

A CENTURY IN THE FOREST LIFE OF NEW ZEALAND

ONE hundred years ago New Zealand had 63 million acres of forest; within eighty years it had been reduced to 12 million. Her woodlands had suffered the fate of those of so many other lands—they had been cut and mangled for immediate gain without any thought of the future. But unlike most lands where this had happened, the New Zealand people awoke to the danger of lost woodlands, and some thirty or forty years ago they decided to change their policy of total destruction for one of preservation and reconstruction. It came gradually, there being a period of overlapping with exploitation and replanting going on side by side. The policy to-day is wholly to preserve and replant.

New Zealand is in the fortunate position that not one part of her forests is inaccessible. The woods are within easy reach of shipping. This contributed in great measure to bring about exploitation, but this same feature will be of inestimable value when she comes to market her timber under a controlled policy.

For several years now the New Zealanders have led the world in the matter of tree-planting. In seven years alone 400,000 acres were planted. In one year 100,000 acres were planted, which is probably a record for the world. Altogether New Zealand possesses nearly a million acres of young forest.

What helped afforestation most in New Zealand was the discovery of the remarkable growth of certain introduced softwood trees. A pine which came from Monterey, California, namely, *Pinus insignis* or *radiata*, was the most remarkable of them all. This tree produces mature timber at 18-30 years of age and pulp wood at 12-14 years of age. The timber of mature trees is equal to the best Baltic pine, and has proved of immense value in making packing cases for dairy produce. It can also be pulped to make paper. One tree which was felled, aged forty-five years, fetched the very high price of £55.

Other trees which were introduced and reacted satisfactorily to the prevailing conditions were yellow pine, Oregon pine and the redwood of California. Certain poplars also have been making good growth.

The rapidity of growth attracted the attention of the business man. Companies were formed to afforest land and quick returns were obtained from the capital invested. Such a thing is almost unique in the history of forestry, timber growing being usually regarded as a State affair, since it means the locking up of capital for such a long time with very little return.

Within the last year or so the New Zealanders have again shown a great deal of wisdom by turning their attention to the trees which are native to the country. They are preserving what forests remain—8 million acres are under State control—and are trying to bring back to them their former grandeur and value.

The most famous natural tree of New Zealand is the kauri pine. Some remnants of it remain. This tree produced some of the best timber the world has ever seen. It also produced the kauri gum, great beds of which still lie in a fossil state in the soil. 15,000 tons of it are mined annually and find a ready market for making paint, varnish and linoleum. The resin from the living tree not only gives gum, but a motor-spirit is also being derived from it now.

There are other native trees such as yellow woods and the *Nothofagus*, the latter corresponding to the beech of Great Britain. The latter is now being tried on an experimental scale in Britain and is showing great promise. Then there is also the world-famous rimu tree. All these regenerate themselves naturally.

With such success already achieved it is little to be wondered that New Zealand is looking forward to the day when she will be a timber exporting country.

E. V. LAING.

INTERNATIONAL FISHERIES RESEARCH IN THE ATLANTIC*

THE Committee of the Atlantic Continental Slope, on July 16, 1937, formed a sub-committee for the study of a technique concerning researches on the mackerel. Representatives from England, Ireland, France, Portugal and Germany were elected on the sub-committee, which met at the Plymouth Marine Laboratory during December 8-9, 1937. At this meeting discussions took place on: (1) the methods of sampling and selective action of nets; (2) biometrical data; (3) food; (4) age determination; (5) stages of sexual maturity; (6) plankton and hydrographical observations; (7) collection of early metamorphosed stages; (8) commercial statistics; (9) other researches.

* Rapport Atlantique 1937-1938 (Travaux du Comité du Plateau continental Atlantique) (Atlantic Slope Committee) publié avec l'aide de Ed. le Danois, Dr.Sc. Directeur de l'Office des Pêches Maritimes, Paris. *Rapports et Procès-Verbaux des Réunions*, III, Conseil Permanent International pour l'Exploration de la Mer. Charlottenlund Slot, Danemark. 1939.

Reports on the researches on the mackerel by J. le Gall and J. Furnestin (France), G. A. Steven and P. G. Corbin (England) and G. P. Farran (Ireland) show that progress has already been made along these lines. J. le Gall in France has been working on general and seasonal distribution, physico-chemical conditions, spawning, food and morphological characters. In Appendix I he gives a résumé of the known facts of the concentration before spawning, spawning periods and sexual maturity, growth and physical conditions of the environment. In Appendix II G. A. Steven and P. G. Corbin report on the work at Plymouth begun in 1936. Both French and English vessels participate in the spring drift fishery, from March until the middle of June, off the western entrance to the English Channel. The fish landed in the early part of the season are often thin, due apparently to absence of food supply.