

## APPENDIX TO PROCEEDINGS

## ABSTRACTS OF PAPERS READ BEFORE BRANCHES.

**Soil Erosion: A National Problem.**

“ Evening Post,” Wellington, 28/5/42.

That the problem of soil erosion should be treated at its source rather than attempts made to treat the symptoms only, was emphasised by Dr. L. Li, of Lignan University, China, when he was lecturing last night to the Wellington Branch of the Royal Society of New Zealand.

Remedial treatment had to begin in the watersheds, he said. Education was needed to make people soil-conservation minded, and man must be taught to regard land as something more than a piece of property to be bought or sold. It was not his to treat as he liked; it was a priceless gift of Nature, to be shared with his fellow-men and with the men of the generations to follow.

Dr. Li referred to soil erosion in China and in the United States. He showed how erosion had been accelerated by man's unthinking treatment of the land. In China the removal of timber over a period of 20 centuries had brought about a serious soil erosion problem; but an equivalent state of affairs had been brought about in the United States in one-tenth of that time through over-grazing of pastures and the removal of coverage. Erosion problems were not confined to elevated areas only. Valleys suffered through being covered with coarse material, through the silting of rivers.

The lecturer's lantern slides showed methods adopted in the United States to stop erosion in the area known as the “ dust-bowl ” and elsewhere. The planting of conifers, contour ploughing and strip planting were discussed as remedial measures, the point being made that the problem was one which could not be treated piecemeal: it needed a definite policy formulated by the Government, for the land could not be allowed to suffer further under the ruthless treatment of private ownership.

**Scientific Work in Wartime.**

## ASPECTS OF BOTANICAL RESEARCH.

By DR. H. H. ALLAN.

The effect of the war on scientific work, particularly that of the botanist, was discussed by Dr. H. H. Allan, Director of the Botany Division, Plant Research Bureau, in his Presidential address to the Wellington Branch of the Royal Society of New Zealand. “ With all its murk and distress,” he said, “ the war has kindled a light allowing us to see more clearly the possibilities of science as service. May we cherish the light and keep full the lamp, so that the flame may not grow dim again. So shall our service serve for construction, not for destruction; for welfare, not disaster.”

Botanists during the years of peace, tended to grow protective shells, to efface themselves from mundane affairs, to pursue interests

not understood by the people, to speak in language not always understood by themselves, to develop single-track minds, he said. The war had jolted them out of their tracks, set them considering not merely the immediate new tasks, but relative values and the ultimate aims and ideals of their science.

First came the concentration on applied as contrasted with pure botany, and the selection in the applied of the more urgent as against the less urgent. The botany division took steps to meet the increasingly urgent demand for medicinal plant material and to investigate local substitutes and Maori medicinals. In the examination of New Zealand's seaweed resources, the division was able to do valuable work, even to show that new industries could be set up, that reliance upon foreign markets could be obviated, and that Britain could be helped.

The general public became keenly interested and began to understand that pure botany provided the basis for practical application and advance. What was academic had become economic; but the important point was that the need for basic research, pure botany, on life histories, distribution, taxonomy, was being realised. Cabinet Ministers now had a very shrewd suspicion that it was really worthwhile to be able to tell *Pterocladia* from *Gigartina*.

The war had provided a welcome opportunity to make a survey of the Dominion's resources of sphagnum, a moss used as a surgical dressing. It appeared that these resources might not be called upon for war purposes, but the information was available when needed, and the work done would provide a basis for a thorough taxonomic study of the species. It might even have helped the authorities to realise that a full survey of the country's plants could be of value equal to that of the rocks and oils, perhaps even to realise that all these should go hand-in-hand.

The war, once again, had clearly shown the inter-dependence of the sciences. The botanist had to call in the mathematician, the physicist, the chemist, the engineer, and these in turn at times needed the botanist. In plant introduction work, hardly in its infancy in New Zealand, the botanist would need the meteorologist, the climatologist, the geologist, the pedologist, as well as the pathologist.

In conclusion, Dr. Allan suggested that the Association of Scientific Workers should endeavour to get established a National Science Fund, to be used for both the interpretation and the advancement of science. The trustees of a similar fund in the United States had as their aims: Service to donors, by seeing that their contributions were used to the best effect, and that donors were not misled into fostering foolish projects; service to scientists, by seeing that the funds were made available to the best-qualified workers and were not unduly tagged with conditions; service to the community, by presenting adequate and clear accounts of what was being done, why it was being done, and what progress had been made.

"Could it not be the aim of our Association to produce a journal entirely devoted to interpretation, to acquainting the community with scientific progress?" he asked. "Is not such a journal one of the great needs of science to-day?"

## **Concept of Race.**

### ILLUSIONS OF MASTER GROUPS, CLASSES AND CASTES.

*Address by* DR. E. BEAGLEHOLE *to the Wellington Branch of the Royal Society of New Zealand.*

Dr. Beaglehole, dealing with the subject "Concept of Race," proceeded to analyse how the theory of race superiority had grown into being, and how it was falsely based. He pointed out that psychologists and sociologists have tested and measured the mental capacities of different ethnic groups without so far discovering any inherent differences that cannot be plausibly accounted for by imperfection of measuring instruments and extreme variation in the socially inherited nature of men's culture.

Examining the contact of widely-separated ethnic groups such as occurs between the English and Indian in India, between the negro and white in the United States, and between the pakeha and Maori in New Zealand, Dr. Beaglehole pointed out that the kind of general relationship pattern governing the contacts varied. In some cases it was of caste nature, in others it more nearly approximated to a formalised set of class relations.

Taking India as a classic instance of the caste system, Dr. Beaglehole pointed out that the membership of any of the five principle castes resulted solely from the fact of being born into it, movement and intermarriage between the castes being forbidden. This caste system was also represented in the United States, where the whites assumed the superior caste and the negroes were relegated to the inferior. Intermixing was almost a crime, except that the whites expected the privilege of relations with negro women, while the reverse relation was considered one of the most shocking of all crimes. The United States differed from India in its application of the caste system, however, in that within their separate cells the whites and negroes might rise and fall in status.

Dealing with the relation of the races in New Zealand, Dr. Beaglehole said that they were more nearly governed by the development of a still amorphous, yet none the less very real, class structuring of New Zealand society. The factors governing the class system, Dr. Beaglehole said, might be roughly outlined as these: the society was hierarchically ordered: upward mobility was permissible, but downward mobility from one stratum to the next was possible but not praised: intermarriage between classes was not forbidden, though the higher classes disapproved and the lower classes approved. Relative homogeneity of attitudes, ideas, beliefs and practices appeared among members of each class. Thus there was a class consciousness, a factor in which income or wealth might be one, but not necessarily the only factor.

In comparison with England, Dr. Beaglehole pointed out, New Zealand class lines were not so strictly or openly defined, but there was plenty to remark on when the Dominion was viewed from this angle. The position in New Zealand was that each of the ethnic groups ordered itself on a well-defined class system. The key point which defined the problem of culturally determined group relations was the fact that Maori classes and white classes did not coincide. White practice, Dr. Beaglehole said, showed a tendency to rank most Maoris in a group which coincided with that of the lowest white group.

Dr. Beaglehole remarked, however, that the incidence of this classing varied in various parts of the Dominion according to the wealth and relative numbers of each ethnic group in the particular locality.

Summing up the question of race concept, Dr. Beaglehole said that it was a tool for the physical anthropologist and the human biologist, but a matter to be avoided by the social scientist. The social scientist needed to work with concepts of class relations and caste rather than with race concepts if he was to estimate truly the social processes involved in the contacts of ethnic groups.