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Some Marine Fungi on Algae in European Herbaria

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Some Marine Fungi on Algae in European Herbaria

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SUMMARY

The following species are recorded from herbarium specimens of marine algae:—Haloguignardia tumefaciens (Cribb & Herbert) A. B. & J. W. Cribb in Sargassum spp. from Australia and New Zealand, Haloguignardia decidua A. B. & J. W. Cribb in Sargassum daemelii Grun. from Queensland, Mycophycophila gymnogongri (Feldmann) A. B. & J. W. Cribb in Gymnogongrus norvegicus (Gunn.) J. Ag. from the Atlantic Ocean and in Galaxaura sp. from New South Wales

INTRODUCTION

One of the authors (A.B.C.) has recently had the opportunity of examining marine algal specimens in European herbaria, and in so doing has noted the presence of a number of parasitic marine fungi, knowledge of which extends either the geographical or host range of three previously described species.

The herbarium abbreviations used are as follows:-

LD, Botanical Museum and Herbarium, University of Lund, Sweden;

L, Rijksherbarium, Leiden, Netherlands.

Haloguignardia tumefaciens (Cribb & Herbert) A. B. & J. W. Cribb

A. B. & J. W. Cribb 1956, p. 98.

On Sargassum fallax Sond. Port Elliott, South Australia, Miss Hussey (LD, Herb. Agardhiorum No. 2066).

The galls are located mainly on the finer branches. Ascospores are, in general, a little smaller than in the type specimen, being mostly 35-40 μ long, those of the type being 42-45.5 μ . However, in other respects the specimens are in good agreement with the type.

On Sargassum globulariaefolium J. Ag. Coffs Harbour, New South Wales, H. Reick. (LD, Herb. Agardhiorum, No. 2095).

Copious gall material occurs on leaf and stem, on the latter sometimes more or less enveloping it for distances of up to $\bf 3$ cm.

On Sargassum sinclairii Hook. & Harv. West Coast of New Zealand. (L, a specimen of Algae Muellerianae).

The gall on the short terete basal stipe of the plant contains spores in good agreement with those of the type specimen, except that they show a greater range of size and proportion, being mostly $30\text{-}50 \times 14\text{-}18~\mu$.

On Sargassum decipiens (R. Br. ex Turn.) J. Ag. Pennington Bay, Kangaroo Island, South Australia, H.B.S. Womersley (KI. 1864h) (L).

The spores are mostly $50-56 \times 10-21~\mu$, being thus rather larger than those of the type specimen. However, the species appears to show considerable variation in spore size, and this South Australian specimen can probably be assigned to it.

Haloguignardia decidua A. B. & J. W. Cribb

A. B. & J. W. Cribb 1956, p. 97, pl. 1, fig. 1.

On Sargassum daemelii Grunow. Rockhampton, Queensland, A. Daemel. (L)

Two small galls were found, one on leaf and one on stem. Hyaline spore apices were not apparent, but this is not surprising since the apices in *Haloguignardia decidua* are very early deciduous. In spore size and shape and in pigmentation of the perithecia the specimen agrees well with the type specimen.

Mycophycophila gymnogongri (Feldmann) A. B. & J. W. Cribb

A. B. & J. W. Cribb 1960, p. 43.

On Gymnogongrus norvegicus (Gunn.) J. Ag. Atlantic Ocean. (L, No. 941, 95....360).

On Galaxaura sp. Clarence Heads, New South Wales. (LD, Herb. Agardhiorum No. 32530).

The brown-black, almost globose, perithecia to 360 μ diam., are embedded in the host with only the short black papillate ostiole reaching to the surface. The spores are similar to those of other Australian specimens of Mycophycophila but differ in their greater size, being mostly $22\text{-}28 \times 7\text{-}11~\mu$, while those of the other specimens we have seen are mostly $14\text{-}21~\times~3.5\text{-}6~\mu$. Further collections may show that taxonomic distinction is warranted for this plant, but spore size in some marine fungi is known to vary considerably, and at present it seems wiser to include the specimen under M. gymnogongri.

References

CRIBB, A. B. & J. W. (1956). Marine Fungi from Queensland—II. *Pap. Univ. Qd. Dept. Bot.*, **3** (12): 97-105.

(1960). Marine fungi from Queensland—III. *Ibid.*, **4** (3): 37-42.