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COLEOPTERA OF THE REGIONS
ADJACENT TO THE BOUNDARY
LINE...U. S. AND MEXICO

SYNOPSIS...SPECIES OF
PTEROSTICHUS BON...
ALLIED GENERA INHABITING
TEMPERATE NORTH AMERICA

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ART. II.—*Catalogue of Coleoptera of the Regions adjacent to the Boundary Line between the United States and Mexico.*

By JOHN L. LE CONTE, M. D.

Since the time when the entomological productions of Kansas were made known to science by Thomas Say, no expedition under the direction of government has so largely contributed to a correct knowledge of the insect fauna of Western North America as the United States and Mexican Boundary Survey.*

Not only have large numbers of new genera and species been added to science, but the limits of many previously known species have been ascertained, and new points fixed for the final solution of the intricate problems of geographical distribution.

Many of the new species added to our fauna vie with the most splendid productions of the tropics, while others by their curious forms are in strong contrast with the usually dull and ordinary appearance of the Coleoptera of the United States.

As the collections were made in a continuous belt of country extending from the Gulf of Mexico to the Pacific Ocean, they serve well to illustrate the remarkable changes in fauna, dependent on longitude: an element, on this continent, of much greater importance than latitude in determining the distribution of organized beings.

*This catalogue is the preliminary portion of a report on the Coleopterous insects collected by the U. S. and Mexican Boundary Commission, which was prepared at the request of the Commissioner; after its preparation, involving a labor of fifteen months, was completed, information was given me that its publication had not been provided for, and recently the MS. has been returned to me, with a letter from the Hon. Secretary of the Interior, in which occurs the following passage: "Its publication in the second vol. of the Report of Major Emory is inadmissible from the fact that Major Emory appears not to have contemplated it in his correspondence with this Department, previous to his turning over the work, and his departure for the West. In his letter of October 7th, 1857, he says, 'The second vol. is composed of Zoology and Botany, Prof. Baird writes the Zoology, and Dr. Engelmann writes the section on Botany relating to Cactaceæ, Dr. Torrey writes the remainder of the Botany.'"

The points worthy of the attention of the scientific student here presented are two-fold: 1st, that the Commissioner should not have contemplated in his correspondence with the Department the publication of material that he had already *requested to have prepared* for the Report: 2nd, the exclusion by the Commissioner of Entomology from Zoology, by the statement that "Prof. Baird writes the Zoology," when the facts were that only the Vertebrata were undertaken by my learned scientific friend.

I do not desire to be understood as attaching blame to any person in this matter, but make this statement for the purpose of accounting for my own apparent idleness in science for a period.

I also take occasion here to return my grateful acknowledgements to the Hon. J. Thompson, Secretary of the Interior, for the use of the lithographic plate prepared to illustrate the Report.

Near the Pacific coast, that is to say, as far east as the Sierra of California, another element of a more directly evident character, may be noted in connection with the same subject: it is the effect of the Arctic current which sweeps along the Californian coast, and equalizes the climate of the maritime portion of the State. On the crest of the Sierra this effect ceases, and the influence of the cold current is combated by the continental climate, which gives a region of extreme dryness during the whole year, with great ranges of temperature, in different portions of the day and year. This region, broken only by a few fertile mountain valleys in its eastern part, extends from the Californian sierra to the Rio Grande, when in the gentle descent to the Gulf of Mexico the climate again becomes more equable, assuming, however, the subtropical character belonging to its latitude.

We accordingly find that in Texas a large proportion of the Coleoptera are identical with those found both at New York and New Orleans, the difference of latitude being accompanied with but moderate variation; others are tropical species found in the adjoining portions of Mexico, and some again represent sparingly the group of Tenebrionidæ which play such an important part in the insect fauna of the regions farther west. Among genera not belonging to these categories must be noted *Lutrochus*, which here makes its first appearance in North America: the other species are found in South America, in Brazil.

The manner in which the catalogue of species is made, obviates the necessity of forming statistical tables of distribution, but I have placed at the end of the present remarks some abstracts, which will be found of interest to the general student.

It therefore remains for me only to note specially the collections from which the materials used in the present investigation have been obtained; they are briefly as follows:

1. Collections made by Mr. J. D. Clark, in Texas, near the Rio Grande, at Frontera, and at San Antonio.
2. Extensive collections made by Mr. Arthur Schott at Eagle Pass, Texas, and on the journey from Laredo to Ringgold Barracks.
3. A fine series collected by Mr. Weise, on the journey last named.
4. Very thorough collections made by Mr. Horace Haldeman in various portions of Texas.
5. A small, but valuable set, collected at New Braunfels, Texas, and purchased from Mr. Lindheimer.
6. Large collections made by Dr. Thos. H. Webb in the region between the Rio Grande and Colorado River of California, chiefly in the valley of the Gila.
7. A considerable collection made by Mr. Schott in the region last acquired by purchase from Mexico, and now called Arizona.
8. A collection of considerable size made by Capt. Pope, while exploring Llano Estacado and the upper Rio Grande.

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9. Large collections made by myself, in 1850-51, between San Diego, California, and Fort Yuma on the Colorado River. An excursion from the latter point to Tucson furnished but small results, as the season was unfavorable, and subsequent loss of transportation required my attention to be directed from science, to objects of more vital importance.

Notwithstanding the copious materials here brought together, the region reported on must furnish still important results to future collectors. Every collection that has yet been made, has furnished a very large proportion of new species, and with few exceptions the same species have not occurred at different places or times. The minute ones, except in the region visited by myself, have received but little attention: an immense number yet remain.

Exception has been made in the Catalogue of six or seven Curculionidæ of which the genera could not be determined, and of many Staphylinidæ, which should not be described, until a monograph of all the species found in the United States be prepared. Several species of *Heterocerus* are also allowed for the present to remain unnamed. Various species which have recently been procured, or which have remained undescribed are added in order to bring the catalogue fully up to the present time.

TABLE OF THE DISTRIBUTION OF GENERA ACROSS THE CONTINENT.

Columns I. II. and III. as in the table of species.

I.	II.	III.	
163	163	163	<i>a.</i> <i>Apristus</i> , <i>Stenomorphus</i> , <i>Halipus</i> , <i>Cnemidotus</i> , <i>Hydrochares</i> , <i>Cyclonotum</i> , <i>Catops</i> , <i>Faronus</i> , <i>Othius</i> , <i>Leptacinus</i> , <i>Elatér</i> , <i>Cardiophorus</i> , <i>Enoplium</i> , <i>Anobium</i> , <i>Ptilinus</i> , <i>Exops</i> , <i>Nosoderma</i> , <i>Helops</i> , <i>Platydemà</i> , <i>Phaleria</i> , <i>Eurygenius</i> , <i>Hylesinus</i> , <i>Chrysochus</i> , <i>Microrhopala</i> , <i>Chilochorus</i> .
69	69		<i>b.</i> <i>Eunectes</i> , <i>Triorophus</i> , <i>Eurymetopon</i> , <i>Centrioptera</i> , <i>Coniontis</i> , <i>Eusattus</i> , <i>Notibius</i> , <i>Conibius</i> , <i>Microschatìa</i> , <i>Pelecyporus</i> , <i>Eleodes</i> , <i>Tanarthrus</i> , <i>Crossidius</i> .
25 ^a		25 ^a	<i>c.</i> Including the following not found north of Texas: <i>Dromochorus</i> , <i>Gynandrotarsus</i> , <i>Lutrochus</i> , <i>Eugastra</i> , <i>Lasiopus</i> , <i>Scaptolenus</i> , <i>Astrotus</i> , <i>Mannophorus</i> , <i>Sphenothecus</i> .
	13	13 ^b	<i>d.</i> <i>Melanotus</i> , <i>Erotylus</i> , <i>Plusiotis</i> , <i>Orsonyx</i> , <i>Oncerus</i> , <i>Gyascutus</i> , <i>Thrinopyge</i> , <i>Schizopus</i> , <i>Edrotes</i> , <i>Craniotus</i> , <i>Cerenopus</i> , <i>Auchmobius</i> , <i>Araeschizus</i> , <i>Batulius</i> , <i>Anepsius</i> , <i>Cryptoglossa</i> , <i>Euschides</i> , <i>Embaphion</i> , <i>Dacoderus</i> , <i>Cysteodemus</i> , <i>Eupompha</i> , <i>Phodaga</i> , <i>Amannus</i> , <i>Euryscopa</i> , <i>Calyptobium</i> .
57 ^c	25 ^d		<i>e.</i> <i>Philotecnus</i> , <i>Acephorus</i> , <i>Thinopinus</i> , <i>Anchomma</i> , <i>Rhagodera</i> , <i>Physemus</i> , <i>Aphricus</i> , <i>Plastocerus</i> , <i>Euthysanius</i> , <i>Malachius</i> , <i>Microlipus</i> , <i>Atelestus</i> , <i>Cryptadius</i> , <i>Nyctoporis</i> , <i>Amphidora</i> , <i>Apocrypha</i> , <i>Cononotus</i> , <i>Cœlus</i> , <i>Eulabis</i> , <i>Epantius</i> , <i>Bius</i> , <i>Cœloenemis</i> , <i>Prionychus</i> , <i>Emphyastes</i> , <i>Perarthrus</i> , <i>Ipochnus</i> .
		26 ^e	

TABLE OF SPECIES EXTENDING ACROSS THE CONTINENT.

Column I. contains species found in the Rio Grande valley; II. marks those from Rio Grande valley to the Californian sierra; III. those found in maritime California. Brackets are used to denote that the species has been found in a region north of that embraced in the present Report, but belonging to the same range; it is therefore to be inferred that such species will eventually be found within the limits here treated of.

	I.	II.	III.		I.	II.	III.
Megacephala carolina, . . .	*	*		Polyphylla cavifrons, . . .	*	*	
Cicindela hirticollis, . . .	*	*	*	Listrochelus mucoreus, . . .	*	*	
—— tenuisignata, . . .	*	*		Macroductylus, . . .	(*)	*	
—— sedecimpunctata, . . .	*	*		Euparia cognata, . . .	*	*	
Brachinus lateralis, . . .	*	*		Omorgus integer, . . .	*	*	
Lachnophorus elegantulus, . . .	*	*	(*)	Melanophila longipes, . . .	*	*	
Lebia furcata, . . .	(*)	(*)	*	Chrysobothris octocola, . . .	*	*	
Platynus extensicollis, . . .	(*)	*		—— exesa, . . .	*	*	
—— decorus, . . .	(*)	*		Agrilus politus, . . .	(*)	*	
—— fossiger, . . .		*	*	Monocrepidius lividus, . . .	*	*	
Pterostichus Isabellæ, . . .		*?	*	Agrypnus Sallei, . . .	*	*	
Amara californica, . . .		*	*	Alaus gorgops, . . .	*	*	
Bradycellus nubifer, . . .		*	*	Chauliognathus scutellaris, . . .	*	*	
Harpalus impotens, . . .	*	*	*	Rhadalus testaceus, . . .	*	*	
Chlænus obsoletus, . . .		*	*	Clerus Spinolæ, . . .	*	*	
Pasimachus validus, . . .		*	*	Apate punctipennis, . . .	*	*	*
Clivina corvina, . . .	(*)	*	*	Lycetus striatus, . . .	(*)	*	*
Bembidium patrule, . . .	(*)	(*)	*	Epitragus canaliculatus, . . .	*	*	
—— pictum, . . .		*	*	Eurymetopon abnorme, . . .	*	*	
Calosoma scrutator, . . .	*	*	*	Pelecyporus elatus, . . .	*	*	
Hydroporus striatellus, . . .	*	*	*	Eleodes quadricollis, . . .		*?	*
Laccophilus truncatus, . . .		*	*	Blapstinus dilatatus, . . .	*	*	*
Colymbetes binotatus, . . .	(*)	*	*	Platydemia flavipes, . . .	(*)		*
Agabus lugens, . . .		*	*	Notoxus monodon, . . .	(*)	*	*
Cybister ellipticus, . . .	*	*	*	Tanarthrus alutaceus, . . .		*	*
Eunectes sticticus, (Europe) . . .		(*)	*	Mordella scutellaris, . . .	(*)		*
Berosus punctulatus, . . .		*	(*)	Nemognatha apicalis, . . .	*		*
Hydrophilus triangularis, . . .	*	*	*	Dendrobias quadrimaculatus, . . .	*	*	
—— limbalis, . . .		*	*	Stenapis solitaria, . . .	*	*	
—— californicus, . . .		*	*	Crossidus testaceus, . . .		*	*
Cercyon capillatum, . . .		*	*	Clytus luscus, . . .	*	*	
Silpha lapponica, . . .	*	*	*	Tetraopes basalis, . . .	*		*
—— ramosa, . . .		(*)	*	Pachybrachys cælatus, . . .		*	*
Saprinus lugens, . . .	*	*	*	Doryphora Haldemani, . . .	*	*	
Phalacrus penicellatus, . . .		(*)	*	Chrysomela serpentina, . . .	*	(*)	*
Temnochila chlorodia, . . .		*	*	Haltica torquata, . . .		(*)	*
Dermestes vulpinus, . . .	*	*	*	Diabrotica 12-punctata, . . .	*	*	*
Ligyris gibbosus, . . .	*	*	*	Hippodamia convergens, . . .	*	*	*
Allorhina nitida, . . .	*	*	*	—— maculata, (Europe.) . . .	(*)	*	*
Polyphylla 10-lineata, . . .	*	(*)		Coccinella abdominalis, . . .	*	*	*

	I.	II.	III.
	13+(3)	14+(2)	16
Total results of the distribution of species.	30+(5)	34+(1)	
		18+(7)	20+(2)
	3		2+(1)

The tables of distribution of genera across a more northern position of the Continent, published by me in the Pacific R. R. Report on the 47th Parallel, having become modified by the progress of discovery, and otherwise containing certain errors, may be here added in a corrected form, for the purpose of illustrating farther the results obtained above.

TABLE I. *Genera common to the Eastern and Western Continents.*

NAMES OF FAMILIES.	Total number of genera.	RUSSIAN AMERICA.		OREGON.		CALIFORNIA.	
		<i>In Atlantic States.</i>		<i>In Atlantic States.</i>		<i>In Atlantic States.</i>	
Adephaga,	47	27	4	26	2	36+2?*	1
Silphales,	11	8	3	2	1	3	1
Staphylinidæ,	42	25	5	Not collected.		30	
Scarabæidæ,	8	2		5		7+1†	
Elateridæ,	11	5		10		9	
Tenebrionidæ,	6	1		3		4	1
Cerambycidæ,	17	11	1	13	2	10	2
Chrysomelidæ,	16	6		10	1	13	1

* Callida, Patrobus.

† Sinodendron; a species from the Atlantic States is described by Beauvois.

The genera of the table which have not been found in the Atlantic States are :

In Russian America.—Miscodera, Leistus, Pelophila, Trachypachys, Necrophilus, Sphærites, Lyrosoma, Bolitochara, Syntomium, Phlæonæus, Arpedium, Deliphrum, Rosalia.

In Oregon.—Callisthenes, Trachypachys, Necrophilus, Ergates, Rosalia, Timarcha.

In California.—Anillus, Necrophilus, Calcar, Ergates, Mesosa, Timarcha.

Of these Callisthenes is found in the central portion of the continent, though not extending to the proper maritime Atlantic region.

It will be observed that many of these genera just mentioned are subarctic forms, and may be expected to occur hereafter in Labrador. The genus Ergates must be also received with caution into this list, as the same species is ranked in the British Museum Catalogue under Macrotoma, a genus of much more extensive distribution. We have then remaining of genera as yet known only in the temperate zone, found on the western slopes of the two continents, but absent from the Atlantic slope of America, only Anillus, Rosalia, Mesosa and Timarcha.

TABLE II. *Genera peculiar to America.*

NAMES OF FAMILIES.	Total number of genera.	RUSSIAN AMERICA.			OREGON.			CALIFORNIA.		
		<i>In Atlantic States.</i>		<i>Not in Atlantic States.</i>	<i>In Atlantic States.</i>		<i>Not in Atlantic States.</i>	<i>In Atlantic States.</i>		<i>Not in Atlantic States.</i>
Adephaga,	17	1*	A.	B.	1	A.	B.	5+1?	A.	B.
Staphylinidæ,	2			1+1?	Not col.	Not col.			1	7
Scarabæidæ,	7				4			4		1
Elateridæ,	7	1			2			3		2
Tenebrionidæ,	19			1	2	2	1	2	4†	1
Cerambycidæ,	6			2	2		4	1		12
Chrysomelidæ,	4				2			4		1?‡

*Pristodactyla: these species are included by Schaum in Calathus, and the genus should therefore not be placed in this table by those adopting that view.

† Triorophus, Eurymetopon, Eleodes, Coniontis.

‡ Oenemona?

The columns headed A contain genera found in the central desert region of Kansas, New Mexico, Upper Texas, and Arizona, and do not extend into the Atlantic region proper. Those headed B therefore contain the genera peculiar to the maritime Pacific slope.

The genera in the above table which are found in the Atlantic States are:

In Russian America.—Pristodactyla?, Epiphanis.

In Oregon.—Haplochile, Ligyrus, Diplotaxis, Dichelonycha, Canthon, Alaus, Asaphes, Nosoderma, Blapstinus, Desmocerus, Tetraopes, Saxinis, Microrhopala.

In California.—Diaphorus, Thalpius, Lachnophorus, Casnonia, Axinopalpus, Pasimachus? Ligyrus, Cremastochilus, Diplotaxis, Dichelonycha, Perothops, Monocrepidius, Melanactes, Nosoderma, Blapstinus, Tetraopes, Chlamys, Saxinis, Diabrotica, Microrhopala.

A remarkable fact is again to be noticed in connection with the genera mentioned as found in the Atlantic States: the majority of them are found within the tropics. The only exceptions thus far are: Haplochile, Thalpius, Axinopalpus, Epiphanis, Perothops, Asaphes, Melanactes, Desmocerus.

DESCRIPTION OF NEW SPECIES.

Harpalus impotens, piceo-niger, oblongus, thorace transverso, lateribus rotundatis, margine angusto reflexo, angulis posticis rotundatis, basi utrinque vage foveato, versus angulos subdepresso, elytris ad marginem subtiliter pubescentibus, striatis, striis 2, 5, 7 parce punctatis, interstitiis fere planis, epipleuris ano pedibusque piceis, antennis palpisque rufo-piceis. Long. .38.

A specimen found at El Paso by Dr. T. H. Webb, of the Boundary Commission. This species is narrower than *H. (Selenophorus) stigmosus*, and *iripennis*, and readily recognized by the rounded angles of the thorax, and the smaller elytral punctures.

Pasimachus validus, niger nitidus, margine vix cyanescente, mandibulis rugosis, thorace transverso postice angustato, lateribus anguste marginatis ad basin sinuatis, angulis posticis rectis; elytris ovatis postice acutis, lateribus parum rotundatis, humeris obtusis (præcipue distinctis) subrotundatis, et breviter carinatis, dorso convexis, antice præcipue depressiusculis, sæpe seriatim punctulatis, (seriebus per paria approximatis;) tarsis posticis tibiis haud longioribus. Long. 1.12—1.43. Tab. IV. fig. 10.

Pasimachus punctulatus† Lee. Ann. Lyc. Nat. Hist. New York, 4, 146; tab. 7, fig. 3.

Kansas, Texas, Arizona; abundant. Having a numerous series of specimens before me, I am led to believe that the characters of this species are by no means constant, and it seems probable that the form of the elytra must be disregarded, and the very short humeral carina, and the comparative length of the posterior tarsi be considered alone as diagnostic. In this case the next species will appear as only an individual variety, although the differences in form are such that I can hardly believe it possible. The posterior tibiæ, on the inner surface below the middle, are in the male densely, in the female sparsely clothed with erect hairs. On account of this character, and its general resemblance to *P. depressus*, I was formerly led to believe this to be *P. punctulatus* Hald., but the type of that species has since been kindly presented to me, and on comparison I find them quite distinct; the humeral carina of *P. punctulatus* is longer and the margin is distinctly blue; it in fact differs from

P. depressus only by the mandibles and labrum being deeply rugous, and by the posterior tarsi being not longer than the tibiæ, while the latter in the male are densely pubescent on the inner surface.

P. corpulentus, niger nitidus, margine vix cyanescente, mandibulis vix rugosis, thorace transverso, postice angustato, lateribus postice breviter sinuatis, angulis posticis rectis, elytris rotundato-ovatis postice subacutis, lateribus valde rotundatis, humeris haud distinctis breviter carinatis, dorso æqualiter convexis, seriatim punctulatis (seriebus per paria approximatis); tarsi posticis tibiis haud longioribus. Long. 1.15.

Laredo to Ringgold Barracks, Texas, Mr. Weise; Sonora, Mr. Schott. Only differs from *P. validus* by the characters mentioned; and eventually perhaps to be considered as a race of that species.

P. costifer, niger nitidus, margine vix cyanescente, mandibulis rugosis, thorace transverso, postice angustato, lateribus rotundatis ad basin brevissime sinuatis, angulis posticis parvis rectis, elytris ovalibus antice subtruncatis, postice subacutis, lateribus late rotundatis, humeris haud distinctis carina mediocri, dorso æqualiter convexis, sæpissime seriatim punctulatis, (striis per paria approximatis, interstitiis sæpe alternatim parum elevatis) versus marginem uni- vel bicostatis; tarsi posticis tibiis haud longioribus. Long. 1.05-1.2. Tab. IV. fig. 11.

Lec. Proc. Acad. Nat. Sc. 7, 79.

Creek Boundary, Dr. S. W. Woodhouse; Laredo to Ringgold Barracks, and at Eagle Pass; Messrs. Schott, Weise and Haldeman. The sculpture of the elytra is very variable, but all transitions are found in the series before me, between those with one and those with two costæ, those with smooth elytra, and those with punctures in rows approximated by pairs, with the wider spaces more or less elevated.

One specimen, (.97 long.) in default of more information may be for the present placed here; it was collected by Dr. Webb in Arizona. The elytra are without any trace of costæ; the body is of a more slender form, being nearly as in *P. elongatus* Lec., but it differs from that species by the humeral carina being shorter, and making with the lateral margin an acute angle, while in *P. elongatus* the angle is rounded by the carina bending outwards so as to make a curve with the lateral margin. Although differing so much I think it more prudent to allow it to remain as a variety of *P. costifer*, until more specimens occur. Plate IV. fig. 11a represents an elytron.

P. obsoletus Lec., is nearly allied to *P. costifer*, but the inner intervals between the rows of punctures are more distinctly elevated, and the rows are single.

Agabus obsoletus, ellipticus, parum convexus æneo-niger, nitidus, conspicue reticulato-strigosus, thorace lateribus obliquis late rotundatis, cum elytrorum lateribus angulum haud formantibus, antennis pedibusque anterioribus piceo-rufis. Long. .33.

One male found at San Diego; differs from any other Californian species by its elliptical body and scarcely perceptibly reticulate surface: the shape is nearly that of *A. punctulatus* Aubé, but the sides of the thorax are less rounded, and consequently the approach to an elliptical form is nearer.

Aleochara valida, atra, capite thorace elytrisq. opacis, profunde subtilius punctatis, pube brevi hispida indutis, thorace transverso rotundato, antice late subemarginato; elytris thorace haud longioribus, abdomine nitido parcius punctato, lateribus pilosello, ano sanguineo, antennis nigris pilosellis. Long. .19—.27. Tab. IV. fig. 16.

San Diego, California, under decomposing *Opuntia* stems. Of a dull black color, above finely granulate, without lustre except on the abdomen. Head sparsely punctured, thinly clothed with short suberect hair, obtusely pointed anteriorly, eyes oblong, not prominent; antennæ as long as the head and thorax, third joint a little longer than the second, fourth only half the length of the third, 5—10 transverse, gradually a little broader, sparsely pilose with verticillate hairs, 11th longer and narrower than the preceding, conical, obtusely rounded at tip. Thorax a little broader than long, transversely slightly convex, anteriorly broadly emarginate, sides and base curved with a circular outline, anterior angles rounded, slightly deflexed, finely not densely punctured, covered with short erect black hair. Elytra shorter than the thorax, punctured and hairy like it, flattened, truncate with the outer angle rectangular and rounded. Abdomen above shining, sparsely pubescent and punctured, parallel on the sides, obtusely rounded at the tip; anterior segments transversely impressed and smooth towards the base; sides strongly reflexed, pilose with longer black hairs: anus sanguineous. Body beneath densely punctured and pubescent with blackish brown hair.

Varies much in size, but usually larger than any other species of the genus and having a peculiar habit. I was at first inclined to regard it as a new genus, but after a patient examination and dissection I failed to find any character by which it might be separated.

Canthon vigilans, rotundato-ovalis, parum convexus, ater opacus vix ænescens, clypeo subtilius granulatus antice bidentato, sinibus ocularibus latiusculis; thorace lateribus angulatis, margine ante medium, inferne interrupto, et tuberculo minuto prædito; elytris obsolete striatis; fossulis pedum anticorum distinctis. Long. .67—.85.

Texas, Georgia, Missouri: Precisely like *C. lævis*, and *chalcites* in general appearance. The granulation of the surface is finer than in the first, but much coarser than in the second; and it differs from both species by the greater breadth of the portion of the eye which is seen in the clypeus.

Cremastochilus saucius, rufo-castaneus, nitidus, thorace transverso, angulis anticis auriculatis, posticis incisus et retrorsum acuminato-productis, disco ad angulos anticos breviter, intra posticos longe exarato, parte mediana æqualiter subtilius punctata, lateralibus incrassatis, convexis lævibus, extrorsum punctatis; elytris punctis elongatis sat densis insculptis; pygidio punctato, subcarinato: mento parum concavo, margine postico subangulato, haud inciso. Long. .42.

Lodge Pole Creek, (Nebraska,) Mr. W. Wood; Llano Estacado, Capt. Pope. Readily known by the remarkable form of the thorax, the surface of which is divided into three lobes by the meeting of the long posterior, and the short anterior excavations,

which commence immediately at the respective angles. It belongs with the other Western species to the division *Psilocnemis Burm.*

C. squamulosus, piceo-niger confertim punctatus, punctis squamulis pallidis minutis notatis, thorace lateribus subangulatis, angulis anticis mammillaribus, haud prominulis, fovea magna interna rotundata signatis, angulis posticis parvis rectis sulco circumdatis, dorso subcanaliculato, ad basin depresso; mento valde concavo, postice anguste inciso. Long. .40.

Florida, Baron R. Osten Sacken. Nearest in appearance to *C. canaliculatus*, but smaller, with the fovea at the anterior angles of the thorax larger, and the punctures smaller. The scales of the punctures both on the thorax and elytra readily distinguish it. The incision of the mentum is narrow.

THRINCOPYGE Lec.

T. alacris, elongato-oblonga, læte viridi-ænea nitida, capite grosse rugose punctato, fronte inaurata, thorace latitudine brevior antrosum latiore, et transversim valde convexo, angulis anticis rotundatis, lateribus subrectis, basi utrinque recta obliqua, angulis posticis obtusis, parce subtiliter punctato, ante basin transversim impresso, margine laterali guttis ad apicem pluribus læte flavis; elytris fortiter marginatis, lateribus subsinuatis, postice oblique angustatis, ad apicem truncatis, striato-punctatis, striis postice exaratis, interstitiis lævibus, macula antice transversa in marginem ad humerum extensa, altera majore ad medium, tertiaque postica elongata læte flavis; coxis posticis macula flava ornatis. Long. .8. Variat elytrorum maculis plus minus deficientibus, antica sæpe divisa.

One specimen, Arizona, Mr. Schott. Numerous specimens from New Mexico were brought by Capt. Pope. Congeneric with *Buprestis ambiens Lec.*, and having somewhat the form of *Agrilus*, though apparently related to *Ancylochira*. Antennæ shining, joints 3—6 successively wider, 7—11 triangular, with pores on the inferior edge. The labrum is small; the antennæ distant, inserted in small foveæ; the mandibles carinated, acute; the mentum closely united to the ligula, transverse, truncate, convex, entirely corneous. The sterna are not sulcate, mesosternum divided for only half its length. Legs unarmed, tarsi with broad equal joints, fifth depressed with widely divergent ungues. Scutellum small triangular. The fifth ventral segment of the abdomen is marked with a deep marginal groove around its posterior half; the groove each side ends suddenly in a small yellow spot. I cannot refer these species to any previously described genus.

Telephorus planicollis, fusco-niger, tenuiter parce pubescens, capite ante oculos pallido, thorace pallido, vitta dorsali fusca, latitudine fere duplo brevior, parum convexo, lævi subinæquali undique anguste marginato, elytris thorace haud latioribus minus subtiliter scabris. Long. .33.

One specimen, May 29th, Capt. Pope. Belongs to my division a. (Proc. Acad. 5, 340,) the outer claw of the posterior tarsi being armed with a large tooth: the thorax is comparatively less convex than usual, and the discoidal impressions are very vague: the reflexed margin is narrow, and equal at the sides, at the apex and the base; the 2nd joint of the antennæ is one third the size of the first or third which are equal. The head and thorax are pale beneath, but the legs and trunk are entirely black.

Trichodes bibalteatus, elongatus, rufo-pilosus, supra dilute rubidus, capite thoraceque longius villosis, elytris grosse confertim punctatis, fascia ante medium alteraque latiore ad dodrantem nigris; subtus niger antennis rufis clava fusca. Long. .63.

One specimen, Texas, Mr. Ulke. Related to *T. apivorus*, but narrower, and with no apical black spot on the elytra; the hair is also different in color, being reddish, while in *T. apivorus* it is black.

Microschattia sulcipennis, ovalis, convexa, atra opaca, thorace parce punctato antrorsum angustato, lateribus rotundatis marginatis, ad basin late rotundato utrinque sinuato, angulis posticis paulo productis subrectis, elytris sutura costisque utrinque 5 elevatis, 1ma 3iaque postice confluentibus 2nda 4taque utrinque abbreviatis, hac cum 3ia postice connexa, sulcis punctis quadratis magnis cribratis. Long. .60.

One specimen, Llano Estacado, Capt. Pope. The mentum is large, leaving between its sides and the mandibles only room for the palpi; the antennæ are stout, with the last joint very small, and the tarsi are thick, thus agreeing in generic characters with *M. inæqualis*. The prosternum is also broad and slightly produced as in that species. The abdomen is sparsely and not coarsely punctured.

PHILOLITHUS Lac.

