


Oyster News

South Australian Oyster Growers Association

July 2014



Climate and Oceanographic Summary in the Great Australian Bight

Monthly snapshots of water temperatures and chlorophyll concentrations in the Great Australian Bight

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7th & 8th August
Streaky Bay

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How the oyster herpes virus has been good for business

President's Report

Dear Growers and Associates

The last six months have certainly been the most challenging to date in this role with regular communications to growers on progress. I would like to thank you all for your ongoing support and particularly Trudy and the Executive who continue to serve industry so well. I urge members to consider taking up a role of Bay Representative on the Exec so that we can maintain a strong and well respected presence in the political landscape.

Part of my focus in this role has been to reduce regulatory costs to industry.

It has also been to risk proof industry in the face of POMS, hence the application for en masse *O. angasi* endorsements on licences with PIRSA and the research undertaken to ensure emergency spat production in SA is secure, in the event of a POMS outbreak in Tasmania – both of which were flagged at the 2013 SA Oyster Seminar.

With two thirds of industry now endorsed for *O. angasi*, it is now up to growers to make their intentions clear to hatcheries – your demand should yield commercial spat supply.

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My research around the potential for a SA hatchery did not yield sufficient capacity for industry investment in this state. However, if you think I am wrong I would love to hear from you. I guess that increased mortalities and increased costs of production have combined to make this so.

Increasingly I am of the view that our collective focus needs to be not just on survival – but to see this industry thrive. Each of our limited resources as small and family businesses makes inventing the wheel challenging. We can, however, through a collective effort, achieve so much more.

The Integrated Farm Management system proposed by SAOGA Executive and championed by Ken Rowe and others offers great promise for all growers. SAOGA recently submitted an Expression of Interest (EOI) for a SA Regional Development Small Grant, an application which is supported by Regional Development Australia Whyalla and Eyre Peninsula (RDAWEP), Department of Environment, Water and Natural Resources Management (DEWNR) (EP), City Council of Port Lincoln and FoodSA. A two page summary of the concept is attached. If the EOI is successful, we will seek your formal support to progress to the full application.

Ken Rowe will ensure this project will be driven by growers for growers.

Australian Seafood Industries Pty Ltd

As the elected representatives of SAORC and SAOGA, Steve Bowley and I were invited to participate in a review of the ASI Business Plan with all stakeholders. We took this role seriously, providing extensive feedback to and raising numerous questions with ASI Board of Directors on shareholders' behalf.

The Business Plan provides a strong platform for a responsive and accountable ASI as it embarks on the task of providing a POMS resistant oyster for the whole of industry within 5 years.

A recent ASI tour of the bays yielded strong support for the \$2.80 levy from those growers who attended. Growers realise this investment is needed to improve the chances of industry survival in the face of POMS. The ASI Business Plan and a Business Plan Summary can be found on the website www.asioysters.com.au. A brief ASI Communique, "question and answer style" is included in this newsletter. A summary of the minutes of the ASI bay meetings held across the state last week will be sent to you before the seminar and will be provided to ASI to include with the final proposal going to the ACCC. There will be an opportunity to discuss this and answer any more questions at the seminar.

Steve and I have joined an interim expanded ASI Board to guide the next stage of the process, namely strengthened governance arrangements, a revised constitution and a methodology for levy collection, prior to a new mix of industry and independent ASI Board of Directors being appointed.

We will keep you well informed of progress.

Cost Recovery

What a time consuming vexed process this has been!

You all received a copy of the detailed SAOGA – PIRSA Cost Recovery Position paper and the SASQAP Position paper presented to Ministers Bignell, Brock and PIRSA Chief Executive and Executive Director and PIRSA Bio-security Executive Director in April this year. At that time SAOGA Executive agreed not to accept both 2014/15 proposed PIRSA leasing/licencing and SASQAP fees.

However, SAOGA continued to provide considerable constructive input to PIRSA and the consultative process which ensued.

Subsequently, PIRSA met with SAOGA Exec at the World Aquaculture Conference in Adelaide and addressed some concerns which enabled SAOGA Exec to accept 2014/15 adjusted fees which were now marginally greater than 2013/14 and subject to greater transparency regarding regulatory activities undertaken by PIRSA in the future.

SAOGA makes the following points:

Cost recovery is not "cost shifting" – PIRSA's policy references the Australian Guidelines which clearly state cost recovery to be based on:

- Transparency and accountability
- Minimum cost efficient regulatory delivery which does not necessarily include full transfer of capital (e.g. IT costs) nor operational costs to industry especially if the regulatory activity and operations can be delivered in a more cost effective way e.g. based in a regional centre rather than the CBD and making use of video conferencing and other technologies to reduce travel costs.

Cost recovery should not stifle innovation.

In these challenging financial times just as the government purse is considered not bottomless neither is industry's. Regulatory activity must be reduced and a real commitment to reducing red tape and real cost to industry is sought.

At the time of writing there has been neither acknowledgement nor consideration of the SASQAP Position paper provided by PIRSA Bio-security to SAOGA. Thanks to all growers who provided additional support for SAOGA's position by signing letters to be presented to Minister Bignell.

SAOGA continues its work in this area.

World Aquaculture Conference – Adelaide 2014

It was great to see so many growers from SA and beyond in attendance at this conference – a tremendous opportunity having it on "home turf" and one we may not see again for a very long time.

A worthwhile program on the Sunday Farmers Day and Monday Oysters session coordinated by an Oysters Australia subcommittee was well received and provided good food for thought.

SAOGA and SAORC were well represented at the Conference both chairing sessions and presenting papers.

Thanks to all growers and associates who exhibited at the Trade Show.

I look forward to seeing you all at the seminar in Streaky Bay.

Jill Coates

President
South Australian Oyster Growers Association

Evidence-based Oyster Farm Management tool – Concept Map

SAOGA, in discussion with other organisations, has identified the need for an industry based information system to record, report on and interpret the many beneficial but disconnected sources of oyster industry information:

- **Farm level information:** mortalities, translocation, stocking rates, etc
- **Bay level information:** SASQAP data, other water quality databases, stock stress information (potential future sentinels)
- **Industry level information:** Oceanic databases, disease surveillance

Oyster farmers often make animal husbandry decisions in the absence of objective and current information. This can be due to a large quantity of disconnected information (water column databases) or due to lack of information (mortality history and cause). This also affects the industry's ability to commission research

and to troubleshoot mass mortalities. At present there are a number of programs that provide information to the farmer and allow reporting and analysis eg NSW Oyster Portal. But many are disconnected or struggle with uptake. Each grower has varying uptake of reporting mortality. Most farm level information is paper based, whiteboard, or spreadsheet/database. Higher farmer uptake would allow better uptake of research investment and access to vital information increasing productivity.

