



# DIVE!

Explore Coral Reefs Around the World

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THE GOOD AND THE BEAUTIFUL LIBRARY

Hi! Welcome to the Reef Explorers Club!

My name is Pacifico, and I'm from the Philippines. I am thrilled that you have joined the group. Every time I explore a new coral reef, you will receive a letter and animal identification cards from me. I will be traveling to different coral reefs around the world to discover new animals and scenery and share what I learn with you!

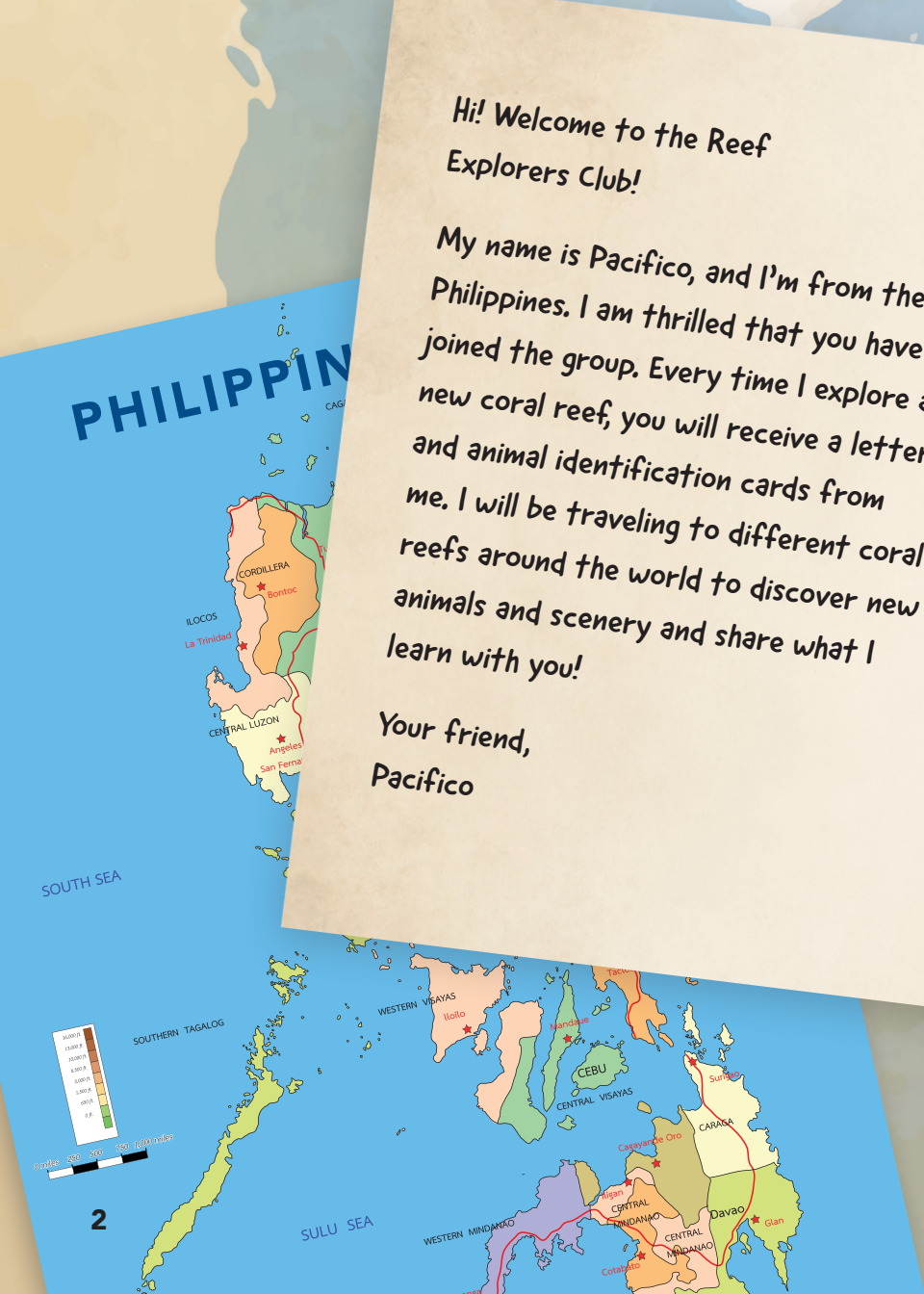
Your friend,  
Pacifico



REEF EXPLORERS CLUB MEMBER

CLUB MEMBER P.O. BOX #1

REGISTERED CLUB MEMBER RESIDENCE



## PACIFICO'S DIVE TALES

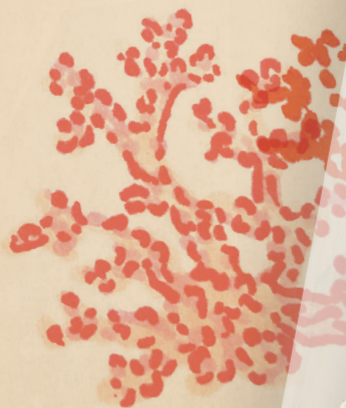
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## ALL ABOUT CORALS

There is one thing every coral reef around the world has in common: corals. Coral reefs are actually millions of single polyps that connect and form calicles—limestone skeletons that make up the base of these marine communities. Thousands of ocean animals call these reefs their home.

## CORAL NOTES

- Animal type: invertebrate
- Diet: zooplankton, fish, and algae
- Size: from one polyp to communities covering a large surface area



Coral Skeleton  
Sample



## STONY CORAL



SHORT POLYP  
STONY CORAL (SPS)



MONTIPORA

Reef-building corals; produce calcium carbonate skeleton



Blue SPS Coral

## SOFT CORAL

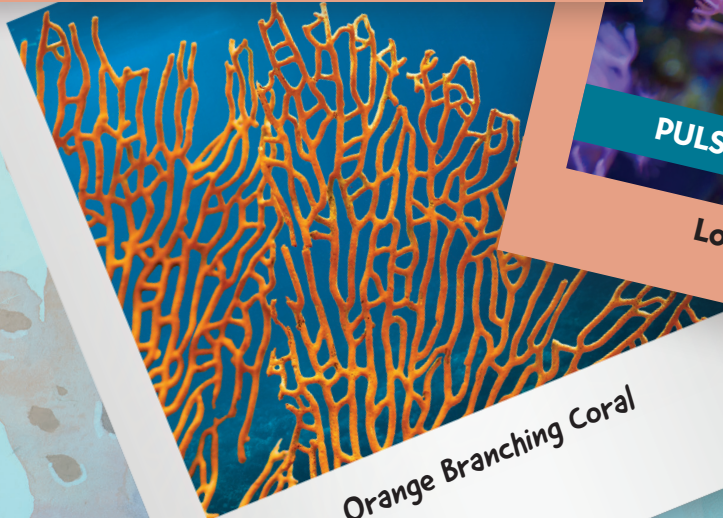


PULSING XENIA



BRANCHING CORAL

Look like colorful tree branches; do not  
