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with descriptions of a new Genus,
a new Subgenus and some new Species
(*Coleoptera, Nitidulidae*)

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Preliminary Revision of the *Cryptarchinae* Genera
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This paper is based on extensive unidentified material on the subfamily *Cryptarchinae* loaned to author by the Musée Royal de l'Afrique Centrale (Tervuren, Belgium). Moreover, the author had an opportunity to study the type, named and unidentified materials on this subfamily from the collections of the Museum für Naturkunde at the Humboldt-Universität (Berlin, DDR); Zoological Institute of the U.S.S.R. Academy of Sciences (Leningrad); Naturhistoriska Riksmuseet (Stockholm); Zoologisk Museum at the Copenhagen's University; Rijkmuseum van Natuurlijke Historie (Leiden); Institut für Pflanzenschutzforschung Kleinmachnow (Eberswalde); Institut Royal des Sciences Naturelles de Belgique and British Museum, Natural History (London). These studies allowed the author to undertake an attempt to revise the genera of the afrotropical *Cryptarchinae*. The present paper deals with four genera: *Cryptarcha* Shuck., *Arhina* Murr., *Ceratarhnia* gen. n. and *Glischrochilus* Reitt. as well as with the subgenus *Arhinella* subgen. n. of *Arhina*. Thirteen *Cryptarchinae* species from the tropical Africa are here described as new. A key to the afrotropical genera of *Cryptarchinae* and a key to species of the *Arhina* stat. n. have been incorporated. Finally, synonymical notes on the taxa *Cryptarcha* Shuck., *Lepiarcha* Sharp and *Cryptarchina* Iabl.-Khnz. as well as on the taxa *Librador* Reitt. and *Africanips* Lech. are proposed.

The following abbreviations are used below to indicate the scientific establishments where referred materials are deposited :

Musée Royal de l'Afrique Centrale, Tervuren - MRAC

Institut Royal des Sciences Naturelles de Belgique, Bruxelles - IRSNB

Museum für Naturkunde an der Humboldt-Universität - MHU

Institut für Pflanzenschutzforschung Kleinmachnow - IPK

Zoological Institute of the U.S.S.R. Academy of Sciences - ZIN

Naturhistoriska Riksmuseet, Stockholm - NR

Zoologisk Museum, Kopenhagen - ZM

Rijkmuseum van Natuurlijke Historie - RNH

Institute of Zoology of the Armenian S.S.R. Academy of Sciences (Erevan) - IZA

British Museum, Natural History - BM

Genus **CRYPTARCHA** Shuckard, 1839

Cryptarcha Shuckard, 1839, Element. Brit. Ent. : 165;

Type-species : *Nitidulla strigata* Fabricius, 1787 (subsequent designation by Parsons, 1943);

Cryptarchus Heer, 1843, Fauna Helv., I : 409;

Lepiarcha Sharp., 1891, Biol. Centr.-Amer., Col., 2, I : 385, **syn. n.**

Type-species : *Cryptarcha omositoides* Reitter, 1873 (by monotypy);

Cryptarchula Ganglbauer, 1899, Käf. Mitteleur., 3 : 550;

Type-species : *Nitidula imperialis* Fabricius, 1792 (by monotypy);

Cryptarchina Iablokoff-Khnzorian, 1966, Reports Acad. Sci. Armen. S.S.R., 42 : 313, **syn. n.**;

Type-species : *Cryptarcha incognita* Iablokoff-Khnzorian, 1966 ¹⁾ (by monotypy).

Full redescription of this genus is made by Dr. J. Jelinek (1974).

¹⁾ *Cryptarcha incognita* Iablokoff-Khnzorian, 1966, **syn. n.** is according to examine the type specimen (unique female, IZA) by the author a junior synonym of *Cryptarcha strigata* (Fabricius, 1787).

Notes on synonymy

Author has studied the overwhelming majority of the Palaearctic, Oriental and African species as well as some Australian, Nearctic and Neotropical species of the considered subfamily. It permits to suppose a variability within the discussed taxon and to divide the most of true congeners into groups of closely related species.

Type-species of *Lepiarcha* is known to author after some specimens identified by E. Reitter (ZIN and RNH). Author's opinion on synonymy of this taxon is based also upon the redescription and diagnosis given by Parsons (1938, 1943). The characters used for separation « subgenera » *Cryptarcha* and *Lepiarcha* sensu Parsons (body shape and some peculiarities of thorax structures) are strongly variable among tropical forms and are not allowed to carry out any distinct limit of the both taxa.

As to taxon *Cryptarchina*, proposition of it seems to be erroneous so far as the type-species of it is in fact *Cryptarcha strigata* (type-species of the taxon *Cryptarcha*) that is a homotypic synonym.

This genus is represented by great number of species showing a high degree of variation of several structures. In the afrotropical region the following species have been recorded :

strigata-group ²⁾

1. *C. aethiopica* Grouvelle, 1908
2. *C. klugi* Reitter, 1876
3. *C. raffrayi* Grouvelle, 1896
4. *C. marmorata* Fairmaire, 1880 (with intermediate position between *strigata*- and *sjoestedti*-group)

sjoestedti-group

5. *C. assimilis* sp. n.
6. *C. gracilis* sp. n.
7. *C. scutellaris* Grouvelle, 1911
8. *C. sjoestedti* Grouvelle, 1909
9. *C. suffusa* sp. n.

²⁾ Detailed diagnosis and a key of all the newly proposed groups will be published in a future author's paper on this subject.

senegalensis-group

10. *C. alluaudi* Grouvelle, 1892
11. *C. basimaculata* Kraatz, 1895
12. *C. flavocunea* sp. n.
13. *C. maculipennis* Kraatz, 1895
14. *C. marginicollis* Kraatz, 1895
15. *C. martini* Grouvelle, 1899
16. *C. nigrītula* sp. n.
17. *C. nigroscripta* Grouvelle, 1915
18. *C. notata* Grouvelle, 1899
19. *C. senegalensis* Reitter, 1873
20. *C. sicardi* Grouvelle, 1906
21. *C. signaticollis* Grouvelle, 1915
22. *C. testudinea* Fairmaire, 1880

quadripunctata-group

23. *C. decellei* sp. n.
24. *C. grouvellei* sp. n.
25. *C. quadripunctata* Grouvelle, 1908

incertae sedis

26. *C. latissima* Grouvelle, 1908

Cryptarcha suffusa Kirejtshuk, sp. n. (figs. 15-19)

Material. 1 ♀ (holotype): Zaïre, Coquilhatville, 7-8.1940, R.P. Hulstaert (MRAC); 1 ♀ (paratype): ib., Equateur, Ingende, 6.11.1930, R.P. Hulstaert (ZIN).

This species is very similar to others species of the *sjoestedti*-group. Therefore some characters of it which are similar to those of the lasts are partly omitted in below description.

Female (holotype). Length 4.0, breadth 1.8, height 1.0 mm. Slimer than *C. marmorata* (fig. 1) and *C. scutellaris* (fig. 10); dark reddish brown; antennae, scutellar and sutural areas of elytra as well as abdominal apex feebly piceous; with slight fat lustre; covered with short and extremely thin pubescence.

Head weakly convex, moderately projected. Mandible apicis simple. Surface with oval punctures somewhat larger than eye facets,

separated by nearly 2 to 3 puncture diameters, the space between punctures almost smooth, with faint trace of reticulation in basal part of head. Antennae about $\frac{3}{4}$ as long as head broad, their club nearly twice as long as wide.

Pronotum with narrowly explanate sides, its hind margin bordered without interruption. Surface approximately as on head, but more densely punctured (the distance nearly 1 to 2 puncture diameters), with spaces finely reticulated only centrally with trace of reticulation.

Scutellum almost semicircular, with small and sparse punctures and close-meshed reticulation.

Elytra with deep sutural angle and strongly narrowed apicis, their sides moderately narrowly explanate. Subsutural lines visible in distal $\frac{2}{3}$ of elytra. Surface nearly as on pronotum, but punctures larger and reticulation more distinct.

Pygidium widely rounded at apex; its surface with small and dense punctures, space between which distinctly reticulated.

Ventral surface as punctured as pronotum, but on the medial part of metasternum punctures larger, separated by 1 to 2 puncture diameters; the space between punctures conspicuously reticulated, only on prosternal process and metasternum weakened. Mentum longer and narrower than in *C. marmorata* and *C. scutellaris*, nearly $1\frac{1}{6}$ as wide as antennal club long. Prosternal process with indistinct apical border, its most width scarcely less than the length of antennal club. The distance between the middle coxae subequal and the distance between the hind coxae nearly 1.5 times more than prosternal process breadth. Metasternum with short, hardly deepened medial line in distal half, its hind margin between hind coxae almost acutely emarginate. The last abdominal sternite with widely rounded apex. The elytral epipleura more or less horizontal in distal part.

Legs comparatively more dilated than in *C. marmorata* and *C. scutellaris*. Width of all tibiae subequal, somewhat less than one of prosternal process. The most width of fore tarsus as $\frac{2}{3}$ of width of antennal club, middle and hind tarsi somewhat more slender; tarsal claws not toothed at basis.

Genitalia. Ovipositor well-sclerotized with forked apex.

Variations. Length 4.0, breadth 1.8 - 1.9 mm. The paratype is slighter coloured (reddish brown), its elytra with coarser puncturation.

Diagnosis ³⁾. *C. suffusa* sp. n. is extremely similar to *C. sjoestedti* ⁴⁾, but distinct from it by more or less expressed elytral pattern weakly developed, almost inconspicuous pubescence and forked apex of its ovipositor. Moreover, the elytral apicis of *C. suffusa* sp. n. are less prolonged and less acuted. This species differs from all the rest of the *scutellaris*-group species by distinctly forked ovipositor apex, which, besides it, has larger size than that in all species of group, except *C. sjoestedti*. It may be to indicate also the following distinguished characters:

1. from *C. marmorata* ⁵⁾ by larger and more slender body (body sizes of *C. marmorata*: length 2.5-3.8, breadth 1.6-2.1 mm); colouration and pattern on its elytra: very short inconspicuous pubescence and by its larger ovipositor;

2. from *C. scutellaris* ⁶⁾ by larger and more slender body (body sizes of *C. scutellaris*: length 2.3-3.8, breadth 1.2-2.1 mm); features of elytral pattern; more or less longer subsutural lines on elytra; inconspicuous pubescence; more slender antennal club and by its larger ovipositor;

3. from *C. assimilis* sp. n. by more slender body, with more strongly narrowed anterior and posterior parts; type of colouration and elytral pattern; narrower head and its larger ovipositor;

3) The species of *sjoestedti*-group are in many cases badly distinguished. The most of their external characters are strongly variable, but their genital structures are rather similar. The body colouration is sometimes ill-definite or quite light. Therefore the identification of them connects with many difficulties.

4) *C. sjoestedti* is known to the author only after the lectotype (female), designated by S. Endrödy-Younga, with geographical data: Tanzania, Mt. Meru, « Regenwalde », Y. Sjöstedt, NR.

