though rarely, obovate, very tender and delicate, easily torn, and sometimes perforated with a few roundish apertures, undulated, but not crisped. Frustules single or binate, scattered in the gelatinous substance of the frond without order, oblong, variable in breadth, with the extremities rounded; when fresh marked, according to Dr. Dickie, at the four angles with a round colourless spot. When dry the colouring matter contracts on either side and the pale spots are not visible. There is no trace of any striæ. The lateral view is very narrow, simply oblong, with the ends rounded. The colour of the plant when dry is a pale green. The frustules do not appear to be decidedly siliceous, but they have the prismatic form of really siliceous frustules. It appears to be quite a spring species. Every specimen had vanished by the end of the month.

Plate IX. fig. 1. *a*, *Dickieia ulvoides*, nat. size, in different stages of growth; *b*, frustules sketched when fresh by Dr. Dickie, highly magnified; *c*, a frustule observed when dry; *d*, lateral view of the same; *e*, a portion of the frond, less highly magnified, showing the simple and binate frustules.

XLII.—*Descriptions of* Pterochilus, *a new genus of Nudibranchiate Mollusca, and two new species of* Doris. By Joshua Alder and Albany Hancock, Esqrs.

Gen. Pterochilus.

Body oblong, nearly linear, tapering behind. *Head* anterior, terminal, having a flat expanded lobe on each side, forming a kind of veil above the mouth. *Jaws* corneous. *Tentacula* two, linear, dorsal, with the eyes behind them. *Branchiæ* papillary, elongated, arranged down the sides of the back. *Anus* on the right side behind the generative organs.

This genus is allied to *Eolis* and *Calliopæa*, but differs from both in having the head strongly lobed at the sides. It may also be distinguished from the former by having only two tentacula, and from the latter by the gastric system, which in *Calliopæa* has two longitudinal vessels down the back, while in *Pterochilus* there is only one, which is central and undulating. The jaws are triangular horny plates, capped at the anterior angles as in *Proctonotus*. The tongue is narrow, strap-shaped and denticulated. The auditory capsule has a single otolite.

P. pulcher.—*Body* nearly linear, pale flesh-coloured, spotted with opake white. *Head* furnished with a flat, rounded lobe on each side of the mouth, forming a kind of veil. *Tentacula* short, cylindrical, set much apart on the head. *Eyes* considerably behind them. *Branchiæ* five or six on each side of the back, in a single series, the first two nearly opposite each other; the rest

alternating, rather large, elliptical, bright orange-red, enveloped in transparent sheaths, spotted with opake white. The gastric vessel may be seen through the transparent skin of a pale orange colour, running in an undulating line down the back and sending off alternate branches to the papillæ. *Foot* linear, transparent, flesh-coloured, rounded in front and not produced at the sides. *Tail* rather short and blunt. Length $\frac{3}{10}$ths of an inch.

Found on a stone at low water mark on the west side of Rothesay Bay, Isle of Bute.

Doris flammea.—*Body* ovate, rounded at both ends, of a bright orange-scarlet; occasionally blotched with purple. *Cloak* covered with short, obtuse, spiculose tubercles, of unequal sizes, smallest towards the edge, which is thin and extending beyond the foot. *Dorsal tentacula* rather large, tapering, orange, with ten or eleven scarlet laminæ and imperfect intermediate ones; the orifices strongly tuberculated at the edges. *Branchiæ* composed of nine scarlet plumes, rather paler than the body, three or four times pinnate, retractile within a single cavity. *Head* small, the veil lobed and slightly produced at the sides. *Foot* deep scarlet, rounded behind. Under side of the cloak granulated and spotted with opake yellow. Length nearly an inch, breadth one half as much.

Dredged up on *Pecten opercularis* in shallow water, Rothesay Bay.

This species comes very near to *Doris tuberculata*, but has the tubercles and branchial plumes rather smaller, and is of a different colour. Of two specimens found, the largest was of a uniform scarlet; the other scarlet, with a few blotches of purple on the back, and a pale purple or lilac margin to the branchial plumes.

Doris mera.—*Body* white, rather broad and elevated on the back. *Cloak* covered with moderately sized, unequal, round tubercles; spiculose, the spiculæ radiating from their base. *Tentacula* without sheaths, pale yellow, much inclined backwards and thinly lamellated, with four or five broad plates and imperfect intermediate ones. *Branchiæ* of 13 tripinnate, colourless plumes, set closely round the vent and forming a beautiful cup, retractile within a common orifice. *Head* small, square, with the anterior angles a little produced. *Foot* transparent yellowish white, rather straight, not extending beyond the cloak behind, the front transversely slit and the upper part notched in the centre. Length $\frac{3}{8}$ths of an inch.

Found under a stone at low water mark, Cullercoats.

The nearest allies to this species are *D. aspera* and *D. repanda*, between which it holds an intermediate place, but is perfectly distinct from either of them. From *D. aspera* it differs in having the tubercles smaller and more numerous, and in the different form of the head, tentacula, and branchial plumes. On the con-

trary the tubercles are much larger than those of *D. repanda*, and it wants the row of opake spots down the sides of the cloak which distinguish that species. The branchial plumes are also more numerous and the tentacula differently formed.

XLIII.—*On the species of* Chalcidites *inhabiting the Arctic Region.*

By Francis Walker, Esq., F.L.S.

Having in a previous communication mentioned the *Chalcidites* of the North American region, I will now proceed to notice the species discovered within the Arctic Circle. Several of them also inhabit England, and among these, as may be supposed, are the *Chalcidites*, which with us live through the winter or appear early in the spring.

Eurytoma.

E. verticillata, *Fabr.*? = E. appendigaster *Swederus, Zetterstedt.*

Isosoma.

I. longulum, *Ent. Mag.* i. 14 = Eurytoma guttula, *Zett.*
I? (Eurytoma, *Zett.*) minuta, *Zett.*

Callimome.

C. Bedeguaris, *Linn.*?
C. viridissimus, *Zett.* = C. affinis, *Ent. Mag.* i. 133.
C. Tipulariarum, *Zett.*

Zetterstedt describes some other species as varieties of *C. viridissimus*, but remarks that they are probably distinct species.

C. chloromerus, *Ent. Mag.* i. 128. In the summer at Alten, Finmark.
C. minutus, *Ent. Mag.* i. 137. Alten.
C. posticus, *Ent. Mag.* i. 137. Hammerfest, Finmark.
Ormyrus punctiger, *Ent. Mag.* i. 140. Alten.

Euneura.

Genus novum *Corynæ* affinis. *Fem.* Corpus convexum, robustum, subcylindricum: antennæ 13-articulatæ, subclavatæ, thorace non longiores: parapsides scuto fere in unum confusæ: petiolus brevissimus: abdominis segmentum 2^{um} 1^{o} plus duplo brevius; 3^{um} 2^{o} duplo longius; 4^{um} 3^{o} paullo longius; 5^{um} 4^{o} paullo longius; 6^{um} et 7^{u} brevissima: ulna brevis, crassa, humeri triente non longior; radius ulna duplo longior; cubitus ulna longior.

Euneura Augarus, fem. *Viridis, antennis nigris, pedibus fulvis, femoribus viridibus, mesotarsis et metatarsis flavis, alis limpidis.* (Corp. long. lin. 1$\frac{1}{4}$; alar. lin. 2.)

Body convex, robust, dark green: head and thorax finely squameous: head a little broader than the thorax: eyes oval, prominent, of moderate size: ocelli near together on the vertex; the middle one