in basal 2/3 and feebly flattened in apical 1/3; at antennal insertion, 0.86 times as broad as fore femur and twice as broad as fore tibia at mid-length. Sides of rostrum slightly diverging from anterior margins of eyes along short distance, shallowly emarginate between middle of basal part and antennal insertion, rostrum slightly angularly widening there, then gradually widening toward apex, width of rostrum at apex subequal to its width at antennal insertion. Dorsal surface of rostrum convex in cross-section, in basal part tectiform raised along midline but forming no distinct carina, with glabrous median line widening from near eyes to beyond antennal insertion and occu-

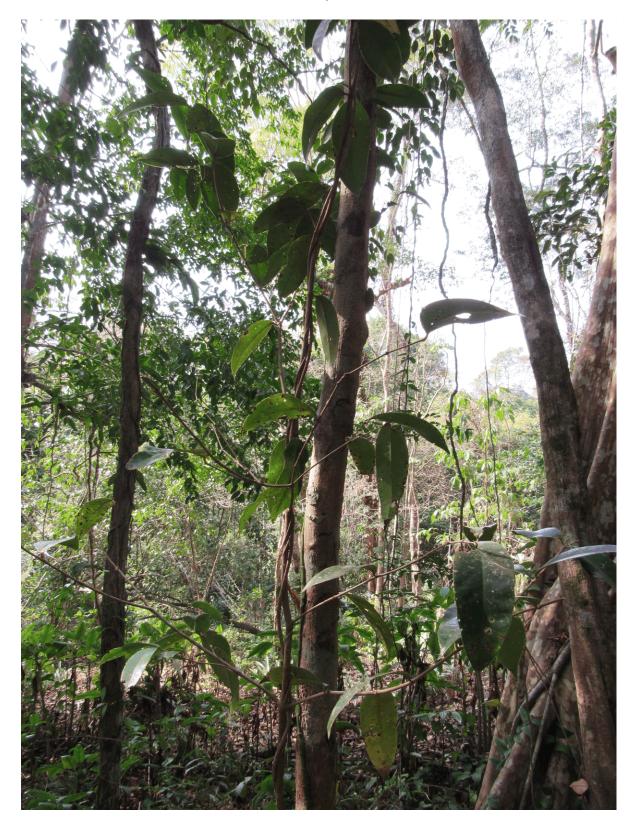


Fig. 1. Forest habitat of Megahypurus alexandri Korotyaev and Glikmanellus rosti Korotyaev, gen. et sp. n.



Fig. 2. Shoot of a tree of the family Rubiaceae, host of Megahypurus alexandri Korotyaev.

pying all width at apex. Sides along shining medial area matte, densely microreticulate, with obliterated small elongate punctures in basal part and larger, sharply outlined in apical part of rostrum. Antennae inserted at 0.45 length of rostrum from apex, rather short and slender. Scape moderately thickened in apical third; its apex with very short, broad transparent lobe. 1st segment of funicle slightly more than twice as long as broad, slightly broader than scape, not conspicuously flattened and almost parallel-sided. 2nd and 3rd segments subequal, former 2/3, latter 3/4 as long as 1st, both half as broad as that; 4th segment 2/3 as long as 3rd, about twice as long as broad; 5th segment slightly shorter than 4th, longer than broad; 6th segment slightly shorter and broader than 5th, slightly broader than long. Hairs in whorls on 4-6th segments shorter than segments, moderately raised. Club short, ovate, compact, with short basal segment not particularly separated; basal 2/3 more shining through short pubescence, apical 1/3 with denser and longer pubescence. Eyes large, irregular-shaped, weakly convex. Frons weakly roundly widening from anterior margin to middle, more strongly widened behind middle; weakly depressed over entire surface, matte owing to dense microreticulation, with sharp linear median carina running from anterior margin and continued until posterior margin of vertex. Punctation on vertex distinct, with large flat punctures separated by low and narrow microreticulate intervals. Ventral margin of head capsule impunctate, bare, shining.

Pronotum 1.23 times as broad as long, with basal margin strongly projecting posteriorly in middle. Sides rather strongly and slightly roundly converging toward apex; apical constriction on sides quite distinct; apical width of pronotum 0.59 times its basal width. Apical margin very weakly raised, strongly acute-angularly



Figs. 3, 4. Mecysmoderes (Memecyderes) spp., habitus: (3) M. sarukhanovi Korotyaev, sp. n., female, holotype; (4) M. simulator Korotyaev, male, paratype (Thailand).

projecting anteriorly. Disc strongly and rather regularly convex in cross-section, most strongly convex in basal third, with wide shallow oblique depression along margins at each side directed toward apical constriction and weakly deepened behind it. Median carina sharp along entire length, not weakening toward apical margin of pronotum. Low irregularly zigzagged carinae formed by merged longitudinal borders between meshes of sculpture in apical quarter of disc at each side along median carina not conspicuously differing from those on rest of disc. Basal spine 0.58 times as long as pronotum and 0.44 times as long as elytral suture. Surface of pronotum matte, with sculpture formed by large and shallow, mainly irregularshaped but partly pentagonal alveoli some of which merging longitudinally in groups of two or three.

Apices of mesepimera well visible in dorsal view, weakly convex.

Elytra 1.02 times as long as broad, 1.38 times as broad across humeri as pronotum, weakly roundly widening along short distance behind humeral prominences, then moderately narrowing toward mid-length

and strongly rectilinearly narrowing thereafter toward apex; apical prominences obtuse. Disc strongly convex, most strongly so at mid-length, flattened along suture in basal third and laterally, behind middle. Striae moderately broad and very deep, with distinct margins, punctures not incising margins of striae, weakly elongate, separated by about own diameter. Lateral striae broader and deeper than discal ones. Inner intervals in basal part varyingly strongly incurved along sutural spot, in central part of disc and at its apex all intervals uniformly moderately or rather strongly convex, not more than 1.5 times as broad as striae, matte because of microsculpture, each with nearly regular row of small sharp granules along midline and with rather sparse smaller granules at sides. 3rd and 5th intervals in basal part of elytra neither broader nor more strongly convex than neighboring intervals. 7-10th intervals slightly broader and less convex than inner ones.

Legs of medium proportions. All femora with minute tooth in form of small angulation at border between middle and apical thirds; hind femur distinctly broader (1.6 times as broad) and thicker than middle and fore femora. Fore and middle femora nearly straight, weakly widening in mid-length part and widest slightly distal to middle. Ventral margin of fore femur between tooth and base flattened and deprived of scales. Hind femur 2.8 times as long as broad, widening from base, widest somewhat distal to midlength, with ventral margin concave distal to tooth. All tibiae non-mucronate. Fore tibia rather short and narrow, 4.3 times as long as broad, straight, parallelsided; spines in apical comb very short, fine, and dense, extending onto outer margin of tibia for a distance equal to 2/3 apical width of tibia. Middle tibia straight, slightly widening toward apex; apical comb occupying about one-third length of outer margin of tibia, with straight margin, forming no angulation at end; spines very dense and considerably lengthening toward end of comb. Hind tibia straight and parallelsided in basal part, weakly outcurved apically, with apical comb occupying one-third length of its outer margin, shallowly concave and ending in an inconspicuous angulation. 1st segment of fore tarsus about 1.5 times as long as broad; 2nd segment about as long as broad; 3rd segment as long and 1.7 times as broad as 2nd, with lobes rounded at sides and at apex. Clawsegment rather strongly rectilinearly widening toward apex, projecting beyond lobes of 3rd segment by 2/3 of own length. Claws medium-sized, with length equal to apical width of claw-segment, widely separated, with short tooth at base.

Mesosternum moderately depressed between level of inner margins of mesocoxae, depression weakly deepening posteriorly and its lateroposterior angles slightly produced over mesocoxal cavities forming no keels. Metasternum more deeply depressed, depression deepening posteriorly and reaching very close to posterior margin of metasternum, narrowly bolster-shaped margined along latter. Margination of rostral channel in ventral view V-shaped, not produced posteriorly onto 1st abdominal ventrite and not hanging over its edge. Mesocoxae opening into depression on metasternum and not separated from it by any keels. Bottom of rostral channel densely covered with white or yellowish subrecumbent scales in posterior part of prosternum, scaled similarly to lateral areas on mesosternum, and deprived of scales in anteromedial part of metasternum, bare area prolonged posteriorly medially. Thorax ventrally matte, densely microreticulate, with rather dense shallow medium-sized punctures not very distinct against reticulation.

Ventrites of abdomen situated in one plane, sutures between 2nd-5th ventrites rather deep, subsequently

deepening. 1st and 2nd ventrites jointly convex longitudinally, rather strongly convex in cross-section, 2nd ventrite with shallow broad median depression in posterior half. 3rd–5th ventrites flattened and densely scaled medially, sides of all ventrites with sparse shallow punctation against dense microreticulation. Pygidium vertical, weakly transverse, rather regularly weakly convex, matte, with dense microreticulation and with sparse small semi-obliterated punctures.

Body very dark dull brown with paler tarsi (especially 3rd segment) and apical third of rostrum; antennae, including club, rufous. Rostrum with sparse hairlike white scales and a few coarser scales at base on sides. Frons with sparse very narrow lanceolate scales, temples with few larger scales; vertex deprived of scales. Disc of pronotum with very sparse hair-like inconspicuous white scales and with sparse, very narrow, parallel-sided white scales in shallow oblique depressions on sides in apical half present also below depression down to coxae. Elytral intervals with inconspicuous recumbent dark brown very narrow parallel-sided scales and with sparse, slightly raised, narrow parallel-sided white scales arranged in one or two rows at base of each interval and forming vague oblique stripe from shoulders toward apical prominences. Sutural spot along basal spine of pronotum narrow, weakly rounded, formed by matte dull brown lanceolate scales subsequently becoming paler (to dirty-yellowish) toward end of spot. Legs rather sparsely and regularly covered with very narrow white scales forming no rings or spots; white scales broader and denser along ventral margins of femora, especially middle and hind ones, and on coxae. Apices of mesepimera with small spot of dense narrow-lanceolate yellowish scales, rest of sides of thorax and abdomen with sparse white half as broad scales, medial area of underside with denser broad white scales. Pygidium with sparse parallel-sided narrow white scales, condensed along its margins.

Body length 1.95 mm.

Comparatrive notes. The new species is very similar in the proportions of the body, structure of the head and pronotum to *M.* (*Memecyderes*) *eugenii* Korotyaev, 2015 and *M.* (*Memecyderes*) *simulator* Korotyaev, 2015 (Fig. 4), both also occurring in Thailand (Korotyaev, 2015), but differs in the smaller size, narrower sutural spot on the elytra without a sharp margin between dark basal and light apical parts, and structure of the legs: the femoral tooth in the new species is smaller, the middle femur is much narrower

than in the two aforementioned species, the hind femur is less S-curved, and the tarsal claws are widely separated from the base (= opposite), with a short, inconspicuous tooth at the base, while in *M. eugenii* and *M. simulator* the claws are diverging at a narrower angle and the large inner teeth on them are approximate medially. The rostrum in *M. eugenii* and *M. simulator* is sharply carinate medially while in the new species it is narrowly roof-shaped raised; the frons in the new species is much less deeply depressed.

Material. Holotype, ♀: **Thailand,** *Trat Prov.*, Koh Kood Island, Khao Rearub Area, 11.629130°N, 102.658210°, beating branch of a tree of the family Rubiaceae, 13.I.2018 (E.L. Glikman) (ZIN).

Etymology. The species is named for P.B. Saru-khanov, an artist and graphic designer of the "Novaya Gazeta," Moscow.

Subgenus Enzoellus Korotyaev, subgen. n.

Type species *Mecysmoderes carinatus* Faust, 1898 (Fig. 5).

Description. Rostrum slender, about half as broad as fore femur and almost 1.5 times as broad as fore tibia, reaching mid-length or posterior margin of metasternum in repose; rostral channel deep, with margins on metasternum steep. Basal part of rostrum slightly broader and thicker than apical part and slightly more strongly bent. Surface of rostrum matte, with apical part more finely sculptured and weakly shining. Median carina weak, in male reaching close to apex, in female distinct only in basal part of rostrum. Antennae in male attached in apical half of rostrum, in female in basal half. 3rd segment of funicle about as long as, or longer than 2nd segment. Pubescence on funicle short, weakly raised. Frons weakly depressed, at anterior margin as broad as rostrum at base.

Pronotum subconical, strongly narrowing apically, with almost rectilinear or only slightly rounded sides; base weakly to moderately protruding posteriorly medially; basal spine occupying about 1/5 length of elytral suture. Median carina well developed only in basal half of pronotum but occasionally reaching, in form of a line, oblong apical depression; apical margin somewhat angular. Disc almost evenly strongly convex, more strongly so in basal half, with almost regular alveolation or with dense large punctures with flat, matte bottom.

Elytra about as long as broad, strongly narrowing apically, moderately and rather evenly convex dorsally, with strongly regularly convex narrow intervals bearing one regular row of granules, scales sitting on latter occasionally rather broad.

Legs short, femora broad from their bases, unarmed; hind femur 1.5 times as broad as middle femur. Tibiae short, apical combs of middle and hind tibiae occupying less than one-third of their outer margins, not concave or (on hind tibia) scarcely emarginate, very densely set with fine dark spines. Middle and hind tibiae in male with large sharp mucro pointed posteromedially. Tarsi rather short, broad, with 3rd segment in fore tarsus twice as broad as 2nd; claw-segment moderately or weakly widening apically. Claws short, with length not exceeding apical width of claw-segment; apices of teeth on claws closely approximate, weakly extending beyond level of half-length of claws.

Coloration more or less uniform, from pale to dark brown, occasionally with somewhat darker disc of pronotum and elytral base and apical declivity; antennae and apex of rostrum, tibiae, and tarsi paler. Dorsal pattern consisting of narrow sutural spot occupying from one-fourth to one-third length of suture, snowwhite or with ochreous basal part, and light lines formed by subrecumbent white or yellow and dark brown, truncate apically scales arranged in a regular line on each elytral interval. Middle part of pronotal disc and of each elytron usually covered with darker scales. Underside rather densely covered with broader oval white scales, condensed on apices of mesepimera. Legs with moderately dense truncate white or yellowish scales broader than those on elytral intervals, with larger oval white scales on base of hind femur dorsally.

Body length 1.60–2.15 mm.

Comparative notes. The new subgenus can be distinguished by the following combination of characters: size small, rostrum medium-long, narrow, weakly to moderately bent, finely punctate, with fine median carina in basal part; pronotum with median carina well developed only in basal half, ending in a well-defined apical depression, latter limited by faint or well-defined cariniform wrinkles; apical margin faintly or clearly angular medially; disc strongly and rather regularly convex or shallowly depressed along sides; sculpture formed by large, shallow pentagonal punctures; basal spine short, occupying about one-fifth length of elytral suture; elytra about as long as broad,

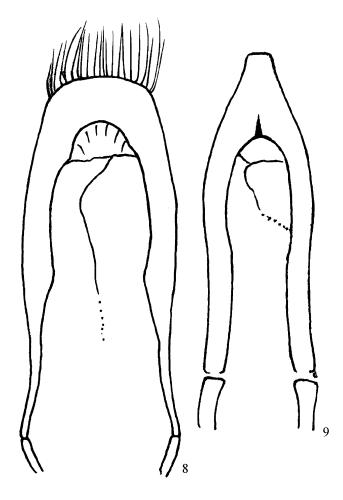


Figs. 5–7. Mecysmoderes (Enzoellus) spp., habitus: (5) M. carinatus Faust, male (India: Karnataka); (6) M. gressitti Korotyaev, sp. n., female, paratype (Thailand); (7) M. muratovi Korotyaev, sp. n., female, holotype.

with narrow, subcostate intervals bearing one regular row of small sharp granules; meso- and metasternum deeply depressed for reception of rostrum, with rostral channel not reaching posterior margin of metasternum, densely scaled; legs rather short, femora unarmed, hind femur moderately thickened, moderately narrowing toward base; middle and hind tibiae of male with large sharp mucro; tarsi rather short and broad, not conspicuously modified in male. The structure of the

aedeagus in the two very similar species, *M. gressitti* sp. n. (Fig. 7) and *Mecysmoderes carinatus*, is very different (Figs. 8, 9), so that the composition of this subgenus is unclear.

