

## **QX Resistant Oysters 'Live' up to Expectations in Hawkesbury River**

The QX resistant oysters maintained in the heavily QX affected Kimmerikong harvest area in the Hawkesbury River have passed another QX milestone. These oysters have been in this area since 2005 and have been subject to two heavy QX outbreaks. John Nell reports that while 96% of the normal oysters maintained at this site have died, he has only lost a total of 20% of the QX line since June 2005. John estimates that at least 10% of the mortality was due to flatworm and heat. In late April 2007, an assessment (10 participants) of the marketability of QX resistant stock held at Kimmerikong indicated that 88% of the stock was in good marketable condition.

It is interesting to note that much of the QX resistant stock held by farmers in the Hawkesbury from this batch had been sold by January 2007. This batch of oysters left the hatchery in January 2005. **Dr John Nell, NSW DPI 4916 3910** or **Steve McOrrie, NSW DPI 4916 3921**



Farmers assessing condition of QX resistant oysters from the Kimmerikong harvest area.

## **Water Quality Initiatives**

The Department of Environment and Climate Change has commenced preparation of a Diffuse Source Water Pollution strategy. State and Local government stakeholders were consulted in the first instance prior to broader industry and community consultation later this year. NSW DPI and NSW Food Authority are contributing a specific component of this strategy relating to sanitary water quality as it affects the NSW oyster industry. **Tim Gippel, NSW DPI 4916 3823**

Acid sulphate drainage issues are expected to decrease in the Macleay following the commencement of works on the Yarrahappinni wetland floodgates.

This project follows extensive work by NSW DPI Conservation Manager, Marcus Riches. Marcus notes the involvement of local Macleay River oyster growers in highlighting water quality issues and their willingness to work with NSW DPI and other agencies in looking for workable solutions. **Marcus Riches, NSW DPI 6626 1370**

## **Catchment Rehabilitation**

The successful Tide to Table program has been extended to the Hawkesbury Nepean and Hunter and Central Rivers CMA's. This is a joint project between OceanWatch Australia and NSW Farmers Association.

The program is looking for rehabilitation projects that will benefit the oyster industry and fisheries productivity on rivers between Brisbane Water and the Manning. If you are interested in taking part or would like to suggest a project please contact **Scott Machar on 0447 458 813**

## **Hatchery Quality Assurance Program update**

An accreditation scheme for the HQAP has been drafted and is being reviewed by NSW DPI and industry. Finalisation of the scheme and roll-out of accreditation is anticipated to commence by Spring 2007. **Tim Gippel, NSW DPI 4916 3823**

## **Lease Plans Policy**

This policy now enables the use of existing lease identifiers and existing NSW DPI GIS lease plan for new lease applications that are over areas identical to the previously leased area. The policy will assist industry by saving the cost and time of engaging a registered surveyor to submit a new plan to NSW DPI specifications.

## **Lease Expiry Advice**

Currently NSW DPI sends expiry letters to lessees 12 and 3 months prior to expiry, upon expiry and 120 days after expiry to advise of impending expiry of and/or the expiry of aquaculture leases. Following consultation with POAG, the 12 month letter and subsequent telephone contacts will no longer occur. **Janine Sakker, NSW DPI 4916 3847**

## **POAG Update**

NSW DPI and the NSW Food Authority are pleased to advise a new independent Chair, Mr Terrence M Healey, Barrister-at-Law, has been appointed for a term of three years to January 2010. Mr Healey chaired his first POAG meeting on 2 May 2007.

Key issues discussed at POAG were:

**From NSW DPI:** OISAS, water quality, aquaculture regulation staged repeal, lease plans policy and lease expiry, formation of Aquaculture Research Advisory Committee (ARAC formerly ORAC), aquaculture compliance reports, QX statistics.

**From Industry:** DPI Annual production records, NSW Farmers Association Oyster Committee outcomes, Pacific oyster control update, marketing and structural adjustment.

**From NSW Food Authority:** Allocation of funding support to local Shellfish programs, salinity buoy update, appeals mechanism, CSIRO water and meat testing. A POAG summary will be posted on the NSW DPI website.

