



SLSQ Procedure

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Purpose

The purpose of this procedure is to outline requirements for Lifesavers and Lifeguards when working in environments where the presence of marine stingers may result in serious injury or death.

This procedure aims to:

- help identify existing and potential health and safety issues related to interactions with marine stingers, in particular deadly Box Jellyfish (*Chironex Fleckeri*), and Irukandji (*Carukia Barnesi*)
- raise awareness on mitigating hazards and risks associated with working in environments where marine stingers may be present
- identify types of personal protective equipment (PPE) that reduce the risk
- understand the controls required to reduce the risk of dangerous Marine Stings
- outline methods for treating marine stings.

Scope

This document applies to all Lifesaver and Lifeguards north of Bustard Heads

Definitions

Bio-Catch: Baitfish, Button Jellies, Comb Jellies, Salps, Shrimp (Acetes)

First Aid: initial treatment for an injury which is normally given by a first aid officer or lifesaver/lifeguard.

Hazard: an object or situation that has the potential to harm a person, the environment or cause damage to property.

Incident: any unplanned event resulting in, or having a potential for injury, ill health, damage or other loss.

Injury: any physical or mental damage to the body caused by exposure to a hazard.

Marine Stinger: includes all types of jellyfish, especially those causing severe and possibly life-threatening symptoms.

Marine Stinger Drag: a marine sample of the water at a point in time, using the Irukandji drag net or the Box Jellyfish drag net.

Near miss: an incident that could have resulted in an injury or illness to people, danger to health, and/ or damage to property or the environment.

Notifiable incident: an incident for which you are legally required to notify Queensland Workplace Health and Safety. An incident is notifiable if it arises out the conduct of a business or undertaking and results in death, serious injury or serious illness of a person or involves: a dangerous incident, a sting by a dangerous marine creature (Box Jellyfish / Irukandji)

PPE: Personal Protective Equipment

Risk: is the likelihood and consequence of the occurrence of injury, illness and harm.

Stinger Season: November to May is when they are most prevalent, however this does not preclude the presence of marine stingers in other months of the year.

Stinger Suit:

- Full-body Neoprene suit (1-3mm) - used for marine stinger drags or stinger swimming enclosure net checks
- Lycra full-body suit with a suitable weave (covers 75% of the body's skin, mesh size of no greater than 200 microns or 0.2mm or a tight weave)- rescue ready on patrol or any lifesaving activity – Per WHSQ, "Recreation diving, recreational technical diving and snorkelling code of practice 2018," (8 February 2018) section 6.5, p 41



Stinger Swimming Enclosure (Net): A physical barrier designed to prevent interactions between dangerous marine creatures (Box Jellyfish) and swimmers.

Treatment: medical treatment by a registered medical practitioner, paramedic or registered nurse practitioner.

POM: Patrol Operations Manual

Table of Contents

1. Assessing the Risk
2. Control Measures
3. Reporting Procedures
4. Safety Equipment and PPE Requirements
5. Marine Stinger Drag Procedures
6. Rescue/First Aid
7. Marine Stinger Specimen Storage and Disposal
8. Consequence of Breach

Background

It is recognised that not all marine stingers are dangerous.

Fatal stings have been attributed to two species: The Box Jellyfish (*Chironex Fleckeri*), and Irukandji Jellyfish (*Carukia Barnesi*), in tropical Queensland and Northern Australia waters. It is acknowledged that not all marine stings from Box Jellyfish and Irukandji are fatal.

Warning

Lifeguards and Lifesavers involved in the management of beach and coastal aquatic activity **MUST** be in general good health, SRC and/ or Bronze Proficient and be 15 years or older.

An envenomation from certain types of marine stinger can exacerbate an underlying health condition with potentially **FATAL** consequences. Individuals with pre-existing cardiac or circulatory conditions **MUST** take extreme caution and great care not to expose themselves to the risk of a sting.

Types of conditions that might be exacerbated by a sting include the following (but not limited to):

- Cardiac and circulatory system:
 - high blood pressure (hypertension)
 - history of heart attack(s)
 - history of heart damage
 - history of stroke.
- Breathing difficulties:
 - asthma.

1.0 Assessing the Risk

An important part of developing an understanding of the hazard stingers pose is to assess the level of risk through an assessment of the factors present on the day. Assigning a value to known and observed conditions (factors) enables a risk rating to be objectively developed so that appropriate controls can be implemented.

SLSQ's Corporate risk appetite specifically indicates that high and critical risks are unacceptable and must be mitigated to as low as reasonably practicable. Where they are unable to be reduced, the Board must not only approve high risk activities but the mitigation controls in place to protect your health and safety. In general, there are very few service provision activities where a high or critical risk is acceptable.

