NZ Dolphin Underwater & Adventure Club Newsletter November 2021

No Club Meeting: Wed 10th November 2021 - Club Rooms Closed L3.??

Guest speaker: Nil

www.dolphinunderwater.co.nz

Club's Mail Address:
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Okura
RD 2 Albany

Club Contacts
Phone numbers & emails
Committee listing inside

COMMITTEE MEMBERS: 2021/2022

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	Kate Ellis	0210 269 7997	kate65nz@orcon.net.nz
Entertainment	Allan Dixon	021 994 593	allanandjilldixon@xtra.co.nz

Life & Honorary Members

Barry Barnes – Life	Peter & Margaret Howard – Life	Brian Horton – Life
Reg Lawson - Life	Roberto Tonei – Life	Dave Quinlan – Life
Graham Thumah – Honorary	Tony & Jenny Enderby - Honorary	Eileen Slark – Honorary

Cover Page Photo:– Samoa 2010 by Denis

What's on our coming agenda?

10th November – Wednesday – Closed- No Dive Club Meeting – Club Rooms – Northcote Road Extension

Postponed - Saturday – 10.00am – 2.00pm Clubrooms – EMR Training session.

5th December – Sunday – 6pm – Christmas Meal – Browns Bays Club - Beach Front - Anzac Avenue Browns Bay – Delicious Smorgasbord at $28 a head – a magnificent feast. *(price to be confirmed closer to the time).* Drinks from the bar from 6pm – dinner at 6.30pm. I am also trying to arrange entertainment for this night, details later. Payment will be into the Club Account ANZ Bank 06 0122 0074227 00 as usual to secure your place. *(Keep payment at the moment until price is confirmed).* Please identify your payment and confirm with me as I will have to reserve seating. All welcome whether Members or not. Margaret 0274839839 or by email marg.howard@xtra.co.nz

Dive Trips Available

You will need to contact the shops

Upcoming Trips with Performance Dive NZ you may be interested in 2021 - Ph. 489 7782.

Upcoming Trips with Global Dive you may be interested in 2021 - Ph. 920 5200.

Contact shops directly to see what is available.Trips available have been limited due to Covid/weather/numbers etc

Cairns Live-a-board 22nd Sept 2022 from $4849pp .
Twin share Ex Auckland – 6 nights Coral Sea & Ribbon Reefs with Mike Ball Adventures 4 days diving with up to 18 dives. 1 night in Cairns, Air fares included ex Ak – with Kiwi Divers – 09 426 9834 or 021 1507 9547 or call Margaret for more details.

Other events & suggestions please contact a committee member or organise it yourself & get the club to make up your numbers. i.e. – Dives, trips NZ & O'Seas, Events, Outings, Tramps, Dinners, Movies, whatever social event tickles your fancy.

Our Club's Trip Rules (Organiser's rules apply for overseas trips)

A. Bookings allowed on all trips. ***Two trips & club membership is a must.***
B. **A deposit or full payment to be made at time of booking.**
C. Full payment MUST be paid at least two weeks before departure date.
D. Trip Organiser to handle trip & bookings, & Treasurer to handle finances. Cancellations due to weather will be refunded in full, or transferred to another trip.
E. Members cancelling for any reason will lose full monies unless they find a replacement for their position on the trip.
F The trips Organiser will determine if there are enough people to run a trip & if not will notify cancellation two weeks prior to departure. Non - financial members will be charged an extra $10 on trips.

Membership: Single – $40 Family - $50.00

For the club to servive we need paid up members see Margaret or Trish next meeting or do it online.

Club's Internet bank account is 06 0122 0074227 00 & don't forget to put in your name
Club Membership also includes Affiliation to the New Zealand Underwater Association

How do Aquatic Animals Get into Flooded Quarries?

In this edition of Ask a Marine Biologist, Dr. David Shiffman discusses how organisms get into isolated, human-made habitats.

By David Shiffman October 9, 2021
Animals big and small can be introduced either on purpose or by accident.

Shutterstock.com/Janik Rybickajpg

Question: How are manmade water holes initially populated with invertebrates? I'm thinking of the flooded quarries I've dived over the last 47 years that have isopods, freshwater jellyfish, and more. — Ann, Pennsylvania

Answer: Isn't it fascinating to think about how organisms can move into a new habitat that didn't used to exist? Flooded quarries are basically artificial lakes, so every reason why aquatic animals (including fishes) can live there. But how do they get there? How does an animal that needs to be in water to survive arrive in an area that wasn't filled with water until recently? How did, for example, a freshwater jellyfish native to China end up in quarries and lakes in at least 44 U.S. states?

