

# Queensland SEAFOOD

2022 NUMBER 2

**OCEANWATCH AUSTRALIA  
SPECIAL EDITION**

**WORKSHOPS FOR  
CRAB FISHERS  
ON THE WAY**



**QUEENSLAND – EAST COAST  
CRAB FISHERY  
RESPONSIBLE FISHER TRAINING  
OCEANWATCH MASTER  
FISHERMAN PROGRAM**

**This project is supported by OceanWatch Australia  
and the industry bodies below**





OWA wants to keep fishers fishing. (Page 4.)



Program benefits fishermen. (Page 8.)



Introduction to workshops. (Page 15.)



Fighting for marine environment. (Page 18.)

# VOLUME 40, No. 2 2022 Queensland SEAFOOD

## OWA DEDICATED TO KEEPING YOU FISHING ..... 4

OceanWatch Australia (OWA) is dedicated to keeping professional fishers fishing. Read how OWA is working to help protect and sustain both a healthy marine environment and the social licence of professional fishers.

## INDUSTRY WELCOMES AND SUPPORTS OWA PROGRAM ..... 6

The Queensland Seafood Industry Association – and other industry representative bodies in Queensland – are actively supporting OceanWatch Australia’s Master Fisherman accreditation program.

## SERIES OF WORKSHOPS FOR QUEENSLAND CRAB INDUSTRY ..... 8

OceanWatch Australia is planning a series of workshops in coming weeks to help meet public expectations for sustainable fishing practices and responsible sourcing of seafood.

## LONG-TERM BENEFITS FROM TRAINING PROGRAM ..... 10

The OceanWatch Australia training program being offered in workshops along the coast will have a series of practical, enduring benefits for crab fishers, including greater public recognition of their skills and support for their fishing operations.

## PROFILES OF OCEANWATCH AUSTRALIA PERSONNEL ..... 14

Meet Michael Wooden, Simon Rowe and Lowri Pryce, three of the key OceanWatch Australia personnel behind the crab fishers workshop program in Queensland.

## INTRODUCTION TO CRAB FISHERY WORKSHOPS ..... 15

Michael Wooden from OceanWatch Australia explains the background and benefits of the crab fisher workshops he is conducting along the Queensland coast.

## DISASTER RECOVERY IN THE MARINE ENVIRONMENT ..... 18

Marine habitats have suffered from ash, debris and plastic pollution after fires, floods and the Covid pandemic in recent years but the seafood industry’s OceanWatch Australia organisation is working to help the environment recover.

## THREATENED, ENDANGERED AND PROTECTED SPECIES ..... 20

All professional fishers must avoid interactions with threatened, endangered and protected species wherever possible, and report any interactions via their logbook.

## LIGHT STICK TRIALS WITH LONGLINERS, BAIT BAG STUDY ..... 21

Large numbers of light sticks have been washing ashore on Australian beaches – particularly in Queensland – leading to a project to reduce the problem, while another study has looked at litter issues with bait bags.

## In this edition

WELCOME to this special edition of *Queensland Seafood*, sponsored by OceanWatch Australia. OceanWatch Australia (OWA) is the seafood industry’s very own marine environmental organisation and works to help both the seafood industry and the marine environment.

OWA has been protecting biodiversity and threatened species for the benefit of the Australian marine environment since 1989, and is committed to helping professional fishers keep fishing.

In coming weeks, an OceanWatch team will be conducting a series of workshops for crab fishers along the Queensland coast,

in part helping professional fishers maintain strong public support and so retain our “social licence” to continue fishing in public waters long into the future.

OWA has already conducted similar workshops for professional fishers in a number of fisheries in New South Wales, South Australia and elsewhere.

The Queensland workshops have the full support of the Queensland Seafood Industry Association (QSIA), Gulf of Carpentaria Commercial Fishermens Association (GoCCFA), the Fishermens Portal and Moreton Bay Seafood Industry Association (MBSIA).

Every fisher who can should attend these workshops. They will be enormously valuable.

**Front Cover:** North Queensland crab fisher Neil Green: keen to maintain public support for his industry for generations to come.

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

Mailing Address:  
PO Box 3856  
Victoria Point West Q 4165

Mob: 0417 631 353  
E-mail: eo@qsia.com.au  
Website: www.qsia.com.au

**Chief Executive Officer:**  
Eric Perez  
Tel: 0417 631 353  
eo@qsia.com.au

**Advertising:**  
E-mail: mobo2@live.com  
Postal:  
PO Box 3856  
Victoria Point West Q 4165

# OceanWatch Australia dedicated to helping professional fishers keep fishing

OCEANWATCH Australia has been protecting biodiversity and threatened species for the benefit of the Australian marine environment since 1989. We are the seafood industry's marine environmental charity. We are owned by industry – the fishers, the merchants and markets – and we work to help the seafood industry and the marine environment through our actions.

A healthy, productive, valued and responsibly-used marine environment is our vision.

The adoption of best practices for fishing and aquaculture, the encouragement of stewardship actions amongst coastal and marine users, and undertaking works to protect, rehabilitate, restore and enhance the marine environment – that is our mission.

Our small team is very committed to helping professional fishers keep fishing. In fact, we believe – whether you fish in it, play in it, eat from it or just love it – a healthy marine environment matters to you. Our challenge is to convert people's love for the marine environment into stewardship actions, and together ensure a healthy and productive marine environment both now and into the future.

