

Coastbusters

The Cross Currents Newsletter for Mid-Atlantic Paddlers

July 2020

Alaska – The Trip of a Lifetime: 12 Days, 150 Miles in Glacier Bay

Larry Meisner

Eight months of planning. A six-hour flight from Newark to Seattle. A 2.5-hour flight from Seattle to Juneau. A 30-minute flight from Juneau to Gustavus. Landing in a Boeing 727 on a single airstrip with absolutely no room for error. Finally, a short taxi ride to Bartlett Cove at Glacier Bay National Park in SE Alaska.

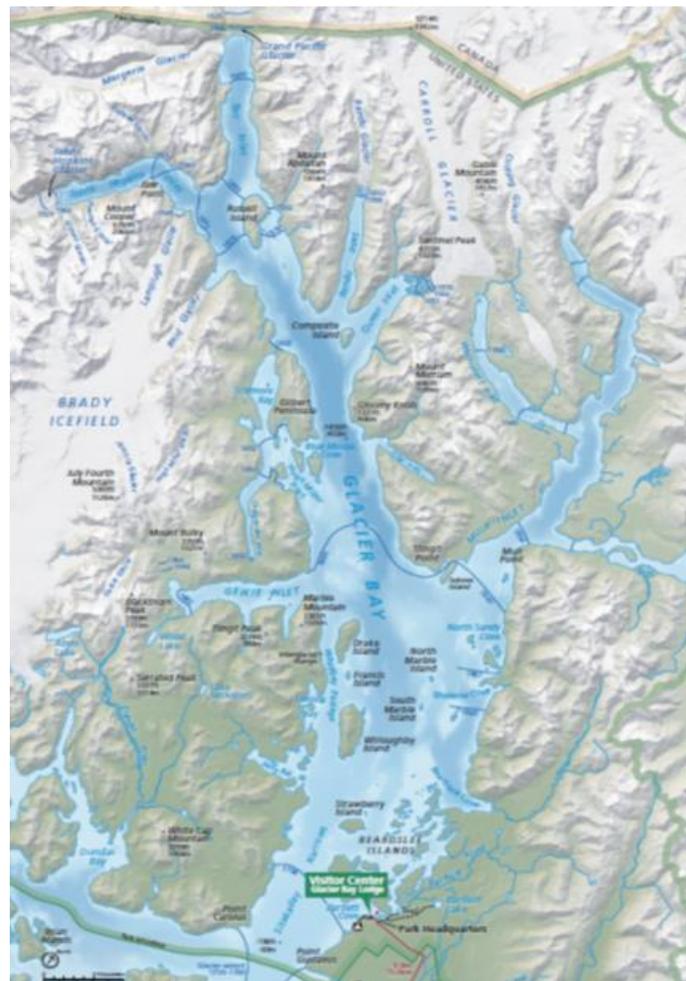
This was the start of a completely self-supported two-week expedition from Bartlett Cove north into Glacier Bay proper. The plan was to head west across the Bay, paddle up the west side and then return down the eastern side of the Bay.

There were three of us. Bruce, Bob and me. Bruce had paddled this area of Alaska many years before and had some knowledge of the area. After arriving in Gustavus, Bob became ill, was no better the next day, and we made the difficult decision to go ahead with the trip while he remained in Bartlett Cove.

Bruce had brought his Feathercraft K1 folding boat and I rented a fiberglass kayak from a local outfitter. Using the outfitter, we shipped all our food and as much as we could to Alaska in advance. There is a boat shuttle that drops off and picks up half way into the Bay but we opted to use this only as a safety valve.

Glacier Bay lies just north of the Tongass National Forest and west of the Fairweather Mountains that rise 15,325 ft. above the Gulf of Alaska. The area is

known for its rain and fog. SE Alaska has between 200 and 225 days of rain per year! July average temperatures are 60 °F with night time lows around 45 °F. Of course 32 °F near glaciers.

