

NATIONAL CENTER FOR ECOLOGICAL ANALYSIS AND SYNTHESIS



Visitor Information

In this packet, you will find information useful during your stay. Welcome to NCEAS.

- Map of Downtown Santa Barbara
- General Information
- Guide to Computing Services
- NCEAS Data and Information Policy
- Acknowledgement of NCEAS Support
- Ecoinformatics

735 State Street, Suite 300
Santa Barbara, CA 93101
Tel (805) 892-2500
Fax (805) 892-2510
<http://www.nceas.ucsb.edu>

Map of Downtown Santa Barbara

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1 Colonial Beach Inn
206 Castillo Street
(805) 963-4317

2 Country Inn by the Sea
128 Castillo Street
(805) 963-4471

3 Franciscan Inn
109 Bath Street
(805) 963-8845

4 Eagle Inn
232 Natoma Avenue
(805) 965-3586

5 Marina Beach Motel
21 Bath Street
(805) 963-9311

6 Inn by the Harbor
433 W Montecito Street
(805) 963-7851

7 Hotel Santa Barbara
533 State Street
(805) 965-4574

8 Holiday Inn Express
17 W Haley Street
(805) 963-9757

9 Hotel Andalucia
31 West Carrillo St
(805) 884-0300

10 Upham Hotel
1404 De la Vina Street
(805) 962-0058

1 Blue Agave (Eclectic)
20 E Cota Street
(805) 899-4694

2 Bucatini (Italian)
436 State Street
(805) 957-4177

3 Kai Sushi Shabu-Shabu
738 State Street
(805) 560-8777

4 Pascucci's (Italian)
729 State Street
(805) 560-8777

5 Greek and Italian Deli
636 State Street
(805) 962-6815

6 Enterprise Fish Company
225 State Street
(805) 962-3313

7 Playa Azul Cafe (Mexican)
914 Santa Barbara Street
(805) 966-2860

8 Emilio's (Italian, Seafood)
324 W Cabrillo Blvd
(805) 966-4426

General Information

Events

Thursday at 12:15 pm: Ecolunch

Enjoy an exciting informal presentation of current research pursuits by NCEAS, UCSB, and visiting scientists while eating lunch. If you are interested in attending or presenting at an Ecolunch, please visit the residents section of the NCEAS site.

Friday at 5:00 pm: Open House

The NCEAS Open House is usually held on Friday afternoon in the NCEAS lounge. This is an opportunity to discuss issues of general interest to scientists in an informal atmosphere. For more information, please visit the residents section of the NCEAS site.

Taxi/Shuttle

Several hours before departure, please call either of these companies directly to schedule pick-up. Inform them of your flight departure time, and they will suggest an appropriate pick-up time.

Superride Shuttle (683-9636)

Gold Cab Company (685-9797)

Pick-up location: California Pizza Kitchen on Chapala

Tell your driver you are with the UCSB Ecology Center and ask for discounted rates. Shuttle and taxi transportation between the airport and downtown should cost approximately \$20-\$25.

Keys

The working group leader will receive a key to the front door of the Balboa Building, stairwell and elevator (after hours) plus an additional key for the computer labs and meeting rooms.

Security

Please lock all offices and windows that you have been using before you leave.

Unfortunately, stairways and elevators are always open, giving access from the outside. The Center is never completely secure. We thank you in advance for paying particular attention to security.

Restrooms

Restrooms are located in the stairwell to the right of the elevator as you enter our floor. (From the 3rd floor, the women's restroom is up one flight and the men's is down one flight). You will need your front door key to access the restrooms due to recent abuses. We apologize for the inconvenience.

Telephone

The Center will pay all research-related calls within the United States. You will need to pay for all long-distance personal calls. If you wish to make a long distance call from the computer lab (room 313) or 3rd floor breakout area (room 327), simply request a phone card from staff in room 309.

Projectors

LCD projectors are installed in both our meeting and conference rooms. Overhead and slide projectors are available upon request.

Computing

Computers, printers, scanners, and telephones are available in our computer lab (313).

Lounge

You are welcome to use the kitchen facilities; please leave the facilities clean.

UCSB

This Center is affiliated with the University of California at Santa Barbara. Visit the UCSB website (<http://www.ucsb.edu>) for information about facilities, events and visiting information.

Parking

If you have a car, it is best to leave your car at the hotel. There is very little free parking in downtown Santa Barbara, and you will find that it is a pleasant walk to the Center.

Bicycles

There is a storage area on the rear stair landing where you can park your bicycle. Please do not block emergency exits or store your bicycle in the meeting rooms or computer labs.

