The Rooster Tails Fishing Club of Northern California, Inc.

Educate ~ Entertain ~ Enhance

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Rooster Tails Fishing Club of
Northern California, Inc.
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- One of the best fishing guides for scoring striped bass
- Knowing when and where to fish the Delta is Jeff's key to success
- Fishing on the Mo Mo will be one of the best fishing experiences of your life

Inside this issue:

Judy Miller, Editor
Thank you for reading our newsletter!

Captain Jeff Soo Hoo—Catching Trophy Striped Bass

The Rooster Tails Fishing Club is proud to announce to the fishing community that **Captain Jeff Soo Hoo, owner of Soo Hoo Guide Service, will provide a striped bass seminar at their monthly third Friday breakfast meeting, 7:00 a.m., October 18th.** Jeff's Delta fishing exploits have earned him the reputation as one of the best fishing guides for scoring trophy striped bass.

Jeff has been fishing the Delta for over 30 years, first with his dad, now with his own kids. After 20 years of running a family restaurant and fishing on his days off, he decided to follow his calling. With the encouragement and support of his wife and family, he sold the restaurant, got his captain's license and started Soo Hoo Sportfishing. He loves to share his passion and expertise for fishing stripers. The Delta is an amazing maze of waterways - it is not a simple process of just dropping a line in the water. Knowing when and where to fish is his key to his success. Jeff is excited to be sharing his approach on drifting live bait and spooning Delta Striped Bass with the Rooster Tails and their guests.

Whether you're a serious angler, family, or group that wants a memorable day on the water, he will give you the best fishing experience of your life! You will love fishing on the MoMo, named after his daughter, a 2018 custom built Rogue Coastal 23, designed for fishing - stable, safe and comfortable. He has the skills, equipment, and will guide you to the best stripers at his own top-secret spots.

Striper fishing is in full-swing… you don't want to miss this special seminar to get the most from your time on the water.

Captain Jeff Soo Hoo

Calendar of Events

October 18
Speaker—Captain Jeff Soo Hoo
"Strategy for Catching Trophy Striped Bass"

November 6
Turkey Tourney—Collins Lake
No Entry Fee
Sign up at Friday breakfast

November 20
Rock Cod & Crab Combo
Emeryville Marina

October 2019

Sun	Mon	Tue	Wed	Thur	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Striper Angler Education 101 – *'Know Your Prey'*

Knowing about the fish you are going after can help improve your odds as a fisherman. For instance, by studying the striped bass' anatomy you can glean clues about characteristics and behaviors. Comparative anatomy is a science that compares the differences and similarities of organ systems between species. For example, a fish has a set of nostrils like a human does, yet, unlike a human, they are only used for smell, and not breathing. However, most fish just have a set of holes through which water flows. Yet, unlike most fish, a striped bass has a pair of nostrils on each side that maintain a connection between the nostrils and the mouth, like in humans. This actually allows for smell and taste to be integrated and shows us that the striper, as a fish, relies on smell and taste a lot more than vision to navigate through its world of water.

The nervous system of the striper, Morone saxitilis, (California Delta Striped Bass) consists of a forebrain, midbrain, brain stem, spinal cord, and nerves. It operates mostly on instinct that is programmed into its nervous system. In addition the nervous system and organism as a whole operates on a reflex basis depending on environmental stimuli. The brain has a very small cortex, therefore it does not have advanced capabilities for memory and emotions as we know them. That is why they seem to "forget" and can at times hit a lure again shortly after being released. However, they seem to exhibit learned behaviors and can associate certain events or things with food or danger. In addition, pain processing appears to be minimal due to the absence of pain processing centers in the brain's miniscule cortex. That is not to say that they do not react to injury or to things that we would term painful. Their nervous system is not adapted for them to feel or "experience" pain as we humans do, and some studies imply that they have basic behavioral reactions (reflex reactions) to painful stimuli. We, however, put an emotional descriptor onto a painful stimulus and call it pain and presumably "feel' it on a much richer level. The brain of a fish is not as complex as ours, including how it relates to the interpretation of pain. Regardless, it is our responsibility as conscientious fishermen to minimize the pain and trauma that we inflict on fish.