produce as much skeleton



Orange Branching Coral

# Greetings from the **GREAT BARRIER REEF**

Queensland, Australia  
Coral Sea



I just finished a snorkeling expedition  
in the largest coral reef in the world—  
the Great Barrier Reef—off the coast  
of Australia. The Great Barrier Reef is  
so extensive it can be seen from space!  
Check out what we found when we dove  
into the warm, blue waters of the  
Coral Sea!

Your friend,  
Pacifico



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SATELLITE IMAGERY CLASSICS



GREAT BARRIER REEF  
AS SEEN FROM SPACE

AUSTRALIA



## PACIFICO'S DIVE TALES

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## HAWKSBILL TURTLE

I couldn't take my eyes off this majestic hawksbill sea turtle. It is named for its narrow, pointed beak and can live to be 50 years old.

## HAWKSBILL TURTLE NOTES

- Animal type: reptile
- Diet: sponges, anemones, and jellyfish
- Size: 1.1 meters (3.61 feet) long and weighs 68 kilograms (150 pounds)
- Critically endangered because they've been hunted for their beautiful shells



Hawksbill Turtle

## HAWKSBILL TURTLE



Endangered species hunted for its shell;  
named for its narrow, pointed beak

## PACIFICO'S DIVE TALES

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## BLACK-TIPPED REEF SHARK

I almost swallowed my snorkel when a black-tipped reef shark swam near me! Luckily, these sharks are timid and rarely hurt humans. They can swim 50–97 kilometers (30–60 miles) per hour and can actually leap out of the water to jump over shallow reefs!