The new subgenus is rather similar to *Memecyderes* but may be easily distinguished from it by the unarmed and more strongly thickened femora, slender and not carinate, nor even tectiform raised medially rostrum,



Figs. 8, 9. Mecysmoderes (Enzoellus) spp., aedeagus, dorsal view: (8) M. carinatus Faust (India: Karnataka); (9) M. gressitti Korotyaev, sp. n., paratype (Thailand).

short median carina and shorter basal spine of the pronotum, smaller size, pale coloration, denser light vestiture, and lack of sex dimorphism in the structure of the tarsi.

Species included. In addition to the type species, *Mecysmoderes gressitti* Korotyaev, sp. n. from Thailand and Laos, and *M. muratovi* Korotyaev, sp. n. from Thailand belong to the new subgenus.

Etymology. The subgenus is named for Enzo Colonnelli of Rome in appreciation of his valuable contribution to the taxonomy of the weevil subfamily Ceutorhynchinae and genus *Mecysmoderes* in particular.

Mecysmoderes carinatus Faust, 1898 (Figs. 5, 8)

Material. India. *Karnataka*: Belgaum Distr., Telewadi, 780 m, netting in grasses near brook, 26.II.1980 (Gy. Topál), 3 ♂ (2 NHMB, 1 ZIN), 6 ♀ (4 NHMB,

2 ZIN). *Odisha* (*Orissa* before 2011), Jajpur-Keonjhar, Daitari Distr., beaten material, No. 929, 23.XI.1967 (Gy. Topál), 1 ♀ (HNMB).

The species was reported by Pajni and Kohli (1982) from Tamil Nadu state (Madras) based on two males and a female collected under Tube light, but only female genitalia are figured in their paper. The specimen from Odisha in the NHMB bears identification label by H.R. Pajni; the abdomen is missing. This female is slightly larger (body length 1.80 mm) than all specimens from Karnataka (ranging from 1.70 to 1.75 mm).

Distribution. India: Karnataka, Odisha, ?Tamil Nadu.

Mecysmoderes gressitti Korotyaev, sp. n. (Figs. 6, 9)

Description. Male. Rostrum as long as pronotum measured from apex to basal margin opposite to base of 1st elytral stria, 6.0 times as long as broad at antennal insertion, rather strongly regularly curved, more or less cylindrical except for slightly flattened dorsoventrally apical part; at antennal insertion scarcely widened, 0.6 times as broad as fore femur and about 1.4 times as broad as fore tibia at mid-length. Short, ill-defined linear median carina discernable in basal part of rostral dorsum. Dorsal surface of rostrum regularly convex in cross-section, matte throughout entire length of rostrum, densely microreticulate, with rows of indistinct squamiferous punctures in basal part. Antennae inserted at 0.45 length of rostrum from apex, slender and rather long. Scape moderately thickened in apical third, with long narrow parallel-sided translucent lobe at apex, length of lobe slightly exceeding width of scape at apex. 1st segment of funicle slightly less than twice as long as broad, slightly broader than scape, distinctly flattened, roundly widened at sides; 2nd and 3rd segments of subequal length, 3/4 as long and more than half as broad as 1st segment; 4th segment 2/3 as long as 3rd, about twice as long as broad; 5th segment slightly shorter than 4th, longer than broad; 6th segment slightly shorter and broader than 5th, slightly broader than long. 4-6th segments with very fine short setae not longer than those on preceding segments. Club short, fusiform, with well-visible short segment at base darker than rest part and with whorl of longer setae. Eyes large, weakly convex. Frons moderately widening from anterior margin toward vertex, flat but clearly depressed below upper margins of eyes, matte, densely covered with large polygonal punctures with flat microreticulate bottom. Temples dorsally also weakly depressed. Ventral margin of head capsule without scales.

Pronotum 1.23 times as broad as long, with base strongly produced posteriorly in middle. Sides strongly and almost rectilinearly converging toward apex; apical constriction on sides shallow but distinct; apical width of pronotum 0.54 times its basal width. Apical margin very weakly raised, noticeably acuteangularly projecting anteriorly, roundly blunted medially. In front view, anterior margin (cross-section) evenly widening dorsally to apical width of antennal scape. Pronotum deepest at mid-length, disc strongly convex in cross-section, somewhat more strongly along median line, at each side with faint wide oblique depression directed toward apical constriction. Median carina in basal third sharp, gradually weakened toward apical third where surface deepened into oblong depression bordered by two smooth, not quite straight carinae formed by merged intervals between punctures. Basal spine 0.27 times as long as pronotum and 0.19 times as long as elytral suture. Surface of pronotum weakly shining, with sculpture formed by large and shallow, mainly pentagonal and hexagonal alveoli.

Apices of mesepimera narrowly visible in dorsal view.

Elytra 1.02 times as broad as long, 1.40 times as broad across oblique humeri as pronotum, weakly widening along short distance behind humeral prominences, then strongly rectilinearly narrowing toward slightly behind mid-length, afterwards still more strongly narrowing toward evenly rounded apices; apical prominences faint, not protruding from elytral contour. Disc strongly convex, most strongly so slightly proximal to mid-length, narrowly depressed along basal spine and somewhat flattened laterally behind middle. Striae broad and deep, with distinct margins; strongly deepened round punctures separated by not less than own diameters and weakly incising margins of intervals. Intervals moderately convex, not broader than striae, weakly shining, with one regular row of medium-sized shining granules. 7-10th intervals slightly broader than inner ones, flat, with smaller granules and distinct microreticulation.

Mesosternum, except for very short basal area, and metasternum deeply depressed for reception of rostrum; margins of depression neither raised keel-shaped nor sharpened anywhere; sides of rostral channel on mesosternum formed by inner surfaces of middle coxae. Channel ending on metasternum in an angularly produced posteriorly bolster, weakly hanging over basal margin of 1st abdominal ventrite. Bottom of depression scaled as sides of thorax except narrow medial stripe. Metasterna and metepisterna convex longitudinally. Outside rostral channel, metasternum rather strongly depressed behind middle coxae, depression ending posteriorly with strong oblique swelling.

Legs moderately long, all femora broad from base and not conspicuously broadening in apical part. Hind femur 1.5 times as broad as middle femur, 2.9 times as long as broad. Fore tibia non-mucronate, straight, narrow, 6.8 times as long as broad, not broadening apically, with short, moderately dense, very fine spines on apical margin roundly expanding onto outer surface of tibia for distance equal to its apical width. Middle tibia straight, shorter and slightly broader than fore tibia, with slightly longer apical comb (about a quarter of outer margin) set with much longer and coarser spines, armed with rather large sharp mucro situated at very apex of tibia and directed almost perpendicular to axis of tibia. Hind tibia slightly longer than middle tibia, with very shallowly bisinuate inner margin and broader mucro somewhat shifted from apex of tibia; comb of spines opposite mucro interrupted. Tarsi rather short and narrow. 1st segment of fore tarsus about twice as long as broad; 2nd segment obconical, about as long as broad; 3rd segment 1.5 times as broad as 2nd and equal to it in length, with lobes scarcely rounded at sides and at apex. Claw-segment wide from base and weakly widening toward apex, projecting beyond lobes of 3rd segment by 2/3 of own length. Claws medium-sized, their length equal to apical width of claw-segment; not widely separated, with long sharp tooth in basal half.

Thorax ventrally matte owing to dense microreticulation of dense shallow medium-sized punctures with flat bottom and narrow low intervals between punctures.

1st and 2nd ventrites of abdomen with deep joint depression across medial third (between level of inner margins of mesocoxal cavities) almost reaching posterior margin of 2nd ventrite, 3rd and 4th ventrites very shallowly depressed medially. Anal ventrite somewhat more deeply depressed in medial third along entire length, depression gradually deepening toward ventrite apex, its sides not raised; scaling in depression as elsewhere, no erect setae present along its sides. Pygi-

dium 1.6 times as broad as long, rounded-pentagonal, weakly and regularly convex, matte, densely finely punctate, with basal margin fitting margins of elytral apices. Aedeagus (Fig. 7) with broad, almost truncate apex densely set with long, very fine setae.

Female. Rostrum 1.07 times as long as pronotum, 8.0 times as long as broad at antennal insertion, rather strongly regularly curved, cylindrical except for slightly flattened dorsoventrally very short apical part; at antennal insertion rostrum scarcely angularly widened, 0.6 times as broad as fore femur and 1.3 times as broad as fore tibia at mid-length. Short, ill-defined low bolster-shaped median carina present in basal part of dorsum and occasionally prolonged as an ill-defined zigzagged line onto anterior part of frons. Dorsal surface of rostrum weakly regularly convex in crosssection, somewhat more strongly so medially in basal part, matte throughout entire length, densely microreticulate, with rows of semi-obliterated squamiferous punctures in basal part. Antennae inserted at 0.45-0.49 length of rostrum from base. All tibiae without mucro. Tarsi slightly narrower. Metasternum rather deeply depressed between raised margin of rostral channel and oblique swelling between meso- and metacoxal cavities. Venter almost flat longitudinally, with all ventrites situated in one plane. Pygidium slightly wider than long, rounded-pentagonal, weakly convex longitudinally in basal third, matte, densely finely punctate, with basal margin fitting margins of elytral apices.

Body uniformly rather light to mid chestnut-brown, with more or less strongly lightened (to bright rufous) antennae and tarsi; femora, tibiae, and underside of body occasionally slightly paler than pronotum and elytra.

Rostrum in apical part with sparse very narrow, in basal part with moderately dense recumbent narrow yellowish scales widening apically and directed from sides posteromedially; frons and medial part of vertex with similar scales denser and larger along margins of eyes and pointed toward letter; temples and lateroposterior part of vertex densely covered with broader scales. Pronotal disc moderately densely clothed with long parallel-sided yellow scales, thinned along midline and condensed along sides. Sides of pronotum moderately densely covered with larger yellow scales, with a few oval white scales in ventral part. Elytral intervals each with regular row of recumbent parallel-sided, truncate or shallowly excised apically yellow or

brown scales producing vague pattern, brown scales being predominant on middle part of 2nd-4th intervals, occasionally also on 5th and 6th intervals after short basal rows of yellow scales, and on sides. Sutural interval with almost (on left elytron) or entirely uninterrupted row of shorter truncate recumbent scales. Sutural spot occupying about 0.4 length of suture and composed of dense oval matte dull or rust-brown scales varyingly broadly substituted on periphery (mostly distally) by white or yellowish broadlanceolate scales. Legs rather densely and rather regularly covered with yellowish scales similar to those on elytra and forming no rings or spots except that on basal part of anterodorsal surface of femora, especially middle and hind ones. Thorax and abdomen medially and laterally with moderately dense yellowish or almost white broad-oval scales denser and wider along midline of body, forming no contrasting pattern but condensed on apical half of mesepimera and on anal ventrite. Pygidium with moderately dense elongate, moderately narrowing apically yellowish scales.

Body length 1.95–2.0 mm.

Comparative notes. The new species is similar to *M. carinatus* Faust, 1898, but differs from it in the larger size (body length of *M. carinatus* 1.70–1.80 mm), broader body with less rounded, slightly concave at sides and more strongly narrowing apically pronotum with larger shallow punctures, less narrowing apically elytra with broader and less sharply ridged intervals, broader scales on the elytra, bicolored sutural spot gradually narrowing apically (snow-white and truncate apically in *M. carinatus*), shorter apical combs on the narrower and less outcurved apically hind tibia, longer and more strongly and regularly curved rostrum with obsolete median carina, and in the shape of the aedeagus, longer, strongly attenuate apically and lacking setae.

Material. Holotype, \circlearrowleft : **Thailand,** *Chiangmai Prov.*, Ban-tin-doi, 350 m, 13.XI.1957 (J.L. Gressitt) (BMH). Paratypes: **Thailand:** *Chiangmai Prov.*, Doi Suthep, 14.XI.1957 (J.L. Gressitt), $1 \circlearrowleft$ (ZIN). **Laos.** *Wapikhamthong Prov.*: Wapi, light trap, 30.III.1967 (native collector; Rondon—Bishop Mus. Collection), $1 \circlearrowleft$, $1 \hookrightarrow$ (BMH); as above, but 30.III.1967, $1 \circlearrowleft$ (ZIN), $1 \hookrightarrow$ (BMH).

Etymology. The species is named after the Late J.L. Gressitt in appreciation of his outstanding contribution to the knowledge of the Oriental fauna of phytophagous beetles.

Mecysmoderes muratovi Korotyaev, sp. n. (Fig. 7)

Description. The new species is very similar to M. gressitti Korotyaev, sp. n. but differs in the smaller size, shorter rostrum in female, more conspicuously narrowing from base toward antennal insertions, with apical part slightly narrowing apically or parallel-sided in apical part; in slightly less depressed sides of pronotum in apical half; slightly more strongly narrowing apically and more strongly convex medially elytra, similar to M. carinatus; in the one-colored white scutellar spot, truncate apically and not smoothly continued into white sutural stripe, and in the narrower scales on dorsal surface. From M. carinatus, the new species differs in a longer, more strongly and regularly curved rostrum with indistinct median carina in basal part and more finely sculptured, shining apical part, distinctly depressed along sides pronotum, and broader yellow scales on pronotum and on elytral intervals. White scales on the sides of the mesothorax are sparser than in M. gressitti and M. carinatus, the white spot on the apices of the mesepimera is ill-defined. The rostrum is 1.0–1.04 times as long as pronotum. The antennae are attached at 0.45-0.46 length of rostrum from base. The median carina on pronotum in the paratype from Koh Chang I. is sharp, well developed until apical sulcus.

Body length 1.70-1.75 mm.

Material. Holotype, ♀: Thailand, *Trat Prov.*, Koh Kood I., Khao Rearub Area, 11.629130°N, 102.658210°, beating branch of a tree of the family Rubiaceae, 18.I.2018 (E.L. Glikman) (ZIN). Paratype, ♀: Thailand, *Trat Prov.*, Koh Chang Archipelago, northern part of Koh Chang I., Klong Son Vill., forest on mountain, 12°07′N, 102°18′E, 30.I.2007 (M.A. Khrisanova, A.V. Bykov) (ZIN).

Etymology. The species is named after D.A. Muratov, Editor-in-Chief of the "Novaya Gazeta," Moscow, in 1995–2017.

Tribe EGRIINI Pajni et Kohli, 1982

Genus *Megahypurus* Korotyaev, 1989 (Figs. 10–17)

Type species *M. alexandri* Korotyaev, 1989, by original designation (Korotyaev, 1989).

