



SPEARFISH



Issue 19

The Billfish Foundation's Conservation Program for Kids who Care about our Oceans

SUPERPOWER SURVIVAL

by Nicole Besemer

Spiderman and Superman are known for their incredible powers they use to escape danger and save their friends! Well, fish have special powers too; kind of like the ones super heroes have to protect themselves from danger. Many marine creatures have found ways to protect themselves from being eaten, and they are pretty good at it!

A green frogfish hides in a coral reef.

Schooling is one very common way to protect themselves. You might have seen a school of fish before in movies or pictures. A school, which is also called a shoal, can be just a few fish or it can have hundreds of fish in the group! The reason this works to protect them is because it can be hard for predators to single out a fish when there are so many of them.

Also, when there are more fish in a group together, there are more eyes to see any big fish trying to eat them. Some fish that you can usually find in a school are tunas, mackerels, jacks, anchovies, herring, grunts, snappers and many more!

Left: A school or shoal of Jacks. Right: An octopus changes colors to blend in with the light colors of the coral reef.



Above: A Stargazer fish hides itself in the sand. This fish is an ambush predator and feeds on small reef fish that swim near. Left: A Pufferfish before and after.





Top left to right: Closeup of a jellyfish and its tentacles. Adelie penguins going to the water. Caribbean reef shark with the sun behind it. Bottom left: A clownfish nestled in the tentacles of an anemone. Bottom right: A pair of sponge decorator crabs fighting.

Not all fish live in schools though, so how do those fish protect themselves? There are many different ways, but a common way is camouflage! Camouflage is a way fish use color to blend into their surroundings. Some fish are born with specific colors to blend in, and other fish can change their color to match the ground or rock they are laying on like octopus. Another type of camouflage is countershading. Many animals are lighter on their bellies and darker on the top of their body, this way they match the water or sunlight. So if a predator is looking up at them they see the white belly that blends with the sun or if a predator is looking down their dark blue backs match the water. Some sharks and penguins are great examples of countershading.

Jellyfish and anemones have special body parts that hurt the animal trying to eat them. They have stinging cells at the end of their tentacles that can provide a pretty powerful sting! If you have ever been stung by a jellyfish you will know how bad it can hurt. Some animals also produce venom in their bodies to poison animals when they try to attack them like the lionfish. Make sure you stay away from these animals so you don't get hurt!

There are a few survival strategies that aren't common in many fish but a few species have perfected them. The first example is the puffer fish. When this fish is nervous or feels scared, it will fill

its body with water to look bigger. Also it usually has spines, which can make it painful to bite! Another fish with cool powers to escape is the flying fish. Its pectoral fins are designed to help it glide out of the water and through the air when it needs to get away from a predator quickly. Who knew fish could fly?!

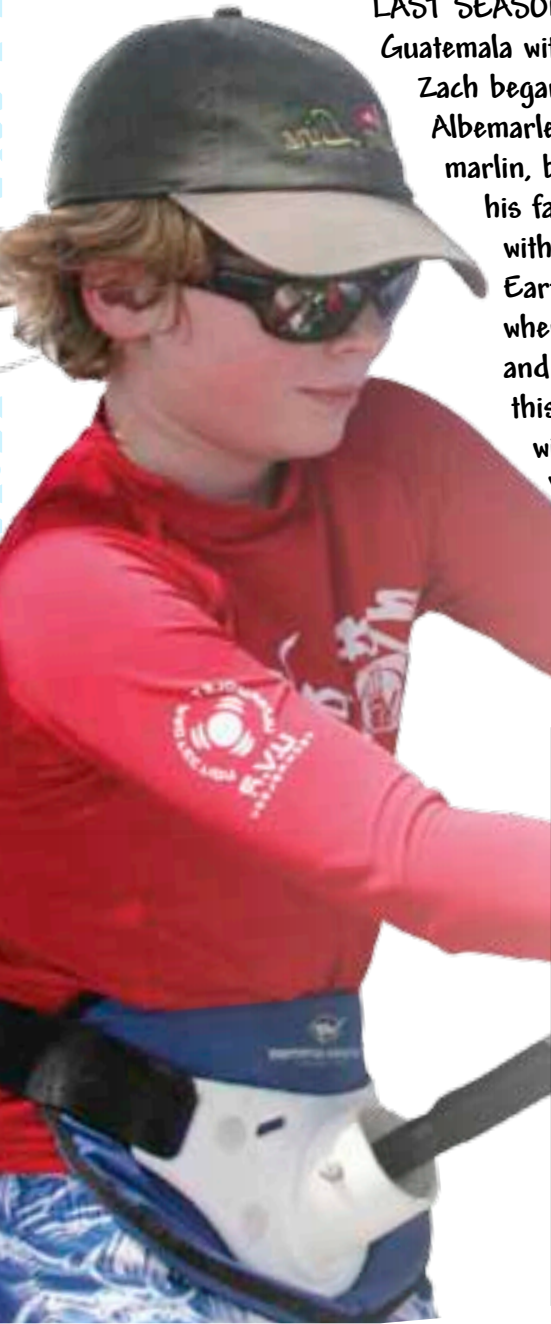
So it turns out marine animals can have some pretty cool characteristics to live a long life in the ocean. They learned to travel in big groups or have special coloring to make them seem invisible. Some can even fly! What would your super power be if you could have one?