5) *C. marmorata* is known to the author after a specimen, determined by A. Grouvelle, with data: Tanzania, Kilimandjaro, Kibonoto, Kulturz, 22.9.1905-1906, Y. Sjöstedt (NR) and also 1 spec.: Burundi, Múgera, 6-7.1965, J.J. Rwaburezo (MRAC); 2 spec.: Zaïre, Parc de la Garamba, 10-19.8.1950, G. Demoulin (MRAC and ZIN); 1 spec.: ib., 5.10.1950, G. Demoulin (MRAC); 1 spec.: ib., 22.3.1950, H. De Saeger (MRAC); 1 spec., ib., 24.4.1950, G. Demoulin (MRAC); 1 spec., ib., 21.12.1951, H. De Saeger (ZIN); 1 spec.: ib., 29.12.1951, H. De Saeger (MRAC); 1 spec.: Zaïre, Kivu, Lwiro (Chûtes), 2.300 m, 2.1956, J. Hecq (MRAC); 1 spec.: Togo, Atakpame (« Bismarckburg »), 11-16.12.1892, M.L. Conradt (ZIN); 1 spec.: Cameroons, Mt. Cameroons (« Gr. Kamerunberg, Bakassu »), 400 m, 7.11.1910, S.G. Hintz (MHU).

6) Author has examined the lectotype of *C. scutellaris*, designated by S. Endrödy-Younga (Tanzania, Kilimandjaro, 1.700 m, 29.1.1905, C. Schröder, MHU) and also about 60 specimens from Togo, Cameroons, Zaïre, Rwanda, Uganda, Burundi and Tanzania (MRAC, MHU, BM, ZIN and IPK).

4. from *C. gracilis* sp. n. by more slender pronotum, with more narrowed sides towards head basis, type of colouration and pattern as well as by its larger ovipositor.

***Cryptarcha assimilis* Kirejtshuk, sp. n. (figs. 13, 14)**

Material. 2 spec. (holotype ♂ and paratype ♀): Zaïre, Massif du Ruwenzori, Kalonge, 2.060 m, Ruiss. Karambura, affl. Katauleko, 30.1-21.2.1953, P. Vanschuytbroeck & J. Kekenbosch (holotype MRAC and paratype ZIN); 1 spec. (paratype): ib., Kyandolire, 1.750 m, R. Mulaku, affl. Kakalari (terreau), 15.10.1952, P. Vanschuytbroeck & J. Kekenbosch (MRAC); 1 spec. (paratype): ib., Ihongero, 2.480 m. piste vers Mahungu, 28.1.1953, P. Vanschuytbroeck & J. Kekenbosch (MRAC); 1 spec. (paratype): ib., Ihongero (lieu-dit), entre Kalonge et Mahungu, 2.480 m, 1.2.1953, P. Vanschuytbroeck & J. Kekenbosch (MRAC); 1 spec. (paratype): ib., Kalonge 2.210 m, humus sous bambous, 7.8.1952, P. Vanschuytbroeck & J. Kekenbosch (MRAC); 1 spec. (paratype): ib., 2.060 m, gîte Ruwenzori, 26.1.1955, P. Jolivet (MRAC); 1 spec. (paratype): Zaïre, Mubuliba, volc. Nyamuragira, 2.000 m, 14-26.6.1935, G.F. de Witte (ZIN); 1 spec. (paratype): ib., Rweru, volc. Mikeno, 2.400 m, Bambous, 26-27.7.1934, G.F. de Witte (MRAC); 1 spec. (paratype): ib., Kabara Mic., 20-23.7.1934, G.F. de Witte (ZIN); 1 spec. (paratype): ib., Kivu, Mt. Kahuzi, km 40, Rte Kavumu-Walikale, 12.1953, H. Bomans (MRAC); 1 spec. (paratype): ib., Dorsale de Lubero, Mt. Kasongwere, 8.1963, M.J. Célis (ZIN); 1 spec. (paratype): Rwanda, Forêt Rugege, 2.100 m, 3.1951, N. Leleup (MRAC).

This species is very similar to preceding and its many characters are not mentioned in the below description or mentioned only in the diagnosis of it.

Male (holotype). Length 4.3, breadth 2.2, height 1.1 mm. Elongate, moderately convex; slight brown, with yellowish pattern on scutellar parts of elytra, antennæ and legs somewhat sligher; with faint fat lustre; with very thin and inconspicuous yellowish pubescence, not arranged into the longitudinal rows on elytra.

Genitalia. Length of penis trunk feebly surpassed tegmen one.

Female. Sometimes the elytral apicis somewhat, but faintly acute.

Genitalia. Ovipositor as in *C. scutellaris*.

Variations. Length 3.6-5.0, breadth 1.7-2.4 mm. Dorsal surface from dull yellowish with very slight scutellar pattern on elytra to dark brown with contrast yellowish pattern. Pubescence, as a rule, short, sparse and uniform or seldom with sparser, longer and stouter hair between very short and thin ones.

Diagnosis. *C. assimilis* sp. n. has some characters which are strongly similar to *C. scutellaris*, but quite distinct from it only by its larger head. The ratio of pronotal basal breadth of *C. assimilis* to its most head breadth is about 1.37-1.56, at the same time one of *C. scutellaris* is between 1.72-1.89, that is rather more. This ratio of the rest *sjoestedti*-group species as well as *strigata*-group species approximates to that of *C. scutellaris*, but never to *C. assimilis* sp. n. Moreover, it may be also to indicate the following distinguished characters of *C. assimilis*:

1. from *C. marmorata* by larger and more slender body; more contrast elytral pattern; less conspicuous pubescence; less expressed subsutural lines and by its comparatively short penis trunk, length of which is only feebly surpassed tegmen one;

2. from *C. scutellaris* by its larger and somewhat more slender body; features of elytral pattern; less conspicuous pubescence and by its shorter penis trunk;

3. from *C. suffusa* sp. n. by less narrowed anterior and posterior body parts; type of elytral pattern and by its shorter ovipositor with simple apex;

4. from *C. sjoestedti* by less narrowed anterior and posterior body parts; visible pattern on elytra and by its shorter ovipositor;

5. from *C. gracilis* sp. n. by pronotal contour, features of elytral pattern, less conspicuous pubescence and by shorter tegmen.

***Cryptarcha gracilis* Kirejtshuk, sp. n. (figs. 20-25)**

Material. 7 spec. (holotype ♂ and paratypes ♂, ♀): Zaïre, Parc National Albert, Tshamugussa, 8-15.8.1934, G.F. de Witte (holotype MRAC, paratypes MRAC and ZIN); 1 spec. (paratype): ib., Bishoke, 2,800-3,300 m, 13-19.2.1935, G.F. de Witte (MRAC); 1 spec. (paratype): ib., Kivu, terr. Uvira, Hte Luvubu, 2,750 m, humus, 5.1954, N. Leleup (MRAC); 1 spec. (paratype): Uganda, Kigezi Distr., Kanaba Gap, 7,500 ft, taken in *Engleromyces goetzei* growing on Bamboo; 19.9.1934, F.W. Edwards (BM).

Male (holotype). Length 4.0, breadth 1.8, height 1.0 mm. Elongate, moderately convex; dark brown, anterior part of head, antennae and pronotal sides slight brown; scutellar parts of elytra, first antennal segments, abdomen and legs reddish; with faint fat lustre; with dense yellowish (mainly on slight body parts) and black (on dark ones) pubescence and with very sparse stout and long hairs.

Genitalia. Aedeagus comparatively large and well sclerotized.

Female. Secondary sexual characters of elytral apicis rather well expressed.

Genitalia. Ovipositor well sclerotized, nearly as in preceding species.

Variations. Length 3.9-4.1, breadth 1.8-2.3 mm. Among the type-specimens there are 3 distinct forms: 1. as in the holotype (f. **typica**); 2. elytra entirely slight (f. **pallipennis**) and 3. the whole dorsal surface, except pronotal sides and pygidium dark brown (f. **brunneipennis**).

Diagnosis. *C. gracilis* sp. n. bears the great resemblance to *C. scutellaris* and *C. assimilis* sp. n., but distinct from the both as well as the rest *sjoestedti*-group species by larger sizes of its male genitalia. Besides this, it is necessary to enumerate the following characters of *C. gracilis* sp. n. distinguished it from those of others species:

1. from *C. marmorata* by its larger and more slender body; colouration and features of elytral pattern; obtuse hind pronotal angles; longer and narrower antennal club and its secondary sexual of female elytral apicis more expressed;

2. from *C. scutellaris* by larger and more slender body; obtuse hind pronotal angles and by its larger and narrower antennal club;

3. from *C. assimilis* sp. n. by more narrowed anterior and posterior body parts; smaller and narrower head; pronotal contour and more conspicuous pubescence;

4. from *C. sjoestedti* and *C. suffusa* sp. n. by less strongly narrowed anterior and posterior body parts; obtuse pronotal hind angles; features of colouration and pattern; shorter ovipositor and from *C. suffusa* sp. n. also by conspicuous pubescence on dorsal surface.

Cryptarcha flavocunea Kirejtshuk, sp. n. (figs. 26-28)

Material. 1 ♂ (holotype): Zaïre, Mulungu, 2.8.1952, R. Mayné (MRAC).

Male (holotype). Length 6.8, breadth 3.3, height 1.7 mm. Elongate oval, moderately convex; yellow; dorsal surface with black pattern (head, five spots on pronotum and the most parts of elytra, except scutellar areas), anterior part of ventral head surface and antennae dark brown; with slight lustre, without any metallic hue; covered with dense short and fine yellowish pubescence.

Head flattened. Left mandible two-toothed at apex, right one with very long and simple apex. Surface with oval punctures nearly 1.5 times as large as eye facets, separated by about 2 puncture diameters; the space between punctures with strongly smoothed reticulation. Antennae with length somewhat more than a half of head breadth, their club composing approximately $\frac{1}{4}$ of total length, $\frac{2}{3}$ as wide as long.

Pronotum with moderately explanate sides and very narrow basal border. Surface nearly as on head.

Scutellum triangular, with faint punctures and with smoothed close-meshed reticulation.

Elytra with feebly raised shoulders, widely explanate sides and short subsutural lines. Surface nearly as on head and pronotum, but denser punctured and more distinctly reticulated.

Pygidium widely rounded at apex; its surface as on elytra, but punctures less deepened.

Ventral surface nearly as on head and pronotum, but the space between punctures on abdominal sternites distinctly reticulated. Mentum wide, almost twice as wide as antennal club long. The distance between middle coxae almost $1\frac{1}{3}$ as of the most prosternal process width and subequal with one between hind. Prosternal process somewhat wider than antennal club, not bordered at apex. Metasternum flattened in the middle, with medial line in distal $\frac{2}{3}$, its hind margin between hind coxae shallowly arcuately emarginate. The last abdominal sternite weakly sinuated on either side of widely rounded apex. The elytral epipleura horizontal, only very at basis downwardly sloped outside.

Legs moderately narrow and long. The tibiae narrow (fore much narrower); subequal in width with antennal club, slightly enlarged toward apicis, with outer apical angles moderately projected. Fore tarsus nearly $\frac{2}{3}$ as wide as antennal club and twice wider than intermediate and hind tarsi; tarsal claws not toothed at basis, rather long.

Genitalia. Aedeagus feebly sclerotized and slightly dorsoventrally curved.

