

## Visiting Report

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Laboratory of Ishizaka (Grade D3)

Duration of the stay : 2016/10/31~12/1

Name & country of the institution : Climate Change Cluster,  
University of Technology Sydney, Australia

Supported by center for International Collaborative Research, Institute for Space-Earth Environmental Research (ISEE), Nagoya University, I got the great opportunity to visit the laboratory of Associate Professor David Suggett at University of Technology Sydney, Australia in November, 2016.

A/Prof. Suggett is a very famous marine biologist with research interests in photophysiology and productivity of aquatic primary producers, ranging from microalgae to corals. A/Prof. Suggett leads the Future Reefs research program in the UTS Climate Change Cluster (C3). His team is developing unique facilities and techniques to work with coral related industries so that wild harvesting of corals can be reduced and coral reef ecosystems protected and conserved. The team is also investigating marine eco-system such as primary productivity (PP) by several bio-optical methods.

My project in Nagoya University is mainly focus on the phytoplankton primary production measurement by Fast Repetition Rate fluorometer (FRRf) and A/Prof. Suggett is one of the top specialists for this technology. So it will help a lot for me to better understand FRRf and to improve the research skill.

The first main purpose for this visit is to understand what research of A/Prof. Suggett's lab is conducting now. One of his major projects at present is to understand the influence caused by ocean acidification on coral ecosystem and marine productivity. He kindly invited me to participate in the experiments and measurement for the better learning. This co-work improved my research capacity and I was quite excited that the whole lab treated me as one of their team members.

During the visit, I also met Prof. John Raven, one of the

pioneers on marine algal physiology, ecology and biogeochemistry study. He gave the talk about CO<sub>2</sub> concentrating mechanisms, which impressed me very much.

The second main purpose of this visit is to discuss one manuscript about the FRRf&PP research we conducted in the East China Sea. Although A/Prof. Suggett was extremely busy, he still gave me 30min per day to discuss the research results with me. He gave many constructive comments and improved the manuscript a lot. With his great help, I finished the manuscript revision and submitted before I back to Japan.

Except work, A/Prof. Suggett always told me to enjoy the life. He took us to BBQ at his house, to snorkeling at Manly beach, and taught me the basic of diving and surfing. Then I went to the beach every weekend and I have to say the time I spent in Sydney was so wonderful. At the end of this visit, I also invited A/Prof. Suggett to visit Nagoya University. He promised that once there is chance he will visit us and carry out cooperative research between two universities.

Finally, I would like to thank the center for International Collaborative Research again for supporting this visit. It will be one of the best experiences in my life.



<Supervisor's name>

Joji Ishizaka

図 1 group meeting  
(middle is A/Prof. David Suggett)

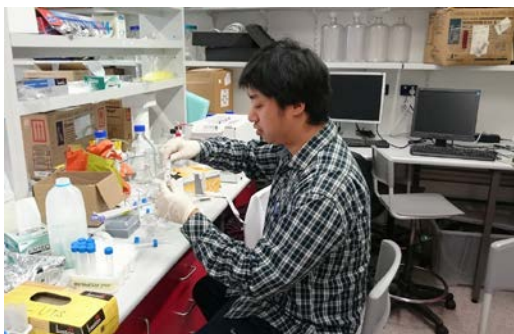


図 2 Lab work



図 3 Coral bleaching observed by Dr.Suggett

<Remark>

<https://www.youtube.com/watch?v=kQXxJPQQPzo>

[https://www.youtube.com/watch?v=RKIXk06S\\_yM](https://www.youtube.com/watch?v=RKIXk06S_yM)