

THE GROUP TRACHES IN NORTH AMERICA.

PART I.

THE GENERA *PACHYSCHELUS* AND *TAPHROCERUS*.

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Of all the buprestid genera in North America, not any are in more confusion at the present time than *Pachyschelus*, *Brachys* and *Taphrocerus*, which taken together comprise the group *Traches*. This name was used by Kerremans to cover those species having the median coxæ more distant than the anterior ones, the anterior margins of the posterior coxæ slightly concave or slightly dilated at the sides and the tarsi very short. In this group he placed seventeen genera only three of which are included in our fauna. Le Conte and Horn referred to these forms as *Braches* but *Traches* has priority. The members of the genus *Rhæboscelis* possess confluent eyes and have larval habits somewhat similar to those of the *Braches* but in structure strongly resemble the tribe *Agriles*. Here they were placed by Kerremans following the genus *Agrilus* and for the present we think it is best to keep them in this latter group.

Were we to follow the correct sequence in taking up these genera, *Pachyschelus* would come first, followed by *Brachys* and *Taphrocerus*. Unfortunately, however, this paper must be divided into two parts and as the *Brachys* will require at least another year's study, we are taking the liberty of reversing the arrangement to the extent of presenting the genera *Pachyschelus* and *Taphrocerus* together with a general introduction in this part. Part II¹ will deal exclusively with the genus *Brachys*.

In the "Genera Insectorum," Kerremans lists some 147 species of *Pachyschelus*, 89 of which were known to him. All but a very few species which are confined to the Malay Archipelago and one in Madagascar, occur on the American continent, but the great majority

¹ Part II on the genus *Brachys* will appear at a later date.

are tropical. The *Brachys* are confined entirely to the Americas and Kerremans lists 94 species, 46 of which he knew. The genus *Taphrocerus* is restricted to the New World, 38 species being listed, 18 of these being known to Kerremans.

In the following treatment the original description is included after each species, but where this is very brief or vague it is followed by a more complete account.

KEY TO THE GENERA.

1. Scutellum large, triangular, tibiae dilated.....**Pachyschelus**
 Scutellum small, tibiae linear2
2. Body ovate, prosternum obtuse behind**Brachys**
 Body elongate, prosternum pointed behind**Taphrocerus**

Pachyschelus Solier, 33-313.

Metonius Say, 36-264.

Broad, triangular in form; scutellum large, triangular, smooth; thorax widest at base tapering toward head; eyes convex, moderately prominent; head large with a faint to distinct longitudinal impression along the median line; antennae short, 11-jointed; elytra punctate with a large marginal depression posterior to the humerus and a fainter one between the scutellum and humerus; legs retractile, tibiae dilated usually sulcate for the reception of the tarsi which are short; prosternum broad, almost truncate behind; ventral surface impunctate; ventral thoracic surface grooved near margin for reception of antennae; pubescence short and sparse. Our species are black with an aeneous lustre or bluish.

Very little appears to be known concerning the biology of the genera *Pachyschelus* and *Taphrocerus*. Burke in 1917 stated that so far as known no larvæ of *Taphrocerus* had been collected and summarized the distribution and habits of members of the *Pachyschelus* as follows: "Eastern States, leaf miner in leaves, *Hicoria*?, *Quercus*?, and *Lespedeza*." According to the same author, the larva of *Pachyschelus* can be characterized as follows: "First segment narrower than following, body tapering both ways from about the middle, more acute at the posterior end, spindle-shaped. Head comparatively small more or less retracted into the first segment of a body composed of 13 fairly well defined, flattened segments; antennae medium sized and

3-jointed; ocelli wanting; labrum rather large, arched and protruded; mandibles short, strong, usually toothed and rather spoon-shaped; maxillæ well developed; maxillary palpi two-jointed; labium well developed, arched, protruded; labial palpi minute and unsegmented, almost obsolete; first segment with a large well-developed plate on both ventral and dorsal surfaces; true legs wanting; cerci wanting; spiracles crescentic, one large one on either side of the second segment and one small one on either side of each of the fourth to eleventh segments, on the anterior dorso-lateral surface."

