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ON THE GENERA OF ORIENTAL CRYPTORHYNCHINAE
(COLEOPTERA :CURCULIONIDAE)¹⁾

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Abstract

Present paper deals with tribes and genera of the subfamily Cryptorhynchinae of the Oriental region west of the Wallace's line. Tribe Ithyporini auct. and Sophrorhini auct. are combined into Ithyporini of new sense, and a new tribe Mecistocerini is proposed for *Mecistocerus*-allied genera of Sophrorhini auct. *Simulatacalles* is described as a new genus, and six genera are sunk as new synonyms as follows:

Coelosteridius Morimoto, 1962 = *Sybulus* Pascoe, 1871

Cryptorhynchobius Voss, 1965 = *Cryptorhynchus* Illiger, 1807

Deiradocranoides Morimoto, 1962 = *Deiradocranus* Marshall, 1953

Heterocryptorrhynchus Morimoto, 1962 = *Sclerolips* Faust, 1895

Paracryptorrhynchus Morimoto, 1962 = ***Sternochetus*** Pierce, 1917

Sculptosternellum Morimoto, 1962 = ***Rhadinopus*** Faust, 1897

Key to 93 genera is given together with illustrations of 62 species.

The weevils of the subfamily Cryptorhynchinae are characteristic of the well defined pectoral canal and developed unci on tibiae. This taxon was first established by Schönherr (1826) as Divisio Cryptorhynchides, and comprehensive revision of the genera was published by Lacordaire (1866), who classified 77 genera of the " Tribu Cryptorhynchides " into four subtribes by the structures of pectoral canal as follows :

- I. Canal rostral ne dépassant pas les hanches antérieures, ou, dans le cas contraire, non limité en arrière par le mésosternum et n'entamant pas le metasternum.

Ithyporides

- II. Canal rostral entamant le metasternum.

Sophrorhinides

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III. — limité en arrière par le prosternum.

Camptorhinides

IV. — limité en arrière par le mesosternum.

Cryptorhynchides vrais

Lacordaire's system has been generally adopted by many authorities and Hustache (1936) compiled 600 genera and 4529 species in *Coleopterorum Catalogus* after his system.

Heller (1921-38) introduced many fresh characters for discriminating the Oriental genera and suggested a new system combining parts of Lacordaire's Ithyporides and Sophrorhinides into a group and characterized a natural group of the *Mecistocerus*-allied genera.

Present paper was first prepared at the British Museum (Natural History) in 1968, based on the considerable number of species determined mostly by Heller, Marshall, Pascoe and Zimmerman, and accomplished recently after the examination of many specimens from eastern Asia.

In this paper, I combine the tribe Ithyporini and Sophrorhini in the same tribe, Ithyporini of new sense, and propose a new tribe Mecistocerini for the *Mecistocerus*-group of the Sophrorhini auct. as already suggested by Heller (1937).

I wish to offer my sincere thanks to Mr. R. T. Thompson, of the British Museum (Natural History), for his kind help in various ways. I am also much indebted to Dr. K. Ito and Mr. K. Oda, of Government Forest Experiment Station, Tokyo, for their kindness giving me a chance to study in London. Thanks are also due to Prof. Y. Hirashima for his encouragement in the course of the present study.

New taxa, recombinations and synonymies

***Mecistocerini*, tribus nov.**

Sous-Tribu Sophrorhinides Lacordaire, Gen. Col. LXII:81, 1866. (partim)

Sect. Sophrorhinides Champion, Biol. Centr.-Amer. Col. IV (4) : 459, 1905. (partim)

Tribu Sophrorhinini Hustache, Bull. Acad. Malg. VIE : 9, 1924. (partim)

Tribus Sophrorrhini Hustache, Col. Cat. 151, Curculionidae : Cryptorrhynchinae : 71, 1936. (partim)

Mecistocerus verwandten Gattungen, Heller, Arb. morph. taxon. Ent. Dahlem, 4 : 269-270, 1937.

Tribus Sophrorhinini Voss, Decheniana, Beihefte 5 : 50, 51, 1958.

Pectoral canal extending onto metasternum. Postcoxal part of prosternum with lamellae limiting the pectoral canal laterally. Fore coxae distant from middle coxae. Tarsal claws simple.

Sophrorhinus Rouzet (type-species of the genus : *duvernoyi*) has not any lateral lamellae on prosternum behind coxae and lack mesosternal receptacle as shown in fig. 1.

***Simulatacalles* gen. nov.**

Type-species : *Acalles simulator* Roelofs, 1875, from Japan.

Frons between eyes much broader than rostrum. Antennal funicle with seven segments. Scape shorter than funicle and reaching the anterior margin of eye. Pronotum broadest at basal third. Scutellum absent. Elytra with reduced humeri, not wider than pronotum at base, intervals with a row of granules. Ultimate striae absent. Mesosternal receptacle produced ventrally, forming prominent posterior margin of pectoral canal, its posterior wall sharply keeled. Metepisternal sutures visible throughout their length. Metasternum short. Ventricle 1 nearly as long as 2 + 3 + 4, ventrite 2 longer than 2 + 3, ventrite 2 and 3 very short. Femora edentate, not sulcate beneath. Tibiae straight. Tarsal segment 3 bilobed. Claws simple, free.

This new genus is very close to *Acalles* Schönherr, but easily separable from it by the following points:

Acalles: Frons not wider than the base of rostrum. Metepisternal sutures obsolete.

Simulatacalles : Frons much wider than the base of rostrum. Metepisternal sutures visible.

***Simulatacalles simulator* (Roelofs, 1875), comb. nov.**

Acalles simulator Roelofs, Ann. Soc. ent. Belg. XVIII : 160, 1875.

Pseudoporoptychus simulator : Morimoto, Sci. Bull. Fac. Agr., Kyushu Univ. 19 : 352, 1962.

***Deiradocranus* Marshall, 1953**

Publ. Cult. Comp. Diamantes de Angola, 16 : 112.

= *Deiradocranoides* Morimoto, 1962, J. Fac. Agr., Kyushu Univ. 11 : 401. Syn. nov.

I had compared type species of both genera and found some unnamed species from several parts of Africa in the British Museum (Natural History).

***Microcryptorhynchus* Lea, 1908**

This was sunk in *Miocalles* Pascoe, 1883, by Zimmerman, 1957, but they are generically different to each other by the structures of metepisterna. So far as I had examined, *Miocalles notatus* Pascoe seemed to be an only species belonging to this genus and others are apparently species of *Microcryptorhynchus*.

***Sclerolips* Faust, 1895**

Stett. Ent. Zeit., LVI : 220.

= *Heterocryptorhynchus* Morimoto, 1962, J. Fac. Agr., Kyushu Univ. 11 : 392. Syn. nov.

***Sclerolips maculicollis* (Morimoto, 1962), comb. nov.**

Heterocryptorhynchus maculicollis Morimoto, l.c. : 392.

This species is slightly different from the other species of the genus *Sclerolips* by the relative length of ventrites and separately round apices of elytra.

***Cryptorhynchus* Illiger, 1807.**

= *Cryptorhynchobius* Voss, 1965, Reichenbachia, 6 : 90. Syn. nov.

The treaty of the generic name is followed after Kissinger, 1964. *Cryptorhynchus lapathi* Linné, type-species of the genus, has apparently bidentate femora and number of species placed now in this genus need revision.

Sternochetus Pierce, 1917.

= *Paracryptorrhynchus* Morimoto, 1962, J. Fac. Agr., Kyushu Univ. 11 : 397. **Syn. nov.**

Sternochetus navicularis (Roelofs, 1875), **comb. nov.**

Cryptorrhynchus navicularis Roelofs, Ann. Soc. ent. Belg. XVIII : 165, 1875.

Paracryptorrhynchus navicularis Morimoto, 1962, l.c. : 165.

Sybulus Pascoe, 1871.

Coelosteridius Morimoto, 1962, J. Fac. Agr., Kyushu Univ. 11 : 399. **Syn. nov.**

Sybulus nigricollis (Roelofs, 1879), **comb. nov.**

Cryptorrhynchus nigricollis Roelofs, Deut. ent. Zschr. XXII : 298, 1879.

Coelosteridius nigricollis Morimoto, 1962, l.c. : 399.

Rhadinopus Faust, 1897.

= *Sculptosternellum* Morimoto, 1962, J. Fac. Agr., Kyushu Univ. 11 : 398. **Syn. nov.**

Rhadinopus sulcatostriatus (Roelofs, 1875), **comb. nov.**

Coelosternus* (?) *sulcatostriatus Roelofs, Ann. Soc. ent. Belg. XVIII : 168, 1875.