**Joyce Paterson, NSW DPI 4916 3919**

### **Disease Diagnostic Manual**

NSW DPI is soon to publish a disease diagnostic manual for silver perch. The book titled "Diagnosis, Treatment and Prevention of the Diseases of the Australian Freshwater Fish Silver Perch (*Bidyanus bidyanus*)" is a desk-top manual targeting fish farmers and fish health professionals. The manual will provide a vital aid to understanding disease processes, recognising disease organisms and implementing appropriate strategies to maintain fish health. Topics include fish anatomy, diagnostic techniques, diseases and pathogens, and treatments. **Phil Read, NSW DPI 6650 3121**

### **Landbased Aquaculture Consultative Group**

A meeting is scheduled for 16 July 2007 with members of the prawn, trout, silver perch, hatchery, barramundi, crayfish, aquaculture suppliers, and ornamental sectors plus key associations. Items listed include: marketing, labelling, HQAP, chemicals, disease testing, policy, trout EMS, broodstock, ARAC, GAC and PSFC updates, revised barramundi protocol, translocation issues and NSW Food Authority updates. **Graeme Bowley, NSW DPI 4916 3845**

### **OISAS Implementation Update**

The 19 Coastal councils who have oysters growing in their area have been notified of the gazettal of the NSW Oyster Industry Sustainable Aquaculture Strategy as have relevant wastewater utilities, Marine Park managers and other relevant State agency staff. Developments that may affect oyster growing areas are already being referred to NSW DPI for comment and guidelines that will assist Councils implement OISAS are being prepared by NSW DPI and the Department of Planning.

### **Aquaculture Research Advisory Committee**

ARAC met in Sydney on 30 May 2007. The Committee discussed research and development projects seeking ARAC endorsement. The Committee also discussed current projects that are underway and noted that NSW

DPI's website has online summaries of its scientific outputs.

Dr Trevor Gibson and Dr Geoff Allan from NSW DPI gave an update on the progress of the Seafood Co-operative Research Centre (CRC). The CRC has 19 core partners representing all major seafood industries in Australia. ARAC were pleased that the CRC places high priority on producing an Oyster Benchmark, a model on which to base commercial viability.

ARAC agreed the 2003-2007 Oyster R&D Strategic Plan needs to be reviewed/updated and combined to include the land-based farmers. The current plan is 48 pages in length, this will be substantially shortened and will categorise key problems with 3-4 priorities to address those problems. A workshop is planned for 5 September 2007 to draft a new Strategic Plan. A suggestion box will be used at the Oyster Industry Field Days for R&D ideas from industry. **Jo Pickles, NSW DPI 4916 3901**

### **Aquaculture Research Publications**

A compilation of all publications from Aquaculture Research will be available on the NSW DPI website (science and research section) within the next few weeks. See: <http://www.dpi.nsw.gov.au>

### **Seafood CRC**

NSW DPI has signed on the new CRC as a supporting participant. NSW DPI will play an important role in the CRC by providing industry with research into developing aquaculture technology for oysters, marine fish, cage culture of silver perch in cotton farming irrigation facilities and inland saline aquaculture. For full details of the CRC please see: <http://www.seafoodcrc.com>

### **Marine Finfish Team Successfully Breed Yellowtail Kingfish**

Wild caught broodstock were first induced to spawn in November 2006 and since then a number of successful batches of fingerlings have been produced. Kingfish have been grown out in tanks and cages and results have been excellent with mean weight of fish in one of the tank experiments exceeding 250g after less than 150 days post-hatch. Food conversion ratios have been excellent.

### **Inland Saline**

Test marketing of mulloway produced at the Inland Saline Aquaculture Research Centre has been very successful with high demand and excellent feedback on the quality of the fish. Much of the recent research in NSW was funded by ACIAR (Australian Centre for International Agricultural Research) under a collaborative project with India. In India, the research team has developed techniques to breed the giant freshwater prawn (*Macrobrachium rosenbergii*) using saline groundwater.

## Nutrition

NSW DPI staff coordinated the development of a Master Class on Aquaculture Nutrition and are planning to conduct seminars for interested farmers throughout Australia to discuss principles of fish nutrition and how to effectively manage feeds and feeding for maximum growth.