In advance of the publication of the fifth volume of his work on the genera of Coleoptera, Prof. Lacordaire has sent me his description of the characters of this new genus, which contains all the species described by me as *Pelecyporus*. Though agreeing with that genus in the form of the mentum, which leaves a free space each side, more than sufficient for the movement of the palpi, it differs in the anterior tibiæ not being produced into a spine at the outer apical angle. Such at least is the only distinct difference noted in Prof. Lacordaire's description, and the only one that I have found in comparing specimens of *Pelecyporus mexicanus* Sol., kindly sent me by Mr. Sallé. An unnamed Mexican species, related by form and sculpture to *P. mexicanus*, also sent me by Mr. Sallé, does not show any trace of this spine, while in *P. conflens*, *hirsutus*, and especially in *P. rimatus*, this spine, or rather prolongation of the apical angle is quite distinct. Under these circumstances, though I have adopted the genus proposed by my learned friend, I am greatly in doubt whether it will not be necessary to recombine it again with *Pelecyporus*, the species of which being numerous and very different in form, may be divided into several natural groups, according to the form of the antennæ and tarsi, and the sculpture of the elytra.

The table of the relation of genera of Asidites, as sent me by Prof. Lacordaire is as follows:

I. Antennæ 11-articulate; maxillæ rarely visible.

a. Anterior tibiæ cylindrical: the apical external angle not prominent.

b. Mandibles separated from the submentum by a distinct interval.

Base of elytra emarginate in the arc of a circle

Microschattia.

Base of elytra truncate or sinuate	<i>Philolithus</i> .
<i>bb.</i> Mandibles and submentum contiguous	<i>Ologlyptus (Stenorides)</i>
<i>aa.</i> Anterior tibiæ compressed with the apical external angle prominent.	
Posterior angles of thorax distinct.	<i>Pelecyporus, Asida.</i>
Posterior angles not distinct	<i>Euschides.</i>
II. Antennæ 10-articulate: maxillæ visible in part.	
Tibiæ compressed, dentate	<i>Cardigenius.</i>
Tibiæ rounded, mutic	<i>Scotinus.</i>

Taking the division with 11-articulate antennæ, it appears to me that a more natural relation between our native genera is expressed as follows:

- A. Mentum filling the emargination of the gula.
- a. Last joint of maxillary palpi moderately dilated: mentum and mandibles approximate, leaving room only for the palpi.
- Base of elytra truncate, inflexed portion broad.
- Prosternum prominent, outer apical angle of anterior tibiæ prolonged *Astrotus Lec.*
- Prosternum not prominent, anterior tibiæ truncate *Pactostoma Lec.*
- Base of elytra emarginate, inflexed portion narrow *Microschatia Sol.*
- b. Last joint of maxillary palpi very large: mentum and mandibles separated by a moderately wide space: inflexed portion of the elytra wide *Pelecyporus Sol.*
- B. A distinct fissure between the sides of the mentum and the gula: last joint of maxillary palpi very large: inflexed portion of elytra wide *Euschides Lec.*

The type of *Astrotus* is *Microschatia contorta Lec.*; and of *Pactostoma* is *Asida anastomosis Say*.

Pelecyporus æger, piceo-niger, subnitidus, thorace latitudine duplo brevior, antice posticeque angustato, lateribus valde rotundatis depressis transversim rugosis, disco parce punctato, ad basin late emarginato, angulis posticis subacutis, elytris ovatis convexis postice valde declivibus, sutura, costis dorsalibus duabus ante apicem confluentibus margineque elevatis obtusis interstitiis inæqualibus haud punctatis: subtus parce punctatus, epipleuris inæqualibus impunctatis. Long. .75.

Llano Estacado, Capt. Pope. Closely related to *P. sordidus Lec.*, but differs by the disc of the thorax being only distantly punctured, while in that species the punctures are large, close and confluent. The under surface is likewise less densely punctured, and the epipleuræ are almost entirely free from punctures. The costæ of the elytra are broader and obtuse.

Pelecyporus irregularis, piceo niger nitidus, thorace latitudine plus duplo brevior, antice angustato, lateribus rotundatis depressis transversim rugosis, disco sat dense punctato, ad basin late vix emarginato, angulis posticis subacutis, elytris ovatis convexis postice valde declivibus, sutura costis duabus ante apicem confluentibus margineque elevatis, interstitiis valde inæqualibus, impunctatis; subtus punctatus, epipleuris punctis paucis notatis. Long. .81.

Llano Estacado, Capt. Pope. Also related to *P. sordidus*, but the sides of the thorax are less rounded, the base is hardly narrowed, and the disc is less densely, less coarsely and not confluently punctured.

Pelecyphorus costipennis, picco-niger, sordidus, opacus, thorace latitudine plus duplo brevior, lateribus valde rotundatis depressis, undique dense grosse confluentur punctato, ad basin late emarginato angulis posticis productis acutis, elytris breviter ovatis convexis, postice valde declivibus, sutura costis duabus ante apicem confluentibus margineque valde elevatis, interstitiis valde inæqualibus, epipleuris parce, punctatis, abdomine dense punctato. Long. 60—80.

Arizona, Dr. Webb. Also related to *P. sordidus*, but the thorax is comparatively larger, with the posterior angles more elongated and acute. The elytra are wider, with the costæ more elevated.

Eusattus productus, subcylindrico-ovalis, postice acutus, niger, thorace elytris latiore brevi modice convexo, vix subtilissime punctulato, postice valde bisinuato, angulis posticis acutis, lateribus fortiter depresso-marginatis, elytris inordinatim parcius muricato-punctatis, tibiis anticis serrulatis, angulo externo parum producto. Long. 44—52.

Arizona, Mr. Schott. Comparatively narrower than *E. dubius* Lec., much larger, with less convex and scarcely punctured thorax, and more distinctly punctured elytra; the latter exhibit a faint tendency to become sulcate, and the punctures are very obviously muricate: they are nearly parallel on the sides for three-fourths of their length, then narrowed obliquely to the apex which thus appears nearly acute.

Embaphion contusum, atrum opacum, thorace latitudine fere duplo latiore, antice profunde emarginato, lateribus valde rotundatis, disco parum convexo, parce punctato, margine lato explanato modice reflexo, angulis anticis subacutis, posticis latis obtusis valde rotundatis, basi media recte truncata, elytris dorso planis, postice valde declivibus, et acute angustatis, thorace vix latioribus fortiter reflexo-marginatis seriatim subtilius sat dense muricato-punctatis, ad apicem singulatim breviter acuminatis (♀) vel in cauda brevi prolongatis (♂). Long. 55—65.

Fort Laramie and Santa Fe. Though differing very much in form from the *Helæus*-like *E. muricatum* Say, the form of the antennæ, oral organs and legs require it to be associated in the same genus with that species.

Two specimens brought by Dr. Thos. H. Webb from Arizona differ in having the side of the thorax much more strongly reflexed, so that that part becomes considerably narrower than the elytra. This is probably merely an individual variation, as similar differences occur in *Cychrus elevatus*, as in many other insects in which the margins of the body are widely reflexed.

Rhipiphorus puncticeps, niger capite dense punctato, occipite obtuse rotundato, thorace rufo scabropunctato, lobo scutellari ad apicem impresso, elytris confertim grosse punctatis introrsum late impressis, testaceis, puncto humerali, gutta ad medium apiceque nigris, abdomine sanguineo; antennis rufis extrorsum fuscis. Long. 35—40.

Three specimens agreeing in color, from Ilano Estacado, Capt. Pope. Differs from our common, much varying species, called *R. varicolor* by Gerstæcker, (but which should rather be named *R. pectinatus* Fabr., that being the earliest name given to the species,) but differs by the head being uniformly densely punctured, by the an-

terior face of the occiput being a little flattened, and by the posterior margin being more broadly margined.

R. bicolor Say, placed as a synonym to *varicolor* by Gerstæcker, differs very much by the anterior face of the vertex being flattened, and the posterior so broadly rounded as to appear almost truncate, as noted by Say in his descriptions. Dr. Mel-sheimer considering the name *bicolor* as preoccupied by Olivier, substituted *R. ambiguus*, but described under that name a variety of *R. pectinatus*. Under these circumstances, in view of the fact that the name *bicolor* was preoccupied at the time of the description by Say, I have changed the name to *R. Sayi*, and although more recently Gerstæcker has placed Olivier's species as a synonym of *R. bimaculatus*, this does not obviate the necessity of removing the name which was imposed by Say under a misapprehension.

EUPOMPHA Lec.

Oculi subovati, obliqui integri; antennæ inter oculos antice insertæ, sublaxe articulatae, filiformes, capite thoraceque parum longiores, articulo 1mo obconico, crasso, sequentibus duobus brevioribus, 2do parvo, 3io sequente longioribus: palpi breves compressi. Tibiæ anticae extrorsum bisinuatae, posticae paulo incurvatae; hæ calcaribus brevibus, interno acuto, externo obtuso; tarsi posteriores compressi subtus biseriatim pubescentes, antici (maris?) articulis tribus dilatatis, inflatis supra concavis, subtus dense pubescentibus; ungues fissi, parte inferiore paulo brevioribus. Corpus alatum, elytris integris.

A very singular genus related to *Lytta* and *Phodaga* Lec., but sufficiently distinct from the first by the entire eyes, placed obliquely and not transversely, and from the second by the tarsi not being spinose beneath. The form is long and slender as in *Lytta polita* Say. The anterior thighs are not sinuate beneath near the tip, and have no dense pubescence at that place.

Eu. fissiceps, capite rufo profunde sulcato, ore fusco, thorace elytrisque cyaneo-viridibus, ænescentibus, illo nitido parce punctato, campanulato, canaliculato, dorso antice posticeque transversim impresso, elytris lineis elevatis confertis reticulatis; subtus viridi-cyanea, pedibus rufis coxis, trochanteribus femoribusque ad basin nigris, antennis brevibus filiformibus, fuscis, articulis tribus primis rufis. Long. .76.

Mas tarsis anticis articulis tribus dilatatis, inflatis, supra concavis.

One specimen collected by Capt. Pope, probable on the Llano Estacado.

Lytta corvina, atra, opaca, subtiliter nigro-pubescent, capite thoraceque confertissime punctatis, hoc rotundatim quadrato, latitudine paulo brevioribus, elytris thorace latioribus subtiliter dense punctulatis; labro modice emarginato; clypeo margine antico piceo-testaceo. Long. .80—98.

Arizona, Dr. Webb: Llano Estacado, Capt. Pope. Resembles *L. fissilabris* Lec., but is much larger, somewhat stouter, with the thorax broader than long, and the labrum less deeply, though still considerably emarginate. The second joint of the antennæ is small; the first is a little shorter than the third.

Lytta insulata, nigra, capite thoraceque flavis, parce grosse punctatis, ore guttis pluribus, lateribusque pone oculos nigris, thorace latitudine longiore, antrorsum sensim angustato, gutta utrinque antica in latera, maculaque utrinque postica discoidali obliqua nigris, elytris testaceo-fuscis, opacis, alutaceis punctulatis, vitta basali abbreviata, margine laterali, maculaque subapicali pallide-flavis, ad apicem nigricantibus. Long. .77.

Mas antennis ad articulo 2ndo geniculatis, palpis maxillaribus articulo ultimo magno elliptico, subtus concavo, patelliformi.

One specimen, collected May 10th, by Capt. Pope, on the route to Llano Estacado. This species belongs with *L. mylabrina*, &c., to my division B—e, (Proc. Acad. 6, 331); and the male of the latter species, as I have recently ascertained possesses similar sexual characters, though the dilated last joint of the maxillary palpi is more ovate, and is not so concave beneath. I have not seen males of *L. Germari*, and do not know whether they are similarly provided.

It is also to be noted that in the male of *L. mylabrina*, the antennæ besides being suddenly geniculated between the first and second joints are less slender than in the female.

Connected closely with *L. mylabrina*, are two forms to be here noticed; the first was collected by Capt. Pope on the Llano Estacado. It is .45—.55 long, sculptured, colored and spotted as in *L. mylabrina*, except that the lateral spots of the thorax are wanting, the two discoidal ones alone being present: the elytra are shining, less densely and more distinctly punctured. Sexual characters as above: first joint of the antennæ usually testaceous, or spotted, rarely entirely black.

The second form is found in Texas and New Mexico, was collected by Mr. Schott, and Capt. Pope. It is .7—.9 long, sculptured, colored and spotted, as in *L. mylabrina*, except that the elytra have only the two basal spots on each, and a large quadrate black blotch behind the middle extending from the suture almost to the margin, and corresponding to the medial transverse band of *L. mylabrina*; the apical black band is entirely wanting. The first joint of the antennæ is testaceous. All these forms vary greatly in the color of the under surface, and seem to present the phenomenon of races, and lead to the conclusion that *L. Engelmanni Lec.*, will eventually be ranked with them under *L. mylabrina*.

Lytta vittigera, sordide rufa, capite thoraceque nitidis parce punctatis, hoc latitudine longiore, antrorsum sensim angustato, macula utrinque antica in latera, alteraque postica discoidali nigris, elytris dense subtiliter punctulatis, subtiliter 4-lincatis, vitta lata nigra a humero fere ad apicem extensa; subtus nigra suturis rufis, femoribus basin, trochanteribusque testaceis. Long. .82.

Near the boundary of Texas. Dr. Berlandière; two females. Belongs to the same group as *L. mylabrina*, and probably varies equally in the size of the black spots of the under surface. One specimen, besides the black stripe of the elytra, has a black spot near the scutellum, but in the other it is hardly visible. It is nearly related to *L. discoidea Lec.*, but is very much larger, and has the elytra much more densely

punctured, and the legs differently colored. In the species last mentioned the sexual characters are as in *L. mylabrina*, but less strongly developed: the dilated joint of the maxillary palpi is narrowed, slightly trapezoidal, and flattened beneath.

Lytta tenella, nigro fusca, undique pube cinerea pruinosa, vix punctulata, capite antennis pedibusque rufo-testaceis, illo linea longitudinali glabro, thorace latitudine paulo longiore, campanulato, rufo-testaceo, nonnunquam nigricante. Long. 46.

Llano Estacado, July 4th, Capt. Pope. Belongs to group B—g, with *L. pennsylvanica*, *maculata*, &c., from all of which it differs much by the color. The outer spur of the anterior tibiæ is a little broader than the inner one, and obtuse.

Lytta linearis, elongata nigra, pube cinerea densissime vestita thorace latitudine longiore subcampanulato, labro vix emarginato, antennis articulis 2 et 3 brevibus (hoc tamen longiore) conjunctis 4to vix longioribus. Long. 46.

One specimen, August 4th, Llano Estacado, Capt. Pope. In form resembles our common *L. Fabricii* Lec., (*cinerea*|| Fabr.), but differs from it and from all others known to me by the proportion of the 2nd and 3rd joints of the antennæ. The joints after the 4th are equal in length, moderately closely articulated, slightly diminishing in breadth: the 2nd and 3rd joints together are a little longer than the 4th, and the 3rd is a little longer than the 2nd: the first joint is a little longer than the 2nd and 3rd together. The spurs of the posterior tibiæ are slender and acute. For present convenience this species may be placed in B—g, near *L. lemniscata*.

Lytta costata Lec., was also collected by Capt. Pope in considerable numbers, and I am therefore enabled to note on the present occasion the sexual characters. In the male the first articulation of the antennæ extends behind the eyes, and is slender; the 2nd is two-thirds as long as the 1st: the 3rd is double the length of the 2nd: the 4th and 5th are similar to the 3rd; the remaining joints are equal, and individually only one-third the length of the 5th. In the female the 1st and 3rd joints are equal, the 2nd less than two-thirds of the length; the 4th and 5th are equal to the 2nd, and the following ones about two-thirds the length of the 5th.

I stated (Proc. 7, 84) that the species might enter group B—g, but the above mentioned sexual characters would seem to indicate the propriety of establishing another group B—g'. for its reception.

Nemognatha flavicollis, nigra, capite nitido parce punctato, elongato, vertice sublævi, thorace conico flavo nitido, punctis paucis notato, elytris thorace duplo latioribus, fortiter haud dense punctatis, piceis postice ad suturam pallidioribus, pube brevi nigra erecta vestitis: mandibulis elongatis, antennis extrorsum sensim incrassatis; maxillis pallidis corpore duplo brevioribus. Long. 17.

One specimen, Texas, Mr. Ulke. This species belongs with *N. longicollis* Lec., to the group named *Gnathium* by Kirby. It differs from that species both in size, color and sculpture.

Eburia manca, fusca, subtiliter cinereo-pubescent, thorace rude punctato, latitudine paulo longiore, lateribus vix rotundatis tuberculo parvo acuto armatis, callis rotundatis 4 ante medium nitidis (externis in latera sitis), elytris sat dense punctatis, callo parvo basali, alteraque ad medium eburneis nitidis, ad apicem subtruncatis spina brevi suturali armatis, femoribus apice muticis. Long. .66.

Ringgold Barracks, Texas, Mr. Haldeman. Closely resembles *E. mutica* Lec., but the thorax is narrower and the lateral tubercle is more distinct, the ivory spots of the elytra are single, and the suture is slightly produced into a spine.

AMANNUS Lec.

Antennæ 11-articulatæ, filiformes, maris corpore longiores, feminae breviores, articulo 3io paulo longiore. Palpi breves æquales, compressi: mentum transversum, trapezoideum; mandibulæ integræ acutæ. Oculi subtiliter granulati. Thorax subcylindricus, antice paulo angustatus, nec apice nec basi marginatus. Elytra apice subrotundata. Pedes haud elongati, femora gracilia haud clavata; tarsi postici articulo 1mo sequentibus duobus longiore.

A genus distinguished rather by the want of any prominent character, and which will very likely fall into some previously established by other authors, but which from the imperfect method of description used cannot be identified with satisfaction.

It belongs to the numerous group V. of my arrangement, (Journ. Acad. 2nd ser. 2, 7,) which is known by the round dehiscent anterior acetabula, acute mandibles, flat mesosternum, simple not clavate thighs, compressed palpi and very short front. The genera have been increased since the writing of my paper, and renewed investigation having revealed some other characters, the following table, in advance of a full supplement to my memoir, may be found useful.

A. Oculi rude granulati.	<i>Eburia</i> , including <i>Cerasphorus</i> ; <i>Elaphidion</i> .
B. Oculi subtiliter granulati, (thorax haud armatus).	
Antennæ articulis spina apicali armatis	<i>Stenosphenus</i> .
Antennæ muticæ.	
Thorax basi apiceque marginatus;	
margine apicali valde prominulo	<i>Mannophorus</i> .
margine apicali medioeri	<i>Eriphus</i> .
Thorax nec basi nec apice marginatus	<i>Amannus</i> .
Thorax basi sola marginatus	<i>Arhopalus</i> .

I have removed *Purpuricenus* and *Tragidion* from the group, because the front is more elongated.

A. vittiger, niger, capite thoraceque dense pallide pubescentibus, hoc antrorsum subangustato lateribus late rotundatis, punctato, callo obsoleto dorsali lævi, elytris pallide flavis, vitta dorsali angusta antice parum abbreviata nigra, sutura margineque nigricantibus, confertim punctatis, pubescentibus, obsolete bicostatis, apice late haud subito truncatis; subtus dense pallide pubescens, abdomine fasciis nudis nitidis notato. Long. .43.

One specimen Llano Estacado, Capt. Pope. Has somewhat the appearance of *Sphenothecus*. The specimen is a female, with the antennæ two-thirds the length of the body.

A. pectoralis, niger, capite piceo-variegato, thorace cylindrico (pubescente?) parce subtiliter punctato, elytris confertim punctatis subtiliter pubescentibus vitta subsuturali testacea postice infusata, margine laterali fuliginoso, apice singulatim late rotundatis pone medium obsolete bicostatis; subtus testaceus, postpectore nigro, pedibus nigris, femoribus basi testaceis, antennis piceis basi nigris. Long. .27.

A dead specimen found by me at Fort Yuma, California. From some remains of pubescence at the sides I am disposed to believe that the thorax was hairy as in *A. vittiger*; the abdomen is similarly marked with transverse shining bands.

Stenaspis solitaria. A beautiful variety of this species having the head, thorax and anterior portion of the elytra of a dull red color was found by Capt. Pope in the valley of the Rio Grande.

Sphenothecus suturalis, niger supra tenuiter albo-pubescent, thorace obscure rubro, parce grosse punctato, callo parvò dorsali lævi, puncto basali, margineque postico albo-pubescente, scutello elytrorumque sutura dense albo-pubescente, his punctatis, ad apicem sinuatim emarginatis angulo externo dentigero; subtus dense pubescens, femoribus rufis. Long. .52.

Very distinct from the other two species. Found by Capt. Pope in the valley of the Rio Grande.

Tylosis sellatus, niger, dense cinereo-pubescent, thorace elytrisq. coccineis, tenuiter pubescentibus, illo grosse sat dense punctato, margine antico callisque 5 elevatis nitidis nigris, elytris antice grosse, postice confertim subtiliter punctatis, ad apicem rotundatis, macula subscutellari, altera humerali plagaque communi maxima a quadrante fere ad apicem extensa lateribus profunde sinuata ornatis. Long. .68.

One specimen, Llano Estacado, Capt. Pope. More slender than *T. maculatus*, with the apex of the elytra less broadly rounded.

Crossidius humeralis, sordide luteus, pubescens, thorace rotundato, longius pubescente, rude punctato, callis parvis duobus notato, elytris dense punctatis, vix obsolete bicostatis, linea brevi humerali nigra ornatis; subtus obscurus, densissime pubescens. Long. .48—.65.

Llano Estacado, August, Capt. Pope. Resembles in appearance *C. testaceus*, but the elytra are more finely and densely punctured, and the elevated lines can be scarcely observed: the sides of the thorax are rounded without any trace of a lateral tubercle.

Tragidion armatum, nigrum, breviter pubescens, capite vix cornuto, thorace latitudine brevior, confertim punctato, callo dorsali postico lævi, lateribus spina magna armatis, elytris fulvis, margine basali infusato, haud costatis, antennis articulis 3-7 testaceis ad apicem plus minusve infuscatis. Long. .80—1.0.

Llano Estacado, Capt. Pope. Stoutier than the other two species, and proportioned nearly as *Purpuricenus*: the hairs of the head and thorax are shorter, the lateral spine of the thorax much larger, and the elytra uniformly convex, not at all sulcate. The anterior tibiæ are sometimes testaceous at the base. The prominences between the antennæ, even in the male, are less conspicuous than in the other species, and the first joint of the antennæ is comparatively less thickened.

Clytus irroratus, niger, pube subtili cinerea irroratus, thorace latitudine haud brevior, lateribus bene rotundatis, rude punctato, dorso longitudinaliter subelevato, tuberculis paucis transversis notato, utrinque subplanato, elytris fusco-testaceis, subtilius dense rugosis, plagis nigricantibus, lineolisque angulatis cinereo-pubescentibus variegatis, ad apicem singulatim acuminatis femoribus apice bispinosis. Long. .5—·75.

Texas, Mr. Haldeman. Resembles in color and markings *C. nauticus*, but differs very much by the thorax being regularly rounded on the sides, and the femora with two terminal spines as in *C. luscus*, &c. The scutellum is covered with dense white pubescence, divided by a black line. The cinereous angulated lines of the elytra are very indistinct. The antennæ are thickened externally.

Tetraopes discoideus, niger, undique cinereo-pubescent et nigro-pilosus, thorace lateribus parum sinuatis, medio subito sed haud alte elevato, guttis 4 nigerrimis notato, apice et basi coccineo, elytris basi lateribus et ramo ad medium laterali obliquo coccineis, mox pone ramo macula utrinque nigrima notatis; antennis nigris haud annulatis. Long. .32.

Llano Estacado, Capt. Pope. Remarkably distinct from all other species by the black head. It is more nearly allied to *T. umbonatus* Lec. than any other, and its marking may be conceived to be derived from the design of that species by extending the black over the greater part of the thorax, and enlarging the anterior black blotch of the elytra so that it unites with the posterior one, as in some varieties of *T. canteriator*.

Eurysepta aeneipennis, æneo-nigra, undique dense cinereo-pubescent, thorace latitudine haud brevior, lateribus rectis, confertim punctato, linea dorsali obsoleta, elytris viridiæneis glabris, fortiter seriatim punctatis, seriebus versus basin introrsum confusis, lobis humeralibus majusculis pubescentibus; antennarum articulo 3io 4to paulo minore. Long. .26—·33.

Llano Estacado, Capt. Pope. Belongs to Lacordaire's Division IV. (Col. Phytoph. 2, 506.)

Eurysepta vittata, nigra, subtus dense cinereo-pubescent, capite dense, thorace ad latera modice pubescentibus, hoc latitudine brevior, lateribus subrotundatis, medio parce subtiliter lateribus distincte punctato, elytris seriatim punctatis vitta lata rubra a humero longe ultra medium extensa. Long. .29.

One male, Llano Estacado, Capt. Pope. Seems related to the Mexican *Eu. Pilatei* and *scapularis* Lac., but differs by the longer elytral vitta: it covers entirely the lobe of the epipleuræ, but leaves the humeral callus black.

Doryphora Rogersii, rotundata valde convexa, nigro-cyanea, thorace minus dense punctato, subtilius in medio, lateribus rotundatis, postice subparallelis, elytris auruntiacis, seriatim punctatis, seriebus per paria approximatis, externis confusis, macula magna humerali, alterisque pluribus parvis nigris. Long. .32—·47.

Platte River, Nebraska: Llano Estacado, Capt. Pope. Related to *D. trimaculata*, but apart from the markings of the elytra, it differs by the sides of the thorax being nearly parallel posteriorly, so that the base is not at all narrowed as in that species. The spots on the elytra are variable in size, and the two middle ones are sometimes confluent. They are placed: on each, two small ones near the base, and

a large humeral one; then two at the middle near the suture, sometimes confluent; then three, the outer one near the margin, the inner ones usually confluent, and about one-third from the suture and one-third from the tip; finally a small dot near the lateral margin, about one-fifth from the tip; the suture is dark brown, nearly black.

I dedicate this species to the memory of my lamented and highly esteemed friend W. F. Rogers, whose synopsis of the Chrysomelæ of the U. S. (Pr. Acad. 8, 29) gave evidence of ability and usefulness, which has been lost to science by his untimely death.

Haltica pluriligata, pallide flava elongata, thorace latitudine sesqui brevior fere obsolete punctulato, guttis nigris quatuor lineolaque media versus basin ornato, lateribus marginatis rotundatis, elytris subtiliter parce punctulatis, sutura, vitta discoidea apicem haud attingente, alteraque juxta marginem nigris; tibiis apicē, tarsisque fuscis, antennis nigro-piceis, articulis tribus flavis, supra infuscatis. Long. .82.

Kansas and Texas. Allied to *A. alternata*, but narrower, and with a less transverse thorax.

Haltica torquata, elongata, thorace punctulato, ad basin late rotundato, ante basin profunde transversim sulcato, plus minusve cupreo, elytris chalybeis, purpureo-micantibus, confertim punctulatis, margine tenui epipleuris cupreo-æneis; subtus obscure ænea, pedibus purpureo-chalybeis. Long. .2.

Santa Fe, New Mexico, Messrs. Fendler and R. C. Kern: Fort Yuma. An elongate Graptodera, readily distinguished from the other species resembling it, by the color and fine dense punctuation of the elytra.

LIST OF SPECIES.

CICINDELIDÆ.

Dromochorus Guérin.

Pilatei Guérin, 'Rev. Zool. 1846, tab.' Vittoria, Texas.?

Megacephala Latr.

carolina Dej. 1, 8. Tex., Ar., Col.

Cicindela carolina Linn.

Megacephala carolinensis Latr.

Cicindela Linn.

vulturina Lec., Proc. Acad. 6, 439; Tr. Am. Phil. Soc.

11, 32. Tex.

viatica Chev. Col. Mex. 2nd cent.; Lec. *ibid.* 11, 62. Ar.

latesignata Lec., Ann. Lyc. 5, 172. SD.

hirticollis Say, Tr. Am. Phil. Soc., 1, 20. Fr. G. SD.

Cicindela albohirta Dej.

Cicindela gravida Lec.

tenuisignata Lec., Ann. Lyc. 5, 171; Tr. Am. Phil.

Soc. 11, 44. Tex. Col.

Saulcyi Guérin, Rev. Zool. 1840, 37. Tex.

Cicindela venusta Fér. *ibid.* 1841, 37.

cuprascens Lec., Proc. Acad. 6, 65; Tr. Am. Phil. Soc.

11, 49. Fr.

sperata Lec., Tr. Am. Phil. Soc. 11, 50. Tex. Fr.

sigmoidea Lec., Ann. Lyc. 5, 172; Tr. Am. Phil.

Soc. 11, 52. SD.

punctulata Fabr. Fr. Tex.

var. *micans* Fabr.

decostigma Chev., Col. Mex. cent. 1; Lec. Tr. Am.

Phil. Soc. 11, 54. Tex.

hemorrhagica Lec., Ann. Lyc. 5, 171; Tr. Am. Phil.

Soc., 11, 54. SD.

sedecimpunctata Klug., Jahrb. 32; Lec. Tr. Am. Phil.

Soc., 11, 56. Fr. Ar.

Cicindela rubriventris Chev.

severa Fér., Rev. Zool. 1841, 41; Lec. Tr.

Am. Phil. Soc. 11, 58. Tex., Tampico.

circumpicta, Fér., *ibid.* 39, Lec. *ibid.* 58. Tex.

Cicindela Johnsonii Fitch, Tr. N. Y. Ag. Soc., 1856,

487.

prætextata Lec., Proc. Acad. Nat. Sc. 7, 220; Tr. Am.

Phil. Soc., 11, 58. Ar.

togata Fér., Rev. Zool., 1841, 40; Lec. 1. c., 11, 58. Tex.

lemniscata Lec., Proc. Acad. Nat. Sci. 7, 220; Trans.

Am. Phil. Soc. 11, 59. Ar.

The following abbreviations of localities are employed:—Tex. Texas; Fr. Frontera: CM. Copper Mines: Ar. Arizona: Col. Colorado: Vall. Vallecitas: SI. Santa Isabel: SD. San Diego: G. Gila: Cal. California: Mx. Mexico: Kz. Kansas: LS. Lake Superior.

CARABIDÆ.

Brachinus Weber.

- Deyrollei* Ferté, Rev. Zool. 1841.....Tex.
 ? *Brachinus strenuus* Lec., Proc. Acad. 2, 48;
 Ann. Lyc., 4, 200.
glabripennis Lec.,.....G. SD.
Tschernikhii Mann., Bull. Mosc. 1843, 184.....SD.
puncticollis Lec.,.....Ar.
fidelis Lec.,.....Ar.
lateralis Dej., Sp. 5, 426.....Col. Tex.

Galerita Fabr.

- californica* Mann., Bull. Mosc. 1843, 183.....Ar.
atripes Lec., Pr. Acad. 1858, 59.....Tex. Kz.

Helluomorpha Lap.

- ferruginea* Lec., Trans. Am. Phil. Soc. 10, 373.....Tex.
texana Lec., ibid. 374.....Tex.

Lachnophorus Dej.

- elegantulus* Mann., Bull. Mosc. 1843, 215...G. Cal. Mex. Kz.

Ega Lap.

- lætula* Lec., Ann. Lyc. 5, 173.....Col.

Lebia Latr.

