

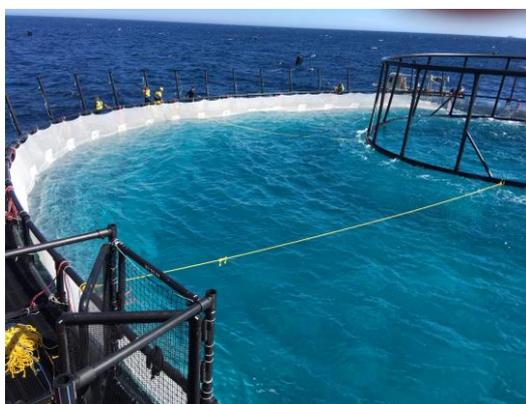


Aquaculture News

Issue 20 - December 2016

Marine Aquaculture Research Lease

The research partnership between NSW DPI and Huon Aquaculture became a reality in mid October with the stocking of more than 25,000 Yellowtail Kingfish fingerlings into a sea pen. Huon Aquaculture has deployed two sea pens on the NSW DPI Research Lease with plans to stock a second pen mid- December. Reared at the Port Stephens Fisheries Institute (PSFI), the 30g fish were delivered to the Research Lease by Huon barge and helicopter.



The sea pen 5km offshore from Port Stephens

Stakeholder updates and environmental monitoring data are being loaded onto the NSW DPI and Huon websites. Since 26/9/16 some 95 whales, 358 dolphins and six seals were recorded during transit to and from the Research Lease and while working on-site. In the last month the fish have trebled in weight with an anticipated growth rate of 5kg in 12 months.

Contact Wayne O'Connor NSW DPI 4916 3906

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



Committee meeting

The NSW Aquaculture Research Advisory Committee (ARAC) met 10 November. For a meeting summary see <http://www.dpi.nsw.gov.au/fishing/aquaculture/committees/arac>

How does aquaculture contribute to coastal NSW?

The Fisheries Research Development Corporation (FRDC) funded *Social and economic evaluation of coastal aquaculture in NSW* project is close to completion. The project was led by Dr Kate Barclay UTS.

ARAC supports Murray Cod R+D review

ARAC agreed to support a meeting in 2017 with the Murray Cod industry to progress the FRDC/ARAC funded *A Review of Research and Development needs for Murray Cod in Australia*.

Contact Wayne O'Connor NSW DPI 4016 3906

Feed development

Research targeting improvement to Yellowtail Kingfish feeds and broodstock 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 broodstock 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 students working at PSFI from the University of Sunshine Coast and the University of New South Wales. Negotiations are also underway with James Cook University to undertake studies looking at Grouper nutritional requirements.

Contact Mark Booth NSW DPI 4916 3816

Sydney Rock Oyster breeding update

NSW DPI Sydney Rock Oyster breeding is now focussed on producing and evaluating families that will comprise the new family-based program. A run at PSFI commenced in November to produce the 2016 year class families. Broodstock for this spawning run were

selected from the family breeding program based on their disease resistance, meat condition, growth and shell shape. There are 70 families in the hatchery making this the largest family run in the history of the program. Three years of funding for this work was obtained by NSW DPI from the Future Oysters Cooperative Research Centre.

Contact Michael Dove NSW DPI 4916 3807

Water Quality Issues Register

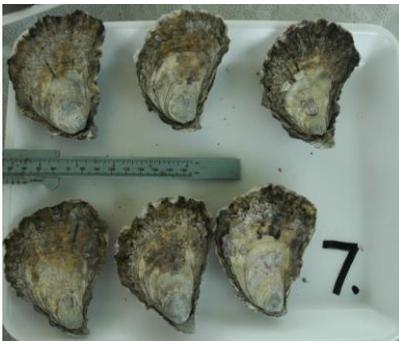
A water quality register instigated by ARAC is being used to identify areas where water quality improvements can be made through a joint strategy by the NSW Food Authority, NSW DPI and OceanWatch. Industry members are encouraged to report locations to nswsp@foodauthority.nsw.gov.au so they can be added to the register which will be used to guide future water quality improvement works.