KEY TO THE SPECIES OF PACHYSCHELUS.

1. Elytra with a subtransverse or diagonal line of whitish pubescence just before the apices, last ventral segment of male with three small teeth (rarely trace of fourth) on each of two prominent processes.....**purpureus** Say.
Elytra glabrous, last ventral segment of male with four small teeth on each of two prominent processes2
2. Elytra black with æneous lustre**lævigatus** Say.
Elytra blue3
3. Head and thorax blue to bluish black.....**schwarzi** Kerremans.
Head and thorax æneousvar. **oculatus** Schaeffer.

Pachyschelus purpureus (Say), 36-164.

americanus Gory, 41-346.

(Original description.)

"Ovate, black, elytra purple. Inhabits Indiana. Body black; head with distinct punctures; front with an indented abbreviated line placed low down; thorax with scattered discoidal punctures; no lateral indentation; elytra purple; indented at the middle of the base and behind the humerus; punctures rather large but not deeply impressed, placed in series and obsolete behind, tibiæ angulated. Length under three-twentieth of an inch."

"This insect is certainly cogenetic with the preceding but it cannot be placed in the *Trachys* or even in *Aphanisticus* if *pusillus* Olivier can be considered as a type of it."

It is rather remarkable that Say did not mention the subtransverse or diagonal line of whitish pubescence just before the apices of the elytra, the faint spot of white pubescence slightly above the centre near the suture which often runs into a line nor the surface being sparsely clothed with white hairs which are shorter and not as close together as those forming the spots or lines. The ventral surface is

impunctate, sparsely clothed with short, white hairs, which are arranged in transverse lines on the abdominal segments. The sexes may be readily separated by the last ventral segment which on the male bears an oblong impression at apex, apical margin produced in the middle into two prominent processes each of which terminates in three small teeth (very rarely with a trace of a fourth). The last ventral segment of the female is not impressed, the apical margin being produced in an acute point. Length, 2.5 mm. to 3.5 mm.

Localities.—Van Cortlandt Park (Pearsall); Queens, L. I., Nov. 28, one specimen sifting leaves (Schott); Staten Island; NEW YORK. Caldwell, Sept. 20, feeding on hickory (Nicolay); Ramsey, May 30 (Nicolay); Ft. Lee, June 9 (Shoemaker); Greenwood Lake, May 17 (Leng); Orange Mts., June 4 (Bischoff); Hemlock Falls, May 28 (Wenzel); NEW JERSEY. ILLINOIS. IOWA. Cypress Mills, April 2; TEXAS. Lake, Marshall and Stark Counties, June 11, July 14, rare (Blatchley); INDIANA. Larva mines leaves of *Lespedeza* (Smith). Borer of hickory (?) (Felt). Larva in leaves of bush clover, *Lespedeza* and adults beaten from vegetation in marshy places (Blatchley).

This species is taken around New York City by sweeping marshy places during the spring. It occurs locally and is never common. The larvæ live in the leaves of bush clover. Mr. Schott took one specimen while sifting leaves in November and the authors have found adults feeding during September. From this it appears that the adults hibernate. All of the specimens are remarkably constant in size (3.5 mm.) with the exception of two specimens (male and female) before us from Texas, which measure only 2.5 mm. Superficially they appear to be at least a geographical variety but after studying them closely no definite characters could be found. In view of this and until more material is available, we think that they had better be placed with *purpureus*. The dwarfed size may have been due to under nourishment of the larvæ.

***Pachyschelus lævigatus* (Say), 36-164.**

ovatus || (Say), 25-252.

punctatus (Gory), 41-347.

carbonatus (LeConte), 59-252.

politus Kerremans, 96-322.

