Rock Lobster & Giant Crab Resource Assessment Group



Meeting #25

RECORD OF MEETING

Meeting #25, 24 September 2019 Queenscliff

CHAIR: Ian Knuckey **MEETING COMMENCED:** 9:30am

1. PRELIMINARIES

Present	
lan Knuckey	Chair
Toby Jeavons	Victorian Fisheries Authority (Executive Officer)
Russel Frost	Industry member
Rafael Leon	Institute of Marine and Antarctic Studies (IMAS)
Klaas Hartmann	Institute of Marine and Antarctic Studies (IMAS)
David Reilly	Victorian Fisheries Authority
Lawrence Moore	Recreational fishing representative
Markus Nolle	Industry member
Gary Ryan	Industry Member
Wayne Dredge	Industry Member
Mark Peychers	Industry member
Ross Bromley	Industry member
Michael Burgess	VRFish
Rohan Henry	Bunurong Land Council Aboriginal Land Corporation
Guests	
Matt Phillips	Industry member
Mike Gilby	VFA
Brent Wommersley	VFA
Hayden McFadyen	Geelong freedivers Group/ Vic Spearfishing Commission
Matt Koopman	Fishwell Consulting
Andrew Clarke	VFA
Apologies	
Caleb Gardner	Institute of Marine and Antarctic Studies (IMAS)
Dallas D'Silva	Victorian Fisheries Authority
Anthony Olver	Industry member
Johnathon Davey	Seafood Industry Victoria (SIV) representative

1.1. Welcome

Ian Knuckey, as Chair, stated an Acknowledgement of Country and welcomed members to the 25th meeting of the Victorian Rock Lobster and Giant Crab Resource Assessment Group (RLRAG). Ian also introduced film production company Biomedia who would be undertaking filming as part of a project under the FRDC Indigenous Reference Group to be used at upcoming indigenous capacity building workshops.

1.2. Adoption of agenda

The agenda was adopted with no additional items added.

1.3. Minutes and actions from last meeting

Ian noted that a final copy of the minutes of the last meeting had been circulated via email. As a matter of process, the RLRAG endorsed the minutes to record that they are a true and accurate reflection of the meeting. Markus confirmed minutes as true and accurate.

The following actions remained outstanding:

- Undertake a review of industry code of practice Markus Nolle
- Provision of temperature loggers to Anthony Olver David Reilly
- Model comparison including a comprehensive sensitivity analysis to growth as part of new stock assessment model testing – Klaas Hartmann
- Strategic plan for future tag recapture program Klaas Hartmann

As an outstanding action item David Reilly provided an overview of recent giant crab voluntary pot data provided by Anthony Olver. The data showed a spike in the size-class of males between the 130-150mm size class. A comparison with the intensive data collection program undertaken between 2005/6 to 2008/9 showed similar spike although the male/female dominance in the 130-150mm size class was reversed.

All other actions arising from Meeting 25 are outlined in the attached 'Actions List' circulated with the meeting minutes.

2. <u>Indigenous participation in the RL fishery and future opportunities</u>

Mike Gilby and Rohan Henry presented an overview of the history of Indigenous participation and connection to fishing. Data and information are scarce on rock lobster-specific Indigenous history, however there has been reports from the 1830's of 'crayfish' visible from the surface in 3 fathoms of water in Port Phillip Heads walking across the sandy bottom and the use of traditional fishing gear including canoes and woven lobster traps. Indigenous Australians connection to fishing extends back thousands of years and has incorporated a holistic approach to managing fisheries resources over time recognising their connection with the land, freshwater and saltwater ecosystems.

Mike outlined that Victorian traditional owners are the original custodians of the freshwater and saltwater resources although the sector has previously had poor formal recognition in comparison to the recreational and commercial sectors. However, Victoria has now legally recognised Traditional Owner groups across nearly 70% of the State and this figure is set to grow as the final native title claims and a Treaty framework are resolved over the next few years. The Victorian Aboriginal Strategy that was signed off in 2012 is now going through a complete refresh with a focus on 3 key outcomes:

- Recognition of customary fishing rights;
- Better economic opportunity for all aboriginal people; and
- Sustainable fisheries management in collaboration with traditional owner groups.

