Synopsis of the THROSCIDÆ of the United States.

BY GEORGE H. HORN, M. D.

The small series of insects contained in this family seems to have escaped attention in our fauna with the exception of the description of a few new species by Dr. LeConte.

Three genera are known in our fauna which may be separated in the following manner:

Drapetes.

Throscus is represented on both sides of the continent, Pactopus in the Pacific and Drapetes in the Atlantic region.

THROSCUS Latr.

The generic characters have so often been given that it is hardly necessary to dwell further on them. There are, however, some differences of structure within generic limits to which it may be useful to call especial attention as they supply characters of great use in grouping and dividing the species.

In his admirable essay (Essai monographique sur la famille des Throscides, Paris, 1859) Bonvouloir indicates important modifications of the eyes, which may be grouped in three series. In the first the eyes are oval in form and entire, the second is that in which the front of the eye is broadly triangularly emarginate, while in the third an oblique narrow depression very nearly divides the eye into two nearly equal portions. These three forms give a very natural primary grouping of the species.

The second character of moment is the mode of striation of the prosternum. In nearly all the species the striæ are entire, extending from the point of the prosternum forward to the anterior margin, and in most cases exactly parallel, but in a few divergent. There are, however, species in which the striæ are abbreviated, in which case the middle of the prosternum in front is more distinctly punctate.

There seems to be no mention of the carination of the hind angles of the thorax in any species yet described, but in several of our species this character will be observed, and in pugnax may be seen in its best development. The carina is very near the lateral margin, and from the pubescent covering may have escaped observation in foreign species.

Two of our species have the front strongly carinate, both belonging to the series with triangularly emarginate eyes, and which, from both characters, are related to the *dermestoides* of Europe. But one species of the series with entire eyes has the front with short carinæ, while in all those in our fauna with the obliquely impressed eyes the carinæ although obtuse are quite distinct.

The antennæ vary in structure with the sex. The three broader terminal joints are, in the females, very little longer in their aggregate than the six preceding joints, and not much more than twice as wide as they, while in the male the club is one and a half times the length of the funicle and three times as broad. The club in the male is more hairy than in the female, the hairs longer, and many of them placed vertically on the surface of the joints as in the males of many Elateridæ. In the males the eyes are larger and less separated in the front.

The surface of most of the species is clothed with a fine recumbent pubescence through which the color of the surface can easily be seen, the punctures of the striæ, however, bear somewhat longer and more erect pubescence. In validus, punctatus and sericeus the pubescence is extremely fine and without any semi-erect hairs. The species at present known are as follows:

Eyes with a rather broad triangular impression at the lower border in front, not Eyes with a narrow oblique impression very nearly dividing the eyes into two equal portions; front indistinctly bicarinate......4. 2.—Prosternal striæ much abbreviated. Hind angles without trace of carina. Clypeus distinctly carinate each side; pubescence of body very fine. Clypeus not carinate; pubescence coarse......punctatus. Hind angles with a distinct but short carina close to the lateral margin; clypeus not carinate; pubescence moderately coarse.....invisus. Prosternal striæ entire or very nearly so. Prosternum coarsely punctured in front, the striæ slightly abbreviated; hind angles not carinate..... constrictor. Prosternum smooth, the striæ entire; hind angles of thorax with a long but

pugnax.

4.--Prosternal striæ entire, usually parallel.

Elytral intervals biseriately punctulate; prosternum smooth.

Elytral intervals with a single series of punctures.

Prothorax sparsely finely punctate; prosternum smooth.... parvulus. Prosternal striæ abbreviated.

Elytral intervals biseriately punctate; prosternum in front rather coarsely punctate......sericeus.

In using the above table in reference to the species in which the elytral intervals are uni- or biseriately punctate, it must be remembered that in the uniseriately punctate species two intervals are confusedly punctulate, the second and the fourth.

Of the thirteen species enumerated above, six are from the Pacific region and seven from the Atlantic, and from our present knowledge most of the species have a limited distribution.

T. validus Lec.—Form oblong, rather more obtuse posteriorly, brownish, feebly shining, sparsely, finely pubescent. Front convex, rather coarsely punctured, the punctures denser anteriorly, a short carina each side close to the antennal fossæ. Thorax gradually narrower in front, the sides feebly arcuate, disc moderately convex, without basal depression, surface coarsely not closely punctate, punctures finer near the side, intervals very minutely, sparsely punctate, hind angles not carinate. Elytra a little wider than the thorax, surface striate, striæ closely punctate, intervals flat, biseriately punctate, the punctures nearly as coarse as those of the striæ. Prosternal striæ short, the prosternum smooth posteriorly, coarsely punctured in front. Metasternum and abdomen very coarsely and moderately closely punctate. Length .12-.18 inch; 3-4.5 mm.

