

# Dawn Wright

Department of Geosciences

Oregon State University

[dawn@dusk.geo.orst.edu](mailto:dawn@dusk.geo.orst.edu)

[twitter.com/deepseadawn](https://twitter.com/deepseadawn)

2010 SACNAS National Conference, Anaheim, CA



- Born in Maryland, raised in Hawaii
- Age 8
- Super supportive mom
- Great teachers, esp. in 4th grade

- Lots of books, lots of good TV!
- Adventure





B.S. in Geology  
– Wheaton College in Illinois  
M.S. in Oceanography  
– Texas A&M  
Ph.D. in Physical Geography &  
Marine Geology  
– UC-Santa Barbara

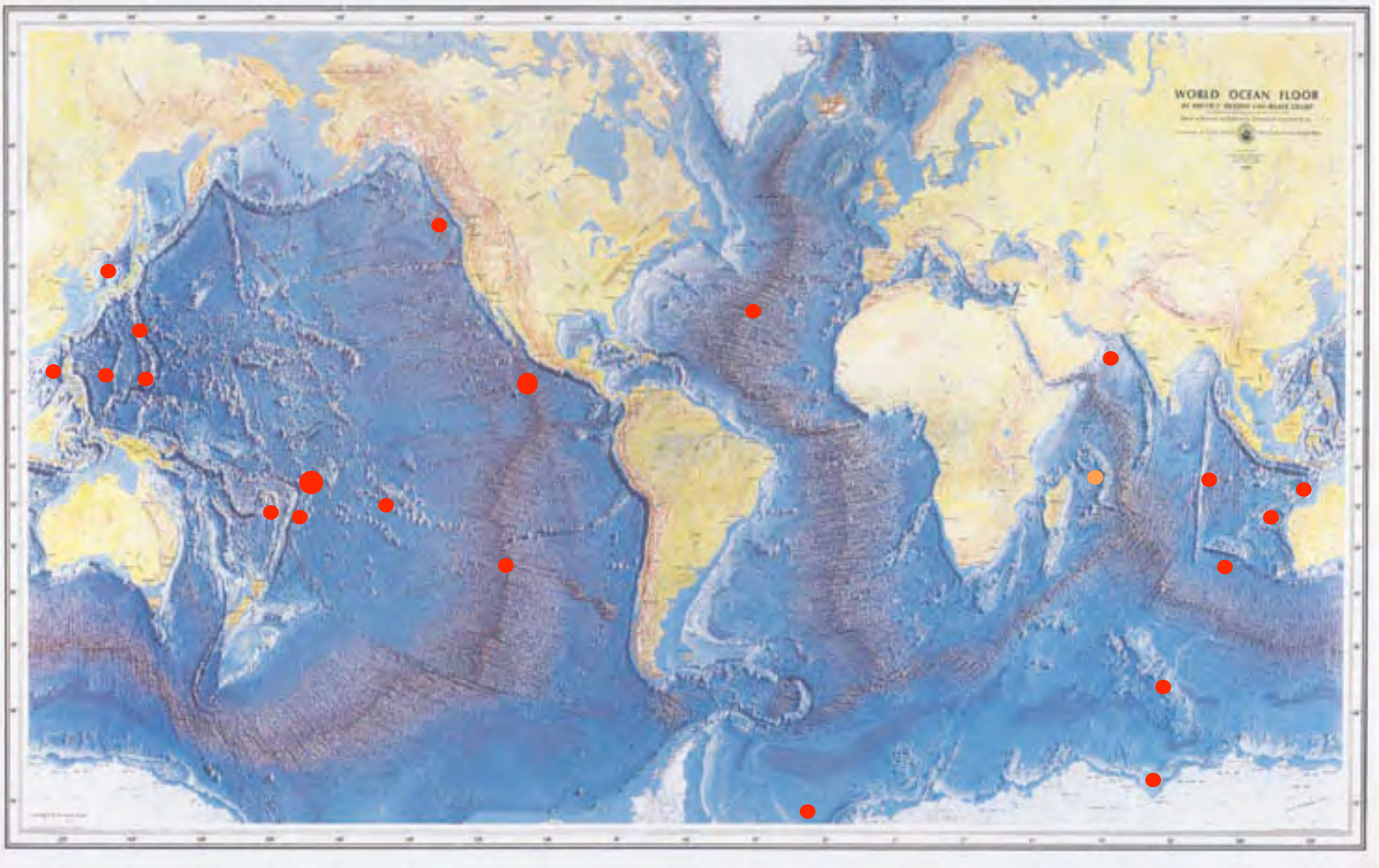








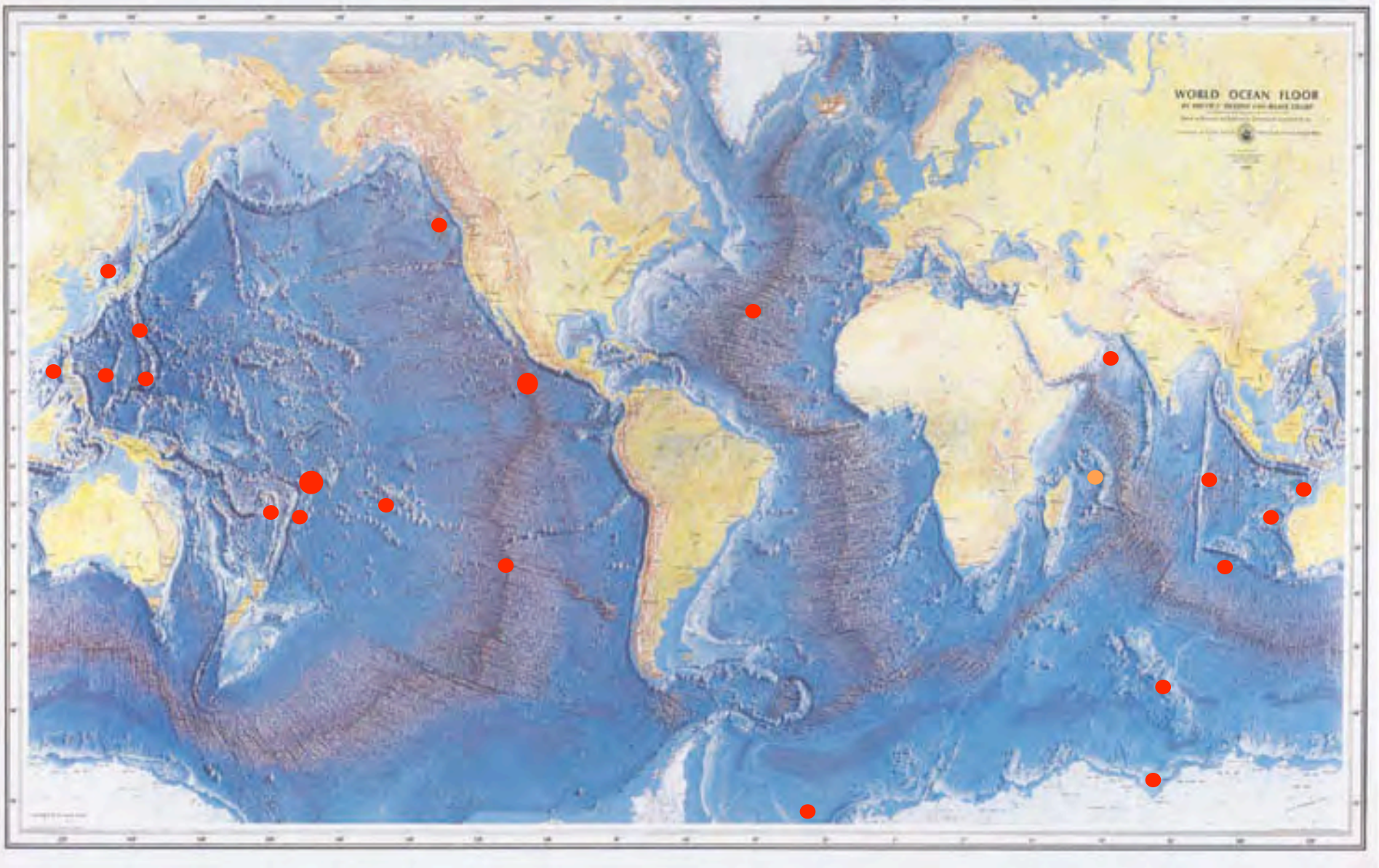
# The World Ocean Floor & “Deepsea Dawn” at Sea