In addition to the two originally included species, M. alexandri and M. kozhevini Korotyaev, 1989 from Vietnam, M. insularis Colonnelli, 2007 from India (Andaman Islands) and *M. longirostris* Colonnelli, 2007 from Sri Lanka (Colonnelli, 2007) were subsequently described in this genus. No data on the host plants were known until E.L. Glikman collected a series from leaves of a tree of the family Rubiaceae in Thailand.

A short series of *Megahypurus* from Thailand in the A. Podlussány collection, Budapest, kindly supplied by its owner for examination to the senior author, contains two species—one known only from the holotype from Vietnam, and an undescribed species close to *M. alexandri*. To facilitate recognition of these poorly known species and investigation of their bionomics, a key to the three species found in Thailand is presented here.

A Key to Megahypurus Species from Thailand

- 2 (1). Smaller, 2.5-3.5 mm. Body very dark chestnutbrown. Admedian ridges on pronotum lower, with sharp edgings limited to middle third of disc (then body length 2.5-3.0 mm) or clearly converging in basal part of pronotum (then body length 3.15-3.50 mm). Lateral tubercles of pronotum smaller and obtuse, outline of pronotum rounded. Medial part of 3rd-5th abdominal ventrites covered with recumbent scales not conspicuously more densely than sides. Pygidium of male with deep broad depressions along median carina at least in apical 2.3, with dense white scales on swollen sides of depressions. Penis (Figs. 16, 17) parallel-sided, with broader lateral sclerotized areas and regularly roundly or angularly narrowing apex.
- 3 (4). Larger, 3.15–3.50 mm. Admedian ridges on pronotum higher, with sharp edgings arcuately

4 (3). Smaller, 2.5–3.0 mm. Admedian ridges on pronotum lower, with sharp edgings subparallel posteriorly. Median sulcus of pronotum with narrower bottom. Male pygidium in apical half not more deeply depressed than in basal part. Penis (Fig. 17) less narrowing toward pointed apex. Vietnam, Thailand *M. alexandri* Kor.

Megahypurus alexandri Korotyaev, 1989 (Figs. 10, 17)

Material. Thailand, *Trat Prov.*, Koh Kood I., Khao Rearub Area, 11.629130°N, 102.658210°, beating branch of a tree of the family Rubiaceae, 17.I.2018 (E.L. Glikman), $2 \, \circlearrowleft$, $1 \, \circlearrowleft$ (ZIN); as above, but 18.I.2018 (E.L. Glikman), $2 \, \circlearrowleft$ (APCB, ZIN), $1 \, \circlearrowleft$ (ZIN). **Vietnam.** "Tonkin, Reg. de Hoa-Binh, 192[?]7" (A. de Cooman), $1 \, \circlearrowleft$ (MNHN); 9 km S of Dilinh (= Djiring), sweeping grasses, 24.IV.1960 (R.E. Leech), $1 \, \circlearrowleft$ (BMH).

Distribution. Vietnam, Thailand.

Megahypurus kozhevini Korotyaev, 1989 (Figs. 11, 13, 15)

Material. Thailand, *Trang Prov.*, Khao Chong Nature and Wildlife Reserve Centre, 21.XI.2003 (A. Orosz & Gy. Sziráki), 1 \circlearrowleft (APCB).

Distribution. Known before only from holotype male collected in the Dak Lak Province, southern Vietnam. The host plant is unknown.

Megahypurus oroszi Korotyaev, sp. n. (Figs. 12, 14, 16)

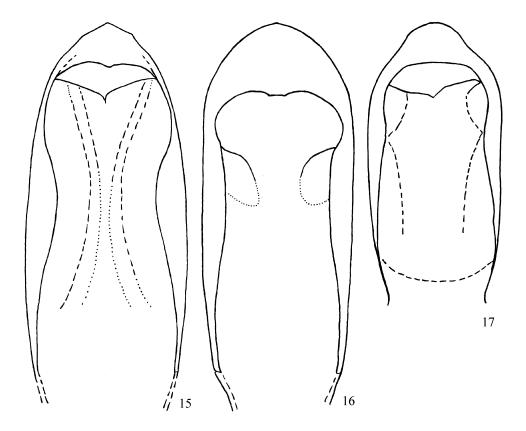
Description. Male. Rostrum as long as pronotum, 4 times as long as broad at antennal insertion, weakly curved, more strongly in apical part, almost cylindrical in basal part and feebly flattened in apical part; at antennal insertion, slightly narrower than fore femur at base of femoral tooth and almost twice (1.92×) as broad as fore tibia at mid-length. Sides of rostrum subparallel in basal half, then slightly diverging toward antennal insertions because ventral margins of antennal scrobes narrowly visible dorsally at some distance, and then shallowly emarginate in apical part;

width of rostrum at apex equal to its width at antennal insertion. Dorsal surface of rostrum moderately convex in cross-section, tectiform (almost sharply in places) raised along midline throughout entire length but forming no distinct carina, nor even glabrous line. Surface in basal part almost matte, with dense medium-sized, rather shallow round or oblong punctures with flat bottom, separated by flat narrow shining or microreticulate intervals. Two varyingly distinct carinae running at either side of rostral dorsum, the lower one sharper and almost straight. Apical part of rostrum moderately shining, more finely and less densely punctate. Antennae inserted at 0.40 length of rostrum from apex, moderately long and slender. Scape moderately thickened in apical third; its apex with short, ca. 0.5× apical width of scape, broad, shallowly excised apically transparent lobe. 1st segment of funicle about twice as long as broad, slightly broader than scape, weakly flattened and rounded at sides. 2nd segment as long and half as broad as 1st, 3rd segment shorter than 2nd, more than twice as long as broad; 4th segment shorter than 3rd, about twice as long as broad; 5th segment about 2/3 as long as 4th, noticeably longer than broad; 6th and 7th segments slightly longer than broad. Hairs in whorls on 4-6th segments shorter than segments, moderately raised. Club moderately long, terete, with short basal segment more shining than rest and weakly attenuate basally. Eyes medium-sized, broad-oval, weakly convex; ventral margin of eye in lateral view by 1/3 not reaching ventral margin of head. Posterodorsal margins of eyes abruptly sloping toward vertex. Frons slightly roundly narrowing from anterior margin to middle, then moderately roundly widening; very weakly depressed over entire surface, with depression slightly transversely deepened in posterior part. Vertex moderately convex, with two weak obtuse tubercles at posterior margin separated by width of frons. Scales around tubercles pointed toward their apices but latter not sharpened or otherwise differentiated from rest surface. Frons and vertex matte, densely evenly covered with medium-sized not quite round squamiferous punctures with flat bottom separated by narrow wrinkle-shaped intervals arranged in posterior part of frons and on vertex in ill-defined median carina. Ventral margin of head capsule impunctate, bare, shining.

Pronotum 1.3 times as broad as long, with basal margin shallowly bisinuate, strongly projecting medially toward scutellum and excised against it, basal half



Figs. 10–14. *Megahypurus* spp., dorsal (10–12) and lateral (13, 14) habitus: (10) *M. alexandri* Korotyaev, male (Thailand); (11, 13) *M. kozhevini* Korotyaev, male (Thailand); (12, 14) *M. oroszi* Korotyaev, sp. n., female, paratype.



Figs. 15–17. Megahypurus spp., aedeagus, dorsal view: (15) M. kozhevini Korotyaev, Thailand; (16) M. oroszi Korotyaev, sp. n., holotype; (17) M. alexandri Korotyaev (Thailand).

of scutellum fitting the excision. Basal margin at either side of scutellum strongly raised together with basal margins of elytra and finely crenulate. Sides strongly converging toward base in basal third and much more strongly and roundly converging toward apex; apical constriction on sides shallow but distinct; apical width of pronotum 0.62 times its basal width. Apical margin very weakly raised, weakly roundly produced anteriorly and shallowly emarginate medially, sides of emargination obtuse-angular. Disc strongly ridged along deep median sulcus, latter ending in a deep posteriorly-narrowing area of apical constriction and weakly widened and deepened in prescutellar fovea. Admedian ridges converging and narrowing anteriorly, with sharp edges in middle part broad-arcuately converging toward base and ending at 1/3 way to it. Lateral tubercles obtuse, weakly prominent, not protruding from pronotal outline. Surface almost matte, deeply uniformly, rather finely and very shallowly punctate; narrow intervals between punctures flat or weakly convex, smooth or finely microreticulate.

Scutellum small, convex, narrow. Apices of mesepimera broadly visible in dorsal view, strongly convex.

Elytra 1.12 times as broad as long, almost reversedtrapezoidal, with strongly convex shoulders, very strongly narrowing from them toward well-developed, obtuse apical prominences. Disc rather strongly convex along midline except for rather deeply depressed basal half, and flattened at sides in posterior half. Striae broad and deep, with round punctures separated by less than own lengths. Intervals weakly to moderately convex (sutural interval flat and broader than 2nd one), with margins smoothened into striae but not excised by strial punctures, odd-numbered intervals slightly broader, and even-numbered ones, slightly narrower than striae, greasy-shining, with rather sparse minute squamiferous punctures. Elytral surface somewhat wavy, with parts of intervals (mostly in two illdefined transverse bands covered with dark scales) varyingly convex. 3rd interval outcurved and more strongly convex (but not widened) behind basal quarter, before and behind mid-length, and at apex (on apical prominences).

Legs short. All femora armed with large sharp tooth at apical third. Fore and middle femora moderately widened apically; hind femur rather strongly widened and thickened from base, 1.86 times as broad as middle femur, 2.01 times as long as broad. All tibiae nonmucronate. Fore tibia 4.6 times as long as broad, almost parallel-sided along most of its length, weakly outcurved apically. Spines in comb on apical margin of tibia mid-brown, fine, very short and dense, extending on outer margin for a distance slightly less than apical width of tibia and lengthening gradually; margin of comb straight. Middle tibia shorter and broader, 3.9 times as long as broad, straight, noticeably widening toward longer, moderately emarginate apical comb occupying 0.33 length of outer margin. Hind tibia moderately widened and moderately outcurved apically; apical comb occupying almost 40% of outer margin, moderately deeply emarginate, set with rather long spines. Apical margin of tibia without gap in the row of spines. Tarsi short, 1st segment of fore tarsus less than 1.5 times as long as broad, 2nd segment clearly transverse, subtriangular, 3rd slightly longer than and almost twice as broad as 2nd; claw-segment narrow at base and moderately widening apically, by somewhat more than half of its length protruding beyond apex of 3rd segment. Claws medium-sized, rather broad, opposite, broadly dentate at base. Legs matte, very densely subrugosely punctate.

Mesosternum absolutely flat medially, with broad impunctate piece bordering with ventral margin of mesepisternum. Metasternum with short flat part along anterior margin between mesocoxal cavities, then moderately deeply depressed medially, depression deepening and widening posteriorly, with no keels along its sides. 1st and 2nd ventrites of abdomen shallowly depressed along midline, medial part of 3rd-5th ventrites flattened, that of anal (5th) ventrite faintly depressed and more densely covered with smaller short scales than lateral parts of ventrite. Underside matte, very densely shallowly punctate and coarsely microreticulate. Pygidium 1.25 times as broad as long, rounded-pentagonal, with sharp high median carina accompanied along entire length by broad and deep depressions, deepened in posterior half, with matte, densely microreticulate bottom. Lateral areas of pygidium shallowly depressed along sides and convex along admedian depressions, matte, with sparse indistinct punctures. Aedeagus (Fig. 16) parallel-sided, with broad sclerotized lateral areas, weakly and evenly curved dorsoventrally, rather narrowly rounded apically.

Body rather uniformly dark maroon-brown with slightly paler antennae and legs. Vestiture of dorsal surface sparse and forming ill-defined pattern. Apical part of rostrum with sparse pale hairs, basal part and head capsule with sparse subrecumbent setiform and narrow parallel-sided white scales, medial parts of frons and vertex, including apices of tubercles on vertex, with brown scales. Disc of pronotum with sparse short, almost setiform subrecumbent white scales, prescutellar fovea and posterior corners with a few larger broad-lanceolate to oval white scales, sides with a few lanceolate white scales in ventral half. Intervals of elytra with two or three, in broadest parts with four confused rows of semi-erect short, narrow, arcuate white and brown scales; larger lanceolate white scales arranged in a row along suture in basal half. Brown scales forming ill-defined pattern of two transverse undulate narrow bands before and behind mid-length of elytra. Underside rather uniformly clothed with larger lanceolate white or yellowish scales, largest on lateral parts of thorax and weakly condensed on apices of mesepimera. Pygidium with moderately dense erect setiform and narrow-lanceolate white scales along admedian depressions and along apical margin. Legs uniformly and rather densely clothed with semi-erect narrow parallel-sided white or yellowish scales, producing subasperate appearance and forming no rings or spots, except for small condensations on dorsal surface of femora at bases.

Female. Rostrum 1.22 times as long as pronotum, 5 times as long as broad at antennal insertion, weakly and evenly curved, slightly flattened, at antennal insertion 0.9 times as broad as fore femur at base of femoral tooth and 1.6 times as broad as fore tibia at midlength. Sides of rostrum noticeably converging from base to somewhat proximal to antennal insertions because ventral margins of antennal scrobes narrowly visible dorsally at some distance, and then concavely diverging toward apex; width of rostrum at apex 1.2 times its width at antennal insertion. Dorsal surface of rostrum moderately and almost regularly convex in cross-section, only slightly more strongly convex along midline in basal part but forming no trace of median carina. Dorsal surface shining throughout, with moderately dense medium-sized punctures, larger and more elongate on sides and fine in apical part of rostrum; no microreticulation present on intervals. Upper admedian carina ill-defined or missing, lower one (running along dorsal margin of antennal scrobe) glabrous, well-defined. Antennae inserted at 0.43 length of rostrum from apex, moderately long and slender. Pronotum 1.37 times as broad as long. Elytra 1.15 times as broad as long. Metasternum less deeply depressed medially. Medial part of 3rd–5th ventrites almost not flattened, that of 5th ventrite only slightly more densely covered with scales than lateral parts of ventrite. Pygidium twice as broad as long, less broadly and deeply depressed along median carina, with apical part not engraved as compared to basal (closest to apical angles to elytra) part.

Body length 3.15–3.50 mm.

Comparative motes. The new species is very similar to *M. alexandri* Korotyaev, 1989 but differs from it in the larger size, higher admedian ridges on the pronotum with sharp edgings moderately arcuately converging posteriorly, broader bottom of the median sulcus of pronotum, more deeply depressed in apical half pygidium of the male, and more convexly rounded toward the pointed apex aedeagus (Fig. 16).

Material. Holotype, \circlearrowleft : **Thailand.** *Trang Prov.*, Khao Chong Nature and Wildlife Reserve Centre, 21.XI.2003 (A. Orosz & Gy. Sziráki) (APCB). Paratypes. As holotype, $1 \circlearrowleft$ (ZIN), $3 \circlearrowleft$ (2 APCB, 1 ZIN).

Etymology. The species is named after Dr. A. Orosz, a prominent Hungarian entomologist.

Genus Cyphohypurus Korotyaev, 1989

Type species *Cyphohypurus zaitsevi* Korotyaev, 1989 (Fig. 18) (Korotyaev, 1989).

A new species of this formerly monotypical genus was found in Thailand and is described below.

