

NSW DPI / Huon Yellowtail Kingfish Research Project - Stakeholder Update

February 2019

The joint research trial between NSW DPI and Huon Aquaculture on the NSW DPI Marine Aquaculture Research Lease will be finalised during 2019. This will involve decommissioning the Research Lease (removal of all infrastructure) and finalising research reports. The tenure of the Research Lease is due to expire in 2021.

The NSW DPI Research Lease provided a platform for commercially relevant research for the development of a sustainable aquaculture industry in NSW.

The principal objective of the research was to provide NSW DPI and research partners with the opportunity to extend successful marine hatchery and feed development research to its next stage in an offshore commercial sea cage trial.

In addition, the following research objectives were important in informing the development of evidenced based policies to promote best practice for future marine aquaculture in NSW.

The research objectives included evaluating:

- suitable husbandry practices for aquaculture in the temperate marine environment of NSW;
- dietary development including the use of terrestrial protein and energy sources as partial or complete replacement of fish meal and fish oil in aquaculture feeds;
- water temperature growth performance models for marine finfish;
- water quality parameters in the area of the Research Lease;
- the environmental impacts of a marine aquaculture farm in the NSW marine environment on a 'green field' site;
- novel methods for the assessment of ecosystem change;
- the effectiveness of employing mitigation measures such as anti-predator netting, bird exclusion nets, controlled feeding strategies, management of deceased fish inside sea cages and entanglement avoidance strategies and protocols;
- economic aspects of marine aquaculture production in NSW;
- the structural integrity and stability of current sea cage infrastructure and their suitability in the high energy marine environment of NSW; and
- the lease as a research platform for students from the University of Newcastle and/or any other research partners.

Outcomes from the research are detailed in the two Annual Environmental Management Reports, environmental monitoring reports, marine fauna monitoring data, video transects under the sea pens and around the lease and stakeholder updates.

See <https://www.dpi.nsw.gov.au/fishing/aquaculture/starting-up/finfish-aquaculture-lease-modification-application>

During the operation of the Research Lease there was:

- two commercial harvests of fish (12 months to market size 5kg), market knowledge generated and consumer acceptance of farmed Yellowtail Kingfish achieved;
- two Annual Environmental Management Reports;

-
- pre and post fish stocking water and sediment sampling undertaken by the University of Newcastle, four sampling events in total with no significant environmental impact;
 - better understanding of design and operation of sea pens in the offshore environment of NSW; Marine fauna monitoring data and effective mitigation strategies developed;
 - development of hatchery and nursery techniques for the consistent supply of Yellowtail Kingfish for aquaculture and restocking programs;
 - promotion of seafood in the region, participation in *Love Seafood Love Port Stephens*;
 - local employment and expenditure in local community; and
 - development of the NSW Marine Waters Sustainable Aquaculture Strategy which was approved in late 2018.

NSW DPI's major input to the trial was the production of Yellowtail Kingfish fingerlings at Port Stephens Fisheries Research Institute. Huon Aquaculture paid for the cost of the fingerlings produced by NSW DPI.

The cost of the sea pens and infrastructure on the Research Lease and the independent environmental monitoring program was borne by Huon Aquaculture. Huon Aquaculture still retains its 62 hectare aquaculture lease in Providence Bay.

NSW DPI obtained approximately \$2.5 million in research funding over three years from the Commonwealth Government to develop diets and feeding regimens for Yellowtail Kingfish as part of a national project.

For additional information on the Yellowtail Kingfish research trial see <https://www.dpi.nsw.gov.au/fishing/aquaculture/starting-up/finfish-aquaculture-lease-modification-application>

NSW Marine Waters Sustainable Aquaculture Strategy

The aquaculture industry and the NSW Government are both conscious of ensuring the development of the industry proceeds in a manner which does not jeopardise its ecological sustainability and social licence.

The NSW Marine Waters Sustainable Aquaculture Strategy was approved late in 2018 and draws on recent NSW and Australian experiences to address the risks of site selection, design, operation and both environmental and community impacts.

The Strategy promotes best practice for marine aquaculture, defining an approvals process for this type of aquaculture in NSW. It will inform and guide the private sector seeking to establish marine aquaculture farms.

An interagency committee of 11 NSW agencies developed the NSW Marine Waters Sustainable Aquaculture Strategy and it builds on the successful Land Based and Oyster Industry strategies. It is consistent with recent Productivity Commission recommendations for aquaculture and the National Aquaculture Strategy. See <https://www.dpi.nsw.gov.au/fishing/aquaculture/marine-waters-strategy>

More information

<https://www.huonaqua.com.au/about/portstephens/>
<http://www.dpi.nsw.gov.au/fishing/aquaculture/starting-up/finfish-aquaculture-lease-modification-application> or contact aquaculture.administration@dpi.nsw.gov.au

© State of New South Wales through the Department of Industry 2019. You may copy, distribute and otherwise freely deal with this publication for any purpose, provided that you attribute the NSW Department of Primary Industries as the owner. Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (February 2019). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the Department of Primary Industries or the user's independent adviser. Published by the Department of Primary Industries. OUT19/2072