CURRENT NOTES.—NO. 1.

By G. W. Kirkaldy.

[1] R. F. Scharff: "Some Remarks on the Atlantis Problem"; 1903, Proc. Roy. Irish Acad., xxiv., Sect. B., pt. 3, pp. 268–302.

[2] G. Breddin: Fauna Arctica, 1902, ii., pp. 529–60 [Rhynchota].

[3] G. W. Kirkaldy: Fauna Hawaiiensis, 1903, iii., Hemiptera, pp. 99–174, pls. 4 and 5.

[4] E. D. Ball: 1901, Ohio Nat., i., pp. 122–4, pl. x. [Rhynchota].

[5] J. Gulde: "Die Dorsaldrüsen der Larven der Hemiptera-Heteroptera"; 1902, Ber. Senckenb. Naturf. Ges. Frankfurt, pp. 85–134, pls. 7 and 8.

[6] W. E. Hinds: 1902, Proc. U. S. Nat. Mus., xxvi., pp. 79–242, pls. i.–xi. [Thysanoptera].

[7] U. Nawa: "Notes on a Parasitic Moth"; 1903, The Insect World, vol. vii., no. 1, 2 pp., coloured plate.

[8] E. P. Felt: 1902, Bull. N. York State Mus., no. 59 (Entom., no. 16), pp. 49–84, 1 coloured and 5 photo plates.

[9] O. Schmiedeknecht; 1902, Opuscula Ichneumonologica, fasc. 1, pp. 1–80.

[10] H. Schouteden: 1902, Ann. Soc. Ent. Belg., xlvi., pp. 136–42 [Rhynchota].

[11] A. W. Morrill: 1903, Canad. Ent., xxxv., pp. 25–35, pl. 2 [Rhynchota].

[12] W. H. Harrington: 1903, Canad. Ent., xxxv., p. 37 [Hymenoptera].

[13] A. F. Conradi: 1902, N. Hampshire Agric. Exp. Sta., Bull. 94, pp. 89–92 [Coleoptera].

[14] C. M. Weed: 1902, *op. cit.*, Techn. Bull., 5, pp. 139–79.

Clarence Weed has published a bibliography of the economic relations of North American Birds [14], the list of works being much increased in usefulness by a brief summary of contents after most of the entries.

W. E. Hinds has monographed the North American Thysanoptera [6]. Up to the middle of 1902, only twenty-six species had been described, of which sixteen are considered valid or properly known; these are now increased to thirty-four, embraced by twenty-two genera. The descriptions are detailed, and are preceded by analytical tables and extended remarks on the general structure of the order, development, economic importance, &c., and are concluded by a bibliography. A curious misprint, "phyllogeny," occurs more than once, and a serious deficiency in the omission of generic references (now unfortunately too often the case in monographic or revisional work), nor is there any indication in the index as to new genera and species.

H. Schouteden enumerates the root-inhabiting aphids of Belgium and their relations with ants [10].

E. D. Ball describes the food-habits of some American *Aphrophora* larvæ [4]. The larvæ of *A. 4-notata* are found on various plants and shrubs; those of *A. parallela* are recorded as forming frothy masses (like the allied *Cercopis* [= *Philænus*] in this and other countries) on the tips of pine twigs. The American author notes that the larvæ of *A. permutata*, a rocky mountain species, were found, not on the twigs of pines, but down among the roots, ten or fifteen in a clump, and supposes that the "original pine-inhabiting species, finding themselves unable to maintain their froth-masses in their exposed positions on pine-branches in such a dry atmosphere, were compelled to seek moister conditions, such as are afforded by the shade and contact with the earth under these bushy plants."

G. W. Kirkaldy has published [3] the part of his Rhynchotal contribution to the 'Fauna Hawaiiensis' dealing with Coccidæ, Cixiaria, and Heteroptera; the Tetigoniidæ, Asiracinæ, and a small portion of the Heteroptera being reserved for further study. On p. 150 it is stated that the genus *Allæocranum* is represented for the first time. In 1899, however, it was figured in the Biologia Centr. Amer., Rhynch. Heter., ii., pl. 12, f. 6; Kirkaldy's doubtful admission of Cuba as a locality for *A. biannulipes* may now be confirmed, as Champion has taken it (p. 197) in Panama, Bugaba, and records it from Dorei Island, New Guinea, and Dr. Puton informs the present writer that it has been taken in France.

G. Breddin enumerates the Rhynchota and Siphunculata of the Arctic Region [2], including in this term the lands north of the limits of the birch, fir, and larch trees. Among species of wide distribution, and occurring also in Britain, may be mentioned *Nysius thymi*, *Gerris odontogaster*, *Reduviolus lhesigus* (= *Nabis flavomarginatus*), *Acanthia littoralis* and *saltatoria*, *Teratocoris viridis*, *Agalliastes wilkinsoni*, &c. Lists are also given of the Rhynchota of Iceland and the Färöes. In the former, Breddin has overlooked the records by the writer of *Corixa carinata* from Hagvelta, near Störvaldir, and of *Acanthia littoralis* from Störvaldir (1899, Revue d'Entom., p. 95).