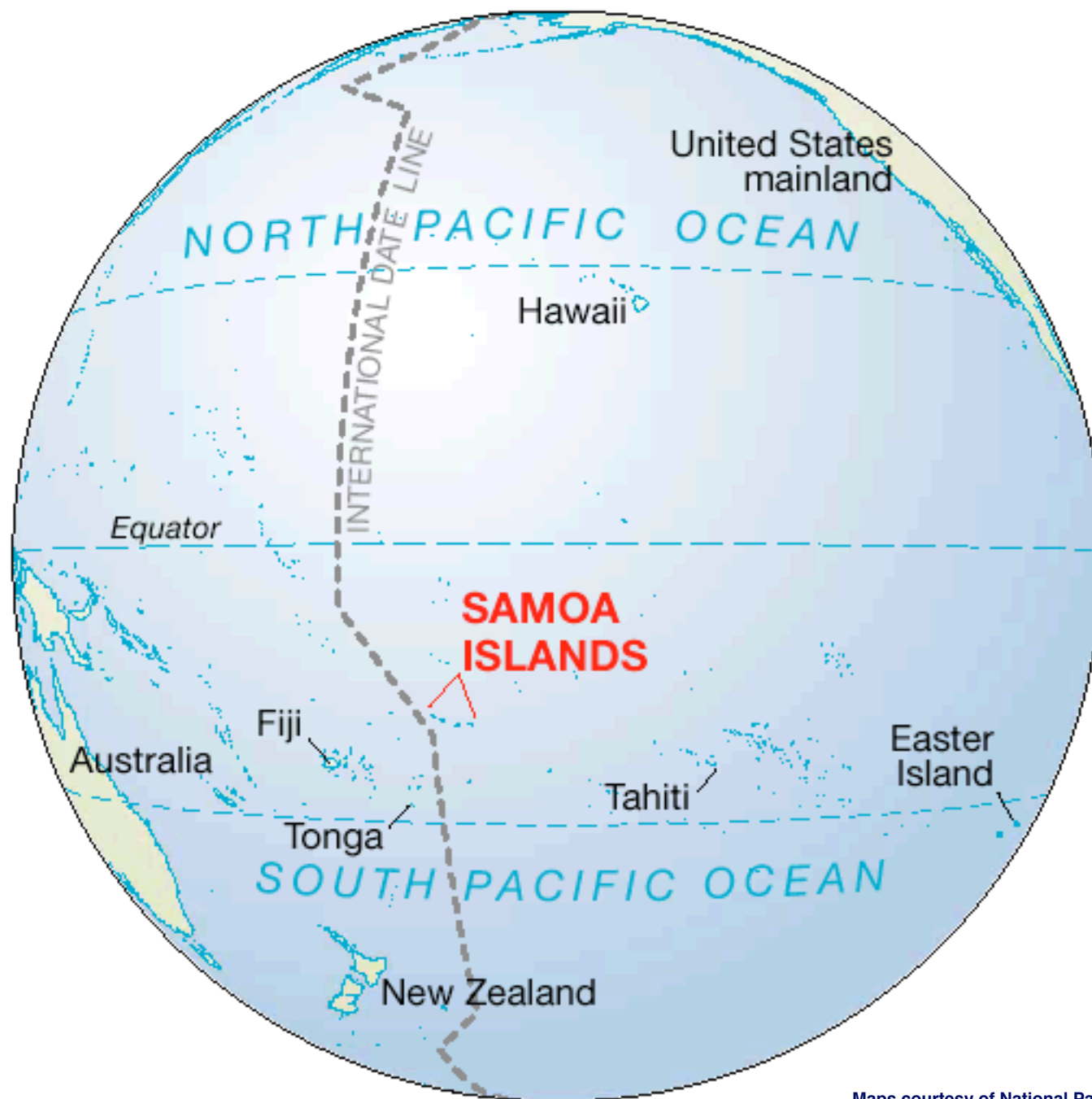




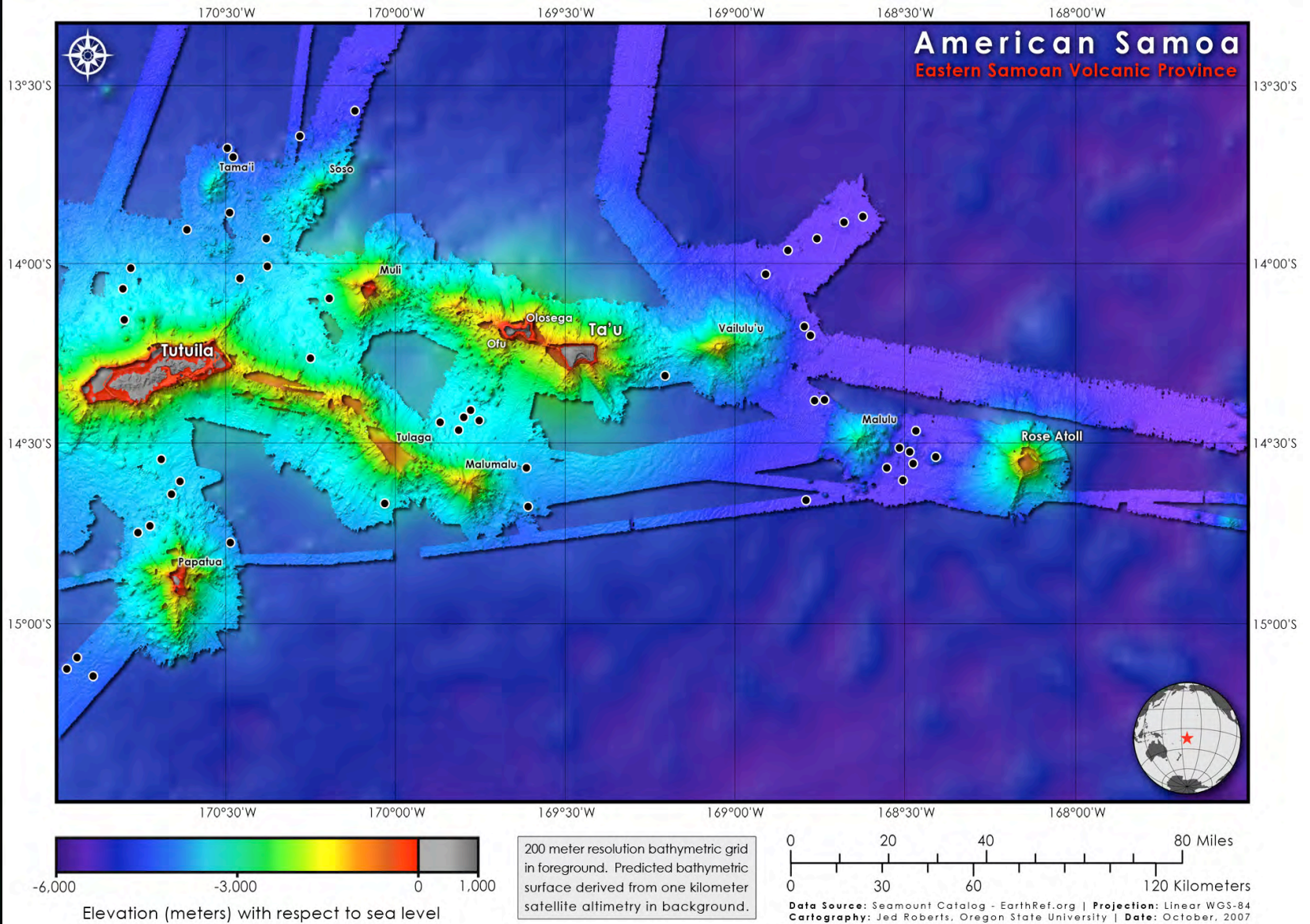


# The World Ocean Floor & “Deepsea Dawn” at Sea





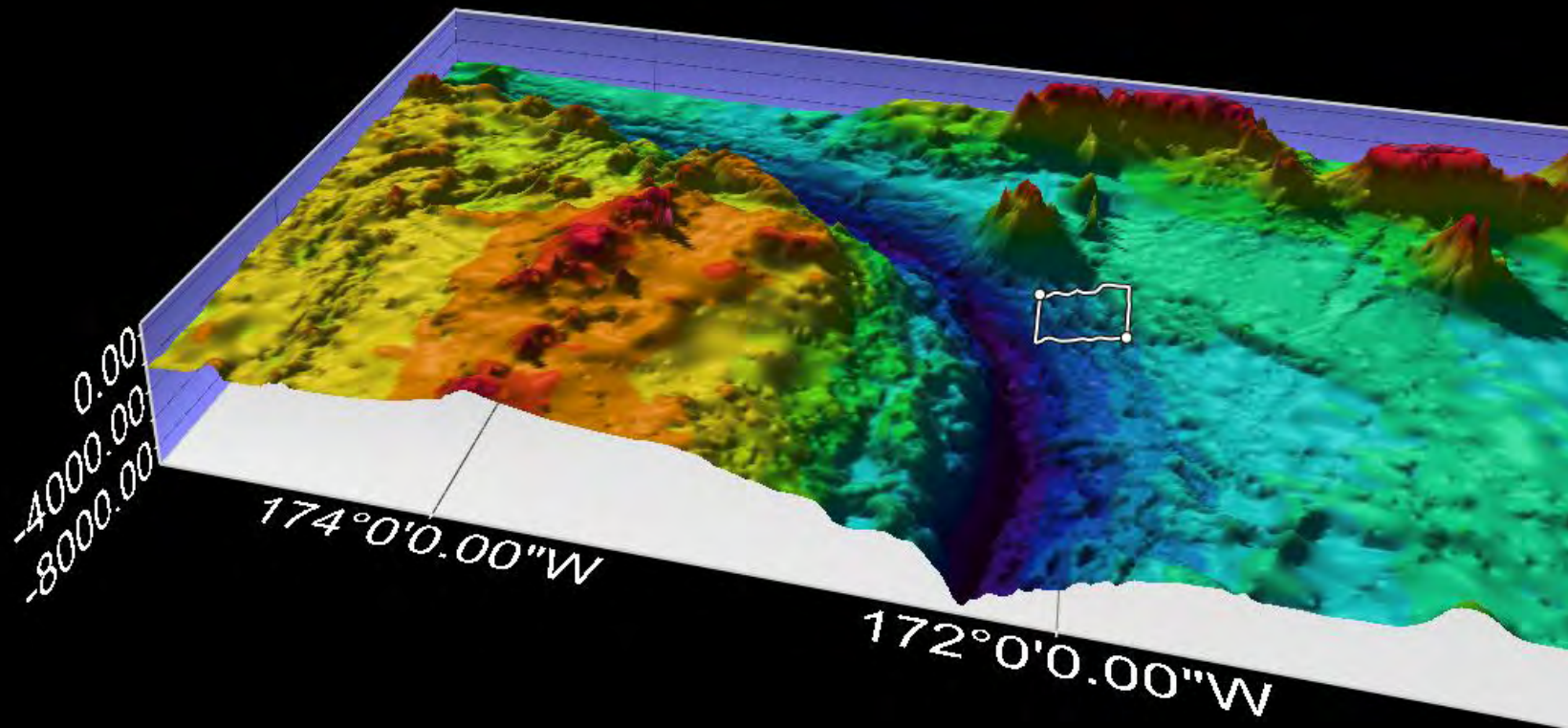