Mike and Rohan suggested a number of opportunities as a starting point to incorporating Indigenous interests and cultural knowledge into the management of the rock lobster fishery including:

- Formal allocation and access to market;
- Recognition and integration of traditional Indigenous ecological knowledge into RD&E; and
- Increase indigenous input into the management of the rock lobster resource by implementing
 extension initiatives to help monitor changes through the use of community based tools such as telling
 the indigenous story of rock lobster, improving indigenous data, developing products and materials of
 relevance to indigenous Victorians and building the capacity of the indigenous sector to increase
 participation.

Ross Bromley queried if the Indigenous knowledge of the ecosystem is still available and could be accessed to be considered in managing the fishery. Mike Gilby explained that the information is there but involves facilitating a process with traditional owner groups to obtain the information. Markus suggested a good place

to start is to create a space where we can discover and learn further about the Indigenous history and opportunities outside of formal meetings such as the RLRAG. The RLRAG agreed that the introduction provided during the current meeting was a first step to further our understandings and identify opportunities within the rock lobster fishery. An initial focus may be to learn and share the Indigenous story of rock lobster. Potential partnerships include the Indigenous Reference Group (IRG), Traditional Owner groups, VFA, VicRAC and RLRAG.

Action:

• Toby to follow up with Mike and Rohan to create a space to engage with Traditional Owner groups to further understandings and identify opportunities for participation

3. Eastern Zone PRI

3.1 Eastern Zone PRI trend comparison (voluntary data logbook data)

Klaas began by providing an overview of why the PRI is included in the Harvest Strategy. The PRI:

- Avoids increasing the TACC if PRI indicates undersize abundance may not support a high TACC in future years
- Provides an additional component to avoid over-shooting the TACC and consequent instability
- Similarly, the PRI may provide support for reductions to the TACC when future recruitment to the fishery is low

Klaas clarified that the PRI is calculated as the number of undersize lobsters per potlift. This is derived from the fixed-site survey conducted by VFA and from data collected by VFA's observer program. Additional data collected from voluntary reporting and through logbooks is currently under consideration for inclusion.

The comparison between fixed-site, observer and combined PRI index trends is consistent for both the Western and Eastern Zone providing confidence that the PRI is indicative of recruitment. However, the Eastern Zone has a higher level of variation and uncertainty with less data available requiring a more precautionary approach.

Daily Catch Record 'undersize' data

An initial analysis of undersize data from logbooks (expressed as percentage of pots recording undersize) shows a steady incline over time in the Western zone and a reduction of approximately 60% in recent years in the Eastern Zone (since 2010). RLRAG members noted a number of factors that may have influenced the logbook data including making it easier to report undersize since introduction of quota and changes in fishing activity (night fishing). Gary Ryan noted that historically the older generation fishers in the Warrnambool area anecdotally report catching significantly more undersize than the present, which the Western Zone trend does not reflect.

Voluntary length frequency data

Klaas noted that historically there has been times where over 3000 pots were sampled for catch length frequency each year and more recently this has reduced to approximately 300 pots per year.

Western Zone – A comparison between the trends shown in the undersize data reported in the voluntary program/logbook and PRI was presented indicating that:

- Since 2000 the voluntary data is generally consistent with logbook data
- Recent (since 2015) both voluntary and PRI show correlation in increasing numbers of undersize

Gary Ryan suggested that it would be expected that there is a lower abundance shown in the logbook data compared to the fixed-site survey data because this is undertaken in summer with higher catches. The RLRAG noted that whilst a lower abundance is expected, the change in trends are more reflective of overall changes.

Eastern Zone - A comparison between trends shown in the undersize data reported in the voluntary program/logbook and PRI was presented indicating that since 2000 logbook, voluntary and PRI data show a similar declining trend

Concern about the reliability of undersize data provided by fishers in logbooks was discussed and the suggestion was made by members to consider only using a subset of fishers data who would be considered 'industry champions' and nominated by industry.