E. P. Felt considers [8] the grapevine rootworm (*Fidia viticida*, Walsh, a coleopteron of the Chrysomelidæ) to be a much more serious enemy of the vineyardist than the grapevine leaf-hopper (*Erythroneura vitis*, Harris), for whilst the operations of the latter are confined to the leaves, and the amount of damage easily controlled, *Fidia* inflicts its most serious injuries underground, and in a great many instances a vine is nearly ruined before the trouble is noticed. "The secrecy of this insect's work and the fact that the grubs operate on the large roots, where a small amount of girdling is fatal, constitute the most dangerous

features of this pest." Vines on rich clay-soils sustain comparatively little damage, but on light sandy or poor soil the depredations are much worse. *Fidia viticida* is a native American, and has long been known as a feeder on wild grapevines, &c., and it is only within the last few years that it has become notable as a pest of the cultivated vine. The beetle was first noticed in Kentucky in 1866, and was at the same time or soon after taken in Illinois and Missouri, and is now known from New York State to Florida, and from Texas to Dakota. The life-history and habits are closely worked out, and remedial measures discussed.

O. Schmiedeknecht [9] has issued the first fascicule of his new "Opuscula Ichneumonologica," containing analytical tables of the genera of six ichneumonid tribes and of the palæarctic species of the genus Ichneumon.

Harrington [12] notes the capture of a male wasp (*Thyreopus latipes*, Smith) with female antennæ.

A. W. Morrill [11] describes and figures a new species of *Aleyrodes* from strawberry, with details of life-history.

A. F. Conradi [13] discusses "Remedies for Fleas"; creolin being recommended.

J. Gulde [5] contributes an important paper on the dorsal glands in Heteropterous larvæ.

R. F. Scharff discusses [1] the Atlantis Problem, and concludes that Madeira and the Açores, up to miocene times, were connected with Portugal; that from Marocco to the Canary Islands, and from them to South America, stretched a vast land, which extended southward certainly as far as St. Helena. This great continent may have existed already in secondary times, and probably began to subside in early tertiary times. Its northern portions persisted until the miocene, when the southern and northern Atlantic became joined, and the Açores and Madeira became isolated from Europe. They again united with the Old World in more recent times, and were still connected in the early pleistocene with the continents of Europe and Africa, at a time when man had already made his appearance in Western Europe, and was able to reach the islands by land. These conclusions are reached by a study of all the animal classes, by no means least from the insects, which, in accordance with other groups, exhibit mostly South European or North African affinities. Among the forms omitted is the beautiful *Notonecta glauca* var. *canariensis*, peculiar, so far as is known, to the Canary Isles.

It has long been known that remarkable lepidopterous larvæ of the genus *Epipyrops*, Westwood (fam. Limacodidæ), live, either parasitically or commensally, on the living bodies of certain Fulgoridæ (Homoptera). Their nutriment is unknown, and the host is not destroyed by the visitor. The first notice was published in the Trans. Ent. Soc. Lond., 1876, pp. 519–24, pl. vii., on a

species from Hongkong which spins its cocoon in the waxy appendages of *Pyrops candelaria*. The following year (1877, pp. 433–7, pl. x., fig. c) appeared a further notice of what was considered to be the same genus on a species of *Aphæna*, and also on *Eurybrachys spinosa* (belonging to a different subfamily), both from India. Westwood supposed that the lepidopteron is actually parasitic, feeding on the waxy matter, but quotes Wood-Mason as considering that the former only uses the homopteron as a means of conveyance. Recently the 'Insect World,' a magazine usually appearing only in Japanese, has published two pages in English (accompanied by a coloured plate), entitled "Notes on a Parasitic Moth," by Miss U. Nawa [7]. In August, 1898, Mr. Y. Nawa discovered, "on Mt. Yoro, some curious larvæ covered with white substance, and living on the outside of the abdomen of *Pomponia japonensis*" (a Cicadid). After a few days they spun cocoons, from which moths issued identical with one captured six years previously by Miss Nawa on Mt. Kinkwa, near Gifu. The larvæ were, later on, found on *Pomponia maculaticollis* and *Graptopsaltria calorata* (recte *colorata*). Similar larvæ were also found on the Fulgorid *Ricania japonica*. The moth in all its stages is described, but not identified. When full grown the body is covered with fine white hairs, which appear like a mass of cotton-wool. When full grown they leave their host, and move away to the trunks of trees or the leaves of plants, to spin their cocoons.