



Joint-CRM

近海海洋研究与管理联合研究所

Joint Institute for Coastal Research and Management

Joint Institute for Coastal Research and Management (Joint-CRM)

近海海洋研究与管理联合研究所

University of Delaware & Xiamen University

特拉华大学&厦门大学












Joint-CRM Newsletter

June 2008 - June 2009

Special Edition for the First Anniversary



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From Co-Directors of Joint-CRM



Professor Nancy Targett

University of Delaware (UD)

Dean of the College of Marine and Earth Studies (CMES), UD



Professor Minhan Dai

Xiamen University (XMU)

Dean of the College of Oceanography and Environmental Science (COE), XMU

Director of the State Key Laboratory of Marine Environmental Science (MEL), XMU

As we conclude the first year of the Joint-CRM, we celebrate its remarkable achievements in terms of the academic exchanges and collaborative research efforts between UD and XMU. It is therefore our great honor to present this very first newsletter to all faculty and staff affiliated with the joint institute and to our friends worldwide.

The past year is only the beginning. Joint-CRM will continue our efforts to build the best global platforms for scientists, staff, and students from both UD, XMU, and beyond to explore the coastal oceans. We will make our expertise sharable, our collaborations efficient, and our friendships lasting.

Dr. Nancy M. Targett

June 26, 2009

Dr. Minhan Dai

June 26, 2009



World-Class Joint Institute



Signature ceremony performed by the Presidents of UD and XMU (Photo by Maohua Pan)

On June 27, 2008, Prof. Chongshi Zhu, President of XMU, and Prof. Patrick T. Harker, President of UD, signed a Memorandum of Understanding between two universities. The memorandum provides for extensive, in-depth cooperation in education, research, academic staff and student exchanges, and other areas of mutual interest.



Signing for establishment of Joint-CRM (Photo by Vera Shi)

Prof. Nancy Targetett on behalf of CMES, and Prof. Minhan Dai on behalf of COE then signed a supplementary agreement for establishing the **Joint Institute for Coastal Research and Management (Joint-CRM)**. Subsequently, the plaque of this institute was unveiled by President Zhu and President Harker together. The institute may well be China's first one of its kind to set up cooperation with a university of the United States in the field of marine sciences.



Plaque unveiling ceremony (Photo by Vera Shi)



Joint-CRM

近海海洋研究与管理联合研究所

Joint Institute for Coastal Research and Management



With the increasingly intense pressure placed on the multi-use resources at the land-sea interface, UD and XMU proposed to establish Joint-CRM. It is the mission of Joint-CRM to more effectively highlight global perspectives and partnerships in areas of natural science, social science, and public policy related to coastal environments and their management in the U.S., China, and beyond. Joint-CRM will focus on shared resource issues that are common to coastal areas world-wide, and will take an international perspective in establishing global coastal research, policy, and science education partnerships to build upon common needs and goals for a healthier global coastal environment.



XMU is well-known for excellent programs in oceanography and environmental science, chemistry and chemical engineering, and a number of areas in life sciences and social sciences. It is also the first university to start marine science studies in China. (The left is the logo of XMU.)



Similarly, CMES/UD is recognized as one of the best marine science colleges in the United States. Researchers work worldwide to measure and predict how the ocean responds to change - information that is vital to national and international science community and policymaking. (The left is the logo of UD.)



Delegates of UD/CMES and faculty of XMU/COE joined together after signing ceremony of Joint-CRM Agreement (Photo by Vera Shi)



Prior to the Establishment of Joint-CRM



Prof. Xiao-Hai Yan at a lecture (Photo by Vera Shi)

Dr. Xiao-Hai Yan, Lighthipe Chair Professor at CMES/UD, also a Distinguished Scholar of Xiamen University since January 2007, is a key player in bringing together two universities and in the establishment of the Joint-CRM.



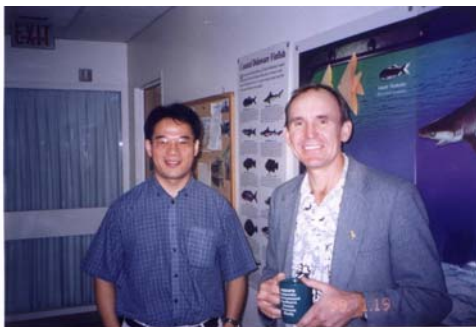
Signing of Statement of Interest (Photo by Vera Shi)

On July 2-6, 2007, Prof. Nancy Targett visited XMU. On behalf of XMU, Vice President Shinong Wu welcomed Prof. Targett. On July 4, 2007, a Statement of Interest between XMU and the UD was signed jointly by Professors Nancy Targett, Dongxing Yuan (former Dean of COE), Minhan Dai, and Luoping Zhang.