(Original description.)

"Ovate, black; head without indented line; elytra without regular punctures. Desc. Body very short, ovate, black; head without the usual dilated indentation but a very slight indentation may be observed on close inspection, particularly on the lower part of the front; slightly punctured; thorax equal with the exception of a dilated indentation on each side with distant punctures in which is a raised centre; scutellum large, flat, impunctured, polished; elytra with wide, irregular not deeply impressed punctures, without any appearance of a regular series, no appearance of elevated lines, a profound excavation behind the humerus without any sinus of the edge, humerus prominent. Length rather more than one-tenth of an inch. This is the smallest species I have met with and of a shorter form.

"Afterwards (Trans. Amer. Phil. Soc. vol. 6, p. 164) made the type of a new genus *Metonius* which is identical with *Pachyschelus*. *T. ovata* Weber is a very different insect belonging to *Brachys*,—Lec.

"*M. ovatus* nob. (*Trachys*) Ann. Lyc. N. Y. Those who will retain this species in *Trachys* must change the name of *laevigatus* as the other is preoccupied in the genus."

The pubescence of the ventral surface is less pronounced than that of the preceding species. The sexual characters are similar to those of *purpureus* except that in the males, the process on the last ventral segment bears four instead of three small teeth. Length, 2–3 mm.

This species is very common in most localities and ranges from S. E. Canada to Florida and west to Iowa. Late May to August 11. Blatchley records it on the foliage of black gum and flowers of black haw, milkweed, etc. According to Chambers it mines *Desmodium*. This species was redescribed many times. Called *ovatus* by Say in his original description (1825) the name was preoccupied in the genus *Trachys*. Afterward (1836) discovering his error, the name *laevigatus* was proposed and although since put in another genus, to comply with the laws of nomenclature the latter name must be retained. Le Conte's *carbonatus* is merely a phase of this species, but just why one having such a universal knowledge of the family as Kerremans should redescribe it under the name *politus* is hard to understand.

Pachyschelus schwarzi Kerremans, 92–298.

cæruleus || Schwarz, 78–364.

(Original description.)

"Short ovate, black, head and thorax bluish black or black with æneous tinge, scutellum and elytra bright blue, shining. Head deeply channeled, alu-

taceous, obsoletely punctulate. Thorax without lateral depression and with sparse, shallow punctures almost obliterated on the disc, more obvious at the sides, finely alutaceous at the sides. Elytra with a deep impression on the sides before the middle and with another obsolete one near the suture behind the middle, plainly punctured with traces of regular rows on the disc. Length 2-3 mm. .08-.12 inch. Male, last ventral segment with an oblong impression at apex, apical margins produced in the middle into two prominent processes each of which terminates in four small teeth. Female, last ventral segment not impressed, apical margin produced in the middle in an acute point.

"Very abundant everywhere in Florida. In form and size this species resembles *P. laevigatus*, the elytra however are less triangular and more rounded at the sides: it differs also by its color and by the thorax not being impressed at the sides. Very probably there will also be a difference in the sexual characters of the males but we have not seen the male of *P. laevigatus*. In *P. purpureus* the last ventral segment of the male has a similar impression but the two processes are more separated from each other and each terminates in three teeth."

In this species the ventral pubescence is almost obsolete except on last abdominal segment. Easily separated from preceding species by bluish color of entire dorsal surface. Length, 2-3 mm.

Localities.—ARKANSAS (Nicolay collection). Enterprise, April 18; Tampa; Key West (Nicolay collection); Sanford, April 24 to May 9, Crescent City (Van Duzee); Dunedin, March 16 (Blatchley); FLORIDA. Billy's Island, Okefenokee Swamp, June (Leng); GEORGIA. Harrisburg, July 31 (Wenzel); TEXAS.

This is a strictly southern form and evidently not rare where it occurs. The name *caeruleus* was given to a species from Guiana by Gory in 1841. The spelling of this name with an "o" instead of an "a" by Kerremans is incorrect.

