

OYSTER INDUSTRY NEWSLETTER



Vol. 4. February 2012

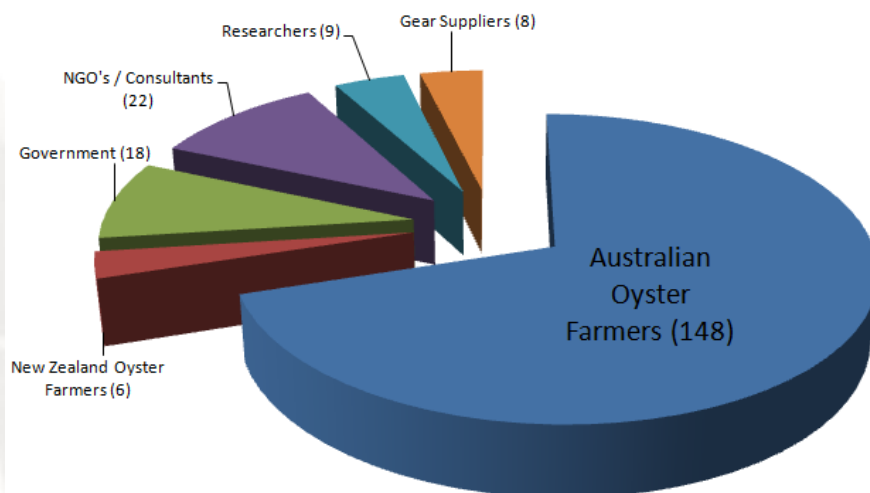
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Welcome to the *Oyster Newsletter*

At the request of many oyster industry representatives, this newsletter provides an update on national and international news, events and research that may be of interest to the oyster industry. We encourage farmers to circulate it widely through the industry - print it off and pass it around your river.

There's been a lot of interest in this newsletter – here's a breakdown of who's subscribed so far:



We welcome any contributions, ideas for future editions, stories or projects in which you are involved, photographs, or any other feedback...

Happy oystering!

Andy (OceanWatch Australia) & Ana (University of Wollongong)

Oyster Industry Projects

NSW Oyster EMS Projects

Contact: Andy Myers: andy@oceanwatch.org.au, 0488 656 366

Website: www.oceanwatch.org.au/our-work/ems-nsw-oysters/

The future of the oyster industry relies not only on a healthy environment, but also on the ability to demonstrate that growers are utilising the environment in a responsible, sustainable manner. One way of doing this is to develop an Environmental Management System (EMS) to show how environmental risks, impacts and opportunities are managed.

The process of EMS development allows oyster farmers to identify risks arising from internal, on farm activities and also from external, catchment-based activities. This risk assessment process can then be used to prioritise actions, reducing farmers' exposure to risk by building resilience into their business.

Development of Environmental Management Systems: Since the launch of the project, 7 estuaries have committed to developing new EMS, whilst another 2 have requested reviews of their existing document. Not including individual business EMS, this will take the total of estuary-wide Environmental Management Systems to 16, translating to 50% of oyster producing estuaries in NSW. The EMS are developing well, although progress has slowed because of the time required to run and manage last year's round of Oyster Industry Environmental Improvement Grants. With the majority of funded projects in full-swing, my attention can again focus on EMS development.

Additional funding for EMS implementation: Building on the success of last year's Environmental Improvement Grants, OceanWatch has been actively seeking additional funding to further stimulate environmental improvements in estuaries committed to EMS. Such actions will improve the image of the industry, enhance the environmental credentials of oyster farmers, and improve water quality leading to a more sustainable and secure future. Watch this space!!



EMS workshop at Greenwell Pt.



Riley's Island clean-up (Brisbane Water)

Pictured on the right is Brisbane Water farmer Simon Funnell assisting Macmasters Beach SLSC and Kincumber Youth Centre during a recent clean-up at Riley's Island. Despite shocking weather Simon donated his own time & punt to assist in the clean-up, which collected over 620kg of debris. A great example of industry working with community for everyone's benefit.

Oyster Information Portal

Contact: Ana Rubio: arubio@uow.edu.au, 0427 285 999

Website: <http://www.uow.edu.au/science/research/smfc/oysterinformationportal/index.html>

This project collects environmental, climatic, industry and natural resource information that is relevant to the management of the Australian oyster industry in a changing climate and under high pressure of catchment development. Extended natural resource and oyster-industry related data will assist stakeholders to better understand trends, events and vulnerable areas, a prerequisite to effective adaptation in a changing climate. This information will be made available in a user friendly format to the oyster industry and stakeholders through a prototype, web-based data portal.

