

# Current Work on the Vegetation and Flora of New Zealand

In the following list an attempt has been made to cover the various aspects of botanical work that deal either directly or indirectly with the vegetation and flora of New Zealand. Other aspects of botanical research—plant breeding, pasture improvement, horticulture, forestry—have largely been omitted. A short list of plant physiology and biochemical research has been prepared by Mr. L. T. Evans, but lack of space has necessitated holding it over until the next issue of the Bulletin.

Although the principal aim has been to record the particular piece of work being carried out at the present time, a number of general entries have also been included. In all probability some work has been overlooked. The editor will be glad to hear of additions and corrections.

## ABBREVIATIONS

Auckl.—Auckland; Wgtn.—Wellington; Chch.—Christchurch; Dn.—Dunedin; A.U.C.—Auckland University College; V.U.C.—Victoria Univ. Coll., Wgtn.; C.U.C.—Canterbury Univ. Coll., Chch.; O.U.—Otago Univ., Dn.; D.S.I.R.—Dept. of Scientific and Industrial Research; Bot. Div.—Botany Division, D.S.I.R., 8 The Terrace, Wgtn. (except where another address is given). An asterisk indicates that the work is being done for a University thesis.

**ALGAE: Taxonomy:** Mr. V. W. Lindauer, Uriti Bay, Russell (brown algae); Prof. V. J. Chapman, A.U.C. (*Enteromorpha*); Miss L. B. Moore, Bot. Div.

**Ecology:** Miss L. B. Moore, Bot. Div.; Prof. V. J. Chapman, A.U.C.; Miss V. Dellow, V.U.C. (Hauraki Gulf).

**Anatomy:** Dr. M. Naylor, O.U. (*Durvillea*).

**Life-Cycles:** Dr. M. Naylor, O.U. (certain brown algae).

**General:** Dr. M. Mayer, C.U.C.; Miss S. D. Baker, A.U.C.; Mr. N. J. Butler, Wgtn. City Corp. Lab., Chaffers St., Wgtn. (freshwater algae).

**FUNGI: Taxonomy:** Dr. G. H. Cunningham, Plant Diseases Div., Auckl.; Miss J. M. Dingley, Plant Diseases Div., Auckl.; Mr. R. H. Thorton, Soil Bureau, Wgtn. (fungi and actinomycetes in N.Z. soils); Dr. G. B. Cone, 52 Messines Rd., Karori, Wgtn. (agarics).

**Ecology:** Dr. I. D. Blair, Lincoln Coll., Chch. (soil fungi); Mr. R. E. Rose, Soil Fertility Stn., Hamilton (soil fungi).

**Life-cycles:** Dr. G. T. S. Baylis, O.U. (some indigenous rust fungi).

**Diseases of Plants:** Plant Diseases Div., Auckl.; Crop Research Div., Chch.; Forest Research Inst., Rotorua (forest trees); Cawthron Inst., Nelson; Dr. J. G. Gibbs, V.U.C.

**Mycorrhiza:** Dr. G. T. S. Baylis, O.U. (*Griselinia lucida*); \*O.U. (*Nothofagus*); \*Mr. P. J. Brook, O.U. (*Pernettya macrostigma*).

**LICHENS: Taxonomy:** Dr. H. H. Allan, 4 Eagle St., Karori, Wgtn.

**Ecology:** \*Mr. J. H. Wadham, A.U.C. (Rangitoto Is.).

**BRYOPHYTES: Taxonomy:** Mrs. E. A. Hodgson, Kiwi Valley, P. Bag 41, Wairoa (liverworts); Mr. G. O. K. Sainsbury, Box 88, Wairoa (mosses); Mr. K. W. Allison, 73 Lonsdale St., Mornington, Dn. (esp. mosses).

**Ecology:** Mr. W. M. Martin, 27 Merchiston St., Dn. (Stewart Is., Otago).

**General:** Miss L. B. Moore, Bot. Div.; Miss M. K. Finlayson, C.U.C.; Mr. R. G. Robbins, A.U.C.; Mr. J. A. Veale, C.U.C.; Mr. N. J. Butler, Wgtn. City Corp. Lab., Chaffers St., Wgtn.

