Queensland SEAFOOD

2025 NUMBER 3

Registered by Australia Post: PP434810/0006

- Mackerel TAC increase
- Scallop plan released
- “Prosper 2050” launch
- Govt funding for QSIA

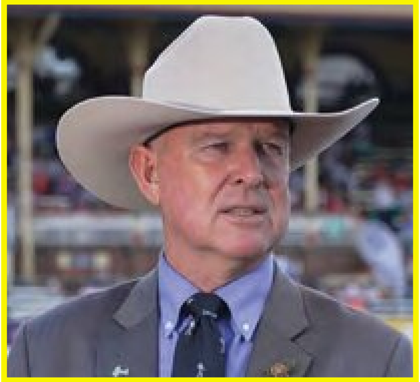
MINISTER HEARING FIRST-HAND FROM THE FISHING INDUSTRY

VOLUME 43, No. 3 2025

Queensland SEAFOOD

Proposal for mackerel TAC lift. Page 6.

Scallop plan out for comment. Page 8.



"Prosper 2050" plan launched. Page 11.

Fishermen's friends gather. Page 12.

In this edition …

THERE is more good news in this edition, as the change of attitude from the changed Queensland Government continues to influence fisheries policy. However, as President Allan Bobbermen points out (page 4), while Minister Tony Perrett has shown strong support for the fishing industry, the machinery of government continues to move at a frustratingly slow pace, and red and green tape continue to be a burden.

Executive Officer David Bobbermen has listed out some of the significant events that have occurred in the past three months – a busy time and with no sign of things slowing down. (Turn to page 5.)

Primary Industries Minister Tony Perrett has announced a proposal to increase the total allowable commercial catch of Spanish mackerel from 165 tonnes to 250 tonnes before the end of the year. (See page 6.)

Also, the State Government has been seeking feedback on proposals to manage saucer scallop in the east coast otter trawl fishery, suggesting changes could be on the way. (See page 8.)

The Queensland Government has launched its *Prosper 2050* plan, described as "a clear long-term vision to sustainably grow Queensland's food, fibre and foliage industries over the next 25 years", and to include a specific fisheries plan. (See page 11.)

Fishermen from throughout Queensland have joined some 30 State MPs at the inaugural Friends of Commercial Fishing event to discuss a wide range of industry issues in a relaxed, informal setting. (Story and photos on pages 12-13.)

In a significant departure from popular political mantra, an independent report says the massive expansion of the Heard Island & McDonald Islands Marine Reserve could harm commercial fishing without significantly addressing the major environmental issues, and Australia's approach to marine conservation is urgently in need of review. (See page 16.)

On pages 20-21, we remember the contribution to the Australian seafood industry of the late Grahame Turk, longtime Managing Director and Chairman of the Sydney Fish Market and friend to fishermen everywhere.

We all know eating seafood is good for our health, and now a new study has collated a wide range of health benefits from eating at least two serves each week. (See page 24.)

Front cover: Primary Industries Minister Tony Perrett caught up with Kevin Reibel on his trawler *Reward II* when visiting Tin Can Bay recently to meet fishermen and announce funding for the QSIA. (See articles on pages 14-15.)

Queensland Seafood is the official journal of the Queensland Seafood Industry Association Inc, the peak body representing the State's seafood industry.

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PRESIDENT ON THE LINE

Minister supportive – but machinery of government frustratingly slow

HELLO members and industry. I hope this message finds you well and that your catches have been strong.

Since my last report, there has been a change in Fisheries Queensland senior management, with Mr Eddie Jebreen being appointed Acting Executive Director. Many of you will remember Eddie from his previous tenure with Fisheries Queensland. I welcome Eddie to this role and we look forward to working with him, particularly to implement the LNP Government agenda.

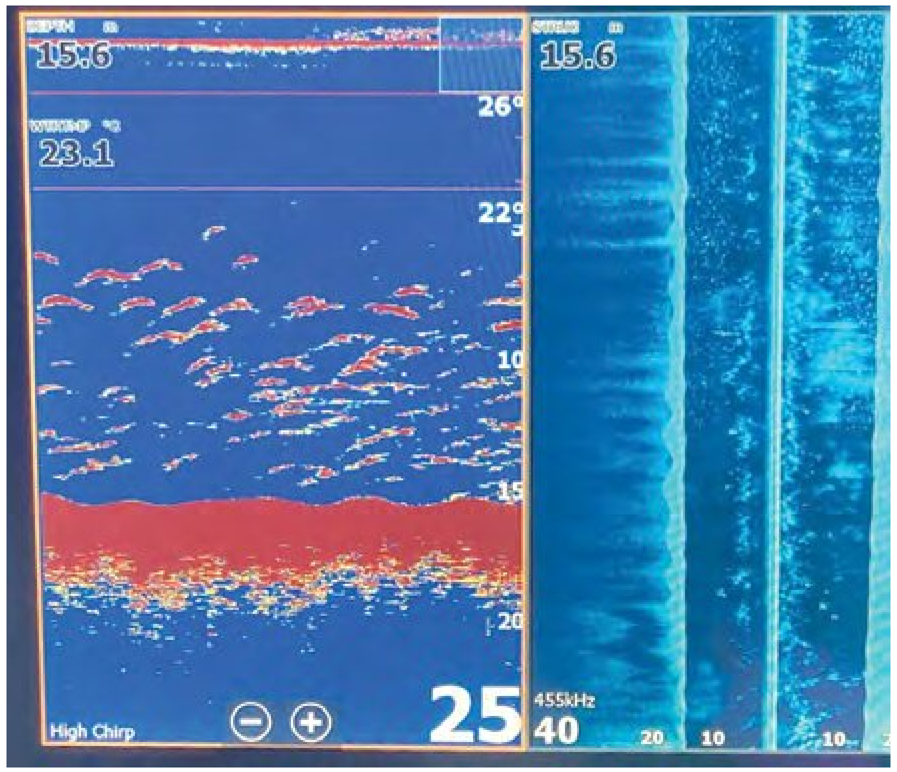
While the Minister has shown strong support for our industry, the machinery of government continues to move at a frustratingly slow pace when compared with that of small business. The red and green tape is clearly a burden – so much for the Sustainable Fishery Strategy reducing it!

Consultation papers for the East Coast Spanish Mackerel (ECSM) Harvest Strategy and the Saucer Scallop Fishery have been released, and QSIA has made submissions based on surveys and discussion with fishers. Both these fisheries are important and we hope there is a speedy outcome from the consultation process.

Northern fishers are hopeful that quota values will be adjusted before the traditional ECSM season ends, though this remains contingent on government processes. Conversations with seafood outlets, wholesalers, and fish and chip shop owners suggest looming supply shortages of locally-caught seafood. One outlet owner shared that his supplier cannot guarantee availability of Queensland grey or Spanish mackerel.

In a positive development, the LNP Government has provided the Productivity Commission with the draft terms of reference for an inquiry into our industry. We eagerly await their publication and formal notice of the inquiry. I read in the QDPI Annual Report that this inquiry is listed as an action item. So, watch this space.

Feedback from fishers involved in alternate fishing method trials has been mixed. Those I've spoken with say that, while some catch quantities have been high, they have concerns about economic viability. Time is quickly eroding to find, prove and legislate a commercially-viable alternative to gillnets within the GBRMP before 30 June 2027.



This side-scan sonar shows a big school of grey mackerel stacked like bricks, fish that could have been caught with a net – but they are just north of Cairns, in Area 2, where several gillnet licences have been cancelled but no NX licence has been allocated, and fishermen are reduced to having to try to catch a few of these fish, notoriously finicky and hard to hook, with lines. What a waste! And contrary to the policy of enhancing value in commercial fisheries.

QSIA continues to inform fishery managers of significant concerns regarding the supply of prized inshore species post-June 2027. Given the performance of the NX fishery, the logical path forward is to allow its continuation beyond that date.

Net collection from fishers whose licences were retired is underway. Feedback so far has been positive, with no reported issues. We are disappointed that this has not been completed by the end of September, the deadline we were given by FQ when QSIA was seeking upfront payments.

I've received numerous calls from fishers in Areas Two and Three regarding the closure of the school and spotty mackerel fisheries. The commercial TAC is set too low and must be revisited. The harvest strategies have no allowance to increase TACC, only reduction. This also needs to be reviewed.

Our annual general meeting is scheduled for November 7 in Cairns. Nominations for directors and president have occurred, and voting will soon commence ahead of the AGM. After the AGM, we will conduct a workshop with guests in attendance. Once the agenda for the day is finalised, it will be widely distributed. I hope to see many of you there.

The Minister's continued interest in our industry is encouraging. QSIA will work closely with him, his office and the Department to ensure that this momentum continues. Of particular interest is the development of the Fishery and Seafood Action Plan, which has commenced. I encourage all of industry to engage with the development of this Plan, as it will set the Government's agenda (and budget) for the next five years.

In the meantime, stay safe and good fishing. Warm regards,

Allan Bobbermen
President

FROM THE CEO

Significant developments in the past three months and busy times ahead

IT has been a very busy period since the last edition of *Queensland Seafood*, and there is really no sign of things slowing down.

In this edition, there are detailed reports of the significant events that have occurred in the past three months, including the announcement of four years of funding for QSIA, the QSIA "Friends" event at Queensland Parliament House, re-opening the scallop fishery in some form and the proposed increase in the East Coast Spanish Mackerel TACC.

In addition to these, QSIA has prepared submissions for the Impact Analysis Statement for the East Coast Otter Trawl Fishery IOM and The Mitchell River Water Plan Review (done in conjunction with GoCCFA and NPF). We have also been gathering data on the Paradise Dam reconstruction and the plan to widen the Port of Brisbane main channel.

The next significant piece of work is the Fishing and Seafood Action Plan. This is one of only two sector-specific plans that have been derived as a direct result of *Prosper 2050*. The other sector is timber.

The importance of this plan cannot be overstated. With the Sustainable Fishing Strategy no longer funded, with most actions complete, this new plan will set the Government's agenda over the next five years. In doing so, it also can unlock budget funds.

QSIA is involved in the preparation of the plan but you need to also be involved – it's your future. I continue to urge Fisheries Queensland (FQ) to ensure that no commercial fisher is left behind in the development of this plan. They must ensure that everyone can provide input – through genuine, preferably in-person, consultation. To be clear, this plan is for all sectors: commercial, charter, recreational and Traditional Owner, and includes fresh and salt water. More reason for industry to be engaged!

We continue to deliver projects, including Post Harvest Seafood Handling Training, Fishery Improvement Projects for parts of the trawl fishery and, in conjunction with OceanWatch Australia, Master Fisher Training. We are also creating new internet sites for QSIA and Queensland Catch.

Minister Tony Perrett met with industry at a "friends" event at Parliament House in late August.

Future projects being explored include an MSC Preassessment for the NX Fishery. This will provide evidence to the State and Federal Governments, the Reef Authority, IUCN and other stakeholders of this fishery's world-class standard, to support the continuation of gillnetting within the Great Barrier Reef Marine Park.

We understand that the Productivity Commission has been provided with Draft Terms of Reference and look forward to engaging with them to provide evidence of the injustices (and shortcomings) the commercial fishing industry (including suppliers, wholesalers and retailers) has endured. The previous Government continues to refuse to release the Future Fishing Taskforce's report, claiming "Cabinet in Confidence". Again, I call upon them to release the report, either in full or redacted, as deemed necessary.

Recently, an issue arose where real-time VMS data was being used by an enforcement agency that was not QBFP. The fisher concerned contacted me, alarmed that their VMS data was available to other agencies in real time, and that this was not their recollection when VMS was rolled out.

I contacted FQ, who confirmed that under s217A of the Fisheries Act, FQ have the power to enter an "Information Sharing Agreement". They confirm that they have such agreements with many other enforcement agencies, who have access to real-time VMS data for "compliance purposes". Examples of other agencies include Marine Parks, the Reef Authority, the Water Police, AMSA and MSQ.

Almost a year has passed since the 2024 State election. In that time, Minister Perrett has delivered, or commenced to deliver, all actions that QSIA put to him in the lead-up to the election. For that and all the other actions, I thank the Minister. We look forward to building the industry under the Action Plan and *Prosper 2050* in a way that endures political cycles. It will be a waste, and frankly cruel, to rebuild the industry only to have it torn down by future governments due to siloed ideological positions.

The role local wild-caught seafood has in our community and national security will hopefully be discussed in detail in the coming 12 to 18 months with the release of the Futures of Seafood Report (due late 2025) and the "Feeding Australia: A National Food Security Strategy" being developed by the Federal Government (see https://www.agriculture.gov.au/agriculture-land/farm-food-drought/food/national-food-security-strategy for more information).

Our traditional disaster period will be upon us soon. QSIA made some headway last year in communicating commercial fishers' impacts to government. The horrible algae bloom in South Australia has further focused attention of the natural disaster impacts to commercial fishing businesses. Please be disaster-ready. If you are affected, please watch our socials or get in touch. Good news stories also help build the profile of the industry.

In conclusion, there is a lot on and mostly positive. The challenge is to get real tangible benefits to industry as quickly as possible, knowing that government processes take time.

Regards

David Bobbermen
Executive Officer

Plan to boost Spanish mackerel TAC to 250 tonnes

Primary Industries Minister Tony Perrett has announced a proposal to increase the commercial total allowable catch (TAC) of Spanish mackerel from 165 tonnes to 250 tonnes before the end of the year.

