

Attendees

Eastern Zone Abalone Industry Association (EZAIA): Cameron Armstrong, Chris Daniel, Donald Hayes, Gavin Hayes, Darren Joiner, Mike Minehan, Brenda O'Neill, John O'Neill, Robert O'Neill, Joe Peel, Hannah Searle, Grant Shorland (Snr), Grant Shorland (Jnr), Reinhard Strauss, Waikura Strauss, Joel Theodore, Brendan Wadsworth, Reece Warren, Jason York, Charles Nelson (MAL), Helen Burvill.

Virtual - Elke Hupfaut, John Minehan, Hayden O'Neill, Leonie O'Neill, Jayde Theodore, Chris Theodore.

Apologies - Brett Cowen, Jennifer Thomas, Dennis Watson, Chris Wright.

MRAG - Cameron Dixon

VFA - Luke O'Sullivan, Anthony McGrath, Andy Benton, Tom Goodyer

Independent Chair - Ian Cartwright

Executive Summary

The Eastern Zone total allowable commercial catch (TACC) workshop was held on 6 December 2022 in Mallacoota. This workshop was undertaken as the second day of a two-day forum with the Eastern Zone Abalone Industry Association (EZAIA) members. This is a considerable format change from previous years which have traditionally been single day events. The format change was considered successful by both industry and the VFA.

Day 1 of the forum was an industry led session Chaired by Ian Cartwright to enable: a free and frank exchange among industry as to the current state of the fishery; what management changes may be necessary; and to see if a non-binding consensus and a change to the TACC was possible. This section of the forum provided useful initial discussions in preparation for the VFA led workshop. The VFA and MRAG were invited to the first session of the day to present a high-level science overview and discuss the current status of the federal governments' urchin plan, without making specific commendatory as to what management changes might be necessary. The VFA and MRAG were not privy to discussions following the lunch break, noting that outcomes of day 1 were summarised by the Chair to promote communication and transparency. In this industry led forum the members concluded that a reduction of 80 tonnes would be tabled for discussion at the Day 2, VFA led workshop.

Day 2 consisted of the VFA led workshop, also chaired by Ian Cartwright. In this workshop participants reached consensus on a recommendation for the 2024/25 TACC for the Eastern Zone. The participation of stakeholders throughout the meeting was mature, respectful, and constructive with discussions based on scientific advice, diver observations and catch management considerations within the zone. Participants arrived at the workshop well prepared and considered the sustainability of the fishery to be their highest priority.

The final recommendation was arrived at by consensus, with an Optimal Target (OT) catch for each reef code decided under a process facilitated by the independent chair. The final recommendation for the 2024/25 TACC is 208.5 tonnes, with all SMU's considered to have a 10% Upper Limit, except the Mallacoota Large SMU, which maintains a hard closure at the Optimal Target.

The Forum recommended that the 2024/25 TACC Optimal Target (OT) be set at 76.1 tonnes lower than the 2023/24 TACC optimal target, representing a 26.7% reduction in the TACC from the previous season.

There were no proposed changes proposed to legal minimum lengths.

This significant voluntary reduction was led by the industry and agreed to by majority consensus in the industry, during the first day of the forum. It was again confirmed by majority consensus at the end of the formal VFA TACC workshop with all EZAIA members in attendance supporting the proposed reductions.

A topic of great concern to industry is the current incursion of Centro Urchins throughout the region. This incursion is having a significant negative impact on all reefs in the zone, with EZAIA seeking support from government at all levels to support programs to limit the spread and impact caused. There are ongoing industry concerns that unless the Centro issue is dealt with effectively, management changes, including reductions in the TACC, will be compromised.

The Marlo SMU was also discussed with divers reporting that it has been heavily impacted by the last four years of extreme environmental conditions including bushfires and back-to-back major floods in the Snowy River catchment.

The VFA is required to consider the information received in submissions provided during the consultation process before a final TACC decision is made by the Minister's delegate, the Chief Executive Officer, VFA.

