

POMS UPDATE - SUMMER 2016/17 # 3 mid Jan.

Happy New Year to everyone and may 2017 be a prosperous, productive and uneventful year for Tassie oyster growers.

This newsletter is a brief update on POMS in Tassie. We have been getting requests for information on what is happening and also for the results of the sentinel oysters. As we said in the last newsletter, we are collating the information that is currently available to us, but this is not an official record of events.

BIOSECURITY TASMANIA - JOHN PRESTON

Water temperatures have continued to rise from Christmas day and consequently we are seeing a number of areas experiencing temperatures in the low 20 degree Celsius range. This has resulted in reported oyster mortalities from both Pipe Clay Lagoon and Blackman Bay East following on from the earlier reports from Pitt Water.

Samples of oysters were taken from both of these areas on the 4th January and submitted to Mt Pleasant Laboratories for PCR testing seeking to confirm POMS. Results from these tests were received last Monday (9/1/2017) and in both cases all samples submitted were positive to POMS.

In the case of the oysters from Pipe Clay Lagoon, the oysters started dying when being handled for grading which is similar to the result from Pitt Water. The oysters from Blackman Bay East have so far had lower mortalities than the other affected oysters. Last Tuesday (10/1/17), I received a report of significant mortalities in 30/40 mm oysters from Blackman Bay West. I have also received reports of some mortalities occurring in Little Swanport and I will sample this area next week for confirmation.

Whilst I believe it is still very early in the POMS season and there could be several waves of the virus sweep through an area as opposed to only 1 in January/February 2016, it is also apparent from our Lab results that the amounts of virus contained in the individual oysters is extremely high. This may be due to there being a higher viral load in the oyster population as a result of the virus now consolidating and being in its second year in Tasmania.

On the positive side, we have conducted Proof of Freedom tests in both Port Sorell and Georges Bay with both areas being negative to POMS at this stage. This week I am travelling to Smithton to undertake the POMS summer surveillance sampling there. Hopefully we will be getting another negative result. The next area for surveillance testing is likely to be Great Bay on Bruny Island and I will be in contact with the growers in that area in the near future in relation to this.

Finally I would like to thank those people who have called me to share information about POMS in their area so far this season. However, there does appear to be a reluctance on the part of some growers to report POMS in their area. I am not sure why as there is no reason not to be open about POMS being in a particular area. Apart from that, POMS remains a

Notifiable Disease and it is a legal requirement that anyone who suspects the presence of POMS on their farm to alert Biosecurity Tasmania.

So I urge everyone to please communicate openly in the midst of this outbreak and share information with your neighbours. This collaborative approach will provide the best outcome for everyone. Additionally, I ask everyone involved in the oyster Industry to contact me by phone or email at any time when they have information in relation to POMS.

My contact details are: John Preston:

mob: 0428 504 150 or phone; 6165 4825

Email: john.preston@dpiw.tas.gov.au

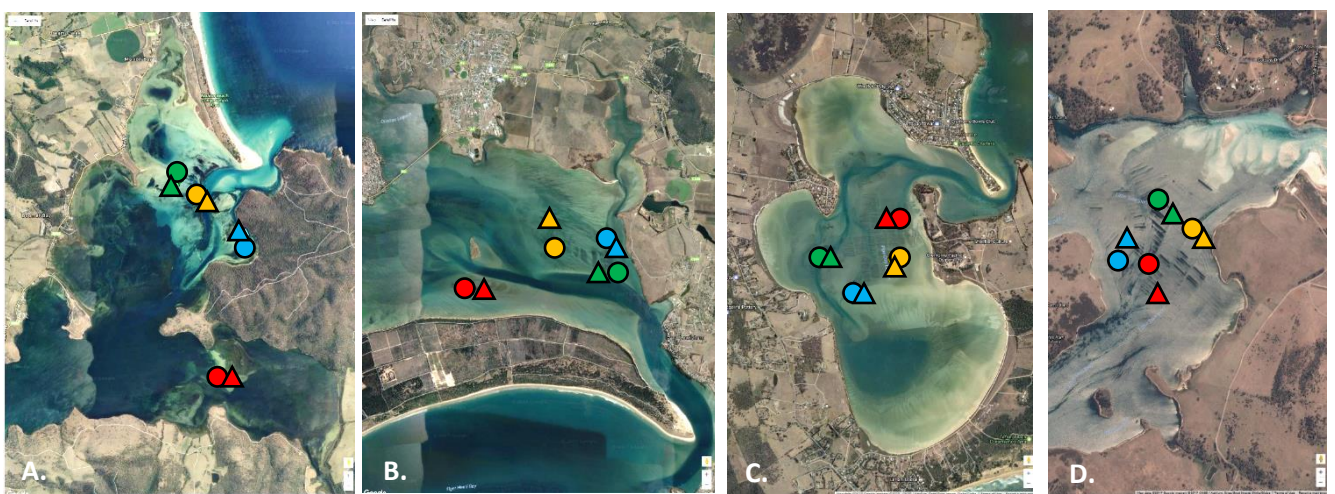
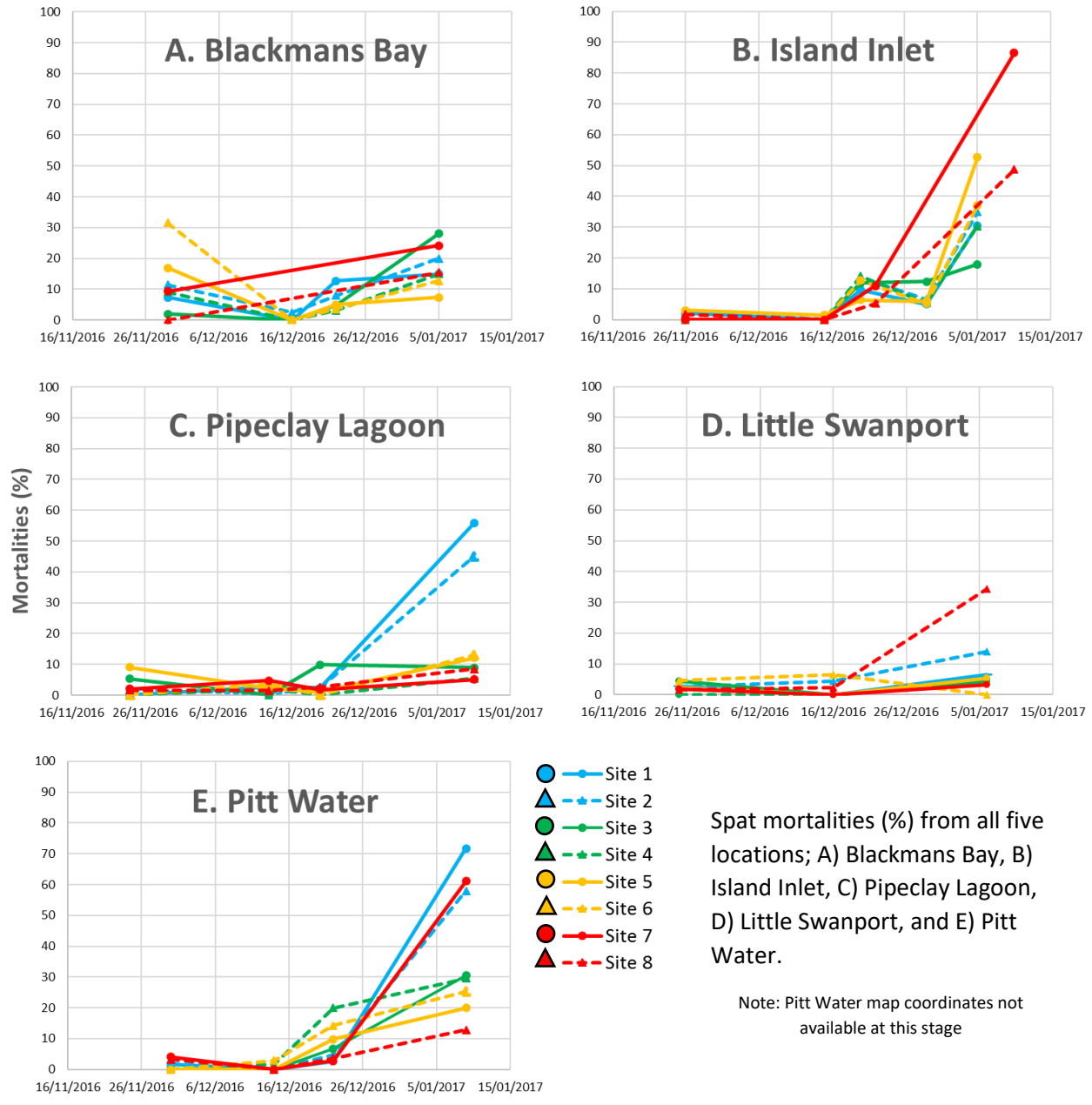
UTAS IMAS - CHRISTINE CRAWORD and SARAH UGALDE

