

above-mentioned orifice at the apex of the leaf, from whence it is thrown forth by pulsation. At each pulsation a small globule of clear tasteless water was ejected. Each drop, as it fell from the leaf, contained fifteen of these globules, and eleven drops fell in the course of a minute. This action begins with the shades of the evening and continues until the heat of the sun changes the course of action. Each full-grown healthy leaf will produce about half a pint of water during the night, which on being analysed has been found to contain a very minute portion of vegetable matter. The veins which flow into this duct may be distinctly traced by the light of a candle (the leaf being held between) from the body of the leaf to the midrib, and from thence followed down perhaps the one-half of the foot-stalk, where, from the colouring matter of the leaf becoming denser, they are ultimately lost sight of. There is also a smaller duct which runs parallel to the larger and nearly close to it, the use of which is not so clearly marked, but from observation it appears to be connected with another series of vessels running from it towards the interior, but terminating before they reach the midrib.

From the time the plant began to grow rapidly in April, its treatment was after the following manner:—Some turf, that had been cut from an old pasture a few months before, being chopt into pieces in the form of brickbats, *all the loose small earth being taken away*, a small portion of rough charcoal and half-decayed dry manure was added, which, being chiefly fibrous, allowed water to be given copiously, and admitted the roots freely to feed on the vegetable matter. There are but few kinds of plants that will not thrive in a most luxuriant manner treated in this way. As a finish in potting, a small portion of a fine mixture of soil on the surface gives neatness, as well as prevents too great an action of drought in drying weather.

I am, Sir, yours most obediently,

J. Yates, Esq.

FRANCIS WILLIAMSON.

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XX.—*Additions to the British species of Nudibranchiate Mollusca.* By JOSHUA ALDER and ALBANY HANCOCK\*.

SOME new forms of Nudibranchiate Mollusca have occurred to us during the last and part of the preceding years, of which we now purpose giving an account.

And first we would notice the interesting addition made to our fauna by the discovery of *Scyllæa pelagica* on the British shores. This well-known inhabitant of the deep was found by Mr. W. P.

\* Partly extracted from a paper read at the British Association Meeting at Oxford.

Cocks among a mass of sea-weed thrown up after a storm at the mouth of Falmouth harbour. Three specimens were obtained, one of which Mr. Cocks kindly sent to us in spirits. The dissection of this specimen has shown a peculiar modification of the digestive system which appears to have been overlooked by Cuvier, and the particulars of which will appear in the 4th part of our 'Monograph of the Nudibranchiate Mollusca.'

Another species of great interest and beauty is apparently new, and very nearly allied to our genus *Proctonotus*, but differs from it principally in a peculiar crest-like body uniting the dorsal tentacles. It probably belongs to the genus *Janus* of Veramy, so far as we can judge from the notice of that genus inserted in the Reports of Zoology lately published by the Ray Society; but whether or not this may be the case, which we have not the means of verifying at present, the name of *Janus* being pre-occupied in entomology, we propose now to describe it under the generic name of *Antiopa*, and to characterize it as follows:—

#### GENUS ANTIOPA.

*Body* ovate, rather depressed and tapering to a point posteriorly. *Tentacles* four: the dorsal pair linear, laminated, non-retractile, and united near their base, for a short way up, by a fleshy crest. *Head* anterior and inferior, without veil, but having two short cylindrical oral tentacles. *Jaws* corneous. *Branchiæ* papillose, elongated, clothing the sides of the back and extending round in front of the head. *Anus* posterior-dorsal, on the median line. The digestive system supplied with two lateral trunks which give off branches to the papillæ. Common aperture of the generative organs on the right side.

#### *Antiopa splendida.*

Body of a transparent buff or lemon colour, and rather elongated. Dorsal tentacles tapering and strongly laminated in an oblique direction; united below by an arched, semicircular laminated crest, which is placed longitudinally between them. Branchiæ very numerous, large and inflated, clothing the sides of the back and passing round the front of the head. When held erect they conceal nearly the whole of the body. They are ovate, very transparent, of a pale buff-colour, and have a narrow, linear, brown central vessel, which bifurcates at the top. The apex of each papilla is of a brilliant opaque bluish white with a metallic lustre, deepening into ultramarine blue below. They are set in about thirty transverse rows on each side uniting in front, each row containing about five papillæ; the inner ones large and inflated, those next the foot small. The back is blotched with metallic blue. Head subtriangular, the sides forming a kind of

hood, with two short oral tentacles. Foot lemon-yellow, transparent, rather broad and arched in front, with a notch in the centre and very obtuse angles at the sides. The sides are thin and undulated, tapering gradually to the tail, which is a little produced beyond the branchiæ. Length an inch and a quarter.