## Technology for Production, Enhancement and Aquaculture of Abalone (FRDC project)

Research to increase productivity of abalone hatchery production and to evaluate the potential for aquaculture and stock enhancement has been a long-term project within NSW DPI, funded by the FRDC, the NSW Government Indigenous Fisheries Strategy and supported by the abalone fishing industry. Results showed that enhancement could be effective although to be "profitable", abalone would need to be seeded at very low densities. A comprehensive production manual for hatchery and nursery production of abalone is being printed. **Dr Geoff Allan, NSW DPI 4916 3909**

## Tathra Oysters Does it Again

Tathra Oysters, a family-owned and operated business on the NSW South Coast, has once again won the prestigious 'Award of Outstanding Excellence' at this year's Fine Food Show. This award reflects the 'best of the best' as it is judged from among the very best product class winners from the Royal Agricultural Society of NSW (RAS), Wine, Dairy and Fine Food Shows. This award has only ever been awarded twice before and this is the second time it has been awarded to Tathra Oysters. The 'spin-off', Tathra Oysters are rapidly gaining cult status among the lovers of fine food. Congratulations once again to Gary and Jo-Anne Rodely. It was interesting to note some of comments from this year's oyster judging panel "A very high standard across all exhibits – Presentation was a key issue in medal placements – Some exhibits were let down by appearance". There has got to be a message there for the industry. For further information regarding the RAS Fine Food Show go to <http://www.rasnsw.com.au>



Gary Rodely being presented with the 'Award of Outstanding Excellence' by Lindey Milan, Woman's Weekly Food Editor and Chair of the Sydney Royal Fine Food Show Committee and Grahame Latham, Chairman of Judges.

## Hastings River Oyster Leases

24 oyster leases were offered for auction on 5th June 2007 at Port Macquarie and 10 were taken up by local farmers. There are a number of leases available in Wallis Lake that NSW DPI will shortly advertise for auction/ballot/tender. **Raelene Atkinson, NSW DPI 4916 3843**

## NOTICES

### NSW Farmers' Association Oyster Industry Field Days:

22 August 2007 – Batemans Bay Football Club

24 August 2007 – Forster Tuncurry Memorial Services Club (9.30a.m. - 2.30p.m.)

Talks/trade show oyster & innovations competition. Contact Tamara Cole for details on 8251 1856.

**NSW DPI Annual Production Report 2005/06 on NSW DPI website: [www.dpi.nsw.gov.au](http://www.dpi.nsw.gov.au)**

**Selectively bred oyster stock** expressions of interest open now: The Select Oyster Company is calling for select stock orders as it plans 2007/08 hatchery runs to produce QX Resistant-Fast Growth stock. Order forms have been sent to previous customers and are also available at <http://www.soco.com.au>. If you have further questions please contact the Select Oyster Company on [selectoystecompany@yahoo.com](mailto:selectoystecompany@yahoo.com)

### NSW Industry Directory

The NSW *First for Aquaculture* Industry Directory is being updated. It is a free service provided by DSRD and NSW DPI. If you would like to be included in the 2007 *NSW First for Aquaculture* Industry Directory, please complete the form sent to you in June and return it to Bob Moes, DSRD (by fax 02 9338 6676, mail GPO Box 5477 Sydney NSW 2001, or email [bob.moes@business.nsw.gov.au](mailto:bob.moes@business.nsw.gov.au).)

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

### Drought Primefact

See <http://www.dpi.nsw.gov.au> for some suggestion regarding drought impacts and aquaculture.

## Health Management Strategy for Silver Perch

This project commenced in 2001 in response to industry concerns about significant losses caused by diseases during winter. The research found that the losses were caused mainly by a new fungal disease, winter saprolegniosis, and the parasitic disease ichthyophthiriosis or white spot. This project has been partly funded by the Fisheries Research and Development Corporation (FRDC). The following publications are "in press" and will be made available to industry when published. "Development of a Health Management Strategy for the Silver Perch

Aquaculture Industry" – a Final Report to FRDC, and the disease diagnostic manual mentioned earlier.

