



RISING TIDE

THE MAGAZINE for YOUNG ANGLERS
and CONSERVATIONISTS.



**FISHIN'
KIDS**

**SEA
SNAKES**



CALIFORNIA YELLOWTAIL

A fun-to-catch trophy fish for
anglers along the **West Coast**.

PLUS MORE!
Photos, Articles & Activities!

RISING TIDE

THE MAGAZINE for YOUNG ANGLERS and CONSERVATIONISTS

Coastal Conservation Association (CCA) is a non-profit marine resource conservation organization. It has been active in almost every national fisheries debate for decades and has been a driving force in state and federal fisheries management issues. With your continued support, CCA will continue to battle for the health and longevity of our coastal fisheries and for recreational anglers' interests in them.

Editor and Designer Heather Peterek

Consulting Editors Patrick Murray
Ted Venker

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ON THE COVER:

Cameron Jonas, from San Clemente, California with a 20 pound yellowtail caught in southern California.

What's Inside:

Junior Marine Biologist

One CCA member shares his experiment on keeping bait shrimp lively and healthy.

3

Sea Snakes

Learn more about these underwater creepy creatures and test your knowledge with a quiz.

4

California Yellowtail

Get to know this beautiful West Coast fish.

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Activities and Games

Test your skills and solve fun puzzles!

8

Kids Fishin' Page


Kids from all over the nation show off their trophies.

10

JUNIOR Marine BIOLOGIST

David Garcia is a 5th grader at Austin Science, Technology, Engineering and Mathematics Middle School in Galveston, Texas. David is enrolled in the Gifted and Talented Program and says he has his science teachers Mrs. Cooley and Mrs. Phillips to thank for teaching him and encouraging him to learn more and conduct great experiments like this one. David is also a very experienced angler who has been fishing with his dad since he was a baby. Because he's grown up around the water and marine life, he knows and appreciates how fishing and conservation go hand in hand. CCA thanks David Garcia for sharing his useful information about keeping your bait lively and we hope he encourages you to go and be your own junior marine biologist!





JUNIOR Marine BIOLOGISTS in action!



What's one of the
most important parts of catching fish?
YOUR BAIT!



procedure

1. Cut the top off three 5 gallon water containers.
2. Add three gallons of salt water to each container.
3. Add 12 shrimp to each container.
4. Direct a space heater at container #1.
5. Leave container #2 alone.
6. Place large frozen water bottle inside container #3.
7. Check the temperature of water and status of the shrimp once per hour.
8. Record the time all 12 shrimp start to look lethargic in each container.
9. Repeat procedure three times and average the length of time for shrimp to lose liveliness in each container.
10. Record the results.

CCA member David Garcia is from Galveston, Texas and he knows one of the best baits for fishing in Galveston waters is live shrimp.

So he ran an experiment asking,
"Does a cold, room temperature, or warm environment keep bait shrimp lively the longest?"

Here are this junior marine biologists' results!



results

After taking the average time of loss of liveliness after three trials, I concluded:

Average time for all shrimp to lose liveliness in container #1 (warm 85° ocean water) = 4 HOURS

Average time for all shrimp to lose liveliness in container #2 (room temp 70° ocean water) = 5 HOURS.

All shrimp in container #3 (cool 50° ocean water) were still very lively after 12 HOURS.



conclusion

There are three main factors that make shrimp unhealthy in bait buckets; overcrowding, lack of oxygen, and heat. I have learned that bait shrimp stay lively the longest in cooler (50°) ocean water. When I go fishing, I will make sure to keep my bait tank cool with a frozen water bottle so the shrimp will stay healthy as long as possible. And I have learned it is important not to overcrowd my tank. If I put too many bait shrimp into a small amount of water or a small tank, they will lose energy quicker. I also learned tips during my research that oxygenating my bait is also a good method for keeping bait jumping around. This experiment has taught me a lot and now my fishing trips will be even better. When you see me out fishing the Galveston jetties with my Dad, I'll be the one catching all of the fish!



