



The role of the recreational fisher in the stewardship of the Southern Bluefin Tuna fishery

TUNA CHAMPIONS

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Tuna Champions Project

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We also thank the amazing team of people that have been involved in the development of Tuna Champions over the last five years. It has been a learning experience for all of us and, with open minds, we have changed the landscape of recreational fisheries representation and management in Australia. Today, many look in from foreign shores to see what we have achieved in Australia, and to learn from our leadership in developing effective stewardship programs. Our steering committee, IMAS team, ambassadors, funders and politicians have all been instrumental in delivering this project and the changes that will come for other fisheries in Australia and beyond in the years to come. This project was supported by funding from the Fisheries Research and Development Corporation on behalf of the Australian Government.

Executive Summary

Tuna Champions – from vision to reality Community engagement is at the heart of the national Tuna Champions (TC) project, which is designed to encourage recreational fishers to use the best fishing and handling practices for the iconic Southern Bluefin Tuna (SBT) so no fish is wasted – and to become stewards of the SBT fishery. Over the past four years, this vision has become a reality.

Funded by the Australian Government through the Fisheries Research and Development Corporation (FRDC), the project was initiated and delivered by the Institute for Marine and Antarctic Studies (IMAS) at the University of Tasmania. A collaboration with the Australian Recreational Fishing Foundation (ARFF), it is the largest single-species education and communication program funded by the FRDC and is a blueprint for similar engagement programs.

While working with recreational fishers on a satellite tagging project to investigate post-release survival of SBT, IMAS researchers recognised fisheries research outcomes and management strategies were not being conveyed well to fishers. It was evident that fishers were often not handling SBT correctly, for its welfare or when being processed for consumption – not through negligence but due to a lack of understanding and education. So, the idea of fishers being champions of change was born.

The program was created as an evidence-based education platform to promote the best fishing and handling practices for this iconic species, improving animal welfare, minimising wastage, and reducing unnecessary mortality in the SBT fishery. The aim: to create, through education, a snowball effect of positive change from within the fishery, initiated with 'nudge' theory. The vision: a new normal where using best practice fishing is 'just the way we do it now'. In just over four years, we have seen this vision become a reality, with a true behavioural shift in the fishery.

During the 2019 national recreational fishing survey it was revealed that the project was hugely successful, with almost a third of all SBT fishers aware of the program after it had been running for 20-months. This trend was much higher for the most avid fishers, at 63%. Even more encouraging was the evidence of behavioural change with between 10 and 25% of respondents who had heard about the program indicating they had improved various practices relating to the retention and release of SBT. With an increasing trajectory of momentum, these numbers are now likely to be much higher.

The success of the TC program is built on strong collaboration with partners across government, the University, the recreational fishing sector, and the community. This has enabled the team to bring onboard social influencers as Tuna Champion Ambassadors, such as the hosts of two of Australia's highest rating fishing shows Paul Worsteling and Al McGlashan, and Brownlow medallist and Geelong Captain Patrick Dangerfield. Our 18 high-profile fishing, sporting, science and culinary identities share a passion for SBT and work with us to promote the TC ethos across their extensive networks.

The program has achieved excellent results – a recognised brand, a one-stop info hub at tunachampions.com.au, an educational video series, a range of apparel, information cards for boats, and more. We have a strong presence at game fishing events, actively engage with mainstream media including television, radio and print, and have a growing and engaged social media community. This includes over 12k Facebook followers and 5.4k Instagram followers worldwide, with posts reach exceeding one million.

The TC program's targeted engagement is influencing behaviour in the sector nationally, bringing benefits to the community and to this iconic species of focus:

- Gamefishing tournament organisers are changing competition rules: "We're playing our part in the Tuna Champion movement...in 2019, we encouraged all competitors to use single hooks instead of treble hooks to minimise damage to the fish and maximise its survival. In 2020, we'll be introducing this as a rule...no competitors are to run lures with treble hooks." R & G Bianco, Riviera Port Lincoln Tuna Classic, South Australia
- Teachers are showing their students how to prepare an SBT so no fish is wasted: "Yesterday I brought in a small school SBT I'd caught out of Fortescue Bay the day before. Your website was a fantastic resource...to inform and educate my students about all aspects of SBT." Chris Edwards, Claremont College, TAS (see <u>Kids in the Kitchen</u> video)
- Recreational fishers are engaging with the program: "We love what you guys do...[at] all our Tuna Hot spots in SA people are practicing your methods. It's great to see!" Matt, SA

- Fishing identities are reporting changes in behaviour: "...what is really impressive is how anglers are really working to look after their catch. Every boat is carrying ice, [and they are] dispatching and processing these big tuna properly so the meat is in the best possible condition. This is a result of the new Tuna Champions campaign, which is all about educating anglers..." AI McGlashan, Daily Telegraph (2/8/2019)
- Recreational fishing peak bodies enthusiastically support the program: "Tuna Champions has made a huge positive impact here in Victoria and has added so much value to the overall SBT fishing experience for our fishers. It's been brilliant having the involvement and support of all the peak bodies to grow our stewardship over this remarkable fishery." Mike Burgess, CEO VRFish.

This ambitious project shows that strong partnerships, positive community engagement, and an effective education program can influence a change in attitudes and behaviours. It's a win for SBT and other tuna, the recreational fishing community, science communication and the University's fisheries research.

1. Introduction

Stewardship is recognised as a crucial component for improving societal practices in various domains (Wi and Chang 2019, Mackay et al. 2020), and enhancing voluntary stewardship behaviours can effectively complement regulatory initiatives aimed at protecting natural resources through sustainable resource management (Wi and Chang, 2019; Mackay et al., 2020).

Unlike regulatory approaches, voluntary stewardship is driven by an individual's genuine desire to contribute to improved societal outcomes, rooted in their learned and shared understanding of the benefits associated with the advocated activities. In contrast, regulatory approaches often face scepticism and resistance due to a lack of understanding of the need for the regulation, and a natural resistance to being told what to do (Jones and Sloman 2006, Cooke et al. 2013).

Pathways to successful stewardship are deeply embedded in understanding the human psyche, and well-established behavioural science theories have been put forward to address this. Applying the core principles of these theories often occurs innately through society as they are born out of our human nature and developed cognitive processes, but understanding these theories provides a powerful tool to maximise effective stewardship. Beyond the fields of science, these same theories are applied broadly, although perhaps not recognised directly, in many facets of our life, particularly through marketing, networking and communications strategies. In environmental management we are not aiming to 'sell a product', instead we are sharing knowledge to improve our practices for the betterment of society.

Investing efforts in initiatives that promote stewardship behaviours, as an alternative to regulatory enforcement, can lead to long-term improvements in pro-environmental behaviour (Cooke et al. 2013, Martin et al. 2017). Recreational fishing, a significant societal activity enjoyed by millions of people globally, has positive economic, social, and health benefits, but it can also have potential negative impacts on fish stocks and associated ecosystems (Cooke and Cowx 2004, Arlinghaus et al. 2014). Addressing these impacts requires balancing the diverse values associated with recreational fishing and understanding its ecological consequences (Arlinghaus et al. 2019).

Traditional deterrence-based approaches to manage recreational fisheries may no longer be sufficient due to the open-access nature of most recreational fisheries, increasing population sizes, and non-compliance challenges (Cooke et al. 2013). This has led to a growing focus on bottom-up approaches that aim to foster proenvironmental behaviour through environmental stewardship (Cooke et al. 2013, Shephard et al. 2023). These approaches, including co-management, improved education, nudging and marketing, have all shown promise in promoting stewardship and driving behaviour change (Kaplan and McCay 2004, Danylchuk et al. 2018, Mackay et al. 2018, Wi and Chang 2019).

Recreational fishers have the potential to be significant environmental stewards due to their direct impact on the environment and their involvement in the food web (Cooke et al. 2013, Shephard et al. 2023). Stewardship programs that aim to voluntarily drive pro-environmental change in fishers have been developed, including campaigns, best practice guidelines, and cooperative efforts (Danylchuk et al. 2018, Shephard et al. 2023). However, the success of these programs relies on community uptake and behaviour change, and further research is needed to assess their effectiveness in changing fisher behaviour and reducing environmental impact (Arlinghaus et al. 2007, Cooke et al. 2013, Danylchuk et al. 2018, Arlinghaus et al. 2019).

Fostering voluntary stewardship behaviours offers a promising approach to improving societal practices and achieving sustainable resource management. By tapping into an individual's intrinsic motivation and understanding of the benefits of pro-environmental practices, we can drive long-term behaviour change and mitigate the negative impacts of activities like recreational fishing. However, continued research and the development of well-designed stewardship initiatives are necessary to ensure the successful uptake of improved practices and the reduction of environmental impact.

The Southern Bluefin Tuna *Thunnus Maccoyii* is an iconic pelagic species that inhabits the waters of the southern hemisphere. It is not only a target of a large and economically valuable commercial fishery but also a commonly sought-after species in recreational fishing.

The commercial fishery has been responsible for harvesting a substantial amount of SBT, with recent records showing upwards of 15,000 tonnes, while the recreational fishery in Australia alone accounted for an estimated 270 tonnes in 2018/19 (Tracey et al. 2022).

The historical overfishing of SBT has rendered them a threatened species, requiring urgent conservation efforts. However in recent years, management interventions have been successfully implemented to alleviate the commercial fishing pressure and facilitate the recovery of SBT stocks (Hillary et al., 2016). While these measures primarily targeted the commercial sector, it has become increasingly evident that addressing the impact of the recreational fishery is crucial for effective conservation management. Therefore, minimising the ecological footprint of the recreational fishery has become a focal point in fisheries management discussions for the species, particularly reducing unintended mortality or wastage and improving individual animal welfare.

Based on their iconic status, SBT were seen as an excellent candidate to be the focus of a stewardship program. The Tuna Champions was developed in 2019, with the aim of promoting stewardship within the recreational SBT fishery in Australia. The program has the explicit goal of affecting behavioural change in the recreational SBT fishery to improve stewardship of the fishery, by educating fishers on science-based best practice for both the release of caught fish and the harvesting of fish that are retained for consumption. It is not about directly affecting the sustainability of the fishery as, while there are minor benefits from reducing wastage of the fish, the recreational component is a small fraction of the overall harvest of the species. Rather, it is about increasing accountability of fishers to 'do the right thing' and encourage their fellow fishers to do the same.

The program was established on a sound strategic basis encompassing both behavioural science and marketing strategies. The behavioural change is driven through 'nudging', a theory born out of behavioural economics, political theory and behavioural sciences. It uses positive reinforcement and indirect suggestion to influence behaviour of groups or individuals (Mackay et al. 2018, Mackay et al. 2020), in this case the community of fishers that target SBT.

Over time, the nudging strategy is adopted by the community and propagates an increased knowledge about why improved practices are beneficial, and this knowledge builds organically through the community, as

fishers encourage each other to improve their practices. This creates momentum and social sanctioning where behavioural change is driven by the sector itself. Similarly, employing effective branding and marketing techniques can encourage pro-environmental behaviour in recreational fishing by establishing a trustworthy and recognisable brand identity (Danylchuk et al. 2018).

It is important that the program does not become embedded into a political or management agenda as this weakens the value of the principles behind the strategic design. It is difficult to contest that it is a positive move to reduce wastage of an iconic species if harvested or give a fish the best chance of survival if releasing it. However, using the program for political leverage or confusing the message with regulatory management will alienate some, subsequently slowing or hindering the momentum of increased stewardship.

During the initial conceptual steering committee meeting of the Tuna Champions program it was identified, and supported by marketing specialists, to focus on a single species, in this case the SBT. If this was done well, it would minimise dilution of the messaging and improve the uptake and momentum of increased stewardship in that fishery. It was noted though that well-designed and delivered messages would likely carry over into fishing practices for other species, particularly tuna species. In addition, it was noted that the messaging and recognition of the value of stewardship as it relates to recreational fishing practices would spill over more broadly to other species – an analogy of onion layers was used to describe this effect.

This effect has now been realised with fishers that target other tuna species, who are already sharing and promoting the message of Tuna Champions. More broadly, several other recreational stewardship programs have been developed or are currently in the funding or conceptual phases including Shark Mates, Care for Cod, Snapper Stewards and the Flathead for the Future program in Tasmania promoting stewardship in the recreational fishery targeting sand flathead.

Best-practice recreational fishing will ensure that anglers in Australia are contributing to building stock up to sustainable levels, considering animal welfare when engaging in the fishery, and being accountable and responsible stewards to ensure Australia's obligations to the regional fisheries management organisation, the Commission for the Conservation of Southern Bluefin Tuna (CCSBT), are being met.

2. Objectives

- 1. Deliver an education program and communication strategy focusing on responsible fishing practices within the recreational sector and educating grass-roots fishers on the status SBT.
- Deliver an education program and communication strategy focusing on responsible fishing practices within the recreational sector and educating grass-roots fishers about the need for, and methods to, collect an estimate of the recreational SBT harvest.
- 3. Deliver an education program and communication strategy focusing on responsible fishing practices within the recreational sector and informing grass-roots fishers on the results of the SBT recreational harvest survey.
- 4. Determine the impacts and success of the education and communication engagement activities delivered.

2.1. Objective 1-3: Deliver an education program and communication strategy focusing on responsible fishing practices within the recreational sector and educating grass-roots fishers on the status of Southern Bluefin Tuna.

The Tuna Champions concept was born out of a realisation that there was room for improvement in the catching, handling, keeping, preparing and releasing of SBT in Australia's recreational fishing sector. It was clear that there was a lack of science-based information and education on the correct handling methods for this species, especially given their unique biological and physiological traits. SBT are endothermic and require special treatment to ensure the best meat quality can be attained, which ideally will minimise wastage of meat that might be discarded due to perceived poor eating qualities.

The Tuna Champions message is not one of sustainability, rather accountability, in that fishers all have a role to play in being stewards of the ocean and the species that live in it. If we engage with these fish,

2.1.1. Steering Committee

Due to the contemporary nature of this program and the importance of SBT to a range of state and federal agencies and stakeholders and the need for advice from marketing, communication and production experts, a large steering committee was formed to help guide the project (**Table 2**). The steering committee met on 12 April 2018 approximately four

we should ensure that we are making the most of each fish harvested and ensuring that, if they are released, they have the best chance of survival.

Early in the program development, VMLY&R marketing company were engaged to help develop the Tuna Champions brand and provide insight on how to best deliver a successful stewardship program. Of note was understanding our audience, focusing on our key objective, and not deviating or diluting our messaging or goal. Instead, the focus was finding effective ways to disseminate the key messages. Linking this advice with behavioural science theory led to the development of our communication plan which is described below. This was designed as a 'living document', evolving as the project progressed and updated to reflect what did and did not work well.

months after the project contract was signed in December 2017, and met again on 20 February 2019. The first meeting was to present the concepts and communication strategy for the program, and the second meeting was to provide a progress update and work on refining project delivery.

Table 1. The members of the steering committee and their affiliations.

Brett Cleary (Chair)	Australian Recreational Fishing Foundation (ARFF)			
Sean Tracey (Project lead)	Institute for Marine and Antarctic Studies (IMAS)			
Steve Auld	Department of Agriculture, Water and the Environment (DAWE)			
Andy Moore	Department of Agriculture, Water and the Environment (DAWE)			
Josh Fielding	Fisheries Research and Development Corporation (FRDC)			
Matthew Daniel	Australian Fisheries Management Agency (AFMA)			
Rod Pearn	Department of Primary Industries, Parks, Water and Environment (Tasmania)			
Dallas D'Silva	Victorian Fisheries Authority			
Phil Bolton New South Wales Department of Primary Industries				
Keith Rowling	Department of Primary Industries and Regions (South Australia)			
Nathan Harrison	Department of Primary Industries and Regional Development (Western Australia)			
Michael Burgess	CEO – VRFish (Victoria)			
Mark Nikolai	CEO – TARFish (Tasmania)			
Danny Simpson	CEO – RecFishSA (South Australia)			
Andrew Rowland	CEO – RecFishWest (Western Australia)			
Brian Jeffriess	Southern Bluefin Tuna Industry Association			
Paul Nagy Chief Creative Officer - VMLY&R marketing				
Bill Holden Marine Stewardship Council				
Tim Simpson Editor and Chief – Bluewater Boats & Sportsfishing Magazine				
Richard White-Smith	CEO – Post Op Group			

On 18 November 2020, the project team or their representatives, two Tuna Champion ambassadors and the VML&YR marketing CCO were invited to the final Working Group meeting. While the latter three representatives were apologies, the project Principal Investigator followed up with each for one-on-one discussions on the outcomes of the meeting. The purpose of the meeting was to discuss the best options for managing Tuna Champions beyond the life of the current FRDC-funded project.

The outcome of this meeting was an agreement to explore options to expand and rebrand Tuna
Champions as a preference, with the maintenance of the current program agreed as the minimum option.
Early in the development of the program, there had

been an intention to explore options for future iterations of the program to be delivered by ARFF. It was noted by the ARFF representative at this meeting that, while they were excited to continue being a partner of any ongoing program, they recognise keeping the program within the current University setting was the best option. They indicated that ARFF, at the time, did not have the resources to maintain, grow or expand the program.

The supported outcome was for IMAS to develop a value proposition and costings for the 'Expand and Rebrand' option, and basic costings for the 'Maintenance' option, with the intention for this to be circulated to the group's government agency representatives to identify funding opportunities.

2.1.2. Key messages

The success of the communication strategy depended on clear, consistent key messages, and these messages were agreed on at the initial steering committee workshop. At that meeting, a series of presentations were delivered highlighting the broader issues relating to the SBT stock and fishery, which covered the proposed key messages.

Workshop participants provided input to, and agreed on, the following key messages:

• We are Tuna Champions

- We stand for Bluefin forever
- Our pledge as stewards is to:
 - Respect the fish in and out of the water
 - Value the fish as catch and to eat
 - Encourage our peers towards the ethos of Tuna Champions
 - Contribute to our knowledge of SBT

As stewards we promote, advocate, contribute and educate.

2.1.3. Planning for success: designing a communication & education approach

The communication strategy was created based on the steering group meeting in April 2018 and has guided the project to date.

Southern Bluefin Tuna (SBT) are large, fast fish found in the open seas of the southern hemisphere. They are an iconic conservation-dependent species which is managed internationally as a single breeding stock. SBT are currently recovering from critically low levels, but there is much to be done before stock recovers to target levels.

This project looks beyond the global stock management of SBT, to engage Australia's recreational fishers in the stewardship of the SBT fishery – as Tuna Champions.

This communication strategy demonstrates the potential for effective communication to:

- engage effectively with all project stakeholders
- ensure recreational fishers are aware of their role in the stewardship of the SBT fishery

- inform perceptions and improve SBT recreational fishing practices
- help achieve overall project objectives within the project timeframe.

This communication strategy is a 'living' document. It is updated as the project evolves.

