

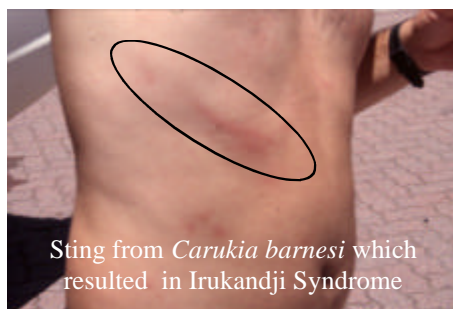


# IRUKANDJI JELLYFISH IN BROOME AND THE DAMPIER PENINSULA



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



Sting from *Carukia barnesi* which resulted in Irukandji Syndrome

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



Sting from a box jellyfish that resulted in Irukandji Syndrome

who showed that very small box jellyfish (approximately 20-30 mm 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).



The Irukandji jellyfish *Carukia barnesi*

## **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. Although not formally identified, there are jellyfish that cause this syndrome in Broome waters.

## **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 one swimming spot is safer than an-



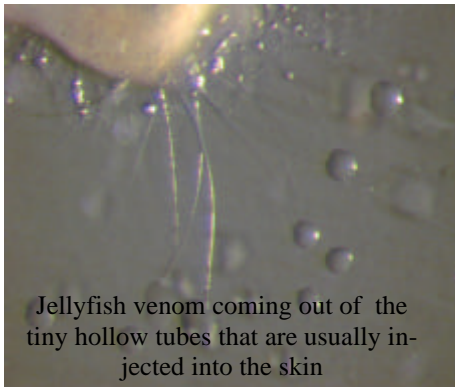
Distribution of jellyfish causing Irukandji Syndrome in Australia

other. They also occur across tropical Northern Australia.

## **HABITS**

Jellyfish that cause **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. They are also attracted to lights. Off the coast of

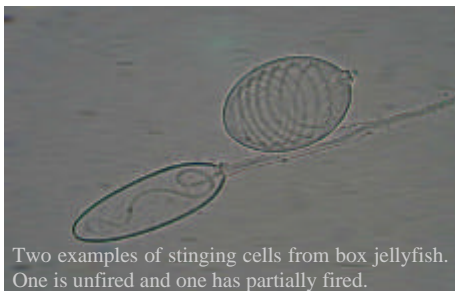
Broome pearl divers are occasionally stung in deeper water.



### **HOW DO JELLYFISH STING?**

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

The stinging cells are like round



bulbs, which contain venom and a hollow shaft which penetrates the victim upon contact and delivers the venom.



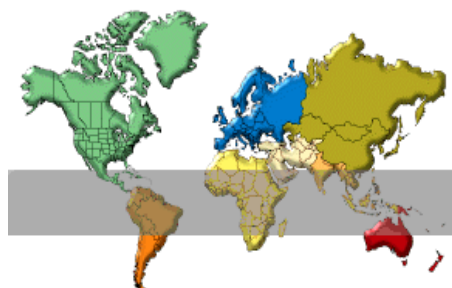
Although small, these stinging cells hold a very potent venom and are generally in clusters.

### **FIRST AID FOR IRUKANDJI SYNDROME**

The area of the body on which any jellyfish sting has occurred should **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 Cable Beach Sand Bar and Town Beach Café.

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.

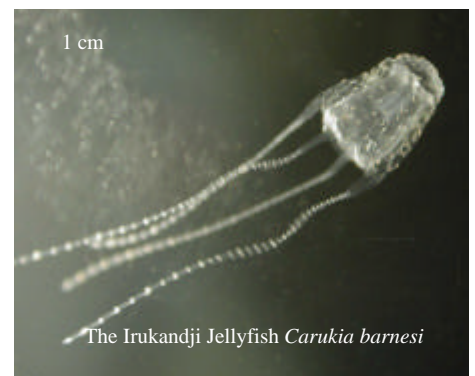
### **PREVENTION OF IRUKANDJI TYPE JELLYFISH STINGS**



Worldwide distribution of jellyfish causing Irukandji Syndrome

It is impossible to eradicate jellyfish from local waters.

Their distribution is worldwide. With increased knowledge on these animals biology we may be able to more accurately predict their presence and absence on our beaches and which areas are likely to be inhabited by them at which times. Unfortunately stinger nets, while effective in excluding large box jellyfish in Queensland, are not useful in Broome for smaller box 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.



This pamphlet has been adapted from a publication by

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