

similar to that of Uznach and Dürnten, a few elytra of *Coleoptera* have been obtained by M. Pillet, from which Dr. Heer* has determined *Donacia discolor* and *menyanthidis*, and a few small *Carabidæ*.

Several elytra of *Coleoptera* have recently been discovered† by Herr Nathorst and Prof. Wartha in the glacial strata of Schwerzenbach, in the Canton of Zurich. From these elytra Dr. Heer‡ has determined about twelve species, including *Harpalus levicolis*, *Otiorynchus montanus*, *O. alpicola*, *O. rugifrons*, *O. fuscipes*, *Pterostichus nigrita*, *Gyrinus natator*, *Silpha dispar*, *Donacia sericea*, *Melolontha hippocastani*, *Carabus arvensis*, &c.

A few elytra of *Coleoptera* have also been obtained in the drift at St. Jacob, on the Birs, in the Canton of Basel, and have been identified by Dr. Heer|| as belonging to the genera *Gyrinus*, *Hydrophilus*, *Pterostichus*, *Donacia*, and *Water*.

America.

From remains of *Coleoptera*, discovered in cave deposits at Port Kennedy, in Pennsylvania, Dr. G. H. Horn¶ has identified about nine species belonging to the genera *Cychnus*, *Cymindis*, *Chlanius*, *Dicalus*, *Chaeridium*, *Phanæus*, *Aphodius*, and *Pterostichus*. In 1877, Mr. Scudder** described two species of *Carabidæ* (*Loricera glacialis* and *Loxandrus gelidus*) from interglacial deposits at Scarboro' Heights, near Toronto, Canada.

Elytra of a few other species of *Coleoptera* have been obtained in the most recent formations of this Period; but as they are all identical with species now existing, it will be unnecessary to enumerate them, and, with a few observations on the flora and fauna of this Period, I shall bring this series of papers to a conclusion.††

The Plants belonged exclusively to existing species, and, with the exception of many of the Birds and the majority of the Mammals, almost all the animals were identical with those now living.

Of the Invertebrates, all the known forms of the *Mollusca*, with the exception of a few of those from the oldest deposits of the Period, belong to species now existing, especially in Northern or Arctic latitudes.

* Die Urwelt der Schweiz (1st edit.), pp. 481, &c., 1865.

† (2nd edit.), p. 581, Zurich, 1879.

‡ " " " " *antea cit.*, p. 581.

§ Dr. Heer states that the species of this genus were identified by Dr. Stierlin, *op. antea cit.* (2nd edit.), note on p. 581.

|| *Op. antea cit.* (2nd edit., 1879), p. 533.

¶ Trans. Amer. Ent. Soc., vol. v, pp. 241—245, 1876.

** Bull. United States Geol. and Geog. Survey, vol. iii, No. 4, art. xxx, 1877.

†† I have to express my thanks to Prof. Heer, Dr. Goldenberg, and Mr. Scudder for several valuable communications made to me whilst engaged in the preparation of these papers.

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Of the Vertebrates, the Fishes, Amphibians and Reptiles, have been referred, without exception, to living forms.

The Birds, although belonging to existing Groups, include a large number of extinct species, many of which were of gigantic size.*

The Mammals were represented by a vast number of species, many of which are remarkable for their great size. Not only were there such colossal animals as the Megatherium and the Mammoth, but many of the *Carnivora* of the earlier portion of the Period were far larger than those now existing in any part of the world.

Lastly, in formations belonging to the later portion of the Post Pliocene,† or first division of this Period, have been discovered the earliest remains of the highest Order of Mammals—Man—with whose appearance, "the system of life in progress through the ages reached its completion, and the animal structure its highest perfection."‡

The Avenue, Surbiton Hill, S.W. :
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NOTES ON SOME EXOTIC HEMIPTERA, WITH DESCRIPTIONS OF NEW SPECIES.

BY W. L. DISTANT.

HETEROPTERA.

✓ HALYOMORPHA VIRIDESCENS, Walk. C

Atelocera viridescens, Walk., Cat. Het., i, p. 215, 19 (1867).

Beyond the typical form and variety, described by Walker under the name of the extremely divergent genus *Atelocera*, both of which I have received from East Africa, I also possess two specimens of an extreme form of the species collected by Mr. Cotterell at Nyassa, which are of an almost uniform dark bluish-green without being mottled with testaceous, as is the case with Walker's type although not so described. The species has a constant character in the sub-triangular testaceous spot on each lateral border of the pronotum. The species of this genus appear generally to vary in this manner. The same thing may be seen in *H. scutellata*, Dist., and *H. picus*, Fab. Mr. Walker has also added to the already surcharged synonymy of the last species, as under—

Halyomorpha picus, Fab. (*Cimex picus*), Fab., E. S., 4, p. 115, 138 (1794).
Stål, En. Hem., 5, p. 75, 1, 1876 (incl. syn.).

Dalpada remota, Walk., Cat. Het., 227, 22 (1867).

* Such as *Dinornis giganteus*, see "The Ancient Life-History of the Earth," by Professor Alroy Nicholson, M.D., p. 346, 1877.