Cyphohypurus suppantschitschi Korotyaev, sp. n. (Fig. 19)

Description. Female. Rostrum 1.08 times as long as pronotum, moderately curved, somewhat more strongly so in basal part; stout, at apex 0.73 times as broad as fore femur (femoral tooth not included) and twice as broad as fore tibia, cylindrical in basal part and 0.6 times as thick as broad at apex, weakly widening from base to apical one-fifth, then slightly roundly narrowing toward apex. Dorsal surface of rostrum weakly convex in cross-section, with ill-defined wrinkle-shaped median carina in basal part weakly broadened at antennal insertion into matte flat bolster, widening and becoming glabrous toward apex of rostrum. Surface of rostrum matte, densely and coarsely rugosely punctate and chagrined except for apical part (ca. 0.5× apical width); latter shining, with sparser long, narrow punctures. Sides with wrinkle-shaped carina running from near eyes almost to apex, undulate in apical part. Antennae inserted in the middle of rostrum. Scape rather stout, weakly and gradually thickening in apical half, with long (1.5× apical width of scape) narrow lamella at apex projecting dorsolaterally. Funicle short, noticeably widening apically, with moderately flattened basal segments. 1st segment 1.75 times as long as broad, rounded at sides; 2nd segment 0.7 times as long as 1st, 2.5 times as long as broad; 3rd segment 0.6 times as long as 2nd, 1.5 times as long as broad; 4th somewhat shorter than 3rd, weakly oblong; 5-7th segments progressively becoming shorter and broader, weakly transverse, 7th clearly separated from broad basal segment of club. 4-7th funicular segments with whorl of semi-erect dark setae about as long as segments. Club ovate, twice as long as broad, with 1st segment broadly rounded at base, not attenuate in a peduncle basally, with a whorl of subrecumbent short setae less conspicuous than those on funicular segments. Surface of club matte, densely covered with very short recumbent or subrecumbent pubescence. Eyes medium-sized, rather narrow rounded triangular, moderately convex; in lateral view, dorsal margin of eye weakly raised over frons, and ventral margin almost reaching ventral surface of head. Frons flat, at anterior margin as broad as rostrum base, strongly evenly widening posteriorly. Temples with vary narrow sulcus along posterodorsal margin of eye. Vertex weakly and evenly convex, without median carina. Surface of frons and vertex matte, with large, very shallow punctures and dense microreticulation on their bottom and on narrow intervals.

Pronotum 1.16 times as broad as long, weakly roundly widening in basal third and then conically narrowing toward very shallow apical constriction. Base shallowly bisinuate, moderately produced posteriorly toward scutellum and forming oblong, obtuse, matte tubercle against latter. Basal margin weakly raised in joint with basal margins of elytra, smooth, lacking crenulation. Apical margin weakly raised and produced over head, shallowly excised medially. Lateral tubercles missing. Postocular lobes moderately prominent and occupying more than one-third of lateral margin of pronotum. Disc strongly convex, with a pair of obtuse transverse swellings at one-third from apical margin and a pair of ill-defined convexities behind them and closer to median sulcus, better visible in lateral view. Median sulcus entire, very deep and rather broad, still deepened (and narrowly engraved) at base and in apical constriction. Surface weakly shin-



Figs. 18, 19. Cyphohypurus spp., female holotypes, dorsal habitus: (18) C. zaitsevi Korotyaev, (19) C. suppantschitschi Korotyaev, sp. n.

ing, densely covered with moderately deep round or polygonal punctures of widely varying size with flat bottom bearing erect scales in the center and separated by narrow, flat or weakly convex, finely and sparsely microreticulate intervals.

Apex of scutellum leveling with inner elytral margins, narrow, oblong, convex, shining. Apices of mesepimera narrowly visible dorsally.

Elytra 1.05 times as broad as long, at strongly convex shoulders 1.5 times as broad as pronotum, moderately narrowing from shoulders toward mid-length and then strongly roundly narrowing toward rounded obtuse-angular apical prominences. Disc moderately convex, somewhat flattened along mid-length and deeply transversely depressed along base between 4th intervals, depression engraved behind scutellum and prolonged along suture. Striae broad and deep, with margins noticeably excised by deep round punctures separated by about own lengths. 1st stria moderately incurved at base, 2nd and 3rd striae almost straight. Intervals shining, slightly broader than striae, moderately or rather strongly uniformly convex. Each interval with single row of very sharp, medium-sized gran-

ules bearing long semi-erect scale on their posterior surface; granules larger and well-visible dorsally along sides.

Legs rather short, weakly shining, with dense, not very deep oblong punctures and dense microreticulation. Punctures on fore and middle femora longer and arranged in lines along ventral margin of femora. Medial part of fore and middle coxae weakly obtuseangularly produced posteriorly. Femora broad from base, broadly concave posteroventrally for reception of tibiae, all toothed. Fore femur 2.5 times as long as broad, more strongly narrowing toward apex than toward base, weakly widening in middle part and armed with sharp medium-sized tooth at 0.37 length from apex. Anterior surface almost lamelliform produced over groove on posteroventral surface of femur, more strongly so toward base; posterior surface also angularly, but not sharply separated from groove. Middle femur more strongly narrowing toward base than fore femur, armed with tooth somewhat larger than that on fore femur; femoral groove deeper than on fore femur, with margins sharp but not lamelliform or wrinkleshaped hanging over groove. Hind femur 1.25 times as broad as middle femur, 2.3 times as long as broad, with small but well-visible sharp tooth. All tibiae nonmucronate. Fore tibia 5 times as long as broad, almost straight, parallel-sided distal to genal bend until apical third and faintly narrowing toward apex there, with apical comb only shortly extending onto outer margin of tibia. Outer surface of tibia with sharp edge in proximal two-thirds, limiting dorsally ("anteriorly") shallow bare, shining groove. Spines in comb on apical margin of tibia dark brown, very short and dense. Middle tibia shorter, straight, moderately widening from base to the angular end of apical comb. Latter comprising about one-third length of its outer margin, obliquely beveled toward apex of tibia and only slightly emarginate, without angular prominence at end; spines lengthening and rather sparse toward latter. Outer surface of tibia not sharpened, glabrous narrow fold-shaped; posterior surface flattened, shining, glabrous, with a few large punctures. Hind tibia weakly S-curved, moderately widened from base to the angular distal end of apical comb, straight and only slightly widening apically in dorsal (= posterior) view. Apical comb comprising about one-third length of tibial outer surface, moderately deeply emarginate, with spines on apical margin coarser than on rest tibiae, and those on outer surface rapidly lengthening and thinning distally. Outer margin in middle third shallowly concave, but not sharpened; tarsal groove glabrous, scarcely concave, not limited ventrally. Tarsi rather short and narrow. 1st segment of fore tarsus about 1.5 times as long as broad, evenly widening apically. 2nd segment roundly widening apically, as long as broad; 3rd slightly longer than and 1.5 times as broad as 2nd, weakly rounded at sides. Claw-segment strongly widening apically, by 2/3 of its length protruding beyond apex of 3rd segment. Claws long and rather broad, moderately diverging, armed with large teeth connate medially.

Meso- and metathorax densely and coarsely punctate, especially metathorax, and coarsely microreticulate. Rostral channel on prosternum very deep, with abrupt walls. Prosternum with moderately high, narrowly rounded posteriorly keels behind inner margins of fore coxal cavities. Similar keels present also behind outer margins of fore coxal cavities; area between inner and outer keels depressed. Mesosternum deeply depressed along entire length, depression deepening posteriorly and ending slightly lateral to inner margins of middle coxae; sides of depression not margined. Metasternum depressed across entire width between middle coxal cavities, thus slightly more broadly than

on mesosternum; walls of depression abrupt, not margined, depression closed posteriorly by slightly raised apical margin of metasternum.

Venter with rather dense, shallow punctures with flat bottom, almost absent in posterior part of 2nd ventrite. All abdominal ventrites situated in one plane. 3rd and 4th ventrites flat medially; anal ventrite with shallow and narrow (almost sulciform) parallel-sided depression along entire length, not limited at sides by swellings; apical margin of ventrite shallowly emarginate in depression. Pygidium vertical, weakly transverse, rather narrowly rounded apically, weakly convex, matte, with dense coarse punctures and shallow, ill-defined, strongly widened in middle part median carina. Dorsal (touching elytral apices) margin finely keel-shaped, excised medially.

Body very dark chestnut-brown, head, including antennae, and pronotum darker, elytra, legs and underside somewhat paler. Apical part of rostrum bare; basal part with sparse erect or semi-erect colorless narrow scales widening apically. Frons sparsely clothed with similar longer and broader erect scales, longer near eyes; vertex with subrecumbent brown hairs. Temples with shorter recumbent colorless scales. Pronotum uniformly and rather sparsely clothed with moderately long erect colorless or yellowish translucent scales, forming no clear pattern or patches anywhere, also on admedian tubercles, but slightly longer on anterior margin. Intervals of elytra with one row of semi-erect colorless and brown scales twice to triple as long as broad, sitting on acute granules; suture with two rows of sparse small, narrow recumbent scales. Underside with moderately dense subrecumbent vestiture composed of narrowlanceolate grayish scales; median depression on anal ventrite almost bare, its sides with longer, broader, semi-erect white scales. Pygidium with rather sparse grayish semi-erect narrow scales, larger and denser along ventral margin. Legs moderately densely clothed with subrecumbent yellowish parallel-sided scales, femora with denser and paler subrecumbent and semierect scales along ventral margin, somewhat condensed on femoral tooth.

Body length 2.6 mm.

Comparative motes. The new species is very similar to *C. zaitsevi* Korotyaev, 1989 in all essential characters, including the structure and proportions of the head, rostrum, pronotum, rostral channel, legs, elytra, pygidium, coloration and the vestiture but clearly dif-

fers in the much shorter and broader elytra deeply depressed behind scutellum, longer and more strongly raised vestiture, narrower and shorter tarsi, and noticeably depressed medially in female anal ventrite.

Material. Holotype, ♀: northwestern Thailand, *Mae Hong Son Prov.*, Ban Si Lang, 1200 m, 1–8.V.1992 (J. Horák; coll. Suppantschitsch) (ZIN).

Etymology. The species is named after the late W. Suppantschitsch of Vienna, who kindly presented the holotype to the Zoological Institute of the Russian Academy of Sciences.

Tribe HYPOHYPURINI Colonnelli, 2004

The single genus of this Palaeotropical tribe, Hypohypurus Hustache, 1920, as recently treated (Colonnelli, 2004), includes fairly diverse species from Tropical Africa, Madagascar, South Asia, and Australia. It was hypothesized (Korotyaev, 1981) that together with Indohypurus Korotyaev, 1981 it may represent a lineage derived from non-jumping genera like Ceutorhynchoides Colonnelli, 1979 of the Egriini. Many Oriental Hypohypurini share with Megahypurus an unusual structure of the pygidium with a sharp median carina and two deep depressions along it. Examination of the new material of the Oriental Ceutorhynchinae shows the existence of several groups of small jumping Ceutorhynchinae with slender rostrum and varyingly developed rostral channel differing in the proportions of the body, sculpture and shape of the rostrum, structure of the legs, aedeagus, and in the sculpture, coloration and vestiture of the body. Oriental species clearly differ from the Madagascan and Tropical African Hypohypurus and apparently are worth of being separated in several genera. The lack of data on their host plants and limited material of most species hampers profound classifying these taxa but an attempt of their preliminary separation is made herein.

Genus *Siamohypurus* Korotyaev, gen. n. (Figs. 20–25)

Type species *Siamohypurus samuelsoni* Korotyaev, sp. n.

Description. The members of the new genus are similar in the shape and proportions of the body, structure of the rostrum and legs to the Oriental and Australian *Hypohypurus* but apparently are closer to the Oriental genus *Cyphohypurus*, sharing with the latter the characteristic uniform dull brown coloration, strongly raised brownish scaly vestiture, noticeably granulate

elytra, and the unusual structure of the legs with well-developed grooves for reception of tibiae, and tibiae with vestigial tarsal grooves. The fore femur is deeply sulcate ventrally so that the anterior margin of the sulcus (tibial groove) is almost narrow-lamelliform produced at base. In addition, the fore and middle coxae are weakly angularly produced postero-medially. The aedeagus in the two species of the new genus is distinctive for its length, sharpened or narrowly bifurcate apex, and the presence of densely microdenticulate areas in the internal sac.

Comparative notes. The new genus differs from *Cyphohypurus* in a much longer and more slender rostrum, long and fine antennal funicle, and much less deep depression for reception of rostrum on the metasternum with gentle walls.

Species included. The new genus includes, in addition to the type species, *S. attilai* Korotyaev, sp. n. from Thailand.

Etymology. The name of the new genus is derived from the old name of the country (Siam) where its representatives occur and the genus name *Hypurus*.

Siamohypurus samuelsoni Korotyaev, sp. n. (Figs. 20, 22, 23)

Description. Male. Rostrum 1.20–1.25 times as long as pronotum, moderately and regularly curved, slender, at apex half as broad as fore femur (femoral tooth not included) and about 1.6 times as broad as fore tibia, cylindrical, weakly narrowing between base and antennal insertion, and between latter and apex. Surface of rostrum matte, densely and rather finely rugosely punctate or striolate except for apical quarter, latter shining, with sparse elongate punctures. Dorsal surface of rostrum weakly convex in cross-section, with ill-defined median carina, weakly widened over antennal insertion and set with short longitudinal comb of light setae; sides finely wrinkled in basal part. Antennae inserted at 0.47 length of rostrum from its base. Scape moderately and gradually thickening in apical third, with narrow, shallowly excised apically translucent lamella at apex projecting dorso-laterally; length of lamella slightly less than apical width of scape. Funicle long and fine, not widening apically; 1st segment almost triple as long as broad; 2nd slightly shorter than 1st, 4 times as long as broad; 3rd segment 0.8 times as long as 2nd, about 2.5 times as long as broad; 4th as long as 3rd; 5-7th segments subsequently shortening, 2 to 1.5 times as long as broad,



Figs. 20, 21. Siamohypurus spp., dorsal habitus, paratypes: (20) S. samuelsoni Korotyaev, sp. n., male; (21) S. attilai Korotyaev, sp. n., female.

sharply separated from club. Each funicular segment with long, almost erect very fine seta on anterior surface (in a specimen spread on plate) longer than rest setae in a whorl. Club terete, twice as long as broad, with 1st segment noticeably attenuate in a peduncle, clearly separated from 2nd segment. Eyes medium-sized, rounded triangular, moderately convex; in lateral view, their dorsal margins leveling with frons, and ventral margin reaching ventral surface of head. Frons moderately concave, at anterior margin as broad as rostrum base, strongly widening posteriorly. Vertex with two small, obtuse, inconspicuous prominences behind eyes bearing erect scales. Surface of frons and vertex matte, with dense shallow subreticulate punctation.

Pronotum 1.26–1.27 times as broad as long, subconical. Base very shallowly bisinuate, weakly produced posteriorly toward scutellum. Basal margin scarcely raised in joint with basal margins of elytra, smooth, lacking crenulation. Apical margin moderately raised, strongly produced over head in form of a lobe narrowing toward apex and excised at that. Sides inconspicuously rounded, strongly converging toward shallow apical constriction, latter deeper on dorsum. Lateral tubercles missing. Postocular lobes weakly prominent and occupying less than a quarter of lateral margin of pronotum. Disc moderately and regularly convex, deepest at mid-length. Median sulcus very deep and fairly broad, slightly widened at base and deepened in apical constriction. Surface weakly shining, densely covered with shallow round or polygonal punctures of strongly varying size with flat bottom bearing erect scales in the center and separated by narrow but absolutely flat, finely and very sparsely microreticulate intervals.