Sculptosternellum sulcatostriatum Morimoto, l.c. : 398.

GENERA NOT INCLUDED IN THE PRESENT PAPER

Acallophilus Faust, 1892.

Ann. Soc. ent. Fr. LXI : 517.

Anchithyrus Pascoe, 1885.

Ann. Mus. Civ. Stor. Nat. Genova 2, II : 257.

Aphanerostethus Voss, 1957.

Treubia, 24 : 28.

Berosiris Pascoe, 1873.

J. Linn. Soc. London, XII : 43.

Blepiarda Pascoe, 1865.

J. Ent. II : 430.

Coelos t ernopsis Voss, 1940.

Tijdschr. Ent. 83 : 28.

Cryptallorhynchus Voss, 1957.

Treubia, 24 : 26.

Cydostethus Pascoe, 1874.

J. Linn. Soc. London, XII : 37.

Cylindrocorynites Heller, 1925

2001. Meded. 8 : 235.

Diphilus Pascoe, 1885.

Ann. Mag. Nat. Hist. (5) XII: 97

Doetes Pascoe, 1871.

J. Linn. Soc. London, XI : 212

Dyspeithes Kirsch, 1877.

Abh. Mus. Dresden, II : 153.

Lepidarcus Marshall, 1948.

Novit. Zool, 42 : 441.

Lochochirodes Heller, 1938.

Ent. Blätt. 34 : 323.

Lochochirus Marshall, 1915.

Trans. 2001. Soc. London, XX (XVI) : 524.

Nechyrus Pascoe, 1871.

J. Linn. Soc. London, XI : 203.

Pasurius Fairmaire, 1889.

Ann. Soc. ent. Fr. (6) IX : 54.

Perichius Pascoe, 1871.

J. Linn. Soc. London, XI : 186.

Pseudoporopterus Lea, 1898.

Proc. Linn. Soc. N. S. Wales, XXII : 186.

Serrotelum Heller, 1938.

Ent. Blätt. 34 : 320.

Sophronopterus Faust, 1892.

Stett. Ent. Zeit. LIII : 214.

KEY TO TRIBES

- 1 : Pectoral canal extending onto the posterior margin of prosternum and enclosed behind *Camptorhinini*
- 1' : Pectoral canal on prosternum open behind 2..
- 2 : Tarsal claws toothed near the base *Cleogonini*
= *Conotrachelini*
- 2' : Tarsal claws simple 3.....
- 3 : Rostrum touching middle coxae in repose 4
- 3' : Rostrum not touching middle coxae, but ending in receptacle on mesosternum *Cryptorhynchini*
- 4 : Postcoxal part of prosternum with lamellae limiting the pectoral canal laterally. Fore coxae distant from middle coxae *Mecistocerini*
- 4' : Postcoxal part of prosternum without lamellae. Fore coxae approximate to middle coxae *Ithyporini*

Tribe *Cleogonini* (fig. 2)

- 1 : Rostrum longer than pronotum. Eyes well separated from prothorax. Pectoral canal confined to anterior part of prosternum *Imathia* Pascoe
= *Amblycnemus* Marshall
- 1' : Rostrum shorter than pronotum. Eyes partly touching or covered by post-ocular lobes of prothorax. Procoxae widely separated 2
- 2 : Mesosternum with lamellae limiting the pectoral canal laterally; the latter reaching metasternum *Maechius* Pascoe

- 2' : Mesosternum without lamellae, mesosternal process slightly sloping ventrad and merging with metasternum in profile viewCatagnatus Roelofs

Tribe Camptorhinini

- 1 : Claws free. Mesosternal process simply declivous Camptorhinus Schönherr
 1' : Claws connate at the base. Mesosternal process flat, in the same plane as metasternum and vertically truncate anteriorly
 Pachyonyx Schönherr (fig. 3)

Tribe Mecistocerini

- 1 : Metasternum shorter than a coxa. Body oval. Scutellum minute, transverse, Pectoral canal reaching close to the posterior margin of metasternum
Praodes Pascoe (fig. 4)
 1' : Metasternum longer than a coxa. Elytra parallel-sided. Scutellum conspicuous. Pectoral canal passing a little beyond the anterior margin of metasternum 2
 2 : Antennal funicle serrate. Femora clavate. Pectoral canal extending slightly beyond the posterior margin of hind coxaeAesychora Pascoe (fig. 5)
 2' : Antennae normal3
 3 : Hind femora not or slightly exceeding apex of elytra, their femoral tooth not behind apex of elytra 4
 3' : Hind femora much exceeding elytra, femoral tooth being beyond apex 8
 4 : Hind femora clavate; their dorso-basal margin bare and glossy 5
 4' : Hind femora not clavate 6
 5 : Receptacle reaching or passing the posterior margin of middle coxae
Mecistocerus Fauvel
 5' : Receptacle reaching the middle of middle coxaeIsotocerus Faust (fig. 6)
 6 : Receptacle reaching beyond the posterior margin of middle coxaeSolenobathys Faust
 6' : Receptacle not reaching the posterior margin of middle coxae
 7 : Antennae inserted before the middle of rostrum. Fore legs much longer than hind, Fore tibiae clothed with long hairs along the ventral margin in male
Parendymia Kirsch (fig. 7)
 7' : Antennae inserted at or behind the middle of rostrum. Fore legs not longer than hind. Fore tibiae not hairyRhadinomerus Faust
 8 : Ventricle 2 shorter than 3+4Sophronopterus Faust
 8' : Ventricle 2 as long as 3+4Diatassa Pascoe

Tribe Ithyporini

- 1 : Antennal scrobes subcontiguous under the base of rostrum 2
 1' : Antennal scrobes separate throughout their length
 2 : Fore coxae approximate or contiguousEctatorhinus Lacordaire (fig. 8)
 2' : Fore coxae widely distantMecocorynus Schönherr (fig. 9)
 3 : Scutellum absent 4
 3' : Scutellum present, often minute 6
 4 : Fore coxae contiguous 5
 4' : Fore coxae narrowly distantAmphialodes Marshall
 =Ypsilepidus Marshall (fig. 10)
 5 : Femora edentate. Post-ocular lobes absent. Prosternum slightly grooved before coxaeProtacallinus Morimoto
 5' : Femora dentate. Post-ocular lobes present. Prosternum deeply canaliculate before coxaeProtacalles Voss

- 6 : Mandibles pointed laterally into a conical process. Pectoral canal terminated by a sharp keel on mesosternumTadius Pascoe (fig. 11)
- 6' : Mandibles not pointed laterally7
- 7 : Funicle 6-segmented 8
- 7' : Funicle 7-segmented 11
- 8 : Mesosternum with lamellae limiting canal laterally. Receptacle forming an acute edge on metasternum. Scutellum tomentoseDeiradocranus Marshall (fig. 12)
= Deiradocranoides Morimoto
- 8' : Mesosternum without lamellae 9
- 9 : Intercoxal process of metasternum steeply declivous between middle coxae, but not forming sharp transverse marginEpria Heller
- 9' : Intercoxal process of metasternum forming an acute transverse edge bordering the posterior margin of canal. Scutellum minute 10
- 10 : Femora dentate Micrapries Heller
- 10' : Femora edentateCatabonops Roelofs (fig. 13)
- 11 : Intercoxal process of mesosternum at least as broad as coxa 12
- 11' : Intercoxal process of mesosternum narrower than middle coxa 14
- 12 : Exterior angle of hind coxa distant from lateral margin of elytra13
- 12' : Exterior angle of hind coxa touching the lateral margin of elytra. Scutellum minute Systaltopezus Faust
- 13 : Scutellum bare. Tarsi slenderBrachycolobodes Heller
- 13' : Scutellum tomentose. Tarsal segment 2 and 3 trapezoidal, transverseColobodellus Heller
- 14 : Scutellum bare 15
- 14' : Scutellum tomentose 25
- 15 : Post-ocular lobes absent 16
- 15' : Post-ocular lobes present 17
- 16 : Antennal insertions terminal. Fore coxae approximateNannocolobodes Heller
- 16' : Antennal insertions median. Fore coxae distantDinapries Heller
- 17 : Antennal insertions terminal, anterior part of scrobes visible from above18
- 17' : Antennal insertions median at least in female, scrobes invisible from above19
- 18 : Metasternum very short, shorter than ventrite 3. Abdominal process broader than a coxa. Elytra oval, humeri reducedAmphialus Pascoe
- 18' : Metasternum longer than ventrite 3. Abdominal process narrower than a coxa. Elytra with rectangular humeriEucolobodes Heller
and Exapries Voss (fig. 14)
- 19 : Pectoral canal extending posteriorly beyond middle of metasternum, the latter between meso- and metacoxa shorter than ventrite 3Cyphomidica Pascoe (fig. 15)
- 19' : Pectoral canal not extending beyond middle of metasternum, the latter between meso- and metacoxa longer than ventrite 3 20
- 20 : Eyes approximate beneath rostrumDystropicus Pascoe (fig. 16)
- 20' : Eyes equidistant above and below rostrum21
- 21 : Hind femora clavate 22
- 21' : Hind femora linear or hardly clavate 23
- 22 : Elytra oval, humeri reduced. Mesosternal process sloping ventrad, its anterior margin not truncateAcallinus Morimoto
- 22' : Elytra with rectangular humeri. Mesosternal process sloping ventrad, its anterior margin sharply truncate and forming short vertical wallColobodes Boheman (fig. 17)
and Thisus Pascoe (fig. 18)
- 23 : Tibiae weakly dilated towards apex, outer margin angulate near basePerrhaebius Pascoe (fig. 19)

