

OneNOAA Science Seminar Series [September 8, 2009]

Please join us for our upcoming [OneNOAA science discussion seminars](#). This is a [joint effort](#) to help share science and management information and to promote constructive dialogue between scientists, educators, and resource managers across [NOAA](#).

i-access to our seminar announcements:

1. Join our seminar weekly announcements e-mail list [nominally, sent on Mondays]. To join our email list contact [Hernan Garcia](#) or a [seminar partner](#).
2. Online web public access: <http://www.nodc.noaa.gov/General/NODC-About/Outreach/>
3. GoogleCalendar online public access: [GoogleCalendar](#)
4. Archive of previous OneNOAA science discussion seminars (by calendar year): [\[2008\]](#), [\[2007\]](#), [\[2006\]](#), [\[2005\]](#), [\[2004\]](#).
5. Note: All seminars subject to title, location, date, and time changes.

OneNOAA Science Seminars This Week:

Seminar Title: **Identifying key climate change information for marine and coastal ecological research**

Date/Location: Wednesday, 09 September 2009; 12:00 – 13:00 ETZ ([SSMC-4](#), Room 8150, [NOS](#) seminar)

Speaker(s): Karsten Shein (NOAA [National Climatic Data Center](#))

E-mail(s): Karsten.Shein@noaa.gov

Abstract:

A growing awareness of the potentially significant adverse effects that a variable climate may have on marine and coastal ecosystems has prompted “climate change” to be widely labeled as one of the foremost threats to those ecosystems. However, although a growing body of research is focused on the perceived impacts of climate change on marine and coastal ecosystems, and the environmental tolerance envelopes of many species are well documented through geographic analysis and laboratory studies, establishing correlations between climate variables and species health addresses just one aspect of the full impacts a variation in the overlying climate may have on a particular ecosystem. Arguably as important as establishing which climatic conditions may play a role in exacerbating ecosystem stress is to understand how those conditions behave in space and time, and which ones may present the most dominant influence on species health. Unfortunately, information on these details of climate change is often not readily available or can easily be misinterpreted. Time-series observations from sparse networks, satellite imagery, and regionalized averages of climate variables may provide some information, but coarse resolutions and limited spatial coherence can hinder interpretation at the local scale. This discussion addresses some of the ways in which appropriate climate change information can be developed and presented to support marine and coastal research and decision making, discusses some of the climate information products

and services of the NOAA National Climatic Data Center, and details the scope and limitations of relevant climatological data.

Remote Access & Notes:

Presentations are available remotely via a combination of phone & webcast. Please be aware that remote access is limited to 50 connections on a first-come-first served basis, so we cannot guarantee participation. **To participate remotely you must:** 1) Dial 866-873-0221, and then wait for instructions. When prompted enter passcode 5574872 followed by the # sign. Please use your phone's mute button (or toggle *6) during the presentation until you are ready to ask questions. 2) Go to the webcast site at <http://www.mymeetings.com/nc/join.php?i=746752585&p=&t=c> 3) Enter meeting number 746752585 if needed. No passcode is required. 4) Enter other required fields. 5) Indicate that you have read the Privacy Policy and click Proceed. **For questions:** contact Felix Martinez (Felix.Martinez@noaa.gov).

Share Web link to this OneNOAA science seminar announcement

http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html#OneNOAASeminar_09Sep2009_Shein

OneNOAA Seminar Added:

[OneNOAA Science Seminar](#) added Tuesday, July 21, 2009 6:43 AM
<http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html>

Seminar Title: **Detecting Change in Arctic Sea Ice Using Satellite Altimetry**

Date/Location: Friday, 11 September 2009; 12:00 - 13:00 ETZ ([World Weather Building](#), Science Center, Room 707, Camp Springs, MD; [NESDIS-STAR](#) seminar)

Speaker(s): Dr. Sinéad Louise Farrell (University of Maryland), Dr. Laurence Connor (NOAA/NESDIS/STAR Laboratory for Satellite Altimetry), and Dr. David McAdoo (NOAA/NESDIS/STAR Laboratory for Satellite Altimetry).

