



aquaculturenews

WWW.INDUSTRY.NSW.GOV.AU

ISSUE 13 DECEMBER 2012

DIARY DATE

NSW Oyster Conference, "Catch-up" and Tradeshow 2013.

Port Stephens 31 July – 1 August 2013

See Flyer



9TH INTERNATIONAL CONFERENCE ON
MOLLUSCAN SHELLFISH SAFETY
SYDNEY, AUSTRALIA
17-22 MARCH 2013

9th International Conference on Molluscan Shellfish Safety (ICMSS)

The ICMSS is the premier world conference focusing on topics that affect molluscan shellfish safety for the consumer. The next ICMSS will be held in Sydney, from 17th through 22nd March, 2013. ICMSS is a forum for scientists, regulators, policy makers and industry representatives from around the world to meet and discuss advances in shellfish safety in both formal and informal meetings. Topics of particular interest will include talks discussing the latest on norovirus and biotoxins. A practical workshop on harmful algal species identification will also be conducted and is open to industry participation. Industry is strongly encouraged to attend.

Industry sponsorship opportunity

Fisheries NSW will cover the conference registration fees for one young up-and-coming oyster farmer to attend this event. Please send an EOI to Ian Lyall (LB 1 Nelson Bay NSW 2135) by 31 January 2013. For more information on the 9th ICMSS see: <http://www.icmss2013.com/>
Contact: Wayne O'Connor Fisheries 4916 3906

Aquaculture Research Advisory Committee

Fisheries NSW received a positive response from industry members seeking ARAC appointment. The Hon. Katrina Hodgkinson Minister for Primary Industries has appointed John Stubbs and Matthew Wassnig (oyster representatives) and re-appointed Milada Safarik, Tony Troup, Ewan McAsh and Russell Sydenham. Professor Ian White has also been re-appointed as the Independent Chair. We wish to thank our outgoing members Geoff Diemar who served 13 years on ARAC and Michael Wright, who both dedicated considerable effort to the Committee – thank you both.

www.dpi.nsw.gov.au/fisheries/aquaculture/committees

Contact: Jo Pickles Fisheries 4916 3901

With thanks – Janine Sakker

Janine has relocated to the NSW north coast and Fisheries staff would like to recognise Janine's efforts leading Aquaculture Administration. Janine revised many of the data systems currently in use and streamlined the Unit's work practices, implementing policies and procedures to ensure that the highest standards of public administration are met. Many thanks Janine for your hard work.

Recreation boating/fishing and oyster leases

Further to concerns raised by industry and the NSW Farmers Association about recent damage to oyster leases by fishers/boaters, Fisheries NSW:

- Placed advisory material in the Fisheries Salt Water Fishing Guide and NSW Roads and Maritime (RMS) advisory brochures;
- Spoke to RMS about compliance operations during fishing competitions;
- Inserted advisory material in the e-newsletter to 45,000 recreational fishers;
- Spoke on ABC's "The Big Fish" about responsible fishing practices around leases;
- Prepared a flyer for fishing clubs; and
- Prepared a media release for the coastal press.



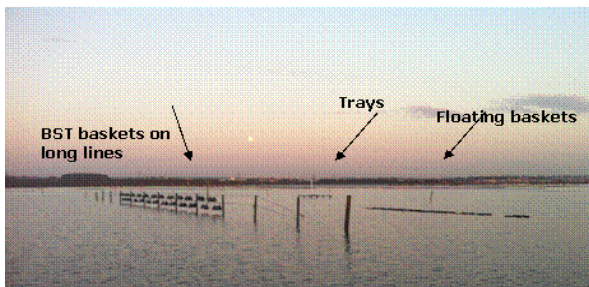
Department of
Primary Industries

Pacific Oyster Mortality Syndrome (POMS)

