

IRUKANDJI JELLYFISH IN BROOME AND THE DAMPIER PENINSULA

On the beaches of Northern Australia there are two main types of stinging jellyfish. Those from the large box jellyfish *Chironex Fleckeri* leave big welt marks and cause immediate and severe pain sometimes resulting in death. Since records have been kept, there have been none recorded in Broome. However, bathers also experience stings which result in only a mild initial irritation with little or no mark, until approximately 30 minutes later when symptoms develop.

The symptoms can include severe generalized pain, abdominal cramps, nausea, vomiting, headaches, severe back pain and a feeling of impending doom. Rarely, victims can also have heart and breathing

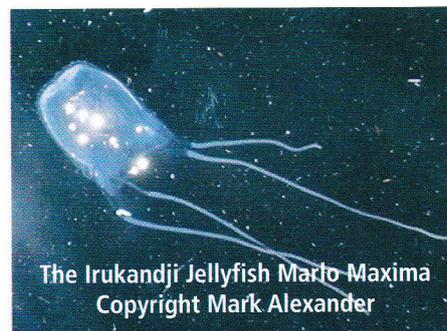
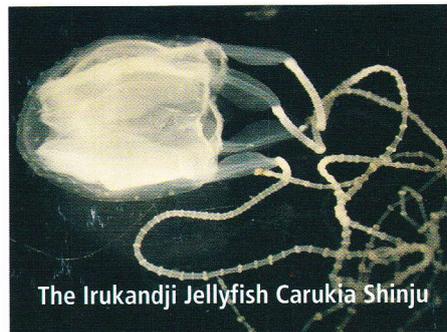


difficulties. Together, these symptoms are referred to as **Irukandji Syndrome**. It was first described in Queensland by Dr Jack Barnes who showed that very small box jellyfish (approximately 20-30mm in size) off the beaches of Queensland were responsible. *Carukia barnesi* was named after Dr Barnes and is commonly known as the Irukandji jellyfish (named

after a local Queensland Aboriginal tribe).

BIOLOGY

Since then a number of different jellyfish have been shown to cause **Irukandji Syndrome**. Because of their small size (30-100mm) and near transparency, it is very difficult to spot them in the water. Few victims see the one responsible for their sting. There are two species of jellyfish known to cause **Irukandji Syndrome** in Broome waters, the *Carukia Shinju* and the *Malo Maxima*.



SEASONALITY

Irukandji Syndrome is more commonly reported from Broome and the Dampier Peninsula waters from November to June, but cases have been recorded for all months

of the year. Local research is continuing to determine whether the risk of stings is related to specific weather patterns.

DISTRIBUTION

Cases of **Irukandji Syndrome** have been recorded from various locations around Broome and the Dampier Peninsula - no single swimming spot is safer than another. They also occur across tropical Northern Australia.

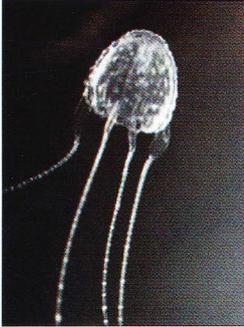


HABITS

Jellyfish that causes **Irukandji Syndrome** are usually well dispersed and the incidence of stings is very small. However, when swept inshore they may become concentrated at the waters edge for some days. Jellyfish are also attracted to lights. Off the coast of Broome pearl divers are occasionally stung in deeper water.

HOW DO JELLYFISH STING?

Jellyfish have stinging cells called nematocysts present on their tentacles and some have stinging cells on their bodies.



Stinging cells are present on the body and tentacles of Irukandji jellyfish

The stinging cells are like round bulbs, which contain venom and a hollow shaft which penetrates the victim upon contact and delivers the venom. Although small, these stinging cells hold a very potent venom and are generally present in clusters.



Irukandji jellyfish sting, sweating sometimes occurs on the sting site.
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immediately be flooded with vinegar to stop the remaining stinging cells from firing. A Vinegar soaked pad should be laid gently on the sting site for at least 30 seconds. Vinegar for stings is available from Stinger Relief Stands that are located at Town Beach, Cable Beach, Gantheaume Point and Entrance Point.

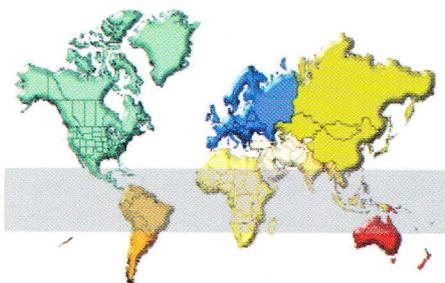
Generally the victim will feel little initial discomfort with the onset of symptoms occurring around 20-30 minutes after the sting. during this initial period they should be kept cool and remain under observation. If symptoms do start to develop the person should be taken to hospital.



Stinger Relief Stand

PREVENTION OF IRUKANDJI TYPE JELLYFISH STINGS

It is impossible to eradicate jellyfish from local waters. Their distribution is worldwide.



Worldwide distribution of jellyfish causing Irukandji Syndrome

With increased knowledge about the jellyfish biology we may be able to more accurately predict their presence and absence on our beaches, and which areas are likely to be inhabited at particular times.

Unfortunately stinger nets such as the ones used in Queensland are only effective against the box jellyfish, but not the Irukandji. However Shire lifeguards perform daily stinger net drags which aid in detection of Irukandji jellyfish, so information from the lifeguards on duty and beach signs should be heeded. For the majority of the season the risk of being stung is small, especially if precautions are taken such as wearing protective stinger suits.



Lifeguards perform stinger net drags

This pamphlet has been adapted from a publication by: Tropical Australian Stinger Research Unit (TASRU) at James Cook University, Cairns, (07) 4042-1111

FIRST AID FOR IRUKANDJI SYNDROME

The area of the body on which any jellyfish sting has occurred should



Government of **Western Australia**
Department of **Health**
WA Country Health Service

Further Information Contact:
Broome Hospital (08) 9194 2222
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Beach Inspector 0407 774 293

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