Diagnosis. *C. flavocunea* sp. n. is probably closely related to the members of the *senegalensis*-group, amongst which it most resembles to *C. signaticollis* Grouv.⁷⁾ (figs. 31-34), but amply distinguished by its slimer and larger body, features of its black pattern on dorsum and by its aedeagus structures, especially by shape of penis apex.

Cryptarcha nigritula Kirejtshuk, sp. n. (figs. 29-30)

Material. 1 ♂ (holotype): Ivory Coast, Bingerville, 1.1964, J. Decelle (MRAC).

In general external appearance this species is extremely similar to *C. marginicollis* Kraatz and *C. signaticollis* Grouv. *C. signaticollis* is quite completely described by A. Grouvelle (1915). That is why it is not of need to describe in detail the most of characters of this new species.

Male (holotype). Length 5.0, breadth 2.7, height 1.3 mm. Upper surface and antennal club pitchy black, with feebly reddish translucency on pronotal edges; lower surface of head, the 1st to 8st antennal segments and propleura brown; the rest lower one, pygidium and legs testaceous (almost yellow); moderately shiny, with strongly conspicuous iridescent hues on elytra; with dense, not long and thin pubescence.

Genitalia. Aedeagus slightly sclerotized.

7) Author did not examine the type series of *C. signaticollis*, but this species is known to him after some specimens received from several sources: 4 spec.: Zaïre, Lulua, Kapanga, 3-5.1933, F.G. Overlaet (MRAC and ZIN); 1 spec.: ib., Kibali-Ituri, Epulu, 4.1956, R. Castelain (MRAC); 1 spec.: ib., Tshuapa, Etata, 2.1969, J. Hauwaerts (MRAC); 1 spec.: ib., Secteur Nord Musingo, 1.350 m, Secteur Kikura, Région Baniangala, 16.7.1954, P. Vanschuytbroeck and H. Synave (ZIN); 2 spec.: ib., Mutsora, 1939, Hackars (MRAC); 1 spec.: Uganda, Ituri Forest, Semliki, 800 m, 9.1972 (ZM).

Diagnosis. *C. nigritula* sp. n. is probably closest to *C. marginicollis* Kraatz⁸⁾ and *C. signaticollis* Grouv., but well characterized by lack of coloured pattern on its dorsum and by its aedeagus structures. In colouration it is in part similar to *C. alluaudi* Grouv. and black variety of *C. maculipennis* Kraatz⁹⁾, but larger than the former and smaller than the latter and having the male genitalia characters quite distinct from that of either of these species.

***Cryptarcha grouvellei* Kirejtshuk, sp. n. (figs. 41-43)**

Material. 1 ♀ (holotype): Equatorial Guinea, Nkolentangan, 11.1907-5.1908, G. Tessmann (MHU), identified by A. Grouvelle as « *Cryptarcha strongylloides* Murr. ».

⁸⁾ Author did not study the type series of the above species. However, treating different unnamed materials, he had found some specimens corresponding to description (Kraatz, 1895). Besides he has revised the specimens, determined by A. Grouvelle and Kuntzen, among which there have been some with labels « *C. marginicollis* » and « *C. basimaculata* ». Comparison of the last mentioned shows attribution of the both forms to the same species. Nevertheless, establishing of synonymy of mentioned specific names needs examination of the type materials of the both. For now the author knows the referred species after the following material: *C. marginicollis*: 1 spec.: Cameroons, Buea, 1-7.3.1912, v. Rothkirch (MHU); 2 spec.: ib., without detailed data, coll. G. Kraatz (IPK); 14 spec.: ib., Yoko, 1.1957, J. Cantaloube (MRAC and ZIN); 1 spec.: ib., Mt. Balmayo, J. Cantaloube (MRAC); 3 spec.: Togo, Atakpame (Bismarckburg), 29.3-22.4.1893, L. Conradt (MHU and ZIN); 4 spec.: Equatorial Guinea, Nkolentangan, 11.1907-5.1908, G. Tessmann (MHU and ZIN); 1 spec.: Westafrika, Uelleburg, 6-8.1908, G. Tessmann (MHU).

⁹⁾ *C. maculipennis* may be conspecific with *C. senegalensis* Reitt. The latter is known to the author after a specimen, determined by A. Grouvelle, with data: « Kamerun, Conradt, coll. Kraatz » (IPK). This species is recorded from the west part of the Central Africa (Senegal, Cameroons, Ghana, Togo, Nigeria, Ivory Coast, Equatorial Guinea and Zaïre; MRAC, MHU, ZIN, ZM).

C. alluaudi is known to the author after the following specimens - 20 spec.: Zaïre, Lulua, Kapanga, 10-11.1932, F.G. Overlaet (MRAC and ZIN); 1 spec.: ib., Kapanga, 8.11.1933, F.G. Overlaet (MRAC); 2 spec.: ib., Lomami, Kamina, 1930-1931, R. Massart (MRAC); 3 spec.: ib., Ituri, Moto, Madyu, L. Burgeon (MRAC and ZIN); 3 spec.: ib., Haut-Uele, Moto, 11.1922-1923, L. Burgeon (MRAC and ZIN); 3 spec.: ib., Haut-Uele, Yebo, Moto, Sora, 3-7.1926, L. Burgeon (MRAC and ZIN); 1 spec.: ib., Haut-Uele, Manda, 27.3.1925, H. Schouteden (MRAC); 2 spec.: ib., Uele, Tukpwo, 6.1953, P. Gérard (MRAC and ZIN); 1 spec.: ib., Parc National de la Garamba, 16.6.1950, G. Demoulin (MRAC); 1 spec.: ib., Parc National de la Garamba, 26.11.1951, H. De Saeger (MRAC); (MRAC); 9 spec.: ib., Parc National de la Garamba, 6-7-8.8.1952, H. De Saeger (MRAC); 1 spec.: ib., Parc National de la Garamba, Pidigala, 23.4.1952, H. De Saeger (MRAC); 1 spec.: ib., Parc National de la Garamba, Aka, 19.5.1952, H. De Saeger (MRAC); 1 spec.: ib., Parc National de la Garamba, P.F.S.K., 10.6.1952, H. De Saeger (MRAC); 9 spec.: ib., Parc National de la Garamba, 6-7-8.8.1952, H. De Saeger (MRAC and ZIN).

Female (holotype). Length 4.6, breadth 2.7, height 1.6 mm. Oval, almost ovoid, strongly convex; dark reddish brown, pronotal disc hardly slighter; prosternum, abdomen, pygidium, legs and the 1st to 8st antennal segments much slighter (reddish brown); moderately shiny; with dense, extremely short and fine pubescence.

Head feebly convex, its labrum hardly ever isolated from frons. Mandible apicis not long and thin. Surface with oval punctures nearly 1.5 times as large as eye facets, separated on the average by a puncture diameter; the space between punctures finely and somewhat absolutely alutaceous. Antennae about $\frac{2}{3}$ as long as head broad; their club composing nearly $\frac{1}{3}$ of total antennal length, approximately $\frac{4}{5}$ as wide as prosternal process; $1\frac{1}{4}$ as long as wide.

Pronotum with unexplanate sides and a narrow border along its basis. Surface nearly as on head, but much diffusely punctated and with the intervals on disc almost smooth.

Scutellum approximately pentagonal, minutely punctated and alutaceous.

Elytra with moderately raised shoulders, subexplanate sides and subsutural lines exposing just before apicis. Surface with punctures almost twice larger than on head and pronotum, separated about by $\frac{1}{3}$ to $\frac{1}{2}$ a puncture diameter, the space between punctures densely and nearly transversally reticulated.

Pygidium almost truncate at apex; its surface about as on head, only the space between punctures densely reticulated.

Ventral surface rather distinctly pubescent; prosternum transversally wrinkled; surface on metasternum and the 1st abdominal sternite nearly as on elytra, but punctures hardly smaller; the rest abdominal sternites as on pygidium. Mentum as in *C. decellei* sp. n. (fig. 47). Prosternal process scarcely dilated towards its emarginate apex. The distance between intermediate coxae subequal with one between hind coxae and somewhat more than prosternal process width. Metasternum flattened, with weakly visible medial line; its hind margin between hind coxae shallowly emarginate. The caudal marginal line of intermediate coxal cavity does not reach the midst of metepisternum. The last abdominal sternite widely rounded at apex. Epipleura downwardly sloped outside.

Legs narrow. Fore tibia almost triangular, nearly twice narrower than prosternal process; intermediate and hind tibiae almost sub-parallelside and slightly curved, scarcely wider than fore. Femora more than 2.5 times as wide as tibiae. Fore tarsus $\frac{2}{3}$ as wide as fore tibia, feebly wider than intermediate and hind tarsi; tarsal claws thin, not toothed at basis.

Genitalia. Ovipositor moderately sclerotized, only its apex deeply pigmented.

Diagnosis. *C. grouvellei* sp. n. is a member of *quadripunctata*-group, but distinguished from *C. quadripunctata* Grouv. (figs. 35-40) by its nearly unicolourous body type of puncturation and reticulation of its surface, also from *C. decellei* sp. n. by shape and size of its body, its colouration and features of its surface. Moreover, *C. grouvellei* sp. n. has a distinct ovipositor.

Notes on position of *quadripunctata*-group.

All the three representatives of this group possess propleura and elytral epipleura strongly downwardly sloped outside or partly sub-explanate, but never explanate, contrary to those of all the african congeners known to the author. Moreover, the considered species have a distinctly expressed trend to reduction of pubescence on dorsum. Thus, the *quadripunctata*-group appears to occupy a rather isolated place amongst its congeners. On the second hand, this group is partly similar by mentioned characters to *Arhina* stat. n. and *Ceratarhina* gen. n. Perhaps, this similarity reflects the phylogenetic relation of these group. It may be better to consider the *quadripunctata*-group as a taxon of subgeneric rank. Nevertheless, this possible separation needs, as the author views, a further clarification.

Cryptarcha decellei Kirejtshuk, sp. n. (figs 44 - 52)

Material. 1 ♂ (holotype): Zaïre, Bambesa, 1938, J. Vrydagh (MRAC). Additional material¹⁰⁾. 1 ♀: Zaïre, Kwango, terr. Feshi, riv. Kwenge, N. Leleup (ZIN); 1 ♀: ib., Gandajika, 2.1959, J. Decelle (MRAC).

¹⁰⁾ The author has supposedly attributed 3 specimens to the same specific taxon. One of these specimens (male: holotype) has smaller and slender body as well as wider femora; two others (females) are larger, more robust and with narrower femora. Besides, the females are distinguished themselves by body colouration and so on. It is not quite evident the considered specimens belong to the same species. That is why the author has not designated them as paratypes.

Male (holotype). Length 2.2, breadth 1.3, height 0.7 mm. Elongate-oval, almost ellipsoidal, strongly convex; brown; ventral surface, antennae and legs somewhat slighter; feebly shiny, with scarcely conspicuous, moderately dense, fine and short pubescence.

Head weakly convex and its anterior margin nearly forming a continuous curve. Mandibles small and simple. Surface with oval punctures, rather larger than eye facets, separated by a half of a puncture diameter; the space between punctures smooth and feebly alutaceous. Antennae about $\frac{3}{4}$ as long as head broad; their club composing nearly $\frac{1}{3}$ of total antennal length.