The nerve tracts for smell are well developed in stripers yet the visual cortex (that part of the brain dedicated to vision) is small. It is no surprise that a striper, therefore, has a keen sense of smell, but not as keen as Anguilla rostrata, the American eel. A study once showed that eels responded to 1 billionth of a drop of alcohol in a pool.

It is thought that striped bass, like salmon, can smell their place of birth and this is what guides them on their quest to spawning grounds. It is also why using scented artificial baits makes a lot of sense. In addition to smell, a striper has taste buds on its lips, tongue, and over most of its mouth. Stripers literally swim in a sea of smells and chemicals. They are therefore very adept at chemoreception. These are all good reasons why you must make sure that your lures and baits are free of foreign smells and tastes, i.e. sun-block, bug spray, gasoline, food, soap, etc.

Vision in a striped bass is not as keen as its other senses and is used mostly for short range encounters. However, its retina contains an ample population of rod receptors and some cone receptors allowing vision to be similar to ours. The rod receptors enable the fish to see in low light conditions whereas the cones allow color vision. The eyes are large and are set slightly forward and upward on the head. This enables some binocular vision and facilitates looking up at its prey from below. The lens is round and does not flatten to focus light on the retina like our eyes. However, the lens can be moved closer to or further away from the retina to focus an image. Fish also do not have eyelids because their eyes are constantly in water and won't dry out. Six small muscles very similar to ours control movement of the eyeball. Because of its large eyeball size and density of rod receptors on its retina, a striper's visual system allows it to be an excellent nocturnal hunter.

Striped bass have a wide color visual range, especially during daylight. A recent study from the Virginia Institute of Marine Science has shown that stripers are sensitive to a large part of the color spectrum and their retina is sensitive to very rapid movements. The middle of their spectrum sensitivity is yellow and yellow green. This means their peak response was to the color yellow. Is it any wonder that chartreuse colored lures work well? According to VIMS researcher Andrij Horodysky, "Nothing in the wild is ever chartreuse, but the color is right smack dab in the middle of a striper's visual range. They can see it really well."

Researchers also found that during daylight hours the retinas of striped bass, as compared to other fish, respond much better to light of red wavelengths yet both fish do not respond to red wavelengths at night. Another fascinating fact is that the rods and cones, the two sensory nerve cells of the retina, actually migrate and change position on the retina in accordance

Continued on page 3

Striper Angler Education 101 – *'Know Your Prey'* - *continued*

with day and night. This circadian rhythm also changes to adapt to seasonal differences. During the daylight hours, cones migrate to the surface of the retina to allow color vision and acuity while the rods take a back seat, literally. During the waning hours of light and nighttime, the reverse happens with the greater density of rods affording low light vision and contrast discrimination.

In a camera, shutter speed is the speed at which light is allowed through an aperture setting. In fish, this speed is called "flicker fusion frequency" and is measured by a technique used in humans called electroretinography. Essentially, the amplitude and frequency of nerve impulses from the retina are measured in response to stimulation inputs. In striped bass, their "shutter speed" is fairly rapid, measuring around 50 cycles per second, almost as fast as humans (about 60 cps). This enables them to see large and fast moving prey.

For fish to see optimally, water clarity is essential. Murky waters force fish to use senses other than vision and can account for the disparity found in research of the stomach contents of stripers. Due to their visual capabilities, you would expect to see a preponderance of large fast swimming forage in their stomach. Quite the contrary was found in murky waters as their bellies were filled with juvenile crustaceans and shrimp. It seems that in turbid waters, stripers are forced to feed in contrast to the evolutionary development of their visual system. Researchers are now raising different questions: Is it the prey per meter amount or the number of prey they are able to see in our bays that is important for survival of these visual predators? If they can't see their prey ideally, how can they optimally eat it?

