

Planning Workshop on Center for Ocean Sciences Education Excellence of China (COSEE-China Planning Workshop)

March 8-9, 2010

Beijing, China

Sponsor:

Major support for the workshop is provided by the Office of International Science and Engineering, International Planning and Workshops, US National Science Foundation (Award # 0854933)

Co-sponsors:

Ocean University of China

College of Oceanography and Environmental Science, Xiamen University



Background of COSEE

In 2003, the Pew Oceans Commission released its final report, entitled “America’s Living Oceans: Charting a course for sea change”. In this report, members of the Pew Oceans Commission urged readers to help create a “new era of ocean literacy”. The following year, the US Commission on Ocean Policy released its report: “An Ocean Blueprint for the 21st Century”. It explained that ocean education is important in creating a sense of connection to the marine environment, increasing public understanding of ocean-related issues, and developing the next generation of scientists interested in ocean topics.

Taken together, these two reports make a strong argument that there is room to improve on the amount and the quality of ocean-related learning taking place (or not taking place) in our nation’s classrooms. Furthermore, both reports make the case that ocean education is important in helping to better understand and protect marine resources. While these two reports demonstrate the need for improved and increased ocean education, some have already taken steps to fulfill the recommendations.

Following recommendations from an initiating workshop in 2000 (McManus et al., 2000) the United States National Science Foundation has established and evolved a network of 13 Centers of Ocean Sciences Education Excellence (www.cosee.net) over the last 7 years. The rationale behind this coordinated effort on Ocean Science Education is built on observations that the critical role that the oceans play in people’s daily lives is not understood by the general population, oceanographic discoveries are not being translated into educational materials and experiences that are suitable for “students” of all ages, and ocean sciences education needs to be coordinated on a national level. Therefore, scientists and educators have to work together to advance ocean discovery and make known the vital role of the ocean in our lives, which becomes the main mission of COSEE.

COSEE Centers are either regional (geographically based) in nature or based on a “theme”. While each center is independent, all centers share common components.

More information, please enter <http://www.cosee.net/>.

Objectives of the Workshop

A "COSEE-China Planning Workshop" has been funded by International Planning Grants and Workshops of National Natural Science Foundation (NSF), the United States. The workshop will bring together ocean scientists, students, COSEE representatives and government officials to exchange information focused on ocean science education in the United States and China and to explore the possibility of establishing a Center for Ocean Science Education Excellence in China.

This proposal fulfils several of NSF's overall goals. First, this workshop enables US ocean scientists and educators to advance their work through collaboration with China and, by involving graduate students and post-doctoral fellows, helps to ensure that young US scientists gain professional experience beyond US borders. Second, this workshop epitomizes the integration between research and education. The COSEE network is driven by its goals of developing effective broad impacts of ocean science and integrating cutting-edge ocean research into educational programs and activities. Finally, this workshop is a first step at sharing best practices between two significant countries in a field (science education) that has not traditionally shared all its learning through peer-reviewed literature. Innovative and effective educational programs should result quickly from this collaboration.

This proposal offers substantive learning by comparing US educational practice and institutions with Chinese ones, forms the basis for a strong foreign partnership, increases the availability of a diverse array of educational resources, enhances the capacity of US ocean educators by supplying a rich set of examples, new environments, and diverse applications, and provides new testing grounds for educational models developed in the US.

After 2-day workshop in Beijing, this workshop will be followed by visits to Xiamen University in Xiamen and Ocean University of China in Qingdao. If successful, a COSEE-China could result and join the US COSEE Network supporting ocean science education internationally.

By expanding the COSEE network from 13 Centers in the US to establish a COSEE-China, the ocean education and research communities in US and China will benefit.

Workshop Conveners

- Robert F. Chen University of Massachusetts Boston, PI of COSEE-New England,
USA
- Xuchen Wang University of Massachusetts Boston, USA
- Minhan Dai Dean of College of Oceanography and Environmental Science,
Xiamen University, Xiamen, China
- Huiwang Gao Dean of College of Environmental Science and Engineering,
Ocean University of China, Qingdao, China
- Wenqing Cao Associate Dean for Education of College of Oceanography and
Environmental Science, Xiamen University, Xiamen, China

Local Organizing Committee

- Minhan Dai College of Oceanography and Environmental Science,
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- Huiwang Gao Dean of College of Environmental Science and Engineering,
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Agenda for COSEE-China Planning Workshop

March 8-9, Beijing, China

8th March, 2010

08:00 Registration & Poster Set Up

Background: State of Ocean Research and Education in the US and China

08:30-09:00 Welcome-Workshop Opening (Hosts from China)

09:00-09:30 Welcome-Goal of Workshop (Chen)

09:30-09:45 Interest in COSEE-China (Dai)

09:45-10:05 Science Education in the United States (Decker)