I am so pleased that OceanWatch Australia is collaborating with our Queensland industry partners, Queensland Seafood Industry Association (QSIA), on a new program to help fishers regain community pride in their profession. We know the importance of continued access to fishing grounds is a key industry concern in Queensland. Reducing community concern and increasing community acceptance of fishing is a vital element of this project.

OceanWatch was originally set up in 1989 by Peter Doyle AO, as it was then recognised that the commercial wild-catch fishing sector's future was dependent upon a healthy marine environment and sustainable fishing practices.

The Company's first role was to work with the New South Wales seafood industry and coastal communities to implement practical solutions to problems that affected the industry or coastal environments. Following successes in the 1990s, OceanWatch became national in 1999 with the creation of our environmental ex-

ension program for the seafood industry, SeaNet.

Queensland fishers will remember the work of SeaNet, which ran until 2013. QSIA and Moreton Bay Seafood Industry Association hosted OceanWatch's SeaNet Officers for the duration of the program, with officers serving Far North Queensland and the South-East Queensland regions.

Some of our projects included major reductions in accidental capture and by-catch of marine turtles, seals and sea lions, seasnakes, sea birds, dugong, whales, dolphins and sharks, whilst assisting industry to remain internationally competitive.

A few others include:

- ❑ new deep-setting techniques in tuna and billfish fisheries around Australia;
- ❑ new standard tori lines in tuna and billfish fisheries around Australia;
- ❑ adoption, trial and take-up of square-mesh codends;

- ❑ new shallow-water gillnet;
- ❑ acoustic alarms in North Queensland fisheries;
- ❑ circle hooks in tuna and billfish fisheries and other fisheries around Australia;
- ❑ popeye fishbox by-catch reduction device in the Northern Prawn Fishery; and
- ❑ ghost net removal in the Gulf of Carpentaria.

Funded through competitive grants from government, OceanWatch delivers projects with the help of fishers and aquaculture farmers, seafood peak bodies, eNGOs, and a raft of other coastal and marine stakeholders.

We are thrilled to be back in Queensland helping fishers increase the community recognition they deserve.

**Lowri Pryce**  
CEO

**OceanWatch Australia**



Flashback to 2010: then OceanWatch Australia / SeaNet Extension Officer David Schubert (with NQ fisherman David Perkins). OceanWatch is returning to Queensland.



*Protecting the marine environment is an important goal for OceanWatch Australia, especially with growing competition for coastal habitat ...*



*... including from port development that is pressuring mangroves and seagrass beds.*

# QSIA welcomes Master Fisherman program for crab fishers

QUEENSLAND'S professional fishers access a community resource, and their ongoing ability to maintain their access to this resource is under pressure.

It is well known that commercial fishing is a highly regulated activity, including copious stringent regulations for fishing practices, as well as food safety accreditation, conservation and safety regulations.

It is in the interest of Queensland professional fishers to demonstrate the value they place on the environment and on the social contract they have with our communities.

The Queensland commercial fishing industry will benefit from demonstrating its shared values with the community to improve public trust, and implementing responsible practice through training.

The Queensland Seafood Industry Association (QSIA) strongly encourages an industry-led approach to fisheries management outcomes. QSIA is a strong advocate for the Master Fisherman Program in Queensland.

In 2020, at QSIA's request, OceanWatch Australia secured a Commonwealth Marine Natural Resource Management (NRM) grant

to develop and deliver training for 90 commercial fishers in Queensland's crab fishery.

QSIA is also supportive of the outcome that trained crab fishers understand and acknowledge that, by accessing fisheries resources, they have an important responsibility to use these marine resources sustainably.

QSIA supports training that:

- ❑ engages professional fishers through presentations and group discussions;
- ❑ uses case study materials; and
- ❑ integrates existing good practices that can be recognised as such in the communities in which the fishing industry lives and works.

QSIA will provide linkages with the fishing industry through its communications platforms, such as its website and social media, including the use of podcasts.

On behalf of the QSIA Board, I look forward to working with OceanWatch Australia and my industry to help deliver the Responsible Fisher Training: OceanWatch Master Fisherman Program.

**Eric Perez**  
CEO – QSIA

## Industry supports Master Fisherman program for Qld

THE Queensland Seafood Industry Association (QSIA), Gulf of Carpentaria Commercial Fishermens Association (GoCCFA), the Fishermens Portal and Moreton Bay Seafood Industry Association (MBSIA) support the Queensland Responsible Fisher Training Program.

QSIA, GoCCFA, the Fishermens Portal and MBSIA acknowledge the Master Fisherman program benefit for the fishing industry.

This program will provide much-needed awareness around existing good practices of professional fishers, as well as equip them with current sustainability knowledge and ensure the longevity of the industry.

Our industry bodies have been working on strategically critical issues and this program is recognised as critical for the industry.



*The workshop program and resultant recognition are designed to help professional fishers maintain access to iconic locations like Hinchinbrook Channel.*



*Seafood lovers in Queensland are prepared to line up for our product at times of peak demand ...*



*... but, in these changing times, enthusiastic public support for the fishing industry cannot be taken for granted.*

# Series of workshops for Queensland east coast crab fishers

THROUGH the OceanWatch Master Fisherman Program, OceanWatch Australia will be holding a series of workshops with Queensland east coast blue swimmer and mud crab fishers.