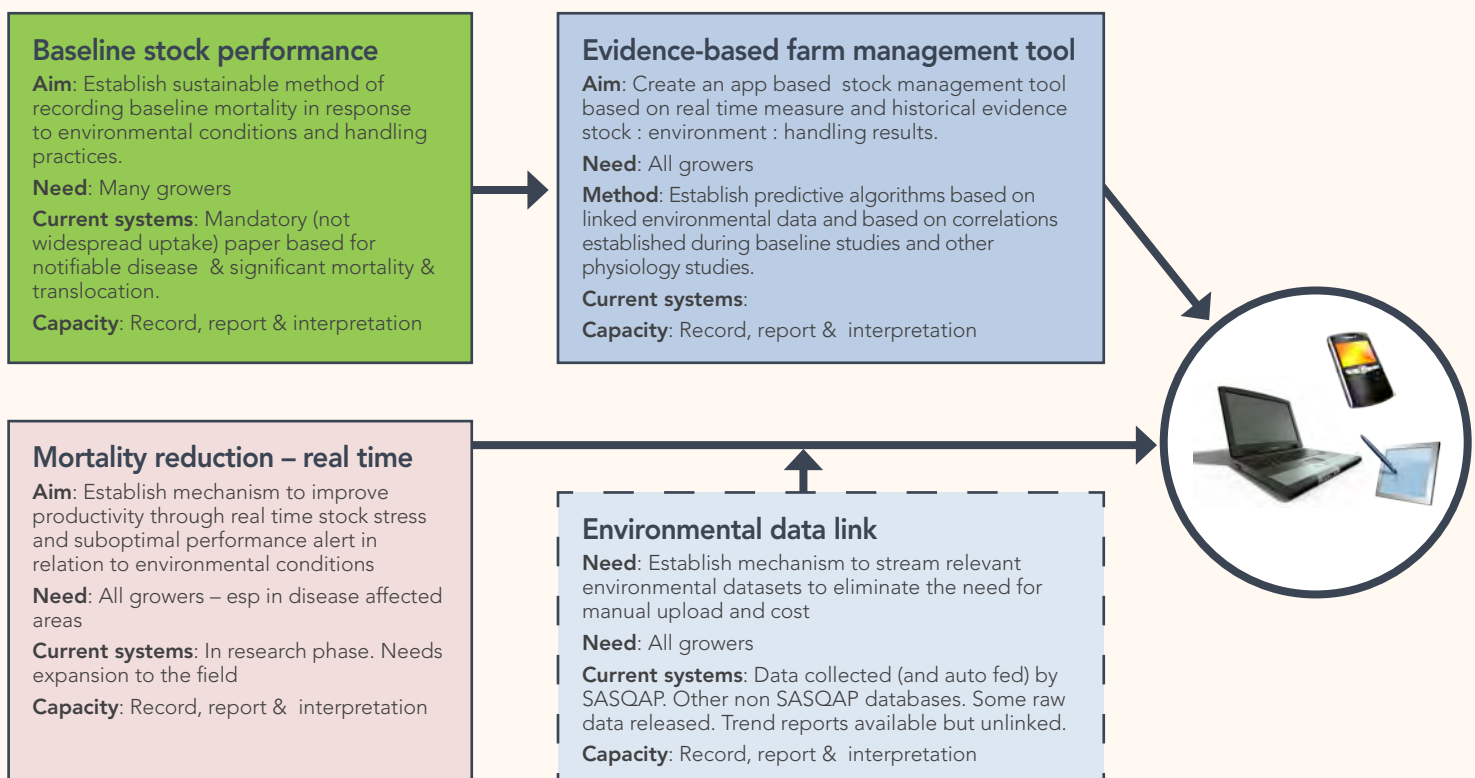
An evidence-based oyster farm management tool aims to deliver:

- Increased productivity through reduction of losses
- Reduced cost real time access to industry and Government funded information sources (eg, data loggers, BOM, oceanic info)
- An entry point at individual or by regional project for growth and mortality data

- Reporting ability at farm, region and industry level

Project delivery needs to

- Be staged – considerate of systems and databases that are existing and under development
- Be developed jointly with Government, industry and research interest
- Use open architecture, to link existing systems
- Use latest enabling technologies – such as app based programming for accessibility on portable devices
- Have open architecture and design that allows for cost effective ongoing data management and system maintenance
- Ownership and controlled management and access of system/data and funded components



Sense-T news

A recent article published by Brad Howarth on The Guardian online webpage promotes the Sense-T program. Titled ***How big data is providing pearls of wisdom to Tasmanian Oyster farmers*** the article provides a bit of an insight into what the Sense-T program is trying to achieve, and also highlights the oyster industry involvement in the program...

Big data has the potential to transform the way natural resources are managed but, despite small scale successes, Australia lacks a clear strategy. It takes human senses to appreciate the wonders of Australia's natural environment. But it is machine intelligence that may prove critical to our ability to manage it.

Numerous projects around Australia are now using advanced data analytics techniques (also known as big data) to better understand and manage the complexity of natural systems. Modern analytical techniques – particularly the capability to analyse and compare vast sets of data simultaneously – are delivering new capabilities to understand how natural systems work.

The hope is that through better understanding the interplay of different systems through data it may be possible to manage natural resources in a way that is both more efficient and more sustainable.

This is the intention of [Sense-T](#), a sensing and data analysis project currently being developed in Tasmania by the CSIRO, University of Tasmania and numerous supporting parties including environmental groups and farmers.

Sense-T's [oyster farming project](#) for instance is taking existing data on inflows into water catchments and using this to help farmers determine when environmental pollutants will move in and out of their farming areas, helping them better determine the optimal times for harvesting.



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First Charge Under the Harmonised WHS Legislation

Last month, the Australian Capital Territory became the first jurisdiction to charge an 'officer' under the harmonised work health and safety (WHS) legislation.

The senior manager of a construction company was charged with a category two offence for failing to comply with their health and safety duties which exposed an individual to the risk of death and serious injury, following the fatality of a tip truck driver. If found guilty, the manager could be personally liable for a penalty of up to \$300,000.

This development, along with the recent separate decision of the Northern Territory Supreme Court in the matter of *Damday Pty Ltd v Work Health Authority* [2014] NTSC 7, serve as a timely reminder to officers and employers of their health and safety obligations, and the importance of conducting regular risk assessments and ensuring adequate supervision and training is provided to all workers.

Officer duties

An officer, under the harmonised WHS legislation, has a duty to exercise due diligence to ensure the relevant person conducting the business or undertaking (PCBU) complies with their statutory WHS duties. It is important for businesses to identify those people that are 'officers' under the harmonised WHS legislation, to ensure they are able to adequately discharge their obligations as an 'officer'

Two of the key obligations imposed on officers include ensuring regular risk assessments are conducted by the business to identify and manage the business, and ensuring that adequate supervision and training is available to all workers and officers.

Damday case

The Damday case involved an appeal by Damday Pty Ltd (Employer), who were convicted and fined \$120,000 after entering a guilty plea to the charge of failing to ensure the health and safety of its workers and other persons in the conduct of its business.

As part of its air-conditioning business, the Employer had five vehicles (four vans and one utility) which employees used in the course of their employment, and which they were permitted to keep at their homes overnight. The Employer's usual practice was to use the utility to transport large flammable gas cylinders to job sites. However, in December 2011, the utility broke down and was off the road for several days. During this period, the large gas cylinders were transported using the four vans, which had limited ventilation.

On 14 December 2011, a worker secured one of the vans at his home overnight. The van stored several large cylinders of extremely flammable gas. During the night, some of the gas escaped into the interior of the van. When the worker unlocked the van the following morning, a spark ignited in the door locking mechanism and the van exploded. The worker was killed, and several surrounding houses were damaged.

During Northern Territory WorkSafe's investigation, it was revealed that:

- the Employer's Safe Work Method Statement (SWMS) failed to identify the need for adequate ventilation when storing or transporting flammable gas in a vehicle

- workers were not made aware of, or trained in relation to, the SWMS prior to the incident, and
- the Employer had failed to implement reasonably practicable measures to eliminate or minimise the risks associated with poorly ventilated vehicles.