This species is very nearly of the form of *punctutus*, but larger, with the surface less coarsely punctured and the prosternal striæ more abbreviated; the pubescence of the surface is very fine.

Occurs in California and Nevada.

T. punctatus Bonv.—Oblong, moderately shining, dark brown, sparsely very finely pubescent. Front coarsely and rather densely punctured. Thorax nearly twice as wide as long, sides rapidly converging to the front, very slightly arcuate near the hind angles, disc moderately convex, distinctly depressed in the

basal region, surface coarsely, equally and moderately closely punctate, the intervals very finely punctulate. Elytra not wider than the thorax, striate, striæ rather closely punctate, the intervals flat, closely sub-biseriately punctate, the punctures nearly as coarse as those of the striæ. Prosternum smooth posteriorly, coarsely sparsely punctate in front, the striæ abbreviated and parallel. Metasternum and abdomen coarsely and rather densely punctate. Length .12-.14 inch; 3-3.5 mm.

A somewhat less robust species than validus, with the basal region of the thorax depressed. The thorax is also different in form and the prosternal striæ longer. The surface pubescence is much coarser. In some specimens the hind angles of the thorax seem obsoletely carinate, in which case, from the table, it might be mistaken for invisus, which is, however, more robust with finer pubescence, the thorax less coarsely and closely punctate.

Occurs from Canada to Georgia.

T. invisus n. sp.—Form oblong, rather robust, obtuse posteriorly, piceous, moderately shining, pubescence not dense, moderately coarse. Front convex, coarsely not closely punctate, without trace of carinæ. Thorax twice as wide as long, arcuately narrowed from the hind angles, these acute moderately prolonged and with a short but distinct carina close to the lateral margin, disc convex, basal region moderately depressed, punctures rather coarse but not close, finer near the base and sides. Elytra not wider than the thorax, striate, striæ coarsely punctured, intervals flat, biseriately rather coarsely punctate. Prosternal striæ abbreviated, the surface between them coarsely sparsely punctate in front. Metasternum at sides and abdomen coarsely, rather closely punctate, the intervals between them alutaceous. Length .14 inch; 3.5 mm.

This species is of the same form as *validus*, but the pubescence is coarser, without being as coarse as in *constrictor*. The prosternal striæ are longer than in *validus*. It is best distinguished by the fine carina of the hind angles of the thorax.

One specimen, New York, given me by Mr. F. G. Schaupp. During a recent visit to the museum at Cambridge a number of specimens were seen in the cabinet of Dr. LeConte, all from the Middle States region, which show some variation in size above and below that given in my description.

T. constrictor Say.—Form oblong, brownish or piceous, moderately shining, sparsely pubescent. Front coarsely and moderately closely punctate. Thorax nearly twice as wide as long, rather strongly narrowed in front, sides feebly arcuate except near the base, disc convex, surface coarsely and rather closely punctate, hind angles not carinate. Elytra not wider than the thorax, striate, striæ punctate, intervals flat, sparsely biseriately punctate, the punctures finer than those of the striæ. Prosternum sparsely punctate, smooth at tip, the striæ slightly divergent and not quite entire. Metasternum and abdomen coarsely and moderately closely punctate. Length .10-.12 inch; 2.5-3 mm.

This species is narrower in form than *punctatus*, and with the basal depressions of the thorax more evident. The color may vary somewhat, a specimen in my cabinet having the elytra distinctly paler than the thorax.

With this species I have united calocerus Bonv., the characters given by that author are purely sexual.

Occurs in the Middle and Southern States.

T. alienus Bonv.—Reddish brown, moderately shining, moderately densely pubescent. Front convex, rather finely not closely punctate. Thorax twice as wide as long, strongly narrowed in front, sides feebly arcuate, disc moderately convex, coarsely and rather closely punctate, a distinct but not deep depression of the base each side of the middle, hind angles acute, moderately prolonged backward and extremely finely carinate. Elytra not wider than the thorax, gradually narrower posteriorly, surface striate, striæ distinctly punctured, intervals flat, very regularly biseriately punctate, the punctures finer than those of the striæ, a moderately deep depression beneath the humeri parallel with the lateral margin. Prosternum very nearly smooth, the striæ deep, entire and slightly divergent in front. Metasternum and abdomen moderately coarsely and closely punctate. Length .08-.10 inch; 2-2.5 mm.