E-mail(s): Sinead.Farrell@noaa.gov, Laurence.Connor@noaa.gov, Dave.McAdoo@noaa.gov

Abstract: Sea ice is an important indicator of climate change, and a key component of the polar climate system. Ongoing loss of Arctic sea ice has serious implications for climate change, ocean circulation, the Arctic ecosystem, and economic development in the region. Areal shrinkage of Arctic sea ice has been observed over the last three decades, and its decline is now proceeding faster than forecasted. A record minimum ice extent was reached in September 2007. The

latest satellite observations of sea ice freeboard also reveal a decline in ice thickness, in line with the observed changes in ice extent and the loss of multiyear ice. An extensive monitoring of Arctic-wide sea ice thinning using satellite altimeters is now necessary to determine whether such observations are part of a sustained negative trend in Arctic ice thickness or a reflection of the natural, interannual variability. It is key to first validate satellite altimeter data over sea ice. We achieve this by making comparisons with "ground-truth" observations gathered from low altitude aircraft under-flights and in-situ measurements collected on the sea ice itself. We will discuss recent validation experiments which we have conducted in the Arctic, with particular emphasis on the Canada Basin Sea Ice Thickness (CBSIT) experiment completed earlier this year.

Remote Access & Notes:

Dial-In Information: U.S. participants: 866-832-9297, International participants: 203-566-7610, Passcode: 6070416. Seminar takes place at: Center for Satellite Applications & Research (STAR), World Weather Building, Science Center, Room 707, 5200 Auth Road, Camp Springs, MD 20746. **For further information** please contact Bruce Ramsay (301-405-9205; Bruce.H.Ramsay@noaa.gov).

Notes about the speaker(s):

Dr. Sinéad Louise Farrell (see http://www.star.nesdis.noaa.gov/star/Farrell_S.php)
Dr. David McAdoo (see http://www.star.nesdis.noaa.gov/star/McAdoo_D.php).

Web link to this OneNOAA science seminar announcement

http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html#OneNOAASeminar_11Sep2009_Farrell_etal

OneNOAA Science Seminar Added:

[OneNOAA Science Seminar](http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html) added Friday, September 4, 2009 11:38 AM
<http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html>

Upcoming OneNOAA Science Seminars:

Seminar Title: **Climate Change Impacts on Water Availability in Alaska**

Date/Location: Tuesday, 15 September 2009; 10:00-11:00 am Alaska Local Time ([RISA/ACCAP](#) seminar via teleconference)

Speaker(s): Brendan J. O'Brien (Climate Change Analyst, [The Wilderness Society](#))

Abstract:

This webinar reports results of research using data from the Scenarios Network for Alaska Planning (SNAP) to downscale and map projected changes in surface water availability state-wide. Future estimates of potential evapotranspiration have been calculated from averaged monthly climate data from 5 global circulation models, previously evaluated as best-fit for Alaska. Future projections are compared with a historical baseline to determine the magnitude of change over time. With significantly more water leaving the landscape, growing season water availability is likely to drop below historic levels by mid-century, leading to more severe water deficits across the landscape. Such a dramatic decrease in water

availability will likely have strong impacts on the wildlife, vegetation, and human communities that depend on water resources. Join us to learn more about projected changes in water availability state-wide. With this information, Alaskans will be better prepared to identify species, landscapes and communities that are vulnerable to change. For the full text of the report, go to: <http://www.snap.uaf.edu/downloads/climate-change-impacts-water-availability-alaska>.

To Participate / Log-In to the Alaska Climate Teleconference:

<http://www.uaf.edu/accap/teleconference.htm>. **Teleconference:** 1) Dial:1-800-893-8850; 2) When prompted, enter the PIN code: 7531823. **To view the presentation during a teleconference:** 1) Point your web browser to:

<http://www.shareitnow.com>; 2) Click on the blue *Join a Meeting* button on the left side bar. 3) For Presenter ID enter: accap@uaf.edu. To join us in person: If you are in Fairbanks, join us in person on the UAF campus in the Duckering Building Room 535. Map: <http://www.uaf.edu/campusmap/> (purple zone). For more information about the Alaska Climate Teleconferences and the Alaska Center for Climate Assessment and Policy, please contact Brook Gamble, Outreach and Education Specialist, (907) 474-7812, accap@uaf.edu or visit www.uaf.edu/accap.