Contact Anthony Zammit NSWFA 9741 4749

The 'Most Beautiful' oyster

The "Most Beautiful Oyster Competition" started over a decade ago in conjunction with NSW oyster industry field days. NSW DPI measured the weight and shell dimensions of all entries to gain insight into the ideal shell shape for oysters. The average ratio for shell length, width and height for winning Sydney Rock Oyster entries was 3: 2.29: 0.93. Winning entries tended to be heavier, longer and wider than the average oysters submitted. For Pacific Oysters the shape of the winners was 3: 1.84: 1.03. Native (Angasi) Oyster entries had a ratio of 3: 2.85: 0.83 and were rounder in shape than the other species. The results from the Most Beautiful Oyster Competition are being incorporated into Sydney Rock Oyster breeding. We are now in a position to understand how shape relates to other traits (disease resistance, meat condition and growth) to select broodstock for the program.

Contact Michael Dove NSW DPI 4916 3807



Draft National Aquaculture Strategy

A National Aquaculture Strategy has been drafted by the Commonwealth with an aspirational goal to double the value of Australian aquaculture to \$2 billion by 2026.

<http://www.agriculture.gov.au/fisheries/aquaculture/national-aquaculture-strategy>

NSW Farmer of the Year

NSW Minister for Primary Industries, Niall Blair, and President of NSW Farmers, Derek Schoen announced that Nick Arena of Tailor Made Fish Farm is one of four finalists for the 2016 NSW Farmer of the Year Award. Mr Blair said the finalists are leaders in their fields, who have demonstrated excellence in farming. Nick grows Barramundi and produces hydroponic fancy lettuce, basil, parsley, bok choy and spinach. The farm also has a conference centre and restaurant. The award winner will be announced 8 December.

President's Medal oyster nominee

Since 2006, the Royal Agriculture Society of NSW President's Medal has recognised excellence in Australian produce. Champions representing the best of the best from Sydney Royal fine food shows are nominated to enter the NSW DPI sponsored President's Medal Competition where the field is narrowed to just a handful of finalists. In 2016 Gary and Jo Rodely of Tathra Oysters were nominated for a second time, having taken out the inaugural award. Last year's winner was Pacific Reef Fisheries with farmed Cobia. Finalists undergo a rigorous independent review of their business model to assess their social, economic and environmental impact. The winner will be announced 11 April 2017.

Oyster Industry Implementation Group

The ten growers in the Group are progressing the recommendations identified in the NSW Oyster Strategic Plan 2015 and linking with Shellfish Committee. Priorities being progressed include: reviewing permit, lease, compliance and bond systems; communication with boaters/fishers; breeding and hatchery systems; marketing; and a review of the NSW Shellfish Program. The Group met last 17 November.

Boaters, fishers and oyster leases

Damage, theft, water quality and workplace safety are key parts of a new communications plan to highlight responsible boating and fishing around oyster leases. Acting on concerns raised by Shellfish Committee and the Oyster Strategy Implementation Group, the plan has been developed by Caroline Henry (Wonboyn), Ian Crisp (Manning), Steve Feletti (Clyde), Andy Myers (OceanWatch), RMS and NSW DPI Recreational Fishing and Aquaculture Managers. Mainstream and social media, newsletters, industry journals, radio interviews and letters to coastal councils will highlight the value of the oyster industry and responsible boating and fishing practices. Funding has been contributed by all groups to support the development of educational materials.

Contact Ian Lyall NSW DPI 4916 3856

Aquaculture workshop in irrigation country

Aquaculture in the Murray Darling, Conference and Trade Show was held on 2-3 September in Griffith with Murray Cod being the main focus. It was funded by the Murray Darling Basin Regional Economic Diversification Programme and presented by the Freshwater Native Fish Association, NSW Aquaculture Association and NSW DPI. Some 140 attendees from all states and 13 trade show exhibitors helped make it an informative event. On day one presenters showcased a range of aquaculture industry advancements and technologies, including research and development needs presented by Dr Mike Rimmer. Dr Stuart Rowland was the key speaker at dinner presenting *A History of the Iconic Murray Cod*. Day two commenced with a NSW DPI fish health training session for disease and parasite identification in freshwater fish species. It also provided advice on the preparation of samples prior to forwarding to a laboratory for analysis. The afternoon was spent visiting Mat Ryan's Riverina Aquaculture utilising cages within small irrigation storage dams and a tank based nursery system for Murray Cod aquaculture.

