

## MINUTES

# Long Term Ecological Research Coordinating Committee Meeting:

Northern Temperate Lakes LTER Program

Madison, Wisconsin

OCTOBER 16-18, 1998

**Chair: James Gosz**

**Science Theme: "Linking natural and socioeconomic processes: long term human interactions with the landscape."**

Notes of John Vande Castle, last edited 11/1/1998

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## Summary Actions/Recommendations

- **Standing Committee formed on Social/Economic Science Development in LTER**
- **Develop information to guide site proposals for potential competitions for Environmental Observatories; a) intensive measurement site, b) extensive/distributed measurement network. This would be the responsibility of Tech. Comm.**
- **All Scientist Meeting - 2000; Work toward synthetic keynote talks in the morning, maximize workshop topics in afternoon and evenings, maximize roles/opportunities for student involvement.**
- **The Network Office can support planning activities for workshops developed for the All Scientists Meeting; organizers have the responsibility to develop workshops. Organizers encouraged to develop workshops in a variety of ways (e.g., include plenary talks, invite non-LTER participants, produce publications).**
- **Recommendation to NSF: keep supplement request opportunities broad; allow cross-site, REU, site infrastructure development; provide sufficient time to develop cross-site requests.**
- **An ILTER Publications Committee will be developed to facilitate ILTER synthesis volumes.**
- **Publication Committee will develop guidelines for site volumes based on experiences from current interactions with Oxford; will develop guidelines for ILTER efforts to consider.**
- **Recommendation to collaborate/participate with DIVERSITAS and the International Biodiversity Observing Year (IBOY).**
- **Develop web page for descriptions of social-economic research at LTER sites.**
- **Develop 1-2 page Science Stories based on e.g., site discoveries, science themes, core areas, cross-site research results, International collaborative research.**
- **Expand the Technology Committee to 1 representative per site and provide funding to allow meetings and report preparation.**
- **Data Managers will develop library of site capabilities in information management to facilitate proposal development by applicants for postdocs in bioinformatics in the LTER Network**
- **National Advisory Board:**
  - **Suggestions encouraged to increase the number and broaden the expertise of Board Members**
  - **National Advisory Board Information Need; survey request starting next week that will provide quantitative information on the status and progress since the last review by the Risser Committee**
- **Executive Committee Recommendation:**
  - **... involve more executive, coordinating committee, and LTER members in representing LTER interests in meetings with other agencies, countries, etc.**

### Next Meetings:

- **Spring CC Meeting - Puerto Rico - April 22,23**
- **Fall CC Meeting -Hubbard Brook -Oct. 1,2,3: "Disturbance and Recruitment Dynamics"**
- **No Spring CC meeting in 2000**
- **All-Scientists Meeting August 2000**

### PowerPoint Presentations:

- **James Gosz:** [Meeting outline and Agenda](#)
- **Robert Waide:** [Network](#)
- **John Vande Castle:** [GT-NET Demonstration Project](#)
- **John Vande Castle:** [Technology Committee](#)
- **John Porter:** [Data Management Committee](#)
- **Jess Zimmerman:** [Puerto Rico/Hurricane Georges](#)

### **CC Meeting Introduction:**

John Magnuson welcomed the LTER CC to Madison and the North Temperate Lakes LTER. Introduction of participants around the room was made and Jim Gosz presented the revised agenda for the meetings.

### **NSF Report:**

Bruce Hayden discussed current activities at the National Science Foundation. He described the future initiatives, in particular the "LEE" initiative. This initiative, Life and Earth's Environment will continue to support global change research and will also address biodiversity and ecosystem processes as well as focus on the human dimensions of environmental change. The LEE includes observatories for environmental research and two areas of interest and planning are related to biodiversity and microbial observatories. The observatory concept is in planning and development. While LTER are our type examples the capacities at such observatories need additional development. Help form the community in thinking about observatory capabilities is welcome. Short, 4-5 page white papers on the concept of observatories would be welcome. Call for proposals related to Microbial Observatories will be out from NSF this fall with proposals perhaps due early in 1999. He also talked about networking all of field biology and encouraged LTER to submit proposals to the next call for proposals to the Knowledge and Distributed Intelligence (KDI) to advance this networking goal. He also mentioned an announcement related to bioinformatics postdoctoral opportunities available at "<http://www.nsf.gov/cgi-bin/getpub?nsf98162/>". He suggested that the LTER IM group document what information technology (IT) resources are available within the LTER and ILTER network that could be available to postdocs. The network has long had a leadership position in IT and should continue in that leadership. Cross site approaches or a travel component could be part of the postdoctoral activities. Think new! The LTER community should be able to take advantage of the new initiatives because of its basic infrastructure. Distributed observatories (the networking all of field biology goal ) that are networked should be in an excellent position to compete for upcoming initiatives. LTER supplements may be possible depending the budget this year. Supplements are expected to be related to Teacher/Schoolyard activities, REU work, and possibly other activities that is still under discussion. The LTER CC expressed interest in cross-site activities, and Bruce suggested that discussions at the program director level (i.e. Scott Collins) would be the best place to communicate the ideas. He also mentioned Observatories are part of the LEE "method" of doing science, the community should watch for new observatory related activities.