Decision at first instance

The Sentencing Magistrate held that the Employer failed to ensure, as far as reasonably practicable, that workers and other persons would not be exposed to health and safety risks. It was held that the Employer could have reasonably foreseen the occurrence of the incident and the associated risk to the health and safety of its workers. The Sentencing Magistrate further cited general deterrence as a paramount consideration for the court, and ordered that the Employer pay a fine of \$120,000.

Appeal

The Employer appealed the Magistrate's decision, arguing that the penalty was manifestly excessive and did not take into account the Employer's early plea of guilty.

Justice Southwood upheld the Magistrate's decision, finding that the fine was appropriate because general deterrence is a paramount consideration when determining the appropriate penalties for work safety offences. His Honour held that courts are able to give significantly more weight to general deterrence when the risk and extent of harm is considerably high.

Lessons to be learnt

Businesses, and their officers, need to remain vigilant to ensure that they are complying with their health and safety obligations. In particular, the Damday case emphasises the importance of conducting regular risk assessments and ensuring that appropriate measures are implemented to eliminate or minimise the risk of safety incidents.

Businesses and officers should ensure that:

- workers are adequately trained and supervised and provided with appropriate personal protective equipment
- workers are consulted about decisions that will affect safety in the workplace
- work health and safety procedures are regularly reviewed to ensure continued compliance with safety obligations.

All officers should also have an up-to-date knowledge of applicable work health and safety legislation and codes of practice, and how they apply to the operations of the business.

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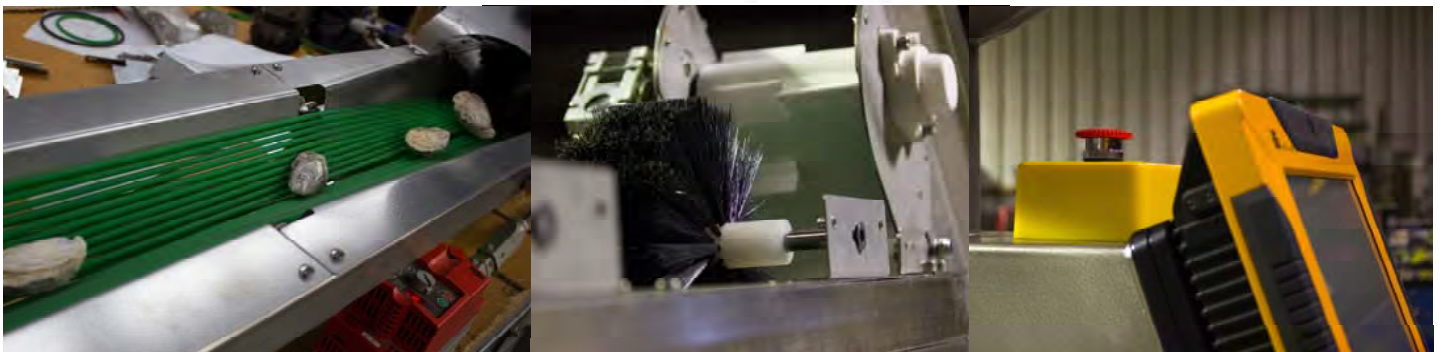
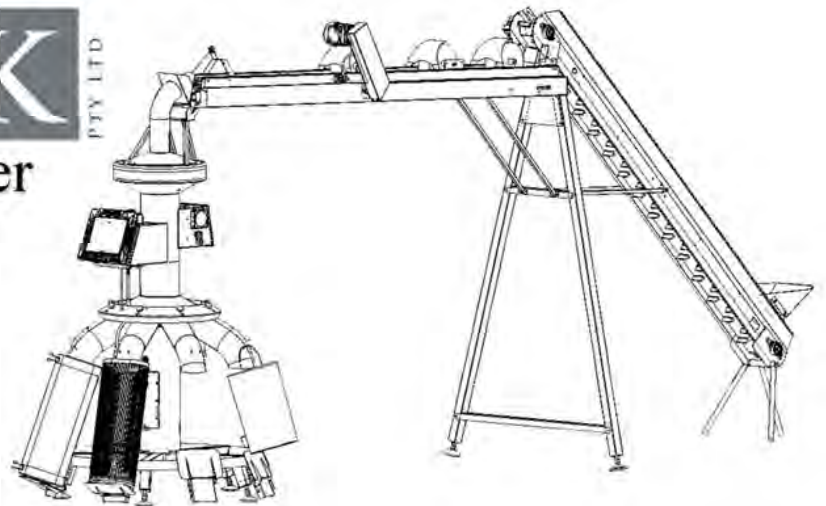
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ASI Levy to Support Applied Breeding for POMS Resistance

Q: Why do we need ASI for this, why can't the hatcheries do it?

A: The commercial hatcheries and ASI use a different breeding approach.

- Hatcheries use mass selection which means that pedigree is practically untraceable. They would be unable to track performance based on pedigree and therefore unable to make any gains in POMS resistance
- ASI uses a pair mating breeding design where all pedigree is known. We can expose families to POMS in NSW and then breed from the best performers relatives in Tasmania. This approach is measurable, reproducible and most importantly can achieve genetic gains for POMS resistance.

Q: Is ASI technically equipped to do the job?

A: Yes. The ASI breeding approach may be relatively new for the Oyster industry but is the norm and has been for a long time for other industries such as cattle, poultry, salmon etc. Whilst ASI is a small company it draws strength through its well established collaborative partnerships with CSIRO, NSW DPI, EMAI, IMAS etc.

ASI has been reviewed by Dr Morten Rye from Norwegian salmon breeding company Aqvaforsk. This pioneering aquaculture breeding company has underpinned the growth of the Norwegian salmon industry into one worth \$14 billion per annum.

Of ASI Rye says "Australian Seafood Industry (ASI) now operates a technically well-designed and effective family based selective breeding program for Pacific Oyster, expected to produce significant

genetic improvements for traits of key importance to the Pacific Oysters sector. The program structure is flexible and can also facilitate effective selection for improved resistance to diseases (e.g. POMS)."

Q: Why can't we just keep going along like we have been with ASI using R&D grants to stay alive.

A: Unfortunately we have worn out the friendship in this area. ASI has been very successful in getting R&D grants which have to some extent helped us to stay afloat. The fact is that many of the tasks required to produce a POMS resistant oyster have gone through the R&D phase of development and are as such viewed by R&D providers as core business functions. Tasks such as production of family lines for testing, the actual field and lab based tests, genetic analysis of results etc are no longer able to attract matching federal funds. Unfortunately this means we have to go this one alone from here.

Q: We have heard the figure of \$2.00 for the levy, where did \$2.80 come from?

A: The \$2.00 figure came from very early discussions with hatcheries where it was proposed by ASI that hatcheries form a direct relationship with ASI where we would have essentially become a service provider. This proposal was rejected by the 2 largest hatcheries and was therefore unviable.

The hatcheries suggested:

- Breeding for POMS resistance should be funded by growers
- \$2.00 was insufficient and an estimate of \$5.00 per thousand was suggested
- ASI needed to strengthen governance to maintain the support of hatcheries

ASI then set about writing a fully costed business plan based on achieving 70% resistance in 5 years. The revised levy quantum was calculated to be \$2.80.

Q: We heard that the hatcheries were going to collect the levy?

A: No. The hatcheries have stated that they will not collect the levy on ASI's behalf. At this point it is most likely that a separate invoice will be issued by the hatcheries for the levy amount. The need for an independent 'bagman' for confidentiality reasons is still being discussed.

Q: How will progress be communicated back to growers?