Pronotum with scarcely raised side borders and without visible basal border. Surface nearly as on head, but with somewhat sparser and larger punctures, the space between which smooth.

Scutellum almost triangular; its surface without conspicuous punctation, but transversally undulately reticulated.

Elytra with well raised shoulders, unexplanate sides and expressed subsutural lines. Surface nearly as on head and pronotum, but the space between punctures very finely reticulated and almost smooth on elytral disc.

Pygidium with widely rounded apex; its surface very densely punctated, almost finely granulate.

Ventral surface with feebly developed pubescence and small punctures, scarcely larger than eye facets, separated by somewhat more than a puncture diameter; the space between punctures smooth. Mentum about 1.5 times as wide as long. Prosternal process widened to its emarginate apex; its most width hardly as in mentum. The distance between intermediate coxae somewhat more than the most width of prosternal process and nearly subequal with one between hind coxae. Metasternum feebly convex in the anterior half, but flattened in the posterior half; its hind margin between hind coxae shallowly emarginate. The last abdominal sternite with truncated apex. Elytral epipleura downwardly sloped outside.

Legs narrow. Tibiae somewhat narrower than antennal club; fore tibia nearly triangular and scarcely narrower than intermediate and hind, which almost subparallelside. Fore tarsus $\frac{2}{3}$ as wide as antennal club; intermediate and hind tarsi twice narrower than fore; tarsal claws thin and moderately long.

Genitalia. Aedeagus strongly sclerotized and slightly dorsoventrally curved.

Variations. 2 females supposedly regarded as *C. decellei* sp. n. are larger than the holotype (specimen from Gandajika: length 3.2, breadth 1.9, height 1.0 mm; specimen from Kwango: 2.8, 1.5, 0.9 mm), more convex and with narrower femora. These specimens are in their turn distinguished by colouration (elytra of specimen from Gandajika with widely slighter of scutellar parts). Besides, the ovipositor of specimen from Gandajika somewhat narrower than that of specimen from Kwango (fig. 52).

Diagnosis. *C. decellei* sp. n. differs from others species of *quadripunctata*-group by its smaller body size, slighter colouration, shape of prosternal process and by its genital structure.

Genus **ARHINA** Murray, 1867, stat. n.

Arhina Murray, 1867, Ann. Mag. Nat. Hist., ser. 3, 19: 178, as a subgenus of the genus *Cryptarcha*.

Type-species: *Cryptarcha (Arhina) strongylloides* Murray, 1867.

Oval, strongly convex; dorsal surface nearly glabrous or with almost inconspicuous pubescence; shiny. Head short, transversal; frons fairly well dilated over insertions of antennae; mandibles simple; antennal club very wide, frequently transversal, the last antennal segment always larger than combined size of 2 preceding segments of club; rather small sensillae densely dispersed on the whole surface of the antennal segments. Pronotal side edges unexplanate, not-bordered or slightly bordered. Propleura almost vertical. Elytral side edges unexplanate, not-bordered or slightly bordered: their epipleura strongly downwardly sloped laterally. Fore mentum corners always projected ahead. Legs short and narrow. Genital structures as male as female comparatively short.

Diagnosis. *Arhina* species are quite isolated from the rest genera of *Cryptarchinae* by their antennal club and type of sensillation on their antennal segments. The representatives of this genus are outwardly similar to *Ceratarhina* gen. n. *tessmanni* sp. n., but differ from it by their wider almost vertical propleura and elytral epipleura, not-completely closed eyes, hardly expressed border on pronotal and ely-

tral side edges. Moreover, *Arhina* species are easily distinguished from partly similar ones of *Eucalospaera* Jelinek, 1978 also by their dilated frons over antennal insertions as well as by their elytral epipleura and not strongly broadened apex of prosternal process.

Considered characters of *Arhina* witness that this taxon stands strongly apart from the genus *Cryptarcha* as well as from others generic taxa of *Cryptarchinae*. Because it is expedient to regard this taxon as a distinct genus, but not a subgenus of the genus *Cryptarcha* as Murray (1876) formulated it.

Subgenus *Arhina* Murray, 1867

Arhina strongyloides Murray, 1867 (figs. 53-61)

Cryptarcha (Arhina) strongyloides Murray, 1867, Ann. Mag. Nat. Hist., ser. 3, 19: 179.

Materia. 1 ♂ (lectotype, designated by Endrödy-Younga): Nigeria, Old Calabar (BM).

This species was described upon 2 specimens. However to present one of them is lost. Only some remains of head (a maxilla, labium and an antennal club are preserved). The alone rest specimen was designated by Dr. S. Endrödy-Younga as the lectotype.

Male (lectotype). Length 3.7, breadth 2.6, height 1.7 mm. Oval, strongly convex; reddish brown, elytra and legs somewhat slighter, antennal club reddish; shiny; with short and fine, almost inconspicuous pubescence.

Head feebly convex, at insertions of antennae subexplanate. The suture between labrum and frons scarcely expressed. Surface with oval punctures considerably larger than eye facets (at anterior margin punctures are becoming smaller), separated by 1 to 2 puncture diameters; the space between them smooth. Antennal length about $\frac{3}{4}$ as head breadth, club composing $\frac{1}{3}$ of total antennal length.

Pronotum with almost ill-defined side borders and without basal one. Surface nearly as on head, but with considerably sparser punctures, separated by 2.5 to 3.5 puncture diameters (at sides punctures are somewhat denser).

Scutellum almost pentagonal, with badly visible puncturation and reticulation.

Elytra with raised shoulders, scarcely conspicuous side borders and without subsutural line. Surface with denser and larger punctures than those on head and pronotum, separated nearly by 1.5 to 2.0 puncture diameters, the space between them smooth.

Pygidium with widely rounded apex; its surface with dense, large and shallow punctures, the space between which smoothly reticulated.

Ventral surface with large oval punctures, separated by 1.5-2.0 puncture diameters (and on the average by 3.0 ones on prosternal process), the space between them smooth or slightly reticulated. Mentum as on fig. 56. Prosternal process feebly broadened to not-bordered apex. Metasternum flattened. The last abdominal sternite with truncated apex.

Legs comparatively short and narrow. fore tibia weakly dilated towards apex, $\frac{2}{3}$ as wide as prosternal process; intermediate and hind tibiae parallelside, somewhat wider than fore. Femora nearly 3 times wider than tibiae. Fore tarsus slightly wider than intermediate and hind and nearly $\frac{1}{3}$ as wide as antennal club; tarsal claws simple, not long.

Genitalia. Aedeagus well sclerotized, tegmen almost right and penis trunk slightly dorsoventrally curved.

Diagnosis. *A. strongylloides* together with *A. punicea* sp. n. and *A. tatjanae* sp. n. form a group closely related species and differ from *A. lucida* sp. n. by their almost round body shape, fairly more shiny dorsum and by not strongly exposed pygidium from under elytra. *A. strongylloides* is distinct from *A. punicea* sp. n. and *A. tatjanae* sp. n. by the characters given in the key of species (see lower).

***Arhina punicea* Kirejtshuk, sp. n. (figs. 62-68)**

Material. 3 ♂ (holotype and paratypes): Cameroons, Douala, J. Cantaloube (holotype and one of paratypes MRAC and the second paratype ZIN); 3 ♂, ♀ (paratypes): ib., Dschang, Dr. Lenesz, determined by S. Endrödy-Younga as *Cryptarcha strongylloides* Murr. (MRAC and ZIN).

Male (holotype). Length 3.2, breadth 2.1, height 1.3 mm. Oval, strongly convex; deep reddish brown (something like garnet); pronotal basis

and sides as well as elytral sides strongly darkened; eyes, legs and antennae slighter (almost reddish); shiny; without conspicuous pubescence.

Head flattened, very short, with almost truncated anterior margin, which is shallowly emarginate at sides of labrum, not projected beyond edges of this emargination. Frons externally from simple mandibles comparatively strongly explanate. Surface with sparse oval punctures somewhat smaller than eye facets separated by 2 to 4 puncture diameters; the space between punctures smooth. Antennae about $\frac{3}{4}$ as long as head broad; their club composing nearly $\frac{1}{3}$ of total antennal length.

Pronotum with scarcely conspicuous side border and without basal one. Surface somewhat sparser punctated than on head; the space between punctures smooth.

Scutellum scarcely exposed from under pronotum; its surface nearly as on head, but the space between punctures alutaceous.

Elytra with feebly raised shoulders, but without distinct side borders and subsutural lines. Surface about as densely punctated as pronotal disc, but with considerably larger punctures, the space between which with traces of reticulation. On each elytron there are 9 scarcely expressed longitudinal furrows arranged with nearly equal distance from one to others.

Pygidium with almost truncate, slightly explanate apex; its surface with shallow punctures subequal with eye facets; separated about by a puncture diameter; the space between punctures slightly reticulated.

Ventral surface similar to that on pygidium, but with somewhat larger punctures (on metasternum and 1st abdominal sternite punctures 2.0 to 2.5 times larger than eye facets); the space between punctures with smoothed reticulation, but the space on prosternal process and metasternum smooth. Mentum as on fig. 65. Prosternal process somewhat narrowed before its excised apex. Metasternum in the distal half widely concave, its hind margin between hind coxae shallowly emarginate. The distance between intermediate as well as one between hind coxae almost as prosternal process wide. The caudal marginal line of intermediate coxal cavity reaches almost the midst of metepisternum and sets widely aside the fore corner of metasternum. The last abdominal sternite widely emarginate.

Legs short. Fore tibia nearly $\frac{3}{4}$ as wide as prosternal process, slightly wider intermediate and hind. Femora about 2.5 times wider than tibiae; $1\frac{1}{3}$ as long as broad. Fore tarsus feebly narrower than fore tibia, $1\frac{1}{3}$ as wide as intermediate and hind tarsi; tarsal claws simple, comparatively thin.

Genitalia. Aedeagus well sclerotized, tegmen almost right and penis slightly dorsoventrally curved. Tegmen nearly as in *A. strongylloides*.

Female. Outwardly without any distinguished character from the male.

Genitalia. Ovipositor moderately sclerotized.

Variations. Length 3.2-3.5, breadth 2.1-2.2 mm. Paratypes' scutellum is more strongly exposed from under pronotum than in the holotype. Certain variability is remarked in colouration of legs.

Diagnosis. *A. punicea* sp. n. is closely related to *A. strongylloides* and *A. tatjanae* sp. n., but quite distinct from the both by the characters given in the key of species (see lower).

***Arhina tatjanae* Kirejtshuk, sp. n. (figs. 69-74)**

Material. 2 ♀ (holotype and paratype): Zaïre, 25 km N Rutshuru, 10.9.1932, L. Burgeon (holotype MRAC and paratype ZIN); 1 ♀ (paratype): ib., Kivu, Ngoma, 10.1932, L. Burgeon (MRAC); 1 ♀ (paratype): ib., Uvira, 12.1932, L. Burgeon (MRAC).

Female (holotype). Length 3.7, breadth 2.6, height 1.2 mm. Oval, strongly convex; testaceous reddish; anterior part of head and pygidium reddish brown; posterior part of head and elytra black; pronotal and elytral sides translucent; shiny; without conspicuous pubescence.