### **National Advisory Board Meeting:**

Bob Waide discussed the upcoming (December) LTER National Advisory Board (NAB) meeting. Paul Risser, the NAB chair provided some suggestions on information needed. For preparation, LTER will need to accumulate data on LTER achievements - bullets, site statistics such as students, postdocs, interdisciplinary efforts, and cross-site publications. For the NAB meeting, a web page and presentations will be set up, and a dry run of the presentations will be made. Other NAB members include Anne Bartuska, Bill Heal, Jim Beach, Bob Robbins.

The basic agenda for the NAB meeting will include:

- NSF's vision for the LTER Network, presented by an NSF representative
- Achievements of the LTER Program
- LTER in the context of National Priorities
- Progress since the last 10 year Review
- Role of the Network Office
- Information Management and the Network Information System (NIS)

- Cross-site and regionalization efforts
- Partnerships
- International LTER
- Visions for the Future - observatories, education and socio-economic activities
- Open discussion

The afternoon of the second day will be used by the committee for report writing prior to their departure. Discussion involved increasing the size of the NAB and increasing the breadth of disciplines. Individuals were encouraged to submit additional names for consideration. The web page for the NAB meeting will be put up by November 15 with a packet of information sent to participants by November 22.

### **All Scientists Meeting - ASM 2000:**

Robert Parmenter provided a preliminary agenda for the planned LTER All Scientists Meeting. The LTER ASM 2000 will begin on Tuesday with ESA starting the following Sunday. ESA will provide seamless registration for both the LTER ASM and ESA, with 600 rooms blocked out for LTER.

Discussion by the CC suggested that plenty of time be available for workshops rather than simple paper sessions since this will be done at ESA. Shorter plenary talks would be useful in the mornings with potential for multiple papers on some days. Discussion encouraged maximizing the opportunities for workshops, interactions with other LTER scientists, non-LTER scientists and students. The vision for the meeting will be workshop and product oriented, new research directions, opportunities for students, and outreach to the broader community for increased collaborations. LTER scientists were encouraged to develop workshops. The LTER Network Office can help fund planning activities for these workshops.

The preliminary agenda will be placed on the LTER web page for feedback.

### **Publications:**

Phil Robertson presented information related to the Oxford publication series. The Konza publication is out and the process worked well. The Soils Methods synthesis is in the copy-edit state and should be published by the end of the year. A large number of sites have chapters and this information will be requested as information to present to the National Advisory Board. An outline or guideline template will be placed on the web for reference to sites wanting information on how to submit publications to Oxford. Jim Gosz mentioned that the LTER Executive Committee (EC), discussed use of the LTER Oxford series by Networks of the International LTER community. The CC discussed this and thought this was a good idea, with attention to quality control. The publications committee will discuss this further for general organization and provide guidance for these volumes to ILTER sites. It was recommended that a separate ILTER Publications Committee be established to work with countries that are interested in producing volumes to ensure an acceptable quality series.

### **LTER-SCSC Modeling Workshop:**

Robert Waide reported on new initiatives related to a workshop to be held December 15-18 at San Diego to investigate the use of SDSC facilities to advance LTER science. Resources include a co-funded person at SDSC, and an NPACI funded post-doc at the LTER Network Office with additional monies for workshops.

Goals include short-term, high impact activities in collaboration with the KDI proposal that has been funded between Univ. of Kansas and NCEAS with an interaction with the LTER Network Office. There will be focus on the development of longer term projects.

### **Observatories:**

John Hobbie reported on LTER activities related to Microbial Observatories. The synopsis of microbial work by LTER sites is on the web, and available for download at ( [http://www.lternet.edu/research/technology/microbial\\_ecology](http://www.lternet.edu/research/technology/microbial_ecology) ). A white paper has been produced by the LTER microbial ecology committee and a presentation was made by the

committee to NSF. An announcement related to potential funding for microbial observatories is expected from NSF-MCB (Molecular and Cellular Biology). It isn't yet known exactly what will be included in the announcement. The LTER white paper on this is available at

[http://www.lternet.edu/research/technology/microbial\\_ecology/lter\\_me\\_whitepaper.html](http://www.lternet.edu/research/technology/microbial_ecology/lter_me_whitepaper.html).