A RECOMMENDATION to increase the commercial and recreational catch of Spanish mackerel follows the State Government's re-assessment of east coast stocks – reported in the last edition of *Queensland Seafood* – that produced a significantly higher figure than the previous analysis.

Mr Perrett said the new, science-based Spanish mackerel stock assessment demonstrates a sustainable population, supports increased future catch limits for both recreational and commercial fishers by the end of 2025, and overturns Labor's flawed 2021 stock assessment, which attracted significant industry and expert criticism.

The decision has been welcomed by QSIA Executive Officer David Bobbermen, who said the decision was in line with independent scientific recommendations for the TAC and would help restore industry's confidence in government decision-making.

"The Crisafulli Government will deliver certainty and restore fairness for the fishing sector, with a new stock assessment revealing sustainable populations that would support increased catch limits for Spanish mackerel," the Minister said.

Mr Perrett said this year's Spanish mackerel stock assessment found the population was now likely to have doubled since the previous review in 2021.

"Based on this, the Department of Primary Industries has proposed raising Spanish mackerel catch limits for both commercial and recreational fishing.

"If these proposals are adopted, the recreational boat limit will double from two fish per boat to a maximum of four.

"For commercial fishers it will see a 51.5 per cent increase in allowable catch, with the annual commercial limit expected to increase from 165 tonnes to 250 tonnes."

Mr Perrett added that this stock assessment for Spanish mackerel is the first conducted since the Crisafulli Government's overhaul of "the former Labor Government's flawed processes, which attracted strong criticism from industry, qualified experts and independent reviews".

New stock target

"The Crisafulli Government is also proposing to set the Spanish mackerel harvest strategy at a target of 48 per cent of unfished levels, ensuring enduring and sustainable access to the fishery," the Minister said.

"The reduction from 60 per cent to 48 per cent will align the harvest strategy with Commonwealth fisheries.

"Existing Spanish mackerel limits will remain in place while public consultation is conducted. The impact of current limits will be evaluated in the next stock assessment.

"The 2025 stock assessment found Spanish mackerel were fast-growing and highly reproductive. Combined with the protections around spawning grounds, assessors had confidence fish populations would be sustainable.

"Public consultation will be announced in due course, with the proposed changes intended to take effect by the end of the year.

Science rules

The Minister emphasised fisheries decision would be based on "robust and reliable scientific processes".

"The proposed changes strike a balance between allowing fishers and seafood consumers to enjoy this prized catch while continuing to protect this valuable fishery for future generations.

"The Crisafulli Government is delivering positive outcomes for the fishing sector based on robust and reliable scientific processes.

"We said we would support Queensland's fishing sector by only legislating scientifically-backed changes to regulation – and that's what we are doing.

"Gone are the days of Labor's botched stock assessments that relied on flawed science and were subject to industry criticism.

"By contrast, our robust stock assessment process is recalibrating to create a sustainable fishery after a decade of Labor using self-serving science to savage the fishing industry."

Decision welcomed

In welcoming the announcement, Mr Bobbermen said the QSIA had been calling for an increase in the Spanish mackerel TAC for over two years.

"This decision is in line with independent scientific recommendations for the TAC and will help restore industry's confidence in government decision-making.

"The QSIA has been calling for an increase in the Spanish mackerel TAC for over two years.

"The previous State Government slashed the Spanish mackerel TAC and refused to adjust it even after an independent review demonstrated flaws in their assessment process.

"The QSIA commissioned a report by independent, internationally-recognised experts in assessment of fish species like mackerel and tuna.

"They concluded the figures were unreliable and should be thoroughly re-examined. However, the then State Government went ahead with the catch cuts, causing serious financial hardship to fishing families throughout the east coast.

"That's not how our fisheries resources should be managed or primary producer livelihoods manipulated, and we welcome the Crisafulli LNP Government's science-based, sensible approach to this issue."

Discussion paper

A discussion paper – including a survey on management proposals – has been published by the Department of Primary Industries. To read the discussion paper and complete the survey, go to: https://dpi.engagementhub.com.au/east-coast-spanish-mackerel-harvest

Mackerel notes

THE minimum legal-size limit will remain at 75 centimetres.

The charter fishing limit will remain unchanged (one fish per person, no boat limit).

A 51.5 per cent increase to the commercial quota has been modelled to provide approximately $3.5 million in gross value of production to the Queensland economy.

A total of 93 per cent of Queensland stocks assessed under the national process have no sustainability concerns.

Spanish mackerel is one of only five fish stocks with sustainability concerns.

Fisheries Queensland's latest stock assessment was published on 7 May 2025 and is available here.

The Sustainable Fisheries Expert Panel met on the 15 July 2025 and endorsed the recommendations.

SCALLOP MANAGEMENT

Proposals floated for management of EC scallop fishery

The State Government is seeking feedback on proposed changes to management of saucer scallop (*Ylistrum balloti*) in the east coast otter trawl fishery.

THE Queensland Department of Primary Industries (QDPI) says the proposed changes aim to ensure the long-term sustainability of saucer scallop stocks and meet the Australian Government wildlife trade operation (WTO) export approvals for the fishery, while balancing the needs of commercial fishers.

It says the feedback received through this process will inform a five-year saucer scallop rebuilding strategy and amendments to relevant harvest strategies.

Summary of changes

In a summary of proposed changes, QDPI says the east coast otter trawl fishery targets a variety of species, with saucer scallops a historical key target species.

Current stock sustainability information indicates the southern stock, in the southern inshore and offshore regions, has an estimated biomass of 15 per cent of unfished levels, below the 20 per cent limit reference point.

The northern stock has recently been identified as a separate stock in the central region through a genetic study, with biomass and harvest potential to be determined.

QDPI also says the future management of the fishery will be informed by a fishery-independent scallop survey, co-delivered with industry in October 2025 (pending permit approval).

The survey will assess scallop densities across more than 420 sampling sites, including the southern inshore, southern offshore and central regions. The data obtained from the survey will be used to obtain evidence of the status of the stock and determine if the southern inshore trawl region's biomass is no longer depleted.

In addition, the data will inform regional total allowable commercial catch (TACC) limits in a precautionary and adaptive harvesting framework.

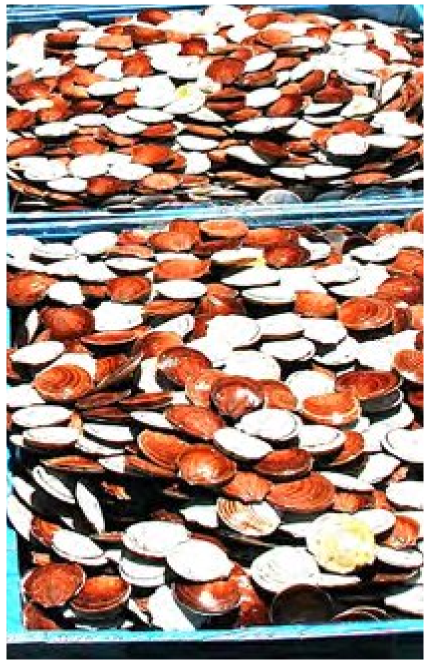
The target harvest rate for TACC limits is proposed to be set at 21 per cent of the available biomass (based on previous studies), while maintaining existing arrangements for scallop replenishment areas and marine park zoning. Future stock assessments will further refine this framework.

To ensure ongoing sustainability, it is proposed that harvest of saucer scallop runs from midday 1 March until midday 1 May across all regions, with landed product reported against regional competitive TACC limits.

To support these TACC limits, it is proposed to limit fishing for saucer scallop to one management region per trip and to close scallop shucking areas to ensure scallop are landed whole.

QDPI is also seeking feedback on:

- ❑ the ability for commercial fishers to electronically report catch under a competitive TACC; and



- ❑ if trip-limits are preferred by industry, and to guide the development of these limits, the length of time an operator currently spends in each region on each trip.

The following three options are proposed for each management region: Option 1: Regional TACC limits only; Option 2: Regional trip limits and regional TACC limits; and Option 3: Same trip limit across all regions and regional TACC limits.

Options in detail

The 30-page discussion paper is too large to summarise here but the three management options can be examined in detail.

	Percentage of years impacted by proposed daily limit						
Number of baskets per fishing day:	**2**	**5**	**10**	**13**	**15**	**20**	**30**
Central	70%	40%	20%	20%	20%	20%	10%
Southern inshore	100%	100%	80%	50%	40%	20%	0%
Southern offshore	100%	90%	80%	60%	60%	50%	40%

Table 1: *Potential daily limit impacts on reported harvest for years 2010 to 2020.*

Region	Example 1	Example 2	Example 3	Example 4
Trip limit – equivalent baskets	80 baskets/trip	100 baskets/trip	260 baskets/trip	400 baskets/trip
Trip limit – shell weight	2,800 kg	3,500 kg	9,100 kg	14,000 kg

Table 2: *Examples of basket and weight trip limits.*

QDPI has presented options to manage a limited sustainable harvest of saucer scallops if the information from the 2025 survey data indicates a sufficient biomass of scallop on the ground (based on the scientific approaches outlined in the precautionary harvest limit and precautionary harvest arrangements outlined above).

Option 1: Regional TACC limits

As detailed previously, historical fisheries management arrangements for saucer scallop have allowed open access to scallop provided the fisher held the symbol and more recently, effort units.

While there have been demonstrated sustainability problems in the past due to the efficiency of the fleet in harvesting scallops, managing the total harvest of the fishery with a TACC can manage risk.

There has been some support from industry to allow future harvesting under an "open" or competitive model, as the fleet can maximise the targeting of scallops to service markets that rely upon high volume supply and can make better use of periods of high abundance of scallops.

It also allows fishers to target areas of legal sized scallop and move away when the season closes or the TACC is reached.

An added benefit that may be realised is the shifting of effort away from other target or secondary species, such as prawns and Moreton Bay bugs.

Finally, it allows for catch rates from the proposed fishery to be compared against catch rates from the fishery prior to 2021. This will be useful for future stock assessment modelling to confirm biomass of the central and southern inshore regions.

This option still presents a risk caused by potential pulse fishing and localised depletion of scallop beds. It also increases the risk of inequitable access of the fleet, if weather or access to viable areas is limited each year.

There are limited options to mitigate these risks under this model based on the current knowledge of the fishery. However, the biggest risk to sustainability would be mitigated by a TACC and short season when the scallops are least vulnerable.

Proposal to shut shucking areas

THE Department of Primary Industries proposals for scallop management include closing shucking areas.

The discussion paper says that under the proposed precautionary harvest arrangements involving a two-month season and a new framework for reporting saucer scallops, "it has been identified that the shucking of saucer scallops and landing them in a form other than whole-shell (such as half shell) invites significant quota integrity risk".

"It is acknowledged that some operators have historically built businesses around the shucking of scallop at sea to maximise profitability.

"However, it is considered inappropriate to allow this as part of this current proposed management framework to ensure the highest confidence in the fishery operation.

"We will reinvestigate shucking areas once information can be collected and used to determine appropriate reporting arrangements to reduce the quota integrity risk."

Option 2: Regional trip limits and regional TACC limits

A second option to further reduce risk, and one that has been canvassed with industry, is to implement daily (night) limits and / or monthly limits. Catch and effort logbooks record harvest per day fished and allows for a daily limit to be investigated.

While this could allow a daily limit to be set, daily limits are impractical for at-sea and in-port inspections to ensure compliance.

A potential alternative could be to require an in-possession (trip) limit for each vessel in the fishery as a proxy to a daily or monthly limit. A trip limit provides opportunity to reduce target fishing of the stock and the effects of pulse fishing on scallop beds, provide greater access equity and mitigate the risk of over-saturation of markets.

In developing an appropriate limit, a balance will need to ensure discards of legal scallops are minimised, while maintaining sustainable access to scallops, particularly as repeated trawling of scallop beds is detrimental to the survival of discards.

If the fishery is managed under a TACC, a limit will need to solely consider how to reduce the impacts of pulse or target fishing to maintain equity for the fleet and reduce localised depletion risks, while being enforceable.

To investigate a suitable trip limit for each trawl region, 10 years of logbook information (prior to the 2021 closure) for each region's fishing effort during the first two months of the season has been reviewed.

A daily limit can be simulated as a percentage of the 10 years against the reported harvest for those years, to determine how many of those years would have reduced harvest; for example, 70 per cent represents seven of the 10 years the proposed daily basket limit would have impacted harvest (Table 1).

Note: In this period, replenishment areas were rotationally opened in the southern inshore region, the central region biomass was unknown, the southern inshore component of the stock had depleted, and this was a target fishery previous stock assessments demonstrated fishing mortality may have exceeded maximum sustainable yield for that year.

When the number of landed baskets for the fishery over this time are used, it can be observed that, in periods of historically very high landings, daily limits will significantly limit the output of the fishery, likely causing discards.

If the region's TACC was set at these levels, it may result in the TACC not being reached for that year. It is therefore considered appropriate that – to reduce this risk while ensuring discards are minimised in years of reasonable abundance – daily limits of between two and five baskets for central, 10 and 15 baskets for southern inshore, and 20 and 30 baskets for southern offshore are proposed.

Extrapolating the daily limit to represent a trip limit is difficult, given the different length of time vessels are at sea or how they choose to operate their individual vessels.