A: We fully understand and accept that this level of investment from industry requires progress to be extremely well communicated to all. This will occur at several levels:

- Research and business progress will regularly communicated to shareholders
- Research progress will be regularly communicated to Oysters Australia R&D committee
- Research progress will be communicated to growers at State conferences, via regular ASI newsletters and via the new ASI website, we also want to hear from you as to how you want communication in the future
- An industry reference group will also be established, which will include hatcheries, to ensure that the pathway to commercialisation for the outcomes of the research is clear.

Most importantly the new business model will allow a much greater emphasis on face to face farm visits. We expect this to be the most valuable of all forms of communication.

Q: Why has a 10 year levy period been suggested when you are saying it will only take 5? If ASI isn't getting the job done are we stuck in this thing?

A: The fact is that the process to get a levy up is bloody hard work and we don't want to go through that process twice if we don't have to.

The alternative was to build in review points over the course of the levy period and this was the option that was taken. The first of these review points comes at 3 years and the second at 7 years. The review will be undertaken by ASI shareholders and will serve as go/no go points. If it is felt that ASI is not hitting KPI's then the levy can be halted. ASI is very confident that even if POMS is put to one side the improvements in other commercial traits in selectively bred lines over the next few years will make

our role in industry unquestionable. A good way to think of it is that much of the work that has occurred over previous years is to get the program on a footing, in terms of program design and size, to achieve gains. This has happened and now is time to cash in.

Q: I have heard that the levy maximum is \$2.80 per thousand and it may be less than this.

A: Yes, but in the short term (1-2 years) you should not expect that it will be significantly less than this. ASI directors will absolutely be exploring ways in which the desired outcomes can be achieved but this will take time and there is no guarantee. Whilst the mechanics of the levy allow sufficient flexibility to change the quantum, this will not be done to the detriment of achieving the outcomes that industry has demanded.



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Climate and Oceanographic Summary, Great Australian Bight 2014

These updates will be issued approximately monthly and include snapshots of water temperatures and chlorophyll concentrations obtained by satellites over the past month. Intermittently they will also include comparisons to previous seasons, and summaries of the prevailing and forecasted climate situation.

Summary

The GAB sea temperatures continue to cool slowly; generally it is cooler inshore than in deeper waters and warmer in the west and progressively cools towards the Victorian border.

Chlorophyll concentrations have remained reasonably consistent (ranging from 0.5 – 1mg/m³) adjacent to growing areas through the past month (to 7th July). Gulf St. Vincent has several areas of moderately high chlorophyll with values exceeding 1mg/m³. There are large water discolorations forming around the Head of the Bight.

Climate status: the ENSO and IOD situation remains similar to that reported in the previous update; the Southern Ocean system suggests weather patterns of the previous 4 weeks will persist for the next 3 weeks.

GAB Sea Surface Temperature (SST)

Sea temperatures have continued to cool slowly throughout the GAB area through the remainder of June. SST's along the shelf break have fallen by nearly 2°C from those reported at the beginning of last month. Actual SST along the shelf break is shown by the graph in Figure 2- this includes longitudes spanning from 130°E (just west of the Head of the Bight) to 140°E (near the SA-Victorian border).

Of particular interest over the past month is a large eddy from the Leeuwin Current that formed a mass of 20°C water to the south-west of Esperance through late June (shown on the left edge of Figure 1). This mass dispersed through the week and is not as obvious in Figure 2.

Inshore (<50m depth): most areas remain slightly cooler – ranging from 14 to 16°C.

Central shelf (50 – 150m depth): remains warmer – longitudes 129 to 134°E temperatures range from

17.6 – 17.2°C (west to east) and eastward from 134°E is cooler between 16.2 – 16.6°C.

Shelf break (200m depth contour): warmish (17-17.5°C) water continues to feed along the shelf break (shown as a black line in the satellite images below).

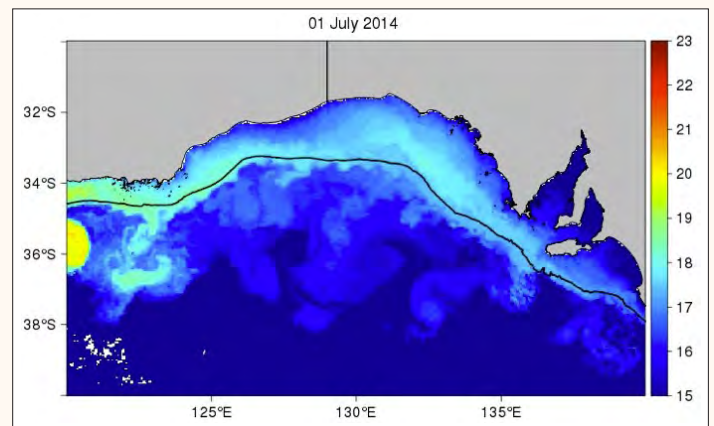


Figure 1: Sea Surface Temperature situation through the GAB area on the 1st of July 2014 (CSIRO 2014).

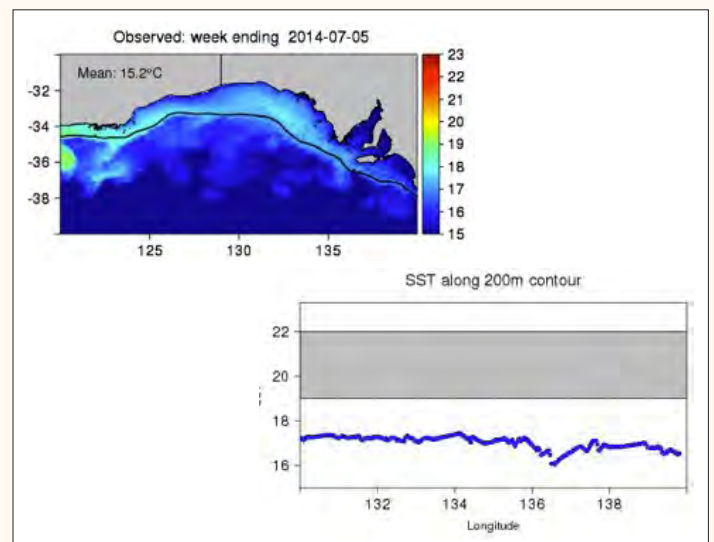


Figure 2: SST situation across the GAB area for the first week of July 2014 (CSIRO 2014).

GAB Productivity (Chlorophyll a):

There are some interesting developments over the past month. Two large water discolorations appeared mid and late June, shown on the satellite image in Figure 3 below. The corresponding Chlorophyll image shows that both of these discolorations do contain chlorophyll levels of 0.8 to 1.0mg/m³ (Figure 4).

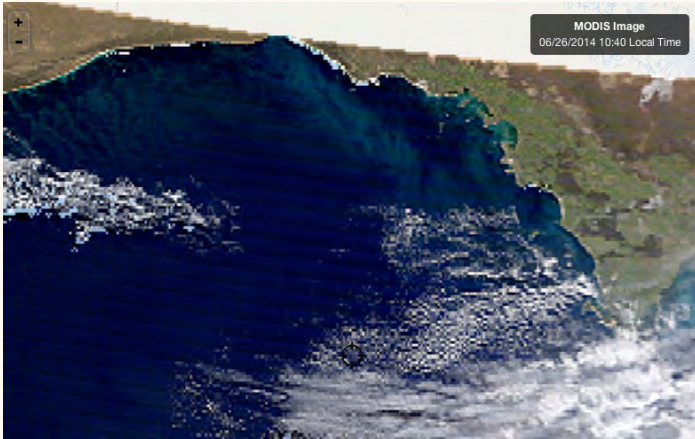


Figure 3: Satellite image showing 2 discrete water discolorations, possibly phytoplankton blooms on the 26th June 2014. Note clouds appear as white and obscure surface view (FishTrack 2014).

