

## NOTES.

### SAMUEL J. RECORD.

In the death of Dr. Samuel J. Record on 3rd February last a notable figure in forestry has been lost. He was known to us principally in relation to wood anatomy, and as founder of the International Association of Wood Anatomists and editor of "Tropical Woods."

His work extended far beyond the United States, where he was latterly Dean of Yale School of Forestry, especially to South and Central America, but also to co-ordination of wood anatomy studies in all countries concerned with forestry. Just prior to his death he extended an ever helpful hand to us in New Zealand in the identification of Solomon Islands woods upon which current work is progressing with difficulty.

His works are too well known to require mention other than to "Timbers of the New World," 1943, (co-author Professor Hess)—a beautifully illustrated book with anatomical and descriptive data by families and genera.

J. S. REID.

### CICADA DAMAGE TO EXOTIC SHADE BEARERS.

Damage by cicada (*Melampsalta cingulata*) is so severe on several of the shade bearing exotics used for interplanting logged indigenous forest on Waimiha State Forest in the Taumarunui district as to make their further use for this purpose a questionable policy. Damage is most prevalent on *Thuja plicata*, *Cupressus macrocarpa* and *C. lawsoniana* while *Cryptomeria japonica* is not affected. Damage is caused to the leading shoot, more often than the laterals, by being weakened by the scar of typical chevron pattern made by the insect in laying its eggs. Breakage occurs at this point after the following season's growth. Exposed trees appear to be attacked more frequently than those sheltered by secondary growth. Tawa forest is a favourite haunt of the cicada.

F. J. RANGER.

### TAWA INVADING BEECH FOREST.

Conflict between species is of course a fundamental ecological phenomenon evident in all natural forests. In our rain-forest the beeches (*Nothofagus spp.*) and tawa (*Beilschmiedia tawa*) perhaps provide the most striking examples of advance by infiltration, but it is most unusual to find these two overlapping in their natural distribution. A most interesting area has been found where the two are in direct conflict.

In State Forest No. 57 in the Aria Survey District of the northernling Country, at about 500 feet, on what may be termed the north-eastern extremity of the Waitaanga beech forest, there is a small alley of rimu (*Dacrydium cupressinum*), tanekaha (*Phyllocladus ichomanoides*), miro (*Podocarpus ferrugineus*), kahikatea (*P. acrydioides*), totara (*P. totara*) and matai (*P. spicatus*) with a second storey principally of tawa and tawhero (*Weinmannia racemosa*). On the sides of the ridges 50 feet above the valley bottom there is a sudden change to typical red beech (*N. fusca*) forest varying from mature trees to saplings. Scattered throughout the beech are tawa saplings and seedlings, but no accompanying parent trees, demonstrating that this species is invading the beech owing to its greater shade tolerance.

This is the only example of tawa invading beech, indeed of tawa displacing beech, that the writer has observed. It would be interesting to know of any other cases.

F. J. RANGER.

## WIND DAMAGE IN CANTERBURY.

The gale which struck Canterbury about 11 a.m. on Friday, 13th July, 1945, was the most disastrous on record. At Wigram Aerodrome there were several gusts of 80 m.p.h. registered and the peak was 90 m.p.h. at a little after mid-day. However, the rarity of velocity recording anemometers meant little information on actual velocities elsewhere. The gale was a nor'-wester.

The area affected extended from Waimate in the south to Leslie Hills (the southern lip of the Hammer Basin) in the north. The quantity of timber involved has been estimated at 90,000,000 board feet, of which 70,000,000 were classed as millable. This figure does not include small lots nor large areas damaged up to 20 per cent. The greater part of this volume was located in the Selwyn Plantation Board areas (36,000,000 bd. ft.) and Balmoral State Forest (30,000,000 bd. ft.), but the balance was spread fairly generally.

The nature of the damage was in most cases complete uprooting with the tops pointing generally to the south-east. There was a varying degree of top breakage which seemed to be greater where the soil was deeper, as near Coalgate, and where early thinning had been carried out, as in the oldest *Pinus radiata* compartment at Balmoral. But damage of one sort or another occurred irrespective of soil type, thinning or, with one or two exceptions, species—the gale was of such force that almost anything in its course suffered.

The species chiefly affected was, of course, *P. radiata*—it forms the bulk of the plantations in Canterbury. The older age classes above 35 feet in height were the chief sufferers—only occasional damage occurred in younger or smaller stands. Other species that were considerably damaged were *P. banksiana* and *P. murrayana* at Balmoral Forest; Douglas fir, *P. ponderosa*, larch, spruce and