There is a very conspicuous aperture at the end of each papilla, which is opened and closed at intervals. When closed the papilla terminates in a point, but the apex has a rounded form when the aperture is opened. The gastric vessels are very visible through the skin, running along each side of the back and branching into the papillæ, giving that part a dendritic appearance.

The first specimen taken of this fine mollusk was dredged in Torbay by Dr. Battersby, and communicated to us through the kindness of Mrs. Griffiths. We afterwards dredged three or four in Fowey Harbour, Cornwall.

#### *Tritonia lineata.*

Body very slender, pellucid white, with an opaque white line along each side of the back, which is curved a little outwards opposite each branchial tuft. Veil produced into four long filaments; the two nearest the centre longest and tapering gradually to a point, the side ones shorter and obtuse. Tentacles pale yellow, the fasciculæ of filaments slender, and the sheaths rather tight. Branchiæ rather slender, bipinnate, transparent, with an opaque white line in the centre of each running into those on the back. Foot slender, rounded in front and terminating in a point behind. Length half an inch.

This beautiful new *Tritonia* was discovered under stones at Scarborough in September 1846, while we were exploring the rocks in company with Mr. Bean.

#### *Eolis Peachii.*

Body rather flat, yellowish white. Dorsal tentacles longish and smooth. Oral tentacles shorter. Head broad and rounded, angulated at the sides. Branchiæ very numerous and thickly set, passing round the dorsal tentacles so as nearly to unite in front, and terminating behind very near the tail. The papillæ are nearly linear, slender, with a brownish central vessel, and having the apices sprinkled with opaque white spots. Foot rather thin and broad, arched in front, with obtuse angles. Length three-quarters of an inch.

An adult specimen was dredged by Mr. Peach in Fowey Harbour, and we got two or three young ones from the same locality. More recently we have obtained a single individual at Cullercoats.

*Eolis exigua.*

Body slender, yellowish white with olive or pale brown markings. Dorsal tentacles linear, moderately long, with a ring of brown near the top: oral tentacles about one-third shorter and of the same colour. Branchiæ generally in a single series of five or six on each side, but in fine full-grown specimens there are two on each side in front or sometimes a cluster of three, the third being placed a little behind the others. There is also frequently an additional papilla united with some of the others behind. They are ovate, tapering abruptly to a point: there is a ring of olive or yellowish brown, sometimes reddish, at a short distance from the apex, and frequently two others, less perfect below, but generally these are only indicated by brown spots or streaks. The body is also blotched and spotted with brown, and there is frequently an interrupted line of that colour on each side. Foot rounded in front and nearly linear, with a slight margin of pale brown at the sides. Length  $1\frac{1}{2}$  to 2 lines.

This species was found in considerable abundance in Fowey Harbour on *Laminaria saccharina*. Mr. Cocks has also found it at Falmouth. It is allied to *Eolis despecta*, some specimens of which were found in company with it, but it is easily distinguished by not having the waved dorsal line of the latter species. It appears to be the *Tergipes lacinulatus* of Professor Lovèn, but we cannot concur in referring it to the *Limax tergipes* of Forskahl (*Doris lacinulatus*, Gmelin).

XXI.—*Note on the Occurrence of the Bonapartian Gull (Larus Bonapartii, Rich. and Swains.) for the first time in Europe.*  
By WM. THOMPSON, Esq., Pres. Nat. Hist. and Phil. Society of Belfast.

A SPECIMEN of this beautiful little species of Gull (first distinctly characterized in the 'Fauna Boreali Americana' of Richardson and Swainson in 1831), was killed at the tidal portion of the river Lagan, between Ormeau Bridge and the Botanic Garden, about a mile above the lowest bridge at the town of Belfast, on the 1st of February 1848. It was flying singly. The person who shot the bird, attracted by its pretty appearance merely, left it to be preserved with a taxidermist, who on receipt of any birds, either rare or unknown to him, kindly brings them for my inspection. I had thus most fortunately an opportunity of examining the bird previous to its being skinned, when all the following measurements, &c. were made. This was not however until the morning of the 5th of February, when the irides had faded so that the colour could not be accurately noted.



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