What have we achieved up to now?

- We have gathered existing environmental data from NSW coastal waterways from multiple sectors, organisations and jurisdictions. In most cases this information has not previously been collated or assessed for trends over time.
- Through a series of state and national industry consultation workshops, data to be included in the portal was prioritised by industry and stakeholders. Priority information needs are consistent across industry and governance agencies and are primarily the trends of chemical, biological and physical parameters of water condition and catchment impacts over time.
- We have also collated a list of industry priorities that members of the industry have identified to impact the long-term viability of the oyster industry. Below is the list of the top 10 risks identified by industry members in order of importance (high at the top)

Impacts to the oyster industry

Impacts on Water Quality
Disease in general (POMS, Mudworm, QX, SAMS, etc)
Sales + Marketing (branding, product quality & price)
Hatchery seed supply
Pollution
Carrying Capacity/ Productivity of leases
Profitability
Sewage overflows
Government & regulation & fees
Communication across growers/ industry co-operation

- The preferred web based user interface software has been tested with selected priority data. A second round of industry workshops will take place in April- where we will be seeking industry feedback on the information delivery format.
11th-13th April we will be in the **Camden Haven & Shoalhaven**
July 2012 we will be at the **Hawkesbury & Pambula**

EMS Implementation on the NSW Far South Coast

Contact: Sue McIntyre: suemcintyre_ems_oysters@hotmail.com, 0427 824 690

A review of the Environmental Management Systems (EMS) developed for the Wapengo, Merimbula, Pambula and Wonboyn Lakes identified a number of common high priority actions. The replacement of environmentally damaging infrastructure, disposal of old infrastructure and upgrading of unsealed roads are being addressed. Communication, within industry and with the wider community is the current focus of implementation, starting with the circulation of final EMS.

The recent launch of the Bega Valley, *Love Our Lakes* program provided a great opportunity to introduce the concept of oyster industry EMS to the community. The *Love our Lakes* program is an initiative of the Bega Valley Shire Council and the Southern Rivers CMA, in collaboration with local oyster farmers, to increase community awareness of the values of local estuaries and encourage community involvement in conservation. A brochure outlining the importance of the oyster industry to the health of estuaries and the EMS process were included in take-home packs for the launch.

Estuary specific EMS brochures are being developed for Wapengo, Merimbula, Pambula and Wonboyn Lakes. These brochures will provide an overview of the EMS process, including issues affecting the oyster industry and what actions the oyster industry are undertaking to address these issues. It will also outline how the community can help maintain a sustainable oyster industry. Catchment communities should receive this information in March.

The marketing and promotion of oysters were identified as high priority actions in the Bega Valley EMS's and Bega Coast Oysters Inc. are working on these issues. Bega Coast Oysters Inc. are co-sponsoring the first ever Bega Show - Sydney Rock Oyster Competition, on 18th February 2012. While in March, members of Bega Coast Oysters Inc. will be combining with Sapphire Coast Tourism, and other local food producers, to promote the Bega Valley and local food attractions, at the Melbourne Caravan, Camping & Touring Show.

Oyster Related Research

Southern Rivers – Oyster Monitoring Program

Contact: Chelsea Nash: chelsea.nash@bigpond.com, 0409 411 140

In 2011, an oyster monitoring program commenced in the South Coast of NSW. The program, an initiative between the Southern Rivers CMA, the Shoalhaven Marine and Freshwater Centre at the University of Wollongong and the recently formed Bega Coast Oysters Inc, is set to continue and expand in 2012.

The estuary-wide monitoring program utilises automated graders to assess oyster performance (growth & mortality) every two months by collecting information that can be used to identify changes over time, and across spatial and cultivation differences that occur within an estuary.

The four programs established in May 2011 and ran by industry members during the year will continue in 2012, in the Hawkesbury, Shoalhaven, Merimbula and Pambula estuaries. Options for expanding the scope of these programs are currently being considered, with the potential for other farmers to become involved, additional locations to be included, varying carrying capacities to be assessed and important water quality parameters collected.

As a result of industry interest and support, two new programs were set-up last month in the Clyde and Wapengo estuaries, with further interest from Wagonga and Wonboyn farmers to bring the total number of programs to eight.

A dedicated coordinator, Chelsea Nash, has been contracted through the Bega Coast Oysters Inc to manage the program and to assist with the grading process. Chelsea has recently returned to the Bermagui area after six years working with the Australian Fisheries Management Authority on the management of Commonwealth fisheries, in particular the Northern Prawn fishery.