The Tuna Champions concept is an ethos that all can aspire to. A range of approaches have been selected to communicate key messages and promote the educational components of the program to our primary audience, as well as to communicate the ethos of the Tuna Champions program to a wider audience.

The program runs with a unique brand designed to create a feeling of camaraderie, ownership and stewardship within the recreational fishing sector. The brand is consistently implemented across all communication channels, and there is potential to trademark the brand. The communication matrix below identifies the audience (who) and the communication activities (what) to be implemented (**Table 2**).

¹Adapted from the Commission for the Conservation of SBT (CCSBT) website: www.ccsbt.org/en

Table 2. Communication Matrix for the Tuna Champions program.

	Communication activities						
Audience targeted	Key Influencers	TC website	Broadcast & narrowcast media	Multi-media (ed videos)	Presentations & Events	Boat ramp signage	Merchandise
Rec fishers	✓	✓	✓	✓	✓	✓	✓
Key influencers		✓	✓	✓			✓
Community	✓	✓	✓	✓	✓	✓	✓
Project Partners		✓			✓		✓
Govt & industry		✓			✓		✓
Funding bodies		✓			✓		

The education program focuses on responsible fishing and handling practices, with SBT management only provided as context setting, such as why and how SBT are surveyed. Education topics identified are shown in **Table 3**.

Table 3. Key messages of the Tuna Champions program identified by the project steering committee.

The fishery: Stock status and species biology	Catching: Preferred lure and hook configurations for SBT Appropriate tackle Gear preparation Tuna fishing 101	Handling: Leave in water where possible Knotless nets Landing on mats	Retaining: Tuna handling and killing practices Considering yield of the fish Appropriate disposal of frames (skeletons) Large fish processing – tips
Surveying: Why and how surveys are done	Releasing: • Length-weight conversions • Leave fish in water when possible • If fish has gill damage or other significant damage, consider keeping for bag • De-hooking devices for large pelagics – commercial longline devices	Preparing: Using the whole fish and making the most of the meat: Cooking Preparing Storing	from the commercial sector Tagging: Best practice Importance of reporting tags Training

2.1.4. A matter of influence: applying behavioural change to the project

One of the standard approaches to communication is to work from the logical process that knowledge creates attitudes, which influence behaviour. However, this does not always work. Things get in the way, disrupting that process and creating a gap between what people know and what people do.

This is where the insights from behavioural science have helped us to communicate more effectively with our recreational fishing audience. Behavioural scientists look at actions they can see, what causes someone to act the way they do, and how that can be leveraged to create behavioural change.

Our Tuna Champions approach aligns with the BehaviourWorks Australia (BWA) method of behavioural change where, rather than going straight from the problem to the solution, we took a 'deep dive' to understand the barriers and drivers of our primary audience (*Figure 1*):

- Exploration phase (problem focus) what do you want to happen as a result of your communication? Who you want to do what differently based on the information?
- 2. Deep dive phase (behaviour focus) what are the drivers and barriers your audience faces in doing what you want them to do, and how will doing it benefit them?

 Applications phase (impact focus) what communication channels are open to you and, based on your deep dive, what's the best match for your audience? How will you craft your messages based on your goals, their barriers and drivers, and the communication channels you've chosen?

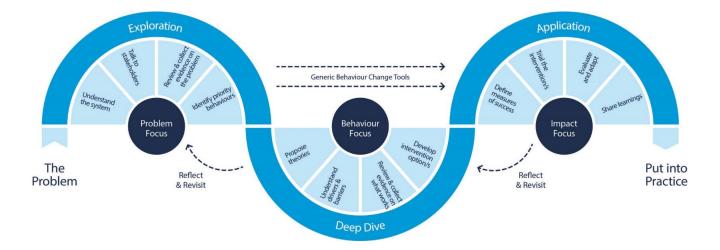


Figure 1. Towards behavioural change. Source: BehaviourWorks Australia

This approach begins with understanding what influences behaviour – and what gets in the way of people acting on what they know. These include biases (unconscious drivers of behaviour), habits (unconscious repetition of behaviour), opportunity (the chance to act) and capability (the ability to carry out a behaviour) as shown in *Figure 2*.



Figure 2. The factors that influence behaviour. Source: BehaviourWorks Australia

For example, in the context of recreational fishing, these factors can disrupt behavioural change:

- The government is trying to control me through bag limits and other restrictions (biases, attitudes)
- I want to treat the fish with respect, but I actually don't know what to do (capability)
- Taking more ice is a hassle/not practical I don't have enough room on the boat (habits, opportunity)

- I want to catch fish, not keep them I'm throwing the fish back aren't I? (habits, social norms)
- The SBT fishery is not my problem (attitudes, biases).

Our communication approach was set up with messages crafted based on the project goals, the audiences' barriers and drivers, and the communication channels we chose as described below.

2.1.5. Key Components to success of the Tuna Champions Program

Creating a dynamic and recognisable brand

A logo and visual content that will represent the Tuna Champions program was developed by marketing group Y&R in consultation with the project team. Y&R were engaged to develop basic branding for the Tuna Champions program, including a logo (**Figure 3**), primary colour palette for the logo (**Figure 4**), colour variants of the logo (**Figure 5** & **Figure 6**), a set of typographies (*Figure 7*). They also created the lock up text statement 'Bluefin forever'.

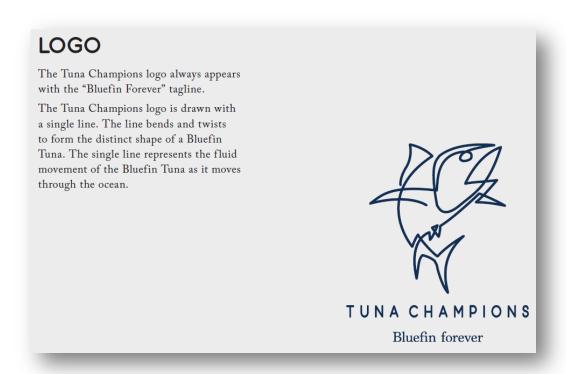


Figure 3. The Tuna Champions logo and the inspiration for its design as described by Y&R Marketing.

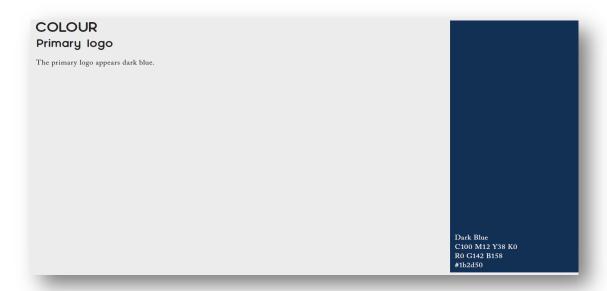


Figure 4. The primary colour for the Tuna Champions logo.

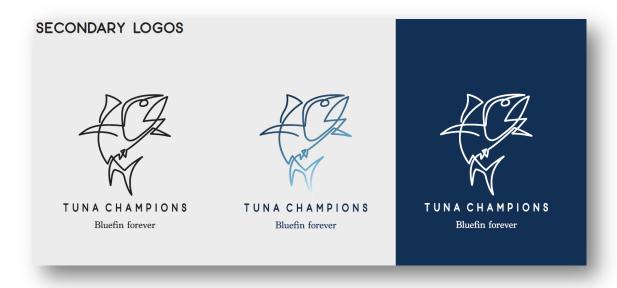


Figure 5. The colour variants of the Tuna Champions logo.

COLOUR Secondary logo The secondary logo appears in black, white or with a gradient applied made up of dark blue, mid blue and light blue. These colours are derived from the colour of the Bluefin Tuna, which is dark along the dorsal surface and lighter, almost silver, along the belly. Black COO M600 YOO K100 RO GO BO RO GO BO RO GO BO RO GO BO ROG GO BO

Figure 6. The secondary colours for the Tuna Champion logo colour variants.



Figure 7. The typography for the Tuna Champions branding.

2.1.6. Primary stock photography for branding

Professional photographers Al McGlashan and Peter Whyte were commissioned to deliver stock footage of SBT and tuna fishing related images. These include in water images of fish swimming, images of landed fish, and close up studio images showing the beauty of SBT. These images have been incorporated into the branding and design of the Tuna Champions program, and in multiple brand banners (*Figure 8*).





Figure 8. One of Al McGlashan's SBT photos became our main promotional image. Here, the image is shown in the design for the Tuna Champions pop-up wall banner.





Figure 9. Example of Peter Whyte's studio photos of SBT used for Tuna Champions marketing and branding.

2.1.7. Tuna Champions website

The project purchased the tunachampions.com.au URL, and a website was developed to target and engage our primary audience, recreational SBT fishers.

The aim was for this to be the go-to site for recreational SBT tuna – or for those wanting to become one!

The website is visually appealing (**Figure 10**), with accessible, dynamic content that is regularly updated and specifically targeted to the primary audience.

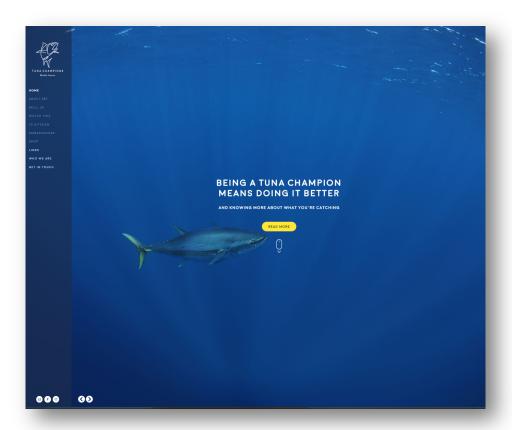


Figure 10. Home page of the www.tunachampions.com.au website.

The main webpages and content are as follows:

About SBT

The About SBT page contains links to key websites to provide fact-based information on a range of aspects of SBT including the biology of the species (About Southern Bluefin Tuna | CCSBT Commission for the Conservation of Southern Bluefin Tuna) (Figure 11). Importantly, this page also provides a brief introduction to the first comprehensive assessment of the recreational harvest of SBT in Australia, completed

by IMAS in 2020 (Tracey et al. 2020). It also provides links to the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) homepage to explain the rationale for the survey <u>CCSBT Home</u> CCSBT Commission for the Conservation of Southern Bluefin Tuna. This information delivers on Objectives 2 & 3 of this project (**Figure 12**).

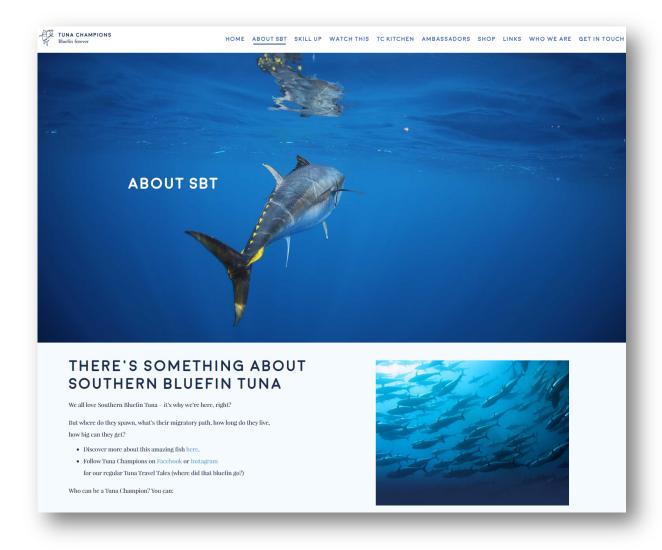


Figure 11. About SBT landing page on www.tunachampions.com.au

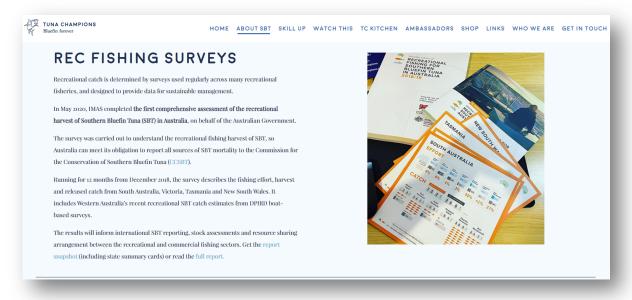


Figure 12. Information on the National Survey of Recreational Fishing for SBT in Australia presented on the About SBT landing page on the Tuna Champions website, addressing objectives 2 & 3 of this project.



Figure 13. Links to the SBT Code of Practice (COP) on the About SBT webpage. The COP was developed by IMAS, and the links take users to a pdf copy and a video version created by RecFish SA.

Code of Practice

The Code of Practice (COP) (**Figure 13**) is designed to provide recreational fishers with a simple document outlining the key practices to look after SBT whether they intend to keep the fish for a feed or release it. It focuses on the key principles of catching, handling and releasing as well as tagging (**Figure 14-16**). A key component of the COP is not only telling fishers how

to do these activities, but giving them a short explanation of why they should do it, for example:

"Make sure anything coming into contact with the fish is wet.

Try to make sure anything touching the fish is wet, including your hands, so less of the fish's protective layer of mucus is removed."



Figure 14. Tuna Champions Code of Practice, pages 2 & 3.

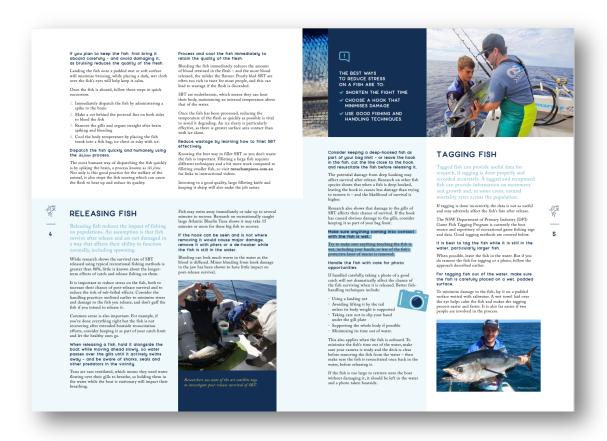


Figure 15. Tuna Champions Code of Practice, pages 4 & 5.



Figure 16. Tuna Champions Code of Practice, pages 6 & 7.

2.1.8. Skill Up

The Skill Up landing page contains links to educational information under each of the central messages of catch, handle, release, keep, prepare and tag. It includes links to educational videos hosted on the Tuna Champions YouTube channel, information cards, the Code of Practice and magazine articles (**Figure 17**).

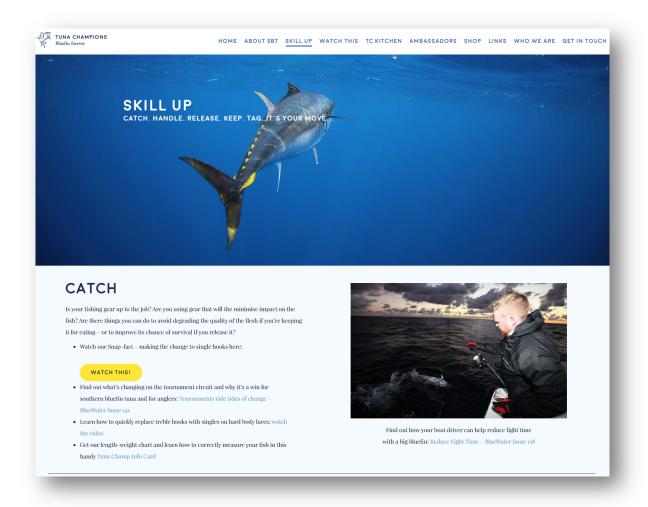


Figure 17. Example of a key Tuna Champions message on the Skill Up landing page.

2.1.9. Watch This

The Watch This landing page contains links to all the video content we have created or links to video content that we have been involved in, such as the FRDC project 2017-098 Life on the Line documentary (Figure 18 – Figure 19). The Watch This videos are all short, entertaining, educational and engaging and have been developed for each key message, along with other topics identified over the life of the project. These are available on our Tuna Champions YouTube channel and our website Watch this page and include:

- What is Tuna Champions all about? If you've just arrived, here's a quick intro to the Tuna Champions – what it is and how it came about.
- Who can be a Tuna Champion? Everyone can! It's your move...

- Caring for your catch Find out how Rod & Reel commercial fishers care for their catch to get the best quality from the fish they keep.
- How SBT are graded Discover what the professionals look for when grading Southern Bluefin Tuna caught by Rod & Reel fishers.
- From preparation to plate Learn from the experts about making the most of every fish you catch.
- Snap-fact: Hook selection Make the change to single hooks to avoid damaging the fish you release.
- Tuna tagging techniques explained Learn exactly how to tag a bluefin tuna and make your citizen science moves count.

- Snap-facts: Tagging small SBT onboard A quick take on exactly how and where to tag a small SBT (up to 15kg) ... because everyone can be a Tuna Champion.
- Dispatch SBT quickly & humanely Brain spiking your bluefin the iki jime way.
- How to bleed your SBT You've humanely dispatched your fish, now it's time to bleed it. Hot tip: The artery is just under the skin, so you don't need to cut too deeply to bleed your tuna.
- How and why to pith Let's talk about pithing –
 yes, it's actually a thing. When you get this right,
 you'll feel all the muscles relax instantly and that
 will really increase the eating quality of your SBT
 meat.
- The ideal way to gill-gut your SBT Gill-gutting removes the warm tissue, reduces the bacterial load in the fish, and allows the flesh to cool faster in the ice slush. Here's the ideal way to gill-gut your SBT to make the most of the meat, including the delicate belly meat.

- How much ice do you really need? Find out how much ice will get your SBT's core temperature down and keep it down, for better quality flesh and a longer shelf life.
- Filleting a MONSTER Tuna The Tuna
 Champion way! Ever wondered how you'd go
 filleting a monster tuna? We show you the Tuna
 Champion way to maximize your bluefin catch.
- Fillet like a boss! You've got this...
- Making the most of your tuna Tuna Champions Ambassador Jonah Yick shows us how to get the best yield from a Southern Bluefin Tuna. It's the ultimate filleting guide to make the most of your tuna.
- SBT cuts in action Here's all the cuts you'll get from your SBT, so you make the most of every fish you keep.

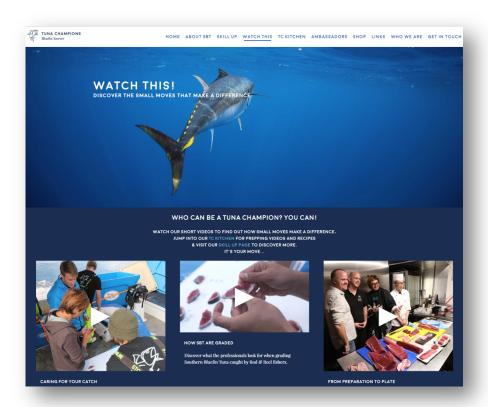


Figure 18. The header for the 'Watch This' landing page on the Tuna Champions website.

