

DANGEROUS MARINE LIFE & ENVIRONMENT



- Identifying Common Species
 - Mammals
 - Fish
 - Reptiles
 - Insects
 - Coral
- Awareness & Prevention
- Treatment



AWARENESS

- Lifeguards should be able to recognize common dangerous marine life found at there beach
- Know the behaviors that are considered threatening
- If incident occurs respond lifeguard should take caution when responding. (ex. boats/paddleboards rather than swimming)
- Utilize different tools to warn public
 - Flags
 - Warning Signs
 - Evacuate

AWARENESS



MAMMALS



SEA LIONS

- Stay clear when present (sharp teeth)
- Unpredictable behavior
- Aggressive during mating season or if cornered
- Mammals show territorial behavior



SEA LIONS

Treatment:

- Same as for a puncture wound (control bleeding)
- Infection likely to occur
- See a doctor for antibiotics / stiches



FISH



STINGRAYS

- Bottom dwelling creatures
- Sharp / poisonous barb on tail
- Use when threatened
- Attracted to calm and warm water
- Prone to being stepped on
- Shuffle feet to avoid sting



As a natural camouflage, stingrays are often partially submerged in calm sand areas.

STINGRAYS

Treatment:

- Do not remove the barb
- Stabilize with gauze and rolled gauze
- Transport patient to Medical Facility
- Control bleeding if required



STINGRAYS

- Control Bleeding if needed
- Clean Wound
- Place injured area in hot water
- Hot Water
 - Denatures venom
 - Provides Pain Relief
- Remove after 30-60 minutes
- Education Bather



JELLYFISH

- Various types of Jellyfish
- Found everywhere in world
- Tiny stinging cells in their tentacles
- Stings are painful, very from minor to deadly
- Don't purposely attack

