

Coastbusters

The Cross Currents Newsletter for Mid-Atlantic Paddlers

March 2021

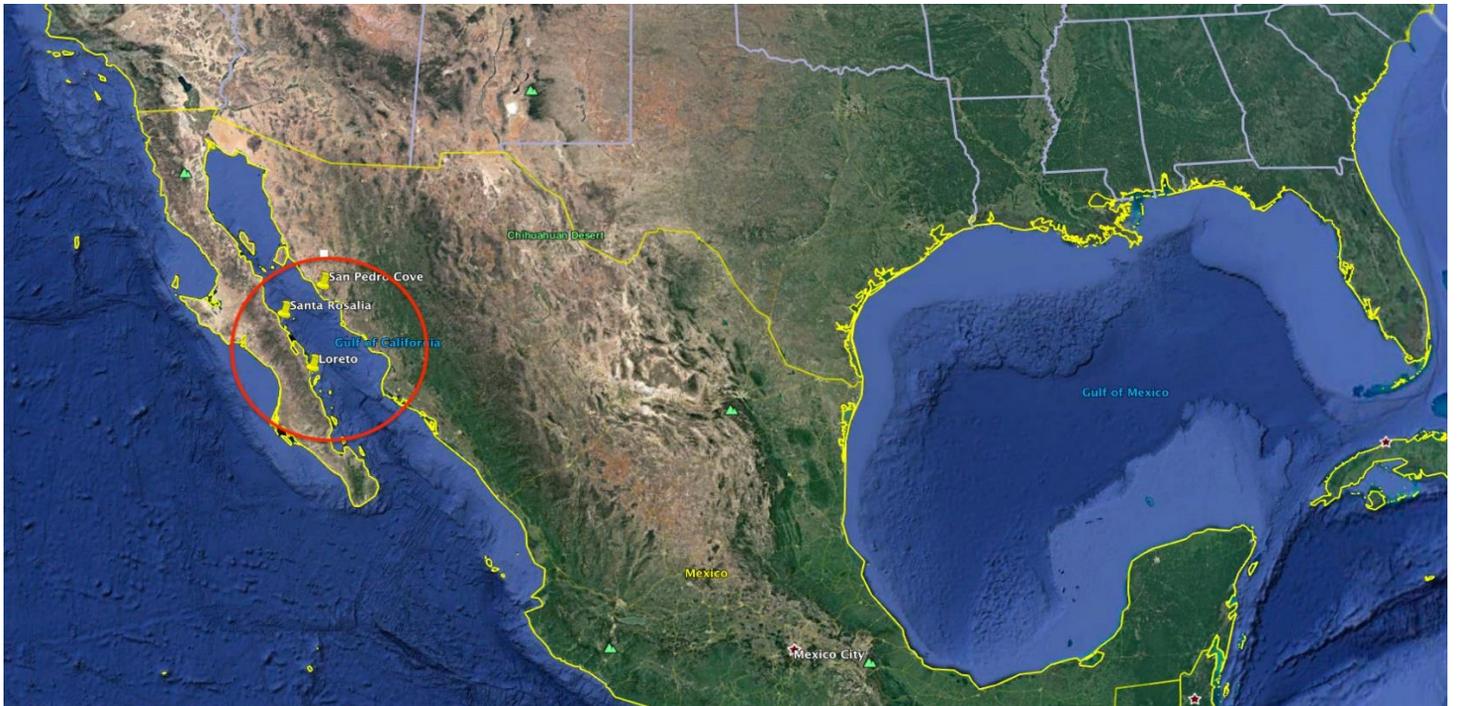
Crossing *Ginni Callahan*

The sun awoke to find a tiny turquoise kayak plowing a slow furrow in the surface of the sea. It scratched its line far above a deep basin of giant tube worms towards a distant coastline obscured by clouds. But that was not a comforting perspective. The kayak cut through the waves, lively with texture and changing light. To my right grew the orange bud of day. To my left, a pastel dawn slowly descended towards the ocean. This was the perspective I clung to. I sent my 6am report, “Beautiful”. Over my shoulder was a story of loss and 20 nautical miles of open sea. Ahead lay 35 more.

In March 2020, Covid and divorce delivered a double gut punch to the two things that held the most meaning in my life. I mothballed my company, Sea Kayak Baja Mexico (SKBM), and ducked the Mexican quarantine cops at 4am to slip out to sea with a desalinator, fish hooks and the heaviest kayak I’ve ever moved. It was a month of wandering and watching nature. By the end, I knew I needed a grappling hook of some big goal to pull me, and the Sea Kayak Baja community, forward. A friend with a sailboat on the other side of the Gulf of California (Sea of Cortez) was willing to give me a ride home. That was it! I would kayak the 80 + nautical miles



Sunrise on the Sea of Cortez. Photo: Ginni Callahan



Baja and the Sea of Cortez

across the Gulf, a longtime dream of mine. The point wasn't just the crossing, but the summer of training for it and the journey to the departure point, Santa Rosalia, on which I would be accompanied by four of my guides.

Training

Each week I added 5nm to the total, working up from 20nm to 50nm in a day without touching land. Often, I headed out the day before as a warmup and excuse to camp under the stars. I spent many hours, full days and parts of nights, on the water, immersing deeply in nature.

Rare seabirds, seldom seen from land, flirted with the kayak. Least storm petrels cartwheeled around me when I was far from shore. A black-vented shearwater started using the disturbance of the kayak's wake to dip plankton from the sea. I met creatures I'd never knew existed. Once I stopped to

molest a 2-foot pyrosome¹ thinking it was a plastic bag.

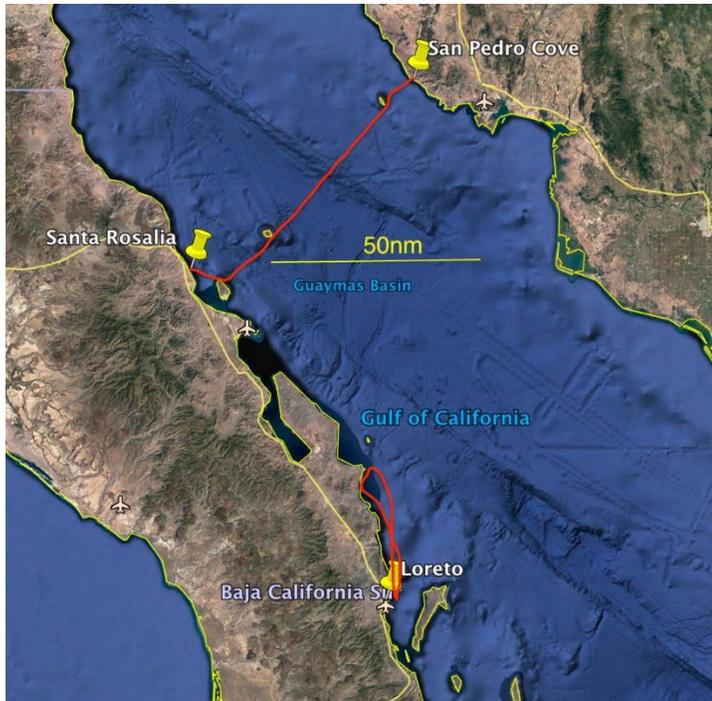
Hearing the staccato breaths of dolphins in the night always brought a smile. Sometimes they escorted the kayak for miles. Seeing them light up bioluminescent water around me was a special treat. Something large followed me one afternoon without breathing. It announced its presence periodically with large splashes, closer and closer until it rammed the kayak from below with startling force. I did not slip into the water on the next break.

In the heat of Baja summer, most hourly breaks involved swimming, which opened opportunities to freedive remote headlands and reefs, tethered to my kayak. I saw graceful soft corals I'd never seen before, tiny 6-legged sea stars clinging to sea fans like little rings. Sea turtles gliding serenely.

