COLEOPTERA COLLECTED AT MOOERS, CLINTON CO., N. Y., SEPTEMBER 9-13, 1918, WITH DESCRIPTIONS OF NEW SPECIES.

By Howard Notman.

CICINDELIDÆ.

Cicindela tranquebarica Hrbst. (1). Cicindela repanda Dej. (2).

CARABIDÆ.

Carabus serratus Say (1). Notiophilus aeneus Hrbst. (1). Nebria pallipes Say (1). Dyschirius nigripes Lec. (1). Schizogenius lineolatus Say (2). Bembidium honestum Say (2). Bembidium chalceum Dej. (1). Bembidium nigrum Say (22). Bembidium planum Hald. (60). Bembidium posticum Hald. (65). Bembidium versicolor Lec. (15). Bembidium quadrimaculatum Linn. (1).

Bembidium semicinctum n. sp.

Form somewhat broad, slightly ventricose, rather strongly convex. Color black, shining, not at all alutaceous; three basal joints of the antennæ, legs, and the basal margins and apical half of the side margins of the elytra rufo-testaceous. *Head* three fourths as wide as the thorax, wider than the thorax at apex; eyes large, flattened, only moderately prominent; frontal striæ strong, parallel, becoming rather strongly convergent on the clypeus, a short outer groove either side; antennæ moderately slender, reaching the basal fourth of the elytra, outer joints twice as long as wide. *Thorax* one half wider than long, widest at apical third, two thirds as wide as the elytra; base very slightly narrower than the apex; sides strongly rounded in front, strongly oblique behind and sinuate before the slightly obtuse posterior angles; side margins very narrow, reflexed at the edge; basal foveæ large, deep, bistriate, nearly smooth, angles with long, strong carinæ; transverse impressions distinct, median line strong, abbreviated posteriorly, strongly impressed on the disk. *Elytra* slightly less than one third longer than wide, slightly wider behind the middle, thence evenly arcuate to the apex; humeri, completely and broadly rounded; elytra striate, first only entire; striæ rather coarsely and deeply punctate on basal half, more or less obliterated, posteriorly. Third interval with two punctures, one at basal, the other at apical one third. Eighth stria indistinct from the margin and strongly impressed.

Length 3 mm.; width 1 mm. 1 9.

This species is closely related to *B. muscicola*, Hayw. It is most easily distinguished by its smooth, not alutaceous head and general coloration. In addition, the thorax is proportionally smaller with the sides more distinctly sinuate and the elytral humeri more strongly rounded. Its peculiar style of elytral maculation distinguish it from the species hitherto described in the *variegatum* (*Notaphus*) *section* of the genus. A species from California (Truckee), *novellum* Csy. (Mem. Col., VIII, p. 113), is similar in form, but the elytra are differently marked and the strial punctures are said to be finer externally. The punctures in *semicinctum* are coarser externally.

Tachys incurvus Say (9).

Patrobus longicornis Say (3). Pterostichus lucublandus Say (5). Pterostichus caudicalis Say (1). Pterostichus corvinus Dej. (18). Calathus corvinus Lec. (1). Platynus sinuatus Dej. (1). Platynus cincticollis Say (1). Platynus reflexus Lec. (1). Platynus extensicollis Say (1). Platynus cupripennis Say (1). Brachinus cordicollis Dej. (1). Chlænius sericeus Forst. (7). Chlænius tricolor Dej. (8). Chlænius pennsylvanicus Say (2). Brachylobus lithophilus Say (2). Harpalus erraticus Say (1). Harpalus vagans Lec. (4).

HALIPLIDÆ.

Haliplus borealis Lec. (3).

DYTISCIDÆ.

Laccophilus maculosus Germ. (39). Desmopachria convexa Aubé (1). Bidessus affinis Say (34). Cælambus inaequalis Fabr. (17). Cælambus turbidus Lec. (1). Cælambus laccophilinus Lec. (2). Hydroporus vitiosus Lec. (3). Hydroporus consimilis Lec. (1). Hydroporus tenebrosus Lec. (1). Hydroporus modestus Aubé (7). Hydroporus morio Sharp. (1). Ilybius biguttulus Germ. (7). Agabus reticulatus Kby. (1).

GYRINIDÆ.