10:05-10:40 BREAK and group photo

10:40-10:55 Ocean Science Education and in China (Dai)

10:55-11:10 Ocean Science Education in China (Jiang)

11:10-11:30 Ocean Science Research and Education (Chen)

11:30-11:50 Origins of COSEE (Elthon)

11:50-13:00 LUNCH

Setting the Stage: Sharing information about the COSEE Network

13:00-13:20 The COSEE Network (Duguay)

13:20-13:40 A COSEE Center (Spence)

13:40-14:00 Ocean Literacy (Simms)

Looking Ahead: Creating a Vision for COSEE-China (Chen Facilitates)

14:00-15:00 **Collaboration:** Participants identify key factors for work between the two countries

15:00-15:15 BREAK

15:15-16:00 **Purpose:** Participants clarify the purpose of the potential collaboration between the two ocean science education communities.

16:00-17:00 **Vision:** Participants create a shared vision for COSEE-China

17:00-18:00 Break and posters

18:00-20:00 **DINNER**

20:00-22:00 Social, Poster Session of examples of ocean education and outreach

Karen Chan The Impact of COSEE on Graduate Students

Walker Smith Involvement of Researchers in Education and Outreach

Ari Daniel Shapiro Podcasting the Ocean

Kim Frashure Ocean Science Education Institute (Scientists and Teachers)

Carrie Armbrrecht Communicating Climate Change

Laura Dover Informal and Formal Education Partnerships to Promote Ocean Literacy

Carrie Ferraro	Developing On-Line Ocean Science Instructional Materials
Jennifer Martin	Preparing Global Ocean Scientists through International Research and Educational Exchanges: A Student and Teacher Perspective
Luis Cifuentes	U. Texas-Qingdao Ocean University—Joint PhD Program
Yi Liu	ESD-Mangroves for Public in China
Guihua Wang	University Consortium on Aquatic Sciences

9th March, 2010

09:00-09:15	Plan for the Day (Chen)
09:15-09:30	Ocean Science Education and Research at Xiamen University
09:30-09:45	Ocean Science Education and Research at Ocean University of China
09:45-10:00	Ocean Science Education and Research at Tongji University
10:00-10:15	Ocean Science Education and Research at Nanjing University
10:15-10:30	Ocean Science Education and Research at Peking University
10:30-10:45	Ocean Science Education and Research at Zhejiang University
10:45-11:10	BREAK
11:10-12:00	Leadership Strategy: Participants develop the key elements of an implementation plan (Chen)
12:00-13:00	LUNCH
13:00-15:00	Finalizing the Plan: Participants review and finalize the leadership strategy and implementation plan (Chen)
15:00-16:00	Leadership Accountability: Participants develop mechanisms for follow-up and accountability (Chen & Dai)
16:00-17:00	Next Steps & Follow Up: Participants review commitments and action items and agree on next steps.
17:00-18:00	DINNER

COSEE-China Planning Workshop Participants List

No.	Name	Affiliation	Title/Position	Specialty	COSEE-Affiliation	E-mail
1.	Carrie Armbricht	University of Maine	Masters Student	Climate Change Outreach	COSEE-Ocean Systems, facilitator	carrie.armbricht@maine.edu
2.	Ge Bai	Bureau of International Cooperation, NSF-China	Deputy Director			baige@nsfc.gov.cn
3.	Wenqing Cao	College of Oceanography and Environmental Science, Xiamen University	Professor/ Associate Dean for Education	Biological Oceanography		wqcao@xmu.edu.cn
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5.	Karen Chan	University of Washington	Doctoral Student	Zooplankton Ecology	COSEE-Ocean Learning Communities	kychan@uw.edu
6.	William Y. Chang	East Asia and the Pacific Region, National Science Foundation	Head	Ecology and Environmental Science		wychang@nsf.gov
7.	Huai Chen	Division of American, Oceania and East European Affairs, Bureau of International Cooperation, NSF-China	Director			chenhuai@nsfc.gov.cn
8.	Mingru Chen	College of Oceanography and Environmental Science, Xiamen University	Associate Professor	Marine Fish Biology		cmingru@hotmail.com