- grandis* Hentz., Trans. Am. Phil. Soc. 3, 53.....Tex.
ruficollis Lec., Ann. Lyc. 5, 178.....SD.
cyanipennis Dej., Sp. 5, 385.....SD.
furcata Lec., Ann. Lyc. 4, 193.....Col. LS. Kz.
guttula Lec., ibid. 5, 178.....Col.

Apristus Chaud.

- laticollis* Lec., Ann. Lyc. 5, 176.....SD.

Blechrus Motsch. (emend. Schaum).

- lucidus* Schaum, Ins. Deutschl. 1, 275.....Col.
Bomius lucidus Lec., Ann. Lyc. 5, 177.

Axinopalpus Lec.

- californicus* Lec., Ann. Lyc. 5, 175.....SD.
Dromius californicus Motsch. Bull. Mosc. 1845, 336.

Glycia Chaud.

- viridicollis* Lec., Trans. Am. Phil. Soc. 11, 379.....Tex. Kz.
Cymidis viridicollis Lec., Ann. Lyc. 4, 188.

Callida Dej.

- planulata* Lec., Proc. Acad. 1858, 59.....Tex.
cyanoptera Lec., ibid. 59.....Tex.

Cymindis Latr.

- punctigera* Lec.,.....Col.

Pinacodera Schaum.

- platicollis* Schaum, Ins. Deutschl. 1, 294.....Tex.
Cymindis platicollis Say.
Cymindis complanata Dej.
Lebia russata Newman.

Philotecnus Lec.

- croceicollis* Lec., Tr. Am. Phil. Soc. 10, 379.....SD.
Calleida croceicollis Ménétr., Bull. Mosc. 2, 53.
Philotecnus ruficollis Lec., Ann. Lyc. 5, 175.

Tachys Lec.

- obesulus* Lec., Ann. Lyc. 5, 192.....Ar.
elegantulus Ferté, Rev. Zool. 1841.....Tex.
rapax Lec., Ann. Lyc. 5, 192.....G.
audax Lec., Ann. Lyc. 5, 193.....Col.
vittiger Lec., Ann. Lyc. 5, 193.....SD.
marginellus Lec., Ann. Lyc. 5, 193.....Col.
corax Lec., Ann. Lyc. 5, 194.....Col.
mordax Lec., Ann. Lyc. 5, 193.....Col.
vorax Lec., Ann. Lyc. 5, 194.....Col. G.

Calathus Bon.

- ruficollis* Dej., Sp. 3, 78.....SD.
obscurus Lec., Proc. Acad. 7, 37.....SD.

Platynus Bon. (emend. Brullé.)

- bicolor* Lec., Proc. Acad. Nat. Sc. 7, 43.....SD.
funebis Lec., ibid. 7, 45.....SD.
extensicollis Lec., (races *♂* & *♀*) ibid. 7, 46.....Ar.
Feronia extensicollis Say.
simplex Lec., Proc. Acad. Nat. Sc. 7, 46.....Col.
decorus Lec., (race *α*) ibid. 7, 47.....G.
Feronia decora Say.
californicus Lec., Pr. Acad. 7, 47.....SD.
Anchomenus californicus Dej., Sp. 3, 128.
frater Lec., Proc. Acad. 7, 49.....SD.
cupripennis Lec., Pr. Acad. 7, 50.....Tex.
Feronia cupripennis Say.
punctiformis Lec., Pr. Acad. 7, 50.....Tex.
Feronia punctiformis Say.
Agonum rufipes Dej.
Agonum foveicolle Chaud.
subcordatus Lec., Pr. Acad. 7, 51.....Tex. Kz. LS.
 ? *Agonum erythropum* Kirby.
placidus Lec., Pr. Acad. 7, 55.....Tex.
Feronia placida Say.
Agonum morosum Dej.
maculicollis Lec., Pr. Acad. 7, 55.....SD.
Agonum maculicolle Dej.
fossiger Lec., Pr. Acad. 7, 56.....SD. Col.
Agonum fossiger Dej.

Evarthrus Lec.

- Engelmanni* Lec., Journ. Acad. 2nd ser. 5, 228.....Tex.
substriatus Lec., ibid. 233.....Tex. Fr.
Feronia (Molops) substriata Lec., Ann. Lyc. 4, 344.
heros Lec.,.....Tex.
Feronia heros Say, Journ. Acad. 3, 145.
gravidus Hald., Pr. Acad. 6, 361.....Tex.

Pterostichus Bon. (emend. Er.)

- Isabellæ* Lec., Ann. Lyc. 5, 58; Journ. Acad. 2nd ser. 2, 237.....SI.
congestus Lec.,.....SD.
Feronia congesta Ménétr. Bull. Petrop. 2, 59.
Pterostichus illustris Lec., Ann. Lyc. 5, 58; Journ. Acad. 2nd ser. 2, 237.
californicus Mann., Bull. Mosc. 1843, 199, (nec Lec.).....SD.
simplex Lec., Ann. Lyc. 5, 57; J. Ac. 2nd ser. 2, 238.
submarginatus Lec., Journ. Acad. 2nd ser. 2, 246.....Tex.
Feronia submarginata Say, Tr. Am. Phil. Soc. 2, 45.

Poecilus Bon.

- subcordatus* Lec., Ann. Lyc. 5, 37.....Col.

- Sayi *Brullé*, Silb. Rev. Entom. 3, 277.....Tex.
Feronia chalcites|| Say, Tr. Am. Phil. Soc. 2, 56.
cursitor Lec., Journ. Acad. 2d ser. 2, 254.....SI.
Pæcilus cursorius|| Lec., Ann. Lyc. 5, 57.
- A m a r a Bon.
- Jacobina *Lec.*, Proc. Acad. 7, 346.....SD.
insignis Dej., Sp. 5, 796.....SD.
californica Dej., Sp. 3, 474.....SD. Col. Ar.
aurata Dej., Sp. 3, 475.....SD.
- S t e n o m o r p h u s Dej.
- rufipes Lec.*, Proc. Acad. 1858, 59.....Tex.
- N o t h o p u s Lec.
- zabroides Lec.*, Proc. Acad. 6, 67.....Tex. Kz.
Euryderus|| *zabroides Lec.*, Ann. Lyc. 4, 152.
- M e l a n o t u s Dej.
- erro Lec.*, Proc. Acad. 7, 221.....Ar.
- A n i s o d a c t y l u s Dej.
- piceus Lec.*, Tr. Am. Philos. Soc. 10, 383.....SD
Diplocheirus piceus Ménétr.
Dicheirus parallelus Lec.
rusticus Dej., Sp. Gen. 4, 157.....Tex.
Harpalus rusticus Say, Tr. Am. Phil. Soc. 2, 32.
ellepticus Lec., Ann. Lyc. 4, 334.....Tex.
brevicollis Lec., Ann. Lyc. 5, 183.....SI.
consobrinus Lec., Ann. Lyc. 5, 183.....SD.
baltimorensis Dej., Sp. Gen. 4, 152.....SD.
Harpalus baltimorensis Say, Tr. Am. Phil. Soc. 2, 33.
- G y n a n d r o t a r s u s Ferté.
- harpaloides Ferté*, Ann. Ent. Soc. Fr. 1841, 203.....Tex.
- B r a d y c e l l u s Er.
- rupestris Lec.*.....Tex.
Trechus rupestris Say, Tr. Am. Phil. Soc. 2, 91.
Acupalpus elongatulus Dej., Sp. 4, 437.
Trechus flavipes Kirby, Fauna B. A. 4, 47.
nitens Lec., Proc. Acad. 1858, 60.....SD.
nubifer Lec., Proc. Acad. 1858, 60.....SD. Ar.
ventralis Lec., Proc. Acad. 1858, 61.....Ar.
rivalis Lec., Proc. Acad. 1858, 61.....Col.
- H a r p a l u s Latr.
- læsus Lec.*, Proc. Acad. 1858, 59.....Tex.
impotens Lec., Journ. Acad. 2d ser. 4, 14.....El Paso, Ar.
troglodytes Lec......Tex.
Selenophorus troglodytes Dej., Sp. 4, 101.
caliginosus Say, Tr. Am. Phil. Soc. 2, 26.....Tex.
Carabus caliginosus Fabr., Syst. El. 1, 188.
retractus Lec.
Harpalus impiger|| Lec., Proc. Acad. 7, 79.....Fr.
nitidulus Chaud., Bull. Mosc. 1843.....Tex.
gravis Lec., Proc. Acad. 1858, 60.....Tex.
dulcicollis Ferté, Rev. Zool. 1841.....Tex.
- S t e n o l o p h u s Dej.
- flavipes Lec.*, Proc. Acad. 1858, 60.....SD.
ochropes Dej., Sp. 4, 424.....Ar.
Feronia ochropeza Say, Tr. Am. Phil. Soc. 2, 54.
cincticollis Lec., Proc. Acad. 1858, 60.....Col.
californicus Lec., Pac. R. R. 47th Par. Ins. 29.....Col. S. Fr.
- D i c æ l u s Bon.
- costatus Lec.*, Tr. Am. Phil. Soc. 10, 389.....Tex.
splendidus Say, Tr. Am. Phil. Soc. 2, 69.....Tex.
Dicælus decoloratus Lec., Ann. Lyc. 4, 423.
- opacus Ferté*, Rev. Zool. 1841.....Tex.
- O o d e s Bon.
- elegans Lec.*, Ann. Lyc. 5, 180.....G.
- C h l æ n i u s Bon.
- posticus Lec.*, Tr. Am. Phil. Soc. 10, 390.....Col.
Chlænus apicalis|| Lec., Ann. Lyc. 5, 179.
erythropus Germ., Ins. Nov. 11.....Tex.
Chlænus rufilabris Dej., Sp. 2, 329.
regularis Lec., Ann. Lyc. 5, 179.....Col.
cutatilis Lec., Ann. Lyc. 5, 179.....SD.
leucoscels Chev., Col. Mex. cent. Ima.....Ar.
Chlænus monachus Lec., Ann. Lyc. 5, 180.
tricolor Dej., Sp. 2, 334.....Tex.
glaucus Lec., Proc. Acad. 8, 28.....Col.
asperulus Ménétr., Bull. Pétróp. 2, 55.....SD.
Chlænus obscurus Lec., Ann. Lyc. 5, 178.
? Chlænus variabilipes Esch., Zool. Atl. 5, 27.
obsoletus Lec., Ann. Lyc. 5, 180.....SD. Col.
- P a s i m a c h u s Bon.
- validus Lec.*, Jour. Acad. 2d ser. 4, 14.....Tex. Ar. Kz.
Pasimachus punctulatus|| Lec., Ann. Lyc. 4, 146.
corpulentus Lec., Journ. Acad. 2d ser. 4, 15.....Tex.
viridans Lec., Proc. Acad. 1858, 61.....Ar.
costifer Lec., Pr. Ac. 7, 79, J. Ac. 2d ser. 4, 15.....Tex. Kz.
- S c a r i t e s Fabr.
- californicus Lec.*, Ann. Lyc. 5, 198.....SD.
- S c h i z o g e n i u s Putzeys.
- depressus Lec.*, Ann. Lyc. 5, 197.....Col.
pluripunctatus Lec., Ann. Lyc. 5, 197.....Col.
var. simplex Lec., *ibid.*
crenulatus Lec., Ann. Lyc. 5, 197.....Col.
- C l i v i n a Latr.
- corvina Putzeys*, Mon. Cliv. 92.....Col. Ga.
Clivina confusa Lec., Ann. Lyc. 5, 198.
fissipes Putzeys, Mon. Cliv. 89.....Tex.
stigmula Putzeys, Mon. Cliv. 104.....Tex.
analis Putzeys, Mon. Cliv. 81.....Tex.
- A c e p h o r u s Lec.
- marinus Lec.*, Ann. Lyc. 5, 195.....SD.
- D y s c h i r i u s Bon.
- curvispinus Putzeys*, Mon. Cliv. 41.....Tex.
sublævis Putzeys, Mon. Cliv. 42.....Tex.
edentulus Putzeys, Mon. Cliv. 51.....Tex.
tridentatus Lec., Ann. Lyc. 5, 195.....SD.
convexus Lec., Ann. Lyc. 5, 185.
patruelis Lec., Ann. Lyc. 5, 196.....SD.
basalis Lec., Proc. Acad. 1857, 77.....Col.
integer Lec., Ann. Lyc. 5, 196.....Col.
analis Lec., Ann. Lyc. 5, 196.....Col.
gibbipennis Lec., Proc. Acad. 1857, 77.....SD.
aratus Lec., Ann. Lyc. 5, 196.....G.
- B e m b i d i u m Latr.
- O c t h e d r o m u s Lec. (olim.)
- sempunctatum Lec.*, Ann. Lyc. 5, 186.....Col.
bifossulatum Lec., Ann. Lyc. 5, 186.....SD.
insulatum Lec., Ann. Lyc. 5, 186.....SD.
approximatum Lec., Ann. Lyc. 5, 187.....SD.
(var.) Ochthedromus consentaneus Lec., *ibid.*

- viridicollis*Tex.
No'aphus viridicollis Ferté, Rev. Zool. 1841.
 (var.) *Ochthedromus tessellatus* Lec., Ann. Lyc. 5, 188.
patruele Dej., Sp. 5, 69.....SD. NY.
laticolle Lec., Ann. Lyc. 5, 187.....Col.
pictum Lec., Ann. Lyc. 4, 461.....SD. Col.
ephippigerum Lec., Ann. Lyc. 5, 188.....SD.
vile Lec., Ann. Lyc. 5, 189.....SD.
aratum Lec., Ann. Lyc. 5, 189.....Ar.
grandicolle Lec., Ann. Lyc. 5, 189.....SD.
striola Lec., Ann. Lyc. 5, 190.....SD.
Mannerheimii Lec., Ann. Lyc. 5, 190.....SD.
Bembidium transversale† Mann., Bull. Mosc. 216.
trechiforme Lec., Ann. Lyc. 5, 190.....SI.
Lymnaeum Stephens.
laticeps Lec., Proc. Acad. 1858, 61.....SD.
Pericompsus Lec.
sellatus Lec., Ann. Lyc. 5, 191.....Col.
lætulus Lec., Ann. Lyc. 5, 192.....G.
Cychrus Fabr.
heros Lec., Tr. Am. Phil. Soc. 10, 398.....Red River. Ohio.
Scaphinotus heros Harris, Bost. Jr. Nat. Hist. 2, 196.
Carabus Linn.
finitimus Hald., Stanbury's Exp. 373.....Tex.
Calosoma Fabr.
scrutator Fabr., Syst. El. 1, 213.....Tex. Son.
Wilcoxi Lec., Ann. Lyc. 4, 446.....Tex.
semilæve Lec., Ann. Lyc. 5, 199.....SD.
lugubre Lec., Tr. Am. Phil. Soc. 10, 400.....Tex.
prouinens Lec., Mels. Cat. 11.....Ar.
Calosoma angulatum|| Lec. Ann. Lyc. 5, 199.
macrum Lec., Tr. Am. Phil. Soc. 10, 400.....Tex.
Omophron Latr.
dentatum Lec., Ann. Lyc. 5, 200.....SD.
Gilæ Lec., Ann. Lyc. 5, 200.....G.
nitidum Lec., Ann. Lyc. 4, 447.....Tex.
 DYTISCIDÆ.
Haliphus Latr.
concolor Lec., Ann. Lyc. 5, 201.....SD.
Cnemidotus Illiger.
callosus Lec., Ann. Lyc. 5, 201.....SD.
simplex Lec., Ann. Lyc. 5, 301.....SD.
Hydroporus Clairv.
hydropicus Lec., Ann. Lyc. 5, 205.....SD.
latissimus Lec., Ann. Lyc. 5, 205.....SD.
macularis Lec., Ann. Lyc. 5, 206.....Col. G.
cinctellus Lec., Ann. Lyc. 5, 206.....Col.
amandus Lec., Ann. Lyc. 5, 207.....G.
subtilis Lec., Ann. Lyc. 5, 206.....SI.
striatellus Lec., Ann. Lyc., 5, 207.....SD. El Paso.
fortis Lec., Ann. Lyc. 5, 207.....SD.
latebrosus Lec., Ann. Lyc. 4, 208.....SD.
medialis Lec., Ann. Lyc. 5, 209.....SD.
fraternus Lec., Ann. Lyc. 5, 209.....Col.
Laccophilus Leach.
truncatus Mann. Bull. Mosc. 1853, 160.....SD. Col. Ar. Kz.

- Coptotomus* Say.
difficilis Lec., Ann. Lyc. 5, 204.....Col.
Colymbetes Clairv.
strigatus Lec., Ann. Lyc. 5, 203.....SD.
binotatus Harris, N. Eng. Farm. 7, 164.....SD.
Ilybius Er.
regularis Lec., Ann. Lyc. 5, 203.....SD.
Agabus Leach.
lugens Lec., Ann. Lyc. 5, 203.....SD. Col.
obsoletus Lec., Jour. Acad. 2d ser. 4, 15.....SD.
semivittatus Lec., Ann. Lyc. 5, 204.....Col.
Cybister Curtis.
explanatus Lec., Ann. Lyc. 5, 202.....SD.
ellipticus Lec. Ann. Lyc. 4, 202.....Col. Ar. El Paso.
Dytiscus Linn.
anxius Mann., Bull. Mosc. 1843, 218.....SD. Val.
Dytiscus marginicollis Lec., Bost. Jr. Nat. Hist. 5, 209.
Eunectes Er.
sticticus Er., Gen. Dytisc. 23.....Val. (Europe).
Dytiscus sticticus Linn.
Acilius Lech.
simplex Lec., Ann. Lyc. 5, 202.....SD.
basillaris.....Ar.
Dytiscus basillaris Harris, N. E. Farm. 1829, 1.
Acilius incisus Aubé.
latecinctus Lec., Ann. Lyc. 5, 203.....Val.
flavomaculatus Lec.CM. Ar. Mx.
Hydaticus flavomaculatus Chevr., Col. Mx. cent. 1.
Acilius maculatus|| Lec., Proc. Acad. Nat. Sc. 7, 221.
 GYRINIDÆ.
Gyrinus Linn.
plicifer Lec., Ann. Lyc. 5, 209.....SD.
Dineutes M'Leay.
sublineatus Aubé, Hydroc. 775.....Son.
integer Lec., Proc. Acad. 7, 221.....CM. Ar.
Gyretes Brullé.
sinuatus Lec., Ann. Lyc. 5, 210.....Col.
 HYDROPHILIDÆ.
Hydrochus Germ.
foveatus Hald., Stansb. Rep. 375; Lec., Pr. Ac. 7, 360.....Tex.
variolatus Lec., Ann. Lyc. 5, 193; ibid.....SD.
vagus Lec., ibid. ibid.....Col.
Ochthebius Leach.
puncticollis Lec., Ann. Lyc. 5, 210.....Ar.
lineatus Lec., Ann. Lyc. 5, 211.....Col.
interruptus Lec., Ann. Lyc. 5, 210.....SD.
fossatus Lec., Pr. Acad. 7, 362.....Col.
Berosus Leach.
punctatissimus Lec., Ann. Lyc. 5, 211.....SD.
miles Lec., Pr. Acad. 7, 363.....Tex.
subsignatus Lec., Pr. Acad. 7, 364.....Tex.
punctulatus Lec., Ann. Lyc. 5, 211.....Col. Cal.
exilis Lec., Ann. Lyc. 5, 211.....G.
Hydrophilus Geoffroy.
triangularis Say, Journ. Acad. 3, 201.....Val.
Hydrophilus lugubris Motsch. Bull. Mosc. 1845, 31.
Stethoxus subsulcatus Lec. (var.) Proc. Acad. 7, 221.

lateralis *Herbst*, Käfer, 7, 296.....Tex.
Hydrophilus nimbatu Say, Journ. Acad. 3, 203.
 limbalis *Lec.*, Proc. Acad. 7, 367.....SD. Ar.
 californicus *Lec.*, Proc. Acad. 7, 367.....SD. Ar.
 ellipticus *Lec.*, Proc. Acad. 7, 368.....Son. Santa Fe.

Hydrocharis Latr.

lineatus *Lec.*, Proc. Acad. 7, 368.....SD.

Philydrus Sol.

pectoralis *Lec.*, Proc. Acad. 7, 370.....Col.

cristatus *Lec.*, Proc. Acad. 7, 370.....SD.

Cyclonotum Er.

cacti *Lec.*, Proc. Acad. 7, 373.....SD.

Cercyon Leach.

fimbriatum *Mann.*, Bull. Mosc. 1852, 344.....SD. Sitka.

capillatum *Lec.*, Proc. Acad. 7, 374.....SD.

SILPHALES.

Necrophorus Fabr.

mediatus *Fabr.*, Syst. El. 1, 334.....Tex.

guttula *Motsch.*, Bull. Mosc. 1845, 1, 53.....SD.

Silpha Linn.

lapponica *Herbst.*, Käfer, 5, 209.....SD. El Paso, Tex.

ramosa *Say.*, J. Acad. Nat. Sc. 2, 193.....SD. Kz.

Silpha cervaria Mann., Bull. Mosc. 1843, 262.

truncata *Say.*, J. Ac. Nat. Sc. 3, 193.....Son. Kz.

Catops Paykull.

californicus *Lec.*, Proc. Acad. 6, 281.....SD. SI.

PSELAPHIDÆ.

Faronus Aubé.

Isabellæ *Lec.*, Ann. Lyc. 5, 215.....SI.

Bryaxis Leach.

subtilis *Lec.*, Ann. Lyc. 5, 215.....G.

foveata *Lec.*, Ann. Lyc. 5, 215.....G.

STAPHYLINIDÆ.*

Aleochara Grav.

valida *Lec.*, Jour. Acad. 2d ser. 4, 16.....SD.

Thinopinus Lec.

pictus *Lec.*, Ann. Lyc. 5, 216.....SD.

Trichocanthus variegatus Motsch.; Mann. Bull. Mosc., 1853, 187.

Staphylinus Linn.

villosus *Grav.*, Col. Microp. 160.....SD. Tex. N. Y.

Belonuchus Nordman.

ephippiatus *Er.*, Staph. 927.....SD.

Staphyl. ephippiatus Say, Tr. Am. Ph. Soc. 4, 448.

Philonthus Leach.

canescens *Mann.*, Bull. Mosc. 1852, 313.....SD. Sitka.

Siegwaldi *Mann.*, Bull. Mosc. 1843, 230.....SD.

Quedius Leach.

explanatus *Lec.*, Proc. Acad. 1858, 61.....SD.

Pæderus Fabr.

femoralis *Lec.*, Proc. Acad. 1858, 62.....G.

ustus *Lec.*, Proc. Acad. 1858, 62.....Col.

HISTERIDÆ.

Hololepta Payk.

populnea *Lec.*, Ann. Lyc. 5, 162.....Col.

Hololepta bractea Er. (fide de Marseul).....South Amer.

cacti *Lec.*, Ann. Lyc. 5, 162.....SD.

vicina *Lec.*, Ann. Lyc. 5, 162.....SD.

Hister Linn.

texasus *Marseul.* (Omalodes), Ann. Ent. Soc. Fr. 3d

ser. 1, 506.....Tex.

incertus *Marseul.*, Ann. Ent. Soc. Fr. 3d. ser. 2, 269.....Tex.

cænosus *Er.* Klug's Jahrb. 140.....Tex.

Hister decius Lec. Bost. Jour. Nat. Hist.

costatus *Lec.*, Marseul. Ann. Ent. Soc. Fr. 3d ser. 5, 407.

corticalis *Lec.*, Ann. Lyc. 5, 163.....Col.

Epiurus Er.

vicinus *Lec.*, Ann. Lyc. 5, 164.....Col.

decipiens *Lec.*, Ann. Lyc. 5, 164.....Col.

Epiurus planulus Er., (fide Marseul.).....New Grenada.

Paromalus Er.

opuntiae *Lec.*, Ann. Lyc. 5, 164.....SD.

consors *Lec.*, Ann. Lyc. 5, 164.....SD.

Gilensis *Lec.*, Ann. Lyc. 5, 164.....Gila.

Paromalus tenellus Er., (fide Marseul.).....New Grenada.

Saprinus Leach.

alienus *Lec.*, Ann. Lyc. 5, 167.....Col.

discoidalis *Lec.*, Ann. Lyc. 5, 167.....Col.

interceptus *Lec.*, Ann. Lyc. 5, 166.....SD.

pectoralis *Lec.*, Ann. Lyc. 5, 166.....SD.

lugens *Er.*, Klug's Jahrb. 181.....SD. Col. Ar. Kz.

Saprinus californicus Mann. Bull. Mosc. 1845, 259.

ciliatus *Lec.*, Ann. Lyc. 5, 168.....Col.

vinetus *Lec.*, Ann. Lyc. 5, 168.....SD.

pennsylvanicus *Er.* Klug, Jahr. 184.....Tex.

Hister pensylvanicus Paykull, Hist. 61

assimilis *Er.*, Klug, Jahr. 184.....Tex.

Hister assimilis Paykull, Hist. 62.

laridus *Lec.*, Ann. Lyc. 5, 168.....SD.

scissus *Lec.*, Ann. Lyc. 5, 168.....SD.

fimbriatus *Lec.*, Ann. Lyc. 5, 169.....Col.

plenus *Lec.*, Ann. Lyc. 5, 169.....Col.

vitiosus *Lec.*, Ann. Lyc. 5, 169.....SD.

lubricus *Lec.*, Ann. Lyc. 5, 169.....SD.

cærulescens *Lec.*, Ann. Lyc. 5, 169.....SD.

bigemmus *Lec.*, Ann. Lyc. 5, 169.....SD.

sulcifrons *Mann.* Bull. 1843, 259.....SD.

serrulatus *Lec.*, (Pachylopus) Ann. Lyc. 165.....SD.

gaudens *Lec.*, (Pachylopus) Ann. Lyc. 5, 165.....SD.

two species.....Tex.

Acritus Lec.

basalis *Lec.* Proc. Acad. 6, 290.....Col.

Abreus basalis Lec. Ann. Lyc. 5, 165.....SD.

maritimus *Lec.*, Proc. Acad. 6, 290.....SD.

Abreus maritimus Lec., Ann. Lyc. 5, 170.

PHALACRIDÆ.

Phalacrus Payk.

ovalis *Lec.*, Proc. Acad. 8, 15.....SD.

penicellatus *Say.*, Jour. Acad. 4, 91.....SD.

* Besides the species mentioned, species were found by me of the following genera: Aleochara, Tachyusa, Myllæna, Homalota, Tachinus, Othius, Leptacinus, Philonthus, Quedius, Cryptobium, Lathrobium, Sunius, Lithocharis, Lispinus, Isomalus, Pinophilus, Palaminus, Stenus, Oxytelus, Bledius, Trogophlæus, Apocellus.

NITIDULIDÆ.

Colastus Er.

- limbatus* Lec., Proc. Acad. 1858, 62.....Col.
obliquus Lec., Proc. Acad. 1858, 62.....Col.

Nitidula Fabr. (emend. Er.)

- ziczac* Say, Jour. Acad. 5, 179.....Tex.

Carpophilus Leach.

- pallipennis* Lec.....El Paso.
Cercus pallipennis Say, Jour. Acad. 3, 194.
Carpophilus floralis Er., Germ. Zeitsch. 4, 261.
discoideus Lec., Proc. Acad. 1858, 62.....Col.

TROGOSITIDÆ.

Temnochila Westwood.

- area* Lec., Proc. Acad. 1858, 63.....SD. S. Fr.
chlorodia Lac., Gen. Col. 2, 341.....SD. Ar. S. Fr.
Trogosita chlorodia Mann. Bull. Mosc. 1843, 301.
acuta Lec., Proc. Acad. 1858, 63.....Tex.

COLYDIDÆ.

Anchomma Lec.

- costatum* Lec., Proc. Acad. 1858, 63.....SD.

Rhagodera Er.

- tuberculata* Mann., Bull. Mosc. 1843, 300.....SD.

Ditoma Latr.

- sulcata* Lec., Proc. Acad. 1858, 63.....Col.
ornata Lec., Proc. Acad. 1858, 63.....Col.

Synchita Hellw.

- variegata* Lec., Proc. Acad. 1858, 63.....Col.

MYCETOPHAGIDÆ.

Litargus Er.

- balteatus* Lec., Proc. Acad. 8, 14.....Col.

CRYPTOPHAGIDÆ.

Cryptophagus Herbst.

- cellaris* Er., Ins. Deutsch. 2, 361.....SD. Europe.
Dermestes cellaris Scopoli.
Cryptophagus crenatus Herbst.

- debilis* Lec., Proc. Acad. 8, 64.....SI.
pilosus Lec., Proc. Acad. 8, 64.....Col.
saginitus? Sturm.....Tex. Europe.

Atomaria Kirby.

- one species.....SD.

EROTYLIDÆ.

Ischyrus Lac.

- quadripunctatus* Lac., Mon. Erot. 127.....Tex. Georgia.
Erotylus 4-punctatus Oliv.

Triplax Paykull.

- affinis* Lec., Journ. Acad. 2d ser. 1, 71.....Tex.
Tritoma affinis Lac., Mon. Erst. 224
atriventris Lec., Jour. Acad. 2d ser. 1, 71.

Erotylus Fabr.

- Boisduvalii* Chev., Col. Mex. 2d cent.....Son.

LATHRIDIDÆ.

Corticaria Marsham.

- scissa* Lec., Proc. Acad. 7, 301.....Col.

- expansa* Lec., Proc. Acad. 7, 301.....SD.
compta Lec., Proc. Acad. 7, 301.....SD.
levis Lec., Proc. Acad. 7, 302.....Col.
morsa Lec., Proc. Acad. 7, 302.....Col.

Lathridius Illiger.

- crenatus* Lec., Proc. Acad. 6, 304.....SD.

Monotoma Herbst.

- mucidum* Lec., Proc. Acad. 7, 305.....Col.
marinum Lec., Proc. Acad. 1858, 64.....SD.
striatum Lec., Proc. Acad. 1858, 65.....Col.

CUCUJIDÆ.

Læmophloeus Er.

- fasciatus* Mels. Proc. Acad. 2, 113.....Tex.
bullatus Lec., Proc. Acad. 7, 75.....Col.
nitens Lec., Proc. Acad. 7, 75.....Cal.
puberulus Lec. Proc. Acad. 7, 75.....Col.
cephalotes Lec., Proc. Acad. 7, 75.....Col.

Silvanus Latr.

- nitidulus* Lec., Proc. Acad. 7, 78.....Col.
opaculus Lec., Proc. Acad. 7, 75.....SD.

DERMESTIDÆ.

Dermestes Linn.

- Mannerheimii* Lec., Proc. Acad. 7, 107.....SD.
Dermestes marmoratus† Mann., Bull. Mosc. 1843, 258.
nubilus Say, Insects of Louisiana; Lec. Proc. Acad.
 7, 107.....Tex.
sobrinus Lec., Proc. Acad. 7, 108.....Tex.
vulpinus Fabr., Syst. El. 1, 314.....Tex. Ar. SD.

Trogoderma Latr.

