

### DRAFT RECORD OF MEETING

Meeting #34, 1 March 2022

Swan Bay room, Queenscliff

**CHAIR:** Ian Knuckey

**MEETING COMMENCED:** 9:00am

## 1. PRELIMINARIES

Present	
Ian Knuckey	Chair
Toby Jeavons	Victorian Fisheries Authority (Executive Officer)
Klaas Hartmann	Institute of Marine and Antarctic Studies (IMAS)
Steven Rust	Institute of Marine and Antarctic Studies (IMAS)
David Reilly	Victorian Fisheries Authority
Lawrence Moore	Recreational fishing representative/ VRFish
Alex Haberfield	Industry Member
Wayne Dredge	Industry Member
Ross Bromley	Industry member (Eastrock)
Steven	Institute of Marine and Antarctic Studies (IMAS)
Matt Phillips	Industry member
Garry Ryan	Industry Member
Mathew Harry	Industry Member
Peter Galvin	VRFish
Zeb Johnston	Industry Member
Ben Scullin	VRFish
Rohan Henry	Independent coastal indigenous representative
Guests	
Robert Timmers	Latrobe Valley Scuba Club
Apologies	
Steven Wojtkiw	Seafood Industry Victoria
George Brocklesby	Industry Observer
Anthony Ciconte	Giant Crab Industry Member
Rafael Leon	Institute of Marine and Antarctic Studies (IMAS)
Caleb Gardner	Institute of Marine and Antarctic Studies (IMAS)

### 1.1. Welcome

Ian Knuckey, as Chair, stated an Acknowledgement of Country and welcomed members to the 34th meeting of the Victorian Rock Lobster and Giant Crab Resource Assessment Group (RLRAG). Toby noted the apologies to the meeting. Apologies from the new CEO of Seafood Industry Victoria (Steven Wotjkiw), George Brocklesby and Anthony Ciconte. All people present introduced themselves and stated any conflict of interest. Ian noted discussion held at the RLRAG is confidential until released to public via meeting minutes published on the VFA webpage. Ian noted that people may be asked to leave the room during discussions where a conflict of interest is identified.

## 1.2. Adoption of agenda

The agenda was adopted with the addition of an update on the management plan and harvest strategy alongside item 2. No further changes were made.

## 1.3. Minutes and actions from last meeting

Minutes from last meeting were accepted as final.

- Klaas has completed the actions related to rock lobster and giant crab stock assessment reports and incorporated into final versions.
- Karlie has incorporated 1 year exploitation rate projections into updated stock assessment report.
- Toby sent letter of thank you to Markus Nolle and Mark Peychers.
- Rob and Dave have had a discussion on trialling a recreational fixed site survey in the Eastern Zone and will continue to pursue over coming months.
- Model development has some uncertainty but will be discussed further in meeting.
- Biotoxin management plan has not yet been taken for discussion at SRL. Ross and Matt to progress.
- Actions related to the harvest strategy review to be completed during management plan review process.
- Update on key research project: No further update on project investigating weather patterns and their impact on productivity due to principal investigator being on maternity leave. No update on the project investigating the impact of larger lobster keeping smaller lobster from pots.
- Puerulus collection methods have been trailed by Dave and a team of Landcare volunteers in Apollo Bay. Biofouling has presented some issues as the fine mesh is hard to clean. Ascidians have also been reported as an issue. Dave noted that the baskets are getting similar numbers to the established method. Ian noted that higher basket numbers will improve sample design.
- Toby provided an update on the giant crab FRDC project. The project has successfully received additional funding to extend to the Western Australian Crystal Crab fishery. A prototype has now been trailed onboard a commercial vessel in Tasmania. The initial prototype will now undergo three rounds of trial/refinement before looking to roll-out for wider trial across all jurisdictions. = A six-month extension to the deliverable schedule has been granted on the project.

Ian noted a potential conflict of interest with regard to his project proposal currently sitting with IMAS and UNSW. The project is looking to use commercial equipment to collect temperature information on long line, drop line, squid jig and trawl vessels. The gear may also be trialled on lobster vessels. The outcome of the project will be to ground truth models around southern Australia and provide data for broader research projects.