Remote Access & Notes:

Web link to this OneNOAA science seminar announcement

http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html#OneNOAASeminar_15Sep2009_OBrien

OneNOAA Seminar Added:

[OneNOAA Science Seminar](http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html) added Wednesday, September 2, 2009 7:47 AM <http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html>

Seminar Title: **Communicating NOAA's Science Through Social Media Tools**

Date/Location: Wednesday, 16 September 2009; 12:00-13:00 ETZ ([SSMC-3](#), 2nd Floor, [NOAA Central Library Silver Spring](#) Seminar)

Speaker(s): Bradley Akamine (NOAA Director of Online Communications), Ron Jones (NWS Internet Projects Specialist and Chair, DoC Social Media Working Group), Pat Erdenberger (NOAA Records Officer), Kate Naughten (NOAA Fisheries), and Emily Crum (NOAA National Ocean Service)

Abstract: Panel Discussion on best practices, policies, and innovative use of social media tools within NOAA and Department of Commerce. Join Bradley Akamine, NOAA Director of Online Communications, Ron Jones, NWS Internet Projects Specialist and Chair, DoC Social Media Working Group, Pat Erdenberger, NOAA Records Officer, Kate Naughten, NOAA Fisheries, and Emily Crum, NOAA National Ocean Service. Lively discussion promised on using these new technology and communications tools to make NOAA data and science more useful, more efficient

and more transparent to the public.

Remote Access & Notes: *For further information* please contact Mary Lou Cumberpatch (Mary.Lou.Cumberpatch@noaa.gov; 301-713-2600 Ext. 129) or Skip Theberge (Albert.E.Theberge.Jr@noaa.gov; 301-713-2600 Ext. 115).

Web link to this OneNOAA science seminar announcement http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html#OneNOAASeminar_16Sep2009_Akamine_etal

OneNOAA Seminar Added: [OneNOAA Science Seminar](#) added Friday, August 7, 2009 11:44 AM <http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html>

Seminar Title: **Ocean for Life: Enhancing Cultural Understanding through Ocean Science**

Date/Location: Tuesday, 29 September 2009; 12:00-13:00 ETZ ([SSMC-3](#), 2nd Floor, NOAA Central Library Silver Spring, seminar sponsored by Office of National Marine Sanctuaries and the National Marine Sanctuary Foundation)

Speaker(s): Jonathan Shannon (OFL 2009 program director, ONMS Education Liaison), Michiko Martin (ONMS Communications and Outreach Division head), Letise LaFeir (NMSF Director of Education and Government Relations).

Abstract: All life in the ocean is connected and in the same way our human cultures are all connected. Diversity is a strength in the ocean world. So too in ours. The goal of the Ocean for Life program is to bring better understanding of the diverse marine world and of the diverse peoples of the world. Our lives depend on close connections to the ocean -- and on the close connections that link us all. During two field studies, one to the Florida Keys National Marine Sanctuary (July 15-30) and the other to the Cordell Bank, Gulf of the Farallones, and Monterey Bay National Marine Sanctuaries (July 29-Aug 9), high school students from Western and Middle Eastern countries worked together to learn more about marine science and each other's cultures. The students captured their experience by creating youth media projects based upon the three themes of Ocean for Life: a sense of place, interconnectedness, and ocean conservation and stewardship. These projects will be shared along with highlights from the two field studies. Upon returning to their home communities, the participants are encouraged to use their experience to become better stewards of their local environment, promote its connection to the ocean, and strengthen the links they have built to the communities and cultures of their fellow participants. We will also discuss how you can help this effort, through serving as a mentor and/or forum moderator on www.oceanforlife.org.