POMS – Understanding environmental & husbandry factors to reduce economic losses

Contact: Dr Ika Paul-Pont: ika.paul-pont@sydney.edu.au, 02 9351 1606

Website: www.oysterhealthsydney.org/

A viral disease called Pacific Oyster Mortality Syndrome (POMS) emerged in NSW in 2010, wiping out pacific oysters in Woollooware Bay (Botany Bay, NSW). Biosecurity measures, national surveillance and concerted research and diagnostic test development have been undertaken on this disease for the last two years. The latest activity concerns an epidemiological study conducted in Botany Bay over summer.

This project involved high frequency monitoring of oysters (spat and adult), pathogens and environmental parameters at three different sites in Woollooware Bay in order to identify major risk factors responsible for disease emergence and spread. As well, a trial of new husbandry techniques has been performed by lifting oysters to a higher height (+ 300 mm) in order to assess whether a lower immersion time, leading to a lower exposure to the virus, may prevent mortality. The aim was to identify new husbandry practices allowing Australian oyster farmers to grow pacific oyster in the presence of the virus.

POMS disease started in November 2011 in Woollooware Bay, continued for a short period - one month - and has not recurred so far. The outbreak was sudden and highly clustered within the bay with one of the three selected sites remaining free of any sign of disease. This spatial difference suggests an environmental trigger for release of the virus into the environment. Analysis of environmental parameters is underway to understand their role in disease emergence. Promising husbandry outcomes came out of this trial as significantly better survival of adult pacific Oysters was demonstrated in higher height racks - 60% vs. 30% survival at high and low height, respectively.

A blog has been created by the researchers to share the results of this trial with all oyster industry stakeholders (<http://www.oysterhealthsydney.org/>). Additionally an on-line seminar will be held by the Australian Biosecurity Intelligence Network (ABIN) on Wednesday 29th February to present the results of this research. An internet connection will be required to view the presentation but a toll-free number will also be available to listen to the presentation and ask questions without need for an internet connection. For more information about this seminar please contact Ika.

Predicting the response of ecologically & economically significant oysters to climate change

Contact: John Wright: j.wright@uws.edu.au

Website: http://www.uws.edu.au/nuws/cl/past_stories/september_to_november_2011/oysters_in_2100

This work provides an understanding of the impact of warming and acidifying oceans caused by climate change on Sydney rock oysters and Pacific oysters. Overall it supported the prediction that the Pacific oyster may be more resilient than the Sydney rock oyster to elevated ocean acidity and temperature.

Over a seven week period of stress, adults of the two species were reared at both normal, and elevated levels of carbon dioxide and temperature (22 and 28°C) based on projections for the year 2100. The results of the experiment suggest that oysters are susceptible to climate change and that the Pacific oyster may be more robust (investing its energy into gamete production). There was also evidence of compensative mechanisms including an increase in the efficiency of which ingested food was absorbed by the oyster under sole stressors. However this compensation was reduced considerably where oyster were subjected to both elevated ocean acidity and elevated temperature.

Further investigation into these changes is required to better understand the mechanisms involved. This will allow us to predict impacts and advise on adaptive strategies, to reduce the risk that

acidification poses to oyster farms. Increased acidity through ocean acidification and increasing global temperature will create demanding environments for oysters, yet this will not occur in isolation from other human-induced changes. Further work is required to look at the interaction of multiple stressors that are likely to impact on oysters. I recommend that both the impact of climate change on the oyster industry be accepted, and the likelihood of additional impacts be acknowledged. Stressors already facing oysters (such as water quality and disease) further reduce the potential of oysters to tolerate and adapt to climate change.



CO2 & temperature controlled experiments



A filtering pacific oyster

Useful Industry Information

NSW Oyster Industry Sustainable Aquaculture Strategy (OISAS) – Under Review

The key planning document for the NSW oyster industry, OISAS, is currently under review and NSW DPI are currently taking submissions. Industry members of Peak Oyster Advisory Group (POAG) have already nominated six issues to be considered in the review:

- Estuary entrance management;
- On-site sewerage management;
- Inclusion of Land base leases;
- Climate change adaption;
- Lease signs;
- Raft best practice guidelines

Please visit the following link for information on the review and submission process:

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

Release of the 2011 State of the Environment Report – Australian Government

<http://www.environment.gov.au/soe/2011/report/index.html>

National Aquaculture Sector Overview

The National Aquaculture Sector Overview (NASO) map collection consists of Google maps showing the location of aquaculture sites and their characteristics. <http://www.fao.org/fishery/naso-maps/naso-home/en/>