Table 1. Proposed 2024/25 TACC, SMU limits

Eastern Zone TACC 2024-25			
Reef code	Reef name	Agreed OT	Upper limit
21.00	Lakes Entrance	0	0
22.01	Marlo	0	0
22.02	French's	2	2.2
22.03	Point Ricardo	5	5.5
22.04	Cape Conran	7.5	8.25
22.05	East Cape	8.5	9.35
22.06	Yeerung Reef	2.75	3.02
22.08	Pearl Point	10	11
22.09	Tamboon Reef	0	0
22.10	Clinton Rocks	0	0
23.01	Point Hicks	0	0
MARLO SMU		35.75	39.32
23.02	Whaleback	3	3.3
23.03	Mueller	3	3.3
23.04	Petrel Point	3	3.3
23.05	Island Point	3	3.3
MALLACOOTA WEST SMU		12	13.2
23.06	Big Rame	12	12

24.00	The Skerries	5	5
24.03	Easby Creek	1.5	1.5
MALLACOOTA LARGE SMU		18.5	18.5
24.04	Red River	0.75	0.82
24.05	Secret Reef	0	0
24.06	Sandpatch Point	12.8	14.08
24.07	Sandpatch Point lee	16	17.6
24.08	Benedore	5.25	5.77
MALLACOOTA CENTRAL SMU		34.8	38.28
24.09	Little Rame	5.25	5.77
24.14	Bastion Point	2.5	2.75
MALLACOOTA SMALL SMU		7.75	8.52
24.10 & 25.10	Little Rame lee	23.0	25.3
24.11 & 25.11	Shipwreck - Seal Ck	6.0	6.6
24.15 & 25.15	Tullaberga Island	6.0	6.6
24.16 & 25.16	Gabo Harbour	11.0	12.1
24.21 & 25.21	Quarry Beach/Betka	34.0	37.4
AIRPORT SMU (24.10 & 25.10, 24.11 & 25.11, 24.15 & 25.15, 24.16 & 25.16, 24.21 & 25.21)		80.0	88.0
24.17	Gabo Island	13.4	14.74
24.18	Gunshot	2	2.2
24.19	Iron Prince	4.25	4.67
MALLACOOTA EAST		19.65	21.61
EASTERN 2023/24 TACC		208.5	

Items 1 and 2: Introduction, Overview of day and re-cap of previous day (Ian Cartwright, Chair)

The Chair welcomed all attendees to the forum, including those online.

The Chair provided a recap of the previous days (industry) meeting which was highlighted by EZAIA members discussing the state of the fishery which included the following items.

- Working through each SMU to achieve a consensus position on the TACC, based on the MRAG Stock Assessment Summary report 2023, diver observations and general knowledge of the industry.
- Reducing the Eastern Zone TACC by around 77 tonnes from 284.6 tonnes to 207.05 tonnes which would be divided fairly at +/- 450kg per quota unit, or 9 tonnes for a '20-unit licence.'
- Where will the remaining 50 tonnes of current season uncaught quota would be caught from, given that Marlo SMU was not performing as expected following 3-4 years of bushfires and floods in the Snowy River catchment.
- Potentially introducing a new licence type for Mallacoota Large SMU to spread a catch allocation from this SMU across all licences.
- Introducing a similar management tool to the Airport SMU to divide the catch fairly among all licence holders.
- In the current season TACC, there is a Reef code variance of 30% above OT allowed, however participants believed this to be too high and requested it be reduced to 15% to provide greater protection.

Item 3: Management Update – Anthony McGrath, VFA Abalone Fishery Manager

Anthony introduced himself to the group as the VFA's new Abalone Fishery Manager and briefly described his past work at the VFA, offering to work with EZAIA members and talk over the phone.

Anthony discussed the following items.