Given this would be managed under a

Continued on page 10

TACC, allowing a trip limit as opposed to a daily limit will allow operators some flexibility depending on their vessel configuration and market demand.

In addition, it is acknowledged that – due to no standardised container or basket size – the number and weight of scallops between baskets for different operators varies greatly.

While trip limits have been discussed, these may also be multiplied by an assumed basket weight of 35 kg to determine a candidate trip weight limit of scallops (Table 2).

Option 3: Same trip limit and regional TACC limits

Another option is to implement the same trip limit across the three regions for consistency. While this allows for consistent management of the stock, it should be noted that any nominal limit will either not reduce effort-shift risk by setting the limit too high or significantly reduce harvest if set too low.

It is proposed that a trip limit applied across all three regions would be set at the central region's value (adjusted slightly). The benefits of this approach are that it would provide equity amongst all operators in the fleet, further reduce localised depletion risk, reduce saturation of markets, and reduce some compliance risk.

Firstly, a trip limit fishery would need to be informed by the survey responses regarding trip length from this consultation and corroborated against vessel tracking information.

Secondly, feedback from this consultation will identify support for either a different trip limit for each region or the same trip limit across all regions.

To read the consultation paper – and complete a survey on proposals – go to: https://dpi.engagementhub.com.au/saucer-scallop-consultation

BOATS & GEAR

Funding on offer from FRDC for EC trawl hopper testing

FUNDING is available to subsidise installation of hoppers on east coast trawl vessels.

In a statement in August, the Fisheries Research & Development Corporation (FRDC) said – in conjunction with the Department of Climate Change, Energy, the Environment & Water (DCCEEW) – it is seeking expressions of interest (EOIs) for fishers operating in Queensland's east coast otter trawl fishery (ECOTF) to participate in a program to assess the effectiveness of hoppers on prawn trawl vessels to increase bycatch survivability.

FRDC says the project, funded by the Australian Government's Reef Trust, includes funding up to 50 per cent of the purchase and installation of a prawn trawl hopper system.

It says the intended outcomes of the program are an increased number of ECOTF vessels with installed hoppers, improved onboard catch processing practices and reduced environmental impacts from trawl operations through improved survivability of bycatch.

The program will include financial assistance (up to 50 per cent) towards the purchase and installation of hoppers on vessels for eligible operators. Hoppers will then be tested to demonstrate their effectiveness at improving survivability.

Applications opened on 29 August 2025 and close 5pm (AEST) on Friday, 21 November 2025.

Further information is available on the FRDC website at: https://www.frdc.com.au/expressions-interest-eoi-east-coast-otter-trawl-hopper-program

INDUSTRY PLANNING

Plan launched for prosperous primary industries

The Queensland Government has launched its *Prosper 2050* plan, described as setting "a clear long-term vision to sustainably grow Queensland's food, fibre and foliage industries over the next 25 years".

PRIMARY Industries Minister Tony Perrett launched the plan at the Brisbane Exhibition (the "Ekka") on August 11, saying it marks the next phase in a transformative journey for the sector, with regional action plans to focus on delivering on-ground change, and with a specific plan to be developed for fisheries.

"The Crisafulli Government has delivered the roadmap for a prosperous future for primary industries, following a six-month collaboration between government, industry and primary producers from all corners of Queensland," Mr Perrett said.

"It also drives the Crisafulli Government's ambitious target to boost primary production output to $30 billion by 2030.

"More than 3,200 Queenslanders participated in the Statewide consultation that was launched in February, which included 16 in-person regional information sessions, five webinars and drop-in hubs at three major agriculture events, attracting hundreds of submissions."

Mr Perrett said the priorities identified through this consultation were:

- ❑ market growth and value-adding;
- ❑ innovation, readiness and adoption;
- ❑ a skilled and agile workforce;
- ❑ connected and shared infrastructure;
- ❑ coexistence and community support; and
- ❑ ease of business (coordinated and harmonised regulation and systems).

"Importantly, the blueprint will be delivered through five-year region or industry-based action plans," he said.

"Three Regional Industry Government Working Groups made up of primary

producers, industry representatives and departmental staff are about to start work writing five-year action plans for: far north Queensland; north and western Queensland; central Queensland; the Mackay Isaac Whitsunday region; the Darling Downs and south-west; Wide Bay Burnett; and south-east Queensland.

"The regional action plans will develop place-based solutions and initiatives for the whole agri-system across Queensland's primary industries and be complete by early 2026."

Fisheries plan

Mr Perrett said two industry action plans will also be delivered. The Queensland Future Timber Plan is open for consultation and a Queensland Fishing and Seafood Action Plan will also be developed.

"*Prosper 2050* is more than a strategy – it's a shared vision we've built with farmers, fishers, foresters, processors, researchers, regional communities and industry bodies.

"We've listened to thousands of Queenslanders and now we're co-designing the action plans that will define what gets delivered on the ground — in regions, across sectors, and for the future workforce.

"Under Labor, industry suffered increased regulation and red tape, and a government that didn't understand primary industries or rural and regional Queensland.

"By contrast, the Crisafulli Government are delivering a whole of government approach that Cabinet will own moving forward.

"The Crisafulli Government is proud to back our producers every step of the way with a strategy that's not just visionary – it's grounded, collaborative and ready to deliver."

QSIA response

QSIA EO David Bobbermen, who was among sector representatives attending the *Prosper 2050* launch at the Ekka, described it as "a great day for Queensland primary production, particularly the seafood industry".

"We've been in the naughty corner now for 10 years under the ALP Government and it's really exciting that *Prosper's* hit the street so that now we can go on to do the Seafood Action Plan," he said.

"The industry is really looking forward to being built up again after 10 years of neglect and we look forward to working closely with the Crisafulli LNP Government."

More details

Discussing the Queensland Fishing and Seafood Action Plan on its website, the Department of Primary Industries says the plan will implement the priorities for the sector agreed by industry and government in Primary Industries Prosper 2050.

"The Fishing and Seafood Action plan will be developed with a goal of re-invigorating and growing the fisheries sector for the next five years," QDPI says on the website.

"To do this, we are working with our industry stakeholders to co-design innovative action that will drive sustainable growth and leverage co-investment."

The plan itself says that long-term resource security – including access to agriculture, timber, fisheries and water for irrigation – is essential for off-setting risk.

"The future must enshrine both the right to operate, with industry's role as land and sea stewards, providing sustainable and resilient primary industries."

Prosper 2050 is available to read on the Department of Primary Industries website at: https://www.publications.qld.gov.au/dataset/prosper2050

EVENTS

Fishers and State MPs attend first "Friends" event

FISHERMEN and industry guests from throughout Queensland joined some 30 State Members of Parliament at the inaugural Friends of Commercial Fishing event in Brisbane on August 28.

Hosted by Stephen Bennett, MP, Member for Burnett, and Nick Dametto, MP, Member for Hinchinbrook, the gathering saw politicians and QSIA members and guests enjoy a selection of wild-caught seafood and light refreshments, and discuss a wide range of industry issues in a relaxed, informal setting.

It followed a day when QSIA members also had the chance to meet politicians and staff for more in-depth discussions on current fisheries issues.

QSIA Executive Officer David Bobbermen described the Queensland Parliamentary Friends of Queensland Commercial Fishing as an initiative of the Association designed to allow all Members of Parliament to meet with commercial fishers and other industry participants from across the State to gain a better understanding of the industry.

"This is an industry that supports many coastal rural and remote communities directly and indirectly, and we have invited representatives from suppliers, wholesalers and other key stakeholders who rely on our industry to also attend," Mr Bobbermen said.

"I also want to thank Stephen Bennett, MP, the sponsor of the event, for the positivity that he brings in wanting to promote the importance of our industry."

Note: Parliamentary "Friends" groups are common throughout State and Federal Parliaments, and allow MPs to show their support for a very wide range of industries and causes.

Bond University Associate Professor Dr Daryl McPhee, QDPI Director-General Graeme Bolton and Crispian Ashby, FRDC General Manager, Research & Development Investment.

The event was held on the River Deck of the Parliamentary Annexe, overlooking the Brisbane River and city lights.

Senator Susan McDonald (left), Minister Tony Perrett, QSIA's David Bobbermen and Pauline Jacob, QDPI Deputy Director-General, Fisheries and Forestry.

Les Castle (left), Greg Savige, Barry Ehrke, Stephen Bennett MP and David Perkins.

Sean Sloan (right) attended the event soon after his appointment as Managing Director of the Fisheries Research & Development Corporation.

INDUSTRY SUPPORT

Tony Perrett announces $600K funding for QSIA

Queensland Primary Industries Minister Tony Perrett has announced funding for the QSIA over the next four years totalling $600,000.

JOINED by QSIA representatives and local fishermen, Mr Perrett announced details of the funding at an event in Tin Can Bay on July 31.

The Minister said the Crisafulli Government is delivering "a stronger commercial fishing industry for Queensland", in part through the $600,000 grant to the QSIA for innovative development activities over the next four years, and to support the wild-caught seafood sector to enhance engagement and representation.

"The Crisafulli Government is delivering a stronger commercial fishing industry, backing the State's peak industry body, the Queensland Seafood Industry Association," he said.

"This $600,000 grant will support the QSIA to deliver industry development activities over the next four years so Queensland's commercial fishers can continue to produce the world's finest sustainable seafood."

Turning the tide

"The Crisafulli Government is turning the tide on a decade of Labor failure in which commercial fishers were savaged by a lack of support, unscientific regulatory changes, and failure to conduct regulatory impact statements."

Mr Perrett said the collaboration with industry was key to unlocking prosperity and growth in commercial fishing.

"Queensland's commercial fishers are hard-working innovators who are committed to providing consumers with the freshest, most reliably sourced seafood possible," he said.

"Fisheries are a key component of the primary industries sector and, by working together, we can drive future investment, create additional jobs and support regional economies to reach the Crisafulli Government's ambitious goal of $30 billion primary industries output by 2030.

"Importantly, this funding will also drive best practice and innovation in the sector, such as new fishing methods and fisheries to ensure a sustainable and productive industry moving forward.

"I thank the QSIA for embracing this opportunity and taking the lead here to ensure no businesses are left behind."

QSIA response

QSIA Executive Officer David Bobbermen welcomed the funding commitment.

"What this demonstrates is that Queensland has a State Government that genuinely supports primary industries, including the fishing industry, and wants to work with us to see our industry prosper," he said.

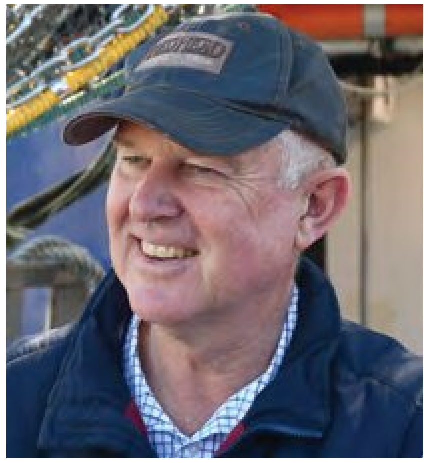
"This funding will allow QSIA to confidently expand its operations and significantly enhance its engagement with fishers and other stakeholders, and to provide the Government with timely, informed and representative advice in relation to fisheries management matters.

"It will also enable QSIA to continue to support the rebuilding of a vibrant, sustainable and thriving seafood industry, valued by the Queensland community.

"We harvest an enormous variety of the best wild-caught seafood in the world, providing affordable, highly-nutritious meals for Queensland families, as well as gourmet experiences for tourists, while working under tight management and environmental controls. We need to celebrate this."

Mr Bobbermen said the Crisafulli LNP Government has clearly demonstrated its intention to work with the QSIA to rebuild the wild-caught sector.

"In June, Minister Perrett removed the unnecessary investment warnings that had long shackled the Queensland commercial fishing industry. Today's announcement is another strong



statement of support for the industry and the desire to rebuild it after many years of setbacks and neglect.

"The Government has acknowledged that working with a peak body to deliver positive reform is a tried and tested model. This Government clearly wants to engage industry in future management. Isolating and ignoring industry views and knowledge suits only those who wish to dismantle it.

"There is a lot to do in the next four years, and having a strong industry peak body is imperative to deliver enduring positive changes to the industry, while also re-building community awareness and support of the industry.

"The Queensland Government's soon-to-be-released Prosper 2050 Plan for Primary Industries – with five-year action plans for local areas – plus the lifting of investment warnings and now peak body support together represent a massive vote of confidence for the industry.

"The commitment to prepare a specific action plan for the seafood industry – something QSIA has been advocating – also clearly shows this Government's strong commitment to commercial fishing and to the many regional and remote communities it supports.

"Our fishing families and businesses along the length of the Queensland coast have been neglected and worse by recent governments here. It is refreshing and exciting to know now that we have the tangible support of the State Government.

"QSIA looks forward to working with Minister Perrett and the Government to develop and deliver an Industry Action Plan, and many other projects to continue to rebuild our industry."

Primary Industries Minister Tony Perrett took the opportunity to meet with local fishermen at Tin Can Bay.

Media questions

In response to media questions at the Tin Can Bay event, Minister Perrett said that the QSIA represents the bulk of the commercial fisheries across the State and it's important that, as we move forward in a modern fishery, that the Government back in industry.

Mr Perrett also said it was important that the Government "back in the work that they can do to look for new opportunities in and around research and development and new opportunities that assist our commercial fishers here in Queensland".

