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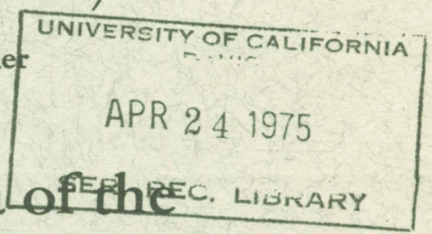
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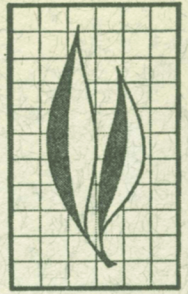
Bibliography (1758 to 1972) to the Staphylinidae of America North of Mexico (Coleoptera)

Ian Moore and E. F. Legner



Keys to the Genera of the Staphylinidae of America North of Mexico Exclusive of the Aleocharinae (Coleoptera: Staphylinidae)

Ian Moore and E. F. Legner



Bibliography (1758 to 1972) to the Staphylinidae of America North of Mexico (Coleoptera)

This bibliography of publications from 1758 to 1972 concerning the taxonomy, developmental stages, and ecology of the beetle family Staphylinidae of America north of Mexico includes references to works dealing with the original generic, subgeneric, and specific descriptions. Full titles of works are given as they appear on the title pages preceding authors' names. Not given are all references to works containing subsequent descriptions of species that have a wider distribution than the area described in the title.

Keys to the Genera of the Staphylinidae of America North of Mexico Exclusive of the Aleocharinae (Coleoptera: Staphylinidae)

This paper provides easily usable keys to the subfamilies and genera of the beetle family Staphylinidae of America north of Mexico. Because of the chaotic condition of the literature, keys to the genera of the subfamily *Aleocharinae* are not provided.

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Bibliography (1758 to 1972) to the Staphylinidae of America North of Mexico (Coleoptera)¹

INTRODUCTION

A BIBLIOGRAPHY of the Nearctic Staphylinidae has never been published. This bibliography is intended to include all publications concerning the taxonomy, developmental stages, and biology of the Staphylinidae of America north of Mexico. It includes references to works dealing with the original generic, sub-generic, and specific descriptions—and with subsequent descriptions and biological notes that have appeared in the American literature. References to works containing subsequent descriptions of species that have a wider distribution than the area of America north of Mexico and are described in the exotic literature are not necessarily included. For example: European references to species of Holarctic distribution that have been described in papers dealing with the European fauna may not be found in this paper.

Particular attention has been given to listing of full titles of works as they appear on the title page preceding the author's name. Full titles of some of the older works have not been listed in bibliographies for more than one hundred years. Not only are they of historical interest, they also often offer clues concerning the contents of the publication, which are lacking in the abbreviated titles usually given.

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Keys to the Genera of the Staphylinidae of America North of Mexico Exclusive of the Aleocharinae (Coleoptera: Staphylinidae)¹

INTRODUCTION

THE PURPOSE OF THIS WORK is to bring together for entomologists and nonspecialists alike a set of easily usable keys to the genera of the Staphylinidae of America north of Mexico based on characters that are readily visible in typical museum specimens without dissection or other special treatment. Phylogeny is reflected in at least some of the keys.

Only three other publications have attempted to deal with this subject. The first two, LeConte and Horn (1883) and Bradley (1930), are long out of date. In a more recent compilation (Arnett, 1961) the author admitted to little experience with the group.

Some of the keys do appear in recent American literature. However, the material is scattered in works that tend to feature small sections of the family. These papers are mentioned in the notes following the keys as further aids to identification.

The arrangement of this work is, first a key to the subfamilies, then a key to the genera of each subfamily given in the order in which the subfamilies appear in the subfamily key, and finally a bibliography. Names of tribes, where used, are presented in parentheses in the body of the keys to genera. Tribal names end in -ini.

KEY TO THE SUBFAMILIES OF THE STAPHYLINIDAE OF AMERICA NORTH OF MEXICO

1. Antenna inserted on surface of head between anterior margin of eyes;
last segment of maxillary palpus subulate 2
– Antenna inserted at front or side margin of head 3
- 2(1). Posterior coxae small, separated Steninae
– Posterior coxae large, contiguous Aleocharinae
- 3(1). Antenna 9-segmented; posterior coxae separated Micropeplinae
– Antenna 10- or 11-segmented; posterior coxae contiguous 4
- 4(3). Last segment of labial palpus large, semilunar Oxyporinae
– Last segment of labial palpus not semilunar 5
- 5(4). Head with a pair of ocelli between posterior margins of eyes 6
– Head without ocelli 7

¹ Submitted for publication September 28, 1973.