Smoking

UCSB is a non-smoking environment.

Pets

Please, no pets inside the Center.

Guide to Computing Services

Welcome to NCEAS! This brief document will orient you to the computing and network services that are available during your visit here. NCEAS' computing support staff is here during normal business hours, and by special request on weekends or after-hours, to help you with technical use of our facilities. Our goal is to provide you with easy access to computing services and help remove technical barriers to your research activities at the Center.

The NCEAS computer staff actively maintains an online Solutions Center with information on a wide variety of NCEAS computing and technical topics, including answers to frequently asked questions (<http://help.nceas.ucsb.edu>):

For specific working group related questions go to <http://help.nceas.ucsb.edu/index.php/Visitors>
You can also send an email to help@nceas.ucsb.edu.

General Systems and Network Support

Ron Theiss and Thomas Hetmank can help you with general use of our facilities: getting your laptop networked, software availability, printing, use of projection devices, etc. Nick Brand and Mark Schildhauer can assist you with questions about servers, account creation, and network-based mechanisms for collaboration and data archiving.

Scientific computing and informatics

We provide specialized services for analysis and informatics. Areas of expertise include data acquisition and integration, statistical analysis and modeling, and data documentation and archiving. Our scientific programmers/quantitative analysts, Rick Reeves and Jim Regetz, are available for consultation on these topics. Mark Schildhauer is also available to consult on scientific computing resources and database/informatics initiatives at NCEAS.

Hacker Security

If you are bringing your own laptop system for connecting to our network, particularly if it is running Windows software - please be aware that it is highly vulnerable to viruses and intrusion attempts. If you have not taken the following precautions, chances are high that your machine is infected:

- Personal Firewall (Windows XP's built-in one is fine)
- latest critical (Windows) operating system updates
- up-to-date anti-virus software
- up-to-date anti-spyware software

Before hooking up to our network, we strongly recommend that you contact one of the above computing support staff, and ask them to test and patch your machine for these major security problems. It is much easier for us to fix these before you get onto the network rather than afterwards. If your machine is infected, its network access will be disabled until the security problem is corrected.

Internet and local network access

Wireless Internet access is available throughout NCEAS' premises. Access instructions are posted in the Conference Rooms and at <http://help.nceas.ucsb.edu> => NCEAS WIFI. For faster access and for individuals with older laptops, we provide wired Ethernet connections in our Common Access Rooms, our Lounge, and all offices. In addition, our conference rooms provide cables at each seating station, which can be attached directly to your Ethernet network card. To connect your laptop to the Internet you should set it up to use DHCP services (obtaining an IP address automatically) in order to get assigned a proper name and number to operate on our network.

Email

If your academic institution or ISP does not allow sending email from outside its network you can use NCEAS' email server. Change the SMTP server in your email program to **mail.nceas.ucsb.edu**. Remember to write down the name of your current SMTP server so that you can change it back when you leave NCEAS.

Computer Access

Located in our Vislab (Room 313) are several shared computers that are hooked up to the Internet and available for your use. These Windows, Macintosh and Linux machines feature a broad array of Internet, Office, Graphics, and Scientific/Analytical application software. If you cannot locate the package that you need, please ask one of the computing support staff for

assistance. We also have available a limited number of laptops (Windows/Mac/Linux) that can be loaned out for computing during a meeting.

In addition, accounts are available on our Linux Servers for demanding scientific analyses and modeling needs. Contact Nick or Mark for assistance on Linux account creation, and availability of software on these systems.

Printing

High-speed laser printers are located in the breakout meeting areas across from each meeting room and a high-quality color laser printer is located in room 313. These printers can be accessed via their names or IP addresses:

- To connect to the Laserjet in room 327 across from the 3rd floor Conference Room 323, use LJ9 or 128.111.220.29
- To connect to the Laserjet in the open area across from the 2nd floor Meeting Room 323, use LJ7 or 128.111.220.27
- To connect to the Laserjet in Visualization Lab (room 313), use LJ3 or 128.111.220.22

Detailed instructions are available at http://help.nceas.ucsb.edu/index.php/NCEAS_Printers.

Data projectors and SMART whiteboards

Both of the Conference Rooms have data projectors permanently mounted to point at the main screen. A highly portable data projector is available upon request, for use in breakout rooms or the lounge. The conference rooms and the lounge area are also equipped with SMART whiteboards, which takes collaboration to a new level. Detailed instructions on using the projectors in conjunction with the SMART whiteboards, including how to cable them up to your laptop are located in each Conference Room and at <http://help.nceas.ucsb.edu> => NCEAS Interactive Whiteboards.