The Queensland East Coast Crab Fishery “Responsible fisher training” program has been developed to assist professional fishers to demonstrate they possess the necessary skills, knowledge and experience to operate in the fishery.

## Introducing the workshops

The workshop comprises a series of modules related to:

- environmentally sustainable work practices;
- social licence;
- threatened, endangered and protected species handling and reporting;
- bycatch reduction devices and techniques;
- animal welfare;
- biosecurity;
- catch reporting and fisheries management;
- water quality, fish habitat and pollution;
- product quality;
- indigenous fishing; and
- workplace health and safety.

Through the program, fishers will demonstrate an improved awareness and knowledge of sustainable fishing practices and a commitment to responsible sourcing of seafood.

The program assists industry to improve community perception through increased transparency and recognition of individual fishers’ commitment to responsible and sustainable practice.

The workshop is a one-day free course that trains and assesses fishers through the national seafood training package competency unit, “Participate in environmentally sustainable work practices”, delivered through the NSW Fishing Industry Training Committee, a Recognised Training Organisation (RTO).

OceanWatch Australia recognises individual fishers who complete the training and assessment program and commit to implementing industry best practices.

OceanWatch Master Fishermen are

profiled online: individual web-based fisher profiles are accessible through QR codes, scannable by smartphones and tablets.

Information linked to the profiles provides transparency, builds provenance and improves community understanding of industry actions and responsibilities.

## Value of participating

Professional fishers are continually at the mercy of traditional and social media platforms making claims regarding the bona fides of our industry relating to the environment.

So, why should professional crab fishers participate in the program? Well, some of the reasons include:

- to demonstrate shared values to improve the public trust by demonstrating their responsible practice through training;
- to grow their understanding of responsible practices;
- to receive support from industry bodies for commercial fishers as they progress through the training program; and
- their participation may help avoid the need for increased red tape from fisheries and/or conservation management, by establishing industry credentials without the need/cost of added technologies.

## Role of OceanWatch Australia

OceanWatch Australia is a not-for-profit environmental organisation that has operated for over 30 years, recognised as the national Marine Natural Resource Management group.

OceanWatch Australia developed the Master Fisherman program to



*OceanWatch Australia has already conducted professional fisher workshops in places like Port Lincoln ...*



*... and the New South Wales Central Coast.*



Fishermen completing the workshops will be able to use the Master Fisherman logo.



"I'll have the crabs." The OceanWatch Australia workshops are designed to build on the popularity of Queensland crabs with guarantees of sustainable fishing and responsible seafood sourcing.

improve and recognise fishers' skills, knowledge and commitment to the implementation of best fishing practices.

OceanWatch Australia has experience delivering the program with the New South Wales wild-catch and dive fisheries, and, recently, South Australia's Lakes-and-Coorong and Marine Scalefish fisheries.

OceanWatch Australia staff delivering the training are certified trainers and assessors operating through the guidance of the NSW Fishing Industry Training Committee RTO.

Following their successful completion of the program, OceanWatch Australia will work with fishers to develop online profiles and individual QR codes, provide access to use the Master Fisherman logo, and increase the potential for promotion through community outreach activities.

**Michael Wooden**  
Wild Catch Fisheries Program  
Manager  
Oceanwatch Australia

**Eric Perez**  
CEO  
QSIA

## Fishers feedback

PROFESSIONAL fishers who have already taken part in the OceanWatch Australia Master Fisherman workshops elsewhere have given enthusiastic feedback about how valuable they found them.

For example, for feedback from fishers in South Australia, scan the QR code immediately below or go to this link: [https://m.youtube.com/watch?v=lp\\_h7tjfvU&feature=emb\\_logo](https://m.youtube.com/watch?v=lp_h7tjfvU&feature=emb_logo)



And the video via the QR code below or the following link discusses the background to the Master Fisherman program: <https://m.youtube.com/watch?v=gD-88jBuY3A>



## Benefits of the training program

It is important to understand the benefits of the training program. From a professional fisher's perspective, there are ongoing, long-term benefits to participation.

These benefits include but are not limited to:

- ❑ giving recognition to responsible and sustainable harvesting of seafood;
- ❑ recognising individual fishers' knowledge and experience through formal training and accreditation;
- ❑ improving understanding of things that may influence community perception of the fishing industry;
- ❑ encouraging voluntary industry endorsement, ownership, adoption and implementation of fishery-specific Codes of Practice (CoP) to demonstrate their commitment to best practice;
- ❑ demonstrating an improved environmental performance of the fishing industry;
- ❑ communicating a professional face to the community;
- ❑ building provenance of local seafood, telling the story behind local seafood;

- ❑ creating a point of difference for Master Fishermen's products in the marketplace; and
- ❑ positively contributing to the fishing industry's social licence.

Industry participation in training is a clear signal that it supports the program

and demonstrates its commitment to the management of a shared resource.

OceanWatch Australia recognises individual fishers who successfully complete the training and assessment program and commit to implementing industry best practices.



Fishers can use their "Master Fisherman" qualification to promote their products.



Media scrutiny of the seafood industry (here at the Hervey Bay Seafood Festival) can be very positive when there's a good story to tell.



OceanWatch Australia "Master Fisherman" stickers can be used to promote product ...



... like these mud crabs, linking to the OceanWatch Australia website and details of the fisher who caught them.