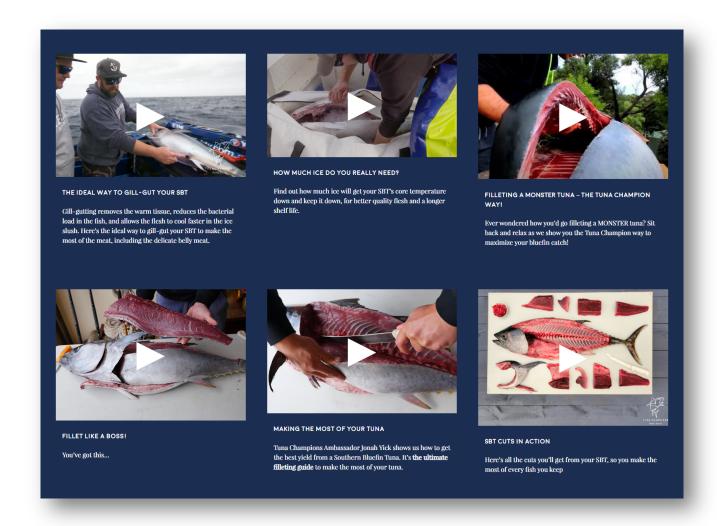


Figure 19. The header for the Watch This landing page on the Tuna Champions website.

2.1.10. Tuna Champions (TC) kitchen

In 2020, we created the <u>TC Kitchen</u> and began to develop videos and recipes that would encourage our community to make the most of every SBT they catch (**Figure 20**). The idea is to maximise the utilisation of meat from every fish to minimise waste. The recipes encourage fishers to look beyond 'sashimi and sushi' and branch out into using often unused cuts including the collars, head and cheek loins, bones and head for

broths, and scraps and skeletal scrapings for raw dishes including sushi and tartar recipes. It also links the concepts of best handling and dispatching practices to improve the meat quality and storage shelf life. On shelf life, we promote sanitary long-term storage methods including vacuum packing and freezing, dry ageing, and canning and jarring techniques.



GET READY FOR A BLUEFIN FEAST OR A LIGHT LUNCH

You've filleted your Southern Bluefin Tuna and scraped the frame, so you've got a lot of tuna meat ready to feast on.

Try these options for the prized belly meat or toro (fatty tuna):

- Finely chop it to create an appetiser like Toro Tartare serve it with crackers and soy sauce, wasabi and your other favourite flavours
- Sear it on one side for 45 seconds, then follow this tip from chef Mel Roberts
 @chef-by-trade: take it off the heat, turn it over and let the residual heat in the
 pan cook it for about 30 seconds.

Here's some ideas for prepping the other cuts to impress your friends and family – or just yourself really:

- Some chefs call the collar the 'pork shoulder' of the tuna, so there's a clue – it's delicious braised, roasted or barbequed (see our recipe below)
- For canapes, slice loin into 3cm thick strips, dip in soy sauce, coat evenly in a mix of white and black sesame seeds, then sear in olive oil. Mel's hot tip: put seared strips in the freezer for 10 minutes to firm up, then cut into 2cm thick cubes with a standard sharp knife, and serve with pickled ginger or wasabi
- Marinate cheeks in salt and lemon juice, then sear on both sides for an extraordinary burst of flavour

Wait, there's still all those left-over bits to work with:

 Use those scraps from the frame for delicious fried rice, or for sushi rolls chop it finely, add spring onion, oil, chilli flakes or your favourite ingredients and sushi rice, and wrap them in Nori (scaweed) sheets



Use bones and head for broth and stock – make
sure all the meat is scraped off, then cut them up with kitchen scissors, bake and
add to the stock pot. Perfect for ramen!

Watch our TC Kitchen videos to see our Tuna Champions in prepping action!



Figure 20. TC Kitchen landing page on the Tuna Champions website.

Several videos have been produced by Tuna Champions either directly or in collaboration with chefs and restaurants. These have been uploaded to our YouTube Channel as well as the TC Kitchen and Watch This webpages, and include:

- Kids in the Kitchen Hands up if you want to be in school right now? Foods teacher Chris Edwards is teaching his students how to be Tuna Champions. What a great move!
- Beetroot & lemon thyme cured tuna get the recipe <u>here</u>...
- Thai tuna tartare Get the recipe here...

- Simple sashimi & sauce a fast and delicious sashimi and sauce dish from our TC kitchen.
 Simples.
- Seared tuna salad Try this simply delicious, seared tuna salad from the Tuna Champ's kitchen.
- Maguro no Zuke finalist in our 2020 TC
 Kitchen competition Get the recipe <u>here</u>...
- Crispy tempura nori winner of our 2020 TC
 Kitchen competition Get the recipe here...
- Poke Bowl finalist in our 2020 TC Kitchen competition – Get the recipe <u>here</u>...

2.1.11. Champions of change: the influencers

Key influencers were engaged to become Tuna Champion Ambassadors, and include fishing identities, chefs and sporting identities, as well as influencers on social media. Media is also considered as an influencer (see *Media Monitoring*).

These Ambassadors have an established profile and network within our target audience, and strongly identify with our Tuna Champion values.

Our Ambassadors include the hosts of two of Australia's highest rating fishing shows, Paul Worsteling and Al McGlashan, and Brownlow medallist and Geelong vice-captain Patrick Dangerfield.

Our 20 high-profile fishing, sporting, science and culinary identities share a passion for SBT and work to promote the Tuna Champion messages and philosophy across their extensive networks.



Commercial Fishers

TK Offshore Fishing (Tony Walker)

TK is a well-known commercial tuna fisherman on social media and is highly respected by commercial and recreational fishers alike. He takes time to explain to clients what he does and how he does it and takes great care of his catch.

"Our Tuna fishery is vibrant, healthy and well managed. As guardians of that fishery, we have a responsibility to ensure we look after it for future generations."

Facebook: 277k
Instagram: 3.7k
YouTube: 161k



Fishing Ambassadors John and Lydia Cahill

John and Lydia are a married couple that share a passion for top water fishing, a type of fishing that uses floating lures on the surface of the water – and they like nothing more than chasing SBT. Living in Victoria they have seen the resurgence of the SBT fishery into the waters off Port Phillip Bay and recognise the benefit of stewardship from the recreational sector.

"We pride ourselves on the motto 'take one fish' and use it all.

"Nothing beats a day in Bass Strait hunting down a bluefin school for some topwater action – and we love to catch and release once our needs are met."

Instagram: 7.5k









Andy Smith (Ebb Tide & Tackle)

Andy owns and runs Ebb Tide & Tackle, an importer and retailer of high-quality fishing tackle and equipment. He partnered with Tuna Champions to bring in the first barbless single hook lure into Australia and has also brought in large Boga lip grips from the Mediterranean suitable to safely handle and release XL tuna.

"At Ebb Tide and Tackle, we're loving seeing the bluefin resurgence! We let a ton of them go – doing it right so they have the best chance of surviving. We've recently moved to barbless single hooks to decrease damage. And we're big on dispatching, bleeding, gutting and chilling the fish we keep asap for prime eating quality."

Instagram: 35.1k

Trish Simpson (Bluewater Fishing and Boating Magazine)

Trish is one half of the dynamic duo that runs one of the most successful game fishing magazines on the planet.

"I love the hydrodynamic perfection of bluefin tuna. Their streamlining is amazing! Even their fins fold into slots to minimise drag.

"Try diving minnow-shaped hardbody lures - like Halco's excellent Laser Pro in sizes 160 & 190, which can handle trolling speeds up to 10 knots.

"These lures dive beneath the surface chop and engine propwash, and often out-fish skirted lures on tuna. Switch hooks to in-line singles - they minimise damage to fish you'll release and hold better on heavier tackle."

<u>Tim Simpson (Bluewater Fishing and Boating Magazine)</u>

Tim is the other half of the dynamic duo running Bluewater Fishing and Boating News. He has fished all around the world and is recognised as an absolute treasure trove of information for targeting large pelagic fish.

"SBT are a precious and limited resource, so once you've enjoyed your interaction, release them carefully so they survive...Better still, tag them before you release them! Bluefin are delicious and you only need one or two for a feast. But they spoil easily so take care of them so you're not disappointed when you get them home.

"Just dropping your bluefin on the deck can bruise and spoil the flesh. So, dispatch it quickly, then clean it and get it on ice. And learn the easy steps that will transform it into the culinary delicacy it can be."







Local heroes

Jonah Yick

There is not much Jonah hasn't caught in the cool temperate waters of Tasmania.

"Fishing for SBT in Tassie got me addicted to bluewater gamefishing. They're exciting to catch, delicious to eat.

"...and the SBT hot spots here are breathtakingly scenic. If you're planning to release SBT, consider getting involved in a tagging program. All tags and applicators are supplied, so it doesn't cost you anything to contribute to gamefish research!

"Before tagging fish, do your homework. Know your state's tagging regulations and learn how it's done. Doing it correctly is important for tag retention - and increases the chance of the fish surviving."

Instagram: 1.2k

Lee Van Soest

Hailing from South Australia, Lee's passion for education young anglers caught our eye!

"There's nothing like hooking up to an SBT...the rush and fighting power of these fish is amazing!

"Always change your treble hooks to single hooks – and if you're releasing the fish, get it onto a wet mat, pop in a tag and get it back in the water as quickly as you can."

Chloe Laurence

Chloe is from NSW and her backyard is the vibrant game fishing waters of the east coast. She spends her time fishing with her husband Tom and they have many tournament accolades to their name. More recently they have started a family and it is highly likely that their kids will follow their passion for game fishing.

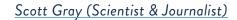
"When you're fighting a fish and you stop to rest, so does the fish – and that can lengthen the fight time. If you keep working hard, you'll keep the fight time short. There are so many options for preparing SBT. It's such a delicacy, I love it. My husband is allergic to other fish, but SBT is a fish we can share at the table.

"Short fight times mean your SBT is in good condition if you want to release it. If you're keeping it, the meat won't degrade due to overheating. That's really important when catching SBT in the warmer waters off NSW!"

Instagram: 14.7k

Facebook: 27k





Scott Gray is from the west coast of Victoria, one of the meccas of recreational fishing for SBT, so he's in the thick of the action. He is well respected for his fishing tenacity and his conviction to look after fish.

"Catching multiple SBT in an outing is common in southwest Victoria, so many anglers practice catch and release – which means looking after it so it survives.

"I use a large landing net with a soft silicone bag, which helps control the fish when landing it and prevents damage to its skin and scales.

"I also use single hooks on all my stickbait lures – they're easier to remove from the fish, cause less damage to its mouth, and reduce bleeding. This means the fish spends less time out of the water before release and has a better chance of surviving."

Instagram: 17.8k Facebook: 9.2k



Sporting identities

Patrick Dangerfield (AFL premiership player and Brownlow medallist)

Patrick needs no introduction as one of Australia's most recognised athletes. But his passion for tackling goes beyond the footy field and onto the water. He is an avid fisher and promoter of all things recreational fishing.

"I love tangling with Southern Bluefin Tuna because they are big, fast and feisty – the true athletes of the sea.

"When using hard body lures to target SBT, I prefer to have them fitted with single J-hooks. Because there's less chance of straightening a hook on a big fish, less chance of damaging the fish if I'm going to release it – and less chance of damaging me."

Instagram: 217k



Recreational fishing identities

The Worsteling Family (IFISH TV)

If you are into fishing, you'll have seen an episode of IFISH TV. Paul and his family have travelled the world fishing and have produced over 500 episodes of their TV show. They are passionate about everything they do and especially ensuring there is fish for the future.

"I love fresh SBT – but look after that delicate flesh the second it hits the deck! Bleed and gut it, then stuff it with ice to lower the core temperature" Paul says. "Eat as much of the fish as you can without freezing it. If I freeze it, I soak the fillets in marinade for 6-12 hours in the fridge, then vac-seal and freeze. It's almost as good as fresh and lasts at least 4 months without spoiling."

Cristy says once you find tuna on the sounder, keep working the area. "You'll eventually get a bite window. It's better than leaving fish to try and find fish."

Son Jet tries to match the colour and size of lures to what the fish are feeding on at the time. "The stomach contents of a fish you keep are a clue for your lure choice."

Instagram: 182k Facebook: 524k YouTube: 62.9k



Lee has been around the fishing scene since the dawn of time. Living in Victoria but fishing around Australia, he is well recognised and does some amazing engagement work promoting sustainable fisheries.

"If you're going out to catch to catch SBT, take the right gear. With super light tackle you have to fight them too long.

"Most people would have two sets of treble hooks or event two singles on a lure, but it's better to use single hooks if you're letting SBT go. Our hook up rate is exactly the same when we run a single hook on the lure - and the fish don't get damaged.

"I'd rather just keep one or two 20kg school fish we can deal with on the boat. Because if you can't kill them, bleed them, gut them and put them straight on ice it's just not worth keeping them."

Instagram: 18.6k Facebook: 19k



Al McGlashan (Wildlife Photographer and Fisherman)

Al is another face that most Australian fishos know. He's been on our screens for years, hosting multiple fishing shows. He's also had an amazing history of fisheries photojournalism, with the images he captures sought the world over.

"There's something special about bluefin – but we need to appreciate them and do our bit to enhance the fishery, so it's even better for the next generation.

"We need to respect to the fishery and process the fish so we use all of it. That respect is what I love most about Tuna Champions. ...and getting the right shot.

"Really big SBT can be photographed boat-side. For a decent shot of a smaller fish in the boat, clean off the blood and take the photo while it's fresh. And make sure you're smiling – you just caught a tuna!"

Instagram: 69.5k Facebook: 142k YouTube: 14k





Nathan Brindle (Ester Restaurant, Sydney)

Nathan is known for making the most of the protein he cooks with. He uses all parts of the animal, turning them into amazing dishes. Thinking outside of the box is Nathan's forte. Also a keen game fisher, he knows how to handle a large tuna both on the water and in the kitchen.

"Correctly handling bluefin is often overlooked, so I like to promote practical ways to ethically handle and utilise this revered marine species.

"I grew up on the NSW south coast, so I've always had an affinity with the coast, and fishing has dictated my lifestyle choices.

"Over 15+ years working in commercial kitchens and now as head chef at Ester in Sydney, I've seen social media impact both rec fishing and hospitality. The instant info transfer means people are more informed, but it also increases fishing pressure on species like bluefin."



Masaaki Koyama (Masaaki Sushi, Tasmania)

Masaaki Koyama is well-known and highly respected in the Tasmanian dining scene, and he's often seen in the kitchen rolling and crafting his signature rolls.

"How long your bluefin lasts depends on how you handle it. If it's a well-handled iki jime fish, it can last more than 10 days in the fridge.

"You can tell if a fish has been flapping around on the deck – the muscles have been burning up, so the flesh is not as clear, you can see the blood in it and it doesn't taste as good. When you immediately use a spike to the brain, the fish stays still and the meat is better quality.

"It is best to fillet it straight away in a clean environment, then chill it and let it rest for a day or two. That way you get the full flavour of the meat. There are many ways to eat bluefin. My favourite is as sashimi with fresh soy sauce and fresh wasabi, and I like to keep the cheeks and sear them for my breakfast!"





Charter Operators

Richie Abela (Dreamcatcher II Sportfishing)

Richie is one of the best-known charter captains in southern Australia.

"SBT are tough competitors. I love the challenge of the fight and the joy of seeing someone catch their first big one. Take plenty of ice onboard, because if you don't chill them down quickly the meat is ruined.

"When tagging and releasing a big SBT, it's always better to have the boat moving forward slowly – and keep the fish's head below water at all times. This makes it easier to control the fish, as fresh oxygenated water continues to flow over the gills."

Instagram: 6.3k

Facebook: 8k

Stuart Nichols (Personalised Sea Charters)

Stu is a local legend in the Tasmanian fishing scene. He lives and runs his business out of Eaglehawk Neck, one of the most consistent and scenic spots to catch SBT in the world.

"SBT have been a big part of my life for 20 years. I still love taking customers out to experience catching this amazing fish.

"When the fish are on, it gets very exciting on deck, with multiple rods going off at once. Among the frenzy, I remind customers to think about how much meat they want to take home, to only take what they'll use, and to release other fish to fight another day.

"There's no point landing every fish if the meat will go to waste. It's the best of both worlds – an amazing experience catching these hard-fighting fish and taking home just the amount of meat that can be kept in good condition so it's all enjoyed and not wasted."

Facebook: 5k

2.2. Merchandise

We have developed and collaborated on branded merchandise and have created a range of products to promote the Tuna Champions program.

Merchandise sales were not designed to make profit to sustain the program, rather to run at close to cost neutral but with a focus on getting our 'brand on backs'. Merchandise was also heavily utilised as prizes at talk nights and fishing competitions.

Our base range incorporated a simple design of our logo on black and white t-shirts, as well as black hoodies and black caps.







In addition to our baseline products we collaborated with high profile fishing organisations to develop quality co-branded products. The arrangement was mutually beneficial in that Tuna Champions would fund the wholesale value of the products and receive some of the product to sell through the Tuna Champions shop to recoup the outlay at retail value. The remainder of the stock was retained to be sold by the collaborating partner. We all benefited from mutual promotion and advertising of the stock.

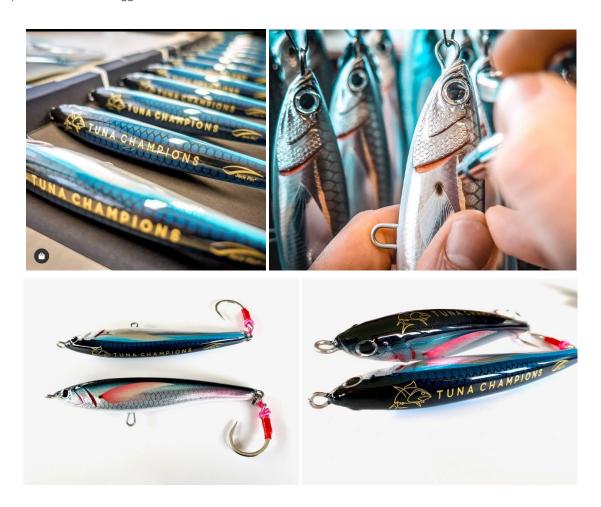
Our first collaboration was with fishing apparel company, 'Reel Brand', the brainchild of AFL legend Patrick Dangerfield and fishing identity Paul Worsteling, both Tuna Champions ambassadors. In collaboration, we produced two limited runs of Reel Brand/Tuna Champions fishing shirts and t-shirts, which were available for sale at a range of tackle stores throughout Australia, from our Tuna Champions shop.





Our second collaboration was with local online fishing store Ebb Tide Tackle and Italian lure company Jack Fin. The same funding arrangement was established as for the Reel Brand collaboration, but here we developed a high-quality Tuna Champions lure – the only lures in Australia rigged with a barbless hook.