Gyrinus confinis Lec. (1). Gyrinus limbatus Say (7). Gyrinus dichrous Lec. (2).

Gyrinus fraterculus n. sp.

Form oval, slightly elongate, rather convex. Color black, broadly bronzed on the sides, punctures and sutural margin not bronzed; shining, just visibly alutaceous with strong magnification; beneath rufous including the elytral epipleuræ, abdominal segments darker. Thorax not strongly narrowed in front. Apices of the elytra rather broad and broadly rounded, nearly squarely truncate, outer angle distinct, but narrowly rounded; elytral striæ not distinguishable; punctures rather coarse and approximate; outer punctures distinctly coarser.

Length 4.35 mm.; width 2.15 mm. I J.

This species may be distinguished from G. limbatus and G. dichrous which it closely resembles by its slightly less strongly narrowed thorax, broader and more squarely truncate and less strongly rounded elytral apices, coarser and more approximate elytral punctures.

Gyrinus maculiventris Lec. (12).

Gyrinus falli n. sp.

Form elongate-oval, evenly narrowed anteriorly and posteriorly, somewhat convex. Color black, suture bronzed, sides rather narrowly and feebly bronzed on the basal third, moderately shining and distinctly alutaceous with magnification; beneath black, legs rufous. Elytral apices rather oblique and strongly rounded, outer angles not distinct; striæ not distinguishable; punctures fine and rather widely spaced, outer ones scarcely larger; punctures of apical oval small, but strong and distinct.

Length 6 mm.; width 3 mm. 1 9.

This species resembles G. maculiventris very closely in form. It is more gradually and evenly narrowed in front. The elytral punctures are slightly finer and more widely spaced. It is more elongate in form than G. lugens and differs from G. analis by the entirely black abdomen and strongly rounded elytral apices. Dineutes discolor Aubé (50).

HYDROPHILIDÆ.

Helophorus lineatus Say (1). Helophorus inquinatus Mann. (3). Hydrochus squamifer Lec. (38). Hydrochus excavatus Lec. (24).

Hydrochus laticollis n. sp.

Form elongate, subcylindrical, very slightly wider behind the middle. Color pale cupreo-iridescent; head brilliant blue-green metallic; beneath dull blackish piceous, antennæ, palpi and legs brownish testaceous, femora and apex of the claw joints darker. Head one third broader than long, just perceptibly narrower than the thorax; eyes very large, hemispherical; front oblique on the sides and feebly rounded at the apex which is broad; head coarsely granulate with a narrow longitudinal groove between the eyes connecting with the broadly V-shaped clypeal suture. Thorax nearly twice as wide as long, three fifths as wide as the elytra, very slightly wider at apex than at base, widest slightly before the middle, sides slightly more convergent posteriorly than anteriorly, very faintly and broadly sinuate before the obtuse posterior angles; apex truncate, anterior angles slightly obtuse and rounded in but strongly marked, surface coarsely granulate, sides feebly crenulate; disk with two large shallow foveæ on basal half, the usual anterior median fovea greatly reduced in size and distinctness; an elongate fovea on the lateral declivities. Elytra three and one half times as long as the thorax, two and one third times as long as wide, much wider than the thorax at base; humeri broadly rounded, sides very slightly wider and just visibly sinuate to apical third, thence feebly arcuate and convergent to the bluntly rounded apex; elytra with ten rows of coarse, deep, subquadrate punctures; intervals unequally subcarinate; the third more strongly elevated at base, fourth elevated for a short distance near the middle, fifth elevated throughout with a break opposite the elevation

of the fourth, seventh and ninth elevated throughout with a distinct sinuation opposite the break in the fifth. Tarsi four jointed on all the legs, the last joint as long as the other three combined; claws long, strongly arcuate and denticulate at base; under surface finely granulate and opaque. Length 3.25 mm.; width I mm. One specimen.

This species differs from those hitherto described by its very broad thorax.

Hydraena pennsylvanica Kies. (8). Tropisternus mixtus Lec. (2). Tropisternus glaber Hrbst. (34). Hydrocharis obtusatus Say (5). Berosus aculeatus Lec. (1). Berosus striatus Say (63). Laccobius agilis Rand. (2). Philhydrus nebulosus Say (1). Philhydrus ochraceus Mels. (4). Philhydrus hamiltoni Horn. (2). Cymbiodyta fimbriata Mels. (3).