Flying fish skipping over the sea. Photo by NOAA. Inset is closeup.



JAKE SHEEDER

LAST SEASON WAS JAKE'S SECOND TRIP DOWN TO THE PACIFIC COAST of Guatemala with Casa Vieja Lodge at only 11 years of age. Jake and his younger brother Zach began fishing offshore at age 7 with their father in North Carolina on a 32' Albemarle. Jake took immediately to fishing and within three years released a white marlin, blue marlin, and several Atlantic sailfish. Jake went to Casa Vieja Lodge with his father and grandfather and all three generations fished aboard the Rum Line with Captain Chris Sheeder. Its waters are the most productive and diverse on Earth, creating a fishing experience like no other. Captains at Casa Vieja know where the big fish are, and help anglers of all ages learn to hook their own fish and become better anglers. Jake tagged and released numerous sailfish during this trip including his first on the fly rod! He also had the opportunity to swim with one of the Pacific sailfish he released which he absolutely loved! Casa Vieja is a steward of the environment, practicing responsible conservation techniques so that future anglers can have an experience as special as Jake, his father, and grandfather have had for years. The three of them are excited for their upcoming trip back to Guatemala at Casa Vieja Lodge this season and Jake can't wait to swim with sailfish again!



Superpower Review:

1. What "power" do tuna and mackerel have?
2. What does camouflage mean? What marine animal is one of the best at it?
3. What are two other "superpowers" marine organisms have?





MORE WAYS TO SEE YOUR ART PUBLISHED!



ENTER A WORLDWIDE POSTER CONTEST! The Billfish Foundation is sponsoring NAUI World Wide. NAUI has been hosting a poster contest for 30 years and this year's theme is "Save Billfish!" They want everyone to learn more about billfish and create a poster from what they learn. Discover how tagging the fish that people catch provides information that we can use to hopefully conserve billfish.



According to a number of reports, catch and release sportfishing can have a huge economic impact because billfish are worth more alive to people than dead ones! So draw your favorite billfish and express how concerned you are to save them!

For complete details on the contest, go to <http://www.naui.org/PDFfiles/Poster%20Contest%20Rules%202013-14.pdf> and send your entry to John Fine. You can contact him at 914.725.0655 or his email is johncfine2@juno.com.



TBF will be posting the winners in our magazine!

Entries can be sent until December 31, 2014

Photo courtesy of Capt. Chris Sheeder



Watch TBF's new short movie, GET HOOKED!

Experience why recreational fishing is loved by so many and why it isn't always the fish that draws them to the sport. Vimeo.com/76057218

Go to www.billfish.org to watch all of our videos! Be sure to check out our first movie, MONEYFISH, as well and learn how sportfishing contributes to conservation!



The Billfish Foundation



@TagBillfish



#TagBillfish

TBF Tracking Maps

Tagging billfish helps scientists and organizations like The Billfish Foundation learn more about these fish; where they travel to, where they go, when they are found in certain areas and how big they can get! Really cool stuff!



TBF's tag & release program is growing in some of the great billfishing grounds off the west coast of Africa. This recapture map shows the path of a sailfish tagged off of Angola in March of 2013 by Ruben Leal and Capt. Paulo Leal aboard the Marmeladas. Four months and more than 800 miles later this sailfish crossed the equator and was recaptured off of the small island of Sao Tome off of Gabon. When it was recaptured by Bastien Laloum it was estimated to be 50 inches in length and weigh 45 pounds.