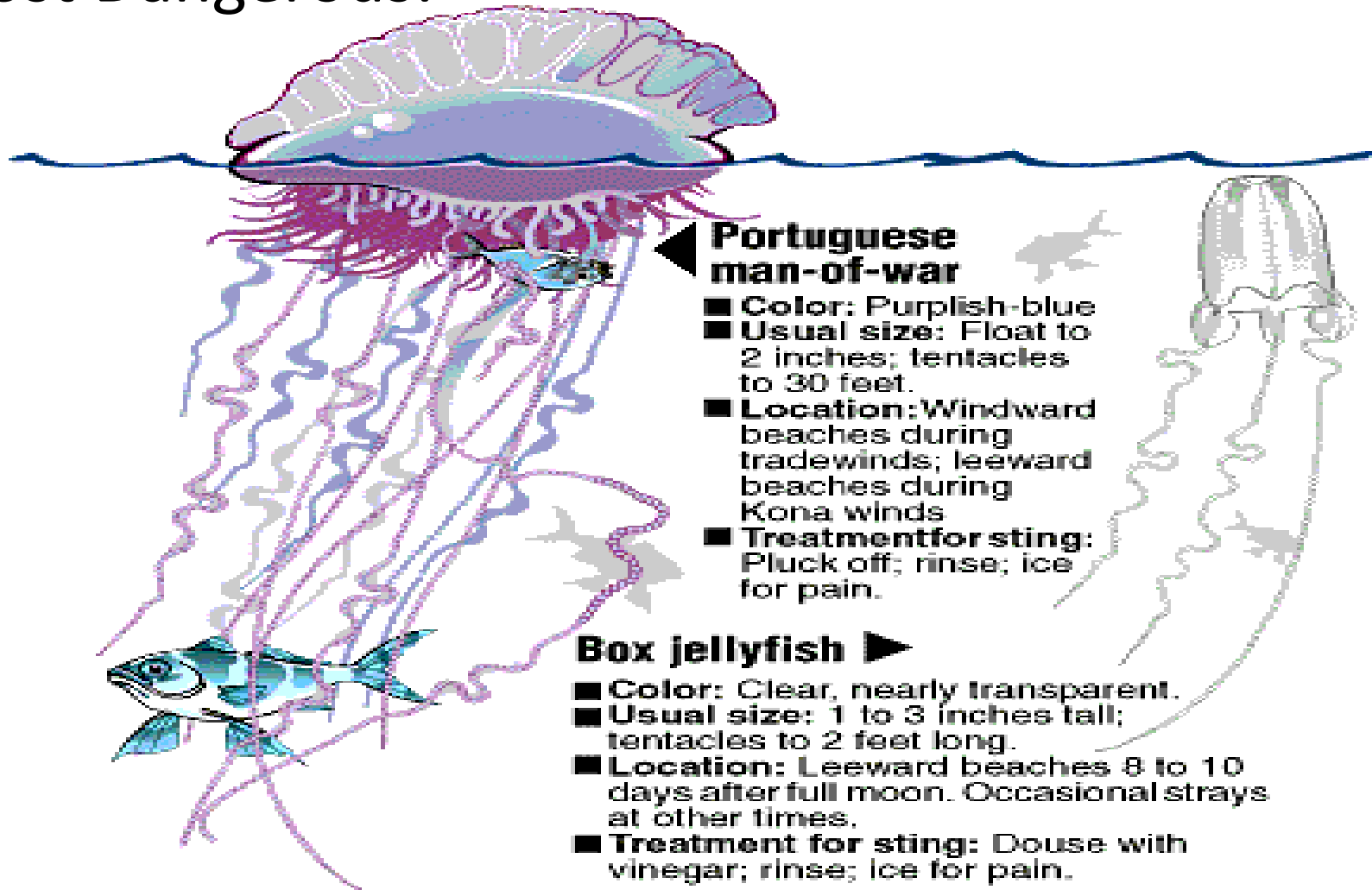


JELLYFISH



JELLYFISH

Most Dangerous:



Portuguese man-of-war

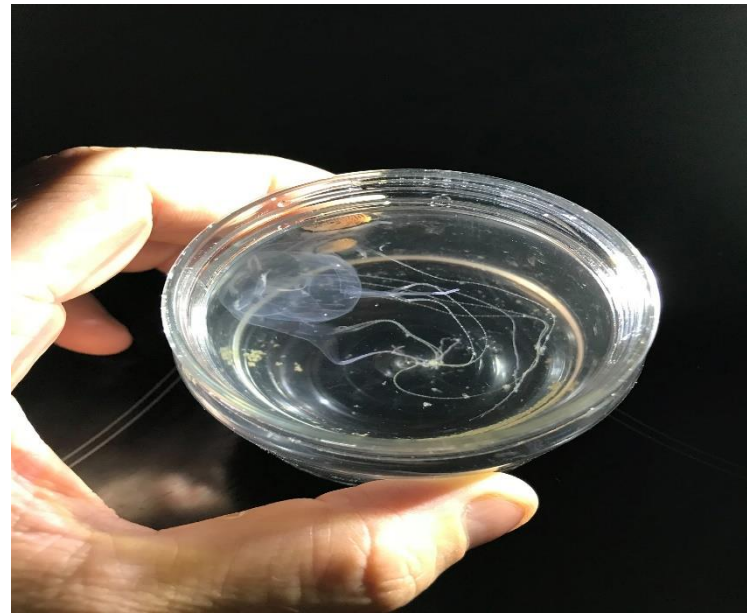
- **Color:** Purplish-blue
- **Usual size:** Float to 2 inches; tentacles to 30 feet.
- **Location:** Windward beaches during tradewinds; leeward beaches during Kona winds
- **Treatment for sting:** Pluck off; rinse; ice for pain.

Box jellyfish

- **Color:** Clear, nearly transparent.
- **Usual size:** 1 to 3 inches tall; tentacles to 2 feet long.
- **Location:** Leeward beaches 8 to 10 days after full moon. Occasional strays at other times.
- **Treatment for sting:** Douse with vinegar; rinse; ice for pain.

