

follows:—"The insect which causes the manna to be formed on the white gum trees, by perforating the delicate young branches, for the purpose of feeding on the sap."

Mr. Bond exhibited a remarkable instance of arrested development in the left fore wing of a specimen of *Colias Hyale*; also a female specimen of *Lycæna Adonis*, in which some of the eye-like markings on the under surface were on the left side (*i. e.* right of the under surface) wholly wanting.

Mr. Haward exhibited a miscellaneous collection of Coleoptera, collected by himself three or four years ago in Central Europe, principally in Southern France and Germany, and in Switzerland and North Italy.

Mr. Stainton exhibited two bramble leaves, inside each of which was visible the cast-off skin of a larva of *Nepticula aurella*, and read the following note by Mr. C. Healy:—

Observations on the Moulting of the Larva of Nepticula aurella.

"On the 18th of January, 1863, I collected several bramble leaves containing young larvæ; in the afternoon of the same day I observed one larva resting in the centre of its mine in an apparently sickly state. On the following morning the old skin had split at the first segment, and the darkish blotch at the back of the head had receded to the second segment. On the 20th the old skin had shrunk to the fifth segment, and at this date the whole of the first four segments had quite a transparent appearance, being devoid of all markings whatever, and contrasting strangely with the remainder of the larva's body; the larva lay quite motionless in its mine. On the 21st the mouth had regained its former brownish colour, and the larva now moved its head about in a languid manner in search of food, of which it partook sparingly. On the 22nd the darkish blotch had reappeared on the back of the larva's head; the old skin in the meanwhile having shrunk still lower down, the anterior portion of the body had now become much stouter and had a more healthy and fresher appearance; the larva now commenced feeding with great eagerness: at this period the dorsal vessel, which had lately become more distinct at the fore and after part of the larva's body, was quite hidden in the centre. On the 23rd the whole of the dorsal vessel was distinctly visible, the anterior portion being of a much brighter green than the posterior."

Professor Westwood exhibited drawings sent from Australia by Dr. Howitt, of two species of Lucanidæ; one was the species recently described by the Professor as *Rysonotus? jugularis*; the other, the original of which was found in Gipps' Land, was probably the male of *Dorcus Pelorides*, of which the female was in the British Museum.

Professor Westwood also called attention to a paper in the 'Tijdschrift voor Entomologie,' by Prof. Van der Hoeven, upon *Periphyllus Testudo*, a Hemipterous insect which always remained in an apterous state; and to a paper on the Insects of Ceylon, by M. Motschulsky, in the Bull. de la Soc. Imp. des Nat. de Moscou.

Mr. Waterhouse exhibited British specimens of the following species of *Homalota* which are not included in his 'Catalogue:—

1. *Homalota velox*, *Kraatz*. One specimen taken by Mr. Waterhouse at Brockenhurst, in the New Forest, and a specimen taken by Mr. Hislop in Scotland.
2. *Homalota flavipes*, *Thomson*. Found on the banks of the Thames and Medway, at Gravesend and near Strood.
3. *Homalota gemina*, *Erichson*. From the Hammersmith Marshes.

4. *Homalota vilis*, *Erichson*.
 5. *Homalota picipes*, *Thomson*. *Atheta picipes*, *Thoms. Skandinav. Coleopt.* iii. 81, 30. *H. fusco-femorata*, *Waterh. MSS.*
 6. *Homalota angusticollis*, *Thomson, Ofv. af. Vet. Ac. Förh.* 1856, 100, 22. *Atheta angusticollis*, *Thoms. Skandinav. Coleopt.* iii. 87, 38.

The following notes, having reference to some of the above-mentioned species, were communicated to the Meeting :—

“ *Homalota vilis*, *Erichs.*, and *H. picipes*, *Thoms.* Of each of these two species I have seen but a single specimen. The insects were captured (by myself, I believe), long since, but their localities were not noted down. Of course with such scanty material I should wish my determinations to be looked upon with some doubt. As there already existed a species of *Homalota* bearing the name ‘*picipes*’ before Thomson applied the name to the insect above noticed, I have substituted the name ‘*fusco-femorata*’ for this insect.

