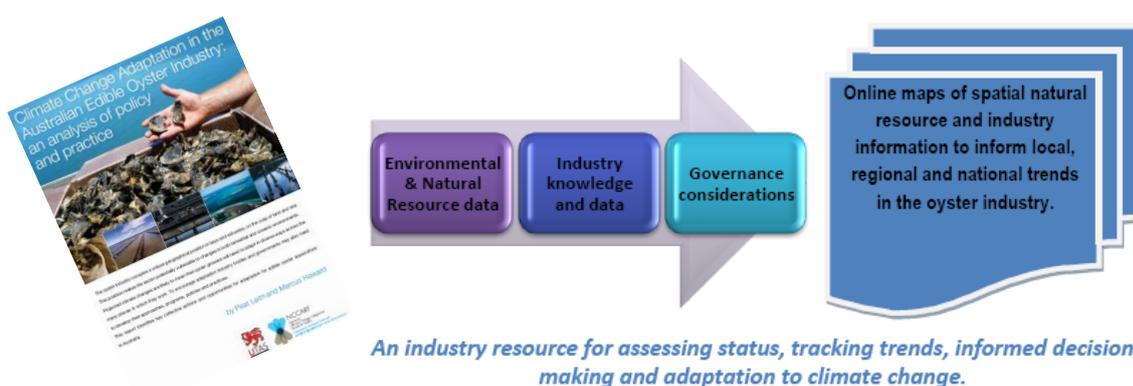

OYSTER INFORMATION PORTAL

ENSURING THAT THE AUSTRALIAN OYSTER INDUSTRY ADAPTS TO A CHANGING CLIMATE: A NATURAL RESOURCE AND INDUSTRY SPATIAL INFORMATION PORTAL FOR KNOWLEDGE ACTION AND INFORMED ADAPTATION FRAMEWORKS



Organisation: Shoalhaven Marine and Freshwater Centre, University of Wollongong
Shoalhaven Campus, Nowra.

Researchers: Andrew Davis, Pia Winberg, Ana Rubio, Robin Warner; Lisa Kirkendale

Funding: Fisheries Research and Development Corporation & Department of Climate Change and Energy Efficiency, Northern Rivers/ Southern Rivers CMA and Bega Valley Shire Council

Research contact: arubio@uow.edu.au 042 728 5999 (Ana)

Project Overview:

The oyster industry recognises that its success is interwoven with the environment including the delivery of productive, healthy waters from the catchment and ocean. As such the industry is vulnerable to catchment impacts and changes in the environment due to climate change. In particular, during the last decades, the oyster industry has been competing with increasing activity in the coastal catchment areas and has suffered from decreasing water quality and increasing extent of disease outbreaks. In addition, the threat of climate change introduces potential changes to their natural systems which influence oyster productivity. Although farmers are aware of the relationship between the environment and oyster lease productivity, the links still need to be better understood and monitored to manage risks and ensure the survival of one of Australia's most sustainable and high profile seafood industries.

The oyster industry has recognised the need to bring together natural resource and environmental information that is currently dispersed and inaccessible, and to deliver it to the industry in a user-friendly way. This was highlighted in the latest report by Leith and Haward ("Climate change adaptation in the Australian edible oyster industry: an analysis of policy and practice" http://arnmbr.org/content/images/uploads/OYSTER_REPORT_FINAL_web.pdf). It is envisaged that such consolidated and spatially presented information can be effectively delivered through a web-based portal. This would allow farmers to access this information and interpret it with relevance to their own lease productivity, operations and closure events, as well as track any long term change in local conditions. In addition, the governance of the industry will be able to make better informed decisions for adaptation and to facilitate the long term viability of the industry. The oyster industry and project co-partners will be engaged throughout the project via industry workshops or project steering committee meetings.

Project development:

Researchers at the University of Wollongong - Shoalhaven Marine & Freshwater Centre - are working directly with oyster industry members, Catchment Management Authorities, State Government agencies and Councils towards the demonstration of a proof of concept for the Oyster Information Portal (OIP).

The OIP will be developed and demonstrated through a series of industry workshops in four areas of NSW:

- Camden Haven
- Crookhaven/Shoalhaven Rivers
- Hawkesbury River
- Pambula Lake

Through the development of the portal, industry and/or project co-partners will be able to:

- Access and understand environmental and catchment data relevant to oyster production
- Overview and identify gaps and duplication in current monitoring programs
- Compare environmental data across oyster regions
- Compare industry initiatives and performance across locations and time
- Respond to indications of catchment and/or environmental changes
- Overview regulatory frameworks and the governance structure of the oyster industry that should support sustainability of the industry
- Use the portal as a node of knowledge sharing
- Continue to develop the information and communication needs of the industry

In addition, oyster monitoring programs (performance, growth and mortality) are currently being trialed in some areas in NSW and data from this trial program will also be used in the portal. Oyster performance data has the potential to improve farm management by identifying when and where oysters perform best. It can also serve to better target catchment remediation initiatives where oysters are most stressed, or to identify risk areas in light of climate change scenarios. The coordination of the monitoring program is currently managed by researchers at the Shoalhaven Marine & Freshwater Centre in collaboration with farmers that have access to automated oyster graders.

This project is co-funded by the Fisheries Research and Development Corporation, the Department of Climate Change and Energy Efficiency, Northern and Southern Rivers Catchment Management Authority and the Bega Valley Shire Council.

Please contact the researchers at the Shoalhaven Marine & Freshwater Centre for further information on the project or visit our website:

<http://www.uow.edu.au/science/research/smfc/index.html>

