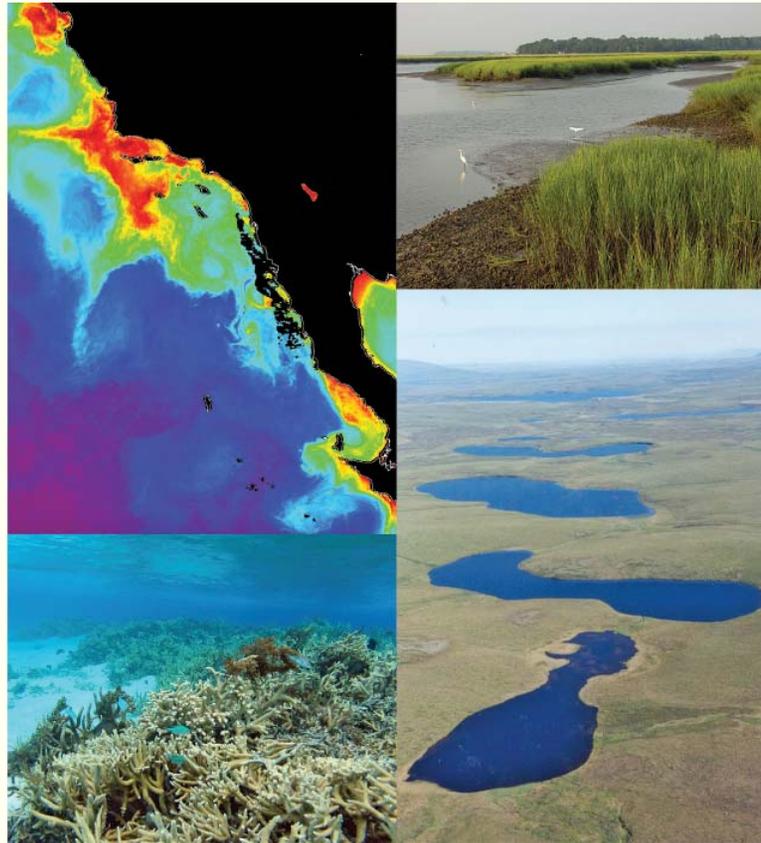


# Expanding the U.S. network of Coastal Ocean Ecosystem LTER's ?



[www.lternet.edu](http://www.lternet.edu)

Mark D. Ohman  
California Current Ecosystem LTER

# The U.S. Long-Term Ecological Research (LTER) Network

A framework for understanding ecological processes  
operating on long temporal scales,  
often on multiple spatial scales

Jim Gosz

Began with 6 sites in 1980

Currently 25 sites

See brief history in:  
Ohman & Hobbie (2008) L&O Bulletin 17(3)

# U.S. LTER Network:

Long-term processes over multiple spatial scales

New sites funded in open competitions

6 year grants

Opportunity for renewals

Network coordinating office:

LTER Network Office (located at: University of New Mexico)