Pachyschelus schwarzi var. *oculatus* Schaeffer, 09-377.

(Original description.)

"Black, head and thorax æneous, elytra blue. Head distinctly longitudinally impressed along the median line; finely and densely punctate with some coarser punctures intermixed; eyes rather convex. Thorax at apex feebly emarginate; sides obliquely narrowing to apex, almost straight to about apical fourth, then slightly arcuate; base bisinuate, median lobe almost truncate; surface finely and very densely punctate especially at sides, intermixed with

longer, ocellate punctures which are more feeble on the disc; laterally on each side sharply impressed. Scutellum large, triangular, smooth. Elytra coarsely punctate; interval between the punctures more or less wrinkled; basal and lateral impressions deep; apical subsutural impression less deep. Sculpture of underside of body rather finely reticulate, intermixed on the pro- and metasternum with large ocellate punctures; metasternum at sides plicate; abdomen very sparsely pubescent. Length 3 mm. Nogales, Arizona.

"This species is very close to *cæruleus* but is more slender and has the eyes more convex than any other of our species."

This is merely a geographical variation distinguished by the æneous lustre of the head and thorax. The remarks by Mr. Schaeffer about it being more slender with eyes more convex are misleading. In the large series of *schwarzi* before us, there are many specimens which are certainly more slender than this variety. Also the eyes are not more convex but the median line is more deeply impressed, which might give them that appearance. In certain specimens of *schwarzi*, however, the impression of the median line is even deeper than in the variety, so this character has no value.

Localities.—Nogales, ARIZONA (Schaeffer). ARIZONA (Nicolay collection).

There are only two specimens of this variety known to us. The type collected by Mr. Schaeffer is in the collection of the Brooklyn Museum and a single female with only the state label is in the Nicolay collection. There is no variation in the two specimens.

Taphrocerus Solier, 33-314.

Body elongate; scutellum small, smooth, triangular; thorax usually widest at base, rarely with sides parallel (*laevicollis* Le Conte); head large with a median longitudinal impression; eyes large, oval; antennæ short, eleven jointed; elytra punctate, sides sinuate, a faint depression between scutellum and humerus; legs less retractile than in preceding genus, tibiæ linear; tarsi short; prosternum pointed behind; ventral surface of thorax grooved near margin for the reception of antennæ; pubescence short and sparse. The dorsal surfaces of our species are entirely black to coppery in color. In the "Biologia," Waterhouse uses a key to separate the forms giving as the first division, species with or without a lateral carina on the elytra. In studying our species, we find that all are without it.

KEY TO THE SPECIES OF TAPHROCERUS.

1. Elytra glabrous2
Elytra with spots or lines of pubescence; pubescence rarely wanting and replaced by punctate foveæ5
2. Thorax widest at and depressed at base3
Thorax not depressed at base, uniformly rounded, sides parallel or widest at centre4
3. Robust, black with a slight virescent to æneous shine; tips of elytra strongly serrulate; length 4.5-5.5 mm.**puncticollis** Schwarz.
Depressed, æneous; head shining, deeply impressed; tips of elytra not or very feebly serrulate; elytra coarsely punctate; length 3.5-4 mm.
schaefferi nov. sp.
4. Subparallel, coppery, moderately shining; thorax widest at middle; head alutaceous, feebly impressed, narrower than widest portion of thorax; elytra finely punctate**agriloides** Crotch.
Sides of thorax parallel; head as wide as thorax.....**lævicollis** Le Conte.
5. Apical half of elytra with two white fascia; black with æneous rarely virescent lustre to entirely æneous.....**gracilis** Say.
Apical half of elytra with six isolated dots of white pubescence; black without æneous lustre**albonotatus** Blatchley.

Taphrocerus puncticollis Schwarz, 78-363, Plate VI (Fig. A).

(Original description.)