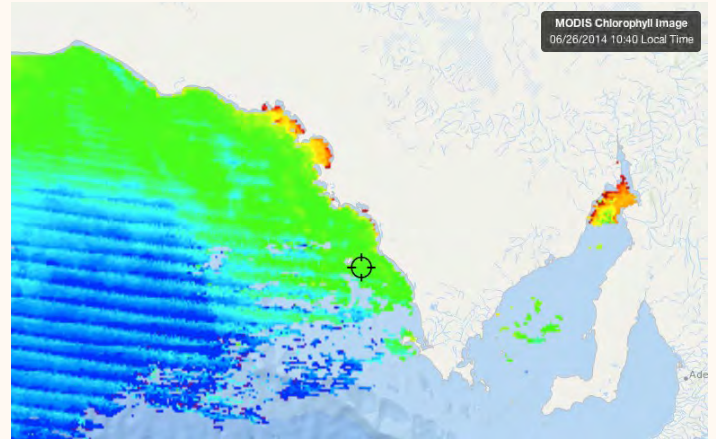


Figure 4: Chlorophyll image taken 26th June 2014; note cloud cover has prevented readings from Spencer Gulf and below lower Eyre Peninsula (FishTrack 2014).



Figure 5: Satellite image recorded on the 2nd July 2014; shows water discoloration 1: to the south and west of the Head of the Bight (HoB), discoloration 2: extending from the HoB towards the south east, and further discolorations in both Gulfs. Note cloud cover appears as white and obscures surface view (FishTrack 2014).

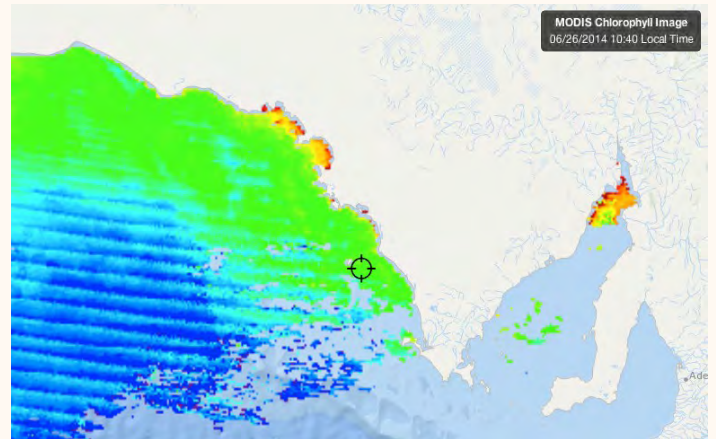


Figure 6: Chlorophyll image taken 2nd July 2014; areas covered by cloud show as pale blue-grey (FishTrack 2014).

Discoloration 1: appears at the left border of the satellite view extending eastwards to the Head of the Bight (this has progressed from west of this image to the present position over the period from the 17th to the 26th June). By the next clear satellite image, on 2nd July (Figure 5), this area has turned a much deeper green colour but is still reflecting a chlorophyll value of 0.8 to 1 mg/m³.

Discoloration 2: this has a paler appearance and starts at the Head of the Bight and extends to the southeast and wraps back in towards the coast between Elliston and Ceduna. The position and density of this has not changed in the more recent image on 2nd July.

Chlorophyll levels appear to be remaining moderately high through St Vincent Gulf (Figure 6).

Please note that the SA IMOS chlorophyll information is back on-line <http://www.oceancurrent.imos.org.au>. This website has daily sea temperature and chlorophyll images for previous years.

Climate and Ocean Trends:

There are 3 major climate systems that have an influence on ocean conditions through the GAB. Two of these three systems were reported in the previous update (the El Niño Southern Oscillation, ENSO; and the Indian Ocean Dipole, IOD) the outlook from each of these remains similar to last month. The third system, the Southern Annular Mode (SAM) was not available the last update but is now back on-line so will be reported here.

SAM operates over the Southern Ocean and mainly influences the weather patterns; this has a flow-on effect on water currents via influence on wind speed and direction. It can only be forecast for a maximum of 21 days from the current date. The latest forecast suggests the weather pattern (i.e. strength and frequency of high and low pressure systems) evident over the previous 4 weeks is likely to persist for the next 3-weeks.

Useful Websites: <http://www.bom.gov.au> <http://www.csiro.au>
<http://www.fishtrack.com> <http://www.oceancurrent.imos.org.au>

Kirsten Rough
 0429 833 697
kirstenrough@bigpond.com

How the oyster herpes virus has been good for business

Giving credence to the old adage that every cloud has a silver lining, leading Channel Islands shellfish producer The Jersey Oyster Company has managed to ramp up its output and grow its business despite the arrival of the Oyster Herpesvirus type 1 (OsHV-1) in Jersey's waters five years ago. In truth, the disease has been the main contributing factor toward the company's recent successes.

Last year, Jersey Oyster produced 700 metric tons (MT) of Pacific oysters (*Crassostrea gigas*), up from 600 MT in 2012, and 100 MT of French-style bushel mussels. At the same time, its sister company Rocquaine Shellfish on the neighboring island of Guernsey produces about 30 MT of Pacifics, while its joint-venture La Rocque Fisheries grows half-size oysters for French producers.

To give the company's output some context, in total the United Kingdom is producing less than 1,200 MT of oysters per year, including a modest native oyster (*Ostrea edulis*) production of less than 120 MT.

As far as Jersey is concerned, OsHV-1 became a major problem in 2009, at which time Jersey Oyster began devising strategies to help the company better manage the problem, said John Vautier, company director. A year later, mortality levels were initially reduced by moving the start of its production cycle to later in the year and then improved further by increasing the stocking densities in the oyster bags.

However, Vautier stresses that it wasn't as simple as switching from one system to another and that there's been considerable experimentation along the way.

"Once the virus is in the environment, it is there for good. It's about learning to live with it and implementing best practice and good biosecurity where possible. We're now four years down the line and we are continuing to fine-tune things to get the best results," he said.

"The challenge with this industry is that it's constantly changing so we need to as well. Just this week, we heard there had been 60 to 80 percent mortality (at a site)

in Normandy, France, which is just 15 miles from us. Fortunately, it's in natural spat rather than hatchery seed."

Historically, one of the trade-offs for having the fast, nutrient-rich waters that make it possible for the Channel Islands to grow an oyster from seed to market size in just 18 months is that the local industry has always been reliant on buying hatchery seed as the currents wash away any natural spat. However, a major plus point is that the virus has not impacted hatchery seed thus far.

The dependency on hatcheries is perhaps the most significant difference between oyster farming on Jersey and traditional production on the French or U.K. mainland.

"It made it easier for us to change our production cycle than it would be for French producers, for example, who are tied into saving their spat each year. For them to make the shift to buying in hatchery seed is an extra step that they don't want to take at the moment," said Vautier.

Jersey Oyster has always had a very strong connection with the French market and exports about 80 percent of its total production to the country. In recent years demand has increased as a direct result of France's own output falling to below 80,000 MT from its pre-virus heights of 130,000 MT. Most of the company's remaining production goes to the United Kingdom, although it has supplied to Dubai and Hong Kong in the past. In addition, Vautier revealed the level of enquiries from the Far East is growing and that the company is currently "feeling its way into that market" because it believes there is a lot of potential there.