Remote Access & Notes: *For further information* please contact Mary Lou Cumberpatch (Mary.Lou.Cumberpatch@noaa.gov; 301-713-2600 Ext. 129) or Skip Theberge

(Albert.E.Theberge.Jr@noaa.gov; 301-713-2600 Ext. 115).

**Web link to this
OneNOAA
science seminar
announcement**

http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html#OneNOAASeminar_29September_Shannon_etal

**OneNOAA
Seminar Added:**

[OneNOAA Science Seminar](#) added Friday, August 14, 2009 2:45 PM
<http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html>

Seminar Title: **Climate Change and Alaska Fisheries**

Date/Location:

Tuesday, 06 October 2009; 10:00-11:00 am Alaska Local Time ([RISA/ACCAP](#) seminar via teleconference)

Speaker(s):

Mike Sigler (Program Leader, Habitat and Ecological Processes Research Program NOAA Fisheries, [Alaska Fisheries Science Center](#))

E-mail(s):

Mike.Sigler@noaa.gov

Abstract:

TBD

**Remote Access &
Notes:**

To Participate / Log-In to the Alaska Climate Teleconference:

<http://www.uaf.edu/accap/teleconference.htm>. **Teleconference:** 1) Dial:1-800-893-8850; 2) When prompted, enter the PIN code: 7531823. **To view the presentation during a teleconference:** 1) Point your web browser to: <http://www.shareitnow.com>; 2) Click on the blue *Join a Meeting* button on the left side bar. 3) For Presenter ID enter: accap@uaf.edu. To join us in person: If you are in Fairbanks, join us in person on the UAF campus in the Duckering Building Room 535. Map: <http://www.uaf.edu/campusmap/> (purple zone). For more information about the Alaska Climate Teleconferences and the Alaska Center for Climate Assessment and Policy, please contact Brook Gamble, Outreach and Education Specialist, (907) 474-7812, accap@uaf.edu or visit www.uaf.edu/accap.

**Web link to this
OneNOAA science
seminar
announcement**

http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html#OneNOAASeminar_06Oct2009_Sigler

**OneNOAA
Seminar Added:**

[OneNOAA Science Seminar](#) added Wednesday, September 2, 2009 7:59 AM
<http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html>

Seminar Title: **Climate Change Communication 2.0**

Date/Location: Friday, 16 October 2009; 11:00-12:00 ETZ ([SSMC-3](#), 4th Room 4517, [NODC Seminar](#))

Speaker(s): Dr. Ed Maibach (Director of [George Mason University's Center for Climate Change Communication](#))

E-mail(s): emaibach@gmu.edu

Abstract: Increasing awareness and understanding of climate change is important if ultimately we are going to be able to change behaviors to tackle the problem. Dr. Maibach will share his thoughts about lessons learned from the first 20 years of climate change communication in America (starting with Jim Hansen's clarion call to Congress in the late 1980s). He will also facilitate a discussion with session participants about the climate change communication challenges we will likely face over the next 20 years. Learn how you might effectively engage your friends and others to become part of the solution.

Remote Access & Notes: **For Webcast access:** 1) go to <http://www.mymeetings.com/nc/join.php?i=741283869&p=nodc1315&t=c>; 2) type in other required fields (i.e., your name, e-mail, organization; meeting number is 741283869; password is "nodc1315" -password is case sensitive-); 3) indicate that you have read the Privacy Policy; 4) click on Proceed. **For phone access:** toll free dial 877-916-2513 using a touch-tone phone; when prompted enter participant code 5877174 followed by a "#" (Please mute your phone during the presentation or toggle *6 otherwise it produces a sound feedback). Please note that webcast & phone access is limited to 50 connections on a first-come-first served basis. Webcast & phone access will start approximately 5 min before the seminar. Space in conference Room 4817 in [SSMC-3](#) is limited to about 25 people. **For general questions about this seminar**, please contact Hernan Garcia (Hernan.Garcia@noaa.gov).