Contact Graeme Bowley NSW DPI 4916 3845



Murray Cod production in the Riverina

OceanWatch

Andy Myers has opened the information floodgates with a new website, regular newsletters and a Facebook page for NSW oyster farmers. He has also been contributing to ARAC, Shellfish Committee and Implementation Group meetings. Many thanks! The new website is a must see.

Contact Andy Myers OceanWatch 9660 2262

<http://www.nswoysters.com.au/>

Sapphire Coast Wilderness Oyster EMS Officer

A new oyster Environmental Management System (EMS) Coordinator has recently joined Sapphire Coast Wilderness Oysters. Jillian Keating (previously 10 years with Southern Rivers CMA and South Coast LLS) will be working with growers in the six Sapphire Coast estuaries over the next two years to address risks to their

livelihoods and estuaries through coordinating the adoption and implementation of EMS.

Recent events facilitated include: Wapengo Estuary and Oyster Farm tour; Pacific Oyster control; and EMS review meetings for Wapengo, Merimbula and Pambula.

Contact Jillian Keating EMS Coord. 0429 079 021

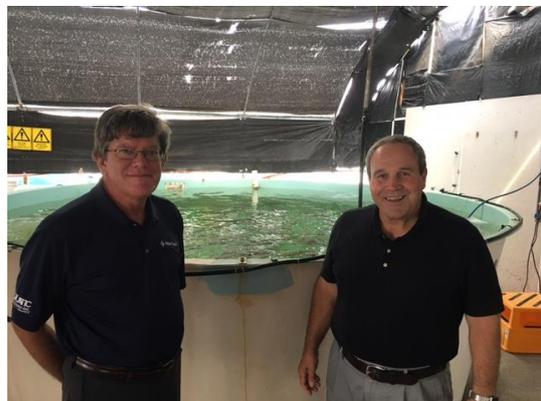
Pacific Oyster cull in Pambula and Merimbula

Local oyster farmers, the Aboriginal community, Sapphire Coast Wilderness Oysters, South East LLS and NSW DPI recently culled 1578 wild Pacific Oysters in Pambula and 270 in Merimbula. The highest concentrations in both estuaries were along rocky foreshores close to the entrance. These sites, along with other hotspots will be monitored next year to keep these aquatic pests in check.

International expertise at aquaculture short course

NSW DPI, the NSW Aquaculture Association and the Freshwater Native Fish Association hosted a two day recirculating aquaculture workshop on 22-23 October at Port Stephens. This was presented by Dr Tom Losordo and Dennis DeLong of Pentair Aquatic Eco-Systems. Since 2001, Dr Losordo has crisscrossed Australia presenting 20 short-courses on recirculating aquaculture systems. Delegates also visited the Tailor Made Fish Farm for a tour of facilities and a conference dinner at the on-site Cookabarra restaurant.

Contact Graeme Bowley NSW DPI 4916 3845



Visitors Dennis DeLong and Dr Tom Losordo

Port Stephens oyster industry shed day

Hunter LLS in collaboration with XL Oysters facilitated a day for oyster farmers from the Port Stephens estuary on 18 November. Brian Hughes (Hunter LLS) presented on the value of farm business profiles and associated grants. Matt Burgoyne (XL oysters) updated all on the development of his Oyster Farm Management System, a user friendly interface designed for, and built by oyster farmers. Those who attended the day identified it as a great initiative that could be used not only for day to day management of a farm but also to inform future farm management decisions, lease appraisal and reporting.

Steve McCorrie presented on issues including recent changes to OISAS 2016. Melissa Walker and Ben Rampano (Aquatic Biosecurity) reminded farmers to make contact at the first sign of oyster mortality to gain assistance in ruling out or containing disease outbreaks.