“ *Homalota flavipes* = *Halobrectha flavipes*, *Thoms.* = *Homalota maritima*, *Waterh. MSS.*, and a nearly allied species *H. puncticeps*, *Thoms.* More than four years since in examining my specimens of *Homalota* I distinguished two species as belonging to Dr. Kraatz’s third section of this genus, both of which are found under *rejectamenta* on our sea-shores, and both are remarkable for having the head strongly punctured. They have, moreover, the fore parts of the body pretty densely clothed with pubescence. One of these insects is extremely like *H. occulta*, but has smaller antennæ. It is black, and has the antennæ, palpi and legs more or less piceous; the antennæ without any perceptible paler colouring at the base; the legs, with the tarsi, the knees, and the tips of the tibiæ, usually more or less testaceous. The head is very nearly equal in width (and indeed in total bulk) to the thorax, the sides subparallel, and with the eyes small and not prominent; the upper surface convex, thickly and distinctly punctured, the crown presenting usually a more or less distinct fovea (perhaps in the male sex only). Thorax subquadrate, very little broader than long, the hinder part distinctly rounded; the sides (which are furnished with two or three setæ) parallel and very indistinctly rounded; the surface thickly and distinctly punctured; in some specimens (males?) with a large oblong shallow fovea on the disk; in others a faint small fovea behind. Elytra depressed, about one-fourth broader than the thorax, and nearly half as long again (as in *H. occulta*), very densely crowded with punctures, and hence dull. Abdomen glossy, with the basal segments rather sparingly punctured; the fifth segment very sparingly, and the sixth almost impunctate; the apex more or less piceous. Posterior tarsi short.

“ This insect is clearly the *Homalota puncticeps* of Thomson = *Halobrectha puncticeps* of his ‘*Skandinaviens Coleoptera*,’ iii. 49, 1.* It also agrees perfectly with a specimen from the shore of the Baltic, sent by Dr. Kraatz to the British Museum as his *H. puncticeps*. But it does not agree with the insect named by the same authority in my own collection, nor in that of Mr. Wollaston. The description given by Hardy of his *H. Algæ* evidently belongs to this species, but he notices a variety (“*dilutiora*, *antennis fusco-ferrugineis*, *basi*, *ore*, *pedibus anoque testaceis*”) which apparently is the insect next about to be noticed. The specimen alluded to by the same author as

* The original description, published by Thomson in the ‘*Transactions of the Academy of Sciences at Stockholm*’ for 1852, I have never been able to consult.

having a slight elevation on the sixth abdominal segment must present an abnormal condition of the part. I have seen no such rising in the specimens which have come under my notice.

“The *Homalota anthracina* of Fairmaire is referred by Dr. Kraatz and by its original describer to the present species, but with doubt; and certainly the description (especially the one published in the ‘Faune Francaise’) in many respects agrees with the *H. puncticeps*, but the form of the thorax (which is said to be ‘presque aussi large que les élytres,’ and ‘très arrondis sur les côtes’) would appear to be different. *H. atricilla* of Erichson has been identified with the present species. The description, as far as the colouring is concerned, might have been taken from a very immature specimen of the insect, but, in other respects, is for the most part so utterly at variance with the actual characters of the species that I cannot but believe that there is an error in the identification — that perhaps the so-called type-specimen has been transposed and wrongly labelled.

“The second species is well described by Thomson, under the name *Halobrectha flavipes*, in his ‘Skandinaviens Coleoptera,’ iii. 50, 2. I shall content myself with pointing out its distinguishing characters as compared with *H. puncticeps*. Its general colouring is less dark, being pitchy black; the elytra more inclining to piceous, and the abdomen black. The legs, antennæ, palpi and parts of the mouth testaceous; the terminal joint of the palpi, the apical half of the antennæ, and the femora and tibiæ, however, more or less tinted with fuscous. The antennæ are rather stouter. The head, thorax and elytra are less densely punctured, and hence less dull; the elytra are but little longer than the thorax, and the posterior tarsi are considerably more elongate. The apex of the abdomen is more or less rufescent. This species I formerly regarded as the *H. puncticeps* of Kraatz, and it stands under that name in my ‘Catalogue.’