Cymbiodyta minima n. sp.

Form oblong-oval, slightly elongate, moderately convex. Color dark piceous, shining, border, including the narrow basal and apical margins of the thorax indefinitely pale. Head slightly transverse, one half as wide as the thorax. Thorax twice as wide as long, as wide as the elytra; strongly narrowed in front, sides feebly arcuate, all angles rounded, apex slightly emarginate. Elytra one half longer than wide; sides nearly straight and parallel to the middle, thence evenly arcuate to the rather blunt apex. Thorax and elytra similarly rather closely punctured, but the elytral puncturation slightly coarser; punctures throughout distinct. Transverse rows of coarser punctures on the thorax rather indistinct; rows of coarser punctures on the elytra not disinguishable; sutural striæ evanescent at basal one third; others absent. Beneath dark piceous; coxæ and tarsi rufo-piceous; finely and closely punctate and pubescent throughout excepting the posterior coxal plates and the narrow posterior edge of the metasternum which is impunctate and glabrous. Prosternum simple; metasternal ridge strongly and acutely elevated at middle, having the appearance of a strong tooth between the middle coxæ when viewed horizontally. Tarsal joints 5-4-4.

Length 2.75-3.5 mm.; width 1.35-1.75 mm. Three specimens.

This species is much smaller and slightly narrower and more parallel in form than *C. lacustris*. In the latter the mesosternal ridge is much less strongly elevated and is broadly arcuate, not at all dentiform.

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Helocombus bifidus Lec. (19). Hydrobius fuscipes Linn. (2). Creniphilus infuscatus Mots. (5). Creniphilus subcupreus Say (10).

STAPHYLINIDÆ.

Falagria dissecta Er. (1). Meronera venustula Er. (1). Colpodota puritana Csy. (1). Atheta palustris Kies. (1). Atheta dichroa Grav. (3).

Metaxya obscuricornis n. sp.

Form rather slender, parallel, depressed. Color black, elytra and antennæ dark brown, scarcely paler, basal joints of the antennæ not at all paler; legs brown, tarsi pale. Head, thorax and elytra feebly shining, uniformly and very finely alutaceous; punctuation scarcely distinguishable; pubescence rather short, fine, pale yellowish, inconspicuous. Head slightly transverse, slightly narrower than the thorax; eyes distant more than their own length from the base; tempora parallel; infra-lateral carinæ strong and entire; antennæ moderate in length, somewhat longer than the head and thorax, slender, scarcely incrassate, second and third joints equal in length, about twice as long as wide, and nearly twice the length of the third which is very slightly elongate, five to seven distinctly elongate, eight to ten as long as wide, ten less conical, eleven slightly longer than the two preceding, parallel, bluntly rounded near the apex. Thorax one fourth wider than long, widest at apical one fourth, feebly rounded anteriorly, straight and slightly convergent posteriorly to the rounded posterior angles; base broadly arcuate; median line just distinguishable on apical fourth, base with a broad, shallow impression at middle. Elytra at base slightly wider than the thorax, one fourth longer on the suture, slightly transverse, sides slightly divergent posteriorly. Abdomen narrower at base than the elytra, sides arcuate, widest at middle where it is narrower than the elytra, but wider than the head; fifth segment slightly longer than the others, one, two and three transversely impressed at base; finely alutaceous throughout, a little more shining than the rest of the body, punctures distinct and rather sparse, uniform on all the segments. Posterior tarsal joints short, subequal in length. Middle coxæ contiguous for about one half their length; metasternal projection very short and obtuse, not more than one fifth the length of the cavity.

Length 2 mm.; width .5 mm. I d.

Male,—posterior edge of the sixth dorsal segment quadridentate; sixth ventral broadly rounded at apex and indistinctly truncate at middle.

This species is distinguished by its small size, slender darkcolored antennæ with long parallel-sided terminal joint, strong infra-lateral carinæ, and rather narrow thorax. *Bolitochara marginella* Csy. (5).

