2. Linnean Society of London.

5th March, 1885. - Dr. Francis Day read a paper »On the Rearing. Growth and Breeding of Salmon in Freshwater in Great Britain«. He referred to the statements and opinions of the older authorities and then dwelt more at length on the more recent experiments of Sir James Maitland at Howieton. In Dec. 1880 Sir James obtained salmon eggs and milt from fish captured in the Teith, and from which ova hatched in March 1881. In July 1883 it was seen that some of the young salmon these 2 years and 4 months old were either in the parr livery or had assumed the dress of silvery smolts, the latter in certain lights showing parr bands. On Nov. 7th 1884 a smolt of $1^{1}/_{4}$ Ø weight jumped out of the pond and from it about 100 eggs were expressed and they seemed to be ripe, they were milted from a Lochleven trout. On 23rd January 1885, 18 of these eggs hatched and the young were strong and healthy. November 11th, 1884, about 12 000 Lochleven trout eggs were milted from one of the foregoing smolts and they hatched 28th January, 1885. On 1th Dec. 1884 1500 eggs were taken from two of the foregoing smolts and treated by the milt of one of the males. On the 9th about 4000 eggs from these smolts were fertilised from one of the males and on the 13th 2500 smolt eggs were milted from a parr. Dr. Day further states that pure salmon eggs in the Howieton fishery have been hatched, that the young have grown to parr, smolts and grilse, that these latter have given eggs and their eggs have been successfully hatched. Although time will yet be necessary before a definite reply can be given as to how these young salmon will thrive, how large they will eventually become in fresh water ponds and whether from them a land-locked race may be expected, still the following points seem to be established viz: --- That male parts or smolts may afford milt capable to fertilise ova, but if taken from fish in their second season at 32 months of age they are of insufficient power to produce vigorous fry. That female smolts or grilse may give eggs at 32 months of age, but those of a season older are better adapted for the production of vigorous fry — wherefore to develope ova a visit to the sea is not a physiological necessity. That young male salmon are more matured for breeding purposes, than are young females of the same season's growth. That female Salmonidae under 24 months of age although they may give ova are of little use for breeding purposes, the young if produced being generally weak or malformed. That at Howieton so far hybrids between trout and salmon have proved to be sterile. - Furthermore Dr. Day stated that the size of eggs of Salmonidae vary with the age and condition of the parent, but as a rule older fish give larger ova than the younger mothers. Even among the eggs of individual fish variations occur in the size of the ova. From larger ova finer and rapidly growing fry are produced, consequently by a judicious selection of breeders, races may be improved, while it is only where segregation is efficiently carried out that such selection is possible.

19th March, 1885. - Dr. J. J. Romanes exhibited two human skulls from South Africa. One was that of an aboriginal Bushman from Kruis River, Cango district, Gudtsboora obtained through Dr. Stroud. - A paper by Prof. Allman on new Hydroids from the Collection of Miss Gatty was read and discussed. Thirty eight species distributed among twelve genera are described as new. Among these the new Plumularian genus Podocladium is very remar-

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kable, not only by the possession of both fixed and movable nematophore, in accordance with which, like Heteroplon of the »Challenger« collection it holds a position intermediate between the typical Eleutheroplean and the Stetoplean genera — but by the fact that every hydrocladium is supported on a cylindrical pointed peduncle. Among other remarkable and significant forms is one to which the author gives the name of Thuiaria heteromorpha. In this are found combined in the same hydrophyton no less than three morphological types which if occurring separately would be justly regarded as representing three genera. Thuiaria, Dermoscuphus, and Sertularia. Notwithstanding this singular combination of forms, the author does not believe that the characters of the specimen justifies the construction of a new genus; and he regarded the generic position of the hydroid as determined by that one of the three forms which most decidedly prevails in it. Thuiaria heteromorpha, thus shows in a very marked way the indefiniteness of the boundaries between different zoological groups, and calls to mind a phenomenon known to occur among plants, as in certain epiphytical orchids, in which the same stem has been observed to carry flowers referable to several generic types. - J. Murie.

3. Linnean Society of New South Wales.

25th February, 1885. - 1. On some Reptiles from the Herbert River District, Queensland. By William Macleay, F.L.S., etc. Five new species are here described, Hinulia picta, and Tetradactylus guttulatus of the Family Scincidae, and of Ophidians Nardoa crassa, Tropidonotus ater and Hoplocephalus assimilis. - 2. Notes on certain Ceylonese Coleoptera, decribed by the late Francis Walker. By A. Sydney Olliff, Esq. In these Notes Mr. Olliff, who had examined Mr. Walker's types in the British Museum, endeavours to clear up the synonomy of the Clavicorn Families. The name Asana was proposed for the Trogosita rhyzophagoides of Walker, which cannot be referred to any known genus. In form it resembles Lipaspis, but is characterised by the presence of a scutellum. - 3. On the Flight of Birds. By R. von Lendenfeld, Ph.D. In this paper the author comments on the recent ingenious conclusions of Müllenhoff, and also gives an explanation of the mode in which Birds like Vultures circling in the air, can rise without flapping their wings. - Mr. C. S. Wilkinson exhibited some Fossil Bones which had been recently obtained from the coral sand rock on Lord Howe Island. Amongst them was an almost complete skull somewhat resembling that of the Horned Lizard Megalania prisca, from the Pleistocene deposits on the Darling Downs, Queensland. - Mr. Wilkinson also exhibited specimens of shells of oysters found in the beds of clay and sand at a depth of 40 feet below the surface, in sinking the new shaft of the Bullock Island and Wickham Coal Company near Newcastle. Mr. Brazier identified this oyster, which must have been 12 inches in length, as a large form of the Ostrea edulis. - Dr. J. Cox exhibited other specimens of the Ostrea edulis from Port Jackson, and found firmly attached to a bottle. He pointed out the great difference between this oyster, which will not keep for more than a day, and the English native oyster, and suggested that they are of separate species. Mr. E. P. Ramsay mentioned that the same oyster in South Australia keeps well for many days, and was of opinion that they were the same as the O. edulis of England. - Mr. Ramsay exhibited a Fossil phalanx of Palaeorchestes, from Wellington Caves, from the size of which he calculated

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