

From: Tony Isaacson, DiveCareDare  
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Subject: Tony Isaacson-DiveCareDare: email submission for the The efficacy and regulation of shark mitigation and deterrent measures  
Date: Friday 3rd March 2017

Dear Committee Members,

DiveCareDare is a self funded marine education platform for Social Media, Mainstream Media, Community Organisations and relevant Government and Non-government entities. My time and limited resources give priority to initiatives that are supportive to a paradigm shift for human-shark interactions including:

#### Terms of Reference

The efficacy and regulation of shark mitigation and deterrent measures, with particular reference to:

- research into shark numbers, behaviour and habitat;
- the regulation of mitigation and deterrent measures under the Environment Protection and Biodiversity Conservation Act 1999, including exemptions from a controlled action under section 158;
- **the range of mitigation and deterrent measures currently in use;**
- **emerging mitigation and deterrent measures;**
- bycatch from mitigation and deterrent measures;
- **alternatives to currently employed mitigation and deterrent measures, including education;**
- **the impact of shark attacks on tourism and related industries; and**
- any other relevant matters.

My submission includes summaries of content for links to DiveCareDare posts on YouTube.

I rely on statistics and science based submissions from credible individuals and entities to address **Terms of Reference** that I have not highlighted nor addressed herein.

Please make the time or delegate others to view the video links.

I welcome correspondence and/or requests to contribute more than I have provided.

#### **EXECUTIVE SUMMARY:**

- 1 Shark Nets and Drum Lines are positioned to continue without trial or deployment of non-lethal measures for the Queensland Shark Control Program.
- 2 Sharks over 3 metres will continue to be dispatched in favour of capture, tag and release by contractors for the Queensland Shark Control Program.
- 3 Current shark control measures are not supportive of sustainable shark tourism that is an expanding, multi million dollar industry where a single, alpha shark can generate over \$5 million for a shark tourism charter plus flow on effects for regional economies.
- 4 Shark safety education, personal shark safety devices, non-lethal shark mitigation

measures and development of shark tourism initiatives should be supported by recommendations for the reduction and removal of shark nets and drum lines.

5 Engage experienced consultants to develop guidelines, policy and protocols for protection of all shark stocks in Australian waters, shark tourism and human-shark interactions focussed on behavioural protocols in favour of feeding wild shark populations.

6 No device nor measure can provide 100% safety from human-shark interaction. All initiatives contribute to a reduction of risk.

7 Shark mitigation and deterrent measures should acknowledge the sentient nature of sharks to eliminate suffering and deaths of target and non-target species.

• **the range of mitigation and deterrent measures currently in use [Queensland];**

In 2016 and 2017, DiveCareDare emailed Ministers responsible for the Queensland Shark Control Program to:

1 Facilitate a soft trial of Clever Buoy technologies in Queensland following trials at Bondi Beach, Hawks Nest [NSW], City Beach [WA] and Jeffreys Bay World Surfing League event [South Africa].

2 Provide contractors for the Shark Control Program with Richard Fitzpatrick's SHARK CLAW to induce tonic immobility for coordinated tag, release and tracking of large sharks for management based on data.

3 Detail non-lethal shark mitigation and deterrent measures that were being considered for trial and deployment in Queensland, 2017 and beyond.

Communications with Fisheries Queensland and the Minister have been problematic. Responses to email were consistent with comments made by Fisheries Queensland Minister, Bill Byrne on Channel 7 News, 28 February, 2017 [1:49 minutes]:  
On camera, Bill Byrne, Minister responsible for Queensland Shark Control Program stated:

"There is not the slightest prospect that Queensland will not continue with the [shark control] program in its current form"

>\$3.3 million for shark nets and drum lines:

<https://www.facebook.com/7NewsGoldCoast/videos/1190001321098554/>

Documents procured by Channel 7 show that Fisheries Queensland was advised:

"...sharks can and do encroach very close to popular swimming beaches."

"...current barriers [shark nets and drum lines] are not fail safe."

"...and the risk of an attack, fatal or otherwise, remains high."

Locations of Queensland Shark Control Program nets and drumlines:

• **emerging mitigation and deterrent measures;**

**Personal Shark Safety Devices**

**Electronic Shark Safety Test e-Shark FORCE**

<https://youtu.be/pkBgadAMh5U>

Published on Jan 2, 2017

Reference to: Shark Shield and real time vision of bull sharks responding to No Shark and e-Shark Force units

Baited, hand held broom handle with GoPro Camera records the approach of bulls sharks that are habituated to feeding at a cage dive pontoon, Big Game Club, Alice Town, North Bimini, Bahamas.

After 60 minutes the bait is in its original condition without a bump or exploratory bite. Observations captured on video were similar for No Shark and e-Shark Force. The first approach by a mature female bull shark was the closest at less than a half a metre before turning away. The same female was one of four bull sharks that cautiously approached the bait when the units were removed from the baited broom handle. Personal observation and experience suggests that she had a memory of the electrical pulse with the bait. The female bull shark modified her behaviour to cautiously investigate the original bait when she detected no electrical pulse. The bait was bumped and given exploratory bites by several sharks before it was taken from the broom handle in less than two minutes.

