SUPPLEMENTARY DESCRIPTIONS FOR TWO VICTORIAN DESERT LICHENS

by

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Parmelia semiviridis (F. Muell. ex Nyl.) P. Bibby.

Writing in Muelleria Vol. I. No. 1 (page 60) the late P. N. S. Bibby described this species and remarked "ascus and spores wanting". Since Mr. Bibby's contribution, good fruiting material was collected by the present author at Rocket Lake, in the Sunset country of north-western Victoria, and a description of the apothecia is as follows:

Apothecia sessile constricted at the base, up to 2 mm. diam., deeply concave at first, becoming plane; Disk light brown to reddish-brown; Margin elevated, crenulate, concolourous with the thallus; Calyx very pronounced of vertical hyphae, 80–100 μ tall; Hypothecium up to 80 μ thick in the centre; Hymenium 55–60 μ tall; Paraphyses simple or branched, 4 μ diam.; Asci 40–45 x 10–12 μ; Ascospores 10 x 5 μ.

Colour reactions: K—, C—, KC—, P+ yellow becoming orange.

For distributional details see Bibby page 60.

Parmelia semiviridis, as usually found, is dry and rolled into small balls with the undersurface outermost (see plate XI, fig. b.). When dampened, it soon flattens out resembling fig. a.

Parmelia amphixantha Müll. Arg.

Fruiting specimens of this dry-country lichen were recently discovered in the Hattah Lakes District of north-western Victoria. As far as known, this is the first occasion on which this widespread

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lichen has been found in fruit. Dr. J. Müller of Argau, Switzerland described the species in ‘Lichenologische Beiträge No. 28’ from specimens collected near Lake Albacutya, Victoria, by Charles French. Dr. Müller’s type description, reprinted from Flora 71: 139, is as follows:


This description can now be supplemented as follows:


Thallus foliose forming rosettes on earth, up to 5 cm. diam. Lobes dichotomously branched 1-0-2-0 (-3-0) mm. wide. Upper surface convex, matt, smooth or minutely rugulose with occasional cracks on the older lobes, isidia and soredia absent, reed-green (M&P) tips of the lobes brownish. Undersurface grading from reed-green to dark-brown, sparsely rhizinate, rhizines brown-dark to black, dull, simple or dichotomously branching. Upper Cortex 12-16 µ thick. Algal layer discontinuous, cells 8-12 µ diam. Medulla white, compactly woven of hyphae 5 µ diam. Lower Cortex 20 µ thick, Rhizines 80 µ diam.

Apothecia very rare, sessile on the upper surface of the thallus, constricted at the base, 1-2 mm. diam. Disk concave, undulate, Andorra (M&P) Margin prominent, crenulate, concolorous with the thallus. Calyx up to 40 µ thick. Hypothecium 40 µ thick. Hymenium 50-55 µ high. Paraphyses dichotomously branched, expanded at the apices. Epithecium light brownish. Asci 10-18 x 35-40 µ, 8-spored, an occasional anomalous ascus with up to 12 spores. Ascospores poorly developed, ellipsoid, hyaline, about 6 x 10 µ.
Colour reactions: K—, C—, KC—, P+ yellow-orange, becoming red-orange.

**VICTORIA—**

Castlemaine, F. Robbins 2-1943 (MEL 6300); Kulkyne National Forest, R. V. Smith 26-9-1949 (MEL 10167); Gunbower Island, Murray River, Rex Filson (6433) 14-6-1964 (MEL 10387); Hattah Lakes, Rex Filson (7326) 14-6-1965 (MEL 10166).

NEW SOUTH WALES—

Nine miles south of Armidale, J. E. Begg 14-1-1952 (MEL 6212); Echuca to Deniliquin road, 9 miles north of Moama, Rex Filson (5403) 12-10-1963 (MEL 10177); Parkes to Orange road, 16 miles east of Parkes, Rex Filson (5406) 10-10-1963 (MEL 10176).

SOUTH AUSTRALIA—

Camp 7, west of Moolapinna Hill R. Helms (61) 23-6-1891 (MEL 6218); Ivy Cave, Nullarbor region, D. S. Kemsley 8-1-1952 (MEL 10180); 11 miles east of Koonalda H.S. J. H. Willis 18-10-1961 (MEL 10178); Yudnapinna R. W. Rogers (19) 11-2-1965 (MEL 10386).

WESTERN AUSTRALIA—

Camp 62 on the Ponton River, R. Helms (64) 27-9-1891 (MEL 6217); Fraser Range, R. Helms (3,44) 10-1891 (MEL 6211, 6214, 6216); Karolin, R. Helms (54) Dec. 1891 (MEL 6219); Banda road north-west of Kalgoorlie, L. Smith 23-9-1951 (MEL 10179).

**Parmelia amphixantha** differs from *P. semiviridis* macroscopically in having black rhizinae on the undersurface and in the fact that it does not roll into small balls when dry. *P. semiviridis* is much more robust in outward appearance and not as finely divided as *P. amphixantha* which is illustrated on plate XII.

The author wishes to thank Mr. J. H. Willis, of the National Herbarium Melbourne, for translating into Latin a description of the apothecia of *Parmelia amphixantha*. 

**Distribution:**

![Southern portion of Australia map](image-url)
BIBLIOGRAPHY

Müller, J., 1888—Flora 71: 139.
Müller, J., 1892—Hedwigia 31: 193.

Explanation of Plate XI

*Parmelia semiviridis* (F. Muell. ex Nyl.) P. Bibby.

a. Portion of thallus in the flattened (dampened) state.
b. Portion of thallus in the rolled up (dry) state.
c. Portion of thallus showing apothecia.
d. Enlargement of apothecia.
e. Section through apothecium.
f. Enlarged section through apothecium.
g. Development of ascus.
h. Enlarged section through thallus.
i. Portion of older part of thallus showing lobules.

Explanation of Plate XII

*Parmelia amphixantha* Mull. Arg.

a. Thallus growing on surface of desert sand.
b. Enlargement of portion of thallus.
c. Showing the undersurface and rhizines.
d. Enlargement of rhizines.
e. Enlargement of apothecia.
f. Section through apothecium and thallus.
g. Enlarged section showing upper part of apothecium.
h. Development of ascus (top right showing an anomalous ascus, top left a partly empty ascus with two mature spores).
i. Paraphyses.
j. Enlarged section through upper and lower part of thallus.

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