Researchers Ika Paul-Pont and Richard Whittington from the University of Sydney have commenced a second season of intensive field work in the Georges River to better understand POMS, in particular whether modified growing conditions can mitigate losses due to the disease. The new field trial started on 19th October 2012 with the deployment of 18,000 oysters among three study sites in Woollooware Bay. Part of the trial involves a repeat of a large experiment that was undertaken in 2011-2012 in which the mortality rate of adult oysters was halved by growing in trays 300mm above the usual rack height – Richard and Ika are keen to point out that it is vital to obtain the same result a second time before making a general recommendation to industry. As last summer was cool and rainy it is essential to confirm these results during a typical hot summer. About 8,000 oysters, both spat and adults are deployed in this trial. In a second experiment 10,000 spat have been placed in hanging baskets on long lines at two different heights and in floating baskets. The long line cultivation system is being used to assess the effect of different heights on growth and mortality of these juvenile oysters. Industry is strongly supporting this research, with oysters donated by Shellfish Culture Tasmania, posts donated by Woodshield and baskets donated by BST. It is unknown how much time Pacific Oyster spat or juveniles/sub-adults can be kept out of water in each tidal cycle during summer without causing morbidity or mortality, so this is considered to be a critical experiment. The advantage of using the long line cultivation system is the possibility to be flexible and quickly raise or lower the oysters according to the window of POMS infection, a heat wave or an environmental event that could affect oyster survival. A control site in the Hawkesbury River, which remains free of POMS, has also been set up to study growth and survival of oysters at the different growing heights.

Contact: Richard Whittington Sydney University

See www.oysterhealthsydney.org



Trays, long lines and floating baskets - Georges River

POMS Research

Two complimentary project proposals have been submitted to the FRDC and the Seafood CRC that

address the threat of POMS (OsHV-1) to the Australian oyster industry.

CSIRO, Australian Seafood Industries (ASI) and NSW DPI submitted a project proposal to the Seafood CRC to determine whether genetic selection can be used to breed POMS resistant oysters. Preliminary work using the ASI pedigreed Pacific Oyster families in the Georges River has shown that there are sufficient genetic differences in survival between families to investigate resistance breeding further. This new project will gather information to better understand the genetic relationships that lead to resistance and the potential rate of genetic gain that can be expected. The project will examine family resistance at different life stages using both field and laboratory based challenges and ultimately provide a breeding strategy that includes resistance to POMS.

Another project proposal was submitted to FRDC by NSW DPI to develop a standardised laboratory model for challenging Pacific Oysters with OsHV-1 infection. The development of such a model is crucial to better understand POMS and would underpin future research on this disease. The laboratory model could be used for testing a range of factors that influence this disease such as water temperature, oyster age and oyster size. Additionally, the laboratory model would be immediately employed in the Seafood CRC project to screen the ASI pedigreed Pacific Oyster families for their susceptibility to POMS.

Contact: Wayne O'Connor Fisheries 4916 3906

POMS detected again in Georges River

POMS was confirmed in Pacific oysters from Sydney University's Georges River experiment in mid-November. This is a timely reminder to oyster farmers that culture Pacific Oysters in other estuaries to keep a watchful eye on their crop and report any signs of mortality. In addition, farmers in estuaries where there are wild populations of Pacific Oysters are also asked to report any signs of mortality in wild Pacific Oysters to the Aquatic Biosecurity Unit.

Contact: Jane Frances NSW DPI 4916 3904.

POMS Collaboration

With FRDC and the Seafood CRC now supporting three POMS projects in NSW, researchers from each project, representing ASI, CSIRO, NSW DPI and the University of Sydney, gathered at the Elizabeth Macarthur Agricultural Institute in the first week of December to discuss developments in the respective programs and to look for additional synergies in research. Future meetings of the principal investigators of each program are planned to occur at six monthly intervals and the outcomes of the meetings forwarded to the funding providers.

NSW Aquaculture Industry Directory 2013

Over 100 permit holders registered details for the update of the directory. Fisheries NSW will collate the information and upload it on the web.

Contact: Graeme Bowley Fisheries 4916 3845

Jervis Bay Commercial Shellfish Leases

Stakeholder consultation is underway to develop an application for 50 hectares of shellfish leases in Jervis Bay. An EIS should be complete by mid 2013 and if the leases are approved, they will be tendered.

See: <http://www.dpi.nsw.gov.au/fisheries/aquaculture>

Contact: Ian Lyall Fisheries 4916 3856

Peak Oyster Advisory Group (POAG) merges with NSW Shellfish Committee

Following a review of Fisheries consultative committees, POAG was merged with the statutory NSW Shellfish Committee. Thanks go to Chair Terry Healey and oyster industry representatives who supported meetings over many years. Key achievements include: the 2004 Oyster Industry Framework Document; the NSW Oyster Industry Sustainable Aquaculture Strategy; and other water quality and regulatory reforms.



Chair Terry Healey at the last POAG meeting March 2013

The Land Based Aquaculture Consultative Group will continue to represent industry but will now report to the Executive Director Fisheries NSW, Dr Geoff Allan.