There are a lot of mechanisms by which aquatic animals can disperse like this, colonizing new habitats. After all, animals had to get to even naturally-occurring lakes at some point in the past!

First of all, while there may be many miles of dry land between the surface of a quarry and the surface of the next closest body of water, there may be groundwater connections. (In many cases, groundwater is how the quarry got flooded to begin with!) In these situations, it'd be easy for invertebrates or small fishes to simply swim from a lake

or river to a nearby quarry. Similarly, a bad rainstorm can flood a lake, sending overflow water containing aquatic invertebrates to a flooded quarry.

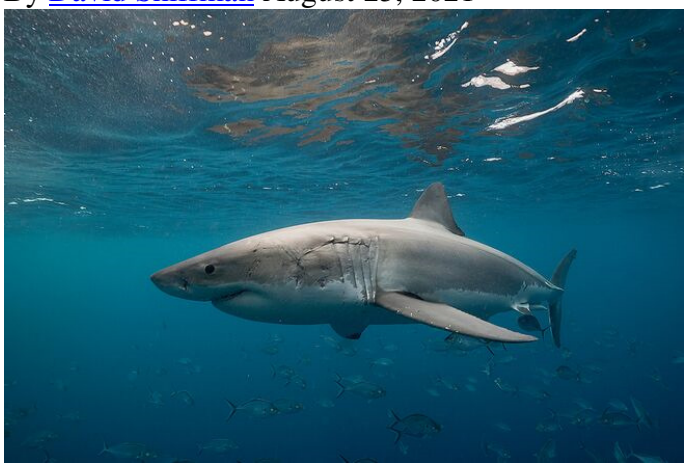
Some organisms lay eggs which stick to plants, or even to the feet of birds which fly from quarry to lake (though there's somewhat limited evidence of bird-based dispersal, at least for fish eggs. Fish are sometimes intentionally stocked to support recreational fishing.

And those freshwater jellies? When they're tiny polyps, they live on aquatic plants. When those plants are transported to a suitable body of water (by dispersal through underwater connections, by birds or other animals carrying them, or by humans) the jellies can start their free-swimming, or "medusa," stage. Humans who move from one body of water to the next can also bring aquatic life with them unintentionally, which is why it's important to clean, drain, and dry gear (including but not limited to boats, fishing gear, and dive gear) if you're moving from one body of water to the next. While this is absolutely evidence of the power and wonder of the natural world, we should also keep in mind that it means we need to be very, very careful about unintentionally spreading invasive species.

How Many Large, Undiscovered Species Are Still Out There?

Marine Biologist, Dr. David Shiffman answers a question about what's still lurking in the deep.

By David Shiffman August 25, 2021



We are far from knowing every large animal out there.

Shutterstock.com/wildestanimal

Question: What are the chances we'll discover new large, animals — say, larger than 2 meters — in the near future? – Jerre, Rotterdam

Answer: It's hard to put an exact number on this, but a taxonomist colleague I asked said "probably 100 percent."

Here's why it's so likely: There are new species being described constantly. There were 359 new species of fishes (including freshwater fishes) described in the year 2020, for example, as well as many ocean invertebrates.

Some of those are pretty small, however, and you asked about bigger animals. As I've noted in a past column, scientists describe a new species of shark, or related animal, about every two weeks. Sometimes these new species result from new research expeditions, while sometimes it's a case of scientists finally getting to analyze samples taken years or even decades ago. A new species of whale was described as recently as January. So there's still plenty of big stuff still out there!

I would like to note here why I'm using the term "described" instead of "discovered," which has become somewhat loaded in terms of equity, diversity and inclusion issues in the sciences. Discovered is often used to refer to a Western (usually white, usually male) scientist who traveled on a romanticized expedition to some "far-off exotic land," rarely noting that people live in those places and have known about that "new" species for millennia.

Think of CNN's coverage earlier this year of Jane Spilsbury's "discovery" of whales in Kenya. How did this London lawyer 'discover' the giant animals in these waters? By speaking with local fishermen, who told her: "Sure, we've seen them for 30 years."

So, generally, when I talk about "new species" I talk about species being newly described by Western science. (For more on this topic, read Asha de Vos's excellent article on the problems of colonial science).