These lures sold out within weeks of release (see competitions below). Tuna Champions retained a number for prizes and their exclusivity makes them a sought-after collectible.



2.2.1. Educational material

Along with our Code of Practice described earlier, we have produced a series of flyers and educational material, both to raise awareness and to increase knowledge of the small things that can make a big difference when looking after your tuna.

These included a simple and direct messaging flyer that could be handed out at events and is easily digestible by the target audience (**Figure 21**). For those wanting to go deeper and learn more, the flyer provides links to our social media presence and information hub, www.tunachampions.com.au.

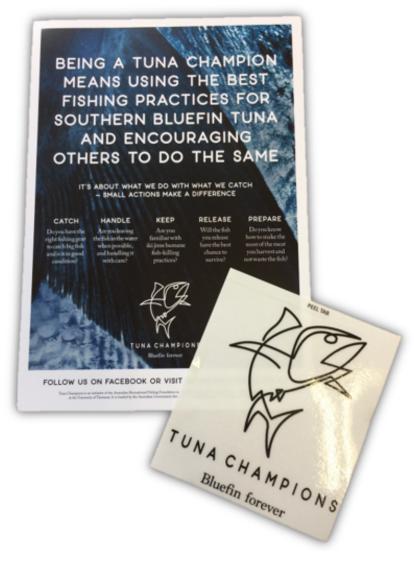


Figure 21. The simple Tuna Champions flyer showing our key messages and central themes.

We also produced a more detailed manual on the key points around the Tuna Champions messaging, with a how to (and why) guide (*Figure 22*). This was produced as both a paper flip book, and a waterproof plastic version so fishers could read it at sea while waiting for the next tuna to bite.

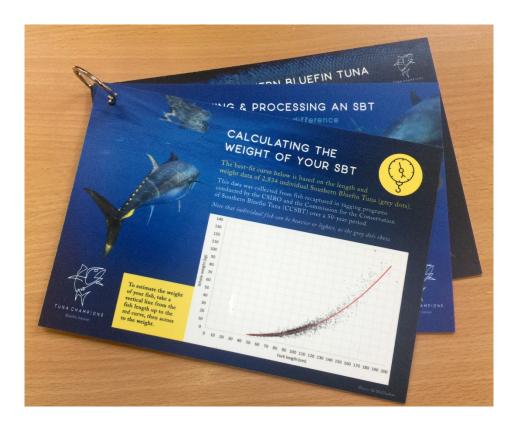


Figure 22. The Tuna Champions waterproof flip cards designed to be taken on the boat to be read while waiting for the fish to bite.



TAGGING A SOUTHERN BLUEFIN TUNA Small moves make a difference **BE TAGGING-READY** APPLY TAG CORRECTLY EL TEASER You'll need everything ready to go: Avoid tagging too low on Tag cards, plastic-tipped dart fish's shoulder as the muscle tags for tuna and tagging poles will grow over the tag. · Position tag high up under Padded landing mat second dorsal fin at 45° angle Clean cloth, wet with saltwater, to cover the fish's eye towards tail (as shown). Lock dart anchor in behind Two people for fast, accurate basal rays, not in muscle tagging. tissue. MEASURE YOUR SBT HANDLE WITH CARE Boatside or onboard, measure your SBT from its nose-tip Tag big SBT boatside – for to the fork in its tail, in the straightest line possible. accuracy, use shortest possible Whether you're using a tape or a brag mat, your tagging pole. measurement won't be as accurate if you include Tag smaller SBT that can be the extra length over the curve of the SBT's body. easily handled onboard using hand tagger: • Land with sturdy knotless net Avoid grabbing SBT under gill plate when lifting · Place on wet padded surface with wet towel over eye.



Figure 23. The Tuna Champions information booklet, which is also available as a set of plastic cards.

2.2.2. Television, radio and print

Several of our ambassadors run high profile media businesses, including Al McGlashan, Paul Worsteling and Lee Rayner who all host high profile national television shows, and others such as Patrick Dangerfield who hosts high profile podcasts on fishing. We have worked with these ambassadors to create a range of extensions of the Tuna Champions program messaging. We also engaged with Bluewater Boating

and Fishing, owned and edited by our ambassadors Tim and Trish Simpson. At the time, it was the most popular game fishing magazine in Australia and distributed internationally. Tuna Champions have been writing feature articles and news pieces over the life of the project. All these outputs are listed in the Results section below.

2.2.3. Competitions and giveaways

We have held many competitions over the life of the project.

Our most popular competitions were held in 2020

- the TC Kitchen competition and the chance to win the lure.

Tuna Champion Lure competition 2020 – brands on backs (and lures)

To be in the draw to win our highly sought-after lure, people had to purchase any piece of Tuna Champions merchandise during June 2020. Our winner was very impressed to receive these high-quality lures.

TC Kitchen Competition 2020 - making the most of your catch

This competition ran in October 2020. Ten dishes were chosen and put to a Tuna Champion community vote via Facebook and Instagram, for people to choose their top three entries.

The three finalists were judged by our Tuna Champion Ambassador Nathan Brindle, head chef at Ester restaurant in inner-city Sydney, who wrote the reviews below. The winning dish was the crispy tempura nori.

The three final recipes were all tested and filmed in our TC Kitchen, with the videos and recipes are all available at <u>tunachampions.com.au/TC-kitchen</u>. The winner received a comprehensive prize pack including a TC hoodie, cap, two t-shirts, a limited edition stickbait with barbless hook, a Madfish Extreme Gear XL chiller bag, a sticker pack for boats and cars, a Reel Brand fishing shirt and bonus t-shirt, Panaquatic iki jime kit, and Josh Niland's new The Whole Fish cookbook.





FOR MORE RECIPES, VISIT TUNACHAMPIONS.COM.AU

Winning dish:

#1 crispy tempura nori

Firstly, I have never considered serving tuna in this manner. Thank you for sharing this technique.

You have highlighted the tuna as being the focal point of the dish, which I feel is important considering this is a tuna cooking competition.

Your tuna is served rare which is exactly how it should be served. The use of the glace-style marinade is a nice addition and would impart good flavour.

My only consideration for the dish would be to 'temp the fish' (bring to room temperature) one hour before commencing the dish. This will allow for a more even cuisson (gradient of 'doneness' throughout the loin).

#2 poke bowl

The poke bowl is derived from the literal meaning of cut crosswise into pieces. Originating in Hawaii, it has won the hearts of many switched-on anglers the world over. This is a fine example of the dish.

I particularly appreciated the detailed and well considered recipe. Particularly the note relating to the rice being served warm, as this is often overlooked in many examples I have been served. The only thing that the recipe did not feature was to wash the rice at least three times under cold running water to remove starch, and to use the absorption method for cooking the rice to gain the best results. Using furikake instead of sesame seeds as garnish is always a nice highlight too.

3. Results

The first part of this section outlines all the outputs produced by the Tuna Champions project and responses from a range of people and groups that subjectively showcase the reach and impact of the program.

3.1. Testimonials and recommendations

3.1.1. State and federal governments

The program was fully supported and endorsed across state and federal governments (further described in the *Government advocacy* section). A statement below from Senator Jonathon Duniam:

"Importantly, the survey clearly shows that Australia's Tuna Champions program, which encourages responsible SBT fishing, is working well with great participation in the survey and many fishers releasing fish and only catching what they need for a feed."

 Senator the Hon Jonathon Duniam, Assistant Minister for Forestry and Fisheries (Media Release 14/5/2020)

State Governments are also taking the initiative, promoting and funding Tuna Champions activities:

"We're backing the Tuna Champions campaign for sustainable fishing because we recognise how significant this game fish is to recreational fishers and dependent businesses. Being a Tuna Champion is all about knowing and respecting what you're catching – this [\$5,000 grant to the Portland Sports Fishing Club] will help people fishing in Portland do the right thing with their Southern Bluefin Tuna."

 Victorian Minister for Fishing and Boating, The Hon Jaala Pulford MLC

3.1.2. Recreational fishing peak bodies

Recreational fishing peak bodies enthusiastically support the program:

"Tuna Champions has made a huge positive impact here in Victoria and has added so much value to the overall SBT fishing experience for our fishers. It's been brilliant having the involvement and support of all the peak bodies to grow our stewardship over this remarkable fishery." — Mike Burgess, CEO VRFish.

3.1.3. Gamefishing tournament organisers

Gamefishing tournament organisers are changing competition rules:

"With the help of the Tuna Champion movement, competitions are moving from whole-fish weigh-ins to gill-gutted. We're seeing a real change in how people bring in the fish, including how much ice they take on their boat."

- John Johnstone, Owner, Portland Bait & Tackle

"The Riviera Port Lincoln Tuna Classic is predominantly a catch and release tournament targeting SBT. We're playing our part in the Tuna Champion movement by making sure that the released fish have the best chance of survival. In 2019, we encouraged all competitors to use single hooks instead of treble hooks to minimise damage to the fish and maximise their chance of survival. In 2020, we will be introducing this as a rule, that no competitors are to run lures with treble hooks."

- Russell & Gabriella Bianco, Event Managers, <u>Riviera</u> Port Lincoln Tuna Classic

"In support of the Tuna Champion program, a 'Tag and Release' category has been introduced to the month-long <u>Hooked On Tuna</u> competition for 2019. This program encourages recreational fishers to respect SBT and adopt ways to fish better with minimum waste. In recognition of this, competition rules are now aligned with best practice fishing of the SBT, with all fish presented at weigh-in mandated to be gutted, gilled and bled to avoid wastage."

Michael Cottee, Tourism and Events Manager,
 Glenelg Shire Council

3.1.4. Educators

Teachers are showing their students how to prepare an SBT so no fish is wasted:

"Tuna champions! What a great idea to educate recreational fishers about better ways to catch and respect their SBT. I'm a recreational tuna fisherman, hobby lure maker, chef, and a foods teacher at a senior secondary college in Tasmania.

Yesterday I brought in a small school SBT I'd caught out of Fortescue Bay the day before.

Your website was a fantastic resource to use as a platform to inform and educate my students about all aspects of SBT. They participated in cleaning, portioning and cryovacking the fish. In following lessons, we'll be utilising all the different cuts of the SBT, preparing delicious morsels and dishes to showcase this amazing fish. Overall a great learning experience for my students and your website is a great resource for all – well done!"

Chris Edwards, Teacher TAS (See video)



Recreational fishers are engaging with the program:

"We love what you guys do – from Port Lincoln, Victor Harbour and Port MacDonnell (all Tuna Hot spots in South Australia), we see people practicing your methods, it's great to see! Plus the fish tastes amazing."

- Matt Schultz, recreational fisher, South Australia



3.1.6. Fishing identities

Fishing identities are reporting changes in behaviour, not just for SBT but for all tunas:

"Catching a tuna is one thing, but what is really impressive is how anglers are really working to look after their catch. Every boat is carrying ice, dispatching and processing these big tuna properly so the meat is in the best possible condition. This is a result of the new Tuna Champions campaign, which is all about educating anglers. It is directed at bluefin, but since we have had such a great yellowfin season, everyone has happily applied it to them. It is a great example of anglers taking ownership and respecting the tuna and the ocean, because these fish are just too important to waste."

- Al McGlashan (Daily Telegraph 2/8/2019, p68)

3.2. Awards for research in action

Our IMAS Tuna Champions project team has been recognised for turning research into action, taking out the 2019 Recreational Fishing Award for Excellence in Support of Recreational Fishing Research Outcomes.

Announced at the National Recreational Fishing Conference (NRFC), the award recognises the contribution of individuals or organisations to recreational fishing research.

Tuna Champions was also a finalist in the Project of the Year and the Excellence in Recreational Fishing Communication awards. The initiative shows the benefits of going beyond research outcomes to build strong partnerships and deliver evidence-based education.





Figure 24. Professor Sean Tracey is presented with the award for research in action by fisheries scientist Dr Julian Pepperell (R), who is well-known for his work in developing the Australian Gamefish Tagging Program.

3.3. Government advocacy

Former Assistant Minister for Agriculture and Water Resources, Senator Anne Ruston made a special trip to Hobart to launch the program at IMAS Salamanca in April 2018 (Figure 25). Senator Ruston played a significant role in the inception of the Tuna Champions program after inviting Professor Sean Tracey to Parliament House in Canberra to pitch the concept.



Figure 25. The launch of the TC program at IMAS Salamanca, Hobart 2018 – left to right: Brian Jeffriess (CEO of the Australian Southern Bluefin Tuna Industry Association, Brett Cleary (President of the Game Fishing Association of Australia), Senator the Hon. Anne Ruston (Assistant Minister for Fisheries at the time), and Professor Sean Tracey.

When Senator Ruston stepped into a new portfolio, Senator Richard Colbeck picked up the mantle of advocating for Tuna Champions and invited Professor Tracey to Parliament House, Canberra in 2019 to present the program to members of the Tuna Industry. Senator Colbeck's deep commitment to the program was evident in a commendation letter sent in April 2019 (Appendix **Figure 47**).



Figure 26. Senator the Hon. Richard Colbeck (Assistant Minister for Fisheries at the time) wearing his Tuna Champions t-shirt in Parliament House, Canberra, circa 2019.

In 2019, Australia went to the polls for a federal election. The National party identified the Coalition's support for the Tuna Champions in the pre-election policy document (Appendix Figure 48). The coalition won at the polls and Senator the Hon Jonathon Duniam, was appointed Assistant Minister for Forestry and Fisheries. Senator Duniam was also a strong advocate for the program. During his addresses at both the Seafood Directions and the Australian Society for Fish Biology (ASFB) conferences in 2019, he spoke highly of the Tuna Champions program. He also attended and launched the documentary 'Life on the Line' (see below) at the Tuna Champions event in late 2019 (Figure 27), which was also attended by Senator Anne Ruston who was no longer associated with the Fisheries portfolio but had a strong connection to the program (Figure 28).

With the announcement of the 2021-22 Federal Budget the deep support from the Australia Government was recognised with a commitment to financially support the extension of the Tuna Champions program to the tune of \$0.9M (Appendix Figure 49).



Figure 27. Senator the Hon. Jonno Duniam (Assistant Minister for Fisheries at the time) launching a Tuna Champions event at the IMAX theatre in Melbourne, circa 2019.



Figure 28. Senators the Hon. Anne Ruston and Jonno Duniam celebrating the Tuna Champions event at the IMAX Theatre Melbourne, circa 2019.

Former Minister of Agriculture, Senator Bridget McKenzie (below left) was also an advocate of the Tuna Champions project (**Figure 29**).



Figure 29. Senator the Hon. Bridget McKenzie (Agriculture Minister at the time) with Tuna Champions ambassador and television identity, Al McGlashan at a promotional event.

3.4. Events

To promote the Tuna Champions program and extend our audience reach, we have targeted key events such as game fishing tournaments, recreational fishing nights organised by peak bodies, festivals and trade shows. Our presentations at events are designed to hook the audience and answer their questions. Where possible, our ambassadors have given presentations (some using our tailored slide deck) or represented the program at events. We also event-managed the world premiere of *Life on the Line*.

3.4.1. Tuna Champions presence and presentations

Before the COVID-19 pandemic restricted our activities, our team, ambassadors and others represented the Tuna Champions at game fishing tournaments, peak body fishing information nights, conferences, and more.

Sydney International Boat Show, NSW (2-6 Jul 2018), Ambassador Tim Simpson, Editor of BlueWater magazine, handed out Tuna Champions promotional material during talks.

AFTA trade exhibition, Gold Coast QLD (24-25 Jul 2018), Project Principal Investigator Prof Sean Tracey represented Tuna Champions at the FRDC stand, including handing out promotional material, talking about Tuna Champions, and being interviewed by Tim Simpson (see media monitoring).

ARFF Information Night, Melbourne VIC (26 Jul 2018), Project Principal Investigator Prof Sean Tracey gave a Tuna Champions presentation to recreational fishers.

Presentation to Assistant Minister for Fisheries, Richard Colbeck, Canberra (Nov 2018), Project Principal Investigator Prof Sean Tracey presented the program to the former Minister, who then promoted Tuna Champions on his Facebook site, shares most Tuna Champions posts, and proudly wears his Tuna Champion t-shirt (Figure 26).

GFAA AGM, Fremantle WA (2 Nov 2018), Project Co-investigator and ARFF Chair Brett Cleary gave a Tuna Champion presentation to the Board and AGM attendees.

ARFF Briefing, South Australia (12 Nov 2018), Project Principal Investigator Prof Sean Tracey gave a Tuna Champions presentation to recreational fishers.

DPIPWE Fishing Forum, Hobart TAS (4 Dec 2018), Project Principal Investigator Prof Sean Tracey gave a Tuna Champion presentation to recreational fishers ('sold out' event)



Figure 30. Tuna Champions program lead Prof Sean Tracey presenting to recreational fishers at a Department of Primary Industries, Parks, Water and Environment event hosted at the University of Tasmania, circa 2018.

Hooked on Portland and Apollo Bay Seafood Festival (Jan 2019), VRFish CEO Michael Burgess attended the Australia Day Long Weekend event, where he sold t-shirts and promoted the program.

Australian Wooden Boat Festival, Hobart (Feb 2019), Tuna Champions were part of the IMAS Fisheries & Aquaculture display, where we spoke to many people about the program and sold t-shirts.

Coast2Coast tuna fishing competition, Victor Harbour SA (Feb 2019), Project Principal Investigator Prof Sean Tracey attended and presented on Tuna Champions to more than 270 participants.



Figure 31. Tuna Champions program lead, Sean Tracey, presenting at the Coast 2 Coast Tuna Competition at Victor Harbor, South Australia, circa 2019.

Warrnambool Offshore & Light Game Fishing Club, VIC – SBT tasting & appreciation evening (28 Jun 2019), Ambassador Scott Gray and Tuna Champion Communication Manager Louise Creely attended the event, with Scott giving a TC presentation and Louise selling merchandise and handing out promotional material.

Scalefish Fishery Advisory Committee, Hobart TAS (26 Jul 2019), Project Principal Investigator Prof Sean Tracey gave a presentation, including talking about the Tuna Champions program.

Sydney International Boat Show, NSW (1-5 Aug 2019), Ambassador Tim Simpson, Editor of BlueWater magazine, handed out Tuna Champions promotional material during talks.

CCSBT meeting, South Africa (14-17 Oct 2019), Project Co-investigator Matt Daniels AFMA presented on progress and achievements of the Tuna Champions program.

Seafood Directions Conference, Melbourne VIC

(Oct 2019), hosted by Seafood Industry Victoria – Project Principal Investigator Prof Sean Tracey was invited to be part of a panel discussion. He was unable to attend and Project Co-investigator Josh Fielding (FRDC) took his place on the panel, where Tuna Champions was discussed.