“Unless entomologists consent to adopt the minor subdivisions of the great genus *Homalota* proposed by Mr. Thomson it will be necessary to substitute some other specific name for the present insect, as there already exists one species of the genus bearing the name *flavipes*. I propose for it the name of *maritima*.

“*H. angusticollis*, *Thoms.* In the last edition of Schaum’s Catalogue (1862), this insect appears as a distinct species in the third column of p. 24, but further on (first column of p. 25) the name reappears, and in this case is linked with that of *H. ravilla*, *Erichs.* I have a specimen before me of the last-named insect, sent by Dr. Kraatz to the British Museum, and likewise a specimen of *H. angusticollis*, received by Mr. Crotch from Thomson. With this material, it would appear that I was in a favourable position for determining whether the insects are identical or not. Both insects appear to me to be males. Thomson’s specimen has the penultimate abdominal segment gently (but still evidently) emarginate, as the describer points out to be the case in the male of his species; and further this insect agrees perfectly with the two British specimens which I exhibit to the Society, excepting that in these latter the penultimate abdominal segment is more acuminate at the apex, and is truncated. These two specimens then, as I take it, furnish the opposite sex of *H. angusticollis*. They have the same structure of antennæ, with the terminal joint of moderate length; that is, as Thomson says, half as long again as the preceding joint. On the other hand, Erichson describes the terminal joint of the antennæ of *H. ravilla*, ‘magno, ovato, precedente triplo fere longiore,’ and such is the case in the insect received from Dr. Kraatz. This latter author, however, states that the terminal joint is equal in length to the two preceding joints taken together, so that I am left in uncertainty as

to whether the remarkably large terminal joint which I find in the specimen of *H. ravilla* is constant,—whether, in short, it may not be sexual. In this same specimen the penultimate segment of the abdomen is truncate or most indistinctly emarginate, and the truncated portion is broader than in the English specimens, which I regard as females of *H. angusticollis*. In other respects, I can discover no differences between the *H. angusticollis* and the *H. ravilla*.”

Mr. Waterhouse then communicated the following note, and exhibited (on the part of his son, Mr. Charles Waterhouse) a series of specimens of a species of *Homalota*, closely resembling *H. analis* in its general characters, but which will possibly prove a distinct species:—

“The specimens were collected recently in the Hammersmith Marshes, in company with *H. analis*, and my attention was first directed to them through the uniform dark (nearly black) colouring of the body and antennæ. Upon examination, I find that the dark insects differ from *H. analis* in their sexual characters, the male having a very much deeper notch in the upper plate of the penultimate abdominal segment than in the corresponding sex of *H. analis*, whilst the female has the plate in question truncated at the apex. After the examination of a very large number of specimens of *H. analis*, I have not been able to detect any decided distinctions in the sexes through the structure of the penultimate abdominal segment; in all it has a largish notch at the extremity in the form of an obtuse-angled triangle; in some the notch is slightly deeper than in others, but there are individuals presenting intermediate conditions. In the penultimate abdominal segment of the darker-coloured insect, the sinus of the upper plate has its depth slightly exceeding its width; the sides are subparallel, diverging but indistinctly, and the innermost half is nearly semicircular, or we may compare the sinus to the outline of a bluntly terminated cone. The edges of the segment bordering the sinus are margined,—*i.e.* there is a delicate impressed line immediately within the margin. In *H. analis* the triangular notch does not show a corresponding impressed line: here the plate is slightly arched, but in the transverse direction only; whilst in the deeply notched segment of the other insect the lateral portions are curved downwards. The apex of this segment is tinted with piceous in both sexes, but I have seen no specimens in which the entire segment is testaceous, as is generally the case in *H. analis*. The antennæ are dusky, often to the base, but sometimes the two basal joints show a dusky testaceous tint in parts, especially on the under side and at the base.”