Being out there brought back a sense of purpose and connection. That was essential. Training for the

¹ Pyrosomes are cylindrical or cone-shaped free-floating colonies up to 18 m (60 ft.) long, made up of hundreds to

thousands of individuals, known as zooids. Colonies range in size from less than one centimeter to several metres in length. They are commonly called "sea pickles". Source: Wikipedia



Training runs from Loreto and the crossing from Santa Rosalia to San Pedro cove on the mainland.

crossing gave me the excuse I needed to get out of the office and periodically let go of trying to manage a business situation that was so far beyond me. I camped frequently with some of my guides. The nine nm crossing to Isla del Carmen began to feel like our backyard and we dubbed our favorite beach “Playa Cuarentena”, Quarantine Beach.

The upcoming crossing accomplished its grappling hook mission, for me and for the team, and it had further reaching impacts I never envisioned. Turns out challenges like that inspire other people too. I was interviewed on Mexican national TV, which connected the SKBM training center to paddling clubs on mainland and allowed me to make a strong plug for environmental care. Most personally, I made huge leaps forward in appreciating a body I’ve always felt ashamed of.

On October 8, guides Ramon, Ruben, Jorge and Izaura and I departed the Loreto waterfront headed north. Three days and 36nm later, we turned south and hoisted our little sails, flying back to Loreto instead of being stuck on the exposed Concepcion peninsula. This was the final training run.

The Start

Days later, Jorge, Ruben and I got a ride to Santa Rosalia. They accompanied me to the first two islands before returning to Santa Rosalia. On the way to Isla San Marcos we encountered three distinct channels of current going in different directions. The nodal point of the Gulf, Santa Rosalia is notorious for its weird currents though its tidal height has near zero fluctuation. We waited out the wind for a day on San Marcos, then launched for Isla Tortuga before dawn.



San Marcos camp. Photo: Gini Callahan

Sunrise on the sea is one of those magical moments. The lighting changes. Your paddling partners are sharp silhouettes on a fiery horizon, or their smiles have a warm glow depending which direction you’re looking at them. Our crossing to Isla Tortuga was 15nm, five hours, all but three in the dark.



On the way to Isla Tortuga Photo: Ginni Callahan

By late morning we arrived to what had looked like a beach from a distance, but whose “grains of sand” measured a foot across or more. It took two people to land each kayak over the boulders in the surge. I inched my kayak up as high as the surge would push it, then braced myself among the rocks to keep the retreating water from stealing it back. Jorge held Ruben’s kayak offshore while Ruben swam in to help secure my moderately loaded kayak. Then we wrestled Ruben’s kayak up, and finally the boys wrangled Jorge’s ride up to a perch on the rocks.



Boulder beach. Photo: Ginni Callahan

Alone!

At midnight, Jorge helped me launch onto a glassy sea with a lazy swell from the south. I aimed between Venus and Polaris. For the first couple hours, the sea was so calm, and Orion was at just the right height above the horizon that I caught glimpses of the entire constellation reflected in the water beside my kayak, slightly warped by the swell and my wake. That also spoke to how dark the night was. The only competition for the starlight was the bioluminescence spinning off my paddle strokes and folding out from my bow. And two luminous areas on the horizon, cities on the other side. Evidence that there was indeed an other side.

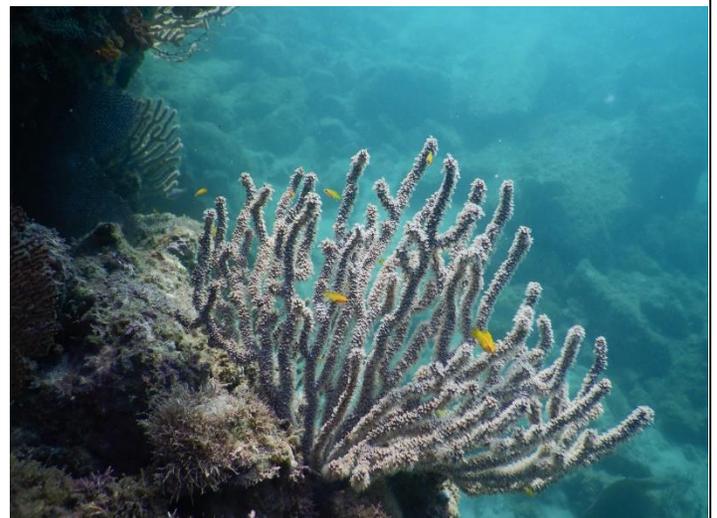
At 3 AM I sent a satellite text message to the small team following me electronically. I’d planned to simply send a letter A, B, C with each 3-hour

check-in but with so much time to think, creativity got the better of me. “Awesome” was the 3am message.

Shooting stars zipped the heavens open for a moment with their bright trails. The forecast promised an east - then a southeast - wind through the little hours of morning, and it delivered. The star reflections started dancing, then diffused into the texture of the sea. Soon the kayak started dancing.

Isla Tortuga to the Mexican mainland on the other side of the Gulf was a journey of 55nm. There was a section in that expanse when I could see neither shore. It happened at night. By dawn I had paddled for 6 hours and completed a third of the crossing.

I could faintly make out Isla San Pedro Nolasco, about 27nm away. The coast, nine miles beyond that, was hidden by clouds for several more hours. The endorphins of the night gave way to the steady churning of paddle blades under a climbing sun and gradually building waves. The island didn’t want to get closer. I knew I had the stamina and the patience to outlast this crossing and that at some point the island would suddenly be close and I would learn whether it held a beach for me or perhaps a shady sea cave in which to rest.



Gorgonian Yellow Fish Photo: Ginni Callahan

From the time between sunrise and 9 AM, the next check-in, I have no distinct memories. I just paddled. Though punctuated by hourly chimes and snacks, my sense of time became liquid. It compressed or expanded without reason. That little turquoise arrow scratched its way slowly across an expanse of water with its small circle of horizon and thoughts. It moved through time in a bubble of now and everything else melted away. I was content.

I have no distinct memories. I just paddled. My sense of time became liquid.

Clearly Closer

“Clearly closer,” was the 9 AM message. Isla San Pedro Nolasco had moved. Now that I could see peaks on the mainland, I was watching them slide sideways behind the island with distressing velocity. A current threatened to push me north past the island. I could have dropped sail and paddled more directly into wind and current, but that would have put me on a treadmill making very little headway towards the island and using up daylight and energy.

For a few hours I contemplated what the noon message would be. “Done” I wanted to say, meaning I’d reached the island, but that was not going to happen in time. “Damn current” was a good candidate. In the end I simply sent the letter D. I didn’t want to lose any more ground to the damn current than I absolutely had to. And I didn’t want to let on that my sense of humor was beginning to fail me.

*...And I say don't stop now
'Cause I can feel we're gonna make it...*

Strains of Jake Reese’s *Make It* played in my head. I’d listened to it repeatedly while packing this morning.

*...Baby let your worries go
And live like the wind blows...*

The upbeat carefree rhythm set a tempo for enthusiastic paddling. I’d pick a phrase like a mantra and paddle with it for a while, modifying it to amuse myself.

*...I got everything I need
Open arms because I'm happy
Open ~~road~~ sea ahead of me...*

Paddle strokes slapped lightly. Waves hissed and splashed. The hull of the kayak burbled through the water. The metronome of the song drove me on.

*...Don't wanna stop
I wanna go
Not gonna sleep 'til you're taking me home...*

I visualized my kayak strapped to the deck of the sailboat that would take me back to Loreto. The motor of my body chugged on. Eventually, I made it to the flanks of the steep grey island with its heartbreakingly blue skirt of sea patterned with yellow fish, blue fish, and khaki sea lions flowing in the vibrant dance of undulating waves. There was no landing. I turned around in my seat, donned the snorkeling gear that rode on my back deck, and lowered myself into the dance.