Further actions arising from Meeting 34 and the status of existing actions are outlined in the attached 'Actions List' circulated with the meeting minutes.

## 1.4 Membership Renewal

Toby undertook a process to renew RLRAG membership in December 2021. Toby welcomed new members to the RLRAG. Membership of the 2022 RLRAG consists of:

**Western zone** – Zeb Johnston, Matt Phillips, Gary Ryan;

**Giant crab** – Anthony Ciconte;

**Eastern Zone** – Wayne Dredge, Matt Harry, Ross Bromley

**Recreational** – Lawrence Moore, Peter Galvin

**Coastal indigenous representative** – Rohan Henry

**SIV/VRFish** – Steven Wotjkiw/Ben Scullin

**Independent Chair** – Ian Knuckey

**Minutes** – Stephen Beever

**IMAS** – Klaas Hartmann and Steven Rust

## **2. MANAGEMENT UPDATE**

Toby provided an update on the Rock Lobster management review process. Four online meetings have now taken place despite setbacks from COVID-19. The review has now established a clear vision statement, completed an ESD risk assessment and developed new objectives and strategies. The next meeting is to be held in person next week with the aim to develop actions against the objectives and strategies.

### **2.1 Recreational Tagging Program Update and season 4 results**

Toby provided an update on the recreational rock lobster tagging program.

Data collection has been difficult over the past few years due to COVID-19. Mean weight, carapace length and proportion of male/female lobster harvested have shown consistency through the first four years. In the Eastern Zone 3875 rock lobster were reported caught in Season 1 (2017/18) which has continually decreased to 1573 in Season 4 (2020/21). In the Western Zone, 4071 rock lobster were reported caught in Season 1 (2017/18) which has also continually decreased to 2296 in Season 4 (2020/21). There has been a clear decrease in active citizen science participants, the number of people reporting their catch on the day of capture and general participation in the program. This suggests that the review of the program and transition to GoFishVic has been timely.

Members noted that the current stock level does not allow for discriminate capture of larger males and fishers will take what they can find.

Plastic tagging has now been phased out. The new digital platform went live on 16 November 2021. Fishers have 7 days to report their catch and are required to register their intent prior to targeting lobster (once per season).

Toby acknowledged that there have been some technical teething issues in transitioning to the new platform however most of these have now been resolved. The new system has added complexity and transitional issues are to be expected. 5000 people have registered to be active for the season and more than 2600 lobster fishing trips have been reported.

## **3 Stock assessment report update**

### **3.1 Stock assessment recap (Rock Lobster and Giant Crab) (For Information)**

Klaas provided an overview of the scientific information informing the 2020/21 stock assessment for rock lobster and giant crab.

#### **ROCK LOBSTER**

##### **Western zone**

The CPUE has been increasing and the Pre Recruit Index (PRI) has now risen above the threshold level. PRI data from the 2019/20 period was incomplete due to a reduction of observer coverage, COVID-19 has impaired their ability.

A question was raised by members regarding the standardisation of the PRI, Klaas confirmed that standardisation does take place to ensure the index is weighted correctly however not in the same sense as catch rate data is standardised and used in the model.

**ACTION** - Klaas to look at Gary Ryan's undersize data from the Warrnambool area to ensure the PRI scale meshes with what fishers are seeing on the water.

#### Industry observations

Despite the PRI index being over the threshold, the industry has concern there is a general lack of pre recruits in the Western Zone.

The exploitation rate is higher than 23% with the 270t increase on rock lobster and so not advised.

Gary raised concern that the functioning of the CPUE bands may not have been well thought through in designing the harvest strategy. This is because at the low of each CPUE band the TACC results in a higher exploitation rate than the target. The target exploitation rate should be reflected at the bottom of each CPUE band.

