# National Network for Ocean and Climate Change Interpretation funded by NSF CCEP-I



Goal: Increase the capacity of informal science education institutions (ISEIs)

to Interpret climate impacts on coastal zones and marine life – building on their large audience reach, interpretive capacity, and public trust

### Phase I Deliverables (2011-2012)

 Synthesized relevant research on climate science, cognitive/social science, and communications

• Engaged interpreters from 20 ISEIs including aquariums, zoos, national parks, and others

• Piloted two "Study Circles." Each brought together teams of 20 interpreters with climate scientists and communication experts for 100 hours of learning and practice over 6 months.

### **Challenges and Opportunities**

 ISEI interest in climate change continues to grow, but most institutions have few activities and few staff involved

 Initially, interpreters are discouraged by their experience of environmental degradation; concerned about the complexity of the science; and worried about the perceived threat of being challenged by those who do not accept the scientific consensus

• ISEI visitors are a receptive target audience for climate change education, but most have limited science knowledge

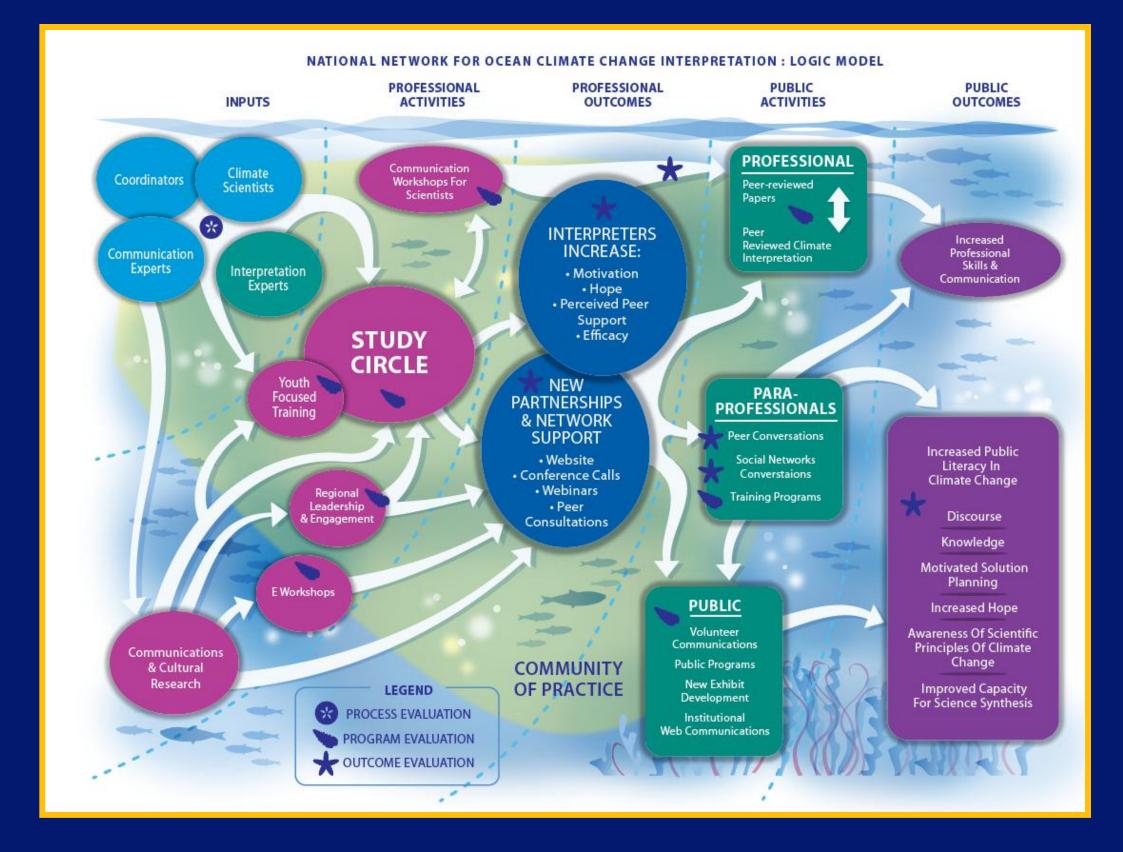
# Findings

 Interpreters are ready and eager to learn; concerned about how to communicate with visitors; interested in raising the profile of climate change at their institution; and seeking a consensus on messages and training tools

 Participants report increased knowledge and understanding of strategic framing and communication techniques; confidence; selfefficacy; and sense of hope

• Scientists, especially graduate students, are interested and highly motivated

•These impacts, especially a sense of hope, are spreading from interpreters to their trainees, peers, and members of their social networks



New England Aquarium

Association of Zoos & Aquariums

Monterey Bay Aquarium

National Aquarium

**Climate Scientists** 

Woods Hole Oceanographic Institution

**Communication Experts** 

Frameworks Institute

Institute for Learning Innovation

New Knowledge Organization

Penn State University

Audience: Professional, volunteer, and youth interpreters (including underserved youth) at aquariums, zoos, national parks and marine sanctuaries

### Phase II Vision and Goals (2012-2017)

1. Foster a new "culture of communication" in the ISE community – supported by an evidence-based core story and training materials about climate change and its impacts on the oceans.

The "core story" is an accurate, coherent narrative that broadens the public conversation. Visitor research and message testing will inform a robust interpretive strategy embodied in videos, training materials, Study Circles, and Workshops.

## 3. Engage a critical mass of ISE institutions with a broad national reach.

Over 5 years, we will reach <u>150 ISEIs</u> in the U.S., including major aquariums, zoos, national marine sanctuaries and coastal national parks – a potential audience of at least 200 million, with more than one third in the bottom quartile of US family income and education level.

4. Increase public awareness of climate change as salient, meaningful, and actionable.

2. Develop a national network of ISE interpretive leaders who are skilled and confident in communicating about climate change, and prepared to address other complex issues.

Leaders will train staff, volunteer, and youth interpreters. An ongoing <u>community</u> of practice will help interpreters increase their climate literacy; skills in applying strategies, tools and materials for educating about climate change; confidence in their ability to communicate about the topic; understanding of how to participate in a community of practice; and increased engagement in lifelong learning.

Public discourse will help visitors appreciate the interdependence of humans and animals and their shared reliance on habitats; effectively translate climate science concepts and mechanisms; and convey appropriate solutions and a sense of agency. Visitors will show increased awareness, knowledge, and engagement.

5. Prepare the next generation of ocean scientists as effective communicators.

<u>Communication workshops</u> will help scientists will increase their skills in translating science for the public.