(2) If classification is not possible, it accords the investigator an alternative in the ordination; and

(3) if classification is possible, one often would like to know if the levels of the factors in which one is interested are significantly different in the community-types recognized. This could be investigated by a variance analysis or by a "t" test. If the relationships among the factors and the axes are known, however, it can easily be shown that, in most cases, only those habitat features, that show a significant relationship with the axes, have significantly different means for the different community-types. This does not mean that they have to be significantly different. This depends on the relative position of the clusters in relation to the axes.

It was hypothesized that the correlations or covariances between the quantitative measures of the different species were not due to chance, but were reflections of the reaction of the species to their environment, including the interactions between the species. The relationships which were found to exist between the principal axes and certain habitat factors are an indication of the correctness of this concept.

The fact that the ordinations of the Canadian sample plots are not related either to the height-growth or to the nitrogen content of the white spruce foliage attracts attention. To obtain an ordination which also would be related to these factors, certain soil factors, which were not measured in this study, should be included in the analysis, or better yet they should be analyzed separately for their relationships with the height-growth and nitrogen content of the foliage.

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