**ACTION** – Review CPUE bands to reflect target exploitation rate at the bottom of each CPUE band.

**Application of the harvest control rule suggests an increase to 270t is permitted. However, this would result in an increase to the exploitation rate for next year which is above target exploitation rate. The intent of the constant exploitation rate is not satisfied and the 'rebuilding' objective of the management plan is also not satisfied.**

**2022/23 TACC Recommendation: The RLRAG with their understanding of larger stock dynamics strongly oppose an increase to 270t. What the industry are seeing on the water does not reflect the strong increase to TACC. At a minimum the RLRAG recommends the current TACC is maintained. The industry also has concerns with the PRI in the Western Zone.**

#### Eastern Zone

CPUE increased slightly in the Eastern Zone. However, due to the limited number of fishers contributing data Klaas recommended caution when interpreting trends.

**There are positive signs that Eastern Zone PRI is recovering from the recent extremely low period. However, the PRI remains below the threshold, therefore preventing an increase to the TACC. The exploitation rate equates to 12-14% of available biomass which is under the target 20.5%.**

**The RLRAG recommends maintaining a TACC of 32t.**

#### Industry observations

Despite the PRI index improving, industry continues to have concern that there is a general lack of pre recruits.

Matt Harry noted if there are signs of a PRI decrease in the West, then the Eastern Zone may never hit the desired PRI threshold.

Wayne has expressed interest in seeing the raw PRI data. on the higher number of undersize lobster in the East. Wayne shares similar sentiment to the Eastern Zone in that the scale does not appear to be representative of what has been observed the water.

**ACTION** – Klaas to articulate the method for weighting PRI in the stock assessment report.

David noted that the Surf Coast/Queenscliff sites have seen an increase in number of undersize. Dave notes struggles in getting observers, and that Queenscliff may be driving the higher numbers of undersize.

### **GIANT CRAB**

Agenda item deferred due to running behind schedule. Toby briefly noted that a meeting was held with Anthony Ciconte (Giant Crab member) prior to the RLRAG to discuss stock assessment results.

**No change to the outcome discussed at the December RLRAG where maintaining the TACC at 7.5t for 2022/23 was recommended.**

## **3.2 Updated stock assessment report components (For Information)**

Klaas provides update on the updated components recommended by the RLRAG now included in the stock assessment report. The updated egg production probability graphs are now included in stock assessment report.

The annual median depth has now been included, which shows the depth has declined significantly in the 2020/21 period. This reflects anecdotally that greater focus placed on the inshore fishery. Some of this shift in effort was accounted for through the standardisation process.

Forward projections are included in the stock assessment report although they do not have associated formalised decision implications. Considering decision rules associated with forward objections can be discussed as part of the management plan review process. However, Klaas noted caution in over complicating the harvest strategy.

## **4. Harvest Strategy review (for discussion)**

### **4.1 Developing a Target Reference Point**

Klaas introduced the concept of developing a target reference point. The fishery currently has a reference point of 90% probability that egg production exceeds 20% of the pre-fishing level. The sustainability reference point is the same as used for the Status of Australian Fish Stocks (SAFs) process.

Klaas noted that the fishery does not have a clearly defined reference point, however the current management plan does have an objective to 'achieve a rebuild' over the life of the plan. Toby noted that this has continually failed to provide adequate direction over the past 4 years.

Klaas presented an overview of the benefits from achieving a rebuild. This includes sustainability concerns, a higher CPUE reducing fishing costs, higher CPUE increasing capacity to fish to market, greater recreational satisfaction and lower exploitation rates from a higher biomass reduces reliance on inter annual recruitment.

Klaas provided an option to use the Marine Stewardship Council (MSC) certification process as a benchmark to assist guiding development of a target reference point. Ian noted that the MSC goals, limits and targets are globally recognised as a benchmark. The MSC provides certification that the fishery is well managed and sustainable. It is unclear what the MSC will want to see for SRL certification, and the costs associated are known to be very high. However, there is anecdotal evidence from suppliers that Chinese importers would like to see MSC certification on Australian seafood and if conditions with selling to China do not improve, MSC certification will be needed to access the European market. Klaas noted it would be difficult to achieve certification for just Victoria, as MSC certification requires that the entire stock is considered, therefore the other jurisdictions

would need to get on board and SRL is the best place to pursue as peak industry body. Klaas noted that there is a chance the MSC guidelines are well above the current status of the fishery.