A small species resembling some of the smaller forms of *Chevrolati*, but differing in the form of the eyes. From all our species it differs in the presence of the sub-humeral depression.

In his monograph this species is described as *constrictor* by Bonvouloiz, the error was, however, subsequently corrected (Ann. Fr. 1860, p. 355). Occurs in the Gulf States.

T. convergens n. sp.—Oblong, brown, moderately shining, pubescence sparse and rather coarse. Head coarsely sparsely punctate. Front acutely bicarinate, the carinæ converging, and uniting anteriorly at the base of the clypeus, then again diverging to the angles of the clypeus. Thorax nearly twice as wide as long, much narrowed in front, sides feebly arcuate, hind angles slightly prolonged and finely but distinctly carinate, disc moderately convex, a very feeble depression each side of the middle of the base, surface rather coarsely but not closely punctate, the intervals very finely sparsely punctate. Elytra not wider than the thorax, slightly narrowing toward the apex, surface striate, striæ punctate, intervals flat with a single series of punctures finer than those of the striæ, marginal stria of elytra rather deeper at base. Prosternum with very few punctures, the striæ deep, entire and nearly parallel. Metasternum and abdomen coarsely but not closely punctured. Length .10 inch; 2.5 mm.

A very distinct species by the emarginate eyes and the strongly carinate front, especially in the arrangement of the carinæ.

Occurs in northern Georgia.

T. pugnax n. sp.—Oblong, narrower behind, dark brown, moderately shining, rather coarsely pubescent. Head sparsely punctate, front with two rather strong carinæ which extend from the occiput to the front margin of the clypeus,

parallel on the head, divergent on the clypeus. Thorax less than twice as wide as long, sides arcuately narrowing from the basal angles to the front, hind angles very little prolonged and with a very distinct carina close to the lateral margin extending half way to apex; disc moderately convex, basal region scarcely depressed, surface rather finely sparsely punctate. Elytra gradually narrower posteriorly, finely striate, striæ finely punctured, intervals flat biseriately and rather sparsely punctate. Prosternal striæ entire, deep, parallel, the space between them nearly impunctate. Sides of metasternum coarsely punctate; abdomen coarsely not closely punctate, the intervals finely alutaceous. Length .08 inch; 2 mm.

This species and the preceding are the only ones in which the eye has the deep triangular impression in front, and the head strongly bicarinate. The hind angles of the thorax in the *pugnax* has a longer and more distinct carina than has been observed in any other species.

One specimen &, Florida. Cabinet of Mr. Ulke.

T. Chevrolati Bonv.—Brownish or ferruginous, moderately shining, surface rather coarsely pubescent. Head sparsely punctate, front obtusely bicarinate, the carinæ distant and parallel. Thorax nearly twice as wide as long, much narrowed in front, sides feebly arcuate, widest in front of the hind angles which are prolonged and indistinctly carinate, disc moderately convex, basal region not depressed, surface rather coarsely punctured, more densely at the sides and base. Elytra slightly narrower than the thorax, somewhat narrower posteriorly, surface striate, striæ distinctly impressed and punctate, intervals very regularly biseriately punctate with extremely minute punctures intermixed. Prosternum nearly smooth with very few punctures, the striæ deep, parallel and entire. Metasternum sparsely, rather finely punctured, abdomen more coarsely punctured, rather densely at the sides and apex, sparse at middle. Length .10 inch; 2.5 mm.

This species is readily known by its obliquely impressed eyes, bicarinate front and rather coarse punctuation. It varies in length a little below and above the measurement given.

Widely distributed from the New England States to Louisiana and Iowa.

T. mendax n. sp.—Oblong, moderately shining, ferruginous or reddish brown, moderately densely finely pubescent. Front sparsely, rather finely punctate, obtusely bicarinate, the carinæ distant and parallel. Thorax not quite twice as wide as long, strongly narrowed in front, sides feebly arcuate, hind angles prolonged and acute, not carinate; disc moderately convex, basal region somewhat depressed, surface closely and rather coarsely punctate. Elytra not wider than the thorax, striate, striæ punctured, intervals flat, very finely and indistinctly biseriately punctulate. Prosternum very nearly smooth at middle, the striæ deep, entire and slightly divergent in front. Metasternum and abdomen coarsely and rather closely punctate. Length .08-.10 inch; 2-2.5 mm.