- 22(21). Antennal fossae closer to mandibular fossae than to each other Paederinae
 – Antennal fossae about as close to each other as to mandibular fossae Diochinae
- 23(21). Anterior angle of pronotum produced anteriorly beyond anterior lateral angle of prosternum; margin of pronotum apparently single, hypomeron not or incompletely margined along inner side Quediinae
 – Anterior angle of pronotum not so produced—margin of pronotum not so produced; margin of pronotum double, hypomeron completely margined along inner side 24
- 24(23). Lateral marginal lines of pronotum separate throughout. . . Xanthopyginae
 – Lateral marginal lines of pronotum united behind anterior angles 25
- 25(24). Antennal fossae closer to eyes than to each other Staphylininae
 – Antennal fossae closer to each other than to eyes Platyprosopinae
- 26(19). Antenna with segments three through eleven filamentous 27
 – Antenna not filamentous 28
- 27(26). Anterior tarsus very slender Habrocerinae
 – Anterior tarsus broadly dilated Trichophyinae
- 28(26). Elytral epipleuron delimited by a carina 29
 – Elytral epipleuron not delimited by a carina Phloeocharinae
- 29(28). Pronotal epimeron delimited by a distinct suture Olisthaerinae
 – Pronotal epimeron not delimited by a suture Tachyporinae

This key to the subfamilies is modified from that of Moore (1964) with his corrections (1967, 1973). His paper has some illustrations and a discussion of each subfamily.

Key to the Genera of Steniane

1. Eye very large, occupying entire side of the head; seventh abdominal segment with short spines or short brushes of hair *Stenus* Latreille
 – Eye not occupying entire side of head; seventh abdominal segment with a tuft of long fine hair each side *Dianous* Leach

The Genera of Aleocharinae

In both species and genera, members of this difficult subfamily comprise at least two-fifths of all Staphylinidae. There are no satisfactory keys to the genera of America north of Mexico.

Key to the Genera of Micropeplinae

1. Pronotum and elytra distinctly costate; pseudopleura well developed, delimited by distinct humeral costa *Micropeplus* Latreille
 – Pronotum without distinct raised costae; elytra strongly deflexed at sides, with slightly raised discal ridges, but lacking humeral costae and pseudopleura *Kalissus* LeConte

Oxyporinae

A single genus, *Oxyporus*, comprises this subfamily. It was revised by Campbell (1969).

Key to the Genera of Omaliinae

1. Last segment of maxillary palpus very slender, less than one-half the length of penultimate, not longer than width of penultimate (Coryphiini)—2
 - Last segment of maxillary palpus usually not narrower than penultimate, always longer than width of penultimate..... 8
- 2(1). Pronotum longer than wide *Boreaphilus* Sahlberg
 - Pronotum not longer than wide 3
- 3(2). Head without nuchal constriction *Haida* Keen
 - Head with nuchal constriction 4
- 4(3). Head wider than pronotum 5
 - Head not wider than pronotum 6
- 5(4). Sides of pronotum serrulate *Ephilinus* Cockerell
 - Sides of pronotum entire *Occiephilinus* Hatch
- 6(4). Eyes about as prominent as tempora *Subhaida* Hatch
 - Eyes more prominent than tempora 7
- 7(6). Sides of pronotum angulate at middle *Eudectus* Redtenbacher
 - Sides of pronotum not angulate at middle *Pseudohaida* Hatch
- 8(1). Tarsus with the first four segments wider than fifth and with long hairs beneath; head without nuchal constriction; pronotum usually densely reticulate (Eusphalerini) *Eusphalerum* Kraatz
 - Tarsus with the first four segments not wider than fifth, usually without long hairs beneath 9
- 9(8). Last segment of posterior tarsus shorter than first four together; segment two to four usually decreasing in length... (Anthophagini)—10
 - Last segment of posterior tarsus as long as or longer than first four together, first four segments subequal in length (Omaliini)—32
- 10(9). First segment of posterior tarsus about as long as, or longer than last segment 11
 - First segment of posterior tarsus shorter than last segment 16
- 11(10). Last segment of maxillary palpus not more than twice as long as penultimate 12
 - Last segment of maxillary palpus more than twice as long as penultimate 14
- 12(11). Last segment of maxillary palpus not distinctly narrower than penultimate 13
 - Last segment of maxillary palpus distinctly narrower than penultimate *Orobanus* LeConte
- 13(12). Penultimate tarsomere bilobed *Pelecomalium* Casey
 - Penultimate tarsomere not bilobed *Amphichroum* Kraatz
- 14(11). Head with impressed nuchal line *Unamis* Casey
 - Head without nuchal line 15
- 15(14). Head with a pair of ocelli between eyes *Phlaeopterus* Motschulsky
 - Head without ocelli *Velica* Casey
- 16(10). Last segment of maxillary palpus narrower than apex of penultimate 17
 - Last segment of maxillary palpus not narrower than apex of penultimate 18