Wildlife Society & American Fisheries Society 2019
Joint Annual Conference RENO, NEVADA (2 Oct 2019), Project Principal Investigator Prof Sean Tracey presented in the session: From Grassroots to Mainstream: How Informed Advocacy and Social Branding Can Drive Conservation of Fish and Wildlife. His presentation title was Tuna Champions – an education and communication program to improve responsible fishing practices on Southern Bluefin Tuna in Australia.

National Recreational Fishing Conference, Hobart TAS (10-11 Dec 2019), along with a Tuna Champions stand with giveaways and merchandise for sale, Project Principal Investigator Prof Sean Tracey presented: Inspiring recreational fishers to be Tuna Champions. Tuna Champions took out the 2019 Recreational Fishing Award for Excellence in Support for Recreational Fishing Research Outcomes, and was also a finalist in the Project of the Year and the Excellence in

Hooked on Portland, VIC (Jan 2020), Ambassador Scott Gray was in the VFA marquee, talking to people about Tuna Champions, selling merchandise and giving away promotional material.

Recreational Fishing Communication awards.

SBT Spearfishing Evening @ Adreno Melbourne, VIC (12 Mar 2020). Spearfisher James Beckman organised a talk on SBT, with about 45 people turning up on the night. Due to the pandemic, the Tuna Champions team was unable to attend, but sent giveaways and promotional material. From James: "Thanks for the package of info, stickers and t-shirts. We handed them out on the night, and it was a great way for people to ... re-check if they don't remember something."

South Atlantic Fishery Management Council -Information & Education Advisory Panel webinar, Charleston, Southern Carolina (13 Apr 2020), Project Principal Investigator Prof Sean Tracey was invited to present on the Tuna Champions program via a livestream webinar. "The program, which has been highly popular in the angling community in Australia, has benefitted from partnerships with influential members of the fishing community. Tuna Champions is using local, national, and international identities to help promote best practices for releasing bluefin tuna, as well as information on how to best preserve and prepare the meat after harvest. AP Members noted the importance of partnerships with powerful and influential anglers, TV shows, and companies, particularly those who have a large follower base on social media..."

3.4.2. The world premiere of the documentary 'Life on the Line'

On 6 November 2019, the Australian recreational fishing community, TC Ambassadors and dignitaries gathered at IMAX Melbourne for the world premiere of Al McGlashan's highly-anticipated Southern Bluefin Tuna documentary, 'Life on the Line' – FRDC Project (2017-098).

Life on the Line is the story of how government, industry, research and the fishing community worked together, here in Australia and internationally, to put SBT on a pathway to recovery.

The documentary was launched by the Assistant Minister for Forestry and Fisheries, Senator Jonathan Duniam, at an outstanding sold-out event organised by Professor Sean Tracey and his IMAS Tuna Champions team.

Hosted by Tuna Champion Ambassador and Brownlow Medallist Patrick Dangerfield, the event included the documentary screening, an industry innovation 'snappy-chat' (TunaSolutions), and a Japanese Tuna Cutting Demonstration focused on making the most of every fish by Narito Ishii-san & Oceania Seafoods. For the demonstration, a 90kg Southern Bluefin Tuna was expertly prepared, watched by an audience of hundreds. This was followed by an SBT sashimi tasting with fish supplied by Dinko Tuna and prepared by Kisume Restaurant chefs.

The event brought together approximately 300 people, from all levels of government, peak fishing bodies, the recreational fishing community, the environment sector, commercial fishers, industry, researchers and more. This sold-out gala event was highly commended by all attending – from the recreational fishing community and researchers to recreational fishing peak bodies and members of parliament, many flying in from interstate for the event.

Life on the Line was aired on national prime time TV, streamed free-to-air, and is now available on YouTube (727k views – 26 May 2023).



















3.5. Event sponsorship

Sponsoring recreational fishing tournaments, events and trade shows was designed to:

- Put Tuna Champions in front of our specific target audience
- Build brand awareness, boost the perceived image of the Tuna Champions and gain media exposure

 associates the Tuna Champions with positive experiences among recreational fishers
- Offer an opportunity to connect with our specific audience face-to-face, particularly where we are given a speaking opportunity at the event
- Increase our reach and exposure to new people,
 e.g. recreational fishers and others who haven't
 heard about the program this includes through
 all the avenues organisers have used to promote
 their event.

Due to the limitations of the COVID-19 pandemic, we sponsored one major event in 2019, Hooked on Tuna, in Portland Victoria.

Along with sponsoring this prestigious event, we influenced the organisers to introduce a 'tag and release' category:

"In support of the Tuna Champion program, a 'Tag and Release' category has been introduced to the month-long <u>Hooked On Tuna</u> competition for 2019. This program encourages recreational fishers to respect SBT and adopt ways to fish better with minimum waste. In recognition of this, competition rules are now aligned with best practice fishing of the SBT, with all fish presented at weigh-in mandated to be gutted, gilled and bled to avoid wastage."

As sponsors, our banner (**Figure 32**) was installed at the weigh-in station.



Figure 32. The Tuna Champions waterproof banner for events.

The event was held across every weekend in April, with three days cancelled due to inclement weather (6, 27 and 28 April). Competitors came from Melbourne and surrounds (53%), Portland (15%), south-west VIC (12%), South Australia (5%), Sydney (2%) and other locations (13%).

Advertising included radio advertising, hourly headlines for ACE radio news report, television, newspaper (Figure 34), Glenelg Shire Tourism eNews, sponsors board at weigh-in station, Facebook posts (reach 3.8K), posters around town, and the sponsor signage installed during competition weeks.

Portland's biggest fishing comp returns

BEN FRASER

WITH more than \$12,000 in WITH more than \$12,000 in prize money and bragging rights on the line, anglers from across the country will be lured to Portland for the annual Hooked on Tuna connections

amutal Hooked on Tuna competition. Now in its third year, the competition for the biggest southern bluefin tuna will run across four weekends from April 6 to 28.

April 6 to 28.

Hosted by the Glenelg
Shire in partnership with
the Portland Sports Game
Fishing Club and Portland
Lions Club, the fishing
competition will also feature
work-shows and talks by some workshops and talks by some of Australia's leading experts. of Austrana's reading experts. Fishing lure expert Peter Pakula will assist at the weigh-ins and hosting a fishing talk, while marine biologist and tuna expert Dr Julia Pepperell will also share

Julia reppeter win also share his expertise at a workshop for participants. University of Tasmania senior research fellow Sean Tracey is also joining the

competition, sharing his vast experience in fisheries and marine ecosystems.

The 2018 competition was won by Melbourne angler Paul Hournouzis, who caught an impressive 105.9kg tuna, earning \$5000 in prize money for his efforts. To celebrate this year's competition, an event launch is being held tonight at 6.30pm at the Portland Angling Club, with all interested community members welcome to attend. To learn more about Hooked To learn more about Hooked on Tuna visit the event Facebook page or Glenelg Shire website www.glenelg vic.gov.au/hookedontuna Registration cost is per person per weekend, or a one-off fee of \$40 which covers four weekends of fishing.

trybooking.com/BBOZW.

• The season's formula in the s



trybooking.com/BBOZW.

• The season's first luge southern bluefin tuna. Running across four weekends from April 6 to 28, the competition will launch tonight at 6.30pm at the southern bluefin tuna was Portland Angling Club, where participants can meet sponsors and organisers. From left: Michael Goldby from A1 Real Estate, Ben PAGE 4.

See PAGE 4.

Figure 33. Example of media on the Hooked on Portland tuna fishing event.

3.6. Media coverage

The media is considered as a partner and an 'influencer' – a way of communicating our key messages, reaching existing and new audiences, and encouraging them to become Tuna Champions. While our focus has been on fishing-based media, we have also engaged with broadcast media, and narrow-cast media such as social media platforms.

3.6.1. Media monitoring

This media coverage was obtained through formal (Meltwater) and informal media monitoring.

Encouraging Tuna Champions, Fishing World (20 April 2018), "'This initiative will work to improve stewardship, fish handling and responsible fishing practices in the SBT recreational sector,' Minister Ruston said. You can also read an article about the Tuna Champions Program on the ABC website."

Encouraging Tuna Champions, Bush 'n' Beach Fishing (30 April 2018), "Assistant Minister for Agriculture and Water Resources Anne Ruston launched the Tuna Champions Program at Hobart's Institute for Marine and Antarctic Studies."

Recreational fishers enlisted to help protect Southern Bluefin Tuna fishery, University of Tasmania news (30 April 2018), ...fishers as 'Tuna Champions' to enhance stewardship of this iconic species. Launched in Hobart today, the Tuna Champions...

Tuna fishers asked to help keep bluefin stocks growing by using better catch and release methods, ABC Hobart (30 April 2018), "This is a real opportunity for the Tuna Champions program to educate not only recreational anglers, but the general community as well, to the fish ethics that we're trying to achieve," [Brett Cleary] said.

Senator Ruston responds to SBT claim, Fishing World (11 May 2018), "The management of SBT is not about banning recreational fishing or playing off recreational and commercial interests. It is about fishing responsibility and sustainably, both now and in the future. It's clear that recreational fishers are keen to partner on the management of this global species, from the support they gave to the recent announcement of the Tuna Champions program, which I proudly launched last month in Hobart."

A <u>live interview</u> with Tim Simpson of BlueWater Magazine, at the AFTA exhibition, Gold Coast (25 Jul 2018), What is Tuna Champions? Dr Sean Tracey explains.

ABC Breakfast with John X, ABC Radio (8 Nov 2018), Sean Tracey on Tuna Champions program.

Rowey's Fishing Show – with Sean Tracey (16 March 2019), Rowey is joined by Senior Research Fellow at the Institute for Marine and Antarctic Studies, to talk about the protection of Southern Bluefin Tuna.

Tasmanian Country Hour episode, ABC Radio (14 Mar 2019), "Dr Sean Tracey from the Institute of Marine and Antarctic Studies says fishers can become Champions for the Southern Bluefin Tuna to help more in the recovery. Dr Tracey explained commercial overfishing led to the depletion of stocks but the recreational fishers can do a number of little things which will see changes." (Reach: 6.95M)

Southern bluefin tuna recovering after facing extinction: Australian government report, Xinhua News (Eng.) (14 Mar 2019), "...(ARFF) and the Institute for Marine and Antarctic Studies (IMAS), Tuna Champions is funded by the government through the FRDC." (Reach: 298k)

Southern bluefin tuna recovering after facing extinction: Australian government report, china.org.cn (14 Mar 2019), "...(ARFF) and the Institute for Marine and Antarctic Studies (IMAS), Tuna Champions is funded by the government through the FRDC." (Reach: 443k)

Aussie bluefin tuna on way back from brink of extinction, Undercurrent News (14 Mar 2019), "The recovery has been attributed to the 'tuna champions' program, which encourages southern bluefin fishers to..." (Reach: 31k)

Australie : les stocks de thon rouge se reconstituent après avoir frôlé l'extinction, china.org.cn (14 Mar 2019), "...pour la conservation de la nature, est attribuée au programme *Tuna Champions*, qui encourage les pêcheurs à éviter les morts..." (Reach: 43.1k)

Australie : les stocks de thon rouge se reconstituent après avoir frôlé l'extinction, French News China (14 Mar 2019), "...pour la conservation de la nature, est attribuée au programme *Tuna Champions*, qui encourage les pêcheurs à éviter les morts..." (Reach: 3.55k)

Anglers encouraged to become champions for the Southern bluefin tuna to help their recovery, Mercury – Sunday Tasmanian (16 Mar 2019), "...the Tuna Champions program was aimed at raising awareness about responsible practices, to help anglers respect the fish and reduce waste."

Southern bluefin tuna recovering after facing extinction: Australian government report, Brinkwire (25 Mar 2019), "...Nature's Red List of Threatened species, has been attributed to *Tuna Champions*, a program that encourages fishers to..." (Reach: 24.4k)

Tasmanian southern bluefin tuna makes a splash in high end sushi restaurants, ABC News (17 Apr 2019), "We've got a program at the moment called Tuna Champions, which is an initiative to get the recreational fishers thinking about what they do with the southern bluefin tuna that they catch." (Reach: 7.22M)

Southern Bluefin Tuna Appreciation Night, Fishing World (19 Jun 2019), "There will be presentations from renowned fish veterinarian Paul Hardy-Smith and representatives from the Tuna Champions Program, who will demonstrate best practice tuna-handling so your prized fish remains fresh and sashimi-grade." (Reach: 12.5k)

Tagged bluefin tuna dives to 544m, Fishing World (12 Aug 2019), "According to a recent post on the Tuna Champions Facebook page, the small but feisty SBT was caught with a skirted single J hook lure. It put up a 15-minute fight and took off as soon as it was back in the water after tagging. It then cruised around off Portland before weaving its way towards Port MacDonnell SA, sometimes diving to incredible depths of 544 metres. Its tag popped off after 41 days." (Reach: 12.5k)

Tuna Champions Caring For Prized Catch, Mirage News (23 Aug 2019), "Minister for Fishing and Boating Jaala Pulford: 'We're backing the *Tuna Champions* campaign for sustainable fishing because we...'" (Reach: 42.1k)

Tuna Champions Caring For Prized Catch, www.nationaltribune.com.au (23 Aug 2019), "Minister for Fishing and Boating Jaala Pulford: 'We're backing the *Tuna Champions* campaign for sustainable fishing because we...' "(Reach: 1.33k)

Tuna Champions Caring For Prized Catch, Premier of Victoria (23 Aug 2019), "Minister for Fishing and Boating Jaala Pulford: 'We're backing the *Tuna Champions* campaign for sustainable fishing because we...'" (Reach: 23.8k)

Getting the best for everyone from our tuna, Spec.com.au (25 Aug 2019), "... 'care for your tuna catch' initiative, part of the national *Tuna Champions* campaign. The club has been on a mission to educate..." (Reach: 470)

Grant for Tuna Champions, Fishing World (26 Aug 2019), "VRFISH has congratulated the Portland Sports Fishing Club on receiving a grant of \$5,000 from the Victorian Fisheries Authority to promote the fisher-led Tuna Champions program in the local area." (Reach: 12.5k)

Port Lincoln Tuna Classic becomes treble hook free, Port Lincoln Times (17 Oct 2019), "We have been consulting with an organisation called Tuna Champions, they aim for using the best fishing practices for southern bluefin tuna and getting others to do so. They haven't been around for long but they have certainly had a huge impact in changing the way people think and behave about sustainable fishing for southern bluefin"

VIDEO: Rowey's Fishing Show, Facebook (19 Oct 2019), Ambassador of Tuna Champions, Lee Van Soest, joins us with details on the upcoming Riviera Port Lincoln Tuna Classic

Southern bluefin tuna documentary launch, Fishing World (6 Nov 2019) "'SBT have been an important game fish for recreational anglers in Australia since the early 1900s so, after witnessing the decline in numbers during the 1980s, we are proud to be doing our bit through the Tuna Champions program,' Cleary said." (Reach: 15.4k)

Tasmanian Country Hour episode, ABC Radio (1 Jan 2020), "Tuna Champions is a project designed to help recreational fishers look after the fishery." (Reach: 6.95M)

<u>VIDEO: iFish Tuna Champions</u> (7 Feb 2020), Join Paul Worsteling and Sean Tracey from IMAS as they explain how you can become a TUNA CHAMPION! (Views: 18,770)

VIDEO: Satellite tagging southern bluefin tuna, Fishing World (26 Feb 2020), "In this video, we follow Victorian Tuna Champions ambassadors Richard Abela, Andy Smith and John Cahill as they satellite tag school-size southern bluefin tuna off Port Philip Bay. A mix of trolling and topwater fishing techniques were used to catch the fish. For more information: www.tunachampions.com.au" (Reach: 16.6k)

VIDEO: Tuna Champion Scott Gray is making waves when it comes to responsible fishing, Better Boating Victoria, Making Waves series – Facebook (17 Mar 2020), "Scott Gray Fishing is living the dream in Port Fairy ... In between running a highly respected tackle shop, shooting film for fishing media and conducting fisheries research, Scott is an ambassador for a sustainable fishing initiative called Tuna Champions. We caught up with him to find out more about responsible fishing, tangling with giant tuna and why he's proud to call southwest Victoria home."

Recreational fishers to continue to enjoy southern bluefin tuna fishing, Agenparl, Italy (14 May 2020),

Southern Bluefin Tuna survey reveals good news for fishers, The Coffs Coast Advocate (14 May 2020), "Importantly, the survey clearly shows that Australia's Tuna Champions program, which encourages responsible SBT fishing, is working well with great participation in the survey and many fishers releasing fish and only catching what they need for a feed." (Reach 17k)

Recreational fishers to continue to enjoy southern bluefin tuna fishing, Mirage News (14 May 2020), "Importantly, the survey clearly shows that Australia's Tuna Champions program, which encourages responsible SBT fishing, is working well with great participation in the survey and many fishers releasing fish and only catching what they need for a feed." (Reach 92.3k)

Survey results on Southern Bluefin Tuna welcomed, Tasmanian Government Media Release (14 May 2020), "The survey found that Australia's Tuna Champions program, which encourages responsible southern Bluefin tuna fishing, is working well with great participation in the survey and many fishers releasing fish and only catching what they need for a feed." (Reach 5.05k)

Survey results on Southern Bluefin Tuna welcomed,
Mirage (14 May 2020), "The survey found that
Australia's Tuna Champions program, which

encourages responsible southern Bluefin tuna fishing, is working well with great participation in the survey and many fishers releasing fish and only catching what they need for a feed." (Reach 5.05k)

Tuna blues: Victoria's southern bluefin tuna quota scaled down, Weekly Times Now (26 May 2020), "Not only did Victoria record an impressive 99.7 per cent response rate to the survey, but the preliminary results indicate that *Tuna Champions* is working and Victorian fishers are only catching what they need for a feed - Victorian fishers should be applauded for this." (Reach: 116k)

Status quo win for Victorian fishers, Bellarine Times – Print (4 Jun 2020), "Our SBT fishery is in a great space as fishers are embracing the best-practice principles of the Tuna Champions program. The small changes that fishers make while fishing for SBT make a big difference."

Status quo win for Victorian fishers, Surf Coast Times – Print (4 Jun 2020), "Our SBT fishery is in a great space as fishers are embracing the best-practice principles of the Tuna Champions program. The small changes that fishers make while fishing for SBT make a big difference."

Tasmanian Winter fishing report, Fishing Boating World (7 Jul 2020), "An excellent resource for fishers targeting bluefin is the <u>Tuna Champions website</u>. Get tips on how to release tuna to maximise survival, or if you're keeping them, how to dispatch tuna to improve eating quality. They're also on <u>Facebook</u> and <u>Instagram</u>." (Reach: 920)

Reel Deal: Science learning more about SBT travels, Illawarra Mercury (27 Aug 2020), "For hints and tips on handling and tagging, visit the Tuna Champions website..." (Reach: 94.1k)

Magazines & newsletters

Tuna Champion articles and information pieces were published in the GFAA Newsletter (July 2018), FISH magazine, IMAS News (Nov 2018), the TARFish Bulletin (June 2018), UTAS staff newsletter (Oct 2018) and IMAS Fish Bites Vol. 6, as well as the Tasmanian Sea Fishing Guide 2018-2019 (p7).