RLRAG members discussed the costs and process involved in gaining MSC certification and why it is important to consider. Listing changing conditions in China and the potential need to enter the European market as key reasons to consider pursuing certification. Whilst the Victorian fishery is not actively pursuing MSC certification, aligning with the benchmarks to inform a rebuilding plan was recommended.

### **MSC Benchmarks - Stock status performance indicators**

Klaas provided an overview of the standards that are required to be met under MSC.

The first criteria is related to the stock status relative to recruitment impairment. It is likely that the rock lobster stock is above the point of recruitment impairment, which means the stock is at a level that maintains high productivity and has a low probability of recruitment overfishing.

The second criteria is stock status related to achievement of maximum sustainability yield. The fishery is not at a consistent level which is triggering a rebuild. Meaning, we do not meet the condition that the stock is at, or is fluctuating at a level that is consistent with MSY, nor is there a high degree of certainty that it has been fluctuating around this level over recent years.

The next question to ask is 'What is consistent with the MSY?'

The default is  $B_{40}$ , which is 40% of the unfished biomass. Historic reference points ( $B_0$ ), that is, pre commercial fishing levels, may no longer be achievable. Therefore, it is important to consider what may be achievable under a 'new' normal. Factors such as climate change and regime shifts are acceptable for adjusting reference points. This matters as this region is a climate change hotspot. SRL across all jurisdictions have shown to have undergone a regime shift, therefore the pre fishing state of the fishery is unlikely to be attainable even with cessation of fishing. Klaas presented graphs highlighting a regime shift of recruitment in the Western Zone. Ian discussed how this regime shift caused robust discussions historically when management was recommending that the TACC cuts would meet rebuilding targets. However, it was unknown that we had shifted to a different productivity regime and therefore were operating in a significantly different fishery.

Klaas explained that the MSC definition of ( $B_0$ ) is 'the stock status that would be present in the absence of fishing'. The model suggests if fishing ceased in Victoria, ~70% of pre fishing levels can be achieved. Klaas proposed a new reference point to be established, which is 40% of a new productivity shift. Meaning  $B_{40}$  would actually equate to 28% of 'pre fishing levels', and 40% of the achievable level under a shifted regime.

Members discussed adopting either a percentage of pre fishing level targets or percentage of 'level achievable in the absence of fishing'.

**The Chair summarised discussion in that the RLRAG agrees to adopt  $B_0$  as this measure remains consistent, is comparable with 20% egg production limit reference point and  $B_0$  is globally recognised as the standard. The only caveat is that we will need to explain that the 28% target equates to 40% under a shifted regime and why we have deviated from 'pre fishing levels'. It was agreed  $B_0$  was a more transparent target to be at and to adopt a target of 28% which is based off  $B_{40}$  of a regime shift. The target is expressed as biomass over 60mm.**

**ACTION** – Pursue an MSY proxy target reference point of 40% of ‘level achievable in the absence of fishing’, which equates to 28% of pre-fishing levels, throughout process of reviewing harvest strategy and management plan.

### Establishing a rebuilding timeframe

The fishery requires a rebuilding strategy to ensure we reach a point that is fluctuating around the MSY, as per the requirement of MSC certification.

A rebuild time of 20 years was therefore suggested which captures at least 1 full generation (16 years), this will provide sufficient time to adjust the fishery and its quotas at minimum cost to stakeholders.

The RLRAG agreed to the 20-year rebuild timeline, meaning 2043 is the target year for the rebuild. This allows one year to formalise the details before the new plan comes into effect.

**ACTION** – Adopt 2043 as the year to achieve the rebuilding target.

## 4.2 Harvest Strategy options to achieve Target Reference Point

**Klaas presented three harvest strategies options to consider:**

- Constant TACC
- Constant Exploitation Rate
- Existing harvest strategy with different TACC caps

Klaas noted that the period used for recruitment assumptions has significant outcomes for projections. For example, using the recruitment assumption 2000 – 2015 provides a far more optimistic outlook than using the more recent recruitment average of 2008 – 2015 in the Eastern Zone.