Apex of scutellum almost leveling with inner elytral margins, very narrow, elongate, strongly convex, shining. Apices of mesepimera very narrowly visible dorsally.

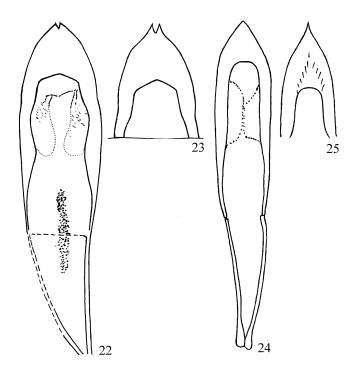
Elytra 1.0–1.06 times as broad as long, rounded triangular, at strongly convex shoulders 1.5 times as broad as pronotum, moderately narrowing from shoulders toward mid-length and then strongly roundly narrowing toward apices. Apical prominences obtuse. Disc moderately and rather evenly convex, somewhat more strongly along suture, but slightly depressed along base and rather strongly, along suture in basal quarter. Striae broad and deep, with margins not very sharp, rounded punctures in striae separated by about

own lengths. 1st stria slightly curved toward scutellum near base, 2nd–6th striae straight and not widening toward base. Intervals shining, 1–1.5 times as broad as striae, weakly to moderately convex, odd-numbered intervals, except 1st one, slightly broader and more strongly convex than even-numbered intervals. 3rd interval with weak prominence before middle. Each interval with single row (some with two rows) of very sharp, medium-sized granules bearing long semi-erect scale.

Legs rather short. Femora broad, concave ventrally for reception of tibiae, all toothed. Fore femur 2.8 times as long as broad, equally narrowing toward base and toward apex, weakly widening at middle and armed with small sharp tooth at 0.4 length from apex. Middle femur similar to fore femur, about triple as long as broad, armed with larger tooth. Hind femur 1.6 times as broad as middle femur, twice as long as broad, with obtuse tooth much smaller than on rest femora. Fore tibia 5 times as long as broad, unarmed, faintly S-curved, slightly widening from base to faint angulation at apical third limiting very shallow emargination continuing apical comb shortly rounded onto outer surface of tibia. Spines in comb on apical margin of tibia dark brown, very short and dense. Middle tibia straight, moderately widening from base to the angular end of apical comb, armed with long mucro directed posteriorly (along tibia axis), obliquely truncate and pointed at apex. Apical comb of middle tibia comprising 0.36 length of its outer margin, rather deeply emarginate, irregularly set distally with rather long and coarse spines. Hind tibia non-mucronate, moderately widened from base to obtuse-angular distal end of apical comb, noticeably S-curved or slightly angularly bent distal to mid-length, noticeably curved also in dorsal (= posterior) view, with apical part slightly flattened dorsoventrally (posterior view). Apical comb comprising 0.35 length of tibial outer surface, moderately emarginate, broadly interrupted beneath tarsal articulation. Tarsi narrow and rather long. 1st segment of fore tarsus about triple as long as broad, in basal half narrow and almost parallel-sided, in apical half moderately roundly widening, more strongly in outer part and thus markedly asymmetrical. 2nd segment symmetrical, rectilinearly widening apically, 1.5 times as long as broad; 3rd as long and twice as broad as 2nd; claw-segment moderately widening apically, by 2/3 of its length protruding beyond apex of 3rd segment. Claws medium-sized, rather broad, weakly diverging, armed with large teeth connate medially.

Prosternum shallowly depressed posteriorly, with low and narrow shining keels behind inner margins of fore coxal cavities, abruptly ending at posterior margin of prosternum. Very short longitudinal fold present also behind outer margin of fore coxal cavities. Mesosternum flat before middle coxal cavities and gradually deepening between them, depression not margined in any way and prolonged on metasternum between middle coxal cavities, very strongly deepening behind level of posterior margins of coxal cavities and reaching, gradually becoming shallower, posterior margin of 1st abdominal ventrite; sides of depression on metasternum gently sloping without angular bends or carinae at either side. All ventrites situated in one plane. Anal ventrite weakly convex longitudinally, with medial part more densely covered with scales, (rufous in the center), latter somewhat raised, but usually missing in small spot at medial part of apical margin. Underside matte, densely punctate and coarsely microreticulate, venter with finer sculpture. Pygidium bent ventrally, not seen dorsally, large, weakly transverse, rounded apically, weakly convex, matte, with distinct dense punctures, not carinate. Aedeagus (Figs. 21, 21) narrow, subparallel-sided, moderately bent dorsoventrally, with apical third deflexed and tip bent almost at right angle; lateral sclerotized areas in apical two-thirds broad, apical (= preputial) area long, with narrow desclerotized medial stripe; apex narrowly excised.

Body dark brown, antennae paler brown. Apical part of rostrum sparsely clothed with short, fine semierect hairs. Basal part of rostrum with sparse white lanceolate reclinate scales. At the level of antennal insertion, dorsal surface of rostrum with a patch of longer erect white hairs and hair-like scales. Frons moderately densely clothed with reclinate white narrow scales, longer near eyes; prominences on vertex bearing long erect brown scales, present also along eyes. Temples with short recumbent white scales. Pronotum with long erect white (on sides) and brown (on disc) scales, assembled in two patches on anteriorlyproduced prominence of anterior margin. Unwashed specimens usually with distinct light stripe along sides of pronotum. Intervals of elytra with one row, doubled in places, of semi-erect to erect narrow colorless and brown scales sitting on acute granules, with two rows of subrecumbent grey or brownish small scales along suture. Length of scales slightly less than width of elytral intervals. Underside with uniform moderately dense semi-erect vestiture composed of parallel-sided



Figs. 22–25. *Siamohypurus* spp., aedeagus, dorsal view, and apex of aedeagus: (22, 23) *S. samuelsoni* Korotyaev, sp. n., paratype; (24, 25) *S. attilai* Korotyaev, sp. n., holotype.

or weakly widening apically brownish or colorless scales; sutures between sclerites marked with white elongate subrecumbent scales, longer white semi-erect scales covering apical ventrites of abdomen and pygidium. Femora densely clothed with long semi-erect colorless parallel-sided scales, their ventral surface, with white subrecumbent and recumbent scales.

Female. Rostrum 1.3 times as long as pronotum, moderately and regularly curved, matte, except for shining apical portion near apex as long as latter broad, densely microreticulate and minutely punctulate. Antennae inserted at 0.43 length of rostrum from base. All tibiae non-mucronate. Comb on apex of hind tibia entire, without gap beneath tarsal articulation. Medial part of anal ventrite with vestiture not differing from that at sides of ventrite. Pygidium vertical, weakly transverse, nearly flat, with distinct moderately dense punctation and with ill-defined or missing median carina.

Body length 2.30-2.35 mm.

Material. Holotype, \circlearrowleft , **Thailand,** *Chiang Mai Prov.*, Chiang Dao, 5–11.IV.1958 (T.C. Maa) (BMH). Paratypes. **Thailand,** *Chiang Mai Prov.*: as holotype, 33 \circlearrowleft (23 BMH, 10 ZIN), 33 \circlearrowleft (23 BMH, 10 ZIN); as

above, but native collector, 6 \circlearrowleft (4 BMH, 2 ZIN), 5 \circlearrowleft (4 BMH, 1 ZIN); Chiang Dao, 5–10.IV.1958 (T.C. Maa), 5 \circlearrowleft (4 BMH, 1 ZIN), 1 \circlearrowleft (BMH); Chiang Dao, 450 m, 5–11.IV.1958 (T.C. Maa), 1 \circlearrowleft (BMH); as above, but "No 311", 1 \circlearrowleft , 2 \circlearrowleft (BMH); Banna, 5–10.IV.1958 (T.C. Maa), 5 \circlearrowleft (4 BMH, 1 ZIN), 1 \circlearrowleft (BMH); Doi Aneka near Chiang Mai, light trap, 9.IV.1953 (T.C. Maa), 3 \circlearrowleft (2 BMH, 1 ZIN), 2 \circlearrowleft (BMH, ZIN); Doi Pui, 2.IV.1958 (T.C. Maa), 2 \circlearrowleft , 1 \hookrightarrow (BMH). *Chanthabury Prov.*, southeastern part, "Prew" [?], 45 m, 25–30.IV.1958 (T.C. Maa), 2 \circlearrowleft (BMH, ZIN), 3 \hookrightarrow (2 BMH, 1 ZIN).

Etymology. The species is named after G.A. Samuelson, who kindly loaned the senior author the most interesting material of the Ceutorhynchinae from the Bishop Museum for examination and authorized donation of its part to the ZIN collection.

Siamohypurus attilai Korotyaev, sp. n. (Figs. 21, 24, 25)

Description. Male. Rostrum 0.94 times as long as pronotum, weakly curved, slender, at apex 0.6 as broad as fore femur (femoral tooth not included) and about 1.4 times as broad as fore tibia, cylindrical except for feebly flattened short (ca. 1.5× apical width) apical part, weakly narrowing between base and antennal insertion, and between latter and apex. Dorsal surface of rostrum weakly convex in cross-section, without median carina but faintly depressed along broad medial stripe with indistinct punctation; sides with fine subrugose punctation upon dense microreticulation, with ill-defined longitudinal wrinkle above dorsal margin of antennal scrobe. Surface of rostrum matte, densely and rather finely rugosely punctate or striolate except for apical part (ca. 1× apical width); latter shining, with sparse elongate minute punctures. Antennae inserted at 0.48 length of rostrum from base. Scape moderately and gradually thickening in apical third, with narrow, shallowly excised apically translucent lamella at apex projecting dorso-laterally; length of lamella slightly less than apical width of scape. Funicle long and fine, not widening apically, distinctly flattened; 1st segment about twice as long as broad, rounded at sides; 2nd slightly shorter than 1st, triple as long as broad; 3rd segment 0.7 times as long as 2nd, about triple as long as broad; 4th only slightly shorter than 3rd; 5th and 6th segments of subequal lengths, twice as long as broad; 7th somewhat shorter and broader, weakly oblong, sharply separated from club. 4-7th funicular segments with whorl of semierect very fine setae about as long as segments. Club terete, twice as long as broad, with 1st segment obconical, not attenuate in a peduncle basally, and closely fitting 2nd segment, with a whorl of setae as those on funicular segments. Surface of club matte, densely covered with very short pubescence. Eves medium-sized, rather narrow rounded triangular, moderately convex; in lateral view, dorsal margin of eye leveling with frons, and ventral margin almost reaching ventral surface of head. Frons flat, at anterior margin as broad as rostrum base, strongly evenly widening posteriorly. Temples sulciform depressed behind posterodorsal margin of eye. Vertex evenly convex, with inconspicuous fine, low median carina. Surface of frons and vertex matte, with dense moderately deep, subrugose punctation and dense microreticulation.

Pronotum 1.14 times as broad as long, weakly roundly widening in basal third and then subconically narrowing toward very shallow apical constriction. Base shallowly bisinuate, weakly produced posteriorly toward scutellum. Basal margin scarcely raised in joint with basal margins of elytra, smooth, lacking crenulation. Apical margin moderately raised, strongly produced over head in form of a lobe narrowing toward apex and shallowly excised at that. Lateral tubercles missing. Postocular lobes moderately prominent and occupying more than one-third of lateral margin of pronotum. Disc strongly and regularly convex, most strongly so at mid-length. Median sulcus entire, very narrow, shallow in center and slightly deeper and broader at base and in apical constriction. Surface weakly shining, densely covered with rather deep round or polygonal punctures of strongly varying size with flat bottom bearing erect scales in the center and separated by narrow but absolutely flat, finely and very sparsely microreticulated intervals.

Apex of scutellum almost leveling with inner elytral margins, very narrow, almost punctiform, strongly convex, shining. Apices of mesepimera very narrowly visible dorsally.

Elytra as broad as long, rounded-triangular, at strongly convex shoulders 1.5 times as broad as pronotum, moderately narrowing from shoulders toward mid-length and then strongly roundly narrowing toward apices. Apical prominences almost completely smoothened. Disc rather strongly and almost evenly convex, but rather deeply depressed along suture between suture and 4th striae. Striae broad and deep, with margins not very sharp, rounded punctures in

striae separated by about own lengths. 1st stria slightly curved toward scutellum near base, 2nd and 3rd striae weakly incurved and ending in a larger puncture at base. Intervals shining, slightly broader or narrower than striae, moderately and uniformly convex, odd-numbered intervals, except 1st one, slightly broader and more strongly convex than even-numbered intervals. Each interval with single row (some with two rows) of very sharp, medium-sized granules bearing long semi-erect scale; granules slightly larger along sides, well-visible dorsally there.

Legs rather short, roughly sculptured, with dense, rather coarse subrugose punctation. Femora broad from base, broadly concave posteroventrally for reception of tibiae, all toothed. Fore femur 2.7 times as long as broad, more strongly narrowing toward apex than toward base, weakly widening at middle and armed with small sharp tooth at 0.4 length from apex. Middle femur similar to fore femur, but more strongly narrowing toward base, armed with tooth somewhat larger than that on fore femur. Hind femur 1.5 times as broad as middle femur, twice as long as broad, with vestigial tooth in form of ill-defined angular prominence of posteroventral margin. Fore tibia 5 times as long as broad, unarmed, almost straight, slightly widening from base to mid-length and then parallel-sided until apical comb shortly extending onto lateral margin of tibia. Spines in comb on apical margin of tibia dark brown, very short and dense. Middle tibia shorter, 4 times as long as broad, straight, moderately widening from base to the angular end of apical comb, armed with long mucro directed almost posteriorly (along tibia axis) and only slightly curved medially, obliquely truncate and pointed at apex. Apical comb of middle tibia comprising about one-third length of its outer margin, deeply emarginate, irregularly set distally with rather long spines. Hind tibia nonmucronate, moderately widened from base to the angular distal end of apical comb, moderately S-curved, gently curved also and slightly widening apically in dorsal (= posterior) view. Apical comb comprising about one-third length of tibial outer surface, deeply emarginate, with spines on apical margin coarser than on rest tibiae and shorter medially beneath tarsal articulation. Tarsi rather long and broad. 1st segment of fore tarsus about twice as long as broad, evenly widening apically and symmetrical. 2nd segment symmetrical, rectilinearly widening apically, slightly longer than broad; 3rd as long and twice as broad as 2nd. Claw-segment moderately widening apically, by half

of its length protruding beyond apex of 3rd segment. Claws medium-sized, rather broad, weakly diverging, armed with large teeth connate medially.

Rostral channel on prosternum very deep, with abrupt walls. Prosternum with high, narrowly rounded posteriorly keels behind inner margins of fore coxal cavities. Very short longitudinal fold present also behind outer margin of fore coxal cavities. Mesosternum and anterior third of metasternum moderately depressed across entire width between middle coxal cavities, depression not margined in any way, deepening and narrowing posteriorly and opening toward base of abdomen. All abdominal ventrites situated in one plane. 3rd and 4th ventrites flat medially; anal ventrite with shallow depression along entire length widening posteriorly, limited at sides by weak swellings; apical margin of ventrite shallowly concave. Underside matte, densely coarsely punctate and coarsely microreticulate, venter with slightly finer sculpture. Pygidium vertical, weakly transverse, rather narrowly rounded apically, weakly convex, matte, with distinct dense punctures and fine median carina. Aedeagus (Figs. 24, 25) narrow, parallel-sided in basal half and strongly attenuate into sharp point apically, strongly and almost evenly bent dorsoventrally, with tip slightly bent ventrally. Lateral sclerotized areas broad.