**TMESIPTERIS:** \*Miss M. Aiken, V.U.C. (studies on N.Z. forms with special reference to anatomy of aberrant forms).

**FERNS:** Miss M. W. Crookes, 31 Maungauhau Rd., Epsom, Auckl.; Mr. W. F. Harris, Bot. Div. (spores); Mr. J. A. Veale, C.U.C.; Miss B. M. Hall, V.U.C.

**FLOWERING PLANTS: Taxonomy:**

INDIGENOUS FLORA: Dr. H. H. Allan, D.S.I.R., Wgtn.

NATURALIZED FLORA: Mr. A. J. Healy, Bot. Div. (at present at 23 Ebdentown Rd., Upper Hutt).

WATER PLANTS: Miss R. Mason, Bot. Div.

POLLEN: Mr. W. F. Harris, Bot. Div.; Mr. R. A. Couper, Geological Survey, Wgtn.; Mr. N. T. Moar, Bot. Div.

SEEDS AND FRUIT: Miss R. Mason, Bot. Div.

GRASSES: Mr. V. D. Zotov, Bot. Div.

SEDGES: Mr. V. J. Cook, Miro St., Ohakune.

ORCHIDS: Mr. E. D. Hatch, Tane Rd., Laingholm, Auckl.; Mr. J. B. Irwin, Rawhiti Rd., Pukerua Bay; Mr. A. P. Druce, Pinehaven Rd., Heretaunga P.O., Wgtn.

GENERA: *Acaena*: \*Mr. J. W. Dawson, V.U.C. (*Acaena* complex about Wellington).

*Agropyron*: Mr. H. E. Connor, Bot. Div., c/o D.S.I.R. Distr. Off., Chch. (biosystematics); Mr. J. B. Hair, Bot. Div., c/o Lincoln Coll., Chch. (at present at John Innes Hort. Inst.) (cytogenetics).

*Celmisia*: Dr. H. H. Allan, 4 Eagle St., Karori, Wgtn.

*Cotula*: Mr. G. Simpson, 165 Crawford St., Dn.

*Craspedia*: Mr. A. P. Druce, Pinehaven Rd., Heretaunga P.O., Wgtn.

*Dracophyllum*: Dr. W. R. B. Oliver, 26 Ventnor St., Seatoun, Wgtn.

*Hebe*, *Veronica*, *Parahebe*, *Pygmaea*: Dr. O. H. Frankel (cytogenetics); \*Mr. T. W. Rawson, Bot. Div.

*Libertia*: Mr. J. A. Veale, C.U.C.

*Luzula*: Mr. J. A. Veale, C.U.C.

*Nertera*: Dr. F. R. Fosberg, Pacific Veg. Project, Catholic Univ. of America.

*Nothofagus*: Mr. A. L. Poole, N.Z. Forest Service, Wgtn.  
*Nothopanax*: Dr. F. R. Fosberg, Pacific Veg. Project, Catholic University of America.  
*Oreomyrrhis*: Dr. Mildred E. Mathias and Lincoln Constance Dept. of Botany, Berkeley 4, Univ. of California.  
*Ourisia*: Mr. G. Simpson, 165 Crawford St., Dn.  
*Pimelea*: Dr. E. J. Godley, c/o Crop Research Div., Chch. (cytogenetics).  
*Plantago*: \*Mr. O. T. Boscawen, A.U.C. (variation in populations of *P. coronopus*).  
*Ranunculus*: Mr. R. Fisher, c/o C.U.C. (cytogenetics).  
*Scleranthus*: Miss A. Lush, Dominion Museum, Wgtn.  
*Senecio*: Mr. N. L. Elder, McHardy St., Havelock North (*S. banksii-colensoi* complex).  
*Wahlenbergia*: \*Miss J. A. Hay, V.U.C.; Mr. E. D. Hatch, Tane Rd., Laingholm, Auckl.

**FLOWERING PLANTS: Anatomy:** Miss B. S. Slade, c/o O.U. (*Carmichaelia*, *Corallospartium*, *Chordospartium*, *Notospartium*); \*Miss C. Harvie, V.U.C. (Piperacea); \*O.U. (*Pseudopanax* and *Nothopanax*, comparative); N.Z. Forest Service (wood anatomy of N.Z. trees).