Contact Chris Weire NSW DPI 4916 3977

Grants program open for Hunter's oyster growers

Manning, Wallis and Port Stephens oyster farmers are invited to apply for funding grants of up to \$5000, under the 2016-17 Hunter Region Oyster Farm Profile Incentives Program. Eligibility criteria and guidelines apply. Applications close on 31 January 2017.

Contact Brian Hughes LLS 0428 293 021.

Select Oyster Company

SOCo's six question online survey received responses from 48 growers in 22 estuaries from NSW and QLD. Documented demand for SOCo spat is over 33.8 million, identifying disease resistance, fast growth and condition as key priorities for industry. SOCo will receive a \$10,000 grant over two years from ARAC to investigate the impacts of motion and other environmental parameters on Sydney Rock Oyster shell shape. In partnership with the University of Newcastle, we will deploy water proof motion sensors among oysters in trays, baskets and cylinders on several leases in Wallis Lake and link this data with temperature, salinity and water quality. Spat rebates of up to \$2000 per grower to cover the SOCo levy are available thanks to a NSW Government subsidy. Operations Manager Emma Wilkie recently graduated from the Seafood Industry Leadership Program 2016. This competitive program led by Rural Training Initiatives and funded by the FRDC, provides a leadership skills program to seafood industry members. SOCo's AGM was held on 18-19th November at NSW Farmers Association Sydney.

Contact Emma Wilkie SOCo 0402 677 534

www.selectoysterco.com.au

Wapengo Estuary and Farm Tour

Millpond waters, sunny skies, plenty of enthusiasm and delicious local oysters set the tone for a fantastic day on Wapengo Lake recently. The 'Wapengo Estuary and Farm Tour' held on 14 October was organised by Sapphire Coast Wilderness Oysters through their EMS Program, with support from OceanWatch Australia, Bega Valley Shire Council, South East LLS, and Wapengo farmers. Over 70 people registered, including representatives from seven of the eight south coast oyster producing estuaries, local landholders, oyster researchers and government agencies. There were 'farm focus' tours that covered the more technical aspects of oyster farming in Wapengo Lake and 'catchment tours' for other stakeholders to improve their understanding of how catchment health relates to oyster

productivity. A beer, bivalve and BBQ lunch followed the on-water tours.

Contact Jillian Keating EMS Coord. 0429 079 021

2015/2016 Provisional Production Report

NSW DPI is finalising the NSW aquaculture production data submitted for 2015/16. Early analysis indicates a 7% value increase from 2014/15 with increases in the volume (three year trend) and value (five year trend) of oysters despite serious setbacks to Shoalhaven/Crookhaven and Clyde industries this year. Farmed Tiger Prawns had a very productive season. Murray Cod is now the most valuable freshwater species cultured in NSW. The provisional Aquaculture Production Report will be released in December. An electronic copy of the report will be made available on NSW DPI's website and permit holders will be advised via SMS. More than 95% of permit holders lodged their production returns. We would like to thank the industry for their assistance in providing reliable data that is used to provide a picture of industry growth and change.

Contact Aquaculture Administration 4982 1232

OISAS 2016 finalised

The third revision of the NSW Oyster Industry Sustainable Aquaculture Strategy (OISAS) has been finalised. Thank you to all those oyster farmers who provided comment on the draft document. The most significant changes in the new version of OISAS are: all lease tidiness issues are in a single section; the requirement to obtain approval for a raft has been removed, provided the raft complies with OISAS; and, a number of changes to the oyster lease marking standards. An Oyster Leaseholder - Lease Check List is being prepared by NSW DPI to assist leaseholders to self-assess the compliance of their leases.

Contact Steve McOrrie NSW DPI 4916 3921

<http://www.dpi.nsw.gov.au/fishing/aquaculture/publications/oysters/industry-strategy>

Marine Waters Sustainable Aquaculture Strategy

A draft of the criteria for location, design and operation of offshore marine aquaculture leases in NSW has been prepared as part of the NSW Marine Waters Sustainable Aquaculture Strategy. This has been released to a State Aquaculture Committee Working Group comprising key agencies for preliminary review. This is the first stage of a three part project to: develop policy; identify suitable marine lease locations; and seek approval for those areas before tendering them.

