

## NSW DPI / Huon Yellowtail Kingfish Research Project – November 2016 Update

The installation of the mooring system and deployment of the first two sea pens on the Marine Aquaculture Research Lease was completed Saturday 16 October 2016. Yellowtail Kingfish fingerlings from Port Stephens Fisheries Institute (PSFI) of 30g weight and 110mm length were stocked via tanker and barge on October 17<sup>th</sup> and by helicopter bucket lift on October 18<sup>th</sup>. Netting to prevent bird access to the fish was in place October 18<sup>th</sup>. This netting rests upon a floating ring structure located within the sea pen.

The Research Lease was surveyed and has an area of 59.36ha delineated by four Cardinal Markers. RMS will use this information to update maps and issue a Notice to Mariners highlighting a change in navigable conditions in Providence Bay.

Approximately 25,000 fingerlings are now settled in to their new home and are feeding well. Screening of fingerlings for weight gain and health is underway. Details of the pre-stocking water and benthic monitoring results undertaken by the University of Newcastle will be available at: [www.huonaqua.com.au/about/portstephens/](http://www.huonaqua.com.au/about/portstephens/)

Marine fauna monitoring to, from and within the lease is undertaken on all vessel trips (daily to date). An OEH appointed observer was also present during installation works on the Research Lease. Some 87 whales, 6 seals and 303 dolphins were sighted 26/09/16-6/11/16. Details of the fauna sighted to date can be viewed at: [www.huonaqua.com.au/wildlife-interactions/](http://www.huonaqua.com.au/wildlife-interactions/)

Structural and stability monitoring of the mooring system and sea pen infrastructure has shown that in the last four weeks there have been no significant failures or incidents.

A Marine Fauna Interaction Committee, established as a condition of consent, has reviewed an Incident Report and photographs of a whale sighted with a rope on its back within the Research Lease on Saturday 8 October. The Committee comprises representatives from: the NSW Office of Environment and Heritage, Macquarie University, Port Stephens-Great Lakes Marine Park, Huon Aquaculture and NSW DPI. The findings of the review concluded: that the rope seen on the whale's back was consistent with fishing trap equipment; and the whale was not entangled in the Research Lease's orange anchor deployment or mooring lines. The review recommended that the NSW DPI/Huon research team work with local tourist operators to ensure they are advised of emergency reporting procedures and be involved in incident response training. See November 2016 Update at: [www.dpi.nsw.gov.au/fishing/aquaculture/starting-up/finfish-aquaculture-lease-modification-application](http://www.dpi.nsw.gov.au/fishing/aquaculture/starting-up/finfish-aquaculture-lease-modification-application)

An accredited training provider from Victoria is being contracted in the New Year to host a two day theory and on-water training workshop for the NSW DPI/Huon research team and local agency staff with an opportunity to work with tourist operators to involve them in parts of the training.

Huon Aquaculture supported NSW DPI shark research activities by assisting to deploy a shark listening buoy off Bennetts Beach on 28/10/16. A tagged shark recording device is also located on the Research Lease.

The large orange work barge Wandii II used for installation work has returned to Tasmania to be replaced by a smaller 12m barge 'Huon Pride' and a 12m day vessel 'Huon Envy'.

Huon Aquaculture has employed an Operations Manager and three Farm Technicians (receiving over 400 applications for these positions). The latest recruit is from Newcastle. The team will be rounded out by the addition of two weekend feeders from local high schools.

Research targeting improvement to Yellowtail Kingfish feeds and brood-stock management continues to ramp up at PSFI as part of a national project. The project is entering its second year but already staff and students at PSFI have completed a range of experiments. These include studies on the oxygen requirements of juvenile Yellowtail Kingfish and trials designed to determine nutrient requirements at various water temperatures. Longer term studies evaluating the use of different feed types on broodfish and how this affects egg and fingerling quality are also underway. To date the project has supported the completion of research by two international students, one from Spain and the other from Germany and two new PhD candidates are working at PSFI from the University of Sunshine Coast and the University of New South Wales.

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

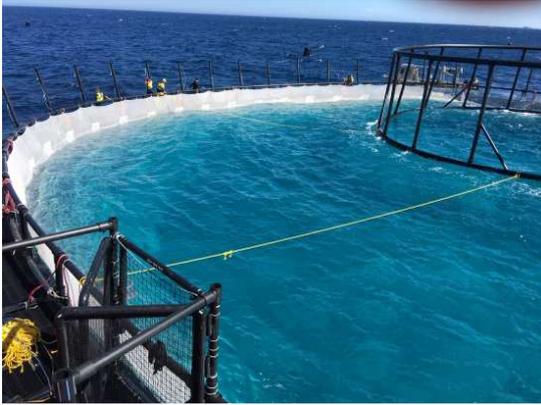
**Upcoming events:**

- Meeting with NSW Planning and Environment 16 November;
- Port Stephens Estuary Management Committee meeting 23 November;
- Stocking of the second pen on the Research Lease with approximately 25,000 20g Yellowtail Kingfish fingerlings in mid-December; and
- Marine fauna incident response training February 2017

Details at <http://www.dpi.nsw.gov.au/fishing/aquaculture/starting-up/finfish-aquaculture-lease-modification-application> or contact [aquaculture.administration@dpi.nsw.gov.au](mailto:aquaculture.administration@dpi.nsw.gov.au)