**Life-cycles:** \*Miss M. Bulmer, V.U.C. (*Ourisia macrophylla*).

#### GENERAL ECOLOGY:

**Animal-Plant Relationships:** Animal Ecology Sect., D.S.I.R., Wgtn.; Wild Life Branch, Dept. Int. Affairs, Wgtn.

**Beech Forests:** Mr. J. T. Holloway, N.Z. Forest Service, Chch. (forest distribution and stability with relation to climate change).

**Mire Vegetation (Bogs and Swamps):** Mr. N. T. Moar, Bot. Div.

**Phormium:** Mr. W. R. Boyce, Bot. Div., Foxton.

**Pollen:** Bot. Div. (honey, bee loads, hayfever).

**Soil-Plant Relationships:** Mr. N. H. Taylor, Soil Bureau, Wgtn. (soil surveys in relation to plant distribution); Mr. A. C. S. Wright, Soil Bureau, Wgtn. (soil conditions and plant distribution); Mr. P. J. Culliford, Soil Bureau, Wgtn. (conditioning of soils by indigenous tree species); Mr. B. D. Van't Woudt, c/o Massey Agric. Coll., Palmerston North.

**Tussock Grassland:** Miss L. B. Moore, Bot. Div.; Mr. H. E. Connor, Bot. Div., c/o D.S.I.R. Distr. Off., Chch.; \*Mr. G. A. Dunbar, Tara Hills, Omarama (root systems of tussock grassland species).

**Water Plants:** Miss R. Mason, Bot. Div.

**Wild-life Foods:** Miss R. Mason, Bot. Div.

#### REGIONAL ECOLOGY, BOTANICAL SURVEYS:

AUCKLAND: A.U.C. Field Club, Auckl. Bot. Soc. (local flora).

BROTHERS IS.: Mr. W. H. Dawbin, V.U.C.

- ELLESMERE L.: Miss R. Mason, Bot. Div. (ecology of water plants).
- HEATHCOTE R.: \*Miss M. Saunders, C.U.C., \*Miss A. Bruce, C.U.C. (ecology of water plants).
- MANUKAU AND WAITEMATA HARBOURS: Prof. V. J. Chapman, A.U.C. (ecology of mud flats).
- MOLESWORTH RUN: Miss L. B. Moore, Bot. Div.
- NGAURUHOE: Mr. R. Cooper, Auckl. Museum (colonization of lava flow and debris fan after eruption of Feb. 1949).
- NORTHERN PENINSULA: Prof. V. J. Chapman, A.U.C. (ecology of sand dunes).
- ORAKEI BASIN: \*Mr. L. P. Turnbull, A.U.C. (ecology).
- RIMUTAKA MT.: \*Miss J. White, V.U.C. (windswept scrub).
- RUAHINE AND KAIMANAWA MTS.: Mr. A. P. Druce, Bot. Div., Mr. N. L. Elder, Havelock North, Mr. R. M. Greenwood, 8 Batt St., Palmerston North (bot. survey).
- SILVERSTREAM, HUTT V.: \*Mr. P. J. Culliford, V.U.C. (past development of lowland forest remnant).
- THREE KINGS IS.: Dr. G. T. S. Baylis, O.U.
- VOLCANIC PLATEAU (ECOTONES): Mr. N. H. Taylor, Mr. A. C. S. Wright, Mr. P. J. Culliford, Soil Bureau, Wgtn. (soil aspects); Mr. A. L. Poole, N.Z. Forest Service, Wgtn., Mr. A. P. Druce, Bot. Div. (botanical aspects).
- WELLINGTON COAST (Paekakariki to C. Palliser): Group of Wgtn. botanists, c/o Bot. Div. (bot. survey).
- WESTERN TAUPO: Bot. Div., Soil Bureau, Animal Ecology Sect., D.S.I.R., Wgtn. (ecological survey).
- WESTPORT DISTRICT: Miss H. Rigg, C.U.C. ("pakihi" land).

