



“Making a Difference”

Canadian Forest Service - Atlantic Forestry Centre has produced an atlas of forest defoliation by five major forest pests, based on an ecological framework employing national data, that provides a more relevant assessment of forest health than could be achieved using the traditional framework based on political or jurisdictional boundaries.

Measuring the areas of disturbance caused by insect defoliation and damage is an essential source of information for maintaining sustainable forest ecosystems. Damage from insect pests can limit all uses of the forest by our society, from harvesting to recreation. Improved decision making and sound policy decisions require knowledge of the extent and level of disturbance in Canadian forests. In the past, this information was reported based on political or jurisdictional boundaries. As a result of the Canada Forest Accord (CCFM) in 1992 and the development of criteria and indicators of sustainable forest management beginning in 1997, Canada began reporting disturbance factors such as fire and insects based on an ecological rather than a jurisdictional framework. Currently, the National Forestry Database Program reports inventory using the ecological classification of Canada; the Forest Health Network's (FHN) recently released national forest health report adopts a similar framework.



Ralph Simpson & Dana Coy
Forest Health Network

Continuing this trend, Ralph Simpson and Dana Coy of the Forest Health Network Geographic Information Systems (GIS) laboratory in Fredericton have produced the first atlas of forest insect defoliation in Canada using ecozone and ecoregion classifications. The atlas shows defoliation coverages for five major forest pests across the country: spruce budworm, forest tent caterpillar, jack pine budworm, hemlock looper and the mountain pine beetle. The defoliation coverages are compilations of aerial survey data collected by CFS and the provinces and territories of Canada for the period 1980-1996. The national insect

defoliation coverages are maintained by the FHN in a GIS library using ESRI ArcInfo®.

The atlas meets national and international requirements for updated reporting standards and also provides greater detail of those insect disturbance events in the form of maps, tables, and histograms. This report offers more analytical opportunities for several ecosystem health issues, such as climate change.

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