- ornatum* Lec., Proc. Acad. 7, 110.....Tex.
Megatoma ornatum Say, Journ. Acad. 5, 185
pusillum Lec., Proc. Acad. 7, 110.....El Paso, La.

Cryptorhopalum Guérin.

- balteatum* Lec., Proc. Acad. 7, 111.....SD.
triste Lec., Proc. Acad. 7, 111.....SD.
fusculum Lec., Proc. Acad. 7, 111.....Col.

Anthrenus Geoffr.

- lepidus* Lec., Proc. Acad. 7, 112.....SD.
varius Fabr., Syst. El. 1, 109.....SD.

BYRRHIDÆ.

Physemus Lec.

- minutus* Lec., Proc. Acad. 7, 117.....Col.

PARNIDÆ.

Lutrochus Er.

- luteus* Lec., Proc. Acad. 6, 42.....Tex.

Pelonomus Er.

- obscurus* Lec., Proc. Acad. 6, 42.....Tex.

Helichus Er.

- suturalis* Lec., Proc. Acad. 6, 43.....SD.
productus Lec., Proc. Acad. 6, 44.....SD.
Gilensis Lec., Proc. Acad. 6, 43.....G.
aqualis Lec., Proc. Acad. 7, 81.....Fr.

HETERO CERIDÆ.

Heteroceris Fabr.

- four species.....SD.
two species.....Col.
one species.....Tex.

SCARABÆIDÆ.

Xyloryctes Hope.

- Satyrus Hope*, Col. Man. 1, 90.....Tex.
Geotrupes Satyrus Fabr., Syst. El. 1, 15.

Phileurus Latr.

- cribrosus Lec.*, Proc. Acad. 7, 80.....Tex.
valgus Dej., Cat. 166.....Tex.
Geotrupes valgus Fabr., Syst. El. 1, 18.
Phileurus castaneus Hald., Proc. Acad. 1, 304.
illatus Lec., Proc. Acad. 7, 80.....Vall.

Strategus Hope.

- Antæus Burm.*, Lamell. 3, 130.....Tex.
Geotrupes Antæus Fabr.
Mormon Burm., Lamell. 3, 130.....Tex.
Julianus Burm., Lamell. 3, 133.....Tex. Mex.

Aphonus Lec.

- clunalis Lec.*, Proc. Acad. 8, 23.....Ar.

Ligyris Burm.

- gibbosus Lec.*, Proc. Acad. 8, 20.....Tex. Vall. SD.
Scarabæus gibbosus De Geer, 4, 322.
Podalgus variolosus Burm., Lamell. 3, 121.
Bothynus obsoletus Lec., (var.) Jr. Ac. 2d ser. 1, 87.
ruginasus Lec., Proc. Acad. 8, 20.....Tex.

Chalepus McLeary.

- obsoletus Lec.*, Proc. Acad. Nat. Sc. 7, 222.....Ar.

Cyclocephala Latr.

- immaculata Burm.*, Lamell. 3, 53.....Ar.
Melolontha immaculata Oliv., 5, 29; tab. 8, 95

Trichius Fabr.

- piger Fabr.*, Syst. El. 2, 122.....Tex.

Cremastochilus Knoch.

- saucius Lec.*, Journ. Acad. 2nd ser. 4, 16.....Llano Est.
Schaumi Lec., Proc. Acad. 6, 231.....SD.

Euryomia Burm., (emend. Lac.)

- melancholica Lac.*.....Tex.
Cetonia melancholica Gory, Mon. Cet. 210.

- Kernii Lac.*.....Tex.
Euphoria cernii Hald., St. Exp. 374, tab. 9, f. 10.

- Clarkii Lac.*.....Tex.
Erihipis Clarkii Lec. Pr. Acad. 6, 441.

- Schottii Lac.*.....Tex.
Erihipis Schottii Lec., Proc. Acad. 6, 441.

Gymnetis McLeary.

- Sallei Schaum*, Ann. Ent. Soc. Fr. 2nd ser. 7, 255.....Tex. Mex.
Gymnetis tristis† Burm. Lamell. 3, 551.

Allothina Burm. (emend. Lacordaire).

- nitida Lac.*.....Tex. Ar.
Scarabæus nitidus Linn.
Cotinis nitida Burm., Lamell. 1, 256.
mutabilis? Burm., (Cotinis,) Lamell. 1, 255.....Ar. Mex.

Plusiotis Burm.

- gloriosa Lec.*, Proc. Acad. Nat. Sci. 7, 221.....CM.

Anomala Samouelle.

- parvula Burm.*, Lamell. 2, 247.....Son. Ga.
varians Burm., Lamell. 2, 248.....Tex.
Melolontha varians Fabr., Syst. El. 2, 173.
marginata Burm., Lamell. 2, 266.....Tex.
luteipennis Lec., Pr. Acad. 7, 80.....Tex.

Strigoderma Burm.

- arboricola Burm.*, Lamell. 1, 315.....Tex.
Melolontha arboricola Fabr.

Polyphylla Harris.

- decemlineata Lec.*, Proc. Acad. 7, 218.....Tex.
Melolontha 10-lineata Say, Journ. Acad. 3, 246.
carifrons Lec., Proc. Acad. 7, 222.....Ar.
subvittata Lec., Journ. Acad. 2nd ser. 3, 229.....Tex.

Listrochelus Blanch.

- mucoreus Lec.*, Journ. Acad. 2nd ser. 3, 263.....Col. Tex.
texanus Lec., Journ. Acad. 2nd ser. 3, 263.....Tex.
scoparius Lec., ibid. 3, 264.....Ar.

Eugastra Lec.

- cribrosa Lec.*, Pr. Acad. 7, 217.....Tex.
Tostegoptera cribrosa Lec., Pr. Acad. 6, 231.
ventricosa Lec., Pr. Acad. 7, 217.....Tex.
Tostegoptera ventricosa Lec., Proc. Acad. 6, 448.

Lachnosterna Hope.

- lanceolata Lec.*, Journ. Acad. 2nd ser. 3, 237.....Tex. Kz.
Melolontha lanceolata Say, Journ. Acad. 3, 242.
Tostegoptera lanceolata Blanchard, Cat. Mus. Par. 149.
Ancylonycha lanceolata Lac., Gen. Col. 3, 285.

- farceta Lec.*, Journ. Acad. 2nd ser. 3, 238.....Tex.
æqualis Lec., ibid. 3, 238.....Tex.
Tostegoptera æqualis Lec., Pr. Acad. 6, 440.

- Burmeisteri Lec.*, Journ. Acad. 2nd ser. 3, 242.....Tex.
Trichestes longitarsis† Burm., Lamell. 2, 2nd. 359.

- torta Lec.*, Journ. Acad. 2nd ser. 3, 239.....Tex.
calceata Lec., Journ. Acad. 2nd ser. 3, 250.....Tex.

- submucida Lec.*, Journ. Acad. 2nd ser. 3, 260.....Tex.
obesa Lec., Journ. Acad. 2nd ser. 3, 251.....Tex.

- congrua Lec.*, Journ. Acad. 2nd ser. 3, 243.....Tex.
corrosa Lec., Journ. Acad. 2nd ser. 3, 249.....Tex.

- rubiginosa Lec.*, Journ. Acad. 2nd ser. 3, 259.....Tex.
glabripennis Lec., ibid. 3, 260.....Tex.

- crinita Lec.*, ibid. 3, 261.....Tex.
Trichesthes crinita Burm., Lamell. 2, 2nd, 358.

Diploaxis Kirby.

- angularis Lec.* Journ. Acad. 2nd ser. 3, 268.....CM.
tenuis Lec., Journ. Acad. 2nd ser. 3, 271.....Vall.

- punctipennis Lec.*, Journ. Acad. 2nd ser. 3, 268.....Tex.
moerens Lec., Journ. Acad. 2nd ser. 3, 268.....Vall.

- texana Lec.*, Journ. Acad. 2nd ser. 3, 268.....Tex.
frondicola Lec., Journ. Acad. 2nd ser. 3, 269.....Tex.

- Melolontha frondicola* Say, Journ. Acad. 5, 198.
Diploaxis testacea Burm., Lamell. 2, 2nd, 263.

- dubia Lec.*, Lamell. 2, 2nd, 269.....Tex.
consors Lec., Lamell. 2, 2nd, 269.....Tex.

- carbonata Lec.*, Lamell. 2, 2nd, 270.....Tex. Ar.
atrata Lec., Lamell. 2, 2nd, 270.....Fr.

- punctata Lec.*, Lamell. 2, 2nd, 270.....Fr.
cribulosa Lec., Lamell. 2, 2nd, 270.....Fr.

- corvina Lec.*, Lamell. 2, 2nd, 272.....Col.
pacata Lec., Lamell. 2, 2nd, 272.....Ar.

- brevidens Lec.*, Lamell. 2, 2nd, 272.....Ar.
 Orsonyx Lec.
anxius Lec., Journ. Acad. 2nd ser. 3, 266.....Ar.
 Macroductylus Latr.
angustatus Lec., Journ. Acad. 2nd ser. 3, 278.....Ar. NY.
 Melolontha elongata|| Herbst., Col. 3, 145, tab. 26, f. 3.
 Melolontha angustata Beauv. Ins. 30, tab. 5. f. 6.
 Serica MLeay.
texana Lec., Journ. Acad. 2nd ser. 3, 274.....Tex.
fimbriata Lec., Journ. Acad. 2nd ser. 3, 275.....SD.
alternata Lec., ibid. 3, 276.....SD.
mixta Lec., ibid. 3, 276.....SD.
 Lasiopus Lec.
ferrugineus Lec., Journ. Acad. 2nd ser. 3, 283.....Tex.
 Oncerus Lec.
floralis Lec., Journ. Acad. 2nd ser. 3, 284.....Vall.
 Geotrupes Latr.
opacus Haldeman, Pr. Acad. 6, 362.....Tex.
 Bolbocerus Kirby.
Lazarus Laporte, Hist. Nat. Ins. 2, 105.....Tex. Ar.
 Scarabæus Lazarus Fabr.
 Scarabæus Melibæus Fabr.
 Athyreus MLeay.
fossatus Lec., Pr. Acad. 7, 80.....Tex.
 Bolbocerus fossatus Hald., Pr. Acad. 6, 362.
serratus Lec., Pr. Acad. 7, 80.....Tex.
 Canthon Illiger.
vigilans Lec., Journ. Acad. 2nd ser. 4, 16.....Tex. Ga.
lævis.....Tex. NY.
 Scarabæus lævis Drury. Ins. 1, tab. 35, f. 7.
 Scarabæus volvens Fabr., Syst. El. 1, 60.
 Scarabæus pilularius De Geer. 4, 311.
ebenus Mels. Cat. 53.....Tex. Pa.
 Ateuchus ebenus Say, Journ. Acad. 3, 208.
simplex Lec., P. R. R. Ins. 47°, 41.....SD.
 Onthophagus Latr.
Hecate.....Tex.
 Scarabæus Hecate Panzer, F. Am. Bor. 4, tab. 1, f. 2.
 Copris latebrosus Fabr., Syst. El. 1, 34.
 Phanæus MLeay.
difformis Lec., Journ. Acad. 2nd ser. 1, 86.....Tex.
triangularis Lec., ibid.....Tex.
 Copris triangularis Say, Journ. Acad. 3, 206.
 Phanæus torrens Lec., (var.) Jr. Acad. 2nd ser. 1, 85.
 Copris Geoffr.
carolina Fabr., Syst. El. 1, 43.....Tex. NY.
 Scarabæus carolinus Linn.
moecha Lec., Pr. Acad. Mat. Sci. 7, 222.....Ar.
anaglyptica Say, Journ. Acad. 3, 204.....Tex. NY.
 Ochodæus Latr.
simplex Lec., Pr. Acad. Nat. Sc. 7, 222.....CM.
striatus Lec., ibid.....Ar.
 Aphodius Illiger.
rubidus Lec., P. R. R. Ins. 47°. 41.....SI.
dentiger Lec., Pr. Acad. 1858, 65.....CM.
militaris Lec., Pr. Acad. 1858, 65.....SD.
 Euparia Lep.
cognata Lec., Pr. Acad. 1858, 65.....Tex. Ar.
- strigata*.....Col.
 Aphodius strigatus Say, Journ. Acad. 3, 212.
 Aphodius spretulus Hald., Journ. Acad. 2nd ser. 1, 103.
puncticollis Lec., Pr. Acad. 1858, 66.....El Paso.
gracilis Lec......Ar.
 Oxyomus gracilis Mels. Pr. Acad. 2, 137.
 Trox Fabr.
Sonoræ Lec., Pr. Acad. 7, 211.....Ar.
 Omorgus Er.
texanus Lec., Pr. Acad. 7, 211.....Tex.
suturalis Lec., Pr. Acad. 214.....Tex.
umbonatus Lec., Pr. Acad. 7, 214.....Tex.
scabrosus Lec., Pr. Acad. 7, 215.....Tex.
 Trox scabrosus Beauv., Ins. 175, tab. 4b. f. 4.
punctatus Lec., Pr. Acad. Nat. Sc. 7, 215.....Tex.
 Trox punctatus Germ. Ins., Nov. 113.
 Trox alternatus Say., Bost. Journ. Nat. Hist. 1, 179.
morsus Lec., Pr. Acad. 7, 216.....Tex. Kz.
integer Lec., Pr. Acad. 7, 216.....Tex. Ar.
tesselatus Lec., Pr. Acad. 7, 216.....Ar.
 BUPRESTIDÆ.
 Psiloptera Sol. (emend Lac.)
Webbii Lec., Pr. Acad. 1858, 66.....Ar.
Woodhousei Lec.
 var. valens Lec., Pr. Acad. 1858, 66.....Tex.
 Dicerca? Woodhousei Lec., Pr. Acad. 6, 68.
 *Gyascutus Lec.**
 Chalcophora† Lec.
planicosta Lec., Pr. Acad. 1858, 66.....Ar.
obliteratus Lec., Pr. Acad. 1858, 66.....Ar.
cœlatus Lec., Pr. Acad. 1858, 67.....Ar.
sphenicus Lec., (Buprestis) Pr. Acad. 7, 83.....Tex.
 Thrinopyge Lec.
alacris Lec., Journ. Acad. 2nd ser. 4, 47.....Ar. N.Mex.
ambiens Lec......Fr.
 Buprestis ambiens Lec., Pr. Acad. 7, 83.
 Melanophila Esch.
longipes Lec......Ar.
 Buprestis longipes Say, Journ. Acad. 3, 164.
 Chrysobothris Esch.
nigrofasciata Lap. & Gory, 221, tab. 5, fig. 32...Llano Est.
gemmata Lec., Pr. Acad. 1858, 67.....Ar.
octocola Lec., Pr. Acad. 1858, 67.....Tex. Col.
basalis Lec., Pr. Acad. 1858, 68.....Tex.
 ? *Chrysobothris atabalipa* Lap., 2, 43, tab. 8, f. 60.
exesa Lec., Pr. Acad. 1858, 68.....Col. Ar.
Alabamæ Gory & Lap., 4, 185; tab. 32, f. 183.....Tex.
 Polycesta Esch.
Velasco Lap. & Gory, 2, 6; tab. 1, f. 7.....Tex.
elata Lec., Pr. Acad. 1858, 68.....Tex.
 Acmaødera Esch.
variegata Lec., Pr. Acad. 6, 67.....Tex. Kz.
semivittata Lec., Pr. Acad. 1858, 69.....Tex.
flavomarginata Lap. & Gory, 1, 2, tab. 1, f. 2.....Tex.
hæmorrhœa Lec., Pr. Acad. 1858, 69.....Tex.
gibbula Lec., Pr. Acad. 1858, 69.....Ar.
opacula Lec., Pr. Acad. 1858, 69.....El Paso.

* This genus will be described in a synopsis of the Buprestidæ of the U. S., now being prepared for publication.

comata Lec., Pr. Acad. 1858, 70.....Col.
ornata Lap. & Gary, 1, 6; tab. 2, f. 7.....Tex.
Buprestis ornata Fabr.

Agrilus Esch.

muticus Lec., Pr. Acad. 1858, 70.....Tex.
macer Lec., Pr. Acad. 1858, 70.....Tex.
politus Say, Tr. Am. Phil. Soc., 6, 162.....Col. Ar. Kz. NY.
Buprestis politus Say, Ann. Lyc. 1, 249.

ELATERIDÆ.

Limonius Esch.

auripilis Lec., Tr. Am. Phil. Soc. 10, 429.....Tex.
Elater auripilis Say, Journ. Acad. 3, 172.
mirus Lec., Tr. Am. Phil. Soc. 10, 529.....SD.
pilosus Lec., Tr. Am. Phil. Soc. 10, 432.....SD.
canus Lec., Tr. Am. Phil. Soc. 10, 433.....SD.

Crigmus Lec.

hepaticus Lec., Tr. Am. Phil. Soc. 10, 543.....Tex.
Elater hepaticus Germ., Ins. Nov. 43.
Aphanobius hepaticus Germ., Zeitschr. 5, 184.
texanus Lec., Tr. Am. Phil. Soc. 10, 454.....Tex.

Dicrepidius Esch.

ferreus Lec., Tr. Am. Phil. Soc. 10, 462.....Tex.
simplex Lec., Tr. Am. Phil. Soc. 10, 462.....Tex.

Elater Linn.

turbulentus Lec., Tr. Am. Phil. Soc. 10, 463.....SD.

Cratonychus Er.

longulus Lec., Tr. Am. Phil. Soc. 10, 473.....SD.

Monocrepidius Esch.

lividus Lec., Tr. Am. Phil. Soc. 10, 482.....Tex. Ar.
Elater lividus De Geer., Ins. 4, 162
Elater lobatus Say, Jour. Acad. 3, 175.
sordidus Lec., Tr. Am. Phil. Soc. 10, 482.....G.
vespertinus Dej., Cat. 98.....Tex. NY.
Elater vespertinus Fabr. Syst. El. 2, 240.
livens Lec., Tr. Am. Phil. Soc. 10, 484.....Vall.

Hemirhipis Latr.

fascicularis Latr.....Tex. Pa. Brazil.
Elater fascicularis Fabr., Syst. El. 2, 222.

Cryptohypnus Esch.

ornatus Lec., Tr. Am. Phil. Soc. 10, 487.....SD.
futilis Lec., Tr. Am. Phil. Soc. 19, 488.....SD.
inops Lec., Tr. Am. Phil. Soc. 10, 488.....SD.

Agrypnus Esch.

Sallei Lec., Tr. Am. Phil. Soc. 10, 491.....Tex. Ar.
Schottii Lec., Tr. Am. Phil. Soc. 10, 492.....Tex.

Pyrophorus Illiger.

physoderus Germ., Zeitschr. 3, 36.....Tex.

Alaus Esch.

gorgops Lec.....Tex.
Alaus oculatus Lec., (var.) Tr. Am. Phil. Soc. 10, 496.

Chalcolepidius Esch.

Webbii Lec., Proc. Acad. Nat. Sci. 7, 223.....Ar.
smaragdinus Lec., ibid.....Ar.

Cardiophorus Esch.

obscurus Lec., Tr. Am. Phil. Soc. 10, 498.....SD.
sufflatus Lec., Tr. Am. Phil. Soc. 10, 499.....SD.
inanus Lec., Tr. Am. Phil. Soc. 10, 499.....SD.

Aphricus Lec.

californicus Lec., Tr. Am. Phil. Soc. 10, 501.....SD.

Plastocerus Lec.

Schaumii Lec., Tr. Am. Phil. Soc. 10, 502.....SD.

Euthysanius Lec.

lautus Lec., Tr. Am. Phil. Soc. 10, 503.....SD.

CEBRIONIDÆ.

Scaptolenus Lec.

femoralis Lec., Tr. Am. Phil. Soc. 10, 504.....Tex. Mex.
Cebrio femoralis Chev. Col. Mex. 2nd cent.

ATOPIDÆ.

Schizopus Lec.

lætus Lec., Pr. Acad. 1858, 71.....Ar.

LAMPYRIDÆ.

Photinus Lap. (emend. Lec.)

pyralis Lap., Ann. Ent. Soc. Fr. 2, 141.....Tex.
Lampyrus pyralis Linn.
Lampyrus centrata Say, Jour. Acad. 5, 162.
Lampyrus rosata Germ., Ins. Nov. 62.

TELEPHORIDÆ.

Chauliognathus Hentz.

profundus Lec., Pr. Acad. 1858, 71.....Ar.
limbicollis Lec., Pr. Acad. 1858, 71.....Ar.
scutellaris Lec., Proc. Acad. 6, 230.....Tex. Ar.
discus Lec., Proc. Acad. 6, 230.....Tex.

Telephorus Geoffr.

tibialis Lec., Pr. Acad. 5, 340.....SD.
consors Lec., Pr. Acad. 5, 340.....SD.
planicollis Lec., Jour. Acad. 2nd ser. 4, 11.....Llano Est.

Podabrus Fischer.

cavicolis Lec., Pr. Acad. 5, 345.....SD.

MELYRIDÆ.

Collops Er.

bipunctatus Er., Entomographien, 55.....Tex.
Malachius bipunctatus Say, Jour. Acad. 3, 185,
marginicollis Lec., Pr. Acad. 6, 164.....SD.
cribrosus Lec., Pr. Acad. 6, 164.....SD.
balteatus Lec., Pr. Acad. 6, 230.....Tex.
marginellus Lec., Pr. Acad. 6, 164.....Col.

Malachius Fabr.

longiceps Lec., Pr. Acad. 6, 165.....SD.

Anthocomus Er.

circumscripatus Er., Entomographien, 107.....Tex.
Malachius circumscripatus Say, Jour. Acad. 3, 185.
cinctus Lec., Pr. Acad. 6, 166.....Col.
difficilis Lec., Pr. Acad. 6, 166.....Col.
lobatus Lec., Pr. Acad. 6, 166.....Col.
scincetus Er., Entomographien, 109.....Tex.
Malachius scincetus Say, Jour. Acad. 5, 170.
basalis Lec., Pr. Acad. 6, 166.....Col.

Ebæus Er.

submarginatus Lec., Pr. Acad. 6, 167.....Col.

Microlipus Lec.

laticeps Lec., Pr. Acad. 6, 168.....SD.

Atelestus Er.

?*basalis* Lec., Proc. Acad. 6, 168.....SD.
 ?*abdominalis* Lec., Pr. Acad. 6, 168.....SD.

Dasytes Fabr.

fuscus Lec., Pr. Acad. 6, 169.....Vall.
suturalis Lec., Proc. Acad. 6, 169.....SD.
conformis Lec., Pr. Acad. 6, 169.....SD.
sordidus Lec., Pr. Acad. 6, 169.....SD.
griseus Lec., Pr. Acad. 6, 169.....SD.
brevicornis Lec., Pr. Acad. 6, 169.....SD.
squalidus Lec., Pr. Acad. 6, 169.....SD.
ænescens Lec., Pr. Acad. 6, 170.....SD.
constrictus Lec., Pr. Acad. 6, 170.....SD.
obscurus Lec., Pr. Acad. 6, 170.....SD.
luteipes Lec., Pr. Acad. 6, 170.....SD.
pusillus Lec., Pr. Acad. 6, 170.....SD.
erythropus Lec., Pr. Acad. 6, 171.....El Paso.
rufipennis Lec., Pr. Acad. 1858, 71.....Ar.

Rhadasus Lec.

testaceus Lec., Ann. Lyc. 5, 212.....Col. Ar. Tex.

CLERIDÆ.

Cymatodera Gray.

morosa Lec., Pr. Acad. 1858, 71.....Ar.
punctata Lec., Ann. Lyc. 5, 212.....Col. Ar.
fuscus Lec., Ann. Lyc. 5, 212.....Col.
usta Lec., Pr. Acad. 1858, 71.....Tex.
cancellata Lec., Pr. Acad. 7, 81.....Tex.
balteata Lec., Pr. Acad. 7, 81.....Tex.

Tarsostenus Spin.

albifasciatus Lec., Ann. Lyc. 5, 17.....Tex.
Opilus albifasciatus Mels., Pr. Acad. 2, 306.

Trichodes Herbst.

tenellus Lec., Pr. Acad. 1858, 72.....Col.
bibalteatus Lec., Journ. Acad. 2d ser. 4, 18.....Tex.

Clerus Geoffr.

Spinolæ Lec., Pr. Acad. 6, 230.....Tex. Ar.
affiliatus Lec., Pr. Acad. 1858, 72.....Tex.
latecinctus Lec., Pr. Acad. 1858, 72.....Col. Ar.
abruptus Lec., Pr. Acad. 1858, 72.....Tex.

Hydnocera Newman.

scabra Lec., Ann. Lyc. 5, 213.....SD.
discoidea Lec., Ann. Lyc. 5, 213.....Col.
bicolor Lec., Ann. Lyc. 5, 213.....Col.

Enoplium Latr.

pilosum Say., Am. Ent. 3, pl. 41.....Tex.
Lampyrus pilosa Forster, Cent. Ins. 49.
fasciatus Lec., Ann. Lyc. 5, 214.....SD.
quadrinotatus Hald., Pr. Acad. 6, 362.....Tex.
vestitus Klug., Abh. Berl. Ak. 1840, 363; t. 1, f. 10, Tex. Mex.
Brachymorphus vestitus Chev., Col. Mex. 2d cent.

PTINIORES.

Dorcatoma Herbst.

grave Lec., Pr. Acad. 1858, 72.....Tex.
pusillum Lec., Pr. Acad. 1858, 72.....Col.

Anobium Fabr.

setiferum Lec., Pr. Acad. 1858, 73.....SD.

Ptilinus Geoffr.

basalis Lec., Pr. Acad. 1858, 73.....SD.

Apate Fabr.

punctipennis Lec., Pr. Acad. 1858, 73.....SD. Tex. Ar. Mex.

Sinoxylon Redt.

sextuberculatum Lec., Pr. Acad. 1858, 73.....Col.
asperum Lec., Pr. Acad. 1858, 73.....Col.
sericans Lec., Pr. Acad. 1858, 73.....Tex.

Exops Curtis.

exesus Lec., Pr. Acad. 1858, 74.....Tex.

Lycetus Fabr.

striatus Mels., Pr. Acad. 2, 112.....SD. NY.
planicollis Lec., Pr. Acad. 1858, 74.....Col.

Cis Latr.

vitulus Mann., Bull. Mosc. 1843, 299.....SD.

TENEBRIONIDÆ.

Epitragus Latr.

submetallicus Lec., Proc. Acad. 7, 224.....Ar.
canaliculatus Say, Long's Exp. 2, 281.....Tex. Ar. N.Y.

Edrotes Lec.

ventricosus Lec., Ann. Lyc. 5, 141.....Col.

Triorophus Lec.

nodiceps Lec., Proc. Acad. 6, 446.....Tex.
lævis Lec., Ann. Lyc. 5, 141.....Col.
punctatus Lec., Ann. Lyc. 5, 142.....Vall.

Craniotus Lec.

pubescens Lec., Ann. Lyc. 5, 142.....Vall.

Auchmobius Lec.

sublævis Lec., Ann. Lyc. 5, 140.....Vall.

Cryptadius Lec.

inflatus Lec., Ann. Lyc. 5, 140.....SD.

Eurymetopon Esch.

abnorme Lec., Ann. Lyc. 5, 138.....Col. Tex.
convexicollis Lec., Ann. Lyc. 5, 139.....Col.
longulum Lec., Ann. Lyc. 5, 139.....SD.
obesum Lec., Ann. Lyc. 5, 139.....SD.
atrum Lec., Ann. Lyc. 5, 139.....SD.

Nyctoporis Esch.

carinata Lec., Ann. Lyc. 5, 138.....SD.

Aræoschizus Lec.

costipennis Lec., Ann. Lyc. 5, 138.....Vall.

Batulius Lec.

setosus Lec., Ann. Lyc. 5, 148.....Col.
rotundicollis Lec., Ann. Lyc. 5, 148.....Col.

Anepsius Lec.

delicatus Lec., Ann. Lyc. 5, 148.....Col.

Centrioptera Mann.

muricata Lec., Ann. Lyc. 5, 142.....Col.

Cryptoglossa Solier.

infausta Lec.,.....Tex.
Asbolus infaustus Lec., Pr. Acad. 7, 84.

verrucosa Lec.,.....Col.
Asbolus verrucosus Lec., Ann. Lyc. 5, 129.

lævis Lec.,.....Col.
Asbolus lævis Lec., Ann. Lyc. 530.

Astrotus Lec.

- contortus Lec.*.....Tex.
Microschatia contorta Lec. Pr. Acad. 5, 446.

Microschatia Sol.

- inæqualis Lec.*, Ann. Lyc. 5, 129.....SD.
puncticollis Lec., Ann. Lyc. 5, 129.....Warner's.
sulcipennis Lec., Journ. Acad. 2nd ser. 4, 18.....Llano Est.

*Philolithus Lec.**Pelecyphorus Sol. Lec.*

- elatus Lec.*, Pr. Acad. 6, 445.....Tex. Ar.
difformis Lec., Pr. Acad. 7, 723.....Ar.
confluens Lec., Ann. Lyc. 5, 128.....Col.
marginatus Lec., Ann. Lyc. 5, 128.....G.
hispidulus Lec., Ann. Lyc. 5, 127.....Col.
hirsutus Lec., Ann. Lyc. 5, 127.....Col.
obsoletus Lec., Ann. Lyc. 5, 128.....Warner's.
rimatus Lec., Pr. Acad. 7, 223.....Ar.
subcostatus Lec., Pr. Acad. 6, 446.....Tex.
parallelus Lec., Ann. Lyc. 5, 128.....Vall.
muricatus Lec., Ann. Lyc. 5, 129.....SD.
carinatus Lec., Ann. Lyc. 5, 128.....S. Felipe.
morbillosus Lec., Pr. Acad. 1858, 74.....Ar.
æger Lec., Journ. Acad. 2d ser. 4, 19.....Llano Est.
irregularis Lec., Journ. Acad. 2d ser. 4, 19.....Llano Est.
costipennis Lec., Journ. Acad. 2d ser. 4, 20.....Ar.
sordidus Lec., Pr. Acad. 6, 446.....Ar. (K. Z.)
angulatus Lec., Ann. Lyc. 5, 127.....SD.

Euschides Lec.

- obovata Lec.*, Ann. Lyc. 5, 127.....Ar.
convexicollis Lec., Pr. Acad. 7, 224.....Ar.
lirata Lec., Pr. Acad. 7, 223.....Ar.
opaca Lec., Ann. Lyc. 5, 127.....Ar. Kz.
Asida opaca Say, Journ. Acad. 3, 254.

Zopherus Gray.

- nodulosus Solier*, Ann. Ent. Fr. 10, 43.....Tex.
Zopherus variolosus† Hald., Stansbury's Exp. 376.
tristis Lec., Ann. Lyc. 5, 130.....Col.

Nosoderma Esch.

- diabolicum Lec.*, Ann. Lyc. 5, 130.....Col.