BlueWater magazine pieces include:

- Tuna Champions: small moves make a difference (Issue 134)
- Caring for your catch: it's the little things that matter (Issue 135) (Appendix Figure 50)
- The ins and outs of tagging tuna (Issue 136)
 (Appendix Figure 51)
- Tournament encourages Tuna Champions (Issue 137) (Appendix Figure 52)

- Reducing fight time with big bluefin (Issue 138)(Appendix Figure 53)
- The chilling truth (article); Tuna Champ info cards are here (news) (Issue 140) (Appendix Figure 54)
- Tournaments ride tides of change (Issue 141)
 (Appendix Figure 55)
- Tuna Champions awarded for rec fishing research in action (Issue 143)
- Staying slippery to survive (Issue 144)
- HOT BlueWater Make the most of your tuna (2020) (Appendix Figure 56)
- HOT BlueWater Get prepping for a bluefin feast or a light lunch (2020).

3.7. Television

Tuna Champions was featured for the full episode 39 of Season 14 of iFish.

3.8. Engagement analytics

3.8.1. Social media

We have a growing and engaged social media community which, at 27 May 2023, included over 12,650 Facebook followers and 5,415 Instagram followers worldwide. Our followers on Facebook are predominantly males in the 35-44 age category with the majority from Australia, but also a good following from the United State, New Zealand and other countries (**Figure 34**). The demographic of Instagram followers is slightly younger with the peak age demographic is the 25-34 age category and a slightly greater proportion of females. Some posts have reached over one million people on Facebook (**Figure 35**).

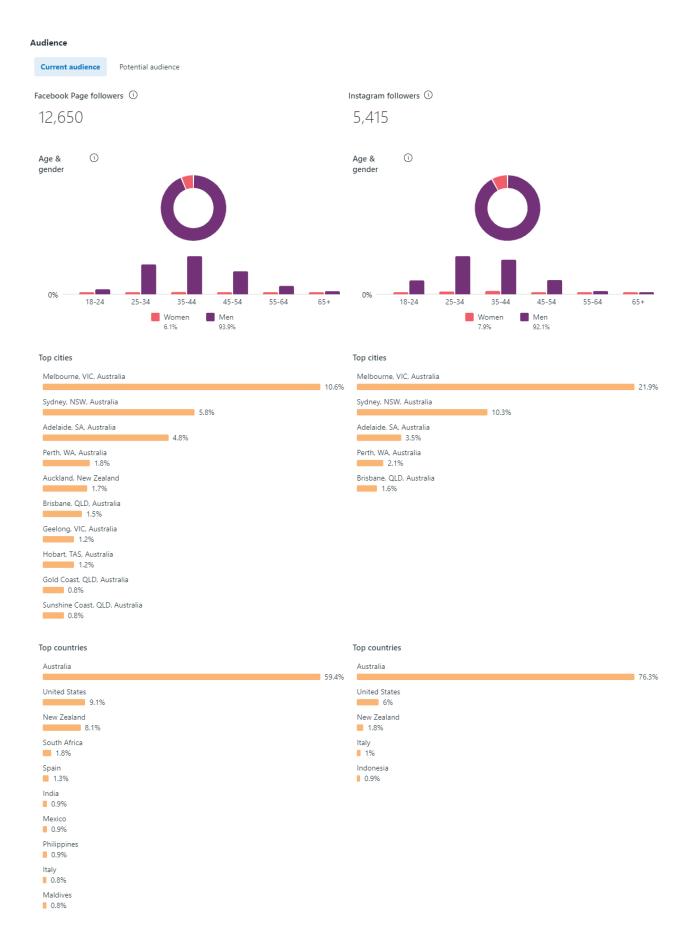


Figure 34. Audience profile for the Tuna Champions social media profiles on Facebook and Instagram at 27 May 2023.



Figure 35. A sample of Tuna Champions posts to Facebook for the 90 days prior to the 26 May 2023.

3.8.2. YouTube channel

From 2019 to 2021, we produced 24 videos and created a Tuna Champions YouTube Channel. The channel had 411 subscribers at 27 May 2023. The videos cover all aspects of the Tuna Champions messaging and many have been produced in collaboration with our ambassadors. Several of the videos have been viewed over 1,000 times, with the highest view count on a video explaining how to bleed a tuna which has over 22,000 views (*Figure 36*).

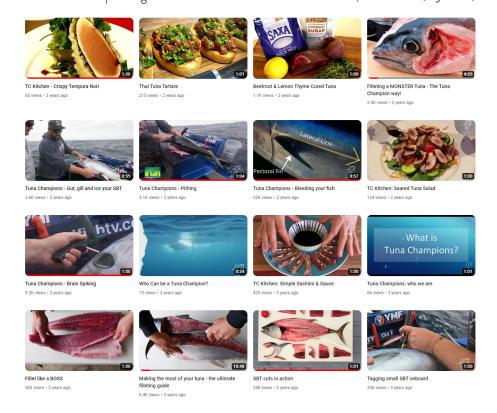


Figure 36. A selection of videos produced by Tuna Champions and available on their YouTube channel.

4. Objective 4 – Assessing the reach and impact of the Tuna Champions program

4.1. Introduction

A national survey of the recreational fishery for Southern Bluefin Tuna was conducted in 2018/19 (Tracey et al. 2022). While the survey was designed primarily to assess catch and effort from the fishery, it also included a wash-up component intended to explore the experiences and perspectives of fishers in relation to the recreational SBT fishery, including

trends in the availability of SBT, recreational fishing effort and overall fishery quality. We also added a series of questions to the survey to assess the reach and impact of the Tuna Champions program. This was a unique opportunity to ask about the program on such a large scale and within a probabilistic survey framework.

4.2. Method

The wash-up survey was administered by telephone as a structured questionnaire and was conducted between January and February 2020. Recruitment of respondents varied in each state, as follows:

- Tasmania respondents who had completed the 12-month longitudinal phone-diary phase to assess catch and effort and that had fished for SBT during this period were deemed eligible for inclusion in the wash-up survey
- New South Wales –respondents of the recall survey to assess catch and effort who had indicated they had fished for SBT in the survey period (1 Dec 2018 – 31 Nov 2019) were deemed eligible
- Victoria and South Australia SBT fishers interviewed as part of the access-point survey were invited to provide contact details if they wished to be included in a follow-up phone survey, and all who provided phone numbers were deemed eligible for inclusion in the wash-up survey.

Since a probability-based sample design was applied to the initial selection of respondents for the Tasmanian and New South Wales surveys, and assuming no major non-response bias effects, respondents eligible for inclusion in the wash-up survey are likely to be representative of the fisher populations in either state. In contrast, eligibility for South Australian and Victorian participants was based on self-selection (fishers agreeing to provide contact details), and so respondents are less likely to be representative of the fisher populations targeting SBT in these states, i.e. there may be bias relating to factors such as age and avidity. Although as the respondents in all states were unaware that the follow up survey would include questions relating to the Tuna Champions program, there is unlikely to be any direct response bias relating to the program itself.

The survey questionnaire was designed to initially assess a baseline of which key activities promoted by the Tuna Champions program as best practice across the themes of catching, handling, releasing and harvesting were being applied by respondents. These included:

Catching and handling

- Change treble hooks to single hooks on lures?
- Use an appropriate line weight for the size of fish you plan to catch?
- Handle the fish with care to avoid damaging it whether you plan to release it or keep it to eat?

Releasing

- Carefully remove the hook from the fish's mouth if you are releasing an SBT?
- Leave the fish in the water if possible or minimise the time out of water when releasing an SBT?
- Avoid putting your hand up under the gill plate if you are handling an SBT you plan to release?
- If you tag SBT, do you know where and how to place a tag to minimise damage to the fish and give the tag the best chance to stay in longer term?

Harvesting

- Brain spike an SBT straight after capture if you plan to keep it to eat?
- Bleed an SBT straight after capture by cutting behind the pectoral fins if you plan to keep it to eat?
- Remove the guts and gills of an SBT straight after capture if you plan to keep it to eat?
- Put your fish on ice or in an ice slurry soon after capture if you plan to keep it to eat?

Next, the respondent was asked whether they had heard of the Tuna Champions program, which provided an assessment of the reach of the program directly into the recreational fishery for SBT after it had been running for approximately 21 months. If they had not heard of the program, the opportunity was taken to inform them about the program and direct them to the webpage and the social media pages, their interview was then terminated. This was a good opportunity to further promote the program directly to active SBT fishers. If they had heard of the program, they were invited to answer further questions, including where they had heard of the program. They were also asked at this stage what they thought the main message of the Tuna Champions Program was.

They were then asked, since hearing about Tuna Champions and any of its key messages do you think you do any of the following things more often, less often or about the same as before:

Catching and handling

- Change treble hooks to single hooks on lures?
- Use an appropriate line weight for the size of fish you plan to catch?
- Handle the fish with care to avoid damaging it whether you plan to release it or keep it to eat?

Releasing

- Carefully remove the hook from the fish's mouth if you are releasing an SBT?
- Leave the fish in the water if possible or minimise the time out of water when releasing an SBT?
- Avoid putting your hand up under the gill plate if you are handling an SBT you plan to release?
- If you tag SBT, do you place the correctly to minimise damage to the fish and give the tag the best chance to stay in longer term?

Harvesting

- Brain spike an SBT straight after capture if you plan to keep it to eat?
- Bleed your SBT catch by cutting behind the pectoral fins if you plan to keep it to eat?
- Remove the guts and gills of an SBT soon after capture if you plan to keep it to eat?
- Put your fish on ice or in an ice slurry soon after capture if you plan to keep it to eat?
- (and) in regard to the amount of ice you take to chill down your fish, do you take...more, less or the same?

This series of questions provided insight into the impact of the Tuna Champions messaging relating to best practice to see if those that are aware of the program have adjusted their behaviour in when catching and handling SBT.

4.3. Results

Of 535 potential respondents identified through the recruitment process, 477 (89%) were contacted, and the remaining 11% could not be contacted due to either a non-valid phone number or no answer despite multiple call attempts. Of those people contacted, 456 (96%) fully responded to the questionnaire and a further 10 (2%) partially completed the survey. In the latter case, responses to answered questions have been excluded from the analyses. The overall survey non-response was low at 2%.

4.3.1. Reach of Tuna Champions program into recreational fishery for SBT

A total of 30% of respondents indicated they had heard of the Tuna Champions program from 456 interviews, 4% were unsure if they had heard of the program, while the remainder had not heard of the program. This indicates that almost one-third of recreational fishers who target SBT were aware of the program after it had been running for just over 20 months. The highest percentage of fishers aware of the program were reported from Victoria (38%) followed by Tasmania (34%), South Australia (27%) and New South Wales (17%) (**Figure 37**).

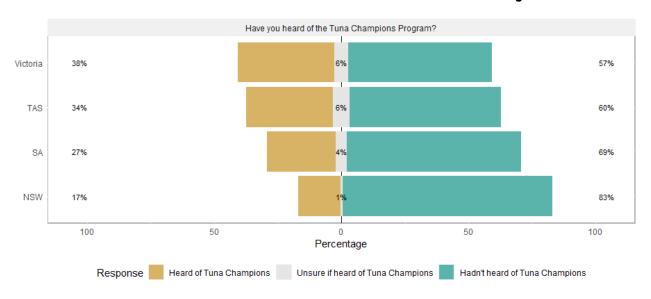


Figure 37. The percentage of survey respondents that indicated that they were aware of the Tuna Champions program by State (Victoria: n = 145, Tasmania (TAS): n = 126, South Australia (SA): n = 70, New South Wales (NSW): n = 115).

There was a trend in avidity rate and awareness of the Tuna Champions program with the highest awareness (63%) among fishers that reported fishing for SBT on average 20+ days a year, followed by 35% of SBT fishers who reported fishing for between 10 and 19 days, then 26% who fished five to nine days, and the lowest rate (17%) of awareness of the program reported by those that fished only one to four days on average a year (**Figure 38**).

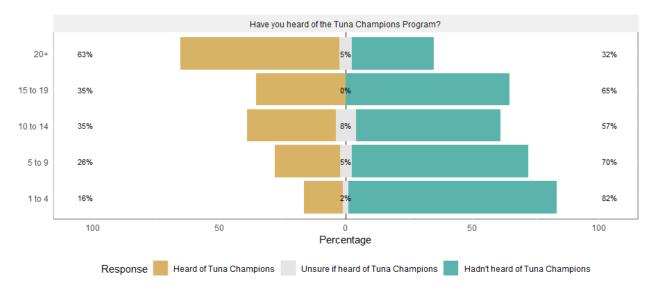


Figure 38. The percentage of survey respondents that indicated that they were aware of the Tuna Champions program by the average number of days a year they reported fishing for Southern Bluefin Tuna (1 to 4: n = 23, 5 to 9: n = 33, 10 to 14: n = 35, 15 to 19: n = 6, 20+ days fished: n = 39).

This information is useful to identify areas where the program needs to increase its reach. The geographic profile was not surprising as, at the time, there was a focus on activity in Victoria and Tasmania and to a lesser extent South Australia. These three states have targeted game fisheries targeting SBT that extends across multiple seasons and episodic catches of smaller tuna species, including Albacore and Skipjack Tuna (Tracey et al. 2020). New South Wales on the other hand has a much shorter recreational season for SBT which lasts for approximately two months. Furthermore, the game fishery in NSW targets a range of other popular target species including Yellowfin Tuna as well as multiple billfish species. This leads to a broader game fishing focus of which SBT is one species of several high-profile species and as such the single species nature of the current Tuna Champions program may be limiting our reach into NSW. Broadening to other key tuna species, i.e. Yellowfin Tuna, will likely increase awareness of best-practice fishing and handling methods for tuna species in this state with the principles transferable across both species.

The greater awareness of the Tuna Champions program is likely a result of organic word-of-mouth among fishers that are spending more time actively participating in the fishery as well as a natural inclination to invest more time following information or within networks where the Tuna Champions program was being promoted.

Social media in particular was an important communication tool (**Figure 39**) which utilises algorithms that will target individuals with an interest in a particular topic. Hence, it would make sense that the more avid a fisher is towards the SBT recreational fishery the greater the chance they encountered the program through the multiple channels we utilised.

Where had respondents heard about Tuna Champions?

The standout communication medium was social media (Facebook and Instagram) with 75% of the 136 respondents that had heard of Tuna Champions indicating that social media was at least one source of their awareness of the program (**Figure 39**). There was a strong relationship between avidity and awareness of the program through social media with more avid fishers reporting the highest rates of awareness of the program through this channel (**Figure 40**).

Word-of-mouth between friends and other fishers was the second most commonly reported source of awareness of the program with 43% of respondents aware of the program reporting this as a source of this awareness (**Figure 39**). Again, there was a strong relationship between avidity and awareness through word-of-mouth with the highest rates reported by more avid fishers, who most likely have larger networks within the fishery (**Figure 40**).

This is a positive response for the program as it was a communication objective to facilitate organic awareness of Tuna Champions and its messaging through peer-to-peer interactions creating a snowball effect of awareness.

Magazine articles and television shows were the next most reported source of awareness at 37% and 32% respectively (Figure 39). A targeted effort was made to include Tuna Champions articles in Bluewater Fishing and Boating magazine across a range of issues (see previous sections), which specifically targets game fishers. The television shows target a broad range of fishers but have an extensive national audience. Interestingly, the strong relationship seen with avidity and social media and word-of-mouth was not evident with magazines and television (Figure 40). However, for television there was a potential reversal of the trend with respondents reporting lower avidity reporting a higher awareness through this medium than more avid fishers with the exception of those that reported 15 to 19 days which appears as an anomaly with the highest awareness from this group at 50%. This is possibly due to the low sample size for this group (n = 6).

Face-to-face presentations at talk nights and/or competitions were the next highest ranked at 29% (Figure 39). The positive relationship between avidity and awareness through this medium was again evident with more avid fishers more likely to have heard about the program this way (Figure 40). This is again likely related to more avid fishers having a greater interest in the fishery and more likely to attend these types of events.

The SBT National Recreational Fishing Survey was also a useful tool to increase awareness of the Tuna Champions program, with 28% of respondents indicating they had heard of the program this way (**Figure 39**). There was no obvious trend with avidity and this communication method (**Figure 40**).

The remaining categories reportedly had less than 25% of respondent indicating they had heard of the program through these channels, including 'anywhere else' (24%), products, branding and Code of Practice (21%), Newspaper articles (10%) and Radio (8%) (Figure 39). There was no obvious trend with avidity with the exception of radio, where there was a trend in higher avidity more likely to have heard of the program through this medium (Figure 39).

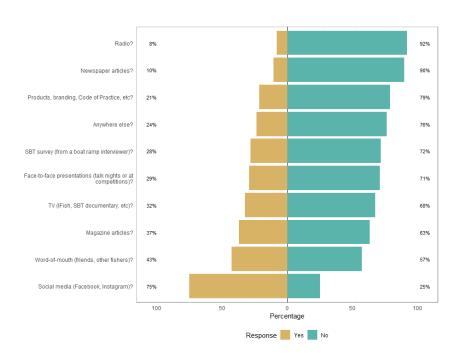


Figure 39. The percentage of survey respondents that had heard of the Tuna Champions program across a range of different communication mediums (multiple responses were allowed).

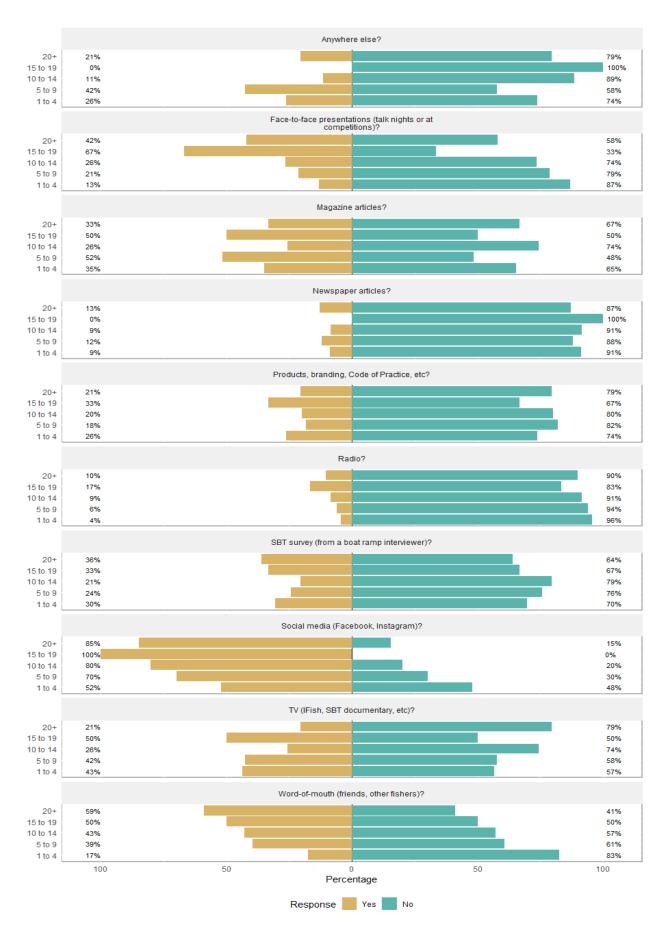


Figure 40. The percentage of survey respondents that had heard of the Tuna Champions program across a range of different communication mediums reported against the average number of days a year they fished for Southern Bluefin Tuna (multiple responses were allowed) (1 to 4: n = 23, 5 to 9: n = 33, 10 to 14: n = 35, 15 to 19: n = 6, 20+ days fished: n = 39).

