

an iron receptacle for it in proximity to the mill furnace; or it might be charred by means of freshly-burnt lime, which, in conjunction with the charcoal, would form a compound particularly valuable on a clay soil, but more especially when its application had been preceded by an efficient system of drainage.

These concluding remarks may be regarded rather as an addenda than strictly within the scope of what was originally intended as an entomological paper, but as some of the suggestions may invite discussion on the subject, and perhaps ultimately lead enterprising individuals to desire practical methods for reducing the amount of waste now permitted in all our forests, public and private, their introduction may be excused.

ART. XLVIII.—*Descriptions of new species of Coleoptera.* By Captain BROWN
[Read before the Auckland Institute, 7th August, 1876.]

Anchomenus punctulatus.

HEAD, shining black; anterior, as far as eyes, rugose; less so on the vertex; remainder faintly punctured. Thorax, sub-quadrate, broader in front; anterior angles, obtuse; lateral margins, moderately reflexed; a broad, oval, transverse line near anterior margin; another near the base; both connected by a longitudinal line; a deep impression near each posterior angle; superficies with finely impressed transverse lines, most conspicuous near the base; colour, black. Elytra, dark blue; sub-ovate, somewhat depressed; striate; the nine lines slightly punctured; a row of shallow impressions on the interstices between the eighth and ninth striæ, most closely placed near posterior femoræ; lateral margins slightly reflexed of a faint reddish hue; suture, ferruginous. The whole surface of the elytra is very finely punctured. Antennæ, palpi, and tarsi, ferruginous. Femoræ and tibiæ, fuscous. Length, 7 lines.

Habitat: Auckland.

Trichosternus hispidus.

Colour, deep black, except the palpi and tarsi, which are ferruginous. Antennæ, fourth to eleventh joints, pilose. Head, with an irregular H-shaped impression in front; two round foveæ near inner margin of each eye, from each of which proceeds an erect ferruginous bristle. Thorax, quadrate, rather flat; somewhat contracted and sinuate behind; wider than head; anterior angles, rounded; posterior, obtusely pointed; a deeply impressed line extends from the base nearly to anterior margin; a large, deep, elongate fovea near each posterior angle; lateral margins, reflexed, two

foveæ near front angles in marginal channel, and a third near the middle, from each of which proceeds an erect ferruginous bristle; another bristle proceeds from each hind angle, directed backwards; superficies with many very faintly impressed transverse lines. Elytra, sub-ovate, rather widest after the middle; strongly sinuated near apices; lateral and posterior margins reflexed; disc, with seven longitudinal, distinctly punctured lines, but only the three nearest each side of suture reach the apices; interstices, moderately convex; the sides just beyond the seventh striæ rather suddenly bent down, and marked with a row of irregularly formed impressions, connected together by an impressed line. These foveæ are largest just behind posterior femoræ; suture, indistinct. Hairs on femoræ, tibiæ, and tarsi, ferruginous. Length, $6\frac{1}{4}$ lines.

Of this species I have but one mutilated specimen, which I found under rushes in Kikawai Forest, Tairua.

Hister grandis.

Form, ovate, moderately convex; colour, black. Head, minutely punctured; a punctured longitudinal fovea extends along inner side of each eye to the base. Thorax, humeral margins slightly reflexed; a transverse punctured fovea, near anterior margin, extends as far across as the head; from each terminal point there is a succession of irregular punctures along the lateral and posterior margins, larger and more deeply impressed near humeral angles, and becoming more and more minute after rounding the posterior angles; one round fovea near the centre of posterior margin. Elytra: near the humeral margin of each elytron there are three longitudinal foveæ arranged in line, and a fourth, irregular in form, close to humeral angle. Two longitudinal foveæ are placed near outer posterior margin, with a third, which is prolonged in the form of a gradually decreasing impressed line to within a line of the base. A deeply impressed line extends from near the humeral angle along the lateral and posterior margins, broader and more irregular in form near the middle, and terminated at the suture, up which it extends a short distance in the shape of a curve. The exposed segments of abdomen are coarsely punctured. The grooves in anterior tibiæ for the reception of the tarsi, when in repose, are deeply hollowed out. Length, 4 lines.

My unique specimen of this remarkably fine species was captured whilst sedately marching into the kitchen of my house at Tairua, on the 19th March, 1876.

Cerathognathus zealandicus.

In general form this species resembles *M. irroratus*. Mandibles, porrect and recurved in front; setose; punctate. Antennæ, dark red; a few bristles on scape, directed forwards; leaflets, rather short, densely pilose.