"It's critical in a modern fishery, and a sustainable fishery, that we actually look for new fishing methods, modern fishing methods, ones that supply the seafood that Queenslanders need but, more importantly, support industry.

"We've got a lot of hard-working fishermen across this State and they supply seafood into our local restaurants and into our fish and chip shops, and it's critical that they have an opportunity to be able to look for those new fishing opportunities, those new methods, and the research and development is critical to that."

Science-based management

Mr Perrett also repeated the statement that future management decisions will be based on science, not ideology.

"The Crisafulli Government will make decisions based on good science, peer-reviewed science and make certain that we give the confidence to industry to invest …" he said.

"We'll back in science-based decisions and that's given confidence to the industry. And it's not just to commercial fishers: we have a significant recreational fishing interest in this State, charter boat people that are involved, and it's critical that we play an absolute straight bat and make decisions based on science.

"By making decisions based on science, we give confidence to the entire seafood industry that they've got a Government that backs them in that doesn't make decisions based on ideological views but that critically supports them where they need the support the most."

Industry plans

In answering media questions, Mr Bobbermen said the funding will enable QSIA to staff up to deliver to the Government sound representative advice on the way that industry believes the fishery should be managed into the future under the umbrella of Prosper 2050 and the soon-to-be-constructed action plans.

"So, it allows us to with confidence now go out there, get the people on the ground, get more representation happening and to deliver to the Minister and to Fisheries Queensland what's actually happening. We'll utilise the funding by talking to fishermen, talking to scientists to help develop sound advice, trusted advice that the government can use with great confidence in helping make their management decisions and help to enforce and build this industry," he said.

"The funding will make a huge difference to the industry because we'll be out there talking to a lot more fishermen. We'll have the funds to get out there and get to meetings, get to ports like we are today here in Tin Can Bay to talk to fishermen, get to really understand what they're thinking, where their concerns are …

"It's going to be a two-way conversation, we're happy to do that, we're happy to help facilitate that but it will hopefully build confidence, build that dialogue and ultimately I hope build trust, rebuild the trust because it's the trust that's between Government and fishers that is severely lacking because of the destruction of the industry under the previous Governments, and we need to rebuild it.

"Once we have that trust back and we can see things happening – for example, the removal of the investment warnings last month. That is a massive step forward.

"This announcement today is another massive step forward. I know the Minister and the Government, and also Fisheries Queensland, are working on a lot more positive stuff, and the action plans, so it's a really exciting time to be part of the industry.

"It's a really exciting time to be part of this transformation and I'm really looking forward to the next four years to build on this great foundation."

Big marine parks may hurt fishing without helping environment

A study of the massive expansion of the Heard Island & McDonald Islands (HIMI) Marine Reserve suggests the bigger park could harm commercial fishing without significantly addressing the major environmental issues.

A REPORT based on this study says Australia's approach to marine conservation is urgently in need of review.

"The pursuit of spatial (space-related) targets – currently 30x30 – while providing a representation of biodiversity within reserves, is doing little to protect this biodiversity against the key threats, the least of which is commercial fishing," the report says.

"Paramount amongst these threats is the pervasive impact of shifting distributions of populations from climate-induced global warming.

"The expansion of the HIMI reserve, and marine reserves in general, will do little to mitigate this threat."

The authors suggest the Federal Government's use of the National Representative System of Marine Protected Areas (NRSMPA) objectives in the expansion of the HIMI reserve conflicts with the over-arching principles of Ecologically Sustainable Development (ESD),

Research findings

The report, entitled *Role of marine reserves in sustainable management of Australia's ocean estate – a critical review of the Heard Island and McDonald Islands Marine Reserve expansion* – was authored by Travis Baulch, Colin D. Buxton, Rick Fletcher and Alistair J. Hobday. The study was funded by the Fisheries Research & Development Corporation.

The report aims to assess how current (and proposed) management frameworks relate to the National Representative System of Marine Protected Areas (NRSMPA) objectives but also the extent to which they meet the overarching principles of Ecologically Sustainable Development (ESD).

The principles of ESD require holistic consideration of all relevant environment, social and economic objectives, as well as meeting obligations under various international legislation and conventions.

The report says the statutory requirement to undertake a 10-year review of the Heard and McDonald Islands (HIMI) Marine Reserve led to a proposal to expand the HIMI marine reserve and include new National Park Zones (IUCN II) and Habitat Protection Zone (IUCN IV) arrangements.

Subsequently, the total area of the HIMI Marine Reserve has been increased to 379,070 square kilometres, a 400 per cent increase over the previous marine reserve.

As the expansion incorporates the area within which Australia's Heard Island and McDonald Islands fishery operates, the report explores the basis of the expansion, with particular reference to the implications for future fishery arrangements, management frameworks and longer-term fishery viability.

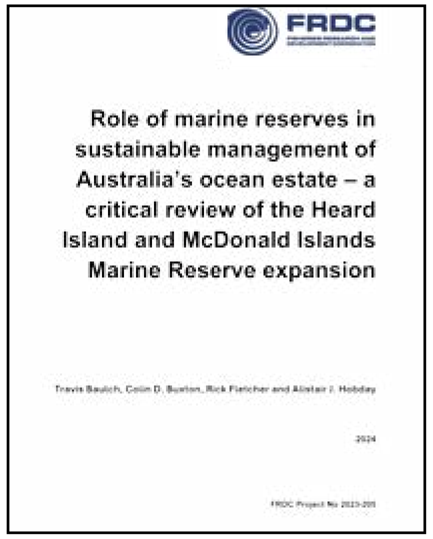
ESD principles

The report says the *Environment Protection and Biodiversity Conservation Act 1999* and the *Fisheries Management Act 1991* provide the foundational legislation for sustainable management of HIMI natural resources.

These Acts (and subordinate legislation) set the objectives and framework around development of natural resources under the principles of ESD and the considerations that must apply in decision making processes.

The recent expansion of the HIMI reserve demonstrates that either i) certain aspects of ESD principles have been omitted from the decision-making process, or ii) there is a policy shift away from ESD principles and processes.

Over the past two decades, several national initiatives have developed a


FRDC

Role of marine reserves in sustainable management of Australia's ocean estate – a critical review of the Heard Island and McDonald Islands Marine Reserve expansion

Travis Baulch, Colin D. Buxton, Rick Fletcher and Alistair J. Hobday

2024

series of risk-based ESD frameworks for use with marine based sectors and regions which form a clear and comprehensive hierarchy from the Activity level (Fishery ESD) - Sector level (Multi fishery EBFM) - Region level (Multi Sector EBM) to collectively deliver on ESD.

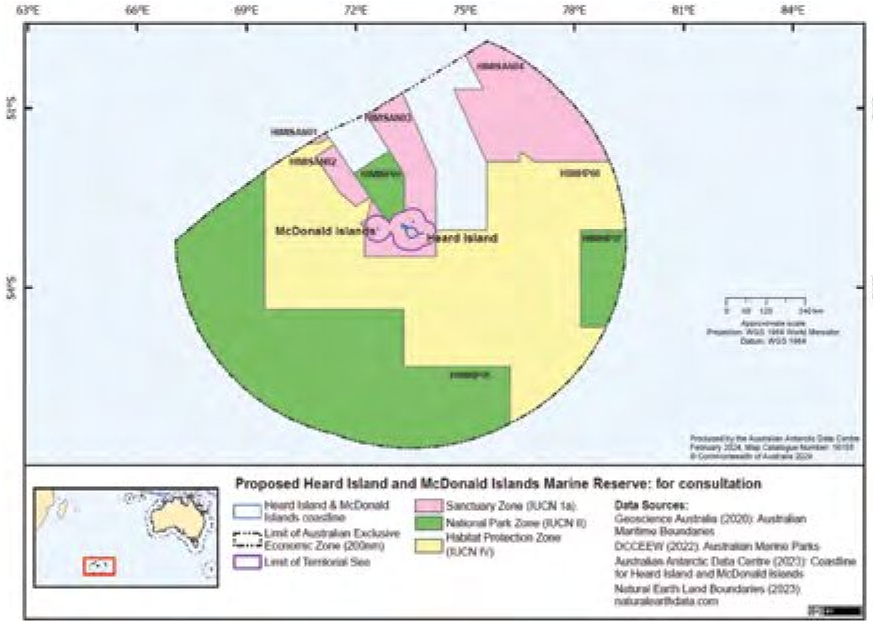
The use of the fishery-level ESD assessments facilitated most Australian fisheries, including the HIMI fishery, maintaining their WTO accreditation under the EPBC Act. In addition, many fisheries, including the HIMI fishery, have successfully obtained international, third-party sustainability certification through schemes such as the Marine Stewardship Council.

The comprehensive and independent assessments completed to meet these requirements found the risks to the Ecological Wellbeing components generated from the HIMI fishery are at very low or acceptable level and therefore pose minimal threat to the ecological assets located within the HIMI region.

Benefits of fishing

With respect to the Human Wellbeing and Governance components of ESD, the HIMI fishery generates economic, social and governance benefits for Australia. These include the following four benefits:

- ❏ an annual average of over 3,500 tonnes of high-quality toothfish and mackerel icefish;
- ❏ direct and indirect employment of both Australian and international workers;
- ❏ internationally recognised best practice in ensuring safe and decent working conditions for fishers; and



- ❏ providing important governance benefits, such as eliminating foreign IUU fishing, and providing a significant contribution to the collection of scientific data and consequent understanding for the region.

At the EBFM-Sector level, the HIMI fishery falls under the international Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). Objectives of this Convention are consistent with ESD principles and require the fishery to ensure conservation of marine living resources in which the term "conservation" includes rational use.

CCAMLR also adopts an ecosystem-based management approach requiring harvesting be carried out in a sustainable manner with a mandate to conserve populations or ecosystems that are not only directly related to harvested marine resources but also conserve dependent and related populations.

The HIMI fishery plays a key role in the promotion of sustainable fishery practices within the CCAMLR region by using world's best-practice and continuing to undertake leading edge initiatives across the full spectrum of ESD components.

The multi-sector EBM framework is the level where development of marine protected areas for the region should be embedded. As this level requires a whole of government approach covering all sectors that operate within the region, the National EBM framework developed in 2010 by the Marine and Coastal Committee working group included the following six steps.

- Establish a group with overall responsibility for implementing EBM.
- Define the scope, including the boundaries of the ecosystem, and establish the overall ecological, social and economic values.
- Agree on relevant objectives for the ecosystem and each asset based on the values.
- Generate individual risk values and consolidate to asset level.
- Prioritise assets across the ecosystem.
- Determine actions to meet the objectives of the governing body and establish a monitoring evaluation and reporting framework for the ecosystem and assets.

"Not consistent with ESD"

"This review found that the expansion of the HIMI Marine Reserve does not follow the steps needed to be consistent with ESD principles," the authors say. The primary purpose of the NRSMPA is to ensure that the reserve system reasonably represents the biotic diversity of the marine ecosystems from which they derive."

The NRSMPA was not established to mitigate threats to biodiversity, although threat mitigation within reserves is considered in decisions on reserve zoning and the activity matrices that determine what activities can be permitted within zones.

Recent research commissioned by the Commonwealth Government presented a case for more of the HIMI bioregion to be included in the reserve to comply with the Comprehensive Adequate and Representative (CAR) principles more fully.

While this has merit, the increase in the HIMI Marine Reserve goes well beyond Australia's commitment to the Global Biodiversity Framework (GBF), which calls for at least 30 per cent of coastal and marine areas to be effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas by 2030 (so called 30x30).

Park expansion "questionable"

An analysis of the HIMI reserve prior to the expansion shows that, with a few exceptions, most conservation values in the HIMI EEZ were well represented in terms of spatial coverage. While there was justification for inclusion of a representative sample of some shallow-water habitats and associated conservation values of deeper waters surrounding HIMI, the need for such a significant expansion of the HIMI reserve is "questionable" on CAR grounds.

A large portion of the HIMI EEZ has been declared as Habitat Protection Zone (IUCN category IV), to be managed to protect pelagic habitats or species in waters surrounding HIMI.

Motivation to include areas based primarily on their importance as foraging areas for marine predators should have been made in the context of potential threats to this function. "It is insufficient to argue that the mere act of including an area in the reserve affords protection if it is not clear what pressures or threats are being mitigated," they say.

In terms of the social and economic implications of the HIMI Marine Reserve expansion, the fishing industry is most directly affected because the Habitat Protection Zone (IUCN IV) largely corresponds to the fishing footprint of the existing fishery. Access security, fishing prospectivity and zone management decisions that exclude or constrain fishing gear types are perceived concerns. This is exacerbated by potential impacts on domestic and international markets due to negative perceptions associated

Continued on page 18

with sourcing product from a marine reserve.

The zonation described is unwarranted based on the remote location of the area, the low level of impact of the fishery on the demersal habitat, and unimpeded access to the area as a foraging ground for seabirds and mammals.

The GBF, in line with current area-based management principles, recognises the human dimensions associated with marine conservation. Under this scenario, the declaration of the HPZ as a multiple use or special purpose zone (IUCN category VI) would seem more appropriate.

Conclusion

The authors say that, in summary, the findings of their review lead to the following conclusions.