### **PALAEOBOTANY:**

- Microfossils (Spores and Pollen):** Mr. W. F. Harris, Bot. Div. (Pleistocene and Recent peats); \*Miss N. B. Wright, A.U.C. (peat bogs, Kaitaia); Mr. R. A. Couper, Geological Survey, Wgtn. (pre-Pleistocene lignites, coals and carbonaceous sediments); Mr. M. T. Te Punga, V.U.C.
- Macrofossils (Wood, Leaves, Seeds):** Dr. W. R. B. Oliver, 26 Ventnor St., Seatoun, Wgtn.; Mr. N. T. Moar, Bot. Div. (Pleistocene and Recent peats); Mr. D. R. McQueen, Geological Survey, Wgtn. (Cretaceous and Tertiary); Mrs. S. M. Grant-Taylor, 8 Corry Ave., Napier (esp. Mesozoic); Mr. M. T. Te Punga, V.U.C.

### **BOTANICAL ILLUSTRATION:**

- Painting and Drawing:** Miss N. M. Adams, Bot. Div.; Mr. J. B. Irwin, Rawhiti Rd., Pukerua Bay (orchids); Mrs. G. Natusch, 46 Ohiro Bay, Wgtn.; Dr. G. B. Cone, 52 Messines Rd., Karori, Wgtn. (ferns and agarics); Mr. B. G. Hamlin, Bot. Div. (grasses).
- Photography:** Mr. W. C. Davies, c/o Cawthron Inst., Nelson;

Mrs. M. Scott, Tauranga; Mr. A. P. Druce, Pinehaven Rd. Heretaunga P.O., Wgtn.; Mr. C. Dodd, Dn.; Mr. R. M. Greenwood, 8 Batt St., Palmerston North; Mr. W. B. Brockie, 160 Wilton Rd., Wellington.

### PRINCIPAL BOTANICAL GARDENS (INDIGENOUS PLANTS):

**Public:** Otari Open-air Native Plant Museum (Curator, Mr. W. B. Brockie), Wilton Rd., Wgtn. (esp. alpine plants, and *Pittosporum*, *Carmichaelia*, *Hebe*) Bot. Gardens, Chch.; Bot. Gardens, Dn.

**Private:** Mr. R. H. Michie, Kaitaia (*Pittosporum*); Mr. N. Potts, Opotiki (esp. *Coprosma*); Mr. M. G. Maxwell, Marumarunui, Opunake (esp. trees); Mr. R. M. Greenwood, Duart Rd., Havelock North (esp. trees and shrubs); Mr. N. L. Elder, McHardy St., Havelock North; Dr. H. H. Allan, 4 Eagle St., Karori, Wgtn.; garden of the late Mr. B. C. Aston, 26 Espin Cres., Karori, Wgtn.; Mr. A. D. Beddie, 174 Hutt Rd., Petone; Mr. A. P. Druce, Pinehaven, Wgtn.; Mr. S. Duncan, Linden, Wgtn.; Mr. A. M. Jones, 6 Raroa Rd., Kelburn, Wgtn.; Mr. G. Simpson, 69 Belgrave Cres., Dn.; and probably others of which the editor is unaware.

### PRINCIPAL HERBARIA:

**Public:** Auckl. Museum; Dominion. Museum, Wgtn.; Canterbury Museum, Chch.; Bot. Div.; A.U.C.; V.U.C.; C.U.C.; O.U.; Forest Research Inst., Rotorua; Plant Diseases Div., Auckl. (fungi).

**Private:** Mr. G. O. K. Sainsbury, Box 88, Wairoa (mosses); Mrs. E. A. Hodgson, Kiwi Valley, P. Bag 41, Wairoa (liverworts); Mr. K. W. Allison, 73 Lonsdale St., Mornington, Dn. (bryophytes); Mr. V. W. Lindauer, Uriti Bay, Russell (algae).

### REQUESTS FOR PLANTS

*Oreomyrrhis*: Dr. Mildred E. Mathias and Lincoln Constance (University of California) are studying this genus and require New Zealand material. Would anyone finding *Oreomyrrhis* this summer please send plants or pressed specimens to Wellington Bot. Soc., c/o Botany Division, 8 The Terrace, Wellington, whence they will be forwarded overseas.

*Carmichaelia*, *Chordospartium*, *Notospartium*, *Corallospartium*: Miss Brenda S. Slade is doing research work on these plants and requires seed of as many species as possible. The date and place of collection should be noted and the seeds sent to Botany Dept., Otago University. From there the seeds will be forwarded to England, where Miss Slade will be working. It has been reported that it is difficult to find seeds of these native brooms as the gorse weevil is showing a liking for them. Any observations on this matter would be worth recording.