Box Jellyfish

- Found in shallow, tropical waters of the Indo-Pacific
- A large but almost transparent jellyfish with a box shaped bell up to 30cm
- Up to 15 ribbon like tentacles arise from each of the 4 corners
- These may contract to about 10cm, or may extend up to 3m in length
- **An adult sting can induce cardiac arrest in as little as 2-5 minutes**
- Stings cause severe burning skin pain, tentacles often remain on the skin
- Young children most at risk due to their smaller body mass



JELLYFISH STINGS



TREATMENT FOR JELLYFISH STING

- Remove tentacles from skin
- Solution of Fresh Water + Vinegar (50/50)
- Ice for Comfort
- Monitor patient for Respiratory Complications (anaphylaxis)



TREATMENT FOR JELLYFISH STING



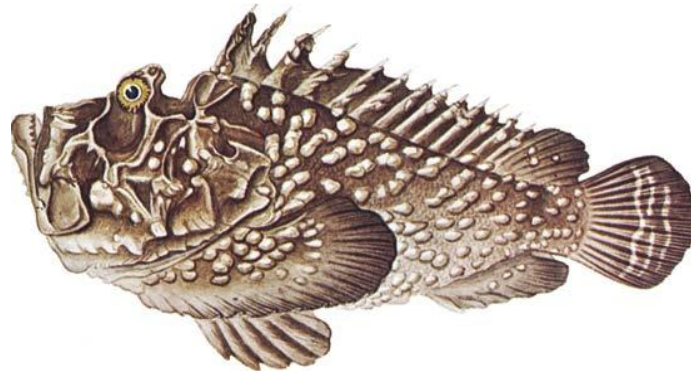
STONE FISH



- Known to live in rivers and coastal oceans in the Indo-Pacific
- One of the deadliest fish known to man
- Persons stung by barbs when stepped on
- Stings cause immense localized pain, if not treated can lead to envenomation and death

STONE FISH TREATMENT

- Seek medical assistance
- Place the stung hand/foot in hot water (no hotter than the rescuer can tolerate) for 20 minutes. Remove and if pain persists re-immense
- Reassure and keep the person at rest
- DO NOT use pressure immobilization technique



