

Book review

Flora of New Zealand, Freshwater Algae, Chlorophyta, Desmids with ecological comments on their habitats, Volume I, by Hannah Croasdale & Elizabeth A. Flint, Government Printer, Wellington. Price \$49.95.

It was in Journal 18, 1984 that Dr Flint's article 'Desmids. hat are they?' was published as a preparation for the shortly to appear first volume of the Desmid Flora, and it was only as this Journal was due to be sent to the printers that we received a copy.

The Desmid Flora is of larger format than the four previous Flora volumes. This was a format that fitted the specifications of the authors in their efforts to have a volume that was easy to use when working with a microscope and one is really necessary when identifying desmids, whose vital dimensions come in micrometres (millionths of a metre). The volume certainly meets the above specifications and the authors are to be congratulated on their efforts. It opened flat and with only the slightest of pressures the pages stayed in position. The 'keys to the species' in each genera, with the exception of Closterium, of four pages, and Euastrum, three, are on one page and would be easy to read when glancing up from a microscope. The plates with their beautiful, clear line drawings have legends on adjacent pages in each case. It would be a delight to use.

The provision of bar scales beside each figure might have been a useful addition for some users, but the actual dimensions of each taxa are given in the text. A more serious complaint is addressed to the Printer. Could not a more opaque paper have been used to prevent the reverse image from figures or text showing through, at least in the case of the plates.

There is included: a short history of desmidiology; a useful account of the structure of a desmid cell and its reproduction with text figures; a list of 153 stations where desmids have been collected, their map coordinates are given, and most of them are plotted on maps of the North and South Islands; seven tables group the stations under headings such as mires, lakes in regions, and give physical characteristics with references as to where the information was obtained; a glossary with some splendid words as dystrophic, tycho planktonic, monomitic, and scrobiculae; over 400 references to the literature where the name Růžička, catches the eye with its apparent monopoly of superscripts (it would be good to know what they all mean, even the dot over the 'i'); and a comprehensive index of taxa and including technical terms.

The keys have been kept simple with in the main only one character to decide on when determining which line of the key fits. Again, the description given for each taxon seems to have been kept to a minimum and only features useful diagnostically are given.

We look forward eagerly to seeing the next two volumes on Desmids and, indeed all volumes of the flora that are in hand or contemplated, and hope that the present mercenary climate that seems to enshroud government departments does not hinder their production.

A complete flora of New Zealand is necessary for the proper appreciation and management of our land and water resources. Ed.