Bruce Hayden presented information related to Biodiversity Observatories. A workshop was held in September related to this by NSF and the report is on the web at <http://www.VCRLTER.virginia.edu/biodwrk98/>. The web page report has a way to offer feedback related to the report and NSF welcomes information related to this activity. There will also be a follow-on workshop. The biodiversity observatory concept includes infrastructure development at LTER and field station sites and a separate support mechanism for those with taxonomic expertise to engage in repeated measures in space and time (within observatories and between observatories). Site infrastructure would include virtual survey grids, navigated by GPS and supported by data bases and GIS structures. A related activity, DIVERSITAS/IBOY is an international observatory effort that will be important to pay attention to. A draft paper to be submitted to BIOSCIENCE BY Hal Mooney was passed out, that reports on this activity.

There has not been a large amount of information related to an expanded capacity at environmental observatories like LTERs and technological expertise and information is still needed as basic planning information. The LTER network and its standing Technology Committee can be a big help in this area. Bruce Hayden suggested that new technologies or capabilities at environmental observatories be a work area for the committee. The concept is to be on top of and stay on top of new technologies that will improve our capacity for environmental observation. Hayden suggested that observatories would need both intensive observations at point on a landscape and extensive observation across the landscape. Focus on both spatially intensive and spatially extensive measurement systems will prove of value. The Technology Committee will focus on the information needed for these research efforts.

### **Network Discussion:**

Bob Waide led a discussion by the CC related to the LTER Network composition. Feedback from the LTER PI and the LTER EC suggested that recommendations by the previous LTER 10 Year Review are a good guideline. Future sites perhaps from the LMER or congressional mandate will bring the LTER Program to about 25 sites as recommended. Funding has been a limitation to the LTER science at individual sites and it was noted that the Risser report called for increased funding at sites as well as an expansion to 25 sites. Developing collaborations with other US agencies (network of networks) has not progressed to the degree called for in the previous review. Activities are ongoing to build those interactions with other agencies. The LTER EC put together a vision statement to be part of future discussion, which will be added to the LTER "VISIONS" web page currently under development at NET.

### **LTER Visions:**

Bob Waide presented information related to the need for information for planning purposes in the form of vision statements and documents. These will be placed on the LTER web page as planning documents to be used for future activities. The planning documents could be used by agencies including NSF. John Hobbie mentioned that similar information has been used by other groups. The vision statements could also be used as 1-2 page documents, both science stories and brochures that advertise the future scientific efforts of the LTER Network. The vision statements would be valuable for use at the December NAB meeting, and later for use by the LTER Executive Committee in discussions with NSF (e.g., the next LTER Executive Committee Meeting in Washington next February). The committee agreed unanimously to continue with the work.

### **Climate Dynamics and Ecological Processes:**

Ray Smith discussed LTER synthesis efforts from the previous workshop on climate dynamics. A committee has been formed to work up these efforts consisting of Glenn Juday, Ray Smith, John Magnuson, and David Greenland. The current web page related to this effort is on the PAL Webpage at:

<http://www.crseo.ucsb.edu/lter/projects/ecoclimagte98/>. Information was sent out to previously interested people but the committee has not received much feedback. The CC showed interest in this work and a suggestion was made to continue, including involvement of the LTER data management committee. The CC committee agreed unanimously to continue with the work.

### **LTER/ILTER Filming:**

Jonathan Swinchatt from John Dennis Productions described ongoing efforts to produce documentary videos for both the LTER and ILTER programs. Information regarding this activity was first presented at the previous LTER CC meeting at the Shortgrass Steppe LTER. He described the current activities to put together a full proposal for this activity to be funded by NSF and other sources. The proposal is for a series of television and video programs to be used for a variety of audiences. The primary products are broadscale broadcast products such as a 1 hour video that would highlight research and activities of the LTER program to be shown first at the Year 2000 All Scientists Meeting and later for more general television broadcast. A secondary product will be a short and more direct description of LTER to be used for more focused audiences such as NSF and other agency use. Additional products can be developed for educational uses.

### **Education and LTER Schoolyard:**

Jim Gosz presented current information on past supplements for education activities and mentioned that it is possible that similar funds may be available in LTER supplements this year depending on the budget situation at NSF. A committee meeting/workshop consisting of representatives from 11 sites will be held next week that has a goal to develop a Network level program for K-12 and Schoolyard LTER efforts. The committee agreed unanimously to continue with the work.