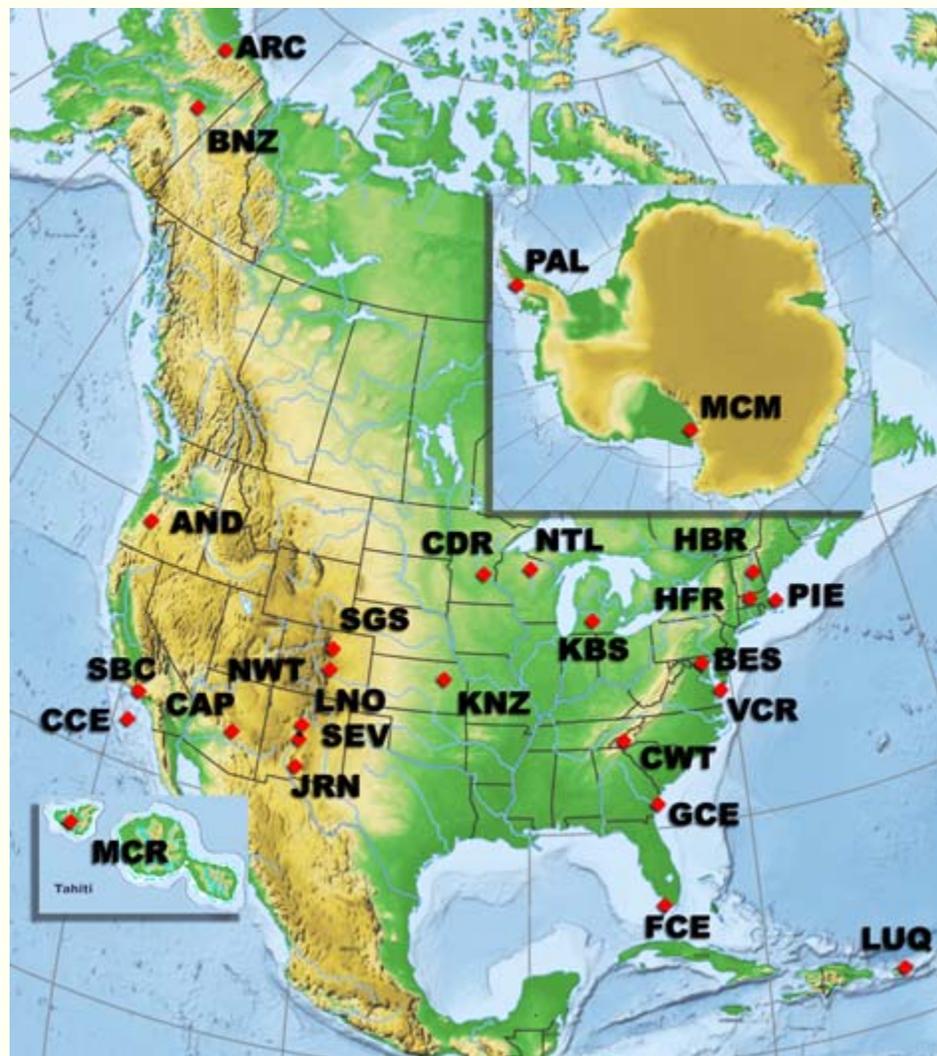


A screenshot of the LTER Network website. The header includes navigation links for "LTER Home", "Intranet", "LNO", "LTER Site Home Pages", and a search bar. The main title is "The US Long Term Ecological Research Network". Below the title, it states "A founding member of the International Long Term Ecological Research Network". The page is divided into several sections: "LTER ASM" with sub-sections for "About LTER", "LTER Research", "Publications", "Site Science", "Opportunities", and "More LTER"; "LTER Site Profiles" which lists 26 sites with links to their homepages, including Andrews LTER (AND), Arctic LTER (ARC), Baltimore Ecosystem Study (BES), Bonanza Creek LTER (BNZ), Central Arizona - Phoenix (CAP), California Current Ecosystem (CCE), Cedar Creek LTER (CDB), Coweeta LTER (CWT), Florida Coastal Everglades (FCE), Georgia Coastal Ecosystems (GCE), Harvard Forest (HFR), Hubbard Brook LTER (HBR), Joinada Basin (JRN), Kellogg Biological Station (KBS), Konza LTER (KNZ), Luquillo LTER (LUQ), McMurdo Dry Valleys (MCM), Moorea Coral Reef (MCR), Niwot Ridge LTER (NWT), North Temperate Lakes (NTL), Palmer Station (PAL), Plum Island Ecosystem (PIE), Santa Barbara Coastal (SBC), Sevilleta LTER (SEV), Shortgrass Steppe (SGS), Virginia Coast Reserve (VCR), and the LTER Network Office (LNO); a "Contact Us" section with a list of links for contact info, coordinates, site links, grant information, and site characteristics; and a "Map of LTER Sites" showing the locations of the 26 sites across the United States. The footer contains a navigation menu for "About LTER", "Research", "Publications", "Site Science", "Opportunities", "More LTER", and "LTER Home".



## U.S. LTER Network

25 sites representing diverse biomes, including terrestrial, aquatic, & human-dominated ecosystems



## U.S. LTER Network

Each site combines:

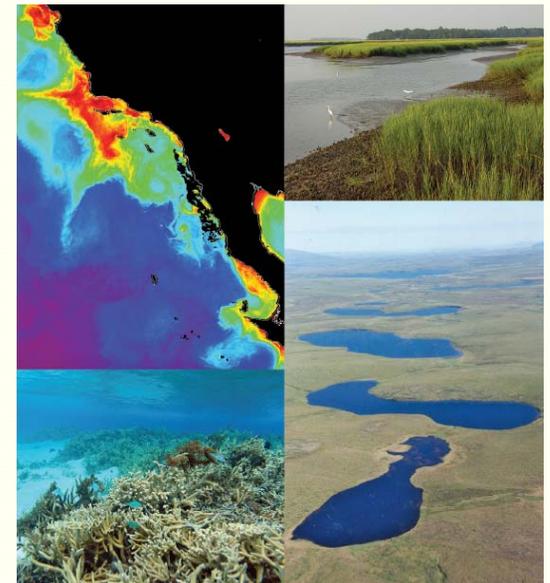
- site-specific **Hypothesis-driven science**
- measurements of **5 Core Variables** (see next page)
- **Modeling**
- integrated **Information Management**
- **Graduate Education** and training
- **Education and Outreach (K-16)**
- (interactions of **Humans with natural ecosystems**)  
(at some sites)
- **Cross-site comparative** research

*LTER is not simply “time series research”*

## U.S. LTER Network

- 5 Core Variables

- pattern and frequency of **disturbances**
- pattern and control of **primary production**
- spatial and temporal distribution of **key populations** selected to represent trophic structures
- patterns of inorganic inputs and movements of **nutrients**
- pattern and control of **organic matter accumulation and decomposition** in surface layers and sediments



**Integration** of a process-oriented research program with time-series elements is essential

There are growing efforts in **Network-level Science** involving cross-site interactions