- 17(16). Last segment of maxillary palpus slender, parallel sided
Microedus LeConte
 - Last segment of maxillary palpus fusiform *Psephidonus* Gistel
- 18(16). All antennomeres densely pubescent 19
 - First four antennomeres glabrous except for a few long setae 20
- 19(18). Penultimate segment of maxillary palpus one-half longer than wide
Artochia Casey
 - Penultimate segment of maxillary palpus not longer than wide
Lesteva Latreille
- 20(18). Second antennomere twice as long as third *Porrhodites* Kraatz
 - Second antennomere not longer than third 21
- 21(20). First segment of posterior tarsus one-half longer than second
Acidota Stephens
 - First segment of posterior tarsus not or very little longer than second 22
- 22(21). Head with well-impressed nuchal line; last segment of maxillary
 palpus seldom longer than penultimate 23
 - Nuchal line absent or feeble; last segment of maxillary palpus usually
 longer than penultimate 26
- 23(22). Base of pronotum tumid, reflexed *Paradeliphrum* Hatch
 - Base of pronotum not tumid, not reflexed 24
- 24(23). Tarsus with small membranous pad at base of unguis
Anthophagus Gravenhorst
 - Tarsus without pad at base of unguis 25
- 25(24). Last segment of maxillary palpus not more than one-half longer
 than penultimate *Arpedium* Erichson
 - Last segment of maxillary palpus more than twice as long as
 penultimate *Xylodromus* Heer
- 26(22). Pronotum not widest at base 27
 - Pronotum widest at base 31
- 27(26). Mesosternum carinate *Mathrilaenum* Moore
 - Mesosternum not carinate 28
- 28(27). Gular sutures distinctly separate 29
 - Gular sutures united or extremely approximate . . . *Olophrum* Erichson
- 29(28). Anterior unguis asymmetrical, inner twice as long and more than
 twice as wide as outer, nearly as long as tarsus
Xenicopoda Moore & Legner
 - Anterior unguis symmetrical, of same size as middle and posterior
 unguis 30
- 30(29). Head abruptly constricted behind eyes *Anthobium* Leach
 - Head not constricted behind eye; tempora longer than eyes
Orochares Kraatz
- 31(26). Head produced in a beak which anterior to eyes is one-half longer
 than wide *Tanyrrhinus* Mannerheim
 - Head anterior to eyes not longer than wide *Trigonodemus* LeConte
- 32(9). Elytra conjointly shorter than wide *Micalymma* Westwood
 - Elytra conjointly not shorter than wide 33
- 33(32). Last segment of maxillary palpus distinctly narrower than
 penultimate *Phloeonomus* Heer
 - Last segment of maxillary palpus not distinctly narrower than
 penultimate 34

- 34(33). Mesosternum longitudinally carinate 35
 – Mesosternum not longitudinally carinate 36
- 35(34). Sides of pronotum entire *Omalium* Gravenhorst
 – Sides of pronotum crenulate *Acrulia* Thomson
- 36(34). Antenna with only last three segments thickened *Pycnoglypta* Thomson
 – Antenna with last five to seven segments thickened 37
- 37(36). Third antennomere slender at base; pronotum without ground
 sculpture *Eloneum* Leach
 – Third antennomere not notably slender at base; pronotum with
 ground sculpture of irregular fine lines connecting the punctures
Hapalaraea Thomson

The genera of the tribe Coryphiini are largely from Hatch (1957) where most of them are illustrated. The key to the genera of the Anthophagini is taken from the paper by Moore (1966) in which a member of each genus is illustrated. The generic name *Elonium* Leach is used to replace *Acrolocha* Thomson following Herman (1970). Some of the species listed in our catalogues under the name *Omalium* do not have the metasternum carinate. New genera will be required for them.