1. The expansion of the HIMI Marine Reserve does not meet the steps needed to be consistent with ESD principles.
2. The expansion of the reserve by 400 per cent represents a considerable over-reach in terms of Australia's commitment to GBF objectives.
3. The HIMI fishery, which meets CCAMLR objectives and independent third-party sustainability objectives, is not a primary threat to the biodiversity of the region but plays an important role in both scientific understanding and protecting the area against IUU fishing.
4. Australia's approach to marine conservation, based on NRSMPA principles established more than a quarter of a century ago, is urgently in need of review.

The pursuit of spatial targets (currently 30x30), while providing a representation of biodiversity within reserves, is doing little to protect this biodiversity against the key threats, the least of which is commercial fishing.

Paramount among these threats is the pervasive impact of shifting distributions of populations from climate-induced global warming. The expansion of the HIMI reserve – and marine reserves in general – will do little to mitigate this threat.

To read the full 77-page report, go to: www.frdc.com.au/sites/default/files/products/2023-205-DLD.pdf

DUGONG RESEARCH

Explanation of calculations for Hervey Bay dugong numbers

LAST year, *Queensland Seafood* magazine ran an article on a report of an aerial survey of dugong from Mission Beach to Hervey Bay and the Great Sandy Strait in 2022.

The survey was conducted by researchers from James Cook University's (JCU) TropWATER.

An accompanying TropWATER media release referred in particular to Hervey Bay, saying in part: "Hervey Bay, located south of the Great Barrier Reef, showed the most significant estimated rate of population decline, at 5.7 per cent per year between 2005 and 2022".

At face value, this is a confusing statement. The media release says there was a 5.7 per cent per year decline in Hervey Bay between 2005 and 2022, yet the report itself says in part: "In 2022, the dugong population size in Hervey Bay was estimated to be 1,533 ±se 634 animals … This estimate is equivalent to the population size estimates from the 2005 (1,388 ±se 323) and 2011 surveys (1,438 ±se 438)."

A change from 1,388 dugong in 2005 to 1,533 in 2022 appears to be an *increase* in numbers, not a decline.

The QSIA wrote to JCU TropWATER seeking an explanation for the Hervey Bay dugong population calculation, and has received a response from lead researcher Chris Cleguer. Dr Cleguer's response is reprinted below.

Dugong abundance

Explanation on the evolvement of the methods used to correct for detection biases (from Marsh et al. 2019)

"The survey design has remained largely constant since the beginning of the time series2 and the field methodology has continued to follow the strip transect aerial survey technique detailed in Marsh and Sinclair (1989) with only minor modifications to take advantages of improved technology.

"In contrast, the methods for correcting for the detection biases inherent in aerial surveys have improved over time enabled by field experiments external to the surveys (Pollock et al. 2006; Hagihara et al. 2014, 2018; Sobtzick et al. 2015) and the collection of additional data on environmental conditions for surveys conducted from the early 2000s.

"Three methods have been used to calculate standardised estimates of relative dugong abundance: (1) Marsh and Sinclair (1989) which has been used in dugong aerial surveys since 1986; (2) Pollock et al. (2006) and Hagihara et al. (2014 and 2018).

"All methods attempt to correct for availability bias (animals not available to observers because of water turbidity), and perception bias (animals visible in the survey transect but missed by observers, terminology established by Marsh and Sinclair, 1989). The most substantive changes have been in the method to correct for availability bias.

"The Marsh and Sinclair (1989) method averages across conditions within surveys and corrects for environmental differences in availability bias at the scale of an entire survey. The Pollock et al. (2006) method corrects for availability bias at much finer spatial scales by correcting for the spatial heterogeneity in sighting conditions for each group of dugongs. The Hagihara et al. method (2014, 2018) additionally corrects for differences in dugong diving behaviour at different depths.

"We consider the Hagihara et al. method (2014, 2018) to be superior to the other two methods but it can only be applied on data collected from the early 2000s because the necessary extra data on environmental conditions were not collected during the earlier surveys as explained above."

Results from the 2022 Hervey Bay survey

The Hervey Bay dugong abundance estimate from the 2022 survey (1533 ±se 634) was equivalent to the estimated population sizes in 2005 (1388 ±se 323) and 2011 (1438 ±se 438) but less than 2016. The estimated dugong numbers may be deceiving, given the strong declining trends in population density detected in the Bayesian models. The uncorrected counts of dugongs detected in Hervey Bay during the 2022 survey was the lowest since 2005 but much higher than after the 1992 floods (Preen and Marsh 1995).

Our interpretation of the results

The most logical explanation for the discrepancy in the inter-year comparison between uncorrected dugong counts and the abundance estimates is in the mathematical corrections made to account for availability bias (animals not available to observers). We used the Hagihara et al. method (2014; 2018) which corrects for differences in dugong diving behaviour at different depths.

Given that most dugongs detected in Hervey Bay in 2022 were in deep water deeper than 10 metres, there was an increased probability of animals being missed by observers in this habitat, which was accounted for in the abundance estimates; this adjustment in the dugong numbers is the most likely explanation for the 2022 population estimate to level with past surveys years, despite the clear declining trend in their density.

(A re-survey of the Hervey Bay-GSS region was planned in October 2024.)

Dugong density trends

The method we have used to estimate trends in dugong density

We used a N-Mixture method developed and described by Rankin and Marsh (2020). The method integrates various sources of statistical uncertainty and variation, such as stochastically imputing undetected dugongs due to the availability biases and capture-recapture uncertainties. Rankin and Marsh (2020) concluded that this approach had higher statistical "power" (i.e., reliability in detecting trend) and lower estimation-bias than earlier estimators, which estimated dugong population trends from adjusted counts (e.g., Horvitz-Thompson estimator).

The study published by Cleguer et al. (2022) aimed to:

1. estimate dugong population densities in the Hervey Bay (as well as the southern section of the GBR and Moreton Bay);
2. estimate the annual percent change in dugong population density, as well as a retrospective probability of a decline; and
3. the probability that the dugong density in the year 2022 was greater than the population density in previous survey years.

What we have found and how we've interpreted the results

Hervey Bay exhibited the most pronounced estimated population decline among the three regions covered in the 2022 survey, resulting in an estimated decline of approximately -5.7% per year between 2005 and 2022, with a probability of decline of 99.5%, which is substantial evidence in favour of a declining population.

Nonetheless, this result is at variance with the results from the analysis of the data from 2005 through 2016, which suggested a slight increase from 2005 to 2016 of +0.28% and a probability of decline of 0.47 (i.e., <50 per cent).

Taken together, these results suggest that the two large flood events in early 2022, which resulted in extensive loss of seagrass, had a major effect on the population, and that the apparent long-term trend may be confounded by temporary emigration as well as mortality as happened in the 1990s. Nonetheless, the fact that evidence of substantial temporary emigration from Hervey Bay was not detected elsewhere in the survey region is very concerning.

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CROSSINGS

Tributes flow for Grahame Turk

TRIBUTES have flowed in for Grahame Turk following his passing in August.

Grahame was a long-time Managing Director and Chairman of the Sydney Fish Market (SFM), and respected by leaders of the seafood industry and government at all levels throughout Australia.

A statement from the Sydney Fish Market said: "It is with deep sadness that we acknowledge the passing of Grahame Turk. AM, former Chair of Sydney Fish Market.

"Grahame was a visionary leader, a passionate advocate for the seafood industry, and a driving force behind the growth and evolution of Sydney Fish Market.

"Grahame's contributions to Sydney Fish Market, the Australian seafood industry and community were immense.

"Our thoughts are with Grahame's family during this time. He will be dearly missed."

Long-time colleague Bryan Skepper, former SFM Secretary and General Manager, praised Grahame's "incredible vision".

"I was privileged to work alongside Grahame for many years, and witnessed firsthand his incredible vision, dedication and passion for Sydney Fish Market and the Australian seafood industry," Bryan said. "Grahame had an immense impact on my own career and on all who worked with and for him.

"He was a strong leader in the true sense of leadership who cared deeply for his staff and the Australian seafood community more broadly. He will be missed but not forgotten."

Grahame's passing is a terrible loss for the Australian seafood industry.

I knew Grahame for decades, dating from my time working with the then NSW Commercial Fishing Advisory Council, which was based at the Sydney Fish Market, in the early 1990s.

Grahame Turk at the Parliament House seafood barbecue in 2019 with then Assistant Fisheries Minister Jonno Duniam and then SFM CEO Greg Dyer.

More recently, as Chairman of the SFM, Grahame seized the opportunity to come down to the annual end-of-year seafood barbecue for the press gallery in Parliament House in Canberra every year.

Grahame donated both product and time to step up to a hot plate, and remind federal politicians and media what great seafood Australia has – and why it should continue to be available to seafood lovers.

More than a decade ago – in May, 2014 – as Chairman of the National Seafood Industry Alliance, Grahame argued to a Senate inquiry into country of origin labelling (CoOL) of food that this labelling was needed throughout the supply chain for seafood.

"This extension of existing legislation will ensure consumers at all purchase points within the supply chain will be provided with clear information to allow them to make an informed decision, and also support Australian commercial fishers and aquaculturists," Grahame said.

Grahame told the Senators it was particularly important that legislation should extend the CoOL requirements to seafood sold for immediate consumption; that is, dining venues or outlets. It is particularly pleasing that Grahame lived to see that requirement legislated.

Grahame was unfailingly warm, generous, good-humoured and gracious, and professional. Condolences to Grahame's family and many, many friends.

Martin Bowerman

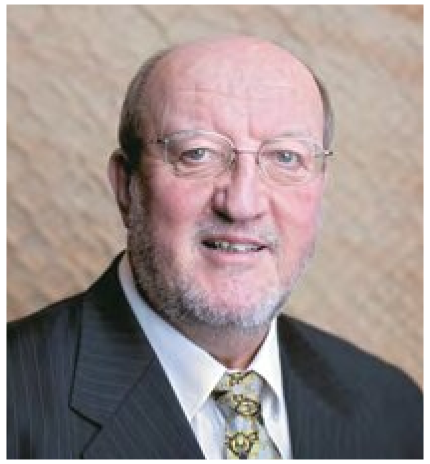
Grahame Turk 1948 – 2025

GRAHAME TURK was a big man but in the Australian seafood industry he was a giant.

He will most commonly be remembered for his services to the Sydney Fish Market, which were monumental. I knew Grahame throughout his time with the Sydney Fish Market, worked with him on many projects and appreciate the importance of his contribution to the seafood industry.

In 1994, he was the primary driver in the privatisation of the effectively moribund NSW Fish Marketing Authority and, thus, the creation of the Sydney Fish Market. Over the next three decades, as CEO of the Market and then Chairman of the Board, he turned the institution into a vibrant and brilliant servant of the Seafood Industry. The new Sydney Fish Market will be recognised by many as a monument to Grahame.

Although the Sydney Fish Market may have been Grahame's signature contribution, his service to the seafood industry was by no means restricted to New South Wales. He was a member of many national committees and bodies, commonly as Chairman; for example, the National Seafood Industry Alliance. He was the driving force behind the creation of Seafood Industry Australia.



Grahame Turk.

As a businessman, he was open and direct. Yes, he did not suffer fools, and he was an outstanding judge of who they were. He was an extremely strong supporter of quality science and research, provided the proponents could explain – in language that the average member of the seafood industry could understand – what the real costs and realistically-assessed benefits would be.

Grahame was a true champion of the whole of the Australian seafood industry but, if he did have a bias, it was towards the catching sector. He definitely believed that the supply-chain was critical.

His sympathies were towards fishers but he did often lament that they did not do a great job of representing their own interests. They needed Grahame more than most and he was there for them, even though he wished he did not need to be.

Grahame was a wonderful family man and a great friend to many. He will be very greatly missed.

Bob Kearney

Dr Bob Kearney is Emeritus Professor of Fisheries Management at the Institute for Applied Ecology, University of Canberra, and is a former Director of the NSW Fisheries Research Institute.

APPOINTMENTS

Eddie Jebreen is FQ acting Exec Director

EDDIE Jebreen has been appointed Acting Executive Director of Fisheries Queensland (FQ), taking up the role on September 15.

Mr Jebreen has previously held senior fisheries roles in Queensland and in more recent years has been Director of the State Government's Fire Ant Suppression Taskforce.

In leaving the role, former FQ Executive Director Dallas D'Silva said it had been a privilege to hold the position for four years. In a LinkedIn post, Mr D'Silva said: "I am honoured to have worked with an amazing team that has delivered major reforms and modernisation to Queensland's fisheries management and science programs.

"I look back and 2021 was certainly a different time, post-Covid, when the borders opened. Reform is never easy. The team has delivered for the people of Queensland time and again, and to see key parts of industry grow in the last two years has been very rewarding.

"I'm especially proud of the communications, events and engagement work we have done to improve our reach. Investment in the humble but huge Lure Expo was a first for Queensland.

"I'd like to thank the many commercial, conservation, aquaculture, recreational, charter and First Nations fishers over the last four years for your collaboration."

He said 200K-plus users of the Queensland Fishing 2.0 app, reef reforms of the scale not seen in 25 years and a whole new approach to stock assessment, starting with the trawl fishery and industry co-management ethos, was a watershed moment.

"I'll be taking a short break and recharging the batteries. In the meantime, I have started a consulting business – it's all about science, policy, planning, advocacy and stakeholder engagement."

New NT Chair

THE Northern Territory Seafood Council (NTSC) has announced a new Chair: Tim Burrows. In a recent statement, the NTSC said Mr Burrows has more than 40 years of experience across the agribusiness sector in Australia and New Zealand, brings a wealth of knowledge and insight ranging from farm hand to executive leadership roles, lives in Darwin and has extensive experience with government engagement within the Northern Territory context, as well as previously providing consultative work with the Seafood Council in the recent past.