### **LTER Technology Committee:**

John Vande Castle presented information regarding the status of the current technology committee and a recommendation from the review panel of the LTER Network Office cooperative agreement that the Technology Committee be structured similar to the current data managers committee. This would allow a much more focused and intensive effort to identify current technologies used across the network, recommendations for technologies needed by the network, identification of new technologies that need to be developed to facilitate LTER research efforts. An amended motion was made for the formation of a committee with a representative from each site and a future organizational meeting supported by the Network Office. This motion was approved unanimously.

### **LTER Student Committee:**

Greg Hoch showed the list of current graduate student representatives and requested information for updates if needed. The graduate student meeting at ESA was attended by about 40 students from 15 sites. A subcommittee has been formed to organize activities at the upcoming All Scientists meeting. The committee will develop ways to involve both graduate and undergraduate students at the meeting, such as helping with logistics, having the students present information in their intersite workshop and participate in the development of specific workshops. Christine French mentioned that the recent student LTER exchange to Taiwan was very successful and also requested that LTER PI's work to have their database records on current graduate students up to date. There was discussion that information passed to sites relative to graduate student interests and opportunities frequently was not getting to students. The rapid turnover of students at sites is a difficulty that can only be overcome by a more dedicated effort to keep the database current.

### **Data Management Committee:**

John Porter described current activities of the LTER data management group including work from this year's data management workshop. John's PowerPoint presentation can be accessed at "<http://www.lternet.edu/~jporter/im98>". The committee is currently focusing on the development of the LTER Information Management System (LTER IMS) which is described in detail within the 1998 LTER Data and Information Management Report to be placed on-line very soon. The current report is 47 pages long and is undergoing final edits. The committee requested a change in the governance procedure and funding for the committee operations. At this time the committee is made up of 1 member from each LTER site and the Network Office supports the meetings of the committee. The move of Dr. Susan Stafford to Colorado State University resulted in the potential loss of her services to the committee. It was moved to allow designated individuals such as Dr. Stafford to participate in the Data Manager's Committee as a full member and be

supported for subsequent meetings. The motion passed.

### **Network Office Activities:**

Bob Waide discussed current work at the LTER Network Office such as the preparation for the NAB meeting, web page revision, preparation of LTER publications including a new LTER brochure, ILTER report, and site brochures. He also gave a brief summary of ILTER and public relations activities that NET has carried out since the last CC meeting. A series of pending issues were presented, including: 1) revision of the KDI proposal, 2) mechanisms to identify products from the LTER science meetings, 3) need for greater participation by LTER scientists in activities such as ILTER, 4) the development of generic LTER and ILTER PowerPoint presentations, and 5) the need for site PIs to be responsive when asked for information for the upcoming NAB meeting.

### **International LTER:**

Jim Gosz and Christine French presented information on recent international LTER efforts. The 1998 ILTER symposium at INTECOL was described, and information related to this will be updated on the ILTER web pages (<http://www.ilternet.edu/>). The recent expansion of the number of Networks, Countries and Sites was also emphasized. The ILTER Network of sites, now numbering over 200 is larger than recommended by the Risser Report attesting to the value of the LTER concept at the international level. There now are numerous opportunities to develop collaborative/cross-site research efforts, lead various activities such as the development of regional activities in different parts of the world, develop training activities and student exchanges. The NSF, Executive Committee and others have strongly recommended that more people in the LTER Network become involved in these outreach activities in general. They occur at the national level (e.g., across agencies) and international level (across national boundaries). These activities are recognized as very important at all levels in NSF (see PowerPoint slide on the views from different levels in NSF).

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### **Attendees:**

**AND-** ARTHUR MCKEE, BRUCE SHINDLER, MARK E. HARMON, **AND/NWT,** DAVID GREENLAND, **ARC-** GUS SHAVER, **BES-** STEWARD PICKETT, J. MORGAN GROVE, **BNZ-** TERRY CHAPIN, TRISH WURTZ, **CAP-** CHARLES L. REDMAN, ELIZABETH K. BURNS, NANCY B. GRIMM, **CDR-** JOHANNES (JEAN) KNOPS, SHAHID NAEEM, **CWT-** DAVID NEWMAN, TED GRAGSON, **HBR-** STEVEN HAMBURG, **HFR-** DAVID FOSTER, DEBORAH LAWRENCE, **JRN-** LAURA HUENNEKE, **KBS-** CHRISTOPHER VANDERPOOL, CRAIG HARRIS, PHIL ROBERTSON, **KNZ-** GREG HOCH, JOHN BLAIR, **LUQ-** JESS K. ZIMMERMAN, **MCM-** BERRY LYONS, **NET-** JOHN VANDE CASTLE, ROBERT B. WAIDE, JAMES GOSZ, **NSF-** BRUCE HAYDEN, CHRISTINE FRENCH, **NTL-** STEVE CARPENTER, TIM KRATZ, JOHN MAGNUSON, TOM FROST, **NWT-** TIM SEASTEDT, **PAL-** BILL FRASER, RAYMOND C. SMITH, **PIE -** CHARLES S. HOPKINSON, **SEV-** ROBERT R. PARMENTER, **SGS-** INGRID BURKE, MYRON GUTMANN, **VCR** DON YOUNG, JOHN PORTER , **Dennis Productions-** JONATHAN SWINCHATT