LTER sites are **Research “nuclei”** that also facilitate collaborations, guest investigators, and data sharing

# International LTER - A network of networks

(The U.S. is one of 39 countries with LTER programs)



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You are here: [Home](#) / [Member networks](#)

## Network contacts

If contact information provided in this section is incorrect, please try the network's website or search DEIMS

## Sections

[Africa](#)  
[Central/South America](#)  
[East Asia-Pacific](#)  
[Europe](#)  
[North America](#)

## Log in

Login Name

Password

[Forgot your password?](#)

## Member networks

Details of the LTER networks that are members of ILTER. Use the map below to select a member network, or choose from the list to the left. Green markers indicate networks which are members of ILTER (the International Long-Term Ecological Research Network). Red markers indicate networks which are under development, and are not yet formal members of ILTER. [Members of ILTER with contributor rights can manage details of their network here. See the members area for details or contact the site manager using the contact form above]



## New opportunity:

Possible competition for 2 new coastal marine sites

Possible Announcement of Opportunity in late 2015,  
proposals likely due in early 2016

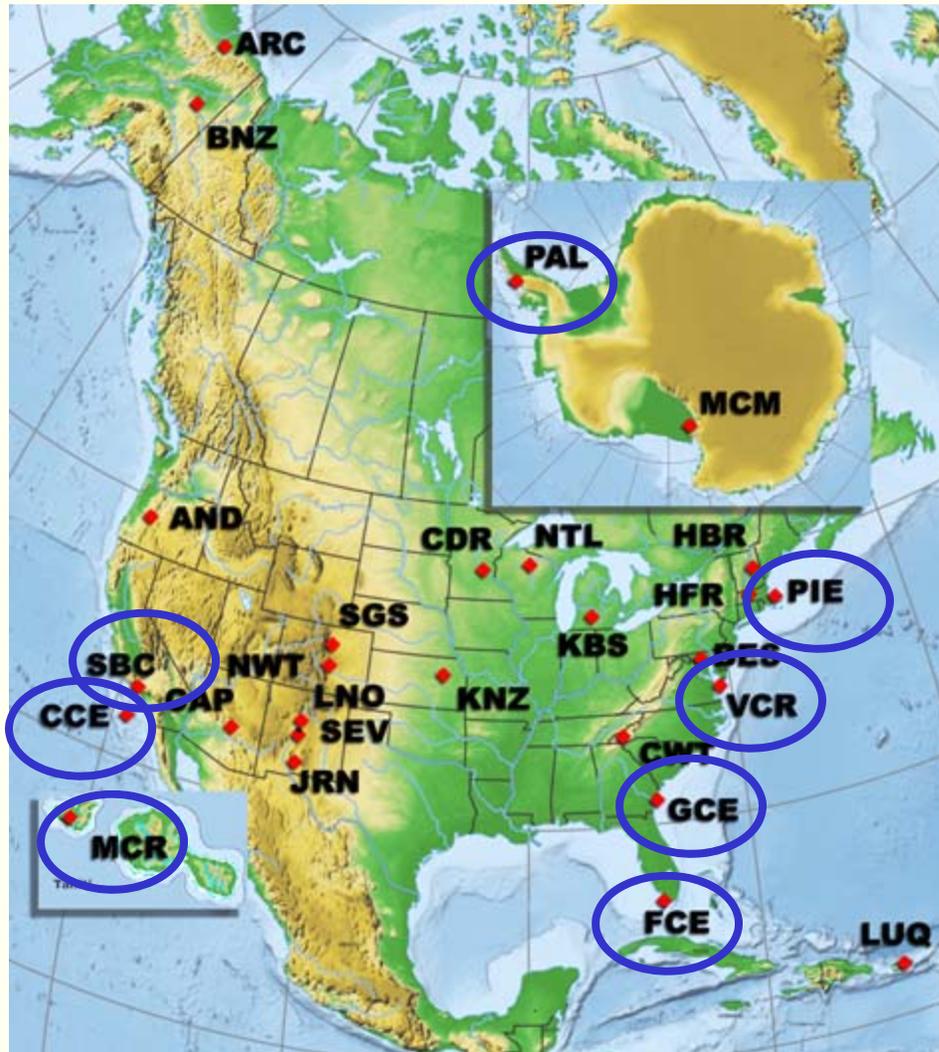
These new sites would be supported by  
**NSF Ocean Sciences**

Other NSF Divisions/Programs that support LTER:  
Biology Directorate  
Polar Programs  
(Social, Behavioral, & Economic Sciences)

# U.S. LTER Network



(marine or estuarine, N=8 sites)



Next 2 presentations:

Examples of central hypotheses/  
research foci at the 8 current marine  
LTER sites

Russ Schmitt  
Moorea Coral Reef

Illustrations of cross-site interactions

Chuck Hopkinson  
Plum Island Ecosystem &  
Georgia Coastal Ecosystem

[www.lternet.edu](http://www.lternet.edu)

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