

SESYNC-LTER Postdoctoral Synthesis Fellowships

Deadline:

Apr 01, 2015

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Deadlines

Please note: late applications will not be accepted.

- Pre-screening application deadline: February 2, 2015, 5 p.m. Eastern Standard Time (EST).
- Collaborating Mentor application deadline: February 9, 2015, 5 p.m. Eastern Standard Time (EST).
- Fellowship application deadline: April 1, 2015, 5 p.m. Eastern Standard Time (EST).

Overview

The National Socio-Environmental Synthesis Center (SESYNC), in collaboration with NSF's [Long Term Ecological Research \(LTER\) program](#), [1] invites applications for two-year Postdoctoral Synthesis Fellowships that will begin August 5, 2015.

Synthesis is a research approach that accelerates knowledge by distilling or integrating existing data, ideas, theories, and methods to draw more reliable or generalizable conclusions and to reveal novel areas of study. Synthesis often involves merging large or heterogeneous data sets from multiple sources, researchers, or fields of inquiry, as well as critical analysis in evaluating arguments and interpreting evidence. It can employ a diverse array of theoretical and methodological approaches (e.g., statistical/mathematical, structured case studies comparison, scenario studies, game theory, organizational theory, simulation/computational modeling).

Synthesis of long-term data sets, on-going experiments, and model results is an important goal of NSF's LTER program. These syntheses can provide new research findings, derived data sets, and new models that establish future research directions and guide the development of environmental policy.

The 25 current LTER projects collect long-term data in five core areas, and these are among the topics ripe for data discovery, analysis, visualization, and synthesis by SESYNC-LTER Postdoctoral Synthesis Fellows. A key element of successful Postdoctoral Fellowship applications will be the identification of specific research questions and how they will be addressed using synthesis methods with these data. Applications should identify the sources and accessibility of existing data and the theoretical and analytical methods to be used. Prospective Fellows should not propose projects that require collection of new data.

Fellowships will engage and assist early-career investigators in the use and analysis of existing long-term data and in advanced computational methods to ask new questions and initiate new research collaborations. Fellows will identify long-term datasets that form the foundation for these syntheses. **[These must involve LTER data.](#) [2] but applicants are encouraged to include additional long-term data collected for projects outside of the LTER network as well.** Proposed projects can focus on ecological or interdisciplinary questions. All types of projects may be proposed, including those that synthesize data across LTER sites and those that synthesize natural and social science data.

Postdoctoral Fellows will be located at SESYNC in Annapolis, Maryland, where they will have access to a full range of sophisticated analytical, modeling, and visualization tools. Each Fellow will work with a SESYNC facilitator and cyberinfrastructure specialists to identify the data and tools needed to address proposed synthesis questions. Applicants should have experience analyzing datasets and some familiarity with contemporary statistical software. They should possess basic computational skills. Each Fellow will recruit an external expert who has the research experience necessary to serve as an advisor, mentor, and collaborator. ([See below](#) for information about recruiting these Collaborating Mentors.) SESYNC offers substantial computational support and training opportunities for Fellows. Therefore, successful applicants need not have experience in all of the technical aspects of their analyses. Successful applications will clearly delineate the roles of the Fellow and the Collaborating Mentor in the project.

SESYNC-LTER Postdoctoral Synthesis Fellows will be expected to participate fully in the SESYNC Postdoctoral Program, which includes formal and informal discussions and workshops. This program includes a new theory immersion program for SESYNC Postdoctoral Fellows in which eminent scholars from ecology, anthropology, sociology, and economics present lectures and engage in group and one-one-one discussions with Fellows on the theories and methods they apply to socio-environmental research. For 2015, workshop scholars include Steve Carpenter, Elena Irwin, Monique Mulder, Bill Fagan, Simon Levin, Lori Peek, Steve Polasky, Simone Pulver, Karen Seto, Whendee Silver, and Dan Simberloff.

Fellows also have opportunities to collaborate with other SESYNC Postdoctoral Fellows and early career scholars and to participate with teams of researchers at SESYNC as observers or active participants. Examples of current projects include non-native pest risk and globalization, adaptive water governance, macroevolution of ecosystem services, and differing ecological vs. political time scales. (For all current SESYNC projects, [click here.](#) [3])

Please note that SESYNC-LTER Postdoctoral Synthesis Fellows do not need to include social science in their syntheses. Involvement with SESYNC's Postdoctoral Fellows who integrate social and natural sciences will offer diverse opportunities to expand intellectual and methodological barriers and boundaries. The SESYNC-LTER Fellowships provide the freedom and support to do cutting-edge synthesis research while increasing your capacity to collaborate across disciplinary divides.