Gyrophaena lobata Csy. (3). Gyrophaena vinula Er. (1). Myllaena vulpina Brnh. (4). Acylophorus pronus Er. (1). Staphylinus cinnamopterus Grav. (1). Philonthus palliatus Grav. (1). Philonthus quadricollis Horn. (1). Philonthus fulvipes Fabr. (2). Philonthus lomatus Er. (2).

Philonthus opacipennis n. sp.

Form moderately elongate, slightly fusiform. Color black; terminal segment of the abdomen yellowish diaphanous; terminal joint of the antennæ, palpi and legs dark brownish piceous. Head oval, one fourth longer than wide, sides almost evenly rounded from the eyes to the neck; eyes small, distant from the base one and one third their diameters; antennæ moderately slender, longer than the head and thorax, second and third joints equal, twice as long as wide; the outer joints decreasing gradually in length, eight, nine and ten as long as wide, eleven one third longer than wide and obliquely truncate at apex; a few punctures on the sides above and behind the eyes. Thorax as long as wide; base strongly rounded, sides nearly straight and distinctly converging anteriorly; apex as wide as the head; dorsal series of punctures five, equally spaced in straight rows. Elytra as wide as the thorax at base, about one fourth wider at apex, conjointly slightly transverse; suture equal in length to the thorax, apex distinctly emarginate; scutellum slightly more than one third the length of the suture; distinctly alutaceous and subopaque, punctures asperate, fine, rather sparse; pubescence fine and dark, inconspicuous. Punctures of the abdomen asperate, slightly coarser and distinctly denser than those of the elytra. First joint of the posterior tarsi somewhat shorter than the next three, slightly longer than the fifth.

Length 5 mm.; width 1.25 mm. 1 9.

Male,-unknown.

Female,—anterior tarsi scarcely dilated; last ventral segment broadly rounded.

This species probably belongs in section C of Horn's synopsis. Its color and antennal structure would indicate a relationship with *P. arizonensis* Horn. The alutaceous and sparsely punctate elytra would distinguish it from that species. Colonel Casey has recently described six species with five punctures in the discal thoracic series (Mem. Col., VI, p. 437), none of which can be identified with the above, either because of elongate antennal joints, elongate and parallel-sided thoraxes, or different elytral sculpture.

Philonthus strigicollis n. sp.

Form moderately slender, slightly fusiform. Color black; first antennal joint entirely, bases of the remaining joints, the elytral suture and legs rufo-piceous. Head including the mandibles, one fourth longer than wide, oval, posterior angles rounded to the neck; eyes, moderate in size, much flattened, distant their own diameters from the base; coarsely punctate above and beneath, more closely above; front with a broad median smooth space, constricted between the eyes; antennæ long and slender, all the joints longer than wide, terminal joint truncate at apex. Thorax less than one fourth longer than wide, slightly narrower than the head; base as wide as the apex; sides just perceptibly arcuate; apex truncate, base broadly rounded; an irregular row of coarse punctures either side and some irregularly placed punctures on the lateral declivities; head and thorax finely and obliquely strigose either side; when held at a certain angle, the strigæ have the appearance of a dense and fine pubescence, which becomes altogether invisible when the angle is changed. Elytra slightly wider than the thorax at base, slightly wider than the head at the apex, about one fourth longer than wide and one fourth longer than the thorax; humeri rounded, sides slightly arcuate; elytra and scutellum moderately coarsely and closely punctate and pubescent. Abdomen finely and rather closely punctate at base, more sparsely and indistinctly at apex, especially at the middle; beneath more coarsely and closely punctate.

Length 6-6.5 mm.; width 1.25-1.45. 2 d.

Male,—anterior tarsi rather strongly dilated and spongy pubescent beneath; sixth ventral with a deep triangular emargination, one half the width of the segment and as wide as deep, the edge narrowly membranous.

This species belongs in section E of Dr. Horn's synopsis of the genus; the head punctured beneath would place it with P. viridanus. The thorax is said to be very slightly narrower posteriorly with the sides sinuate, and no mention is made of any strigillation of the head and thorax, which is very distinct and peculiar in the above described species.

Actobius cinerascens Grav. (4). Actobius terminalis Lec. (4). Xantholinus obscurus Er. (3). Stenus inornatus Csy. (1). Stenus colonus Er. (1).

Stenus cænicolus n. sp.