Looking in a striper's mouth you will notice several clues as to its eating behavior. It does not have teeth in the real sense of the word as in the case of a bluefish. It has roughened areas on the upper and lower jaw, and two parallel elongated patches on the back of the tongue. The teeth are abrasive, rather than cutting, as anyone with "Striper-thumb" knows. Therefore, these teeth are not meant for chopping or cutting, but for holding and grasping its prey. The mouth is very large and ends immediately into the esophagus or muscular tube that empties into the stomach. As you study the striper's mouth, it is apparent that it was meant to engulf and swallow its prey whole. Since it is primarily piscivorous (fish eating), it must take its prey head first or else the fins and dorsal rays would become lodged in the bass' throat. Its stomach has large folds in it or rugae that increase the surface area to hasten digestion. Once a bass engorges itself and fills its stomach, it will lie low until the food is digested and then again feed.

The body of a striped bass displays power and strength. It's large tail and muscular body enables it to stem strong currents or swim quickly for shorts bursts. However, it also means that is must eat to sustain strength and stamina. Therefore it is no secret that Morone saxitilis has a voracious appetite.

In addition, its large size means a large amount of muscle mass. When a muscle contracts and exerts energy, it generates an "oxygen debt" and an overproduction of lactic acid. This can change the pH of tissues and cause damage to muscle cells. Metabolic changes can even usher in death. In addition, variations in the fish's environment can alter stress-related death. High water temperatures (as in the summer months), lower salinity, and decreased oxygen saturation can adversely affect a fish's survival due to the stress of being caught. In striped bass, temperature, salinity, and fish size have been shown to be the three most important factors affecting survival in catch-and-release programs. Larger fish engage an angler longer and are harder to handle. A larger fish also has a greater ratio of body mass to gill surface area and therefore has a more difficult time paying back its "oxygen debt" incurred during a fight. In other words, it can't efficiently get rid of carbon dioxide generated via muscular exertion and re-oxygenate tissues fast enough. This can result in deadly metabolic changes. The weight of their bodies out of water can cause injury to their vital organs if held improperly. Larger fish also tend to swallow bait resulting in getting deeply hooked, a potentially lethal situation. The odds of a striped bass dying are more than 15 times if it is deeply hooked (gut)! Lastly, exposing a fish to air, especially if it is warm, will increase their stress-related mortality.

Knowing all you can about the fish you target can aid in bait or lure selection and increase your chance of success. Oftentimes just observing how a fish is anatomically built can give you clues as to its behavior. The striped bass is just such a fish. It is the premier game fish in our Delta waters. As conscientious fishermen, we should consider the above information when fishing and handling these sentient beings. Each time you successfully release a striper remind yourself of what the famed fly fisherman Lee Wulff wrote in 1938; "A good game-fish is too valuable to be caught only once". Follow sound catch and release guidelines and protect our precious resource. Happy fishing and good luck!

A Look at the Delta's Tastiest Invasive Species

Modern-day California has lots of species living here that weren't here 500 years ago. Settlers brought them in deliberately or accidentally, in large numbers or as a single individual that spread like mad. Some of those new introductions, like tomatoes and daffodils, have mainly played nice with the other species. Others, like these plants currently wreaking havoc in the Delta? Not so much.

The firm white Striper meat is excellent barbequed or for the best fish tacos you ever had!

But one introduced fish that has thoroughly changed the Bay Delta ecosystem might well be the most popular of all the state's new species. And while scientists differ over the degree of harm this fish might be causing native wildlife, many Californians -- at least those who don't lean vegetarian -- are happy to have a chance to see this species. Especially steamed with ginger and lemongrass.

In other words, striped bass, one of California's most popular sport angling fish and a popular menu item, is an invasive exotic species. The bass, *Morone saxatilis*, was planted in California waters in 1879 for pretty much the same reason people plant fish anywhere: so they could be caught and eaten. The anadromous striped bass took to the Bay Delta like, well, a fish to water: swimming out to saltwater to mature and then back up into freshwater to spawn.