SHARKS

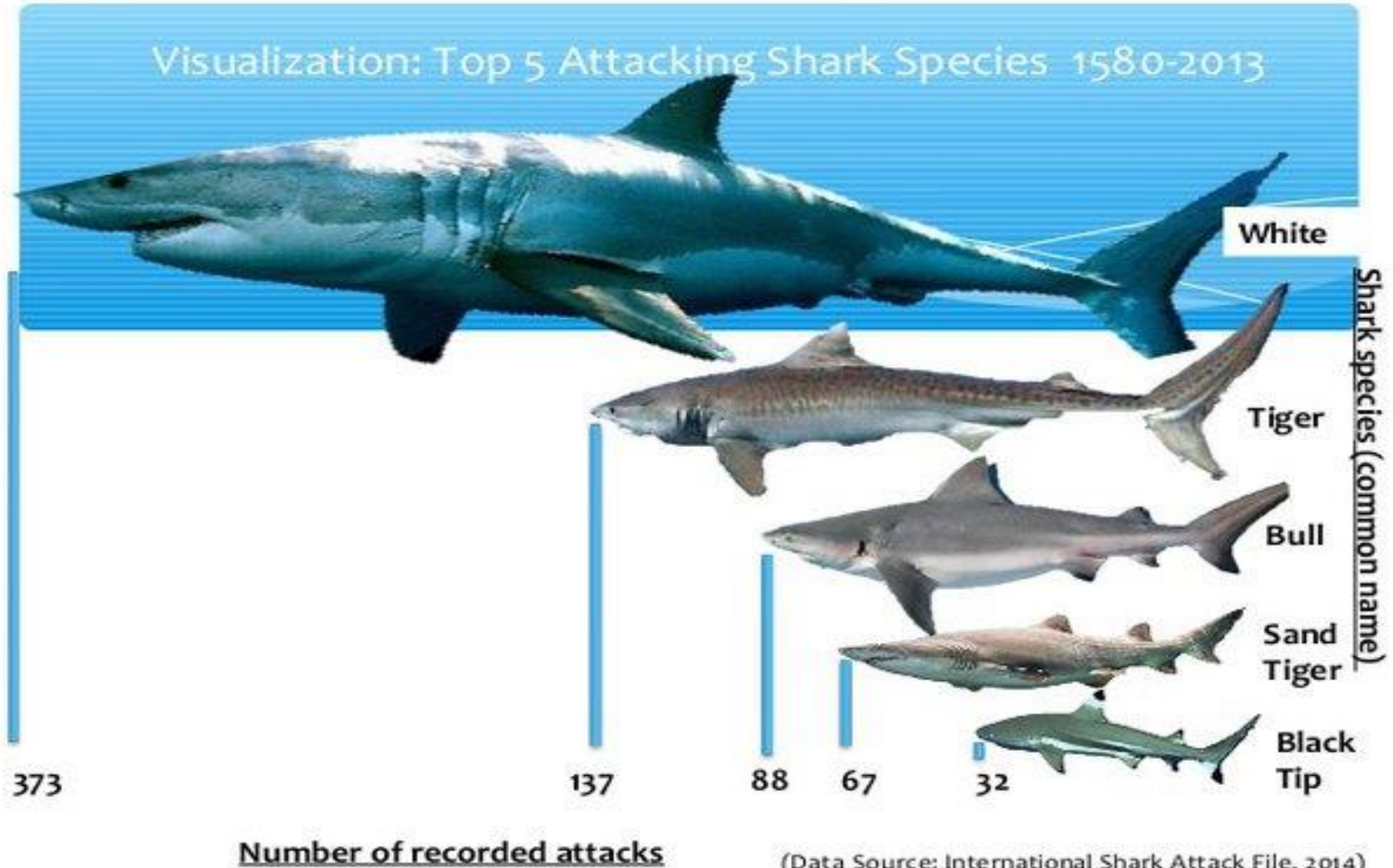


BARCROFT MEDIA

SHARKS

- Attacks are believed to be from prey-identification mistakes.
- Generally, bites once and then departs
- Deliberate shark attack is rare
- Attracted to shiny and contrasting colors
- Avoid swimming near bait balls
- No proven techniques for safe intervention

SHARKS



(Data Source: International Shark Attack File, 2014)

SHARKS: RECOMMENDATIONS

- Lifeguards should be trained to recognize common sharks in the area and behavior that is considered threatening.
- Supervisor makes evaluation for advising swimmers and/or closing beach
- If bite occurs respond in boats/paddleboards rather than swimming
- Treat and transport for major trauma

SHARKS



SHARKS

Treatment Minor:

- Clean wound thoroughly
- Apply Gauze
- Home or Hospital

Treatment Major:

1. Direct Pressure
2. Tourniquet
3. Treat for shock
4. Transport to hospital



Lifeguard scene safety is **MOST** important!!!

REPTILES



CROCODILES

- Prefer fresh water
- Found in some tropical oceans
- Avoid swimming at night
- Avoid swimming in mangrove swamps
- Don't ignore crocodile warning signs
- Found outside of their "normal" area late in the wet season / early in the dry season



TREATMENT: Same as shark bite

SNAKES



SNAKES TREATMENT

- Urgently seek medical assistance
- Reassure and keep the person at rest and constant observation
- Take a photo of the snake (can help treatment later)
- Remove rings, watches, shoes, before swelling
- Apply pressure immobilization technique
- Maintain basic emergency life support



SNAKES TREATMENT

- DO NOT cut, suck or wash the bite site
- DO NOT use a tourniquet
- DO NOT allow the person to walk – bring medical assistance to the person, or carry them out
- DO NOT Drink Alcohol or use pain medications
- DO NOT try and catch the snake



INSECTS



COMMON INSECT STINGS

Which Insect Stung Me?

Honeybee



- Sting when threatened
- Leave behind stinger

Wasp



- Legs dangle when flying
- Don't leave stinger

Yellow Jacket



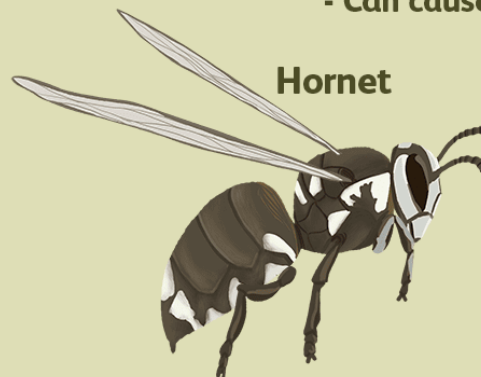
- Nest in or on the ground
- Don't leave stinger
- Can cause skin infection