# Department of Primary Industries



Sea pen ready for stocking (no bird net) Tanker transfer of fingerlings to sea pen -



Airlift of fingerlings from PSFI New Huon day vessel -



Yellowtail Kingfish feed trials



Huon deploying the shark listening station -

# Marine Aquaculture Research Lease Update

## Summary of the findings of the Marine Fauna Interaction Committee regarding an incident report on the Marine Aquaculture Research Lease 8th October 2016

A Marine Fauna Interaction Management Plan was developed as a condition of consent to identify and mitigate potential impacts on marine fauna associated with the Marine Aquaculture Research Lease. The Plan includes an: Interaction Protocol; Monitoring Program; Light Spill Management Plan; and Observer Protocol. This was developed by the Marine Fauna Interaction Committee comprising representatives from NSW Office of Environment and Heritage (OEH), Macquarie University, Port Stephens-Great Lakes Marine Park, Huon Aquaculture and NSW DPI.

The Marine Fauna Interaction Committee has reviewed an Incident Report and photographs supplied of an incident at the Research Lease on Saturday 8<sup>th</sup> October 2016 where a whale was sighted with a rope across its back. Local media has subsequently reported the incident as an entanglement in the Research Lease's mooring infrastructure.

### *Review Findings*

The Marine Fauna Interaction Committee concluded that:

- the black rope seen on the whale's back was consistent with fishing trap equipment;
- the whale was not entangled in the Research Lease orange anchor deployment lines or mooring lines; and
- the incident was not reported through the emergency hotlines (OEH, NSW DPI/Huon).

### *Committee Recommendations*

1. Local tourism industry stakeholders be provided with a laminated card listing the emergency contact numbers for marine fauna interactions highlighting the need for timely formal notification (NPWS 0429 144 880 and/or Marine Aquaculture Research Lease Emergency Number 1300 920 987);
2. NSW DPI/Huon Research Team in consultation with OEH to undertake marine animal interaction response training; and
3. Local ORRCA and marine tourism operators to be invited to undertake marine animal interaction response training to enable them to assist/advise if a future entanglement event were to occur.

### *Background*

On Saturday 8<sup>th</sup> October 2016 at approximately 7:12am two Humpback Whales were observed within the Research Lease by a tourist operator. On closer inspection it was observed that one whale had a rope of approximately 25mm diameter around it.



Picture supplied showing the rope over the whale (Source: Mr Future, 2016)

OEH requested an Incident Report from the tourist operator and this was received on the 16<sup>th</sup> October 2016. The Incident Report outlined that as the tourist operator approached the Research Lease, one of two Humpback Whales in the lease area appeared to be entangled in at least one rope and that the whale was evidently distressed. It further outlined that as they ventured closer to assist/photograph the whale, it was observed rolling and managed to dislodge the rope. The two whales then stopped outside the lease area for 15-20 minutes circling the tourist boat and then appeared to head south.

At 7:45am on Saturday 8<sup>th</sup> October the vessel Wandii II, with NSW DPI / Huon Research Team staff and an OEH approved marine observer on board, approached the Research Lease for installation work and observed two Humpback Whales within the lease area. The whales were observed for 40 minutes as they swam through and around the lease infrastructure at times interacting with it. The two whales were observed tail fluke and pectoral fin slapping whilst apparently rubbing against the mooring lines of the lease. All interactions were documented with video and photographs. There was no sign of entanglement during this interaction. As per the Marine Fauna Interaction Management Plan, works were suspended for 40 minutes until the two whales left the lease and there was no risk to the animals. No further marine fauna interactions on the lease were observed for the rest of the work day.

Infrastructure on the lease on 8<sup>th</sup> October 2016 comprised: 12 large black marker buoys; four Cardinal markers; anchors; chain risers; 120mm orange mooring lines and 44mm orange anchor installation lines (orange to provide visibility to cetaceans) topped with white foam buoys. The anchor installation lines are designed to sink following installation of the mooring grid but may be used at a later date to retrieve/reposition the anchors. The white flotation buoys are removed and the weighted lines dropped to the seafloor adjacent to the "in place" anchors. This installation was completed on the 16<sup>th</sup> and 17<sup>th</sup> October 2016 when the white buoys were removed and the lines dropped to the sea floor.

The Marine Fauna Interaction Committee reviewed the Incident Report and photographs provided by the tourist operator and those taken by the OEH approved marine observer.

It was noted that in addition to the white buoy attached to the anchor deployment line of the Research Lease, there are two small floats in many of the pictures supplied by the tourist operator.



*Picture supplied showing the larger anchor installation line white buoy and the two small floats (Source: Mr Wiltshire, 2016)*

The Marine Fauna Interaction Committee consulted a Fisheries Officer who is familiar with fishing equipment to review the photographs. The Fisheries Officer advised that in their opinion the line across the whale and the two small floats were consistent with fishing trap equipment.

The following photographs provide a comparison of the orange 44mm anchor deployment line compared to a 24mm rope. The Research Lease ropes used comprise orange 44mm anchor deployment lines and orange 120mm mooring lines.



*A 24mm rope next to the 44mm anchor deployment line used on the Research Lease (Source: NSW DPI, 2016)*  
**Note:** Rope dimensions are measured with a load applied and these ropes are unloaded