## BLACK-TIPPED REEF SHARK NOTES

- Animal type: cartilaginous fish
- Diet: small fish, crustaceans, and cephalopods
- Size: up to 1.8 meters (6 feet) long
- Females are pregnant for 12 months and have litters of 2–4 pups

## BLACK-TIPPED REEF SHARK



Timid, rarely hurts humans; swims at 50–97 kilometers (30–60 miles) per hour

Fossilized  
Shark Teeth



Have you ever wished you could snorkel with a shark? What if you could read about what it's like to brush against a stinging fire coral? Pacifico, an avid ocean explorer, wants you to join him on his adventures to some of the most magnificent coral reefs in the world. Earn your Reef Explorers Club patch as you read Pacifico's letters and collect the stunning photos he sends the club about his encounters with the incredible wildlife found swimming amongst the corals.

Fig. 1



# DIVE!

## Explore Coral Reefs Around the World

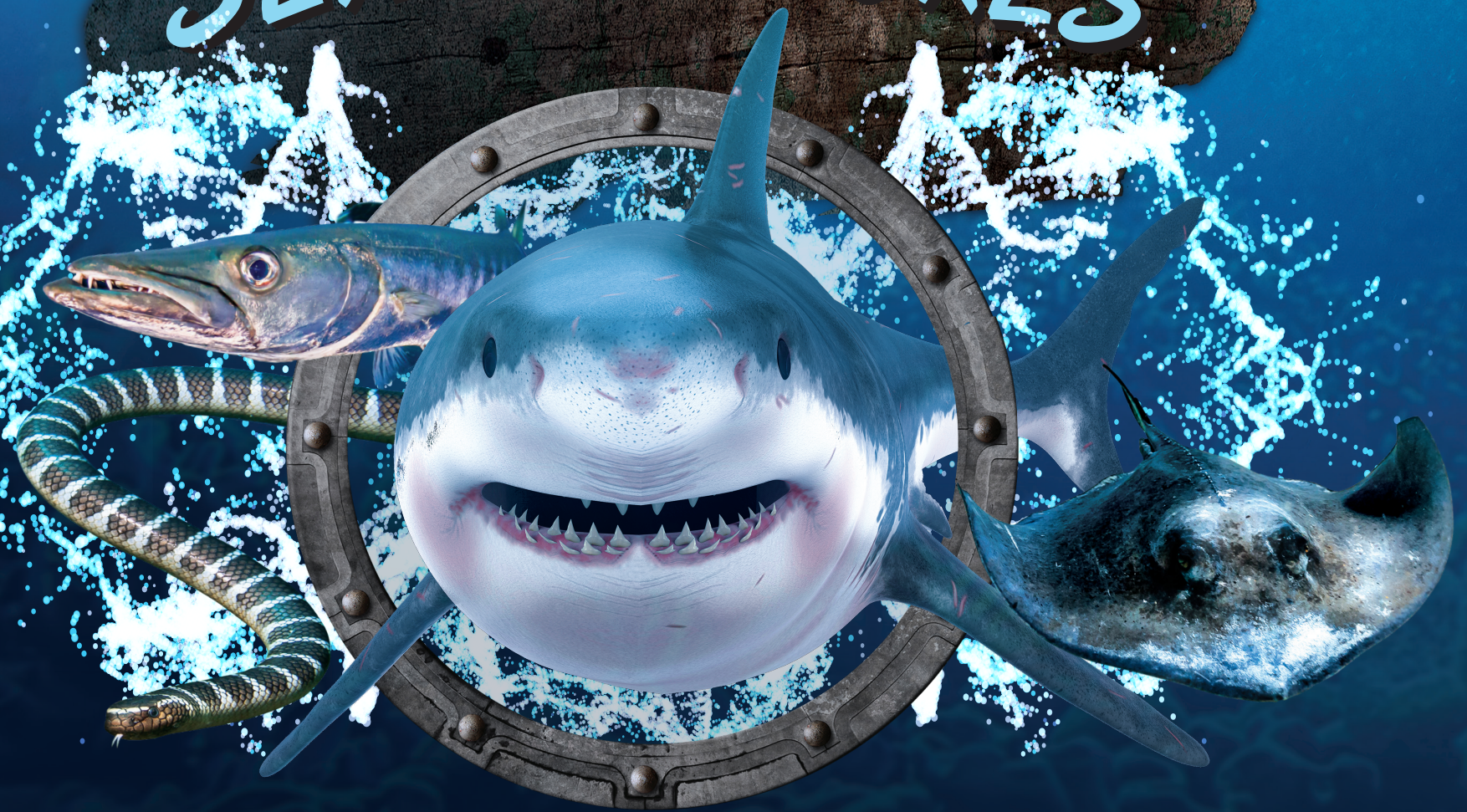
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# *DANGEROUS* SEA CREATURES