Beyond the fish, the feet of the island plunged down into dizzying fathoms of indigo. I swam towing the kayak. Hips loosened, legs stretched, raw skin burned in the salt. I snuck into a sea cave where a female sea lion snoozed on a shelf. Without waking her, I quietly stowed my gear, climbed back aboard, ate a snack, and glided away.

Made it!

Moments after radioing Mike on sailboat Compass Rose and confirming our plan to meet up near the coast, I encountered a tiny inlet on the island with small granite cobbles below a sheer cliff. Just because I could, I landed and stood up. Not knowing what to do next, I got back in the kayak and kept paddling.

Eventually I could see Mike’s sail in the distance. I got out of my seat and draped myself across the back deck, arms and legs in the water, to relax and wait. When we did meet we set a leisurely pace and chatted side by side, kayak and sailboat. We entered San Pedro Cove and he set about anchoring. I paddled to the beach just to complete the journey. I had energy to spare.

As I landed, a cruiser from the only other boat in the bay motored over in his dinghy. “I’ve never seen a sail on a kayak before,” he said. “Where did you come from?” I smiled and let myself savor the significance when I replied, “Santa Rosalia.”



Ginni Callahan. Photo: Ginni Callahan

In This Issue

| | |
|---|----|
| Crossing – <i>Ginni Callahan</i> | 1 |
| The Navigator’s Challenge, Part 1: Shifting Sands - <i>Mike Hamilton</i> | 7 |
| Prey to the Crocodile – <i>Val Plumwood</i> | 12 |
| Photos of the Month | 17 |
| 5,000 Glass Bottles: Studying Great Lakes Currents in the 1890’s - <i>Niels Jensen</i> .. | 20 |
| The Domed House of Cape Romano – <i>Rick Wiebush</i> | 22 |
| Upcoming Events | 25 |
| Contributors | 26 |

The Navigator's Challenge, Part One: Shifting Sands

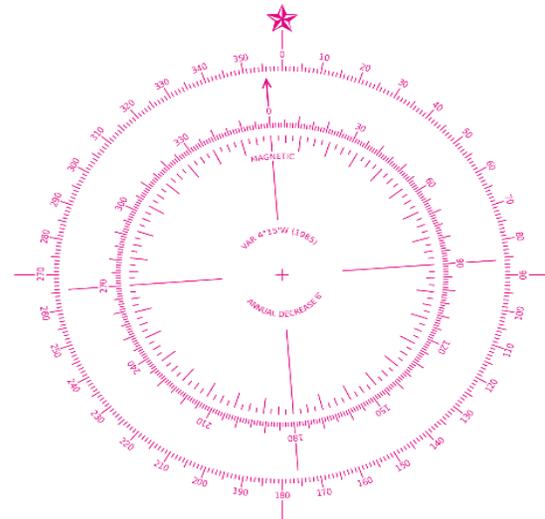
Mike Hamilton

*“One day I wrote her name upon the strand
But came the waves and washed it away.
Again, I wrote it with a second hand
But came the tide and made my pains his prey.”*
Edmund Spenser, from Amoretti (1595)

Have you ever paddled in an area to find that a buoy or day marker shown on your chart does not exist in that location? How about that island in the middle of the ocean inlet that is not on the chart? Some things on the coast seem to stay the same forever and others seem to change constantly. The sea is ever changing, sometimes violently so. As a result, any printed chart of our waterways is destined to suffer increasing inaccuracy as time goes by. Given the immense geographic area that chart makers are tasked with keeping up to date, it is no wonder that there is some discrepancy between what is on your chart and what your eyes behold. It is easy to conclude that charts are doomed to be out of date as soon as they are printed. What's a kayaker to do?

This article is not about learning to navigate. It is about understanding how coastal areas and the charts which describe them can change over time. Knowing what to trust, what to be skeptical about and where to get the most current information are always issues and are critical to the understanding and practice of navigation. In this two-part series, we'll examine coastal geomorphological changes (this article) and chart updates (Part 2).

Like using a map to drive to an unfamiliar place, a chart is used to decide which “streets,” or waterways, to use to get to your destination. The network of waterways on charts rarely change from



year to year, so most charts are reasonably reliable in this way. It almost requires a major storm to rearrange the network of channels and inlets. In the span of a day or two, one Category 4 hurricane will cause tremendous change to thousands of square miles of land, the sea floor and everything that mankind can place along the coast. Inlets are created or filled in; islands form and disappear; homes, docks, boats and buoys wash away. More subtle changes also occur from day to day causing incremental change over time; the sea is relentless.

Having the most up to date information is especially important to kayakers since it takes time and energy to get anywhere; mistakes will cost you both, perhaps even dangerously so. Having to backtrack several miles when you find that a “passage” through no longer exists could keep you out past dark or put you in a place where a strong current has changed against you.

Changes to the Virginia Barrier Islands

For example, consider the Cedar Island - Metompkin Inlet, VA area. Examining the most current chart (Fig. 1), you will find that a protected north-south passage (10-20 ft. deep) appears to exist northeast of the "TOWER". Additionally, it looks like there is an inlet due east of the tower.

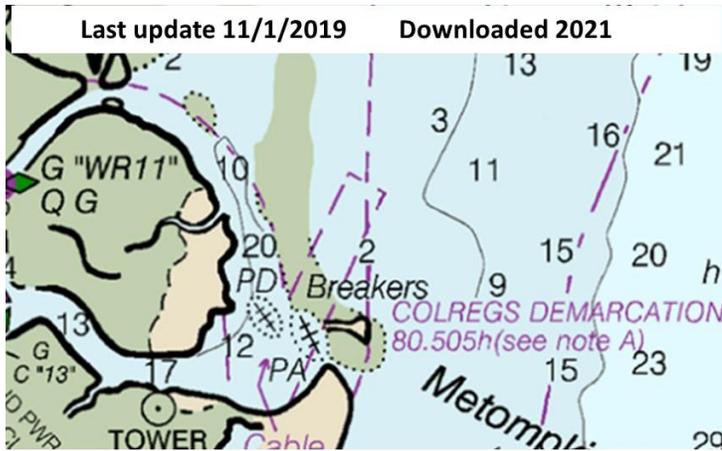


Fig. 1. Excerpt from NOAA chart 12210 (46th Ed. 11/1/2019)

If you were planning to paddle either route, you wouldn't be able to do it. Both are now completely filled-in with sand and are part of the beach. Figure 2 features aerial photos of the area in 1994, 2008, 2011 and 2016. Comparing each photo to the chart excerpt, you will find that none of the photos exactly match the chart. The 2008 image comes the closest and features a small inlet east of the tower and a very thin north-south passage. As of 2011, both paths were blocked fully with sand and have remained so as of my last visit in summer 2020.



Figure 2. Metompkin Inlet aeriels: 1994, 2008, 2011 and 2016. (Google Earth)

You should be asking yourself: "How often is the coastline information updated by NOAA and why does the charted coastline appear so out of date?" The answer is... that depends, and we'll delve more into chart updates in Part 2. Meanwhile, you can save yourself much grief and wasted effort by checking recent aerial photos. Explore your paddle destinations on-line before you go. Google Earth Pro includes photo dates, which are critical pieces of information! A second benefit of checking aeriels is that you can see where sandy shores are located, as opposed to marshland. This is can be important when planning where to take breaks.

This phenomenon of a continually changing shoreline is described by Island Migration Theory. Islands, inlets, sand bars and marshes are dynamic landforms which move over time. In this instance, the Virginia Barrier Islands are slowly migrating westward towards the mainland. Eventually, the islands may disappear or rearrange, and the mainland will no longer be protected by these natural defenses.