Body dark brown, antennae and legs not paler than rest parts. Apical part of rostrum with sparse inconspicuous short, fine subrecumbent hairs; basal part with sparse, mostly reclinate grayish setae and setiform scales becoming broader toward base of rostrum. Frons sparsely clothed with longer and broader semierect to erect white scales, longer near eyes; vertex with subrecumbent brown hairs. Temples with short recumbent white scales. Pronotum uniformly and rather sparsely clothed with medium-long erect white and brown translucent scales, forming no clear pattern or patches anywhere. Intervals of elytra with one row, doubled in places, of semi-erect colorless and brown scales twice as long as broad, sitting on acute granules, with two rows of sparse shorter and less raised grey or brownish small scales along suture. Underside with moderately dense subrecumbent vestiture composed of narrow-lanceolate to broad-lanceolate white scales broader and denser on venter; lateroposterior parts of depression on anal ventrite with numerous short erect fine hairs. Pygidium with rather sparse white semierect narrow scales, larger and denser along ventral margin. Legs moderately densely clothed with medium-long subrecumbent yellowish parallel-sided scales, femora ventrally and posteroventrally with sparse white subrecumbent and recumbent scales.

Female. Rostrum 1.3 times as long as pronotum, moderately and regularly curved, matte, except for shining apical portion near apex as long as latter broad, densely microreticulate and minutely punctulate. Antennae inserted at 0.43 length of rostrum from base. All tibiae non-mucronate. Comb on apex of hind tibia entire, without gap beneath tarsal articulation. Medial part of anal ventrite with vestiture not differing from that at sides of ventrite. Pygidium vertical, weakly transverse, nearly flat, with distinct moderately dense punctation and with ill-defined or missing median carina.

Body length 2.25-2.45 mm.

Comparative motes. This species is very similar to *S. samuelsoni* Korotyaev, sp. n., but differs in a shorter and slightly more strongly curved rostrum, lacking short longitudinal comb of setae over antennal insertions in male, less strongly produced anteriorly apical margin of pronotum without erect scales medially, much smaller teeth on the middle and especially hind femora, half as long scales on dorsal surface, and structure of the aedeagus (comp. Figs. 22, 23 and 24, 25).

Material. Holotype, ♂: Thailand, *Trang Prov.*, Khao Chong Botanical Garden, 22.XI.2004 (A. Orosz) (APCB). Paratypes. As holotype, 2 ♀ (APCB, ZIN).

Etymology. The species is named for Attila Podlussány, a prominent Hungarian amateur entomologist who kindly provided his valuable collection for examination and donated a part of his material to the ZIN collection.

Genus *Hypohypurus* Hustache, 1920 *Hypohypurus kabakovi* (Korotyaev, 1982) (Figs. 26, 27)

This species is more often collected than the two congeners described from the material collected by the Late O.N. Kabakov in the same day (Korotyaev, 1982) in Vietnam and may be reliably distinguished from them only by the shape of the aedeagus (comp. Figs. 27–29) with apex produced into a rather long process which character distinguishes them from the Australian *H. medvedevi* (Korotyaev, 1982) (Figs. 30, 31), *H. ponomarenkoi* (Korotyaev, 1999) from Tram I. in southern Vietnam and other Oriental Hypohypurini.

Distribution. Southeast Asia: Southern China, Vietnam, Thailand.

Genus *Glikmanellus* Korotyaev, gen. n. (Figs. 32–43)

Type species Glikmanellus rosti Korotyaev, sp. n.

Description. Members of the new genus are similar to Hypohypurus, especially to its Oriental representatives, but differ in the apparently simple and free, widely diverging from base (= opposite) tarsal claws, thicker, more coarsely sculptured rostrum with shorter and more strongly sinuate laterally apical part and sharper median carina, in the usually parallel-sided frons, narrower and less convex dorsally and rounded at sides pronotum with shallow median sulcus, usually less prominent elytral shoulders, slightly broader, often less convex and more finely sculptured, shining elytral intervals, more strongly swollen hind femur, more strongly widened toward middle fore tibia (Figs. 36–39), and usually clear gap in the apical comb on outer margin of the middle and hind tibiae (Fig. 40). Ventral margin of the fore and middle femora in Indian species flattened into varyingly broad translucent plate widest distal to femoral tooth. The aedeagus (Figs. 41-43) rather narrow, broadly rounded and not produced into a process apically.

Species included. In addition to the type species, the new genus includes *G. baloghi* Korotyaev, sp. n. from Sri Lanka, *G. obrieni* Korotyaev, sp. n. and *G. louisae* Korotyaev, sp. n. from India.

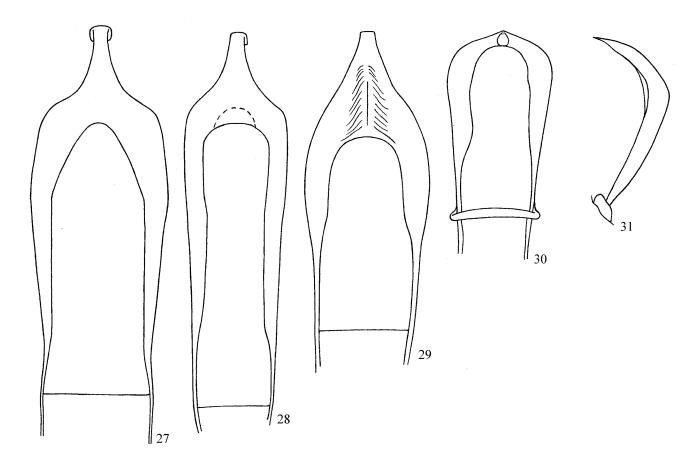
Etymology. The new genus is named after Ekaterina Leonidovna Glikman, a journalist at the "Novaya Gazeta," Moscow, who courageously tried to find weevils of the subfamily Ceutorhynchinae in Thailand without any prior knowledge of this group and to reveal their host plants, and has succeeded.



Fig. 26. Hypohypurus kabakovi (Korotyaev), female, Thailand.

Glikmanellus rosti Korotyaev, sp. n. (Figs. 32, 36, 41)

Description. Male. Rostrum 1.50 times as long as pronotum, at apex 1.27 times as broad as fore tibia in widest part and 0.8 times as broad as fore femur (femoral tooth not included), subcylindrical, with sides parallel in basal part and shallowly concave in apical part, weakly curved in basal part and somewhat more strongly curved in apical part, slightly bent at antennal insertion. Surface matte, densely rugosely punctate except for short apical part with glabrous triangular area widening to entire width of rostral dorsum at its apex. Dorsal surface of rostrum evenly convex in cross-section, densely punctate, with low fine, sharp median carina from near base to mid-length of apical part. Two less distinct carinae running at either side of dorsum. Antennae inserted at 0.34 length of rostrum from apex. Scape nearly straight, moderately and gradually thickening from mid-length toward parallelsided apical third, with opaque narrow scalelike, curved apical projection pointed dorso-laterally.



Figs. 27–31. Hypohypurus spp., aedeagus, dorsal (27–30) and lateral (31) view, holotypes: (27) H. kabakovi (Korotyaev), (28) H. minor (Korotyaev), (29) H. simplicipes (Korotyaev), (30, 31) H. medvedevi (Korotyaev) (after Korotyaev, 1981, modified).

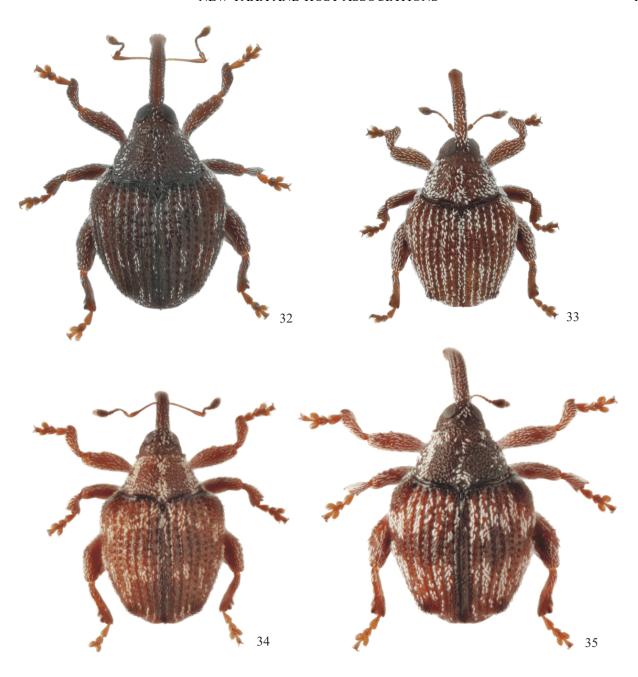
Funicle weakly widening apically; 1st segment moderately compressed, almost twice as long as broad; 2nd segment half as long and broad as 1st, twice as long as broad; 3rd slightly shorter than 2nd, nearly twice as long as broad; 4th segment 1.5 times as long as broad, roundly widened in apical half; 5-7th segments rounded, about as long as broad, 7th sharply separated from club. Club short, fusiform, twice as long as broad. Apical segments of funicle with rather short semi-erect dark setae. Eyes medium-sized, moderately convex; in lateral view, their dorsal margins slightly raised above frons. Latter very shallowly concave, at anterior margin as broad as rostrum, obsoletely narrowing toward posterior third and then roundly widening posteriad, matte, densely shallowly punctate; vertex with similar punctation, short, very fine median carina present only at posterior margin of vertex.

Pronotum 1.35 times as broad as long, shortly roundly widening from base and then strongly and almost rectilinearly narrowing toward very shallow apical constriction. Base shallowly bisinuate, moder-

ately attenuate posteriorly toward scutellum. Basal margin only slightly raised together with basal margins of elytra, lacking crenulation. Apical margin almost not raised, weakly arcuately produced over head, with almost imperceptible median angulation. Postocular lobes well-developed but occupying less than onethird of lateral margin of pronotum. Disc moderately and evenly convex, deepest at mid-length, without any trace of lateral tubercles. Median sulcus very narrow and rather shallow, noticeably widened and deepened in apical constriction and at base. Apical constriction deep medially and becoming shallower toward sides behind anterior angles. Surface of disc matte, with dense moderately deep medium-sized round punctures with flat bottom separated by narrow finely microreticulated intervals.

Scutellum only slightly sunken beneath level of inner elytral margins, short, convex. Apices of mesepimera very narrowly visible dorsally.

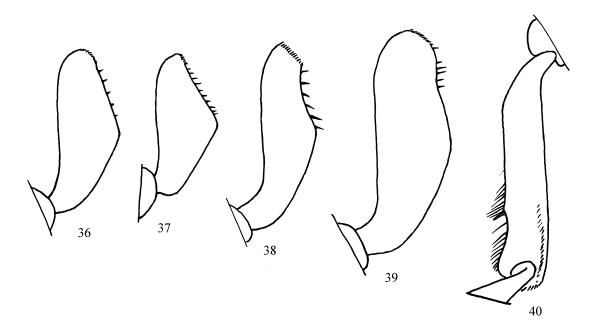
Elytra as long as broad, rounded-triangular, with strongly convex shoulders, weakly narrowing from



Figs. 32–35. *Glikmanellus* spp., dorsal habitus: (32) *G. rosti* Korotyaev, sp. n., female, paratype; (33) *G. baloghi* Korotyaev, sp. n., male, holotype; (34) *G. obrieni* Korotyaev, sp. n., female, paratype; (35) *G. louisae* Korotyaev, sp. n., female, paratype.

them toward mid-length and then strongly roundly narrowing toward apices. Apical prominences strongly rounded but distinct. Disc moderately and rather evenly convex, slightly flattened in basal third. Striae broad and deep, with rounded punctures separated by about own lengths. Intervals moderately convex, with margins smoothened into striae, only slightly broader than striae, shining, with 1 or 2 sparse, confused rows of minute squamiferous granules between small sparse punctures.

Legs very short. All femora broad, armed with small tooth at apical third; middle femur weakly, hind femur more conspicuously thickened from base. Hind femur 1.5 times as broad as middle femur, 1.85 times as long as broad. All tibiae non-mucronate. Fore tibia triple as long as broad (Fig. 36), with inner margin straight, outer margin arcuate from base toward mid-length and then rectilinearly converging with inner margin until very broadly rounded apex. Spines in comb on apical margin of tibia dark brown, very short and dense, only



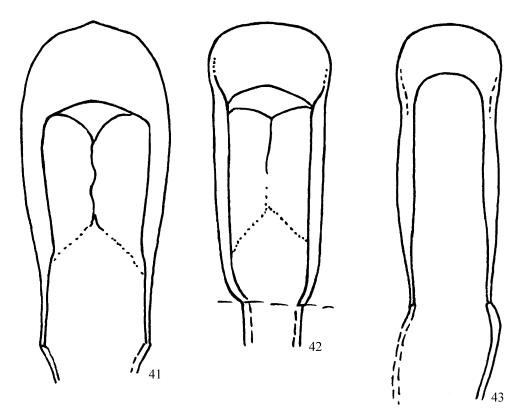
Figs. 36–40. *Glikmanellus* spp., right fore tibia (36–39) and left hind tibia (40): (36) *G. rosti* Korotyaev, sp. n., male, holotype; (37) *G. baloghi* Korotyaev, sp. n., male, holotype; (38, 40) *G. obrieni* Korotyaev, sp. n., female, paratype; (39) *G. louisae* Korotyaev, sp. n., female, paratype.

slightly extending on outer margin. Middle tibia with weakly S-curved inner margin, roundly widening toward apical third, then with noticeably emarginate short apical comb very densely set with dark brown spines twice as long as those on apical margin. Hind tibia weakly widened and moderately outcurved apically, with outer margin shallowly concave and deprived of pubescence in basal part; apical comb occupying almost 40% of outer margin, moderately deeply emarginate, interrupted in middle part. Apical margin of tibia without gap in the row of spines. Tarsi short, 1st segment of fore tarsus about 1.5 times as long as broad, 2nd segment clearly transverse, 3rd as long and 1.7 times as broad as 2nd; claw-segment flattened, strongly widening apically, by half of its length protruding beyond apex of 3rd segment. Claws simple, medium-sized, rather broad, opposite.

Meso- and metasternum moderately deeply depressed medially, no keels present along sides of depression. Venter shallowly depressed along midline, medial part of anal ventrite less broadly but somewhat more deeply depressed, punctate similarly to lateral areas. Underside matte, densely punctate and coarsely microreticulate, venter with finer sculpture. Pygidium about as long as broad, rounded-pentagonal, with sharp high median carina along entire length accompanied by broad and deep depressions alongside and

weakly convex at sides; bottom of admedian depressions matte, densely microreticulate; lateral areas with vestiges of punctation in form of vermiculate glabrous partitions between merged punctures in places. Aedeagus (Fig. 41) parallel-sided, weakly and evenly curved dorsoventrally, very broadly rounded apically, with faintly angular tip.