The *SLSQ Marine Stinger Risk Assessment* **MUST** be complete prior to commencement of a patrol service, carnivals, training and any Life Saving activity; as well as at the turn of tides and if the environment conditions change. This risk assessment reflects the above principles regarding SLSQ's risk appetite and seeks to ensure we identify the likelihood of marine stingers so that it does not impact on your health and safety. The risk assessment directs the actions to be taken according to the measured level of risk.

Where the risk rating is low to moderate aquatic activities are permitted to be undertaken with specific mitigation controls in place. If the risk rating is high increased control measures are in place. If the risk rating is critical no aquatic activity is permitted and there are instructions on how and when aquatic activities can resume.

[Click Here to Complete Marine Stinger Risk Assessment](#)

2.0 Control Measure

The Following control measures outline what procedures clubs must follow when the risk assessment has been completed:

[Click Here to See the Control Measures for Marine Stingers](#)

Ensure patrol members actively approach and engage with beach patrons who try to enter the water and advise them of the risk of Marine Stingers in the water and that a SLSQ recommends a full body lycra/neoprene suit that covers 75% of the body's skin surface

Beach Closure/ Surveillance

In the hierarchy of control eliminating a hazard is the most effective method is to control risk. After completing the SLSQ *Marine Stinger Risk Assessment Form* if a beach closure is required for a sting or sighting you **MUST** close the beach as per the POM.



Beach Closed Signage



Signage outside the Stinger Swimming Enclosure

Note: For a 24-hour beach closure, the following signage is to remain on the beach (above the high-water mark),

- No Swimming Sign, Red Flag and Marine Stinger (MS) diamond
- Spike board with Critical risk rating, MS Diamond and red flag

A risk assessment and the signage will be updated at next Lifesaver/Lifeguard service.

The yellow marine stinger sign to be placed as per attached diagram. [Click Here](#)

Procedure for Patrols with Stinger Swimming Enclosures

November - May

Stinger swimming enclosures aim to prevent contact with the more dangerous Box Jellyfish, nets are however not effective against the smaller Irukandji jellyfish.

While the nets offer a degree of protection, however Lifesavers/ Lifeguards in Tropical Queensland have an important role to play in monitoring the efficiency of the nets, as well as providing community education and emergency care.

- Sign onto patrol and set the status as *Conducting Stinger Drag*
- Full PPE (as per section 4) is required when:
 - Conducting the Irukandji stinger drag inside the stinger swimming enclosure
 - Conducting the Box Jellyfish stinger drag inside and outside of stinger swimming enclosure
 - Inspecting the stinger swimming enclosure on a rescue board:
 - Check the Boom is fully inflated
 - No visible holes are in the net
 - Remove any debris inside and surrounding the netted area
 - Check if the waves breaking over the boom, if so the enclosure is compromised
- Complete the SLSQ *Marine Stinger Risk Assessment*
- Beach status is determined by the SLSQ *Marine Stinger Risk Assessment*

Report any breaches, compromise or damage to the stinger swimming enclosure to the Lifeguard/Lifesaving Supervisor who will contact Uninet for repairs to the stinger swimming enclosure.

Stinger swimming enclosure nets are moved according to the tides by authorised personnel who have been trained by UNINET

If the Stinger swimming enclosure is removed during stinger season (November-May) Beach Status is determined by the *SLSQ Marine Stinger Risk Assessment*

Procedures for Patrols without Stinger Swimming Enclosures

November – May

- Sign onto patrol and set the status as *Conducting Stinger Drag*
- Full PPE (as per section 4) is required when:
 - Conducting the Irukandji stinger drag in between the flags
 - Conducting the Box Jellyfish stinger drag in between the flags and either side of the flags
- Complete the *SLSQ Marine Stinger Risk Assessment*
- Beach status is determined by the *SLSQ Marine Stinger Risk Assessment*

3.0 Reporting Procedures

It is an essential part of our safety management system that we accurately record data about events. It enables SLSQ to analysis this data to identify potential trends and patterns and also to guide continuous improvement in the way we provide our patrol services and review treatment that is administered.

The following records **MUST** be maintained:

- All marine stingers caught in net drags, marine stings and stinger drags be recorded in LIMSOC.
- If LIMSOC is unavailable, sightings and stings to be reported to SURFCOM
- If an injury occurs complete the Incident Report Log.
- *SLSQ Marine Stinger Risk Assessments* are to be completed and submitted at start of patrol, turn of tides and at the change of environmental conditions.

Lifeguard Supervisor/ Lifesaving Services Supervisor / Regional Managers and the Director of Lifesaving receive notification by text on incident occurrences.

Refer to the Patrol Operations Manual regarding the LIMSOC Process.

4.0 Procedure for Re-opening of the Beach

In order for the beach to re-opened after a critical risk:

- 24hrs from the time of closure two clear box jellyfish drags and two Irukandji drags must be performed. The drags must be performed one hour apart. Each drag needs to be recorded in LIMSOC.