"Elongate above, blackish blue or black with faint aneous tinge, shining. Head less strongly excavate, very finely alutaceous, distinctly moderately, sparsely punctate, punctures deeper than in *T. gracilis*. Thorax transverse narrowed in front when viewed from above, sides minute before the hind angles which are rectangular, base strongly lobed in the middle, lobe broadly emarginate, surface uneven with the distinct carina in front of the hind angles very finely alutaceous, coarsely unequally punctured, each puncture bearing a very short scale-like hair. Scutellum transverse, shining. Elytra impressed at base, impressions on the disc not obvious, serrate at outer apical angle, anteriorly moderately strongly striate punctate, punctures obsolete toward the apex, each with a very fine short hair, interstice on the disc unequal, the striae therefore appear subgeminata, humeral carina broadly interrupted at middle. Beneath bluish black or black, metasternum coarsely punctured, abdomen with sparse shallow punctures, last segment with a deep semicircular marginal sulcus. Length 5 mm. .20 inch.

"Enterprise and Cedar Keys. More elongate than *gracilis* and distinguished by the deeper punctuation of head, thorax and metasternum and by the elytra less even without patches of pubescence;

from *T. agriloides* it differs chiefly by the form of the thorax which in the latter species is not narrowed in front when viewed from above."

Localities.—Biscayne, May 23 (Schwarz) (Leng and Schaeffer collections), Paradise Key (Royal Palm Hammock), February (Wetmore), FLORIDA. Delchamps, August 30; Coden, June 9 (Loding); ALABAMA.

This is the largest of our species and according to the few specimens known seems to be constant in size and punctuation. Mr. Edward Chapin informs us that Mr. Wetmore has taken some forty specimens of this rather rare species, all from the same locality.

Taphrocerus schaefferi nov. sp., Plate VI (Fig. B).

Depressed, æneous; elytra punctate striate, punctures coarse, each one with a short, white reflexed hair, tips usually not serrulate, rarely very feebly so. Umbone prominent, base of elytra with fovea, sides sinuate, widest at base where it is sharply emarginate, thence broadening to center, becoming gradually narrower toward apex. Thorax widest at base, distinctly, transversely depressed at base and apex, a distinct carina just inside the basal angle; rather sparsely and unevenly and finely punctate, each puncture with a reflexed hair. Head shining, sparsely punctate, front with a deep longitudinal impression attaining or nearly attaining occiput. First and second antennal joints large and globular, next three narrow elongate, last six wider, strongly serrate. Ventral surface æneous, legs black with æneous lustre, finely and distinctly punctate, pubescence white, arranged in usual transverse rows on the abdomen. Length, 3.5 mm. to 4 mm. Width, 1 mm.

Localities.—Brownsville, August 26, TEXAS. Type in Nicolay collection. One paratype in the collection of Mr. Howard Notman and two in the collection of Mr. Charles Schaeffer.

This species appears to be allied to *puncticollis* but is at once distinguished by the much smaller size, more flattened form and æneous color. To Mr. Gilbert Arrow of the British Museum we are much indebted for comparing this as well as our other species from the south and southwest with the specimens in the collection of that institution so as to avoid any possibility of error. The species is named in honor of Mr. Charles Schaeffer of the Brooklyn Museum to whom we are greatly indebted for many favors.

Taphrocerus agriloides Crotch, 73-75, Plate VI (Fig. C).

(Original description.)

"Subelongate, æneous, head very sparingly punctate, with an impressed line on the front; thorax alutaceous, transverse, sides straight, coarsely and sparsely punctate, base with a rounded median lobe; elytra deeply punctate striate, the punctures decreasing towards the apex. L. 14, Texas (Belfrage).

"In appearance very like *Agrilis putillus*."