Body rather uniformly mid maroon-brown with slightly paler antennal scape and apical part of rostrum. Vestiture of dorsal surface sparse and forming ill-defined pattern. Rostrum and head capsule with sparse short recumbent and subrecumbent setiform white and yellow scales, frons and lateral parts of vertex with broader lanceolate white scales. Disc of pronotum mostly with inconspicuous short subrecumbent yellow setiform scales, median sulcus with sparse narrow parallel-sided or narrow-lanceolate recumbent scales, sides with larger arcuate white scales separated by several own widths. Intervals of elytra with one or two confused rows of subrecumbent short, narrow, arcuate scales; slightly larger white scales forming short stripes in basal quarter and behind middle of most intervals, at mid-length of lateral intervals and present behind apical prominences. Underside with rather sparse large lanceolate and oval scales, pygidium with sparse setiform and narrow-lanceolate white scales denser and coarse in ventral part along



Figs. 41–43. Glikmanellus spp., aedeagus, dorsal view: (41) G. rosti Korotyaev, sp. n., holotype; (42) G. baloghi Korotyaev, sp. n., holotype; (43) G. obrieni Korotyaev, sp. n., paratype.

side of admedian depressions. Legs uniformly and rather sparsely clothed with narrow parallel-sided white and yellowish scales forming no rings or spots.

Female. Rostrum 1.62 times as long as pronotum, subcylindrical, with sides parallel in basal part and moderately concave in apical part, moderately curved in basal part and somewhat more strongly curved in apical part. Surface matte, densely though finely punctate on dense microreticulation, except for glabrous apical part (1.5× apical width) with oblong punctures becoming smaller but sharper toward apex. Dorsal surface of rostrum evenly convex in cross-section, with sharp median carina quite distinct only around antennal insertions, then turning to smooth, roofshaped raised median line smoothening before apex. Sides of rostrum in basal part matte, with obliterated punctures and two fine, low carinae each starting proximal to antennal insertions and passing into apical part where another sharp carina continues dorsal margin of antennal scrobes. Antennae inserted at 0.34 length of rostrum from apex. All tibiae non-mucronate. Anal ventrite with small, very shallow medial depression. Pygidium 1.2 times as broad as long, roundedpentagonal, moderately convex in cross-section, with sharp median carina in apical 2/3, evenly convex alongside, matte, moderately densely evenly punctate.

Body length 1.62 (male)–1.75 (female) mm.

Comparative motes. The new species is very similar to *Hypohypurus ponomarenkoi* (Korotyaev, 1989) from Tram I. in southern Vietnam (Korotyaev, 1989) but differs from this species and its known congeners in the simple, opposite tarsal claws. *Glikmanellus rosti* sp. n. additionally differs from *H. ponomarenkoi* in the presence of a sharp median carina accompanied by deep depressions on the pygidium and the shape of the aedeagus (Fig. 41; comp. to figs. 26, 27 in Korotyaev, 1989, p. 153).

Material. Holotype, ♂: Thailand, *Trat Prov.*, Koh Kood I., Khao Rearub Area, 11.629130°N, 102.658210°, beating branch of a tree ("No. 2") of the family Rubiaceae, 18.I.2018 (E.L. Glikman) (ZIN). Paratype, ♀: as holotype, but 17.I.2018 (E.L. Glikman) (ZIN).

Etymology. The species is named after Yu.M. Rost, a photographer and journalist, a reviewer of the "Novaya Gazeta," Moscow.

Glikmanellus baloghi Korotyaev, sp. n. (Figs. 33, 37, 42)

Description. Male. Rostrum 1.5 times as long as pronotum, at apex 1.14 times as broad as fore tibia in widest part and 0.8 times as broad as fore femur (femoral tooth not included), subcylindrical, with sides parallel in basal part and moderately concave in apical part, rather weakly curved in basal part and somewhat more strongly curved in apical part. Surface matte, densely and rather coarsely microreticulate except for short (1.2× apical width) glabrous apical part with triangular area widening to entire width of rostral dorsum at apex. Dorsal surface of rostrum evenly and rather weakly convex in cross-section, with almost completely obliterated small oblong punctures between ill-defined linear, broken median carina and two stronger, glabrous carinae at either side of dorsum from beginning of its middle third to slightly beyond antennal bases. Dorsal margin of antennal scrobe narrow-cariniform extending into apical part of rostrum. Antennae inserted at 0.35 length of rostrum from apex. Scape nearly straight, moderately and gradually thickening from mid-length toward parallel-sided apical third. Funicle weakly widening apically; 1st segment moderately compressed, with sides weakly rounded, about twice as long as broad; 2nd segment 0.6 times as long and half as broad as 1st, twice as long as broad; 3rd almost as long as 2nd, nearly twice as long as broad; 4th segment about 1.5 times as long as broad, roundly widened in apical half; 5th segment longer than broad, 6th and 7th segments about as long as broad, latter sharply separated from club. Club short, fusiform, twice as long as broad and not attenuate in a peduncle at base. Basal part of club not conspicuously differing from apical part in pubescence. Apical segments of funicle with rather short semi-erect dark setae. Eyes medium-sized, moderately convex; in lateral view, their dorsal margins almost leveling with frons, and ventral margins distant from ventral margin of head. Frons almost flat, at anterior margin as broad as rostrum, parallel-sided, matte, densely shallowly punctate.

Pronotum 1.32 times as broad as long, shortly roundly widening from base and then strongly, almost conically narrowing toward apex; apical constriction obsolete. Base shallowly bisinuate, moderately attenuate posteriorly toward scutellum. Basal margin only slightly raised together with basal margins of elytra, lacking crenulation, shining, black. Apical margin slightly raised, weakly obtuse-angularly produced over

head, forming no median angulation. Postocular lobes well-developed but occupying less than one-third of lateral margin of pronotum. Disc very weakly evenly convex, without any trace of lateral tubercles. Median sulcus wanting, only shallow prescutellar fovea present. Surface of disc with greasy shine, with moderately dense shallow medium-sized rounded-pentagonal punctures with flat bottom separated by narrow glabrous, not microreticulated intervals.

Apex of scutellum almost leveling with elytral margins, short, convex. Apices of mesepimera narrowly visible dorsally.

Elytra as long as broad, with strongly convex shoulders, weakly rounded at sides in basal half and then strongly y narrowing toward obtuse-angular apical prominences. Disc moderately and rather evenly convex, slightly flattened in basal third and faintly depressed behind scutellum, somewhat flattened along midline between 3rd intervals. Striae broad and deep, with rounded punctures separated by about own lengths. 1st stria only scarcely incurved at base, 2nd-5th striae straight. Intervals weakly convex, with margins shallowly excised by strial punctures, only slightly broader than striae, shining, lacking microreticulation, with one irregular row of minute squamiferous granules. Odd-numbered intervals somewhat broader than even-numbered ones. Apical prominences on 5-7th intervals with four or five small black granules, two of them producing clear angulation of elytral outline.

Legs very short. All femora broad, armed with sharp small to medium-sized tooth at apical third; middle femur weakly, hind femur more conspicuously thickened from base. Hind femur 1.9 times as broad as middle femur, 1.8 times as long as broad. All tibiae non-mucronate. Fore tibia (Fig. 37) 2.5 times as long as broad, with inner margin straight in basal part and roundly beveled apically, outer margin arcuate from base toward mid-length and then rectilinearly converging with inner margin until broadly rounded apex. Spines in comb on apical margin of tibia dark brown, very short and dense, extending on outer margin almost until widest point of tibia. Middle tibia 2.4 times as long as broad, with straight inner margin, roundly widening toward apical third, then with shallowly emarginate apical comb densely set with fine brown spines twice as long as those on apical margin, with clear gap one-third way from distal (closer to knee) end. Hind tibia weakly widened and moderately outcurved apically, with outer margin not concave but lacking pubescence in middle third; apical comb occupying 40% of outer margin, moderately deeply emarginate, interrupted slightly distal to mid-length. Apical margin of tibia without gap in the row of spines. Tarsi very short, 1st segment of fore tarsus about 1.5 times as long as broad, 2nd segment clearly transverse, rounded-triangular; 3rd as long and 1.75 times as broad as 2nd; claw-segment flattened, narrow at base and strongly widening apically, only by one-third of its length protruding beyond apex of 3rd segment. Claws medium-sized, rather broad, opposite.

Mesosternum very shallowly depressed, depression moderately and evenly deepening posteriorly toward posterior margin of metasternum, its sides gentle, forming no sharp margin anywhere. 1st and 2nd abdominal ventrites convex, medial part of 3rd and 4th ventrites flat, not differing in sculpture and vestiture from lateral parts; anal ventrite obsoletely depressed in medial third, depression deepened along midline, matte similarly to lateral areas. Underside matte, densely microreticulate. Pygidium about as long as broad, rounded-pentagonal, weakly convex, with sharp high median carina in ventral half, accompanied by broad and deep depressions with matte, densely microreticulate bottom, almost reaching lateral margins. Aedeagus (Fig. 42) with basal two-thirds parallelsided and straight, apical third slightly roundly widened and roundly bent almost at right angle relative to basal part, very broadly smoothly rounded apically.

Body uniformly mid reddish brown with black narrow basal margins of pronotum and elytra. Vestiture of dorsal surface moderately dense and forming illdefined pattern. Rostrum and head capsule with sparse short recumbent and subrecumbent narrow white scales. Disc of pronotum mostly with inconspicuous short subrecumbent yellow setiform scales; sides, base and median line with moderately dense eye-dropshaped short recumbent white scales. Intervals of elytra with one almost regular row of arcuate subrecumbent short, narrow, truncate apically scales. Larger white scales alternating with these scales on evennumbered intervals and arranged along margins of odd-numbered intervals; vague transverse darker band present at mid-length of disc. Legs uniformly and rather sparsely clothed with narrow parallel-sided white recumbent scales forming no rings or spots. Underside moderately densely clothed with tightly adpressed medium-sized broad-oval white scales, weakly condensed on apical half of mesepimera. Pygidium with sparse setiform and narrow-lanceolate white scales scattered along its perimeter.

Body length 1.35 mm.

Comparative notes. This species differs from G. rosti Korotyaev, sp. n. in the small size, ill-defined and obtuse median carina on the rostrum, shorter antennae, very weakly convex dorsally and almost not rounded at sides pronotum with more conspicuously produced medially anterior margin, vestigial median sulcus reduced to the small prescutellar fovea, and microreticulation; shining disc lacking developed, angular apical prominences of the elytra with four or five black granules, one of them projecting from elytral outline; much more strongly widened toward mid-length fore tibia with very long apical comb of spines; dense recumbent vestiture of the broad white scales on the pronotum and elytra, and also on underside; pale reddish brown coloration, and evenly rounded, slightly widened apically aedeagus (Fig. 42).

Material. Holotype, ♀: Sri Lanka, Southern Province, Yala, Katagarama–Buttala road, No. CMB-C.12, 2.VII.1968 (Dr. J. Balogh) (HNHM).

Etymology. The species is named after Dr. J. Balogh, a prominent Hungarian acarologist, who collected many interesting weevils in South Asia.

Glikmanellus obrieni Korotyaev, sp. n. (Figs. 34, 38, 40, 43)

Description. Male. Rostrum 1.5 times as long as pronotum, at apex 1.33 times as broad as fore tibia in widest part and 0.77 times as broad as fore femur (femoral tooth not included), subcylindrical, with sides parallel in basal part and moderately concave in apical part, weakly curved in basal part and somewhat more strongly curved in apical part, weakly bent at antennal insertion. Surface matte, densely and rather coarsely microreticulate except for short (1.2× apical width) glabrous apical part with triangular area widening to entire width of rostral dorsum at apex. Dorsal surface of rostrum moderately and evenly convex in crosssection, with sharp but very low, almost linear median carina from beginning of middle third to slightly beyond antennal insertions and with semi-obliterated small oblong punctures between median carina and two weaker carinae at either side of dorsum from beginning of its middle third to slightly beyond antennal bases. Dorsal margin of antennal scrobe narrowcariniform extending into apical part of rostrum. Antennae inserted at 0.37 length of rostrum from apex. Scape nearly straight, moderately and gradually thickening in apical third, with narrow-triangular scale-like, straight apical projection pointed dorso-laterally almost perpendicular to scape; length of projection equal to apical width of scape. Funicle weakly widening apically; 1st segment moderately compressed, with sides weakly rounded, about twice as long as broad; 2nd segment 0.6 times as long and half as broad as 1st, twice as long as broad; 3rd almost as long as 2nd, nearly twice as long as broad; 4th segment about 1.5 times as long as broad, roundly widened in apical half; 5th segment longer than broad, 6th and 7th segments noticeably transverse, somewhat angularly widened at sides, latter sharply separated from club. Club short, fusiform, twice as long as broad and not attenuate in a peduncle at base. Apical third of club stepwise separated from basal part. All funicular segments with whorl of moderately long fine setae, those on 6th and 7th segments and on short basal segment of club slightly longer than rest. Eyes medium-sized, weakly convex; in lateral view, their dorsal margins almost leveling with frons, and ventral margins shortly distant from ventral margin of head. Frons almost flat, at anterior margin as broad as rostrum, parallel-sided or weakly narrowed in middle part, matte, moderately densely shallowly punctate and coarsely microreticulate. Temples very shallowly, broadly depressed.

Pronotum 1.40–1.44 times as broad as long, almost conically narrowing toward apex; apical constriction shallow, separating rather long apical ring. Base shallowly bisinuate, moderately attenuate posteriorly toward scutellum. Basal margin only slightly and very narrowly raised together with basal margins of elytra, lacking crenulation, shining, black. Apical margin slightly raised, moderately obtuse-angularly produced over head, forming no median angulation. Postocular lobes well-developed but occupying less than onethird of lateral margin of pronotum. Disc very weakly evenly convex, without any trace of lateral tubercles. Median sulcus obsolete, weakly deepening and widening at base (in a shallow prescutellar fovea) and behind apical constriction. Surface of disc almost matte, with dense shallow medium-sized rounded-pentagonal punctures with flat bottom separated by narrow microreticulated intervals.

Apex of scutellum leveling with elytral margins, oblong, convex. Apices of mesepimera narrowly visible dorsally.

Elytra 1.08-1.10 times as long as broad, with strongly convex shoulders, weakly rounded and narrowing in basal half and then strongly narrowing toward obtuse-angular apical prominences. Disc rather strongly and evenly convex, moderately roundly depressed behind scutellum. Striae broad and deep, with dense rounded punctures separated by much less than own lengths. 1st stria only scarcely incurved at base, 2nd-5th striae straight. Intervals moderately and uniformly convex, with margins shallowly excised by strial punctures, only slightly broader than striae, shining, lacking microreticulation, with scattered minute punctures and granules forming no regular rows. Apical prominences on 5-7th intervals with a few granules larger than those on disc but not protruding from elytral outline and not darker than surrounding cuticle.