# MASTER FISHERMAN SYDNEY – NEW SOUTH WALES

Trained and assessed for environmentally sustainable work practices

SCAN THE QR CODES USING A QR READER ON YOUR SMART PHONE OR VISIT  
[MASTERFISHERMEN.OCEANWATCH.ORG.AU](http://MASTERFISHERMEN.OCEANWATCH.ORG.AU)



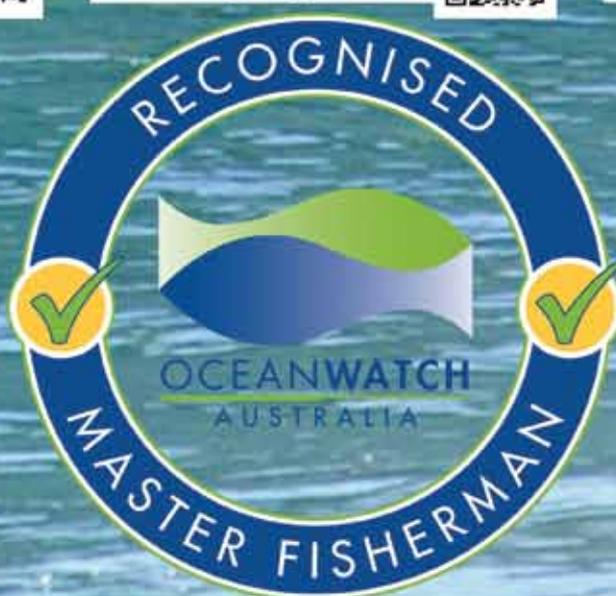
**Dick Bagnato**  
Sydney



**Diego Bagnato**  
Sydney



**Giovanni Tripodi**  
Sydney



**Paul Bagnato**  
Sydney



**Tony Bagnato**  
Sydney



**Vince Bagnato**  
Sydney



EVERYTHING YOU NEED TO KNOW ABOUT YOUR LOCAL FISHERMEN  
LEARN MORE ABOUT OCEANWATCH MASTER FISHERMAN RECOGNITION,  
SEAFOOD TYPES, WATCH HOW OUR LOCAL SEAFOOD IS CAUGHT,  
SEAFOOD RECIPES AND TIPS, SEAFOOD SUSTAINABILITY AND MORE.

OceanWatch Master Fishermen are profiled online, individual web-based fisher profiles are accessible through QR codes, scannable by smartphones and tablets. Information linked to the profiles provides transparency, builds provenance and improves community understanding of industry actions and responsibilities.

QSIA can use multiple media channels to help promote the program and allow OceanWatch Australia to discuss the program and its benefits for the fishing industry.

You can access discussions regarding the program here: <https://qsia.podbean.com/>

Visit the OceanWatch Master Fisherman page industry feedback video link: <https://oceanwatchmasterfisherman.org.au/workshops/>

**Michael Wooden**  
Wild Catch Fisheries Program  
Manager  
Oceanwatch Australia

**Eric Perez**  
CEO  
QSIA



Fishermen who attend the workshops will receive a certificate of achievement.

**MEET THE MASTER FISHERMEN  
FROM WALLIS LAKE FISHERMEN'S CO-OP**

THOSE FISHERMEN ARE RECONGNIZED OCEANWATCH MASTER FISHERMEN  
TRAINED AND ASSESSED FOR ENVIRONMENTALLY SUSTAINABLE  
WORK PRACTICES.

ADRIAN	ALLAN	ANTHONY	BOB	CHRIS	DANNY	DAVID	DEAN
JACOB	JOSH	NOEL	RAY	REECE	RICHARD	RYAN	SABINO

LEARN MORE ABOUT THEM BY SCANNING THE QR CODE.




Promotional material like the posters above and opposite can be developed for professional fishers completing the Master Fisherman program.

# Profiles of OceanWatch personnel

## Michael Wooden

Program Manager – Wild Catch Fisheries



Michael has a passion for the marine environment and seafood, and over 20 years' experience working in the Australian seafood industry.

With a background in fisheries research, he joined the OceanWatch SeaNet fisheries extension team in 2007.

Michael is a graduate of the National Seafood Industry Leadership Program (2012), and a recent committee member of the FRDC NSW Research Advisory Committee.

Appointed Program Manager – Wild Catch Fisheries in 2014, Michael has led the development and delivery of the OceanWatch Master Fisherman

Program in NSW and South Australia, and is a certified trainer and assessor.

He is currently involved in numerous fisheries bycatch and threatened, endangered and/or protected species interaction mitigation projects.

## Simon Rowe

Program Manager – Environment



Simon has a passion for plants and the people that thrive off them. He has worked in rural Australia and overseas, and loves a yarn and being outdoors.

Simon's job centres on assisting primary industry and community in the fields of Landcare and Natural Resource Management (NRM), after the "Tide to Table" program he ran for nine years devolving \$8 million in on-ground works.

He is a graduate of the National

Seafood Industry Leadership Program and actively challenges the advancement of best practice environmental repair. Simon has been with OceanWatch Australia since 2005.

## Lowri Pryce

CEO



With a background in social and corporate partnerships, environmental management and program design, Lowri has a deep commitment and over 20 years of experience in working with industry, community and governments to create positive and sustainable behaviour change.

As Chief Executive Officer, she is responsible for guiding company programs and operations, and developing strategic pathways for integrating the marine sector into NRM.



OWA Wild Catch Fisheries Program Manager Michael Wooden (left) will be conducting the Queensland Master Fisherman workshops.