Unlike Pacific salmon, striped bass tend to avoid the open ocean during their saltwater phase, though one *can* find larger adult stripers at sea wandering the coast between Monterey and Mendocino, especially during warm El Niño conditions. In general, the fish prefer protected estuaries where juveniles can hunt in conditions a bit less exposed than on the high seas. It's hard to imagine an environment better suited for the species than the Bay Delta, with the expansive and protected San Francisco Bay providing saltwater habitat. Also unlike Pacific salmon, striped bass don't necessarily die after spawning. Males reach sexual maturity in 2-3 years, females in 4-6, and individuals of either gender can live for 30 years or more, though typical life expectancy seems to be somewhere around 10 years. That means each individual striped bass can swim upstream to spawn at least four times before they die, and the fish seem to get more fertile the older they get.

Spawning is a bit of a haphazard affair. Adults swim at the surface of the spawning stream in mixed groups dominated by males. Females release their eggs, males release sperm -- "milt," in fisheries jargon -- and the semibuoyant eggs drift downward through a cloud of the males' mixed milt. Fertilized eggs hatch in about two days. For the next week or so the new juveniles drift downstream, feeding on their attached yolk sacs, until they reach the spot where brackish and fresh water mix. There, the baby fish eat zooplankton such as the tiny crustaceans called copepods and amphipods. As they grow, they slowly add fish to their diet, tiny ones at first and then larger ones. By adulthood, the stripers subsist exclusively on a diet of fish.

There are some scientists who suspect stripers were really able to get a secure foothold in the Bay Delta ecosystem due to the catastrophic floods of 1862, which flooded the Delta and adjoining areas of the Central Valley under 20 feet of water or more. That flood, combined with the huge amount of sediment washed down into the Central Valley from the hydraulic mines of the Mother Lode, likely hurt existing fish populations by silting up their habitat in some parts of the Bay Delta, and scouring it out in other places. That reduced the number of fish that might have competed with striped bass, which helped the bass establish themselves once they were planted 17 years later. Or so some researchers conjecture.

Regardless, the bass are very well established in the Delta now, contributing to a sport fishery that brings millions of dollars each year for local businesses. The bass are essentially a top predator in the Delta, with adults reaching in excess of four feet in length and averaging between 10 and 30 pounds. There were about 2.5 million adult stripers in the Bay Delta in the mid-1970s; the fish's numbers declined to about a million by 2003 due to many of the same factors that threaten other fish in the system, including the massive pumps of the Central Valley Project and the State Water Project.

That "top predator" thing is potentially a big problem. The Delta is home to seven species of fish that are listed under the U.S. Endangered Species Act, including the Delta smelt, two of the Delta's four runs of Chinook salmon, and the Central Valley population of steelhead. And all of them spend at least part of their life cycles being small fish in the Delta. Do they get eaten by striped bass?

The answer to that question would necessarily seem to be "of course." In fact, according to some biologists, striped bass may eat as much as a quarter of each year's crop of juvenile salmon; the rough scientific consensus would put the minimum "take" of endangered or threatened salmon by striped bass at *at least* 5 percent.In 2008, the group Coalition for a Sustainable Delta, along with the Berrenda Mesa Water District, the Lost Hills Water District, the Wheeler Ridge-Maricopa Water Storage District, and an individual, sued the California Department of Fish and

Continued on page 5

A Look at the Delta's Tastiest Invasive Species—*continued*

Wildlife -- then named the Department of Fish and Game -- in an attempt to loosen restrictions on legal fishing of striped bass. By improperly enforcing fishing regulations that protected striped bass, the plaintiffs charged, the Department was causing harm to Central Valley runs of Chinook salmon and steelhead that are protected under the federal Endangered Species Act. In expert testimony offered by the plaintiffs, biologist Charles H. Hanson wrote: *Striped bass predation in rivers tributary to the Delta appears to be the largest single case of mortality of juvenile salmon migrating through the Delta. The high rates of striped bass predation within the Sacramento River are supported by, inter alia, striped bass diet studies and recent survival studies that have shown high mortality of salmon and steelhead (approximately 90 percent) before they reach the Delta.*

Note that Hanson doesn't mean to imply that 90 percent mortality is entirely due to stripers lose of things that kill juvenile salmon trying to reach the sea, from great blue herons to accidental motor oil spills. But the bass do their part; they're voracious and aggressive. Stripers have been observed on many occasions parked at the downstream end of passages designed to allow juvenile salmon to go around obstacles on the Delta's tributary streams. Kind of like the aquatic version of grizzlies at the McNeil River Falls in Alaska.