The only species with which it might be confused is *sericeus*, which is much more finely and sparsely pubescent and with shorter prosternal striæ, the prosternum distinctly punctate in front.

Occurs in the Sacramento Valley, California.

T. sejunctus n. sp.—Oblong, very little narrower behind, reddish brown, feebly shining, moderately coarsely pubescent. Head obsoletely punctate, front obtusely bicarinate, the carinæ distant and parallel. Thorax less than twice as wide as long, the sides feebly arcuate, gradually narrowed to the front, hind angles not carinate, disc moderately convex, basal region scarcely depressed, surface rather coarsely and closely punctate, the intervals moderately punctulate. Elytra very little narrower posteriorly, striate, striæ punctate, intervals flat, the second and fourth biseriately punctulate, the others with a single series of punctures, surface between the punctures very minutely punctulate. Prosternal striæ deep, gradually evanescent in front and not quite entire, the space between them in front coarsely punctured. Metasternum and abdomen coarsely but sparsely punctate. Length .08 inch; 2 mm.

This species is placed in a series with entire prosternal striæ, although they are not quite entire as striæ, but continued for a short distance by punctures. The characters of the table will enable it to be distinguished from any with the striæ entire, while from sericeus it is known by its smaller size, coarse pubescence and the elytral sculpture.

Three specimens examined, California, that in my cabinet from the Mojave region.

T. parvulus Lec.—Ferruginous brown, moderately shining, surface moderately densely pubescent. Head sparsely punctate, front very obtusely bicarinate, the carinæ distant and parallel. Thorax one and a half times as wide as long, much narrowed anteriorly, sides nearly straight at apical portion, slightly arcuate near the hind angles, the latter prolonged, not carinate; disc moderately convex, slightly depressed at basal region, surface rather finely punctate, the punctures not closely placed. Elytra not wider than the thorax, slightly narrower posteriorly, finely striate, striæ finely punctured, intervals flat, with a single series of fine punctures. Prosternum smooth, the striæ deep, entire and slightly divergent in front. Metasternum at sides rather coarsely punctured, abdomen sparsely not coarsely punctured. Length .06-.08 inch; 1.5-2 mm.

This is the smallest species known to me in our fauna, and is known by the obliquely impressed eyes, obtusely bicarinate front, and from *Chevrolati* by the punctuation of the surface.

The only mention of this species by Dr. LeConte is in the List (Smithsonian Contributions 1863, vi, No. 140, p. 44) the description has never been published, and the present description will therefore be accepted as part of his posthumous contribution.

Occurs in California, Mojave and Yuma. .

T. sericeus Lec.—Oblong, brown, feebly shining, surface sparsely and very finely pubescent. Head rather sparsely punctate, front obtusely bicarinate, the carinæ distant and parallel. Thorax not twice as wide as long, narrowed in front, sides moderately arcuate, hind angles prolonged and acute, not carinate; disc moderately convex, slightly depressed at base, surface coarsely and moderately densely punctured at the sides and base, more sparsely and finely at middle. Elytra not wider than the thorax, slightly narrowed posteriorly, surface moderately

deeply striate, the striæ punctured, intervals flat, biseriately punctulate. Prosternum smooth posteriorly, coarsely sparsely punctate in front, striæ deep, parallel. but not entire. Metasternum and abdomen coarsely but not closely punctate. Length .10 inch; 2.5 mm.

This species is usually mixed in cabinets with *mendax*. It is, however, more finely and sparsely pubescent, the frontal carinæ more distinct and with abbreviated prosternal striæ.

Occurs in California, and widely diffused.

T. debilis n. sp.—Form oblong, scarcely narrowed behind, castaneous or ferruginous feebly shining, pubescence not dense, rather fine. Head indistinctly punctate, front obtusely bicarinate, the carinæ parallel and distant. Thorax about one and a half times as wide as long, gradually arcuately narrowed to the front, hind angles very little prolonged, not carinate; disc moderately convex, basal region not depressed, surface with intermixed moderately close punctuation. Elytra finely striate, the striæ finely punctate, intervals flat, the second and fourth irregularly biseriately punctulate, the others with a single series of punctures. Prosterral striæ extending very little in front of middle, the prosternum with very few and very fine punctures. Metasternum and abdomen obsoletely, very sparsely punctate. Length .08 inch; 2 mm.