SEA SNAKES

BY
CHESTER MOORE, JR.

The yellow-bellied sea snake, or *Pelamis platura*, is one of the most beautiful seasnakes in the oceans.

Snakes are the most feared creatures on the planet, but also one of the most fascinating.

Living on every continent with the exception of frigid Antarctica, snakes are truly abundant, and range from the hand-sized earth snake to anacondas that can reach up to 30 feet in length.

But did you know there are snakes in the ocean? That's right - some of the most interesting and venomous snakes in the world live in our oceans. These "sea snakes" have fascinated me since I was a little boy, after I saw an illustration of a beautiful yellow sea snake in a reptile book my parents bought me.

All sea snakes have paddle-like tails and many have compressed bodies that give them an eel-like appearance. Some sea snakes spend much of their time on land, hiding in debris along shorelines while others are almost totally aquatic. Unlike fish, they do not have gills and must surface regularly to breathe. They are among the most completely aquatic of all air-breathing vertebrates (animals with a spine).

Now that you know there are snakes in the ocean, don't let that stop your next trip to the beach - there are no sea snakes found in American waters. There are numerous kinds of snakes linked to water in the United States, but they are not the ocean-going varieties. They can, however, be encountered near beaches, in coastal marshes and even in ditches in your neighborhood. The cottonmouth, also called a "water moccasin," is the only venomous snake you might find near water although there are numerous non-venomous water snakes, including the large diamond-backed water snake and much smaller Gulf crayfish snake.

So you are more likely to see a snake in your neighborhood pond than at the beach. The closest sea snake you will find is the yellow-bellied sea snake which can be found off the lower coast of Mexico. All told, there are 62 varieties of sea snake that are found off the coast of Africa and Australia, throughout the Pacific Islands and toward Central America. Some of the more well-known sea snakes are the beautiful banded sea krait and the olive sea snake, both of which are medium- to large-sized snakes.

Sea snakes are highly venomous and, compared on a drop-by-drop basis, some would be considered to possess the most deadly venom on Earth. The good news is that they rarely bite and when they do, only tiny levels of their neurotoxic venom are released.


Sea snakes are especially remarkable because even an ocean-going reptile has to drink water and it must be fresh water. So how does a sea snake drink fresh water if it lives in the ocean?

According to researchers, they find places where it is raining heavily, wait for pools scientists call "lenses" of fresh water to form on the surface, and drink. It is believed they can go up to six months without drinking fresh water which is much longer than even a desert-dwelling camel!


I have encountered many of these snakes but I have yet to have the honor of seeing a sea snake in the wild. In the next few years, we at the Kingdom Zoo plan on taking a trip to the Pacific to find these amazing creatures that have inhabited my imagination since I was just a little boy.

(Chester Moore is the founder of Kingdom Zoo, writer at kingdomzoo.com and Editor-In-Chief of Texas Fish and Game magazine)


CREEPY BUT AWESOME!



The olive-brown sea snake has structures known as photoreceptors on its tail, which detect light.