- 23' : Tibiae not dilated towards apex24
- 24 : Metasternum steeply declivous between middle coxaePhrygena Pascoe (fig. 20)
- 24' : Metasternum slightly declivous between middle coxaeSolobrachis Desbrochers
- 25 : Tarsal segment 3 not bilobedOcolobodes Heller
- 25' : Tarsal segment 3 bilobed26
- 26 : Post-ocular lobes absent. Intercostal process of metasternum forming an anteriorly produced nodose process between middle coxaeApries Pascoe (fig. 21)
- 26' : Post-ocular lobes present. Metasternal receptacle indistinct or if present, not projecting anteriorly27
- 27 : Metasternal receptacle forming an acute transverse, slightly sinuate edge between middle coxaeParapries Heller
- 27' : Metasternal receptacle not forming a sharp margin28
- 28 : Metasternal receptacle steeply declivous between middle coxaeDeretiosus Pascoe (fig. 22)
- 28' : Metasternal receptacle slightly declivous, passing off into a plane with mesosternumDeretiosomimus Heller

Tribe Cryptorhynchini

KEY TO SUBTRIBES

- 1 : Metasternum short, shorter than ventrite 3. Abdominal process as broad as a coxa. Metepisterna narrow or partly hidden, or metepisternal sutures absent. Elytra with more or less reduced humeri, Scutellum minute or absentTylodina
- 1' : Metasternum longer than ventrite 3. Abdominal process narrower than a coxa. Metepisterna distinct, broader. Elytra often with rectangular humeri. Scutellum present (except *Euscepes*)2
- 2 : Scape of antenna at least as long as funicle and passing beyond eye; antennal insertion terminal in maleMecistostylina
- 2' : Scape shorter than funicle and at most reaching eye3
- 3 : Mesosternal process forming a flat plate on the same level as metasternum, its anterior margin truncate or slightly cavernous. Rostrum straight. Body parallel-sided, simply scaled or pubescent. Hind tibiae often with semienclosed corbels between median carina and outer setose fringeStrongyloptera
- 3' : Mesosternal process cavernous, forming receptacle (excl. *Syrotelus septentrionalis*). Apex of tibiae without distinct corbelsCryptorhynchina

Subtribe Tylodina (fig. 23)

- 1 : Scutellum absent2
- 1' : Scutellum present7
- 2 : Hind femora edentate, not sulcate beneath, extending beyond apex of elytra. Metepisternal suture present. Receptacle very prominent, its posterior margin keeled in the middleTragopus Schönherr (fig. 24)
- 2' : Hind femora not exceeding apex of elytra3
- 3 : Metepisternal sutures obsolete or partly hidden under elytra4
- 3' : Metepisternal sutures visible throughout their length6
- 4 : Femora deeply sulcate beneath. Metasternum with a sharp ridge between meso- and metacoxaeIdotasia Pascoe (fig. 25)
= Trigonopterus Fauvel
= Eurysia Pascoe (fig. 26)
- 4' : Femora not sulcate. Metasternum without ridge5

- 5 : Pectoral canal not extending beyond anterior margin of middle coxa
 **Acalles** Schijnherr (fig. 27)
- 5' : Pectoral canal terminating between middle coxae, distinctly behind their anterior margin. Small species **Microcryptorhynchus** Lea (fig. 28)
- 6 : Frons between eyes as broad as base of rostrum. Ultimate (10th) striae absent. Receptacle prominent, its posterior wall costate **Simulacalles** Morimoto (fig. 29)
- 6' : Frons between eyes narrower than base of rostrum. Ultimate striae present above metepisterna. Receptacle not costate posteriorly **Miocalles** Pascoe (fig. 30)
- 7 : Body rhomboidal. Hind femora broadly expanded and angulate dorsally. Ventrite 1 with a pair of depressions running obliquely from posterior margin of hind coxae **Ampagia** Pascoe (fig. 31)
- 7' : Elytra oval. Hind femora weakly clavate, weakly sulcate beneath, finely dentate. Tibiae irregularly dentate on the dorsal margin; receptacle with a pair of foveae on the bottom **Hyotanzo** Morimoto

Subtribe Strongylopterina (fig. 32)

- 1 : Hind tibiae with semienclosed corbels or excavated at tip
 1' : Hind tibiae simple. Antennal insertions terminal at least in male and visible from above5
- 2 : Head and rostrum broadly depressed at middle on a same plane, the depression covered with long hairs on head in male. Middle tibiae bidentate externally **Polyzelus** Pascoe
- 2' : Head and rostrum convex or flat
 3 : Middle tibiae bidentate externally4
 3' : Middle tibiae not dentate externally **Therebus** Pascoe (fig. 33)
- 4 : Pectoral canal sharply limited laterally with walls, which produced into a dentate or spiniform process in front Oreda White
- 4' : Walls of pectoral canal obtuse and broader, not dentate in front
 **Osseteris** Pascoe (fig. 34)
- 5 : Hind femora slightly extending beyond apex of elytra **Parempleurus** Heller
- 5' : Hind femora not attaining apex of elytra **Agasterocercus** Kôno

Subtribe Mecistostylina (fig. 35)

- 1 : Ventrite 2 much shorter than 3 **Thaumastochirus** Hartmann (fig. 36)
- 1' : Ventrite 2 longer than 32
- 2 : Tarsal segment 3 not bilobed, but weakly notched. Rostrum robust ... **Amalthus** Pascoe
- 2' : Tarsal segment 3 deeply bilobed. Rostrum slender 3
- 3 : Club of antennae elongate, cylindrical, in male shorter than funicle, in female nearly the length of funicle 4
- 3' : Club of antennae small **Protopalus** Schijnherr
- 4 : Suture between ventrite 1 and 2 straight **Endymia** Pascoe (fig. 37)
- 4' : Suture between ventrite 1 and 2 curved in middle **Blepiarda** Pascoe

Subtribe Cryptorhynchini

- 1 : Ventrite 2 subequal to 3 or much shorter than 3+42
- 1' : Ventrite 2 nearly as long as 3+418
- 2 : Scutellum absent; rostrum robust, curved ; pectoral canal not passing anterior margin of middle coxa **Euscepes** Schijnherr (fig. 38)
- 2' : Scutellum present3