Toby suggested that potentially the recreational sector could contribute undersize data through either the citizen science program or similar 'recreational champions' nominated by VRFish/dive clubs. Mike Burgess agreed this could be a possibility however would require consideration of suitable candidates.

Action:

- Analysis of logbook data in recording of undersize in differentiating between bland and'0' entries
- Markus to discuss at VRLA, and Ross to raise at Eastrock the concept of selecting industry champions and reporting back to RLRAG with nominated persons
- Toby/Mike to consider developing recreational measurement of undersized rock lobster

3.2 Eastern Zone PRI re-analysis

Klaas presented recent research including modelling based on coastal water movement that was presented as visuals and as a table demonstrating the probability of where recruitment is derived and most likely to end up. The research is not inconsistent with the conclusion that self-recruitment to local areas is very low for the southern rock lobster fishery (ie. Very low stock recruitment relationship). Egg production is largely dependent on elsewhere, and with a larval period of up to two years Victoria's fisheries are more reliant on recruitment from other jurisdictions (mostly South Australia).

RLRAG members discussed the implications of the very low stock-recruitment relationship in regard to the proposed incremental PRI concept. The low stock-recruitment relationship implies that even at low spawning stock biomass levels, because recruitment is largely driven by recruitment from other areas, the ability to satisfy the PRI threshold to be eligible to achieve an increase in the TACC is not dependent on exploitation levels of broodstock in the fishery. They did note, however, that regardless of localised recruitment back to the fishing grounds, spawning stock should remain at sustainable levels.

3.3 Industry discussion paper and recommendation

The current PRI threshold was determined using the reference period from 2004/5 to 2013/14 with a normal distribution fitted to the combined PRI value. The threshold has then been set to the 40% quantile.

Industry has previously expressed concerns around lowering TACC's due to the difficulty in satisfying the PRI to achieve future TACC increases. Therefore, a consideration is to adopt an incremental PRI value that is representative of recruitment at the lower end of the scale to achieve small increases in TACC.

Klaas presented a possible example of a TACC/PRI lookup table that reflected observing smaller levels of recruitment at lower TACC's. The incremental PRI values were calculated by multiplying the TACC by the PRI (Required for each tonne of rebuild). The rebuild required for each tonne was calculated by dividing the PRI value by the TACC at the time of implementing the Harvest Strategy (2016/17) ie. Eastern Zone rebuild rate per tonne was calculated by 0.32/59 = .0054.

Klaas noted that the new TACC/PRI table may be difficult to communicate to industry and currently the Western Zone fishery is more reliant on the PRI because less fish are left in the water due to the higher exploitation rate. Klaas posed the question to RLRAG members - do we want to adopt this new PRI approach?

Toby expressed concern about implementing an incremental PRI approach given the volatility of the Easter Zone fishery, the current historical low in the PRI, consecutive years of declining catch rates, the disconnect between recruitment and stock size and the strong correlation between trends contributing to the PRI. Toby suggested that it is not the time to take a less precautionary approach. Wayne agreed that it is not the time to look at the PRI incremental rule until some improvement is observed in the Eastern Zone stocks and PRI level. Wayne also noted that in the last year he has seen more fish under 1kg than the previous 3 years, but there is

a big block missing in the middle between them and the large number of 2-3kg rock lobster observed. Ross added that last year when looking at the future trajectory we chose a rebuild rate that would match economics and it is better to leave the PRI where it is at this time.

Ian summarised that the RLRAG has supported leaving the EZ PRI threshold at the constant 0.32 undersize/pot lift, continue to improve the level of data available in the Eastern Zone and potentially readdress in the future as part of a management plan review.

4. Western zone exploitation rate

Members of the RLRAG have previously expressed concern over maintaining an exploitation rate of 32.5% in the Western Zone due to the projected minimal rebuild expected over the remaining life of the management plan. The RLRAG has previously recommended to adopt a more precautionary exploitation rate and there was a level of support shown by industry for this during the TACC port visits. Toby explained that there was not a clear consensus among industry on the willingness to adopt a more precautionary exploitation rate and the response time to declining catch rates.