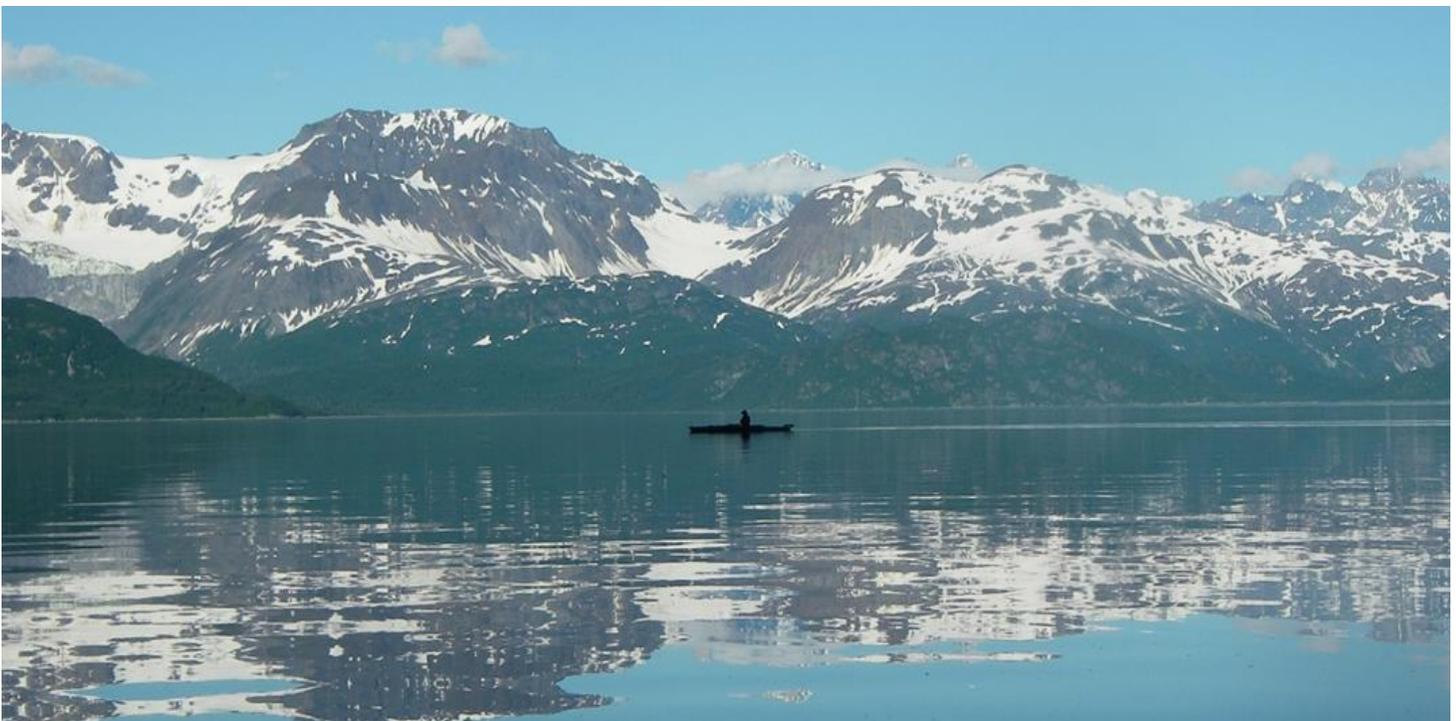


Glacier Bay

The following day with 16 days of food (additional days planned in case of inclement weather) packed into bear canisters, water for 5 or 6 days, water filters and gear stowed and stuffed into our kayaks we were off. As part of the route across the Bay we had to plan our crossing time to avoid the full force of the 5 knots

rip current running between Beardslee Island and the Western side of the Bay.

Most days it rained, but we were fortunate to have four days of beautiful sunshine and deep blue skies.



Ice!

Ice was the predominant geologic feature in the Bay. Looking out from our campsite at the clean white ice of Margerie Glacier on our left. And straight ahead at the Grand Pacific Glacier with its coal black ice astride the Canadian Yukon border. John Hopkins Glacier (below) was calving ice heavily and we were only able to approach within one mile of the glaciers face.



The glaciers are 600-foot high ice sheets. Paddling past the mile-long face of Margerie Glacier, we gave it wide berth in case of calving ice. At night the creaking, cracking and booming of the ice could keep one awake.



