A serious disadvantage of this substance is its lack of latitude as regards optimum concentration. It was found necessary to titrate the dextran against the chosen antiserum using OR_1R_2 and *Orr* erythrocytes as indicators, a concentration giving the strongest agglutinations of positive cells together with absence of rouleaux formation of the negative cells being thus arrived at. This difficulty has up to now precluded the routine use of this substance as a suspension medium for standard cells in the detection of anti-*Rh* antibodies, but further work is proceeding along these lines.

Since this report was prepared, a communication by Grubb[3] has come to hand demonstrating a similar effect.

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[2] Bull, J. P., Ricketts, C., Squire, J. R., Maycock, W. d'A., Spooner, S. J. L., Mollison, P. L., and Patterson, J. C. S., *Lancet*, i, 134 (1949).
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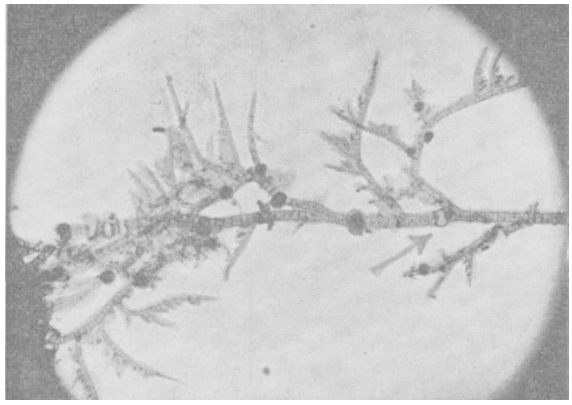
A Fungus in *Ectocarpus granulosus* C. Agardh near Plymouth

During April and May 1949, *Ectocarpus granulosus* C. Agardh growing at mean low-water spring tide at Saltstone, which is about 1½ miles up the River Sal, from Salcombe, was heavily infected with a parasitic fungus. The Saltstone habitat is a purely marine one and is sheltered in the river estuary. The *Ectocarpus* grows attached to small stones and to other algæ in the *Vaucheria*-community. By July most of the *Ectocarpus* plants had disappeared from the locality.

The fungus is identical with *Eurychasma Dicksonii* (Wright) Magnus, a member of the Saprolegniales, which was first described in 1879 by Prof. E. P. Wright[1] from Ireland and later in 1887 by John Rattray[2] from Scotland. No records seem to have been made of this parasite in England. According to Sparrow[3] the fungus has a wide distribution on the Atlantic coasts of Europe. It infects other species of *Ectocarpus* as well as certain other members of the Phæophyceæ.



Thallus of *Ectocarpus granulosus* C. Ag., infected with *Eurychasma Dicksonii* (Wright) Magnus. (The arrow shows a discharged sporangium of the fungus)

Observations made on living plants show the size of the mature sporangium of the fungus to be about 70 μ × 90 μ (slightly larger than given by Sparrow). Each sporangium opens by one, two or rarely three short discharge tubes. Zoospores either emerge directly from the sporangium and swarm with two unequal flagella which are subapically disposed, or encyst inside the sporangium. Zoospores have been studied both while alive and after fixing with osmic acid and staining with 0·5 per cent Aniline Blue. They are hyaline, more or less rounded or slightly pyriform; each zoospore measures 3 μ × 4 μ. The longer flagellum is about four times the diameter of the zoospore itself, and the shorter, two to three times. The stages through which the protoplasm of the fungus passes, inside the host cell, agree well with the original description of the species.

Examination of several algæ in the same locality indicates the presence of other parasitic fungi. Marine fungi have so far received but little attention in England, and the part they play in causing the death of animals and plants must not be overlooked.

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Plymouth. Aug. 24.

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[2] Rattray, John, *Trans. Roy. Soc. Edin.*, **32**, 589 (1887).
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Changes in the Response of Silkworm Eggs to Rotational Force during Cleavage

The eggs of the silkworm (*Bombyx mori*) have been used in several cases for studying the biological effects of rotational force (Kawaguchi[1], Tirelli[2]). But an interesting change in the response of silkworm eggs to centrifuging which occurs during the early cleavage stages escaped the notice of the authors. The change can be observed both morphologically in the process of pigment formation and physiologically in the rate of oxygen consumption of the eggs. Experiments which revealed the change were carried out in the Department of General Zoology, University of Budapest, in 1946 with eggs of the race Moretiana. The eggs were subjected for one hour to a centrifugal force of about 3,000 *g*, which caused a visible stratification of their contents. The treatment was applied either in (1) an 'early' stage, centrifuging starting two to three hours after the eggs were laid; or (2) a 'late' stage, treatment commencing fourteen to sixteen hours after oviposition. The temperature was approximately 26° C. throughout the experiments.

Eggs subjected to the treatment in the 'early' stage did not develop pigment at all, remaining bright yellow indefinitely, as at oviposition. In the eggs centrifuged in the 'late' stage, this suppression of pigment formation did not occur; they darkened simultaneously with the controls. The pigmentation in such 'late' centrifuged eggs is somewhat irregular. The pigment granules are not distributed evenly over the whole surface but are concentrated into patches. But neither their colour nor the time of their appearance differs in any way from the normal.

As regards oxygen consumption, there was a similar difference between eggs subjected to centrifuging in early and late stages respectively. In general, the oxygen consumption early after treatment was about 60–70 per cent of the normal; after late treatment it was about 80–90 per cent. As all experiments yielded practically identical results, only