



NSW DPI / Huon Yellowtail Kingfish Research Project - Stakeholder Update

March 2017

Since early March there have been a number of low pressure systems that have impacted Providence Bay with seas to 5m and winds to 45 knots. The bad weather meant that several days were missed feeding the Yellowtail Kingfish.

The sea pens have withstood the adverse conditions well but there was one grid buoy that became loose due to a shackle malfunction. The buoy was promptly recovered. It was noted that a rope and marker from a commercial trap that must have been washed into the lease area was tangled on the buoy.

There was a successful change of nets to the first sea pen stocked with fish from a 12mm mesh to a 35mm mesh. Net changing is common practice to provide the growing fish with better water flow.

Further environmental monitoring was undertaken with the University of Newcastle. This round of samples was additional to consent conditions to help build a stronger picture of the operation of the Marine Aquaculture Research Lease.

A number of research projects have been applied for, or commenced. These include: research into the flesh quality of Yellowtail Kingfish; genetics; and feed development work. Additional staff have been employed at Port Stephens Fisheries Institute (PSFI) and by Huon for sea pen work. Huon currently have eight employees working on the project, all based in the area.

During routine fish health monitoring a small number of external flukes have been detected on the Yellowtail Kingfish. This was expected given experience with the Snapper farm and other Yellowtail Kingfish farms in Australia. The flukes are found on local stocks of Yellowtail Kingfish and other fish species.

The fish are routinely monitored for health and when the number of flukes reaches a level of concern the fish are treated. Treatment involves: lifting up some of the inner net to reduce the volume the fish are retained in; placing a specially shaped tarpaulin around the inner net to form a fully enclosed 'bag'; and then adding a low concentration solution of hydrogen peroxide mixed in seawater. The hydrogen peroxide kills the flukes within 20-30 minutes, the tarpaulin is removed and the treatment ends. The hydrogen peroxide breaks down in the presence of daylight into water and oxygen leaving no residue. The administration and dosage used is approved by the Australian Pesticides Veterinary Medicines Authority and it is carried out under veterinary direction.

The use of chemical treatments will be kept to a minimum by providing disease free stocks from the hatchery at PSFI, stocking at appropriate levels, monitoring and ensuring the pens are maintained by regular cleaning to avoid biofouling build up that may reduce water flow across the pens.

To ensure genetic diversity is maintained and to build on the Yellowtail Kingfish broodstock held at PSFI, additional fish will be captured in the coming weeks. This will be done in association with a local commercial fisher. Around 30 local Kingfish will be caught and transferred to special quarantine tanks in PSFI to ensure that they are fit and well before joining the broodstock program. At the same time, PSFI scientists will work with colleagues from the South Australian Research and Development Institute to better understand the type of microbes found in the gut of wild and farmed Yellowtail Kingfish that will help us to optimise nutrition and welfare.

Huon and DPI attended a Marine Rescue Port Stephens meeting to update the volunteers on the project. We also got an insight into the work undertaken by Marine Rescue covering onwater, radio services, fund raising and community support. Wave height and sea state data collected by Huon was provided to Marine Rescue for training purposes. Huon are also working on a project that will provide Marine Rescue with access to high speed NBN to upgrade support operations.

Huon recently visited Japan to review the well established Yellowtail Kingfish industry in that country.

Work should be completed at Port Stephens Fisheries Institute to develop a 12 tank nursery facility for Yellowtail Kingfish in April.

The emergency contact number for the Research Lease is **1300 920 987**, to be used for any incident involving the sea pens.

Upcoming events:

- Huon Board meeting PSFI early April 2017
- Yellowtail Kingfish broodstock collection early April
- Deploying three sea pens April 2017
- Stocking fingerlings to one sea pen 22 April 2017

More information

www.huonaqua.com.au/wildlife-interactions/

www.huonaqua.com.au/about/portstephens/environmental-monitoring/

www.huonaqua.com.au/about/portstephens/benthic-monitoring/

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



New nurse tank area at PSFI next to the hatchery and broodstock building



Eleven day old Yellowtail Kingfish larvae in the hatchery at PSFI

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