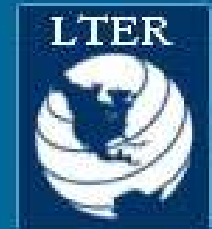




Ecological Observatories

MES gCORE, Fall 2011

Judy Cushing



Why Ecological Observatories?

Where are they?

Where do they get their data?

What issues do observatories face?

What do they offer you, and how do you get that?

Some data exploration....

Why Ecological Observatories?

**Why not just fund ecology, environmental science,
environmental studies, research ?**

Where are the Ecology Observatories?

9 NSF-funded* observatories

1. Arctic Observing Network AON <http://www.aoncadis.org/>
2. # Community Hydrologic Modeling Platform CHyMP
<http://www.cuahsi.org/chymp.html>
3. # Hydrologic Information System HIS <http://his.cuahsi.org/his.html>
4. Critical Zone Observatories CZOs <http://criticalzone.org/index.html>
5. Hydro Next-generation Radar HydroNexrad <http://hydro-nexrad.net/> radar-rainfall data for hydrology, hydrometeorology, water resources
6. Long-Term Ecological Research LTER <http://www.lternet.edu/>
7. National Ecological Observatory Network NEON <http://www.neoninc.org/>
<https://s2i2eonworkshop.renci.org/>
8. Ocean Observing Initiative OOI <http://www.oceanleadership.org/>
9. Water Sustainability & Climate Program WSC
http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503452

CHyMP & HIS are both
CUAHSI <http://www.cuahsi.org/>

*span 5 NSF Directorates: (what are they?) <http://www.nsf.gov>
Geoscience GEO, Engineering ENG; Social, Behavioral,
Economic Sciences SBE, Biological Sciences BIO, Polar Programs OPP.

Where are the Ecology Observatories?

Other Observatories

1. **EEON**
2. **iLTER**
3. **USGS**
4. **NASA**
5. **NCAR**
6. **Unidata ??**
7. **National Snow and Ice Data Center (NSIDC),**
8. **Stroud Water Research Center ??**
9. **Supercomputing Centers**
10. **Woods Hole Oceanographic Research Center**
11. **??**
12. **??**
13. **??**

Where do the Observatories get data?

- 1. Researchers**
- 2. Their own monitoring efforts**
- 3. Citizen Scientists?**
- 4. ???**

What do the observatories offer, and
how do you get it?
Let's look at one – The LTER Network

<http://www.lternet.edu/>

Be sure to check out the 26 sites:

<http://www.lternet.edu/sites/>

Some data exploration....

The H.J. Andrews LTER Site

<http://andrewsforest.oregonstate.edu/>

Try finding publications and data sets

that our HJA/OSU speakers are associated with!

1. Barbara Bond

2. Marc Harmon

3. What data might you want?

What issues do the Observatories face?

1. Getting the data
2. Validating the data....
3. Documenting the data
4. Making it easier to find & use the data....
 - Visualization
 - Modeling & Analysis