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# THE GENERA AND SUBGENERA OF LEIODID $\notin$ AND CLAMBID ${ }^{1}$ 

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The preparation by the author of the portion on Leiodidæ and Clambidæ of the Junk-Schenkling Coleopterorum Catalogus made it desirable to establish a sequence for the genera of those families. The following key, compiled from the literature, is presented as exhibiting the basis of that sequence. A similar key to the species of Colenis Er. is appended at the end of the key to genera.

## Leiodides

$A^{1}$. With eyes; tarsi three to five segmented; abdomen six ( $\hat{o}$ ) or five segmented ( $~ \& ~) ~ . ~$
$B^{1}$ Head without antennal groove beneath; tibiæ without longitudinal dorsal carina; anterior tarsi without spines; body usually not contractile
$\mathrm{C}^{1}$. Metatarsi five segmented.
$\mathrm{D}^{1}$. Antennal club five segmented.
$\mathrm{E}^{1}$. Head short; clypeus small, feebly emarginate; pronotum transverse; tarsi 5-5-5; Holarctic, Oriental, Chili.

Hydnobius Schm.
$\mathrm{E}^{2}$. Head very prominent; clypeus distinct, deeply emarginate with four strong setæ; pronotum oval or oboval; Australia, Panama

Dietta Sharp.
$D^{2}$. Antennal club three segmented.
$\mathrm{E}^{1}$. Tibiæ slender, not strongly spinulate; Holarctic.
Triarthron Märkel.
$\mathrm{E}^{2}$. Tibiæ dilated, strongly spinulate; Madeira................ Stereus Woll.
${ }^{1}$ Contribution from the Zoölogical Laboratory of the University of W ashington.

## $\mathrm{C}^{2}$. Metatarsi with less than five segments. <br> $\mathrm{D}^{1}$. Tarsi 5-5-4. <br> $\mathrm{E}^{1}$. Antennal club five segmented. <br> $F^{1}$. Pronotum not or feebly margined at base; protibia with moderately elongate spurs at apex, the outer edge with or without a tooth at extreme apex, not emarginate (Anisotoma Schm., Err., Lacord., Lec., Seidl., Horn, Leng, etc.-Liodes Reitt., Ganglb., etc.)...... Leiodes Latr. <br> G1. Mesosternum not carinate; Nev., Cal. (type L. ecarinata Horn) <br> $\qquad$ subg. Ecarinosphaerula nov. <br> $G^{2}$. Mesosternum feebly carinate, the carina terminating at the anterior margin of the mesosternum. <br> $\mathrm{H}^{1}$. Interstrial rows of punctures feeble; Holarctic, Cent. Amer. sub. Leiodes s. str. <br> $\mathrm{H}^{2}$. Interstrial rows of punctures as distinct as the strial rows; Europe....................subg. Pseudohydnobius Ganglb.

$\mathrm{G}^{3}$. Mesosternum strongly carinate; metasternum short.
${ }^{1}$. Hind margin of pronotum feebly arcuate, its hind angles broadly rounded; wingless; Holarctic.
subg. Oreosphaerula Ganglb.
$\mathrm{H}^{2}$. Hind margin of pronotum more nearly straight.
$I^{1}$. Outer apical angle of $\hat{\delta}$ metatibia with a heel-like tooth; Europe................subg. Trichosphaerula Fleisch.
$I^{2}$. Outer apical angle of $\hat{\delta}$ metatibia with a small tooth; all elytral striæ the same; Palearctic.
subg. Oosphaerula Ganglb.
$\mathrm{F}^{2}$. Pronotum completely margined at base; protibia with long spurs at apex, the outer edge strongly emarginate towards apex forming a lobe-like tooth at a distance of from one third to one half the distance from the apical end; Palaearctic

Chobautiella Reitt.
$\mathrm{E}^{2}$. Antennal club four segmented ; Nearctic, Cape of Good Hope.
Anogdus Lec.
$\mathrm{E}^{3}$. Antennal club three segmented.
Fi. Elytra not transversely strigose; mesosternum not carinate;
Cent. Europe ...................................... Xanthosphaera Fairm.*
Xanthosphaera Fairm.*
$F^{2}$. Elytra transversely strigose; mesosternum narrowly carinate; Cent. Africa

Hypoliodes Port.
$\mathrm{D}^{2}$. Tarsi 5-4-4; elytra striate.
E $^{1}$. Elytra not transversely strigose; antennal club five segmented with eighth segment narrower than seventh.
F1. Elytral striæ not impressed, except sutural, but represented by rows of punctures; New York........Cainosternum Notman $F^{2}$. Elytral striæ obsolete except sutural; Sikkim, Java.