### Evaluation of the Potential for Aquaculture on Cotton Farms – cage culture of silver perch

Water for irrigation is a substantial and recurring cost to cotton and other irrigation industries, and freshwater aquaculture provides an opportunity to add value to this water. This is a collaborative project between the Cotton CRC, NSW DPI, QDPI&F and UNE. Data on water quality, chemicals and residues will be collected during on-farm trials. This project is partly funded by the Cotton CRC and involves a PhD student, David Foley, from UNE. **Dr Stuart Rowland, NSW DPI 6640 1691**

### QX and Stock Movements – Industry Perspective

The industry members of the QX Technical Working Group (TWG) are concerned that the issue of QX has not been as high a priority for the majority of the industry for a while. The stock movement restrictions are presently being reviewed by NSW DPI with input from NSW Farmers and the TWG. It is important to note that voluntary individual estuary protocols have been recommended by the TWG to mitigate QX risk. Some estuaries have already put these in place, for example:

**Wallis Lake growers** have followed the TWG recommendations and have agreed to, where possible, adopt the Best Practice Guidelines for Stock Movements as outlined by the QX TWG in 2006. To date farmers have managed within these voluntary guidelines and stock movement practices will be reviewed later this year.

**Hastings River growers**, who previously imported very little stock from other areas, have gone a step further and have agreed to stop the importation of wild stock. Under this model only hatchery stock moved directly from the hatchery (with QX testing), or nursery stock moved outside the QX infective period, will be imported to Hastings River.

Now is a good time to think about putting in voluntary protocols before the next QX infective period (December-April). If you would like assistance feel free to contact any of the grower members, Kel Henry, Anthony Sciacca, Tony Troup or **Jane Frances, NSW DPI 4916 3904**

### QX Surveillance in Woolli River and Brisbane Water

In March 2007 NSW DPI conducted QX surveillance in Woolli River and Brisbane Water. Woolli River was sampled as a follow up to the detection of a low level infection of QX disease in April 2006. Brisbane Water was sampled for the third year running as a precautionary measure following devastating QX outbreaks in the Hawkesbury River in 2004 and 2005.

No QX infection (either sporulating or earlier forms of *Marteilia sydneyi*) was detected in any of the oysters examined from Woolli River and Brisbane Water in 2007.

Oysters sampled from both estuaries were in very good condition generally, with well developed gonads, and healthy dark digestive glands. The Woolli River is still under QX closure – this closure allows for movement of oysters from Woolli River to QX-affected estuaries (Clarence, Richmond, Macleay, Hawkesbury and Georges Rivers). In addition, Wonboyn Lake farmers have approval for oysters to be moved from Woolli River to Wonboyn Lake under a protocol (QX low risk period) commencing 21 May 2007 until 30 November 2007. Brisbane Water has returned negative QX results in three consecutive years (2005, 2006 and 2007). On the basis of these results Brisbane Water should be considered as having the same status regarding QX as the majority of estuaries in NSW, *Marteilia sydneyi* is present but there is no evidence of expression of QX disease.

### QX Surveillance in 2008

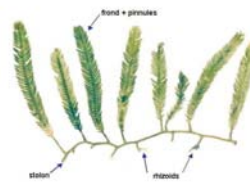
Further QX surveillance in Brisbane Water in 2008 is not supported and will not be undertaken. QX surveillance of Woolli River will be scheduled for March-May in 2008.

**Jane Frances, NSW DPI 4916 3904**

### Aquatic Pests

Aquatic pests can negatively impact aquaculture industries and aquatic ecosystems. The green shore crab for example has depleted fisheries for bivalves in North America and there are concerns about future impacts on oyster, clam, mussel, and crab aquaculture operations.

*Caulerpa taxifolia*



Green shore crab



Laminated identification cards describing *Caulerpa taxifolia*, green shore crab, European fan worm and Pacific sea star have been sent to South Coast oyster farmers. The green shore crab was recently found in the Bermagui River and *Caulerpa taxifolia* discovered in Batemans Bay and Durras Lake. Please report sightings of any of these aquatic pests on **NSW DPI's 24 hour Hotline 4916 3877**

### POLITE REMINDER

The Oyster Shipment Logbook must be completed for all inter-estuarine movements of oysters. POAG has endorsed an increased focus in this area.