Applicants should identify a project idea and work with a prospective Collaborating Mentor, who will

function as a project advisor, to co-develop a proposal and identify data sources. Mentors may be chosen from researchers listed in a registry of potential Collaborating Mentors, maintained by the LTER Network Office. These potential Mentors have indicated a willingness to co-develop a synthesis project with applicants. Mentors may also be recruited by the applicant independently. Independently-recruited Mentors must also submit an application to the [LTER Network Office registry](#). [4] Collaborating Mentors should be actively involved with LTER projects or with other long-term ecological research projects or be familiar with the analysis and synthesis of long-term, heterogeneous data sets.

Preliminary Screening

Interested applicants must first submit a [pre-screening application](#). [5] To be eligible for the Fellowship, prospective Fellows must have received their PhD in an appropriate discipline (e.g., ecology, ecosystem science, statistics) within the past five years: no earlier than June 1, 2010, and no later than June 1, 2015. If the applicant has not received his or her PhD at the time of submission, a letter from their graduate advisor or a committee member must be included. The letter should verify expectations for date of degree completion. Candidates who are offered a fellowship but do not complete their PhD by June 1, 2015, will have to reapply.

Fellowships are open to recent PhD recipients who are citizens of the United States.

To submit a pre-screening application, please go to www.sesync.org/forms/sesync-lter-synthesis-postdoctoral-fellowships. [5] Applicants must include a CV. If the applicant has not yet received his or her PhD, a verification letter must be included as described above.

Pre-screening applications are due February 2, 2015, 5 p.m. Eastern Standard Time (EST) but will be accepted on a rolling basis before then.

Co-Development

Successfully pre-screened applicants will be given access to the Collaborating Mentors registry and should initiate contact with potential Mentors with whom they are interested in co-developing a synthesis research project. The registry of Collaborating Mentors will include preliminary project ideas, short biographical sketches, and contact information.

If the prospective Fellow and Collaborating Mentor mutually agree to co-develop a proposal for this Fellowship, the prospective Fellow should take the lead in writing and developing the proposal.

Prospective Fellows may recruit their own Collaborating Mentors. However, all potential Mentors [must submit an application to the registry](#) [4] to assume this role formally. The Collaborating Mentors cannot be the prospective Fellow's PhD advisor, PhD mentor, or current postdoc advisor (if relevant). Applications for Collaborating Mentors are also due February 9, 2015, 5 p.m. Eastern Standard Time (EST).

For more information on Collaborating Mentors, [click here](#). [6]

Final proposals must be submitted via a web form provided to prospective Fellows who have been successfully pre-screened. Required components of the application are described below. **Fellowship applications are due by April 1, 2015, 5 p.m. Eastern Standard Time (EST).**

Selection Criteria

Postdoctoral applications will be evaluated by the following criteria:

- Explanation of how the proposed research will advance understanding of key ecological processes or concepts.
- Value added to ongoing long-term research at LTER sites.
- Novelty and creativity of proposed activities.
- Feasibility of producing meaningful synthetic research within a two-year time frame, including identifying and showing ability to access appropriate data and methods.
- Applicant qualifications and experience.
- Clear delineation of the value of the collaboration and the respective roles for the Fellow and Collaborating Mentor in the project.
- Potential to benefit from other research activities at SESYNC.

Support

Appointments will be through the University of Maryland, and Fellows must be based at SESYNC's facilities in Annapolis, Maryland. The SESYNC-LTER Postdoctoral Synthesis Fellowship will provide an annual stipend, full University of Maryland employee benefits, and a small annual travel allowance to attend meetings or to meet with collaborators. Collaborating Mentors will also receive support to travel to SESYNC to work with the Fellow.

Postdoctoral Fellowships are awarded for a maximum of two years, based on evidence of progress toward completing the proposed research and the availability of funds. Fellows will prepare formal written reports and give oral presentations of their progress annually. These will form the basis for decisions to continue funding for a full two years, or to terminate an award after a single year.

Deadlines

- [Pre-screening application deadline:](#) [5] February 2, 2015, 5 p.m. Eastern Standard Time (EST).
- [Collaborating Mentor application deadline:](#) [4] February 9, 2015, 5 p.m. Eastern Standard Time (EST).
- Following review of the pre-screening and Mentor submissions, a review team will invite full fellowship applications. These will be due by April 1, 2015, 5 p.m. Eastern Standard Time (EST).

Components of an Application

Include the following as a single PDF, using single spacing, 12-pt type fonts, and 1-inch margins. Applications that do not submit the correct components will not be reviewed. Applications, as well as letters of recommendation and Collaborating Mentor letter of commitment, must be received by SESYNC by April 1, 2015, 5 p.m. Eastern Standard Time (EST).