# Deeper Bathy Compilations



**September 29, 2009**

**6:48 a.m. local time, M8.1**

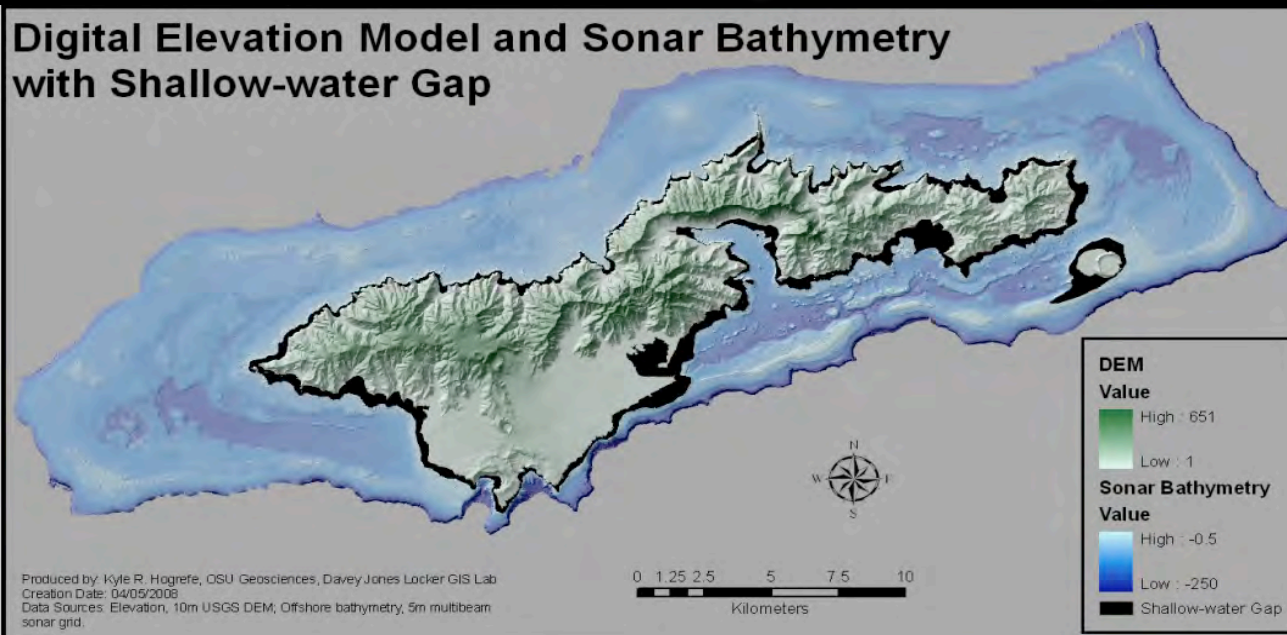
**9 deaths in Tonga, 149 in Samoa, 39 in American Samoa  
Deadliest in history, \$150 million damage**