# Introduction to Crab Fishery workshops

This is an introduction to the OceanWatch Australia Responsible Fishery Program for the East Coast Blue Swimmer Crab and Mud Crab Fishery and to Wild Catch Fisheries Program Manager Michael Wooden.

MY name is Michael Wooden (Woody). I am Program Manager – Wild Catch Fisheries at OceanWatch Australia.

It seems like only yesterday I joined OceanWatch Australia's national SeaNet extension team in 2007, hosted at the QSIA and MBSIA offices in Brisbane. I have fond memories of working with the seafood industry in Queensland.

Since mid-2008, I have been based in Sydney. The work of the OceanWatch Australia team has continued through the vision of a healthy, productive and valued marine environment, used in a responsible way.

The OceanWatch Australia vision links with my personal passion for healthy marine environments and a vibrant and healthy seafood industry, and I respect the opportunity I have to work again with professional fishers in Queensland.

For almost 10 years, the seafood industry has identified a need to improve the perception of the seafood

industry within the wider community, and to improve the personal development skills of the fishers.

To assist the industry to meet this priority, OceanWatch Australia worked to develop and deliver the successful OceanWatch Master Fisherman program, initially with most sectors of the New South Wales wild-catch fisheries, and, more recently, with abalone / sea urchin and turban shell dive fisheries.

The program has achieved recognition, presented as a past winner of the Sydney Fish Market Seafood Excellence Awards People Development Award.

As the national marine natural resource management group, OceanWatch Australia is pleased to be able to work with and assist Queensland professional fishers to improve individual knowledge and skills, and to recognise their commitment to responsible and sustainable best practices.

OceanWatch Australia has worked to broaden the depth of the program interstate, with the recent addition of South Australian Lakes and Coorong and Marine Scalefish fishers.

Scan the QR code, check out the Master Fisherman page and have a look at the short video which provides fishers' feedback on the benefits and experience they gained participating in the program in 2022.

Importantly, OceanWatch Australia has developed materials for the Queensland East Coast Crab Fishery to assist professional fishers to demonstrate they possess the necessary skills, knowledge and experience to operate in the fishery.

In late May and June 2022, OceanWatch Australia is planning on delivering a series of free workshops for east coast blue swimmer and mud crab fishers.

OceanWatch Australia is seeking industry support to participate in the one-day workshop program.

Fishers are trained and assessed through 11 core modules:

- Environmentally Sustainable Work Practices;
- Social Licence;
- Threatened, Endangered and Protected species handling and reporting;
- Bycatch reduction devices and techniques;
- Animal welfare;
- Biosecurity;
- Catch reporting and fisheries management;
- Water quality, fish habitat and pollution;
- Product quality;
- Indigenous fishing; and
- Workplace health and safety.

Additionally, for those that elect to publicly be promoted as a Master Fisherman, there are some interesting opportunities to showcase your product through the supply chain, chefs and restaurants.

Fishers who complete the program will be individually recognised as an OceanWatch Master Fisherman



*The workshops will help assure young fishers of a brighter future in the industry.*



*Responsible fishing practices have been central to public promotions like this one at the Sydney Fish Market ...*



*... and a display of fishing gear and methods in the Hawkesbury River region.*

and profiled online to assist in demonstrating their responsible practices to the community, buyers and consumers of their seafood.

The Master Fisherman website has been developed to allow easy access to transparent, clear and informed information on the Master Fisherman program. Individual web-based fisher profiles created for each recognised Master Fisherman are accessible through QR codes, scannable by smartphones and tablets.

Information linked to the profiles provides provenance and improves community understanding of industry actions and responsibilities.

It is, however, up to individual fishers how they use their QR code and online profile to further market product, and elevate the professionalism of their business.

**Michael Wooden**  
**Wild Catch Fisheries Program**  
**Manager**  
**Oceanwatch Australia**

Note: This project is supported by OceanWatch Australia through funding from the Australian Government's National Landcare Program.



*The OceanWatch program is an award-winner.*

*More of the promotional material developed for fishers participating in the workshop program.*

# Disaster recovery and resilience in the marine environment

Dr Claudia Santori

THE last three years have hit Australia with a variety of disasters, so many that if anybody had been told where we were headed in early 2019, they would have not believed it. Bushfires, floods, a pandemic.

During the tough times spent rebuilding our personal lives, the marine environment has been the silent victim of these disasters time and time again. With bushfires came drastic changes to water quality, with floods came debris, and with the pandemic came plastic pollution. All these problems have far-reaching consequences affecting the fish we all love.

The first step to addressing these issues is finding out where they have been occurring and the second is mounting informed action to tackle them.

Since 2020, OceanWatch Australia, a small non-government organisation (NGO) operating in the marine space, has been very active in the disaster recovery and resilience field, with several projects focused on investigating the consequences of these disasters to aquatic environments (for example, estuaries and coastal waters) and where any hotspots or issues were



*OceanWatch surveying for litter using an underwater drone.*



*Mangroves killed by fire in coastal NSW.*

located, and has organised recovery action both from an environmental and a human perspective.

The 2019-2020 bushfires had no precedent in extent or severity. Being the first point of contact for many fishers, soon after the fires were extinguished in early 2020 OceanWatch Australia started receiving reports of impacts on the marine environment. Fish disappeared from certain usual locations, ash clogging oyster gills, birds dead on beaches, branches and sometimes whole trees coming down from rivers into estuaries and open waters.