How is it possible that there are so many undescribed species? There are two main reasons. First and foremost, the ocean is large and most of it is very difficult to access with scientific research equipment. Secondly, the process of

describing new species and how they fit into the existing tree of life, known as taxonomy, is complex and requires advanced technical training—and there aren't nearly enough taxonomists out there.

For what's probably obvious reasons, it's hard to know exactly how many species that haven't been described yet are out there, but estimates range from a lot (millions) to a whole lot (nearly a trillion). According to the World Register of Marine Species, scientists have described about 200,000 species of ocean animals so far, of which more than half are arthropods or mollusks. It's exciting to know that number will likely be much larger a decade from now!

Ask a Marine Biologist is a monthly column where Dr. David Shiffman answers your questions about the underwater world. Topics are chosen from reader-submitted queries as well as data from common internet searches. If you have a question you'd like answered in a future Ask a Marine Biologist column, or if you have a question about the answer given in this column, email Shiffman at WhySharksMatter@gmail.com with subject line "Ask a marine biologist."

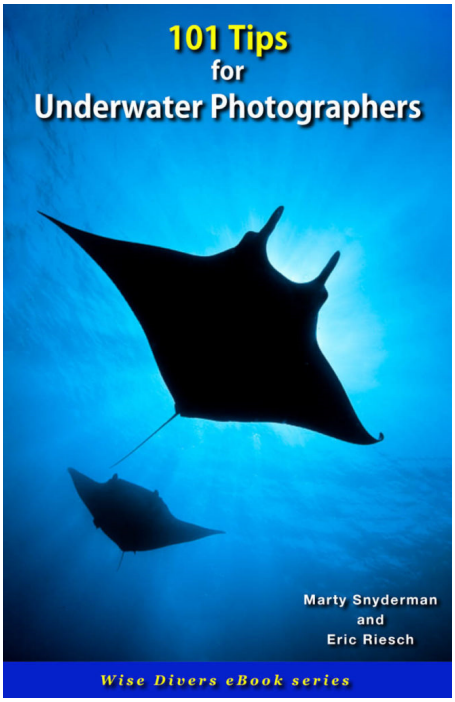
Dr. David Shiffman

Dr. David Shiffman is a marine conservation biologist specializing in the ecology and conservation of sharks. An award-winning public science educator, David has spoken to thousands of people around the world about marine biology and conservation and has bylines with the Washington Post, Scientific American, New Scientist, Gizmodo and more. Follow him on Twitter, Facebook and Instagram, where he's always happy to answer any questions about sharks.

The views expressed in these articles are those of David Shiffman.

101 Tips for Underwater Photographers now available

By Eric Riesch March 7, 2021



Announcing a new series of eBooks made by divers for divers. Presented in an easy to read, educational style, each eBook focuses on a specific diving-related activity or topics that will increase your knowledge and help you gain the most from your own underwater adventures.

- Valuable information for everyone from beginning underwater photographers to seasoned shooters
- Great refresher before any dive trip!
- Easy way to get your head "back in the game" if you have been out of the water for a while
- Introduction by Adam Hanlon, Editor of **wetpixel.com**

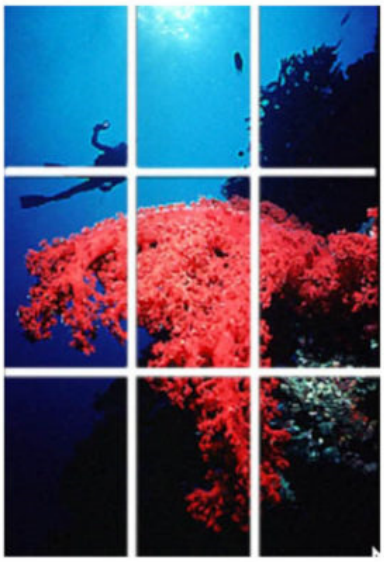
The first book in the Wise Divers eBook series, *101 Tips for Underwater Photographers* is written and photographed by long time, professional underwater photographer, Marty Snyderman, and designed and edited by Eric Riesch. The tips provide suggestions for underwater photographers of all experience levels and offer valuable reminders and guidance regarding a variety of concepts and techniques.

Illustrated with Marty's photography, the text is written in an easy going yet educational style. The tips cover a wide variety of topics ranging from pre-dive preparation, handling and care of equipment, the use of lighting and strobes, working with models, to post-capture processing. You will learn ways to create photographic opportunities, how to "get your shot", and how to handle camera equipment, both above and below water.