Sea Otters - which had been listed as endangered and not seen here in the Bay in a numbers of years- were back in full force. We saw a large raft of them floating in kelp beds with new born pups.



Stellar sea lions were active and prolific on the East side of the bay, hanging out mostly on rock ledges near kelp beds. We had been warned by the park rangers that they might be protective of newly born pups this time of year. For sure, 10 or more 1,000-pound sea lions aggressively blocked our path which would have led us past their breeding grounds. We had to turn around to find an alternate route past the sea lion ledges. All the time under the watchful eyes of several hundred sea lions who followed our every move from the other side of the kelp beds. This was probably the most intense moment of the entire trip.



Bears!

A few black bears roamed islands and the area around Bartlett Cove near the put in. But larger brown bears (cousin to the inland grizzly) roamed further north, deeper into the bay. We saw at least three groups of mothers with cubs feeding along the coast. This mother was very protective of her older cubs and wary of the funny boats being propelled by sticks.



Can bears swim? You bet! A lone male feeding along the beach provided one of our most challenging encounters. After approaching within 20 yards of him, he lifted his head, sniffed the air and immediately walked into the water in front of our kayaks. We back paddled to avoid colliding with him. He continued swimming in front of us out into the bay toward a small island one mile off the coast!



Finding campsites with minimal active bear signs became a daily challenge the further north we paddled. At the end of one 20-mile day, after rejecting several campsites on the mainland, we stopped on an island to look for a campsite, thinking the probability of a bear on the island was minimal. Wrong! We walked into the tree line armed with flares and bear spray, making our presence known by loudly proclaiming “Hey Bear”, only to discover a freshly matted area with tufts of hair and heavy with the fresh pungent odor of bear. **THIS WOULD NOT BE OUR CAMP FOR THE NIGHT!** At some point we had to accept that most campsites would have some active bear signs, otherwise there really were few other options. Our cooking sites were always set up 100 yards from our tents in order to avoid unwanted visits in the night. Because of the lack of trees to hang food, we hid the bear canisters in the rocks along the shore.



Whales!

Whales were our constant companion during our time in Glacier Bay. One day, Humpbacks lazily following us between Russell Island and the mainland, showered us at close range with their (fishy) breath.



Blowing bubble nets around our kayaks and surfacing in the net to feed, we fled the ring of bubbles.



More Whales!

Spotting a pod of Orca aggressively hunting seals in the bay, we retreated to shore to watch from a safe location.



Leaping from the water to try to stun their prey.



As Orca aggressively hunted seals, one of their prey hid between our kayakers and the shore, mistakenly thinking we could protect it.



Fleet footed Mountain Goats moved among the steep rocky cliffs on the East side of the Bay



Tufted Puffins nesting on these very same cliffs and were much more difficult to spot and photograph. Puffins on the wing were only recognized from the orange blurs of their colorful beaks. Following one with my camera I almost capsized trying to capture it in flight.



Oyster Catchers who make their nests near the shore sound a loud alarm when disturbed by predators, such as bears. They served as a very reliable alarm system during the expedition.



This trip went very smoothly. We had great weather over 12 days with 4 days of sunshine. We had no confrontations with wildlife except for our sea lion friends and the one Bear that wandered into our camp at Reid Glacier early morning. But in that case we were adequately warned by our friends the Oyster Catchers.

The trip was well planned and we were very well prepared. We had sufficient food for up to 16 days, and first aid equipment for just about any emergency. Any decisions we made were prudent based on the situations. The only thing we probably would have done differently would be to use a satellite communication device such as SPOT or INREACH. We had VHF radios - which are line of site - and the only emergency communication would have been with the random passing vessel on the bay. Which were few and far between.

Sunset at the end of the trip looking toward Fairweather Mountain. When asked if I would do this trip again, my immediate response was and still is "In a heartbeat".



All photos: Larry Meisner

Bears

Shortly after this trip the National Park Service made a decision to allow firearms in National Parks. Prior to this decision they were prohibited. This is a decision I strongly disagree with. With proper precautions, respect for the bear population, and by avoiding areas where there may be a distressed bear, there is no need to take the life of these majestic creatures due to our fear.