ENVIRONMENT NEWS

GBR coral cover sharply down on record levels

HARD coral cover on the Great Barrier Reef has declined substantially from the high levels of recent years, back to near long-term average levels, according to a report from the Australian Institute of Marine Science (AIMS).

AIMS coral cover long-term monitoring program leader Mike Emslie said in a media statement that the most recent figures underscored a new level of volatility.

However, he also noted that the effects of substantial losses in regional hard coral cover were cushioned by the previous record high levels.

Dr Emslie said the Great Barrier Reef has experienced the largest annual decline in coral cover in two of the three regions since AIMS began monitoring 39 years ago.

Diverse coral assemblages at Pompey Reef No.1 in the Southern Great Barrier Reef, despite impacts from the 2024 bleaching event. (Image: AIMS)

An AIMS scientist conducts a manta tow survey to monitor hard coral cover. (Image: AIMS)

This was predominantly driven by climate change-induced heat stress leading to coral mortality from the 2024 mass bleaching event but also by the impacts of cyclones and crown-of-thorns starfish outbreaks.

Coral cover dropped over the year:

❑ in the northern region (Cape York to Cooktown) by a quarter (from 39.8 per cent to 30 per cent);

❑ in the central region (Cooktown to Proserpine) by 13.9 per cent (from 33.2 per cent to 28.6 per cent); and

❑ in the southern region (Proserpine to Gladstone) by almost one third (from 38.9 per cent to 26.9 per cent).

"This year's record losses in hard coral cover came off a high base, thanks to the record high of recent years," Dr Emslie said.

"We are now seeing increased volatility in the levels of hard coral cover. This is a phenomenon that emerged over the last 15 years and points to an ecosystem under stress.

"We have seen coral cover oscillate between record lows and record highs in a relatively short amount of time, where previously such fluctuations were moderate.

"Coral cover now sits near the long-term average in each region. While the Great Barrier Reef is in comparatively better condition than many other coral reefs in the world following the global mass coral bleaching event, the impacts were serious."

He said coral reefs dominated by the *Acropora* species were among the most impacted by mass coral bleaching and the two cyclones.

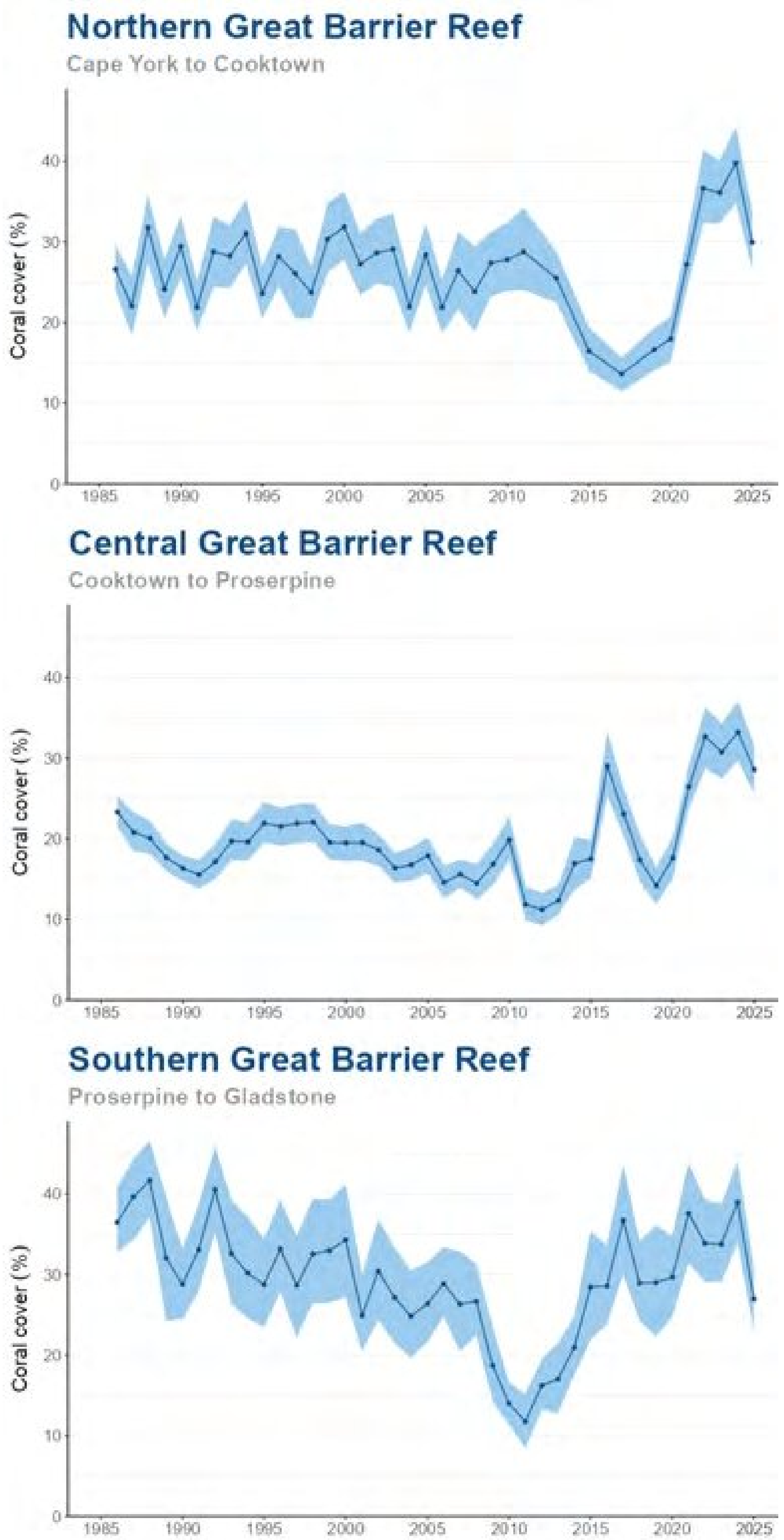
"We've said in the past that these corals are the fastest to grow and are the first to go, as they are susceptible to heat stress, cyclones and are a favourite food of crown-of-thorns starfish, and this year's results illustrate that.

"This is also the first time we've seen substantial bleaching impacts in the southern region, leading to the largest annual decline since monitoring began."

AIMS' 2025 long-term monitoring program annual summary reports the results of reef surveys from August 2024 to May 2025 and assesses the impact of the 2024 mass bleaching event.

A total of 124 coral reefs were surveyed. Most reefs (77) recorded hard coral cover between 10 per cent and 30 per cent, 33 reefs had hard coral cover between 30 per cent and 50 per cent, while two reefs had more than 75 per cent and two reefs less than 10 per cent.

For more information on the AIMS 2025 coral cover report, go to: https://www.aims.gov.au/monitoring-great-barrier-reef/gbr-condition-summary-2024-25



Percentage hard coral cover data from each of the three regions of the Great Barrier Reef since AIMS annual monitoring began. Image: AIMS

HEALTH BENEFITS OF SEAFOOD

New study confirms health benefits from eating seafood

A new study has confirmed that eating at least two serves of seafood each week can provide a wide range of health benefits for people of all ages.

A REPORT has been published, presenting the results of the health-benefits study: *The Health Benefits of Eating Seafood: Evidence Based Science* by Wendy Hunt from Murdoch University and Alexandra McManus from Curtin University,

The authors say the report provides a summary of moderate- to high-level scientific evidence published in peer-reviewed literature, from January 2015 to January 2025, around the health benefits of seafood consumption to human health.

They say the evidence clearly supports the consumption of at least two serves of seafood a week as a part of a healthy diet. It is also evident that a variety of seafood should be consumed to gain optimal health benefit. The strongest evidence supports at least one serve of seafood rich in Omega-3 polyunsaturated fatty acid (oil) each week.

The study was commissioned and funded by the International Coalition of Fisheries Associations (ICFA) and the Fisheries Research & Development Corporation (FRDC), with Dr Hunt and Professor McManus conducting a detailed review of the scientific literature around seafood and human nutrition, analysing 281 studies.

This study was totally independent, and ICFA and FRDC had no influence over the study results or recommendations

Key results

The key results of the study include:

❑ evidence supports the consumption of at least two serves of seafood a week (a serve equals 100 to 150 grams) as part of a healthy diet;

❑ at least one of these portions should be rich in Omega-3 fatty acids;

❑ a variety of seafood should be consumed to gain optimal health benefits;

❑ there are health benefits at all stages of life; and

❑ consuming supplements containing some of the nutrients from seafood can be beneficial, however eating seafood itself offers additional benefits because of the range of nutrition in whole fish and shellfish

The report says seafood is an excellent source of energy and contains a range of nutrients that are beneficial for human health. These include Omega-3 polyunsaturated fatty acids (n-3 PUFA), protein, Vitamins A, B12, D and E, calcium, iodine, iron, zinc, selenium, copper, manganese, phosphorus and taurine. Each of these nutrients offers a range of health benefits.

The report summarises moderate- to high-level scientific evidence from peer-reviewed journals, published from January 2015 to January 2025, that focus on the health benefits of seafood consumption to human health.

Four academic search engines (PubMed, Medline Ovid, Scopus, Cochrane Reviews) were used to identify 9,875 peer-reviewed journal articles on health benefits of seafood. The authors then distilled these down to 281 top-quality articles.

Summary of results

A wide range of health benefits were identified, including the following areas.

❑ All-cause mortality

- Fish and n-3 PUFA consumption reduce all-cause mortality
- Moderate consumption of seafood has the greatest effect on health
- The strongest n-3 PUFA evidence relates to DHA consumption
- The greatest benefit is gained from the ingestion of seafood as part of a healthy diet.

❑ Asthma and allergies

- Asthma, allergy and wheezing in infants may be mitigated by the ingestion of high n3 PUFA seafood during pregnancy
- Consumption of fish (particularly seafood high in n-3 PUFA and Vitamin D) in the first year of life is associated with a reduced risk of eczema, allergic rhinitis, asthma and wheeze
- Infant formula fortified with n-3 PUFA aids immune development

❑ Bone health and osteoporosis

- Fish consumption and n-3 PUFA may protect bone health and reduce the risk of hip fracture
- Consumption of five or more (≥ 5) serves of oily fish each week reduces the incidence of osteopenia and osteoporosis, particularly in senior women
- A diet high in n-3 PUFA and low in n-6 PUFA is protective against fractures and helps to maintain bone health
- A high n-3 PUFA status is associated with a lower risk of fracture

❑ Cancer

- A diet high in seafood and n-3 PUFA is protective against a number of cancers
- A high n-3 PUFA status is associated with lower fatigue in cancer patients
- n-3 PUFA as part of a healthy diet increases appetite and nutritional status in chemotherapy patients

◊ Breast cancer

- – High levels of fish consumption and n-3 PUFA is associated with a reduction in all-cause mortality in women with breast cancer
- – EPA and DHA status may be predictive of breast cancer risk
- – n-3 PUFA are beneficial to the prevention, development and progression of breast cancer

◊ Colorectal cancer

- – Two or more (≥ 2) serves of oily fish per week reduces the risk of cancer including colon, liver, and gallbladder cancers in adults
- – Higher n-3 PUFA status (in comparison to n-6 PUFA) reduces the risk of colorectal tumours
- – EPA and DHA consumption and dietary fibre are associated with a lower risk of colorectal cancer

◊ Lung cancer

- – Fish oil supplementation in adults (or ≥ 2 serves of seafood per week) reduces the risk of lung cancer
- – n-6 to n-3 PUFA ratio is inversely associated with the risk of lung cancer
- – n-3 PUFA improves nutritional status and reduces inflammation in lung cancer patients undergoing radio or chemotherapy
- – n-3 PUFA supplementation increases weight and quality of life in patients with lung cancer

Eating a wide range of fish and other seafood, especially oily fish, is recommended to maximise health benefits.

◊ Other cancers

- – n-3 PUFA (particularly DHA) reduces the risk of neck, head, oesophageal, pancreatic and endometrial cancers
- – Adequate intake of n-3 PUFA reduces inflammation and improves immune function in cancer patients

❑ Cardiovascular disease (CVD)

- Seafood as part of a balanced diet reduces the risk of CVD mortality, coronary heart disease (CHD), myocardial infarction and stroke
- ≥ 2 serves of seafood per week is recommended to reduce the risk of congestive heart failure, CHD, ischemic stroke, and sudden cardiac death
- Consumption of fatty fish (not lean) reduces the risk of CVD and myocardial infarction

◊ n-3 PUFA supplementation

- – Adequate intake of n-3 PUFA is associated with many health benefits including: a reduction in the risk of cardiovascular (CV) events, CHD mortality and premature death
- – There is strong evidence supporting the cardioprotective role of marine sourced EPA and DHA across the lifespan
- – Clinical grade fish oil supplementation reduces the length of stay in Intensive Care Units (ICU) and in hospital following coronary artery bypass surgery
- – n-3 PUFA supplementation (especially DHA) reduces heart rate and blood pressure which is beneficial to those at high risk of ischemic stroke
- – High doses of clinical grade n-3 PUFA supplementation are recommended to improve clinical outcomes and reduce cardiac mortality in patients with chronic atherosclerotic disease

❑ Blood lipids

- n-3 PUFA supplementation and consumption of seafood high in n-3 PUFA impact favourably on maintaining appropriate cholesterol levels in the body
- High levels of triglycerides (which increase the risk of cardiac events) may be mitigated with adequate intake of n-3 PUFA
- Fish oil and Vitamin E supplementation are effective in reducing high cholesterol levels in menopausal women

Other conditions

In this lengthy report, other conditions where greater consumption of seafood and/or Omega-3 fish oil show benefits include:

- Diabetes
- Fertility
- Healthy ageing
- Inflammatory conditions
- Kidney health
- Liver health
- Maternal health
- Menopause
- Mental health
- Metabolic syndrome
- Muscle health and performance

Overall, the report says the benefits of fish consumption and n-3 PUFA at all stages of life from conception to ageing outweigh the potential risks (with the exception of a few selected species in sensitive populations).