Key to the Genera of Leptotyphlinae

1. Gular sutures united in front 2
 – Gular sutures separate in front 4
- 2(1). Temple clearly convex; mandible with a strong basal tooth
Neotyphlus Coiffait
 – Temple hardly convex; mandibles without a basal tooth 3
- 3(2). Second tarsal segment less than two times as long as first, the first
 two together about as long as the third *Heterotyphlus* Coiffait
 – Second tarsal segment nearly equal in length to second, the first two
 together clearly shorter than third *Prototyphlus* Coiffait
- 4(1). Parameres absent; aedeagus lying on the right side in repose
Xenotyphlus Coiffait
 – Parameres reduced to three tiny lobes; aedeagus lying on the left
 side in repose 5
- 5(4). Frontal ridge interrupted in the middle *Homeotyphlus* Coiffait
 – Frontal ridge entire 6
- 6(5). Median lobe of aedeagus tubular and slender *Cainotyphlus* Coiffait
 – Median lobe of aedeagus thick in basal part *Telotyphlus* Coiffait

This key is slightly modified from Coiffait (1962). These tiny pale soil inhabiting insects will probably always be difficult to study.

Key to the Genera of Oxytelinae

1. Tarsus clearly five-segmented 2
 – Tarsus seemingly of less than five segments 5
- 2(1). Tibiae with spines on outer edge 3
 – Tibiae without spines on outer edge 4
- 3(2). Gular sutures divergent before the middle; ungues strongly arcuate
Coprophilus Latreille
 – Gular sutures very approximate for most of their length; ungues
 hardly arcuate *Manda* Blackwelder

- 4(2). Head hardly narrowed behind eyes *Syntomium* Curtis
 – Head strongly narrowed behind eyes *Deleaster* Erichson
- 5(1). Elytra dehiscent (inner apical angles strongly rounded) 6
 – Elytra not dehiscent (inner apical angles rectangular) 8
- 6(5). Anterior tibia without spines on the outer edge *Thinobius* Kiessenwetter
 – Anterior tibia with spines on the outer edge 7
- 7(6). Middle coxae separate *Platystethus* Mannerheim
 – Middle coxae contiguous *Bledius* Leach
- 8(5). Anterior tibia without spines on the outer edge 9
 – Anterior tibia with spines on the outer edge 10
- 9(8). Middle coxae contiguous *Aploderus* Stephens
 – Middle coxae separate *Oxytelus* Gravenhorst
- 10(8). Body glabrous except for a few long setae *Apocellus* Erichson
 – Body pubescent 11
- 11(10). Last segment of maxillary palpus conical, apex abruptly narrowed
 and pointed *Ochtheophilus* Mulsant and Rey
 – Last segment of maxillary palpus cylindrical, subulate *Carpelimus* Leach

Herman (1970) published an extensive generic revision of the Oxytelinae of the world with entirely new phylogenetically based keys to the genera. We have not used his keys here, because some of the characters are difficult or impossible to observe in typical museum specimens. In one example, he used the pattern of sculpture on the scutellum, which is usually only partly visible. In another case (p. 386), he used segmentation of the tarsi: “. . . the basal three articles are so closely associated that the tarsus must be treated in potassium hydroxide before all the articles can be seen.” To attempt to sort specimens with a key based on these characters would be impractical. However, Herman’s study is a valuable contribution to the knowledge of the group and represents the first complete revision of the world genera of a large subfamily since 1840.

Because easy identification was the purpose of our study, we also have not followed Herman’s separation of *Anotylus* from *Oxytelus* and *Thinodromus* from *Carpelimus*. In our key, *Anotylus* goes to *Oxytelus* and *Thinodromus* goes to *Carpelimus*.

Herman (1972) separated two new genera, *Microbledius* and *Psamathobledius* from *Bledius* based on a similarly cryptic tarsal formula. We have not followed this separation for the same reasons. These two genera go to *Bledius* in our key.

We do *not* imply that our treatment places Herman’s genera in formal synonymy; we are merely attempting to make identifications simpler.

Megalopsidiinae

This subfamily is represented by the single genus *Megalopinus* Eichelbaum.

Key to the Genera of Hypocyphtinae

1. Middle coxae distant; mesosternum not carinate *Cypha* Leach
 – Middle coxae narrowly separated; mesosternum carinate
Anacyptus Horn

Key to the Genera of Pinophilinae

1. Middle tibia spinose externally *Lathropinus* Sharp
 – Middle tibia not spinos externally 2

- 2(1). Abdomen without paratergites *Palaminus* Erichson
 – Abdomen with paratergites 3
- 3(2). Mandible with a bidentate tooth in the middle; head and pronotum
 densely to moderately punctured *Pinophilus* Eichelbaum
 – Mandible edentate in the middle; head and pronotum sparsely
 punctured *Araeocerus* Nordmann

Key to the Genera of Trichopseniinae

1. Mesosternal intercoxal process acute *Trichopsenius* Horn
 – Mesosternal intercoxal process broad and blunt *Xenistusa* LeConte

This key is extracted from that of Pasteels and Kistner (1972).