Island migration can make navigation challenging at times, and it makes buying your dream beach house difficult too. Below (Fig. 3) is the Accomack County, VA parcel map for Cedar Island (Jan 2021). Note that many of the parcels (in grey) appear to be "out to sea!" There have been several recent attempts to develop Cedar Island. Development has occurred as late as the 1980's and 1990's and as of 1997, there were 27 homes. In 2014, the last of the houses washed away.



Fig. 3. Cedar Island property parcels (grey rectangles) now under water

Chincoteague

Shoreline changes in the Virginia Barrier Islands are also well documented at the south end of Assateague Island National Seashore at Tom’s Cove (Fig. 4). Overall, the island is migrating west towards the mainland. The red line indicates where the shoreline was in 1859. The Hurricane of 1933, the Nor’easter of 1962 and other major hurricanes caused significant changes to the entire Virginia Barrier Island system. These storms rearranged the

sand and created the cove area (1933-gold line, 1962 - green line). In the years following that hurricane, sand migrating from north to south along shore has wrapped around the south end and further built up “the hook” surrounding Tom’s Cove. To give some perspective, the southern edge of the Assateague shoreline migrated a little over three miles between 1859 (red line) and 2015 (purple line).

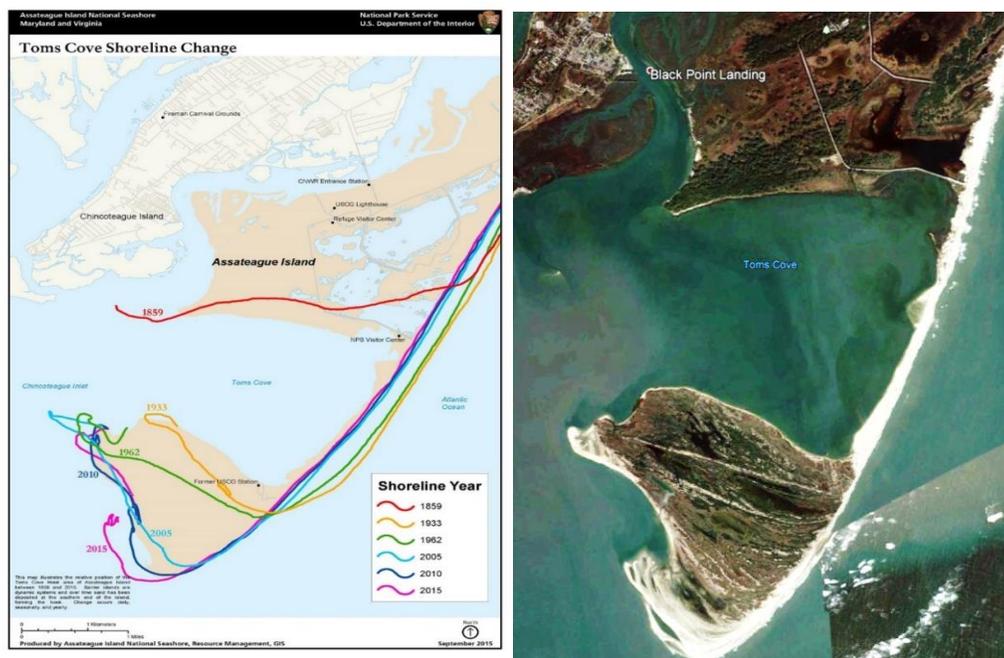


Figure 4. Tom’s Cove shoreline migration, shoreline delineation and aerial photo (2016)

Other changes caused by the hurricane of '33 were the creation of the Ocean City, MD Inlet and the abandonment of the town of Breakwater on Hog Island and other nearby Virginia barrier island communities. Inlets on the Eastern shore of Maryland and Virginia have come and gone repeatedly over the years.

Inlets Come and Go

Many inlets have formed in Assateague since record keeping began in the 17th century (Fig. 5). Their names are lost to history and natural forces: Mattapany Inlet, Sandy Point Inlet, Sinepuxent Inlet, Slough Inlet, Green Run Inlet and Assateague Inlet, to name a few. Nor'easters and hurricanes have created at least 11 inlets since the mid-19th century. But only a handful survived more than a few years before filling in once again with sand. And just two remain to this day.

The Ocean City Inlet, dramatically formed during an August 1933 hurricane, owes its longevity to jetties constructed immediately afterward to shield

it from wave energy and getting clogged with sediment. Chincoteague Inlet has actually gotten wider over the years.

Unfortunately, storms are forecast to become more frequent and stronger on average due to climate change. If this prediction holds true, we can expect to see a trend towards accelerated shoreline change. In most areas, a new inlet would disrupt the local current flow characteristics and make trip planning difficult until well understood.

Perhaps the most frequent everyday change that affects the ability of boaters to navigate a given body of water is shoaling. Sand migration on the sea floor causes shallow areas which are hard to see from a boat in transit. Running aground in the shallows caused by shoaling has damaged many a propeller on a power boat. While shoaling is not nearly as important to a paddler's ability to navigate due to a kayaks shallow draft, shoaling can change the properties of waves locally and create active waveforms where previously there were none.

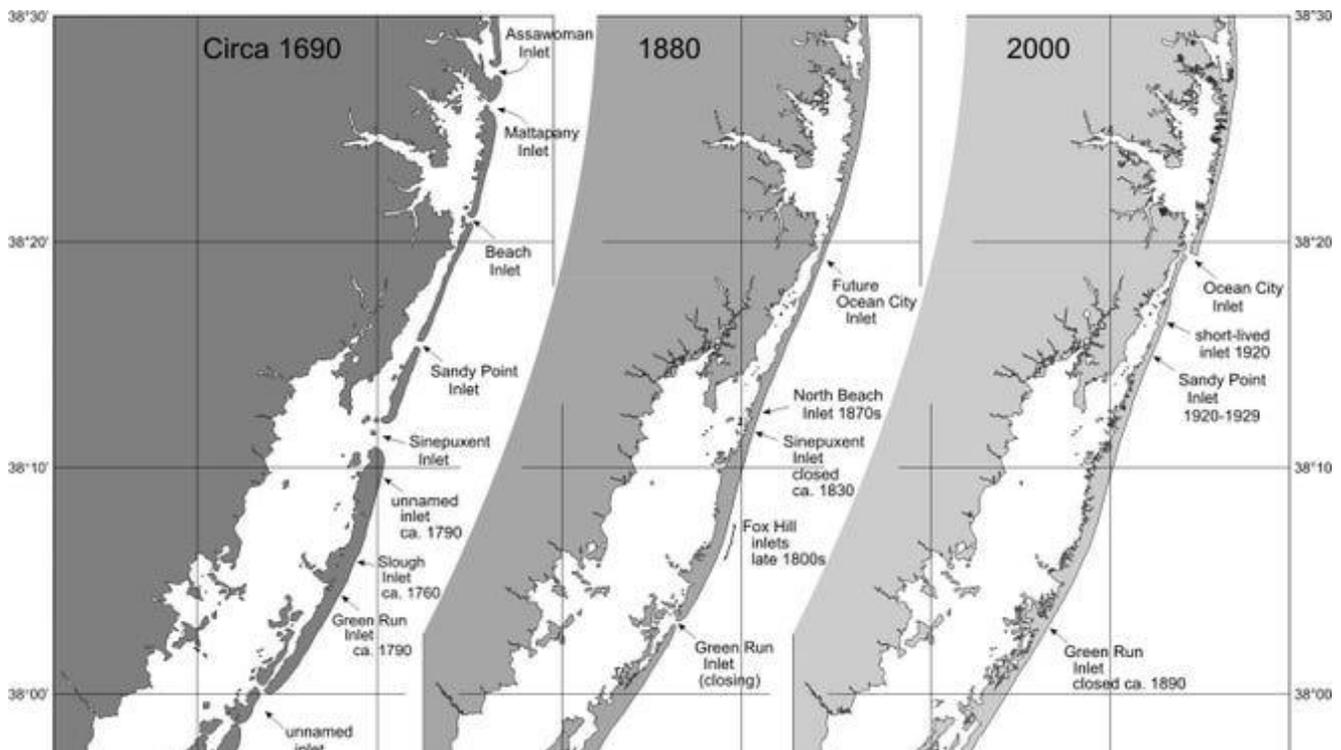


Figure 5. The Evolution of Inlets along the Eastern Shore of Maryland and Virginia