### **Scenario 1 – Constant TACC strategy**

#### **Western Zone**

All projections using the constant TACC strategy were above the egg production limit reference point. A 300t catch limit increase does result in a drop in egg production. 223t and 199t constant TACC's lift egg production above desired target. The current 246t quota almost gets to the desired 28% but is insufficient to reach or exceed the target. A target of 233t would reach the 28% target and result in catch rates of approximately 1.1kg/pot lift.

**Ian noted the group must use the correct terminology around the targets. MSC targets may be different to the targets laid out today. MSY proxy is the correct terminology of 28% pre fishing stock levels. The RAG agrees to use target and limit reference points relative to  $B_0$  (pre fishing levels).**

**ACTION** – Toby to circulate rebuild paper to the management plan review meeting.

#### **Eastern Zone**

A constant TACC of 32t (under 2008 – 2015 recruitment assumption) satisfies egg production level.

Biomass will improve with constant TACC of 40t (under 2008-2015 recruitment assumption) but falls short of 28% target. A constant TACC of 32t achieves the desired biomass target.

Catch rates are projected to rebuild above 1kg/potlift.



## **Scenario 2 - Constant Exploitation Rate**

### **Western Zone**

An exploitation rate of 16% would be required to reach rebuild target by 2043 however it would require dropping the TACC initially to about 150t.

### **Eastern Zone**

An exploitation rate of 16% or less results in an increase in biomass and meets the 28% rebuild target by 2043 and allows for TACC increase.

## **Scenario 3 - Current Harvest Control Rule with TACC cap**

### **Western Zone**

TACC cap of 300t provides short term increases in catch, but long-term drop, putting further pressure on the fishery.

A Rebuild target of above 230t or less will see a biomass increase to the 28% rebuild target under the 2008-2015 recruitment assumption. A 230t cap will increase the catch rate to approximately 1.1kg per pot

### **Eastern Zone**

A TACC of 40t does achieve the 28% biomass rebuild target under the 2008 – 2015 recruitment assumption and will achieve a catch rate of approximately 0.8kg/pot lift under the 2008 – 2015 recruitment assumption.

Members discussed revising the harvest strategy so it should have more increments to different TACC bands rather than bigger single jumps.

## **4.3 Reviewing the legal minimum size**

Klaas explained the male maximum yield is achieved at approximately 140mm in the West, though the East is uncertain. The female maximum yield is achieved at approximately 110mm in the West. Klaas further highlights an increase in productivity by harvesting at different sizes. The recommended size limit of 120mm for both male and female, East and West assists in reaching the desired 28% rebuild target faster and requires less drastic TACC reductions.

### **Western Zone**

By introducing the size limit of 120mm, a constant TACC of 246t is sufficient to achieve proposed rebuilt target of 28% in the Western zone by 2043.

### **Eastern Zone**

By introducing the size limit of 120mm, a constant TACC of 40t is sufficient to achieve the proposed rebuilt target of 28% in the Eastern Zone and provides a precautionary rebuild approach.

Klaas summarised this agenda item by explaining that the current harvests control rules provide a negligible rebuild. However, the good news is that a significant rebuild compatible with more sensible Target reference levels is possible with some form of catch reduction. A 40t TACC cap, plus size limit change provides the most precautionary management for the rebuild in the Eastern Zone. A 240t TACC plus the size limit change, or a TACC of 230t with the current legal minimum size is sufficient to



achieve the rebuild target in the Western Zone. Klaas noted that both scenarios increase CPUE considerably.

RLRAG members discussed the proposed scenarios. Gary asks about options to look at skewing size limits for different sexes. Klaas noted that a low level of stock recruitment relationship makes it difficult to detect any changes. Matt Harry noted that industry is already limited in lobster suitable for market, and this will only make more restrictive. Matt noted that currently the smaller and much larger fish are desired by consumers, so additional restrictions would compound this issue further.

Ian questioned the group as to where we want to see the stock from a sustainability perspective. The RLRAG agree they would like to see the fishery in a better place.