Contact Ian Lyall NSW DPI 4916 3856

Committee meeting

Shellfish Committee met 9 November. Meeting summary <http://www.foodauthority.nsw.gov.au/industry/shellfish/nsw-shellfish-committee>

Protecting estuarine water quality

NSW DPI continues to receive referrals through *State Environmental Planning Policy No.62 – Sustainable Aquaculture* (SEPP 62) for proposed developments that have the potential to impact on oyster aquaculture. Thirty one responses to development applications have been made in 2016. The majority of responses have involved ensuring that new developments have adequate erosion and sediment controls, and appropriate stormwater and effluent management in order to minimize potential impacts to water quality. NSW DPI has also notified the relevant local NSW Shellfish Program Coordinator of each major development to ensure that local oyster farmers have an opportunity to make a submission if desired.

Contact Graeme Bowley NSW DPI 4916 3845

Oyster lease clean up project

Three major grants from Crown Lands, Hunter LLS and OceanWatch have resulted in some major derelict lease clean ups this year in Brisbane Water, Hunter River, Port Stephens and Camden Haven. A number of final warnings have also been issued to lessees, with the next step being engagement of a contractor. Since the commencement of this project in 2009 415 leases (477 ha) have been cleaned up. We would like to acknowledge and thank Katie for her role in coordinating this project over the last seven years and wish her well as she leaves NSW DPI to take up a new career.

Contact Graeme Bowley NSW DPI 4916 3845



Before and after oyster lease clean up Camden Haven

Disaster support

Following storm/flood damage in June 2016, Category C recovery grants for \$10,000 are available for eligible oyster farmers in Bega, Byron, Nambucca, Shoalhaven, Eurobodalla and Tweed Local Government areas.

<https://www.ministerjustice.gov.au/MediaReleases/Pages/2016/FourthQuarter/Recovery-grants-for-disaster-affected-farmers.aspx>

Fisheries Compliance update

If permit holders are unable to comply with timeframes in their notices, they should contact their local Fisheries Office to negotiate a work plan. All reasonable requests for extensions of time will be considered. When a Permit Holder has not requested an extension of time and the work specified has not been completed, the permit

holder will be given the opportunity to participate in a formal interview before a penalty notice is issued.

Five hundred and twelve oyster lease inspections were undertaken in this financial year. These are a combination of initial inspections, follow up inspections and case managed inspections. The number of inspections that were satisfactory was 196 or 37%. Enforcement of unserviceable materials has been a focus. Over 174 movements of oyster were made and 87% of these were notified using the IVR system. Fifty nine offences were investigated, resulting in 30 written cautions and 26 infringement notices being issued.

Contact Lee Burdette NSW DPI 5524 0604

Aquaculture chemicals

NSW DPI has been working with the National Aquaculture Council and the private sector to ensure therapeutants used in the aquaculture industry have either registration approval, or Minor Use Permits (MUPs) to authorise usage. All Farm Animal Health has recently lodged MUPs for Formalin and Hydrogen Peroxide to cover all aquaculturists in Australia. An Aquatic Veterinary Medicines Working Group was also formed to deliver on Objective 4 from AQUAPLAN 2014-19 to improve the availability of appropriate veterinary medicines used in aquaculture.

Contact Ian Lyall NSW DPI 4916 3856

Oyster reef mapping

There is an increasing public awareness of the role that oyster reefs play in the ecological health of estuaries. There is a current movement in Australia and globally to protect existing oyster reef, and where possible, re-establish lost oyster reef areas. NSW DPI is mapping all significant aggregations of oysters (including on current OISAS leases). This may be natural oyster beds or oyster aggregations on historical oyster cultivation. This work will support current projects.