Key to the Genera of Euaesthetinae

1. Abdomen without paratergites *Stictocranius* LeConte
 – Abdomen with paratergites 2
- 2(1). Labrum with a row of comb-like teeth anteriorly; head between the
 eyes convex; pronotum without fovea near base; first visible ter-
 gite without a carina *Euaesthetus* Gravenhorst
 – Labrum without teeth; head biimpressed between eyes; pronotum with
 several deep foveae along base; first visible tergite with a median
 carina *Edaphus* Motschulsky

This key is from Blatchley (1910).

Key to the Genera of Lispininae

1. Tarsus three-segmented *Thoracophorus* Motschulsky
 – Tarsus five-segmented 2
- 2(1). Anterior coxae contiguous 3
 – Anterior coxae separated by a spatulate process of the prosternum.. 5
- 3(2). Pronotum little narrowed at base *Clavilispinus* Bernhauer
 – Pronotum half as wide at base as at apex 4
- 4(3). Head with two longitudinal frontal impressions; pronotum with two
 apical denticles *Renardia* Motschulsky
 – Head without frontal impressions; pronotum without apical
 denticles *Eleussis* Laport
- 5(2). Abdominal sternites without diagonal strigae *Nacaeus* Bernhauer
 – Abdominal sternites with diagonal strigae which are sometimes not
 completely separate from the large punctures *Lispinus* Erichson

This key is taken from the study by Moore and Legner (1974) which gives full generic descriptions and an illustration of a member of each genus.

The use of the name *Renardia* Motschulsky in place of *Eumalus* LeConte is in accordance with the study by Hammond (1970).

Key to the Genera of Osoriinae

1. Anterior tibia much enlarged, strongly spinose *Osorius* Latreille
 – Anterior tibia not enlarged, not or feebly spinose 2
- 2(1). Last segment of maxillary palpus not narrower than penultimate;

- truncate, not dentate *Neotrochus* Blackwelder
 – Last segment of maxillary palpus not narrower than penultimate
 labrum rounded, dentate *Fenderia* Hatch

This key follows Moore and Legner (in press, Coleopt. Bull.) which study also gives full generic descriptions and an illustration of a member of each genus.

Key to the Genera of Piestinae

1. Anterior tibia not spinose externally 2
 – Anterior tibia not enlarged, not or feebly spinose 2
 2(1). Pronotum and elytra costate; last segment of maxillary palpus not
 narrower than penultimate 3
 – Pronotum and elytra not costate 4
 3(2). Gular sutures widely separated near base *Asemobius* Horn
 – Gular sutures very approximate near base *Zalobius* LeConte
 4(2). Last segment of maxillary palpus not narrower than penultimate
Trigonurus Mulsant
 – Last segment of maxillary palpus much narrower than penultimate
Charhyphus Sharp
 5(1). Elytral disc without impressed striae *Hypotelus* Erichson
 – Elytral disc with impressed striae 6
 6(5). Clypeal area delimited by a deeply impressed line; mesosternum
 carinate *Piestus* Gravenhorst
 – Head without such a line; mesosternum not carinate
Siagonium Kirby & Spence

This key is from the study by Moore and Legner (1973) in which a detailed description of each genus and an illustration of a member of each genus are given.

The name *Charhyphus* Sharp in place of *Trigites* Handlirsch is used here following Herman (1972). Herman pointed out that the members of the genus had some characters in common with the genotype of *Phloeocharis* and consequently removed the genus to Phloeocharinae. For purposes of identification, we are retaining the genus in Piestinae where it goes in our key to the subfamilies.

Key to the Genera of Proteininae

1. Pronotum with a central longitudinal groove *Megarthus* Curtis
 – Disc of pronotum evenly convex 2
 2(1). Pronotum not narrowed behind *Proteinus* Latreille
 – Pronotum strongly narrowed behind *Vellica* Casey (Omaliinae)

Vellica is a member of Omaliinae which lacks ocelli. It is included in this key for purposes of identification.

Pseudopsinae

This subfamily comprises the single genus *Pseudopsis* Newman.

