

even this is putting words into the author's mouth. The debate that is declared open by the article is as yet between the scientists; and the practical forester is only in the audience. But it behoves him to be an appreciative and attentive listener. The article (it is to be hoped it will be reprinted as a separate work in a permanent binding) should become a bedside book for N.Z. foresters for many years. No single and cursory perusal can do it justice; and in most cases, would only do the reader harm. Read diligently and repeatedly, it will mould one's thought and stimulate the faculty of field observation; but no one, the author least of all, will expect a reader to accept it as dogma.

A final word of unqualified commendation must be said for the author's diction and presentation of a most complex subject. The reviewer, who has waded in many sloughs and mires of ecological jargon, cannot recall any article of comparable length and complexity that was more clearly and lucidly presented, yet with scarcely a phrase that is not intelligible without any ambiguity to a reasonably literate layman.

C.M.S.

RESULTS OF THE ARCHBOLD EXPEDITIONS. PAPUAN  
*NOTHOFAGUS*. C. G. G. J. van Steenis—*Journal of the Arnold Arboretum*, Oct. 1953—pp. 301-374.

In 1938-39 the third American Archbold expedition to New Guinea confirmed that extensive forests at higher altitudes (1,000 to 3,000 metres) throughout New Guinea contained trees akin to the southern beeches. The general descriptions of these forests, contained in the report of the expedition, indicated some remarkable floral affinities with New Zealand. The first details of the beech-like trees was contained in a work by an American botanist, Langdon (*The Comparative Morphology of the Fagaceae I. The Genus Nothofagus*. Bot. Gazette, Vol. 108, No. 3, 1947.)

In this present work the well known Dutch botanist, van Steenis, has dealt with the material of the expedition as well as other specimens collected before and after, designating it *Nothofagus*, and describing sixteen species and some varieties.

Before giving the formal descriptions, van Steenis expounds the significance of the New Guinea *Nothofagus* to plant geography, maintaining that such an extension to the known distribution might well have been expected. Then, in a short section on "Parasites of *Nothofagus*", a favourite topic for European plant geographers, he comments on the peculiar distribution of *Cyttaria*, but omits any mention of the more important New Zealand parasites, *Elytranthe* spp. The morphological characters of twigs, leaves, flowers, and fruits are dealt with in detail, and a comparative table is given of these and other characters for *Fagus* and *Nothofagus*.

Van Steenis has then attempted a subdivision of the genus, based

on all known species (he lists some forty), which he admits is provisional and falls outside the scope of his study. It would have been better omitted, because to the student of the genus it adds great confusion, and as far as our knowledge of the New Zealand species is concerned is a retrograde classification.

The descriptions of the New Guinea species show that they are evergreen, and distinctive in having, by comparison with the majority of species in the genus, large leaves, and all but two have entire leaves. The cupules are all two-valved, but some species have naked female inflorescences. Of the sixteen species described, most of the entire-leaved ones have leaves similar in shape, if not in size, and all have the same emarginate tips. The New Zealand botanist, familiar with his own southern beeches, would immediately suspect hybrids, and one is left wondering what further field studies of the New Guinea trees will reveal.

A.L.P.

**FOREST SCIENCE.** (A Quarterly Journal of Research and Technical Progress.). Published by the Society of American Foresters, Washington D.C., Vol. 1, No. 1, March 1955.

This new periodical, published by the Society of American Foresters with the active co-operation of the U.S. Forest Service and the School of Natural Resources, University of Michigan, will be a most welcome addition to all forestry libraries. The excellence of the *American Journal of Forestry* is well known to all New Zealand foresters. *Forest Science* now takes over from the *Journal* the task of publication of all the more technical research communications. The *Journal* will continue with publication of articles of more popular note.

This division of the field should prove most advantageous. The new publication will permit more adequate presentation of the results of original research than could be given in the *Journal*, while space will be freed, in the *Journal*, for more of those popular and semi-popular articles, analysing news and views, that so many of us find such delightful and profitable reading.

Little more need be said. The format of the new periodical is pleasing and the standard of the contents, as would be expected, is high. *Forest Science* must become compulsory reading for all foresters in this country. Perhaps it would not be too much to expect, or to hope, that it will soon cease to be a quarterly and become a monthly. With 1,400 workers in the field of forest research in the United States this is surely not too much to hope. Much American research of value would appear to be published in mimeographed form only, and in this form it is not readily available to overseas readers. *Forest Science* should help plug this publication gap.

J.T.H.