

World Oyster Society Early Stage Investigator Award

First Prize Winner

Dr. Zoë Hilton, Scientist, Cawthron Institute, New Zealand

Zoë gave two presentations. The first, in the 'Disease management and climate change' session, described a study undertaken by a large team of researchers from the Cawthron institute as well as collaborators from Auckland University, University of Otago, and Auckland University of Technology, as well as very importantly in collaboration with the NZ Pacific oyster industry. Special selectively bred families were created in conjunction with a selective breeding programme for industry to increase resilience to OsHV1 infection (which is present, has caused dramatic levels of mortality in Pacific oysters in NZ since 2010). The special families were created by crossing the most extreme parental families to create a number of families that displayed the most extreme ranges in terms of fast and slow growth and disease resilience and susceptibility. These animals were held under different diets (high and low food) to induce very fast and slow growth over 3 months. The families were then exposed to both hypoxia challenge and OsHV1 challenge. The team measured a range of variables including oxidative stress markers, anaerobic enzymes and metabolic profiles. The results to date showed that there was no correlation between growth rate and disease susceptibility in these families, and are giving insights into the mechanisms involved in conferring resilience to the disease.

The second presentation, in the 'Restoration' session, was a summary of the current status of the parasite *Bonamia ostreae* in New Zealand. *B. ostreae* was detected in NZ in 2015, and this was the first appearance of this important pathogen in the Southern Hemisphere. The NZ government has thus been taking active measures to control the spread of the disease and minimise the risk to wild populations, which form the basis of an economically and socially very important fishery.

Zoë said she was both surprised and delighted to win the award, and thoroughly enjoyed the variety as well as the quality of presentations at the conference.



Zoë with Prof. Katsuyoshi Mori, Founder and President of WOS