VEGETATION AND STEM MAPPING OF WATERSHED NO. 10,

H. J. ANDREWS EXPERIMENTAL FOREST

Glenn M. Hawk

ABSTRACT: Stem mapping of all trees greater than 15 cm dbh has been completed on the 10.24 hectare watershed (No. 10) at H. J. Andrews intensive study site. Using a 25 m grid system, mapping of vegetation into 7 plant communities and then into 4 habitat types has also been completed. Descriptions of these communities based on field notes and extrapolation from reference stands located in the Andrews Experimental Forest are included along with structural characteristics of the communities and habitat types. Size class distributions of living trees greater than 15 cm dbh are also included for the whole watershed, for communities, and for habitat types.

INTRODUCTION: Watershed 10 has been selected for current modeling efforts of the IBP Coniferous Forest Biome project at the Oregon intensive study site, H. J. Andrews Experimental Forest. This report supplies a necessary input for calculating standing crop of vegetation in all strata from trees to mosses. A community description approach has been used with tables and appendices furnishing data concerning trees, shrubs, herbs and mosses occurring within the watershed.

Watershed 10 contains representatives of communities common to the lower elevation regions of the <u>Tsuga heterophylla</u> Zone of Franklin and Dyrness (1969). Within watershed 10 7 communities are identified, which are discussed below. Major emphasis of this report is placed on description of the vegetation. Some comparisons of communities with each other and with other portions of the <u>Tsuga heterophylla</u> Zone near the H. J. Andrews Experimental Forest are also included.

Watershed 10 is a 10.24 hectare watershed that drains to the west. It is located near to but outside of the southwestern boundary of the Experimental Forest. The elevation of the watershed ranges from 1425 feet (435 m) to 2,275 feet (695 m). The entire watershed lies within the Tsuga heterophylla Zone of Franklin and Dyrness.

METHODS: Preliminary surveying of watershed 10 with staff compass, chains and Abney levels was completed in 1970. During this surveying three base lines running north and south were established at equal intervals within the watershed. These base 1% ness served as reference points during the establishment of a 25 m grid system in 1971-1972. Using staff compass, chains, and Abney levels, the 25 m grid system was established with correction for slope over the entire watershed (figure 1). During spring, 1972, aluminum corner stakes were installed and labeled to mark the 25 meter grid corners. Grid sections were numbered, for referencing positions in the watershed.