5.0 Safety Equipment and PPE Requirements

[Click Here for Safety Equipment & PPE Requirements](#)

[Click here to watch the video on how to put your marine stinger suit on](#)

PPE Requirement

2 Lifesavers rescue ready	<ul style="list-style-type: none"> • Lycra Suit (suitable/tight weave) If time permits in a rescue: • Wetsuit gloves and boots • Tape boots and gloves to suit
Neoprene Suit Application	<ul style="list-style-type: none"> • Neoprene full body suit on (tightest fit) • Suit on over boots • Latex gloves on under suit • Heavy duty gloves on over suit • Tape boots and gloves to suit
Neoprene Suit Removal	<ul style="list-style-type: none"> • When deemed necessary spray vinegar over boots, gloves, cuffs, neck area and zip before removing suit.

	<ul style="list-style-type: none"> • Then wash down under light shower • Remove in reverse order of application with latex gloves and boots to come off last. • Soak suits in tap water; dry in direct sunlight.
<p>For other Lifesaving activities Including but not limited to surf sports, member training, swimming</p>	<ul style="list-style-type: none"> • Refer to the Surf Sport Manual and the Training Operations Manual • For 15yrs and over any member entering the water for any lifesaving activity during a moderate or higher rating must be in a stinger suit. • All Junior Activities members 14 years and under shall wear full body lycra suits (suitable weave) at all times during open water activities at all times of the year.

6.0 Marine Stinger Drag Procedures

The purpose of a stinger drag is to sample an area of water to assist with determining the presence of dangerous marine stingers, specifically the Box Jellyfish (*Chironex Fleckeri*) and Irukandji Jellyfish (*Carukia Barnesi*).

Stinger Drags are to be conducted ONLY by proficient Bronze Medallion/ SRC holders, 15 years and older, who hold the Marine Stinger Award.

[Click Here for the Marine Stinger Drag Procedure](#)

7.0 Rescue / First Aid

Rescue/treatment of patients with a suspected jellyfish sting includes the following:

- At the first notification of a sting immediately contact the Surfcom.
- DRSABCD
- **Immediately** douse with vinegar for at least 30 seconds
- Pick off tentacles (as per ARC guidelines)
- Do not rub the sting
- Equipment (vinegar, oxygen and Defibrillators) should be kept close at hand.
- The conscious patient should be reassured and monitored
- **If in doubt always treat as Irukandji and monitor patient for 30-40 minutes for signs and symptoms**
- For signs and symptoms refer to ARC Guidelines

The marine stinger patient carry

- The unconscious patient who has been stung should be removed from the water by their arms, gripped and dragged up the beach, thus minimising contact with the rescuers and leaving the stung area exposed for vinegar to be poured over.



8.0 Marine Stinger Specimen Storage and Disposal

To advance our knowledge and understanding of marine stingers and how we can prevent and reduce the risk of serious injury and death through improving treatment methods SLSQ actively support research into marine stingers.

We do this by collecting marine stingers samples to be transported to research institutions. The following outlines the procedures for the collection of marine stinger specimens:

- Your personal safety and that of others is our first priority when handling specimens.
- Be aware that you are representing SLSQ and **MUST** present an appropriate public image if displaying marine stinger specimens in any public forum and/ or media event.
- Protective clothing and gloves should be worn when handling marine stingers.
- Any specimen collected for research purposes **MUST** not to be left in collection bowls or buckets.
- **DO NOT** place specimens in any other containers other than those provided in the Marine Stinger Kit.

- Use duct tape to seal and cover 1/3 of the bottle.
- The label size **MUST** not prevent the contents from being visible.
- Clearly mark the specimen container with the nature of contents. Include date, time, location and specimen
- Any Lifeguards/ Lifesavers or other persons involved in the collection of specimens **MUST** advise all personnel utilising the facilities of the location and type of specimens being collected.
- Contact the local Marine Stinger Specialist to confirm if they want to collect any specimens, alternatively dispose of the marine stinger.
- Notify the SLSQ Lifesaving Services Supervisor/ Lifeguard Supervisor/endorsed officer of any specimens that have been collected, if available they will assist with transporting the specimen to the local marine stinger specialist
- Only display SLSQ approved specimens supplied and preserved by Marine Stinger specialists.

Note: In the instance of an accidental ingestion of marine stinger specimen, contact Surfcom, follow first aid principles as per poisons ingestion.

Disposal of Specimen: To dispose of the Box Jellyfish/Irukandji or other jellyfish, dig a 50cm deep hole in the sand and bury the specimen.

9.0 Consequence of Breach

Failure to effectively implement the requirements in this procedure may be deemed as a breach of SLSQ's Marine Stinger Policy and Procedures. It may also constitute a failure to meet your Duty of Care under legislation to have taken all reasonably practicable steps to mitigate risk to health and safety.