Useful Links

Oysters Australia

<http://www.oystersaustralia.org.au/>

Fish Prices and Value: a Marketing Challenge FRDC

<http://www.frdc.com.au/knowledge/factsheets/factsheet/>

Imported Seafood in Australia

FRDC

http://www.frdc.com.au/knowledge/factsheets/factsheet_imported_seafood_in_australia.

New corporate system

NSW Department of Trade & Investment, Regional Infrastructure and Services, which includes NSW DPI, is currently undertaking a major corporate project to transition and consolidate its corporate management systems to a single enterprise resource planning system (ERP). The new ERP system includes the department's finance services and other corporate services. The Aquaculture unit is working with the department to transition to the new system with as little disruption to our clients as possible.

Contact: Aquaculture Administration 4982 1232

Marine Finfish Research Lease

The EIS for the research lease proposed off Port Stephens went on public exhibition in November. A total of 26 agency and public submissions were received. Key concerns raised were: entanglement; changes in migratory and foraging habits of marine animals; cages attracting sharks; impact on tourism businesses; using fish as feed; chemical use; visual amenity; and water quality. Fisheries NSW will prepare a report on these submissions to enable the Minister for Planning and Infrastructure to determine the application in early 2013. Strong support was received from the NSW aquaculture industry for this project.

As part of the consultation process the Executive Summary of the EIS was emailed to local stakeholders, information was placed on the web and "drop-in" information sessions were held for community members at PSFI and in Hawks Nest.

See: <http://www.dpi.nsw.gov.au/fisheries/aquaculture>

Contact: Ian Lyall Fisheries NSW 4916 3856



Visitors at the "drop-In" session at PSFI

Environmental Management Systems (EMS)

The state-wide oyster industry EMS project managed by OceanWatch officially concluded at the end of November. Supported by the Australian Governments Caring for our Country, the EMS project has engaged farmers in the development of EMS across nine estuaries, and has supported 145 sub-projects with implementation works. Although not all projects involved lease conversions, these works resulted in the removal of approximately 830 tonnes

of old tarred & treated oyster infrastructure, and the return of 80ha of lease area into production - rebuilt with best-practice cultivation infrastructure. OceanWatch will continue to operate its oyster EMS program until at least May 2013. This will provide the opportunity to:

- progress EMS development in estuaries such as Nambucca, Manning, Port Stephens (Tilligerry Creek) and Brisbane Water;
- distribute funding provided by the Hunter-Central Rivers CMA to 24 oyster farmers committed to their EMS to take-up a tipping-fee reimbursement grant. This scheme will enable a further 250t of old tarred and treated infrastructure to be removed; and
- access a Northern Rivers CMA grant for oyster farmers committed to their EMS in Camden Haven, Hastings River and the Nambucca River. See

<http://www.northern.cma.nsw.gov.au/news/other-stories/mid-morth-coast-oysters.html>

Contact: Andy Myers OceanWatch 9660 2262

Best Practice Floating Basket Cultivation

In recent years the use of floating basket cultivation has expanded dramatically in NSW. This is particularly the case in southern NSW where a wide range of systems are now in use by industry. There are concerns that such systems have the potential to come adrift and/or wander well outside the lease boundaries causing significant navigation issues and where they are poorly managed may harbour diseases and pests. In response to these concerns Fisheries NSW is now in the process of developing the *Best Practice Guidelines for Floating Basket Oyster Cultivation* in consultation with industry through a NSW Shellfish Committee working group. These guidelines will complement the existing *Best Practice Guidelines for Oyster Raft Construction*, key components of which are currently being incorporated into OISAS. See:

<http://www.dpi.nsw.gov.au/fisheries/aquaculture/publications/oysters>

Contact: Steve McOrrie Fisheries 4916 3921



South Coast oyster farmers take action on the environment to secure the future of their industry

South Coast oyster farmers are working to improve the value of their businesses through an industry-led approach to environmental management.

Over 100 oyster farmers operating across eight estuaries have committed to implementation of an Environmental Management System, or EMS. An EMS is a simple yet powerful approach to environmental management where farmers identify all environmental issues that pose a risk to their business and the wider catchment, and then systematically work to address those risks through on-the-ground action. These actions vary from upgrading to more environmentally friendly infrastructure, to raising awareness of catchment issues in local communities.