Because of the change in Jersey Oyster's production cycle, it has also shifted its market focus toward the end-of-year trade, in particular the French Christmas market. Prices have also been affected — prior to the virus outbreak, the wholesale price of oysters in France was EUR 2 (USD 2.71) per kg, in May last year they were double that at EUR 4 (USD 5.41) per kg, said Vautier.

"Certainly, the French market is very important to us so what has been happening over there with the herpes virus has had a major impact. But there is also increasing interest in oysters and other shellfish, and from the U.K. market in particular, so we believe there is more growth potential."

Vautier further believes that while there have been "significant downsides to the virus" the market is a lot healthier today than before the outbreak when there were too many businesses producing too many oysters.

Looking ahead, the company has long held an ambition to get closer to the retail market. To this end, it has invested in a 15,000 square-foot processing facility as well as staff training and the lengthy and costly process of getting all the correct procedures and protocols in place.

In being exposed to the virus, Jersey Oyster's costs have increased but so too have its revenues. The bottom line for the company has been increased profitability, confirmed Vautier.

"It's an unreliable business to be in but hopefully we have made the most out of the opportunities that have arisen," he said.

By Jason Holland, SeafoodSource contributing editor reporting from London

SAMS Suggestions

Gary Zippel makes some suggestions about SAMS following ASI recent tour of SA where they talk about breeding POMS resistance primarily and SAMS resistance secondly. There was a lot of talk about the impact of SAMS.

When I was surprised as Smoky Bay hasn't been too bad for the last couple of years.

Having lived with SAMS for a while now I would like to pass on some unsolicited advice.

Do not put your oysters down to try and protect them from SAMS, you will only make them more susceptible.

Keep your oysters at higher growing heights than in the past, especially spat.

Gradually bringing seed up to harden them will make them more resistant in the future.

The old bottom hook growing height of 20 years ago should not be used to grow oysters at any stage of the growing cycle.

The problem is that once oysters have been made susceptible to SAMS, they stay susceptible.

Overcrowding and low growing heights are the 2 best ways to make oysters susceptible to SAMS.

The oysters may not die when being made susceptible but may die later at a moment of their own choosing just so as to confuse the cause. At this time the oysters may be at good heights and densities making the connection between cause and effect difficult.

We have only purchased ASI oysters from the hatcheries for the last ten years and in our opinion is that their resistance to SAMS is improving. The different trials

ASI has around South Australia is helping ASI select for resistance to SAMS. The resistance still needs a lot of improving but at least it is headed in the right direction.

I am not able to compare the current susceptibility of ASI oysters versus commercial lines as we have no commercial lines to compare them with.

Our oyster growing company believes selective breeding of oysters is vital for the long term future of oyster farming and I personally work hard to try and ensure it is heading in the right direction.

SAOGA Negotiates Diving Exemption

An exemption has been granted by SafeWork SA to South Australian oyster farmers undertaking general diving work in certain conditions from complying with Chapter 4, Part 8 (Diving Work) of the Work Health and Safety Regulations 2012 (SA).

Please note that this exemption was published in the Government Gazette on 12 June 2014 and is copied below for your reference. You can access the Government Gazette at www.governmentgazette.sa.gov.au.

SA Government Gazette 12 June 2014

1 notice: Exemption from the Work Health and Safety Regulations 2012 for the SA Oyster Growers Association. Page 2462:

WORK HEALTH AND SAFETY REGULATIONS 2012 (SA)

Notice of Exemption

PURSUANT to Regulation 684 of the Work Health and Safety Regulations 2012 (SA), I, Marie Boland, Acting Executive Director, SafeWork SA, following an application from the South Australian Oyster Growers Association hereby exempt the following class of persons:

South Australian oyster farmers undertaking general diving work to produce underwater video transects of the ocean floor in relation to their sub-tidal leases in order to meet licence conditions required by the Department for Primary Industries and Regions SA (PIRSA) from complying with Chapter 4, Part 8 (Diving Work) of the Work Health and Safety Regulations 2012 (SA).

This exemption is subject to the following conditions:

- the dive must be for the purpose of producing underwater video transects of the ocean floor in order to meet licence conditions required by PIRSA;
- the diver can demonstrate evidence of holding a relevant diving qualification;
- there is always an observer present in the boat; and
- the dive lasts no more than 30 minutes.

This exemption commences on the date of issue of this exemption, and may be varied or cancelled by me at any time in writing.

Dated 5 June 2014.

M. BOLAND, Acting Executive Director, SafeWork SA

Bay Representative Reports

Coffin Bay

After a solid first six months of the financial year, I think it is fair to say that Coffin Bay took a dive. A particular diatom formed long chains which over summer lead to little growth of spat and adult oysters, traditionally a good time for both of the above to show promise for the upcoming sales season. Unfortunately the barnacles and other bio-foul seemed somewhat unfazed by this state of affairs and grew with abandon.

Then a toxic (to marine species) algal bloom developed outside of the bay. K mikimotoi gave quite a few anxious weeks as it increased in number, mellowed out, and then increased in number, threatening to enter the Port Douglas zone. Considering the damage it did to Farm Beach and along Frenchman's in terms of marine death (fish, abalone and bivalves), it was lucky it didn't move into the Coffin Bay system.

Winter is definitely upon us. Sales orders have slowed, and having a slow start during the open of the season it has been a struggle for many growers. Despite Coffin Bay not moving much volume, and maybe other bays thinking this is about time, it hasn't seemed to have affected the market place as one may expect.

For those who went to the World Aquaculture conference in Adelaide, I hope you got something out of it. I certainly found some talks very interesting.

Safe winter to all, and may the rest of the year be good to all.

Jedd Routledge

Denial Bay Report

This year Denial Bay started with a bang! Growth, conditioning, recovery and shell shape have been exceptional across all lines of ASI, Triploid and STD stock. Some of this growth may be attributed to the amount of calm weather we all experienced prior to the current spate of cold fronts that we are trying to work around at the moment.

Reports and observations of recent losses are of concern. It would appear SAMS is giving the bay a bit of a touch up. To what extent at this point is yet to be determined. Hopefully it doesn't turn out to be too disastrous. Once again the randomness of the losses makes it very difficult to find that one common denominator as the reason. However, this recent event does appear to coincide with some very poor phytoplankton counts recently provided by SASQAP.

St Peters Island (The Spit) and the Library (or Flats) have performed well with both growth and conditioning. The sales coming off The Spit have had a good meat to shell ratio. Smoky Bay growers that have moved further west into the Flats have been happy they did so. It has given them so breathing space on their home leases.

Unfortunately I was away at the time but it was good to have representatives from ASI and SAOGA visit all the bays to discuss and explain the ASI levy and the importance of industry getting behind the POMS resistant breeding program. Hopefully a lot of questions that growers had were answered.

I hope the rest of the year is kind and relatively stress free for you all.

Gordon Gardner

Franklin Harbour

Greetings all from the Cowell growers.

Busy, busy, busy has been the order of the last six months here. All in all nature has been fairly kind. Growers with spawnless oysters experienced good conditioning over the summer months with them. Conditioning of dips has been consistent since March. April /May delivered amazingly calm conditions and unprecedented growth for this time of year. It was one of the rare occasions where growers were wishing for wind to slow down growth. Mid May through June has seen a rapid drop in water temperature and also some incidents of SAMS.

Looking forward to catching up with you all in Streaky.

Carl Jaeschke

Haslam

All good at Haslam after slow start to the year. Good food counts but some recent shocking weather, two months growth gone in a couple of days! Sales starting with excellent condition.

