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1988

### Scientific Initiatives Committee Documents, 1988-1999

Long Term Ecological Research Network

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**First Meeting of the Committee on Scientific Initiatives (CoSI)  
August 9, 1999  
Spokane, Washington**

Members present:	R. Waide, Chair	Members absent:	I. Burke
	D. Wall		C. Redman
	S. Carpenter		G. Likens
	F. Swanson		J. Franklin
	J. Meyer		
	J. Magnuson		
	S. Pickett		
	J. Gosz		

Invited guests: B. Parmenter

Agenda:

- Charge to the Committee
- Identifying characteristics of successful cross-site research projects
- Brainstorming possible cross-site projects
- CoSI and the All Scientists Meeting
- Membership of CoSI
- Plans for the next meeting

1. Charge to the Committee

CoSi provides leadership and guidance to the LTER Network and Network Office in the identification and development of network-level synthesis and cross-site research activities. The ultimate goal of network-level and cross-site activities is to attain the full scientific potential of the network of LTER research sites.

2. Identifying characteristics of successful cross-site research projects

Initial discussion focused on the desirability of characterizing projects as successful or not. It was pointed out that goals have varied among the various cross-site projects conducted by the LTER Network, and therefore the evaluation of success needed to be flexible. At the same time, some tangible products need to be developed for each effort in order to create an historical record of accomplishment. The committee suggested that the development of a portfolio of potential products might be useful to provide alternative models for future working groups.

There was consensus that it was possible to learn something from earlier projects about the elements that might facilitate cross-site studies. For example, sites and scientists participating in cross-site research need to have

some common interest that holds the project together. This common interest needs to be enunciated in a clear statement of vision and goals. A strong and committed leader is a key plus, and a focus on team building often facilitates the transition from the initial project to follow up studies. A pre-planning exercise is important, which may include a workshop for initial design work in the case of a joint experiment. The existence of funding for a graduate student or post-doc increases the amount that can be accomplished.

### 3. Brainstorming possible cross-site projects

The Committee was clear that they did not believe it was their role to provide top-down mandates on cross-site science. Waide explained that his vision for the committee included both a creative role in identifying and evaluating both general and specific kinds of cross-site studies and a leadership role in eliciting suggestions for cross-site synthesis from LTER scientists. There was agreement that CoSi should not generate any unfunded mandates. We further agreed that it was important to make sure that there existed good communication about existing and planned cross-site projects. Our achievements in cross-site studies needed to be advertised more widely.

With all this in mind, we initiated a discussion of potential kinds of cross-site studies. John Magnuson led off the discussion by pointing out that the true reason to conduct cross-site research was because the principals were interested in the study and therefore anticipated enjoying the exercise. He further suggested that the way to generate ideas was to ask what all sites had in common in their research programs. The following potential comparisons came out of the subsequent discussion.

A follow-up on the Magnuson/Kratz variance study using new analytical tools

An evaluation and comparison of the driving paradigms for each of the LTER programs

A comparison of the degree and implications of human influence in LTER ecosystems

An examination of trends over time – as well as lack of trend over time – to compare things that change in a directional way with things that don't

An examination of scaling laws (sensu Hollings lumps and gaps) as they relate to things like city size

There was recognition that cross-site studies were sometimes limited by lack of common ecosystem elements among sites. One way around this is to expand sites so that common elements occur in more sites, e.g., the addition

of aquatic habitats to a terrestrial site. The inclusion of non-LTER sites in synthetic studies is potentially beneficial.

#### 4. CoSI and the All Scientists Meeting

The committee concluded that the All Scientists Meeting would provide a powerful opportunity to stimulate interest in cross-site synthetic research. However, in order to generate meaningful cross-site research exercises, the committee felt that was important to involve a broader range of LTER scientists. They therefore proposed to send a message to all LTER scientists soliciting ideas for workshops on cross-site projects and volunteers to lead those workshops. CoSI and the program chairs for the ASM (Waide and Parmenter) would sift through and organize ideas generated by the LTER community. The Network Office would then organize a meeting between CoSI and workshop organizers to prepare for the ASM. NET could also make available travel funds for planning and follow-up meetings for each workshop.

#### 5. Membership of CoSI

The committee concluded that additional expertise in population biology and economics should be sought. Several possible candidates were discussed. In addition, the committee endorsed the Chair's recommendation to invite Jim Reichman, Director of the National Center for Ecological Analysis and Synthesis, to serve on the committee.

#### 6. Plans for the next meeting

The next meeting of CoSI will be directed towards planning for the ASM. A convenient location with appropriate support facilities will be sought. This meeting should be held by the end of February.

Top. Banaggy / Mark  
Don Kaufman Hunter  
Ann. ~~Montano~~  
Penguin's Feb's Marriott Jves  
Burl Redman  
Li Ken  
Franklin  
Dexman

COURTYARD.

Charge strong Jves  
Characteristics of Successful

Braenstorming possible  
x-site projects

COSI + ASM

Membership of COSI

Planning the next meeting

ABU - Oct  
DC - Feb

Economist - David Ware  
Buzz Brock

For Reservations: 1-800-321-2211

Variance Study

Stream book  
Organic matter  
workshop

  
COURTYARD

Marriott

LIDET

initial design work

existence of  
leadership

SARG

Common question

Pre-planning

Global Prec. Chem. Project

IES Cloudwater

LINX

Clear leadership

Clear vision  
+ goals

Dedication

Team building

Intersite hydrology

Postals

Compatible data bases

Stump planning  
Workshop

For Reservations: 1-800-321-2211



Network things

- Fun

No unfunded mandates

Can't top down

Need something in common

Lessons about what does  
& doesn't work

Portfolio of products



Email to sites

(before next meeting)

Better communicate  
inter-site science

What do all sites have?

Variance - follow up

Evaluate & compare  
driving paradigms

For Reservations: 1-800-321-2211





Human influence in  
all systems

Trends over time -  
+ untrends - things that  
don't change; or what  
changes but not as trend

Scaling laws - Holing  
lungs + gaps - city sig,  
Brown - Mike - economist

For Reservations: 1-800-321-2211

SFT

Expand sites so that  
common elements  
occur in more sites  
- i.e. add aquatic habitats

What are stimulants  
of intersite activities

Think about non-LTETC

Mixture of models

- lake + ice - 15 pulses

Meet 4 November

Cole, Lovett +  
Finley

For Reservations: 1-800-321-2211

NTL  
PIE  
CAP  
OPR



Controls on PP-Waring  
top-down  
no consensus  
too narrow  
too exclusive

Tilman                      not team building

SARG                      no continuity  
lack of funding