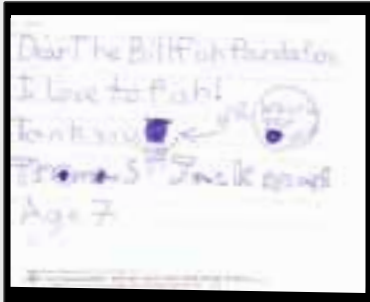


This blue marlin was tagged and recaptured in the span of just eight days off of the Hawaiian islands. Back on August 10, 2013 this blue marlin was tagged by TBF award winner, Capt. Gene Vanderhoek with angler William Hazzard and mate Mike Furrer aboard the 'Game Plan'. After making the short swim from Kona to Maui, this 350 pound blue was recaptured on August 18th by John Norsigian with Capt. Patrick Dorn of the 'Start Me Up La Dai'.

You can find more maps like these on Billfish.org and on TBF's Fan page on Facebook!

TBF and Spearfish want to hear from you!

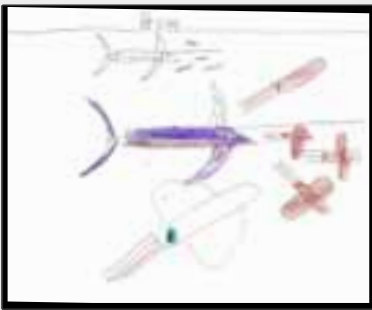
Hey Kids! Spearfish and TBF wants to publish your art, photos or other ocean and conservation related stories and stuff! Send them to us and we will try and use as many as possible in our upcoming publications! Email them to education@billfish.org



Thomas J. Mani, 7 years old



Caroline Fisackerly caught her first billfish, a blue Marlin that was tagged and released.



Swordfish by Brown Gaddy, 5 years old



Amelia Sabetti of Amherst, MA, 5 years old



Michelle Pernervik 8 years old. Sent this drawing after she had seen "The Old Man and the Sea - The Expedition" She wrote, "When I have grown up, I also shall catch a marlin from a kayak".

TBF's NEW Online Database

- Enter your own data
- View all your billfish tag & release data
- Share your catches via Facebook & Twitter
- Interactive map

Go to:
TagBillfish.org



FIND THE SUPERPOWER

Match the photo to the fish or animal's superpower description



I have eight legs and can change colors to camouflage myself from my prey or hide from predators.

I'm small, but if you scare me I will blow up like a balloon and scare YOU!

We stick together, sometimes called a shoal, so it's really hard for you to single me out.

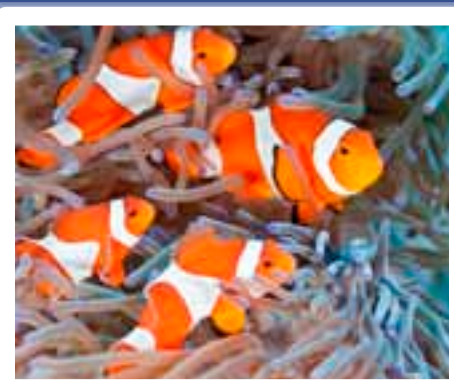
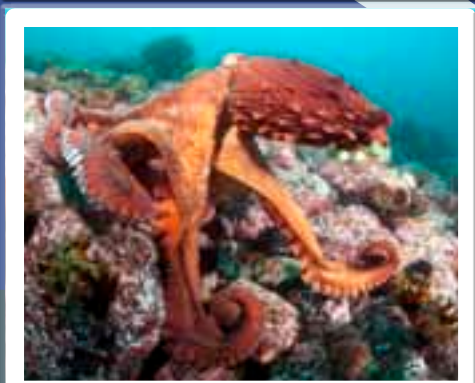
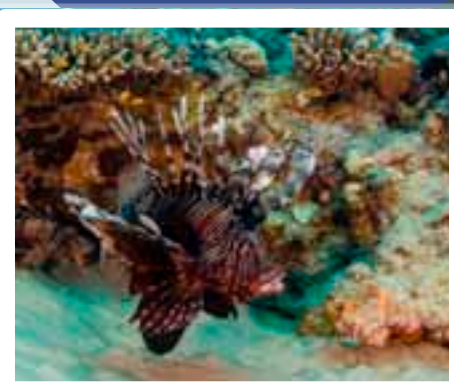
I have spiny tentacles that are poison. So watch out for me, or I will roar and sting you.

I look like a rock or coral (and a crocodile) so you don't see me until it's too late.

