Dynamizing tree height growth improves the simulation of forest productivity under climate change

The main question: How will climate change influence forest productivity in Switzerland?

Model improvement:

In gap models like ForClim maximum tree height is a fixed species-specific **parameter**

We converted this parameter to a sitespecific **variable** that is adjusted based on drought and degree days

As a consequence, on cold and dry sites trees do not grow as fast and tall as before

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The model:

- Is paramterized for 30 species in Europe

- climate sensitive
- mechanistic

Simulates tree

- growth
- mortality
- establishment

on several small patches of land

The study locations:



Eidgenössische Technische Hochschule Zürich Swiss Federal Institute of Technology Zurich



ForClim