The team quickly set up an online survey to identify the nature of these impacts, as well as their locations. After documenting this information for several months, OceanWatch compiled the first Fish Habitat Protection Protocol Against Bushfires, a document which will help prepare for and repair fish habitats after future bushfires.

Moreover, thanks to the survey, we identified several burnt mangrove sites, particularly in coastal New South Wales, which the team has been working on restoring ever since mid-2021, with very promising results so far.

Plastic pollution has been in the spotlight for several years, with the pandemic exacerbating certain aspects



*QR code to access the flood survey.*

of it. Photos of disposable face masks underwater have been very ubiquitous on social media, and most of us have seen a few when out in the marine environment.

Indeed, despite most of us being unfortunately familiar with floating rubbish, over 70 per cent of all litter entering the marine environment ends up at the bottom of it. OceanWatch Australia has been particularly active in this space with the writing of the very first Benthic (underwater) Litter Framework, and has been conducting several underwater litter surveys using a new underwater drone. These novel survey techniques will, soon, be able to inform the prioritisation of sites for underwater clean-ups, to restore many marine sites to their original beauty.

The recent floods have been nothing short of devastating for so many along the East Coast. Mud and debris entering our waterways and oceans from such disasters have become a terribly familiar sight to all fishers. OceanWatch Australia, to address this issue, has recently put out a new survey to document their impacts and identify areas to focus clean-up efforts. This work is still in its early stages. Please, if you can help us fill in the survey (see QR code) or spread the word, it would be very helpful.

Despite the difficulty of keeping positive in the face of all these adversities, the OceanWatch team has been doing its best to address issues with creativity and constructive energy. Please feel free to reach out if you want to know more about our efforts in Queensland and the rest of Australia, we are always happy to take new ideas and feedback on board.

Note: Dr Claudia Santori joined OceanWatch in September 2020 as a Spatial Project Officer. She has an academic research background in ecology and management of aquatic wildlife. Claudia is working on two bushfire resilience projects on the NSW South Coast: a community recovery and resilience project based on a series of tours, and on an assessment of mangrove damage and recovery in the Clyde, Moruya and Wonboyn Rivers.



*Flood debris has choked waterways in Queensland (and New South Wales) in recent months.*

# Threatened, endangered and protected species

THREATENED, endangered and protected (TEP) species are protected nationally by what's known as the Environment Prot&Biod Cons Act, which came into effect in July 2000. The EPBC Act considers our obligations to international treaties, and provides a national scheme that enables the Australian Government to align with the States and Territories.

Managing the risks and impacts of fishing activities on non-target species, including protected species, is a principle of the Sustainable Fisheries Strategy 2017-2027. It is a requirement for all fisheries that interact with species listed under the federal Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) to manage these risks to maintain a fisheries Commonwealth Wildlife Trade Operation (WTO) accreditation.

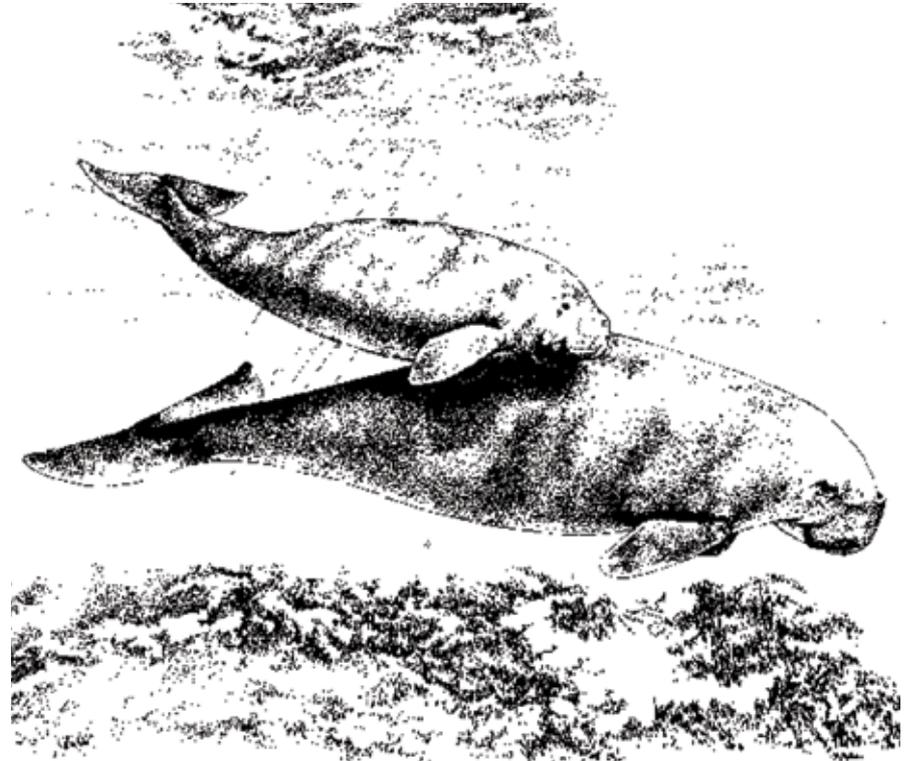
Australia is committed to managing impacts on threatened, endangered and protected species.

Under the EPBC Act 1999, commercial fishers must report all interactions with protected species to the Department of Agriculture, Water and the Environment. To do this, you must report all interactions in your TEP animal logbook.