Seafood that lasts longer with new natural preservation techniques

A team of State Government food scientists has developed new techniques using native ingredients and special packaging that dramatically increases the shelf life of seafood.

http://www.dpi.qld.gov.au/30_20891.htm

The Climate Dogs: The main drivers that influence climate in NSW

The NSW Climate Dog animation series uses humorous animations of sheep dogs to explain complex atmospheric phenomena. If you want to understand the processes of El Niño/La Niña-Southern Oscillation (ENSO), Indian Ocean Dipole, Southern Annular Mode or the Sub-tropical Ridge, visit the following link: <http://www.dpi.nsw.gov.au/agriculture/resources/climate-and-weather/variability/climatedogs>

French visit shows that oyster virus will be hard to stop in Australia

Australian oyster industry representatives say they're in a better position to deal with an oyster herpes virus than their French counterparts

<http://www.abc.net.au/rural/news/content/201112/s3385592.htm>

Online web-seminar – a summary of the French tour searching for information on POMS

Recently, Bruce Zippel, Tom Lewis, Rob Moxham, James Calvert and Angus Cameron toured France to learn how to minimise the impact of POMS to Australian oyster farmers. The team will present their findings on how to minimise the impact of POMS and also allow you to ask questions about their trip. <https://connect.abin.org.au/p67846057> (this may not work in internet explorer)

The final report can be downloaded from Oysters Tasmania:

<http://www.oysterstasmania.org/news/frdc-poms-project-study-tour-to-france-final-report>

Newcastle researchers tracking pollution

Newcastle Uni. has developed new methods of tracking faecal contamination in rivers, estuaries and coastal lakes that can lead to potentially fatal viruses in oysters. <http://www.abc.net.au/news/2012-01-02/newcastle-researchers-tracking-pollution/3754544/?site=newcastle>

Moderate acidification affects growth but not survival of 6-month-old oysters

Oyster populations periodically exposed to runoff from acid sulphate soils (ASS) are of depressed abundance and have fewer smaller individuals than unaffected populations, despite having similar recruitment levels to unaffected sites during dry periods.

<http://oceanacidification.wordpress.com/2011/12/13/moderate-acidification-affects-growth-but-not-survival-of-6-month-old-oysters/>

Beware those fishy bargains

Those chilled seafood platters you have been enjoying this summer could be "hot". Highly organised crime syndicates dealing in black market seafood delicacies are plundering NSW coastline.

<http://www.smh.com.au/environment/conservation/beware-those-fishy-bargains-20111231-1pg8m.html>

Rapid pesticide detection tool for cleaner water

A rapid screening tool developed by an RMIT University doctoral researcher could enable the instant detection of pesticide residues in Australia's water catchments

<http://www.rmit.edu.au/browse;ID=5n5t14uh58jo1;STATUS=A>

Climate change adaptation and impacts fact sheets for Australia

The 4th Assessment of the Intergovernmental Panel on Climate Change (IPCC) reports with very high confidence that climate change has already occurred in Australia, with more heatwaves, fewer frosts, more rain in north-west Australia, less rain in southern and eastern Australia, an increase in the intensity of droughts and a rise in sea level. The potential impacts of climate change are likely to be substantial without adaptation.

A series of fact sheets which give an overview of the likely impacts of climate change, and the potential for adaptation have been developed <http://www.nccarf.edu.au/living-with-climate-change>

Seasonal Climate Outlook by BoM

Seasonal Climate Outlooks for February to April 2012 have been issued

Rainfall

National Headline: Wetter season likely for northern and western Australia

See http://www.bom.gov.au/climate/ahead/rain_ahead.shtml

SE Australian Headline: Drier season more likely for south-eastern SA

See <http://www.bom.gov.au/climate/ahead/rain.seaus.shtml>

Temperature

National Headline: Warmer days favoured over south-eastern Australia

See http://www.bom.gov.au/climate/ahead/temps_ahead.shtml

SE Australian Headline: Warmer days favoured for the south-east

See <http://www.bom.gov.au/climate/ahead/temp.seaus.shtml>

Oysters Australia

Oysters Australia is a national body formed by Australia's community of oyster growers in 2011 for advocacy, research and development. It is passionate about and committed to becoming world leaders in responsible, profitable and sustainable oyster industry production.