Eleodes Esch.

- subnitens Lec.*, Ann. Lyc. 5, 134.....Ar.
extricata Lec......Ar.
Blaps extricata Say, Journ. Acad. 3, 261.
seriata Lec., Pr. Acad. 1858, 185.....Tex.
debilis Lec., Pr. Acad. 1858, 185.....Ar. (Santa Fe.)
gentilis Lec., Pr. Acad. 1858, 187.....SD.
longicollis Lec., Ann. Lyc. 5, 134.....Ar.
gigantea Mann. Bull. Mosc. 1843, 267.....SD.
ventricosa Lec., Pr. Acad. 1858, 186.....Tex.
soror Lec., Pr. Acad. 1858, 185.....Tex.
striolata Lec., Pr. Acad. 1858, 185.....Tex.
immunis Lec., Pr. Acad. 1858, 186.....Ar.
carbonaria Lec......Ar. Kz.

Blaps carbonaria Say, Journ. Acad. 3, 260.

- omissa Lec.*, Pr. Acad. 1858, 186.....SD.
quadricollis Esch., Zool. Atl. 3, 12, tab. 14, f. 5.....SD. Vall.
vicina Lec., Ann. Lyc. 5, 138.....Ar.
armata Lec., Ann. Lyc. 5, 134.....Col.

- femorata Lec.*, Ann. Lyc. 5, 134.....SD.
dentipes Esch., Zool. Atl. 3, 10, tab. 14, f. 4.....SD.
laticollis Lec., Ann. Lyc. 5, 135.....SD.
acuticauda Lec., Ann. Lyc. 5, 135.....SD.
nupta Lec., Pr. Acad. 1858, 183.....Tex.
gracilis Lec., Pr. Acad. 1858, 184.....Ar.
arata Lec., Pr. Acad. 1858, 182.....Ar.
acuta Lec......Tex.

Blaps acuta Say, Journ. Acad. 3, 257.

- texana Lec.*, Pr. Acad. 1858, 182.....Tex.
pedinoides Lec., Pr. Acad. 1858, 183.....Tex.
asperata Lec., Pr. Acad. 1858, 183.....Tex.
robusta Lec., Pr. Acad. 1858, 184.....Tex.
tricostata Lec......Tex. Kz.

Blaps tricostata Say, Journ. Acad. 3, 262.

- consobrina Lec.*, Ann. Lyc. 5, 135.....SI.
? depressa Lec., Ann. Lyc. 5, 135.....Vall.

Embaphion Say.

- concauum Lec.*, Pr. Acad. 6, 446.....Tex.
contusum Lec., Journ. Acad. 2nd ser. 4, 40.....Ar. Kz.

Amphidora Esch.

- osculans Lec.*, Ann. Lyc. 5, 136.....SD.
rufipes Lec., Ann. Lyc. 5, 136.....SD.
attenuata Lec., Ann. Lyc. 5, 137.....Vall.

Helops Fabr.

- farcta Lec.*, Pr. Acad. 158, 74.....Tex.

Apocrypha Esch.

- anthicoides Esch.*, Zool. Att. 4, 13, tab. 18, f. 7.....SD.

Cononotus Lec.

- sericans Lec.*, Ann. Lyc. 5, 137.....SD:

Coniontis Lec.

- viatica Esch.* Zool. Att. 3, 7, tab. 14, f. 3.....SD.
subpubescens Lec., Ann. Lyc. 5, 131.....SD.

Eusattus Lec.

- reticulatus Lec.*.....Ar. Kz.
Zophosis reticulata Say, Journ. Acad. 3, 250.

- difficilis Lec.*, Ann. Lyc. 5, 132.....Col.
dilatatus Lec., Ann. Lyc. 5, 132.....Col.
puberulus Lec., Pr. Acad. 7, 84.....Tex.
productus Lec., Journ. Acad. 2nd ser. 4, 20.....Ar.
sulcatus Lec., Ann. Lyc. 5, 145.....SD.
granulatus Lec., Ann. Lyc. 5, 145.....Col.

Conibius Lec.

- parallelus Lec.*, Ann. Lyc. 5, 146.....Vall.

Blapstinus Waterhouse.

- perassus Lec.*, Ann. Lyc. 5, 146.....SD.
?sordidus Lec., Ann. Lyc. 5, 146.....Col. Ar.
dilatatus Lec., Ann. Lyc. 5, 146.....SD. Ar. Tex.
brevicollis Lec., Ann. Lyc. 5, 147.....Ar. San Felipe.
longulus Lec., Ann. Lyc. 5, 147.....Ar.
angustus Lec., Ann. Lyc. 5, 147.....Col.
pubescens Lec., Ann. Lyc. 5, 147.....Col.
sulcatus Lec., Ann. Lyc. 5, 147.....San Felipe.
Opatrinus Latr.
aciculatus Lec., Pr. Acad. 1858, 75.....Tex.

Cerenopus Lec.

- concolor* Lec., Ann. Lyc. 5, 143.....Vall.
bicolor Lec., Ann. Lyc. 5, 143.....Vall.
sulcipennis Lec., Ann. Lyc. 5, 143.....Son.

Eulabis Esch.

- pubescens* Lec., Ann. Lyc. 5, 144.....SD.

Epantius Lec.

- obscurus* Lec., Ann. Lyc. 5, 144.....SD.

Bius Muls.

- estriatus* Lec.,.....SD.
Tenebrio estriatus Lec., Ann. Lyc. 5, 149.

Uloa Redt. (?)

- marginata* Lec., Ann. Lyc. 5, 149.....Col.

Tenebrio Linn.

- tenebrioides* Lec.,.....Tex.
Helops tenebrioides Beauv., Ins. 121, tab. 30, f. 3.

Glyptotus Esch.

- cribratus* Lec., Pr. Acad. 1858, 75Tex.

Nyctobates Esch.

- intermedia* Lec.,.....Tex.
Iphthinius intermedius Hald., Stansb. Exp. 367.

Cœlocnemis Mann.

- obesa* Lec., Ann. Lyc. 5, 150.....SI.

Adelina.

- plana* Lec., Ann. Lyc. 5, 150.....Col.
pallida Lec., Pr. Acad. 7, 119.....Tex.
Pytho pallida Say, Journ. Acad. 3, 271.

Oplocephala Lap.

- viridipennis* Lap., Ann. Sc. Nat. 23, 340.....Tex.

Platydemia Lap.

- angustum* Lec., Ann. Lyc. 5, 149.....Col.
flavipes Lap., Ann. Sc. Nat. 23, 388.....Col. NY.
Diaperis flavipes Fabr. Syst. El. 2, 567.
ruficornis Hald., Journ. Acad. 2d ser. 1, 101.....Tex. NY.
Diaperis ruficornis Sturm., Cat. 1826, 58, tab. 3, f. 21.
Platydemia rufiventris Lap., Ann. Sc. Nat. 23, 378.

Phaleria Latr.

- rotundata* Lec., Ann. Lyc. 5, 148.....SD.

Prionychus Sol.

- gracilis* Lec.,.....SD.
Stenochia gracilis Lec., Ann. Lyc. 5, 150.

Allecula Fabr.

- socia* Lec., Pr. Acad. 7, 84.....Tex.

MELANDRYADÆ.

Eustrophus Illiger.

- indistinctus* Lec., Ann. Lyc. 5, 151.....Col.

PYROCHROIDÆ.

Eurygenius Ferté.

- constrictus* Lec., Ann. Lyc. 5, 151.....SD.

ANTHICIDÆ.

Notoxus Geoffr.

- conformis* Lec., Journ. Acad. 2d ser. 1, 152.....G.
monodon Ferté, Mon. Anthic. 37.....Col. NY.
Anthicus monodon Fabr., Syst. El. 1, 280.
Pilati Ferté, Mon. Anthic. 297.....Tex.
angustatus Ferté, ibid. 308.

Anthicus Fabr.

- mundus* Lec., Pr. Acad. 6, 95.....Col.
Formicilla munda Lec., Ann. Lyc. 5, 152.
tenuis Lec., Ann. Lyc. 5, 153.....Col.
impressipennis Ferté, Mon. Anthic. 300.....Tex.
annectens Lec., Ann. Lyc. 5, 153.....SD.
californicus Ferté, Mon. Anthic. 128.....SD.
texanus Ferté, Mon. Anth. 301.....Tex.
lætus Ferté, Mon. Anth. 157.....Tex.
confinis Lec., Ann. Lyc. 5, 153.....SD.
horridus Lec., Ann. Lyc. 5, 154.....G.
cribratus Lec., Pr. Acad. 6, 98.....SI.
luteolus Lec., Ann. Lyc. 5, 154.....SD. Col.
nanus Lec., Ann. Lyc. 5, 156.....SD.
bellulus Lec., Ann. Lyc. 5, 156.....SD.
corticallis Lec., Ann. Lyc. 5, 154.....Col.
maritimus Lec., Ann. Lyc. 5, 156.....SD.

Tanarthrus Lec.

- salinus* Lec., Ann. Lyc. 5, 156.....Col.
alutaceus Lec., Pr. Acad. 6, 104.....SD. Col.
Anthicus alutaceus Lec., Ann. Lyc. 5, 156.

MORDELLIDÆ.

Anaspis Latr.

- lætula* Lec., Pr. Acad. 1858, 76Tex.
collaris Lec., Ann. Lyc. 5, 157.....SD.
pusio Lec., Proc. Acad. 1858, 76.....Col.

Mordella Linn.

- comata* Lec., Proc. Acad. 1858, 75.....Col.
scutellaris Fabr. Syst. El. 2, 123.....SD. NY.
vilis Lec., Proc. Acad. 1858, 76.....SD.
nubila Lec., Proc. Acad. 1858, 76.....SD.

Rhipiphorus Fabr.

- rufus* Lec., Proc. Acad. 7, 224.....Ar.
puncticeps Lec., Journ. Acad. 2nd ser. 4, 20Llano Est.
Sayi Lec., Journ. Acad. 2nd ser. 4, 21.....Llano Est.
Rhipiphorus bicolor Say, Jour. Acad. 3, 275.

MELOIDÆ.

Meloe Linn.

- sublævis* Lec., Proc. Acad. 7, 84.....Ar. N. Mex.

Cysteodemus Lec.

- cancellatus* Lec., Proc. Acad. 7, 224.....Ar. Mex.
Meloe cancellatus Br. & Er., Nov. Act. C. L. C. 17,
 161, tab. 8, f. 9.
vittatus Lec., Proc. Acad. 6, 330.....Ar.
Wislizeni Lec., Ann. Lyc. 5, 158.....Ar.
armatus Lec., Ann. Lyc. 5, 158.....Col.

Henous Hald.

- confertus* Lec., Proc. Acad. 6, 330.....Tex. Kz.
Meloe confertus Say, Jour. Acad. 3, 281.
Henous techanus Hald. Stansbury's Exp. 377,
 tab. 9, f. 12-14.

Eupompha Lec.

- fissiceps* Lec., Journ. Acad. 2nd ser. 4, 21.....Llano Est.

Lyttia Linn.

- vulnerata* Lec., Proc. Acad. 6, 331.....SD.
Cantharis vulnerata Lec., Ann. Lyc. 5, 159.
cribrata Lec., Proc. Acad. 6, 447.....Tex.

- cardinalis Chev.*, Col. Mex. cent. 1am.Tex.
Lytta fulvipennis Lec., Proc. Acad. 6, 331.
melana Lec., Proc. Acad. 1858, 76.Ar.
dichroa Lec., Proc. Acad. 6, 332.Tex.
nitidicollis Lec., Proc. Acad. 6, 332.SD.
Cantharis nitid. Lec., Ann. Lyc. 5, 160.
tenebrosa Lec., Proc. Acad. 6, 333.SD.
Cantharis tenebr. Lec. Ann. Lyc. 5, 160.
æneipennis Lec., Proc. Acad. 6, 334.SI.
Cantharis æneipennis Lec., Ann. Lyc. 5, 160.
smaragdula Lec., Proc. Acad. 6, 334.Vall.
lugens Lec., Proc. Acad. 6, 335.SD.
Cantharis lugens Lec., Ann. Lyc. 5, 161.
convexa Lec., Proc. Acad. 6, 336.Tex.
filiformis Lec. Proc. Acad. 6, 337.Tex.
Cantharis filiformis Lec., Jour. Ac. 2d ser. 1, 91.
insulata Lec., Journ. Acad. 2nd ser. 4, 22.Llano Est.
mylabrina Lec., Proc. Acad. 6, 337.Tex.
Pyrota mylabrina Chev. Col. Mex. cent. 1ma.
vittigera Lec., Journ. Acad. 2nd ser. 4, 22.Tex.
discoidea Lec., Proc. Acad. 6, 338.Tex. Kz.
puncticollis Lec., Proc. Acad. 6, 338.SD.
Epicauta puncticollis Mann., Bull. Mosc. 1843, 288.
maura Lec., Proc. Acad. 6, 339.SD.
Epicauta maura Lec. Ann. Lyc. 5, 162.
morio Lec., Proc. Acad. 6, 447.Tex.
corvina Lec., Journ. Acad. 2nd ser. 4, 21.Ar.
tenella Lec., Journ. Acad. 2nd ser. 4, 23.Llano Est.
conspersa Lec., Proc. Acad. 6, 340.Tex.
linearis Lec., Journ. Acad. 2nd ser. 4, 23.Llano Est.
costata Lec., Proc. Acad. 7, 84.Fr.
ferruginea Say, Journ. Acad. 3, 298.Tex.
Cantharis nigricornis Mels. Pr. Acad. 3, 53.
elegans Lec., Pr. Acad. 6, 341.SD.
Epicauta elegans Lec., Ann. Lyc. 5, 161.
erosa Lec., Pr. Acad. 6, 334.SD
Tegrodera erosa Lec., Ann. Lyc. 5, 159.
id. var.?Ar?
valida Lec.Tex.
Lytta segmentata† (var.) Lec., Pr. Acad. 6, 342.
fulvescens Lec. Pr. Acad. 6, 447.Tex.
immaculata Say, Journ. Acad. 3, 304.Tex.
‡ Lytta articularis Say, *ibid.*
sublineata Lec., Pr. Acad. 6, 447.Tex.
longicollis Lec., Pr. Acad. 6, 343.Tex.
ochrea Lec., Pr. Acad. 6, 342.Tex.
albida Say, Journ. Acad. 3, 305.Tex.
luteicornis Lec., Pr. Acad. 7, 84.Tex.
atrivittata Lec., Proc. Acad. 7, 224.Tex.
torsa Lec., Proc. Acad. 6, 343.Tex.
- Phodaga Lec.**
- alticeps Lec.*, Proc. Acad. 1858, 77.Ar.
- Tetraonyx Latr.**
- fulva Lec.*, Proc. Acad. 6, 344.Fr.
- Nemognatha Illiger.**
- apicalis Lec.*, Proc. Acad. 6, 345.Cal. Oregon, Tex.
lurida Lec., Proc. Acad. 6, 345.Tex. Kz.
pallens Lec., Proc. Acad. 6, 346.Vall.
lutea Lec., Proc. Acad. 6, 346.Tex.
discolor Lec., Proc. Acad. 1858, 77.Tex.
- piezata Lec.*, Proc. Acad. 6, 347.Tex.
Zonitis piezata Fabr., Ent. Syst. Suppl. 104.
Zonitis vittata Fabr., Syst. El. 2, 24.
texana Lec., Proc. Acad. 6, 347.Tex.
cribricollis Lec., Proc. Acad. 6, 348.Tex.
longicollis Lec., Proc. Acad. 1858, 77.Tex.
flavicollis Lec., Journ. Acad. 2nd ser. 4, 23.Tex.
Zonitis Fabr.
rufa Lec., Proc. Acad. 7, 85.Tex.
- CEDEMERIDÆ.**
- Asclera Schmidt.**
- excavata Lec.*, Ann. Lyc. 5, 158.SD.
pallida Lec., Proc. Acad. 7, 224.Ar.
cana Lec., Proc. Acad. 7, 224.Ar.
dorsalis Lec., Proc. Acad. 7, 21.Tex. SC.
Nacerdes dorsalis Mels. Proc. Acad. 3, 55.
Xanthochroa vittata Hald., Journ. Acad. 2d ser. 1, 96.
- CURCULIONIDÆ.**
- Bruchus Linn.**
- uniformis Lec.*, Proc. Acad. 1858, 77.Col.
prosopis Lec., Proc. Acad. 1858, 77.Col.
desertorum Lec., Proc. Acad. 1858, 78.Col.
obtectus Say, Curc. 1.Tex.
pauperculus Lec., P. R. R. 47°, 52.SD.
- Apion Herbst.**
- œdorhyncum Lec.*, Proc. Acad. 1858, 78.SD.
troglydites Mann., Bull. Mosc. 1843, 289.SD.
ventricosum Lec., Proc. Acad. 1858, 78.Col.
- Ophryastes Schönh.**
- validus Lec.*, Proc. Acad. 7, 225.Ar.
vittatus Schönh., Curc. 1, 509; 5, 819.Tex. Kz.
Liparus vittatus Say, Journ. Acad. 3, 316.
speciosus Lec., Proc. Acad. 6, 444.Tex.
argentatus Lec., Proc. Acad. 6, 444.Vall.
varius Lec., Proc. Acad. 6, 444.Col.
porosus Lec., Proc. Acad. 7, 225.Ar.
decipiens Lec., Proc. Acad. 6, 445.Tex.
- Platylomus Schönh.**
- auriceps Sch.*, Curc. 6, 183.Tex. Kz. Mex.
Curculio auricephalus Say, Journ. Acad. 3, 310.
- Tanymecus Germ.**
- lautus Lec.*, Proc. Acad. 7, 85.Fr.
- Sitones Germ.**
- scissifrons Say*, Curc. 10.Tex.
vittatus Lec., P. R. R. 47°, 54.SD.
sordidus Lec., *ibid.* 54.SD.
- Eudiagogus Schönh.**
- pulcher Sch.* Curc. 6, 2, 310.Tex.
- Cleonus Schönh.**
- molitor Lec.*, Pr. Acad. 1853, 78.Col. Ar.
- Epicærus Schönh.**
- imbricatus Sch.* Curc. 6, 280.Tex.
Liparus imbricatus Say, Journ. Acad. 3, 317.
- Emphyastes Mann.**
- fucicola Mann.* (var?) Bull. Mosc. 1852, 354.SD.

Lixus Fabr.

pleuralis *Lec.*, Pr. Acad. 1858, 78.....Col.
 læsicollis *Lec.*, Pr. Acad. 1858, 78.....Tex.

Anthonomus Germ.

fulvus *Lec.*, Pr. Acad. 1858, 79.....Tex.
 scutellaris *Lec.*, Pr. Acad. 1858, 79.....Tex.

Balaninus Germ.

nasicus? *Sch.* Curc. 16.....Tex.

Baridius Schönh.

mucoreus *Lec.*, Pr. Acad. 1858, 79.....Col.
 densus *Lec.*, Pr. Acad. 1858, 79.....SD.
 carinulatus *Lec.*, Pr. Acad. 1858, 79.....Tex.

Rhyssematus Schönh.

lineaticollis *Sch.* Curc. 8, 9.....Tex. Mo.
Rhynchænus lineaticollis Say, Journ. Acad. 3, 113.

Cratosomus Schönh.

gemmatus *Lec.*, Pr. Acad. 1858, 79.....Tampico.

Conotrachelus Latr.

argula *Sch.*, Curc. 4, 425.....Tex.
Rhynchænus argula Fabr.
Curculio nenuphar Herbst.
Rhynchænus cerasi Peck.

Scyphophonus Sch.

acupunctatus *Sch.* Curc. 4, 857.....Tex. Mex.

Sphenophorus Schönh.

validus *Lec.*, Pr. Acad. 1858, 80.....Ar.
 procerus *Lec.*, Pr. Acad. 1858, 80.....SD.
 pictus *Lec.*, Pr. Acad. 1858, 80.....Vall.
 ochreus *Lec.*, Pr. Acad. 1858, 80.....Ar.
 vomerinus *Lec.*, Pr. Acad. 1858, 81.....Ar.

Rhyncolus Creutzer.

dorsalis *Lec.*, Pr. Acad. 1858, 81.....SD.
 angularis *Lec.*, Pr. Acad. 1858, 81.....Col.

Hylesinus Fabr.

hystrix *Lec.*, Pr. Acad. 1858, 81.....SD.

CERAMBYCIDÆ.

Mallodon Serv.

dasystemus *Hald.*, Tr. Am. Phil. Soc. 10, 31.....Tex. Ga.
Prionus dasystemus Say, Journ. Acad. 3, 326.
Mallodon melanopus† *Hald.*, Tr. Am. Phil. Soc. 10, 30.
 serrulatus *Lec.*, Pr. Acad. 7, 82.....Tex.
 gnatho *Lec.*, Pr. Acad. 1858, 81.....Ar.

Derobrachus Serv.

geminatus *Lec.*, Pr. Acad. 6, 233.....Tex.

Prionus Geoffr.

fissicornis *Hald.*, Pr. Acad. 3, 125.....Tex. Kz.

Callidium Fabr.

ianthinum *Lec.*, Journ. Acad. 2d ser. 2, 34.....Tex.

Eburia Serv.

Haldemani *Lec.*, Journ. Acad. 2nd ser. 2, 102.....Tex.
 mutica *Lec.*, Pr. Acad. 6, 233.....Tex. Mex.
 manca *Lec.*, Journ. Acad. 2nd ser. 4, 24.....Tex.

Cerasphorus Serv.

cinctus *Lec.*.....Tex.
Cerambyx cinctus Drury, Ins. 1, 85.
Stenocorus gurganicus Fabr., Syst. El. 2, 305.
Cerambyx balleatus De Geer, 5, 111.
Stenocorus rusticus Fabr. Syst. El. 2, 311.

Elaphidion Serv.

mucronatum *Hald.*, Tr. Am. Phil. Soc. 10, 33.....Tex.
Stenocorus mucronatus Say, Journ. Acad. 3, 427.

atomarium *Lec.*.....Tex.

Cerambyx atomarius Drury, Ins. 1, 93.

Cerambyx pulverulentus De Geer, 5, 118.

Stenocorus marylandicus Fabr., Syst. El. 2, 306.

tæniatum *Lec.*, Pr. Acad. 7, 81.....Tex.

validum *Lec.*, Proc. Acad. 1858, 82.....Tex.

mœstum *Lec.*, Proc. Acad. 6, 442.....Tex.

spureum *Lec.* Proc. Acad. 6, 442.....Tex.

debile *Lec.*, Proc. Acad. 6, 442.....Tex.

protensum *Lec.*, Proc. Acad. 1858, 82.....Ar.

tenuis *Lec.*, Proc. Acad. 7, 81.....Tex.

Mannophorus Lec.

lætus *Lec.*, Proc. Acad. 6, 442.....Tex.

Amannus Lec.

vittiger *Lec.*, Journ. Acad. 2nd ser. 4, 24.....Llano Est.

pectoralis *Lec.*, Journ. Acad. 2nd ser. 4, 25.....Col.

Eriphus Serv.

signicollis *Say*, (Callidium) Jour. Acad.Col.

Callidium sanguinicolle Germ. Ins. Nov. 515.

truber *Lec.*, Proc. Acad. 1858, 82.....Tex.

Arhophalus Serv. (emend. Lec.)

pictus *Lec.*.....Tex.

Cerambyx pictus Drury, Ins. 1, 92.

Leptura robiniae Forster, Cent. Ins. 43.

Clytus flexuosus Fabr. Syst. El. 2, 345.

erythropus *Lec.*.....Tex.

Clytus erythropus Chev., Col. Mex. Cent.

eurystethus *Lec.*, Proc. Acad. 1858, 82.....Ar.

Megaderus Dup.

bifasciatus *Dupont*, Mag. Zool., 1836, tab. 141.....Tex.

Megaderus corallifer Newm., Mag. Nat. Hist. 4, 185.

Dendrobium Dup.

mandibularis *Serv.*, Ann. Ent. Soc. Fr. 3, 42.....Tex. Ar.

quadrifasciatus Dupont, Mag. Zool. 1836.

Stenaspis Dup.

verticalis *Dupont*, Serv. Ann. Ent. Soc. Fr. 3, 53; Du-
 pont, Mag. Zool. 1858, 51, tab. 216, f. 1.....Ar.

solitaria *Lec.*, Proc. Acad. 6, 441.....Tex. Ar. Kz.

Cerambyx solitarius Say, Journ. Acad. 3, 410.

Smileceras solitarium Lec. Proc. Acad. 2d ser. 2, 9.

splendens *Lec.*, Proc. Acad. 6, 441.....Tex.

Sphenothecus Dupont.

bivittatus *Dupont*, Mag. Zool. 1838, 58, tab. 220....Tex.

cyanicollis *Dupont*, ibid. " ".....Tex.

suturalis *Lec.*, Journ. Acad. 2nd ser. 4, 25.....Llano Est.

Tylosis Lec.

maculatus *Lec.*, Journ. Acad. 2nd ser. 2, 9.....Ar.

sellatus *Lec.*, Journ. Acad. 2nd ser. 4, 25.....Llano Est.

oculatus *Lec.*, Journ. Acad. 2nd ser. 2, 9.....Tex. Mex.

Perarthrus Lec.

vittatus *Lec.*, Journ. Acad. 2nd ser. 2, 102.....SD.

Crossidius Lec.

testaceus *Lec.* Journ. Acad. 2nd ser. 2, 102.....SD. Col.

suturalis *Lec.*, Pr. Acad. 1858, 38.....Ar.

humeralis *Lec.*, Journ. Acad. 2nd ser. 4, 25.....Llano Est.

Tragidion Serv.

- coquus*.....Tex. Md.
Cerambyx coquus Linn.
Lamia coquus Fabr., Syst. El. 2, 300.
Callidium lynceum Fabr. Syst. El. 2, 300.
Purpuricenus Melsheimeri Germ., Ins. Nov. 502.
Callidium fulvipenne Say, Journ. Acad. 3, 414.
Tragidion lynceum Serv., Ann. Ent. Soc. Fr. 3, 90.

- annulatum* Lec., Pr. Acad. 1858, 83.....Ar.
armatum Lec., Journ. Acad. 2nd ser. 4, 25.....Llano Est.

Rhopalophorus Serv.

- rugicollis* Lec., Pr. Acad. 1858, 83.....Tex.

Callichroma Serv.

- plicatum* Lec., Pr. Acad. 6, 233.....Tex.

Clytus Fabr.

- fuscus* Fabr., Syst. El. 2, 347.....Tex. Ar. NY.
Clytus humeralis Newman, Ent. Mag. 5, 394.
scutellaris Lap., Mon. Clyt. 53, tab. 11, f. 62.....Tex. NY.
Callidium scutellare Oliv., Ins. 70, 51, tab. 5, f. 52.
erythrocephalus Fabr. Syst. El. 2, 350.....Tex. NY.
irroratus Lec., Journ. Acad. 2nd ser. 4, 26.....Tex.
nauticus Mann. Bull. Mosc. 1843, 305.....SD.
Clytus gramineus Hald., Tr. Am. Phil. Soc. 10, 40.
colonus Fabr., Syst. El. 2, 345.....Tex. NY.

Typocerus Lec.

- sinuatus* Lec., Journ. Acad. 2nd ser. 1, 335.....Tex. Kz.
Leptura sinuata Newman, Entom. 70.
Stenura octonotata Hald., Tr. Am. Phil. Soc. 10, 62.

Leptura Linn.

- emarginata* Fabr., Syst. El. 2, 256.....Tex. NY.

Ipochus Lec.

- fasciatus* Lec., Journ. Acad. 2nd ser. 2, 169.....Vall.

Monilema Say.

- appressum* Lec., Journ. Acad. 2nd ser. 2, 168.....Ar.
armatum Lec., Pr. Acad. 6, 234.....Tex.
crassum Lec., Pr. Acad. 6, 234.....Tex.
albopictum White, Pr. Zool. Soc. 1856, 407, t. 40, f. 7.....Tex.
Monilema albofessellata Thomson, Arch. Ent. 1, 189.

Oberea Muls.

- oculaticollis* Lec.....Llano Est.
Saperda oculaticollis Say, Journ. Acad. 3, 406.

Tetraopes Dalman.

- discoideus* Lec., Journ. Acad. 2nd ser. 4, 26.....Llano Est.
basalis Lec., Journ. Acad. 2d ser. 2, 157.....Tex. Cal.
quinquemaculatus Hald., Tr. Am. Phil. Soc. 10, 53.....Tex.

Stenosoma Muls.

- sordida* Lec., Journ. Acad. 2d ser. 2, 158.....Tex.
Ataxia sordida Hald., Tr. Am. Phil. Soc. 10, 56.

Oncideres Serv.

- pustulatus* Lec., Proc. Acad. 7, 82.....Tex.

CHRYSOMELIDÆ.

Lema Fabr.

- trilineata* Dej., Cat. 386.....Tex.
Crioceris trilineata Oliv., Ent. 94, 739; t. 2, f. 20.
collaris Say, Journ. Acad. 3, 430.....Tex.

Clythra Fabr.

- mutabilis* Lac., Col. Subpent. 2, 137.....Tex.
militaris Lec., Proc. Acad. 1858, 83.....Tex.

Euryscopa Lac.

- scapularis?* Lac., Col. Subpent. 2, 505.....Son.
æneipennis Lec., Jour. Acad. 2d ser. 4, 26.....Llano Est.
vittata Lec., Jour. Acad. 2d ser. 4, 26.....Llano Est.

Coscinoptera Lac.

- mucorea* Lec.....Val.
Megalostomis mucorea Lec., Proc. Acad. 1858, 83.

Babia Lac.

- tetraspilota* Lec., Proc. Acad. 1858, 83.....Col.

Cryptocephalus Geoffr.

- spureus* Lec., Proc. Acad. 1858, 84.....SD.
sanguinicollis Suffrian, Linn. Ent. 7, 78.....SD.
auratus Fabr., Syst. El. 2, 57.....SD. Col.
chalconatus Mann., Bull. Mosc. 1843, 312.....SD.

Pachybrachus Suffrian.

- livens* Lec., Proc. Acad. 1858, 84.....Col.
cælatulus Lec., Proc. Acad. 1858, 84.....SD. Col.
hybridus Suffrian, Linn. Ent. 7, 157.....SD.

Doryphora Fabr.

- Rogersii* Lec., Jour. Acad. 2d. ser. 4, 26.....Tex. Kz.
decemlineata Say, Journ. Acad. 3, 453.....Tex.
rubiginosa Rogers, Proc. Acad. 7, 30.....Tex.
Haldemani Rogers, Proc. Acad. 7, 30.....Tex.

Chrysomela Linn.

- serpentina* Rogers, Proc. Acad. 7, 32.....Tex. Ar.
dislocata Rogers, Proc. Acad. 7, 32.....Tex.
tortuosa Rogers, Proc. Acad. 7, 32.....Tex.
disrupta Rogers, Pr. Acad. 7, 34.....Tex.
auripennis Say, Jour. Acad. 3, 452.....Tex. Ill.