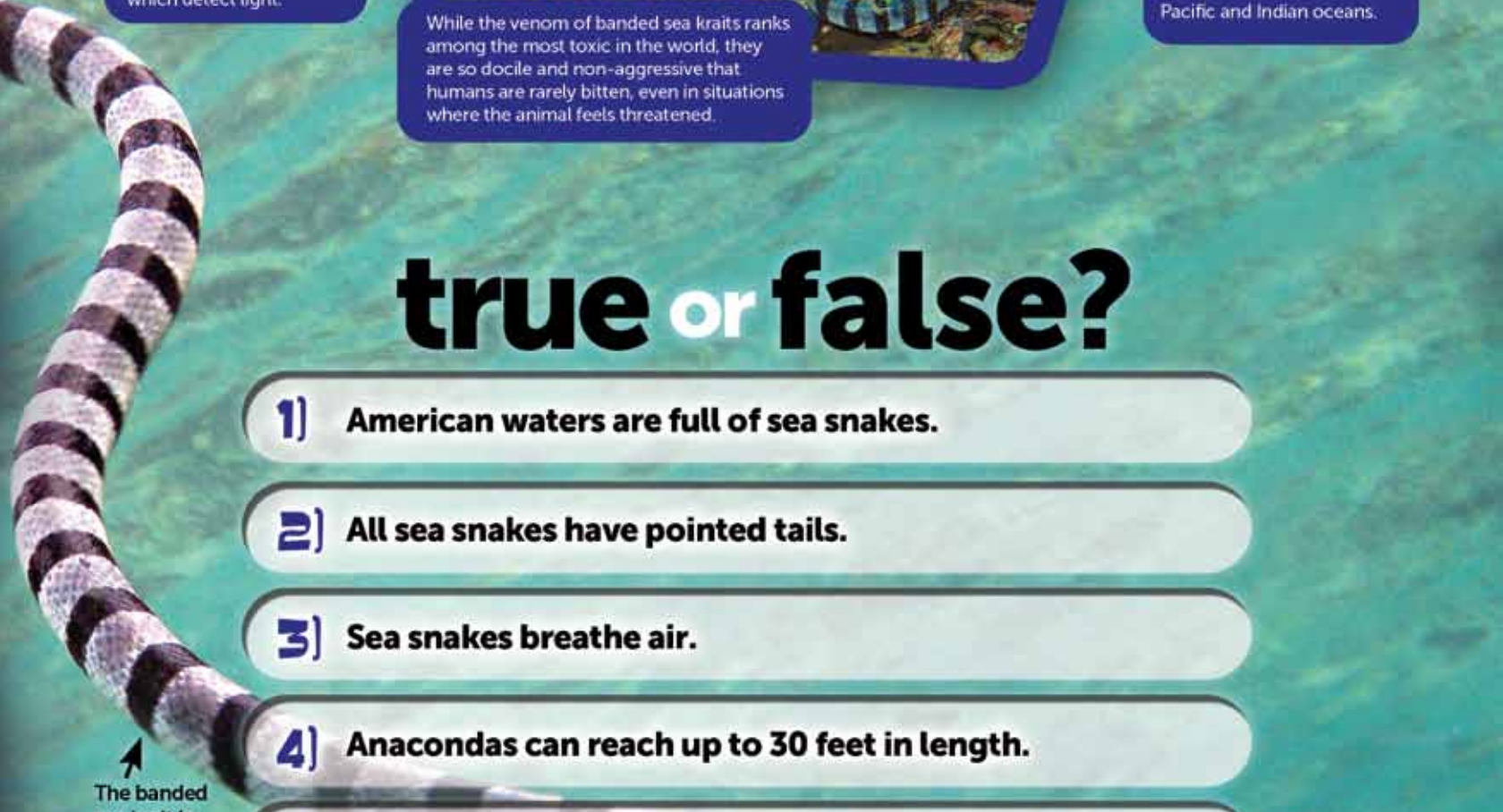


While the venom of banded sea kraits ranks among the most toxic in the world, they are so docile and non-aggressive that humans are rarely bitten, even in situations where the animal feels threatened.



The yellow-bellied sea snake is the most widely distributed sea snake species found in the warm waters of the Pacific and Indian oceans.

true or false?

- 
- 1) American waters are full of sea snakes.
 - 2) All sea snakes have pointed tails.
 - 3) Sea snakes breathe air.
 - 4) Anacondas can reach up to 30 feet in length.
 - 5) Some sea snakes spend much time on land.
 - 6) All reptiles must drink saltwater.
 - 7) Sea snakes can go up to six years without drinking water.
 - 8) Sea snakes and water snakes are two different species.

↑
The banded sea krait is one of the larger sea snakes with the females reaching up to 4.5 feet long!

For answers, go to: www.joincca.org/rising-tide

Hello MISTER CALIFORNIA YELLOWTAIL!

*Nice to
meet ya.*

*The California yellowtail is
a jackfish and a close
relative to the amberjack.*



The **California yellowtail** or "**Hamachi**" is a fun-to-catch
trophy fish for anglers along the **West Coast**.

