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RECORDS OF TRENTEPOHLIEAE FROM PAPUA I.

A. B. CRIBB

SUMMARY

The following species of *Trentepohlia* are newly recorded from Papua: *T. aurea* (L.) Martius, *T. arborum* (C.Ag.) Hariot, *T. cucullata* de Wild., *T. treubiana* de Wild., *T. odorata* (Wigg.) Wittr., *T. effusa* (Kremp.) Hariot, *T. diffusa* de Wild..

During December 1955 and January 1956 the author collected specimens of the algal group *Trentepohlieae* from the Territory of Papua at Aird Hill in the delta of the Kikori River, and at Ubuia and Normanby Islands in the D'Entrecasteaux group. The collections were made at heights not over 500 ft. above sea level, and it may be expected that collections from considerably higher altitudes will increase the number of species known from the Territory. Two species, *T. ellipsiocarpa* Schmidle and *T. minima* Schmidle are previously recorded for the island of which the Territory of Papua forms a part.

Trentepohlia aurea (L.) Martius

Cribb, 1958, p. 194, pl. 1, fig. 8-10.

Two collections from Ubuia agree well with Queensland plants assigned to this species. A third specimen, from Aird Hill, differs in having filaments generally a little broader, to 30 μ diam., and the cells generally proportionally a little shorter, 1½-3 diam. long. It lacks the somewhat silken sheen of the other specimens referred to *T. aurea*, and differs further in having terminal pedicellate sporangia. Nevertheless, it seems best placed in *T. aurea* which is known to be a very polymorphic species with numerous varieties and forms.

Hab.: On rocks in shaded position, Ubuia; on tree trunk in light rainforest, Aird Hill.

Trentepohlia bossei de Wildeman

Cribb, 1958, p. 194, pl. 1, fig. 1-7.

The material agrees well with specimens from Queensland and shows the peculiar branching from the supporting cell of a sporangium which apparently characterises this species.

Hab.: On tree trunks and rocks mainly in light rainforest and in coconut plantation, Aird Hill, Ubuia, Normanby Is.

Trentepohlia arborum (C.Ag.) Hariot

Hariot 1889, p. 383, fig. 8-9; 1890, p. 193. Printz 1939, p. 151, pl. 6, fig. A-H.

This species is readily recognised by the usual grouping of several pedicellate sporangia on the swollen terminal cell of the tapering filament.

Hab.: On tree trunks, and forming wefts of filaments to 1 cm. long on the leaf margins of several rainforest flowering plants and ferns, Aird Hill.

Trentepohlia cucullata de Wildeman Fig. 1.

Printz 1939, p. 149, pl. 4, fig. B-D.

In cell size and proportions this species resembles *T. bossei*, but is readily distinguished by the characteristic smooth, brown, hemispherical caps on apical cells and sporangia.

Hab.: On tree trunk in light rainforest, Aird Hill.

Trentepohlia treubiana de Wildeman Fig. 2-6.

Printz 1939, p. 148, pl. 2, fig. B-F.

This small species with usually non-tapering filaments 5-10 μ in diam., possesses both terminal and intercalary sporangia, the latter occurring singly or in short series.

Hab.: On tree trunk in light rainforest, Aird Hill.

Trentepohlia odorata (Wiggers) Wittrock

Cribb 1958, p. 194, pl. 2, fig. 1-9.

Hab.: Forming an orange-red pulverulent stratum on a hardwood fence, Aird Hill.

Trentepohlia effusa (Kremp.) Hariot

Cribb, 1958, p. 196, pl. 4, fig. 1-6.

Hab.: On tree trunks and on leaves, particularly on the hairs of a fern frond, in rainforest, Aird Hill.

Trentepohlia diffusa de Wildeman Fig. 7-8.

De Wildeman 1888, p. 182; Hariot 1890, p. 51, fig. 19; 1890, p. 196; Printz 1939, p. 166, pl. 14, fig. G-J.

This very distinctive species has a prostrate axis of which each cell frequently gives rise on the dorsal surface to a simple, erect, tapering branch, and on each lateral face to a short prostrate basically 3-partite branch system; the prostrate system thus possesses a distinctly pinnate appearance. An erect branch may also arise in many cases from the basal cell of each 3-partite branch system.

The prostrate systems may be widely scattered or closely associated so that a low felty colony up to 2 cm. diam. may be formed on the surface of the leaf. Length of the erect filaments varies considerably between different collections, being 300-2000 μ long.

