

COMPARATIVE PHENOLOGY OF SERAL SHRUB
COMMUNITIES IN THE CEDAR/HEMLOCK ZONE

A Thesis

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LARRY ALBERT DREW

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ABSTRACT

A phenological/microclimatic study was conducted on a five year old burn approximately 15 miles east of Coeur d'Alene, Idaho. Seral shrubs dominate the area. Two study plots were located, one each in a grand fir and cedar/hemlock habitat-type.

Records were kept from August to December, 1965, and from March to December, 1966. Air and soil temperatures, precipitation, and soil moisture were measured at weekly intervals; continuous records of air and some soil temperatures were also kept. Phenological records of most plants on the two plots were taken at weekly intervals; records for the first three weeks were taken semiweekly. Phenological events were correlated to environmental factors when possible. Interspecific plant comparisons were also made. Only the more obvious correlations and comparisons could be made with but one full season's data.

The two study plots did not differ greatly in the phenological events measured, although there were significant differences in most of the environmental factors measured. Several of the species measured seem to have phenological events which are correlated - that is, the occurrence of one event may be used to predict the other. The weather records of the study plots compared relatively closely to records from other locations within the cedar/hemlock vegetation zone in northern Idaho. Although only gross extrapolations of the phenological data to other areas are valid with one full season's data, further research should provide the basis for intensive extrapolation.

Suggestions are given for future work in phenological research.