- 3 : Rostrum straight, flat. Pectoral canal not reaching anterior margin of middle coxa. Receptacle costate on the posterior wall. Male fore legs longer than the others **Gasterocercus** Laporte et Brulle (fig. 39)
- 3' : Rostrum convex, curved. Pectoral canal passing anterior margin of mesocoxae 5
- 4 : Mesosternum truncate between middle coxae 5
- 4' : Mesosternum arched posteriorly, its apex close to a line between the posterior margins of hind coxae 12
- 5 : Femora edentate, not sulcate beneath, Ventricle 1 behind coxae narrower than 2, suture between ventrite 1 and 2 fine. Receptacle costate on the posterior wall. Pronotum with shallow depressions **Menectetorus** Faust (fig. 40)
- 5' : Femora dentate. Ventricle 1 behind coxa at least as broad as 2, suture between ventrite 1 and 2 deep at least on each side. Pronotum simple
- 6 : Femora bidentate 7
- 6' : Femora unidentate 8
- 7 : Head depressed along the dorsal margin of eyes **Caenocryptorrhynchus** Morimoto
- 7' : Head not depressed above eyes **Cryptorrhynchus** Illiger (fig. 41)
- 8 : Head depressed along the dorsal margin of eyes 9
- 8' : Head not depressed above eyes 10
- 9 : Frons between eyes depressed. Tibiae triangularly expanded dorsally near the base **Rectosternum** Heller (fig. 42)
- 9' : Frons not depressed. Tibiae not expanded near the base, Large weevils with more or less pointed humeri **Eucryptorrhynchus** Heller (fig. 43)
- 10 : Antennal clubs distinctly segmented. Receptacle broader than long, its walls sharp, posterior wall costate. Pronotum with a yellowish ante-scutellar spot. Femora not sulcate beneath **Sclerolips** Faust (fig. 44)
- 10' : Antennal clubs compact, one-segmented. Receptacle at least as long as wide, its inner margin U-shaped. Pronotum without clear-cut ante-scutellar spot 11
- 11' : Tibiae with the inner carina of corbels strongly laminate, with two rows of outer setose fringes. Femora not or weakly sulcate beneath, the sulci covered with scales **Stenochetus** Pierce (fig. 45, 46)
= **Acryptorrhynchus** Heller
= **Paracryptorrhynchus** Morimoto (fig. 47)
- 11' : Tibiae with the inner carina of corbels not laminate, with a row of outer setose fringe. Femora sulcate beneath, the sulci bare Shirahoshizo Morimoto
- 12 : Femora (at least fore femora) bidentate 13
- 12' : Femora unidentate 15
- 13 : Pectoral canal almost touching metasternum. Femora not sulcate beneath **Coelosternechus** Heller (fig. 49)
- 13' : Pectoral canal not touching metasternum. Femora deeply sulcate beneath 14
- 14 : Femoral teeth distant to each other, the inner tooth placed one-third from the base **Sybulus** Pascoe (fig. 50)
= **Coelosternidius** Morimoto
- 14' : Femoral tooth close to each other, the inner tooth median **Zeugeni** a Pascoe (fig. 51)
- 15 : Elytra with reduced humeri. Post-ocular lobes absent **Kirschi** a Heller
- 15' : Elytra with rectangular humeri 16
- 16 : Pronotum with a conical projection on each side **Plococerus** Marshall (fig. 52)
- 16' : Pronotum without projections 17
- 17 : Femora widened and compressed at base, deeply sulcate beneath. Head not sulcate above eyes **Coelosternelum** Heller (fig. 53)
- 17' : Femora linear or clavate, not compressed at base. Head sulcate above eyes. Pronotum broadest at base, strongly punctured **Rhadinopus** Faust (fig. 54)

- = *Sculptosternellum* Morimoto
...here also *Sculptosternum* Heller
- 18 : Hind femora exceeding apex of elytra; femora not sulcate beneath, dentate or edentate. Tibiae compressed *Cyamobolus* Schoenherr (fig. 55)
- 18' : Hind femora not reaching apex of elytra 19
- 19 : Femora sulcate beneath ; if sulci indistinct, femora edentate 20
- 19' : Femora not sulcate beneath, dentate 24
- 20 : Body rhomboidal, convex. Pronotum trapezoidal. Ventricle 2 at most as long as 3+4. Scutellum small, bare 21
- 20' : Body oblong-oval, less convex. Pronotum broadest a little before the base. Ventricle 2 at least as long as 3+4 22
- 21 : Derm densely covered with scales. Ultimate striae of elytra abbreviated above hind coxae. Eyes not grooved dorsally *Neoampagi* a Zimmerman
- 21' : Derm almost bare. Ultimate striae of elytra complete. Eyes grooved dorsally *Rhyssematoides* Morimoto
- 22 : Femora dentate. Conjoint apices elytra pointed. Scutellum bare. Interval 1 of elytra on the same level as 2 at base *Aechmur* a Pascoe (fig. 56)
- 22' : Femora edentate 23
- 23 : Interval 9 of elytra costate at the base, forming outer margin of shoulder and connate to 10 a little behind the base, so that 9 stria does not reaching the base *Orochlesis* Pascoe (fig. 57)
- 23' : Interval 9 of elytra not costate at the base, stria 9 reaches the base *Strattis* Pascoe (fig. 58)
- 24 : Interval 1 of elytra convex behind scutellum; the latter squamose. Rostrum straight 25
- 24' : Interval 1 of elytra on the same level as 2. Scutellum bare or squamose. Rostrum curved 26
- 25 : Elytra strongly produced anteriorly between scutellum and interval 4, apex mucronate *Euthyrhinus* Schönherr (fig. 59)
- 25 : Elytra neither produced anteriorly at base nor mucronate at apex *Cechania* Pascoe (fig. 60)
- 26 : Fore legs much longer than hind in male. Conjoint apices of elytra more or less mucronate 27
- 26' : Fore legs not longer than hind in male. Elytra separately rounded at tip ...
..... *Sclerolips* Faust (fig. 44)
= *Heterocryptorrhynchus* Morimoto ✓
- 27 : Fore tibiae straight, serrate internally. Rostrum closely punctured. Pronotum granulate on each side *Syrotelus* Pascoe (fig. 61)
- 27' : Fore tibiae arched dorsally. Rostrum finely punctured before the antennal insertions. Pronotum not granulate *Odosyllis* Pascoe (fig. 62)

Reference

- Arnett, R. H. 1971 The beetles of the United States. 108 Curculionidae : 971-1028.
- Buchanan, L. L. 1939 Changes of names in Carabidae and Rhynchophora. *Proc. Ent. Soc. Washington* 41 : 79-82.
- Champion, G. C. 1905 Biologia Centrali-Americana. Coleoptera IV (4) Curculionidae : 750 pp, 35 pls.
- Champion, G. C. 1914 The Percy Sladen Trust Expedition to the Indian Ocean in 1905, V (XIX) Coleoptera : Curculionidae. *Trans. Linn. Soc. London*, (2), zool. XVI (4) : 393-497, 3 pls.

- Fairmaire, L. 1889 Coleoptères de l'intérieur de la Chine. *Ann. Soc. ent. Fr.* (6) IX : 5-84.
- Faust, J. 1887 Curculioniden aus dem Amurgebiet. *Deut. ent. Zschr.* XXXI : 161-180.
- Faust, J. 1892 Notizen über Rüsselkäfer. *Stett. ent. Ztg.* LIII : 44-52.
- Faust, J. 1892 Curculioniden aus dem Malayischen Archipel. *Stett. ent. Ztg.* LIII : 184-228.
- Faust, J. 1892 Contribution à la faune indo-chinoise; Curculionidae, Brentidae. *Ann. Soc. ent. Fr.* LXI : 505-522.
- Faust, J. 1894 Viaggio de Leonardo Fea in Birmania e regioni vicine, LX : Curculionidae. *Ann. Mus. Civ. Stor. Nat. Genova* (2) XIV (XXXIV) : 153-370.
- Faust, J. 1895 Sechs neue Curculioniden-Gattungen und ein neuer *Glochiorhinus*. *Stett. ent. Ztg.* LVI : 212-228.
- Faust, J. 1898 Curculioniden aus dem Malayischen und Polynesischen Inselgebiet. II. *Stett. ent. Ztg.* LIX : 140-213.
- Fiedler, C. 1935 Ueber einige mit *Coelosternus* verwandte Gattung mit Neubeschreibungen. *Arb. morph. taxon. Ent. Dahlem* II : 122-143.
- Fiedler, C. 1940 Die Amerikanische Gattung der Subtribe Tylodina der Cryptorrhynchini. *Arb. morph. taxon. Ent. Dahlem* VII : 295-304.
- Heller, K. M. 1901 Neue Käfer von Celebes. IV. *Abh. Zool. Mus. Dresden.* IX (5) : 1-44.
- Heller, K. M. 1904 Beiträge zur Kenntnis der Insektenfauna von Kamerun. no. 27. Rüsselkäfer aus Kamerun gesammelt von Prof. Dr. Yngva Sjöstedt. *Ent. Tidskrift*, XXV : 160-201.
- Heller, K. M. 1908 Neue indomalayische Rüsselkäfer, vorwiegend aus Madras und Borneo. *Stett. ent. Ztg.* LXIX : 122-194, 1 pl.
- Heller, K. M. 1921 New Philippine Coleoptera. *Philip. J. Sci.* 19 (5) : 523-627, 3 pls.
- Heller, K. M. 1925 Rüsselkäfer von Sumatra gesammelt von Herrn J. B. Corporaal. *Zool. Meded.* 8 : 86-134.
- Heller, K. M. 1928 7. Bestimmungsschlüssel aussereuropäischer Käfer. Gattung *Lochochirus*. *Ent. Blätt.* XXIV : 103-111.
- Heller, K. M. 1929 Fauna Burana, Coleoptera : Curculionidae. *Treubia*, Suppl. VII : 105-138, 1 chart, 1 pl.
- Heller, K. M. 1931 H. Sauter's Formosa-Ausbeute (Curculionidae). *Wien. ent. Ztg.* 48 (2) : 96-112.
- Heller, K. M. 1932 Die Gattung *Diatassa* Pascoe und ihre Arten. *Wien. ent. Ztg.* 49 : 106-108.
- Heller, K. M. 1934 New or little known Philippine Coleoptera. *Philip. J. Sci.* 54 : 279-307, 1 pl.
- Heller, K. M. 1935 Résultats des expéditions scientifiques à la Nouvelle Guinée. Coleoptera : Curculionidae. *Nova Guinea* XVII, *Zool.* : 155-201, 1 pl.
- Heller, K. M. 1937 Neue papuanische Rüsselkäfer. *Arb. morph. taxon. Ent. Dahlem* 4 : 257-282, 1 pl. 7 figs.
- Heller, K. M. 1937 Coleoptera Javana, mit Berücksichtigung der ihnen nahestehenden Formen anderer Herkunft. *Stett. ent. Ztg.* 98 : 51-78, 1 pl.
- Heller, K. M. 1938 Indomalaiische, vorwiegend javanische Rüsselkäfer. *Ent. Blätt.* 34 : 313-327.
- Hustache, A. 1924 Synopsis des Curculionides de Madagascar. *Bull. Acad. Malgache (N. S.)* VII : 1-582.
- Hustache, A. 1936 Coleopterorum Catalogus 151, Curculionidae : Cryptorrhynchinae. 317 pp.
- Kissinger, D. G. 1964 Curculionidae of America north of Mexico, A key to the genera. 142 pp.
- Kissinger, D. G. 1964 *Cryptorrhynchus* Illiger, 1807, (Insecta, Coleoptera) : designation under the plenary power of type-species in harmony with accustomed usage. *Bull. 2001. Nom.* 21 : 440-441.
- Kôno, H. 1932 Elf neue Curculioniden aus Japan und Formosa. *Ins. Matsum.* VI : 173-183, 1 pl.