Klaas reiterated that the RLRAG has previously recommended that a reduced exploitation rate be revisited with an industry directed paper to be put together for the VRLA AGM and consultation to take place during next year's TACC setting process. A draft paper was circulated to members prior to the meeting seeking any further comments on the clarity of messaging and proposed exploitation rates for consideration.

Markus posed a theoretical question that given the low stock recruitment relationship, could we essentially take out all the RL with minimal impact to rebuild potential? Klaas explained that by building the legal biomass you 1) Increase the buffer to years of poor recruitment; 2) are less reliant on fish growing through the legal size; and 3) maintain better future catch rates. Klaas presented previous projections demonstrating that by reducing the exploitation rate by only small amounts there is a notable improvement in future CPUE with relatively small forego of potential TACC.

Gary suggested improving the messaging with wider industry by changing the wording from 'reducing' exploitation rate' to 'changing' exploitation rate. Toby also suggested incorporating future projections under proposed exploitation rates to demonstrate the bigger picture rather than the immediate transition. Russel Frost suggested only presenting the one exploitation rate as the preferred option rather than multiple to make messaging clearer.

Action:

- Klaas to finalise industry paper incorporating edits
- Markus to take Western Zone reviewed exploitation rate to go to VRLA AGM
- Toby to undertake consultation during TACC 2020/21 setting process

5. SafeFish – Biotoxin risk analysis in Victoria

Alison Turnbull from SafeFish in South Australia attended the RLRAG to present on managing marine biotoxin risks for Victorian rock lobster and giant crab. SafeFish provides technical advice to support Australia's seafood trade and market access negotiations and helps to resolve barriers to trade with three key activities:

- Respond to food safety incidents;
- Technical input to inter-government consultations on food regulations and market access; and
- Proactive work: research, risk analyses, capability development and training

Alison presented a case study of the 2012 Tasmanian bloom event that was first detected in Japan and resulted in effectively closing the import market to all Australian bivalves from all Australian states. Following the ban, it took New South Wales and South Australia 6 months to reopen and 3 years for the Tasmanian market to reopen.

Biotoxins impact many species and the impact has been ongoing since 20012. Lobster and bivalves have exceeded the food safety threshold on numerous occasions resulting in 11-17 weeks closure for the rock lobster fishery in Tasmania (between 2015 - 2018).

Rock lobster take up PST (Paralytic Shellfish Toxin) in the hepatopancreas (mustard in lobster) of which 15% of rec fishers have been found to consume following a survey in Tasmania and is preferred to the 'white meat' in some cultures. Depuration (removal) of toxins in rock lobster is slow compared to mussels and oysters. Over 57 species of algae can cause toxins and the areas affected are not just offshore of estuaries but also related to upwelling events. Sampling of lobster is currently high with analysis costs of \$500/lobster and 5 lobster required for each site sampled. Phytoplankton samples are also a possibility, however only provide a snapshot in time in comparison to mussels that give an indicator of levels over multiple days.

How are biotoxins managed in Tasmania?

- 1) The East coast is split into zones with selected monitoring sites;
- 2) Lines with bags of mussels are set at each site. The bags can then be sent in as needed to monitor biotoxin levels;
- 3) If the results of testing are high, the zone is closed and sampling of lobster is undertaken;
- 4) The zone remains closed until low levels are detected.

What do we know about PST in Victoria/Bass Strait?

There are significant knowledge gaps in Victoria however PST levels have previously exceeded the threshold in Bass Strait scallops, and the main algae species causing PST, *Alexandrium tamarense* and *Gymnodinium catenatum*, have been detected in all 6 ports between Lorne and Apollo Bay. PST closures also occurred in Eden in 2016.

There is a serious risk of trade market failure in China as demonstrated from previous PST case studies (geoduck in the US). The Southern Rock Lobster Industry is exposed due to the high reliance on the Chinese market and SRL would be impacted by any PST detected in China from Australian lobster (despite whether the origin came from Eastern rock lobster, Western rock lobster or Southern rock lobster).