Liocolenis Port.**
$\mathrm{E}^{2}$. Elytra transversely strigose.
$\mathrm{F}^{1}$. Eighth segment of antenna not smaller than seventh; antennal club six segmented.
G1. Elytra with punctate striæ; intervals punctate; Japan.
Pseudocolenis Port.
$G^{2}$. Elytra without striæ other than sutural; Himalayas.
Liodinella Port.
$\mathrm{F}^{2}$. Eighth segment of antenna smaller than seventh; antennal club five segmented; Holarctic, Oriental, New Caledonia, Cent. Amer. (Colensia Fauv.-Pseudoliodes Port.-Pseudocolenis Champ. nec. Reitt.)

Colenis Er.
$D^{3}$. Tarsi 4-4-5.
$\mathrm{E}^{1}$. Antennal club six segmented; Sikkim............................. Delios Port.
$\mathrm{E}^{2}$. Antennal club three segmented; Siberia........Deltocnemis Sahlbg. D4. Tarsi 4-3-3; antennal club 5-segmented; Europe.

Agaricophagus Schm.
B2. Head with antennal groove beneath; except in Cyrtusa Er. the tibiæ
with two longitudinal dorsal carinæ and the anterior tibiæ spinose; body more or less contractile.

AGATHIDIINI $\mathrm{C}^{1}$. Head small; tempora short.
$D^{1}$. Antennal club five segmented.
$\mathrm{E}^{1}$. Second segment of club not smaller than first; elytra without striæ ; meso- and metatibiæ not spinose without; Japan.

Sphaeroliodes Port.
$\mathrm{E}^{2}$. Second segment of club smaller than first; meso- and metatibiæ spinose without.
$\mathrm{F}^{1}$. Tarsi $5-5-4$ or $5-4-4$.
G ${ }^{1}$. Elytra densely punctate; striæ present or absent; four proximal $\hat{o}$ pro- and mesotarsomeres strongly dilated; tarsi 5-5-4 ( 人 ) , 5-4-4 (ㅇ) .
$\mathrm{H}^{1}$. Labrum truncate; clypeus with frontal suture; Holarctic, Tasmania, Argentina (Leiodes Schm., Er.-Liodes Lacord., Lec., Seidl., Horn, Leng, etc.).

Anisotoma Ill.
$\mathrm{H}^{2}$. Labrum arcuate; clypeus without frontal suture; Indiana $\qquad$ Stetholiodes Fall.
$\mathrm{G}^{2}$. Elytra not or feebly punctate; striæ present or absent; $\hat{o}$ protarsomeres feebly dilated; $\hat{o}$ mesotarsomeres not dilated; tarsi 5-5-4-; Japan ..................................
$\mathrm{F}^{2}$. Tarsi 4-4-3-; procoxacavæ open behind; Cent. Amer.
Creagrophorus Matth.

[^0]$D^{2}$. Antennal club four segmented.
$\mathrm{E}^{1}$. Antennæ eleven segmented; without striæ.
$F^{1}$. Eyes not forming a sharp angle with tempora; Europe.
Liodopria Reitt.
$\mathrm{F}^{2}$. Eyes forming a sharp angle with tempora; Europe.
Amphicyllis Er.
Cyrtusa Er.
$\mathrm{E}^{2}$. Antennæ ten segmented; Cosmopolitan.
$D^{3}$. Antennal club three segmented.
$\mathrm{E}^{1}$. Antennæ eleven segmented; eyes forming a sharp angle with
tempora; Palaearctic.............................................cyrtoplastus Reitt.
$\mathrm{E}^{2}$. Antennæ ten segmented.
F ${ }^{1}$. Mesocoxæ narrowly separated; Mich., D. C.
Isoplastus Horn
$\mathrm{F}^{2}$. Mesocoxæ widely separated; Zanzibar...............Isoplastinus Port. $\mathrm{C}^{2}$. Head larger; tempora longer.
$D^{1}$. Eighth antennal segment scarcely narrower than seventh; tarsi 5-5-4 ( ô), 5-4-4 or 4-4-4 ( ㅇ) ; antennal club three segmented