- Lacordaire, J. T. 1866 Genera des Coléoptères. VII. 620 pp.
- Lea, A. M. 1900 Revision of the Australian Curculionidae belonging to the Subfamily Cryptorhynchides. Part IV. *Proc. Linn. Soc. N. S. Wales* XXIV (4) : 522-546.
- Lea, A. M. 1902 l. c. Part V. *Proc. Linn. Soc. N. S. Wales* XXVII (3) : 408-442.
- Lea, A. M. 1907 l. c. Part VIII. *Proc. Linn. Soc. N. S. Wales* XXXI (2) : 400-430.
- Lea, A. M. 1909 l. c. Part IX. *Proc. Linn. Soc. N. S. Wales* XXXIII (4) : 701-732.
- Lea, A. M. 1910 l. c. Part X. *Proc. Linn. Soc. N. S. Wales* XXXIV (4) : 593-635.
- LeConte, J. L. and G. H. Horn 1876 The Rhynchophora of America north of Mexico. *Proc. Amer. Phil. Soc.* 15 (no. 96) : 1-455.
- Marshall, G. A. K. 1915 Report on the Coleoptera collected by the British Ornithologist's Union Expedition and the Wollaston Expedition in Dutch New Guinea. Curculionidae. *Trans. Zool. Soc. London* XX (XVI) : 509-533, 1 pl.
- Marshall, G. A. K. 1923 On new species of Curculionidae from India. *Ann. Mag. Nat. Hist.* (9) XII : 281-300.
- Marshall, G. A. K. 1948 Entomological results from the Swedish expedition 1934 to Burma and British India. Coleoptera : Curculionidae. *Novit. Zool.* 42 : 397-473.
- Marshall, G. A. K. 1953 On a collection of Curculionidae from Angola. *Publ. Cult. Comp. de Diamantes de Angola* No. 16 : 99-119.
- Meyer, P. 1896 Bestimmungstabellen der europäischen Coleopteren, 35. Curculionidae. IV. Cryptorrhynchini. 56 pp.
- Morimoto, K. 1962 Descriptions of a new subfamily, new genera and species of the family Curculionidae of Japan. *J. Fac. Agr., Kyushu Univ.* 11 (4) : 375-409.
- Morimoto, K. 1962 Key to families, subfamilies, tribes and genera of the Superfamily Curculionoidea of Japan excluding Scolytidae and Cossoninae. *J. Fac. Agr., Kyushu Univ.* 12 (1) : 21-66.
- Morimoto, K. 1962 Taxonomic revision of weevils injurious to forestry in Japan. I. Bull. Gou. Forest Exp. Sta. 135 : 35-46, 2pls.
- Pascoe, F. P. 1865 On some new genera of Curculionidae. Part I. *J. Ent.* II : 413-432, 1 pl.
- Pascoe, F. P. 1870-76 Contributions towards a knowledge of the Curculionidae. *J. Linn. Soc. Zool.* X : 434-493, 3 pls, 1870 ; XI : 154-218, 4 pls., 440-492, 1873; XII : 1-99, 4 pls., 1876.
- Pascoe, F. P. 1882 On new species of Curculionidae from Ceylon. *Ann. Mag. Nat. Hist.* (5) XI : 121-130.
- Pascoe, F. P. 1885 List of the Curculionidae of the Malay Archipelago collected by Dr. Odoardo Beccari, L. M. D'Albertis, and others. *Ann. Mus. Civ. Stor. Genova* (2) II : 201-331, 3 pls.
- Pascoe, F. P. 1885 Descriptions of some new genera and species of Curculionidae, mostly Asiatic. III. *Ann. Mag. Nat. Hist.* (5) III : 88-101.
- Reitter, E. 1913 Bestimmungsschlüssel für die Unterfamilien, Tribus und Gattungen der europäischen Curculioniden. *Verh. Nat. Ver. Brunn* 51 : 1-96.
- Roelofs, W. 1875 Curculionides recueillis au Japon par M. G. Lewis (3^e). *Ann. Soc. ent. Belg.* XVIII : 149-193, 2 pls.
- Roelofs, W. 1875 Curculionides recueillis par M. J. van Volxem au Japon et en Chine. *Ann. Soc. ent. Belg.* XVIII. *Compt. Rend.* : cxxviii-cxxxv.
- Schönherr, C. J. 1826 Curculionidum dispositio methodica. ... 338 pp.
- Schönherr, C. J. 1837 Genera et species Curculionidum. IV (I) : 1-600.
- Schönherr, C. J. 1845 l. c. VIII (2) : 1-504.
- Voss, E. 1940 Ueber Rüsselkäfer der indomalayischen Subregion, vorwiegend von Java. Teil I. *Tijdschr. Ent.* 83 : 17-93.
- Voss, E. 1958 Ein Beitrag zur Kenntniss der Curculioniden in Grenzgebiet der orientalischen zur paläarktischen Region. Decheniana, Beihefte 5, 139 pp.
- Voss, E. 1965 Zur Nomenklatur der Gattungen *Cryptorrhynchus* Ill., *Ceuthorrhynchus* Germ. und *Coeliodes* Schönh. *Reichenbachia* 6 : 89-91.