Notes about the speaker(s): See http://www.climatechangecommunication.org/edward_maibach.cfm.

Download Presentation(s): TBD

Web link to this OneNOAA science seminar announcement http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html#OneNOAASeminar_16Oct2009_Maibach

OneNOAA Seminar Added: [OneNOAA Science Seminar](http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html) added <http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html>

Seminar Title: **What Can Science Tell Us That Fishermen Don't Already Know?**

Date/Location: Monday, 26 October 2009; 12:00-13:00 ETZ ([SSMC-3](#), 4th Floor Large Conference Room 4527, [NODC](#) Seminar)

Speaker(s): Dr. Elizabeth W. North (Assistant Professor, [University of Maryland Center for Environmental Science](#))

E-mail(s): enorth@hpl.umces.edu

For millennia, fishermen have known that abundances of fish vary from year to year and that these variations could be associated with changes in weather. One hundred years ago, many scientists thought that man could not exhaust the sea's bounty and that climate fluctuations were unpredictable and not related to human activities. Today, we see that fish populations may fluctuate due to fishing, natural weather and climate variability, and human-induced climate change. As our understanding of the earth's system grows and our ability to predict (or at least forecast envelopes of future realities) expands with it, we need to ask, "What is the validity of the quantitative tools developed from this understanding, and how can we use these tools to better manage fish, fisheries, and ecosystems?"

Abstract: Although empirical relationships between oceanographic conditions and fish and shellfish recruitment are notoriously ephemeral, I will make the case that a process-level understanding of recruitment for individual species is an achievable and important goal for fisheries science. The state of the ecosystem (both physical and biological components) can have profound influences on early-life dynamics, which in turn feed back to the ecosystem via proliferation or collapse of year classes that can shift community structure as they pulse through a system. Understanding the influence of environmental variability on both the ecosystem and single species is necessary for projecting how fished populations will respond to climate change, for developing decision-support tools for ecosystem-based management, and for science to tell us something that fishermen don't already know. Supporting insights and examples will be drawn from the Global Ecosystem Dynamics (GLOBEC) Program and from research on Chesapeake Bay and the Western Atlantic's Middle Atlantic Bight. Perspectives on research needs and priorities will be offered.

For Webcast access: 1) go to

<http://www.mymeetings.com/nc/join.php?i=741283869&p=nodc1315&t=c>; 2) type in other required fields (i.e., your name, e-mail, organization; meeting number is 741283869; password is "nodc1315" -password is case sensitive-); 3) indicate that you have read the Privacy Policy; 4) click on Proceed. **For phone access:** toll free dial 877-916-2513 using a touch-tone phone; when prompted enter participant code 5877174 followed by a "#" (Please mute your phone during the presentation or toggle *6 otherwise it produces a sound feedback). Please note that webcast & phone access is limited to 50 connections on a first-come-first served basis. Webcast & phone access will start approximately 5 min before the seminar. If possible, seminar audio will be available via podcast together with the seminar slides following the seminar. **For general questions about this seminar,** please contact Hernan Garcia (Hernan.Garcia@noaa.gov).

**Remote Access
& Notes:**

Notes about the speaker(s):

Elizabeth W. North is an Assistant Professor at the University of Maryland Center for Environmental Science (UMCES). Located at Horn Point Laboratory, Dr. North works to advance basic principles of fisheries oceanography, support fisheries management, and enhance ecosystem restoration. Her research integrates field and numerical modeling approaches and focuses on physical-biological interactions during the early life of fish and shellfish. Dr. North received a B.A. from Swarthmore College in 1991, a M.S. in Interdisciplinary Science Studies from Johns Hopkins University in 1996, and a Ph.D. in Marine, Estuarine, and Environmental Science with specialization in Fisheries Science from University of Maryland in 2001. In 2007, she received the Cronin Award for Early Career Achievement from the Coastal and Estuarine Research Federation. Currently she serves on the ICES Working Group on Modelling Physical-Biological Interactions and the US GLOBEC Standing Committee for Synthesis, and she will co-chair the ICES workshop on Understanding and quantifying mortality in fish early life stages: experiments, observations and models (WKMOR) in 2010. See also <http://hpl.umces.edu/faculty/enorth.html>.