The California Yellowtail or "Hamachi" is a trophy fish for fishermen on the West Coast. These medium sized jackfish are a close relative to the amberjack. They hang out in both near shore and offshore waters, eat both live baits and lures, and pull like a freight train.

Yellowtail can be found from Central California all the way to Cabo San Lucas and throughout the Sea of Cortez. For California anglers, the prime season for catching yellowtail is from spring until fall.

These scrappy fighters typically range from seven to twenty -pounds. However, it is not uncommon to run into a thirty-plus pound "mossback" model at one of the coastal islands or along the California/Northern Baja coastline.

Mid March typically brings large schools of eager, medium size fish (12-20 pounds) migrating up the coastline from Mexican waters.

As the summer months approach, a second body of fish will migrate north through offshore waters and can be found lurking underneath floating mats of kelp (kelp paddies) that have broken loose from the Northern California coastline.

Yellowtail can be caught using a variety of tactics but the most common is live bait like sardines, anchovies, squid and mackerel. Gear for live bait fishing is very simple.

The other method of catching yellowtail that is preferred by many anglers is "on the iron." Iron lures originated and are very popular in California. Iron lures come in many shapes, size and colors but generally fall into two categories, "surface iron" and "heavy iron."

Surface iron lures are made from a combination of light metals and painted to match local baitfish. These unique lures "swim" along the surface with side-to-side wobbling action, mimicking a live bait swimming on the surface. It is very exciting to see a yellowtail ferociously attack these baits on the surface!

Heavy iron lures are generally smaller and heavier than a surface iron. Heavy irons are made from a blend of heavier metals and are designed to sink quickly.

Anglers use the heavy iron when the fish are down deep or suspended. Many times yellowtail will hang around in very deep water, down to 100-300 plus feet. When fishing these spots, you let your heavy iron bait sink to the bottom and once you feel the bottom, immediately start winding as hard as you can. After you reel up about 100 feet, you let your bait down to hit the bottom again, and repeat until you catch one! This technique is known as "yoyo" fishing, for obvious reasons.

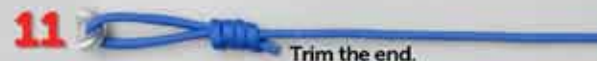
No matter how you catch these fish, it will be a fun experience! So get on out to California and see what all the excitement surrounding this great fish is all about!

Article by: Ali Hussainy, President of BD Outdoors and CCA California Board Member



Iron lures originated and are very popular in California. They come in many shapes, sizes and colors but generally fall into two categories, "surface iron" and "heavy iron."

TRY TO TIE THIS! DUNCAN (UNI) KNOT



CROSSWORD PUZZLE Sea Creatures

B	H	S	I	F	Y	L	L	E	J	F	Q	C	W	K	J	W	J
D	S	U	P	O	T	C	O	M	N	U	C	M	I	C	P	M	V
A	K	R	V	V	U	Y	C	Z	Z	L	G	M	Q	F	X	O	I
V	D	E	N	O	M	E	N	A	A	E	S	G	X	M	B	R	I
R	L	T	K	U	W	S	E	M	U	T	U	B	N	F	L	A	S
F	L	S	H	S	W	L	S	J	Q	U	K	O	S	B	H	Y	H
H	U	B	V	R	T	A	B	O	P	H	T	J	E	I	G	E	I
C	G	O	O	R	W	P	N	K	M	K	I	K	A	S	L	E	X
O	A	L	U	E	Q	L	I	U	N	Y	H	S	H	H	N	L	Q
R	E	T	S	S	K	O	R	A	T	N	G	U	O	A	N	S	K
A	S	N	D	E	B	P	L	E	I	T	J	L	R	R	B	Y	O
L	B	C	U	O	A	P	S	Q	T	V	X	L	S	K	M	M	X
R	M	H	W	G	L	U	H	E	E	S	V	O	E	P	P	I	W
E	S	F	P	U	N	P	R	L	A	O	Y	M	T	O	D	V	H
E	B	Q	B	F	Y	I	H	C	A	L	H	O	O	B	S	X	A
F	A	J	U	X	B	J	R	I	H	J	I	P	X	C	Z	D	L
P	T	Q	E	I	D	A	F	R	N	I	M	O	M	F	H	Q	E
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O	Q	Z	E	E	H	W	Y	F	Z	H	S	E	A	U	R	O	W
Z	D	S	E	A	W	E	E	D	C	V	L	L	E	H	S	H	U
K	V	K	Y	M	C	N	M	A	R	L	I	N	C	Q	G	D	S