In this species the prosternal strice are so much abbreviated that there is no difficulty in distinguishing it from any of those with obliquely divided eyes.

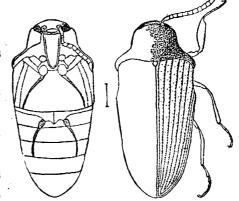
Occurs in Oregon and Washington Territory.

PACTOPUS Lec.

Antennæ fusiform, a little longer than the head and thorax, received in deep sinuous grooves in the sutures of the prosternum and which ex-

tend outwardly to the hind angles of the prothorax, the tip of the antennæ resting against the elytral humeri; first joint obconical, nearly twice as long as the second which is slightly transverse; joints 3–7 nearly square, closely articulated, 8–10 very little larger, eleventh one-half longer, acute at tip. Eyes entire.

Tarsi long and slender, the joints simple, the first as long as the next



three; middle and posterior tarsi received in grooves, those for the middle pair are on the metasternum and divergent, reaching the hind coxæ; those for the hind pair extend from the base of the first ventral segment to the posterior margin of the third and are also divergent.

The characters above given are essentially the same as those given by Dr. LeConte, the only other point in which it is observed to differ from Throscus is in the sudden oblique narrowing of the anterior tibiæ at tip. There is but one species at present known.

P. Hornii Lec.—Form rather elongate, dark brown or piceous, moderately shining, surface clothed with fine short silken pubescence. Head moderately coarsely and closely punctate, front convex. Thorax nearly twice as wide as long, form rather broadly campanulate, the sides rather deeply sinuate at middle, the hind angles acute and prolonged over the humeri of the elytra, not carinate; disc moderately convex, slightly depressed at base, surface rather coarsely and closely punctate, a little more finely in front. Elytra a little narrower at base than the thorax, then slightly wider posteriorly, after which they narrow slightly to apex, surface striate, striæ punctate, the punctures a little more evident at apex, intervals flat, finely alutaceous with obsolete punctures distantly placed in a single series. Prosternum coarsely sparsely punctate, the striæ deep, slightly divergent and entire. Metasternum coarsely and closely punctate. Abdomen less coarsely and less closely punctate, the last segment more finely. Length .12-.18 inch; 3-4.5 mm.

The specimens examined show no sexual differences except that the males are somewhat more slender.

Occurs in California and Nevada.

DRAPETES Redt.

Antennæ serrate from the fourth to the tenth joint, received in well defined grooves in the anterior portion of the prosternal suture. Tarsi not received in grooves either in the metasternum or abdomen.

As the characters of the genus are so thoroughly given in many places, the few words above will suffice at this time.

Our species are few in number, and as they differ remarkably in color this character can be made use of for separating them, the structural characters will be given in the specific descriptions.

Thorax black.

Elytra with a broad sub-basal red fascia geminatus.

Elytra with humeral and sub-apical red spots quadripustulatus.

Elytra entirely black nitidus.

Thorax red, elytra black rubricollis.

All our species have a humeral carina which is the basal termination of a submarginal stria, the true elytral margin is below this carina. The carina of the basal angles of the thorax is also well marked, and in *geminatus* long, a character which has been passed in silence by Bonvouloiz.

D. geminatus Say.—Black, shining, very sparsely pubescent, a broad subbasal red fascia on the elytra sometimes divided at the suture or reduced to a round spot on each side. Antennæ piceous, under side and tip of first joint testaceous.

Thorax as wide at base as long, gradually narrowing to the front, disc moderately convex, carina of the hind angles distinct extending two-thirds to apex, surface moderately coarsely sparsely punctured, the punctures coarser near the hind angles and finest near the front angles. Elytra a little wider than the thorax, sparsely irregularly punctate, the punctures much finer than the thorax, a distinct humeral carina above the true epipleural margin. Prosternum punctured in front, nearly smooth posteriorly, on each side bistriate, the striæ rather deep, extending three-fourths to the front and equal in length; inflexed sides of prothorax coarsely punctured. Metasternum and abdomen more finely, not closely punctate. Length .16 inch; 4 mm.

Occurs in Illinois, Georgia and Maryland.