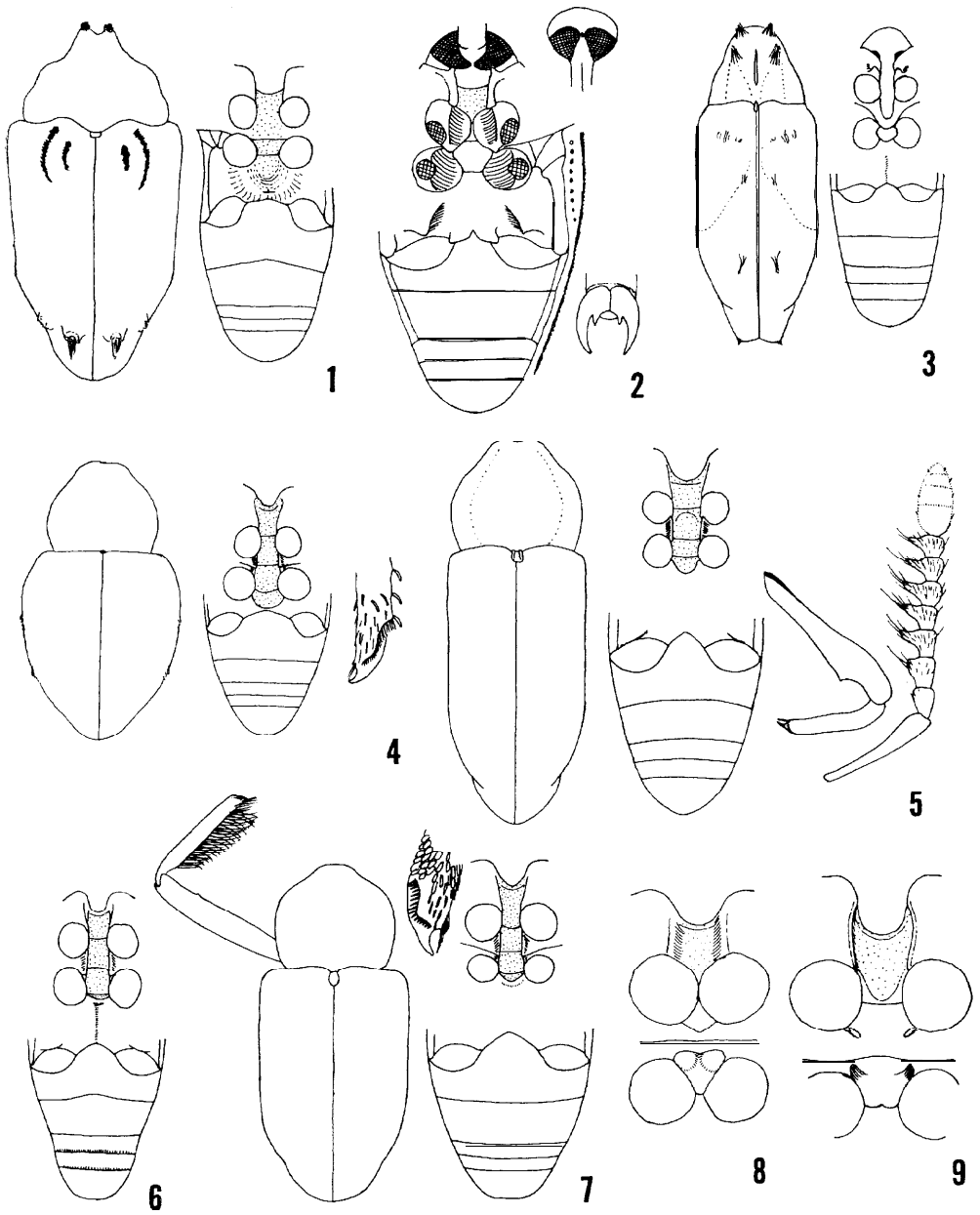
- Warner, R. E. 1956 Nomenclature of *Sternochetus mangiferae* (F.), the mango weevil. *Ent. News* 67 : 246-247.
- Zimmerman, E. C. 1936 Revision of the genus *Orochlesis*. *Occ. Pap. Bishop Mus.* XII : 3-19.
- Zimmerman, E. C. 1941 A revision of the genus *Deretiosus*. *Occ. Pap. Bishop. Mus.* XVI (8) : 177-214.
- Zimmerman, E. C. 1942 Curculionidae of Guam. *B. P. Bishop Mus. Bull.* 172 : 73-146, 7 pls.
- Zimmerman, E. C. 1957 *Miocalles* and *Microcryptorhynchus*. *Col. Bull.* XI : 79-94.
- Zimmerman, E. C. 1967 *Imathia* and *Amblycnemus*. *Pacific Ins.* 9 : 187-196.

