

A PHYLLACHORELLA PARASITIC ON SARGASSUM

C. FERDINANDSEN AND Ö. WINGE

In March, 1914, Professor C. H. Ostenfeld collected a quantity of Sargassum in the Atlantic at a locality lying at $30^{\circ} 21' N.$ Lat., $45^{\circ} 20' W.$ Long. Two of the plants had conspicuous protuberances, which were scattered along the stems and partly on the bladders as well. These protuberances varied in size; being sometimes as large as the head of a pin and sometimes $\frac{1}{2}$ –1 cm. across, irregularly rounded and knobby (Fig. 1). The knobby surface of the tumors was due to perithecia-like loculi, sometimes placed close together in a continuous stroma, giving a black color to the tumor; sometimes more scattered, the stroma not being continuous but divided into several minor stromata containing only a single or but few loculi. In the latter case the pale tissue of the host was visible between the small partial stromata.

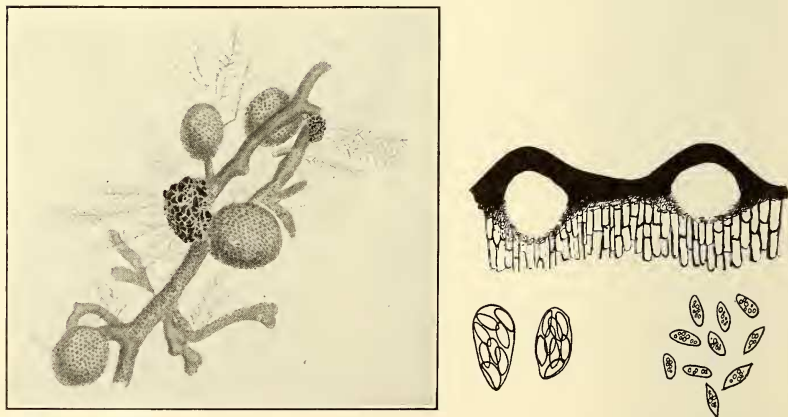


FIG. 1 (On the left). Showing the habit of the fungus, slightly magnified.
FIG. 2. Stroma with two loculi. $\times 15$. Asci and spores. $\times 160$.

A further investigation revealed the fact that the parasitic organism was a well-developed ascomycetous fungus, belonging

to the Dothideales. Its clypeus-like stromata refer it to the Phyllachoraceae¹ (Fig. 2). The curious substratum makes impossible a direct parallel between the position of this fungus in the tissue and that of the Phyllachoraceae, which are parasites on phanerogamous plants. However, we consider that it is correct to refer the fungus to the genus *Phyllachorella* Sydow.

The fungus was found present on two distinct species of *Sargassum*. The stromata of the fungus were usually overgrown with epiphytes. A diagnosis in Latin follows:

***Phyllachorella oceanica* Ferdinandsen & Winge, sp. nov.**

Stromatibus matrici tumefactae insidentibus, strato corticali innatis, nunc unilocularibus, punctiformibus, nunc crustas moriformi-tuberculatas, usque ad 1 cm. latas formantibus, atris. Loculis in tuberculo singulo stromatis pluribus immersis, fere globosis, 500–800 μ diam., supreme strato nigrefacto crasso, quod saepius inter loculos plus minusve prorepat eosque interdum cingit, tectis. Stratis subjacentibus matricis hyphis fungi intertextis. Ascis late ellipsoideis, plerumque 55–77 $\mu \times$ 24–32 μ , sessilibus; paraphysibus nullis. Sporibus octonis, distichis, aseptatis, hyalinis, multiguttulatis, plurimis 20–30 $\mu \times$ 10–13 μ , forma (? secundum aetatem) valde varia: saepius ellipsoideis utrinque late rotundatis vel truncatis, rarius fusiformibus, apicula recta subcurvatave predictis.

Species habitatione praedistincta, oceanica, caules nec non vesicas duarum specierum Sargassi, sub nominibus Sarg. II et Sarg. III descriptorum,² infestans, Lat. 33° 21' N. Long., 45° 20' W. mense Martio, 1914, a cl. C. H. Ostenfeld lecta.—Stromata saepe *Aglaophenia latecarinata* et *Membranipora tuberculata* obsessa.

COPENHAGEN, DENMARK.

¹ F. Theissen and H. Sydow. Die Dothideales, Berlin, 1915.

² In O. Winge: The Sargasso Sea, its boundaries and vegetation. [Report on the "Thor" Expeditions, 1908–10, in the Mediterranean and adjacent seas, 1920.]