PUBLICATIONS RECEIVED

conclusions are as follows :- Ceanothus : The infection of this plant by the fungus is quite universal. Internal infection occurs in the growing region, and takes place by the fungus passing from cell to cell. Because of infection, hypertrophied cells and nuclei are formed. The fungus dissolves the walls of the host cell. Following the vesicular stage, the cytoplasm and nucleus of the host cell are absorbed. Subsequent to this, the cell content of the fungus disappears. Both the host cell and the fungus finally die, and undissolved portions of the fungus remain in the cell. Symbiosis exists, which is quite apparent in the early stage. Elaeagnus : External and internal infection takes place, as in Ceanothus. The fungal mycelium differs from that of Ceanothus, in being very narrow and branching profusely. The walls of the host cell are not broken down. Hypertrophied cells and nuclei are formed, but the nucleo-cytoplasmic relationship is maintained in the infected cells. Myrica : All species of Myrica possess tubercles. The fungus confines itself to one or two layers of cells, and internal infection takes place acropetally. No hypertrophy or symbiotic relationship exists. The fungus is best regarded as a parasite. The form, structure, and behaviour of the fungus indicate that it belongs to the genus Actinomyces. Arzberger also finds that the tubercles of Alnus and Ceanothus contain enzymes capable of digesting fibrin.

F. E. Lloyd's paper on "Development and Nutrition of the Embryo, Seed and Carpel in the Date, *Phoenix dactylifera*, L.," is a good contribution to plant embryology.

These and other papers make up an extremely interesting volume.

A. B. K.

RHODORA : Journal of the New England Botanical Club, Vol. 12, Nos. 134-144.

During the past year, many articles of much value to Ontario botanists have appeared in this magazine, among the most important being :— "A Synopsis of the Species of Arctium in North America," by M. L. Fernald and K. M. Wiegand; "The North American Variations of *Lycopodium clavatum*," by M. L. Fernald and C. H. Bissell; "Agropyrum caninum and its North American Allies," by A. S. Pease and A. H. Moore; "The Variations of *Lonicera caerulea* in Eastern America," by M. L. Fernald and K. M. Wiegand, in which a new