D. quadripustulatus Bonv.—Piceous black, shining, very sparsely pubescent, each elytron with a sub-humeral and sub-apical reddish spot, the latter smaller. Head sparsely punctate, antennæ piceous. Thorax a little wider than long, gradually narrowed in front, disc moderately coarsely punctate, the punctures finer in front, carina of the hind angles short extending but one-third to apex. Elytra a little wider than the thorax, very sparsely and irregularly punctate, humeral carina distinct. Prosternum coarsely sparsely punctate in front, smooth posteriorly, on each side bistriate, the striæ deep, extending three-fourths to apex, inflexed sides of pronotum coarsely punctate. Metasternum and abdomen rather finely and sparsely punctate. Length .16 inch; 4 mm.

This species has a more robust facies than the preceding and is more convex. It differs at first sight in color and will be observed to have a much shorter thoracic carina.

Occurs from Wisconsin to Florida.

D. nitidus Mels.—Piceous black, shining, very sparsely pubescent. Head sparsely punctate. Thorax as wide at base as long, the sides straight, slightly convergent anteriorly, disc moderately convex, punctures rather sparse at middle, a little coarser and closer near the base, carina long, extending two-thirds to the apex, very close to the margin posteriorly. Elytra a little wider than the thorax, slightly narrower posteriorly, sparsely punctate and more finely than on the thorax, humeral carina distinct. Prosternum sparsely punctate in front, each side bistriate, the striæ extending two-thirds to the front. Flanks of prothorax, sides of metathorax and abdomen moderately coarsely punctured. Length .16 inch; 4 mm.

The only specimen I have seen of this species is the type of Melsheimer, now in the cabinet of the late Dr. LeConte. It resembles *geminatus*, except that it is entirely piceous, and, as suggested by Melsheimer, may possibly be a variety of that species.

One specimen, Pennsylvania.

D. rubricollis Lec.—Black, shining, sparsely pubescent, thorax above and beneath red. Head sparsely punctate, antennæ piceous. Thorax wider than long, sides arcuately narrowing to the front, disc convex rather coarsely but sparsely punctured, the punctures finer near the front angles, carina of the hind angles short. Elytra very little wider than the thorax, gradually narrower behind, humeral carina distinct, surface sparsely irregularly punctate. Prosternum coarsely punctate and piceous in front, posteriorly smooth on each side bistriate, the outer

striæ extending two-thirds to apex the inner much shorter; inflexed sides of pronotum sparsely punctate. Metasternum and abdomen a little more finely, not closely punctate. Length .10-.12 inch; 2.5-3 mm.

This species is easily known by its small size, the color and the abbreviated intermediate prosternal striæ.

Occurs in Florida.

Synonomy and Bibliography.

THROSCUS Latr.

- T. validus Lec., Trans. Am. Ent. Soc. 1868, p. 63.
- T. punctatus Bonv., Monog. p. 15, pl. 1, fig. 3.
- T. invisus n. sp., supra.
- T. constrictor Say, Trans. Am. Philos. Soc. vi, p. 189; Bony. Ann. Ent. Soc. Fr. 1860, p. 355, pl. 8, fig. 3.

calocerus & Bonv., Ann. Fr. 1860, p. 354, pl. 8, fig. 2.

- T. alienus Bonv., Ann. Fr. 1860, p. 357.
 constrictor ‡ Bonv., Monog. p. 13, pl. 1, fig. 2.
- T. convergens n. sp., supra.
- T. pugnax n. sp., supra.
- T. Chevrolati Bonv., Monog. p. 21, pl. 1, fig. 7.
- T. mendax n. sp., supra.
- T. sejunctus n. sp., supra.
- T. parvulus Lec., List p. 44 (posthumous description above).
- T. sericeus Lec., Trans. Am. Ent. Soc. 1868, p. 63.
- T. debilis n. sp., supra.

PACTOPUS Lec.

T. Hornii Lec., Trans. Am. Ent. Soc. 1868, p. 64.

DRAPETES Redt.

- D. geminatus Say, Ann. Lyc. 1, p. 265; Bonv. Mon. p. 70. extriatus Say, Trans. Am. Phil. Soc. vi, p. 177.
- D. quadripustulatus Bonv., Mon. p. 74, pl. 3, fig. 2.
- D. nitidus Mels., Proc. Acad. ii, p. 149.
- D. rubricollis Lec., New Species, 1863, p. 82.