Kelp's growth in length is fastest rate known for plant on land or sea

July 29, 1960

The giant kelp of the California coast can grow in length at the fastest rate known for any plant on land or sea, according to research conducted by The University of California's Institute of Marine Resources.

This valuable plant grows up from holdfasts on the sea floor to the water surface, where its long fronds spread out to form a dense, floating canopy.

Length increases of twenty inches per day (10 to 15 feet per week) have been observed as the fronds approach the surface and form the canopy. At this stage of their development, giant kelp fronds can elongate as much in one week as corn plants do in a complete growing season, says Dr. Kenneth A. Clendenning, Associate Research Biologist of the Institute of Marine Resources and of The University's Scripps Institution of Oceanography. Clendenning says this is accomplished by intercalary growth, that is, growth which is distributed throughout the length of the giant kelp fronds. The difficult growth measurements on giant kelp in the ocean which established this result were made by Dr. Wheeler J. North, Mr. James R. Stewart, Mr. Earle G. Cunnison, and other staff members of the Institute of Marine Resources.

A literature search has revealed that the next fastest growing plant on record is the bamboo, which also has an intercalary growth mechanism. Some varieties of bamboo shoot upward as much as twelve inches per day. This is only slightly over half as fast as giant kelp.