#### Conclusion

No Shark and e-Shark Force units were 100% successful in preventing bumps and bites by bull sharks on a bait that could be seen in clear water. More tests with repeat trials under different conditions with habituated and wild bull shark populations is recommended. Hammerhead sharks were supersensitive to electronic units. Hammerheads have not been responsible for a human fatality and they should not be listed as a target species for shark mitigation programs. White sharks like the one that interacted with Mick Fanning at J Bay [ <https://youtu.be/anhRxIQutZ8> ] and tiger sharks are more likely to turn away than continue with exploratory bumps or bites when surfers use a personal electronic device. At current levels of efficacy, personal electronic shark safety devices are positioned to save more lives than the shark net and drum line deployments in Australia and South Africa. Known shark incident hot spots and use of personal shark safety units during high risk periods at sunset, sunrise and storm affected conditions flags the importance of shark savvy and personal responsibility for the sake of regional economies like Ballina, NSW where preventable category 3 [shark bite] and category 4 [fatality] incidents have a profound affect on tourism and seasonal economies. Unit costs must come down through mass production driven by consumer demand. Access to purchase/hire units should be encouraged by entities responsible for human safety at patrolled and non patrolled water activities.

#### **Apex Harmony Bull Sharks**

<https://youtu.be/V7ePck8v9r8>

Published on Oct 21, 2016

"Bull Sharks at Twin Waters, Sunshine Coast, Queensland, Australia were posted on Social Media in December 2015 ahead of a number of stories on mainstream media.

This video picks up on the idea that these bull sharks could be captured, tagged and relocated to solve the problem.

Apex Harmony Bull Sharks is about knowing that bull sharks are coming and going while people play.

All the managed waterways and canals have bull sharks.

They coexist without incident and they will continue that way until someone does something to make headline news for all the wrong reasons.

Bull shark makes a mistake and bumps and bites a bulletproof human at sunset in zero visibility after flooding rains doesn't grab the same attention as SHARK ATTACK.

Learn to live with bull sharks and let live."

#### Conclusion

The enviable safety record of no shark related injuries or fatalities on the Sunshine Coast, Queensland supports multi-million dollar, event-based tourism and beach culture economy. Observations at water-based events with increasing populations of food species in recreational areas supports my prediction that a preventable human-shark incident will have a higher impact on the economy of the Sunshine Coast than shark related incidents that affected consecutive peak seasons at Ballina, NSW.

Public awareness through education, site specific signage, non-lethal shark mitigation measures and risk minimisation for water-based events should be actioned to avoid reactive culling and deployment

of more shark nets and drum lines after a preventable incident.

The technical manager responsible for Clever Buoy views Twin Waters and other locations on the Sunshine Coast as suitable for a soft trial to demonstrate the worth of sonar arrays to Queenslanders.

The summer of 2017/18 is a realistic time to trial and prove Clever Buoy technologies with interest from government and non-government stakeholders.

**• alternatives to currently employed mitigation and deterrent measures, including education;**

This video is inclusive of Clever Buoy, Shark Claw and many alternatives to shark nets and drum lines.

Tiger Shark Turtle Tourist Mudjimba Island Sunshine Coast

<https://youtu.be/BWfbVft-sYo>

Published on Oct 2, 2016

"Tiger sharks, turtles and tourists at Mudjimba Island, a conservation park for living things above high tide on the Sunshine Coast, Queensland, Australia.

What began as a video snapshot of an afternoon kayak and snorkel for Sunbird Holiday Stay's Airbnb guest, Geoff Cousens, became a response to mainstream media attention to SHARK ATTACKS, shark control, tourists and more.

Most of the videography was taken by DiveCareDare on the 28th September, 2016.

Content from The Bahamas and shark researcher, Richard Fitzpatrick are included to tell the story."

**Conclusion**

"Shark Attacks in Australia scare 14% of tourists" need not be a factual statistic to impact on tourism and water-based event economies like Sunshine Coast, Queensland.

Safe holiday destinations like the Sunshine Coast are rely on shark nets and drum lines that deliver a false sense of security for locals and tourists.

The turtle population at Mudjimba Island, Sunshine Coast has increased significantly since a long-lived alpha tiger shark was dispatched by contractors for the Queensland Shark Control Program, 11th January, 2013.

Large tiger sharks responding to the increasing turtle population were reported by local press, 24th September, 2016.

Since posting the video to YouTube there have been multiple sightings of a large tiger shark[s] at Mudjimba Island and moving between beach and shark nets/drum lines from Mudjimba Beach towards Noosa.

With the semi resident alpha shark taken out of the near shore ecosystem in 2013, sharks that have not been familiar with human behaviours at Mudjimba Island are increasing the risk of a human-shark interaction that will affect the reputation of destination: Sunshine Coast.

As an Airbnb host and guide for turtle spotting at Mudjimba Island, I take responsibility for shark safety while noting that almost nobody else does.

Neither shark nets nor drum lines are effective for the safety of beach goers at Mudjimba Beach nor surfers, snorkelers and divers who visit Mudjimba Island.

Queensland Shark Control Program should consider what non-lethal alternatives to shark nets and drum lines could minimise risk in favour of the Minister stating: "There is not the slightest prospect that Queensland will not continue with the [shark control] program in its current form" [Channel 7 News, 28 February, 2017].

**• the impact of shark attacks on tourism and related industries;**

Sentient Sharks tackles this Term of Reference from a different angle.

The DiveCareDare post is unlisted due to the potential for a copyright claim by a person who does not appear on camera.

This link can be viewed and shared privately.

It must not be posted for viewing by the general public via websites or social media.

To meet a deadline before close of business for these submissions, the link is pasted below without comment or conclusion additional to the unpublished blurb.

Uploaded 30th October, 2016.

"Sentient Sharks introduces Apex Predators as something different to the view that has drumlines and shark nets deployed to catch and kill mindless man-eating monsters around Australia. Long-lived sharks responding to love and affection in favour of food as a reward for interaction and physical contact."

Yours sincerely,  
Tony Isaacson  
Save Our Sharks,