Superficially this species is very close to *schaefferi* and undoubtedly mixed with it in many collections as it occurs in the same locality but has a more extended range, specimens having been taken as far north as Georgia. It will be necessary to add the following to the above description in order to clearly define this species. Coppery, moderately shining, elongate, elytra gradually narrowing from about the apical half, more finely punctate than *schaefferi*, tips distinctly serrulate, umbone not noticeable, fovea at base of elytra smaller and less distinct. Thorax widest at middle evenly rounded when viewed from above; a more or less distinct fovea on each side near base. Front of head much more feebly impressed, alutaceous. Ventral surface æneous, finely and moderately punctate, pubescence sparse, arranged in transverse rows of short, white hairs on the abdomen. We can not see that this species resembles *Agrilis putillus* in any very striking point. Length, 3.5 mm. Width, 0.75-1 mm.

Localities.—Coden, June 9; Mobile, April 11; Delchamps, August 30, on rushes in salt marsh (Loding); ALABAMA. GEORGIA. TEXAS.

This species is at once separated from *schaefferi* by the thorax being widest at centre, not impressed at base and without carinae inside the basal angle. The head is alutaceous, more feebly impressed. Elytral punctuation is finer with the tips strongly serrulate and the body is more elongate and parallel.

Taphrocerus lævicollis Le Conte, 78-403, Plate VI (Fig. D).

(Original description.)

"Very small, slender, convex, narrower behind, black-bronzed, shining. Head and prothorax nearly smooth, the former large, longitudinally impressed; the latter with very deep oblique impressions towards the sides, which are nearly straight and subparallel. Elytra uneven with vague rows of feebly impressed striæ. Length 2.5 mm.; .10 inch.

"Enterprise (Florida): one specimen. Easily recognized by the small size, large head, not narrower than the prothorax and by the latter not being narrowed in front."

Head and pronotum shining with short, white pubescence. Elytra sinuate, smooth, feebly punctate striate. Ventral surface with short sparse hairs; abdominal vestiture arranged in transverse lines.

Localities.—Haw Creek, April 6 (Schwarz), FLORIDA. Coden, June 9 (Loding), ALABAMA.

This species is quite distinct and readily recognized from the original description. It appears to be local and by no means plentiful, being represented in only a very few collections.

Taphrocerus gracilis (Say), 25-252, Plate VI (Fig. E).

alboguttatus (Mannerheim), 37-120.

cylindricollis Kerremans, 96-312.

(?) *texanus* Kerremans, 96-312.

(Original description.)

"Oblong blackish; elytra with regular series of punctures. Body rather slender, oblong, blackish-brassy; head a little concave, but not profoundly so; thorax inequal, with a slight impressed line before, and a wide indented space occupying half the thorax behind; on each side is a raised, arcuated, obtuse line, extending nearly from one angle to the other; scutel moderate; elytra with regular series of rather large, profoundly impressed punctures which are obsolete at tip. Length, less than three-twentieths of an inch.

"A comparatively slender species. I found it on a myrtle bush at Senipuxten Island, in September. It exhibits an unusual regularity in its series of punctures." (This is the type of *Taphrocerus* Sol.; the name under which it was known to him is the synonym *Brachys alboguttata* Lap. and Gory.-Lec.)

On fresh and unrubbed specimens there are two distinct fascia of white pubescence on the apical half of the elytra and occasionally a spot on either side at the base, but, in most cabinet specimens, there is but one band, often reduced to a mere spot. The variation in the sculpture of the elytra seems unlimited. The commonest form is punctate striate, the punctures being rather unevenly arranged, coarse at the base becoming obsolete after the first fascia. However, some specimens are almost smooth while others, chiefly those from the

southwest, have the striæ evenly, finely and densely punctate. Moreover specimens are often met with which have a deep, longitudinal sulcus on each elytron. There is a deep depression at the base and usually a distinct fovea just before the apex. Thorax widest and deeply depressed at base. Head and thorax rather smooth, sparsely hairy. Ventral surface black. Metasternum strongly punctate. Abdomen finely punctate, slightly to densely hairy, hairs not arranged however in transverse rows. Length, 2.6-4.5 mm.