Collaboration Services

For working groups in particular, we provide an array of services that facilitate online collaboration among participants even after you have returned to your respective institutions. We can create shared accounts; private, archived email lists; and restricted Web areas for your group to store and disseminate data sets, working documents, etc. The "visitor" account or an account reserved only for the use of your working group, is a useful way to readily share data and have these archived on our nightly tape backups. Please contact Nick or Mark for further information about these services.

Digital Library Services

Computers networked at NCEAS are inside the ucsb.edu domain, and can thereby access the California Digital Library. See details at – <http://www.library.ucsb.edu> and <http://www.cdlib.org>.

Computing Support Staff

Ron Theiss, Windows/Macintosh/Linux Systems and Web Support (room 314, 892-2508, theiss@nceas.ucsb.edu)

Thomas Hetmank, Windows/Macintosh/Linux Systems and Web Support (room 314, 892-2506, hetmank@nceas.ucsb.edu)

Rick Reeves, Scientific Programmer and Quantitative Analyst (room 301, 892-2533, reeves@nceas.ucsb.edu)

Jim Regetz, Scientific Programmer and Quantitative Analyst (room 301, 892-2533, regetz@nceas.ucsb.edu)

Mark Schildhauer, Director of Computing (room 303A, 892-2509, schild@nceas.ucsb.edu)

Nick Brand, Systems and Network Administrator (room 305, 892-2507, brand@nceas.ucsb.edu)

NCEAS Data and Information Policy

NCEAS Data Principles

The Center is committed to making ecological data available to the broader scientific community. To meet this goal, the Center:

- Requires that derived data generated during an NCEAS research project be well documented and made publicly available, and provides technical assistance to do so,
- Urges that data used to generate derived products be well documented and made openly available, and provides technical assistance to do so, and
- Respects the intellectual property rights of data owners who use their data in NCEAS research projects.

Management and distribution of NCEAS data and information

The NCEAS goal is to foster sharing and dissemination of ecological data. Accordingly, we require that all derived data created at NCEAS be well documented and made publicly available within the Knowledge Network for Biocomplexity. We define derived data as data resulting from analyses from which the original data cannot be reconstituted. We employ this policy because most of the data in research at NCEAS was collected and is used under other auspices. However, we **STRONGLY** encourage individuals to thoroughly document original data under their control and make it publicly available as well. The Center provides staffing and computing resources to assist with data documentation (description adequate for data exchange) and accessibility for both derived and original data.

In order to implement this policy, project participants must agree to a data policy statement (see Data Policy Statement) prior to initiating research activities.

These additional policies also govern NCEAS management of data and information:

- In general, NCEAS data sets may not be sold or redistributed by the recipient.
- NCEAS requires that copies of analytical tools developed by NCEAS investigators be deposited with the Center. Copies of software products developed by NCEAS staff to support sponsored projects will be kept at the Center and used where appropriate to support other NCEAS activities.
- Copies of any publications resulting from NCEAS support must be provided to NCEAS at the time of publication.

Acknowledgement of NCEAS Support

It is important to acknowledge the Center for its support of your activities. We ask that you use the appropriate acknowledgment below. If these do not fit your specific requirements, please feel free to construct your own that includes the important elements of the NSF (including grant number), UCSB, and State of California support. Also, please identify the type of activity and a title where appropriate (e.g., workshop, working group, sabbatical, etc.).

Working Group Participant

This work was conducted as a part of the (Insert your Working Group Title) Working Group supported by the National Center for Ecological Analysis and Synthesis, a Center funded by NSF (Grant #DEB-0553768), the University of California, Santa Barbara, and the State of California.

Work Group with a Postdoctoral Associate Funded by the Center

This work was conducted as part of the (Insert your Working Group Title) Working Group supported by the National Center for Ecological Analysis and Synthesis, a Center funded by NSF (Grant #DEB-0553768), the University of California, Santa Barbara, and the State of California. Additional support was also provided for (Insert initials of the Postdoctoral Associate), the NCEAS Postdoctoral Associate in the Group.

Independent Postdoctoral Associate (Not associated with a Working Group)

This work was conducted while a Postdoctoral Associate at the National Center for Ecological Analysis and Synthesis, a Center funded by NSF (Grant #DEB-0553768), the University of California, Santa Barbara, and the State of California.

Sabbatical Fellow

This work was conducted while a Sabbatical Fellow at the National Center for Ecological Analysis and Synthesis, a Center funded by NSF (Grant #DEB-0553768), the University of California, Santa Barbara, and the State of California.

