Lifemapper 2.0

Species Data Archive
and
Data and Analysis Services

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Overview

• Species Data Archive
  – Ecological Niche models and projections
  – Climate Data
  – Digital Occurrence Data

• Data and Analysis Web Services
  – All data and metadata
  – Modeling & Spatial Analysis
SRES Scenarios

A1
Global
Population
Economy
Technology
Driving Forces

A2
Regional
Environmental
Energy
Agriculture

B1

B2
GBIF Occurrence Cache

- Gathered with DiGIR
- 200+ institutions
- Local cache
- Single point access
- Single format
Data Browsing
Aplodinotus grunniens

Freshwater Drum (Aplodinotus grunniens)
Model / Projection Archive

- Created with openModeller
- Occurrences X Algorithms X Scenarios
- Data and Metadata
  - Exposed via webservices
  - Clients include LM website
On-demand Modeling service
Arnica cordifolia
Google Earth
How does it work?

• Input data: Point / Environmental
  – LM cache or User provided

• Pipeline
  – packages inputs
  – sends to **Modeling** service

• Compute cluster
  – Accepts request
  – Computes experiment
  – Returns data
What does the future hold?

- User inputs
- More algorithms
- Quality assessment
- Desktop client
- Education
- Open Science Grid