

THE MENACE OF FLOODS

Once again floods have hit the Hawke's Bay causing great losses of stock, and enormous damage to roads, bridges, telephone lines and other public services, with destruction of fences and stockyards, floodgates gone, hundreds of acres of vegetables and pastures ruined, dams washed out, drains silted up, poultry drowned, and orchards severely damaged. In cash the costs of the damage and losses must be very considerable; to the farmer and producer the disappointment and frustration is heartbreaking; to those in the many homes who have again been driven out and once more seen their furnishings ruined, the cost in anxiety, misery, or sheer terror, cannot be estimated.

Millions of pounds are to be spent on protection works in the Hawke's Bay, Gisborne, Waikato, Marlborough, Canterbury, and other districts, huge sums have been authorised and much more will be needed as time goes on.

The rainfall which caused the recent Hawke's Bay floods was heavy, very heavy indeed, and inevitably some flooding had to be expected, but the catastrophic extent of the damage would have been reduced to comparatively minor proportions had the natural covering of bush been allowed to remain on the steep hills where the raindrops fall. Axe, fire, overstocked pastures, and browsing animal pests such as deer and goats have all operated to strip the bush from the hills, preparing the way for the June calamity—and this was by no means the first occasion of severe flooding. Many years ago the late Mr. Phillips Turner sounded a warning that, unless deer in the Kawekas and Ruahines were dealt with, Hawke's Bay would be in grave danger from erosion and flooding. With the removal of the natural vegetative covering on the hills, the soil blows away or washes away and shingle slides or mud slips form and roll down into the streams and rivers, covering flats and building up river channels until the water pours out over the countryside. It is not yet sufficiently understood how much greater is the immediate run-off of water after the native bush is removed from the hills—it varies in different localities for a number of reasons—but the *rate* of the immediate run-off will almost certainly be up to thirty times as great and possibly very much more than that.

What can be done about controlling the run-off after heavy rain? Severe flooding does not happen in areas where the protection forest is still intact. No more protection forest should be destroyed; noxious animals must not be allowed to go on destroying it. Grazing on tussock and similar lands must be controlled. We can ensure that the Soil Erosion and Rivers Control Council and the Forest Service have all the support they need to do the job they have to do—they know the need, they know the causes, they have to apply the remedies. Give them the tools and let them get on with the job without hindrance from any quarter. Protective works must be established where such are needed; but ultimately the aim should be to restore the vegetative cover to those steep slopes from which it should never have been removed; for then—and only then—will the raindrops falling on those slopes be held, to be released gradually as a blessing to man instead of the raging demon which has ravaged Hawke's Bay in the last month or so.

OUR COVER PICTURE

Whitehead (*Mohoua albicilla*). The whitehead is a bird of the forest, abundant on Little Barrier Island and Kapiti, and in several forested areas of the North Island. Restless, noisy, and inquisitive, it comes crowding down to investigate any visitors to its domain. The food of the whitehead consists mainly of insects, also soft fruit like the mahoe and tree seeds such as the matipo and tawari. The whitehead generally selects for the site of its nest the denser portions of a manuka or small-leaved tree. The nest is a compact structure of moss, grass, leaves, and bark bound together with spider webs and lined with fine grass, tree-fern scales, and a few feathers.

NEW ZEALAND-WIDE PUKEKO STUDY

A study of the past and present distribution and abundance of the pukeko in New Zealand is being carried out by the Wildlife Branch. Any information that Society members may give will contribute to the value and accuracy of this survey and will be acknowledged. Would members who can assist with this "status and distribution" study please send any information to—

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