Workshop Participant

This work resulted from the (Insert your Workshop Title) Workshop conducted at the National Center for Ecological Analysis and Synthesis, a Center funded by NSF (Grant #DEB-0553768), the University of California, Santa Barbara, and the State of California.

Distributed Graduate Seminar Participant

This work resulted from a Distributed Graduate Seminar (Insert Seminar Title), conducted through the National Center for Ecological Analysis and Synthesis, a Center funded by NSF (Grant #DEB-0553768), the University of California, Santa Barbara, and the State of California.



Ecoinformatics at NCEAS

The major element of the mission of NCEAS is to advance the state of ecological knowledge through the search for general patterns and principles. To do so, scientists at the Center use existing data to address important ecological issues. Accordingly, another important element of the mission is to organize and synthesize ecological information in a manner useful to researchers, students, resource managers, and policy makers, particularly those addressing environmental issues.

This has led the Center to establish a research program to develop tools for access to data pertinent to ecology and allied disciplines (www.nceas.ucsb.edu/ecoinformatics). This is an extremely difficult task because such data cover a broad array of disciplines, are highly dispersed, and profoundly heterogeneous. To facilitate informatics research, NCEAS has formed an Ecoinformatics Center (EiC) under the Marine Science Institute at UC Santa Barbara. Furthermore, NCEAS has participated in the development of a consortium, the Partnership for Biodiversity Informatics (PBI), whose members will combine their interests and skills to promote both leading edge research in informatics and the development and implementation of data access tools. This consortium has generated several major projects, three of which are centered at NCEAS (Ecological Metadata Language [EML], Knowledge Network for Biocomplexity [KNB], and Multi-Agency Rocky Intertidal Network [MARINE]).

Partnership for Biodiversity Informatics

The primary participants in this partnership are the Center for Biodiversity Research at the Museum of Natural History, University of Kansas; NCEAS; the Long Term Ecological Research Network Office; and the San Diego Supercomputer Center.

Research Programs Centered at NCEAS

Ecological Metadata Language

(EML) is a metadata specification developed for the ecology discipline. EML emerges from prior work done by the Ecological Society of America and associated efforts (Michener et al., 1997, Ecological Applications). EML, based on XML, is flexible, yet comprehensive enough to allow ecologists to create high-quality, structured metadata for a broad range of ecological data. *Based on XML*

Knowledge Network for Biocomplexity

KNB is a national network intended to facilitate ecological and environmental research on biocomplexity. Its goal is to enable the efficient entry, discovery, access, interpretation, integration, and analysis of complex ecological data from a highly distributed set of field stations, laboratories, research sites, and individual researchers. In order to facilitate these goals, several software tools are under development at NCEAS.

Versions of these tools are approaching versions that can be made available to the general user community. We plan to work with researchers visiting NCEAS, scientific societies, and research groups maintaining large, ecologically relevant databases to promote the features and general use of EML and the KNB tools.

Morpho is a data management tool for ecologists. It was created to provide an easy-to-use, cross-platform application for accessing and manipulating metadata and data (both locally and on the network). *Morpho* allows ecologists to create EML metadata and create a catalog of data and metadata upon which to query, edit and view data collections. In addition, *Morpho* connects to network (Metacat) servers in order to query, view and retrieve all relevant, public ecological data!

Metacat servers allow ecologists to share their data and metadata via the Internet. *Metacat* is essentially a server from which ecologists – through using *Morpho* – can upload, download, store, query and view relevant metadata and data on the KNB (Knowledge Network for Biocomplexity). Among other things, the KNB supports a network of *Metacat* servers, including NCEAS and LTER *Metacats*.

Monarch is a flexible tool for exploratory analysis of data, using structured semantic metadata. *Monarch* runs pipelines or series of analytical steps where the output of one step maps to the input of the next step in the pipeline. The pipeline itself then provides a reproducible audit trail of analyses and transformations performed on the data. This will allow different scientists to reproduce and extend analyses on their (and others') data in a structured manner.

Multi-Agency Rocky Intertidal Network

MARINE is a collaboration of universities, government agencies and private organizations that monitor rocky intertidal areas in California. MARINE is using the KNB software tools to create structured metadata, archive data and metadata, allow members of MARINE to remotely access data and metadata, and use the data and metadata to perform exploratory analyses. MARINE serves as both a test for the software tools and an example of how the software tools can facilitate collaborative efforts at a regional scale.

The EML and KNB projects are funded by the National Science Foundation and the Andrew W. Mellon Foundation. The primary collaborators in the projects are the Long-Term Ecological Research Network Office, and the San Diego Supercomputer Center.