Then again, if you're wondering why those three water districts, all of them serving the southern San Joaquin Valley, took such an interest in striped bass predation on salmon, you've got good California water politics instincts. All three districts rely on State Water Project deliveries, which are another major contributor to mortality of listed salmon and steelhead runs as juvenile fish are sucked upstream toward the pumps. If something were to be done about striped bass, goes the logic often expressed by State Water Project customers, that might ease pressure on the water projects for their contribution to the plight of endangered fish.

For its part, the National Marine Fisheries Service (NMFS), the federal agency charged with enforcing the Endangered Species Act for most marine species, has decided that something has to be done about striped bass numbers. In 2010, NMFS asked the state Department of Fish and Game to lift any restrictions on anglers catching striped bass as a way of encouraging reduction in the species' numbers. "NMFS has concluded that striped bass predation is a significant mortality factor for Central Valley salmon and steelhead," wrote the agency in a document published that year.The agency cited one 2003 paper as suggesting stripers may eat about nine percent of the federally endangered Sacramento River winter run Chinook each year; certainly sufficient reason to explore the possibility of controlling striper populations.

And in an April, 2011 settlement of the Coalition for a Sustainable Delta lawsuit, that's exactly what the Department of Fish and Game agreed to do: to consider a management plan for stripers that took into account the fate of Chinook, steelhead, and other troubled populations of native fish. The good news from that settlement was short-lived. In 2012, the Department proposed an environmental review of the striped bass sport fishery that would look at effects on salmon and steelhead. In February of that year, the state Fish and Game Commission voted not to go ahead with that environmental assessment.

And of course it might be more complicated than just "striped bass are bad for salmon." In 2011, respected fisheries biologists Peter Moyle and William Bennett suggested that removing striped bass from the picture might not help the Delta's native fish all that much. Moyle and Bennett pointed out that despite popular assumptions that stripers were eating up the few remaining Delta smelt, very few of those fish have ever showed up in the stomachs of the bass, which would make them one of the few fish stripers apparently don't eat.

And though no one disputes the notion that striped bass do eat salmon and steelhead, Moyle and Bennett said that the bass also eat fish such as the invasive exotic Mississippi silverside, a smaller but still voracious predator on both those fish as well as the Delta smelt -- and which 1-3 year-old stripers eat like no one's business. Removing striped bass, they wrote, would very likely release pressure on predatory fish like the silverside, with unpredictable effects down the road.

It's also possible, said Moyle and Bennett, that the majority of striper-related salmon and steelhead mortality involves hatchery fish, which are generally held to be less cautious and wily than their wild-born counterparts. "Predation on hatchery-reared juveniles may even buffer wild fish from such predation," they wrote, "given that wild fish are warier and less conspicuous than the more abundant hatchery fish."

Ultimately, Moyle and Bennett suggested that removal of the striped bass would be removal of the ecosystem's top predator, a practice rarely recommended. "Reducing striped bass and other predator populations is unlikely to make a difference in saving endangered fishes, and will serve only to distract attention from the real problems," they wrote.

As respected as Moyle and Bennett are, it's unlikely that humans watching the Delta will agree on the benefits and drawbacks of removing the striped bass any time soon. In the meantime, for those of us Californians who eat fish, it's nice to know there's at least one species we can have for dinner with a clear conscience.