Prey to the Crocodile

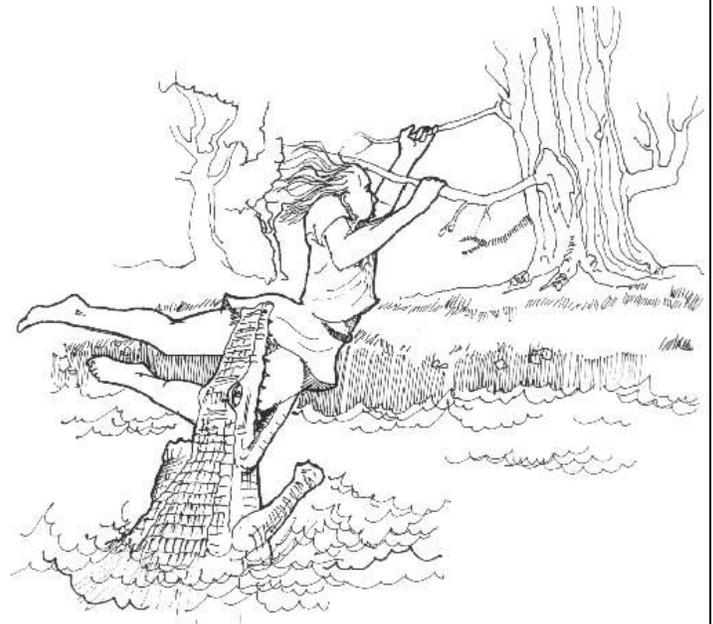
Val Plumwood

Ed. note: the following story took place in Kakadu National Park, in Northern Territory of Australia, about 100 miles south of Darwin. The author rented a canoe and was told that crocodiles do not attack canoes.

As I pulled the canoe out into the main current, the rain and wind started up again. I had not gone more than five or ten minutes down the channel when, rounding a bend, I saw in midstream what looked like a floating stick, one I did not recall passing on my way up. As the current moved me toward it, the stick developed eyes. A crocodile! It did not look like a large one. I was close to it now but was not especially afraid; an encounter would add interest to the day. Although I was paddling to miss the crocodile, our paths were strangely convergent. I knew it would be close, but I was totally unprepared for the great blow when it struck the canoe. Again it struck, again and again, now from behind, shuddering the flimsy craft. As I paddled furiously, the blows continued. The unheard of was happening; the canoe was under attack! For the first time, it came to me fully that I was prey. I realized I had to get out of the canoe or risk being capsized

The bank now presented a high, steep face of slippery mud. The only obvious avenue of escape was a paper bark tree near the muddy bank wall. I made the split second decision to leap into its lower branches and climb to safety. I steered to the tree and stood up to jump. At the same instant, the crocodile rushed up alongside the canoe, and its beautiful, flecked golden eyes looked straight into mine. Perhaps I could bluff it, drive it away, as I had read of British tiger hunters doing. I waved my arms and shouted, "Go away!" (We're British here.)

The golden eyes glinted with interest. I tensed for the jump and leapt. Before my foot even tripped the first branch, I had a blurred, incredulous vision of great toothed jaws bursting from the water. Then I was seized between the legs in a red-hot pincer grip and whirled into the suffocating wet darkness.



Our final thoughts during near-death experiences can tell us much about our frameworks of subjectivity. A framework capable of sustaining action and purpose must, I think, view the world "from the inside," structured to sustain the concept of a continuing, narrative self; we remake the world in that way as our own, investing it with meaning, reconceiving it as sane, survivable, amenable to hope and resolution. The lack of fit between this subject-centered version and reality comes into play in extreme moments. In its final, frantic attempts to



Saltie in NT. Photo: Patrick Fisher via Wikimedia Commons

protect itself from the knowledge that threatens the narrative framework, the mind can instantaneously fabricate terminal doubt of extravagant proportions: This is not really happening. This is a nightmare from which I will soon awake. This desperate delusion split apart as I hit the water. In that flash, I glimpsed the world for the first time "from the outside," as a world no longer my own, an unrecognizable bleak landscape composed of raw necessity, indifferent to my life or death.

Death rolled: Twice!

Few of those who have experienced the crocodile's death roll have lived to describe it. It is, essentially, an experience beyond words of total terror. The crocodile's breathing and heart metabolism are not suited to prolonged struggle, so the roll is an intense burst of power designed to overcome the victim's resistance quickly. The crocodile then holds the feebly struggling prey underwater until it drowns.

The roll was a centrifuge of boiling blackness that lasted for an eternity, beyond endurance, but when I seemed all but finished, the rolling suddenly stopped. My feet touched bottom, my head broke the surface, and, coughing, I sucked at air, amazed to be alive. The crocodile still had me in its pincer grip between the legs. I had just begun to weep for the prospects of my mangled body when the crocodile pitched me suddenly into a second death roll.

When the whirling terror stopped again I surfaced again, still in the crocodile's grip next to a stout branch of a large sandpaper fig growing in the water. I grabbed the branch, vowing to let the crocodile tear me apart rather than throw me again into that spinning, suffocating hell. For the first time I realized that the crocodile was growling, as if angry. I braced myself for another roll, but then its jaws simply relaxed; I was free. I gripped the branch and pulled away, dodging around the back of the fig tree to avoid the forbidding mud bank, and tried once more to climb into the paperbark tree.

As in the repetition of a nightmare, the horror of my first escape attempt was repeated. As I leapt into the same branch, the crocodile seized me again, this time around the upper left thigh, and pulled me under. Like the others, the third death roll stopped, and we came up next to the sandpaper fig branch again. I was growing weaker, but I could see the crocodile taking a long time to kill me this way. I prayed for a quick finish and decided to provoke it by attacking it with my hands. Feeling back behind me along the head, I encountered two lumps. Thinking I had the eye sockets, I jabbed my thumbs into them with all my might. They slid into warm, unresisting holes (which may have been the ears, or perhaps the nostrils), and the crocodile did not so much as flinch. In despair, I grabbed the branch again. And once again, after a time, I felt the crocodile jaws relax, and I pulled free.

I knew I had to break the pattern; up the slippery mud bank was the only way. I scabbled for a grip, then slid back toward the waiting jaws. The second

time I almost made it before again sliding back, braking my slide by grabbing a tuft of grass. I hung there, exhausted. I can't make it, I thought. It'll just have to come and get me. The grass tuft began to give way. Flailing to keep from sliding farther, I jammed my fingers into the mud. This was the clue I needed to survive. I used this method and the last of my strength to climb up the bank and reach the top. I was alive!

Alive, but dangerously mangled

Escaping the crocodile was not the end of my struggle to survive. I was alone, severely injured, and many miles from help. During the attack, the pain from the injuries had not fully registered. As I took my first urgent steps, I knew something was wrong with my leg. I did not wait to inspect the damage but took off away from the crocodile toward the ranger station.

