time express the expositor's meaning in the fewest and clearest terms. The entomologist had long found the advantage of such signs as $\varphi$ and $\sigma$, in reference to the sexes of Insects and the like; and the anatomist would find it to his advantage to avail himself of this powerful instrument of thought, instruction and discovery, from which the chemist, the astronomer, and the geometer have obtained such important results.

**ZOOLOGICAL SOCIETY.**

February 10, 1852.—William Yarrell, Esq., in the Chair.

The Chairman exhibited a specimen of the *Echiodon Drummondii* of Mr. Thompson of Belfast, a very rare species of fish, of which only one example has been previously known. Dr. Drummond obtained the first specimen on the beach at Carnclough, near Glenarm, in the county of Antrim, in June 1836, cast ashore probably by the tide of the preceding night, after a strong easterly wind. The species was considered new to ichthyology, and was first described and figured in the Transactions of this Society by Mr. Thompson, vol. ii. p. 207, pl. 38. Nothing that has transpired since the publication of Mr. Thompson's paper has induced a belief that this species had been previously known.

The specimen now exhibited was most liberally sent to Mr. Yarrell by Mrs. Blackburn of Valencia, in the county of Kerry, who was perfectly aware of the characters, the rarity, and the value of the fish. It was found by her daughter Helen on the shore of the harbour of Valencia, after a violent storm from the west, which occurred there on the 23rd of January last.

This example is smaller than the one noticed by Mr. Thompson, measuring only 8 inches in length, but quite perfect. Mr. Thompson's example measured 12 inches (Brit. Fishes, vol. ii. p. 417).

The following papers were then read:

1. **On Cystosoma Saundersii, of Curtis and Westwood.**

   **By A. W. Scott, M.A.**

   Head small; sides of the thorax running in a straight line from the head to an acute angle behind; abdomen of the male deeply constricted immediately behind first segment; second joint of the antennæ distinct from the third, and not forming with it the tapering setae which terminates them; upper wings destitute of a nervure running parallel to their inner margin.

   The male measures, in expanse of wings, nearly $\frac{1}{2}$ inches; the female $\frac{3}{2}$ inches.

   The antennæ in both sexes are very short, 7-jointed, the two basal joints strong and thick, the remainder much finer and gradually terminating in a point.

   The legs, anterior pair, with two minute spurs at the apex of tibia;
the femora are robust, with their lower edges serrated; the second and posterior pairs longer than the anterior, with minute spurs on the ends of the tibiae and setæ, placed in pairs and evenly distributed along the inner edge; the femora of these are slender and not serrated. The tarsi of all the legs 3-jointed, and terminated by two strongish claws, and fringed underneath by setæ. From the base of each coxa of the second and posterior pairs there proceeds a large flexible spine.

The upper wings are coriaceous, lanceolate and sharply pointed, with the cells of inner side open, and not shut in by a long marginal nervure as in the true Cicadeæ. The under wings are small, and furnished with very weak nervures.

The colour of the whole upper surface of both sexes is of a pale delicate green, with the exception of the posterior wings, which are transparent, possessing, however, a slight greenish tinge. The costæ of the fore-wings are white, with a pinkish hue running along the centre. The under portion of the base of the upper wing inclines to yellow, which colour extends round the thorax. The antennæ are black, and the eyes a bright, light reddish colour. In the preserved specimens, the beautiful delicate green, which constitutes the general colour, becomes duller and darker, and frequently assumes a hue of sickly yellow.

The drums of the male are rounded, and marked by seven transverse furrows, slightly tinged with brown, in the middle, and different from those of the true Cicadeæ in being more conspicuous on a dorsal view of the insect. Besides, the abdomen is deeply constricted immediately behind them, so that the first segment appears as it were to form part of the metathorax, and the abdomen seems merely composed of the seven last segments, which are here exceedingly inflated, as in the orthopterous genus Pneumora.

The abdomen of the female is of a size and form more corresponding to that of the female Cicadeæ, but it is of a more cylindrical form and less angular at the sides. The dilated sides of the metasternum, which form the two plates covering the under sides of the drums in the male, are here comparatively small.

These insects are extremely numerous on Ash Island, principally inhabiting an orange grove of about 1200 trees, and we scarcely ever remember seeing one beyond a few rods of the limits of this garden, nor have we ever heard of or discovered a single specimen elsewhere, with the exception of the few brought by Sir Thomas Mitchell from the interior.

During the short twilight of this country, the male commences and ends his song, which resembles a loud deep guttural, R, continued incessantly, and with vibrations. So loud indeed is this sound, that when near to several insects it becomes even painful to the ear. It is, moreover, very unlike the shriller and harsher notes uttered by the common Cicada.