Window of infection study

Because of higher than normal levels of mortality in most POMS infected growing areas during December, we have been busy sampling these areas and have included an additional sampling round. We provide below the results obtained so far for the sentinel oysters which are placed in floating baskets attached to experimental moorings at eight sites around each growing area. These sentinel spat, 2240s with EBV 42%, are standardly left in the water for two weeks and then collected and percentage mortality determined in a subsample of at least 50 spat. Mortalities are checked using a dissection microscope. We collected our first spat from oyster farms in late November, then mid December, one week later because of reports of significant mortalities, and then again early in 2017.

A subsample of spat at each site is also taken and preserved for potential PCR analysis for POMS. At this stage we are accumulating samples for PCR and will determine later in the season which ones will get analysed (analysis is too costly for all samples to be analysed). We also have temperature loggers in experimental baskets but these are still recoding. The temperature data will be added to the graphs later on.

The results below show differences between growing areas, with Blackman Bay being the most dissimilar to other sites. There are also clear differences between sites within growing areas at this stage. It will be interesting to see whether the sites with current low mortality catch up over time with the other sites with higher mortalities.



We would also like to reiterate the message from John Preston to please keep records of what you observe on your farm in relation to the POMS outbreak, and to pass this information on. At the end of the season, we would like to collate these observations to see if any trends are emerging.

Any questions of us or information to pass on, please give us a call or send an email.

