

VEGETATION SENSITIVITY

Robitaille (1980), Canadian Forestry Service

Objective

To identify relative terrain sensitivity by the extrapolation of sensitivities of specific species to airborne pollutants which can be used to predict the effects of acid rain impingement on vegetation.

Criteria

- (1) Relative Abundance (RA) of each major forest species within Rowe's (1972) Forest Regions of Canada. Each region is rated accordingly:
 - abundant - 3
 - common - 2
 - frequent - 1
- (2) Relative Sensitivity (RS) rating assigned to each region's species based on their tolerance to SO_2 as follows:
 - highly sensitive species - 4
 - sensitive species - 3
 - intermediate species - 2
 - tolerant species - 1

Sensitivity Class Definitions

(RTS) Relative terrain sensitivity =

$$\frac{1}{N} \times \sum_{i=1}^n RA \times RS$$

where N = no. of species in each forest region.

<u>Sensitivity</u>	<u>RTS</u>
High sensitivity	More than 4.0
Intermediate sensitivity	3.0 to 4.0
Low sensitivity	Less than 3.0

Map Product

Small scale (1:15,000,000) maps of eastern Canada (Ontario, Quebec, N.S., N.B., P.E.I., Nfld.) delineate RTS classes within Rowe's (1972) Forest Regions.