The benefits of the EMSs are already being noticed among farmers. Aside from the environmental advantages of moving to cleaner production methods, the EMSs are bringing individual farmers together to tackle issues as a united group. In fact, farmers have started to discuss ways to professionally brand and promote their environmental credentials, with the ultimate aim of increasing the value of their product and their individual businesses. To help farmers implement the EMSs, two Implementation Officers have been appointed using grant funding received from the Australian Government's Caring for our Country initiative. Andrew Wales is working as EMS Implementation Officer for the Shoalhaven, Clyde, Tross and Wagonga estuaries, while Sue McIntyre is the Officer appointed to work with farmers in the Wapengo, Merimbula, Pambula, Bermagui River, Nelsons Lagoon and Wonboyn Lakes estuaries. These officers are working side-by-side with farmers to implement the various actions from their respective EMS. Their role extends beyond just providing hands-on assistance with projects, to include wider responsibilities such as community education, obtaining funding for projects, and the marketing and promotion of the industry's efforts.

The end result should be improved environmental quality in the estuaries, more profitable businesses for farmers and a more sustainable south coast oyster industry.

Contact: Andrew Wales 0412 395 008 or Sue McIntyre 0427 824 690

Fisheries diet development research

The Aquaculture Nutrition Unit has just completed research on utilisation of soybean meal (SBM) and soy protein concentrate (SPC) in aqua-feeds for barramundi. Trials at the Port Stephens Fisheries Institute indicated that barramundi perform very well on diets containing low levels of fishmeal and blends of SBM and SPC that in combination provide more

than 35% of the ration. The relatively high protein content and good essential amino acid profile of SBM and SPC means these ingredients are extremely useful in formulations for many fish species, including carnivorous species such as barramundi. Globally, production of soybeans now exceeds 250 million metric tonnes (mmt), the majority being produced by the United States (83.2mmt), Brazil (72.0mmt) and Argentina (48.0mmt). About 80-100,000 metric tonnes are produced in Australia. This research will be extended to commercial trials in 2013 to verify use of promising formulations under industry conditions.

Contact Mark Booth Fisheries 4916 3816



Barramundi grown in a diet development trial at PSFI

Oyster Monitoring Programs on the south coast

In May 2011, four NSW oyster producing estuaries agreed to trial an innovative approach to monitor shell growth and oyster mortality by using commercial oyster graders. The information collected in the program has been shown to assist in refining husbandry techniques, selecting priority lease areas according to performance, and improving production levels. The following estuaries have been or are taking part of this program: Pambula, Merimbula, Wapengo, Clyde, Shoalhaven and Hawkesbury.

A quote from Leon Riepsamen, one of the participants in the Shoalhaven program, sums up the benefits of the program from a growers perspective *"The main benefit from the program is having long-term monitoring of the health of our growing areas and being able to match observations with quantitative data. It also allows for sharing of information of different growing areas."*

The information gathered by the program will assist the industry in the establishment of a baseline for oyster performance from which changes in growth and mortality can be measured. In addition, this information can be used by other catchment stakeholders and managers interested in understanding the health of our estuaries, as oysters can be used as bio-indicators of these aquatic systems. Increased environmental monitoring has already been undertaken by some of the rivers involved where 17 temperature loggers have been deployed and additional phytoplankton sampling is currently taking place. This supplementary sampling is funded by the Southern Rivers CMA through the

Australian Government's Caring for our Country funding. This additional information is assisting in quantifying the relationship between oyster growth and water temperature at the different rivers.

The monitoring program is an innovative example of a cooperative partnership where effort and cost by different groups/agencies (industry, researchers and CMAs) is maximised to achieve estuary wide benefits. Engagement from corresponding councils is now being sought. For further information contact Chelsea Nash (Bega Coast Oysters) or Ana Rubio (UoW). Otherwise check out latest reports uploaded into the Oyster Information Portal website <http://www.oysterinformationportal.net.au/oyster-monitoring-program> or by using the data portal <http://www.oysterinformationportal.net.au/data-portal>
Contact: Ana Rubio anarubio.zuazo@gmail.com



Hatchery Quality Assurance Scheme (HQAS)

Four hatcheries were audited recently with a focus on breeding records and broodstock status. Some defects were identified in record keeping and general practices relating to separation of larvae prior to pooling and stocking in fingerling ponds. The audits highlighted the excellent work HQAS hatcheries are doing in ensuring only the highest quality fingerlings are used to stock waterways. The HQAS will be reviewed in 2013 to consider marine species.

