

TRANSACTIONS
OF THE
ROYAL SOCIETY OF NEW ZEALAND

BIOLOGICAL SCIENCES

VOL. 11

No. 19

MAY 8, 1970.

The Lichen Flora of the Dunedin Botanical Subdistrict

By WILLIAM MARTIN

[Received by the Editor, 2 September 1968.]

THOUGH hitherto the environs of Dunedin have always supported a copious lichen flora, this has continuously been subject to attrition as a result of fires, cultivation and settlement. The following is a census of lichens known to be present or to have been present in the Dunedin Subdistrict of the South Otago Botanical District.

The first to study the lichens of this area was John Buchanan, who was one of the first settlers to take up residence in Otago, and his collections are to be seen in the herbarium of the Otago University. In 1861-62 Dr W. Lauder Lindsay, a Scottish cryptogamist, during three months' residence, compiled a list of 126 lichens almost wholly from the area under review. This list was published in 1868.

No further systematic collecting was done for nearly 60 years, when Dr and Mrs Einer Du Rietz from Stockholm spent a short time studying and collecting the local lichens. However, the most intensive study of the area yet undertaken was that conducted by J. Scott Thomson between the years 1930 and 1940. His field books list over 1,600 separate gatherings from the environs of Dunedin. Numerous specimens were forwarded to Zahlbruckner, Motyka, Santesson, and other overseas specialists for determination, and these formed the main basis for Zahlbruckner's "*Lichenes Novae Zelandiae*" (1942). No fewer than 50 of Thomson's local gatherings proved to be "species novae".

Notwithstanding Thomson's concentrated study, a surprisingly large number of previously unreported lichen species were discovered in the area during the following quarter century, mainly by Dr James Murray, Mr Peter James of the Botany Department of the British Museum, Dr G. Llano of U.S.A., the writer, and others; and, when the difficulty of cataloguing all the lichens of even a small area is recalled, it seems probable that still further species remain to be discovered, more especially in the crustaceous group. The number at present known well exceeds 400 species with over 100 taxa of infra-specific rank, or close on one-third of the known New Zealand lichen flora.

With each species catalogued below, the habitat and one or more known localities are appended. In a small number of cases only the genus is known, this being the position especially in the *Graphidaceae* where numerous gatherings await determination. Specimens of all species may be seen either in local or overseas herbaria.

Published by the Royal Society of New Zealand, c/o Victoria University of Wellington, P.O. Box 196, Wellington.

Trans. R. Soc. N.Z., Biol. Sci., Vol. 11, No. 19, pp. 243-255.