Head feebly convex; strongly transversal, labrum scarcely projected. The suture between frons and labrum slightly visible. Mandibles simple. The surface with oval punctures somewhat larger than eye facets; separated by on the average 1.5 puncture diameters; the space between punctures smooth or slightly alutaceous. Antennae about $\frac{2}{3}$ as long as head broad; their club transversal, with width composing more than $\frac{1}{3}$ of total antennal length.

Pronotum with slightly developed side and basal borders. Surface about as on head, but with somewhat smaller punctures, separated by 2-3 puncture diameters; the space between punctures alutaceous.

Scutellum pentagonal, its surface with very small shallow punctures, the space between which cellularly reticulated.

Elytra with feebly raised shoulders, scarcely visible side borders and without subsutural lines. Surface as punctated as pronotum, but with larger and more shallow punctures, the space between which with traces of transversal undulate reticulation (puncturation is clearly becoming more shallow towards the apicis). On each elytron there are some scarcely expressed longitudinal furrows.

Pygidium with very widely rounded apex; its surface about as on elytral apicis, but more reliefly reticulated.

Ventral surface nearly as on elytral basis but more distinctly reticulated, only the space between punctures on prosternal process and the midst of metasternum with traces of reticulation; punctures on metasternum twice larger than eye facets, but ones on the rest ventral surface considerably smaller. Mentum somewhat narrower than antennal club. Prosternal process weakly dilated to truncated apex. The distance between intermediate as well as one between hind coxae approximately 1.3 times as prosternal process broad. Metasternum widely flattened, with expressed medial suture; its hind margin between hind coxae feebly emarginate. The caudal marginal line of intermediate coxal cavity does not reach the midst of metepisternum and sets widely aside the fore corner of metasternum. The apex of the last abdominal sternite truncated.

Legs short. Fore tibia narrower than a half of antennal club width; intermediate and hind tibiae somewhat wider. Femora more 2.5 times wider than tibiae. Fore tarsus $\frac{2}{3}$ as wide as fore tibia; intermediate and hind tarsi feebly narrower; tarsal claws simple, rather long.

Cenitalia. Ovipositor very short, well sclerotized.

Variations. Length 3.4 - 3.8, breadth 2.3 - 2.6, height 1.1 - 1.2 mm. Certain variability is observed in width of prosternal process. The medial metasternal suture of 2 paratypes are somewhat deepened. Sometimes at sides of apex of the last abdominal sternite there are weakly conspicuous sinuations.

Diagnosis. This species is closely related to preceding species, but differs from them by its colouration, shape of its prosternal process, antennal club, mentum as well as by type of puncturation of its dorsal surface.

Arhina lucida Kirejtshuk, sp. n. (figs. 75-81)

Material. 1 ♂ (holotype): Zaïre, Haut-Uele, Moto, 11.1922, L. Burgeon (MRAC).

Male (holotype). Length 3.8, breadth 2.6, height 1.3 mm. Oval, almost ovoid, strongly convex; brown; scutellar part of elytra, 6th tergite, ventral surface, legs and antennae slighter (reddish brown); feebly shiny; with sparse and thin, scarcely conspicuous golden pubescence.

Head flattened, rather short, its margin over antennal insertions subexplanate. The surface with dense oval punctures somewhat larger than eye facets, separated about by a puncture diameter, the space between punctures smooth or feebly alutaceous. Antennae nearly $\frac{2}{3}$ as long as head broad; their club composing $\frac{1}{3}$ of total antennal length.

Pronotum with scarcely subexplanate and feebly bordered sides and narrowly rounded hind angles. Surface approximately as on head, but sparsely punctured (distance: 1 to 2 puncture diameters) and the space between punctures with traces of reticulation and scarcely visible striae from a puncture to puncture.

Scutellum strongly transverse, its surface about as on pronotum, but with smaller punctures.

Elytra with weakly raised shoulders and without subsutural lines. Its apicis widely separatedly rounded, with wairly well deep sutural angle. Surface approximately as on head, but with punctures twice larger.

Pygidium with nearly transversal apex, its surface as well as a preceding tergite exposed from under elytral apicis, about as on elytra, but more densely punctured and coarsely reticulated.

Ventral surface nearly as on elytra, but distance between punctures on the average by a puncture diameter; the space between them on prosternal process smooth or with reticulate traces, but the rest ventral surface distinctly or somewhat smoothedly reticulated. Mentum as on fig. 78. Prosternal process almost parallelside, with truncated apex and in the middle shallowly acutely excised. The distance between intermediate coxal cavities $\frac{1}{4}$ more and one between hind coxal cavities nearly subequal with prosternal process. Metasternum in the

middle flattened, with dark medial line, its hind margin between hind coxae straight. The caudal marginal line of intermediate coxal cavity reaches the midst of metepisternum and sets widely aside from anterior angle of metasternum. The last abdominal sternite with truncate apex.

Legs short. Tibiae approximately twice narrower, but femora somewhat wider than prosternal process. Fore tarsus about $\frac{2}{3}$, but intermediate and hind tarsi $\frac{1}{2}$ as wide as fore tibia; tarsal claws simple and moderately long.

Genitalia. Aedeagus moderately sclerotized and scarcely dorsoventrally curved.

Diagnosis. *A. lucida* sp. n. is distinguished from others species of the subgen. *Arhina* s. str. by its narrower, almost ovoid body, its colouration, exposed from under elytra its 6th tergite and pygidium, shape of its prosternal process, mentum and comparatively small antennal club as well as genital structures.

Subgenus **Arhinella** Kirejtshuk, subgen. n.

Type-species: *Arhina (Arhinella) congoensis* Kirejtshuk, sp. n.

Oblong, strongly convex, glabrous. Head short, without traces of suture between frons and labrum. Mandible apicis simple, strongly upwardly curved. Pronotum with rounded hind angles, its basis without any sinuation. Prosternal process very narrow. All corresponding coxal cavities drawing together. Propleura and elytral epipleura very wide and almost vertical.

Diagnosis. Type-species of *Arhinella* subgen. n. differs from species of the nominate one by its narrower body, strongly upwardly curved mandible apicis, narrow prosternal process as well as drawn together all corresponding coxal cavities. The mentioned characters are fairly well essential, in virtue of which it may be possible to consider *Arhinella* as a distinct genus. Nevertheless, the closest kinship-relation of the both taxa is quite evident. And in order to emphasize this circumstance and also their assumed recent divergence the author has decided to establish subgeneric status for one of them (subgenus *Arhinella*, subgen. n.).

Arhina congoensis Kirejtshuk, sp. n. (figs. 82-90)

Material. 1 ♂ (holotype): Zaïre, Tshuapa, Etata, 2.8.1969, J. Hauwaerts (MRAC).

Male (holotype). Length 2.6, breadth 1.7, height 1.2 mm. Oval, almost ovoid, very strongly convex; dorsum reddish brown, pronotum basis and elytra fairly well darkened (reddish black), anterior part of head as well as prosternal and elytral side edges translucent, ventral surface and antennae slight brown, only the last antennal segment extremely reddish yellow; glabrous.

Head transversal, very short, feebly convex, trace of suture between frons and labrum not visible. Mandible apicis strongly upwardly curved. Surface with oval, very small and shallow punctures somewhat smaller than eye facets, separated by 4 to 5 puncture diameters; the space between punctures smooth or slightly alutaceous. Antennae about $\frac{3}{4}$ as long as head broad; their club composing approximately $\frac{1}{3}$ of total antennal length.

Pronotum strongly convex; with hind angles widely rounded; in the middle of basis there is a marginal strip limited in front by scarcely visible line. Surface nearly as on head.

Scutellum strongly transversal, its surface as on head and pronotum.

Elytra with moderately raised shoulders and without subsutural lines. Surface with oval punctures somewhat larger than eye facets, separated about by a puncture diameter, the space between punctures with feebly conspicuous reticulation.

Pygidium with transversal apex; its surface with dense, very small and shallow punctures, the space between which almost granulate.

Ventral surface without visible pubescence; the surface of prosternal process, middle part of metasternum and 1st abdominal sternite approximately as on elytra; the surface of prosternum unpunctated; the rest one as on pygidium. Mentum as on fig. 85. Prosternal process very narrow, with almost rounded apex. The distance between intermediate as well as one between hind coxal cavities is hardly surpassed the prosternal process width. The metasternum flattened, its hind margin between hind coxae acutely excised. The caudal marginal line of intermediate coxal cavity almost straight and passes transversally through the axis of body towards metepisternum. The last abdominal sternite with comparatively deep trapezium-like emargination at apex.

Legs short. Fore tibia weakly wider, but intermediate and hind almost twice wider than prosternal process. Femora 3 times as much wider than intermediate and hind tibiae. Fore tarsus somewhat wider, but intermediate and hind subequal with width of prosternal process; tarsal claws simple, moderately long.

Genitalia. Aedeagus deeply sclerotized; tegmen twice dorsoventrally curved, penis trunk only scarcely curved at basis and at apex.

Key to the species of the genus *Arhina* Murray, 1876, stat. n.

1. Smaller and more slender; prosternal process very narrow; all corresponding coxae strongly approached subgenus *Arhinella* n
reddish brown, pronotal basis and elytra darkened (reddish black); dorsal surface glabrous; 2.6 mm; ♂: aedeagus as on figs. 88 - 90. Zaïre *A. congoensis* sp. n
- Larger (more than 3 mm) and more robust; prosternal process moderately wide; all corresponding coxae moderately set apart subgenus *Arhina* s. str. 2
2. Whole pygidium not covered by elytra; combined elytral breadth less than the most pronotal one apex of prosternal process with rounded side angles and a small medial excision at the middle; brownish; with hardly conspicuous golden pubescence; 3.8 mm; ♂: aedeagus as on figs. 80 and 81. Zaïre *A. lucida* sp. n.
- Only the pygidium apex not covered by elytra; combined elytral breadth nearly as the most pronotal one 3
3. Reddish; anterior part of head and pygidium reddish brown; posterior part of head and elytra black; glabrous; prosternal process with truncate apex; 3.4 - 3.8 mm; ♀: ovipositor as on fig. 74. Zaïre *A. tatjanae* sp. n.
- More or less unicoloured reddish brown or with pronotal sides and basis as well as elytral sides reddish black; prosternal process with emarginate apex 4
4. Broader; head longer, somewhat projected in the middle; dorsal surface with denser and larger punctures and hardly conspicuous pubescence; the length of the last antennal segment about as combined one of 2 preceding; anterior angles of men-

tum weakly projected; 3.7 mm; ♂ : metasternum flattened; apex of the last abdominal sternite truncate; aedeagus as on figs. 60 and 61. Nigeria *A. strongylloides* (Murray), 1867), comb. n.

- Narrower; head shorter, with nearly truncate anterior margin; dorsal surface with sparser and smaller punctures and glabrous; the length of the last antennal segment strongly more than combined one of 2 preceding; anterior angles of mentum rather projected; 3.2-3.4 mm; ♂ : metasternum widely concave; apex of the last abdominal sternite widely emarginate; penis as on fig. 67; ♀ : metasternum flattened; ovipositor as on fig. 68. Cameroons *A. punicea* sp. n.

Genus **CERATARHINA** Kirejtshuk, gen. n.