Prof. Nancy Targett and Prof. Minhan Dai (Photo by Vera Shi)

Late October 2007, Prof. Minhan Dai visited CMES/UD. His visit further pushed forward the collaboration between UD and XMU. Building upon the relationship of CMES and COE faculties, UD and XMU signed a university-level collaborative agreement in November 2007.



Prof. Nianzhi Jiao and Prof. David Kirchman (Photo provided by Nianzhi Jiao)

Professor Nianzhi Jiao, Associate Director of MEL, has been in collaboration with Harrington Professor David Kirchman, UD's Associate Dean of Graduate College of Marine Studies for many years. Their current joint effort is made on the target of a newly launched SCOR Working Group (WG134), the "Marine Microbial Carbon Pump", toward a better understanding of the role of microbial ecological processes in carbon cycling and CO₂ sequestration in the ocean.



From August 2007 to August 2008, Dr. Qinhua Fang visited CMES as a postdoctoral fellow. Dr. Fang was sponsored by Prof. Biliانا Cicin-Sai, director of UD's Mangone Center for Marine Policy. As a group leader, Dr. Fang joined working group of "Ecosystem-based Management and Integrated Coastal and Ocean Management and Indicators for Progress" for the fourth Global Conference on Oceans, Coasts and Islands, held in April 7-11, 2008, Hanoi, Vietnam. Dr. Fang is now holding a faculty position at COE/XMU.



*Dr. Qinhua Fang and his working group in CMES
(Photo by Kevin McLaughlin)*

Dr. Wen-Zhou Zhang spent in the Physical Ocean Science and Engineering Program at CMES/UD for one year (Jan.-Dec. 2008) as a Postdoctoral Researcher. Besides cooperating with Dr. Xiao-Hai Yan, he also worked with the research group of Drs. James T. Kirby and Fengyan Shi in the Center for Applied Coastal Research at the Department of Civil and Environmental Engineering of UD, and established an ADCIRC model in the eastern sea area of USA to study the dynamic response of sea to hurricanes.



Dr. Wen-Zhou Zhang working at UD (Photo provided by Wen-Zhou Zhang)

The 10th International Estuarine Biogeochemical Symposium (IEBS) was held in Xiamen in May 2008. Thomas Church, E.I. du Pont Professor of Marine Studies from CMES, is a founding member of the International Scientific Committee for the symposium series of IEBS. George Luther, Harrington Professor of Marine Studies, participated in the symposium as a keynote speaker.



*Prof. Thomas Church giving a talk at the 10th IEBS
(Photo by Ji Qin)*



*Prof. George Luther and Prof. Minhan Dai at the 10th IEBS
(Photo by Ji Qin)*



Joint-CRM Activities

Planning on coastal ocean process studies



Prof. Yan Li accompanied by Prof. William J. Ullma and Dr. Matthew J. Oliver (Photo by Weiran Pan)

Invited by CMES/UD Professors Nancy Targett and Kuo-Chuin Wong, delegates from COE/XMU, Professors Huasheng Hong and Yan Li, and Dr. Weiran Pan, successively visited CMES/UD to discuss potential cooperation on coastal ocean processes.

COE delegates met with Dr. Nancy Targett, Dr. A. Denis Kirwan, Dr. Fabrice Veron, Dr. Arthur Trembanis, and some other scientists on Newark campus. They also were arranged to meet with Dr. Matthew Oliver, Dr. Jonathan Sharp, Dr. George Luther, etc. on Lewes campus.



Prof. Huasheng Hong visiting the R/V Hugh R. Sharp (Photo by Wenzhou Zhang)

A series of presentations were given by COE delegates at both Newark and Lewes campuses. The delegates also visited the Air-Sea Interaction Lab at Lewes campus led by Dr. Fabrice Veron and the R/V Huge R. Sharp, which is a state-of-the-art platform for exploring and sampling the coastal ocean.



