

Introducing *Biospytial*

An Open Source graph-based computing framework for managing and
modeling spatial ecological data

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Why are ecosystems important?

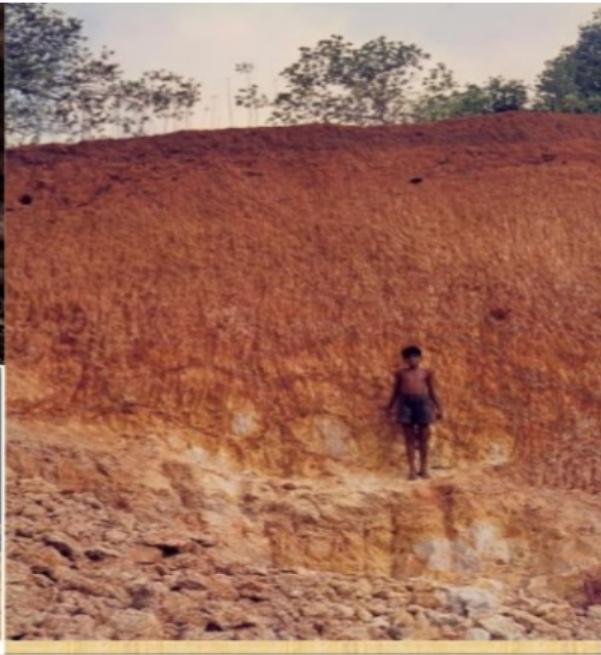
Support



Figure: Primary production

Why are ecosystems important?

Support



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Figure: Soil production

Biospatial: a Graph Based Engine

We drink water and breathe air

Provisioning



tornestrask tornejärvi © 2007 Tommi Lahtonen

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Figure: Water cycle and purification

We eat

Provisioning



Figure: Food supply

Biospatial: a Graph Based Engine

Self-regulating systems

Regulating Services



Figure: Disease regulator

Regulating services



Figure: Energy and salt concentration

Regulating services



Figure: Energy and salt concentration

Why model them ?

The environment changes

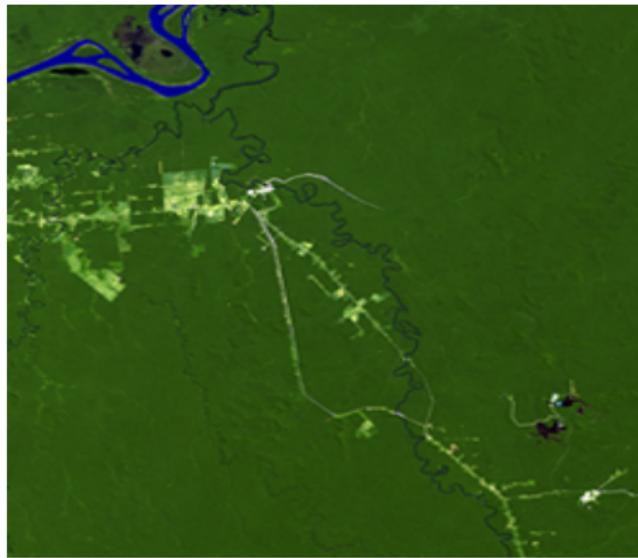


Figure: Landsat 5 images from June 24, 1984, and August 6, 2011. (U.S. Department of the Interior — U.S. Geological Survey)

Why model them ?

