AN HISTORICAL VIEW OF THE LARGER FUNGI

Barbara Segedin

A number of mycologists have worked on the larger fungi in and about the Auckland area so I would like to use this occasion to describe the contributions they made to the discovery of a mycological flora in this country. To orient you I shall start with a picture of a fungus that you all know - Amanita muscaria, the fly agaric, actually a latecomer, probably introduced with pines and not mentioned in the literature until 1937.

Colenso was the first real collector and one is still amazed how he managed to collect, write notes, dry and send so many specimens to Kew to the Rev. Berkeley for identification in those days of slow and primitive transport. Amanita phalloides, for example, was recorded for the first time for New Zealand by Colenso "in woods" in Hooker's Flora of New Zealand, 1855. Actually its identification remains a little uncertain because this fungus today has a very limited distribution in city parks, growing only in association with oak trees. Berkeley and others in Europe tended to give European names to many fungi which will probably turn out to be local species. They did recognize new species as well, e.g. Hypholoma acutum M.C. Cooke, Pleurotus cocciformis Berkeley, now Chaetocalathus cocciformis, always on puriri, Hygrophorus cyaneus Berkeley, later called Entoloma hochstetteri by Stevenson and now called E. virescens, described first from Bonin Is., Japan, by Berkeley and Curtis, Flammula (now Hypholoma) brunnea Massee, all described in the last century.

Then there was virtual silence as regards the larger fungi until the work of G.H. Cunningham at Plant Diseases Division, DSIR, resulting in the publication of 'Gasteromycetes of Australia and New Zealand' in 1942. Some Cunningham species among the puffballs and their allies are Gautiera novae-zelandiae (a subterranean mycorrhizal fungus), Secotium (Thaxterogaster) porphyreum (under beech) and S. (Weraroa) novae-zelandiae. Two other secotiums, S. (Clavogaster) virescens Massee and Cooke and S. (Clavogaster) erythrocephalum Tulasne, collected by Raoul from the ship L'Aube in Banks Peninsula, were recorded very much earlier.

Cunningham's greatest contribution was made in his work on the polypores and thelephores - the bracket and crust fungi. His many papers and unpublished material were collected together after his death into 2 volumes by Joan Dingley with tremendous effort and skill. These are 'Thelephoraceae of Australia and New Zealand' and 'Polyporaceae of New Zealand'. More than 90 new species of thelephores are described, such as Stereum fasciatum, a cosmopolitan species, first collected by Hooker, and Lachnella totara. Among the polypores Cunningham described fewer species (25) but his thorough investigation of the internal structure of their fruiting bodies threw new light on their taxonomy which has had world-wide recognition. Examples of Cunningham species are Flaviporus aroha and Tyromyces falcatus.

The next major work was by Greta Stevenson, from Victoria University of Wellington, who in the 60s made the first in depth study of the gilled fungi (Agaricales). She published a series of papers in the Kew Bulletin, well illustrated with her own paintings, describing many new

species and forming a solid base for subsequent work. Some of her species have been recombined or synonymised by Egon Horak, from Switzerland, who has spent some time collecting in New Zealand and is preparing an agaric flora of this country. Some Stevenson species are Tylopilus formosus, Hygrophorus salmonipes, H. (Gliophorus) chromolimoneus, H. (G.) viridis, Mycena (Galactopus) parsonsii, Mycena mariae (named after Marie Taylor), made a synonym of M. morris-jonesii by Horak but which I hope to resurrect one day), Entoloma haastii, Marasmius curranii, Crinipellis procera, Armillaria novae-zelandiae, A. limonea and Agrocybe parasitica.

The next contributor to the field of the larger fungi was Ross McNabb, from Plant Diseases Division, whose first interest was in the jelly fungi, of which he published many new species and records for New Zealand. These were followed by studies in several agaric genera, e.g. Cantharellus, Laccaria, Lactarius and Russula (which was published postumously after his untimely death in 1972) and also Boletus and allied genera. Examples of his species are Cantharellus wellingtonensis, Russula acrolamellata, R. griseoviridis, Porphyrellus viscidus, Suillus subacerbus. I am indebted for some of the photographs shown here to the late Mr R. Lediard, who was president of the Auckland Botanical Society for a number of years. His fine collection of photographs of the larger fungi is housed in the Botany Department of the University of Auckland.

One influenced by Greta Stevenson to take up a study of the larger fungi was Marie Taylor of Auckland University. I have included one or two photographs here to remind you of her elegant paintings, some of which are shown in the poster display. She has published a selection of these in two books, 'Mushrooms and Toadstools in New Zealand' and the Mobil Nature Series 'Mushrooms and Toadstools', bringing the fungi within reach of the amateur collector.

Finally I would like to show you pictures of two fungi with local Botanical Society connotations: Gomphus dingleyi, to record Joan Dingley's great contribution to our knowledge of all groups of fungi, particularly in the Auckland area, and Pleurotus rattenburyi to remind you of our chairman's long support of the Auckland Botanical Society.

AUCKLAND'S MOSS COLLECTORS

Jessica E. Beever

What follows is an historical and somewhat nostalgic account of those botanists interested in mosses, who have been associated with the Auckland Botanical Society.

Without doubt the moss collector who has had the greatest influence on New Zealand bryology (the study of mosses and liverworts) is G.O.K. Sainsbury. An entry in the March 1944 issue of the Newsletter, under News of Members, reads "Mr G.O. Sainsbury has been investigating mosses on the slopes of Mt Egmont. We hope the hunting was good". Sainsbury was born in 1880. He became a lawyer, at Wairoa. At the age of 40 he took up botany as a hobby, beginning with the higher plants. Two years