

one of them had hatched, and there was unmistakeable evidence of the recent emergence of a moth from the pupa: he had no doubt the moth exhibited was the produce of that pupa. Mr. F. Moore recognized the species as *Saturnia pyretorum* (Westw. Cab. Orient. Ent. p. 49, pl. 24, fig. 2).

Dr. Wallace mentioned that he had availed himself of the sample or pattern post for the transmission of boxes of silk-worms or their eggs: so long as there was an aperture at each end of the box, which apertures might be covered with perforated zinc or other material, but left it ascertainable that there was no letter enclosed, no objection was raised by the Post-Office authorities; and he had lately sent a box by post to Japan for eggs at a cost of 4s., which when it last came thence as a parcel had cost 47s. Mr. Horne added that bird-skins were now frequently sent from India by sample post.

Mr. M'Lachlan exhibited three male specimens of *Dilar Hornei* (Ent. Mo. Mag. v. 239), a new species from India of a genus remarkable amongst the Neuroptera for the possession of pectinate antennæ.

Mr. Horne, by whom the species was brought to this country, said the insect was not uncommon in North-West India, on the hill sides, amongst grass in damp places, but not near water: the female had a long yellow-brown ovipositor shaped like a scimitar, which, so far from looking flexible, had the appearance of being very stiff.

Mr. Horne exhibited sheets of the inner portion of the bark of *Pinus longifolia*, which he had found useful in India as a substitute for cork: it was tolerably soft, and the resin was not injurious to insects.

Prof. Westwood mentioned that in the previous month he had seen exhibited at Oxford a full-grown larva of *Lampyrus noctiluca*, which was distinctly luminous.

Mr. J. J. Weir exhibited a mass of larvæ of *Tipula* from Blackheath, where acres of land were so infested that there seemed to be more larvæ than earth. In Greenwich Park the grass was, at this early period, almost destroyed by them. Rooks, starlings and sparrows appeared to be busy in the neighbourhood, but no diminution in the number of the grubs was observable.

Mr. Bond mentioned that he had once known four hundred of these larvæ taken out of the crop of a pheasant.

Papers read.

Mr. Charles O. Waterhouse read a paper "On a new Genus and some new Species of Coleoptera belonging to the Family Lucanidæ."

Mr. J. Jenner Weir read a paper "On Insects and Insectivorous Birds, and especially on the Relation between the Colour and the Edibility of Lepidoptera and their Larvæ."

Mr. A. G. Butler read a paper "On some Caterpillars, &c., which are unpalatable to their Enemies."

Mr. Weir's experiments were suggested by the remarks of Mr. Alfred R. Wallace, reported in Proc. Ent. Soc. 1867, p. lxxx.: the conclusions at which he arrived were, that, as a rule, hairy and spinous larvæ were rejected by birds (unless the cuckoo were an exception); but he doubted whether the mechanical difficulty of swallowing them was the cause of their rejection, and rather thought that the hairs were the concomitant of a disagreeable quality of which they acted as an indicator; that bright and gaily-coloured larvæ were, as a rule, refused; but that smooth larvæ of a greenish or dull brown colour, such as are for the most part nocturnal in their habits, and those

which simulate the leaves or twigs of trees upon which they live, were eaten with avidity.

Mr. Butler's observations were on the consumption or rejection of larvæ by lizards, frogs and spiders; both lizards and frogs would eat hairy larvæ; and even the stings of bees had no deterrent effect upon a lizard.

These two papers led to a prolonged conversation, in which the President, Mr. Horne, Mr. A. R. Wallace, Mr. Butler, Mr. M'Lachlan and Dr. Wallace, took part.

Mr. Horne said that in India lizards were almost omnivorous, and ate bees with avidity; a friend of his, Colonel Ramsay, had hives of *Apis dorsata* placed near some stone walls or terraces, which were a favourite resort of lizards; they would come to the mouths of the hives, lie in wait for the bees, and take them, sting and all. Larvæ of all sorts, smooth or hairy, dull or bright, were eaten by lizards; but scorpions were rejected; bears, however, would eat scorpions, and he had seen bears turn over stones in search of scorpions, and eat them regardless of their stings. He had noticed that a common Indian species of *Carabus*, and all the blister-beetles, seemed to be free from attacks of any animal.

Dr. Wallace said that the larvæ of *Bombyx Cynthia*, which were both gaily coloured and covered with tubercles, were eaten by cuckoos, robins and tomtits: the two latter made holes in the skin and took out the inside, whilst the cuckoos swallowed the larvæ whole.

Mr. Alfred R. Wallace was pleased to find that the observations of Mr. Weir went so far to support the theory which, reasoning entirely from the analogy of what had been observed in the *Heliconiidæ*, he had ventured to suggest in answer to a question of Mr. Darwin's. He thought there was now a solid foundation of fact for the hypothesis that the bright colour of larvæ was protective, and was (as it were) a flag hung out to warn off their enemies. Doubtless every detail either of form or colour had its object and bearing upon the history of the creature. It was not necessary that the law should be absolute or the rule universal; he did not expect to find, on the contrary he should have been surprised if it had been found, that *all* brightly coloured larvæ were peculiarly protected, or that the bright colour of any particular larva protected it from *all* enemies; if it thereby obtained protection from a single enemy, if it was left exposed to the attack of but one enemy less than its neighbours, to that extent at least the colour gave it an advantage; the theory of protective warning supplied the reason for, and afforded a rational explanation of, the gay colouring, which in the case of larvæ could not be accounted for by sexual selection.

March 15, 1869.

H. W. BATES, Esq., President, in the chair.

Election of Member.

H. Grose Smith, Esq., of Surbiton, was balloted for, and elected a Member.

Exhibitions, &c.

Mr. Frederick Smith exhibited specimens of *Colletes cunicularia*, a bee new to this country: they had been sent to him by Mr. Nicholas Cooke, by whose son, Mr. Isaac