Form rather robust. Pubescence very fine, sparse, griseous surface very highly polished. Head large, more than twice as wide as long, a third wider than the thorax; interocular surface twice as wide as the eye; interocular sulcations very feeble, very coarsely and closely punctate; punctures distant by much less than their diameters; median and lateral convexities very feeble, sparsely and irregularly punctate with large, smooth callosities; ocular lines meeting at nearly two lengths in advance; antennæ very distinctly longer than the width of the head; basal joint rufous, the second piceous, the remainder black; funicular joints very long and slender, seventh joint nearly twice as long as wide; palpi dark piceous, terminal joint black. Thorax widest at the middle where it is as wide as long; base and apex about equally wide; sides feebly arcuate anteriorly, rather strongly sinuate posteriorly, base truncate, apex slightly arcuate; very coarsely and irregularly punctate, punctures distinctly larger than those of the head and just as dense; median fusiform smooth space and an irregular smooth space either side. Elvtra at base very slightly narrower than the head, very slightly wider at apex; sides rather strongly arcuate, widest at middle; outer apical angles not prominent; apex feebly emarginate; as wide as long; suture one fourth longer than the thorax; punctures very coarse and deep, more widely spaced on the disk than those on the thorax, as close as the latter on the sides; much sparser along the suture, where the disk is strongly elevated. Abdomen at base slightly narrower than the contiguous elytra, arcuate and feebly convergent posteriorly; first segment only with a side margin, two, three and four strongly constricted at base, much more finely, sparsely and irregularly punctate than the elytra; transverse carinæ obsoletely tricusped. Legs moderately long, very dark fuscous to nearly black in color; tarsi elongate, first joint of the posterior tarsi longer than the fifth, as long as the second and third together, fourth joint deeply bilobed.

Length 3 mm.; width .75 mm. I d.

Male,—fifth ventral segment very broadly and feebly emarginate at apex, more densely pubescent on the middle, sixth segment with a small and acutely triangular emargination.

This species belongs in the subgenus Hypostenus Rey (Ann. Soc. Linn. Lyon., XXX, p. 183, = Areus Csy., partim). In Colonel Casey's synopsis of Areus it would be placed among the small species with black legs in the division with unmargined abdomen, and would require a separate section having the thoracic punctures very large, deep and close-set. Cryptobium bicolor Grav. (2). Paederus littorarius Grav. (6). Sunius brevipennis Aust. (1). Sunius disconotatus Say (4). Tachinus limbatus Mels. (7). Apocellus sphæricollis Say (1).

PHALACRIDÆ.

Stilbus obtusus Lec. (2).

CORYLOPHIDÆ.

Bathona sphæricula Csy. (1). Gronevus sticticus Csy. (1).

COCCINELLIDÆ.

Coccinella transversogutta Fald. (2). Psyllobora 20-maculata Say (2).

CRYPTOPHAGIDÆ.

Atomaria oblongula Csy. (1).

This species was described from Colorado (Journ. N. Y. Ent. Soc., VIII, 1900, p. 124). The above specimen fits the description exactly.

HISTERIDÆ.

Hister americanus Payk. (2).

LATHRIDIIDÆ.

Melanophthalma picta Lec. (2). Melanophthalma villosa Zimm. (2). Melanophthalma distinguenda Com. (1).

BYRRHIDÆ.

Limnichus punctatus Lec. (1).

PARNIDÆ.

Dryops lithophilus Germ. (32). Dryops fastigiatus Say (5). Dryops striatus Lec. (6).

Elmis vittatus Mels. (5). Elmis bivittatus Lec. (4). Elmis quadrinotatus Say (5). Stenelmis linearis Zimm. (1). Stenelmis crenatus Say (19). Stenelmis bicarinatus Lec. (4). Macronychus glabratus Say (2).

LAMPYRIDÆ.

Ellychnia corrusca Linn. (4).

SCARABÆIDÆ.

Cremastochilus canaliculatus Kby. (1).

CHRYSOMELIDÆ.

Diachus auratus Fabr. (2). Chrysochus auratus Fabr. (1). Typophorus canellus Fabr. v. 4-guttatus Lec. (1). Typophorus canellus Fabr. v. pumilus Lec. (2). Labidomera clivicollis Kby. (8).