Type-species : *Ceratarhina tessmanni* Kirejtshuk, sp. n.

Oval; strongly convex; with feebly conspicuous pubescence. Head short, without any trace of suture between frons and labrum; frons fairly well dilated over insertions of antennae; their eyes entirely closed by frontal folds; all segments of antennal club with sensillae densely dispersed on the whole surface of them, the last antennal segment only a little larger than each preceding. Pronotum with subexplanate, narrowly bordered side edges, its basis not bordered and with widely rounded hind angles. Elytra without visible subsutural lines and with subexplanate, narrowly bordered side edges. Pygidium of male apex forming a fold which from below limited the apex of the last abdominal sternite. Mentum with anterior side angles rather projected. Suborbital grooves somewhat divergent and only in distal parts hardly convergent. Prosternal process moderately narrow. The caudal marginal line of middle coxal cavity scarcely extending along anterior third of metepisternum. The last abdominal sternite much shorter than pygidium and widely emarginate at apex. Elytral epipleura slightly downwardly sloped outside. Legs moderately short and enlarged; tarsal claws with a weak tooth at basis.

Diagnosis. *Ceratarhina* gen. n. is well characterized by its closed eyes, type of sensillation of its antennal club, toothed tarsal claws and by a fold at apex of its male pygidium. Moreover, *C. tessmanni* sp. n. differs from the species of *Cryptarcha* Shuckard also by shape of its mentum as well as from the representatives of *Arhina* Murray, stat. n. by structures of antennal club and peculiarities of propleura

and elytral epipleura; but from ones of *Glischrochilus* Reitter as well as from endemic neotropical genera of *Cryptarchinae* by its body shape and epipleura downwardly sloped outside. Finally, *C. tessmanni* sp. n. is quite distinct from *Eucalosphæra* Jelinek by its dilated frons over insertions of antennae.

Certain outward similarity of *Ceratarhina* gen. n., *Arhina* Murr., stat. n. and species of *quadripunctata*-group of *Cryptarcha* permits to suppose a phylogenetic relation of them. This similarity looks upon peculiarities of structures of propleura and elytral epipleura, tendency to reduction of pubescence, shortening of head as well as upon shortening of legs. Species of *Arhina* stat. n. and *Ceratarhina tessmanni* sp. n. are too similar by shape of their mentum, lack of pronotal basal border and by features of sensillation of their antennal club. The mentioned circumstances make possible to judge on monophyly of considered groups. However, differences of characters of the species of *Arhina* stat. n. and *Ceratarhina* are rather essential and allow to infer independent raising of them from a common ancestor.

***Ceratarhina tessmanni* Kirejtshuk, sp. n. (figs. 91-97)**

Material. 1 ♂ (holotype)¹¹⁾: Equatorial Guinea, Nkolentangan, 11. 1907-5.1908, G. Tessmann (MHU); with one's determined label « *Cybocephalus* ».

Male (holotype). Length 3.3, breadth 2.2, height 1.3 mm. Oval, rather strongly convex; testaceous; moderately shiny; with hardly conspicuous golden pubescence.

Head weakly convex, bordered along the whole anterior edge, with slight emargination at apex and without any trace of the suture between frons and labrum. Surface without any visible puncturation, but finely and densely alutaceous. Antennae $\frac{2}{3}$ as long as head broad; their club comparatively large, composing a third of total antennal length, the surface of all 3 segments of club with dense sensillae regularly dispersed.

Pronotum with subexplanate, narrowly bordered sides; its surface nearly as on head, but less distinctly alutaceous and with some quite smallest and shallow punctures.

¹¹⁾ The unique specimen of *C. tessmanni* sp. n. is not in sufficiently good condition. By reason of it the author decides to leave the studied specimen without dissection.

Scutellum with bi-emarginate apex, its surface as on head.

Elytra with weakly raised shoulders and without expressed subsutural lines; their lateral edges subexplanate and narrowly bordered. Surface with large and shallow punctures about 2-3 times larger than eye facets, separated by 1 to 2 puncture diameters; the space between punctures distinctly alutaceous.

Pygidium with transversal apex; its surface almost as on pronotum but strongly alutaceous.

Ventral surface with much conspicuous pubescence than that on dorsal; covered mainly with oval, large and shallow punctures, the space between which smoothly reticulated or alutaceous (size of punctures and intervals between them rather ill-defined). Mentum as on fig. 93. Prosternal process comparatively narrow, nearly as wide as fore tibia. The distance between intermediate coxal cavities scarcely more, but one between hind subequal with prosternal process breadth. Metasternum flattened, with medial line, its hind margin between hind coxae arcuately emarginate. The caudal marginal line of intermediate coxal cavity scarcely extending along anterior third of metepisternum. The last abdominal sternite with bi-emarginated truncate apex. The part of pygidium bent under ventral surface with a brush of stout pubescence at apex of the last abdominal sternite.

Legs moderately short. Fore tibia about triangular, nearly as wide as prosternal process, with outer apical angle somewhat projected and pointed. Intermediate and hind tibiae about trapezium-like, as wide as fore. Femora 2.5 times as wide as tibiae. Tarsi comparatively short and wide, their length composing $\frac{2}{3}$ of that of fore tibia; fore tarsus nearly $\frac{3}{4}$ but intermediate and hind somewhat less as wide as tibiae; tarsal claws moderately long, with a small tooth at apex.

Genus **GLISCHROCHILUS** Reitter, 1873

Ips Fabricius, 1776, Gen. Ins.: 23.

Type-species: *Silpha quadripunctata* Linnaeus, 1758 (subsequent designation by Parsons, 1943).

Glischrochilus Reitter, 1873, Verh. naturf. Ver. Brünn, 12: 162.

Type-species: the same as in *Ips* F. (subsequent designation by Parsons, 1943).

The full description, systematic position and subgeneric composition of the genus *Glischrochilus* were discussed in detail by Dr. J. Jelinek (1974, 1975).

Subgenus **Librador** Reitter, 1884

Librador Reitter, 1884, Wien. ent. Zeitung, 3 : 269.

Type-species : *Cryptarcha ipsoides* Reitter, 1879 (subsequent designation by Parsons, 1943).

Cryptarchips Reitter, 1911, Fauna Germanica, 3 : 37.

Type-species : the same as in *Librador* (subsequent designation by Jelinek, 1974).

Cephalips Arrow, 1931, Ann. Mag. nat. Hist., ser. 10, 20 : 101.

Type-species : *Librador egregius* Grouvelle, 1892 (by monotypy).

Africanips Lechanteur, 1959, Bull. Ann. Soc. Roy. ent. Belg., 95, 1-4 : 107; **syn. n.**

Type-species : *Africanips niger* Lechanteur, 1959 (by monotypy).

Note on synonymy :

The type-species of *Africanips* differs quite from all the species of the *Cryparchinae* known from the afrotropical region, except *Glischrochilus (Librador) kuntzeni* sp. n. The both named species are very closely related and form a peculiar group among the african fauna. F. Lechanteur studying only the african *Nitidulidae*, knews one of them (*A. niger*). Not having any synoptical material from other regions, including *Librador* species, for comparison, he proposed « new » genus for this alone form. In fact, *Africanips niger* has not any particular character rather separated from those of species of *Librador*. Comparatively large head of *A. niger* is a feature differing it from the most of representatives of the considered genus, nevertheless, the resembled head occurs among some groups of the Oriental and Australian congeners.

Glischrochilus kuntzeni Kirejtshuk, sp. n. (figs. 98-102)

Material. 6 ♂, ♀ (holotype ♂ and paratypes ♂, ♀): Ethiopia, N Galla, 20.12.1900, v. Erlanger (MHU and ZIN); 1 ♀ (paratype): ib., Addis-Abeba, Galla-Somali, 19.12.1900, v. Erlanger (MHU); all these specimens were studied by H. Kuntzen and labeled by him as « *Cryptarcha excellens* sp. n. ».

Male (holotype). Length 5.7, breadth 2.7, height 1.5 mm. Elongate, moderately convex; black, legs and abdomen testaceous; shiny; dorsum without conspicuous pubescence.

Head flattened, at antennal insertions feebly concave; the suture between labrum and frons distinct. Mandible apicis bi-toothed. Surface with oval punctures 1.5 times larger than eye facets, separated by 1.5 to 2.5 puncture diameters, the space between punctures extremely finely alutaceous. Antennae comparatively short $\frac{2}{3}$ as long as head broad; their 3-segmented club oblong 1 and $\frac{1}{3}$ as long as wide; with most breadth 1.25 times more than one of prosternal process.

Pronotum with widely explanate and narrowly bordered sides as well as with distinct basal border. Surface as on head; but hardly sparser punctured and less alutaceous.

Scutellum with surface almost granulate and unpunctate.

Elytra with well raised shoulders, subsutural lines nearly reached the midst of elytra. Surface about as on head, but punctures considerably larger; towards apicis puncturation weakening and reticulation displaying.

Pygidium with widely rounded apex; its surface approximately as elytral apicis.

Ventral surface with conspicuous greyish pubescence; head and medial parts of thoracic sterna with sparse oval punctures scarcely larger than eye facets, separated by 3 to 4 puncture diameters, the space between punctures alutaceous; the rest ventral surface nearly as on pygidium. Mentum wide and short, 4 times as wide as long and twice wider than prosternal process. The distance between intermediate coxae subequal with one between hind and somewhat more than width of prosternal process. Metasternum flattened, with expressed medial line, its hind margin between hind coxae arcuately emarginate. The caudal marginal line of intermediate coxal cavity almost reaching the midst of metepisternum. The last abdominal sternite emarginate on the both sides of apex.

Legs moderately long and rather narrow. Fore tibia nearly triangular, as wide as antennal club, with outer apical angle strongly projected intermediate and hind tibiae too about triangular, but narrower than fore and with slightly emarginate outer edge. Femora much more than 3 times wider than tibiae. All tarsi long and subequal, $\frac{3}{4}$ as long as fore tibia, their 5 segment as long as 4 preceding together; tarsal claws comparatively large, not toothed at basis.

Genitalia. Aedeagus moderately sclerotized.

Female. Outwardly differs from male only by its widely rounded apex of the last abdominal sternite without any emargination, its smaller head with less raised mandibles.

Genitalia. Ovipositor moderately sclerotized.

Variations. Length 5.4-5.9, breadth 2.5-2.7, height 1.4-1.6 mm. Metasternum of some paratypes slighter than in the holotype.

Diagnosis. *G. kuntzeni* sp. n. and *G. niger* (Lechanteur, 1959), comb. n. are closely related showing an endemic african group of subgenus *Librador*. The new species is quite distinct from *G. niger* by its smaller body size, proportionally smaller head, testaceous colour of its abdomen as well as by its male genital structures¹²⁾. Moreover, the subsutural lines on elytra of *G. niger* are visible almost in distal $\frac{2}{3}$ of elytral length.