Ranges from Canada to Florida and westward as far as Iowa, Texas and Arizona. Around New York City specimens have been found from May 17 to September 8. Found beating in swampy places (Smith, Ins. N. J., p. 295). On flowers and leaves of button bush, *Cephalanthus occidentalis* and on herbs in low wet places (Blatchley, Col. Ind., p. 805).

Few species possess such a great individual variation as this one and it is remarkable that more names have not been erected. The forms from Arizona, New Mexico and Colorado upon superficial examination appeared so distinct in having well defined, finely punctate striæ and smooth elytra with æneous lustre that we at first considered them as a valid species and distinct from the more unevenly sculptured blackish insects taken in the east. However after examining over one hundred individuals, we could discover no real specific difference and upon receiving several from Brownsville, Texas, possessing the uneven shape, coarsely punctured striæ of the eastern form, yet retaining the brilliant æneous color of the western insects, we felt that it would be best to regard it as one variable species as Kerremans and our other predecessors did, rather than name the extreme forms, which are not geographically limited and if consistently followed out would mean the erection of at least six new species.

The Leng collection contains a very peculiar individual from Florida, which has the elytra broadly and deeply sulcated, the sulci running parallel to and half way between the suture and sides until just before the apex, where they converge toward the suture, each ending in a deep fovea. A specimen from Anglesea, N. J., collected by us has the entire surface marked with irregular pits and cavities. From Georgia, are specimens almost smooth and impunctate with a virescent shine. Mr. Schaeffer took one at Pine Island, N. Y., which

has the evenly and finely punctured striae of the typical specimens from the southwest. Therefore we prefer to consider these all as aberrant forms of *gracilis*. In a very few individual cases there are no traces of the fascia but these we regard as having been rubbed off naturally or as a result of handling. Punctate foveae replace the pubescence in these examples.

From the description it would appear as if Kerremans had before him one of these extreme forms when he erected the name *texanus* and as the type is not obtainable, we believe that it is best placed as a synonym of *gracilis*. However at the end of the text, there will be found a translation of his original description, for those not satisfied with this admittedly rather uncertain placing of his species.

Gracilis is our most abundant and widely distributed species. It is common around New York City and taken while sweeping meadows usually in moist places where the vegetation is rank.

Taphrocerus albonotatus Blatchley, 19-29, Plate VI (Fig. F).

(Original description.)

"Elongate, slender, strongly tapering behind. Black, shining, very sparsely and finely pubescent; the elytra with eight isolated white pubescent spots, arranged in three cross rows, two each in the first and third, and four in the second or middle row; the spots of the third row crescent-shaped, the others rounded or oblong, the first row at middle, the others equally spaced behind it. Head as broad as front of thorax, finely alutaceous, not punctate, the occiput with a wide, shallow, median impression. Thorax twice as wide as long, base slightly wider than apex, disk uneven, but less so than in *gracilis*; surface minutely alutaceous and with large, shallow, scattered ocellate punctures. Elytra at base slightly narrower than base of thorax, sides broadly sinuate in front of middle, straight and strongly converging from apical third to the obtusely rounded tips; disk with regular rows of large shallow punctures, these becoming obsolete towards apex. Abdomen with large very shallow punctures, each enclosing a small oblong white scale. Length, 3.5-4.5 mm."

Localities.—Jacksonville (Leng collection), Lakeland, Ft. Myers, La Belle, Dunedin, October 20 to April 10 (Blatchley), FLORIDA; Billy's Island, Okefenokee Swamp, June (Leng), GEORGIA.

This is a southern species taken by Mr. Blatchley on huckleberry and other low shrubs in late fall and early spring. The pubescence is rather an uncertain character to depend upon unless the specimens

are fresh and not rubbed, but the lack of bronze and more slender and more tapering body should make it easy to separate from *gracilis*, which also occurs in Florida.

