



# Marine Stinger Management Newsletter

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The life of the beach.



# Marine Stinger Management Newsletter

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## It's an interesting year!

As of the writing of this newsletter (late January), the anticipated onshore Christmas / New Years Irukandji bloom which some had predicted never eventuated – this is GREAT news! However, there has continued to be a steady flow of scattered stings. We have recorded 55 Irukandji stings for the season so far.

It is important for people to not get complacent. We may see a February or March increase in stinger activity, as we sometimes do both onshore and offshore. The weather patterns this year have been unusual, to say the least, and we do not yet know exactly what role these sorts of environmental anomalies play in stinger distribution patterns.

February promises to bring an intensive schedule of information sessions and workshops, in trying to assist different organizations and regions in managing their marine stinger risks. The focus of these programs is prevention: rather than a negative message, “stingers are a problem”, we are employing a positive message, “here’s how we can protect ourselves”. The vinegar-based SLSQ-QAS awareness campaign I mentioned in the last newsletter is progressing ahead with much vigour; we are asking people, “when you go to the beach, keep vinegar within reach” – hoping that in the act of remembering to take the vinegar, we are already thinking pro-actively about stinger safety and making safer choices.

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### Mark the Date: Calendar

Stinger Information Lectures and Workshops are scheduled for the following regions:

- 6-9 February: Cardwell, Tully, Mission Beach, Silkwood
- 13-14 February: Palm Island
- 15-17 February: Emu Park, Yeppoon, Great Keppel Isl.

For more information, or to request Information sessions in your region, contact the Marine Stinger Coordinator 0438 105 358 or [lisa.gershwin@jcu.edu.au](mailto:lisa.gershwin@jcu.edu.au)

### Did you know...

Box jellyfishes have been around for over 300 million years!! Fossil box jellyfish have been found in Illinois quarries from the ‘Pennsylvanian period’, and they look nearly identical to modern species!



## Resources for coastal concerns

**Many tools for stinger management are currently available for coastal interests – please tell us how we can help you develop more targeted products:**

**Posters & brochures:** A variety of printed resources are in distribution, aimed at raising awareness and providing basic safety information; most of these are most useful in coastal regions where stinger nets and lifeguards are used. Two old posters have been requested so many times lately that they are now being revised and reprinted! Additional resources are being developed specifically for areas without lifeguard services or stinger nets.

**Electronic resources:** A 15-minute DVD produced a couple of years ago is being reviewed and reprinted, and will hopefully be widely available soon. It is currently available at most public libraries and has been distributed to many operators.

**Seminars & workshops:** We have had an intensive program of seminars, workshops, and meetings targeted toward improving the flow of information among various organizations, including tourism operators, Queensland Ambulance Service, local hospitals and medical centres, and Surf Life Saving. Let us know if you would like us to come talk to your organization or region about stinger safety.

## Resources for reef or island concerns

**Some tools are currently available for reef and island stinger management, but please help us help you by telling us what you need:**

**Posters & brochures:** We are currently developing printed information tools specifically targeted toward the needs of reef and island stinger management.

**Other resources:** A script has been proposed for use during orientation, that puts the jellyfish problem in perspective compared to UV exposure, and suggests the use of lycra suits to manage both risks. By reducing the use of oils and other chemicals, which may harm delicate corals, this approach is also eco-friendly! Contact us for more information.

**Seminars & workshops:** One of the most powerful tools that we have available for marine stinger management is the ability to share information. Much of our focus to date has been on coastal stinger management, but many of the things we have learned can be applied to effective offshore management as well. Please ask us to come visit your organization, and together we will develop ways to manage stinger risks in a balanced way.



## 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 IQ*

By now, many people may have heard that jellyfish do not have a brain, but that they can see and will sometimes avoid you if they can – but how does that work? And what does that mean in terms of public safety?

