

Daniel J. Hayes



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Daniel J. Hayes is a carbon-climate modeler in the Ecosystem Simulation Science group and the Climate Change Science Institute. Prior to joining ORNL, Hayes served as a research scientist on a National Science Foundation-supported project under the Arctic System Science Program. This collaborative project was designed to improve understanding and prediction of the causes and consequences of global environmental change on high latitude system dynamics through a comprehensive analysis of the arctic system carbon cycle. Hayes was also involved in a Department of Agriculture and National Aeronautics and Space Administration (NASA)-supported project (a collaboration between U.S. and Canadian forestry scientists) to understand the effects of disturbance (with a focus on insect defoliation) on carbon cycle dynamics in the context of climate change.

Hayes received his PhD in forest science from Oregon State University in 2006. His dissertation topic focused on the use of remotely sensed data (particularly that from the Earth Observing System-Moderate Resolution Imagine Spectroradiometer sensor) for detecting changes in forest cover and monitoring carbon flux from land-cover and land-use change in Central America. Hayes received a NASA Earth System Science Graduate Fellowship in September of 2003. Through this fellowship and under the supervision of Dr. Warren B. Cohen of the U.S. Forest Service, Hayes modeled forest cover change and carbon dynamics along the Mesoamerican Biological Corridor using a hierarchical system of field data, high-resolution Landsat data, and coarse resolution MODIS (Moderate Resolution Imaging Spectroradiometer). While receiving his MS in forest resources from the University of Maine, Hayes worked as a teaching assistant, instructing classes in photogrammetry and remote sensing, image processing for natural resource monitoring, forest ecosystem management, and summer field forestry.

In addition to his prior academic employment, Hayes has also worked as an airphoto interpreter and geographical information systems analyst/programmer for the Forestry Division of the James W. Sewall Co. in Old Town, Maine. He also spent four years (1996-2000) working as a naturalist guide and coordinator at Denali National Park and Wilder Centers in Denali Park, Alaska.

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