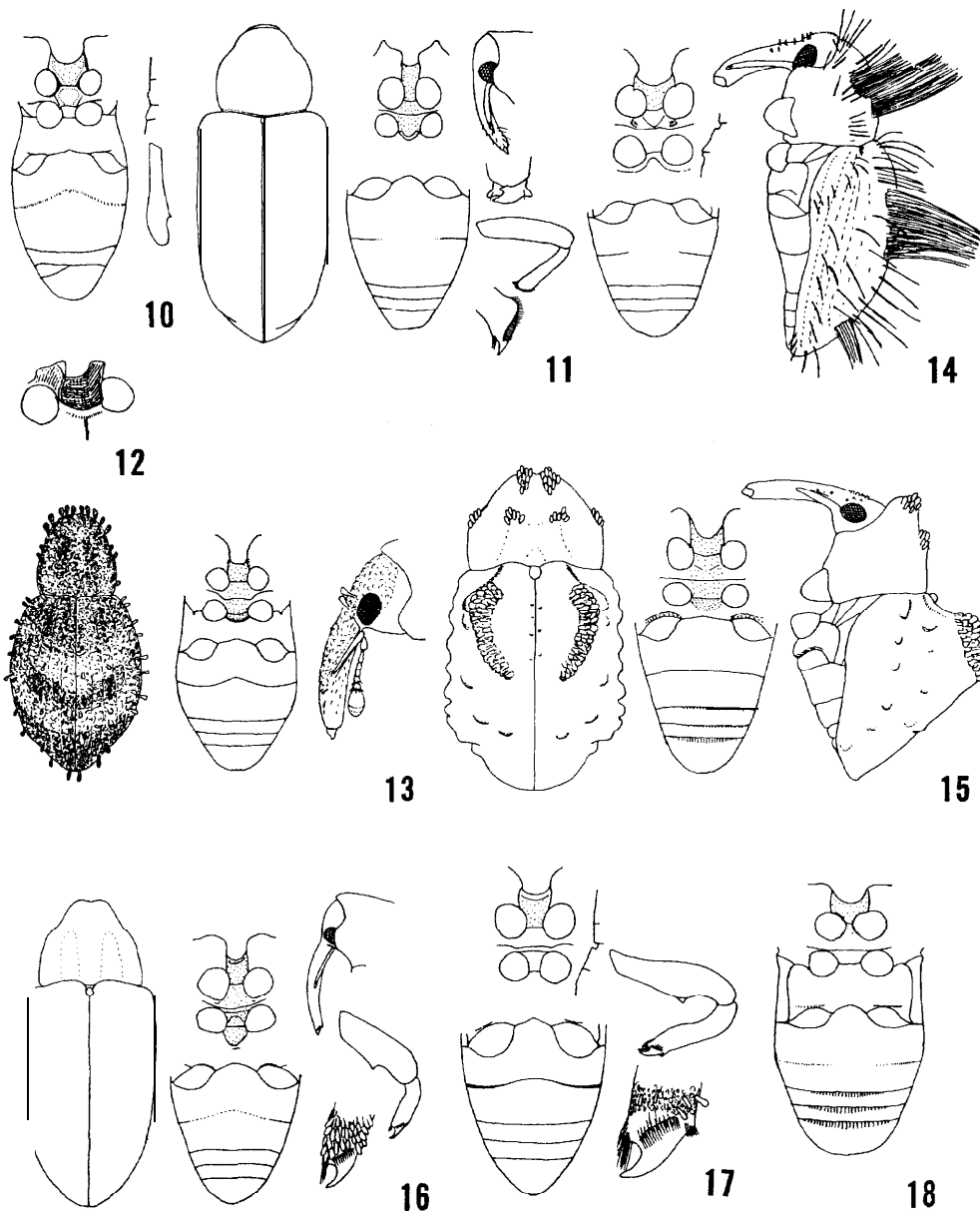
Explanation of figures

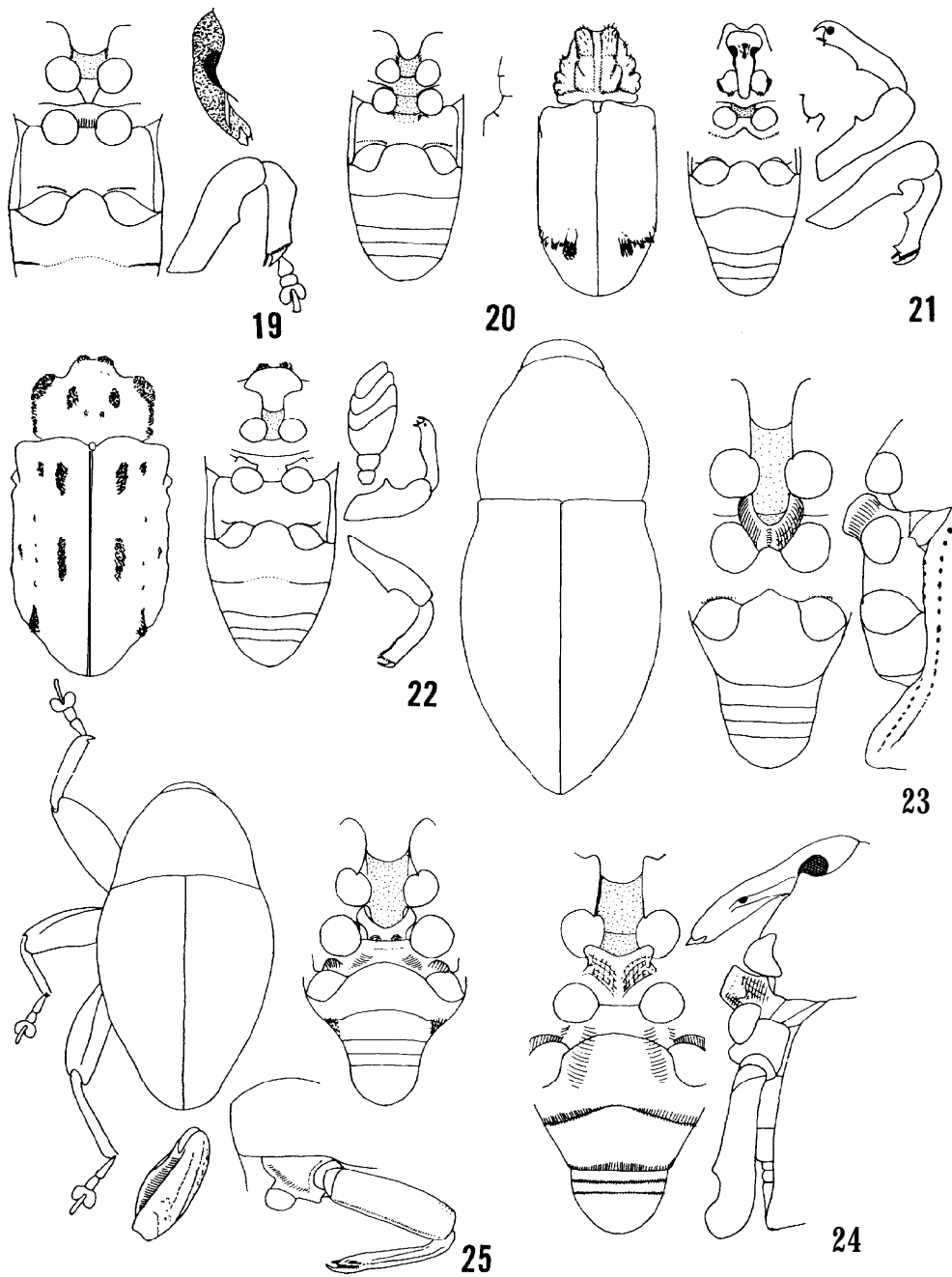
Unless otherwise stated in parenthesis, every sketch comprises dorsal or ventral aspects of weevil, front leg, hind leg, apex of tibia, longitudinal section of pectoral canal, meso-sternal receptacle, or lateral pieces of meso- and metasternum.

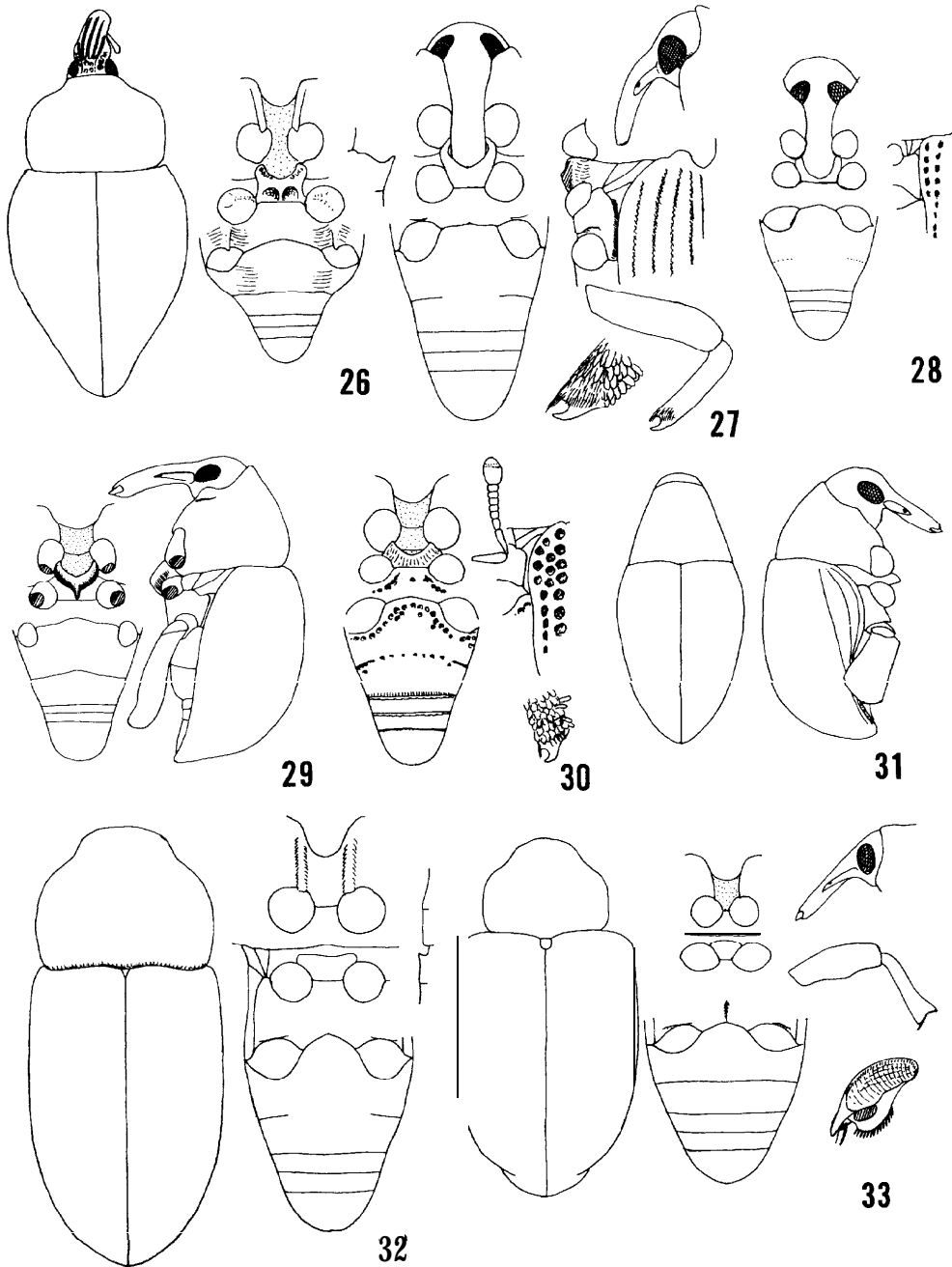
1. *Sophrorhinus duvernoyi* Rouzet, Gold Coast.
2. *Cleogonus rubetra* Fabricius, Mexico.
3. *Pachyonyx affaber* Boheman, S. Africa.
4. *Praodes acalloides* Pascoe, Type, Java.
5. *Aesychora notaticollis* Pascoe, Type, Sarawak.
6. *Isotocerus tenuipes* Faust, New Guinea.
7. *Parendymia pilipes* Kirsch, male, Solomon.
8. *Ectatorhinus wallacei* Lacordaire, W. Sumatra.
9. *Mecocorynus westermanni* Boheman, Uganda.
10. *Ypsilepidus thisoides* Marshall, Cotype. (Abdomen abnormal)
11. *Tadius erirrhinoides* Pascoe, Type, Celebes.
12. *Deiradocranus latebris* Marshall, Type, Angola. (Mesosternal receptacle)
13. *Catabonops monachus* Roelofs, Type, Japan.
14. *Exaprieslophonotus* Marshall, Type, Sandakan.
15. *Cyphomidica megacalles* Heller, Cotype, Nilgiri Hill.
16. *Dystropicus squalidus* Pascoe, Type, New Guinea.
17. *Colobodes billbergi* Schönherr, Ceylon.
18. *Thisus biguttatus* Pascoe, Medan.
19. *Perrhaebius ephippiger* Pascoe, Type, Dorey.
20. *Phrygena ephippiata* Pascoe, Ceylon.
21. *Aprieseremita* Pascoe, Batchian.
22. *Deretiosus aridus* Pascoe, Ceram.
23. *Tylodes armadillo* Sahlberg, Brazil.
24. *Tragopus asper* Schönherr, Java.
25. *Idotasia nasuta* Pascoe, Morty. (Front femur showing sulcur)
26. *Eurysia fulvicornis* Pascoe, Type, Celebes.
27. *Acalles camelus* Fabricius, Germany.
28. *Microcryptorhynchus pygmaeus* Lea, Cotype, King Is., Tasmania.
29. *Simulatacalles simulator* Roelofs, Japan.
30. *Miocalles notatus* Pascoe, Mysol.
31. *Ampagia erinacea* Pascoe, Type, S. W. Australia.
32. *Strongylopterus ovatus* Boheman. Brazil.
33. *Therebuscepuroides* Pascoe, Type, Western Australia. (Corbel of hind leg)
34. *Osseteriscutellaris* Pascoe, Type, Dorey. (Middle tibia, hind leg and corbel)
35. *Mecistostylus douli* Lacordaire, New Zealand.
36. *Thaumastochirus javanus* Hartmann, Cotype, Java.

