April 3, 1865.

F. P. Pascoe, Esq., President, in the chair.

*Donations to the Library.*

The following donations were announced, and thanks voted to the donors:—'The Journal of the Royal Agricultural Society of England,' 2nd series, Vol. i.; presented by the Society. 'The Transactions of the Linnean Society of London,' Vol. xxiv. Part 3; by the Society. 'The Journal of Entomology,' No. 12; by the Proprietors. Hewitson's 'Exotic Butterflies,' Part 54; by W. W. Saunders, Esq. Doleschall, C. L., 'Bijdrage tot de Kennis der Dipterologische Fauna van Nederlandsch Indië,' Parts 1—3; 'Bijdrage tot de Kennis der Arachniden van den Indischen Archipel;' 'Tweede Bijdrage tot de Kennis der Arachniden van den Indischen Archipel;' by A. R. Wallace, Esq. 'The Entomologist's Monthly Magazine' for April; by the Editors. 'The Zoologist' for April; by the Editor.

*Election of Members.*

Captain Willoughby S. Rooke, of the Scots Fusilier Guards, and of Bigswear, Gloucestershire; R. S. Scholfield, Esq., of the Junior Carlton Club; and Dr. Sichel, of Paris, were severally ballotted for, and elected Members. Mr. Stephen Barton, of Bristol, was ballotted for, and elected an Annual Subscriber.

*Exhibitions, &c.*

The President exhibited a new species of Bolboceras from South Australia, which was found burrowing in the hard road at Gawler, near Adelaide, a habit similar to that of the European B. gallicus. The Australian species was described by its captor, Mr. Odewahn, as "making a noise like a Longicorn, by moving the small pulvilli beneath the hind coxæ."

The President read the following extract from the 'Athenæum' of the 18th of March, 1865:—

"Bottesford Manor, Brigg, March 13, 1865.

"In Saturday's 'Athenæum' (p. 352), it is recorded, that at the Meeting of the Entomological Society, held on March 6, 'Mr. Bond exhibited specimens of a gall found on a willow tree near Cambridge; the attack of the insect . . . caused a premature terminal development of leaves in whorls, so as to resemble a flower-head.' Galls of this kind are of very frequent occurrence on willows in this neighbourhood, and, I believe, throughout the whole of Lincolnshire. They are so common here that I have always supposed that they must be familiarly known to naturalists. They first show themselves in the latter summer and early autumn, but are not easily discovered until the tree sheds its leaves. When that happens the gall-leaves become prominent objects. Their form is singularly like that of a small rose, and the likeness is increased by the colour, which, in December and January, is a light brown, very often nearly approaching red. As time goes on the brown becomes deeper, and when the green leaves shoot forth in spring the galls drop off. The likeness to a rose is often so complete that an uninstructed person might easily be led to the absurd conclusion that he had seen roses growing on willows. That this opinion was current at one time is proved by the following entry in the chronicle of John Capgrave, 1338: 'In that same

yere welowes bore roses, red and frech; and that was in Januarie,' p. 207. This is another proof to be added to those accumulating daily, that the strange histories to be found in the records of past ages are not, for the most part, deliberate fables, but truths ill understood, or facts seen out of their proper perspective. There is a story told by an Irish writer, of a certain willow tree, which, having received the blessing of S. Coëginus, straightway began to bear apples. (*Lau. Beyerlinck, Theat. Vitæ Humanæ*, t. 1, p. 921a). It is highly probable that the foundation of this legend must be sought in a similar direction.

"Yours, &c.,

"Edward Peacock."