Sandwell & Smith Estimated Bathymetry, v. 12.1, ve = 6

# Shallow Bathy Compilations

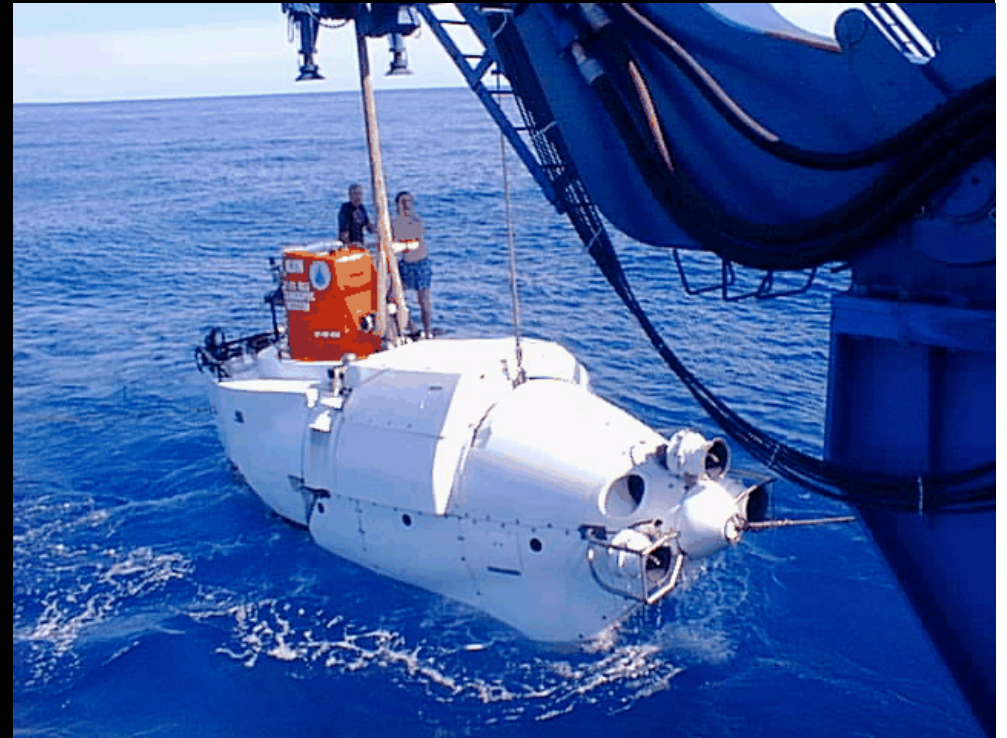
## Digital Elevation Model and Sonar Bathymetry with Shallow-water Gap