Contact: Graeme Bowley Fisheries 4916 3845

Marine fish breeding research

The Marine fish breeding team based at the Port Stephens Fisheries Institute (PSFI) has focussed research during 2012 to improve techniques for larval rearing of yellowtail kingfish (YTK). In particular jaw malformation, which is a serious problem in commercial YTK hatcheries, was negligible using new best-practice production methods. Results of the PSFI experiments were disseminated to commercial hatchery operators.

Contact: Stewart Fielder Fisheries 4916 3902

Oyster Business Analysis

How does your business compare? The Australian Oyster Industry Benchmarking SnapShot Industry Edition for 2010/2011 is now available. The SnapShot summarises the performance of 34 South Australia, Tasmania and NSW oyster businesses participating in the CRC Oyster Benchmarking Project for the 2010/2011 financial year. If you wish to obtain a copy of the SnapShot or become involved in the Oyster Benchmarking Project **contact: Carlyn Sherriff Rural Directions P/L (08) 8841 4500**

Report on the Inquiry into Regulation of Domestic Wastewater Released

The NSW Parliamentary Inquiry into the regulation of domestic wastewater tabled its report in Parliament on 21 November 2012. The report has been published on the Committee's web site, together with transcripts of evidence and other documents associated with the Inquiry. Fisheries NSW, the NSW Food Authority and NSW Farmers Association all gave evidence and many growers made a written submission to the inquiry. The Government is required to respond to the Committee's recommendations within six months. See:

<http://www.parliament.nsw.gov.au/environmentandregulation>

Extract of Chair's Foreword

"....The Committee gathered evidence from a wide range of stakeholders, including local government authorities, academics, representatives of the domestic wastewater industry and representatives of the industry that is most vulnerable to the risks of faulty domestic wastewater systems – the oyster industry.

The Committee recognises that the State's oyster farmers must bear the cost of monitoring for contaminants caused by activities that they have no control over, and they must also bear the consequences of contamination events. In terms of monitoring for the presence of contaminants, the Committee supports the work of the *NSW Shellfish Quality Assurance Program* and encourages the exploration of new testing methodologies. The Committee also encourages the continued liaison between the oyster industry and the NSW Food Authority....

The guidelines that help local government authorities to oversee the management of on-site domestic wastewater systems were developed fifteen years ago. A key area of concern expressed by inquiry participants was that the guidelines require updating to reflect the developments and improvements in on-site wastewater management technology and to reference the superior Australia/New Zealand Standard for on-site domestic wastewater management. The Committee made three recommendations in this respect.

Another major area of concern expressed by inquiry participants was the lack of formal training qualifications or standard inspection procedures for certain on-site domestic wastewater systems. For this reason the Committee recommends the development of uniform accreditation and reporting system....

Some local government areas are better than others at managing on-site domestic wastewater systems, so the Committee has made recommendations to encourage local councils to share examples of best

practice. In addition, the Committee backs the revival of the Septic Safe Program and the reconstitution of the Wastewater Management Advisory Committee..."
Chris Patterson MP Chair

Pacific Oyster closure review update

Throughout May to September 2012, the oyster industry was consulted at eight formal meetings and via mail outs on the proposed new risk-based Pacific Oyster management closure. This has been developed to simplify management rules, reflect current levels of risk and current culture techniques used by industry. Aquatic Biosecurity will continue working closely with industry during the final stages of development and implementation of the new risk-based management closure which is proposed to replace the existing closure by September 2013.

Contact: **Ben Rampano NSW DPI 4982 1232**



Ben Rampano consulting with industry

NSW Shellfish Committee Update

The Shellfish Committee met on 8th November. The list of topics covered includes:-

Shellfish Program: Kalang and Bellinger River water quality issues; adverse testing; ASQAAC; Shellfish Program fees and local program subsidy; issue of licenses. Aquaculture Management: floating basket cultivation; triploid Pacific Oyster approvals; and oyster lease clean-up. At the next meeting the committee is set to discuss options for expenditure from the aquaculture lease security trust.

Contact: **Tim Gippel Fisheries 4916 3823**



Aquaculture News is a newsletter for the aquaculture industry in NSW. Editor: Joyce Paterson
joyce.paterson@dpi.nsw.gov.au
www.dpi.nsw.gov.au/fisheries/aquaculture/publications/aquaculture-newsletter
ISSN 1835-2618 (print) ISNN 1835-2626 (online)

© State of New South Wales through Department of Industry and Investment (Industry & Investment NSW) 2012. You may copy, distribute and otherwise freely deal with this publication for any purpose, provided that you attribute Industry & Investment NSW as the owner.

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (March 2012). 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 Industry & Investment NSW or the user's independent adviser.