Colaspis Fabr.

- humeralis* Lec., Pr., Acad. 1858, 85.....Tex.

Metachroma Lec.

- ustum* Lec., Pr. Acad. 1858, 85.....Ar.
suturale Lec., Pr. Acad. 1858, 85.....Tex.
puncticollis Lec., Pr. Acad. 1858, 85.....Tex.

Eumolpus Fabr.

- cuprascens* Lec. Pr. Acad. 1858, 85.....SD.

Paria Lec.

- quadriguttata* Lec., Pr. Acad. 1858, 86.....Col.

Chrysochus Redt.

- cobaltinus* Lec., P. R. R. 47°, 67.....SD.

Myochrous.

- longulus* Lec., Pr. Acad. 1858, 86.....Col.
denticollis Lec., Proc. Acad. 1858, 86.....El Paso.
Colaspis denticollis Say, Journ. Acad. 3, 448.

Oedionychis Latr.

- gibbitarsa* Lec.....Tex. Kz.
Altica gibbitarsa Say, Journ. Acad. 4, 83.

Haltica Ill.

- discoidea* Illiger, Mag. 6, 143.....Tex.
Chrysomela discoidea Fabr., Syst. El. 1, 445.
fumata Lec., Proc. Acad. 1858, 86.....Tex.
pluriligata Lec., Jour. Acad. 2nd ser. 4, 27.....Tex.
pura Lec., Proc. Acad. 1858, 86.....Col.
glabrata Illiger, Mag. 6, 146.....Tex.
Galleruca glabrata Fabr., Syst. El. 1, 494.

californica Mann., Bull. Mosc. 1843, 310.....Warner's.
foliacea Lec., Pr. Acad. 1858, 86.....Tex.
torquata Lec., Jour. Acad. 2d ser. 4, 27.....Col.
opulenta Lec., Pr. Acad. 1858, 86.....Col.
mitis Lec., Pr. Acad. 1858, 87.....Col.
ochracea Lec., Pr. Acad. 1858, 87.....SD.
albionica Lec., P. R. R. 47°, 68.....SD.
lepidula Lec., P. R. R. 47°, 68.....SD.

Longitarsus Latr.

maneus Lec., Pr. Acad. 1858, 87.....G.
apterus Lec., Pr. Acad. 1858, 87.....G.
repandus Lec., Pr. Acad. 1858, 87.....SD.
livens Lec., Pr. Acad. 1858, 87.....Col.

Psylliodes Lutr.¹

interstitialis Lec., Pr. Acad. 1858, 87.....Col.
Diabrotica.

tricincta Lec.....Ar. Kz.
Galleruca tricincta Say, Journ. Acad. 3, 457.
duodecim-punctata.....SD. Tex. Ar. NY.
Crioceris 12-punctata Fabr., Syst. El. 1, 457.
tenella Lec., Proc. Acad. 1850, 88.....SD.
? fossata Lec., Proc. Acad. 1858, 88.....Tex.

Galleruca Geoff.

sordida Lec., Proc. Acad. 1858, 88.....Col.
luteocincta Lec., Proc. Acad. 1858, 88.....SD.

Microhophala.

rubrolineata Lec.....SD.
Odontota rubrolineata Mann. Bull. Mosc. 1843, 307.

COCCINELLIDÆ.

Hippodamia Muls.

convergens Guér., Icon R. An. 321.....Tex. Ar. NY.
Coccinella modesta Mels., Proc. Acad. 3, 178.
maculata Lec.....Col. Ar. NY. Europe.
Coccinella maculata De Geer, 5, 392.
Megilla maculata Muls. Cocc. 28.
Coccinella 10-maculata Fabr., Syst. El. 1, 367.
Coccinella oblonga Oliv., Enc. Méth. 5, 61.

Coccinella Linn.

californica Mann., Bull. Mosc. 1843, 313.....SD.
munda Say, Bost. Jr. Nat. Hist. 1, 202.....Tex. NY.
binotata Say, Jour. Acad. 5, 302.....Ar. Ga.
abdominalis Say, Journ. Acad. 4, 95.....Tex. Col. NY.

Exochomus Redt.

texanus Lec., Proc. Acad. 1858, 88.....Tex.

Chilocorus Leach.

bivulnerus Muls., Cocc., 460.....Tex. NY.

Brachiacantha Muls.

quadrillum Lec., Proc. Acad. 1858, 89.....Tex.

Hyperaspis Redt.

arcuata Lec., Proc. Acad. 6, 133.....Col.
teniata Lec., Proc. Acad. 6, 134.....SD.
cincta Lec., Proc. Acad. 1858, 89.....SI.

Scymnus Kugellan.

nebulosus Lec., Proc. Acad. 6, 137.....Col.
suturalis Lec., Proc. Acad. 6, 138.....Col.
marginicollis Lec., Proc. Acad. 6, 140.....SD.

Epilachna Redt.

borealis Muls., Cocc. 826.....Tex.
Coccinella borealis Fabr., Syst. El. 1, 368.
mexicana Guér., Icon. R. An. 319; Muls. 731.....Tex.

Sacium Lec.

amabile Lec., Proc. Acad. 5, 144.....Col.
scitulum Lec., Proc. Acad. 6, 145.....Col.

ENDOMYCHIDÆ.

Epipocus Germ.

cinctus Lec., Proc. Acad. 6, 358.....Tex.
discoidalis Lec., Proc. Acad. 6, 358.....Tex.

Calyplobium Aubé.

one species.....Col.

REFERENCES TO PLATE IV.

Fig. 1. *Lachnophorus elegantulus*.

2. *Evarthrus heros*.

3. ——— gravidus.

4. *Pterostichus congestus*.

5. *Stenomorphus rufipes*.

6. *Melanotus erro*.

7. *Dicælus costatus*.

8. *Chlænus posticus*.

9. ——— cumatilis.

10. *Pasimachus validus*.

11. *Pasimachus costifer*.

11a. ——— id. var. (elytron.)

12. *Acephorus marinus*.

13. *Cychrus heros*.

14. *Calosoma lugubre*.

15. ——— macrum.

16. *Aleochara valida*.

17. *Monotoma marinum*.

18. *Anchomma costatum*.

19. *Phileurus cribrus*.

ART. XXIII.—*Synopsis of the species of PTEROSTICHUS Bon. and allied genera inhabiting temperate North America.*

By JOHN L. LeCONTE, M. D.

Although many attempts have been made to dismember the group of Carabica here treated of, yet a close analysis of the genera formed has always shown them to be untenable, and most systematic authors now follow the example of Dejean and Erichson in uniting them into a single genus, by some called *Feronia*, by others *Pterostichus*. By those who regard purity in the system of nomenclature, as possessing some claims to importance, the latter name is adopted, as it has priority by several years. In regard to the grouping of the large number of species composing this genus, so as to facilitate our knowledge of them, very little has been attempted, and the older divisions, at least as defined by Dejean, or by the English authors, so far from being of service, only tend to mislead the student.

Being now occupied in writing a synonymical catalogue of the Coleoptera of the United States, I have subjected all our species of *Pterostichus* to a critical examination, the results of which I here offer, with the addition of diagnoses of all the species observed.

The genera made by European authors, such as *Platyderus*, *Argutor*, *Omasus*, *Platysma*, *Adelosia*, &c., I have entirely neglected, as I can find no definitions of them which are recognizable, and it is very doubtful, whether, being founded on merely slight differences in form of body, they should be considered as belonging to anything more than the particular European species, which were chosen as types.

The only memoir that I have been able to refer to with any satisfaction, is that of Baron Chaudoir;* and although, as will be seen in the sequel, I find it impossible to adopt the numerous genera founded by him, yet I cannot but consider his essay as the first rational attempt made to partition the species according to their real affinities.

I have been able to separate distinctly only five genera from the genus as left by Dejean: *PÆCILUS* Bon.; *EVARTHUS* Lec.; *LOXANDRUS* Lec.; *LOPHOGLOSSUS* Lec.; and *HOLCIOPHORUS* Lec.

The second of these was already established by Chaudoir upon a single species under the name *Cyclotrachelus*, which is totally inapplicable to most of the species of the genus as here set forth: as, moreover, Baron Chaudoir would probably refuse to

* Bulletin Soc. Imp. Nat. de Moscou, 1838, No. 1.

consider my group as constituting a single genus, corresponding with his *Cyclotrachelus*, I have felt myself compelled to adopt a new name, leaving to those who may wish still farther to divide the genus, the power of restoring *Cyclotrachelus* to the particular set of species for which it was intended.

The third genus is precisely equivalent to Chaudoir's genus *Megalostylus*,* which name was however previously employed by Schönherr for a genus of Curculionites.

The two last genera, *LOPHOGLOSSUS* Lec. and *HOLCIOPHORUS* Lec., have been separated on account of the structure of the ligula, which, instead of being flat, or slightly convex, as in the other genera of this group, is strongly carinate; as in the genera above referred to, these differences are accompanied by peculiar sexual structures in the male, so that throughout this group the males have much more generic character than the females, and it is indeed the permanency of these sexual characters throughout closely allied species that gives the first distinct clue towards a dismemberment of the group.

In establishing the diagnoses of these genera, we are, however, compelled to neglect these sexual characters, as they are applicable to the males alone. But having once recognised by their aid the existence of natural genera, and having sketched out their limits, we may then make use of characters of less importance to define these genera. Thus I have been compelled to rely upon dorsal punctures for the generic character; and although there is such a gradual transition from those with several dorsal punctures, to those with none at all, yet it is singular that those species with single dorsal punctures form well defined genera, not merging at all into the others.

Our genera may be separated by the following synoptic table :

A. Antennæ articulis basalibus cylindricis	
Elytra unipunctata : parapleuræ breves.	EVARTHUS.
Elytra impunctata vel pluripunctata.	
Ligula plana, vel paulo convexa.	PTEROSTICHUS.
Ligula carinata, parapleuræ longæ.	LOPHOGLOSSUS.
Ligula carinata, parapleuræ breves.	HOLCIOPHORUS.
Elytra unipunctata ; parapleuræ elongatæ.	LOXANDRUS.
B. Antennæ articulis basalibus carinatis.	PÆCILUS.

These genera form a little group in the family of the Pterostichini, distinguished by having the mentum strongly toothed, the tooth usually bifid and concave; the ligula truncate with linear paraglossæ; the palpi slender and cylindrical, the last joint truncate, never longer than the preceding, and usually a little shorter. The anterior angles of the mentum are sometimes acute and sometimes rounded, but for systematic purposes, as little use can be made of them as of the angles of the thorax. The posterior legs are sometimes close to the intermediate ones, and sometimes far removed. This character is constant throughout every genus, except *Pterostichus*, where there

* Bulletin Soc. Imp. Nat. de Moscou 1842, p. 24.

are transitional forms. The posterior tibiæ are finely and sparsely ciliate with bristles and sometimes almost smooth in *Evarthrus*, *Pterostichus*, *Lophoglossus* and *Holciophorus*; they are strongly spinous in *Loxandrus* and *Pœcilus*. The posterior and intermediate tarsi have on the outer margin two grooves with an intermediate ridge extending usually to the third joint. This is wanting in *Evarthrus*, *Holciophorus*, *Lophoglossus* and a few species of *Pterostichus*.

The three first joints of the anterior tarsi of the male are dilated, and furnished beneath with a double series of papillæ; the dilated joints are oblique in *Loxandrus*; transverse and not emarginate in *Evarthrus*; obcordate, sometimes transverse, but more or less emarginate in the other genera. The intermediate tibiæ are emarginate near the apex on the inner surface and armed with two teeth in the males of *Lophoglossus*. The posterior tibiæ are serrate internally along their whole extent in *Holciophorus*, and slightly curved inwards in *Loxandrus*. The last ventral segment is sculptured in various ways in the males of many *Pterostichus* and *Holciophorus*: it is simple in the others.

There is but a single anal puncture each side in both sexes of *Evarthrus*, except in *E. mancus*, where the female has two: there are two in the females and one in the males of most *Pterostichi*: there are, however, two in both sexes of *P. Isabellæ* and *P. illustris*.

EVARTHURUS Lec.

Antennæ articulis basalibus simplicibus: labrum vix emarginatum: ligula convexa, apice rotundata, subtruncata, paraglossis linearibus, eam paulo superantibus; palpi articulo subcylindrico; parapleuræ breves; elytra unipunctata, stria scutellari vel brevi, vel distincta; tarsi posteriores extus non sulcati; tarsi maris antici articulis tribus dilatatis triangularibus præcipue transversis non emarginatis.

Besides the characters given above, the first joint of the abdomen, except in the last species, is marked on each side with a deep transverse line, appearing like a suture. The anal punctures are single in each sex, except in the last species: the last ventral segment of the male is usually without impressions; in the first four species it has two faint impressions separated by a longitudinal elevation. In *E. conviva*, it has a single impression. In *E. mancus* there is a small transverse tubercle near the apex.

The dorsal puncture is always situated on the third stria just behind the middle. When by a monstrosity, the puncture becomes double, the second is always close to the normal one. The pectus and venter are never punctured: all are without wings.

According to the form of the thorax and position of the ninth stria of the elytra we may divide the species as follows:

1. Striis marginalibus valde approximatis.

a. Thorace quadrato, postice utrinque biimpresso.		Sp. 1—5.
b. Thorace cordato, postice biimpresso.		Sp. 6—8.
c. Thorace rotundato-cordato, postice unistriato.		Sp. 9—12.

2. Striis marginalibus non approximatis.
d. Thorace rotundato-cordato, postice unistriato.	Sp. 13—17.
e. Thorace cordato, postice utrinque bistriato.	Sp. 18—29.

a.

The species of this group are somewhat oblong insects, usually of a dull black color, with little lustre. The thorax is quadrate, rounded on the sides, with the posterior angles obtuse, not rounded, and not prominent; the basal impression is very distinctly double, with a slight ridge at the margin; the posterior transverse impression is so deep on each side as to appear like a third basal impression; the anterior transverse line is deep. The elytra are marked with entire but not deep striæ, which are distinctly punctured; the eighth and ninth are very closely approximated, being scarcely as far apart as the diameter of the ocellate punctures which are between them; the scutellar stria is usually an oblong point. The last ventral segment of the males is widely impressed; in the first four species this impression is divided by a longitudinal elevation, in *E. conviva*, it is single and undivided.

1. *E. Engelmani*, thorace transverso, distinctius marginato, margine versus basin latius reflexo, elytris profundius striato-punctatis, interstitiis modice convexis. Long. .92.

Texas: collected by Lindheimer, and given me by Dr. Engelman. It resembles very closely *E. americanus*, but is larger, the thorax is more broadly margined on the sides posteriorly, and the margin is reflexed. The elytra are more deeply striate, and the interstices are tolerably convex.

2. *E. sigillatus*, thorace subtransverso, tenuius reflexo-marginato, elytris striis profunde punctatis interstitiis planiusculis. Long. .67.

Feronia sigillata Say. Trans. Am. Phil. Soc. 2, 42.

Feronia vidua Dej. Sp. Gen. 3, 278.

Middle States and Missouri Territory. The margin of the thorax is reflexed as in the preceding, but is scarcely wider behind than before.

3. *E. seximpressus*, thorace subtransverso, postice latius reflexo-marginato, elytris striis profunde punctatis interstitiis planis. Long. .58—62.

Feronia seximpressa Lec. An. Lyc. 4, 350.

Missouri Territory, near Long's Peak. This species nearly resembles the preceding, but the reflexed margin of the thorax is wider posteriorly than even in *E. Engelmani*.

4. *E. americanus*, thorace antrorsum subangustato tenuiter marginato, margine non reflexo, elytris striato-punctatis, interstitiis fere planis. Long. .8.

Feronia (Abax) americana Dej. Sp. Gen. 3, 392.

South Carolina and Georgia, not common. Dejean failed to recognize the relation between this species and *E. sigillatus*, from which it differs only by having the thorax a little narrowed in front, a little less rounded on the sides, with the margin very narrow and not reflexed.

5. *E. conviva*, thorace non transverso, postice subangustato, tenuiter marginato, impressionibus basalibus valde abbreviatis, elytris striato-punctatis, interstitiis planissimis. Long. .65.

Alabama; Haldeman. Resembles *E. sigillatus*, but is narrower, the thorax is not at all transverse, less rounded on the sides, and a little narrowed behind; the margin is very narrow and scarcely reflexed: the posterior transverse is almost entire, and the basal impressions are deep, but so short as to cause only a slight undulation in the transverse impression; the elevated ridge adjacent to the angle is very indistinct, and the angle itself is much less obtuse. The elytra are not widened behind, the striæ are strongly punctured, and the interstices flat; in the only specimen I have seen, the scutellar stria is very distinct, but as this is not the case with any of the allied species, I am inclined to consider it as abnormal.

b.

Oblong, depressed species, closely related to the preceding division, but having the thorax much more rounded on the sides, and narrowed behind, the posterior angles are sometimes sharp and sometimes obtuse; the posterior transverse impression well marked; the basal impressions large and deep with two distinct striæ, and the ridge adjacent to the angle is very distinct; the anterior transverse impression almost obsolete, the margin is narrow, not reflexed; the marginal striæ of the elytra are approximated; the striæ are usually punctured, the scutellar stria sometimes distinct, and sometimes punctiform, varying in the same species; the seventh interstitial space is slightly elevated at the base.

6. *E. vagans*, nitidus, thorace angulis posticis obtusis, impressionibus basalibus vix rugosis, elytris profunde striatis, interstitiis planissimis. Long. .6.

Feronia vagans Lec. An. Lyc. 4, 349.

Ohio. I have never seen but one specimen of this species, which is narrower than the next two, and has the elytral striæ impunctured.

7. *E. orbatus*, thorace lateribus postice sinuatis, angulis posticis rectis, prominulis, impressionibus basalibus rugosis, elytris tenuiter striato-punctatis, interstitiis fere planis. Long. .68.

Feronia orbata Newman. Ent. Mag. 5, 386; Lec. An. Lyc. 4, 348.

Feronia sodalis Lec. An. Lyc. 4, 349.

Middle and Southern States. The male is shining, the female dull black.

8. *E. corax*, nitidus, thorace lateribus postice sinuatis, angulis posticis rectis prominulis, impressionibus basalibus rugosis, elytris profunde striatis, striis punctulatis, interstitiis convexis. Long. .61.

Feronia (Molops) corax Lec. An. Lyc. 4, 347.

I have only two males of this species; they were found near Long's Peak.

c.

More slender, somewhat depressed species, having the thorax very much rounded on the sides, and much narrowed behind, with the posterior angles nearly obtuse and sometimes rounded; neither of the transverse impressions is distinct, and the basal

impression is single and linear, and sometimes very short, the margin is narrow and not reflexed; the striæ of the elytra are fine and punctured, usually only as far as the middle, the scutellar stria punctiform; the two marginal striæ very closely approximated. This division corresponds to *CYCLOTRACHELUS Chaud.*

9. *E. unicolor*, opacus, thorace non transverso, lateribus postice subsinuatis, angulis posticis subrectis, impressionibus basalibus longiusculis, elytris tenuiter striato-punctatis, dorso deplanatis. Long. .75.
Feronia unicolor Say. Trans. Am. Phil. Soc. 2, 40.

A single male from the upper part of Georgia: Louis LeConte.

10. *E. rotundatus*, subnitidus, thorace transverso, angulis posticis obtusis, striola basali abbreviata, elytris tenuiter striato-punctulatis. Long. .75.

One female: Athens, Georgia. Prof. John LeConte. This species is nearly related to the last, but is wider in its form. The posterior angles of the thorax are obtuse and scarcely prominent, the basal impressions are deep, but short; the striæ of the elytra are very fine, the punctures are distinct and close set, becoming obsolete at the middle, and the disc is not at all flattened.

11. *E. Brevoorti*, nitidus, thorace subtransverso, angulis posticis obtusis, striola basali abbreviata, elytris dorso sub-deplanatis, striis fere ad apicem punctatis. Long. .63.
Feronia Brevoorti Lec. An. Lyc. 4, 352.

Alabama, Haldeman: Georgia, near the mountains. The striæ are deeper than in the preceding, the punctures are large and extend nearly to the apex; the elytra of the male are more flattened than those of the female.

12. *E. faber*, subopacus, thorace transverso, angulis posticis obtusissimis, striola basali brevi, elytris latioribus tenuiter striatis, striis usque ad medium punctatis. Long. .53.
Molops faber Germ. Ins. Nov. 23.
Feronia tenebricosa Dej. Sp. Gen. 3, 301.
Cyclotrachelus tenebricosus Chaud. Bull. Mosc. 1838.
Feronia spoliata Newman. Ent. Mag. 5, 386.
Steropus faber Lec. An. Lyc. 353.

Southern and western States, abundant.

d.

We have here small convex shining species, resembling in form *Pasimachus depressus*: the antennæ are thick and somewhat moniliform; the thorax is rounded, very much narrowed behind, with the posterior angles sometimes distinct, and sometimes rounded; the anterior transverse line is sometimes entire, sometimes interrupted: the basal impressions are single and short; the margin is extremely narrow, not reflexed, sometimes entirely obsolete posteriorly. The elytra are sometimes without striæ; the seventh stria is always obliterated; the two marginal striæ are not approximated; and the outer one is sometimes obsolete. In the Annals of the Lyceum, I considered these species as belonging to *Broschus*, not having at that time seen a male of any of the species.

13. *E. acutus*, thorace margine integro, angulis posticis prominulis, linea transversa anteriore obsoleta, elytris striis profundis, punctulatis, pedibus rufo-piceis. Long. .4.

Louisiana, Dr. Schaum. Black, very shining, head large, obtuse, antennæ black at base, rufo-piceous beyond the middle, scarcely as long as the head and thorax; thorax subtransverse, not at all narrowed at the apex, which is scarcely emarginate, very much narrowed behind, and rounded on the sides, sinuate at the posterior angles, which are very small acute and prominent; lateral margin not interrupted; anterior transverse impression distinct, anterior line none; dorsal line deep, a little abbreviated at each end; basal impressions very short. Elytra not wider than the thorax, interior striæ strongly marked, punctured, sixth and seventh striæ obsolete; exterior marginal stria distinct. Feet rufo-piceous.

14. *E. obsoletus*, thorace margine integro, angulis posticis obtusissimis, linea transversa anteriore nulla, elytris striis profundis, punctatis, pedibus rufo-piceis. Long. .41.

Feronia obsoleta Say. Trans. Am. Phil. Soc. 4, 424.

Broscus obsoletus Lec. An. Lyc. 4, 354.

Alabama, Haldeman. The thorax has anteriorly neither a transverse impression nor an impressed line; the basal foveæ are deep and small; the elytra are a little wider than the thorax, the outer marginal stria is distinct. In the Annals of the Lyceum, by a misprint, the second volume of the Trans. Am. Phil. Soc. is quoted for this species. The *Feronia obsoleta* of that volume is, however, very different, being a *Platynus*, and the same as *Agonum luctuosum* Dej.

15. *E. approximatus*, thorace margine integro, angulis posticis obtusissimis, linea transversa anteriore integra, margini approximata, elytris striis internis sat profundis, punctatis, pedibus rufo-piceis. Long. .4.

Broscus approximatus Lec. An. Lyc. 4, 354.

Pennsylvania, Melsheimer. Very similar to the preceding; the striæ of the elytra are less deep; the outer marginal stria is less distinct.

16. *E. lævipennis*, thorace margine integro, angulis posticis obtusis, linea transversa anteriore medio interrupta, elytris obsolete striatis, pedibus rufo-piceis. Long. .35.

Broscus lævipennis Lec. An. Lyc. 4, 354.

Georgia, Louis LeConte. In the position of the outer marginal stria it agrees with the preceding species.

17. *E. morio*, thorace margine pone medium obsoleto, angulis posticis obtusissimis, linea anteriore transversa a margine remota, elytris nunc obsolete striatis, pedibus rufo-piceis. Long. .4.

Feronia (Steropus) morio Dej. Sp. Gen. 3, 302.

Broscus morio Lec. An. Lyc. 4, 355.

Georgia, not common. The external marginal stria is wanting, or is so closely approximated to the margin itself as to be invisible; the striæ of the elytra when visible are punctured.

e.

These are species very similar in appearance to those in (b.) but usually of a more slender form, and with the thorax more rounded on the sides, and more constricted behind; the posterior angles are always prominent, the basal impressions are usually large and deep, bistriate, and with a small ridge between the outer stria and the margin. The anterior transverse line is either entire or interrupted; the margin narrow, not reflexed; the striæ of the elytra usually deep, the seventh rarely indistinct or obliterated; the outer marginal stria distinct, not nearer to the inner one than to the margin. They are mostly western species, inhabiting the plains of Missouri Territory.

18. *E. vinctus*, thorace non transverso, basi non rugoso, stria exteriore basali brevissima, linea transversa anteriore oblitterata, elytris profunde striato-punctulatis, interstitiis convexis. Long. .43.

Nakutshi valley, Habersham Co., Georgia. Shining black; thorax not wider than long, not at all narrowed at the apex, which is scarcely emarginate, very much narrowed behind, where it is only half as wide as at the apex, moderately rounded on the sides, sinuate posteriorly, angles acute, prominent; interior basal impression long, exterior extremely short, almost obsolete; carina obsolete; anterior transverse line and impression wanting.

19. *E. abdominalis*, thorace non transverso, lateribus late oblique rotundatis, postice breviter sinuatis, basi non rugoso, linea transversa anteriore oblitterata, elytris profunde striatis, pedibus rufo-piceis, ventre piceo. Long. .4.

Feronia (Molops) abdominalis Lec. An. Lyc. 4, 347.

Found near Long's Peak. The striæ of the elytra are scarcely punctured.

20. *E. lixa*, thorace subtransverso, lateribus late rotundatis, postice breviter sinuatis, basi subrugoso, linea transversa anteriore margini approximata, elytris striato-punctatis, interstitiis subplanis, pedibus rufo-piceis. Long. .4.

Feronia (Molops) lixa, Lec. An. Lyc. 4, 346.

Found with the preceding, from which it differs by the greater rounding of the sides of the thorax, by the striæ of the elytra being less deep, and more evidently punctured.

21. *E. incisus*, thorace subtransverso, lateribus late rotundatis, postice brevissime sinuatis, basi subrugoso, linea transversa anteriore margini approximata, elytris profunde striatis, striis obsolete punctulatis pedibus rufo-piceis. Long. .4.

Feronia (Molops) incisa Lec. An. Lyc. 4, 345.

Also from Missouri Territory. The real difference between this and the preceding species consists in the smaller size of the posterior angles of the thorax. In one specimen the anterior transverse line is interrupted in the middle.

22. *E. ovipennis*, longior, thorace subtransverso, lateribus rotundatis postice breviter sinuatis, basi subrugoso, linea transversa anteriore margini approximata, elytris elongatis striis vix punctulatis, interstitiis subplanis. Long. .53.

Feronia (Molops) ovipennis Lec. An. Lyc. 4, 345.

With the preceding, one female. The thorax is more rounded on the sides than in those above described; the elytra are longer than in the next, and scarcely as wide as the thorax; the feet are black.

23. *E. latebrosus*, brevior, thorace subtransverso, lateribus rotundatis, postice breviter sinuatis, basi subrugoso, linea transversa anteriore margini approximata, elytris striis punctatis, interstitiis subconvexis. Long. .45.

Missouri Territory, Prof. Agassiz; Illinois, Wilcox. I should consider this as the same as the preceding but for the difference in form, which is evidently in favor of their being different. Both sexes are much more robust than the female ovipennis; the only other difference consists in the deeper and strongly punctured elytral striæ.

24. *E. constrictus*, longior, thorace subtransverso, lateribus valde rotundatis, postice breviter sinuatis, basi subrugoso, linea transversa antica margini subapproximata, elytris profunde striatis, striis punctulatis. Long. .5.

Feronia constricta Say. Journ. Ac. Nat. Sci. 4, 147; Trans. Am. Phil. Soc. 4, 427; Lec. An. Lyc. 4, 344.

Missouri Territory, abundant. The thorax is much more rounded on the sides than in any of the preceding, the base is only about one half as wide as the apex.

25. *E. substriatus*, latior, thorace transverso, lateribus valde rotundatis, postice breviter sinuatis, basi rugoso, linea transversa antica margini subapproximata, elytris tenuiter striato-punctulatis, interstitiis planissimis. Long. .57.

Feronia (Molops) substriata Lec. An. Lyc. 5, 344.

Missouri Territory and Santa Fe, abundant. The thorax wider than in the preceding, very much rounded at the sides, and less constricted at the base, which is two-thirds as wide as the apex. The outer striæ of the elytra are very indistinct.

26. *E. fatuus*, thorace transverso, lateribus valde rotundatis, postice breviter sinuatis, basi rugoso, linea transversa antica oblitterata, elytris tenuiter striato-punctulatis, interstitiis planis. Long. .67.

Iowa, Mr. Wilcox, one female. Resembles very much the next species, but the sinuated part of the sides of the thorax is much shorter, and the hind angles although rectangular are not prominent.

27. *E. colossus*, thorace transverso, lateribus valde rotundatis, postice sinuatis, angulis posticis valde prominulis, linea transversa anteriore tenui, basi utrinque rugose punctato, elytris tenuiter striato-punctatis, interstitiis subconvexis. Long. .75.

Feronia (Molops) colossus Lec. An. Lyc. 4, 343.

One male found near the Kansas River. This species scarcely differs from Say's description of *Feronia heros*, (Journ. Ac. Nat. Sci. 3, 145) but it is so much smaller, that I have not dared to consider it as the same. The species of this group are so numerous and so very closely allied, that it is necessary to be cautious about applying the names of previous describers. Say describes his *F. heros* as more than nine-tenths of an inch long, and as having a convex thorax, neither of which will apply to

E. colossus. By an error which is entirely unaccountable, I have in the *Annals* of the Lyceum placed *Feronia heros* Say, as synonymous with *F. americana* Dej. The latter will be found in the first division of the present genus.

28. *E. furtivus*, thorace subquadrato, postice angustato, lateribus late rotundatis, postice brevius sinuatis, basi rugoso, linea transversa anteriore tenui, elytris striato-punctulatis, interstitiis planis. Long. .6.

One male, Lake superior. This species is different in form from the others of this division, and approaches more closely to *E. orbatus* of division (b).

Shining black. Thorax wider than the head subquadrate, somewhat cordate, broadly and obliquely rounded on the sides, moderately narrowed behind, sides slightly sinuate at the posterior angles, which are rectangular, and but little prominent; anterior transverse line fine, near the margin, dorsal line almost entire; basal impressions deep, rugous, striæ distinct, the inner one a little longer, carina distinct. Elytra a little wider than the thorax, somewhat rounded on the sides, striæ deep, finely punctured, interstitial spaces almost flat; outer marginal stria equidistant from the eighth stria and the margin. Antennæ rufo-piceous, black at base.