Prof. Yan Li and Dr. Weiran Pan with colleagues of CMES (Photo by Lide Jiang)



Prof. Huasheng Hong talking with Prof. Jonathan Sharp (Photo by Wenzhou Zhang)



OCCOS workshop held in Xiamen on Dec 8-12, 2008

An International Workshop of Ocean and Climate Changes Observed from Space (OCCOS) was held from December 8 to 11, 2008 at XMU's Zeng Cheng Kui Building, which was co-chaired by XMU professor Jianyu Hu and UD professor Xiao-Hai Yan. This workshop was co-sponsored by MEL and Joint-CRM.

Six renown physical oceanographers and remote sensing scientists — University of Colorado Professor William J. Emery, NASA-JPL Scientist W. Timothy Liu, UD Professor Victor V. Klemas, Dalhousie University Professor Marlon Lewis, Central University of Taiwan Professor Benjamin Fong Chao, and UD Professor Xiao-Hai Yan — were invited to give a series of lectures and keynote speeches. They introduced and summarized state-of-the-art methods and new research results. The group also described some of the recent attempts to combine satellite altimetry and scatterometry with other observations and techniques to study time varying ocean circulation, air-sea interactions, global and regional oceanographic processes, and climate change.

The workshop also included a meeting between Profs. Nancy Targett and Minhan Dai via video conference system. With the help of ITV connection, the Joint-CRM's goal of sharing conferences internationally was realized. About 60 scientists and students attended the workshop.

Thanks to Zhaoying Li, Trevor Moore, Paul Rickards, and Vera Shi for the realization of ITV connection in this workshop.



Prof. William Emery lecturing at OCCOS (Photo by Vera Shi)



Prof. Victor Klemas giving a talk via ITV (Photo by Vera Shi)



Part of the workshop participants (Photo by Vera Shi)



Academic Exchanges



*UD President Patrick Harker and XMU Vice President Shigang Sun at the Award Ceremony
(Photo by Lufang Zhang)*

Prof. Patrick Harker was named as an Honorary Professor of XMU

UD President Prof. Patrick Harker was named an Honorary Professor of Xiamen University. The award ceremony was held on October 28, 2008 in Xiamen. After the ceremony, Prof. Harker delivered a Nanqiang Distinguished Lecture entitled “The Science and Art of Service Management: Customer Efficiency Management”.



Dr. Young Jo giving a talk in the discussion (Photo by Angela Liu)

Dr. Young Jo preparing a joint paper with colleagues of MEL

Dr. Young-Heon Jo, a research scientist at CMES, visited the State Key Laboratory of Marine Environmental Science (MEL) on April 5-8 to discuss the new application of remote sensing to estimate air-sea CO₂ fluxes.

A round table discussion was held in the morning of April 6. Profs. Minhan Dai, Xiao-Hai Yan, Shaoling Shang, and PhD candidate Qian Li from MEL, XMU, joined the discussion. The main purpose of this discussion was for preparing a joint paper on the remote sensing determination of $p\text{CO}_2$ in South China Sea, and for further collaboration on this important research topic.



*Dr. Young Jo discussing with a PhD. candidate
(Photo by Angela Liu)*

In the afternoon of April 6 and on April 7, Dr. Jo was met respectively by Prof. Jianyu Hu's group, Drs. Yuwu Jiang and Wenzhou Zhang, Prof. Shaoling Shang's group, and Dr. Guizhi Wang.



Prof. Biliana Cicin-Sain serving in COMI's Academic Committee

Prof. Biliana Cicin-Sain, Director of the Gerard J. Mangone Center for Marine Policy, attended the Xiamen World Ocean Week (WOW 2008) on November 7-13, 2008. She delivered an invited talk on "Advancing the Global Oceans Agenda to 2016: Status and Challenges" at the Main Forum of the WOW. During this trip, she also attended the Academic Committee meeting of Coastal and Ocean Management Institute (COMI), XMU. COMI is focused on issues that may bridge the science and policy aspects of the ocean and environment, and on studies related to the legal, political, and economic issues facing the ocean, seabed, and coast.



*Prof. Biliana Cicin-Sain in the meeting of AC
(Photo by Phoebe Ye)*

Prof. Victor Klemas giving lectures in COE/XMU May 2009

Professor Emeritus Victor V. Klemas, Co-Director of Center for Remote Sensing of CMES, visited MEL/XMU from May 24 to June 6, 2009. In addition to a seminar on "Remote Sensing of Coastal Ecosystems" to our faculty and students, Dr. Klemas taught a short-term course "Application of Remote Sensing" during his visit.