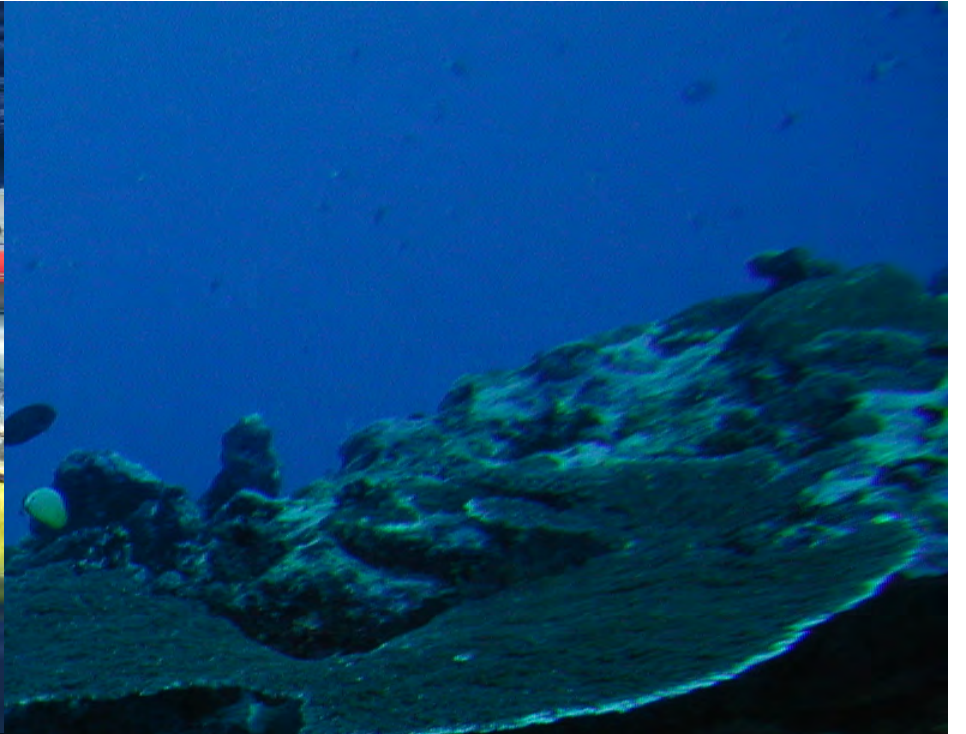


Kyle Hogrefe  
OrSt M.S. Thesis



# Fine-Scale Mapping & Sampling





# “Ocean Informatics”

*How the Earth works... (process)*

*How the Earth should look... (design)*

*How we should look AT the Earth... (data)*

Methods, tools of  
computational sciences, information technology

Interactions of people, social impact of IT





# International Coastal Atlas Network (ICAN)

[icoastalatlantlas.net](http://icoastalatlantlas.net)

**Regionally, globally integrate and  
interoperate among locally-maintained  
atlases ...**

**Inform regional decision- and policy-making  
across several themes**

- Climate change - coastal vulnerability
- Coastal governance (boundaries, protected areas, etc.)
- Coastal hazards
- Population pressures
- Marine spatial planning
- Resource availability
- and more...



## Oregon Coastal Atlas

Saturday, 02 October 2010 13:10:42

[Home](#) [Maps](#) [Tools](#) [Learn](#) [Search](#)

Home

### Atlas News



### Atlas Site Map

- Home
  - About Us
  - Contact US
  - Funding
  - Traffic Reports
- Maps
  - Oregon Coastal Zone
  - Estuaries

## Welcome to Oregon's Coastal Atlas

We hope you enjoy your visit to our website! The Oregon Coastal Atlas is a multi-group project that has the ambitious goal of being a useful resource for the various audiences that make up the management constituency of the Oregon Coastal Zone. The project is a depot for traditional and digital information which can be used to inform decision-making relating to the Oregon Coastal Zone. We provide background information for different coastal systems, access to interactive mapping, online geospatial analysis tools, and direct download access to various planning and natural resource data sets relating to coastal zone management.

### Maps & Tools

#### Maps



The Coastal Atlas includes an Internet Map Server which can be used by visitors to view a variety of standard, preformatted and commonly requested base and overlay data served in the Atlas archives. Those

who do not have access to a desktop GIS may use this tool to create simple personalized maps using data relevant to the coast. Maps can be given personalized titles and output to PDF format for use in printed reports, email, etc.