With respect to this communication, Mr. Waterhouse made the following remarks:—

“The *Homalota soror* of Kraatz (*Nat. der Ins. Deutschl.* p. 257), we are informed, is very closely allied to *H. analis*, but is distinguished by the antennæ being darker and a little more incrassated towards the apex; by the palpi being pitchy brown; the thorax and elytra blackish; the abdomen almost as thickly, but much more finely punctured, and uniformly black. The male has, in the upper plate of the penultimate abdominal segment, a still larger triangular notch,* the margins of the plate on either side of

* “Noch weiter dreieckig ausgeschnitten.” I am not sure that I have rendered this sentence accurately. Both *H. analis* and *H. soror*, according to Dr. Kraatz, have a triangular notch or emargination to the abdominal segment in the male, and, as I understand the matter, the segment is still more notched in the latter species than in the former; the term “weiter” cannot be translated simply as “deeper,” nor as “wider,” but its sense would be conveyed by the two latter terms combined.

the notch falling off more obliquely. In the insect exhibited I do not perceive the differences in the punctuation alluded to, nor those in the structure of the antennæ.

“Again, a species of *Homalota* is distinguished from *H. analis* by Thomson (see his ‘*Skandinaviens Coleoptera*,’ ii. 294), under the name *Amischa platycephala*, by having the abdominal plate in the male deeply emarginate, and in the female truncate, so far agreeing with our insect. But *A. platycephala* is said to be broader than *H. analis*, less convex, and with the fovea on the thorax obsolete; the antennæ testaceous at the base, and the elytra obscure testaceous,—distinctions which do not exist in the insect before the Society. I still think it possible that it may be identical both with *H. soror* and *A. platycephala*. Thomson says of his species that it is scarce in North Scania, and Kraatz simply informs us that the *H. soror* was taken by him near Bonn, and he makes no mention of the female. It is probable then that neither of these authors had ample material for arriving at the characters of the species, and that, under more favourable circumstances, their descriptions might have been modified. However this may be, this note is communicated to the Society with the view of eliciting further information respecting those species which are certainly most closely allied to *H. analis*. The last-mentioned species I have collected in great numbers in various localities, but, amongst eighty specimens roughly grouped together in my unexamined collection of species of *Homalota*, I do not appear to possess a single specimen corresponding with the insect from the Hammersmith Marshes, of which my son found and exhibits two dozen specimens, presenting an equal number of males and females. The species then would appear to be very local.”

Paper read.

Mr. M'Lachlan read a paper on *Anisocentropus*, a new genus of exotic Trichoptera; descriptions were given of five species of that genus, *viz.*, *A. illustris*, n. sp. (of which specimens were exhibited), *A. dilucidus*, n. sp., *A. immunis*, n. sp., *A. latifascia*, *Walk.*, and *A. pyraloides*, *Walk.* To these was added the description of a new species of *Dipseudopsis*, *D. collaris*, from China.

March 2, 1863.

FREDERICK SMITH, Esq., President, in the chair.

Donations.

The following donations were announced, and thanks ordered to be returned to the respective donors:—‘*Proceedings of the Royal Society*,’ Vol. xii. No. 53; presented by the Society. ‘*Annales de la Société Entomologique de France*,’ 3me Série, Tomes 4, 5, 6, Années 1856, 1857, 1858; by the Entomological Society of France. ‘*Anatomie Physiologie et Histoire Naturelle des Galéodes*;’ by the Author, M. Léon Dufour. ‘*Wiener Entomologische Monatschrift*,’ Band vi.; by Herr Julius Lederer. ‘*Stettiner Entomologische Zeitung*,’ Jahrg. 23, Nos. 10—12, and Jahrg. 24, Nos. 1—3, and Beilage; by the Entomological Society of Stettin. ‘*The Canadian Naturalist and Geologist*,’ Vol. viii. No. 6; by the Natural Society of Montreal. ‘*The Zoologist*’ for March; by the Editor. ‘*The Journal of the Society of Arts*’ for February; by the Editor. ‘*The Intellectual Observer*,’ No. 14; by the Publishers. ‘*Jahrbücher des Vereins für Naturkunde im Herzogthum Nassau*,’ Bd. 14, 15, 16; by the Society. ‘*The Reader*’ for January and February; by the Editor.