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### **Agenda**

**Thursday, October 15 - LTER Executive Committee Meeting**

**Friday, Oct. 16 - Agenda: LTER CC Business Meeting**

**8:00 Welcome and Logistics (Magnuson)**

**8:15 NSF Report (Hayden)**

**8:45 National Advisory Board (Waide)**

**9:15 All Sci. Meeting (Parmenter)**

**9:45 SDSC Modeling Workshop (Waide)**

**10:00 Break**

**10:20 Publications Comm. Rpt. (Robertson)**

**10:40 Observatories**

- **Microbial (Hobbie)**
- **Biodiversity (Hayden)**
- **Technology (Burke/Vande Castle)**

**11:30 Future of the Network (Waide)**

**12:00 Lunch**

**Afternoon Field Trip**

Sunday, Oct. 18

**8:00 Vision Statements**

**8:15 Education/LTER Schoolyard**

**8:30 Science Stories (Gosz)**

**8:45 Climate and Ecol. Theme (Smith)**

**9:00 LTER Filming (Swinchatt)**

**9:10 Committee Reports**

- **Graduate Student (Hoch)**
- **Data Managers (Porter)**
- **Technology (Vande Castle)**
- **Network Office Status (Waide)**

**10:00 BREAK**

**10:15 TEMS/MODIS Demo (Vande Castle)**

**10:45 ILTER Workshops (Gosz/French)**

**11:00 Final Actions/Recommendations**

**12:00 Next Meetings & Closing**

**Saturday, October 17 "Linking natural and socioeconomic processes: long term human interactions with the landscape."**

08:00 Welcome and Introduction - Tom Heberlein -Social Science in the Augmented and Urban Sites

08:15 Coweeta: Ted Gragson, Dave Newman

09:00 Northern Temperate Lakes: Brad Jorgensen, Pete Nowak, Paul Voss, and Others

09:45 Baltimore Ecological Study: Morgan Grove

10:15-10:30 Break

10:30 Central Arizona Project: "Rural to Urban Land Conversion in Phoenix: The Ecology of a City."  
Elizabeth K. Burns, Patricia Gober, Kimberly Knowles-Yanez, and Jeffrey James.

### **11:00 Keynote Presentation**

The Ecosystem-Economy Relationship: Insights from Six Forested LTER Sites -Ed Whitelaw President,  
ECONorthwest ,Professor of Economics, University of Oregon

### **11:45-12:45 LUNCH BREAK**

12:45 Andrews Experimental Forest: "Examining Change in Socio-political Patterns in the Central  
Cascades: Longitudinal Research at the H.J. Andrews Experimental Forest." Bruce Shindler.

01:15 Sevilleta: Human/economic/social history of the Sevilleta LTER site (1200 AD to present). Bob  
Parmenter.

01:30 Socioeconomic history of land use in Puerto Rico. Jess Zimmerman (Not Confirmed)

02:00 Socioeconomic and environmental relationships in the Great Plains. Myron Guttman (Not  
Confirmed)

### **DISTURBANCES, CAUSES, AND EFFECTS**

02:30 "The Role of Human Disturbance in Ecosystem Structure and Function. Steve Hamburg

03:00 Plum Island: Charles S. Hopkinson and Cutler Cleveland

03:30 Sociological and climatic controls over fire regime in the boreal forest." Terry Chapin.

03:45 The social and ecological consequences of cedar expansion into grasslands in the Flint Hills. Greg  
Hoch.

04:00 MCM, Tourism and Science Impacts. Berry Lyons.

04:15 Palmer Station: "Tourism Impacts." Bill Fraser (Unconfirmed)

Program Ends at 4:30

4:30-5:30 Discussion for all those interested --  
"Integrating Themes and Identifying Opportunities"