


Marine Stinger Management Newsletter

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SURF LIFE SAVING™

The life of the beach.

AMPTO

Association of Marine Park Tourism Operators

Stinger season is not yet over!

The last few months have been full-on, with an early and wide-spread start to stinger season, the tragic fatality due to a box jellyfish sting in January, 72 Irukandji hospitalisations confirmed for the season, including 9 in early April, and an intensive schedule of workshops, meetings, seminars, and school talks. I am pleased that communities throughout northern Queensland are taking stinger safety very seriously, as reflected in the growing interest in information about stingers and how to prevent being stung.

With the season starting to wind down, this is a good opportunity to remind ourselves that stinger season is not yet over, so we need to not become complacent about stinger risks. This is also an excellent opportunity to begin planning what we can do to approach next season with more awareness and control.

We at Surf Life Saving and AMPTO will be busy throughout the coming months, developing ideas and methods to reduce the number of onshore and offshore stings. We will be holding more brain-storming workshops in each region, and hope that many of you will be able to attend and share your good ideas about how we can work together for mutual benefit to successfully manage marine stingers.

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Mark the Date: Calendar

16 May: Irukandji Task Force Prevention & Response Working Group meeting: To make a submission, contact Marine Stinger Coordinator 0438 105 358 or lisa.gershwin@jcu.edu.au

Seminars and Workshops are being planned for all locations and all management sectors; if you or your organisation would like to arrange a specific public or private session, please contact the Marine Stinger Coordinator, Dr. Lisa-ann Gershwin 0438 105 358

Did you Know...

Irukandji jellyfishes aren't the only ones that give Irukandji syndrome: also reported from at least one species of blue bottle, a large blubber from Japan, and an inconspicuous hydromedusa known only from northern Japan and Russia.

Focus on Research

A large number of marine stinger researchers are currently working on effective techniques for prediction, prevention, and treatment of marine stings. Each month, we will showcase a particular researcher, research group, or research innovation, in order to keep stakeholders informed of some of the exciting things being done behind the scenes.

Current State of Knowledge on Jellyfish Antivenom

An antivenom for Irukandji syndrome has been a hot topic in the media over the last few years, and many questions arise about the *Chironex* (box jellyfish) antivenom.

WHAT ANTIVENOMS CURRENTLY EXIST?
Currently, we only have antivenom for *Chironex* (box jellyfish). Two research groups are actively working on developing an Irukandji antivenom, Prof. Burnell's lab at James Cook University in Townsville and the Australian Venom Research Unit in Melbourne.

HOW DOES ANTIVENOM WORK?
According to Dr. Ken Winkel, Director of the Australian Venom Research Unit, antivenoms act as 'molecular sponges' by 'mopping up' venom toxins, allowing the body to accelerate elimination of the venom. The binding of the toxins also prevents them doing their dastardly deeds by blocking the 'active site' on the toxin.

HOW EFFECTIVE IS ANTIVENOM?
The effectiveness of box jellyfish antivenom is controversial. The average time to administration of the antivenom is 14-17 minutes, whereas the average time to death from severe stingings is 3-5 minutes. Thus, whether it works or not is difficult to evaluate.

WHEN WILL THERE BE AN IRUKANDJI ANTIVENOM?
The biggest limitation we currently have to expediting an antivenom is supply of specimens. While the media might make it sound like Irukandjis are "taking over the world", it is just not the case; specifically, Irukandji are rare.

WHAT IS THE TREATMENT WITHOUT ANTIVENOM?
First and foremost, maintain airway, breathing, and circulation. Further treatment is based on relieving the symptoms. In the case of box jellyfish, this includes treating the pain, inflammation, shock, and scarring, which is similar to severe burns. For Irukandji, treatment involves primarily pain relief and reducing nausea and vomiting; anti-anxiety medications are often used, and keeping blood pressure under control is a top priority.

Drop us a line and tell us what you'd like to hear more about!