4.3.2. Baseline results

For results reported below the number of respondents answering 'yes' or 'no' to each question is shown, but if they were unable to answer that the question was not applicable (NA) if it was not relevant to their fishing, i.e. they do not buy lures with treble hooks, or do not release fish or vice versa. Therefore, the sample size values (n) presented below represent the number of responses excluding NA or 'unsure' answers. These baseline questions were asked prior to asking the respondents if they had heard of the Tuna Champions program to avoid biasing results. However, the results are then presented with the respondent's knowledge of the program included as a factor, for insight into behaviours that might have been influenced by Tuna Champions messaging.

Catching and handling

Almost all respondents (99%) indicated that they considered that they handle fish with care to avoid damaging it whether they planned to release it or keep it to eat from (n = 445).

A very high percentage of respondents (91%) indicated that they felt they were using an appropriate weight of fishing line for the size of the fish they catch (n = 447). A greater percentage of respondents indicated they were using an appropriate line class if they were aware of the Tuna Champions program (96%) than if they were unsure if they had heard of the program (85%) or if they hadn't heard of it (90%) (**Figure 41**).

Overall, a high percentage of respondents (83%) indicated that they change treble hooks to single hooks on lures (n = 436). Respondents that were aware of the Tuna Champions program reported the highest percentage of changing from treble to single hooks (91%), while a lower percentage (79%) was reported by those that hadn't heard of the program or were unsure if they had heard of it (**Figure 41**).

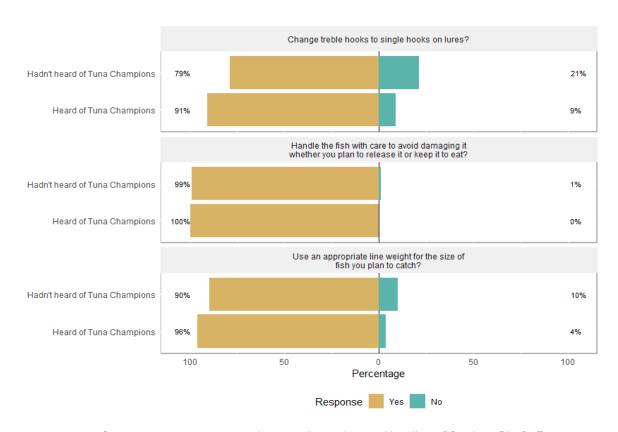


Figure 41. Survey response to questions relating to the catching and handling of Southern Bluefin Tuna categorised by the respondent's awareness of the Tuna Champions program.

Releasing

Almost all respondents (99%) indicated that they carefully remove hooks from a fish's mouth when releasing SBT (n = 411).

A very high percentage of respondents (95%) indicated that they avoided putting their hand up under the gill plate (operculum) when handling SBT they planned to release (n = 411). The highest percentage of affirmative response was reported by those that were unsure if they had heard of the Tuna Champions program (100%), followed by those that had heard of the program (96%) then those that had not heard of the program at 94% (**Figure 42**).

A very high percentage of respondents (91%) indicated that they leave a fish in the water if possible or minimise the time out of water when releasing SBT (n = 409).

The same percentage of affirmative responses were reported for this question from both those that had and hadn't heard of the Tuna Champions program (92%) with a lower affirmative response percentage (84%) for those that were unsure if they had heard of the program (**Figure 42**).

A high percentage of respondents (88%) indicated that they had a good understanding of how to place a tag on a fish to minimise damage and give the tag the best chance to stay in long term. (n = 161). Respondents who had heard of the Tuna Champions program had the highest percentage response (90%) for those that had a good knowledge of tagging fish. Those that had not heard of the program had a slightly lower percentage (87%) while those that were unsure if they had heard of the program had the lowest percentage response at 80% (**Figure 42**).

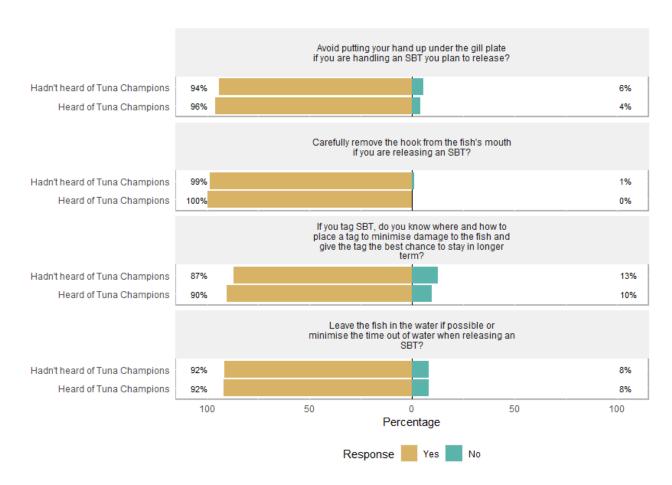


Figure 42. Survey response to questions relating to releasing Southern Bluefin Tuna after capture categorised by the respondent's awareness of the Tuna Champions program.

Dispatch

Almost all respondents (99%) indicated that they bleed an SBT straight after capture by cutting behind the pectoral fins if they are harvesting the fish (n = 437). A slightly lower percentage (98%) of affirmative responses was reported by respondents who had not heard of the Tuna Champions program that those that had (99%) and those that were unsure if they had (100%) (**Figure 43**).

A very high percentage of respondents (95%) indicated that they put their harvested SBT on ice or in an ice slurry soon after capture (n = 437). The highest percentage of affirmative response was reported by those that had heard of the Tuna Champions program (97%), followed by those that had not heard of the program (94%) then those that were unsure if they had heard of the program at 84% (**Figure 43**).

Almost three-quarters of respondents (72%) indicated that they brain spike an SBT straight after capture when they are harvesting it for consumptive purposes (n = 436). The highest percentage of affirmative response was reported by those that had heard of the Tuna Champions program (78%), followed by those that hadn't heard of the program (71%). Those that were unsure if they had heard of the program had a substantially lower affirmative response to this question at 37% (**Figure 43**).

Seventy percent of respondents indicated that they remove the internal organs including gills of an SBT straight after capture if they are harvesting the fish for consumptive purposes (n = 432). Respondents who had heard of the Tuna Champions program and those that were unsure if they had heard of the program had the highest percentage responses at 82% and 83% respectively (**Figure 43**). Respondents who had not heard of the Tuna Champions program had a lower affirmative response rate at 64% (**Figure 43**).

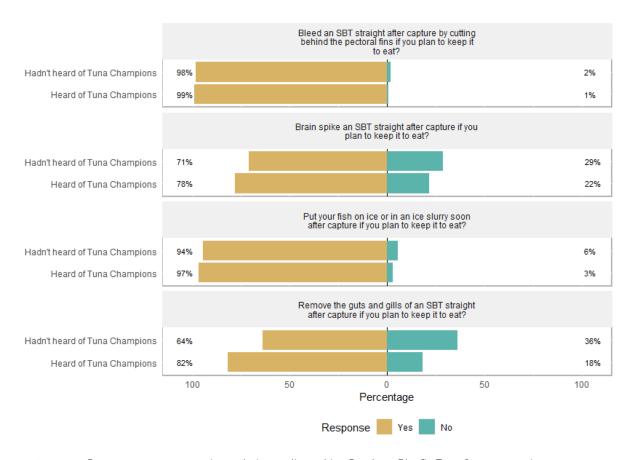


Figure 43. Survey response to questions relating to dispatching Southern Bluefin Tuna for consumptive purposes categorised by the respondent's awareness of the Tuna Champions program.

4.3.3. Measuring behavioural change to assess the impact of the Tuna Champions program

To assess the impact of the Tuna Champions messaging around best-practice for catching, handling, releasing or dispatching, SBT survey respondents that reported they had heard of the program (n = 156) were asked the baseline questions again. However, this time they were asked to report if they conducted the practice in question 'more' or 'about the same' since hearing about the program.

Catching & handling

Almost three-quarters of respondents indicated that they handle SBT with about the same amount of care to avoid damaging it whether they plan to keep release it or keep it to eat. The remaining 26% responded that they now take more care when handling SBT since learning of the Tuna Champions program. The highest rates of improved handling practices were reported in the avidity groups of 1 to 4 days and 10 to 14 days fishing per year at 33% and 38% respectively (*Figure 44*).

A high percentage of respondents (83%) indicated that they felt they were using an appropriate weight of fishing line for the size of the fish they catch prior to hearing about the Tuna Champions program, with the remaining 17% indicating that they are more likely to be using an appropriate line weight since learning of the program. The highest rates of improved handling practices regarding line weight were reported in the avidity groups of 1 to 4 days and 15 to 19 days fishing per year at 33% and 40% respectively (**Figure 44**).

Just over three-quarters of respondents indicated they had not changed their behaviour regarding changing treble hooks to single hooks on lures, with the remaining 23% indicating that they were changing their treble hooks to single hook more since hearing about the Tuna Champions program. The highest rates of improved handling practices regarding changing hook type were again reported in the avidity groups of 1 to 4 days and 15 to 19 days fishing per year at 43% and 60% respectively (**Figure 44**).

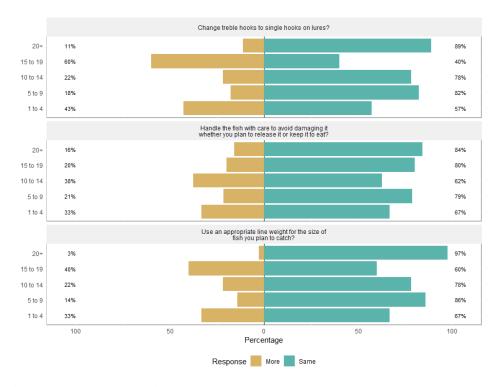


Figure 44. Survey response to whether fishers had improved their practices (more) or had maintained their practices (same) relating to the catching and handling of Southern Bluefin Tuna categorised by the fisher's avidity (1 to 4: n = 23, 5 to 9: n = 33, 10 to 14: n = 35, 15 to 19: n = 6, 20+ days fished on average per year: n = 39).

Releasing

A high percentage of respondents (83%) indicated that they have not changed their behaviour in regard to carefully remove hooks from a fish's mouth when releasing SBT, with the remaining 17% indicating that they have improved their practices in regard to this question. The highest rates of improved fish releasing practices were reported in the avidity groups of 1 to 4 days and 15 to 19 days fishing per year at 26% and 40% respectively (**Figure 45**).

A high percentage of respondents (82%) indicated that they have not changed their behaviour in regard to avoided putting their hand up under the gill plate (operculum) when handling SBT they planned to release, with the remaining 18% indicating that they have improved their practices in regard to this question. The highest rates of improved fish releasing practices were reported in the avidity groups of 1 to 4 days and 10 to 14 days fishing per year at 22% and 28% respectively (**Figure 45**).

A high percentage of respondents (79%) indicated that they have not changed their behaviour since hearing of the Tuna Champions program regarding leaving a fish in the water if possible or minimising the time out of water when releasing SBT, with the remaining 21% indicating that they have improved their practices in regard to this question. The highest rates of improved fish releasing practices were reported in the avidity groups of 1 to 4 days and 10 to 14 days fishing per year at 33% and 29% respectively (**Figure 45**).

A high percentage of respondents (81%) indicated that they had about the same amount of knowledge since hearing about the Tuna Champions program of how to place a tag on a fish to minimise damage and give the tag the best chance to stay in long term, with the remaining 19% indicating that they have improved their knowledge regarding tagging fish.

Respondents who had heard of the Tuna Champions program had the highest percentage response (90%) for those that had a good knowledge of tagging fish. The highest rates of improved fish releasing practices were reported in the avidity groups of 1 to 4 days and 10 to 14 days fishing per year at 29% and 36% respectively (**Figure 45**).

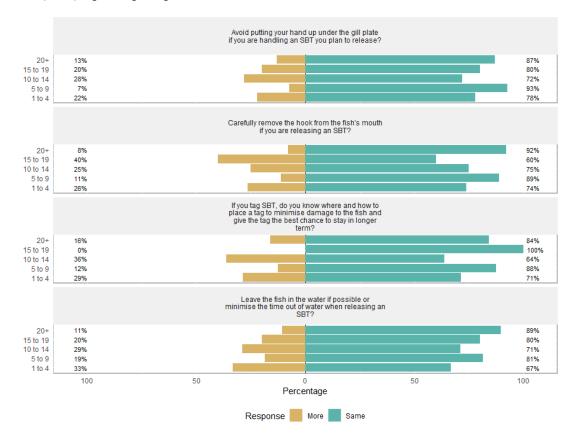


Figure 45. Survey response to whether fishers had improved their practices (more) or had maintained their practices (same) relating to release of Southern Bluefin Tuna categorised by the fisher's avidity (1 to 4: n = 23, 5 to 9: n = 33, 10 to 14: n = 35, 15 to 19: n = 6, 20+ days fished on average per year: n = 39).

Dispatch

Eighty-five percent of respondents indicated that they have not changed their behaviour since hearing about the Tuna Champions program regarding bleeding an SBT straight after capture by cutting behind the pectoral fins if they are harvesting the fish, with the remaining 15% indicating that they have improved their practices in regard to this question. The highest rates of improved fish bleeding practices were reported in the avidity groups of 1 to 4 days and 15 to 19 days fishing per year at 29% and 20% respectively (**Figure 46**).

Seventy-seven percent of respondents indicated that they have not changed their behaviour since hearing about the Tuna Champions program regarding putting their harvested SBT on ice or in an ice slurry soon after capture, with the remaining 23% indicating that they have improved their practices in regard to this question. The highest rates of improved fish ice-down practices were reported in the avidity groups of 1 to 4 days and 15 to 19 days fishing per year at 38% and 40% respectively (**Figure 46**).

An additional question was asked about icing down catch as to whether respondents were taking more ice than before they heard about the Tuna Champions program or about the same. Almost half of all respondents (47%) indicated that are taking more ice to chill down their catch since hearing about the Tuna Champions with the remaining 53% taking about the same amount of ice as before hearing of the program. The highest rates of increased use of ice were from the most avid fishers with 60% of those that fished on average 15 to 19 days a year and 51% of those that fished on average for 20+ days a year (**Figure 46**).

Sixty-seven percent of respondents indicated that they have not changed their behaviour since hearing about the Tuna Champions program regarding brain spiking an SBT straight after capture when they are harvesting it for consumptive purposes, with the remaining 33% indicating that they have improved their practices in regard to this question. There was a strong relationship between an improvement in brain spiking practices and avidity with the highest rates of improved practices reported in the avidity groups of 1 to 4 days, with over half of the respondents (53%) stating that they were brain spiking fish more after hearing about the program, while the lowest increase in brain spiking was in the reported by the most avid fishers (21+ days on average a year) at 17% (*Figure 46*).

Seventy-eight percent of respondents indicated that they have not changed their behaviour since hearing about the Tuna Champions program regarding removing the internal organs including gills of an SBT straight after capture if they are harvesting the fish for consumptive purposes, with the remaining 22% indicating that they have improved their practices in regard to this question. Again there was a strong relationship between an improvement in gill-gutting practices and avidity with the highest rates of improved practices reported in the avidity groups of 1 to 4 days, with 38% of respondents stating that they were brain spiking fish more after hearing about the program while the lowest increase in gill-gutting was reported by the most avid fishers (21+ days on average a year) at 11% (**Figure 46**).

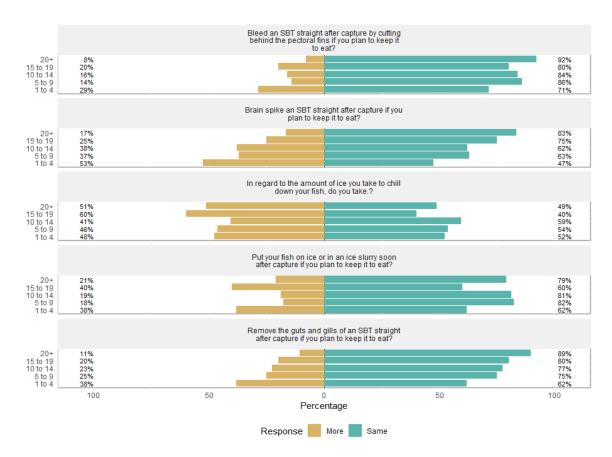


Figure 46. Survey response to whether fishers had improved their practices (more) or had maintained their practices (same) relating to dispatching Southern Bluefin Tuna categorised by the fisher's avidity (1 to 4: n = 23, 5 to 9: n = 33, 10 to 14: n = 35, 15 to 19: n = 6, 20+ days fished on average per year: n = 39).

Summary of baseline results on 'best-practice' techniques in the SBT recreational fishery

Overall, there is a high degree of affirmative responses to 'best-practice' techniques, particularly across the categories relating to catching & handling and releasing. While this is a positive indication that SBT fishers are performing commendably about applying best-practice techniques the affirmative results are potentially inflated compared to anecdotal observations across the fishery. There are two forms of bias that have potentially influenced the overall results. The first is acquiescence bias, whereby respondents have a tendency to agree with questions (Podsakoff et al. 2003). The second, and potentially most likely reason, is a degree of social desirability bias (Nederhof 1985). This is where an individual answers questions in a way that makes them look more favourable based on social norms and acceptances.

Under the assumption that these biases have affected the survey across all respondent groups equally, namely 'heard of Tuna Champions', 'unsure if heard of Tuna Champions' and 'hadn't heard of Tuna Champions', the relative comparison between these factors can be considered valid. In this case, it was apparent that respondents that had heard of the Tuna Champions program were more likely to provide an affirmative response to best-practice techniques across the categories of catch & handling, releasing and dispatching SBT. Furthermore, if there was a degree of social desirability bias in the responses this can be deemed a positive outcome as respondents are aware that the affirmative responses are indicative of best-practice techniques in the fishery. The challenge for the Tuna Champions program is to then increase participation in these techniques. Social sanctioning will likely be the most effective process to realise this change with fishers responding to advice from their peers to improve their practices.