#### Tools

### Learn & Search

#### Learn



This section contains simple introductory information for a range of coastal geographic settings (Estuaries, Sandy Shores, Rocky Shores, Ocean Areas), coastal topics (Access, Hazards, History, Processes) and Atlas related technologies (hardware descriptions, software listings, and metadata). Any inquiry into coastal settings or topics will provide both broad background materials as well as summaries and links to more specific data.

#### Search

[dusk.geo.orst.edu/djl](http://dusk.geo.orst.edu/djl)



**ENTER...**

## ***Davey Jones' Locker***

*A Seafloor Mapping, Marine & Coastal GIS Laboratory*

*Have no fear.... It is completely safe!*

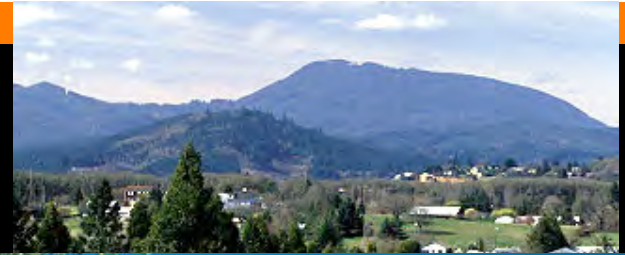
## **Treasure Planet**

Comic of the Day



*Return From Whence Ye Came!*

# Oregon State



# wave.oregonstate.edu/edu

O.H. Hinsdale  
**Wave Research Laboratory**



**ABOUT US**

**EDUCATION**

**RESEARCH**

**FACILITIES**

**CAREERS**



**WAVE  
CAM**



**OPEN HOUSE**  
Nov. 11&12, 2005

**O. H. HINSDALE  
WAVE RESEARCH LAB.  
REUNION**  
Nov. 18 & 19, 2005

Search WRL  

**WRL in the news:**

**12/26/05** Next tsunami a matter of time [More...](#)  
**08/31/05** Researching the secrets of sand [More...](#)





## Pacific Partnerships

CENTER FOR OCEAN SCIENCES  
EDUCATION EXCELLENCE

[HOME](#) [ABOUT US](#) [PROGRAMS](#) [EVENTS](#) [CURRICULUM](#) [RESOURCES](#) [NEWS](#) [DIRECTORY](#) [CONTACT US](#)

### SEARCH

### ABOUT US

Welcome to **COSEE-Pacific Partnerships**, a regional Center in the **COSEE Network** based at marine laboratories in Oregon, Washington, California, & Hawai'i. Our goal is to integrate research & education for community colleges & informal science education professionals & volunteers.

[MORE >](#)

### FEATURE STORY



#### Community College Faculty Institute at HMSC

**Recent Advances in Oceanography**, July 19-23, 2010 at the Hatfield Marine Science Center in Newport, OR. Each day of the institute will include presentations by scientists on topics including ocean observing systems, ocean acidification, plastics in the ocean, phosphorus and eutrophication, and wave energy research.

[MORE |](#)

1 2 3 4

### NEWS

#### Focus on...COSEE-Pacific Partnerships

Read about how COSEE-Pacific Partnerships is engaging scientists at marine laboratories in their programs for community college faculty and students and informal educators in the September 2010 issue of the COSEE Network News. >

### FOR COMMUNITY COLLEGES



Summer internships in marine research and education for community college students

Professional development for community college faculty

### FOR INFORMAL EDUCATORS



Oregon Master Naturalist Volunteer Training Program

Professional development opportunities for informal education professionals

### FOR SCIENTISTS



Interested in education and outreach or need help with your broader impacts

proposal development? Find out how COSEE-Pacific Partnerships can assist you.

# inr.oregonstate.edu

Institute for Natural Resources

OSU Home | OSU Research

Oregon State UNIVERSITY

The Institute for Natural Resources (INR) is moving into the 2004—2005 year with an ambitious agenda designed to fulfill our mission. [pdf 417kb]

INR HOME ABOUT US PROJECTS REPORTS DATA & INFO SOURCES

Our Mission

The Institute for Natural Resources provides Oregon leaders with ready access to current, science-based information and methods for better understanding our resource management challenges and developing solutions.

MISSION

LATEST NEWS

- The 2004-2005 Annual Report is now available (PDF 853 kb)
- Road Ecology/NW Transportation Corridor held Feb 7-9th, 2006 in Corvallis.
- Managers and researchers participate in Restoration and Science Tour & Workshop September 28-29th.
- Institute assists the ODF with its 2004 Program Review (pdf 14 kb)

NEWS

Home Text size: A A A

An Explorer Series Web Site More ▾

- Learn about a Topic
- Learn about Places
- Issues and Actions
- Feature Stories
- Maps
- Statistics and Data
- Photos and Videos
- Reports and Publications
- Expertise and Contacts
- Discussion Forums

Help | Glossary

EXPLORE MORE...