- With the assistance of Cam Dixon, a brief update was provided on the outcomes of review of the Fisher Independent Survey, as well as the stock assessment procurement process for next year's FIS. Cam described the methodology behind combining the new fixed transect method for 15 new sites and the continuation of 15 old sites.
- The 'Working Group' responsible for representing the industry during the FIS review will be expanded in the New Year to work as a multi zone advisory body. The expanded working group will have representation from all three zones, VFA and abalone assessment scientists.
- Prior to moving to eCatch, weekly 'Cumulative Catch Reports' were provided to each zone's executive officer to keep a running tally of the TACC. Under eCatch, this functionality has been lost, requiring the VFA to manually create and provide reports to the EO's until an automated report can be incorporated into the eCatch system.
- Update on the August Abalone Viral Ganglioneuritis (AVG) outbreak in Portland. In September two Abalone found washed up on the beach near point danger tested positive to AVG. An immediate three-month closure to all abalone and rock lobster fishing was put in place south of Portland Harbour, including Lawrence Rocks. In November, the fisheries notice expired after surveillance and testing found no further positive cases of AVG. The prompt action, which was supported by industry, was considered a success.

Item 4: Compliance Update – Andy Benton, VFA Senior Fisheries Officer

Compliance in the eastern Zone is considered by VFA Compliance staff as generally good, with a constructive working relationship existing between industry and the VFA compliance officers.

- There has been reports of increased poaching of abalone in the NSW marine park and there is some concern that that activity may spread into Victorian Waters. Everyone is encouraged to call 13FISH to report any suspicious activity that they see.
- New Industry Entrant testing remains an important part of bringing new crew on board and operators are encouraged to support new crew in undertaking the required study to achieve success.
- Divers and deck hands are reminded to be accurate in their reporting of catch via eCatch as there has been several times now that catch has been reported incorrectly and required to be changed at the back end.
(Note; John M commented that Point Hicks reef code needs to be deleted from the options and that there is some operating issues with the system than make it less user friendly. This includes not being able to go back or click 'cancel' if you accidentally click forward. John also mentioned that the link to the diver observation program is not working correctly.)
Other divers mentioned that using a smart phone or tablet with cold or wet hands often causes mistakes to be made, due to the affect that water has on touch screen devices. VFA undertook to consider these issues and consider how best they could be addressed.
- VMS has been used in the fishery for some time now. New '9100' units are still available from the VFA to upgrade at no cost. These new units offer 5 minute polling and are considered a much better unit than the previous model. It also has an internal battery that transmits after the boat batteries have been turned off.
- Operators are reminded that VMS must remain switched on until after delivery at the co-op.

Item 5: Diver Observations Overview

It was decided to present diver observations as part of the TACC setting.

Item 6: Stock Assessment Process – MRAG Asia Pacific, Cameron Dixon,

Abalone fisheries around Australia are suffering declines due to poor recruitment over a prolonged period and EZ is also suffering impacts from urchins, East Australian Current and regular flooding which appears to be impacting habitats near Marlo.

MRAG noted that the Harvest Strategy is sound, but the data that informs it (primarily CPUE) has issues that require some standardisation to overcome the issue of bias. Some standardisation work has been undertaken recently in Tasmanian Abalone fisheries with promising results that may be useful for the Eastern Zone. We expect an evaluation of the Harvest Strategy in a few months' time as part of the project led by Cathy Dichmont.

MRAG commended the industry representatives on accepting a TACC reduction last year and recommends further reductions in catch to slow the decline in biomass. The Harvest Strategy suggests reductions at all SMUs except Airport. However, the Airport has been over-caught by 30 tonnes in last 2 years (+5 tonnes to end of October 2023) and as this is the 'engine room' of the fishery, careful consideration should be given to this SMU, as we may not have seen the impact of that on the biomass.

The extent of reductions needed will rely heavily on industry (diver observations & opinion), however it must be considered that SMU assessment identifies some SMUs being in more trouble than others and if TACC reductions are not sufficient, declines in biomass will be highly likely to continue.

Key uncertainties and issues for consideration

Standardisation of CPUE

- Characteristics of the data means that CPUE is a poor measure of abundance for Eastern Zone.
- Improved effort measures through dive loggers, combined with distance travelled has great potential to improve CPUE measures and should be considered.
- Tasmania and South Australia have introduced a hyperstability measure into CPUE to standardise data set.
- Diver surveys reflect the declining state of the stock and the need for the TACC reductions suggested.