Key to the Genera of Xantholininae

1. Elytra overlapping at suture 3
 – Elytra not overlapping at suture 2
 2(1). Pronotum with five or more discal punctures each side. *Parothius* Casey
 – Pronotum with one discal puncture each side *Atrecus* Jacquelin du Val

3(1).	Disc of pronotum impunctate	4
	- Disc of pronotum punctate	5
4(3).	Head with discrete punctures	<i>Saurohypnus</i> Sharp
	- Head with punctures forming long coalescent grooves laterally	
		<i>Gyrohypnus</i> Leach
5(3).	Pronotum with a few punctures arranged in series	6
	- Pronotum with confused punctures	13
6(5).	Superior lateral line of pronotum reflexed, joining inferior lateral line near middle	7
	- Lateral lines of pronotum separate to anterior angle	8
7(6).	Last segment of maxillary palpus not shorter than penultimate	
		<i>Nudobius</i> Thomson
	- Last segment of maxillary palpus much shorter than penultimate	
		<i>Oligolinus</i> Casey
8(6).	Middle coxae contiguous	<i>Microlinus</i> Casey
	- Middle coxae separate	9
9(8).	Second antennomere much shorter than third	<i>Lissohypnus</i> Casey
	- Second antennomere not shorter than third	10
10(9).	Head coarsely punctured	11
	- Head extremely finely and sparsely punctured	<i>Xestolinus</i> Casey
11(9).	Last segment of maxillary palpus stout at base, more than three-fourths as wide as apex of penultimate	12
	- Last segment of maxillary palpus slender at base, about one-half as wide as apex of penultimate	<i>Leptacinus</i> Erichson
12(11).	Tempora not flattened behind eyes	<i>Megalinus</i> Mulsant & Rey
	- Tempora with strong flattened area behind eyes	<i>Hyponygrus</i> Tottenham
13(5).	Last segment of maxillary palpus nearly as long as penultimate	14
	- Last segment of maxillary palpus much shorter than and narrower at base than penultimate	15
14(13).	Second antennomere as long as third	<i>Stictolinus</i> Casey
	- Second antennomere as long as next three together ..	<i>Habrolinus</i> Casey
15(13).	Anterior tarsus dilated; head with dense longitudinally anastomic punctures	<i>Stenistoderus</i> Jacquelin du Val
	- Anterior tarsus slender, head with discrete punctures	16
16(15).	Prosternum carinate	<i>Hesperolinus</i> Casey
	- Prosternum not carinate	17
17(16).	Head densely subopaquely punctured anteriorly on each side	
		<i>Nematolinus</i> Casey
	- Head not densely subopaquely punctured	18
18(17).	Head with strigulose and reticulate ground sculpture ...	<i>Leiolinus</i> Casey
	- Head without ground sculpture	<i>Lithocharodes</i> Sharp

This key is extracted from that of Moore (1963).

Key to the Genera of Paederinae

1.	Anterior coxae closed behind, the prosternum expanded under them to the hypomera	2
	- Anterior coxae open behind, prosternum not expanded under the coxae	5

- 2(1). Fourth tarsomere simple *Echiaster* Erichson
 – Fourth tarsomere bilobed 3
- 3(2). Prosternum conate with the edges of the hypomera 4
 – Prosternum not conate with the edges of the hypomera ... *Astenus* Dejean
- 4(3). Pronotum narrowly prolonged at the middle in front *Stamnoderus* Sharp
 – Pronotum not distinctly prolonged in front *Stilicopsis* Sachse
- 5(1). Last segment of maxillary palpus truncate, compressed and
 pubescent *Paederus* Fabricius
 – Last segment of maxillary palpus narrow, elongate and glabrous ... 6
- 6(5). Antenna anteriorly flexile, first segment as long as next three to-
 gether, sinuate at apex anteriorly 7
 – Antenna not anteriorly flexile, first segment usually shorter than
 next three together, sinuate at apex posteriorly 10
- 7(6). Elytra with a pleural fold 8
 – Elytra without a pleural fold 9
- 8(7). Marginal carina of pronotum interrupted at middle ... *Lissobiops* Casey
 – Marginal carina of pronotum entire *Homaeotarsus* Hochhuth
- 9(7). Labrum bidentate *Ochtheophilum* Stephens
 – Labrum edentate *Biocrypta* Casey
- 10(6). Neck one-fifth to one-eighth as wide as head 11
 – Neck one-fourth or more as wide as head 16
- 11(10). Gular sutures separate *Scopaeus* Erichson
 – Gular sutures united at least basally 12
- 12(11). Head coarsely umbilicately or elongately punctured, without dense
 ground sculpture 13
 – Head not or indistinctly umbilicately punctured, with dense ground
 sculpture 15
- 13(12). Head very densely punctured 14
 – Head not very densely punctured *Acrostilicus* Hubbard
- 14(13). Head and pronotum very differently punctured ... *Pachystilicus* Casey
 – Head and pronotum very similarly punctured *Rugilus* Leach
- 15(12). Elytra with short stiff erect bristles *Megastilicus* Casey
 – Elytra with normal pubescence *Stilicolina* Casey
- 16(10). Sculpture of head and pronotum dense 17
 – Sculpture of head and pronotum sparse 23
- 17(16). Antenna slender, verticillate from third segment ... *Thinoharis* Kraatz
 – Antenna not slender, not verticillate 18
- 18(17). Disc of head without umbilicate punctures *Lithoharis* Dejean
 – Disc of head with umbilicate punctures 19
- 19(18). Labrum with median tooth or prominence 20
 – Labrum without median tooth or prominence 21
- 20(19). Umbilicate punctures of head sparse and not strong
Achenomorphus Motschulsky
 – Umbilicate punctures of head dense and strong *Stilomedon* Sharp
- 21(19). Gular sutures united in great part *Neomedon* Sharp
 – Gular sutures separate 22
- 22(21). Gular sutures distinctly diverging from before the middle to apex
Sunius Curtis
 – Gular sutures most approximate along the middle ... *Medon* Stephens
- 23(16). Anterior tarsus slender 24