If PST were detected in SRL in China it is likely that:

- They will implement an immediate ban on the trade the scale will be determined by them
- Traceability back to harvest area will be very important
- They will demand answers and expect an investigation
- It will require a response from the regulator
- It will likely mean significantly more monitoring
- The **trade will only open** once they are satisfied each jurisdiction in Australia or all of New Zealand is managing the risk
- The length of time the ban is in place will be up to them, it could be several months or longer
- This issue was ranked as a high priority in the latest SafeFish risk ranking process due to trade and market access risks

Alison highlighted that there is currently no response plan for Victoria and key questions that need to be addressed are:

- Who would be the lead agency? Department of Health? VFA?
- Who else should be involved? AQIS, VFA, DHHS?
- What sort of information would be needed?
- Which government agency is responsible?
- Past biotoxin history
- Any risk assessments conducted

- Any epidemiological illnesses
- What is the current risk management plan?
- What level of compliance is there?
- What level of traceability is present in the Vic SRL industry?
- What can we do to reduce the timeframe to re-open?
- Prevalence survey (gives estimate of size of risk)
- Risk management program (planned or implemented)

Alison highlighted that the cost to industry if PST was detected in SRL in China would likely include the cost of recall, loss of stock, loss of quota and the cost to reopen to the market. The current sampling program in Tasmania costs \$180,000 per year which includes sampling and analysis whilst the New Zealand lobster sampling program is estimated at \$50,000 per year.

Markus questioned what may happen if PST was detected from Tasmania and Alison responded that NSW and Victoria would be shut, and Tasmania would currently be in a position to respond quicker and reopen their trade market. Russel suggested that we could tag all commercially caught rock lobster however it was noted that whilst it may be easier to detect the origin of the PST, China would still shut down all jurisdictions. RLRAG members noted that there has been a lot of progress on developing programs in other jurisdictions and Victoria needs to choose what works from those programs and adopt to Victoria's needs. RLRAG members agreed that this needs to be driven at the SRL level with a collaborative approach. Mark Peychers noted that if there is an incident the response will be severe, and that Tasmania and New Zealand are wanting Victoria to develop a monitoring program.

Action:

- Markus to take to SRL and include on agenda
- Toby to incorporate on RLRAG workplan
- Toby to arrange meeting with industry, Andrew Clarke (VFA Aquaculture Manager), with guidance from Alison and Tasmania/New Zealand approaches to look to implement an interim low cost monitoring program

6. Evaluation of new rock lobster model

Klaas confirmed that the MEZO model is producing equivalent results to the 'old' model and is well written and easily expandable. The MEZO model will be run in parallel with the existing model for the upcoming stock assessment.

Klaas recently attended a workshop in Western Australia to be involved with Western Rock Lobsters project to develop a new model and collaborate with SRL to create 'one model'. Klaas took the recently developed MEZO model to the workshop and participants agreed that the model was well formatted and in a structure that could easily be adapted. The MEZO model was however developed specifically only for Victorian needs with limited features in comparison to those required for the Western rock lobster fishery (e.g. movement). Andre Punt (leading development of WRL model) has since commenced developing the WRL model from the scratch with the idea that because this model is far more complex, it will act as a 'master model' of which the other jurisdictions can adopt as only a subset of the 'master model'.

Klaas is now seeking to put up a project to SRL to extend the newly developed WRL model further and add on jurisdictional features. The model would be supported by a collaborative environment to support rock lobster modelling in Australia going forward. Klaas asked the RLRAG if they are supportive of joining the collaborative project. South Australia has currently elected not to be involved in this project.

Markus expressed his frustration at seemingly wasting industry dollars through funding the MEZO project. Markus noted that the new WRL project appears to achieve exactly what the MEZO project was to deliver and that it has fallen over before it has begun. Toby asked the question if it had been a conscious decision early in the MEZO project not to go to SRL and include other jurisdictions? David Reilly recalled that cost-recovery played a large role in this decision, with the intention that Victorian dollars would be used for Victorian

benefit. David noted that not having buy-in at the start from other states and going alone has been detrimental.