Agathidium Ill. $\mathrm{E}^{1}$. Pronotum and elytra not evidently pubescent.
$\mathrm{F}^{1}$. Humeri obsolete; body completely contractile; Oriental, Holarctic, Cent. Amer. (Cyphoceble Thoms. 1862).
subg. Agathidium s. str.
$\mathrm{F}^{2}$. Humeri evident, blunt; body incompletely contractile.
$\mathrm{G}^{1}$. Head behind eyes indistinctly narrowed; Palaearctic. subg. Neoceble Gozis.
$\mathrm{G}^{2}$. Head behind eyes with evident tempora, thence narrowed;
Palaearctic. (Agathidium s. str. Thoms. 1862.—Sacco-
ceble Gozis.).......................................subg. Cyphoceble Thoms.
$\mathrm{E}^{2}$. Dorsum evidently pubescent; Maritime Alps.
subg. Chatoceble Deville
$D^{2}$. Eighth antennal segment narrower than seventh; antennal club five segmented.
$\mathrm{E}^{1}$. Tarsi 5-5-5 ( $\hat{0}$ ) ; India $\quad .$.

E ${ }^{3}$. Tarsi 4-3-3 ( $\widehat{\circ}$ ) , $3-3-3$ ( 오) ; N. Amer. (Aglyptus Lec.-
Aglyptonotus Champ.).................................................................
$A^{2}$. Without eyes; tarsi three segmented; antennæ with five segmented club of which the second segment is smaller than the first; abdomen five segmented; Neotropical

SCOTOCRYPTINI
$B^{1}$. Body oval or oval oblong.
C1. Elytra with pubescence in part erect; Peru.................. Synaristus Port.
$\mathrm{C}^{2}$. Elytra glabrous, irregularly strigose; Guatemala...... Parabystus Port.
$B^{2}$. Body subtriangular; elytra without sculpture, only with pruinose pubescence.
$\mathrm{C}^{1}$. Scutellum visible; tibia cylindrical; $\hat{o}$ tarsi unmodified; Mexico to Brazil Scotocryptus Girard.
$\mathrm{C}^{2}$. Scutellum very much reduced; tibia compressed; $\hat{o}$ pro- and mesotarsomeres dilated; Bolivia Scotocryptodes Port.

## Clambide

$A^{1}$. Elytra margined at sides with distinct epipleuræ; coxal plates narrow; antennæ eleven segmented, club three segmented, moderately distant from eyes at base; abdomen seven segmented; Alaska.

Empelus Lec.*
$A^{2}$. Elytra not margined at sides, without epipleuræ; coxal plates wide.
$\mathrm{B}^{1}$. Head smaller and narrower than pronotum; pronotum with evident sides and posterior angles; antennæ close to eyes.
$\mathrm{C}^{1}$. Antennæ ten segmented with two segmented club; head slightly narrower than pronotum; scutellum evident; Australasia, Oriental, Holarctic, Cent. Amer.

Clambus Fisch.
$\mathrm{C}^{2}$. Antennæ eight segmented with feebly indicated three segmented club; head much narrower than pronotum; scutellum very small; Europe, Syria

Loricaster Muls.**
$B^{2}$. Head larger than pronotum and as broad; pronotum without sides and posterior angles; antennæ ten segmented with two segmented club; antennæ distant from eyes at base; dorsum densely pubescent; abdomen six segmented; S. Africa, Holarctic.

Calyptomerus Redtb.