- Anterior tarsus dilated 25
- 24(23). Disc of head punctate *Orus* Casey
- Disc of head impunctate *Paederopsis* Wasmann
- 25(23). Elytra without pleural fold *Lathrobium* Gravenhorst
- Elytra with pleural fold 26
- 26(25). Pronotum moderately sparsely punctured .. *Lobrathium* Mulsant & Rey
- Pronotum subglabrous, subimpunctate, highly polished 27
- 27(26). Abdomen very sparsely punctured; labrum strongly bidentate
Acalophaena Sharp
- Abdomen very densely punctured; labrum edentate *Dacnochilus* LeConte

This key is extracted from that of Blackwelder (1939) which is an example of an excellently organized and highly useable key. The characters employed are almost all readily visible in typical museum specimens, and they are stated simply and clearly.

The genus *Xenomodon* Fall is omitted. It goes to *Sunius* in our key. The original description gives no clue as how to distinguish it from that genus.

Key to the Genera of Diochinae

- 1. Gular sutures covering behind *Diochus* Erichson
 - Gular sutures diverging behind *Ophioomma* Notman
- Ophioomma* is included provisionally on the basis of the original description.

Key to the Genera of Quediinae

- 1. Tarsal formula 5, 5, 5; maxillary and labial palpi not conspicuously elongate 2
- Tarsal formula 5, 4, 4; maxillary and labial palpi conspicuously elongate; general appearance of *Tachyporus* .. *Atanygnathus* Jacobson
- 2(1). Dorsum of tarsal segments setaceous; empodial seta slender, short, hardly visible between claws, considerably shorter than claws..... 3
- Dorsum of last four tarsal segments of middle and posterior legs smooth, without setae except for long bristles at distal margins; middle and posterior empodial setae long, distinctly protruding between claws, nearly as long as or longer than claws 4
- 3(2). Last segment of maxillary palpus subulate, shorter than penultimate
Heterothops Stephens
- Last segment of maxillary palpus not subulate, not shorter than penultimate *Quedius* Stephens
- 4(2). Antenna not geniculate, first segment not longer than next two combined; anterior claws not longer than others 5
- Antenna geniculate, first segment elongate, usually as long as next four combined; anterior claws longer than others
Acylophorus Nordmann
- 5(4). Anterior tibia not spinous externally, without a long spur at inner front angle, head densely coarsely punctured laterally
Hemiquedius Casey
- Anterior tibia spinous externally, with a long spur at inner front angle; head not densely coarsely punctured laterally
Anaquedius Casey

This key is slightly modified from Smetana (1971), who gave a full description and an illustration of each genus.

Key to the Genera of Xanthopyginae

1. Last segment of labial palpus hemispherical *Tympanophorus* Nordmann
 - Last segment of labial palpus subcylindrical 2
- 2(1). Middle coxae widely separated *Creophilus* Leach
 - Middle coxae contiguous 3
- 3(2). Elytra dehiscent, sutures overlapping *Thinopinus* LeConte
 - Elytra not dehiscent, sutures not overlapping 4
- 4(3). Infraorbital ridge absent; foreparts impunctate *Hadrotus* Mäklin
 - Infraorbital ridge present; foreparts coarsely punctate
Xanthopygus Kraatz

A specimen from Texas, which fits well the description of *Trigonopselaphus subcoeruleus* LeConte, has the anterior tarsus very narrowly dilated whereas both Nordmann and Erichson describe it as being greatly dilated in that genus. Alfred Newton has examined the type of *subcoeruleus* and has expressed the opinion (personal communication) that it is not congeneric with *Trigonopselaphus*. Consequently, that genus is not included in the above key as probably not being found in this region. The genus to which *subcoeruleus* belongs has not been determined.