Reporting these interactions is

necessary to maintain WTO approvals, which allow certain Queensland fisheries to export seafood to international markets and are used in Australia to market sustainably sourced seafood.

The WTO approval also protects commercial fishers against prosecution for unintentional interactions with protected species. There are serious penalties for deliberate interactions or interactions that occur without a WTO approval.



*Dugong are amongst the protected marine species in Queensland.*



*The saltwater crocodile is one protected species crab fishers try to avoid interacting with at all costs.*

# Investigation of beach-bound light sticks leads to a trial with Queensland longliners

CHEMICAL Light Sticks (CLS) emit light once you break the seal and are popular with partygoers, kids, the military and divers. Unfortunately, larger numbers have been washing ashore on the beaches, prompting OceanWatch and Tangaroa Blue to start actioning a plan to reduce the source.

It's an interesting topic, as there are so many designs and – like most debris types – it is hard to pinpoint where they originate and who discarded them. We do know material drifts in from overseas in large currents, so it is most likely other nations are contributing to those found.

That said, they are in use professionally in Australia and some are inadvertently lost overboard or lost due to bite-offs and snap-offs.

OceanWatch worked with Tuna Australia and the Australian Fisheries Management Authority (AFMA) on the professional fishing related chemical light sticks source reduction plan which is available on our website: [www.oceanwatch.org.au/source-reduction/](http://www.oceanwatch.org.au/source-reduction/)

This project was done to document the occurrence of chemical light stick (CLS) use within the Australian Professional Fishing Industry to minimise CLS debris in the marine environment, with a geographic focus on the Great Barrier Reef in Queensland.

CLS were recovered in Queensland, followed by Western Australia. In the period 2008 to 2019, the total numbers of all chemical light sticks recorded on Australian coastlines per State and Territory were : NT 27; ACT (Jervis Bay area) 44; NSW 3,723, South Australia 229, Tasmania 44; Victoria

715; WA 8,997 and Queensland 18,681. (Source: AMDI Database.)

After interrogating AFMA's data on the Eastern Tuna and Billfish Fishery usage and loss of chemical light sticks, OceanWatch and Tuna Australia designed trials hand-in-hand with longline fishermen. Trials



*In the past, light sticks like these have littered Australian beaches (especially in Queensland).*

A significantly higher number of



*A tuna longliner (the "Straight Shooter") entering Mooloolaba Harbour. OWA has worked with longliner owners in Queensland to reduce losses of light sticks during fishing operations.*

were undertaken to test two designs of battery-operated light sticks as an alternative option to single-use chemical lights.

At the conclusion of the trials, both battery-operated light sticks tested presented some significant advantages to the participants, while also highlighting some practical and economic hurdles. One of the alternatives tested has been identified as more effective than the other one. Indeed, being brighter, its use results in a reduction in the number of lights needed for a similar level of catch.

In this report, OceanWatch listed recommendations that could reduce the occurrence of chemical light sticks found in Australian waterways. These recommendations include encouraging the industry to collect more fine-scale data on CLS use, encouraging the industry to create a place where professional fishermen could share information internally around method and gear set-up with battery-operated light sticks, including CLS use in sustainable fishing certification, and encouraging more research on overseas sources of light sticks.

## Testing alternative packaging for bait

THIS second plan looked at the bait industry, as plastic bags are another commonly identified item in beach clean-ups and usually identifiable to businesses in Australia.

The bait bag source reduction plan allowed OceanWatch to understand the use of bait bags from multiple perspectives: bait supplier, packaging supplier and final consumer.

This project was conducted to document and identify alternatives to plastic packaging for fishing bait and put these new materials through a number of trials under realistic conditions containing readily used baits. The project also had a geographic focus on the Great Barrier Reef in Queensland.

The project carried out two trials. First, testing the suitability of the alternatives, in which packaging was filled with various types of bait and stored in a commercial freezer for eight weeks. Then, a degradability trial, where alternatives were placed in cotton bags and immersed in sea water for eight weeks.

The alternatives that were identified included water-soluble bags, compostable bags, sugar cane trays with lids and cardboard boxes. Both trials demonstrated that the tested materials performed differently under the conditions they were subjected to.

