



## Proceedings of 9<sup>th</sup> WESTPAC International Scientific Symposium- A Healthy Ocean for Prosperity in the Western Pacific: Scientific Challenges and Possible Solutions, Nha Trang, Vietnam, 22-25 April 2014

Vo Si Tuan<sup>1</sup>, Youn-Ho Lee<sup>2</sup>, and Shuhei Nishida<sup>3</sup>

Guest editors of Special Issue

<sup>1</sup>*Institute of Oceanography, Vietnam Academy of Sciences and Technology, Nha Trang, Khanh Hoa, Vietnam*

<sup>2</sup>*International Cooperation Department, KIOST, Ansan 426-744, Korea*

<sup>3</sup>*Atmosphere and Ocean Research Institute, University of Tokyo, Kashiwa 277-8564, Japan*

The ocean is key to sustaining all humankind on the planet. It shapes earth's climate and influences the distribution of ecosystems, biodiversity, and thus food availability. The western Pacific region is of vast social and economic importance with over 70% of the population living in and relying economically on coastal areas. Meanwhile, the ocean in the region is among the richest and most productive marine areas in the world as it is home to some 70% of the world's coral species, and is universally recognized as one of the major influences on the global climate system.

Humans, however, have put the ocean at risk of suffering irreversible damage by unregulated exploration and development, increasing pollution, climate change and ocean acidification. The ocean is becoming more acidic at a rate not seen for the last 20 million years, with significant impacts on the marine food chain, biodiversity, food security and livelihoods of coastal communities. As such, it is imperative to strengthen sound scientific research and systematic observations to underpin the sustainable governance of the ocean.

It is within this context that the IOC<sup>1)</sup> Sub-Commission for the Western Pacific (WESTPAC) is committed to its mission to promote international cooperation in marine research, observation, services, and capacity development in the Western Pacific and its adjacent regions. Since its establishment in 1989, WESTPAC has organized a series of WESTPAC international

scientific symposia as a unique regional platform to advance marine scientific knowledge, and stimulate collaborations among its member states.

The WESTPAC 9th International Scientific Symposium entitled "A Healthy Ocean for Prosperity in the Western Pacific: Scientific Challenges and Possible Solutions" took place in Nha Trang, Vietnam, 22-25 April 2014, with the objectives of bringing together marine scientists with a view to examining the achievements of WESTPAC in the marine sciences over the last 25 years, advancing marine scientific knowledge, and promoting multi- and cross-disciplinary collaborations. The symposium was hosted by the Vietnam Academy of Science and Technology (VAST), jointly organized by the Institute of Oceanography, VAST, National IOC Committee for Vietnam, and the WESTPAC, co-sponsored by the Japan Society for the Promotion of Science (Asian CORE Program) and Governments of China, Korea and Vietnam.

This symposium was attended by about 600 scientists, governmental officials and resources managers from 21 countries, within and outside the WESTPAC region. The Symposium featured: 1 Research Directors Forum, 6 keynote speeches, 14 sessions, and 9 workshops, which were structured around four themes: (1) understanding ocean processes and climate in the Indo-Pacific Region; (2) ensuring marine biodiversity, food safety and security; (3) maintenance of ocean health; and (4) cross-cutting and emerging issues.

This volume contains 26 peer reviewed papers selected from 55 papers submitted to the Journal among about 400 papers presented at the Symposium. This is the first time for

E-mail: [vosituan@gmail.com](mailto:vosituan@gmail.com), [ylee@kiost.ac.kr](mailto:ylee@kiost.ac.kr), [nishida@aori.u-tokyo.ac.jp](mailto:nishida@aori.u-tokyo.ac.jp)  
<sup>1)</sup>Intergovernmental Oceanographic Commission (IOC) of UNESCO, the competent agency within UN system for marine research, observations, services and capacity building.



**Fig. 1.** Group photo of participants in the 9<sup>th</sup> WESTPAC International Scientific Symposium held on 22-25 April 2014, in Nha Trang, Vietnam

WESTPAC to publish papers presented at the WESTPAC Scientific Symposium as a compiled special volume, which demonstrates the joint efforts and ever-increasing spirit of cooperation among the member states in the region. We hope that the accomplishments contained in this volume will deepen our understanding of ocean phenomena and contribute to our future collaboration for the health of the western Pacific. We thank all the authors for their contributions, as well as

numerous colleagues who reviewed the submitted manuscripts and the guest editorial members for their efforts and time.

Last but not least, we would like to deeply thank OSJ for accepting the issue of this special edition and Dr. Seong Kook Kwon, the editorial manager of OSJ, without who's efforts publication of this volume would not have been possible.