I'm flat with no fins, so I'm really good at blending in with the sand.

I might be cute, but I hide in anemones which are poisonous.

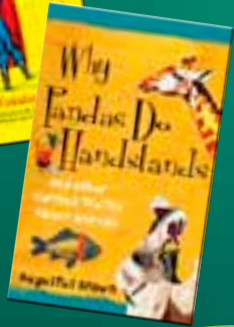
We stay in groups on land and our countershading allows us to blend in with ice or the dark ground.



Winter Reading List



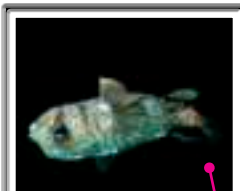
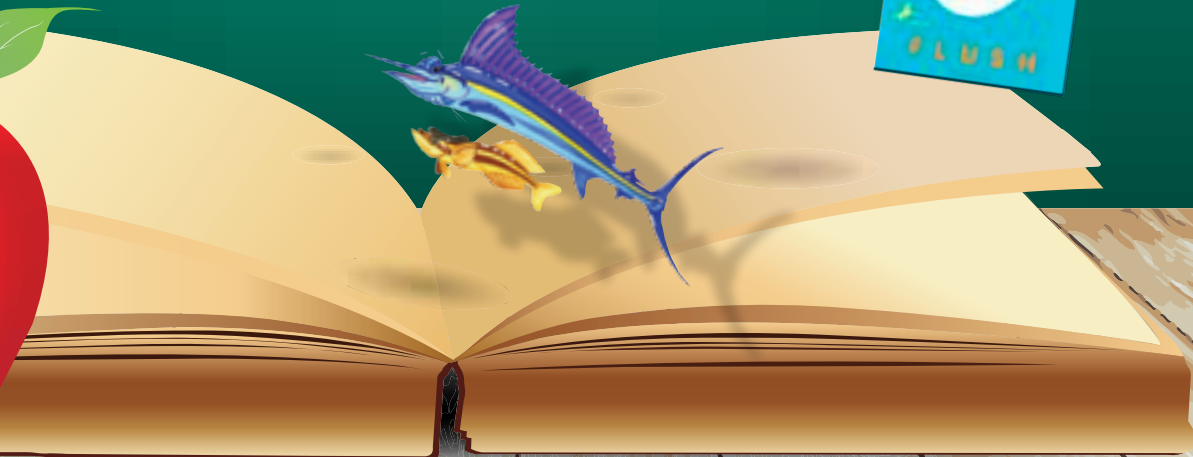
The Physics of Superheroes by James Kakalios — Explore the scientific plausibility of the powers and feats of the most famous superheroes — and discover that in many cases the comic writers got their science surprisingly right.



Why Pandas Do Handstands, And Other Curious Truths About Animals by Augustus Brown. A compendium of true, fascinating, weird facts about animals.



Flush by Carl Hiaasen — Read about how a group of kids learn about ocean pollutants harming turtles' habitats (and the surroundings in general) in the Florida Keys and fight the illegal dumpers!



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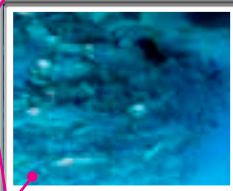
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Become a fan of The Billfish Foundation so you can be the first to know the latest TBF news!



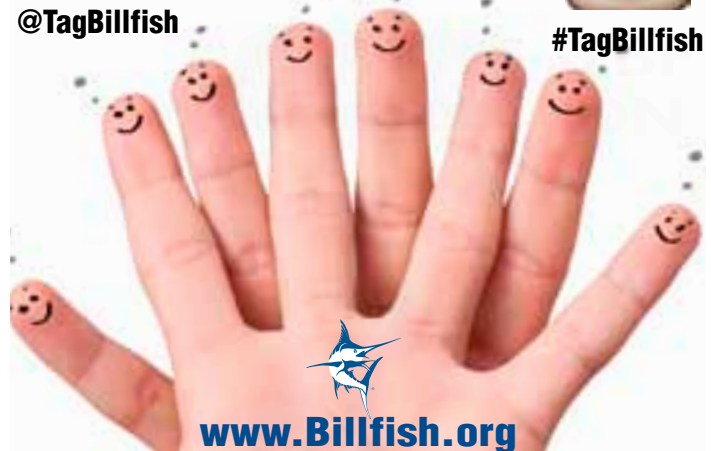
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