† See ante note † on p. 198.

‡ Dana in his "Manual of Geology," p. 578 (2nd edit.), New York, 1874.

[NOTE.—Although I have above stated that this paper concludes the series, I propose, at some future time, to communicate a supplementary paper on Insects in Amber.]

GYNENICA AFFINIS, n. sp.

Above brown, thickly and coarsely punctured. Head thickly punctured with black, with a central longitudinal fulvous line, broadest at base. Central lobe almost reaching apex of head, the lateral lobes very slightly passing it in front. Antennæ fuscous; basal joint not reaching apex of head, second joint slightly shorter than the third, fourth longest, fifth and third sub-equal. Pronotum with the posterior half thickly punctured with black, the anterior portion fulvous; lateral angles produced into strong acute black spines, slightly directed forwards. Scutellum fulvous, sparingly covered with black punctures, except at the base, where there is a large central black closely punctured spot. Corium agreeing in colour with the posterior portion of pronotum, very thickly punctured with black; membrane fuscous. Body beneath luteous, thickly and finely punctured, slightly tinged with green; legs fulvous. Rostrum greenish, with the tip black.

Long. 10 mill. Exp. pronot. ang., 6 mill.

Hab.: Bombay; Calcutta.

Allied to *G. marginella*, Dall., from which it differs, by the shorter head, and central lobe not passing the lateral lobes; the pronotal angular spines are smaller and not directed upwards as in that species, the colour of the scutellum is also different.

Dallas had no locality for the type, which, though from Mr. Children's collection, appears to be South African. A specimen from that locality, collected by Mr. M. Weale, agreeing exactly with the type, is in my own collection. The above appears to be the Indian form of the genus.

STENOCEPHALUS ORIENTALIS, n. sp.

♀. Pale fuscous, very thickly and coarsely punctured; lateral margins of the pronotum, corium, and membrane impunctate and luteous. Antennæ strongly pilose; first joint robust, about as long as the head, dull fuscous, second joint about as long as the fourth, third and first sub-equal; the second joint is pale luteous, obscure fuscous at base, and more broadly so at middle and apex, third joint obscure fuscous-luteous at base, fourth pale fuscous-luteous at base. Head and anterior portion of pronotum somewhat darker than other portions of the upper surface, and less strongly punctate. Legs luteous; fore and intermediate femora lightly fuscous at apex, hind femora broadly and distinctly so; apex and base of tibiae and tarsi fuscous.

Long. 12 mill.

Hab.: Bombay; Madras.

Allied to *S. agilis*, Scop., but apart from other characters may be at once distinguished by the marginal luteous border. It appears to be the Indian representative of the genus.

NOTE.—I have, since writing the above, seen the ♂ of this species, which appears to differ from the ♀ by its smaller size, the second

joint of the antennæ only fuscous at base and apex, fore and intermediate femora uniformly pale luteous, and apices of tibiae fuscous only. Apex of the scutellum finely luteous. Long. 11 mill.

*HOMOPTERA.**TETTIGONIA ASSAMENSIS, n. sp.*

Head pale yellow, with a black fascia occupying the space between the ocelli. Pronotum creamy-white, with the lateral margins carmine, and six black spots situated transversely, two smallest near anterior margin and four largest across disc. Scutellum pale yellow, with three black spots, two basal and one sub-apical. Tegmina pale creamy-white, with a broad longitudinal sub-costal carmine fascia, commencing near base and extending to about middle; a black narrow oblique fascia nearly crossing tegmina at base and at commencement of the carmine fascia, and five dark fuscous spots situated, one in centre of carmine fascia, three wide apart, longitudinally on disc, and one at marginal apex of coriaceous portion. Wings dark fuscous, with the apical borders broadly creamy-white. Abdomen above pitchy. Under-side of body pitchy; legs luteous; tarsi pitchy. Face orange-yellow, with a large crescent-shaped black fascia about its centre, and a small black spot at base. The head is rounded in front, much broader than long, and transversely channelled on disc.

Long. 13 mill.

Hab.: Assam.

1, Solston Villas, Derwent Grove, East Dulwich:
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ON *CALOPTERYGINA* FROM THE ISLAND OF SUMATRA, COLLECTED BY HERR CARL BOCK.

BY R. McLACHLAN, F.R.S., &c.

Herr Bock recently forwarded two collections of *Odonata* from the Mountains of Paio in Sumatra. They were not rich in species, but the number of individuals was very considerable. As so little is yet known of the Odonate-fauna of this island, the following notes on the few *Calopterygina* may prove useful.

NEUROBASIS CHINENSIS, L.—Several males (but no ♀). According to De Selys (4^{mes} Additions, p. 14) females from Sumatra, seen by him, belong to the typical *chinensis* and not to the race *florida*, Hagen, as is proved by the presence of the pterostigmatic indications in the posterior wings. In the males seen by me the nodal sector originates from the nodus, as in typical *chinensis*.

VESTALIS LUGENS (Albarda), De Selys (4^{mes} Additions, p. 15, 1879).—Probably more than 100 examples (mostly ♂). Those ♂ in which the wings have coppery-brown reflections (as noticed in the