Head, dark red; coarsely punctured; a row of elongate yellow scales placed in a curved line near inner margin of each eye, Thorax, quadrate; broader than long; somewhat produced laterally after the middle; coarsely punctured, except a smooth space on the centre; rather convex; ornamented with elongate yellow scales, mostly directed forwards, most closely set near lateral margins; colour similar to that of head. Elytra, thrice as long as thorax; slightly margined; coarsely punctured; suture, distinct; of a dark red colour, ornamented with scales similar in form and colour to those on the thorax, and so disposed as to give them a chequered appearance when viewed with the naked eye. Femoræ, moderately thickened; tibiæ, spined, and serrated on the outside; setose. Length, $7\frac{1}{2}$ lines. Breadth, 3 lines.

Though not the largest, this species is decidedly the finest of the New Zealand *Lucanidæ*; is well differentiated from White's *M. irroratus*, the most nearly allied species, by its larger size, comparatively smaller antennæ, and peculiarly formed thorax. Mr. C. M. Wakefield, when in Canterbury, found one specimen clinging to the under-side of a log, whilst I obtained one at Stoke Point, in 1874, and two others in the vicinity of Tairua in the following year.

Ancistropterus pilosus.

Head, granulated, fuscous; beak, ferruginous; eyes, prominent and coarsely faceted. Thorax, dull black, coarsely granulated. Elytra, almost black; ten rows of deep punctures on each; humeral angles, produced, but not so acutely pointed as in *A. quadrispinosus*, only slightly directed posteriorly, the points red. The tubercles placed after the middle are ferruginous; apices, fuscous; the whole surface clothed with fuscous hairs, with a few whitish bristles intermingled. Antennæ, bright brown; legs, fuscous, lighter near the joints. Length, $3\frac{1}{2}$ lines.

I discovered this species in February last at Tairua, but have only one example of it. It may be at once distinguished from the other species of this genus by its granulated head and thorax, and pubescent elytra.

Platyomida niger.

Somewhat similar in form to White's *P. binodes*, but rather more elongate, with more parallel-sided elytra, and the thorax rather narrower in front. Head and beak, granulated, with an indistinctly defined ridge extending from between the eyes to tip of beak. Thorax, covered with small obtuse tubercles, so disposed as to give it the appearance of being transversely granulated; a longitudinal fovea near anterior margin, but not extending so far down as in *P. binodes*. Each elytron impressed with eleven longitudinal rows of large punctures; the interstices finely punctured; each elytron with a compressed tubercle near the suture beyond the middle; a few thick

fulvous bristles scattered over its disc. The round pink scales so conspicuous on *P. binodes* are almost entirely absent. Antennæ and tarsi ferruginous. Length, 5 lines.

The only exponent of this species in my collection I obtained from the foliage of *Fagus cunninghami*, in October, 1875, at Tairua.

Hybolasius concolor.

This species has rather a more elongate outline than *H. crista*. Head and thorax, with sparingly distributed pubescence. Thorax, striate. Elytra, coarsely punctured; suture, distinct; pencillated crests of dark bright orange colour. The pubescence occurs in small patches of longish hairs irregularly disposed. The femoræ are more distinctly clavate, and the tarsi more dilated than in *H. crista*. Colour, pitchy red. Length, 3 lines.

One specimen taken at Tairua.

Coccinella whitiangi.

Form, ovate and convex; colour, fulvous. Thorax, minutely punctured. Two large fuscous patches extend from the base to beyond the middle, the space between being greatest near the base. Disposed over its entire disc are small patches of a lighter colour. The lateral and anterior margins have a distinct rim. Elytra, punctured throughout; on either side of the suture there is a well-defined row of fuscous impressions; suture, distinct; the lateral rim of each moderately reflexed. Length, 2½ lines.

One specimen I found at Whitiangi (Mercury Bay), in 1873.

ART. XLIX.—*Description of a new species of the genus Cicindela.*

By Captain BROWN.

[Read before the Auckland Institute, 7th August, 1876.]

THE difficulty so frequently experienced in obtaining duplicates of many species of the indigenous Coleoptera, and the delay caused by referring them to British entomologists for identification, have induced me to offer for publication in the "Transactions of the New Zealand Institute" the following description of a new species of the genus *Cicindela*, which I found on the bank of a creek flowing through the Hikuwai forest, about ten miles inland from Tairua, during January last.

In order to ascertain whether any of our local entomologists were acquainted with the insect, I sent a brief description of it to Captain Hutton, Director of the Museum at Dunedin, who, in reply, informed me that he believed it to be a new species, of which he had discovered two specimens at Martin Bay, on the north-west coast of Otago.