Plea for information from people stung by Irukandji

In the past few years, numerous people have come forward with stories about ongoing problems following cases of diagnosed Irukandji syndrome. While such complications appear to be rare, it is unclear to what extent these various symptoms are or are not associated with Irukandji syndrome; it is hoped that the long term effects will become clearer by follow-up interviews as part of treatment in the coming years.

Dr. Michael Corkeron at Townsville General Hospital is currently working on answering this question of long term effects, and is interested in speaking with people who have had diagnosed cases of Irukandji syndrome and have had ongoing symptoms. Please contact the Marine Stinger Coordinator (Dr. Lisa-ann Gershwin, phone: 0438 105 358; email: lisa.gershwin@jcu.edu.au) if you have been stung and are interested in helping research.

Helpful information will include:

- Date and location of sting
- Details of the sting and symptoms that followed
- Where treated and details of treatment
- Details of any recurring symptoms: what sorts, how often, duration, intensity

Palm Island Story

I am going to tell this story in the first person, since it was a very personal experience for me. I was invited recently to Palm Island to speak to the schools and health/emergency professionals about stinger safety. What I found was a community hungry for information: how to protect from stingers, what do they look like, how do they reproduce, where do they live, etc. The kids had an endless supply of good questions and emotive stories. The thing that struck me the most was that our standard safety messages (swim between the red and yellow flags; do not enter the water when the beach is closed; wear a full-body lycra suit) are unrealistic for these kids, and stings continue to occur. It's not just Palm Island, there are a lot of remote communities across northern Australia that have stinger problems.

Mr Ian and Mr Billy, my Queensland Ambulance Service hosts on Palm Island, had already concerned themselves with ways to better inform remote communities about stinger issues, parallel to initiatives recently brought forth at SLSA's National Board of Life Saving meeting. We have identified the need to hasten the development of specific stinger outreach programs and resources for remote communities, and hope to work closely with Department of Emergency Services to further this issue.

What's coming in Future Issues?

In upcoming issues, we will look at topics including

- What effect will global warming have on jellyfish problems?
- Where do box jellyfishes and Irukandjis go in the winter?
- What's all the buzz about magnesium?
- Why are box jellyfishes and Irukandji so toxic to humans?
- Current debates on treatment options: hot water or cold packs?

Did you Know...

A strange little jellyfish named *Carybdea sivickisi*…

A distant relative to *Chironex* and Irukandjis, only about 8mm tall on a good day. Common in QLD, Tas, SA, and overseas. The initial sting is sharp, producing pain, itching, and often a blister. Interestingly, these symptoms recur periodically (similar to herpes) – "honest, honey, it's just a jellyfish!"

Males of this species perform a complex courtship behaviour, which was recently reported in a really interesting paper (Lewis, C. & Long, T. 2005. Courtship and reproduction in *Carybdea sivickisi* (Cnidaria: Cubozoa). *Marine Biology* **147**(2): 477-483).

Carybdea sivickisi, photo courtesy of Bill Hamner

Where to get more information

Emergency sting information ……..…'000'
Reports of stings or specimens ……..... 24/7: 0438 105 358
General safety information …… SLSQ (07) 3846 8000
General jellyfish information …….. SLSQ (07) 3846 8000
Media enquiries ……... SLSQ (07) 3846 8044
Signage enquiries …….. SLSQ (07) 3846 8020
Requests for brochures, posters, etc …….. SLSQ (07) 3846 8000
Requests for speaking engagements ……..… Coord. 0438 105 358
Research info or project ideas ……..…… Coord. 0438 105 358
Contributions to newsletter …… lisa.gershwin@jcu.edu.au
Add to mailing list …… lisa.gershwin@jcu.edu.au
http://www.reef.crc.org.au/publications/brochures/Moreinformation.htm
http://www.marinestingers.com.au/marinestingers/default.htm

If stung:

- Call for help **(dial '000' or send someone for a lifeguard)**
- Treat the victim **(Provide emergency care - CPR if necessary)**
- Treat the sting **(flood with vinegar)**
- Seek medical assistance