

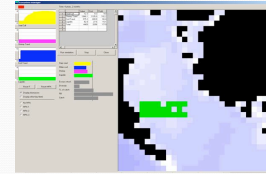
Ocean Futures

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CPCS 533
Info. Viz.

Introduction (Ecopath)

- Ecopath with Ecosim
 - Ecosystem modeling tool;
 - Describes an ecosystem
 - Snapshot
 - Time dynamic
 - Spatial dynamics
 - Scientifically recognized;

Introduction



Dataset

- Initial:
 - Individual Scenario
 - Set variables
 - Fishing effort (4)
 - Marine protected areas (4)
 - Output variables
 - Value, Cost, Profit per fishery (4)
 - Biodiversity (4)
 - Scenario comparison
 - Value, Cost, Profit
 - Biodiversity
- Now:
 - Catch (4)
 - Biomass(4)
 - Cost(3)
 - Effort(3)

Background

- Equation calculator (ESRI)
- Small multiples (Tufte)
- Lens
 - Layers
 - Saturation

Usage

- By scientist
 - A lot expert audience;
 - Benefits general audience.
- GOALS: Comparison
 - between different simulations;
 - between time;
 - between variables.

Demo

Components/Libraries

- Toolbox
 - Users can visualize type of data;
 - Visually flat;
 - Spacing/Alignment/grouping.
- Tool units
 - Layered information for small area;
 - Icons representation.
- Equation
 - Visualize and Mechanize creation;
 - Argued to help memory;
 - Instant feed back of data;
 - Use of 3D where needed.



Components/Libraries

- Small Multiples (Maps)
 - Good overview.
- Small Multiples (Graphs)
 - FREEBEE! By ZedGraph
- Scalable to larger data
 - Future ability to zoom in.
- Lensing
 - For each data set;
 - For sum equation.

Strengths/Weakness

- Weakness:
 - Lacks full functionality;
 - Slow;
 - Bad Legend scale;
 - Equation model can be strengthen

What I learned



- Concepts are just _ the battle
- Nitty gritty
- Viztools are great, but are to specialized

- Overall:
 - POTENTIAL