Preview available at Apple Books and Amazon

#40 *The "rule-of-thirds" should be regarded as a guideline to composition, not an absolute rule.*

The "guideline of thirds" suggests placing an imaginary overlay that looks like a tic-tac-toe board onto a frame you are composing. It recommends placing the more important elements at the junction where lines intersect. It is often helpful to consider this guideline, but it will not apply to every frame you compose.



Here is an example of a photograph in which the "guideline of thirds" served me well, as I placed the rhinophores and gill plumes of the nudibranch at the intersecting lines of an imaginary tic-tac-toe board.

But in this frame, showing the radiating arms of a crinoid, the guideline is not helpful.

This next article was very close to our patch & needs to be read by all. Editor

Student brought back from death after being submerged for 7.5mins

Hamish Jamieson, 25, spent 7mins, 29secs underwater before being rescued by lifeguards at Glenfield Pool and Leisure Centre in June last year. Photo: NZ Herald

A young man spent 7mins and 29secs underwater at an Auckland Council pool before being dragged unconscious from the water and brought back from the dead.

Canterbury University student Hamish Jamieson had been starved of oxygen and his heart had stopped until he received CPR and five electrical shocks from a defibrillator.

Now recovered and speaking exclusively to the Weekend Herald, he said he was grateful to be alive but struggling to comprehend how he survived.

"It just wasn't my time," Jamieson, 25, said.

"To know I was underwater for that long and in that state, I am amazed and incredibly thankful to still be here.

"I'm not sure what it is, but I'm still here for a reason."

It's thought Jamieson floated limp and unconscious for up to six minutes after passing out while holding his breath in an episode known as shallow water blackout.

An expert says Jamieson is fortunate to be alive and it's remarkable he didn't suffer a severe brain injury from lack of oxygen.

CCTV footage would later reveal two distracted lifeguards chatting to each other nearby as Jamieson drifted lifelessly at the bottom of the pool.

And though an investigation into the near-drowning revealed a series of failures by staff and management, Jamieson and his family were never alerted to the findings or even told how long he was submerged.

Jamieson nearly drowned at Glenfield Pool and Leisure Centre in June last year. It has never been reported.

Jamieson had been practising Wim Hof breathing - a meditative breathing technique to increase energy and improve cardiovascular fitness - when he submerged and lost consciousness.

He was unaware the breath-holding technique should not be practised underwater.

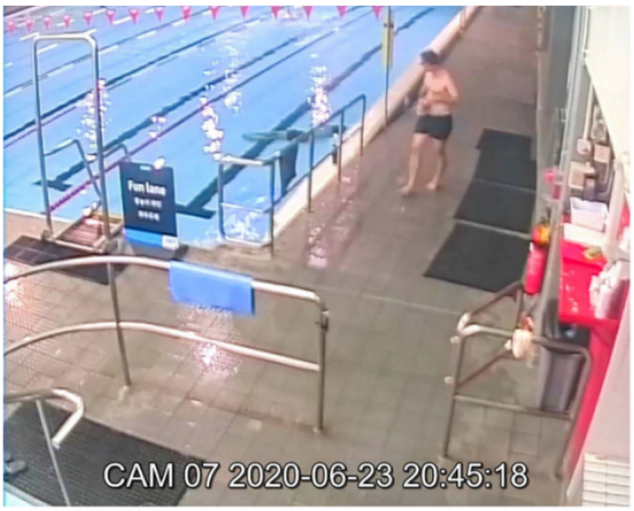
The Herald has fought for months through the Official Information Act for the release of a "confidential" Incident Investigation Report, which the Auckland Council commissioned after the near fatality.

The report, finally obtained last month after intervention from the Ombudsman, praises the emergency response, but reveals systemic safety issues that contributed to Jamieson nearly dying.

It says a concerned pool-goer alerted lifeguards when Jamieson had already been underwater for 5 minutes.

One of the lifeguards glanced in Jamieson's direction, but it took another 2.5 minutes before they realised he was drowning and a rescue commenced.

Jamieson was dragged from the pool and resuscitated by lifeguards and ambulance crew.



The final-year chemical and process engineering student spent the next six weeks in hospital, including 19 days in an induced coma on a life support machine in ICU.

He developed pneumonia, blood clots and a lung bleed. His parents held vigil while he fought for his life.

"No one really expected me to survive under the circumstances. My heart actually stopped. It's pretty scary.

"I remember sitting at the bottom of the pool and then a flash, opening my eyes underwater before blacking out with my lungs full of water."