Greg Window

Kangaroo Island Bay

Oysters growing beautifully at Eastern Cove, American River, after a slow start. Struggling to keep growth down, but conditioning is really good also. Not sure on Nepean Bay but hope to get more information for next report. Wild weather has created issues with ferry service (again) but that's how it rolls over here. Looking forward to working on the Oyster IT project and chatting with people soon about this.

Yorke Peninsula

The Bay has been experiencing some fantastic winter shell growth although condition seems variable. – For some reason (climate change?) – the water stayed warmer for longer, resulting in more growth, but it seemed to take longer to recover from the spawning.

Sales have been patchy for the start of the year!

A grower in Stansbury is relocating slightly and re-orienting lines across the tide – no doubt in an effort to catch more food. We all watch with interest.

WE have witnesses – 2 sides of the bureaucratic process first hand in the last month or so.

Common with lots of Bays – we have had PIRSA come through YP on their annual compliance check.

Whilst we generally got a clean bill of health – there are always issues with lease ID, St. Andrews crosses and marker buoys – which at times borders on the pedantic, but by and large, the Fisheries folk are realistic in terms of requirements and time lines and are happy to consult with industry – such that it is a 2 way street.

Contrast that with the belligerent “style” of the YP Council, trying to ride roughshod over an industry they claim to support.

The Council decided to “repair” the sea wall out from the Caravan Park, in my view without authority to do so. The “repair” means that the wall is now 4x the length it previously was!! Regrettably, no consultation with Industry, PIRSA or the EPA.

SAOGA, EPA and SASQAP got involved and this had Council “blustering and belligerent”.

The “repair” was designed to stop sand being stripped from the beach – but I use the term design loosely – as it seemed to come out of the head of the FEL operator.

Of course it might work – but with no modelling or research, it is difficult to know.

Of course, the CEO of Council and the Progress Association claim they do – but we are yet to see their Oceanographic qualifications.

What we can say is, the sea wall now being 4 time larger – it brings “development” – tourism and recreational anglers – perilously close to our leases, (must be close to the 1km limit from our nearest lease on the Spit) and must have an effect on tidal flows in and out of Oyster Bay, has stirred up silt and whatever “lies beneath”.

It is regrettable that no modelling was done as a part of the approval process (ha ha!!) and no-one can tell us, how what when, where...

A word of thanks to Wendall. Once we mentioned the magic words – “sea grass”, this got his attention. – He is guiding us through the issue with confidence and professionalism.

I am staggered at the apparent double standard. If I want to move a few cubic metres of soil on my block – I am required to seek Council approval and there is a period of consultation with the Community.

Finally we had a fantastic turn out of growers from Stansbury, Port Vincent and Coobowie Bay for the ASI Information Session and Bay Meeting. We had around 80% of Growers turn up in person or phone in via the teleconference facility. It was awesome – democracy in action.

See you in Streaky Bay in September

Regards to all

Steve Bowley

Wader Safety



We have just released the latest in our series of WH&S DVD's called “Wader Safety”. This DVD is designed to help industry induct waders safely in the workplace. Whether it's a fresh water pond, tank or shellfish farm this DVD will help you look at waders as an asset rather than a liability. Covering potential hazards and risks, work practices, types of waders and survival techniques along with the tuck technique demonstrated in a number of scenarios. This DVD compliments our previous releases of “Survival at Sea- Life Raft”, “Seafood Training the First Steps” and “Deckhand Operations”. All our DVD's are available to industry at no charge so drop in and get a copy!



Seafood and Maritime Training Tasmania

Ph (03) 62336442

Mob 0408811854

Email: matthewj@seafoodtrainingtas.com.au

www.seafoodtrainingtas.com.au

ABC's Landline

In June 2014, the ABC's Landline ran a story featuring the farming of native flat oysters, *Ostrea Angasi*, in South Australia. The story discussed the increasing trend for SA farmers to have flat oysters on their farms, parallel to their Pacific oyster stocks. This shift in species is in part being seen as a safeguard against the POMS virus, which will have a detrimental impact on Pacific oyster stocks but the native *Angasi* oyster is immune.

To view this story: <http://www.abc.net.au/landline/content/2014/s4025477.htm>

Also featured on the Landline program was an interview with Richard Whittington, an expert in farm animal health and infectious diseases in NSW. Richard spoke about the POMS virus and its impact on the Pacific oyster industry.

To view this story: <http://www.abc.net.au/landline/content/2014/s4025472.htm>



The South Australian Oyster Industry

2014 Seminar, AGM & Annual Dinner

Streaky Bay Hotel

Thursday 7th & Friday 8th August 2014

"Protecting & Growing Your Industry"

Program Features

- Updates on all research activity and what's planned for the future.
- Have your say on defining the SAORC business plan for the next 5 years.
- Forecasting on climate and food for the next year.
- Hatcheries view on spat traits and management.
- Growers working sessions on animal husbandry- POMS, Angasi's, ASI stock, Triploids
- Both points of view on "Exploration in the Great Australian Bight".

SAOGA Membership

The South Australian Oyster Industry Seminar can be attended by both SAOGA members and non-SAOGA members. The cost to attend the seminar for members is \$90 and for non members is \$120. The cost of the Annual Dinner is the same for both members and non members.

Transport

If you are flying into Ceduna and are not sure how you are going to get to Streaky Bay and back contact Trudy 0407883333.

Friday Breakfast

Special Cooked Buffet Breakfast at the hotel for only \$10 per head. To be paid directly to the hotel.

You will need to advise Trudy numbers by the end of the seminar on Thursday.

Program Schedule

Thursday 7th August 2014

10.00am to 10.30am	Registrations & Morning Tea
10.30 am to 10.40am	Welcome to the SAORC/SAOGA Seminar <i>Steve Bowley, Chairman SAORC, Jill Coates, President SAOGA</i>
10.40am to 11.40am	"Everything to do with Research- what's completed, what's happening, what's proposed?" <i>Richard Whittington, Rachel King, Ken Rowe, Xiaouxu, Li and others</i>
11.40am to 11.45am	Solar Depot
11.45am to 12.15pm	"ASI- Breeding a POMS Resilient Oysters – A funding model to secure our future" <i>ASI</i>
12.15pm to 12.20pm	Exhibitor/Sponsor talk
12.20pm to 1.00pm	"SAORC Business Plan 2014 – 2019 – a working session" <i>All Growers</i>
1.00pm to 1.40pm	Lunch
1.40pm to 2.10pm	SAOGA Update - Codes of Practice, WHS Manual, Woofers, Basket Recycling etc <i>Trudy McGowan, Executive Officer SAOGA/SAORC</i>
2.10pm to 2.15pm	Exhibitor/Sponsor talk
2.15pm to 2.45pm	"Cost Recovery & PIRSA's Work Plan 2014/15" <i>Jill Coates, President SAOGA</i>
2.45pm to 2.50pm	Exhibitor/Sponsor talk
2.50pm to 3.20pm	"Exploration in the Great Australian Bight" <i>Kathryn Warhurst, Wilderness Society</i>
3.20pm to 3.40pm	Afternoon Tea
3.40pm to 4.20pm	SAOGA Annual General Meeting <i>Jill Coates, President SAOGA</i>
4.20pm to 5.00pm	SAORC Annual General Meeting <i>Steve Bowley, Chairman SAORC</i>
6.00pm onwards	Spit on the Deck of the Streaky Bay Hotel.