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# *BARRACUDA*



***THE BARRACUDA DOESN'T USUALLY ATTACK HUMANS***, but it is very dangerous to fish! Unlike many other ocean predators which hunt by smell, the barracuda hunts by sight. This fish has teeth—two rows, actually—well situated in its large mouth with an extended lower jaw. The barracuda is also very fast, reaching burst speeds of up to 56 km (35 mi) per hour.



Although not generally eaten, the barracuda is often fished for sport due to its feisty nature.



Attacks are not common, but the barracuda can be dangerous to humans. This is because a barracuda could mistakenly attack shiny objects on a diver or even compete for a fish on a spear.



The barracuda lives worldwide near the shore and in the open ocean.



A young barracuda can change color to blend in with its surroundings.



***TWO ROWS OF SHARP TEETH***

***SPEEDS UP TO 56 KM (35 MI) PER HOUR***



# BLUE-RINGED OCTOPUS



**THE BLUE-RINGED OCTOPUS IS A TINY TERROR** found in shallow depths of the Indian and Pacific Oceans. There are four types of this invertebrate, each measuring only 12–25 cm (5–10 in) in length, including its arms. When frightened or hunting prey, it can either inject or release a cloud of powerful venom which paralyzes the victim. The faint blue rings marking its body will flash bright blue to warn predators and larger creatures when it feels threatened.



Like other octopuses, it has three hearts, and its blood is transparent blue.



The tetrodotoxin (the same toxin found in puffer fish) it releases is produced by bacteria in its salivary glands and is more powerful than any land animal's toxin.



The blue-ringed octopus is shy and will often hide in marine crevices or shells.

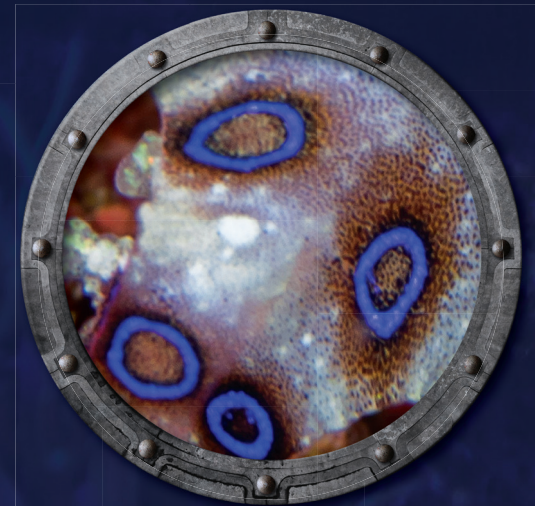
**MEASURES ONLY 12-25 CM  
(5-10 IN) IN LENGTH**



**POWERFUL VENOM  
PARALYZES PREY**



**RINGS FLASH BRIGHT BLUE  
WHEN THREATENED**



# BOX JELLYFISH



*ABLE TO MOVE ON ITS OWN  
INSTEAD OF DRIFTING*



*WHEN YOU THINK OF THE MOST VENOMOUS CREATURES IN THE WORLD*, you may imagine a rattlesnake or a spider, but few snakes and spiders are as deadly as the box jellyfish. It uses its highly toxic venom to paralyze or kill fish and shrimp for its dinner. The box jellyfish is much more advanced than most jellyfish; God gave it the ability to move on its own rather than just drifting, and unlike other jellyfish, it has eyes!



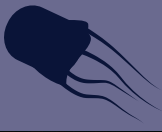
Living for up to a year, box jellyfish can grow up to 3 m (10 ft) long.