Key of the genera of the afrotropical *Cryptarchinae*

1. Dorsum conspicuously pubescent, pronotal and elytral sides more or less distinctly explanate or rarely subexplanate (*quadripunctata*-group) *Cryptarcha* Shuckard, 1839
 (= *Lepiarcha* Sharp, 1891, **syn. n.**;
Cryptarchina Iablokoff-Khnzorian, 1966, **syn. n.**
 - Dorsum glabrous or nearly inconspicuously pubescent 2
2. Elongate; head more projected; pronotal basis strongly bordered; pronotal and elytral sides explanate, glabrous
 *Glischrochilus* Reitter, 1873
 (subgen. *Librador* Reitter, 1884; = *Africanips* Lechanteur, 1959, **syn. n.**
 - More or less oval; head less projected; pronotal basis not-bordered or with very thin border; pronotal and elytral sides subexplanate or not-explanate 3
3. Sides of pronotum and elytra subexplanate; eyes closed by frontal folds; the last antennal segment about as large as each of preceding *Ceratarhina* gen. n.
 - Sides of pronotum and elytra not-explanate, downwardly sloped; eyes not closed by frontal fold; the last antennal segment more than combined size of 2 preceding
 *Arhina* Murray, 1876, stat. n.

12) The author has studied the type specimen of *Glischrochilus (Librador) niger* (Lechanteur), comb. n., genital structures of which has been drawn on figs. 103 and 104.

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Figs. 1)-25. — *Cryptarcha marmorata* Fairmaire (1-9) - ♂ : 1. body shape with contour of pattern; - 2. anterior part of head; - 3. antennal club; - 4. prosternal process; - 5. metasternal hind margin between hind coxae; - 6. tegmen, ventral view; - 7. penis, dorsal view. — ♀ : 8. elytral apicis; - 9. ovipositor, ventral view. *Cryptarcha scutellaris* Grouvelle (10-12) - ♂ : 10. body shape with contour of pattern; - 11. tegmen, ventral view; - 12. penis, dorsal view. - *Cryptarcha ass.milis* sp. n. (13, 14) - ♂ : 13. body shape with contour of pattern. - ♀ : 14. ovipositor, ventral view. - *Cryptarcha suffusa* sp. n. (15-19) - ♀ : 15. body shape with contour of pattern; - 16. anterior part of head; - 17. antennal club; - 18. prosternal process; - 19. ovipositor, ventral view. - *Cryptarcha gracilis* sp. n. (20-25) - ♂ : 20. body shape with contour of pattern of holotype; - 21. antennal club; - 22. prosternal process; - 23. metasternal hind margin between hind coxal cavities; - 24. tegmen, ventral view; - 25. penis, dorsal view.

A: scale to figs. 1, 8, 10, 13, 15, 20.

B: scale to figs. 2, 16.

C: scale to figs. 3-7, 12-14, 17-19, 21-25.

Figs. 26-34. — *Cryptarcha flavocuneata* sp. n. (26-28) - ♂ : 26. body shape with contour of pattern; - 27. tegmen, ventral view; - 28. penis, dorsal view. - *Cryptarcha nigrigula* sp. n. (29, 30) - ♂ : 29. tegmen, ventral view; - 30. penis, dorsal view. - *Cryptarcha signat.collis* Grouvelle (31-34) - ♂ : 31. body shape with contour pattern; - 32. tegmen, ventral view; - 33. penis, dorsal view. - ♀ : 34. ovipositor, ventral view.

A: scale to figs. 26, 31.

B: scale to figs. 27-30, 32-34.

Figs. 35-52. — *Cryptarcha quadripunctata* Grouvelle (35-40) - ♂ : 35. body shape with contour of pattern; - 36. prosternal process; - 37. tegmen, ventral view; - 38. penis, dorsal view; - 39. armature of inner sac of penis. - ♀ : 40. ovipositor, ventral view. - *Cryptarcha decellei* sp. n. (44-52) - ♂ : 44. body shape of the holotype; - 45. anterior part of head; - 46. antennal club; - 47. mentum; - 48. prosternal process; - 49. tegmen, ventral view; - 50. penis, dorsal view. - ♀ : 51. body shape of specimen from Kwango; - 52. ovipositor of the latter, ventral view.

A: scale to figs. 35, 41, 44, 51.

B: scale to figs. 45, 46.

C: scale to figs. 36-40, 42, 43, 47-50.

D: scale to fig. 52.

Figs. 53-68. — *Arhina strongylloides* Murray, comb. n. (53-61) - ♂ : 53. body shape; - 54. anterior part of head; - 55. antennal club; - 56. mentum and ligula with a labial palpus; - 57. maxilla; - 58. prosternal process; - 59. cross section of side of a elytron and abdomen; - 60. tegmen, ventral view; - 61. penis, dorsal view. - *Arhina punicea* sp. n. (62-68) - ♂ : 62. body shape; - 63. anterior part of head; - 64. antennal club; - 65. mentum; - 66. prosternal process; - 67. penis, dorsal view. - ♀ : 68. ovipositor, ventral view.

A: scale to figs. 53, 62.

B: scale to figs. 54, 55, 58, 60, 61, 63, 64-68.

C: scale to figs. 56, 57.

Figs. 69-90. — *Arhina tatjanae* sp. n. (69-74) - ♀ : 69. body shape; - 70. anterior part of head; - 71. antennal club; - 72. mentum; - 73. prosternal process; - 74. ovipositor, ventral view. - *Arhina lucida* sp. n. (75-81) - ♂ : 75. body shape; - 76. anterior part of head; - 77. antennal club; - 78. mentum; - 79. prosternal process; - 80. tegmen, ventral view; - 81. penis, dorsal view. - *Arhina congoensis* sp. n. (82-90) - ♂ : 82. body shape; - 83. anterior part of head; - 84. head, lateral view; - 85. mentum; - 86. antennal club; - 87. prosternal process; - 88. tegmen, ventral view; - 89. idem, lateral view; - 90. penis, dorsal view.

A: scale to figs. 69, 75, 82.

B: scale to figs. 70, 76, 83.

C: scale to figs. 71-73, 77-81, 84, 86, 88-90.

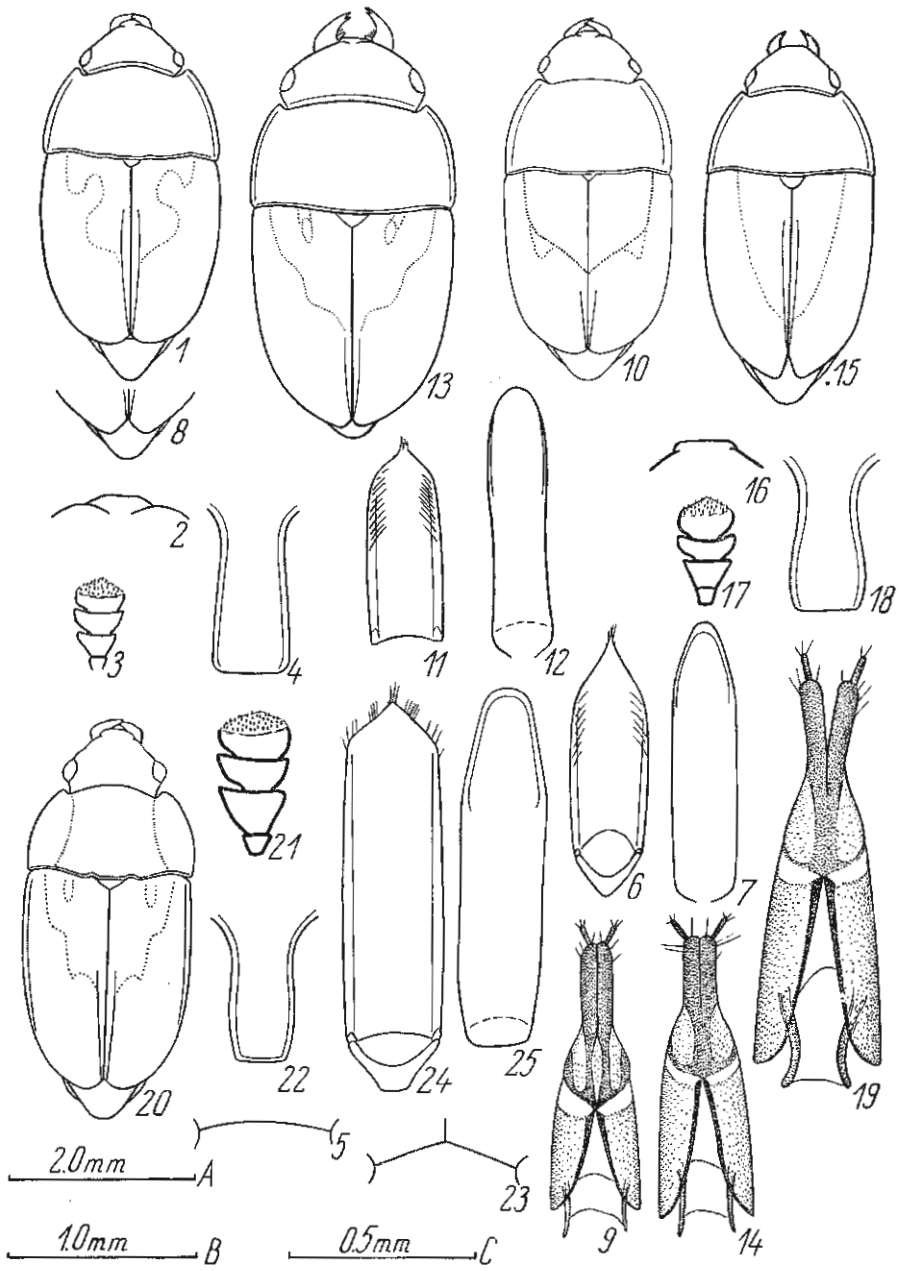
D: scale to figs. 74, 85, 87.