## Key to the Species of Colenis Er.

The species of the genus Colenis Er. as delimited in the above key to genera may be defined as follows:
$\mathrm{A}^{1}$. Elytral striæ distinct.
$\mathrm{B}^{1}$. Head transversely strigose, at least at sides.
$\mathrm{C}^{1}$. Pronotum transversely strigose.
$D^{1}$. Sutural stria entire.
$\mathrm{E}^{1}$. Seventh antennal segment scarcely wider than eighth; length 1.7-2.2 mm. ; Spain, France, Italy.......................... bonnairei Duv.

* Acribus Waterhouse, Galapagoes Is., is said to resemble Clambus. Antenna eleven segmented, club three segmented. The genus should be recharacterized by one having access to the type, which is probably in the British Museum.
** Clambidus Fauv., New Caledonia, is said to resemble Lorioaster. Body oval, strongly convex; head scarcely retracted in thorax, almost vertical, narrow; mandibles and eyes prominent; pronotum somewhat expanded laterad; scutellum large, pentagonal; elytra squarely truncate at base; sutural stria distinct from middle to apex.
$\mathrm{E}^{2}$. Seventh antennal segment twice as wide as eighth; length 1.3-2 mm.; Europe, Caucasus immunda Sturm.
$\mathrm{D}^{2}$. Sutural stria obsolete in front of middle; length 1.25 mm ;

$\mathrm{C}^{2}$. Pronotum not transversely strigose; sutural stria nearly attaining scutellum; length 1.25 mm ; Guatemala..............crassicornis Matth. $\mathrm{B}^{2}$. Head and pronotum not transversely strigose.

C1. Elytral striæ regular, strongly punctate; intervals strongly punctate; length 2 mm. ; Japan
grandis Port.
C 2 . Elytral striæ sinuous, minutely punctate; sutural stria confined to apical declivity; length $1-1.1 \mathrm{~mm}$.; Guatemala.
phalacroides Champ.
$A^{2}$. Elytral striæ indistinct, except the sutural.
$B^{1}$. Sutural stria entire; head and pronotum not transversely strigose.
$\mathrm{C}^{1}$. Antennal club black.
$D^{1}$. Sutural stria deep at base.
$\mathrm{E}^{1}$. Narrower, legs and antennæ shorter; the seventh antennal segment normal; length 2 mm. ; W. Almora (India).
rastrata Champ.
$\mathrm{E}^{2}$. Broader, legs and antennæ longer; the seventh antennal segment dilated into a broad oblong plate; length 2.5 mm ; Naini Tal (India).................................................. disparilis Champ.
$\mathrm{D}^{2}$. Sutural stria faint at base; length 2.25 mm . Kashmir.
indica Port.
C². Antennal club dusky; length 2 mm ; Japan.................... strigosula Port.
$\mathrm{B}^{2}$. Sutural stria obsolete in front of middle; pronotum not transversely strigose.
$\mathrm{C}^{1}$. Head transversely strigose; length $1.5-2 \mathrm{~mm}$.; Atlantic to Ill., Tenn., and Fla. ...........................................................impunctata Lec.*
$\mathrm{C}^{2}$. Head not transversely strigose.
$\mathrm{D}^{1}$. Testaceous, antennal segments six to ten infuscate; length 2.25 mm.; Nilgiri Hills (India) $\qquad$ hemisphaerica Champ.
$\mathrm{D}^{2}$. Rufo-testaceous, antennal club infuscate; length $1.5-1.8 \mathrm{~mm}$. W . Almora and Naini Tal (India).................................estriata Champ.
$D^{3}$. Piceous, with front, base of pronotum, segments one to four and eleven of antenna, legs, and usually a patch just behind the base of the elytra testaceous; length 2-2.25; Nilgiri Hills (India), Ceylon $\qquad$ variicornis Champ.

* Apparently close to impunctata Lec. is caledonica Fauv. from New Caledonia. Length 1.5 mm .; without sculpture except for numerous fine closely placed transverse striolæ on the elytra, a sutural stria which is impressed on the declivity, and scarcely visible transverse striolæ on the front.


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[^0]:    * The mesotarsi are unknown and may require the association of this genus with Cainosternum Notman and Liocolenis Port.
    ** Includes Pseudocolenis lavipennis Port., Java.