Friday 8th August 2014

9.00am to 9.45am	"Climate Update- What's happened in the last year & what's expected?" <i>Kirsten Rough, Senior Researcher, Australian Southern Bluefin Tuna Industry Association</i>
9.45am to 9.50am	Exhibitor/Sponsor talk
9.50am to 10.20am	"SASQAP- Food Forecasting for each Bay" <i>Clinton Wilkinson, SASQAP Program Manager</i>
10.20am to 10.40am	Morning Tea
10.40am to 11.10am	"R & D Tax Incentives" <i>TBA</i>
11.10am to 11.15am	Exhibitor/Sponsor talk
11..15am to 11.45am	"Exploration in the Great Australian Bight" <i>Renee Preece, British Petroleum</i>
11.45am to 11.50am	Exhibitor/Sponsor talk
11.50am to 12.20pm	Hatcheries panel discussion on spat traits and management?? <i>Representatives from all the hatcheries</i>
12.20pm to 1.00pm	Lunch
1.00pm to 3.00pm	Presentations followed by Table Talk - Growers Views/Opinions – husbandry, (including for POMS, ASI stock, triploids and Angasi's), climate, marketing. <i>Bob Ramsay RDA, Growers & Researchers</i>
3.00pm to 5.00pm	Afternoon Tea in the Hotel & Oyster Industry Trade Show on the lawns out the front of the Streaky Bay Hotel.
6.30pm until late	Annual Dinner at the Streaky Bay Hotel, featuring: <ul style="list-style-type: none"> • Local Singer 'Daniel Eramiha' – bring your dancing shoes!!! • Annual Oyster Competition • The Unforgettable Industry Auction

The South Australian Oyster Industry

2014 Seminar, AGM & Annual Dinner

Streaky Bay Hotel

Thursday 7th & Friday 8th August 2014

"Protecting & Growing Your Industry"

Registration Form & Tax Invoice

Name: Business Name:

Address:

Email: Phone: Fax:

SAORC & SAOGA Industry Seminar

Thursday 7th & Friday 8th August 2014

(Includes Morning & Afternoon Tea & Lunch)

Members Number Attending: people @ \$90.00

\$90.00 per person (gst inclusive)

Non Members Number Attending: people @ \$120.00

\$120.00 per person (gst inclusive)

Subtotal: \$

"Pig & Lamb on the Spit"

Thursday 7th August 2014

(Food supplied/Drinks to be purchased at "Happy Hour" prices)

Number Attending: people

Annual Dinner

Friday 8th August 2014

(three courses, auction and entertainment included/

Drinks to be purchased)

Number Attending: people @ \$65.00

\$65.00 (gst inclusive) per person

Subtotal: \$

Total: \$

Please return form along with payment to:

SAORC PO Box 757 Stirling SA 5152 or Fax 08 8364 3895 or Email: saoga.saorc@bigpond.com

Payment:

EFT to SAORC BSB: 105 100 Account No: 029249940 or

by cheque made payable to "SAORC" or by credit card on www.oysters.sa.com.au

Please call Trudy McGowan 0407 88 3333 with queries

SAORC ABN (23 083 574 001)

Classifieds

Oysters Punt Trailer For Sale

Heavy Duty 4 Wheel Oysters Punt Trailer,
2.34 metres wide x 8 metres long \$8,500 + GST
Tom: 0429862612 or email: evansoysters@internode.on.net

Grading Machine For Sale

Oystek G4 oyster grading machine with elevator in excellent condition \$16,000 or nearest offer.
Tom: 0429862612 or email: evansoysters@internode.on.net

Oysters Leases For Sale

Perlubie (Southbank),
5ha fully developed @ \$90k per ha.
1ha fully developed @ \$90k per ha
2ha partly developed @ \$75k per ha

Haslam (Northbank)
5ha fully developed @ \$100k per ha
5ha undeveloped @ \$75 per ha

Blancheport
5ha undeveloped @ \$30k per ha suitable to grow on growers.

Second hand BST baskets @ \$7.00 per basket.

Ian Weber
Office: 08 8725 2715
Mobile: 0418 849 841

Farm Manager Wanted

Cameron's is looking for someone with farm manager and or skipper experience to work on our subtidal oyster farm.

Ben Cameron
Cameron of Tasmania
(03) 6253 5111
www.cameronsoysters.com

Oyster Farm Coffin Bay Area For Sale

2.5 hectares (split into 3 locations) Land base located in heart of Coffin Bay. Walk in walk out
Price negotiable

Ph: Ande Blesing 0427 010 063

Saoga Committee Members

President

Jill Coates
jill@naturaloysters.com.au
Ph 08 8685 5070

Vice President

Jedd Routledge
jedd@naturaloysters.com.au
042884-4487

Executive Officer

Trudy McGowan
saoga.saorc@bigpond.com
Ph 08 8364 3831
Fx 08 8364 3895
Mob 0407 883333

PO Box 757
Stirling SA 5152

www.oysterssa.com.au

Bay Representatives

Coffin Bay

David Sims
djagsims@bigpond.com
042885-4250

Cowell

Carl Jaeschke
csfp1@bigpond.com
Ph 0448 522 332

Denial Bay

Gordon Gardner
Ph 0408 848 731

Haslam

Greg Window
jude.greg@bigpond.com

Kangaroo Island

Ken Rowe
ken.rowe@bigpond.com
08 8553 1557

Smoky Bay

Gary Zippel
gzippe1@bigpond.com
ph 08 8625 7022

Streaky Bay

Reg Brown
streakybayoysters@sctelco.net.au
Ph 0427 261 517

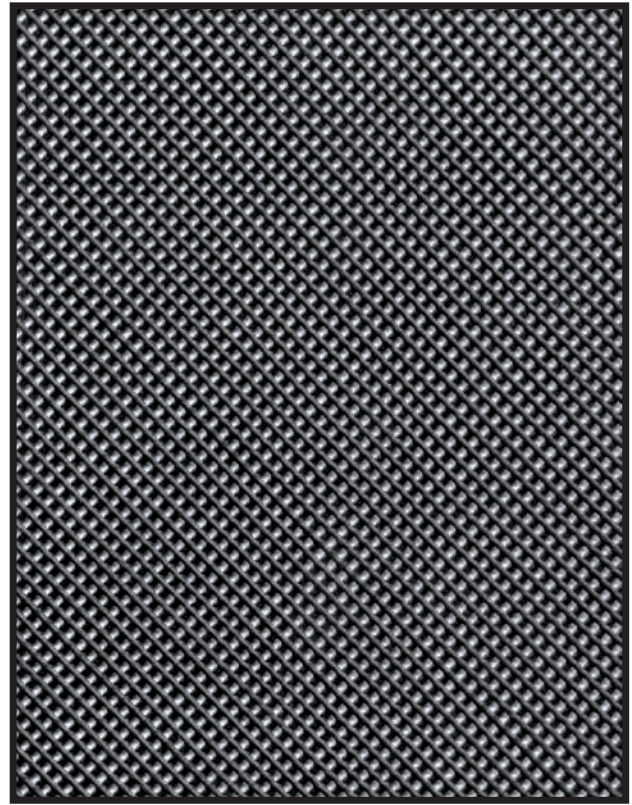
Yorke Peninsula

Steve Bowley
sbowley@pacifigestateoysters.com.au
Ph 0403 572 750

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3.4mm Diamond shape



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(Spat Mesh)**

Material: HDPE UV Stabilized.

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Roll Width: 1000mm Roll Length: 50 metres

Mesh can be cut to suit any roll width from 50mm to 1000mm

Roll length can be varied upon application

Diamond shape 1.5mm to 25mm



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684-700 Frankston Dandenong Rd
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Phone: (03) 9782 6150

Fax: (03) 9782 6105

Email: rtitanks@bigpond.com

www.rainwatertanksinternational.com