After putting more distance between me and the crocodile, I stopped and realized for the first time how serious my wounds were. I did not remove my clothing to see the damage to the groin area inflicted by the first hold. What I could see was bad enough. The left thigh hung open, with bits of fat, tendon, and muscle showing, and a sick, numb feeling suffused my entire body. I tore up some clothing to bind the wounds and made a tourniquet for my bleeding thigh, then staggered on, still elated from my escape. I went some distance before realizing with a sinking heart that I had crossed the swamp above the ranger station in the canoe and could not get back without it. I would have to hope for a search party, but I could maximize my chances by moving downstream toward the swamp edge, almost two miles away. I struggled on, through driving rain, shouting for mercy from the sky, apologizing to the angry crocodile, repenting to this place for my intrusion. I came to a flooded tributary and made a long upstream detour looking for a safe place to cross. My considerable bush experience served me well, keeping me on course (navigating was second nature). After several hours I began to black out and had to crawl the final distance to the swamp's edge. I lay there in the gathering dusk to await what would come. I did not expect a search

party until the following day, and I doubted I could last the night.

The rain and wind stopped with the onset of darkness, and it grew perfectly still. Dingoes howled, and clouds of mosquitoes whined around my body. I hoped to pass out soon, but consciousness persisted. There were loud swirling noises in the water, and I knew I was easy meat for another crocodile. After what seemed like a long time, I heard the distant sound of a motor and saw a light moving on the swamp's far side. Thinking it was a boat, I rose up on my elbow and called for help. I thought I heard a faint reply, but then the motor grew fainter and the lights went away. I was as devastated as any castaway who signals desperately to a passing ship and is not seen.

The lights had not come from a boat. Passing my trailer, the ranger noticed there was no light inside it. He had driven to the canoe launch site on a motorized trike and realized I had not returned. He had heard my faint call for help, and after some time, a rescue craft appeared.

As I began my 13-hour journey to Darwin Hospital, my rescuers discussed going upriver the next day to shoot a crocodile. I spoke strongly against this plan: I was the intruder, and no good purpose could be served by random revenge. The water around the spot where I had been lying was full of crocodiles. That spot was under six feet of water the next morning, flooded by the rains signaling the start of the wet season.

I worked in Darwin for several months over a three-year period (2014-2017). It seemed like every six months an Aboriginal child would be killed by a saltie at a local swimming hole. Although I connected with paddling clubs everywhere else in Australia, and although Darwin sits on an ocean, there was no club in Darwin. In fact, as far as I could tell, there were only two people with kayaks in a city of about 150,000 people. I suspect the lack of interest had to do with the presence of large numbers of salt water crocs. - Editor

Gratitude

In the end I was found in time and survived against many odds. A similar combination of good fortune and human care enabled me to overcome a leg infection that threatened amputation or worse. I probably have Paddy Pallin's incredibly tough walking shorts to thank for the fact that the groin injuries were not as severe as the leg injuries. I am very lucky that I can still walk well and have lost few of my previous capacities.

The wonder of being alive after being held - quite literally in the jaws of death has never entirely left me. For the first year, the experience of existence as an unexpected blessing cast a golden glow over my life, despite the injuries and the pain. The glow has slowly faded, but some of that new gratitude for life endures, even if I remain unsure whom I should thank. The gift of gratitude came from the searing flash of near-death knowledge, a glimpse "from the outside" of the alien, incomprehensible world in which the narrative of self has ended.

Other animals are food but we aren't?

It seems to me that in the human supremacist culture of the West there is a strong effort to deny that we humans are also animals positioned in the food chain. This denial that we ourselves are food for others is reflected in many aspects of our death and burial practices. The strong coffin, conventionally buried well below the level of soil fauna activity, and the slab over the grave to prevent any other thing from digging us up, keeps the Western human body from becoming food for other species. Horror movies and stories also reflect this deep-seated dread of becoming food for other forms of life: Horror is the wormy corpse, vampires sucking blood, and alien monsters eating humans. Horror and outrage usually greet stories of other species eating humans. Even being nibbled by leeches, sandflies, and mosquitoes can stir various levels of hysteria.

This concept of human identity positions humans outside and above the food chain, not as part of the feast in a chain of reciprocity but as external

manipulators and masters of it: Animals can be our food, but we can never be their food. The outrage we experience at the idea of a human being eaten is certainly not what we experience at the idea of animals as food. The idea of human prey threatens the dualistic vision of human mastery in which we humans manipulate nature from outside, as predators but never prey. We may daily consume other animals by the billions, but we ourselves cannot be food for worms and certainly not meat for crocodiles. This is one reason why we now treat so inhumanely the animals we make our food, for we cannot imagine ourselves similarly positioned as food. We act as if we live in a separate realm of culture in which we are never food, while other animals inhabit a different world of nature in which they are no more than food, and their lives can be utterly distorted in the service of this end.

Reflection has persuaded me that not just humans but any creature can make the same claim to be more than just food

Before the encounter, it was as if I saw the whole universe as framed by my own narrative, as though the two were joined perfectly and seamlessly together. As my own narrative and the larger story were ripped apart, I glimpsed a shockingly indifferent world in which I had no more significance than any other edible being. The thought, "This can't be happening to me, I'm a human being, I am more than just food!" was one component of my terminal incredulity. It was a shocking reduction, from a complex human being to a mere piece of meat. Reflection has persuaded me that not just humans but any creature can make the same claim to be more than just food. We are edible, but we are also much more than edible. Respectful, ecological eating must recognize both

of these things. I was a vegetarian at the time of my encounter with the crocodile, and remain one today. This is not because I think predation itself is demonic and impure, but because I object to the reduction of animal lives in factory farming systems that treat them as living meat.

Large predators like lions and crocodiles present an important test for us. An ecosystem's ability to support large predators is a mark of its ecological integrity. Crocodiles and other creatures that can take human life also present a test of our acceptance of our ecological identity. When they're allowed to live freely, these creatures indicate our preparedness to coexist with the otherness of the earth, and to recognize ourselves in mutual, ecological terms, as part of the food chain, eaten as well as eater.

Thus the story of the crocodile encounter now has, for me, a significance quite the opposite of that conveyed in the master/monster narrative. It is a humbling and cautionary tale about our relationship with the earth, about the need to acknowledge our own animality and ecological vulnerability.

*Ed note: Plumwood spent a month in the hospital and required multiple skin grafts. This article originally appeared in the journal *Quadrant*, 29(3).*

Saltwater Crocodiles

Are the largest reptile in the world. Adult males can grow to 20 feet and weigh as much as 2,000 pounds. They can live to be 60 – 80 years old.

They are found in northern Australia, Indonesia, SE Asia, Papua New Guinea, and into eastern India. There are an estimated 100,000 – 200,000 in tropical Australia.

They hang out in brackish estuaries, river mouths, and the ocean in the dry season and move into fresher water in the wet.

They are carnivores, eating fish, crustaceans and small animals as well as large animals like water buffalo, sharks, anacondas and, occasionally, humans.

For more heart-warming stories of salties attacking human paddlers, see the November 2018 issue of *Coastbusters*.



Aboriginal art, Northern Territory Photo: Rick Wiebush

Photos of the Month



Nice catch!