Mr. W. W. Saunders exhibited a number of galls collected during the previous year in Southern Syria by Mr. B. T. Lowne. One was on a species of Acacia, from Engedi; another was of scaly or flaky material placed round the stems of Atriplex Italinus, from the Dead Sea; a third, probably the gall of a Dipterous insect, was on a grass; a fourth kind occurred on Reaumuria, from Ain Terebeh, Dead Sea; a fifth on Ærua Javanica, from Engedi; a sixth on a Salvia, from the same locality; and a seventh kind was found on a species of Tamarix, at Ain Terebeh. With respect to the first two, Mr. Saunders was unable to say with certainty whether they were the nidi of insects; the gall on the tamarisk bore great resemblance to that described and figured in the 'Transactions' some years ago (see Trans. Ent. Soc. v. 27, pl. ii. figs. 5—9), and was probably caused by one of the Buprestidæ. Mr. Saunders hoped to breed some of the perfect insects, and on a future occasion to supply further information, or at all events to lay before the Society accurate drawings of the galls.

Mr. F. Moore exhibited a small collection of Lepidoptera lately received, *by post*, from Captain A. M. Lang, from the North-Western Himalaya. It included various Polyommati; a fine new Chrysophanus from Kunawur; a small Anthocharis, allied to A. Cardamines, also from Kunawur; two undescribed species of Pieris—one allied to P. Mesentina—from the Runang Pass (14,800 feet elevation); a specimen of Pieris Daplidice, which was found in considerable numbers in the village fields along the Spiti River; Gonepteryx Wallichii from the north of Simla; Parnassius Jacquemontii and P. Hardwickii—the former from the high passes (18,000 feet) in Upper Kunawur, Spiti and Tibet, the latter from the Runang Pass (14,800 feet). Of Nymphalidæ there were Argynnis Kamala and A. Jainadeva from the Simla district and Kunawur; a new Limenitis, allied to L. Sybilla, from North of Simla; a beautiful little Melitæa from the Kongma Pass leading from Kunawūr into Chinese Tibet. Of Satyridæ, five new species of Lasiommatus, Hipparchia and Erebia, from the mountain slopes of Spiti, Upper Kunawur, and Tibet. Lastly, a single specimen of the curious form figured by Bremer, in 'Lepidopteren Öst Sibiriens,' as Callidula Felderi.

Mr. F. Moore also exhibited two Entomogenous Fungi found at Darjeeling by Mr. A. E. Russell—similar to that figured in plate 277 of vol. iii. of Cramer's Pap. Exot., upon a species of Sphinx (Pachylia achemenides) from Surinam. One of these parasitic Fungi was upon a male imago of the common Indian Lepidopterous insect, Spiramia retorta (Noctuidæ, Fam. Hypopyridæ), and the other upon the imago of a species of an undetermined Geometrideous genus. Both these moths had the fungus springing, in more or less lengthened hair-like filaments, from the body, legs, palpi, antennæ, and along the nervures (but not from the membranous portion) of the wings on the upper side. Mr. Moore was informed by Mr. M. C. Cooke that these peculiar Fungi belong to the doubtful genus Isaria, the majority of the species of which are

parasitic on insects or exuviæ: this genus is *not* regarded as autonomous, but as a condition of the ascigerous genus Cordiceps (Entomogenous Sphæriæ).

Mr. Janson exhibited a large collection of insects, principally Lepidoptera and Coleoptera, formed by Mr. A. E. Russell in Bengal and the Himalayas.

The President read the following extract from 'The Times' of the 28th of March, 1865:—

"*French Honey.*—A great portion of the immense quantity of honey consumed in France is supplied from the island of Corsica and from Brittany. Corsica produced so much wax in ancient times that the Romans imposed on it an annual tribute of 100,000 lbs. weight. Subsequently the inhabitants revolted, and they were punished by the tribute being raised to 200,000 lbs. weight annually, which they were able to supply. Wax is to honey in Corsica as one to 15, so that the inhabitants must have gathered 3,000,000 kilogrammes* of honey. When Corsica became a dependency of the Papal Court it paid its taxes in wax, and the quantity was sufficient to supply the consumption not only of the churches in the city of Rome, but those in the Papal States. Brittany likewise supplies a great quantity of honey, but of inferior quality to that of Corsica. The annual value of the honey and wax produced in that province is estimated at 5,000,000f."