A controlled silence and general disappointment that the outcomes of the MEZO project could not be better used across the jurisdiction was noted amongst RLRAG members.

Toby acknowledged that the MEZO model will continue to be assessed and ran in parallel with the existing model and the benefits of AVIS, modelling speed, enhanced simulation testing and cleaner code that can easily be built on remains. Victoria will continue down the path of transitioning to the model, and if the project that Klaas is seeking funding for will be approved in the future, Victoria will be involved.

RLRAG members were supportive of Victoria's involvement in Klaas' FRDC funding application to extend the newly developed WRL model and collaborative environment.

Action:

- Klaas to incorporate conducting a comprehensive sensitivity analysis to growth as part of new stock assessment model testing (Raf Leon to complete and present at December RLRAG)
- Klaas to include Victoria in WRL model extension project proposal to the FRDC

7. FRDC funding application and Tasmania close kin mark-recapture project

Klaas provided an update on an FRDC recreational rock lobster tagging funding application to run a parallel survey to provide an independent estimate for comparison of results to the tagging program. The survey may now have to be adapted due to shorter time frames and the application is currently under revision.

Klaas presented further FRDC funding proposals on tagging and close kin mark-recapture.

Tagging application

There is a need for a focused approach to undertake a large scale tagging even to update the understanding of growth across SRL. South Australia is currently applying and looking to expand the project to a tri-state proposal. The Victorian tagging program is sufficient to update growth parameters but not enough to detect changes in growth. David Reilly expressed support for involvement in the project and lan suggested that in developing the project steering committee they include SRL, Industry and the recreational sector.

Russel suggested that the tagging program should be undertaken during the closed season so that contracted operators can tag and release everything therefore increasing the range of size classes tagged in the water and filling existing knowledge gaps.

Action:

Klaas to include Victoria in tagging funding proposal

Close kin mark recapture project proposal

Klaas presented a close kin mark recapture project proposal with the aim to obtain a population estimate and a real larval dispersal estimate. The project will allow management strategies to focus on maintaining high biomass in source areas and increase the understanding of source/sink relationships. The project will utilize genetic techniques typically used to estimate population size by detecting DNA relationships among sampled lobster. Increasing the understanding of connectivity and improving the accuracy of biomass estimates would be the main outcome of the project that could shape the way we manage the fishery.

The challenge of the project is that it will require a comprehensive sampling program (back of the estimate envelope over 50,000 lobsters) at a large cost. A feasibility study to see if the techniques would be suitable to lobster would be a first step, followed by costing of the technique.

Ian suggested that a sound feasibility study would need to be undertaken initially prior to committing funding and determining if the species is suitable. Recognising his conflict of interest, Klaas was requested to leave the room for RLRAG members to discuss support of the project proposal.

RLRAG members discussed and expressed support for an initial feasibility study before committing further funding.

8. Stock assessment report update

Klaas presented a number of additions to be included in the 2020/21 stock assessment report of which were detailed in a meeting paper under this agenda item.

Mark Peychers and Markus questioned if a stock assessment needed to be undertaken annually or could we reduce costs if this is not required. Ian suggested that the timing of stock assessments be reviewed after the current research provider contract is completed and when the harvest strategy is more firmly bedded down.

Markus noted that we are currently missing valuable information from the charter fishing sector. Toby acknowledged there is an opportunity to improve data from this sector but noted the VFA is collecting data through the rec tagging program that includes the charter sector.

Action:

- Klaas to update the stock assessment report
- Klaas to present both PFN and vessel trends for comparison and consideration at December RLRAG
- Ian to send TRL report as an example for including appendices

9. **DEVELOPMENT OF MEY**

Johnathon Davey was listed against this agenda item however Toby had discussed the findings of the recent 'Valuing Victoria's commercial fisheries' study with Kirsten Abernathy (researcher of project). Kirsten had suggested that she did not think the data collected would be specific enough to the rock lobster fishery to inform development of an MEY. Markus noted that the level of detail provided during the study should be sufficient and that this would need to be re-confirmed.