Key to the Genera of Staphylininae

1. Superior lateral line of pronotum not deflexed in front so that the large lateral setigerous puncture is on it or separated from it at most by little more than the width of the puncture 2
 - Superior lateral line of pronotum deflexed in front so that the large lateral setigerous puncture is distant from it by at least three times the width of the puncture 4
- 2(1). Last segment of labial palpus not or very little narrower than penultimate, subfusiform or acticulate; anterior tarsus usually with pale spatulate setae beneath *Philonthus* Stephens
 - Last segment of labial palpus narrower than penultimate, cylindrical; tempora longer than eyes, subparallel; pronotum elongate 3
- 3(2). Anterior tarsus broadly dilated, with pale spatulate setae beneath; pronotum with a series of four discal punctures each side of mid-line *Gabronthus* Tottenham
 - Anterior tarsus not dilated; without pale spatulate setae beneath; pronotum with a series of five discal punctures each side of mid-line *Gabrius* Curtis
- 4(1). Prosternum not carinate 5
 - Prosternum strongly longitudinally carinate 10
- 5(4). Basal impressions of basal tergites not more coarsely punctured than rest of tergite 6
 - Basal impressions of basal tergites much more coarsely punctured than rest of tergite *Neobisnius* Ganglbauer
- 6(5). First segment of posterior tarsus as long as last segment 7
 - First segment of posterior tarsus shorter than last segment
Erichsonius Fauvel
- 7(6). Anterior tarsus dilated (second segment wider than long), with dense pale spatulate setae beneath 8

- Anterior tarsus slender (second segment longer than wide); without pale spatulate setae beneath; posterior femora of male usually spinose beneath *Belonuchus* Nordmann
 - 8(7). Last segment of maxillary palpus not more than three times as long as wide 9
 - Last segment of maxillary palpus more than four times as long as wide *Hesperus* Fauvel
 - 9(8). Anterior tibia spinose on outer edge *Cafius* Curtis
 - Anterior tibia not spinose on outer edge ... *Laetulonthus* Moore & Legner
 - 10(4). Mesosternum longitudinally carinate *Ontholestes* Ganglbauer
 - Mesosternum not longitudinally carinate 11
 - 11(10). Last segment of labial palpus subfusiform *Staphylinus* Linnaeus
 - Last segment of labial palpus subsecuriform *Ocypus* Samuelle
- This key is from Moore and Legner (1973) which is slightly modified from Moore (1965).

Platyprosopinae

This subfamily is represented by the single genus *Platyprosopus*. It was described in detail and a species illustrated by Moore (1963).

Habrocerinae

The single genus *Habrocerus* comprises this subfamily.

Trichophyinae

The single genus *Trichophya* comprises this subfamily.

Key to the Genera of Phloeocharinae

- 1. Trochantin large, conspicuous; middle coxae separated by a long process of the prosternum *Rimulincola* Sanderson
- Trochantin minute; middle coxae contiguous 2
- 2(1). Head produced in front in tri-dent beak which conceals the labrum *Vicelva* Moore & Legner
- Head not produced in front *Ecbletus* Sharp

This key is from Moore and Legner (1973) in which each genus is described in detail and an illustration is given of a member of each genus.

Olisthaerinae

The single genus *Olisthaerus* comprises this subfamily. It was described in detail and illustrated by Moore and Legner (1973).

Key to the Genera of Tachyporinae

- 1. Head without infraorbital carina (Tachyporini)-2
- Head with infraorbital carina (Bolitobiini)-6
- 2(1). Last segment of maxillary palpus not subulate 3
- Last segment of maxillary palpus subulate 5
- 3(2). First segment of posterior tarsus as long as three following together *Cilea* Jacquelin du Val
- First segment of posterior tarsus not longer than two following together 4

- 4(3). Prosternal epimera absent; anterior tarsus of male simple
Erchomus Motschulsky
 – Prosternal epimera present; anterior tarsus of male dilated
Tachinomorphus Kraatz
- 5(2). Abdomen without paratergites; head and pronotum densely pubescent
Sepedophilus Gistel
 – Abdomen with paratergites; head and pronotum not densely
 pubescent *Tachyporus* Gravenhorst
- 6(1). Last segment of maxillary palpus subulate . . . *Mycetoporus* Mannerheim
 – Last segment of maxillary palpus not subulate 7
- 7(6). Last segment of labial palpus wider than penultimate . . . *Bolitobius* Leach
 – Last segment of labial palpus not wider than penultimate 8
- 8(7). Last segment of labial palpus not narrower than penultimate
Lordithon Thomson
 – Last segment of labial palpus narrower than penultimate
Bryoporus Kraatz

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