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

Medical Myth? Eating oysters makes you randy

<http://theconversation.edu.au/mondays-medical-myth-eating-oysters-makes-you-randy-4588>

Local News

NSW farmers praise end to Hawkesbury effluent plan (HAWKESBURY)

Original Channel 7 report: <http://au.news.yahoo.com/video/nsw/-/watch/27502944/sydney-water-slammed-by-critics/>

Oyster farmers and locals are celebrating a decision to abandon the release of more effluent into Hawkesbury River, saying it will ensure the health of the famous waterway.

<http://express-advocate-wyong.whereilive.com.au/news/story/hawkesbury-river-water-quality-saved/>

Farmer's world is their oysters (CLYDE)

Hauling baskets of oysters out of the Clyde River at Batemans Bay are how Kevin McAsh begins most days. <http://www.canberratimes.com.au/news/local/news/general/farmers-world-is-their-oysters/2406436.aspx?storypage=1>

Oysters available in Cowell (COWELL)

Simon Turner from Turners oysters in Cowell said they have experienced a great season with no real issues. <http://www.eyretribune.com.au/news/local/news/general/oysters-available-in-cowell/2434088.aspx>

Love our Lakes gets off the ground (BEGA VALLEY – FAR SOUTH COAST)

A program to increase community awareness of the values of local estuaries and encourage community involvement in conservation was launched at The Waterfront Café, Merimbula on Thursday, December 8th. <http://www.merimbulanewsonline.com.au/news/local/news/general/love-our-lakes-gets-off-the-ground/2409483.aspx?storypage=1>

Pledge to Dredge (WALLIS)

The State Government will finalise the dredging of Wallis Lake in early 2012.

<http://www.greatlakesadvocate.com.au/news/local/news/general/pledge-to-dredge/2405028.aspx>

Export Potential for Tasmania Oysters (TASMANIA)

The Deputy Premier Bryan Green has said that a new focus on exporting Tasmanian oysters has the potential to significantly increase the value of the industry to the state.

<http://www.media.tas.gov.au/release.php?id=34113>

Oyster crop on the rise this year (SHOALHAVEN)

Oysters are often considered an integral part of a summer seafood buffet; but over the last few years the Shoalhaven's oyster crop has suffered due to the drought. Now though, it appears that fortunes have changed, and this year's oyster harvest is set to boom!

<http://blogs.abc.net.au/nsw/2012/01/oyster-crop-on-the-rise-this-year.html>

WA grown oysters off the Christmas menu (WA)

Bacteria in the WA waters result in oysters not being sold this Christmas

<http://www.abc.net.au/news/2011-12-22/wa-oysters-off-christmas-menu/3744314?section=wa>

Partnership to allow Manning River dredging (MANNING)

Dredging work will soon be carried out around parts of the Manning River entrance

<http://www.abc.net.au/news/2012-01-17/partnership-to-allow-manning-river-dredging/3777190>

Sharp spike in oyster thefts (BALLINA)

A Ballina oyster grower is ready to re-join the industry after poachers stole from his oyster lease on the Brunswick River over Christmas. <http://www.northernstar.com.au/story/2012/01/05/sharp-spike-in-oyster-thefts-ballina-poachers/>

Aquaculture oysters not free for the taking (QLD)

While many may find it hard to resist the lure of freshly shucked oysters, it's important to remember that taking oysters from, or interfering with, aquaculture infrastructure is prohibited.

<http://www.mysunshinecoast.com.au/articles/article-display/aquaculture-oysters-not-free-for-the-taking,24604>

Locals Call for Myall River Dredging (MYALL)

Myall River oyster farmer Gordon Latimore has been losing up to \$5000 a week with declining salinity levels causing temporary lease closures.

<http://www.dredgingtoday.com/2012/01/04/australia-locals-call-for-myall-river-dredging/>

Shellfish heavy metal remains high (DERWENT)

The latest report card on the health of Hobart's River Derwent has found shellfish contain high levels of heavy metals. <http://www.abc.net.au/news/2011-12-21/20111216-shellfish-heavy-metal-levels-remain-high/3741586?section=tas>

World News

Missing from the Bay of Oléron on the French west coast. (FRANCE)

Forty tonnes of them, or twice as many as were stolen last year. One oyster farmer who has lost his entire holiday period production says he hopes the police catch the thieves before he does, because otherwise he'll administer justice himself.