In Memoriam

Al Sweeney

June 26, 1939 — September 16, 2019

Pat Bashore

May 14, 1945 — September 29, 2019

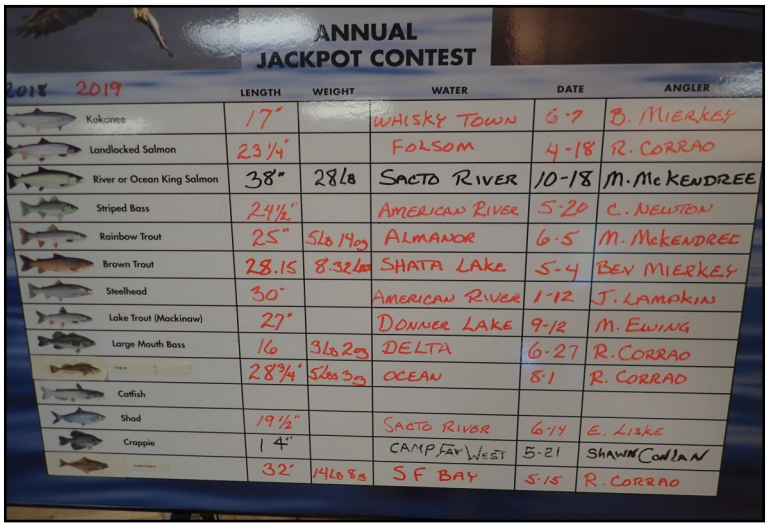
FISH TACOS

Ingredients:

- 1 cup cherry tomatoes, diced
- 1 tablespoon minced jalapeno
- 1 tablespoon minced shallot
- 1 tablespoon cilantro chopped, plus more for garnish
- the juice and zest of 1 lime
- salt and pepper, to taste
- 1 tablespoon olive oil
- 1 large fillet rockfish (striped bass), skin removed (~1.5 lb)
- 1 tablespoon Mexican seasoning or taco seasoning
- 8 corn tortillas, 6 inch
- 1 avocado, sliced
- 1/2 cup thinly sliced red cabbage
- 1 lime cut into wedges, for serving

Add the tomatoes, jalapeno, shallot, cilantro, lime juice, and lime zest to a bowl. Mix to combine and season with salt and pepper. Set aside. Add the olive oil to a large saute pan over medium high heat. Season the fish with the Mexican seasoning (quick Mexican seasoning: 1/2 tsp chili powder, 1/2 tsp cumin, 1/4 tsp paprika, 1/4 tsp salt, 1/4 tsp pepper, 1/8 tsp garlic powder, 1/8 tsp onion powder, 1/8 tsp oregano). Add the fish to the pan and cook until cooked through and flaky, about 4-5 minutes. Once cooked through, break apart into chunks within the pan and remove from heat. Heat the tortillas either in the oven or the microwave until soft. Slice your avocado and cabbage. Add the fish to the tortillas and top with cabbage, avocado, and the tomato mixture. Serve with lime wedges. Truly fresh fish is just the best. Because the fish was so fresh, I made these without any kind of "sauce." If you want some extra creaminess, you can make a mixture of a few drops of sriracha and some sour cream to add on top. You will love the different textures in this recipe. The parts of the fish that really crisped up (a.k.a the parts that may have burnt a bit) added a really nice smokiness to the tacos, so no worries if that happens!

Jackpot Fishing Contest



2019 names in Red — 2018 names in Black

KOKANEE—**Bev Mierky**, 17", Whiskey Town, 6/7/19

LANDLOCKED SALMON, - **Ray Corrao**, 23 1/4", Folsom Lake, 4/18/19

STRIPED BASS—**Craig Newton**, 24.5", American River, 5/20/19

RAINBOW TROUT—**Mac McKendree,** 25", 5 lbs. 14 oz., Almanor, 6/5/19

BROWN TROUT, **Bev Mierkey**, 28.15", 8.32 lbs, Shasta Lake, 5/4/19

STEELHEAD, **Jerry Lampkin**, 30", American River, 1/12/19

LAKE TOUT (MACKINAW), **Mel Ewing,** 27", Donner Lake, 9/12/19

LARGE MOUTH BASS, **Ray Corrao**, 16", 3 lbs. 2 oz., Delta, 6/27/19

LINGCOD, **Ray Corrao, 28.75**", 5. 3 lbs., Ocean, 8/1/19

SHAD, **Eric Like**, 19.5", Sacramento River, 6/14/19

PACIFIC HALIBET, **Ray Corrao**, 32", 14.8 lbs., S.F. Bay, 5/15/19