The President read the following note:—

"Last July, when passing over the snow-fields on the top of Monte Moro, at an elevation of about 8000 feet, I noticed here and there a sharply-defined cylindrical hole in the snow, such as might have been caused by pressing a wine-cork into it. These holes were generally about an inch in depth, and at the bottom of each was either a small lump that looked like peat, or more frequently an insect, invariably either Dipterous or Ichneumonideous. I cannot account for the lumps of peat; but I imagine that the insects, settling on the snow, became torpid from its low temperature, and sank gradually (or perhaps rapidly) into it, the hole being caused by the melting of the snow by the radiation of heat from the insect. The solar rays on mountain summits are asserted to be warmer than those falling on the plains, but there is no doubt that the radiation from solid bodies at great elevations is very marked. I took Cryptus tarsoleucus apparently not long alighted, and still feebly moving a wing or a leg. Perhaps it is only in the finest weather that insects would take so lofty a flight; however, a little lower down, Bombus montanus was not uncommon, enjoying itself amongst the flowers of a Linaria, but surrounded on all sides by patches of snow. Nearly up to the same point I frequently passed a little black moth, Psodos trepidaria, taking its short trembling flight. Higher than either of these, and among some short grass in the middle of the snow, I found a Byrrhus. These were the last evidences of animal life observed. But as flowering plants extend to upwards of 10,000 or even 11,000 feet, it would be interesting to learn if insect-life in any form co-exists with them. A mammal, Arvicola nivalis, is found, I believe, at the highest point of phanerogamic vegetation."

In reply to enquiries, the President added that the insects in the snow were all dark in colour, that the holes were on the slope of the mountain on which the sun was shining directly, and that they were truly cylindrical, not hemispherical, or narrowed

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* *Qu.* kilogrammes or pounds?

at the bottom. His explanation of the phenomenon did not meet with general acceptance; it was objected that radiation was scarcely likely to produce a cylindrical excavation; and Mr. A. R. Wallace doubted whether an insect of so small bulk and mass, and which could only give off by radiation the heat which it had first absorbed, was capable, even though of dark colour, of absorbing sufficient to produce the considerable melting of the snow around it which the President had described.

Prof. Westwood directed attention to Karsten's recently-published 'Beitrag zur Kenntniss des Rhynchoprion penetrans,' and protested against the generic appellation there applied to the Chigoe or Jigger. Linnæus was uncertain to what genus to refer the insect, and Latreille suggested that a new genus was probably required for its reception; the Rev. Lansdown Guilding had in MS. assigned to it the name Sarcophaga, which, however, had been previously employed amongst the Diptera. In a paper in the 'Transactions' of this Society (vol. ii. p. 199), Prof. Westwood had himself first given the generic characters and published the name Sarcopsylla; Dugès had about the same written on the Jigger, but referred it to the genus Pulex, and Guérin-Méneville, in the interval between the reading (May 1, 1837) and the publication (1840) of his (Prof. W.'s) paper, had on the plates of the 'Iconographie du Règne Animal' employed the name Dermatophilus, but his description was not published till long afterwards. The name Sarcopsylla was entitled to stand, according to the rule of priority, and Prof. Karsten was not justified in rejecting it, and falling back upon Rhynchoprion, which had been formerly used for a genus of Acari. Prof. Westwood also took credit to himself for having first shown that the Jigger was oviparous, not larviparous or pupiparous; Prof. Karsten had now shown how the sexes might be distinguished before the female became gravid: the 'Beitrag' also contained elaborate details of the structure and anatomy of the Jigger, but it did not contain one word on the generic arrangement, nor did it add one single fact to the natural history of the species. He (Prof. W.) was anxious to know what became of the eggs after they were deposited, (say) in the toe of a human being? where did they hatch? and where and upon what did the larvæ feed? There could not be room for all the numerous eggs to develope in such a situation as above supposed; and moreover, in the vast majority of instances the eggs could not be deposited in flesh at all.