29. *E. mancus*, thorace trapezoideo, postice angustato, lateribus late rotundatis, angulis posticis obtusis subrotundatis, impressione basali elongata, lineari, punctoque ad angulum oblongo notato, elytris non latioribus convexis, profunde striatis. Long. .45.

Nakutshi Valley, Habersham County, Georgia. This species differs from all the preceding ones in having the first joint of the abdomen scarcely impressed. The scutellar stria of the elytra is punctiform; the striæ are a little less deep towards the tip. The thorax has no transverse impressions, the basal impression is deep. The last ventral segment in the male has a small transverse tubercle near the apex.

PTEROSTICHUS Bon.

Antennæ basi non carinatæ; mentum dente medio concavo, vel emarginato, vel obtuso; ligula subplana, apice rotundato-truncata, paraglossis linearibus ea paulo longioribus; parapleuræ vel elongatæ vel breves; elytra stria scutellari notata, punctis dorsalibus vel nullis, vel pluribus; tibiæ posteriores extus vix spinulosæ; tarsi antici maris articulis tribus primis oboeordatis, plus minusve emarginatis.

A very numerous genus, and somewhat variable in generic characters, but which may be easily divided in natural groups, by taking into account those structures upon which specific characters are impressed. The variations in generic characters can scarcely be used for systematic division, since every imperceptible gradation occurs between those with short and those with long epipleuræ; those with the tarsal grooves on the outer margin deep, and those with the same grooves nearly obsolete; and also between those with a bifid tooth in the chin, and others in which the tooth is simply obtuse. The marginal stria (the 9th) is never approximated to the ocellate punctures. The variations in the characters above referred to will be pointed out

under the particular groups in which they occur. The following table will express the relation of the groups among themselves.

- A. Margine elytrorum bistriato.
- B. Margine elytrorum unistriato.
- 1. Thorax tenuiter marginatus ; parapleuræ breves.
 - a. Elytra punctis dorsalibus nullis. Sp. 1—17.
 - b. Elytra bipunctata. Sp. 18.
 - c. Elytra tripunctata, stria scutellari distincta. Sp. 19.
 - d. Elytra tripunctata, stria scutellari nulla. Sp. 20—21.
- 2. Thorax tenuiter marginatus ; parapleuræ longæ.
 - e. Thorax basi unistriatus ; elytra tripunctata. Sp. 22—28.
 - f. Thorax basi bistriatus ; elytra tripunctata. Sp. 29—32.
 - g. Thorax basi unistriatus ; elytra 5-punctata. Sp. 33—34.
- 3. Thorax fortius marginatus.
 - h. Thorax basi bistriatus ; elytra bipunctata. Sp. 35—38.
 - i. Thorax basi foveatus ; elytra bipunctata. Sp. 39.
 - k. Thorax basi foveatus ; elytra 4-punctata. Sp. 40.
 - l. Thorax basi foveatus ; elytra irregulariter striata. Sp. 41.
 - m. Thorax basi bistriatus ; elytra tripunctata. Sp. 42—44.

A.

None of the species of this genus are found in North America ; they may be divided into several groups, such as *Abax*, *Molops*, &c., according to the form of the thorax. *Feronia quadricollis* LeConte, An. Lyc. 4, 343, does indeed belong here, but it is no American insect, and is identical with *Pterostichus parallelus* of Europe.

a.

We have here a large number of species, usually of a slender form, with the thorax quadrate and gradually narrowed behind ; the margin of the elytra is moderate and has but a single stria ; the elytra have no dorsal punctures ; the parapleuræ are short. For the better determination of the species, which are frequently very closely allied, this group may be subdivided :

- a. Thorace basi immarginato. Sp. 1—9.
- β. Thorace margine basali medio interrupto. Sp. 10—15.
- γ. Thorace basi tota marginata. Sp. 16—17.

a—α.

The thorax is trapezoidal, narrowed behind, the posterior angles distinct, not prominent ; the basal impression is linear and single except in the two first species in which there is a short outer impression, margined in the first by a very faint carina ; the base is entirely without a marginal line. The anterior tarsi of the males are variable

in their form; the dilated joints are broad and almost transverse in the first two species, while in the others they are distinctly longer than wide; in both sexes of *P. rostratus* and *P. grandiceps*, the fourth joint is scarcely narrower than those which precede, and the last joint is much flattened and broader than in the other species. The grooves on the outer margin of the posterior tarsi are not deep. This group corresponds in part with Chaudoir's genus *Haplocœlus*.

1. *P. rostratus*, capite magno, mandibulis porrectis, thorace lateribus vix rotundatis, basi subbistriato, elytris thorace non latioribus, striis profundis, obsolete punctulatis. Long. .65.

Feronia rostrata Newman, Ent. Mag. 5, 387.

Southern and Western States; the striæ of the elytra are sometimes entirely smooth, sometimes slightly punctulate. The male has a shallow round impression on the last ventral segment.

2. *P. grandiceps*, capite magno, mandibulis porrectis, thorace lateribus vix rotundatis, basi vix bistriato, elytris thorace non latioribus, striis profundis punctatis. Long. .54.

Stereocerus grandiceps Lec. An. Lye. 4, 336.

One female, New York. Very similar to the preceding, but besides the stronger punctuation of the striæ of the elytra, the outer impression at the base of the thorax is less distinct, and there is no carina near the margin; the lateral margin is also finer; the scutellar stria of the elytra is indistinct.

3. *P. adoxus*, thorace capite latiore, tenuiter marginato, postice angustato, lateribus modice rotundatis, angulis posticis denticulatis, basi recte truncato, unistriato, elytris vix latioribus striis valde profundis, interstitiis convexis. Long. .53.

LeConte, Agassiz Lake Superior, 207.

Feronia adoxa Say, Trans. Am. Phil. Soc. 2, 46.

Feronia (Platysma) tristis Dej. Sp. Gen. 3, 324.

Feronia interfector Newman, Ent. Mag. 5, 387.

Common in every part of the Atlantic Zoological district. The last ventral segment of the male has two deep impressions, separated by a longitudinal elevation.

4. *P. sustentus*, thorace capite latiore, distinctius marginato, postice angustato, lateribus modice rotundatis, angulis posticis subrectis, basi recto, unistriato, elytris vix latioribus, striis valde profundis, interstitiis convexis. Long. .52.

One pair, Nakutshi Valley, Habersham County, Georgia. This species is extremely similar to *P. adoxus*, but the thorax is more broadly margined, and the posterior angles are not denticulate; otherwise there is but little difference. In my two specimens the feet are rufo-piceous. The joints of the tarsi of the male are a little narrower and less emarginate than in *P. adoxus*; the last ventral segment is carinate and less deeply impressed.

5. *P. reiectus*, thorace capite latiore, tenuiter marginato, postice angustato, lateribus modice rotundatis, angulis posticis apice rotundatis, basi recto utrinque striato, elytris vix latioribus, striis valde profundis, interstitiis convexis. Long. .53.

One specimen, New York. Also similar to *P. adoxus*, but the posterior angles of the thorax are neither prominent, nor sharp, but are slightly rounded at the tip. Newman's *P. interfactor* may be either of the three species, but there is nothing in his description which refers to one more than to the other; I have therefore placed it under that which is best known.

6. *P. Isabellæ*, thorace latitudine subbreuiore, distinctius marginato, lateribus late rotundato, postice angustato vix brevissime sinuato, basi recto, utrinque minus profunde striato, elytris vix latioribus, striis obsolete punctulatis, postice profundioribus. Long. .66.

Lec. An. Lye. 5, 58.

Found at 'Bill Williams' Ranch' in the mountains east of San Diego, California. Resembles *P. illustris*, but the thorax is less sinuate behind, and the mesopleuræ are sparsely punctured. The male has two anal punctures each side.

7. *P. contractus*, angustior, thorace latitudine fere longiore, distinctius marginato, lateribus late rotundato, postice angustato et brevissime subsinuato, basi recto, utrinque striato, elytris vix latioribus, dorso subdepressis, striis postice paulo profundioribus. Long. .50.

Lec. An. Lye. 5, 58.

San Francisco and San Jose, California: narrower than either *P. Isabellæ*, or *P. illustris*, with less convex elytra; the mesopleuræ are punctured as in the preceding. The striæ of the elytra are altogether smooth, and the interstices moderately convex.

8. *P. illustris*, thorace latitudine sublongiore, distinctius marginato, lateribus rotundato, postice angustato et longius sinuato, basi recto, utrinque minus profunde striato, elytris vix latioribus, striis postice profundioribus. Long. .47—7.

Lec. An. Lye. 5, 58.

San Diego, California.

9. *P. fastiditus*, thorace latitudine vix brevior, tenuiter marginato, lateribus rotundato postice magis angustato et brevissime sinuato, basi recto, utrinque profunde striato et parce punctato, elytris ovalibus, thorace plus sesqui latioribus, profunde striatis. Long. .32.

Lec. Agassiz' Lake Superior, 207.

Feronia (Platysma) fastidita Dej. Sp. Gen. 3, 323.

Stomis americana Lap. Etudes Entom. 1, 72, (teste Chaudoir, Obs. Kiew. 1847.)

Throughout the Atlantic zoological district, rare; the whole postpectus and the sides of the abdomen are punctured. The male has a very faint elevation towards the apex of the abdomen.

a—β.

These species are very similar to the preceding, but are a little less graceful in their form, the thorax being not so much narrowed behind; the posterior angles are rectangular, never rounded; the base is slightly margined near the posterior angle, but the margin does not extend inwards beyond the basal impression, although not connected with it. The basal impression is linear, deep, and single. The males

have the dilated joints of the anterior tarsi broader than in the preceding group and subtransverse; the fourth and fifth joints are narrow. It corresponds with Chaudoir's *Brachystylus*, and *Hypherpes*; the last three species of this group have the groove on the outer margin of the posterior tarsi distinct.

10. *P. subarcuatus*, longior, thorace latitudine fere longiore, lateribus late rotundato, postice angustato vix sinuato, basi subrotundato, utrinque profunde striato, elytris vix latioribus, profunde striatis, postpectore abdominisque lateribus punctatis. Long. .5.

New York, Mr. Guex. Extremely similar to *P. adoxus*, with which I for some time confounded it. Besides the difference in the form of the base of the thorax, and the marginal line behind the posterior angles, the large punctures of the pectus and sides of the abdomen immediately distinguish this species.

11. *P. californicus*, thorace latitudine subbreuiore, lateribus late rotundatis, postice subangustato, basi recte truncato, utrinque profunde striato, elytris non latioribus, striatis, subdeplanatis, interstitiis externis paulo convexioribus, pectore sub-punctato. Long. .42—.52.

Mannerheim, Bull. Mosc. 1843, 199.

Feronia (Pæcilus) californica Dej. Spec. Gen. 3, 223.

Brachystylus californicus Chaud. Bull. Mosc. 1838, 17.

Var. ? *Pterostichus vicinus* Man. Bull. Mosc. 1843, 206.

* Very abundant at San Francisco and San Jose, California. There appears to be a slight variation in the form of the thorax and elytra, sufficient to account for *Pterostichus vicinus* Man., but after a careful examination of a very large number of specimens, I can seize on nothing tangible as a specific character. The humeri are slightly toothed in this species.

12. *P. simplex*, thorace latitudine subbreuiore, quadrato, lateribus late rotundatis, postice vix angustato, basi recto, utrinque profunde striato, elytris vix latioribus, subtilius striatis, interstitiis planis, postpectore parce punctato. Long. .58.

Lec. An. Lyc. 5, 57.

San Jose and Sta. Isabel, California; very similar to the preceding, but differs in having the thorax scarcely narrowed behind.

13. *P. algidus*, thorace planiusculo, latitudine vix breuiore, lateribus late rotundatis, postice vix angustato, basi recto, utrinque profunde striato, ad angulum obsolete impresso, elytris vix latioribus, profunde striatis, interstitiis convexis. Long. .56.

Oregon, Mr. Wilcox; given me as bearing this name in the Berlin Museum.

This may be *Feronia valida* Dej., but if so, the description makes no mention of the external basal impression, which although small and shallow is quite distinct; this and the two next species have the thorax less convex than the species described above.

14. *P. amethystinus*, thorace quadrato, lateribus antè late rotundatis, margine pone medium subexplanato, vix postice angustato, basi utrinque striato, ad angulum vix obsolete impresso, elytris purpurascentibus, vix latioribus, profunde striatis, interstitiis convexis, humeris denticulatis. Long. .4.

Man. Bull. Mosc. 1843, 201.

Hypherpes amethystinus†Chaud. Bull. Mosc. 1838.

Oregon. Resembles in form the preceding, the outer basal impression is almost lost in the slight flattening of the lateral margin.

15. *P. planctus*, thorace quadrato, postice vix angustato, lateribus subrotundatis et subsinuatis, basi utrinque striato, ad angulum striola levi, carinulaque impresso, elytris non latioribus, profunde striatis, interstitiis convexis. Long. .57.

Oregon and Sacramento City, Mr. S. S. Rathvon; collected by J. Childs, Esq. This species is very similar to *P. algidus*, the thorax is wider, less rounded on the sides, and scarcely at all narrowed behind; the outer basal impression is quite distinct. The humeri are denticulate and the elytra but little convex.

a—γ.

These are two small species, closely related to the preceding, but having the marginal line at the base of the thorax entire; the posterior angles are rectangular, and sharp. The first joint of the abdomen is marked each side with a very distinct transverse line, as in *Evarthrus*, while in all the preceding species there is nothing of the kind to be seen; the groove on the outer margin of the posterior tarsi is distinct in the second species, but obsolete in the first.

16. *P. linearis*, valde elongatus, subdepressus parallelus, thorace latitudine longiore, lateribus subrotundatis, postice angustato, basi utrinque striato, striolaque ad angulum impresso, elytris profunde striatis, interstitiis convexis, pedibus rufo-piceis. Long. .3.

One specimen, San Francisco. Piceous black, very narrow parallel and subdepressed. Head long, eyes not prominent. Thorax a little wider than the head, longer than wide, very slightly rounded on the sides, scarcely at all narrowed behind, base subsinuate very finely margined, transverse impressions slight, distinct; longitudinal line nearly entire, basal impression linear short; outer basal impression very short, not deep, but distinct. Elytra not wider than the thorax, parallel, deeply striate, interstitial spaces convex; marginal series of points widely interrupted. Feet antennæ and palpi rufo-piceous. This seems very close to *Pterostichus angustus* (Man.) but in Dejean's description there is no mention of the small basal line at the posterior angle of the thorax, and the interstices of the elytra are said to be flat.

17. *P. longicollis*, elongatus subcylindricus, thorace convexiusculo latitudine fere longiore, lateribus rotundatis, postice angustato, basi utrinque striato, elytris striatis, interstitiis planis. Long. .33.

Oregon, Mr. Wilcox; it bears this name in the Berlin Museum. Piceous black, elongate, subcylindrical. Head long, eyes not prominent, antennæ longer than the thorax. Thorax scarcely one-half wider than the head, a little longer than wide, moderately convex, narrowed behind, rounded on the sides, which are very shortly sinuate at the posterior angles, which are small and prominent; transverse impres-

sions not deep, dorsal line entire; base subsinuate, margined; basal impressions linear, short, single. Elytra elongate, not wider than the thorax, moderately convex; striæ moderately deep, impunctured, scutellar stria very short, interstices almost flat; marginal series of punctures not interrupted, humeri much rounded.

b.

This group contains but a single species having the same form of body as those without dorsal punctures, but differing in having the second stria marked posteriorly with two punctures. The striæ are very deep, and the margin posteriorly has a slight elevation, which is the last remnant of the space between the two outer marginal striæ which distinguish the first division of the genus. The thorax is narrowed behind, with the posterior angles sharp; finely margined on the sides; the base is slightly margined each side, the basal impression is single and deep; the antennæ are moderate as in the preceding groups; the body is without wings, and the parapleuræ are short; the first joint of the abdomen is scarcely impressed, and is moderately punctured; the outer marginal furrow of the tarsi is deep.

18. *P. lachrymosus*, thorace latitudine subbreviore, postice angustato lateribus late rotundatis, angulis posticis obtusis, impressionibus basalibus profundis subrugosis, elytris paulo latioribus, profunde striatis, bipunctatis, interstitiis convexis. Long. .6.

Feronia lachrymosa Newman, Ent. Mag. 5, 386.

Southern States, rare. The anterior transverse impression of the thorax is deep; the elytra are but little convex.

c.

This group contains but a single apterous species of moderately slender and depressed form, with trapezoidal thorax finely margined on the sides, with sharp posterior angles and single linear basal impressions. The elytra have the seventh stria indistinct anteriorly, and very deep posteriorly; the dorsal punctures are three, the two posterior being in the second stria. The scutellar stria is very distinct. This species has a strong relation to those of group (i) but differs essentially by its short parapleuræ; the mentum tooth is short and scarcely emarginate.

19. *P. lubricus*, nitidus, thorace latitudine non brevior, postice angustato, lateribus rotundatis non sinuatis, basi utrinque profunde impresso, elytris vix latioribus, striatis, 3-punctatis, stria 7^{ma} apice valde exarata. Long. .35.

This pretty little species is found in the upper part of Georgia. The male has the last ventral segment widely excavated, and armed anteriorly with a prominent acute dentiform tubercle.

d.

Two oblong elongate species, quite anomalous by the position of the second dorsal puncture in the third stria, while in all the rest it is in the second stria. The

scutellar stria is punctiform or completely wanting; the exterior striæ of the elytra are obsolete. The thorax is trapezoidal, narrowed behind, with the posterior angles very obtuse and rounded; the lateral margin is narrower, the basal impressions short, deep, single; the parapleuræ are short, the sides of the abdomen strongly punctured, the last ventral segment simple in both sexes. The mentum tooth is short; the outer margin of the tarsi not grooved.

20. *P. obscurus*, nitidus, thorace latitudine vix brevior postice angustato, angulis posticis rotundatis, basi utrinque profunde breviter impresso, elytris non latioribus, striis 4 profundis, 5^a tenui, tripunctatis, puncto 2^{do} ad striam tertiam sito, pedibus piceis. Long. .42.

Feronia obscura Say, Trans. Am. Phil. Soc. 4, 435. Lec. An. Lyc. 4, 453.

Southern and Western States, very rare.

21. *P. ventralis*, nitidus, thorace subrotundato, angulis posticis fere obsoletis, basi utrinque profunde breviter impresso, elytris striis profundis punctatis, 7^{ma} antice obsoleta, tripunctatis, puncto 2^{do} ad striam 3^{iam} sito, antennis pedibusque ferrugineis. Long. .35.

Feronia ventralis Say, Tr. Am. Phil. Soc. 2, 46.

A unique specimen, from Louisiana, kindly given me by Dr. Schaum.

e.

We have here a numerous division, with three dorsal punctures, and long parapleuræ; they are usually winged, the thorax is very finely margined, but little narrowed behind, not sinuate, or scarcely sinuate on the sides, with the posterior angles not rounded and scarcely prominent; the anterior transverse line is interrupted: the basal impressions are single, linear, deep, usually punctured; the lateral groove on the external margin of the tarsi, which is obsolete in most of the preceding groups, here becomes very deep; the body is usually flattened, rarely subcylindrical; it corresponds in part to *Dysidius Chaud.*

22. *P. lustrans*, depressus, thorace breviusculo, postice subangustato, lateribus late rotundatis, postice subsinuatis, basi punctato, utrinque striato, angulis posticis subacutis, elytris striis impunctatis, interstitiis subconvexis, 3^{io} tripunctato. Long. .42.

LeConte An. Lyc. 5, 57.

San Francisco and San Jose, California. Differs from *P. mutus* by the thorax being less narrowed behind, and the striæ of the elytra finer and without any appearance of punctures. The parapleuræ are less punctured, and the base of the abdomen nearly smooth; the posterior tibiæ of the male are slightly pubescent internally.

23. *P. mutus*, subdepressus, piceo-niger nitidus, thorace latitudine fere longiore, postice subangustato, lateribus rotundatis, basi subrotundato, utrinque punctato et profunde striato, angulis posticis distinctis, elytris tripunctatis, striis profundis, punctulatis. Long. .4—47.

LeConte, Agass. Lake Superior, 206.

Feronia muta Say, Trans. Am. Phil. Soc. 2, 44.

Feronia morosa Dej. Sp. Gen. 3, 283.

Omaeus picicornis Kirby, Fauna Bor. Am. 4, 33.

Adelosia muta Lec. An. Lye. 4, 335; (synon. imperfecta).

Adelosia morosa Lec. ibid. 4, 335.

Abundant throughout the Atlantic district. The thorax is sometimes a little sinuate posteriorly, which causes the posterior angles to be a little prominent; it is on an infinitesimal difference of this kind, that having mistaken *Feronia carbonaria* Dej. I based my faulty synonymy in the Annals of the Lyceum; the posterior tibiæ of the male are strongly pubescent internally.

24. *P. purpuratus*, niger nitidus, thorace latitudine non brevior, postice non angustato, lateribus rotundatis, angulis posticis obtusis fere rotundatis, basi utrinque profunde striato, elytris æneo-purpureis, tripunctatis, striis profundis impunctatis, interstitiis convexis. Long. .53.

This beautiful species, which approaches very closely to the preceding, was given me by Dr. Schaum, who procured it in Ohio from Mr. Jenison. The posterior tibiæ of the male are still more densely pubescent internally than in the preceding species.

25. *P. erythropus*, sub-ellipticus, nitidus, thorace rotundato-quadrato, antrorsum subangustato, lateribus postice explanatis, basi subrotundato, utrinque striato, elytris tripunctatis, striis impunctatis, 7^{ma} antice oblitterata, pedibus ferrugineis. Long. .33.

LeConte, Agassiz' Lake Superior, 206.

Feronia (*Argutor*) *erythropus* Dej. Sp. Gen. 2, 243.

Platyderus nitidus Kirby, Fauna Bor. Am. 29.

Platyderus erythropus Lec. An. Lye. 4, 231.

Found in every part of the Atlantic district. Although it differs from the other species in having the base of the thorax immarginate, even at the sides, I have joined it in the same group with them, to avoid multiplying the groups too much. A more important difference is found in the absence of the scutellar stria, which is represented by a single point.

26. *P. femoralis*, apterus, thorace latitudine non brevior, postice subangustato, lateribus rotundato, angulis posticis obtusis non rotundatis, basi utrinque profunde striato, elytris striis profundis punctulatis, interstitiis subplanis, 3^{io} tripunctato, tibiis tarsisque rufo-piceis. Long. .28.

Argutor femoralis Kirby, Fauna Bor. Am. 4, 30.

New York, one specimen; the three impressed points are smaller than usual.

27. *P. patruelis*, elongatus, apterus, subcylindricus, thorace latitudine non brevior, postice subangustato, lateribus modice rotundatis, angulis posticis non rotundatis, basi recto utrinque striato et punctato, elytris striis impunctatis, profundis, interstitiis subplanis, 3^{io} tripunctato, pedibus piceis. Long. .3.

Lec. Agassiz' Lake Superior, 206.

Feronia patruelis Dej. Sp. Gen. 5, 759.

Argutor patruelis Lec. An. Lye. 4, 337.

Middle and Western States and Lake Superior. This species, as well as *P. femoralis* and *P. mandibularis*, is apterous.

28. *P. mandibularis*, elongatus, apterus, subcylindricus, thorace latitudine vix brevior postice subangustato, lateribus magis rotundatis, postice breviter subsinuatis, basi utrinque striato et punctulato, elytris tripunctatis, striis punctulatis, pedibus rufis. Long. 25.

Lec. Agassiz' Lake Superior, 206.

Argutor mandibularis Kirby, Fauna Bor. Am. 4, 31.

North side of Lake Superior; although closely related to the preceding species, the parapleuræ are much shorter, so that it might almost be placed in division (c.); the parapleuræ and sides of the abdomen have a few scattered punctures. Kirby mentions only two dorsal punctures. In my specimens the three punctures are visible except in one, where the posterior point is obliterated; in one specimen the left elytron has four points, one being placed between the second and the posterior point.

f.

Oblong species with long parapleuræ; the thorax is narrowed behind, with the posterior angles sometimes obtuse, sometimes prominent. The basal impressions are bistriate, with a small carina adjacent to the angle. The margin of the thorax is narrow, although a little broader than in the last group; the elytra have three dorsal punctures; the scutellar stria is distinct; the pectus is more or less punctured; the first segment of the abdomen has an impression; all are winged, and all have the groove on the outer margin of the tarsi deep.

29. *P. acutangulus*, nitidissimus, thorace postice angustato, lateribus rotundatis postice sinuatis, angulis posticis prominulis, impressionibus basalibus vix rugosis, elytris vix latioribus, tripunctatis, striis vix punctulatis, interstitiis subplanis. Long. 65.

Lyperus acutangulus Chaud. Bull. Mosc. 1843, 101.

New York, Illinois, Louisiana; the abdomen of the male has a round impression on the last joint.

30. *P. luctuosus*, thorace postice angustato, lateribus rotundatis, postice breviter sinuatis, angulis posticis prominulis, impressionibus basalibus punctatis, elytris vix latioribus, tripunctatis, striis profundis punctulatis. Long. 41—5.

Feronia (Omaseus) luctuosa Dej. 3, 284.

Omaseus nigrita Kirby, Fauna Bor. Am. 4, 32.

Stereocerus caudicalis Lec. An. Lyc. 4, 336.

New York, Lake Superior, and Missouri Territory. The reference to *Feronia caudicalis* Say, is very doubtful, as the antennæ do not at all agree; the last joint of the abdomen of the male is scarcely impressed. I am somewhat doubtful whether Dejean's name should belong to this or to the next species, which agrees better in size; the present one is certainly much more related to *P. anthracinus* of Europe with which Dejean compares his *F. luctuosa*.

31. *P. abjectus*, thorace latitudine non brevior, postice subangustato, lateribus late rotundatis vix sinuatis, angulis posticis subobtusis, impressionibus basalibus punctatis, elytris vix latioribus, tripunctatis, striis profundis punctulatis. Long. 37.

Middle States and Lake Superior; common. The thorax less rounded and not sinuate on the sides, at once distinguishes this from the preceding; the abdomen of the male is simple. I can scarcely understand how this species has remained undescribed so long.

32. *P. corvinus*, thorace breviusculo, postice angustato, lateribus rotundatis non sinuatis, angulis posticis subobtusis, impressionibus basalibus parce punctatis, elytris striis profundis, vix punctulatis. Long. .58.

Lec. Agassiz' Lake Superior, 207.

Feronia (Omaseus) corvina Dej. Sp. Gen. 3, 281.

Georgia, New York and Lake Superior. One specimen from the last place has the thorax covered with very deep transverse wrinkles, but does not otherwise differ. The last ventral segment of the male is simple.

g.

These are oblong flattened species, very similar to those in (e.), but having usually a wider margin to the thorax, and five large foveæ on the elytra; the epipleuræ are moderately long, the first joint of the abdomen not impressed; the outer tarsal groove is deep. The thorax is narrowed behind, not sinuate, or scarcely sinuate on the sides, the basal impressions are punctured and single. The native species are winged, and correspond to Chaudoir's *Bothriopterus*.

33. *P. orinomum*, piceo-niger, subæneus nitidus, thorace latitudine subbreuiore, postice subangustato, lateribus æqualiter marginatis, basi truncato utrinque striato et punctato, elytris 5-foveolatis, striis punctulatis. Long. .45.

Lec. Agassiz' Lake Superior, 206.

Omaseus orinomum Curtis; teste Kirby, Fauna Bor. Am. 4, 32.

Abundant at Lake Superior; also in Oregon. The specimen from the latter locality was compared by Klug and considered identical with European specimens. As however the *P. adstrictus* is found at Sitkha, there is some probability that our species may in reality be the same with it: the only point of difference seems to be in the color: which in ours is not pure black, but piceous with a very slight bronzed tint. I hope soon to have specimens from Russian America to determine this point. Dr. Zimmerman, considering ours as distinct from the *P. orinomum*, has proposed for it the name of *P. septentrionalis*.

34. *P. Luczotii*, piceo-niger, vix ænescens, thorace latitudine brevior, postice subangustato, lateribus marginatis, margine postice paulo latiore, basi subrotundato, utrinque striato et punctato, elytris subopacis 5-foveolatis, tenuiter striatis, interstitiis fere planis. Long. .4—5.

Lec. Agassiz' Lake Sup. 206.

Feronia Luczotii Dej. Sp. Gen. 3, 321.

Feronia oblongonotata Say, Tr. Am. Phil. Soc. 4, 425.

Adelosia oblongonotata Lec. An. Lyc. 4, 335.

Lake Superior and Maine; abundant. Although Dejean described *Feronia Luczotii* as apterous, yet this species agrees so perfectly in other respects that I am obliged to consider it the same. It is difficult to believe that species so closely related as *P. Luczotii* and the neighboring species would differ in such a particular, if it were a constant character, and I therefore conclude that Dejean's observations were made on an imperfect individual.

h.

In these species the margin of the thorax is wider and more reflexed than in any of the preceding; it is a little narrowed behind; the posterior angles are obtuse, the basal impression is large and very deep, obsoletely bistrigate, with a carina adjacent to the angle; the elytra are deeply striate and have normally but two dorsal punctures both in the second stria, one before, the other behind the middle; frequently specimens are found with three, or even four dorsal punctures, but a practised eye at once distinguishes the normal from the accidental points. The parapleuræ are short, and punctured, the first joint of the abdomen is impressed; the exterior marginal tarsal groove is distinct. They are all apterous.

35. *P. coracinus*, thorace quadrato, lateribus late rotundato, postice subangustato, angulis posticis obtusis rotundatis, basi utrinque late profunde foveato et punctato, carina angulari distincta, elytris vix latioribus bipunctatis, striis profundis impunctatis, interstitiis convexis. Long. .7.

Lec. Agassiz' Lake Sup. 206.

Feronia coracina Newman, Ent. Mag. 5, 386.

Niagara and Mackinaw. The basal carina of the thorax is parallel with the margin and is more elevated than in the following species; the basal impression is deep and scarcely striate.

36. *P. adiunctus*, thorace quadrato, breviusculo, lateribus late rotundato, postice subangustato, basi utrinque late profunde foveato et punctato, carina angulari distincta, elytris vix latioribus, bipunctatis, striis profundis impunctatis, interstitiis convexis. Long. .6.

Lake Superior. This species very closely resembles the last; the posterior angles of the thorax are obtuse but scarcely rounded. The basal carina narrows the lateral margin posteriorly, instead of being parallel with it as in *P. coracinus*; the basal impression is deep, rather rugous than punctured, and scarcely bistrigate. Newman has described several species with bipunctate elytra, but with the exception of his *Feronia coracina* and *lachrymosa* I cannot recognise any of them.

37. *P. flebilis*, elongatus, thorace capite paulo latiore, latitudine fere longiore, postice subangustato, lateribus vix rotundatis, basi depresso, utrinque late foveato et punctato, carina brevi, obtusa, elytris vix latioribus, bipunctatis, striis profundis impunctatis, interstitiis convexis. Long. .6.

