

**Workshop Title:** LTER Information Managers Meeting: Information management issues and the LTER Trends project: A drawing board for making cross-site comparisons feasible

**Organizer(s):** Christine Laney - JRN, Ken Ramsey – JRN, Mark Servilla - LNO

**Agenda:**

- A report to IM community on the progress of the Trends project
- A 20-minute breakout session into 3 groups, soliciting
  - how Trends can be used by ILTER sites, and whether it might be useful to think about an international Trends effort
  - comments from IMs on process and satisfaction regarding the Trends project
  - new ideas about data management and synthesis; technical aspects
- A more detailed overview of the nuts and bolts of the Trends website

**Notes from breakout sessions** (these notes are distilled from the original notes, taken by several participants):

1) *How Trends can be used by ILTER sites, and whether it might be useful to think about an international Trends effort*

Pros:

- Trends US could motivate promotion for LTER activities and gain more understanding & support for such activities
- Great advantage to be able to use and compare data from different regions of the world.
- Trends US can be role model to international sites
- There is a variety of research elements
- Each site can contribute to global studies
- Opportunity to initialize(?) documentation/metadata at each site.
- If online, could help some sites with cross-site synthesis
- Would make a nice template for similar efforts for non-LTER sites and for teaching
- Potentially useful for climate change analyses, e.g., compare non-US sites with US sites
- Could begin with current structure
- Would help boost ILTER network identity

Cons:

- IMs don't know if scientists in their countries would be interested.
- International sites may not have long enough data since many research projects are 5 years long or shorter.
- If data exist, it is still a big task to integrate those old existing data

- Lack of funding
- Different sites have different capacities
- Lack of precise goals, needs for each of the sites.
- Lack of documentation/metadata and standards for data documentation
- PI lacking experience in IM/no time to do all
- Would take significant amount of time
- Would need a person to be in charge of the project and information gathering

Suggestions:

- Need guidance to initial trends in other countries
- Would need to develop mechanisms for doing such a project
- Goal/future trend of trend as can be studied/ adopted by others
- ILTER sites need real involvement and accomplishment and recognition for their efforts. Need to somehow fit into the current system given non-ilter standards & huge differences between sites.
- Each region could have its own group & then each group could communicate (Mexican ILTER and Eastern Europe groups are already starting this and have some long-term data).
- Have to have a regional presence and flavor. Previous problems with data being sent out with no feedback or rewards.
- Would be helpful if other centers were doing the data derivation
- A global office for reporting would also be helpful

2) *Comments from IMs on process and satisfaction regarding the Trends project*

- The proportion of PI vs IM time, commitment, and effort to the Trends project varies widely from site to site. The Trends project fostered some IM/PI relationships. Several participants saw PI involvement as necessary part of the process, and some people thought IMs should have been involved directly throughout the process.
- The overall level of effort placed by each site also varies, often dependent on existing site resources and amount of data that each site can contribute.
- The Trends project has promoted some cross-site collaborations in terms of research and in data management.
- The process used to communicate with IMs has not always been clear, and there has been some frustration due to multiple, similar requests and lack of clarity in the requests themselves. It was sometimes challenging to relate the requested term (e.g., species richness), to site research
- New datasets were discovered in the process of checking with PIs for data.

Suggestion: it would be interesting to survey the sites on their feelings about the Trends project and for input regarding the process.

3) *New ideas about data management, data synthesis*

Issues Discussed:

- Issues of provenance – tracking the origin of derived data.

- Tracking the origin of aggregates of data (derived data that is composed of multiple raw data).
- All derived data should be well documented, including individual observations.
- How to track data that is investigator oriented as opposed to site oriented – need to collect a different set of metadata.
- Need to display or provide a summary of metadata for provenance; how to drill down to the next level of detail. This is really a formatting issue, but should identify key parts of the summary.
- How to document dynamic datasets. We assume “snap-shots” in time.
- Need funding to continue research.
- Who is actually cited for derived data? For example, if your graph is generated by 20 data sets, do each of the originating sources of the raw data need to be cited individually? NCEAS has developed guidelines such that if derived data can be decomposed into individual raw data, then there should be some tractability back to the originator (not necessarily citing in publications, though – this is really more of the scientist's decision). However, if the derived data cannot be decomposed (in a reverse engineering sense) in the raw data, then it is solely the ownership of the entity performing the transformation.

Recommendations: Create a sub-committee of the Trends Editorial Committee to address issues of derived data ownership; look towards NCEAS as an example.

### **Participants**

Most participants of the IM Ancillary day were present, as well as several others. This list may be obtained at [http://gce-lter.marsci.uga.edu/lter\\_im/2006/app/participants.asp](http://gce-lter.marsci.uga.edu/lter_im/2006/app/participants.asp). The below lists are participants of the three 20-minute breakout sessions.

#### 1) ILTER:

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2) Reactions and input from participating IMs

Ken Ramsey (moderator), JRN  
Dave Balsinger, NTL  
Linda Powell, FCE  
Theresa Valentine, AND  
Steph Lyon, CDR  
Zhiqiang Yang, AND  
Chris Gardner, MCM  
Barrie Collins, CWT  
Todd Ackerman, NWT  
John Campbell, HBR  
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Rebecca Koskela (for Brian Riordan), BNZ

3) Data use now and in the future

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