Contact: Christine Crawford: 0428 277 222 or Christine.Crawford@utas.edu.au

Sarah Ugalde: 0467 750 337 or Sarah.Ugalde@utas.edu.au

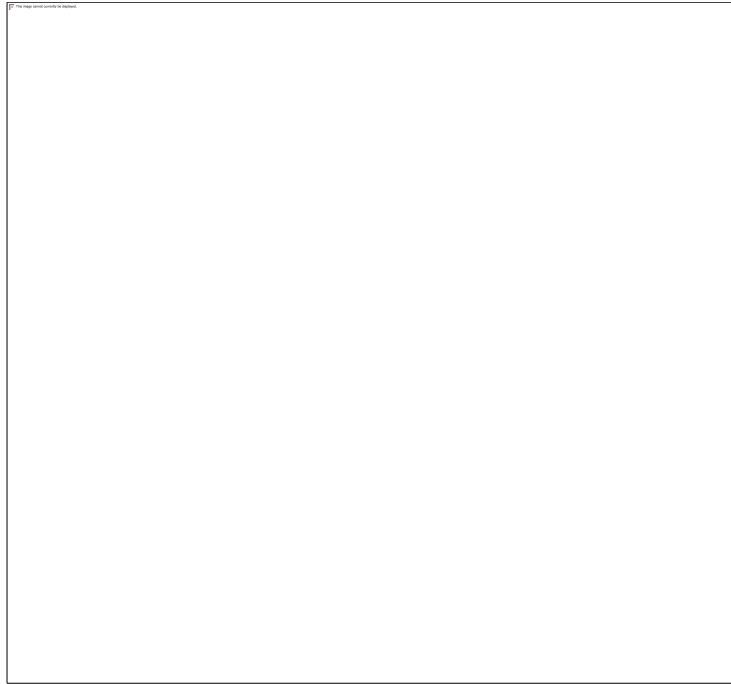
ASI - MATT CUNNINGHAM

YC16 Breeding season

The larval rearing phase has now been completed with the last of the families going to set on New Year's day. We have produced a total of 76 families for the season which I am very happy with. We have good numbers of spat in all but 2 families. We had a few families that didn't come through in the second batch of 40 and due to the late timing of the run we were unable to repeat these crosses to get to 80 families. Given that we were essentially operating in a new facility, the whole larval rearing process was relatively uneventful but lots of hard work. We will be a lot better prepared for next year as a result of this year, and my preference would be to shift the whole process forward to September/October. There are many good reasons to do this, not least of which is staff wellbeing. The spat require much less work than larvae which has taken some pressure off and allowed us to turn our attention to other things. I will be travelling to South Australia next week to participate in the spawning at SARDI.

YC15 field trials

We have collected POMS mortality data in Pittwater in Tasmania and Georges River in NSW. To summarise, the results were very positive. It appears that the Georges had a harder hit (22% average survival) than Pittwater (50% average survival), and some families that looked ok at Pittwater have done worse at Georges. Presumably this a tougher disease challenge at the Georges. But the good correlation at the top end on both sites is good to see. We saw upwards of 90% survival in our best families at Pittwater. These families were put into Pittwater as 2mm stock in March last year and ranged from 20-40mm when they were challenged. The scatter plot below is a straight comparison of the family means (no genetic analysis). The most encouraging thing was that the EBV predictions from these families by and large reflected what we saw in the field.



Commercial results

Due to the focus on hatchery work we have not had a chance to collect any data from commercial production at this time. The feedback from growers has been positive in the first instance. ASI survivors (from last year) are holding up really well in Pittwater as compared with surviving normal diploids and triploids. The new season spat, which has been commercially produced from the most resistant ASI families, is also performing well at this stage with almost negligible mortality observed. This spat is only very small (2mm) and we have seen under laboratory conditions that it can be difficult to infect very small spat. It's thought that they simply don't have the filtering capacity to accumulate enough viral particles to cause disease. So the jury is most certainly still out on these. These spat have a predicted survival of slightly over 80% as 1 year old animals but they are much younger than this and that is the big question mark from our point of view. It is important to note that any predicted measure of performance we supply to the hatcheries is based on animals that are 12 months old. We have not made any predictions about smaller spat at this point as it would be no more than a guess in the absence of solid data which will be collected in the coming weeks and months.

For any growers who are unsure about EBV's and how they relate to predicted performance please feel free to call and ask me any questions on 0417 965 405.

Matt Cunningham ASI

The Yield - CLARE RUTHRFORD

The Yield now Predicting Salinity and Water Temperature

The Yield has added new functionality to its MyOyster Dashboard to support growers to plan their farm management activities. The Dashboard now offers predictions for Salinity and Water Temperature. The Yield has designed these features to support growers to

monitor and manage the risk of diseases such as POMS and plan for potential harvest closures.

The new features are available in the newly added **Zone Status** and **Predictions** sections which are available via the new My Zones & Sensors page.

The Salinity and Water temperature prediction feature to the MyOyster Dashboard will show you:

- A prediction for the Daily Average, Daily High and Daily Low value for Salinity and Water Temperature for Today, Tomorrow and the day after.
- The predictions will display a confidence level. This confidence level is calculated by comparing our predictions with the actual values since the sensor was installed. As we collect more data, the predictions will become more accurate. There is a prediction confidence level for each day's prediction.

Zone Status:

The My Zones and Sensors page will also show you the status of your zone as set by the State Regulator. The Name and current status of your zone will change colour depending on the status so you can understand at a glance the current status of all your zones.

If there isn't a sensor available in your zone – the page will display "No Sensor Data available".

Other Updates:

In addition to the 2 new features above, The Yield has made a few changes to the dashboard based on your feedback:

- The drop down box to pick your harvest area has moved to the top of the menu on the left hand side; and
- The Graph on the Atmospheric conditions, Water Level and Plan pages will place "now" in the middle so you can see the weather forecast for the rest of the day.

For any support using the MyOyster Dashboard head to www.theyield.com/supportoysters or contact The Yield at help@theyield.com

If you are interested in Signing up to the MyOyster Dashboard contact info@theyield.com