Legs short. Fore femur triple as long as broad, narrow at base and moderately widened in middle part, armed with broad at base very sharp tooth at apical third. Middle femur slightly shorter and broader than fore femur, with somewhat larger tooth. Fore and middle femora with anteroventral margin flattened into narrow translucent plate widest distal to femoral tooth. Hind femur much more strongly roundly widening from base, 1.8 times as broad as middle femur, 2.3 times as long as broad, with tooth larger than on middle femur. All tibiae non-mucronate. Fore tibia 3.3 times as long as broad (Fig. 38), with inner margin almost straight in basal two-thirds and strongly roundly beveled apically; outer margin arcuate from base toward mid-length and then concavely converging with inner margin until broadly rounded apex. Spines in comb on apical margin of tibia dark brown, very short and dense; concave part of apical comb with 5-7 broader sparse, irregularly spaced and pointed spines extending until widest point of tibia. Middle tibia 2.5 times as long as broad, with straight inner margin, roundly widening toward apical third, then with deeply emarginate apical comb densely set with fine, moderately long brown spines twice as long as those on apical margin, with clear gap at half-way from distal (closer to knee) end. Hind tibia almost not widened and weakly outcurved apically, with outer margin not concave but lacking pubescence in middle third; apical comb occupying one-third of outer margin, shallowly emarginate, interrupted at mid-length (Fig. 40). Apical margin of tibia without gap in the row of spines. Tarsi rather short and moderately broad. 1st segment of fore tarsus about 1.5 times as long as broad, 2nd segment 1.25 times as broad as long, weakly widening apically; 3rd slightly longer than and 1.5 times as broad as 2nd, with rounded but rather narrow lobes; claw-segment not flattened, narrow at base and much broader, subparallel-sided in apical two-thirds, by only slightly more than half of its length protruding beyond apex of 3rd segment. Claws medium-sized, rather broad, opposite.

Prosternum moderately deeply depressed, with minute obtuse denticles at posterior margin slightly lateral to inner margins of fore coxal cavities. Ventral half of mesepimeron and entire mesepisternum shallowly concave. Mesosternum very shallowly depressed across entire width between noticeably raised, divergent posteriorly lower margins of mesepimera; medial part of mesosternum (between inner margins of middle coxal cavities) slightly more strongly depressed, depression evenly deepening posteriorly and passing onto metasternum. Latter more deeply depressed in posterior two-thirds, more strongly so along midline, with sides of depression gentle, smoothly passing into the strongly longitudinally convex lateral (behind middle coxal cavities) parts and widely opening onto venter without any border. Sides of depression forming no sharp margin anywhere. Thorax at sides matte, with moderately dense rather large but shallow punctures and coarse microreticulation.

1st and 2nd abdominal ventrites flat medially, medial part of 3rd and 4th ventrites flat, not differing in sculpture and vestiture from lateral parts; anal ventrite narrow-sulciform depressed medially, with apical half slightly beveled apically. Underside matte, densely microreticulate; venter less densely punctate and slightly shining medially. Pygidium about as long as broad, rounded-pentagonal, slightly bent ventrally, weakly convex, with sharp high median carina in ventral half, accompanied by broad and deep depressions with matte, densely microreticulate bottom, almost reaching lateral margins. Aedeagus (Fig. 43) with basal two-thirds slightly rounded and slightly curved dorsoventrally, apical third slightly roundly widened and roundly bent, very broadly smoothly rounded apically.

Body mid reddish brown with black narrow basal margins of pronotum and elytra, and scutellum; sutural intervals, diffuse transverse band at mid-length and shorter band behind middle, humeral and apical prominences of elytra, head, including rostrum and antennae, and underside darker, occasionally blackish. Vestiture of dorsal surface moderately dense and

forming ill-defined pattern. Rostrum and head capsule with sparse short recumbent and subrecumbent narrow, almost setiform white scales, base of rostrum with broader white scales. Disc of pronotum mostly with inconspicuous short subrecumbent yellow setiform scales; sides, base and median line with dense rather large broad-lanceolate recumbent white scales. Intervals of elytra with one almost regular row of arcuate subrecumbent short, narrow, truncate apically yellow scales. Paler areas on elytra with sparse larger subrecumbent white scales arranged in patches on intervals between dark bands. Femora moderately densely uniformly clothed with subrecumbent narrow parallel-sided white scales forming no rings or spots, tibiae and tarsi with narrower scales. Depressed parts of thorax with longer subrecumbent, narrow lanceolate grayish scales separated by about own widths; lateral parts with sparser and shorter, mostly not protruding from large punctures yellowish scales weakly condensed on apical half of mesepimera. Pygidium with moderately dense narrow-lanceolate white scales missing in depressions along median carina.

Female. Rostrum 1.55 times as long as pronotum, at apex 1.3 times as broad as fore tibia in widest part and 0.8 times as broad as fore femur (femoral tooth not included), subcylindrical, with sides in basal part subparallel, slightly diverging toward base in basal third, and moderately concave in apical part, weakly curved in basal part and somewhat more strongly curved in apical part, weakly bent at antennal insertion. Surface matte, sculptured as in male. Dorsal surface of rostrum moderately and evenly convex in cross-section, median carina quite distinct from basal quarter to beginning of shining, less densely punctate apical part (about double apical width). Antennae inserted at 0.375 length of rostrum from apex. Pronotum 1.5 times as broad as long. Elytra 1.05 times as long as broad. Anal ventrite with small round bare depression in center.

Body length 1.60–1.70 mm.

Comparative notes. This species differs from *G. baloghi* Korotyaev, sp. n. in the larger size, longer rostrum with coarser sculpture and well-defined median carina, longer antennae with longer setae on apical segments and longer club with more sharply separated apical part, well-defined median sulcus on the pronotum, more strongly prominent humeri of the narrower elytra with less prominent and more finely granulate apical prominences, much longer and nar-

rower legs with much more strongly widened toward mid-length fore tibia with longer apical comb of spines; sparser and less tightly adpressed vestiture of narrower white scales on the pronotum and elytra, and also on underside; dark coloration of largest part of the body, and slightly rounded at sides in basal part, less strongly, smoothly bent at apical third aedeagus (Fig. 43). In the proportions of the body and dorsal pattern it is similar to Indian species of the genus *Hainokisaruzo* Yoshitake et Colonnelli, 2005—*H. bengalensis* (Colonnelli, 1984) and *H. topali* (Colonnelli, 1984), and also to *H. orlovi* Korotyaev, 2015, from Vietnam (Korotyaev, 2015: 623, fig. 12), but differs in the short legs with very broad tibiae and femora and in the simple claws.

Material. Holotype, ♂: India, Tamil Nadu Province, Kodaikanal, 2200 m, 24.IX.1985 (C.W. and L.B. O'Brien) (COBR). Paratypes. As holotype, 2 ♂ (COBR, ZIN), 3 ♀ (2 COBR, 1 ZIN).

Etymology. The species is named after Charles W. O'Brien, an outstanding weevil specialist and one of the most enthusiastic researchers, a kind colleague who has been supporting the senior author's studies from their first steps.

Glikmanellus louisae Korotyaev, sp. n. (Figs. 35, 39)

Description. Female. Rostrum 1.7 times as long as pronotum, at apex 1.3 times as broad as fore tibia in widest part and 0.7 times as broad as fore femur (femoral tooth not included), subcylindrical, with sides feebly emarginate in basal part and moderately concave in apical part, moderately curved in basal part and somewhat more strongly curved in apical part, weakly bent at antennal insertion. Surface matte, densely and rather coarsely microreticulate except for short (ca. double apical width) shining apical part with sparse oblong punctures, denser at sides, and deprived of reticulation. Dorsal surface of rostrum moderately and evenly convex in cross-section, with sharp low median carina from base to beginning of shining apical part and with well distinct oblong punctures between median carina and two slightly weaker carinae at either side of dorsum, inner one running almost from base to end of median carina, outer one shorter and quite distinct only in middle third of rostrum length. Dorsal margin of antennal scrobe narrow-cariniform extending into apical part of rostrum close to its apex. Antennae inserted at 0.37 length of rostrum from apex. Scape nearly straight, moderately and gradually thickening in apical third, with narrow scale-like, straight apical projection pointed dorso-laterally; length of projection equal to apical width of scape. Funicle weakly widening apically; 1st segment moderately compressed, moderately widening apically, about 2.5 times as long as broad; 2nd segment two-thirds as long and half as broad as 1st, triple as long as broad; 3rd almost as long as 2nd, more than twice as long as broad; 4th segment about twice as long as broad; 5th segment almost 1.5 times as long as broad, 6th as long as broad, 7th noticeably transverse, somewhat angularly widened at sides, sharply separated from club. Club short, fusiform, twice as long as broad and not attenuate in a peduncle at base. Apical third of club stepwise separated from basal part. All funicular segments with whorl of moderately long fine setae, those on 6th and 7th segments and on short basal segment of club slightly longer than rest. Eyes medium-sized, very weakly convex; in lateral view, their dorsal margins almost leveling with frons, and ventral margins shortly distant from ventral margin of head. Frons almost flat, at anterior margin as broad as rostrum, weakly roundly narrowed in middle part, matte, densely shallowly punctate and coarsely microreticulate.

Pronotum 1.43 times as broad as long, almost conically narrowing toward apex; apical constriction moderately deep, separating rather short apical ring. Base shallowly bisinuate, moderately attenuate posteriorly toward scutellum. Basal margin only slightly and very narrowly raised together with basal margins of elytra, lacking crenulation, shining, black. Apical margin slightly raised, moderately obtuse-angularly produced over head, forming no median angulation. Postocular lobes well-developed but occupying less than onefourth of lateral margin of pronotum. Disc weakly evenly convex, without any trace of lateral tubercles. Median sulcus obsolete, weakly deepening and widening at base (in a shallow prescutellar fovea) and behind apical constriction. Surface of disc almost matte, with very dense, moderately deep small punctures separated by very narrow microreticulated intervals.

Scutellum leveling with elytral margins, oblong, convex. Apices of mesepimera narrowly visible dorsally.

Elytra as long as broad, with strongly convex shoulders, weakly rounded and narrowing in basal half and then strongly narrowing toward well developed, obtuse-angular apical prominences. Disc rather strongly and evenly convex, moderately roundly depressed behind scutellum. Striae broad and deep, with dense rounded punctures separated by about own lengths. 1st stria only scarcely incurved at base, 2nd–5th striae straight. Intervals moderately convex, with margins shallowly excised by strial punctures, only slightly broader than striae; odd-numbered intervals slightly broader and more strongly convex than even-numbered ones. All intervals shining, lacking microreticulation, with one irregular row of sparse minute granules and scattered minute punctures. Apical prominences on 5–7th intervals with a few black granules larger than those on disc but not protruding from elytral outline and not very conspicuous on the background of darkened surrounding cuticle.

Legs short. Fore femur 2.7 times as long as broad, narrow at base and moderately widened in middle part, armed with broad at base but small sharp tooth at apical third. Middle femur slightly shorter and broader than fore femur, with somewhat larger tooth. Ventral margin of fore and middle femora less conspicuously flattened into very narrow translucent plate widest distal to femoral tooth. Hind femur much more strongly roundly widening from base, 1.6 times as broad as middle femur, 2.15 times as long as broad, with tooth larger than on middle femur. All tibiae nonmucronate. Fore tibia 3.2 times as long as broad, with inner margin almost straight in basal two-thirds and strongly roundly beveled apically; outer margin arcuate from base toward mid-length and then concavely converging with inner margin until broadly rounded apex. Spines in comb on apical margin of tibia dark brown, very short and dense; concave part of apical comb with 5-7 broader sparse, irregularly spaced and varyingly pointed spines extending close to widest part of tibia. Middle tibia triple as long as broad, with straight inner margin, roundly widening toward apical third, then with deeply emarginate apical comb densely set with fine, moderately long brown spines more than twice as long as those on apical margin; spines at mid-length of comb thinned but no clear gap present. Hind tibia almost not widened and weakly outcurved apically, with outer margin not concave but lacking pubescence in middle third; apical comb occupying one-third of outer margin, shallowly emarginate, slightly thinned but not interrupted at mid-length. Apical margin of tibia without gap in the row of spines. Tarsi rather short and moderately broad. 1st segment of fore tarsus about 1.5 times as long as broad, 2nd segment 1.25 times as broad as long, moderately roundly widening apically; 3rd slightly longer than and almost twice as broad as 2nd, with rounded, moderately broad lobes; claw-segment not flattened, narrow at base, moderately broadening in middle third, and subparallel-sided in apical third, by half of its length protruding beyond apex of 3rd segment. Claws medium-sized, rather broad, opposite.

Prosternum moderately deeply depressed, with minute obtuse denticles at posterior margin slightly lateral to inner margins of fore coxal cavities. Ventral half of mesepimeron and entire mesepisternum almost imperceptibly concave. Mesosternum very shallowly depressed across entire width between the noticeably raised, divergent posteriorly lower margins of mesepimera; medial apart of mesosternum (between inner margins of middle coxal cavities) slightly more strongly depressed, depression evenly deepening posteriorly and passing onto metasternum. Latter more deeply depressed in posterior two-thirds, not more strongly so along midline, with sides of depression gentle, smoothly passing into the strongly longitudinally convex lateral (behind middle coxal cavities) parts and widely opening onto venter without any border. Sides of depression forming no sharp margin anywhere. Thorax at sides matte, with moderately dense rather large but shallow punctures and coarse microreticulation.

1st and 2nd abdominal ventrites flat medially, medial part of 3rd and 4th ventrites flat, not differing in sculpture and vestiture from lateral parts; anal ventrite with small, shallow median fovea, with apical half slightly beveled apically. Underside matte, densely microreticulate; venter less densely punctate and slightly shining medially. Pygidium about as long as broad, rounded-pentagonal, slightly bent ventrally, moderately convex, with linear median carina along entire length, matte, densely microreticulate.

Body mid reddish brown with black narrow basal margins of pronotum and elytra, and also scutellum; head, disc of pronotum, sutural intervals, diffuse transverse band at mid-length and shorter band behind middle, humeral and apical prominences of elytra, head, including rostrum and antennae, and underside darker. Vestiture of dorsal surface moderately dense and forming rather distinct pattern. Rostrum and head capsule with sparse short recumbent and subrecumbent narrow white scales, those at base of rostrum not con-

spicuously broader. Disc of pronotum mostly with inconspicuous short subrecumbent brownish setiform scales; sides, base and narrow median line with dense rather large broad-lanceolate, recumbent, white iridescent scales. Intervals of elytra with one irregular row of arcuate subrecumbent very short, narrow, truncate apically yellow or brown scales. Paler areas on elytra with 3 or 4 irregular rows of larger recumbent white scales. Scales on elytra arcuately bent (best visible dorsally on sides). Femora moderately densely uniformly clothed with recumbent narrow parallel-sided white scales forming no rings or spots, tibiae and tarsi with narrower scales. Depressed parts of thorax with longer subrecumbent, narrow-lanceolate gravish scales separated by about own widths; lateral parts with sparser and shorter, mostly not protruding from large punctures yellowish scales weakly condensed on apical half of mesepimera. Pygidium with sparse very narrow white scales on largest part, with dense broader white scales along ventral margin.

Body length 1.95–2.0 mm.

Comparative notes. This species differs from *G. obrieni* Korotyaev, sp. n. in the larger size, broader body, more sharply carinate rostrum, longer and more slender antennae, more finely and densely punctate pronotum with shallower median sulcus and deeper apical constriction, broader and less convex elytral intervals, with odd-numbered ones noticeably broader than even-numbered, and in the less conspicuous, occasionally indistinct gap on one of the legs apical combs of the middle and especially of the hind tibiae.

Material. Holotype, ♀: **India**, *Maharashtra Province*, 5km SW of Mahabaleshwar (~ 1300 m), 19.IX.1985 (C.W. and L.B. O'Brien) (COBR). Paratype. As holotype, ♀ (ZIN).

Etymology. The species is named after Louis B. O'Brien, an outstanding specialist of Homoptera, a good friend who has traveled and collected with C.W. O'Brien all over the world.

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