

## Simulating future climate change impacts on forest

Future climate change will have a drastic impact on forests, affecting important ecosystem services such as timber production or carbon sequestration. Dynamic vegetation models have been used to make projections about future vegetation changes based on different climate projections for global, continental or local scales. However, policy makers and ecosystem managers need to have information about future changes on the regional scale. The proposed MSc-project would upscale an existing, local-scale dynamic vegetation model (LandClim) using the high performance computing cluster at the University of Bern (UBELIX) to make detailed predictions about future forest composition in Switzerland. The MSc-project would be in close collaboration with the Oeschger Centre of Climate Change research at the University of Bern.

Methods: dynamic vegetation modelling, numerical techniques, GIS

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Warmer temperatures and drier summers are expected to alter the species composition of forests. Dynamic vegetation models can be used to simulate these changes and provide important information to maintain future ecosystem services. Picture: Christoph Schwörer