It is encouraging that messaging is having a strong impact through informing behavioural change on the less avid fishers as this is a group that was identified as being less aware of the program.

5. Recommendations

Our recommendations for creating an effective communication program include:

- Know your audience
- Develop your key messages and stay on point
- Create a recognisable brand and stay true to it
- Engage key influencers as your ambassadors
- Do not use the program as a political tool for credibility you must steer clear of politics and not leverage the program
- Ongoing evaluation to gauge reach and engagement, and behavioural change over time
- Stewardship programs are best delivered from non-Governmental groups, with the intention to complement regulatory frameworks.

5.1. Ongoing development

Ongoing development of the Tuna Champions project could include:

- Charter Boat accreditation
- Tuna Champions accreditation
- Develop the spear fisher code of practice and their involvement, including a spear fisher influencer as an ambassador
- Build Ambassador base this may mean some Ambassadors drop out and others are brought onboard – consider exactly what you want from them and any benefits they will gain from being involved
- Develop a self-sustaining model to remove the reliance on government funding
- Broaden to other tuna species now the model and reputation of the program for SBT is embedded
- Integrate a citizen science program for biological sample collection.

The Federal Government's recognition of the Tuna Champions program's success was highlighted in their commitment to fund an extension of the program, which was announced with the launch of the 2021 Federal Budget.

This funding will facilitate the need to broaden the program to the next level by increasing the scope of the project to focus on more key tuna species in Australia, including Yellowfin Tuna and Longtail Tuna.

The geographic distribution of these species and the recreational fisheries that target them will increase the breadth of the program across Australia, with both these species commonly caught on the east and west coasts and Longtail Tuna caught along the top-end of Australia, including the Northern Territory. The new project will also explore options for a self-sustaining business model and development of citizen science initiatives.

6. Glossary

ABARES Australian Bureau of Agricultural and Resource Economics and Sciences

AFMA Australian Fisheries Management Authority

ARFF Australian Recreational Fishing Foundation

DAWE Department of Agriculture, Water and the Environment (Australian Government)

FRDC Fisheries Research and Development Corporation

IMAS Institute for Marine and Antarctic Studies

SBT Southern Bluefin Tuna

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8. Appendices



SENATOR THE HON. RICHARD COLBECK

Assistant Minister for Agriculture and Water Resources Liberal Senator for Tasmania

Ref: MC19-002859

0 2 APR 2019

Professor Chris Carter Interim Executive Director Institute for Marine and Antarctic Studies Private Bag 49 HOBART TAS 7001

Dear Professor Carter

I am writing to you about the 'Tuna Champions' program being managed by Dr Sean Tracey on behalf of the Institute for Marine and Antarctic Studies (IMAS).

The Tuna Champions project is a national education program aimed at recreational fishers targeting the globally iconic Southern Bluefin Tuna (SBT). I understand it is the first project of this magnitude in Australia, with the ambitious objective of influencing significant behavioural change in a national fishery.

I believe the Tuna Champions project is an exemplar of a scientific organisation working with the Australian Recreational Fishing Foundation (ARFF), the national peak body, to engage a grassroots community and to convey fact-based information that will improve the utilisation of SBT being one of Australia's and the world's iconic natural resources.

SBT has recently been classified as transitioning from a depleted to recovering rating in the latest *Status of Australian Fish stocks reports* (www.fish.gov.au). SBT is an important economic species for Australia and is managed internationally by the Commission for the Conservation of Southern Bluefin Tuna. I firmly believe that the Tuna Champions program will aid in the recovery of SBT into the future.

The program communicates the best methods for catching and handling SBT, so the fish has the greatest chance of surviving if released and, if kept, is handled and prepared to make the most of every fish caught. The focus is on encouraging stewardship and respect for the species within the sector.

The project also compiles educational information based on the results of research conducted in Australia on best recreational fishing practices for SBT. It communicates the science behind those practices using a range of strategies to ensure a deep reach into the target audience. This includes recruiting high-profile fishing, culinary and sporting ambassadors to promote the program across their extensive networks.

In the short time since the project began, the team has engaged with recreational fishers across Australia and the world. The success of the project is evident with members of the recreational fishing community becoming Tuna Champions and advocating for best practice among their peers.

The program is a blueprint for communicating responsible fishing practices for other highprofile fish species of national interest that the recreational fishing sector also interacts with.

I would like to extend my gratitude and support to the Principal Investigator of the Tuna Champions program, IMAS senior fisheries scientist, Dr Sean Tracey. Dr Tracey is leading the team at IMAS that works with the program co-investigators to ensure Australia's interests are met in regard to this important fishery. These co-investigators assisting with the program are drawn from the Department of Agriculture and Water Resources, Fisheries Research and Development Corporation, ARFF, the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) and the Australian Fisheries Management Authority (AFMA).

I am pleased that funding for the project was provided by FRDC through a competitive process and that the program is a collaboration between IMAS and ARFF. I note that while Tuna Champions is managed through IMAS for the life of the program, it has been designed and built around the planned transition to ARFF in 2021. I look forward to ARFF continuing to carry the Tuna Champions program forward into the future.

I am proud to be championing this project within Government, and more broadly to the Australian community.

I have sent a copy of this letter to Professor Caleb Gardner, Acting Head of the IMAS Centre for Fisheries and Aquaculture and Dr Sean Tracey, Senior Fisheries Scientist, Institute for Marine and Antarctic Studies.

Yours sincerely

Richard Colbeck

Cc: Professor Caleb Gardner, Institute for Marine and Antarctic Studies Dr Sean Tracey, Institute for Marine and Antarctic Studies

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Figure 47. Letter of commendation for the Tuna Champions Program from Senator the Hon. Richard Colbeck.

ENATIONALS for Regional Australia POLICY DOCUMENT



In 2013, we promised to review, improve and implement Marine Plans in Commonwealthmanaged waters, in close consultation with marine industries, the community and scientists – and we have delivered.

On 1 July 2018, five new management plans (covering 44 Australian Marine Parks) across the North, North-west, South-west, Temperate East and Coral Sea marine regions came into effect.

Covering more than 2.8 million sq km, the Marine Parks will deliver the strong protection and sustainability that benefits all Australians. They encompass 36 per cent of our oceans, well above the United Nations benchmark of 10 per cent – and we've done this in a balanced way that minimises impacts on commercial and recreational fishers.

To enable our fishing community to transition to these new arrangements, our Government has developed the \$35 million Fisheries Assistance and User Engagement Package.

Our updated *Commonwealth Fisheries Harvest Strategy Policy* and *Commonwealth Fisheries Bycatch Policy* reflects our constant striving to improve sustainability. It maximises the economic viability of the commercial fleet, recognises the interests of recreational and Indigenous users and ensures Australian seafood is available for future generations.

We also recognise the contribution and potential of the aquaculture sector. In 2017, the Liberal Nationals Government released Australia's *National Aquaculture Strategy* with the aim of doubling the 2017 industry value to \$2 billion a year by 2027. The Liberal and Nationals Government remains committed to supporting the states and the Northern Territory to achieve this goal.

In 2018 the Liberal Nationals Government formed Australia's first National Fisheries Advisory Council (NFAC). The Council provides the Assistant Minister for Agriculture and Water Resources with information and advice on fisheries issues, proposed legislation and policies.

The Liberal and Nationals Government is ensuring the long-term sustainability of the Southern Bluefin Tuna stock.

We are supporting the Tuna Champion program, which aims to improve stewardship, fish handling and responsible fishing practices in the Southern Bluefin Tuna recreational sector. This will lead to reduced wastage, increased catch and release rates (with greater post-release survival rates) and more engagement in future recreational harvest surveys.

We also understand our inland waterways are highly valued and enjoyed by recreational anglers. Recreational fishing groups play an active role in restocking and rehabilitating inland rivers, streams and lakes.

The tragic fish deaths that occurred at Menindee and the lower Darling in December 2018 have been widely felt – from recreational fishers to communities along the Murray-Darling Basin river system

We've responded with a range of measures addressing the findings of the independent report into the deaths, including:



nationals.org.au

TheNationalsAus • @The_Nationals

Authorised by B.Hindmarsh, National Party of Australia, 7 National Circuit, Barton ACT 2600.

Figure 48. Federal Nationals Party pre-election commitment to support Tuna Champions in policy document.

Regional Ministerial Budget Statement Supporting Regional Recovery and Growth 2021-22

Statement by

The Honourable Michael McCormack
Deputy Prime Minister
Minister for Infrastructure, Transport and Regional Development

11 May 2021

Fisheries

A \$0.9 million expansion of the *Tuna Champions Program* aims to encourage responsible take by recreational fishers and underpins resource-sharing arrangements between the recreational and commercial sectors. An extension until 2023-24 will continue the program, including the successful operation of its online support tool, and expand its focus to include additional tuna species.

The clear gains exhibited by the program will continue for another three years, delivering responsible resource use among the community of recreational fishers.

Forestry and Fisheries – Plantation Development Concessional Loans

In 2021-22, \$37.5 million in existing loan funding will be made available for Plantation Development Concessional Loans to support plantation development in regional Australia in areas where commercial forestry is traditionally undertaken.

Agriculture, Water and the Environment | Page 23

Figure 49. The cover of the Regional Ministerial Budget Statement Supporting Regional Recovery and Growth 2021-22, and an excerpt from Page 23 noting the federal government financial support for the Tuna Champions program.

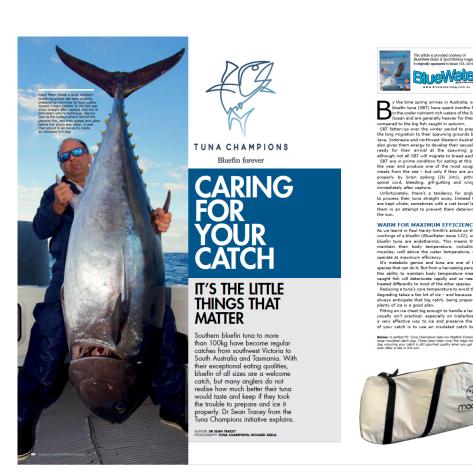




Figure 50. Tuna Champions article in issue 135 of Bluewater fishing and boating magazine.



AUTHOR: DR SEAN TRACEY PHOTOGRAPHY: TIM SIMPSON; TUNA CHAMPIONS; GAME FISH TAGGING PRO

and properly.

TECHNIQUE IS VITAL.

For university researchers today, animal ethics declarance is required for any experiment involving animals, including fish. For example, fish tagging is considered a veteriary procedure, with competency considered a veteriary procedure, with competency of the control o

A 376346 POST SALE

some time in the future, but the tag will not be there.

This wastes an opportunity for valuable research and also affects the integrity of the tagoing data, such as the reason rates. It is also important to keep in mind.

The involved, contact your GFAA club or call the reason rates. It is also important to keep in mind.

While many applies successfully and competently tag gamefish, making small changes in how very too things can make a by difference. The Turns to the control of t

trainly against program on (U2) essay 3002 or email garmefish agging@plcin.com gov.az.

STEP 2: HANDLE WITH CARE
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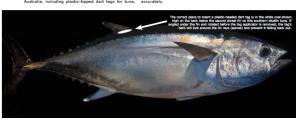


Figure 51. Tuna Champions article in issue 136 of Bluewater fishing and boating magazine.









to see these positive, responsible fishing initiatives, driven by a grassroots fishing competition..."

Figure 52. Tuna Champions article in issue 137 of Bluewater fishing and boating magazine.



CING FIGHT TIME

WITH BIG BLUEFIN AUTHOR: DR SEAN TRACEY PHOTOGRAPHY: CRISTY WORSTELING; HELEN O'NEILL

Learning techniques to reduce fight times will benefit the fish as they can be released in stronger condition for a greater chance of survival. And with less lactic acid build-up, the fish you keep will taste far better too. Dr Sean Tracey gets some tips on tackling large bluefin from Tuna Champions Ambassador Jonah Yick.



outhern bluefin tuna put up a serious fight, which is exactly what keeps us coming back for more. However, long battles cause lactic acid and stress hormones to accumulate in the fish's blood and muscle tissue.

Tuna Champions Ambassador, fisheries scientist and passionate angler Jonah Yick said boat driving and angler experience is the key to reducing fight time, the benefits of which include higher survival rates for released tuna, plus a noticeable improvement in the eating quality of the fish you harvest.

Jonah will chase a big fish as soon as it stops running. "I'll turn in the direction the fish is heading and make sure the angler is collecting line as quickly as possible while I chase it down. If the fish goes deep, it's important to change angles. If you drive away from the fish until the line is at a flatter angle,

surface where you have a much better chance to turn its head towards you," he said.

you can often get the tuna to come back up to the

As experienced anglers know, when the angler is resting, the fish is catching its breath too, so it's important to keep the pressure on and the fish moving fast. "If it's a stalemate, with the fish barely moving and no line coming off the reel, you're getting nowhere. In this situation, I'll drive away and sacrifice up to 100 metres of line while changing the direction of pull as well as the angle. This can make a big difference by stimulating the fish into a run, while also turning its head and coaxing it back up to the surface," he said. "On the other hand, if you remain stationary and wait for something to happen, the fish will recover, extending the fight time. You need to change things up, move the boat around, keep the pressure on. Keep the momentum going and you'll soon have your fish."

If you keep the pressure on and keep repeating the strategies, you'll increase the chance of landing that big bluefin in a shorter time. Reducing the fight time with your tuna is a win-win. It means better tasting meat from the fish you keep, or a faster recovery for the fish you release. 🛩

TUNA CHAMPIONS

Get more great tips from the Tuna Champions Ambassadors and take the Tuna Champions pledge to receive seasonal e-newsletters at www.tunachampions.com.au

e-newsietters at www.tunachampions.com.au Tuna Champions is an initiative of the Australian Recreational Fishing Foundation in collaboration with the Institute for Marine and Antarctic Studies at the University of Tasmania, funded by the Australian Government through the Fisheries Research and Development Corporation.

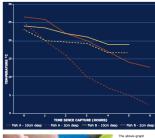


76 facebook.com/BlueWatermagazine

Figure 53. Tuna Champions article in issue 138 of Bluewater fishing and boating magazine.









"The core temperature it had been caught from,

even after five hours!"

Figure 54. Tuna Champions article in issue 140 of Bluewater fishing and boating magazine.





LITTLE CHANGES / BIG RESULTS

anglers to respect southern bluefin and adopt ways to fish better with minimum waste.



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< TECHNICALLY SPEAKING >

AUTHOR & PHOTOGRAPHY: TUNA CHAMPIONS PROJECT

Make the **most** of your tuna



Once you learn how, it is amazing how much more food you can get from each tuna you keep. As the Tuna Champions project shows, there is far more great tasting meat on each tuna besides just the fillets.

s you'll see on the video (link below), experts make it look easy as they slice through a southern bluefin tuna, preparing it for the table with absolute precision and grace. However, for us mere mortals, simply finding what works and what's the easiest way to do it is enough. The main thing is to make the most of the fish you keep.

The first step is to fillet your tuna and slice the quarters into steaks or blocks, depending on how you want to use it. But rather than stopping there, as most people do, it's then time to harvest the extra meat: the collars, the cheeks and all that bonus meat from the top of the head and off the frame and skin.

A good tip is to slice up your tuna straight from the ice slurry you brought it home in, while it's still icy cold, so the meat is firmer and easier to cut.

MAKING THE CUT FOR MAXIMISING BLUEFIN YIELD

Does a good filleting technique and making those easy extra cuts make a difference? You bet!

Let's have a look at the numbers for a gilled and gutted 13.3kg southern bluefin tuna:

- Yield from standard filleting is 5.6kg (42% yield).
- Yield from extra cuts is 2.7kg that's a whopping 20% extra yield!
- Total yield from filleting and extra cuts is 8.3kg (62% yield).
- In addition, the frame and head can be used to create stocks, broths and soups.

It's amazing to see just how much meat can be harvested from just one small tuna. Imagine what you'd get from a 40kg fish.

STORING FOR MAXIMUM SHELF LIFE

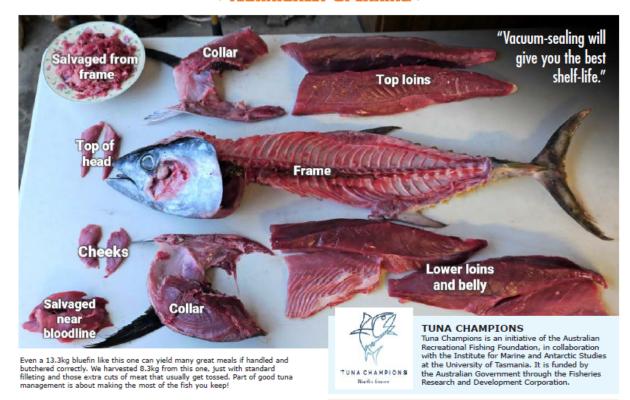
So you've now cut off all the meat, including the cheeks, and scraped the meat off the frame – now what? Unless you've got a big family or a huge appetite, you'll need to store some of the meat.

Proper storage is vital. Vacuum-sealing will give you the best shelf-life, but you can also wrap it tightly in cling wrap, being



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careful to eliminate as much air as possible. Either way, don't forget to put the date on the packages. Your properly stored southern bluefin tuna meat can last up to six months in the freezer, or three to five days in the fridge.

If you're going to eat your tuna fresh, it's a good idea to chill it in the fridge for one or two days first, as this will provide the maximum flavour.

MORE INFORMATION

In our next article we'll talk about ways to prepare or use all those different parts of the fish, including the scraps. In the meantime, watch the Tuna Champions Ultimate Filleting Guide, then head to tunachampions.com.au for more hot tips and cool ideas.

KNOW YOUR TUNA MEAT GRADES

- Otoro this pale, fatty, meltin-your-mouth belly meat is considered the premium cut for sashimi.
- Chutoro this is slightly firmer than otoro, and is both meaty and fatty.
- Akami this meaty, red top loin makes up most of the fish.





- The Challenger Deep, the world's deepest spot in the ocean, is 10,923m (35,838ft) or 6.78 miles deep. Located south of Guam, off the Marianas Islands in the Pacific, it is over a mile deeper than Mt Everest is tall.
- The Hawaiian volcano Mauna Kea is the world's tallest mountain. When measured from its base on the Pacific Ocean floor, it is about 1000m taller than Mt Everest.
- · Less than 1 per cent of the world's seamounts have been studied by scientists.
- The central Philippines region, from Luzon to Mindanao, has more marine species per unit of area than any other place on the planet.
- Dead zones are areas of ocean that are devoid of oxygen due to algal blooms.
- The algal blooms that cause dead zones are caused by agricultural runoff, sewerage and animal wastes, and pollutions from the burning of fossil fuels. – The IGFA



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Figure 56. Tuna Champions article in issue 7 of HOT Bluewater fishing and boating mini-mag.