In this brief period after sunset the males and females occasionally fly from tree to tree, their flight being slow and steady, particularly that of the former. The only other time in which these insects are
heard is immediately, in hot and sultry weather, before a thunder-
storm, and then only at broken intervals. This habit was particularly
noticed on our placing the males on a bunch of flowers in the draw-
ing-room, where every evening they regaled us with their short-lived
song, and at other periods occasionally predicted the coming storm.

The larvae live underground upon the roots of plants, and in their
habits and transformations closely approximate to those of the com-
mon Cicada.

The perfect insects appear early in September, and are to be found
until about February. They are extremely easily captured, the females
being taken when in flight by a common butterfly net, and the males
by going to the spot from where their voices proceed, and suddenly
shaking the bough, which causes them to drop to the ground, when
they may be picked up.

The male has been indifferently figured under the name of Cysto-
soma Saundersi, in the ‘Arcana Entomologica,’ in which Mr. West-
wood mentions its affinity to Hemidictya, and gives good dissections.
His description, however, is not correct, when he characterizes the
insect as “pallide lutea,” whereas the species is “laete viridis.” The
female, we believe, is not known in England.

Ash Island, Hunter River, New South Wales,
Nov. 6, 1851.

2. Description of a New Species of Anomalurus, from
Fernando Po. By Louis Fraser, H.B.M. Vice-Consul
for the Kingdom of Dahomey.

The Proceedings of this Society contain the description of a very
interesting new form of Rodents, discovered by myself at Fernando
Po, and to which the name Anomalurus Fraseri was given by Mr.
Waterhouse. A second species of the genus has subsequently been
found in Ashantee, by an enterprising collector sent out by the Direct-
ors of the Leyden Museum, and has been named after its discoverer,
by M. Temminck, Anomalurus Pelii. I have now to submit to your
notice a third species of the genus, which I propose to name after
my friend and coadjutor, John Beecroft, Esq., H.M. Consul for the
Bights of Benin and Biafra, also Spanish Governor of the island of
Fernando Po, as a just tribute to one who has devoted upwards of
twenty-three years to the cause of Western Africa and its inhabitants,
and whose knowledge of both is unequalled. This extraordinary
gentleman has entered all (or nearly all) the rivers on this coast, so
fatal to Europeans, and after six weeks’ search amongst the swamps
and creeks, has discovered the junction of the Benin and Niger: this
latter river he has navigated three or four times as high up as Rabba.
He also ascended Clarence Peak.

The principal peculiarities of the three species of Anomalurus are
as follows:—

Anomalurus Fraseri, Waterh.

General hue of the upper parts brown; the flank-membranes dusky
or black; under parts dirty white, slightly washed with buff-yellow; a considerable area around the base of the ears black, as well as the long hairs on the basal part of those organs; cheeks deep brown; throat grey; feet and tail dusky.

_Hab._ Fernando Po.

**Anomalurus Beecrofti, Fraser.**

Upper parts, including the greater portion of the flank-membranes, yellowish grey, slightly inclining to rufous on the mesial line of the back, especially on the fore part; under parts of a bright rust colour; cheeks and throat grey, excepting that the latter has a narrow rust-coloured mark in the middle; a white spot on the crown of the head (probably not constant), and a short white band on either side of the neck running on the shoulders; a dusky patch on the flank-membrane above, commencing on the margin of the membrane near the anterior part, and extending backwards and inwards rather less than half way along the flanks; tail dusky brown.

_Hab._ Fernando Po.

This species is rather larger than the _An. Fraseri_, and differs, moreover, in the upper parts of the body being yellow-grey, instead of brown; in having the greater portion of the flank-membranes as well as the feet grey, instead of dusky; in wanting the conspicuous black area around the base of the ears—the part in question being of the same general grey colour in _An. Beecrofti_ as other parts; in having the cheeks hoary grey, instead of deep brown; and in having the under parts of a bright rusty red. There are differences likewise to be observed in the scales on the under side of the tail; they cover less space in the longitudinal direction, are broader, and have the projecting angles less prominent.

| Length from tip of nose to root of tail (in. lin.) | 15 0 |
| of tail | 9 0 |
| of the scaly portion beneath | 3 3 |
| from nose to ear | 2 3 |
| of ear | 1 3 |
| of fore foot and claws | 1 11 |
| of hind foot and claws | 2 9 |

**Anomalurus Pelii, Temminck.**

Larger than either of the foregoing. Black above; dirty white below; throat dusky; chin, upper surface of the nose, the region of the muffle (or naked portion of the nose), the long and soft hairs on the outer surface of the ears at the base, and the tail, white; the flank-membrane is broadly margined with white, and the hairs on the feet are for the most part white, but with an admixture of black or dusky; the long hairs springing from the base of the nails of the hinder feet are black.

_Hab._ Ashantee.

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