The RLRAG agreed to adopt a 20 year rebuild plan. Dave noted that we may need to have interim goals to ensure we maintain the correct trajectory. This can avoid trying to achieve too much at the end of the plan. A suggestion for an ambitious 10-year management plan was made and further discussed. **The RLRAG agreed to adopt a 20-year plan with 5 year checkpoints to ensure the fishery is on the correct trajectory**

Ian thanked Klaas and his team on their work and presentation. Ian requested that the group formalise a recommendation on the target and timeline to move forward. Ian noted the stagnant catch and recruitment levels, and how the RLRAG needs to create a clear plan moving forward.

Ian puts for comment, that 28% over 20 years is a reasonable target and timeframe to rebuild the fishery. After much discussion over the methodology of this target, the group came to a decision.

**The RLRAG discussed and agreed upon an MSY proxy target of 30% BMSY (pre fishing biomass) for the East and West to be achieved within a timeframe of 20 years (by 2043).**

It was noted that the RLRAG is strongly opposed to a TACC increase of 270t for the upcoming year. Further fishing on a weakened stock would only exacerbate the issue. The RLRAG discussed and agreed upon a TACC of 246t for 2022/23.

#### Action

- Management plan review to explore options
- Discuss options available to meet the target within the target period
- Remove all lines from graphs that do not meet the target.

## 4.4 Reviewing the PRI decision rule

PRI discussion to be held over to the next meeting to be discussed as how this will function within overall harvest strategy

## 5 Continual improvements (for consideration)

### 5.1 Revising the Queenscliff regional boundary

The RLRAG proposed that due to increased catch in Queenscliff it would be a worthwhile task to explore redefining the boundary to determine impact on regional catch rate. Klaas explained relatively modest changes to overall regional catch rates in San Remo and Queenscliff given the magnitude of change that was proposed with moving the boundary. The trends in catch rates for the two regions track quite similarly. Klaas' overall assessment demonstrates the catch rate is robust to

shifting the boundary, and in the absence of any clear biological rationale for where the boundary should lie, there is no compelling reason to shift the boundary. RLRAG recommend leaving the Queenscliff regional boundary as is currently defined

## 6. OTHER BUSINESS

### 6.1 SRL/SIV

#### SRL

Wayne provided an overview from SRL.

Cadmium testing remains in progress. DFAT has sent a letter to China on the results of Cadmium tests and are still waiting on response. The liberal government wants to put more money into Seafood Industry Australia for MSC's certification. A synthetic bait is being trialled in South Australia. The fine tuning of the supply chain is being finalised.

Working with IMAS on a Puerulus enhancement trial where they hope to reseed reefs throughout Tasmania. This involves working with the Tasmanian fish farmers to collect Puerulus from farm structures and put into land-based aquaculture to grow them out to a suitable size. By skipping the initial 18 month early life cycle this method is relatively cost effective.

#### SIV – Provided by Matt Harry

The new CEO Steven Wotjkiw is currently getting his head around the new role. SIV are working on a new website which should be released around easter. The website focuses on Victorian rock lobster. It aims to educate consumers on how to get it, the best times to get it and what to do with it. SIV have started a rock lobster discussion group which is open to licence holders in order to gauge issues and get a consensus on what broader approach industry wants. Matt is leading the discussion group and has written a newsletter for licence holders. SIV are working on updating the industry rock lobster code of conduct. Matt provided an update on the Vic pot project, which aims to source better materials for fishing equipment such as alternatives to plastics and looking at improving efficiency gains. Additionally, what happens to lost pots and how debris are collected. They have gained permits to trial different cray pots which may benefit the fishery and environment, which is currently open for industry members to take part in.

**Action** – Matt to send link to new website.

### 6.2 WRL model development update (for information)

Update, Genevieve has got it up and running and is fine tuning comparable models. Further update to be provided at the next RLRAG.

### 6.3 2022 Workplan

Toby to circulate 2022 workplan out of session.

Toby noted the AVG situation in the Western Zone that has caused major problems for the abalone industry. Toby expressed a huge thankyou to the rock lobster industry for supporting the Abalone industry. Small area off Cape Bridgewater still closed to abalone fishing and rock lobster potting to reduce the spread of AVG.

Ian concludes the meeting and thanks all members present. Ian noted the significance of the progress that has been made. Ian expressed his thanks to Klaas and his team and all people for traveling to participate in the meeting.

Meeting concluded at 3:06pm