Security camera image of a customer looking at Hamish Jamieson as he lay unconscious at the bottom of Glenfield Pool. Photo: Supplied via NZ Herald

He came to in hospital weeks later in a confused series of "very dark and twisted hallucinations" because he was heavily medicated.

Tubes had been inserted into his body and he was hooked up to a machine that kept him alive.

He lost 20kg, required blood transfusions and had to learn how to walk again because of severe muscle atrophy.

And despite suffering short-term physical effects and missing a year at university, incredibly, Jamieson has now made a full recovery, resuming his studies six weeks ago.

Speaking from his Christchurch flat, he stressed he held no animosity towards the lifeguards who hadn't notice him unconscious in the pool.

He had met them in person to thank them for saving his life.

"I'm so grateful for their efforts. I couldn't ask for a better outcome. I'm still here and I have no long-term injuries."

He also extended his gratitude to the concerned public, emergency responders, medical staff at Auckland and North Shore hospitals, "and everyone who was involved in my rehabilitation including friends and family".

"To say I'm incredibly grateful is an understatement."

While amazed that he had survived 7.5 minutes underwater, he believed his health and fitness at the time contributed to him being alive.

As to failures identified in the report, Jamieson said he didn't want to blame anyone as the problems were "systemic".

"I'm not out to discredit anyone because of this report surfacing. That's not my goal.

"They did everything they could. There might have been problems and unfortunately sometimes incidents are what drives change.

"It looks like they've implemented corrective actions and that's how the world moves forward. I just hope those changes prevent this happening to someone else."

He said he was never interviewed for the report and had no idea why the council did not inform him of the findings, which he learned from the Weekend Herald.

Jamieson said his ordeal had not deterred him from swimming. He had even returned to the pool where he nearly died.

"They looked at me funny and said, 'Are you the guy'? I said, 'Don't worry, I'm not going to do it again'."

He wanted his experience to serve as a warning to others about the dangers of holding your breath underwater for lengthy periods.

Confidential

The November 30 report is marked "confidential and the property of Auckland Council".

The near-drowning happened just before 9pm on June 23 last year. The pool was nearly empty, which may have made the lifeguards complacent.

CCTV footage showed Jamieson practise underwater breath-holding in the main pool three times in close succession.

After submerging for the third time, he remained in a stable position underwater before he "became limp" after 2mins, 16secs, when his "outstretched body commenced to drift".

The two lifeguards spent nearly 11 minutes talking to each other at a lifeguard station before realising Jamieson was in trouble and rescuing him.

"This behaviour distracted the lifeguards from carrying out effective scanning and supervision of the pool," the report says.

"Their lowered self-discipline to focus on the task at hand and recognise the distraction are factors that likely contributed to [Jamieson] not being seen underwater."

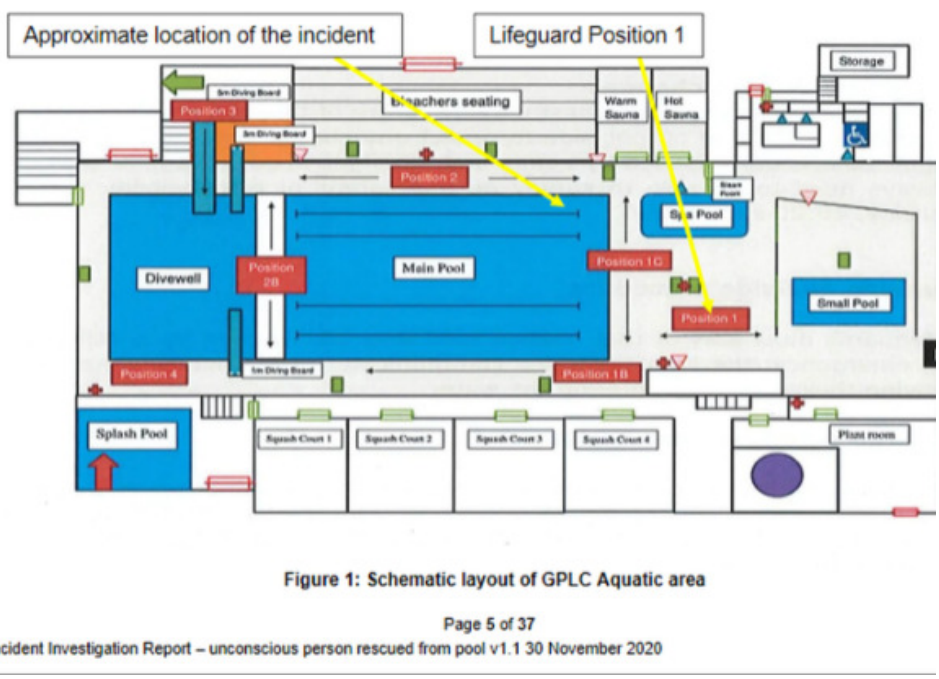


Figure 1: Schematic layout of GPLC Aquatic area

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Incident Investigation Report – unconscious person rescued from pool v1.1 30 November 2020

Schematic layout of Glenfield Pool and Leisure Centre, showing the approximate locations of both the incident and lifeguard station.