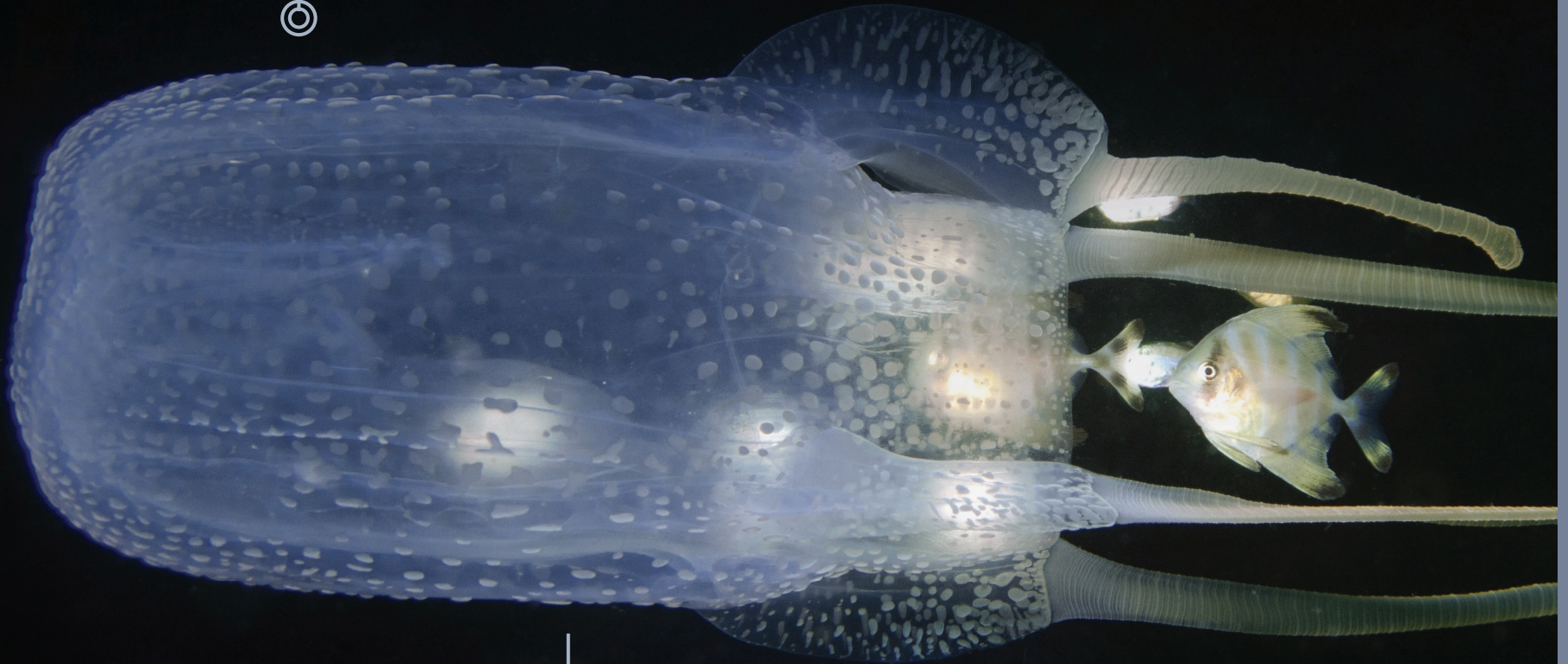
On average 100 human deaths per year are caused by the box jellyfish.



The box jellyfish does have a predator—the sea turtle, which is not hurt by its venom.



Called the “bell,” the box jellyfish’s head has four groups of six eyes. That’s a total of 24 eyes!