Fire Ants



- Sting multiple times, very quickly

Hornet



- Yellow-faced and white-faced
- Nests resemble papier-mache

COMMON INSECT STINGS

- Red Back (Black Widow) Spider
- Scorpion
- Centipede sting
- Leech bites



Cone Shell Snail



Funnel Web Spider



Blue Ringed Octopus

INSECT STING TREATMENT

- Maintain basic emergency life support
- Watch for signs of anaphylaxis
- Remove the stinger as quickly as possible (bees)
- Wash the sting area with soap and water
- Apply a cold compress or ice pack to relieve any local irritation, swelling or pain



PRESSURE IMMOBILISATION TECHNIQUE

Used For:

Snake bite

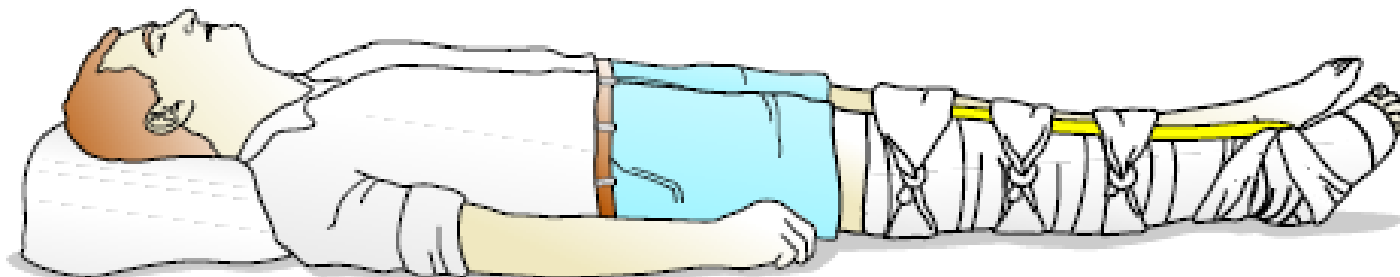
Sea snake bite

Funnel web spider bite

Blue-ringed octopus bite

Cone shell snail and mollusc sting

Bites and stings in allergic persons



CORAL



FIRE CORAL

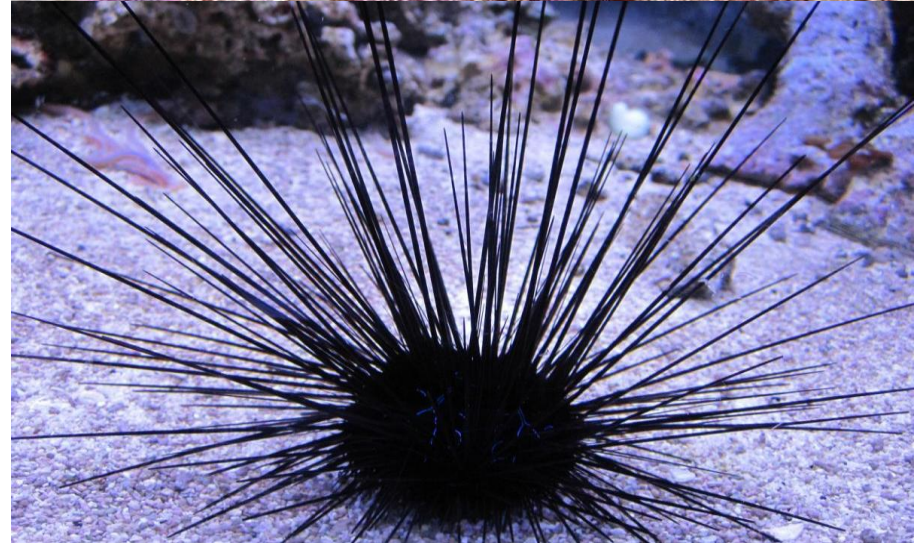
- Related to Jellyfish (not actually a rock)
- Stung by touching it
- Painful burn/sting
- Rash appears that feels warm



TREATMENT: Same as Jellyfish (vinegar & water), monitor vitals

SEA URCHIN

- Related to Starfish
- Found in all oceans & climates
- Sting severity varies by species
- Inflict puncture wounds with their brittle spines when stepped on
- Spines can be venomous or cause infection



SEA URCHIN TREATMENT

- Remove spines with tweezers
- 100% vinegar to dissolve superficial sized spines
- Soak in hot water to relieve pain
- Monitor for signs of anaphylaxis
- Treat for signs of infection



QUESTIONS?

Are there any other dangerous marine animals in this area that we need to talk about?