

The peat and lignite slide collection now contains 800 preparations. Examination of lignite samples from South Westland yielded what appears to be the first evidence of a mild interglacial period in New Zealand. A number of bogs were visited during the year and peat samples collected as well as the bog and swamp vegetation studied.

MISCELLANEOUS

New Zealand and America Fiordland Expedition.—A member of the staff assisted in the organization of the expedition and three members participated.

Artist.—The Division's artist has prepared illustrations for some ten different publications and projects, including such works as a series of poisonous plants, a seaweed bulletin by the Education Department, a publication on burrs by the Canterbury Chamber of Commerce, lichen articles, &c.

Cheeseman's "Manual of the New Zealand Flora."—The retired Director is undertaking the revision of Cheeseman's "Manual of the New Zealand Flora," last published in 1925. With the many changes that have taken place in taxonomic nomenclature since that date, there is an urgent need for the revision.

Exhibitions.—Phormium and seaweed exhibits were staged by the Division at the show held by the Hastings and Napier Branch of the Royal Society of New Zealand.

Seventh Pacific Science Congress.—One or other of the two sessions of this Congress was attended by most members of the staff and seven papers were presented.

Publications.—During the year publications by members of the Division were:—

"Palynology in New Zealand." (*Svensk Botanisk Tidskrift*, Bd. 42, H. 4, 1948, pp. 472-3.)

"New Zealand Seaweeds." (New Zealand Education Department.)

"A Loose-lying Form of the Brown Alga *Hormosira*." (In the press.)

"Fruit Characters of *Pittosporum dallii* Cheeseman." (*Trans. Roy. Soc. N.Z.*, 77, Part 2, 1949, pp. 250-252.)

"Rata the Killer." (*Tuatara*, I, No. 3, 1948, pp. 36-38.)

"A Note on Lichens with a Key to the Commoner New Zealand Genera." (*Tuatara*, I, No. 3, 1948, pp. 20-35.)

"A Note on the Crustaceous Lichens of New Zealand." (*Tuatara*, II, No. 1, 1949, pp. 15-21.)

"The Flowering of Beech." (*N.Z. J. of Forestry*, V, No. 5, 1949, pp. 422-27.)

DOMINION LABORATORY

Director: Mr. F. J. T. GRIGG

During the year 1948 the Dominion Laboratory in Wellington and its branch laboratories (in Auckland, Christchurch, and Dunedin) continued to provide for the Government the manifold services that it has provided during the last eighty-three years. In addition, assistance to manufacturing industries has been rapidly extended, and preparations have been made to increase research work in a variety of fields, such as food technology, radioactive elements, and the chemistry of concrete.

In 1948 practically all sections of the work expanded in response to increased demands for service.

The number of separate samples examined in the Wellington Laboratory and in the three branches increased from 26,816 in 1947 to 31,677 in 1948. In addition to the work represented by the analysis of actual samples, there is a great deal of advisory and investigational work of which no indication is given in the sample numbers. This forms an increasingly large proportion of the total work of the Laboratory.