Taphrocerus texanus Kerremans, 96-312.

(Translation of original description.)

Elongate, subparallel, cylindrical, attenuated before and behind, entirely black, very lightly bronzed.

Head punctate, convex, slightly grooved on anterior part of front. Pronotum almost square, slightly narrower in front than behind, slightly convex, covered by an irregularly spaced punctuation like that of the head; the anterior margin straight, the sides nearly straight, obliquely truncate anteriorly, the posterior angle straight, the base weakly bisinuate with the median lobe projecting and sharp. Shield very small. Elytra wider than pronotum at base, rugose and covered with a series of longitudinal dots, scarcely sinuate on the sides, as high as the posterior hips, very slightly widened toward the middle, attenuated afterward following a slightly pronounced arc as far as the summit which is separately rounded and finely toothed. Ventral surface very finely granulated. Length, 3.5 mm. Width, 0.8 mm. Texas.

Mr. Gilbert Arrow of the British Museum writes: "We have only the single type specimen of *T. texanus* so that it is not possible to send it, but it seems to me to be different from both *T. gracilis* and *T. agriloides*. It is like the former in size and shape but has conspicuous punctures thinly scattered over the pronotum. It is an old specimen from which the original labels have been removed so that of course there is a possibility that the locality may be incorrect."

BIBLIOGRAPHY.

Blatchley, 1919, Can. Ent., vol. 51, No. 2.

Coleoptera of Indiana.

Burke, 1917, Bul. 437, Bur. Ent., U. S. D. A.

Chagnon, 1917, Ins. Quebec (Col.).

Crotch, 1873, Proc. Acad. Nat. Sci. Phil.

Deyrolle, 1864, Ann. Soc. Ent. Belg., vol. 8.

Gory (Castelnau & Gory), 1835-1841, Mon. Bup. & Suppl.

Kerremans, 1892, Mem. Soc. Ent. Belg., vol. I.

1893, Ann. Soc. Ent. Belg., vol. 37.

1896, Ann. Soc. Ent. Belg., vol. 40.

- 1903, *Genera Insectorum*.
Lacordaire, 1857, *Gen. Col.*, vol. 4.
Le Conte, 1859, *Tr. Am. Ent. Soc. (Rev. Bup.)*.
1878, *Proc. Amer. Phil. Soc.*, vol. 17 (Col. Florida, Mich.).
Le Conte & Horn, 1883, *Smith. Misc. Coll.*, 507 (Class. Col.).
Mannerheim, 1837, *Bul. Soc. Nat. Mosc.*, vol. VIII.
Marseul, 1865, *L'Abeille*, vol. 2.
Packard, 1890, *Fifth Rept. U. S. Ent. Comm.*
Say, 1825, *Ann. Lyc. Nat. Hist. N. Y.*, vol. I.
1836, *Tr. Am. Phil. Soc.*, vol. VI.
Schaeffer, 1909, *Mus. Brookl. Inst. Bul.*, vol. I, No. 15.
Schwarz, 1878, *Proc. Am. Phil. Soc.*, vol. 17.
Smith, 1909, *N. J. St. Mus. Rept. (Ins. N. J.)*.
Solier, 1833, *Ann. Soc. Ent. Fr.*, 2.
Waterhouse, 1882-97, *Biol. Cent. Amer. Col. Ser.*, vol. 3, part 1.

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EXPLANATION OF PLATE VI.

- Fig. A. *T. puncticollis*.
Fig. B. *T. schaefferi* n. sp.
Fig. C. *T. agriloides*.
Fig. D. *T. laevicollis*.
Fig. E. *T. gracilis*.
Fig. F. *T. albonotatus*.
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Nicolay, Alan S and Weiss, Harry B. 1920. "The Group Traches in North America. Part I. The Genera Pachyschelus and Taphrocerus." *Journal of the New York Entomological Society* 28, 136–150.

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