Fishery independent surveys

- FIS review process Year 1 complete.
- Current FIS sites are a poor reflection on current fishery effort.
- New potential survey locations have been identified.
- Process to establish and Open Tender for the conduct of surveys is underway.

Legal Minimum Length changes

- The impact from changes in LML remain a key uncertainty in the historic assessment.
- Multiple LML changes within some SMUs add complexity.
- LML reductions should not be considered when stocks are declining.

2022/23 Easter Zone Performance Indicators

Some key performance indicators of the fishery are summarised in the table 2 below, which has been broken down to show changes that have been occurring in the long term, short term and the last four years' time slots. The purpose of which is to show the speed at which changes are occurring.

Key points to note from table 2 is that the average catch per day is dropping and there is a decline in recruits and pre recruits.

Table 3 shows the performance indicators for each SMU which shows CPUE declines in all areas over the past four years.

Note; Chris D asked if it was possible to separate CPUE between divers that are collecting for live sales versus those collecting for a canned product, as there is a large time variance between the two different methods. It was agreed that if this was seen to be a significant issue through data standardisation, then we would need to look at incorporating a measure to accommodate the variance.

Note; It was mentioned by MRAG that dive loggers are used extensively to improve the interpretation of CPUE data in Tasmania, by adding depth and distance travelled. Luke O raised that the VFA would investigate using the unspent FIS money currently held by the VFA to roll out Scielex Diver Depth loggers in the Eastern Zone. These loggers are currently used in the Western Zone and

automatically download data when they receive a phone signal. While there were some reservations expressed, there was support for trialling Scielex loggers. Some participants expressed a desire to trial one of these units.

Table 2: Performance measures used in the assessment of the Eastern Zone abalone fishery.

Measure	2022/23	Long term (since 2003/04)	Short term (since 2009/10)	Last 4 years (since 2019/20)
CPUE (kg/h)	106.4	98.9 (↑8%)	108.6 (↓2%)	119.4 (↓11%)
Mean daily catch (kg/day)	388.9	426.5 (↓9%)	433.3 (↓10%)	445.7 (↓13%)
Recruit abundance (Top 15 n/transect)	6.7	17.7 (↓62%)	12.2 (↓45%)	8.6 (↓23%)
Pre-recruit abundance (Top 15 n/transect)	8.1	14.6 (↓44%)	14.7 (↓45%)	6.1 (↑34%)
Catch (t)	330.5	480.7 (↓31%)	460.4 (↓28%)	352.5 (↓6%)
2022/23 TACC (t)	350.5			
2022/23 catch (%TACC)	94.3%			

Table 3: Performance measures used in the assessment of the Eastern Zone abalone fishery at the SMU scale (Zone totals repeated for reference). OTs include carry-over TACC.

Spatial Management Unit (SMU)	Catch				CPUE		
	Total Catch 2022/23		OT (t)	SMU Category	Long-term (2003/04)	Short-term (2009/10)	4 years (2019/20)
	(t)	(%) TACC					
Airport	93.6	26.7	85	Large	23	17	-4
Marlo	72.6	20.7	91	Large	0	-2	-5
Mallacoota Central	61.7	17.6	57	Large	3	-6	-16
Mallacoota East	35.8	10.2	32.5	Medium	10	-1	-8
Mallacoota West	31.9	9.1	44	Small	1	-12	-20
Mallacoota Large	18.6	5.3	20	Small	-11	-18	-14
Mallacoota Small	16.4	4.7	21	Small	14	-1	-14
Eastern Zone	330.5	94.3	350.5		8	-2	-11

Notes: Coloured shading indicates whether catch has been caught within the OT, Threshold or exceeded the Limit. Green (within OT range) indicates catch was $\leq \pm 15\%$ of the OT, Yellow (within threshold range) indicates catch was $\pm 15\text{-}30\%$ OT, Red (exceeding limit range) indicates catch was $> \pm 30\%$ of the OT for the 2018/19 quota year. SMU catch categories (% of zone catch): Large $\geq 15\%$, Medium 10-15%, Small $< 10\%$.