Browse other Explorer series Web sites:

- Willamette Basin Explorer
- North Coast Explorer

→ Browse aerial imagery

Oregon EXPLORER

Natural Resources Digital Library

Information to help local citizens and policymakers make better decisions about Oregon's natural resources.

Search for Resources

Find reports, maps, data sets, and more:


Go →

Advanced search

FEATURE STORY

1 meter and half meter aerial photography now available for the entire state

Thanks to the U.S. Department of Agriculture's National Agricultural Imagery Program (NAIP), and a multi-agency partnership put together by the Oregon Geo-Spatial Enterprise Office, high-resolution color aerial photography, flown in the summer of 2005, are available for the entire state.



ISSUES AND ACTIONS

LEARN ABOUT TOPICS

The Oregon Explorer is designed to

LEARN ABOUT PLACES

Choose one of four ways to explore

January 11, 2006 INR Home | About Us | Projects | Reports | Data & Info Sources

Last Update: Wednesday, January 11, 2006

Home contact us faq links January 11, 2006  
graphic Information Science Certificate Program.

**Oregon State UNIVERSITY**  
Open minds. Open doors.™

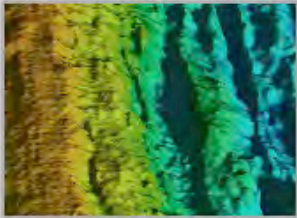
**GEOGRAPHIC INFORMATION SCIENCE**  
Certificate Program

gallery 1 gallery 2 gallery 3

**Discover GIScience**

- Remote Sensing
- Cartography
- Geomatics
- GIS
- Photogrammetry

**GEO FOCUS**



Processing, production, visualization, and interpretation of seafloor maps based on multibeam bathymetry, sidescan sonar, towed camera imagery, and submersible observations.

**WHAT IS "GISCIENCE"?**

**Geographic information science** (GIScience) includes the existing technologies and research areas of geographic information systems (GIS), cartography, remote sensing, photogrammetry, and surveying (also termed *geomatics* in the U.S.). GIScience therefore addresses fundamental issues in the use of digital technology to handle geographic information; namely, information about places, activities, and phenomena on and near the surface of the Earth that are stored in maps or images.

GIScience includes questions of data structures, analysis, accuracy, meaning, cognition, visualization, and many more, and thus overlaps with the domains of many traditional disciplines (e.g., earth science, mathematics, computer science, physics, cognitive science, and ethics). However, GIScience is not central to any of these, representing instead a new kind of scientific collaborative that is defined by researchers from many distinct backgrounds working together on particular sets of interrelated problems.

College of Science  
College of Forestry  
College of Engineering

**Oregon State UNIVERSITY**



# hmsc.oregonstate.edu/reu



**Research  
Experience for  
Undergraduates**

[www.hmsc.oregonstate.edu/REU](http://www.hmsc.oregonstate.edu/REU)

Co-funded by the ASSURE program of the Department of Defense in partnership with the National Science Foundation REU Site program under Grant No. NSF OCE-1004947.

## From Estuaries to the Deep Sea . . .

If you are considering graduate study or a professional career in the marine sciences, developing research skills through hands-on experience is one of the most valuable learning opportunities you can have. This summer, Oregon State University will offer 20 students from all over the U.S. the opportunity to work with faculty mentors on research projects that advance knowledge and understanding of marine, coastal and estuarine environments.

# ides.science.oregonstate.edu

## INCREASING DIVERSITY



## IN EARTH SCIENCES

### About

- [Intellectual Merit Recruitment](#)

### People

- [PI's](#)
- [Mentors](#)
- [Staff](#)

### Students

- [Eligibility](#)
- [How To Apply](#)
- [Research](#)

### Workshops and Seminars

- [OSU Diversity Resources](#)

Username: \*

Password: \*

[Log in](#)



Preparing diverse students for success in the Earth Science Enterprise

[» Read More](#)

### About IDES

The IDES (Increasing Diversity in Earth Sciences) Program is the first partnership of its kind in the state of Oregon, involving community colleges, a research university with major strengths in Earth Science research and education and an institutionalized commitment to enhancing diversity, along with state and federal agencies, and centers of informal education.



Pathways

AGEP

Math Alliance

MS PHD'S

Maine STEM

NASA



## MS PHD'S

Minorities Striving and Pursuing Higher Degrees of Success in Earth System Science

Search IBP's Websites!

Google Custom Search

Search

 Follow MS PHD'S on Facebook!

PROSPECTIVE MENTEES

MENTEES

MENTORS

OVERVIEW

CLASSROOM & COMMUNITY

VIRTUAL COMMUNITY

Profiles

Events

News

Photos

Donate

Contact Us

### MS PHD'S

The Minorities Striving and Pursuing Higher Degrees of Success in Earth System Science (MS PHD'S®) initiative was developed by and for underrepresented minorities with the overall purpose of facilitating our increased participation in Earth system science.

Prospective Mentees



Mentees



Mentors



Program Overview



Classroom & Community



Virtual Community

