A string of jellyfish sting incidents involving swimmers at Tanjung Aru beach was reported on local news and social media from 9th January 2016 through Sunday, 17th January 2016.

Responding to the reports, the Department sent a team of investigators from the Likas Fisheries Research Centre to Tanjung Arus beach to acquire more information and jellyfish samples. Together with life guards from the Department of Civil Defence at the site, the team was able to catch at least two species of jellyfishes involved in the incidents.

They were identified as the chironomid box jellyfish (*Choropsalmus quadrigatus*) locally known as “obor-obor api” known to be highly venomous and are neurotoxic, cardiotoxic and dermatonecrotic.

The other species locally known as “obor-obor pasir” is a black spotted jellyfish similar to the *Catostylus townsendi* species. Stungs from their tentacles can cause itch and/or allergic reactions upon contact with skin causing inflammation and swelling on affected body part of a victim.

The jellyfish season is expected to persist throughout January to March this year.
Box Jellyfish species held on the right hand while on the left is the black spotted species. (Inset) Jellyfishes being kept in the cooler box container for further investigation.
The box jellyfish seen in the water is almost transparent and difficult to see.

Black spotted jellyfish

Toxicity

Jellyfish sting their prey using **nematocysts** which also called cnidocysts,

Contact with a jellyfish tentacle can trigger millions of nematocysts to pierce the skin and inject **venom**. Some species’ venom cause an adverse reaction in humans.

Jellyfish venomous tentacles

Scar marks from a jellyfish sting

How to prevent from being stung

1. Wear full body swimming suit whenever possible.
2. Protective lycra clothing called **stinger suits** greatly reduces the risk of exposure (though any areas of the body not covered are susceptible).
3. Avoid picking up dead jellyfish. Dead jellyfish may still have live nematocysts that can still release toxins (even after they have dried up).
4. Comply with warning instruction from lifeguards manning the watch tower.
   Display boards with warning instructions are put up, whereby red flags are
erected on swimming areas where jellyfishes are present to warn all swimmers not to go in the water.

5. You should **stay vigilant at ALL TIME** in the sea.

6. Be prepared to treat a jellyfish sting. Have a basic first aid kit (make sure it has an oral antihistamine in the kit) prepared and bring it with you.

7. Take a course in basic first aid and CPR before heading to the beach, snorkeling, swimming, or scuba diving.

8. If you have a known insect sting allergy carry an allergy kit, which contains injectable epi-pens (epinephrine, adrenaline). Make sure those with you know how to administer the epi-pen in case you are unable to do so.

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**What to do when stung**

**Box Jellyfish**

Symptoms of the box jellyfish include excruciating pain upon contact and cardiac and respiratory arrest can occur within minutes. There will be many large red welts marks on the body where there has been contact.

1. Get out of the water immediately.

2. Pick any tentacles you can see off your body with a towel. Don’t rub the area.

3. Do not try to scrape the tentacles off (with hands, wet sand or any item, or apply pressure), as this will trigger more stinging cells to fire venom into the body.

4. Douse the area profusely with vinegar for at least 30 seconds as this stops any un-discharged stinging cells. Vinegar (3–10% aqueous acetic acid) may be used as a common remedy to help with box jellyfish stings, **flushing**
with vinegar is used to deactivate undischarged nematocysts to prevent the release of additional venom.

5. Fresh water is not usually used if the sting occurs in salt water, as this may cause the nematocysts to fire more venom.

6. Contact medical staff as soon as possible, urgent medical assistance will be required.

7. Someone may advise you to rub sand on wound or wash with urine. Don’t Do it, as these unproven measures can worsen the situation. Rubbing wounds, or using alcohol, spirits, ammonia, or urine may have strongly negative effects as these can encourage the release of venom.

**Unidentified Jellyfish**

The same 1st aid as a box jellyfish should be applied which is 30 seconds on vinegar to douse the sting.

1. If symptoms proceed, seek medical attention.

**OTHER HARMFUL SPECIES OF JELLYFISH**

**Sea nettle (Chrysaora spp./ Pelagia spp.)**

Possess a **painful sting**, and has been known to cause fatality in swimmers. The name Sea nettle is often used for all members of the *Chrysaora* and *Pelagia* Genus, due to the almost similar outlook, they possess four oral arms, and long frilly tentacle connected to the edge of the bell shaped head.
This order (Rhizostomae) of jellyfish are not known to possess lethal venom and generally known to be mildly venomous, though many of them are known to cause itch and/or allergic reactions upon contact with skin.