No.	Name	Affiliation	Title/Position	Specialty	COSEE-Affiliation	E-mail
9.	Robert Chen (Workshop PI)	University of Massachusetts Boston	Professor	Carbon Biogeochemistry, Ocean and Environmental Education	COSEE-New England, PI; COSEE-China Workshop, PI	bob.chen@umb.edu
10.	Minhan Dai	College of Oceanography and Environmental Science, Xiamen University	Professor/Dean	Marine Biogeochemistry		mdai@xmu.edu.cn
11.	Marilyn Decker	Boston Public Schools	Former Director of Science	Professional Development Expert	COSEE-New England, curriculum development	mdecker@teachers21.org
12.	Ling Ding	College of Chemistry and Chemical Engineering, Ocean University of China	Doctoral Student	Marine Chemistry		dingling83@163.com
13.	Laura Dover	Oregon State University	Doctoral Student	Formal-Informal Education Partnerships	COSEE-Pacific Partnerships	Laura.Dover@smile.oregonst ate.edu
14.	Linda Duguay	University of Southern California	USC SeaGrant Director	Plankton Ecology, Ocean Health, Director of Research, Wrigley Institute of Environmental Studies	COSEE-West, PI; COSEE Council, Chair-Elect	duguay@usc.edu
15.	Don Elthon	Ocean Sciences Education Division of Ocean Sciences, US National Science Foundation	Program Officer		COSEE Program of NSF (US)	delthon@nsf.gov

No.	Name	Affiliation	Title/Position	Specialty	COSEE-Affiliation	E-mail
16.	Daidu Fan	School of Ocean and Earth Sciences, Tongji University	Professor	Marine Geology		ddf@tongji.edu.cn
17.	Nianqiao Fang	School of Ocean Sciences, China University of Geosciences	Professor/Dean	Marine Geology, Sedimentary Geology, Tectonics		fangnq@yahoo.com.cn
18.	Carrie Ferraro	Rutgers University	Doctoral Student	Marine Microbiology	COSEE-NOW, COOL Classroom	fraser@marine.rutgers.edu
19.	Kim Frashure	University of Massachusetts Boston	Doctoral Student	Ecosystem Health	COSEE-New England, teacher, facilitator	kfrashure@comcast.net
20.	Huiwang Gao	College of Environmental Science and Engineering, Ocean University of China	Professor/Dean	Atmospheric Deposition to the Ocean and its Ecological Effects, Marine Ecosystem Dynamic Models		hwgao@ouc.edu.cn
21.	Zhongwen Gao	Education and Training Center, State Oceanic Administration	Director	Environmental Science		gzhw888@163.com
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25.	Huajun Li	Ocean University of China	Professor/ Vice President	Coastal and Offshore Engineering		huajun@ouc.edu.cn
26.	Wen Li	College of Oceanography and Environmental Science, Xiamen University	Master Student	Marine Biology		liwenmhz@yahoo.cn
27.	Xiuping Li	Division of American, Oceania and East European Affairs, Bureau of International Cooperation, NSF-China				liuxp@nsfc.gov.cn
28.	Kun Liang	Xiamen University Affiliated Keji High School	Secondary school teacher	Educator		xiamenliangkun@163.com
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31.	Yi Liu	College of Oceanography and Environmental Science, Xiamen University	Doctoral Student	Environmental Science		china_mangrove@126.com
32.	Jennifer Martin	Virginia Institute of Marine Science & Thomas Nelson Community College	Doctoral Student & Community College Associate Professor	Biology of Fishes		martinj@vims.edu
33.	Jianguo Ren	Ocean Science and Polar Science Program, Division of Earth Science, NSF-China	Director	Geochemistry		renjg@mail.nsf.gov.cn
34.	Ari Daniel Shapiro	Woods Hole Oceanographic Institution	Postdoctoral Fellow	Marine Mammals, Producer of Ocean Outreach Media	COSEE-Networked Ocean World	ashapiro@whoi.edu
35.	Eric Simms	Scripps Institute of Oceanography	Science Educator	Ocean Literacy, Communication Ocean Sciences	COSEE-California; formerly COSEE-Mid-Atlantic	esimms@ucsd.edu
36.	Walker Smith	Virginia Institute of Marine Science, College of William and Mary	Professor	Phytoplankton Ecology, Polar Biology		wos@vims.edu
37.	Wenhong Song	Centre for Enhanced Teaching and Learning, Ocean University of China	Professor/Director	Educator		cbsswh@ouc.edu.cn
38.	Lundie Spence	South Carolina Sea Grant	Director, COSEE-Southeast	Ocean Education, Diversity	COSEE-Southeast, PI; COSEE Council, Chair	Lundie.Spence@scseagrant.org

No.	Name	Affiliation	Title/Position	Specialty	COSEE-Affiliation	E-mail
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41.	Guihua Wang	College of Oceanography and Environmental Science, Xiamen University	Master Student	Environmental Management		samuelwang@xmu.edu.cn
42.	Lu Yang	College of Oceanography and Environmental Science, Xiamen University	Undergraduate Student	Marine Biology		yanglu880907@gmail.com
43.	Ying Ye	Department of Ocean Science and Engineering, Zhejiang University	Professor/ Deputy Dean	Marine Geology		gsyeying@zju.edu.cn
44.	Meixun Zhao	College of Chemistry and Chemical Engineering, Ocean University of China	Professor	Organic Marine Biogeochemistry, Isotope Biogeochemistry		maxzhao@ouc.edu.cn
45.	Liping Zhou	Centre for Ocean Research, Peking University	Professor/ Executive Deputy Director	Ocean-land Correlation, Biogeochemical Proxies for Climate Change		lpzhou@pku.edu.cn
46.	Representatives from Ministry of Education	(To be confirmed)				