Calligrapha apicalis n. sp.

Form oblong-oval, very convex. Color dark metallic green, apical angles of the thorax, antennæ, labrum, a spot on the mandibles, palpi and legs bright ferruginous; elytra yellowish white, marked with metallic green as follows, a double coalescent sutural stripe the inner one reaching the basal margin, the outer one shorter, free and slightly divergent at its basal end; at middle, close to the sutural stripe, an elongate lunule, the posterior end strongly hooked (in the type the hook on the right elytron forms a complete circle enclosing a white spot), a large oval humeral spot slightly inclined outward, to which is attached near its posterior end, a narrow sublinear spot strongly oblique toward the suture; between the latter and the suture, a subcircular spot emarginate anteriorly; on the disk and lateral declivities posteriorly, fourteen smaller spots. The spots are all more or less regularly outlined with strong rather coarse and close-set punctures, the punctures of the pale areas are sparse and less distinct. Head one fourth wider than long, slightly more than one half as wide as the thorax; thorax two and one half times as wide as long, three fourths as wide as the elytra; apex strongly emarginate, base strongly bi-oblique; sides rounded anteriorly, nearly straight and parallel posteriorly. Head and thorax more coarsely and closely punctate toward the sides.

Length 7.5 mm.; width 5.15 mm. One specimen.

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This species is distinguished from those hitherto described by the ferruginous marks of the thorax and the double sutural stripe. In three specimens collected in the Adirondack Mts. (Essex Co.) one has the anterior halves of the lunules attached to the sutural stripe, the posterior half represented by a detached spot; in the other two the lunule is narrowly broken at the middle on three of the elytra.

Calligrapha bigsbyana Kby. (1). Galerucella decora Say (1). Haltica ignita Ill. (1). Crepidodera helxines Linn. (1). Systena frontalis Fabr. (1).

ANTHICIDÆ.

Malporus formicarius Laf. (1). Anthicus festinans Csy. (1).

This species was described from Colorado and Iowa. (Col. Not., VI, 1895, p. 739.)

CURCULIONIDÆ.

Otiorhynchus ovatus Linn. (1). Hypera punctata Fabr. (1). Tychius picirostris Fabr. (1). Pseudobaris pusilla Lec. (5).

ANTHRIBIDÆ.

Brachytarsus sticticus Boh. (1).

The following species in other orders were also taken.

Hymenoptera. APIDÆ.

Epeolus vernoniæ Ckll. (1) (identified by J. C. Crawford, U. S. N. M.).

ANDRENIDÆ.

Halictus (Agapostemon) virescens Fabr. (2) (identified by Dr. F. E. Lutz, A. M. N. H.).

MYRMICIDÆ.

Myrmica scabrinodis Nyl. v. schencki (?) Emery (1) (identified by Dr. F. E. Lutz, A. M. N. H.).

Diptera. TACHINIDÆ.

Blepharipeza adusta Loew. (1). (identified by Dr. F. E. Lutz, A. M. N. H.).

> Lepidoptera. LYCAENIDÆ.

Chrysophanus thoë Boisd. (2).

Hemiptera. BELOSTOMIDÆ.

Belostoma fluminea Say (5) (identified by C. E. Olsen, A. M. N. H.).

Odonata. AGRIONIDÆ.

Ischnura verticalis Say (1).

AESCHNIDÆ.

Aeschna verticalis Hagen (1).

KERMES KINGII COCKERELL, PARASITIZED BY A . Y. Joset MICRO-LEPIDOPTERON.

BY CHRIS. E. OLSEN, W. Nyack, N. Y.

On April 5, 1916, I collected some specimens of the gallmaking scale Kermes kingii Cockerell on red oak, for the cabinet. I placed them in little boxes in one of my cabinet drawers. Several weeks later upon opening this drawer I was rather astonished to find a few brightly colored micros and could not account for the presence of these in my cabinet, but paid no further attention to this until the next time I had occasion to open this drawer, when I noticed many more of the same little moth scattered over the bottom of this drawer (this must have been about the first part of May?). Upon closer examination I observed that they had all emerged from my Kermes kingii scale. Dr. Wm. T. M. Forbes, in a letter dated May 25, 1917, kindly identified this little moth as



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