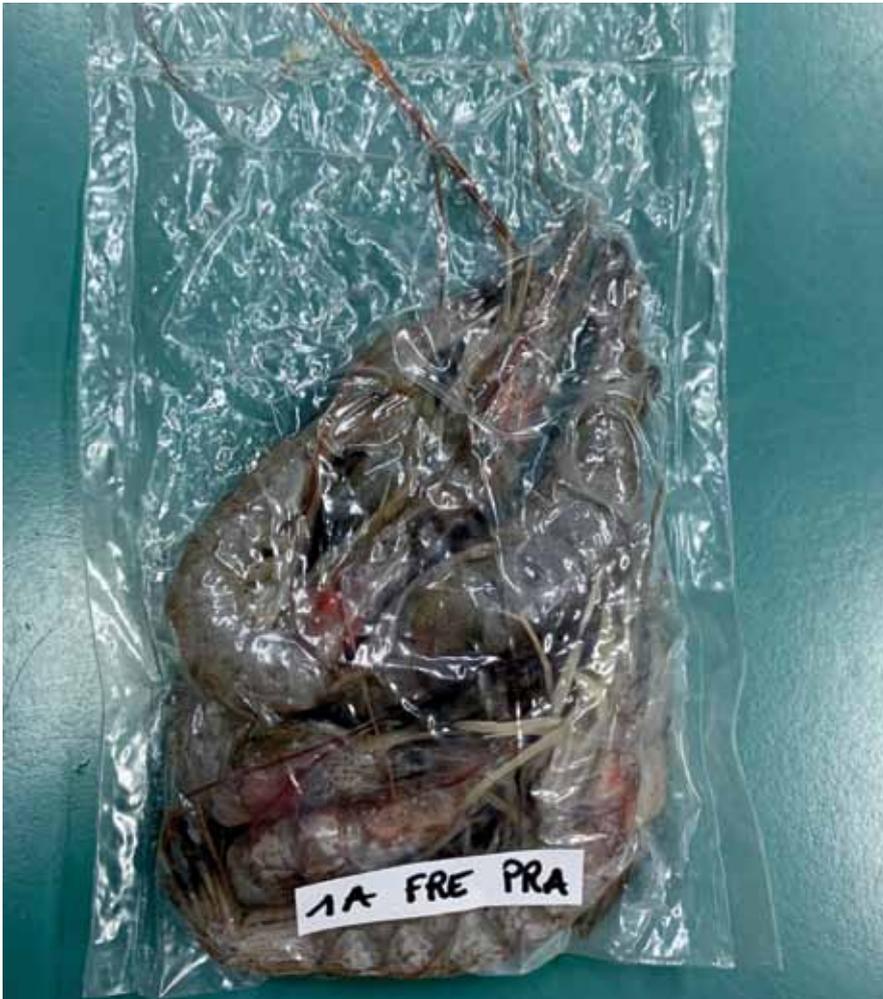
Depending on its use, each alternative tested had merit but no one new material overtook the practical properties of existing bags. We would encourage people to read the report [www.oceanwatch.org.au/source-reduction/](http://www.oceanwatch.org.au/source-reduction/) and consider how their customers use the bags.

The negatives of continuing to use plastic bags are mounting, with a swing in social licence away from single-use items. A clear responsibility for a transition to new packaging and practices rests not only with a bait supplier but also with the customer.

As a conclusion of the report, OceanWatch considers that the expectations of suppliers and consumers need to be reset, innovators need support, and packaging needs to



Bait containers were scientifically tested against a number of variables from Sydney Fish Market freezers.



Plastic alternatives are constantly evolving to be more fit for purpose.

meet national standards so confidence in labelling creates trusted alternatives.

Then, by convincing a significant number of companies to use sustainable alternatives, it is possible to push the market to a tipping point where the environmental solution becomes a cost-effective norm. Businesses are the source of the problem and the heart of the solution.

Both the source reduction plans fell under ReefClean. ReefClean is funded by the Australian Government's Reef Trust and delivered by Tangaroa Blue Foundation in partnership with OceanWatch Australia.

Did you know the global push to change our ways to be more sustainable is led by the United Nations (UN) General Assembly. Source reduction projects contribute to UN Sustainable Development Goals 12 and 14 to interrogate environmental data to pinpoint problems and seek solutions to marine debris related pollution items. These examine life-cycle impacts of products to minimise impacts, introduce and test fit-for-purpose solutions, encourage re-use and loan actualisation examples to help with business adoption.

## ASSESSING ALTERNATIVES TO PLASTIC BAIT PACKAGING



To support and encourage uptake of alternatives to plastic packaging within the fishing bait industry, OceanWatch initiated two trials for 8 weeks.

Bait	Prawn 		Squid 		Pilchard 		Chicken guts 
	frozen	fresh	frozen	fresh	frozen	fresh	frozen
Cold water soluble packaging	★	★	★	★	★	★	★
Hot water soluble packaging	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★
Recyclable packaging	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★
Home compostable packaging	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★
Sugar cane tray and lid	★	★	★★★★	★★★★	★★★★	★★★★	★★
Cardboard box	★	★	★★★★	★★★★	★★★★	★★★★	★★

**EVALUATION CRITERIA**

★ Quality of the bait visibly degrading after 1 week      ★★ Quality of the bait visibly degrading after 4 weeks      ★★★ Quality of the bait not visibly degrading after 8 weeks

ReefClean is funded by the Australian Government's Reef Trust and delivered by Tangaroa Blue Foundation in partnership with OceanWatch Australia







# MASTER FISHERMEN OF THE NEW SOUTH WALES MID NORTH COAST

Trained and assessed for ENVIRONMENTALLY SUSTAINABLE work practices

MASTERFISHERMEN.OCEANWATCH.ORG.AU



## SCAN



## THE QR CODE



## Learn more about your responsibly caught local seafood



### MEET MIKE CHEERS

Mike started fishing professionally in NSW in 1996. He is a proud OceanWatch Master Fisherman, recognised for his commitment to working responsibly when providing the community with local sustainable seafood from the Smiths, Myall and Wallis lakes.

## LEARN MORE—SCAN THE QR CODES OR VISIT THE WEBSITE

### MEET PAUL CHEERS

Paul is a professional fisherman who takes pride in providing top quality, sustainably caught local seafood for the community. Paul is endorsed in the NSW Estuary General Fishery and is a recognised OceanWatch Master Fisherman.



## LEARN HOW YOUR LOCAL SEAFOOD IS CAUGHT, SUSTAINABILITY, MASTER FISHERMEN TRAINING, RECIPES AND MORE