Workshop Venue

The workshop will take place in Rose Room of Jianguo Hotel in Chaoyang District of Beijing in China. Jianguo Hotel Beijing is situated adjacent to the Beijing diplomatic quarter, in the heart of Beijing Central Business District, just 1 minute walking distance from the metro and 5 minutes walk from the famous Xiushui Market. By car, 10 minutes from Tiananmen Square and Beijing's numerous historical sights and 30 minutes from the Beijing Capital International Airport.



Accommodation

Rooms have been reserved with special discount for the workshop attendees from March 6 to 10. Breakfast is included and internet is charged for 60 RMB per day.

Getting There



A: Jianguo Hotel Beijing

From the airport to hotel, taking a taxi is the most convenient method which is strongly recommended (no more than RMB 100). You can print the image (below) and show to the local taxi driver.

Easy way to the Jianguo Hotel

Below is for the hotel's Chinese address and telephone number (which is a jpeg image). You can print it and show to the local taxi driver, which means Mr. Driver, please take me to Jianguo Hotel and our address...

司机先生请带我去建国饭店：

北京建国饭店

地址：北京市朝阳区建外大街5号

电话：65002233

Local Information

About Beijing

Beijing is the capital of China which is located in the northeastern corner of China. With a history of more than 3000 years, Beijing is an amazing mix of old and new. For centuries Beijing has been the centre for cultural and business activities and is today beyond doubt a truly world class and international city.



Climate of Beijing



Winters in Beijing (November to March) are cold. It seldom rains in the winter but there is plenty of sunshine. The temperature in March will be around 0~10°C.

Yahoo's 5-day Beijing weather report:

<http://www.travelchinaguide.com/climate/beijing.htm>

About Xiamen

Xiamen Island, which is well known as the “Garden on the Sea” with its unique local culture and beautiful scenery, is located on the southeast coastland of China. Xiamen is a port city and a transportation hub that is easily accessible by air, sea, or land. The Gaoqi International Airport (XMN) is on the north-eastern tip of the island, which is only 20 minutes by car to the campus of Xiamen University.



Climate of Xiamen



The weather in Xiamen is excellent all year round. Its winter is cool with average temperature around 11°C (52°F). Living in Xiamen, you can always enjoy fresh air, clean environment and leisurely pace. The temperature in March will be around 13~20°C.

Yahoo’s 5-day Xiamen weather report:

<http://www.travelchinaguide.com/climate/xiamen.htm>

About Qingdao

Qingdao City is one of the China's first batches of best tourist cities. It has the most beautiful seaside and is an ideal destination for vacation, recreation, sightseeing, business activities, conferences and exhibitions. Qingdao Liuting International Airport is located in Chengyang District, about 13 km from Ocean University of China.



Climate of Qingdao



Neighboring the Yellow Sea (Huang Hai), Qingdao has a temperate monsoon climate with distinct marine features. All four seasons in Qingdao are mild without extreme cold or hot temperatures. The average temperature all year round is around 12°C, and the temperature in March will be around 2~ 9°C.

Yahoo’s 5-day Qingdao weather report:

<http://www.travelchinaguide.com/climate/qingdao.htm>

Registration:

- ◆ Registration desk in the hotel lobby.
- ◆ You will receive your room key, name badge and handbook.
- ◆ Buffet is served from March 7 (dinner) to March 9.
- ◆ Welcome banquet will be organized at Jianguo Hotel on March 8 at 18:00.

Poster display:

For participants who are giving poster presentations, please find the poster help desk in the conference room (Rose Room) in the morning of March 8. You will be able to put your poster up for display during the whole duration of the workshop..

PowerPoint files uploading:

Participants who are giving oral presentations are supposed to upload your PowerPoint file to the symposium computer in the evening of March 7. Note that we handle with Microsoft Office.

City tour

- ◆ There will be a city tour on March 7 and March 10 morning, such as the Forbidden City, the Great Wall and the Palace Museum etc.
- ◆ Please take sports shoes and clothes that are comfortable for the tour with you.

Useful Numbers

Telephone country code: +86 Telephone area code (Beijing): 10
Police: 110 Fire Department: 119
Ambulance: 120 Local directory assistance: 114 (service in Chinese only)

Electricity

The standard domestic power supply in China is 220 V AC at 50 Hz. The standard sockets are the two parallel lines and three lines (right photo).



Insurance

No responsibility can be assured for any kind of personal accidents, sickness, theft, or property damage suffered by conference participants. Participants are advised to arrange whatever insurance they consider it necessary.