West Coast Shellfish Farms impacted by Ocean Acidification (USA)

West Coast shellfish growers have learned to work around upwellings of corrosive waters and save the lives of their bivalve stocks. <http://oceanacidification.wordpress.com/2011/12/27/west-coast-shellfish-farms-impacted-by-ocean-acidification/>

Scientists in Japan have begun an experiment to try and decode the language of oysters (JAPAN)

The aim is to work out what the shellfish are saying about changes in their environment so oyster farmers can get early warning of potential problems. Research is based on the how often oysters open and shut their shells. <http://www.radionz.co.nz/news/world/95151/scientists-seek-to-decipher-language-of-oysters>

Herpes virus makes oysters rare treat in French holiday season (FRANCE)

Thomas Catonnet listens for the tell-tale death rattle at his oyster farm in France's Arcachon Bay, as a falling tide exposes victims of a lethal virus ravaging the nation's 157-year-old shellfish industry. <http://www.businessweek.com/news/2011-12-21/herpes-virus-makes-oysters-rare-treat-in-french-holiday-season.html>

New research to identify safe norovirus levels in oysters (UK)

Food Standards Agency shows that a significant proportion (76%) of oysters tested from UK oyster growing beds contained norovirus. http://www.fishnewseu.com/index.php?option=com_content&view=article&id=7170:new-research-to-identify-safe-norovirus-levels-in-oysters&catid=44:uk&Itemid=55

Bay damage not as bad as feared (USA)

One Maryland scientist blamed the plume in part for nearly 80 percent of the bivalve deaths on the four northernmost oyster bars along that state's Eastern Shore. Low salinity rates during the spring and early summer also played a role, said Maryland Department of Natural Resources' shellfish program director. <http://wbal.com/article/84879/3/template-story/Scientists-Bay-Damage-Not-As-Bad-As-Feared>

NZ recovers from OshV-1 outbreak (NZ)

With the majority of oysters exported, New Zealand oyster producers have benefited from international prices rising by 25 per cent in the past year. The rise in prices is due to a number of factors, including the oyster herpes virus (OshV-1). <http://www.globalseafoodbrokers.com/2012/01/17/nz-recovers-from-oshv-1-outbreak>

Oyster production increases 30% in 2011 (MEXICO)

The production of oysters in the State of Sonora, grew by 30 per cent compared to production in the 2010 cycle. <http://www.thefishsite.com/fishnews/16244/oyster-production-increases-30-per-cent-in-2011>

Students tend to baby oysters – Chesapeake Bay (USA)

Six cages full of baby oysters tethered to a dock at Janes Island State Park were pulled to the surface and then inspected by a group of fifth-graders who have been tending to them for the past two months. <http://www.delmarvanow.com/article/20120131/NEWS01/201310374/Students-tend-baby-oysters?odyssey=nav%7Chead>

Coming Events

29th February – Online seminar presenting the results of research in the Georges River and Hawkesbury River. University of Sydney & held by the Australian Biosecurity Intelligence Network

11th – 13th March 2012 – Fine Food Queensland

Brisbane Convention & Exhibition Centre, Queensland <http://www.finefoodqueensland.com.au/>

24th – 25th March 2012 – Annual Marine Science Forum (theme: ‘Sea Connections’)

Sapphire Coast Marine Discovery Centre (Eden) <http://www.sapphirecoastdiscovery.com.au/>

Register now for Early Bird Rates (until Friday 24th February 2012)

24th – 26th April 2012 – European Seafood Show (Brussels)

1st – 4th May 2012 – Australasian Aquaculture Conference & International Trade Show

Melbourne Convention & Exhibition Centre

http://www.aquaculture.org.au/index.php?option=com_content&view=article&id=56&Itemid=55

There will be 1.5 days of oyster & mussel talks in addition to other hot topics such as climate change, biosecurity, the next ten years of opportunities and threats in aquaculture...

Register before 15th February to get the Earlybird rate!! (at least one farmer from each estuary should attend to get the latest news on research & technology!)

5th – 6th May 2012 – AquaED 2012 Training & Education Workshop

Melbourne

http://www.aquaculture.org.au/index.php?option=com_content&view=article&id=62&Itemid=61

A workshop for people in the educational and training seafood sector; particularly aquaculture, from primary schools to postgraduate study. The workshop will address the issues surrounding educating and training within the industry.

17th – 21st March 2013 – International Conference on Molluscan Shellfish Safety

Sydney <http://www.icmss2013.com/>

Grants

Export Market Development Grants (EMDG)

The Export Market Development Grants (EMDG) scheme is a key Australian Government financial assistance program for aspiring and current exporters. <http://www.austrade.gov.au/What-Is-EMDG/default.aspx>

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