[1] Cover Sheet (1 page)

- Descriptive title ("SESYNC-LTER Synthesis Postdoc:")
- Short title (25 characters max)
- Name and contact information
- Date of PhD defense: If the defense has not yet occurred, applicants need a letter from their graduate advisor or committee member verifying the expected date of completion. Candidates who are not expected to complete their PhD by June 1, 2015, will be removed from competition
- Collaborating Mentor name, title, and affiliation

[2] Project Summary (1 page)

- Project Summary of 250 words that is appropriate for the public and for posting on SESYNC and LTER websites
- Keywords (up to 5 keywords different from those used in the title)
- Potential conflicts of interest with members of the SESYNC [Leadership Team](#) [7] (A conflict of interest will not disadvantage your application. Rather, we need this information to follow proper review protocol)

[3] Research Proposal (5 pages max, including references)

- Problem statement: Clear and concise statement of the project goals including specific research questions and how the project will advance understanding of major ecological concepts or processes
- Methods to be used for the synthesis project
- Description of prospective Fellow's and Collaborating Mentor's respective roles in the project and plans for maintaining communication throughout the project

[4] Status of Synthesis Material (1 page max)

- Type of material (datasets, models, case studies, theories, etc.)
- Location and accessibility of material

[5] Anticipated Cyberinfrastructure Needs (1 page max)

If applicable, briefly describe any anticipated needs for cyberinfrastructure support. This information should include descriptions of data sets to be used during this project; new data sets or software/databases to be developed; high performance computing needs; required data aggregation or fusion; and visualization software needs. Applicants should review SESYNC's [IT](#) [8] and [Data and Software](#) [9] policies and are encouraged to [contact SESYNC cyberinfrastructure staff](#) [10] prior to submission if the project's needs are beyond the scope of services outlined in these documents.

[6] Full CV of the Applicant

Include names and contact information for two references.

Letters of Recommendation & Commitment

Please arrange for each reference to provide a letter of recommendation regarding your:

- background,
- ability to carry out the independent research as proposed, and
- the promise of this research to advance ecology and ecosystem science.

These letters should be submitted directly by the recommender, separately from your application, via email to: postdoc.application@sesync.org [11]

Please also arrange for a letter of commitment from your Collaborating Mentor describing their view of their role and commitment as mentor and collaborator. These letters should be submitted directly by the Mentor, separately from your application, via email to: postdoc.application@sesync.org [11]

All letters of recommendation must be submitted by the application deadline of April 1, 2015, 5 p.m. Eastern Standard Time (EST).

Application & Submission Process

Access to the approved list of Research Collaborators and the URL for the application webform will be emailed to all successfully pre-screened applicants.

Applications must be submitted as a single PDF file with all sections in the following order:

1. Cover Sheet
2. Project Summary
3. Research Proposal
4. Status of Synthesis Material
5. Anticipated Cyberinfrastructure Needs
6. Full CV of the Applicant

The deadline for applications for fellowships beginning August 5, 2015, is April 1, 2015, 5 p.m. Eastern Standard Time (EST).

Proposal Review

A review team composed of LTER researchers chosen among PIs, co-PIs, and information managers and members of SESYNC's Scientific Review Committee most familiar with data analysis, modeling, and quantitative research will evaluate the proposals submitted. SESYNC anticipates awarding three SESYNC-LTER Synthesis Postdoctoral Fellowships.

Questions?

Please contact:

- Cynthia Wei, SESYNC Assistant Director of Education and Outreach: cwei@sesync.org [12]
- Robert Waide, LNO Executive Director: rwaide@lternet.edu [13]

*The University of Maryland is an Equal Opportunity Employer
Minorities and Women Are Encouraged to Apply*

Source URL: <https://www.sesync.org/opportunities/sesync-lter-synthesis-postdoctoral-fellowships>

Links

- [1] <http://www.lternet.edu/>
- [2] <https://portal.lternet.edu/nis/home.jsp>
- [3] <https://www.sesync.org/projects-activities/funded-projects>
- [4] <http://www.lternet.edu/mentors>
- [5] <https://www.sesync.org/forms/sesync-lter-synthesis-postdoctoral-fellowships>
- [6] <https://www.sesync.org/opportunities/sesync-lter-collaborating-mentors>
- [7] https://www.sesync.org/about/team-directory?field_role_tid_1=28
- [8] <https://www.sesync.org/sites/default/files/ITPolicies/ITSupportPolicy.pdf>
- [9] <https://www.sesync.org/sites/default/files/ITPolicies/DataandSoftwarePolicy.pdf>
- [10] <mailto:msmorul@sesync.org>
- [11] <mailto:postdoc.application@sesync.org>
- [12] <mailto:cwei@sesync.org>
- [13] <mailto:rwaide@lternet.edu>