Action:

 Toby to follow up with Kirsten Abernathy to determine if level of data collected though the project could inform development of an MEY.

10. Other business

10.1 SRL RD&E update

Markus provided a brief update of current SRL agenda items and projects including:

- There has been no SRL meeting since the previous RLRAG
- SRL AGM and teleconference RD&E meeting will be held in early October
- An SRL corporatisation workshop will be held on 7 October at the Melbourne Airport and all affiliated with SRL ae welcome

· Seafood Directions is upcoming from 9-11 October

Matt Phillips raised the suggestion of delaying the commencement of the closed season by two weeks. Toby explained that the difficulty in progressing an industry recommendation is that there are many conflicting views around timing that is preferable.

Action:

- Markus to raise the MEZO project, biotoxin monitoring and whale entanglement at the upcoming SRL
- Markus to raise timing of fishing season at upcoming VRLA AGM to attempt to achieve coherence in industry preference

10.2 RLRAG workplan for 2019

The draft RLRAG workplan to be circulated with RLRAG meeting minutes.

Action:

Toby to circulate 2019 workplan

10.3 Tri-state giant crab proposal

Toby provided a summary of the progress towards submitting an FRDC funding application for a tri-state project. The project will look to enhance data collection in the giant crab fishery through utilising new technologies such as photo recognition and machine learning. The application is to be finalised in the coming weeks and submitted.

10.4 Reef reseeding update

Justin Rizarri (Deakin University) has completed the first steps towards a feasibility study for collection, growout and reseeding of lobster. Next steps to complete the feasibility study include:

- · Refine puerulus collection methodology
- · Refine cost estimates surrounding the rearing of the puerulus on land
- Provide some estimate of costs for a pilot project (e.g. a small scale research project that focuses on localised benefits only (e.g. the reef scale).
- Investigate TEP translocation support

Progress on feasibility study to be presented at December RLRAG.

10.5 ECatch project update

Toby provided an update of the current VFA eCatch project that will replace the paper-based catch and effort reporting with electronic logbook reporting. The VFA have been working with Spatial Vision to refine the 'screen flow' and have recently included further updates following industry feedback. The 'soft launch' of ecatch is intended to occur in April 2020 and will be implemented before 1 July 2020

10.6 Opportunistic installation of puerulus collectors

Wayne Dredge noted a potential opportunity with the Star of the South windfarm project that is set to displace some lobster ground. The star of the South project will be required to meet stringent environmental

outcomes and have expressed willingness to assist the VFA with puerulus collectors, monitoring and potential artificial reefs that could be used to trial reseeding. Toby noted that the VFA is in communication with the project directors.

10.7 EZ female size limit

Wayne also proposed an increase to the female legal minimum length in the Eastern Zone following recent precedent set in Tasmania. Dave noted this would be supported by the fact that the size of sexual maturity (50% of lobster) occurs above the LML in the Eastern Zone.

10.8 Catches of Eastern Rock Lobster against EZ quota

Catches of eastern rock lobster are increasing in the Eastern Zone south of the NSW border. Wayne noted that currently Eastern rock lobster are taken off quota although they receive approximately \$20 - \$30 less than Southern rock lobster and are therefore not landed. Wayne is seeking to have Eastern rock lobster listed as bycatch as the current arrangements in the management plan (catch above 1t) to trigger addressing the prevalence of Eastern rock lobster will not occur as they do not get landed. Toby noted increasing numbers of Eastern rock lobster have been observed by the recreational sector and the RL Tagging App has been updated to allow monitoring of both Eastern rock lobster and Southern rock lobster.

Action:

- Ross Bromley/Wayne Dredge to submit proposed increase to female LML and landing Eastern rock lobster as bycatch as part of the consultation on the Regulation Review
- Mike Burgess to include submission from VRFish of increasing female LML in Eastern Zone
- Klaas to model change and impact of female LML increase

Meeting concluded: 4:00pm