Lake Superior, one specimen. Also resembles the two preceding, but the thorax is much narrower and less rounded on the sides; the posterior angles are obtuse not

rounded, and the basal carina is shorter and less acute; the impressions are very obsoletely bistriate; the posterior transverse impression is deep.

38. *P. stygius*, thorace quadrato, postice subangustato, lateribus rotundatis, angulis posticis subrotundatis, basi utrinque late foveato, punctato et bistriato, elytris bipunctatis, striis profundis impunctatis, interstitiis convexis. Long. .57.

LeConte, Agassiz' Lake Superior, 206.

Feronia stygica Say, Trans. Am. Phil. Soc. 2, 41; Dej. Sp. Gen. 3, 279.

Omaseus rugicollis! Hald. Proc. Ac. Nat. Sci. 1, 300.

Lake Superior to Georgia. The basal impressions of the thorax are distinctly bistriate, and the space between the striæ is somewhat elevated; the basal carina is almost obsolete; the impressions are sometimes almost smooth, sometimes densely rugous and punctured.

i.

This is a single winged species, somewhat related to the preceding group, but yet so different that I at one time considered it as a peculiar genus. The thorax is narrowed behind, with the posterior angles obtuse and rounded; the lateral margin equally broad before and behind, strongly reflexed; the basal impressions not deep, punctured and marked with a single stria. Elytra wider than the thorax, flattened, bipunctate, the anterior puncture not placed before the middle; parapleuræ long and narrow, first joint of the abdomen subimpressed, punctured. Antennæ slender, mentum tooth entire, obtuse, concave. The groove on the exterior margin of the posterior tarsi is distinct.

39. *P. submarginatus*, depressus, thorace transverso postice angustato, lateribus rotundatis, angulis posticis subrotundatis, basi utrinque late foveato et punctato, elytris latioribus, striis profundis subtiliter punctatis, interstitiis subplanis, 3^{io} bipunctato, pedibus rufo-piceis. Long. .5.

Feronia submarginata Say, Trans. Am. Phil. Soc. 2, 45; Dej. Sp. Gen. 3, 309.

Piesmus submarginatus Lec. An. Lyc. 4, 341.

Pæcilus monedula Germar, Ins. Nov. 18.

?? *Feronia picipes* Newman, Ent. Mag. 5, 387.

Southern States, abundant.

k.

This contains one apterous species of elongate form, with large head. The thorax is trapezoidal, much narrowed behind, the margin wider behind and reflexed, the basal impressions large and deep, without striæ. Elytra wider than the thorax, striæ deep, third space with four punctures; the third being on the second stria, the other three on the third. Parapleuræ very short: first joint of the abdomen impressed; outer tarsal grooves deep. The last ventral segment of the male is marked with a wide excavation.

40. *P. moestus*, thorace latitudine subbreiore, postice valde angustato, lateribus antice paulo rotundato, angulis posticis rotundatis, margine reflexo postice latiore, basi utrinque late profunde foveato et punctulato, elytris minus convexis paulo latioribus, profunde striatis, 4-punctatis. Long. .68.

Feronia moesta Say, Trans. Am. Phil. Soc. 2, 42.

Feronia superciliosa Say, Journ. Ac. Nat. Sci. 3, 144.

? *Feronia relicta* Newman, Ent. Mag. 5, 387.

Pennsylvania and Lake Superior. Newman mentions but three dorsal punctures, but as one of my specimens has only three on one side, I am inclined to think that the synonym is correct. So far as his very uncharacteristic description goes, it agrees well with the present species.

l.

One apterous species from far northern regions, having a quadrate thorax but little narrowed behind, with the reflexed margin wider towards the base, the basal impressions large, without striæ, and the basal angles obtuse; the elytra very little wider than the thorax, with the striæ deep, irregularly broken and twisted, so as to make the second, fourth, sixth and eighth spaces wider than the others and somewhat catenate. The parapleuræ are moderate, the first joint of the abdomen scarcely impressed; the outer tarsal grooves deep. The male has the last joint of the abdomen excavated as in the preceding species.

41. *P. punctatissimus*, pernitidus, thorace subtransverso, postice subangustato, lateribus paulo rotundatis, margine reflexo postice latiore, basi utrinque late profunde foveato et punctato, elytris paulo latioribus, striis profundis, undulatis, interstitiis alternatim latioribus interruptis et foveatis. Long. .57.

Feronia (Pterostichus) punctatissima Randall, Boston Journal Nat. Hist. 2, 3.

North shore of Lake Superior, not common. Mr. Randall's specimen came from the mountains of Maine. By comparison with the fragments of the original specimen, I have convinced myself of the identity of the Lake Superior species.

m.

Three apterous species placed in the division *Abax* by Dejean, but differing essentially from the European species by having dorsal punctures and only a single exterior marginal stria. The body is elliptical, not convex, the thorax narrowed in front, the lateral margin very narrow at the anterior angles, becoming wide and depressed posteriorly; the basal impressions double, separate, with a slight elevation between the outer one and the margin. The elytra are deeply striate, with three dorsal punctures in the usual situation. The parapleuræ are very short, the first joint of the abdomen with a very strong impression; the outer tarsal grooves scarcely distinct. Antennæ short, slender. The last ventral segment of the males is simple.

42. *P. fallax*, nitidus, thoracis margine impunctato, elytris profunde striatis, tripunctatis, interstitiis convexis, abdominis lateribus impunctatis. Long. .65.

Feronia (Abax) fallax Dej. Sp. Gen. 3, 321.

Georgia, rare. Wider than the two following species, less shining, and scarcely iridescent; the pectus is punctured, but the abdomen is smooth.

43. *P. sculptus*, nitidissimus, cyaneo-micans, thoracis basi et margine punctato, elytris tripunctatis, profunde striatis, interstitiis convexis, abdominis lateribus punctatis. Long. .55—.7.

**Feronia (Abax) striata*|| Dej. Sp. Gen. 3, 390.

Southern States, not rare.

44. *P. permundus*, nitidissimus, cyaneo-micans, thoracis margine et basi punctato, elytris tripunctatis, striis profundis punctulatis, interstitiis convexis, abdominis lateribus punctatis. Long. .6.

Abax permundus Say, Trans. Am. Phil. Soc. 4, 426.

Missouri and Illinois. This must be Say's species, although he described the striæ of the elytra as impunctured; the punctures are very small but distinctly visible with a powerful lens. It is closely allied to the preceding species but is narrower and more parallel.

LOPHOGLOSSUS Lec.

Antennæ tenues, basi non carinatae; palpi cylindrici, articulo ultimo vix brevior; mentum dente medio concavo et emarginato, ligula carinata apice subemarginata, paraglossis elongatis, linearibus; labrum leviter emarginatum; parapleuræ elongatae; abdomen articulo 1^{mo} non impresso; elytra punctis dorsalibus tribus, striaque scutellari notata; tarsi posteriores extus non sulcati, anteriores maris articulis 3 obcordatis, emarginatis; tibiis intermediis maris intus versus apicem emarginatis et bidentatis.

This genus only differs from *Pterostichus* in the form of the ligula, and I have some doubts whether it should really be separated; but in order to leave the limits of the preceding genus distinctly defined, it will be necessary to retain this as a generic group, since it has no trace of a groove on the outer margin of the four posterior tarsi. This genus in part corresponds to Chaudoir's *Lyperus*.

The three species below described correspond in the following particulars. The head is large, the eyes prominent. The thorax subtransverse, narrowed behind, a little rounded on the sides, which have a strongly reflexed margin gradually becoming wider behind; anterior transverse line deep, distant from the margin; the basal angles obtuse, not rounded, the basal impressions deep and single; the elytra are flattened, little wider than the thorax, deeply striate, the striæ a little less deep at the apex; the margin is narrow, and the ninth stria is equidistant between the series of punctures and the margin; the humeral angles are distinct and rounded. The body is oblong and winged.

1. *L. Haldemani*, depressus, elytris tripunctatis, opacis, tenuiter striatis, interstitiis subconvexis, pectore toto punctulato. Long. .87.

Lyperus Haldemani LeConte, An. Lyc. 4, 341.

One female from Alabama, Haldeman. Distinguished from the following by its opaque elytra with much finer striæ.

* *Carabus striatus* Payk.=*C. niger* Fabr.

2. *L. tartaricus*, depressus, nitidus, elytris tripunctatis, profundius striatis, interstitiis convexis, pectore toto punctulato. Long. .63—.83.

Feronia tartarica Say, Trans. Am. Phil. Soc. 2, 44.

Feronia complanata Dej. Sp. Gen. 3, 281.

Lyperus tartaricus Lec. An. Lyc. 4, 341.

Southern States. The subapical tooth of the intermediate tibiæ of the male is very obtuse; the apical process large.

3. *L. strenuus*, depressus, nitidus, elytris tripunctatis, profundius striatis, interstitiis convexis, pectore toto lævi. Long. .7.

This species is exactly similar to the preceding, except that the thorax is less narrowed behind, and that the pectus is entirely smooth; there are traces of a few punctures upon the prosternum. For a single male specimen, found at New York, I am indebted to my friend J. C. Brevoort; the tooth of the intermediate tibiæ is sharp; the apical process not visible.

4. *L. scrutator*, pernitidus, depressus, elytris tripunctatis, striis externis subobsoletis, interstitiis subconvexis, pectore parce punctulato. Long. .6.

Lyperus scrutator Lec. An. Lyc. 4, 342.

Cleveland, Ohio. The locality given in my former description is incorrect. This species again is almost exactly like the preceding, but the posterior angles of the thorax are a little less prominent; the striæ of the elytra are less deep, and become fainter towards the apex, the seventh stria is almost obliterated. The subapical tooth on the inner surface of the intermediate tibiæ of the male is long and sharp, and the apical process is not distinct.

HOLCIPHORUS Lec.

Antennæ crassiusculæ, basi non carinatæ; palpi cylindrici, articulo ultimo brevior; mentum dente medio concavo et emarginato, ligula carinata apice late angulatim emarginata, paraglossis linearibus paulo longioribus; labrum emarginatum; parapleuræ breves; abdomen articulo 1^{mo} impresso; elytra punctis dorsalibus nullis, sed stria scutellari notata; tarsi posteriores extus non sulcati; antici maris articulis 3 dilatatis, obcordatis, profunde emarginatis; tibiæ posteriores maris intus obtuse serrulatæ.

This genus is founded on a very fine species from California, also with carinate ligula, and without any tarsal grooves; but differing from the preceding by its thicker antennæ, short epipleuræ and the absence of dorsal punctures.

The head is large, the thorax flat trapezoidal, emarginate anteriorly, much narrowed behind, moderately margined on the sides, margin reflexed, not wider behind, posterior angles rectangular, basal impressions deep, with two slight striæ; elytra not wider than the thorax, flattened, dorsal punctures none; scutellar stria distinct, between the first and second striæ; margin a little broader than usual; marginal stria not equidistant between the punctures and margin; tarsi thick, fourth

joint deeply emarginate ; intermediate and posterior tibiæ of the male obtusely serrate along nearly the whole of the internal margin. The body is elongate, moderately slender, depressed and apterous.

1. *H. ater*, subnitidus thorace latitudine vix brevior, lateribus subrotundatis postice crenatis et subsinuatis, elytris tenuiter striato-punctatis, interstitiis subplanis, humeris denticulatis. Long. 1.0—1.15.

Feronia (*Pterostichus*) *atra* Dej. Sp. Gen. 3, 339.

Feronia (*Percus*) *lama* Ménetriés, Bull. Acad. Petrop. 2, 59.

Sacramento, Mr. Rathvon ; collected by Mr. Joshua Childs. The male has a carina on the last ventral segment, extending from the tip forwards and ending in an acute elevated dentiform tubercle, just as described by Dejean.

The Russian Entomologist Motschoulsky (Bull. Mosc. 1845) says that the *Pterostichus ater* *Man.* and *Ménetriés* is a very different species belonging to Chaudoir's group *Brachystylus*. Mannerheim's description is so short as to be obscure. By a recent manuscript catalogue of Baron Chaudoir, I see that he proposes to call this second large species, which is left without a name, *Brachystylus megas*.

LOXANDRUS Lec.

MEGALOSTYLUS||Chaudoir.

Antennæ tenues, basi non carinatæ ; palpi cylindrici tenues, articulo ultimo vix brevior ; mentum dente medio obtuso vix concavo, ligula subplana, apice truncata, paraglossis linearibus multo longioribus ; labrum non emarginatum ; mandibulæ breves ; parapleuræ elongatæ ; elytra puncto dorsali unico, stria scutellari nulla impressa ; tarsi tenues, posteriores extus sulcati, antici maris articulis tribus dilatatis intus prolongatis, valde obliquis.

This genus seems peculiar to Eastern North America ; besides the characters given above, the pubescence of the antennæ is denser and more equally diffused than in the preceding genera ; the parapleuræ are more strongly margined, and the spines of the posterior tibiæ are stouter and more rigid ; in the posterior tarsi the fourth joint is very small, and the last joint is as long as the three preceding united. The body is oblong, depressed and winged ; the color is very brilliant black, with iridescent reflections ; the thorax is subtransverse, scarcely or not at all narrowed behind, rounded on the sides, with the basal impressions single, linear and straight ; the anterior transverse line is strongly impressed ; the margin of the elytra is very narrow, the marginal or ninth stria is lost in the concavity of the margin, and is distant from the ocellate punctures ; the posterior tibiæ of the males are slightly bent inwards.

1. *L. saphyrinus*, thorace latitudine sesqui brevior, lateribus rotundatis postice subexplanatis, angulis posticis rotundatis, basi utrinque striato, elytris striis profundis antice punctulatis, pedibus piceis, antennarum articulo primo rufo. Long. .6.

Megalostylus saphyrinus Chaudoir, Bull. Mosc. 1843, 96.

New Orleans; for a unique specimen I am indebted to Dr. Schaum; the iridescent reflections are more brilliant than in the other large species.

2. *L. rectus*, thorace latitudine brevior, lateribus rotundatis, angulis posticis subobtusis vix rotundatis, basi utrinque striato et parce punctato, elytris striis profundis fortiter punctulatis, antennis palpis pedibusque rufis. Long. .41—.52.

Feronia recta Say, Trans. Am. Phil. Soc. 2, 58.

Feronia (Argutor) lucidula Dej. Sp. Gen. 3, 329.

Pogonus rectus Say, Trans. Am. Phil. Soc. 4, 421.

Argutor lucidulus Lec. An. Lyc. 4, 340.

Megalostylus laticollis Chaudoir, Bull. Mosc. 1843, 96.

Argutor laticollis Lec. An. Lyc. 4, 340.

Southern States; very abundant. The last two names belong to a scarcely perceptible variety with rather sharper posterior thoracic angles. I falsely considered (An. Lyc. 4, 338) *Feronia recta* Say as being *F. velox* Dej., but by a strange oversight neglected the size, which in the species of this genus is of considerable importance. Say's description requires an insect nearly three-fifths of an inch in length.

3. *L. brevicollis*, thorace latitudine sesqui brevior, antrorsum subangustato, lateribus late rotundato, angulis posticis obtusis minime rotundatis, basi utrinque striato vix parce punctato, elytris striis profundis vix obsolete punctulatis, pedibus piceis, antennis, tarsis palpisque rufo-piceis. Long. .43.

Argutor brevicollis Lec. An. Lyc. 4, 338.

Argutor minor† Lec. An. Lyc. 4, 338.

Pennsylvania and Georgia; rare. The last synonym belongs to an infinitesimal variety with rufo-piceous tibiæ; this species is broader than the other species with dark legs.

4. *L. erraticus*, thorace latitudine vix brevior, lateribus antice late rotundatis, angulis posticis subrectis, minime rotundatis, basi utrinque striato, vix parce punctato, elytris striis profundis antice subtilius punctulatis, antennis palpis tarsisque rufo-piceis. Long. .44.

Feronia (Argutor) erratica Dej. Sp. Gen. 3, 240.

Megalostylus erraticus Chaudoir, Bull. Mosc. 1843, 96.

Argutor erraticus Lec. An. Lyc. 4, 339.

Southern States; abundant.

4. *L. minor*, thorace latitudine brevior, antrorsum subangustato, lateribus rotundatis, angulis posticis obtusis subrotundatis, basi utrinque striato, elytris striis profundis antice vix punctulatis, antennis, palpis, tibiis tarsisque rufo-piceis. Long. .4.

Megalostylus minor Chaudoir, Bull. Mosc. 1843, 96.

Argutor nitidulus Lec. An. Lyc. 4, 339.

Georgia and Louisiana. The sides of the thorax are more regularly rounded than in the preceding and do not descend obliquely towards the base.

5. *L. celer*, thorace latitudine non brevior, antrorsum vix angustato, lateribus rotundatis, angulis posticis obtusis, basi utrinque breviter striato, vix punctato, elytris striis profundis punctulatis, macula communi postica, antennarumque articulo primo læte rufis. Long. .3.

Feronia (Argutor) celeris Dej. Sp. Gen. 3, 246.

Argutor celeris Lec. An. Lyc. 4, 337.

Georgia and Pennsylvania; very rare. My only specimen has the epipleuræ rufous, but this is probably the result of immaturity.

6. *L. agilis*, thorace latitudine subbrevior, antrorsum subangustato, lateribus rotundatis, angulis posticis rectis rotundatis, basi parce punctato, utrinque breviter striato, elytris striis profundis subtiliter punctulatis, antennarum basi tibiis tarsisque rufis. Long. .3.

Feronia (Argutor) agilis Dej. Sp. Gen. 3, 244.

Argutor agilis Lec. An. Lyc. 4, 338.

Southern States. In the Annals of the Lyceum I erroneously quoted *Argutor femoralis* Kirby, as a synonym. That species, however, having three dorsal punctures, cannot belong to this genus.

7. *L. pusillus*, thorace latitudine brevior, antrorsum subangustato, lateribus late rotundatis, angulis posticis subrectis rotundatis, basi utrinque breviter striato, elytris striis antice subtiliter punctulatis, antennarum basi pedibusque rufis. Long. .3.

Georgia; one specimen. This species has probably been confounded with *L. velox*, from which it differs by the thorax being broader, narrowed in front, less rounded on the sides and posterior angles. The striæ of the elytra are distinctly punctured as far as the middle; the interstitial spaces are wider and more flat than is usual in this genus.

8. *L. velox*, thorace latitudine subbrevior, antrorsum non angustato, lateribus magis rotundatis, angulis posticis rectis rotundatis, basi utrinque breviter striato, elytris striis antice punctulatis, antennarum basi pedibusque rufis. Long. .26.

Feronia (Argutor) velox Dej. Sp. Gen. 3, 245.

Argutor rectus† Lec. An. Lyc. 4, 338.

Pennsylvania; rare. The striæ of the elytra are deep, but the interstices are moderately flat.

8. *L. tæniatus*, thorace latitudine non brevior, antrorsum non angustato, lateribus late rotundatis, basi vix parce punctato, utrinque striato, angulis posticis rectis subrotundatis, elytris striis profundis vix obsolete punctulatis, antennis pedibusque rufis, femoribus subtus nigro-maculatis. Long. .26.

Louisiana; Dr. Schaum. Resembles the next species in the form of the thorax, but the general form is narrower. In the single specimen I have, the anterior transverse line of the thorax is not visible. If this character be constant, it will enable this species at once to be distinguished from all the others, except *L. crenatus*.

9. *L. piciventris*, thorace latitudine non brevior, antrorsum non angustato, lateribus late rotundatis, angulis posticis rectis subrotundatis, basi utrinque striato, elytris striis antice punctulatis, antennis pedibusque rufis. Long. .22.

Argutor piciventris Lec. An. Lyc. 4, 337.

Georgia; one specimen. The form of the thorax and the smaller size distinguish this species from *L. velox*. The external joints of the antennæ in this and the last species are but little darker than the basal ones.

10. *L. crenatus*, thorace latitudine subbreuiore, linea transversa nulla, utrinque subangustato, lateribus rotundatis, angulis posticis obtusis minime rotundatis, basi vix parce punctato utrinque striato, elytris striis crenatis, antennis palpis pedibusque testaceis. Long. .23.

One male; Georgia. Very distinct by the absence of the anterior transverse line of the thorax, and the coarse punctures of the elytral striæ, which are smooth only towards the apex. The apex of the elytra, the epipleuræ and the abdomen, are piceous, but the specimen is probably a little immature; the iridescent reflections of the upper surface are very brilliant.

PÆCILUS Bon.

Antennæ tenues, articulis 1—3 acute carinatis; palpi cylindrici, articulo ultimo vix brevior; mentum dente medio concavo, emarginato; ligula subplana, apice truncata, paraglossis eam paulo superantibus; labrum vix emarginatum; mandibulæ breves; parapleuræ subelongatæ; elytra punctis dorsalibus, striaque scutellari notata; tarsi tenues, posteriores extus sulcati; antici maris articulis 3 obcordatis, duobus primis emarginatis.

The carina on the basal joints of the antennæ easily distinguish this genus; the posterior tibiæ are very spinous, as in *Loxandrus*, but the fourth joint of the tarsi is not so small, so that the last joint is only as long as the two preceding.

We may arrange the species as follows:

a. Thoracis margine laterali non depresso,		Sp. 1—6.
b. Thoracis margine late depresso,		Sp. 7—9.

a.

1. *P. subcordatus*, elongato-oblongus, depressus supra viridis, thorace postice angustato, lateribus rotundatis postice subsinuatis, angulis posticis rectis, impressione basali externa brevissima obsoleta, elytris tripunctatis, striis internis punctatis, pectore lævi, antennis rufis. Long. .4—5.

Lec. An. Lyc. 5, 37.

Colorado and Gila rivers. Very similar in form to *P. occidentalis*, but the smooth pectus and the three dorsal punctures at once distinguish it. The thorax is usually not wider than long, yet I have three specimens in which it is decidedly transverse. The punctures of the internal striæ of the elytra are sometimes indistinct.

2. *P. occidentalis*, elongato-oblongus, depressus, supra viridis, thorace postice angustato, lateribus rotundatis, basi subsinuatis, angulis posticis rectis, impressione basali exteriore brevissima fere obsoleta, elytris tenuiter striatis, bipunctatis, interstitiis planis, antennarum basi rufo-picea, pectore punctato. Long. .38—45.

?*Feronia* (*Pæcilus*) *occidentalis* Dej. Sp. Gen. 3, 231.

?*Pterostichus occidentalis* Man. Bull. Mosc. 1843, 200.

Very abundant at San Jose, under bark of trees. Varies with the body, above brassy copper, never very shining. The striæ of the elytra are sometimes very

obsoletely punctured. One of the elytra is occasionally tripunctate, but the points are all behind the middle, so that one is evidently abnormal. Only two joints of the antennæ are rufous, and I am therefore in doubt whether this is the same as Dejean's species, which has three rufous joints. I have never seen blue specimens.

3. *P. scitulus*, oblongo-elongatus, depressus, supra viridis, nitidus, thorace postice subangustato, lateribus rotundatis, basi sinuatis, angulis posticis rectis, impressionibus basalibus profundis punctatis, externa brevissima, elytris bipunctatis, profunde striatis, antennarum articulis duobus ferrugineis. Long. .35—.4. Lec. An. Lyc. 4, 334.

Platte River, Nebraska Territory. Also allied to the preceding species, but with a deep anterior transverse line on the thorax, and much deeper elytral striæ; varies of a bright bluish purple color.

4. *P. cyaneus*, oblongus, subdepressus, supra nigro-cyaneus, thorace antrorsum subangustato, lateribus rotundatis, angulis posticis obtusis minime rotundatis, impressionibus basalibus profundis, exteriore brevi, elytris bipunctatis, striis profundis, antennarum basi vix picea. Long. .45. Lec. An. Lyc. 4, 231.

Missouri Territory, near Long's Peak. The antennæ are black, with the two basal joints piceous beneath.

5. *P. Sayi*,* oblongus, subdepressus, supra cupreus, vel æneus, thorace latitudine brevior, antrorsum angustato, lateribus rotundatis, angulis posticis rectis, impressionibus basalibus punctatis, profundis, exteriore brevior, elytris bipunctatis, striis profundis punctatis, antennarum articulis tribus ferrugineis. Long. .4—.5.

Brullé, Silb. Rev. Ent. 3, 277.

Feronia chalcites Say, Trans. Am. Phil. Soc. 2, 56.

Feronia (Pæcilus) chalcites Dej. Sp. Gen. 3, 211.

Pæcilus chalcites Kirby, Fauna Bor. Am. 4, 37.

Pæcilus micans Chaud. Bull. Mosc. 1843, 97.

Atlantic States; tolerably abundant.

6. *P. cursor*, oblongus, purpureo-niger, thorace antrorsum angustato, lateribus rotundatis, angulis posticis subrectis, impressionibus basalibus confluentibus valde punctulatis, elytris striis impunctatis, antennarum articulis tribus ferrugineis. Long. .38—.45. *Pæcilus cursorius*|| Lec. An. Lyc. 5, 57.

* I regret extremely that I am compelled to adopt a comparatively unknown name for this abundant and well-known species. The law of priority is however inflexible, and Say's name must fall before *Pæcilus chalcites* Germ. Ins. Nov. 15. The latter was published in 1824, while Say's paper could not have been printed before 1825, the date upon the title page of the volume. It is a pity that a memoir made known to the American Philosophical Society as early as 1819 should thus yield to one five years posterior to it; but as I above observed, the law of priority is inflexible, and, except within a few years, authors have been completely at the mercy of the slow moving bodies to whom they entrusted their labors. As a remedy against this feebleness of action, an idea was broached, in this city, and debated with considerable acrimony, that the date of reading before a learned society should be considered as the true date of publication. It is remarkable that such a scheme should ever be endorsed by any one claiming to have a regard for the purity of science, as it necessarily subjects the whole scientific world to a dozen or two individuals, too often unknown to science, and to many of whom the subject brought before them must be entirely without interest.

Santa Isabel, California. The punctures of the elytra seem very variable; in one specimen there are five on one side and four on the other; in a second there are two on one side and three on the other.

b.

7. *P. lucublandus*, oblongus, subellipticus, thorace antrorsum angustato, lateribus rotundatis, postice late depressis, angulis posticis subrectis, impressionibus basalibus minus profundis, exteriore brevissima, elytris quadripunctatis, striis postice profundioribus, pectore punctato, antennarum articulis tribus ferrugineis. Long. 4—55.

Kirby, Fauna Bor. Am. 4, 36; Lec. An. Lyc. 4, 231.

Feronia lucublanda Say, Trans. Am. Phil. Soc. 2, 55.

Feronia (*Pœcilus*) *lucublanda* Dej. Sp. Gen. 3, 212.

Pœcilus fraternus Say, Long's Exped. 2, 270.

Pœcilus dilatatus Lec. An. Lyc. 4, 232.

Pœcilus castanipes Kirby, Fauna Bor. Am. 4, 37; Lec. An. Lyc. 4, 232.

Georgia, Lake Superior, Newfoundland, Rocky Mountains. Varies not only in color (copper, brassy, greenish, purple, blue and black) but even in shape, being sometimes decidedly elliptical; the basal impressions of the thorax vary from smooth to densely punctulate. The striæ of the elytra are sometimes smooth, sometimes finely punctured; the feet vary from red to black; finally, I have a specimen in which one elytron has but two dorsal punctures.

8. *P. bicolor*, oblongus, supra cyanescens, thorace antrorsum angustato, lateribus rotundatis, postice late depressis, basi obsolete punctulato, utrinque unistriato, angulis posticis rotundatis, elytris quadripunctatis, striis tenuibus, interstitiis convexis, antennarum articulis tribus pedibusque ferrugineis. Long. 46.

Lec. An. Lyc. 4, 232.

One specimen, found near the Rocky Mountains. The depressed margin of the thorax is still wider than in *P. lucublandus*; the outer basal impression is entirely wanting.

9. *P. convexicollis*, oblongus, nitidissimus, supra nigro-æneus, thorace antrorsum angustato, lateribus rotundatis, postice depressis, angulis posticis subrectis, impressionibus basalibus vix punctatis, exteriore brevi, elytris æneis tripunctatis, striis profundis, antennarum articulis tribus ferrugineis. Long. 35.

Lec. An. Lyc. 4, 233.

Feronia convexicollis Say, Trans. Am. Phil. Soc. 2, 56.

Feronia (*Pœcilus*) *convexicollis* Say, Trans. Am. Phil. Soc. 4, 424.

One specimen, found at Sault St. Marie, Michigan.

The following species from Atlantic North America are unknown to me:

Feronia (*Omaseus*) *carbonaria* Dej. Sp. Gen. 3, 283.

Feronia (*Platysma*) *ebenina* Dej. Sp. Gen. 3, 307.

Omaseus tenebrosus Chaud. Bull. Mosc. 1837.

Feronia (*Pœcilus*) *atrata* Newman, Ent. Mag. 5, 386.

Feronia (*Platysma*) *monedula* Newman, Ent. Mag. 5, 386.

Feronia (*Platysma*) *mœrens* Newman, Ent. Mag. 5, 387.

Feronia (*Platysma*) *picipes* Newman, Ent. Mag. 5, 387. (an *Pterostichus submarginatus*?)

Feronia honesta Say, Trans. Am. Phil. Soc. 2, 51. (an *P. patruelis*?)

Feronia caudicalis Say, *ibid* 2, 56. (genus ignotum.)

Feronia heros Say, Journ. Ac. Nat. Sc. 3, 145. (an *Evarthrus colossus*?)

Argutor brevicornis Kirby, Fauna Bor. Am. 4, 31.

Stereocerus similis Kirby, Fauna Bor. Am. 4, 34, is possibly merely a *Pterostichus*, but from the absence of dorsal punctures it may be an *Amara*; the figure resembles much *Myas foveatus* Lec., but the palpi do not at all agree in form with that genus.

The following species from Pacific North America are unknown to me.

Pterostichus vicinus Man. Bull. Mosc. 1843, 200. (an *P. californicus*, var.)

Pterostichus herculeus Man. *ibid*.

Pterostichus validus Man. Bull. Mosc. *ibid*.

Pterostichus castaneus Man. *ibid*.

Pterostichus brunneus Man. *ibid*.

Pterostichus angustus Man. *ibid*.

Pterostichus fusco-æneus Man. *ibid*.

Pterostichus adstrictus Man. *ibid*.

Pterostichus seriepunctatus Man. *ibid*.

Pterostichus ventricosus Man. *ibid*.

Pterostichus pinguedineus Man. *ibid*.

Pterostichus empetricola Man. *ibid*.

Pterostichus riparius Man. *ibid*.

Brachystylus megas Chaud. Mss.

Pterostichus ater|| Man. Bull. Mosc. 1843, 206.

Feronia aterrima|| Mén. Bull. Soc. Petrop. 2, 59.

Feronia castanipes Mén. Bull. Soc. Petrop. 2, 59.

Feronia congesta Mén. *ibid*, 2, 59.

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