#### **CAN THEY REALLY SEE?**

Box jellyfish and Irukandjis have well developed eyes with lenses, retinas, and corneas, strikingly similar to our own eyes. Laboratory experiments suggest that these eyes are capable of forming images, and other experiments indicate that they do actually see and respond to these images. For example, they will avoid objects in aquaria if the current is gentle enough to allow them to manoeuvre.



Box jellyfish eye

#### **WHAT DO YOU MEAN THEY HAVE NO BRAIN?**

All jellyfish are members of a very primitive group of animals, along with corals and hydras, that evolved prior to the earliest “brain-bearing” animals. Jellyfishes don’t have a central nervous system, but rather, more of a primitive neural network with four ganglia.

#### **SO, HOW DO THEY LIVE WITHOUT A BRAIN?**

While a brain is certainly handy to have, it is not essential for survival. Plants do not have brains, and yet Venus fly traps catch a lot of flies, which do have brains.

#### **WHAT DOES THIS MEAN IN TERMS OF PUBLIC SAFETY?**

Some people think they can outsmart a jellyfish into not stinging, either by pretending to be a predator, or by exuding loving thoughts, or by wearing oily skin products. These are risky behaviours. In a nutshell, relying on a primitive animal with an IQ probably equal to that of a house-plant to make the decision we need it to make so that we don’t get stung, could be problematical. A much more sensible approach is to use our own brains to take reasonable precautions, like wearing barrier-type clothing (e.g., lycra), and to take responsibility for our own safety, rather than trusting a jellyfish to do the right thing.

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



## Renovations to the Web Site [www.marinestingers.com](http://www.marinestingers.com)

The marine stinger website is getting a face-lift! Many of you have already requested to be on the review list (Thank you!), and will be receiving a draft soon. Currently, we are making the site more user-friendly and plan to include the following features and a whole lot more:

- Specific sections dedicated to the needs of different interest groups, such as
  - Tourism Operators
  - Local Councils
  - Health and Emergency personnel
  - Researchers
- Fact sheets on different types of stingers
- Freely downloadable past issues of this Newsletter
- Freely downloadable posters and brochures
- An online catalogue to the various resources available and how to obtain them
- Helpful tools such as answers to FAQ and scripts for operators
- Tick & flick sheets for hospitals and ambos for standardized data collection
- Maps of the world's sting statistics to give a balanced perspective
- Downloadable flow-charts for treatment and sting identification
- Identification charts for box jellyfish and Irukandjis
- Downloadable PDF's of important publications relating to stinger management

### **What are your needs? How can we can help you?**

We eagerly welcome your suggestions of what information and resources would improve your ability to manage marine stingers!

Some additional suggestions that have come from the workshops include:

- Private real-time warning when and where stings are occurring, e.g., SMS
- Posters for dorm-room doors at backpackers
- Information pamphlets or booklets for hotel-room tables
- Stinger information on airplanes, taxi cabs, cruise ships, and other forms of arrival
- Field guide to jellyfishes, to put Irukandjis and box jellyfish into perspective
- Information on how to protect from stings rather than just about awareness
- Easy access to facts and figures
- Sting statistics broken down by region
- A '1800 number' or '1300 number' for stinger information



## What's coming in Future Issues?

In upcoming issues, we will look at topics including

- How is an antivenom developed? And when will we have one?
- Can Irukandji syndrome have any long-term effects?
- How come stingers weren't a problem until a few years ago?
- Definitive statement on first aid treatment (by the QLD Gov't Irukandji Task Force)

### Did you know...

Jellyfish stinging cells are amazing little things! These microscopic structures are inanimate, i.e. they are not alive, and thus, they do not die – they can sting long after the jellyfish has died or the tentacles have detached.

They commonly discharge by a hair-trigger mechanism, similar to a land-mine, making it very difficult to fool them into not firing.

They are the fastest structural motion known in the biological world: they discharge at 40,000 times the force of gravity!!!



### 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  
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<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