Item 7: SMU assessment (MRAG, VFA, Diver Observations, Forum Participants)

Eastern Zone overview

MRAG provided an overview of the zone, as per its Stock Assessment, summarising the harvest strategy results for all SMUs. MRAG noted CPUE is the only driver of the harvest strategy this year and stated it considers that CPUE is, in general, a poor indicator of the status of biomass. That said, a declining CPUE, given the propensity of industry to change fishing patterns to maintain CPUE, is a strong indication of declining biomass. MRAG noted the Eastern Zone is in a poor state with urchin incursions and flood/bushfire influences on habitat.

There was considerable discussion around the current state of the Marlo SMU, with several years of flooding and bushfires in the Snowy River catchment causing difficulty fishing and a lack of Abalone to be found. The bottom seems to be covered in a dark algae or sludge. Currently this SMU has only produced 35 tonnes of its 71 tonne allocation and is unlikely to improve in this season. EZAIA are undertaking a small scientific project to get a better understanding of the nutrition of the Abalone that are found in this area and what impacts the change in environment conditions has had.

During these assessments, the significant impact of quota reductions on stakeholder lives, the community and the Mallacoota processing facility was recognised. It was noted that the discussion of quota reductions was not being taken lightly by anyone in the room and participants were commended for taking significant steps in order to protect the resource.

SMU assessments

TACC Forum Participants arrived well prepared and considered the sustainability of the fishery to be their highest priority. Participants had already workshopped each SMU on the previous day and had reached a non-binding (i.e. to be confirmed on Day 2) consensus decision through mature, respectful, and constructive dialogue with discussions based on scientific advice, diver observations and catch management considerations within the zone.

Led by the chair, Fishery independent and dependent data were presented for each reef code and considered along with diver observations. Based on these discussions a consensus was reached for a proposed 2024/25 TACC. SMU and Reef Code discussion outcomes are summarised in **Table 1. Proposed 2024/25 TACC, SMU limits** at the beginning of this meeting report.

Each SMU has maintained a 10% variance. Except the Mallacoota Large SMU, which has a hard closure at the optimal target.

Item 8: Recommendations and Closing Comments

2024/25 TACC Recommendations

The VFA provided an overview of the workshop TACC recommendations, noting an overall zone voluntary reduction of approximately 26.7%, in addition to a 14% reduction applied to this current season. Some industry members suggested this wasn't enough and recommended a closure of the fishery for one season.

Remaining 2023/24 Quota

At the time of the meeting 54 tonnes of quota remained uncaught in the Eastern Zone, with catch per licence varying among the group. Some participants had caught their quota already, whilst others had considerable uncaught quota.

There was discussion around where the remaining uncaught quota would come from considering the state of the Marlo SMU which included 36 tonnes that may not be realised. Some participants suggested that the Airport SMU should be reopened with a limited catch, whilst others recommended all fishing be ceased for the remainder of the season. It was agreed that the remaining 2023/24 quota should be spread across the fishery so as to minimise impacts to sustainability.

After a short break, all participants agreed that the VFA and MRAG will look at options to manage stock impacts by spatially distributing the remaining catch and present them to the EZAIA board in late January/early February for discussion and decision as to what management actions may be necessary.

Ian Cartwright thanked everyone for their hard work and efforts, acknowledging the work of the EO and industry in developing the new two-day TACC process format. The meeting was closed at 4:30pm.

Summary

The recommended 2024/2025 TACC for consultation is 208.5 tonnes. This represents a quota reduction of 26.7% on the 2023/24 TACC. These reductions are noted below.

Meeting Actions

1. VFA to prepare options for remaining 2023/24 uncaught quota and present to EZAIA in late January/ early February.
2. VFA to provide a proposal for EZAIA to trial Scielex Diver Depth Loggers with a view to implement across the zone by April season start.
3. VFA to check status of VMS unit replacement budget and report back to EZAIA