Further information

For more information on this project, go to the FRDC website at: https://www.frdc.com.au/health-benefits-seafood

The full report is available at: https://www.frdc.com.au/sites/default/files/documents/The%20Health%20Benefits%20of%20Eating%20Seafood%E2%80%94Evidence%20Based%20Science.pdf

Note: DHA (short for Docosahexaenoic acid) and EPA (Eicosapentaenoic acid) are two types of Omega-3 fatty acids found in fish.

Remembering Shawn Somerset

THE most recent study is a reminder of the value of the pioneering work of the late Shawn Somerset in cataloguing and promoting the health benefits of seafood in the 1990s.

Dr Somerset's study identified benefits in a wide range of health areas, including cardiovascular disease, diabetes, certain cancers, osteoporosis and disorders of the central nervous system, including depression in some instances, and impaired cognition (leading to dementia).

A report based on his work, funded by the Fisheries Research & Development Corporation, is available at: www.frdc.com.au/sites/default/files/2021-07/Whats_so_healthy_booklet.PDF

Gene-edited fish could be permitted to be sold in Australia

Gene-edited fish – including a faster-growing, meatier version of a pink snapper relative – could soon be permitted to be sold in Australia, according to a report by the ABC.

ABC Radio National's "Science Friction" program reported that changes to Australian food safety regulations, which came into force in September, open the door to new kinds of gene-edited seafood and other meats on the market.

"Products such as Japan's fast-growing and meatier fish could be sold in Australia without long public consultation," the report said, adding that gene-edited fish first went on sale in Japan in 2021.

"The first gene-edited fish was a red seabream (*Pagrus major*), raised in land-based aquaculture, which was altered to have 1.2 to 1.6 times more meat than an unedited bream (while eating the same amount of food)," the report said.

"This was done by effectively turning off a gene in the fish called myostatin, which usually limits muscle growth.

"Japan's food regulator did not consider the process to be genetic modification, so the fish was able to quickly enter the market three years after the first experiments were published in a scientific journal.

"The Kyoto University researcher behind the altered red seabream started a company that now also sells edited olive flounder (*Paralichthys olivaceus*) and tiger puffer fish (*Takifugu rubripes*), otherwise known as fugu.

"Using gene editing, the Japanese company disrupts a protein in both fish that regulates appetite, so the fish eat more.

"In the case of the edited pufferfish, the company says it grows much quicker than and almost twice as heavy as unedited fugu.

"Brazil has also approved a genetically edited fish, Nile tilapia (*Oreochromis niloticus*), which, similarly, has had its myostatin gene turned off, although it has not yet gone on sale."

In Australia

The report quoted CSIRO scientist Mark Tizard as saying his agency has been in discussions with farmers around the technology's possibilities for cattle, and added that something like gene-edited fish has the potential to work in Australia.

"We would really need to take a look at what industry is asking for," said Dr Tizard, a senior scientist in genome engineering.

"It might even be that certain fish … that are not yet at the level of being really good, commercially-viable options, could be brought to that level with some kind of editing."

New FSANZ rules

The report said Australian rules on genetic engineering, set by the Office of the Gene Technology Regulator, have allowed forms of genetic editing on animals for several years.

"But, in Australia, any food products that are genetically engineered have been required to go through a separate regulatory process under the food safety watchdog – until recently," it said.

"On September 2, Food Standards Australia & New Zealand (FSANZ) changed its rules. Now, food that has been genetically edited – perhaps with a couple of genes switched off – but has had no new DNA introduced, are not required to be regulated as genetically-modified organisms (GMOs).

"That is because such changes are seen as something that could occur naturally in the wild (that is, random genetic mutations) without human interference.

"FSANZ now only considers food from animals and plants to be genetically modified if DNA from another unrelated organism is added (which subjects them to extra regulation).

Internationally …

The report said that, internationally, as well as faster-growing fish, there are heat-tolerant cows and disease-resistant pigs in the new class of animals being genetically engineered for the dining table.

"In the past six years, several gene-edited animals have been approved for consumption in Japan, the US and several South American countries.

"And similar meat products could soon be sold in Australia without lengthy regulatory testing or labels indicating what DNA alterations have been made.

"That is because of recent changes to how Australia's food regulator defines 'genetic modification', which have come in response to technological advances.

"The adoption of new gene-editing technology into Australia's food production systems has the potential to speed up traditional breeding of animals and plants by decades."

Dr Tizard, a principal research scientist at CSIRO's Division of Health & Biosecurity, said a new era was dawning for animal biotechnology and genetic editing.

Gene-edited fish are being sold in Japan and explained to school-aged children through illustrated books. (Supplied: Gakken Inc.)

Red seabream with the gene myostatin turned off was the first genetically edited animal species to go on sale in the world. (Supplied: Gakken Inc.)

"There's going to be much more of it and it's really important … it's done in a way that shows value to the consumer," he said. "That it has a benefit for them and that it's safe."

Gene editing

The ABC report says genetic engineering uses technology to modify or alter an organism's genes and has been around since the 1970s.

"The first genetically modified organism was created when scientists moved a gene belonging to one bacterium into a different bacterium. Genes that are moved from one organism to another are called 'transgenes'.

"But, with early technology, it was not clear where transgenes would wind up when moved into another organism, said Alison Van Eenennaam, a professor of animal biotechnology and genetics at the University of California, Davis.

"She said that, typically, that was being done to give that organism … a novel characteristic or trait, like insect resistance.

"What was different about that technology was you were introducing typically a protein from a different species."

Professor Van Eenennaam said scientists had to make sure that, when the GMO tried to produce that protein itself, it "wasn't a toxin or allergen".

Cutoff genes

The report said the Federal Government first set up a watchdog, the Office of the Gene Technology Regulator, in 2001 to make sure GMO products were safe.

"But, in the past two decades, gene technology has rapidly advanced. Today, there are tools such as guided nucleases, which, according to Professor Van Eenennaam, are like 'molecular scissors' that cut DNA.

"DNA is essentially a set of instructions that tell the body's cells how to function. Genes are smaller segments of DNA controlling specific functions.

"Because you have such precision in where [the technology] makes that break, you can go in and tweak a gene. This process is commonly referred to as 'genetic editing'."

Public opinion

Rachel Ankeny, from Wageningen University in the Netherlands, has run studies on public opinion for Australia's food and genetics regulators as well as agricultural industry groups such as Meat and Livestock Australia.

Australians did not see a huge difference between genetic editing and genetic modification, Professor Ankeny said, adding "To the average person, they sound relatively similar."

"In the last few years, we're seeing a lot more concern about the financial impacts of the grocery bill and everything else in everyday life.

"And, in some hypothetical world, where perhaps gene editing might improve those things … probably people would have no problem."

She said one of the key issues that came up in focus groups about genetic engineering was around who was benefiting: "The main concern is that they're designed just to make profit and they're not designed because of nutrition."

But climate change could be a game-changer for attitudes towards genetic engineering. Making changes to crops to cope with climate change could be an acceptable use of genetic engineering to the public, as long as the rationale is made transparent.

Concluding the report, Professor Van Eenennaam said she hopes consumers will "get on board" with genetic editing as a way of addressing sustainability and climate-related food issues.

"I really do believe that innovation is important for agricultural production," she said.

"And it's the only way we're going to be able to address some of the problems that are coming down the pipe at us."

Note: The red seabream, scientific name *Pagrus major*, is related to Australia's (pink) snapper, *Chrysophrys auratus*, previously known by the scientific name *Pagrus auratus*, and referred to in some parts of the world as the silver seabream.

To listen to the original "Science Friction" program on ABC Radio National or read an article on the ABC website, go to:

https://www.abc.net.au/listen/programs/sciencefriction/gene-edited-meat-artificial-evolution-science-friction/105725076 or

https://www.abc.net.au/news/science/2025-09-17/gene-editing-food-fish-beef-pork-regulations-genetic-engineering/105767960

ENVIRONMENT NEWS

Feral oyster muscling in

A FOREIGN oyster that can grow to 24cm across and out-compete native oysters has become established in Moreton Bay – and Biosecurity Queensland is asking for public help to discover just how far it has spread.

Recent media reports say the Suminoe oyster, or Chinese river oyster – having possibly travelled to Australia on a foreign vessel around 2020 – was first found in Bribie Island's canal system in June 2023, and has since been found in other Moreton Bay estuaries, including Brisbane's Kedron Brook and Boggy Creek, near the mouth of the Brisbane River at Pinkenba.

Biosecurity Queensland (BQ) says it has not been reported in New South Wales but monitoring will be crucial for early detection and management.

The full extent of its spread in Australia is difficult to determine because Suminoe oysters are often covered in algae and proved initially hard to distinguish from other shellfish.

BQ spokesperson Anita Wohlsen said one feature of the oyster was its large size.

Also, they have flaky shells, which are a bit different to the natives, and that becomes more apparent as they become bigger, plus its inner shell lacks the little ridges common to native oysters and has a distinctive purple to black scar.

The oysters attach to submerged and floating infrastructure, including pylons, pontoons and boats, and can occupy shallow waters and muddy creeks.

BQ is asking commercial and recreational fishers to inspect, clean and dry vessels and gear before moving to a different location, including hulls, pots, nets, fishing or diving gear, anchors and ropes.

Suminoe oysters can reach sexual maturity in two to three months, compared with three years for Sydney rock oysters.

They are protandric hermaphrodites, which means they start life as males,

UNESCO threat hangs over GBR for another year

THE UNESCO World Heritage Committee (WHC) threat to embarrass Australia by declaring the Great Barrier Reef "in danger" will continue to hang over the country for another 12 months.

This follows the latest meeting of the WHC in Paris, where the organisation made a number of demands for more information by February 2026, ahead of the next meeting in South Korea in July.

In its report on the WHC's 47th meeting in July 2025, the Committee said it "notes with utmost concern" the conclusions of the 2024 Great Barrier Reef Outlook Report that the overall long-term outlook of the property remains one of continued deterioration due largely to climate change, and the long-term outlook for the ecosystem of the property also remains "very poor", and the negative impacts on its Outstanding Universal Value (OUV) suffered through mass bleaching events, including the most recent event in 2023-24.

The Committee said it regrets that 2025 water quality targets for sediment and dissolved inorganic nitrogen were not achieved, and requests (Australia) to complete the updated Water Quality Improvement Plan (WQIP) by 2025, and to ensure that water quality targets, and actions implemented through the updated WQIP are sufficiently ambitious and funded to ensure the OUV of the property is not further adversely impacted by low water quality.

In particular, the WHC wants Australia to:

- ❑ continue early detection and intervention to halt illegal land clearing;
- ❑ strengthen clauses under existing laws to ensure that all remnant and high value growth areas are protected, including "Category X" vegetation (under the Queensland Vegetation Management Act), and other high priority areas including riparian zones, lands vulnerable to degradation, and areas contributing to sediment and nitrogen pollution;
- ❑ ensure full compliance with Queensland's Reef Protection Regulations; and
- ❑ ensure that all Best Management Practice programmes effectively deliver water quality improvements.

The UNESCO World Heritage Committee said it "welcomes the ongoing efforts to increase the sustainability of fishing in and adjacent to the property".

"(It) also requests (Australia) to ensure that:

- ❑ the (GBR World Heritage Area) is fully gillnet-free by mid-2027 at the latest;
- ❑ monitoring of trawl fisheries includes comprehensive transparency and accountability mechanisms, based on adequate data; and
- ❑ all aspects of the Queensland Sustainable Fisheries Strategy are fully implemented, in particular species harvest strategies."

The Committee's report says it encourages Australia to support the Traditional Owner Taskforce, as appropriate, in its mandate to lead the delivery of the Reef 2050 Traditional Owner Implementation Plan.

It reiterates its request to Australia to ensure the Reef 2050 Plan is effectively implemented to limit the impacts of climate change on the property, and to set further ambitious targets to limit temperature increases consistent with limiting global temperature to 1.5°C above pre-industrial levels, and align its policies accordingly, and also encourages Australia to establish effective mechanisms to mitigate negative impacts of extreme weather events to the OUV of the property.

The UNESCO Committee wants Australia to submit to the World Heritage Centre, by 1 February 2026, "an updated report on the state of conservation of the property and the implementation of the above, and including the full impacts of the 2023-24 bleaching event, for examination by the World Heritage Committee at its 48th session".

Further information: https://whc.unesco.org/document/222383

This Suminoe oyster is approximately half-grown. (Photo: QDPI.)

then can switch to become females, reproduce very effectively, which makes them good invaders, they can spread quite quickly and their populations can grow rapidly.