# CROWN-OF-THORNS STARFISH

*PREYS ON CORAL POLYPS,  
DIGESTING NUTRIENTS  
THROUGH ITS STOMACH*



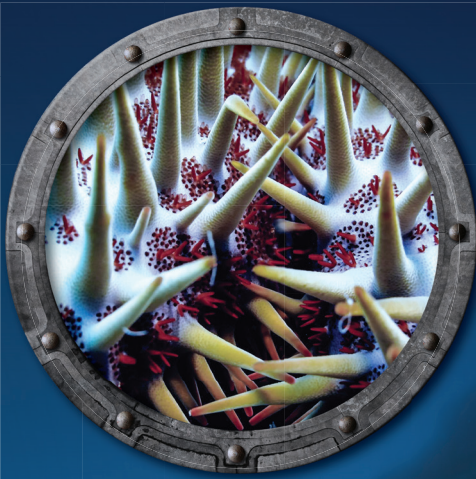
*WHEN YOU THINK OF DANGEROUS SEA CREATURES*, you probably think of those dangerous to humans. While the crown-of-thorns starfish can certainly harm humans with its toxin-filled spines, the real danger caused by this invertebrate is to the stony coral species. The crown-of-thorns starfish preys on stony coral, digesting the nutrients through its stomach and leaving only a coral skeleton. The starfish can turn its stomach inside out through its mouth to eat coral polyps found in reefs of the Pacific and Indian Oceans.



Due to its venomous spines, this sea star has few natural predators. The predators it does have are quickly disappearing due to overfishing.



An adult of this species can have anywhere from 12 to 23 arms.



TOXIN-FILLED SPINES CAN  
HARM HUMANS AND PREY

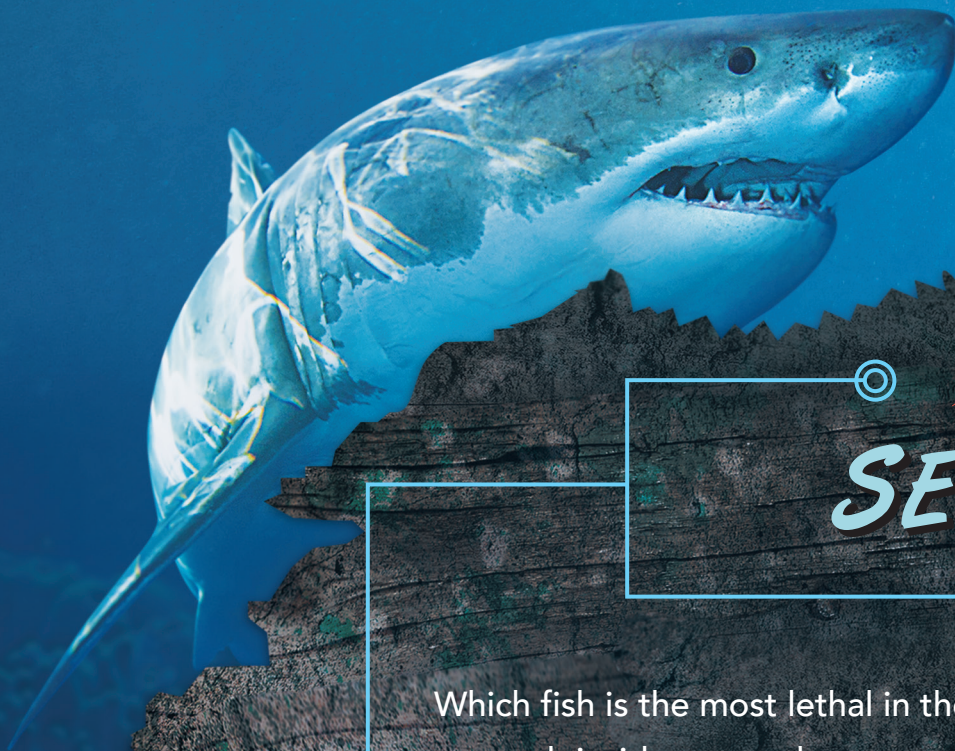


The crown-of-thorns starfish is the second-largest starfish in the world; on average it is 45 cm (18 in) across.



The crown-of-thorns starfish gets its name from the hundreds of venomous spines on its body, which resemble the biblical crown of thorns placed on Jesus before His crucifixion.





# *DANGEROUS* *SEA CREATURES*

Which fish is the most lethal in the world? Which creature can turn its own stomach inside out to devour coral polyps? *Dangerous Sea Creatures* provides you with a window into the beauty of menacing sea dwellers as well as the tricks and defense mechanisms they use to protect themselves and catch their prey.

■ ORIGINAL PUBLICATION



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ISBN 978-1-952920-26-4

5 0 6 9 9 >

9 781952 920264

SKU 728