Photo: Ginni Callahan

Photos of the Month



Peggy's Cove, Nova Scotia

Photo: Iaroslav Kourzenkov

Photos of the Month

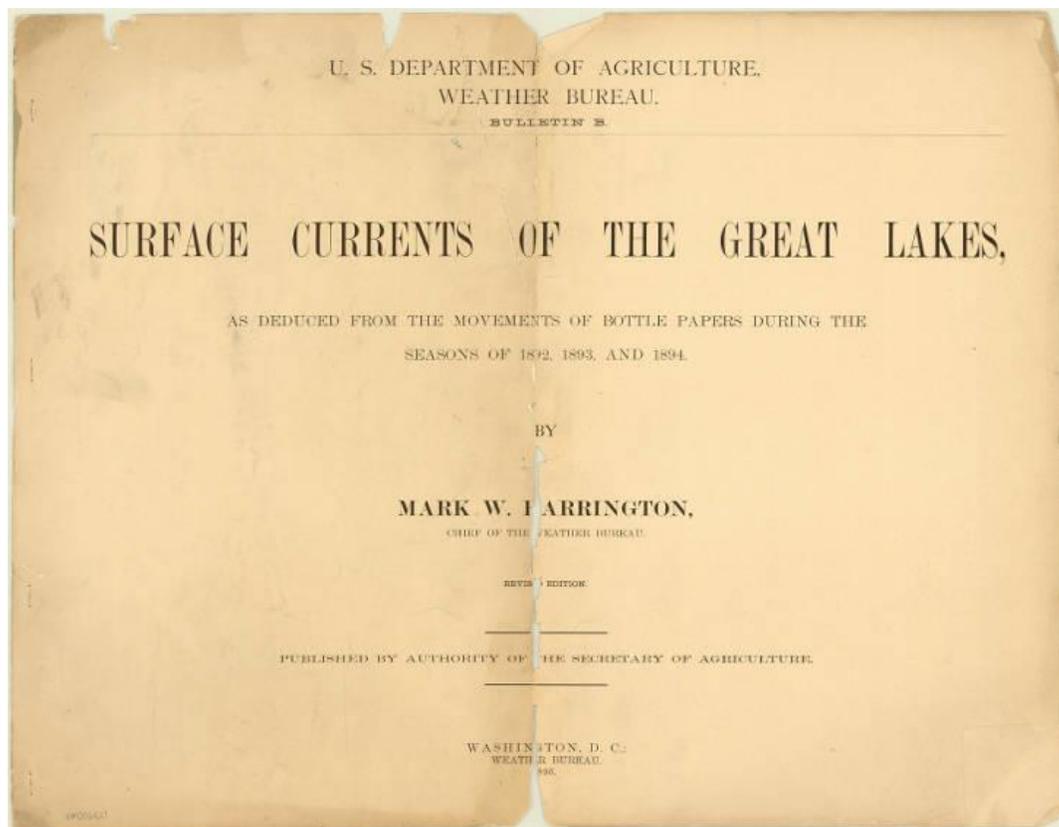


Rockin' in Oregon

Photo: Bill Vonnegut

5,000 Glass Bottles: Studying Great Lakes Currents in the 1890's

Niels R. Jensen



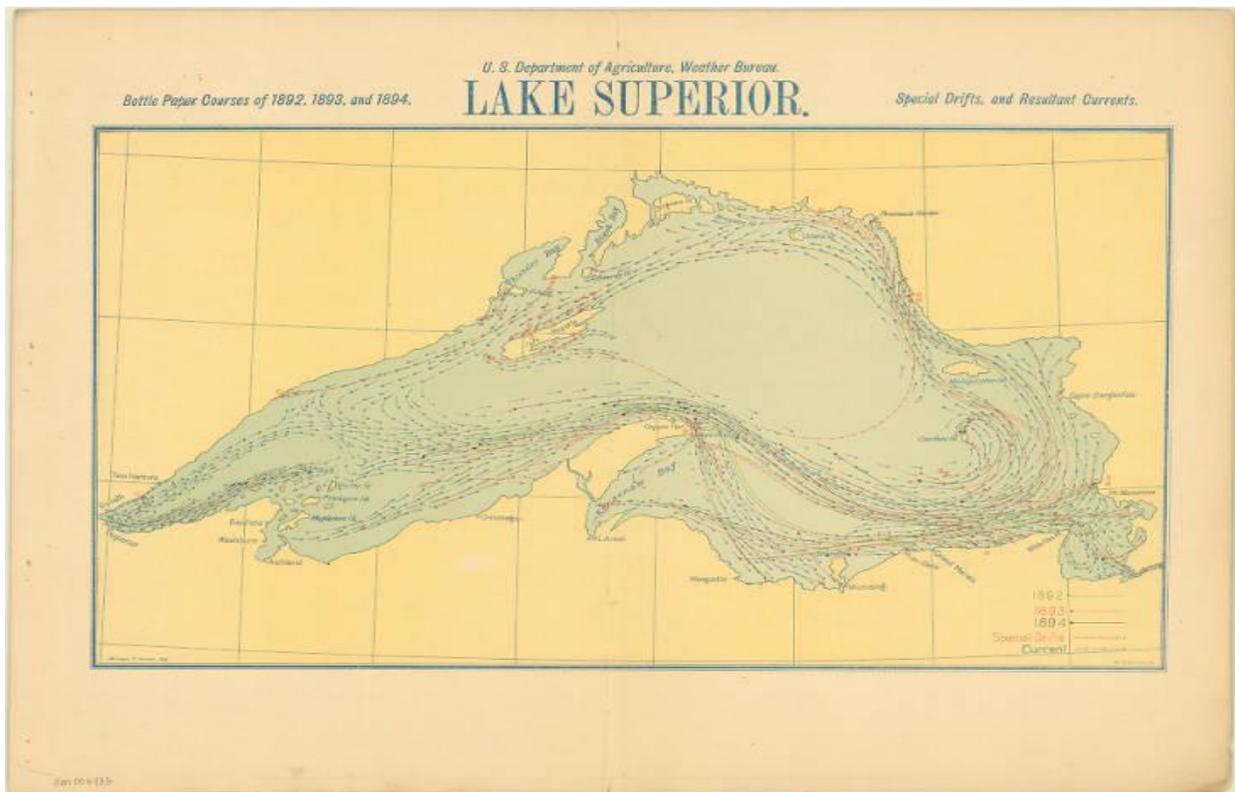
Report Cover. Source: American Geographical Society Library – University of Wisconsin at Milwaukee

In the 1890s, the US Department of Agriculture, Weather Bureau, conducted an extensive study of the Great Lakes surface currents. Its purpose was to confirm the presence of currents in the lakes, aid commercial navigation, and explain why debris washed up at certain locations. The study was done under the direction of Mark W. Harrington.

It was indeed confirmed that there are current systems in each of the five Great Lakes, and the prevailing winds and outflow of water to the ocean affect these systems. Generally, the currents' speed is estimated between one and four statute miles per hour. They are therefore significant to the movement of today's recreational boat traffic, because they will

influence fuel economy and passage times. It is also commonly accepted that currents interact with winds to create certain wave phenomena. The best known is the wind-against-current situation, which can quickly generate dangerous conditions on the ocean. The same types of forces are present on the Great Lakes, and their potential interactions should be well understood by captains of small recreational crafts for the comfort and safety of their crews.

It is noteworthy that the Weather Bureau's research was conducted in the navigational season, and only surface currents were assessed. One of the general findings was that the currents seemed to match well with the established routes for the commercial



Source: American Geographical Society Library

traffic on the Great Lakes, which were in use at the time of the study.

Bottles and Tennis Shoes Adrift

Specifically, a total of 5,000 specially-produced glass bottles were released in 1892 into the Great Lakes, and retrieved during the next three years. Each included the description of the point of origin, and a self-addressed and stamped mailer for the return. About 670 of the bottles were recovered. In this age of high-end electronic equipment, releasing bottles may seem to be a quaint way to determine the surface drifts. However, it should be considered that some of the currents in the Northern Pacific Ocean were recently studied, after a container filled with tennis shoes washed off the deck of a freighter. The places where the shoes washed ashore along the North American coast were carefully reported and mapped. So, the methodology of the research appears to be as applicable today, as it was in the 1890s.

Some people may question the relevancy of using current charts from the 1890 as reference in the 21st Century. The 1890s study did not indicate a strong need for further research, and it should be taken into account that a hundred years is less than an eye blink in geological time. Informal discussions among present Great Lakes Cruising Club members appear to confirm the validity of the current charts' information, and that nothing major has changed since it was published.