Modelling by the Australian Bureau of Agricultural & Resource Economics & Sciences, published in August 2024, found the Suminoe oyster could potentially infest most of Australia's coastline, except for Victoria, Tasmania and parts of the south coast of Western and southern Australia.

Adults can tolerate temperatures between 0 and 35 degrees Celsius, and larvae or spat can survive in waters between 20 and 30C in the crucial two to three weeks when they are carried in currents to find a suitable hard surface to attach to.

To report a possible sighting:

- use the BQ online form here: report a marine pest
- email at marinepests@daf.qld.gov.au
- telephone 13 25 23

Further information: www.abc.net.au/news/rural/2025-09-09/suminoe-chinese-river-oyster-threatens-biosecurity/105749928

Algal bloom still impacting SA fishing families

THE widely-publicised algal bloom in South Australia is still having a major impact on fishing families, months after it was first detected.

Amid ongoing stories and firsthand accounts from fishers about the disappearance of numerous commercial seafood species along significant stretches of the SA coastline, an ongoing Senate inquiry has heard more details of industry impacts.

For example, Senators holding inquiry hearings in four ports in SA in mid-September heard from fisherman Nathan Eatts, who said he owns more than eight tonnes of calamari quota but had not caught any since Easter.

He began to notice changes in the water and the way that squid were acting in mid-February and, by March, they had completely disappeared from the area where he was fishing. He called for in-depth assessments and action to address environmental damage and fish stock levels, as well as long-term financial support from the state and federal governments to help survive until fish stocks are at sustainable levels.

"It's an extremely stressful time for myself and other commercial fishers, and our mental health is suffering," Mr Eatts said. "We're watching our businesses that we've poured our heart and soul into for years and years just being destroyed, and there isn't anything we can do about it."

The *Karenia mikimotoi* species of algae was first detected on the Fleurieu Peninsula in mid-March, when metres of foam and dead fish began washing up, and since then foaming seas and fish kills have been seen along the Fleurieu Peninsula, Kangaroo Island and Yorke Peninsula, with more recent reports of some algae in the famous Coorong Lakes and around Adelaide.

Following the last day of Senate inquiry hearings on September 24, Shadow Fisheries Minister Ross Cadell accused the Federal Government of "a billion dollars of inaction".

Senator Cadell said Prime Minister Anthony Albanese in August had announced an additional $1 billion of funding for the Regional Investment Corporation (RIC) to support people

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Marine forecasts for hot spots

CSIRO and the Bureau of Meteorology have developed "marine heatwave forecasts" to help predict ocean hot spots.

They say the long-range marine heatwave outlook will now be a regular fixture over the Australian summer, with forecasts made available publicly leading into and throughout the 2025-26 summer season.

These forecasts will provide up to three months' advance warning of ocean temperature extremes, and the likelihood and location of marine heatwaves.

Marines heatwave forecasting provide the opportunity to develop rapid responses in future.

They said that, just as the 2019-20 summer is remembered for devastating bushfires, the summer of 2024-25 is likely to be remembered for Australia-

wide marine biological disruption associated with marine heatwaves.

Marine heatwaves are a well-established cause of coral bleaching, but the marine heatwaves that characterised Australia's 2024-25 summer contributed to multiple biological disruptions affecting marine species, ecosystems and coastal communities, extending their impact far beyond the reefs.

It led to fish kills, out-of-range species, species outbreaks and algal blooms – including the large-scale bloom off South Australia's coast.

Further information: www.csiro.au/en/news/All/Articles/2025/August/Marine-heatwave-planning

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impacted by ecological events such as the devastating algal bloom in SA.

Despite that, at the inquiry hearings in Canberra on September 24, officials from the Department of Agriculture, Fisheries & Forestry admitted they were yet to determine who would be eligible for the loans. "Their timeline doesn't pass the pub test, given the algal bloom was first detected in March this year," he said. "Six months ago, the fish disappeared from the Spencer Gulf. Now, we're talking about the fact we might find out who is eligible for RIC loans before Christmas."

Note: The algal bloom was covered in a segment on the ABC's "Landline" program back in July. To watch that segment, go to: https://iview.abc.net.au/video/RF2404Q021S00

On October 2, the South Australian Premier and State and Federal Environment Ministers held a joint press conference and announced a "hotline" for updates on the algal bloom. For details, go to: https://minister.dcceew.gov.au/watt/transcripts/press-conference-adelaide-0

Salmon continues

SALMON farming will be able to continue in Macquarie Harbour on Tasmania's West Coast, following a decision by Environment Minister Murray Watt, who said the decision includes measures to ensure there are no significant impacts to the Maugean skate or the Tasmanian Wilderness World Heritage Area.


The entrance to the Mooloolah River suffers from regular shoaling.

NEWS CLIPS

Mooloolaba bar review follows capsize death

THE State Government has ordered an independent review of ongoing problems on the Mooloolah River bar following the death of charter boat skipper Robert Smith in a capsize on August 27.

Transport Minister Brent Mickelberg announced on September 17 an "expert independent analysis" will examine long and short-term solutions to address shoaling at the river mouth.

The review will develop recommendations to help prevent and/or mitigate shoaling events, taking into account the varying views of a stakeholder reference group.

The Government will also establish a Sunshine Coast Waterways Authority to give locals a greater say in how their waterways are managed, and also take on long-term responsibility for managing the Mooloolah River bar and implementing recommendations from the review.

Further information: www.msq.qld.gov.au/Boating-facilities/Mooloolaba-boat-harbour-dredging

Man lost from Gulf trawler

A YOUNG crewman has been lost from a trawler off Weipa.

He is believed to have fallen overboard early on the morning of September 10, about 16km south-west of Weipa. He could not be found, despite an extensive search by fishing vessels and emergency services.

A spokesman for Austral Fisheries said the crewman was Ryosuke Iuchia, a 27-year-old Japanese national, whose family come from Fukuoka Japan.

"He loved working out, adventure and buying clothes on-line," he said. "We all mourn his tragic loss."

FRDC releases its RD&E plan

THE Fisheries Research & Development Corporation (FRDC) has released its research, development and extension plan for the next five years.

FRDC Chair Beth Woods said the organisation's RD&E Plan 2025-30 addresses the need for continuity of stakeholder-driven themes from the previous five year plan, to deliver decadal-scale impact by addressing trends and drivers aligned to key "2030-visioned" frameworks such as the National Fisheries Plan.

"The RD&E plan resulted from extensive consultation with fishing and aquaculture, government and research stakeholders," Dr Woods said.

Further information: https://www.frdc.com.au/sites/default/files/documents/FRDC004-RDE-Plan-A4-Design-S3V5-DIGITAL%20%281%29.pdf

THE GULL

10,000 net licences

THERE are people who'll tell you a couple of dozen gillnets fishing along the 2,300 km coast of the Great Barrier Reef region are too many. How would those people feel about 10,000 nets in Queensland?!

Looking at some history of one of our predecessor organisations, the Queensland Professional Fishermen's League (QPFL), QPFL Secretary Mr W. Burnett was complaining in 1955 that at least 10,000 Queenslanders had been issued with fishing licences – and only 1,000 of those licences were held by genuine professional fishermen.

A newspaper article said professional and amateur fishermen's representatives were asking the State Government to:

- ❑ establish fish sanctuaries where fishing would not be allowed;
- ❑ appoint more fisheries inspectors to better enforce existing laws;
- ❑ prohibit weekend net fishing from Gladstone to Coolangatta; and
- ❑ not to renew or issue any professional fisherman's licence till the applicant could prove he was a fulltime fisherman.

To read more: https://trove.nla.gov.au/newspaper/article/266316141?

We're cooked

THE Federal Government recently promoted a climate report that warns about damage likely to occur if global temperatures continue to rise, including more cyclones, flooding, damage to the marine environment and higher sea levels.

Well, I hope the Government is making plans to cope with these changes – including what they can do to buffer the impact on the fishing industry – because, from what I read, we're cooked.

According to an article in *The Conversation* earlier this year, only 15 of 194 countries signed up to the Paris Agreement – which aims to limit global warming to 1.5°C by ensuring greenhouse gas emissions peak by 2025 and decline 43 per cent by 2030 – have kept a promise to submit plans to slash greenhouse gas emissions.

The countries that have submitted plans include Andorra and the Marshall Islands. Those that haven't submitted plans include China, the USA, India, the European Union countries and Russia.

Australia recently announced we will cut our emissions by 62 to 70 per cent by 2035. China – which is the world's largest single emitter, responsible on its own for between a quarter and a third of global emissions – has since promised to cut its emissions by between 7 and 10 per cent of their peak by 2035. No-one knows if China has yet reached its peak in emissions, and it is continuing to build new coal-fired power stations.

The recent climate report said sea levels round Australia have already risen by 20cm since 1880, adding 15 extra days of coastal flooding, but, by mid-century, even with modest warming, there will be a further 24 days of the year affected by coastal floods, and 18 of the top 20 most at-risk regions in the country are in Queensland, particular the south-east and Brisbane.

At 1.5°C of global heating, Brisbane would experience coastal floods for 86 days a year and, at 3°C , floods for 314 days a year.

According to *The Conversation* piece, if countries keep failing to honour their promises, global heating could reach 4.4°C by 2100. Everybody doing the right thing might limit global heating to 1.8°C.

The climate report promoted by the Federal Government warns of more cyclones, floods, sea level rise, coral bleaching and damage to seagrass. Already fishermen and oyster farmers have been impacted in New South Wales, by back-to-back floods, and in South Australia by toxic algae.

Given that the Federal Government is aware of damage expected from a heating world – and the seeming inevitably of a warmer world, despite Australia's best efforts, because of the recalcitrance of the big emitters – I will look forward to seeing the Federal Government's plans for buffering the impacts on our marine environment and coastal infrastructure so vital to the fishing industry.

To read more, go to: https://theconversation.com/only-15-countries-have-met-the-latest-paris-agreement-deadline-is-any-nation-serious-about-tackling-climate-change-250847 and

https://www.climatecouncil.org.au/resources/briefing-paper-national-climate-risk-assessment-ncra/

Hard times

IT must be hard if you're a tourism operator on the Great Barrier Reef to see the regular bad news about your product in the international media.

In August, the Australian Institute of Marine Science (AIMS) released its latest report on coral cover on the GBR, saying in the very first paragraph of AIMS' accompanying media release that "hard coral cover across the Reef has declined substantially from the high levels of recent years back to near long-term average levels …"

Let's not pretend this is good news – it's not – but right up front AIMS said the big decline came off record coral cover the previous year, and in both the big rise and big fall the main corals involved were the fast-colonising *Acropora* species – "the fastest to grow and the first to go".

Of course the subtleties were lost in international media reports (and lots of local media reports as well), with bad-news stories told all over the globe by organisations like Reuters, CNN, *The Guardian*, *The Independent*, RTE, Deutsche Welle and Associated Press.

Typical was the story distributed by Al Jazeera, which began "The Great Barrier Reef has suffered its most widespread coral bleaching on record, according to a new Australian Government report, as ocean temperatures soared in 2024."

Agence France-Presse distributed a story headed "La Grande Barrière de corail victime d'un record de blanchissement", which obviously doesn't translate into good news.

It's lucky the Australian Government launched a $130-million international tourism campaign – featuring the Great Barrier Reef (and prawns on the barbie) – just two days before most of those stories hit the headlines worldwide.

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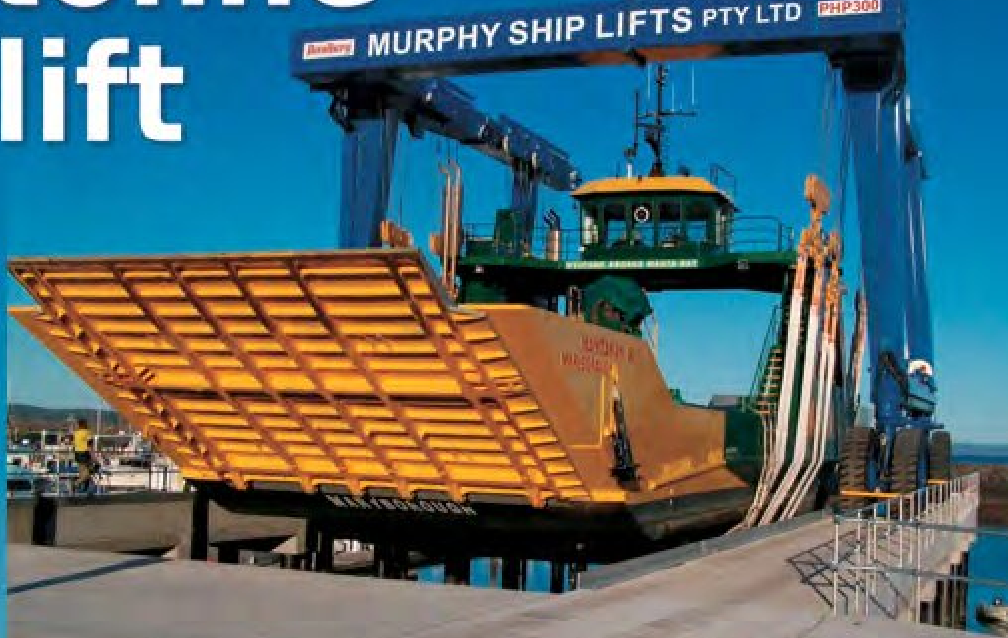

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