Report of LTER ASM Working Group on Identifying Synergies between LTER and NEON

10, Sept. 2012, Longs Peak/Granite Pass Center, YMCA of the Rockies, Estes Park, CO.

This working group aimed to; I) further foster active communication on issues of shared concern, and ii) identify opportunities for joint initiatives between LTER and National Ecological Observatory Network (NEON) scientists. The meeting was attended by ~50 scientists, including 7 from NEON.

The working group began with (6) 10-15-minute oral presentations by NEON and LTER scientists. They were:

1. A brief overview of the NEON (D. Tazik)
2. The role of ecologists in balancing scientific creativity with baseline infrastructure (H. Loescher)
3. Big, hairy, messy data: how do we straighten this out (B. Wee)
4. Current LTER collaboration in sensor-based data (J. Taylor)
5. Organismal sampling designs for terrestrial and aquatic biota (D. Tazik/H. Powell)
6. Vision on potential synergies between LTER and NEON (Alan Knapp)

The remaining ~45-minutes was structured as an open discussion between LTER and NEON scientists centered around guiding questions on identifying paths forward to further strengthen ties between these two organizations. Dr. Debra Peters served as rapporteur. Minutes and presentations were captured and made available online for comment by those in attendance at the following address: http://communities.neoninc.org:8090/display/ISBLN/Identifying+synergies+between+LTER+and+NEON+Home

The presentations focused on clarifying the NEON design and issues of mutual concern between LTER and NEON. Presentations were well received by scientists from both networks. LTER scientist and Colorado State University Professor, Dr. Alan Knapp, spoke on *Potential Synergies between LTER and NEON.* Knapp provided a new perspective on the strengths of both networks including LTER's balance between observations and experiments and the uniformity and comparability of NEON sites and methods. He suggested that initial, yet powerful, opportunities exist around collaborations centered on spatial and temporal context in data, calibration and validation, and the collection of complimentary data.

The discussion following the presentations was a lively and productive. Potential synergies were identified and LTER scientists made constructive suggestions for NEON scientists. The highlights are described below:

Suggested NEON Actions:

- Much interest was expressed in getting more NEON documents online as soon as possible. Specific examples included:
    - Placing NEON protocols online for viewing and community review
    - Placing NEON site characterization reports online

- There is a sense of confusion surrounding the organizational structure of NEON. NEON needs to post an organizational chart online along with a more comprehensive list of employees, staff, board, members and contact information.

- There is much interest in how the future proposal process for NEON taskable assets will be structured.

- The NEON data catalog needs to be available to online and needs to be transformed into a usable format. The scientific community is very interested in specifics regarding NEON data products, but they do not want to wade through the catalog in its current form.
  - A well organized and sortable NEON Data Products Catalog will allow people to do innovative science with innovative combinations of data they may not have otherwise considered
  - The Data Products Catalog should not be solely alphabetical, but rather alphabetical or able to be filtered by data type (e.g. soil parameters, organismal parameters etc.)
  - A data product of the week on the NEON website could be a great way to provide people new knowledge about the NEON data products. Similarly, featuring a data product in each newsletter would be beneficial to the community.

- The NEON data portal needs to be easily navigable and self-explanatory. It should require no assistance to retrieve data.

- There were also questions surrounding the process for working in conjunction with NEON at NEON sites. LTER scientists remarked that clarifying these processes as soon as possible would be appreciated and facilitate future collaborations and the motivation to collaborate.
  - Several people expressed that this process should be kept as simple as possible.

Future Directions and Collaborations

- LTER experiments may be used to make predictions about NEON data and vice versa

- After 20-30 years NEON data may be useful in informing new LTER sites. Likewise, LTER data may be useful in informing the location of new NEON relocatable sites.

- A joint LTER-NEON postdoc was suggested as a potential first initiative.

Attendees List: Identifying Synergies between LTER and NEON 10, Sept. 2012, Longs Peak/Granite Pass Center, YMCA of the Rockies, Estes Park, CO.

Note: Several people in attendance did not sign in.

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