Mr. Bates had had personal experience of the attacks of the Jigger, but was unable to answer the Professor's enquiries; the common belief was that the body of the female burst within the toe, that the eggs hatched therein, and that the larvæ fed upon the flesh; but he had never had anything but eggs (no larvæ or pupæ) extracted from his own person; if during the process of extraction the body of the female burst, he had always applied tobacco-juice to prevent any ill effect.

*Paper read.*

Mr. Bates read a paper "On the Species of Agra of the Amazons Region."

In the introduction, the author treats of the affinities and describes the habits of this arboreal genus of Carabidæ peculiar to Tropical America, and then proceeds to characterize sixteen new Amazonian species, whereby the total number of described species is advanced to 140. Forty-seven species of Agra and Agridia are recorded as occurring in the Amazons region; of these forty-two were found by Mr. Bates, and thirty-one of them were new to Science.

The employment by Mr. Bates of the two forms Carabici and Carabidæ to denote the same group of insects evoked from the President a strong protest against the in-

discriminate application of two names to the same thing; he insisted also upon the desirability—to prevent confusion, amounting to necessity—of having one uniform termination for the names of groups of co-ordinate value and importance; and further, that the proper termination for the name of a family was *-idæ*, the form almost invariably adopted by English entomologists, and which was now being adopted also by the French. Prof. Westwood expressed himself in favour of the nomenclature introduced by Kirby, and the employment of *-idæ* as the termination of the name of a family or of a group of insects corresponding to one of the old Linnean genera.

*New Part of the 'Transactions.'*

A new Part of the 'Transactions' (Third Series, Vol. ii. Part 4) was on the table.

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May 1, 1865.

H. T. Stainton, Esq., V.-P., in the chair.

*Donations to the Library.*

The following donations were announced, and thanks voted to the donors:—'Proceedings of the Natural History Society of Dublin,' Vol. iv. Part 2; presented by the Society. 'Bulletin de la Société Linnéenne de Normandie,' Vol. ix.; by the Society. 'Mémoires de la Société de Physique et d'Histoire Naturelle de Genève,' Tome xvii., 2e Partie; by the Society. 'The Entomologist's Monthly Magazine' for May; by the Editors. 'The Zoologist' for May; by the Editor.

*Election of Members.*

F. D. Godman, Esq., of Park Hatch, Godalming; J. T. D. Llewellyn, Esq., of Ynisygerwn, Neath; and W. H. Groser, Esq., of 19, Claremont Square, London; were severally balloted for, and elected Members.

C. B. Clarke, Esq., Fellow of Queen's College, Cambridge; Edward Clift, Esq., of Lewisham; and Mr. W. Farren, of 10, Crescent, Cambridge; were severally balloted for, and elected Annual Subscribers.

*Death of William Sharp MacLeay.*

The Secretary read from a Sydney paper of the 30th of January, 1865, an obituary notice of William Sharp MacLeay, whose death, at the age of seventy-two, occurred on the 26th of that month. Mr. MacLeay was elected a Member of this Society in 1836 and a Member of the Council for 1837, but resigned prior to his departure for Australia in 1839.

*Exhibitions, &c.*

Prof. Westwood mentioned that with reference to the jigger, the subject of some discussion at the previous Meeting, Mr. F. Smith had called his attention to a passage in Waterton's 'Wanderings in South America,' pp. 173, 174, as tending to show that the larvæ fed on the flesh in which they were deposited. He considered, however, that further observation on this point was necessary.

Mr. S. Stevens produced a Cassida, which he had hoped to have exhibited alive; it had been found some days previously in London, near a newly-opened case of Orchids, but had unfortunately died a few hours before the Meeting. Mr. Baly