*Prof. Victor Klemas giving a talk to MEL faculty
(Photo by Angela Liu)*

The short-term course was consisted of 14 lectures, covering areas from digital image analysis and land cover change analysis, to thermal infrared applications and radar applications. This course was specifically designed for students in the major of oceanography or marine physics, and it was also selected by some other students who were interested in coastal environment, watershed, wetland, and coastal ecology. This course was very well received by students at XMU.



*Prof. Victor Klemas giving a lecture to graduate students
(Photo by Jing Yan)*



Dr. Minhan Dai (Photo from UD's Website)

A revisit to CMES/UD on March 28-29, 2009

Dr. Minhan Dai paid a revisit to CMES on March 28-29, 2009. In the early morning of March 29, Targett and Dai met for a further discussion about the future collaboration on academics, researches and outreaches under the framework of Joint-CRM.

Dr. Dai also met Dr. Adam Marsh, Dr. Victor Klemas, Dr. Mohsen Badiy and Dr. Aijun Song. In the afternoon of March 29, Dr. Dai talked with Dr. Matt Oliver, assistant professor of Oceanography Program via a Video Conference System. Dr. Dai suggested applying Dr. Oliver's biogeographic provinces approaches on regional features such as in China seas. They exchanged the current work contents and ideas on potential collaboration by emails after the ITV meeting. Dr. Oliver believes both sides have enough common interest to pursue a very interesting collaboration.

The last meeting arranged by CMES/UD was with Dr. Xiao-Hai Yan and Dr. Young-Heon Jo.

Joint publications on the way

A joint research article "Salinity Variations in Water Column due to Outflows Estimated by Multi-Sensor Remote Sensing", written jointly by Drs. Xiao-Hai Yan and Young-Heon Jo from CMES/UD and Dr. Minhan Dai from COE/XMU, is to be published by *Advances in Geosciences*.

Another joint research article "Strong Southward Transport Events due to Typhoons in the Taiwan Strait", written jointly by Drs. Wen-Zhou Zhang, Huasheng Hong, and Shaoping Shang from COE/XMU, and Xiao-Hai Yan from CMES/UD is forthcoming in *Journal of Geophysical Research*.

A third joint paper "Estimation of Sea Surface $p\text{CO}_2$ in the Northern South China Sea using Neural Network", written jointly by Drs. Young-Heon Jo, Xiao-Hai Yan from CMES/UD and Minhan Dai, Weidong Zhai and Shaoling Shang from COE/XMU is ready to be submitted to *Geophysical Research Letters*.



Prof. Xiao-Hai Yan and Dr. Wen-Zhou Zhang working together (Photo by Xiangbo Wu)



Joint-CRM's Logo

The joint institute's logo is composed of water drops, the fundamental components of the oceans. In Chinese, there is a saying that "water drops can penetrate the rocks". This embodies the spirit we would like to have in our joint efforts for ocean science. The convergence of the water drops symbolizes our objective to attract many scientists from all over the world to work together for our common goals. The blue color also reflects the ocean and environment concentration.



Joint-CRM's Website

A virtual home of Joint-CRM was first initialized through the efforts of web engineers from CMES on December 5, 2008. Later on, with the help of colleagues from CMES like Mr. John Callahan, and especially with the assistance and training provided by Mr. Ronald Ohrel and Miss Tammy Beeson on web editing, the webpage now can be edited from both sides. Miss Angela Liu and Miss Zhaoying Li are responsible for updating the website from the XMU side. Thanks to them all. More information on Joint-CRM is available at: <http://www.joint-crm.org>.



News

UD College of Marine and Earth Studies (CMES) changes its name to College of Earth, Ocean, and Environment (CEOE)

Effective July 1, the University of Delaware College of Marine and Earth Studies becomes the College of Earth, Ocean, and Environment (CEOE). The change results from the alignment of UD's Department of Geography with the College of Marine and Earth Studies.

The mission of the new college is to advance understanding of Earth's natural systems and the interactions of humans with the environment through engaged interdisciplinary research, teaching, and outreach. According to Dean Nancy Targett, "The new college brings intellectual alignment with the projects among the various departments, and fits well with the vision articulated in UD's Path to Prominence." "We have clustered units that share expertise in policy, science, and the human environment," she said. "In doing so, we are accentuating the already strong foundation that UD has in the areas of earth and ocean studies."

For more on the College of Earth, Ocean, and Environment, visit www.ceoe.udel.edu.

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