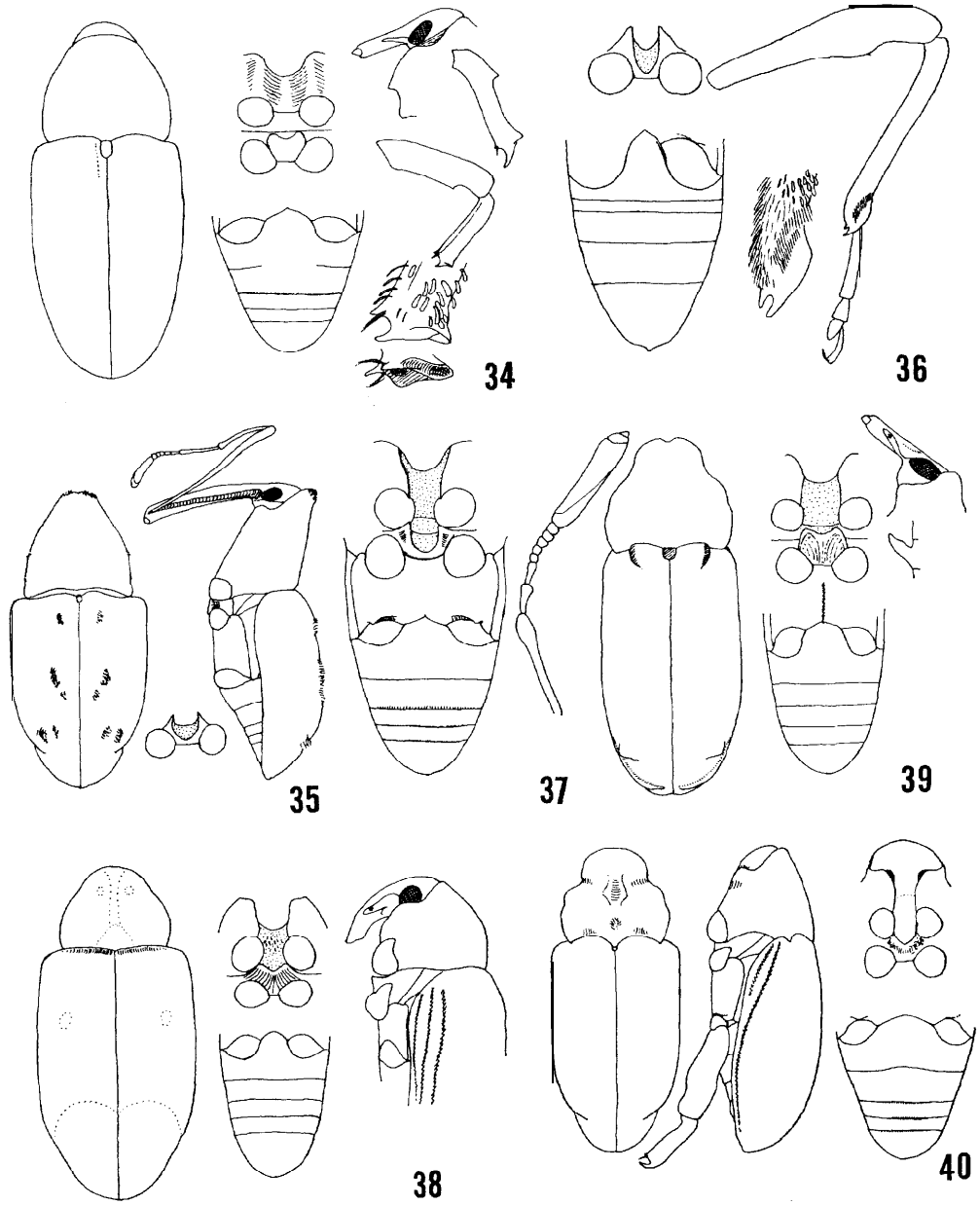
37. *Endymia vipio* Pascoe, Type, Dorey.
38. **Euscepes** *porcellus* Boheman, N. America.
39. *Gasterocercus depressirostris* Fabricius, France.
40. **Pseudapris** *foveicollis* Lea, Australia.
41. *Cryptorhynchus lapathi* Linné, Reading
42. **Rectosternum** *poricolle* Faust, Birma.
43. *Eucryptorrhynchus scrobiculatus* Motschulsky, N. China.
44. *Sclerolips ochrodiscus* Heller, N. Luzon.
45. **Sternochetus** *frigidus* Fabricius, Perak.
46. **Sternochetus** *mangiferae* Fabricius, India. (Apex of hind tibia)
47. *Paracryptorrhynchus navicularis* Roelofs, Japan. (Apex of hind tibia)
48. **Shirahoshizo** *rufescens* Roelofs, Japan. (Apex of hind tibia)
49. *Coelosternechus javanus* Heller, Malaya.
50. *Sybulus peccuarius* Pascoe, Type, Batchian.
51. *Zeugenia histrio* Pascoe, Type, Sarawak.
52. *Plococerus denticollis* Marshall, Pusa, Bengal.
53. *Coelosternulum femorale* Heller, Type, Java.
54. **Rhadinopus** *centriniformis* Faust, Burma.
55. **Cyamobolus** *dehaani* Mannerheim, Java.
56. *Aechmura emys* Pascoe, Type, Singapore. (front and hind femora showing sulcus)
57. *Orochlesis annularis* Pascoe, New Guinea.
58. **Strattis** *biguttatus* Pascoe, Ceylon.
59. **Euthyrhinus** *meditabundus* Fabricius, N. Queensland.
60. **Cechania** *eremita* Pascoe, Type, Nagasaki.
61. *Syrotelus falleni* Boheman, male, Java. (Mesepisternum, front tibia)
62. *Odosyllus congesta* Pascoe, Type, Tondano.

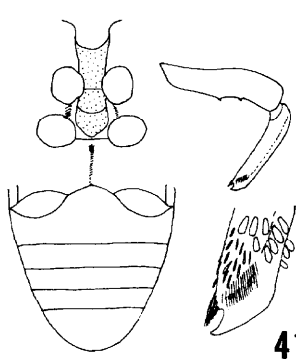




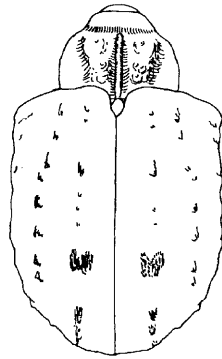




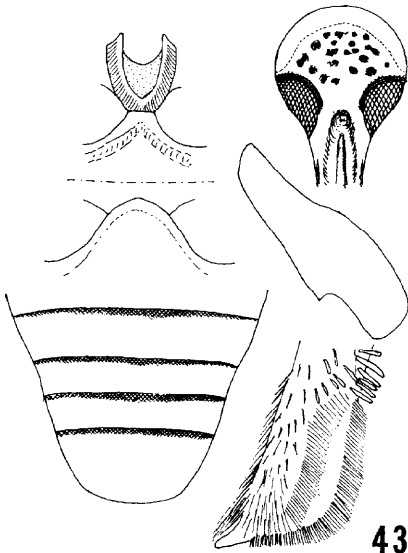




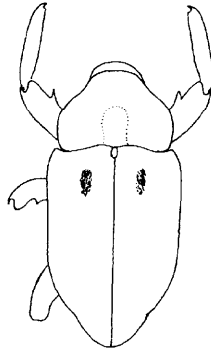
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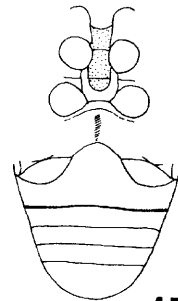
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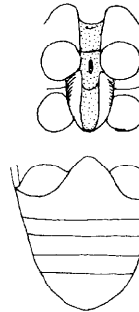
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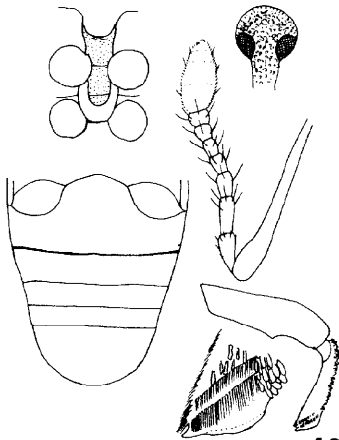
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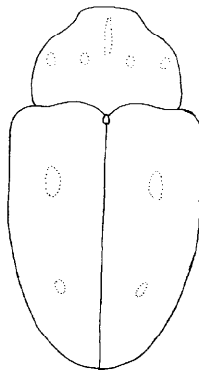
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