Image: Supplied via RNZ

Although the report described the emergency response as "admirable and worthy of high praise", it also listed 12 underlying causes that contributed to Jamieson's experience.

They included:

• Lifeguard distraction and failure to recognise the unfolding emergency.
• Budget constraints delayed managers purchasing a taller lifeguard chair that could enable proper visual scanning of the pool.
• A lifeguard shortage put pressure on staff to fill extra shifts.
• Inadequate lifeguard supervision, with lifeguards overseen by the centre manager who had no aquatic expertise.
• In-house safety protocols not properly followed by staff and management.
• An absence of "robust risk management" to ensure the minimisation or elimination of health and safety risks.

The report found management had not provided effective oversight of safety management at the pool.

"There were a number of precursors that led to this incident, but the signs had not been spotted.

"Collectively, there were missed opportunities to improve safety outcomes that may have prevented this incident."

The report made 23 recommendations to improve safety, including "informing and instructing lifeguards of 'shallow water blackout' and the dangers of breath holding".

'Difficult for lifeguards to monitor'

Auckland Council head of active recreation Dave Stewart said Jamieson had been holding his breath underwater and appeared to have blacked out because of lack of oxygen.

It highlights a practice that lifeguards and public pool providers were increasingly concerned about.

"Shallow water blackout, which can happen when a swimmer faints in the water after repeatedly holding their breath for a long time, is dangerous for the swimmer and difficult for lifeguards to monitor.

"The actions of the lifeguard team resulted in a full recovery for the individual, however it was a harrowing experience for everyone involved."

Stewart said the council carried out a full investigation, interviewing staff and customers, reviewing CCTV footage and speaking informally to the victim.

The investigation was not about "apportioning blame" but aimed to identify "operational improvements" to mitigate further risk.

"As a result, we've made some adjustments to the way we do things at our sites and are also talking with our teams about the increasing popularity of breath-holding techniques in the pool."

Other improvements including better poolside procedures relating to lifeguard positioning and patrols, and standardising "concentration break" times away from direct observation duties.

Stewart acknowledged the council should have updated Jamieson on the investigation findings, "particularly the improvements we made as a result".

"We're really glad that the person involved recovered from their experience and we hope that this is a reminder to other pool users to think carefully before putting their lives in danger."

'Time is critical'

Jamieson, who was 24 at the time, was likely saved by his age and the quality of resuscitation by professional lifeguards, an expert says.

"It's pretty remarkable," said Auckland University School of Medicine Professor of Anaesthesiology Simon Mitchell. "That's pretty rare."

Mitchell said the main danger from spending that long underwater and unconscious was hypoxia (lack of oxygen in the blood) causing a brain injury. The longer the person went without oxygen, the more likely and severe a brain injury would be.

‘Time is critical - probably the most critical thing. Another potential consequence was heart failure leading to cardiac arrest, and drowning. Seven and a half minutes puts him in a bracket that's fairly high risk of a bad outcome. But his good outcome is not a world first."

Mitchell was aware of cases overseas in which people had survived up to 30 minutes submerged without oxygen, but they tended to be young children "rescued from very cold water".

Jamieson was probably still here because he was rescued by trained lifeguards with the right equipment, Mitchell said.

"He's in the zone, which is high risk for a bad outcome. But he's young, he's had good resuscitation by professionals who knew what they were doing. He certainly had a few things going for him."

Mitchell said that if Jamieson had been hyperventilating before holding his breath,that would slightly increase oxygen levels in his blood.

But it also lowered the levels of carbon dioxide, which created increased risk of blackouts by making it easier for someone to hold their breath for a long time. NZ Herald

Stay Safe All - Remember the rules & where you are in NZ, they vary, in particular when it comes to your catch limits.

PS: Anyone got a recent dive report/story to tell? Please forward to me. Denis