Contact Steve McOrrie NSW DPI 4916 3921

<http://www.oceanwatch.org.au/community/current-programs/>

Operation Trident – Report oyster thefts

Operation Trident, a joint initiative between NSW Police, NSW DPI and NSW Food Authority will continue over the Christmas period. If theft of shellfish is suspected or observed, industry members are urged to call the **Police Assistance line on 13 14 44** and receive an event number and also contact the nearest Fisheries Office irrespective of the scale of theft. Often, numerous smaller stock losses form part of a larger problem. Similarly if industry members observe black market sale of shellfish they are encouraged to report it to the **NSW Food Authority on 1300 552 406**.

ASQAP Manual remake

The Australian Shellfish Quality Assurance Program (ASQAP) Manual outlines best practice guidelines for state regulatory control agencies such as the NSW Food Authority. The Manual has been updated.

Contact Anthony Zammit NSWFA 9741 4749

<http://safefish.com.au/wp-content/uploads/2016/07/Australian-Shellfish-Quality-Assurance-Program-Operations-Manual-2016.pdf>.

NSW DPI's debt recovery process

You have the option to pay annual aquaculture accounts via four instalments, being 30 September, 31 December, 31 March and 30 June. A reminder notice for each instalment will be sent one month prior to the due date.

Should you miss paying an instalment and you do not contact NSW DPI to discuss payment options, the whole account will become due and payable immediately. Please note that if an aquaculture account remains outstanding for more than 90 days, and the account holder does not contact the department within that period to discuss their payment options, the department will move to cancel any aquaculture permits and/or leases associated with that account.

Should you be experiencing financial difficulties, we urge you to contact NSW DPI to discuss the option of a payment schedule. Please note, that if an account has remained outstanding for more than 90 days and the department moves to cancel the aquaculture permit, the option of a payment schedule is no longer available. For this reason, it is important to contact the department as soon as any financial difficulties arise.

Contact Aquaculture Administration 4982 1232

Aquaculture lease tender

As an aquaculture lease tender process was not held in September this year pending OISAS sign off, NSW DPI is planning to hold the next competitive tender in early February 2017. We anticipate that this tender will incorporate a large number of leases across multiple estuaries, involving primarily lease areas for which the department has received applications.

Contact Aquaculture Administration 4982 1232

Fisheries Management Aquaculture Regulation 2012

Every five years the regulation goes through a staged repeal process where it is repealed and remade. A Regulatory Impact Statement is prepared and exhibited

for consultation. No amendments are proposed for this round with exhibition planned for March 2017.

Contact Sheree Livingstone NSW DPI 4916 3808

Land Based Sustainable Aquaculture Strategy

Edits are being made to the NSW Land Based Sustainable Aquaculture Strategy to update web links.

Contact Ryan Jefferson NSW DPI 4916 3824

<http://www.dpi.nsw.gov.au/fishing/aquaculture/publications/general/nsw-lbas>

Oyster shell sausage saves shore!

South East LLS and south coast oyster farmers have recently completed the trial of a novel design for treating bank erosion. This involves building a sausage of oyster shells encased in biodegradable jute matting. Mangroves planted in the tidal zone will provide longer-term bank protection long after the oyster shell sausage has broken down. Local oyster farmers worked hard to shovel shell with the Jerrinja and Bega Local Aboriginal Lands Council's Koori Work Crews to rehabilitate high priority erosion sites in the Crookhaven River and Wapengo Lake.



*Merry Christmas and a prosperous New Year
to you and your family from NSW DPI*

Aquaculture News is a newsletter from the aquaculture team at NSW DPI.

Editor: Joyce Paterson

joyce.paterson@dpi.nsw.gov.au

www.dpi.nsw.gov.au/fisheries/aquaculture/publications/newsletter

ISSN 2204 6577 (print)

ISSN 2204 6585 (online)

© State of New South Wales through the Department of Trade and Investment, Regional Infrastructure and Services, 2016. 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 (December 2016). 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.

Your email address will be collected NSW Department Primary Industries and recorded for the purpose of providing an email newsletter service for you. This information will not be distributed to any other parties. The supply of your email address is voluntary. However, the email newsletter service cannot be effected without storage of this information on our databases. You may update or unsubscribe from these services at any time by sending an email to the editor shown above. Published by the Department of Primary Industries. Trim Number OUT16/46790