CLAMS
CORAL REEF
DOLPHIN
HERRING
JELLYFISH
LOBSTER
MARLIN
MOLLUSK
MORAY EELS
OCTOPUS
OYSTER
PLANKTON
SEA LION

SEA
ANEMONE
SEAGULL
SEAHORSE
SEA URCHIN
SEAWEED
SHARK
SHELL
SHRIMP
SQUID
TUNA
TURTLE
WHALE

FOR ANSWERS TO ALL PUZZLES GO TO:
WWW.JOINCCA.ORG/RISE-TIDE



1
Draw the body



2
Draw the head



3
Draw the tail



4
Draw the eye and
the mustaches



5
Draw the antennae

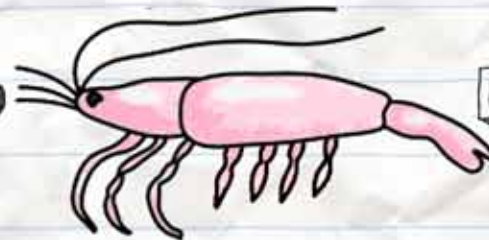


6
Draw the long legs



7
Draw the short legs

FINISHED



DRAWING

WORD SCRAMBLE

Unscramble the words below. Hope you were reading the articles carefully...**RED** words are from page 3,
GREEN words are from pages 4-5 and **BLUE** words are from pages 6-7. Good luck!

PIRSHSM

MNEOV

TBAI

AES KTAIR

RENIMA LOIBGSITO

TRPEIL

ERTURAPEMTE

LTAIWLOLEY

TNEMEPHXE

LACRFOIAIN

ASE KNASE

NOIR RELU

CANAAODN

JABERMKCA

SHREF TWARE

PLKE

KIDS FISHIN'

**DO YOU HAVE A GREAT
CATCH THAT COULD MAKE
OUR KIDS FISHIN' PAGE?**

To submit photos, have your parents:

1. Email to photos@joincca.org OR
2. Share on Facebook at [Facebook.com/CCANational](https://www.facebook.com/CCANational)

* There are a lot of kids fishin' out there and while we try our best to get everyone's photo published, we cannot guarantee yours will be printed.



Webber



Morgan



James



Buck



William



Jake



Remington



Noah

Dylan



Kira



Nicole



Philipp



Elias

A yellowtail,
like on page 6!



Gage



Trevor



Cameron



Davis



Jake



Anna



**Thank you
Valero!**

CCA & Valero Continue
Youth Partnership


Because of the generous support of Valero,
the Rising Tide Youth Program will
continue to thrive!

"Since the 2007 launch of the Rising Tide Youth Program, more children than ever are participating in community projects, local and statewide tournaments and in the conservation of coastal resources," said Pat Murray, president of CCA. "But, there is still work to do, and Valero's generous sponsorship will allow us to continue focusing on the future of marine conservation through our youth programs."



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At Valero, we're proud to be America's largest refiner, producing everything from gasoline to jet fuel. But we're also one of the nation's most environmentally responsible refiners, too. We think the Coastal area is one of the most important regions in the United States, and we want to help keep it that way. That's why we are proud to sponsor the Rising Tide newsletter. Inside, you'll find lots of interesting information, and you'll discover the fascinating world underwater.

We hope that with what you learn, you will grow up just as determined as we are to help protect one of our most valuable natural resources: the Coastal area of our United States.