Hab.: On tree trunk or more usually on leaves, in light rainforest, sometimes on *Rhizophora* leaves submerged during spring tides, Aird Hill.

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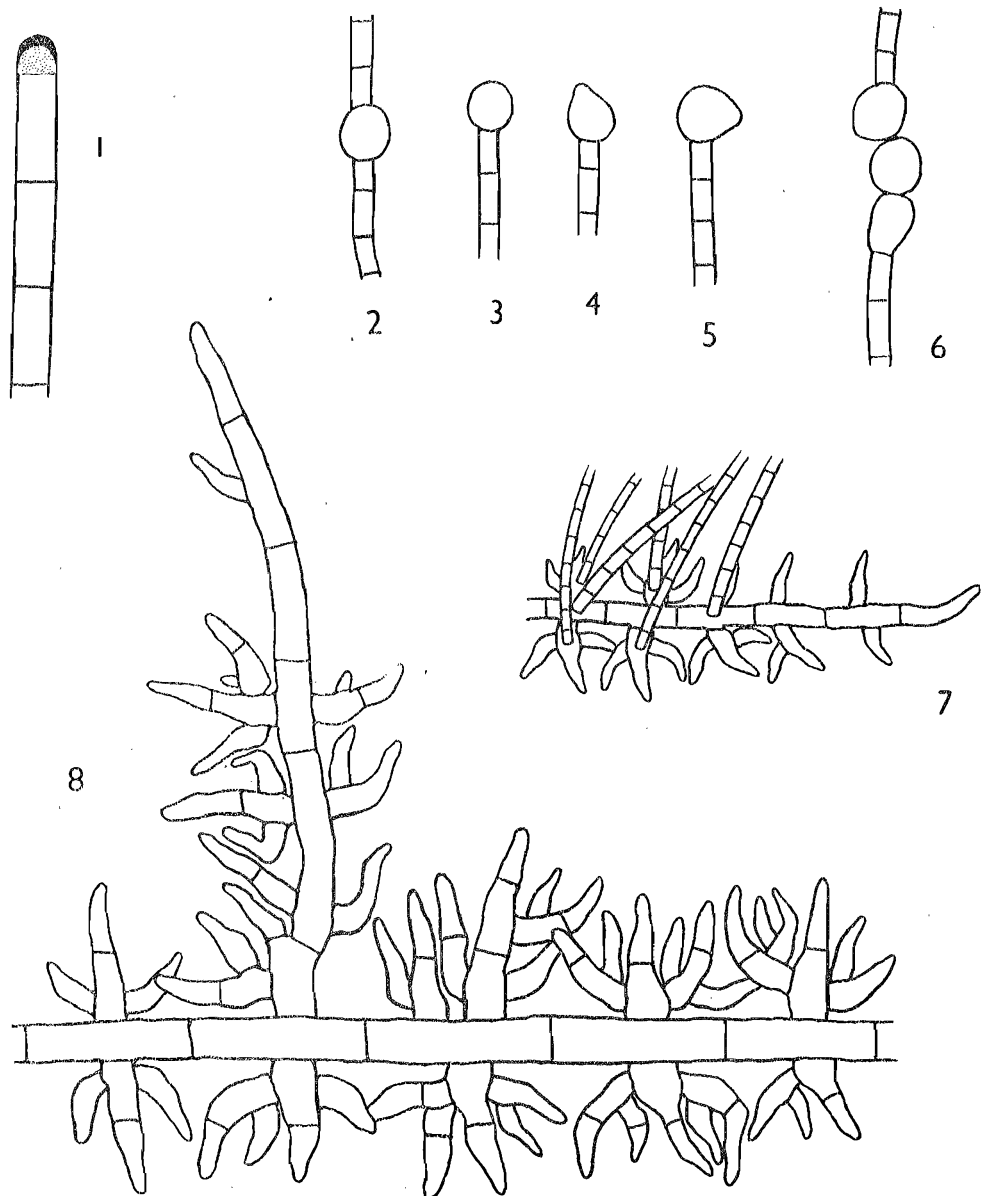


Fig. 1: *Trentepohlia cucullata*, x 480.

Fig. 2-6: *Trentepohlia treubiana*, with sporangia, x 480.

Fig. 7-8: *Trentepohlia diffusa*, x 480. Fig. 8, seen from below.