

Secrets of the Coast revealed

Posted: Wednesday, June 20, 2018 11:25 am

WILLIE YOUNGER A Natural State of Mind |

Secrets of the Coast revealed

Summer has arrived with a vengeance and so have the hordes of folks seeking relief from the heat with days of fun in the sun at the coast. While frolicking in the alluring, but alien, environments of the beach, bay or Gulf many marvel at the wonders found there. But, few possess the knowledge to properly interpret such phenomena. So, as a marine sciences educator in a former life, I thought equipping you for a little game of Trivial Pursuit might be worthwhile.

SEA WEED (aka *Sargassum*) – With the changing currents of the season, the golden-brown strands of buoyant-berry-covered vegetation begins coating our Texas beaches. It can limit the opportunity to play in the sand, irritates bare feet and, as it decays, draws insects and stinks. Yet, this seaweed is the primary source of nutrients for hearty plants which stabilize and grow our dunes by catching and holding sand. Without a vibrant dune field (i.e., a natural seawall), our most basic line of defense against tropical storm surges would be of minimal benefit.

SEA CATFISH (aka *hardheads*) - The dorsal and pectoral spines of these much-maligned fish are, literally, skin-covered hypodermic needles. At the base of each of these spines is a gland containing venom. Get punctured by one of the creature's pricking defense mechanisms and you will know what intense pain is really about. The animal's skin is pressed toward the torso until it presses on the gland. You will instantly be inoculated with toxin which will make you involuntarily say really bad words. The good news is this biochemical agent, seldom, if ever, does any permanent harm. The bad news is such puncture wounds can produce serious infections. The incredibly bad news is that many local witch doctors will instruct hapless victims to take some slime from the catfish's body and rub it into the injection site for quick relief.

If they only knew that the outer mucus of a fish is what collects foul, illness-causing microbes and is eventually sloughed off to protect the fish from infections. So, unless you are bizarrely fond of antibiotics, you might opt for more wholesome wound treatments.

SARGENT BEACH (aka *world class vanishing act*) - This stretch of the Texas coast suffered astronomical rates of shoreline erosion for many, many decades; approaching 60-plus feet per year in some localized hot spots. Thus, it has emerged as a favorite case study for researchers from around the world. Although it is difficult to pinpoint the exact cause, or causes, of such phenomenal real estate losses, most experts believe it was the re-routing of the Brazos River which created gnawing eddies that mercilessly assaulted this portion of coastline.

A formidable 7 ½-mile revetment wall was constructed at Sargent Beach two decades ago to protect shipping along the Gulf Intracoastal Waterway. But, anxieties have not subsided as Gulf water inches ever closer, foreshadowing that a major Gulf storm could greatly damage or destroy this granite shield.

Another frequently considered solution for rebuilding and/or stabilizing the beach which is 'nourishment.' The routine process is to dredge the ocean floor and pump undersea sand onto the shore. The problem here is that in the 1980's the Bureau of Economic Geology at the University of Texas confirmed that little, or no, sand reserves exist offshore of Sargent Beach. And sadly, borrowing from nearby areas, where there is sand surplus (like the mouth of the San Bernard River), would be technically possible, but cost prohibitive.

SEA LEVEL RISE (NEWS FLASH - *Wadsworth Beach Resort to open soon?*) – Unless you have been vacationing on Mars, you are aware that the glaciers and ice caps of the world are melting at an alarming pace. What is not fully recognized by most of Earth's inhabitants is

that only the melt water running into the oceans from ice-covered land masses will cause the oceans to rise (e.g., Antarctica, Greenland, etc.). To explain, massive reservoirs of ice and snow, like those at the North Pole, are quite truly just super-sized ice cubes floating on the surface of the sea. As these frigid, but steadily warming, features of our planet will keep shrinking, in ever-increasing portions, they will add absolutely no (zero) new water. After all, ice is just water in solid form and it already there to influence the level of the sea in which it sits. [Top a clear glass of water off with ice cubes and mark the water level. Let the cubes melt and you will note that the level remained the same.]

I have a whole boatload of similar factoids which I may share with you at a later date. But, to tease you a wee bit, the topics could include swimming clams, salty alligators, mutating fishes and rivers that Do Not run to the sea.

Have a safe and memorable summer!



© Copyright 2018, The Bay City Tribune, Bay City, TX | Terms of Use

southern
newspapers