

CANOPY ION EXCHANGE MECHANISMS

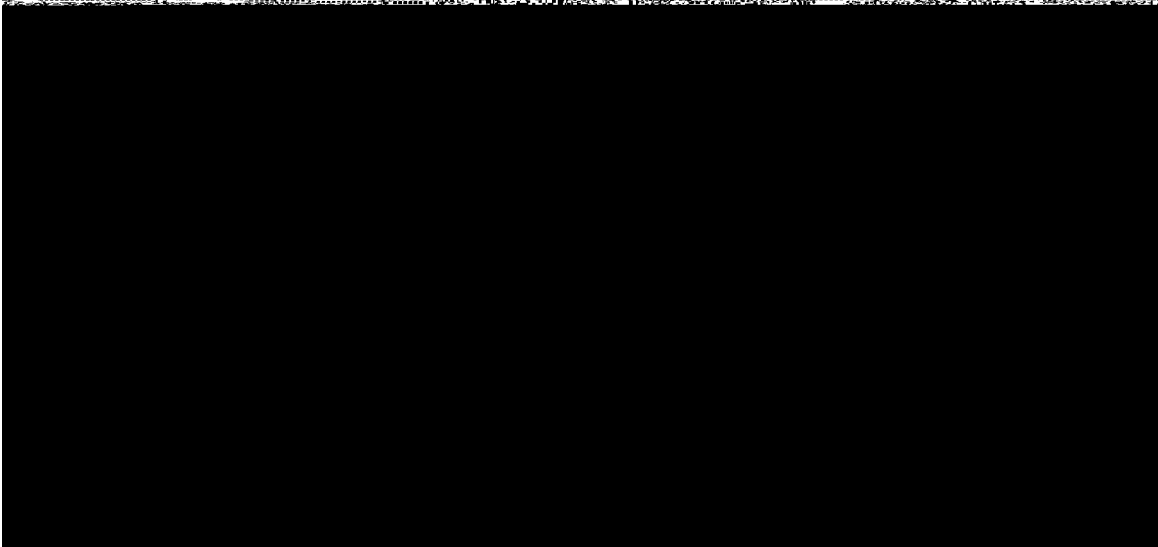
Carl Waite and Tim Scherbatskoy  
School of Natural Resources  
University of Vermont

Cooperators:

Carroll County Institute of Forestry and Wildlife Management

ABSTRACT

Field studies have been conducted to identify mechanisms involved in the regulation of foliar leaching and throughfall chemistry in sugar maple (*Acer saccharum* Marsh.). In 1991 field and laboratory experiments were initiated to determine the relative importance of various factors in the regulation of throughfall chemistry. The results of these studies are presented in this report.



## INTRODUCTION

Integrated full-length genome sequencing of the human genome has revealed a vast amount of genetic information. This information is being used to identify genes and their functions, and to understand the genetic basis of disease. The identification of genes and their functions is a major goal of genomics. The identification of the genetic basis of disease is another major goal of genomics. The identification of the genetic basis of disease is another major goal of genomics.

### Objectives:

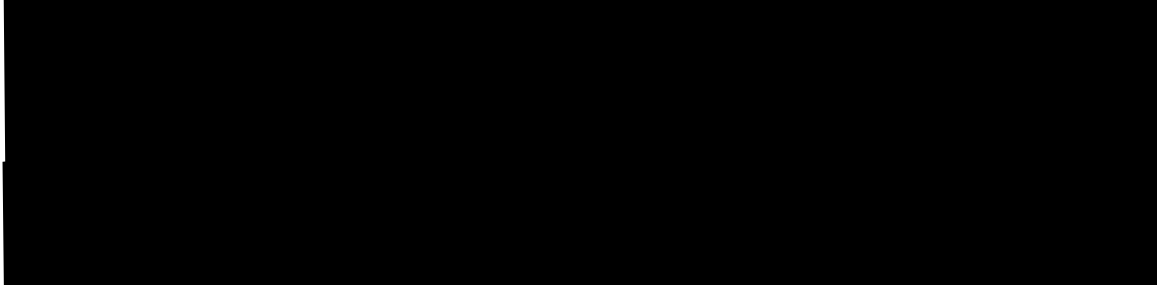
The broad goal of this work is to better understand mechanisms controlling folate metabolism. This work will focus on the identification of genes and their functions, and on the identification of the genetic basis of disease.

as a mist to small branches contained in each branch chamber (1.0 x 1.0 x 1.0 m).  
[Redacted]

Leachate samples were collected sequentially from each branch chamber over 15 min.

[Redacted]

Results from the DI meter were that the pH of the acid mist was 3.8.



The pH of acid mist treatments did significantly affect the leaching of Ca and Mg. The relative amounts of ions leached from sugar maple leaf and stem tissues at pH 3.8



Mg  
2.75

NO<sub>3</sub>  
1.00

factors controlling rates of canopy nutrient exchange. It has been hypothesized that nutrient

[REDACTED]

Defoliation caused by forest insects and diseases

[REDACTED]

**FUTURE PLANS:**

Work remaining includes determining the extent of nutrient loss from defoliated trees

[REDACTED]

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[REDACTED]

**LITERATURE CITED:**

Lovett, G.M. and Hubbell, J.G. 1991. Effects of ozone and acid mist on foliar leaching from eastern white pine and sugar maple. *Can. J. For. Res.* 21:794-802.