Climate reconstructions from five conifer species in southwestern Nova Scotia

Colin P. Laroque
Mount Allison Dendrochronology Laboratory,
Department of Geography, Mount Allison University,
Sackville, NB, E4L 1A7 <claroque@mta.ca>

The growth patterns of five species of conifers (white pine (*Pinus strobus*), red spruce (*Picea rubens*), larch (*Larix laricina*), eastern hemlock (*Tsuga canadensis*), and balsam fir (*Abies balsamea*) from southwestern Nova Scotia were collected in the summer of 2005. Red spruce illustrated a median position between two groups with more distinct, closely related growth patterns. Eastern hemlock and balsam fir formed one group limited by precipitation, while white pine and larch form another group limited by temperature parameters.

Because the two groups fall into two distinct climate-forcing categories, two separate models of paleoclimate were constructed. Classic single-species reconstructions were first attempted, and then multiple species reconstructions were created to improve upon the initial models. These results highlight the need to find different methods of extending base chronologies, as in both cases, the reconstructions are relatively short lived.