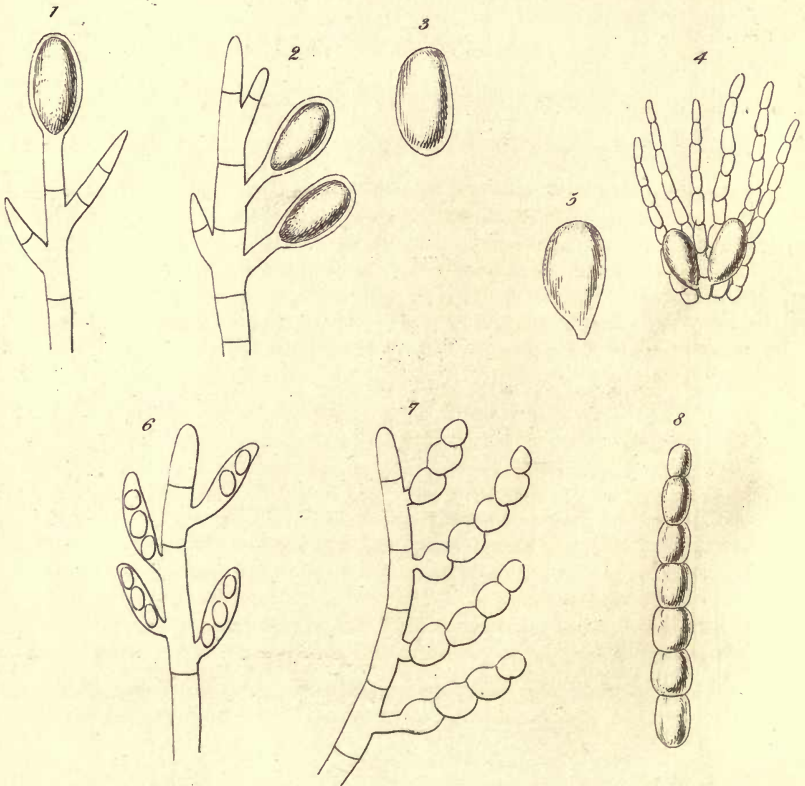


Rhododermis Drummondii.

W.H. Harvey del.



D. Dickie del.

Fructification of Marine Algae.

J.D.C. Sowerby sc.

Length of recent* ovum of *Scyllium Catulus*? 4 inches 6 lines; breadth 1 inch 9 lines; depth 3—4 lines; surface smooth or plaited transversely; sides very strong and closely plaited throughout; tendrils very strong. Colour a uniform brown, but differing in shade in different ova.

Belfast, May 1844.

WM. THOMPSON.

IX.—Description of a minute Alga from the coast of Ireland.

By WM. HENRY HARVEY, Esq.

[With a Plate.]

RHODODERMIS, HARV. MS.

GEN. CHAR.—*Frons* carnosomembranacea, expansa, crustacea, facie inferiore adhærens, e cellulis polygonis *sanguineis* minutis formata. *Fructus*? verrucæ pertusæ in frondem sparsæ.

R. Drummondii, Harv. MS.

Hab. At New Castle, co. Down, spreading over the rocky sides and bases of maritime caves, in places where it is covered by the sea at high water, but exposed, on the ebb of the tide, to the dripping or trickling of fresh water. *Dr. Drummond*, May 1840.

Frond spreading in wide, concentric, but not regularly circular patches of a dark blood or brick-red colour, when dry purplish lake, closely adhering to the rocks on which it grows, and to which it is attached by the whole of its lower surface; of a fleshy-membranous, very tenacious substance, glossy, about half a line in thickness in the centre, but becoming gradually thinner toward the margin, composed (as shown by the highest power of the microscope) of strata of minute polygonal cellules closely packed together, and filled with brilliant rosy endochrome. The surface appears marked with wavy interrupted lines, and more or less thickly furnished with wart-like dark-coloured tubercles, which are either scattered or grouped together in linear masses. These tubercles are hemispherical, prominent, of the same structure as the rest of the frond, deeply coloured at the margin, but in the centre colourless, and generally pierced by a hole which goes through the frond. It is doubtful whether they contain the fructification. *Dr. Drummond* was not able to discover sporules in any of them in the recent plant, nor have I been more fortunate with the dried specimen. In outward aspect they much resemble the fruit of *Grateloupia*, but a minute examination shows them to be invariably empty.

Though undoubtedly of marine origin, the presence of some fresh water in the absence of the tide seems favourable to the growth of this Alga, as *Dr. Drummond* observed the colour to

* The specimens have dwindled in drying to about one-half their original size.

be much more intense and brilliant in places where the fresh water dripped or trickled over the rocks than where they were comparatively dry. In the first of these the crust was of "a dark blood-colour," in the last "a brick-red." But among the former he observed some patches which were "a bright orange." This he attributed to a fuller state of fructification, but neglected to put up specimens. It may, however, be doubted whether this last colour did not originate in an excess of fresh water, which we know changes to orange the red of many *Florideæ*, as particularly observed in *Nitophyllum versicolor*.

Probably this production is common in similar situations on other of the British coasts, but, with numerous others of the crustaceous class of Algæ (a neglected group, which will repay in novelty an observer who has patience to look for them), has been hitherto unnoticed or passed by. Though our information respecting it is still imperfect, its characters are such as to exclude it from any established genus with which I am acquainted. The brilliant red colour and substance sever it from *Ralfsia*, Berk. (*Padina? deusta*, Hook.), which in habit it more nearly resembles than any other British plant; but this is a resemblance of habit alone, and therefore more one of analogy than affinity. With the Mediterranean *Peysonellia* it has, seemingly, more affinity, and it is in the neighbourhood of that genus that I propose, for the present at least, to place it.

W. H. H.

EXPLANATION OF PLATE II.

- Fig. 1. *Rhododermis Drummondii*, natural size.
 Fig. 2. Portion near the margin, magnified.
 Figs. 3 and 4. Different views of tubercles.
 Fig. 5. Portion of the surface highly magnified.

X.—*Researches on the Organization of the Invertebrate Animals of the Western Coast of France.* By M. DE QUATREFAGES.
 Communicated by ALFRED TULK, M.R.C.S.

THE admirable report of M. Milne Edwards upon this subject, to which want of space in a recent number of this Journal admitted only of briefly directing the attention of the reader, contains amongst others a most valuable series of observations by M. Quatrefages relative to the organization of certain Gasteropoda, which have hitherto been incorrectly associated with the genus *Doris* under the general title of Nudibranchiata, but which differ much, through the degradation of their internal structure, from all the ordinary Mollusca. As regards the general form of their body, the generative organs and the position of the central nervous ganglia, these animals resemble the other Gasteropoda,