Climate Change Mitigation and Response

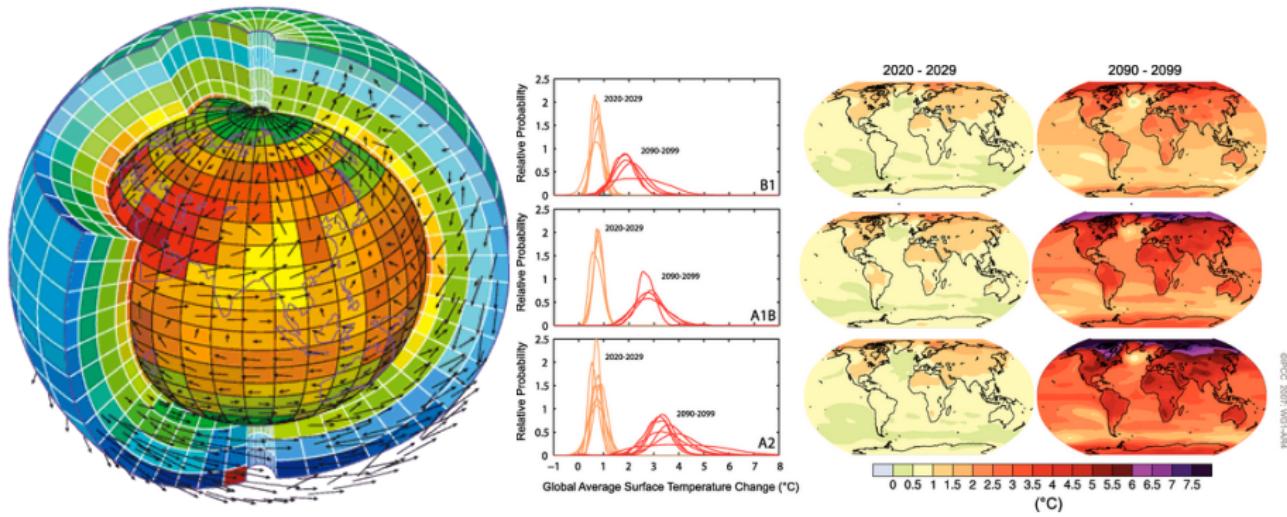


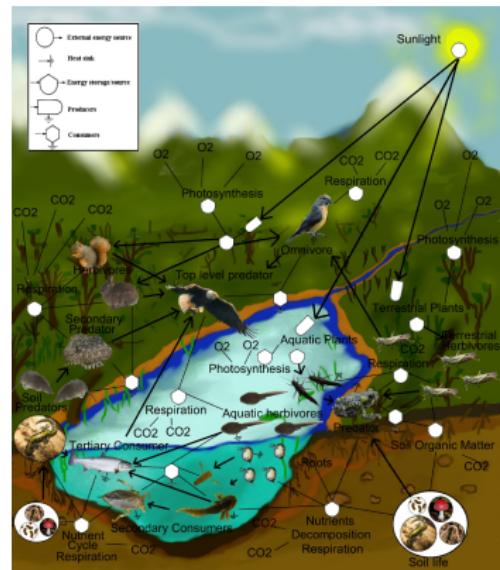
Figure: Earth System Models ((L. Fairhead /LMD-CNRS) and IPCC, 2007)

Main question is ...



Spatial regression of ecological networks

- Find the underlying process that shapes the "species" assemblages.

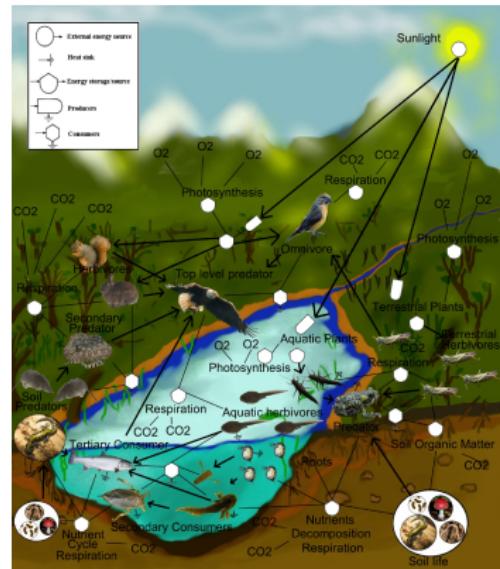


Main question is ...



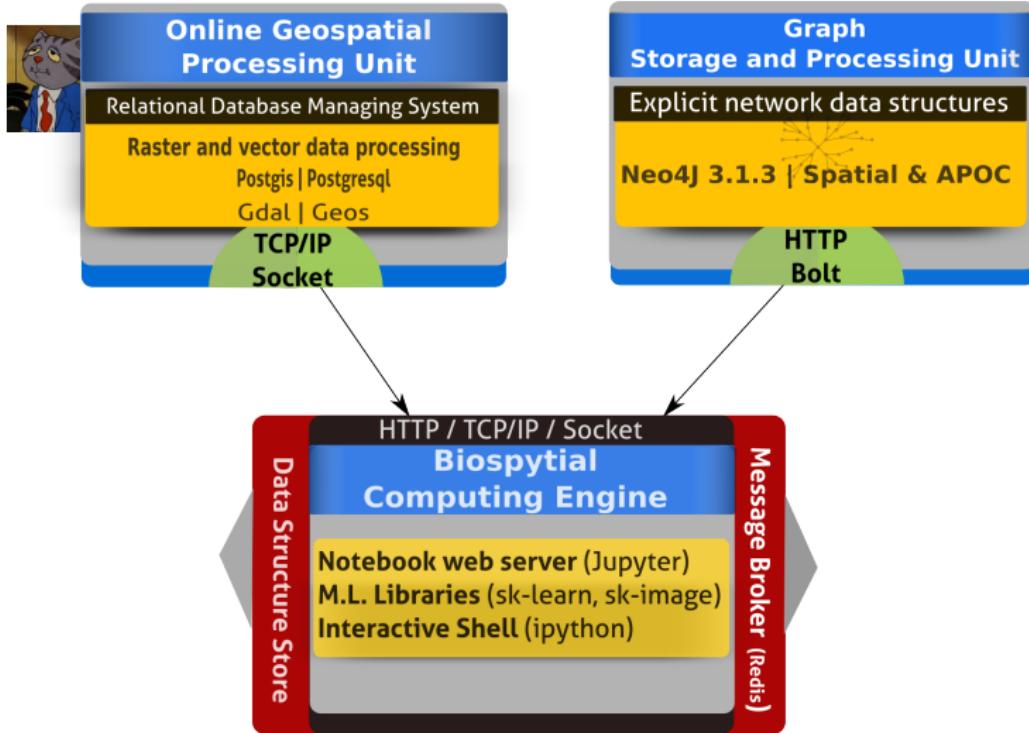
Spatial regression of ecological networks

- Infer the probability of assemblages of taxa for a given location.



Services and Modules

Put here diagram paper1



Some Demo



Code and container availability

