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The Marine Algae of Guernsey. by Lillian Lyle

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Seeds that germinate on the forest floor do not become established owing to the intolerance of the species of shading. On the other hand *Thuja* and *Tsuga* can grow and develop under the shade of Douglas fir and hence tend to introduce the climax type. But after clearing or a fire which does not kill the seeds stored by rodents the Douglas fir has a decided advantage. It germinates early in the spring and soon produces a tap root, both very important factors owing to the drought to which the surface soil is exposed. On a south slope after a burn, the surface soil showed a minimum water content of 0.18 per cent. in July and did not rise above 0.85 per cent. in August, while at six inches depth there were 6.55 per cent. and 5.5 per cent. in July and August respectively. The wilting coefficient of the soil is 1.25 per cent. As a result the early germinating and long-rooted Douglas fir seedlings can grow, especially if their shoots are protected by herbaceous plants, while the later germinating and shallower rooted seedlings of *Thuja* and *Tsuga* are killed by drought. After the Douglas fir canopy is again established and a forest humus accumulated, the climax plants again obtain a foothold.

Douglas fir is thus a one-generation tree whose conditions of existence are quite definite and are capable of control by man.

R. S. ADAMSON.

Lyle, Lilian. "The marine algae of Guernsey." *Journ. of Bot.* June-Sept. 1920.

This paper gives a complete list of Guernsey seaweeds recorded up to the present, amounting to 350 species and 78 varieties and forms, including 46 species new to the Channel Islands and one species new to science discovered by the author.

A considerable amount of interesting ecological data is presented, but unfortunately no attempt is made to distinguish plant communities, the author confining herself to distinguishing "littoral," "sublittoral" and "e-littoral regions," and "zones" or "belts," indicating the lateral continuity of a genus or species along the shore. The study of the "sociology" of marine algae no doubt presents special problems and difficulties, but there seems no reason why it should not be attacked on the same lines as those established for land vegetation.

A. G. TANSLEY.