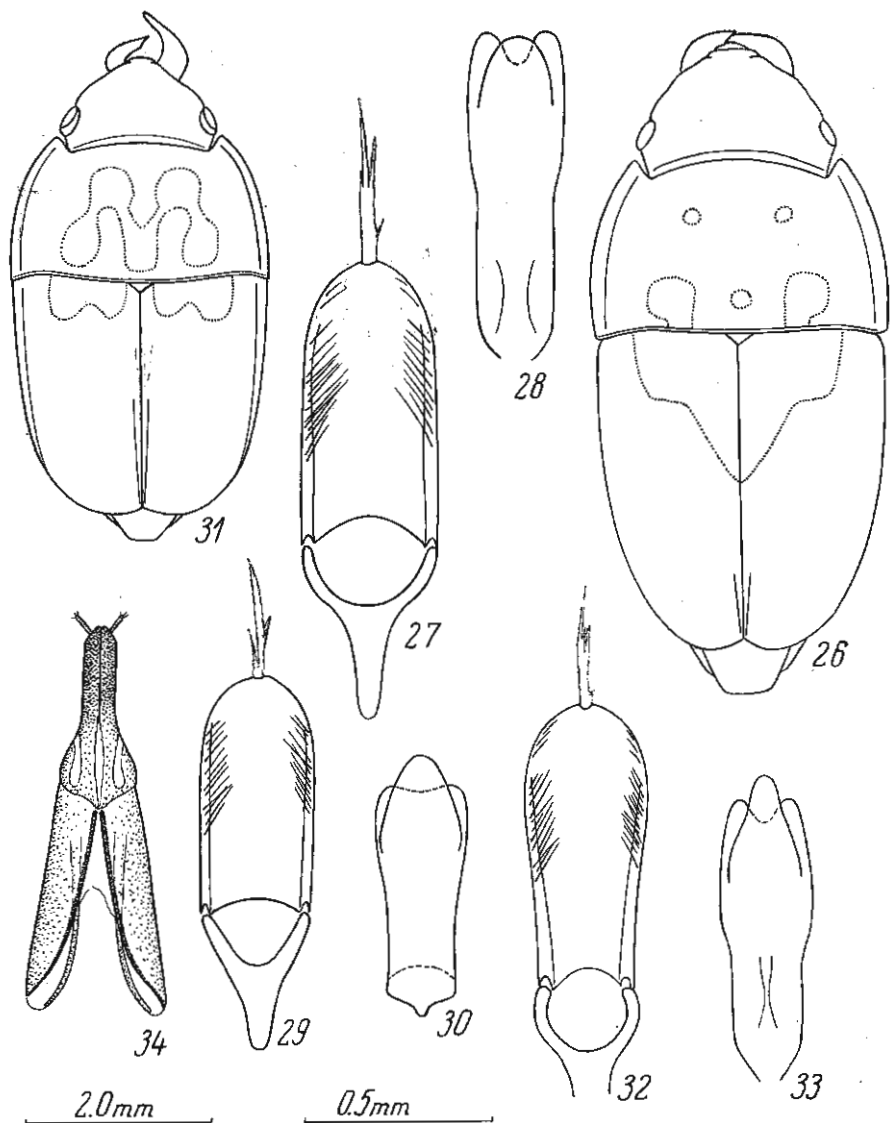
Figs. 91-104. — *Ceratarhina* gen. n. *tessmanni* sp. n. (91-96) - ♂ : 91. body shape; - 92. antennal club; - 93. mentum; - 94. prosternal process; - 95. cross section of elytron; - 96. last abdominal sternite with visible apex of pygidium; - 97. tarsal claw. - *Glischrochilus kuntzeni* sp. n. (98-102) - ♂ : 98. body shape; - 99. prosternal process; - 100. tegmen, ventral view; - 101. penis, dorsal view. - ♀ : 102. ovipositor, ventral view. - *Glischrochilus niger* (Lechanteur), comb. n. (103, 104) - ♂ (holotype): 103. tegmen, ventral view; - 104. penis, dorsal view.

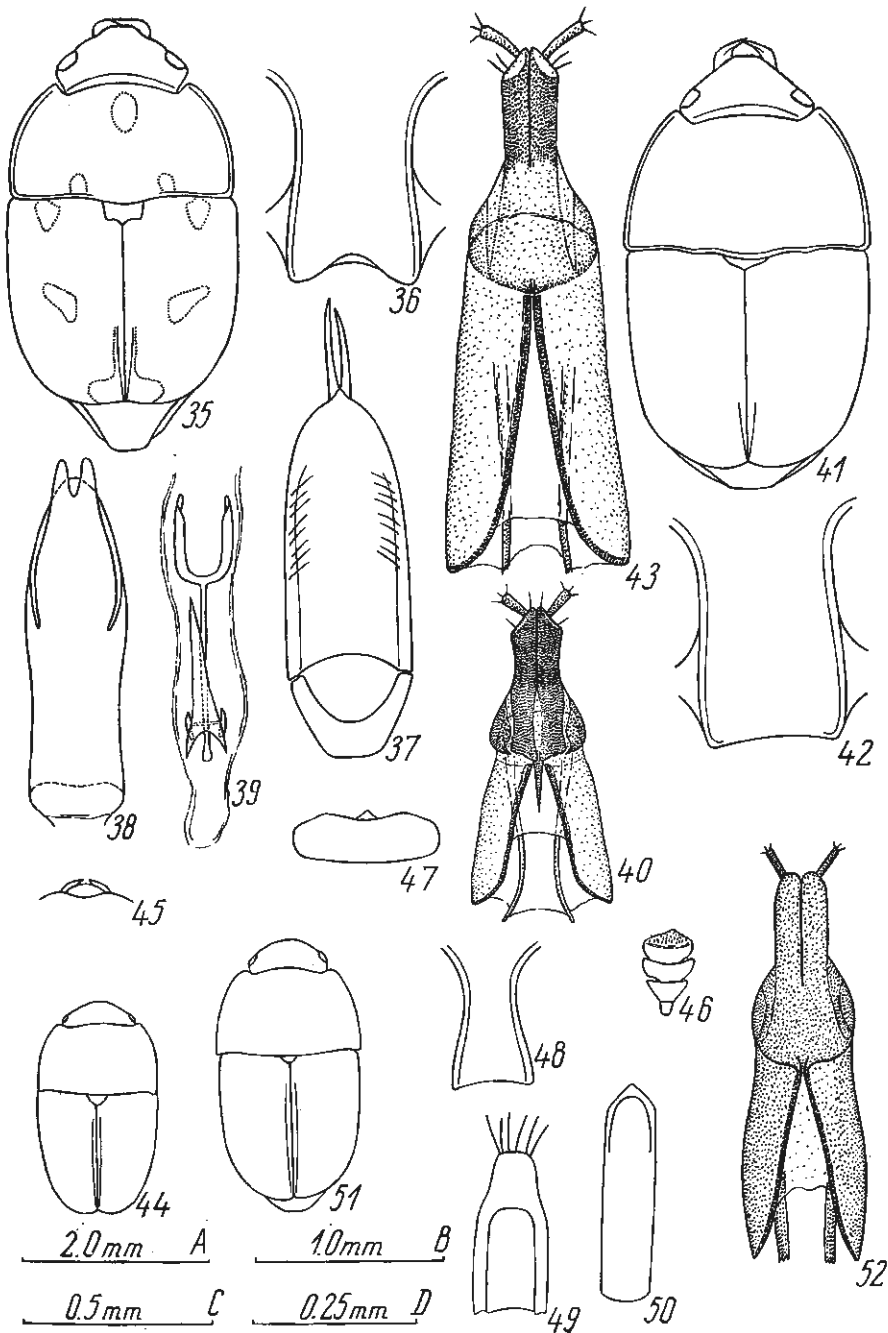
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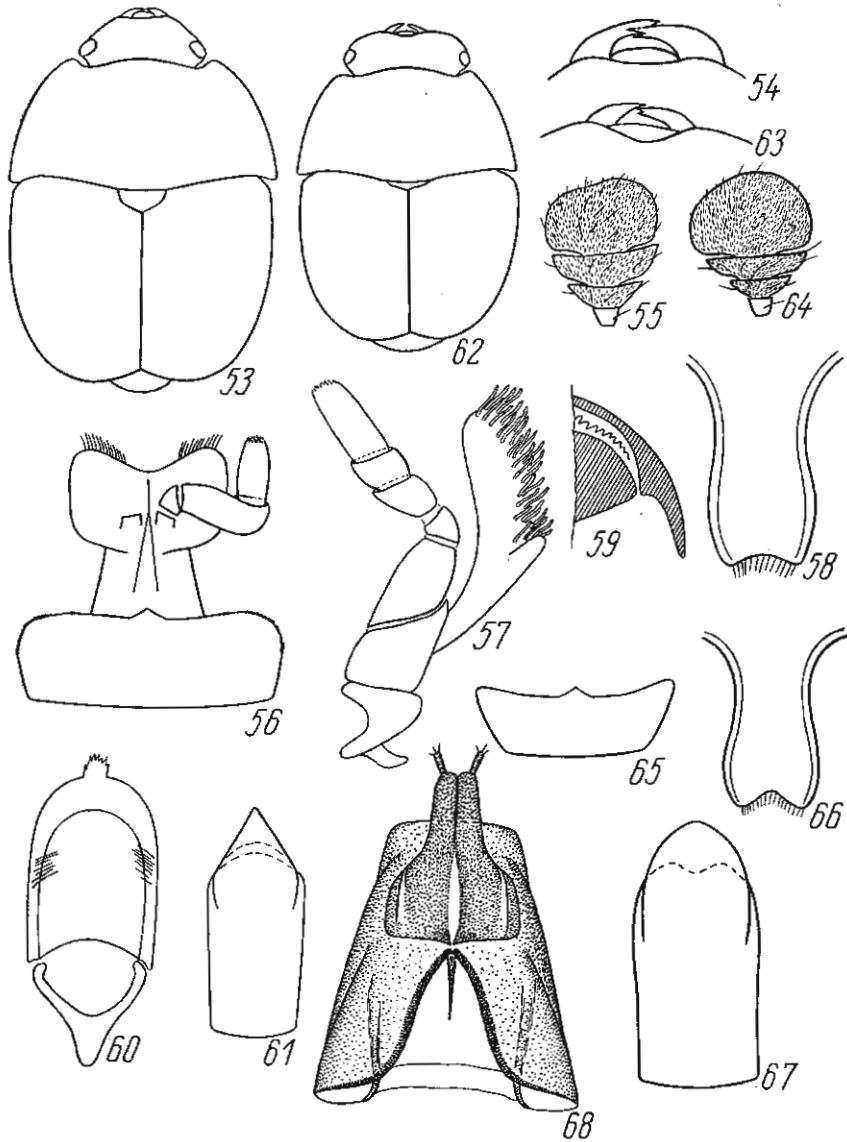
B: scale to fig. 96.

C: scale to figs. 92-94, 98-104.





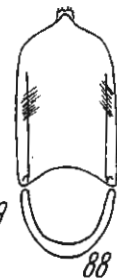
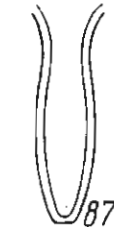
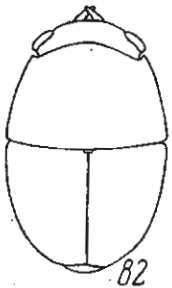
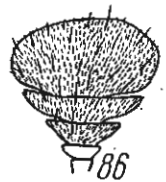
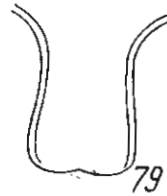
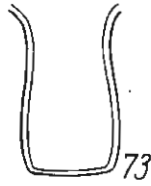
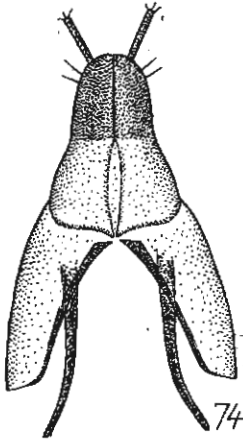
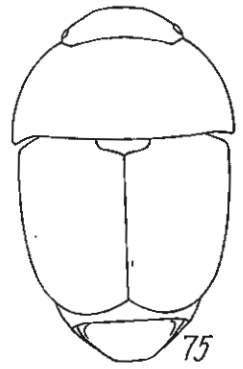
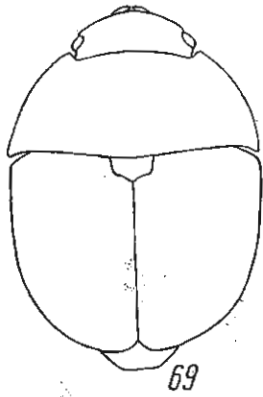




2.0mm A

0.5mm B

0.5mm C



2.0mm

A

0.5mm

B

0.5mm

C

0.25mm

D