While NOAA presently has graphing and analysis capabilities which offer current charts for various waters including the Great Lakes (see link below), these historic charts are remarkably close to the analysis using modern satellite-based methods and, in the opinion of many, are easier to read.

This is fabulous!

Copy/paste the following link for interactive screen showing all the Great Lakes Currents at once:

<http://www.glerl.noaa.gov/res/glcfs/currents/>

The Domed House of Cape Romano

Rick Wiebush



Photo: Rick Wiebush

It looms up out of the water and you can see it from a mile away – looks like white humps rising up out of the Gulf of Mexico. As you get closer and can see some detail, it starts getting eerie, spooky. There are open squares where windows used to be; water sloshes around supporting (partially) pillars; birds congregate on rounded tops. There are no people around, either here on the water or on the shore that sits 50 yards away. Loneliness. Abandonment. Desolation.

This/these are remains of something that once was, something that now attracts the paddlers on every Cross Currents trip to southwest Florida. But we feel like we are tip-toeing up to it, a little wary. This/these are the remains of the experimental, ecologically-advanced, multi-domed house that once sat further back on Cape Romano, a full quarter-mile from the beach, that now sits out in the Gulf, still far from the beach, but in the wrong direction. It's fascinating.



Cape Romano, Southwest Florida

A guy by the name of Bob Lee, an independent oil producer from Gatlinburg, Tennessee built this place as a summer home starting in 1979 and finished it three years later. He had built a prototype in Gatlinburg and liked it. Basically it comprised six inter-connected domes that sat on stilts. Each dome, some of which had two floors, was a separate room. It had 2,400 square feet and there were three bedrooms and three bathrooms. The domes and pillars were concrete, made from sand taken from the beach.

An Environmentally-Friendly Approach

Bob was a fun-loving guy, but was pretty serious when it came to environmental issues, and the house he built reflected that. The house was solar-powered (backed up by generators), had underfloor heating, and contained one of Bob's inventions, a mechanism that brought logs into the home behind a wall in one of the rooms and dropped them into a fireplace. (I can't quite picture it.)

The idea behind the domes was that the rounded surfaces could better withstand hurricane force winds and, as everyone found out after two major hurricanes, the design worked. Bob also felt that square rooms wasted space with all those corners. His daughter later explained that her father felt that the domed ceiling gave the feeling of openness, and she agreed. There were gutters built into the domes to catch rainwater and dew that was captured in a 23,000-gallon cistern. The water was run through filters and a solar water heater to use for showers and washing dishes. Other energy needs were met via a hybrid system that included a gasoline generator, a 24-volt battery with catalytic converters, and solar modules. Lighting was state-of-the-art compact fluorescent lamps.



The original. Photo Courtesy of abandonedfl.com



Photo courtesy of abandonedfl.com

Things Start Going Downhill

The Lees lived in the house until 1992. That year the super-devastating Category 5 Hurricane Andrew had a direct hit on South Florida. With sustained winds of 165 miles per hour, it killed 60 people and caused \$27 billion in damage. The concrete domes weathered the storm, but the windows were all blown out and the interior of the house was completely ruined. The Lees had to abandon the house and it went unused for the next 13 years.

Rising sea levels and eroding beaches saw the Gulf continuously approach the structure. By 2004 the water had reached the pillars holding up the house. In spite of that, Bob Lee sold the house in 2005 to a local guy named John Tosto who had always admired the domed structure and wanted to save it by moving it (via crane) to higher ground.

Two months later, another Category 5 hurricane (Wilma, 120 mph) came out of the Gulf and made landfall in Florida at *Cape Romano*. The hurricane destabilized the dome's foundation and, even

though Tosto still planned to move the house, the authorities in 2007 condemned it and ordered it demolished. That never happened. By 2013, the entire house was sitting in six feet of water. Then a third strike: in 2017 Hurricane Irma hit Florida and two of the six domes collapsed into the sea.

Making Lemonade Out of Lemons

If there is anything positive coming out of this story it's that the remaining domes are a fabulous destination for: 1) paddlers and 2) divers. We go every year and people are enchanted by the site and the story. More importantly however, the ruins now have created an artificial reef that supports a wide variety of marine life. The *Florida Weekly* reporter, Cynthia Mott, writes:

I've snorkeled Grand Cayman, Mexico and Fiji, yet have never witnessed a more diverse, crowded concentration of undersea life than what has taken up residence under the remnants of those domes. It was as if all the fish and rays living along that part of the Collier County coast decided to hang out in one location."



Photo: Rick Wiebush

Upcoming Events

| Date | Event | Location | Website |
|--------------|-----------------------------|------------------|--|
| Mar 14 – 21 | SW FL + 10,000 Islands | Sarasota, FL | Crosscurrentsseakayaking.com |
| Mar 26 – 28 | East Coast Symposium | Charleston, SC | ccprc.com/1584/East-Coast-Paddlesports-Symposium |
| Mar 28 Apr 3 | Jacksonville Journeys | Jacksonville, FL | Crosscurrentsseakayaking.com |
| Apr.30-May 2 | Oceans 21 | Charleston, SC | https://chrisrezac.wixsite.com/kayakoceans |
| July 14 – 18 | Great Lakes Symposium | Grand Marais, MI | greatlakesseakayaksymposium.net |
| Sept 10-12 | Bay of Fundy Symposium | Nova Scotia | Bofsk.com |
| Sept 17-19 | Kiptopeke Symposium | Cape Charles, VA | Crosscurrentsseakayaking.com |
| Oct 6 - 11 | Delmarva Paddlers Retreat | Lewes, DE | delmarvapaddlersretreat.com |
| Oct 26 - 31 | Sea Kayak Georgia Symposium | Tybee Is., GA | seakayakgeorgia.com |

Contributors

Ginni Callahan – lives in Loreto, Baja for most of the year. Ginni owns and operates Sea Kayak Baja Mexico. She is a BC 5* paddler, an ACA L5 instructor and a wonderful writer. <https://seakayakbajamexico.com/>

Mike Hamilton – is an ACA L3 instructor who specializes in Greenland paddling and is one of the main organizers of the Delmarva Paddler's Retreat. Mike lives in Sykesville, MD.

Niels Jensen – originally from Denmark, Niels now plies the waters of Lake Superior and the other Great Lakes. He is a professional writer and the Stockton Island (Lake Superior) Port Captain for the Great Lakes Cruising Club (GLCC). He is a past Commodore for the GLCC and Past President of the Great Lakes Foundation. <https://www.glccschool.com/content/niels-jensen>

Val Plumwood - was an Australian philosopher and ecofeminist known for her work on anthropocentrism. She held teaching positions at various institutions including North Carolina State University, The University of Wyoming, and the University of Sydney. She is the author of *Feminism and the Mastery of Nature* (1993) which is considered a classic, and *Environmental Culture: The Ecological Crisis of Reason* (2002). She died in 2008 at the age of 69.

Rick Wiebush - runs *Cross Currents Sea Kayaking* and is the editor of *Coastbusters*. He is an ACA L3 IT and British Canoeing 4* Sea Leader. Rick lives in Baltimore. He has paddled in the UK, Australia, New Zealand, Greenland, the Amazon, Nova Scotia, and his favorite place, Baja.

Coastbusters welcomes submissions of trip reports, incident descriptions and analyses, skills and “how-to” articles, boat and gear reviews, book and video reviews, and sea kayaking-related photographs. We are interested in receiving submissions from all paddlers. It just so happens that some of this month's contributors are instructors. That is not a requirement.

Articles should be limited to about 1,000 – 2,000 words and submitted in Word. Photos should be submitted in .jpg format. Please send your submissions to Rick Wiebush at rwiebush@gmail.com.

Coastbusters is a publication of *Cross Currents Sea Kayaking*