Web link to this OneNOAA science seminar announcement

http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html#OneNOAASeminar_26Oct2009_North

OneNOAA Seminar Added:

[OneNOAA Science Seminar](http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html) added Friday, April 10, 2009 10:49 AM
<http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html>

Seminar Title: **To Be Determined**

Date/Location: Thursday, 03 December 2009; 12:00-13:00 ETZ ([SSMC-3](#), 4th Floor Large Conference Room 4527, this is a joint [NODC](#) and [NOAA library](#) seminar)

Speaker(s): Dr. Jane Lubchenco (Under Secretary of Commerce for Oceans and Atmosphere and [NOAA](#) Administrator)

E-mail(s): Jane.Lubchenco@noaa.gov

Abstract: To Be Determined

Presentation will be available remotely using phone and webcast. For Webcast access: This will allow you to see the presentation slides remotely from your computer (IE or Firefox recommended). Instructions: (1) go to <http://www.mymeetings.com/nc/join.php?i=741283869&p=nodc1315&t=c>; (2) type in other required fields (e.g., your name, e-mail, organization; meeting number is 741283869; password is "nodc1315" -password is case sensitive-); (3) indicate that you have read the Privacy Policy; 4) click on Proceed. **For phone access:** This will allow you to hear the presentation. Instructions: Toll free dial 877-916-2513 using a touch-tone phone; when prompted enter participant code 5877174 followed by a "#". **For people accessing the seminar via phone:** (1) please mute your phone during the presentation or toggle *6 otherwise it produces a sound feedback and we'll have to disconnect everyone on the phones to avoid further interruptions of the seminar and (2) please hold on questions until the end of the seminar. Please note that webcast & phone access is open to anyone but limited to 50 connections on a first-come-first served basis (limit might be increased pending interest). Webcast & phone access will start approximately 5-10 min before the seminar.

Remote Access & Notes:

Joining us in person: Please note that if NOAA staff want to join us in person in Silver Spring, [SSMC-3](#) Room 4527 has a seating limit for about 130 people on a first-come-first-served basis. In case of overflow in Room 4527, [SSMC-3](#) Room 4817 will be available with seats for an additional 25 people.

Video and podcast: There will be no real time video webcast of the seminar. However, if possible, (1) video of the presentation as well as (2) seminar audio (podcast) together with the seminar slides will be available following the seminar.

For general questions about this seminar: please contact Hernan E. Garcia (Hernan.Garcia@noaa.gov). **For questions to** Dr. Jane Lubchenco regarding this seminar please contact Pat A. Simms (Pat.A.Simms@noaa.gov).

Notes about the speaker(s):

For information about Dr. Jane Lubchenco see <http://www.noaa.gov/lubchenco.html>

Download Presentation(s):

To be determined

Web link to this

OneNOAA science seminar announcement http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html#OneNOAASeminar_03Dec2009_Jane_Lubchenco

OneNOAA Seminar Added: [OneNOAA Science Seminar](http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html) added Tuesday, August 18, 2009 8:18 AM
<http://www.nodc.noaa.gov/General/NODC-About/Outreach/NODC-seminars09.html>

--

Hernan E. Garcia, Ph.D.
NOAA-NESDIS-NODC Ocean Climate Laboratory
SSMC-III, E/OC5, Room 4230
1315 East-West Highway
Silver Spring, MD 20910, USA

E-mail: Hernan.Garcia@noaa.gov
Phone: (301) 713-3290 Ext 184
Fax: (301) 713-3303
OCL: <http://www.nodc.noaa.gov/OC5/>
NODC: <http://www.nodc.noaa.gov/>

OneNOAA Science Seminars:
<http://www.nodc.noaa.gov/General/NODC-About/Outreach/>

~~~~~  
The contents of this message are mine personally  
and do not reflect any position of the Government  
or NOAA  
~~~~~