

LICHENS FROM KAW TAO, AN ISLAND IN THE GULF OF SIAM.

BY ROBERT PAULSON, F. L. S.

A collection of lichens from the above locality, consists largely of crustaceous specimens on the bark of small trees of evergreen forest.

The cortex of these trees is so covered by them, that practically none of it is visible; still, the outline of each thallus is, as a rule, well defined by a broad dark-brown or black hypothallus.

A few crustaceous plants are upon small portions of a block of granite and there are three large foliaceous specimens, two of *Parmelia* and one of *Ramalina* either on small branches of a tree or from the ground.

[*Note.* The numbers are my field numbers, each number represents a single collection, often carrying several species of lichens. *A. Kerr*].

Anthracothecium pyrenuloides (Mnt.) Mull.

Arg. On bark, 54.

Anthrothelium spectabile (F. W.) Mass. On bark, 36.*Bacidia umbrina* var. *turgida* Th. Fr.

On granite, 31.

Bacidia atosanguinea Th. Fr. On bark, 39.*Phyllopsora viridis* n. sp. Pauls On rock, 29.*Caloplaca aequata* Ach. On rock.*Caloplaca aurantiaca* (Lghtf.) Th. Fr. On bark.*Caloplaca pyracea* (Ach.) Th. On granite, 31.*Coccocarpia molybdaea* Pers. On moss.*Coccocarpia smaragdina* Pers. On moss.*Graphis albonitens* Mull. Arg. On bark, 52.*Lecanora subfusca* Ach. var. On bark, 46.*Leptogium chloromelum* Mull. Arg. On bark, 50.*Leptogium tremelloides* S. F. Gray On bark, 50.*Leptotrema phoesporum* Mull. Arg. On bark, 36.*Opegrapha prosodea* Ach. On bark, 54.*Parmelia australensis* Cromb. On rock, 38.*Parmelia tinctorum* Despr. On rock, 37.*Pertusaria* sp., apothecia without spores On bark, 54.

<i>Phaeographina chrysentera</i> (Mnt.)	
Mull. Arg.	On bark, 40.
<i>Phlyctella neo-zelandica</i> (Mnt.)	
Mull. Arg.	On bark, 52 & 54.
<i>Physcia setosa</i> Ach.	On rock, 29.
<i>Physcia picta</i> S. W. Nyl.	On bark, 47.
<i>Physcia solediosa</i> Lynge.	On bark, 29 & 50
<i>Pyrenula nitida</i> Ach.	On bark, 52
<i>Pyrenula velatior</i> Mull. Arg.	On bark, 52.
<i>Ramalina farinacea</i> Ach.	On bark, 37 & 38.
<i>Roccella phycopsis</i> Ach.	On rock, 40.
<i>Trypethelium eluteriae</i> Sprgl.	On bark, 45.
<i>Dictyonema sericeum</i> Hariot.	On bark, 36.

I. *Parmelia australiensis** Crombie, is a member of the Hypogymnia.

It is known from three localities only. It was named by Crombie as one of the specimens of Robert Brown's Australian collection. It came to the Kew herbarium from the Koonamore Vegetation Reserve, January 1928, and was included in the collection of lichens from the Gulf of Siam enumerated above, received at Kew, 1929. Det. in the last two cases R. Paulson.

This lichen grows to a considerable size; it is represented in this collection by a specimen that measures ten by six inches. It is distinguished by the markedly revolute, almost cylindrical, ascending lobes, that are crowded upon the upper surface, and are approximately two inches in length. Apothecia not seen.

The texture of the thallus is tough to leathery and at the same time more or less elastic, when wet. After having been soaked in water for an hour or more it will, on being taken out of the liquid, and reversed upon a dry surface, rise up upon its lobes, and then requires a small amount of pressure to flatten it. After this it continues to exhibit elasticity until it is nearly dry again. It does not become brittle even when desiccate. The entire upper surface is

* See Journ. Bot., 1930 p. 129, where the author makes the Kaw Tao specimen a variety.—*Parmelia australiensis* var. *crinita*.—as it differs from the other two gatherings in having the lobes of its branches ciliate.

covered with spermagones, which are also thickly spread along the margins and extreme ends of the lobes.

II. *Phyllopsora viridis* n. sp. Thallus minutely squamulose-crustose, bright green; squamules crenulate to coralloid, subimbricate; Under surface with loose, white, arachnoid hyphae, later, reddish to dark brown. Apothecia very minute (.1-·3mm.) flesh coloured, then darker, subglobose, margin entirely disappearing. Paraphyses subclavate, rigid, closely coherent, epithecium colourless, hypothecium pale yellowish, hymenial gelatine pale blue—sordid wine red.

Habitat on rock, granite

This lichen is allied to *Phyllopsora parviflora* Pers.

L. (*Biatora*) *Fendleri* Tuckerm.

It differs mainly in the texture and colour of the thallus, size of apothecium, shape and size of spores.

Thallus squamulosus, adpressus, laete viridis, Squamulis digitato-crenatis, imbricatis; subtus albo-tomentosus. Apothecia minutissima (.1-·3mm.) adnata, subglobosa, leviter marginata, demum immarginata, pallida carneo-luteola; hypothecium pallido-luteolum. Sporae oblongae, minutae (8-10 x 2-3·5). Paraphyses subclavates, rigeones, cohaerentes. Hymenium alta (30 micron) iodo leviter caeruleseit dein subvinoso-rubente decoloratur.

