How Will Climate Change and Bioenergy Harvest Affect Carbon Storage in the Oregon Coast Range?

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LANDIS-II Forest Simulation Model
We used a simulation model to explore the impacts of varying scenarios of climate change and forest management on ecosystem carbon.

Climate Change Impacts
Climate change leads to slower carbon accumulation in all pools.

Harvesting Impacts
Increasing harvest intensity for bioenergy only slightly decreases ecosystem carbon.

Projected Carbon Storage in the Panther Creek Watershed
Results are presented for the Panther Creek watershed, in the northern Coast Range.

Bioenergy Harvesting
Bioenergy harvest removes slash for energy production, which could potentially reduce site productivity.

Continuing Work
- Simulate entire Coast Range, including BLM, Forest Service, state, tribal and private lands
- Include climate change impacts on wildfire
- Simulate a wider range of management scenarios: current management, climate change, adaptation, ecological forestry, economic growth, and watershed protection

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