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It's a Long Story..... Photo: Adam Mattel

Night Paddling: The Importance of Running Proper Lights

Ted Gormley

One of my fondest paddling memories is floating in the dark in Jamaica Bay, somewhere between Brooklyn and Queens. It was a moonless night, with stars overhead. The Manhattan skyline was in front of me in the distance, and huge lightning-illuminated thunderstorms were passing over Westchester County many miles north. My paddle strokes lit up the phosphorescent plankton that often makes its way north in late summer. The only sounds were my hull moving through the water, and an occasional bird chirping on shore.

Paddling at night can be one of the most intense activities a kayaker can participate in. Depending on your level of experience it can elicit the full range of emotions from terrifying to meditative. Paddling at night can facilitate unparalleled navigation exercises, as I learned from Jeff Atkins in Charleston Harbor. A night paddle will always be memorable! Whatever you get out of it, being on the water at night requires an additional set of precautions from the paddler, one of those being lights. This article focuses on their proper use in kayaking.

The Language of Lights

For mariners, the use of lights at night is literally a language, primarily to prevent accidents. Consequently, the specific color, placement, and visibility of lights on a vessel will tell a mariner many things including a vessel's size, type, speed, distance, direction of travel, whether or not at anchor, and whether it is pushing or towing something. These lights, combined with the lights from buoys, lighthouses, and other navigation aids, make traveling on the water in the dark possible and relatively safe. This language, like all languages, relies on use of the proper "words" to communicate

effectively. Effective, accurate communication in this environment cannot be understated.

Navigating a boat at night is a task requiring 100% concentration at the best of times. Pile stressors - fatigue, limited visibility, crowded waterways, lack of experience, etc. - on top of that, and you have an idea of the basic mindset of someone driving a boat at night.

In addition, there isn't always a second set of eyes to assist. Someone sailing by themselves in the dark has a lot on their plate, as does the tugboat captain looking out over the hundred-yard-long barge he is pushing. Most of the time the only thing visible about a vessel at night is their lights. The vessel itself is indistinguishable from the water. The ability to estimate distance is also severely limited. Hopefully you're starting to get the idea that this is kind of serious business. How does this relate to us?

Even under the best of conditions in broad daylight, kayaks are very hard to make out at most distances. Studies have shown that even bright and contrasting colors do little to make our presence more obvious.



Night paddle, Photo: Ted Gormley

We must always paddle assuming we cannot be easily seen. The average sea kayak sits barely a foot above the water, the top half of the paddler's body rising only another two feet at best. Add the height of waves, and you get the picture that we are basically invisible most of the time. Any evidence of our presence is removed in the dark. This is why lights, the proper lights, are imperative to communicating who we are and where we are in relation to other traffic.

Lights and Collision Regulations

The US Coast Guard publishes a book called "Navigation Rules," which includes the international high seas collision regulations (called COLREGS). This book describes – among other things - the guidelines for use of navigation lights. Red, green, and white lights (and sometimes yellow) are used alone or in various combinations to describe almost everything on the water. On vessels, a red light will denote the port side, and a green light will denote the starboard side. Depending on the vessel, a combination of white, red, and green lights will be displayed from the stern and/or mast and in other relevant places.

The angles at which these lights are visible in relation to the position of the vessel are also important. According to COLREGS, the sidelights of a vessel must be visible at the specific angle of 112.5 degrees from the bow around to the side. These lights must NOT be visible from behind. A white stern light must be visible at an angle of 135 degrees when looking from the stern. This light must NOT be visible from the front. Masthead lights must be visible from the bow to the sides at an angle of 225 degrees. "All-round" lights must be visible from every angle.

Rule 25 of COLREGS outlines the proper use of lights in "Sailing Vessels Underway and Vessels Under Oars." Kayaks are considered "vessels under oars" and are governed by the applicable guidelines. Those are in Rule 25(d)(ii.) In a nutshell it states that kayakers, when practicable, should display sidelights and a stern light. In lieu of this, the kayaker must carry "an electric torch or lighted lantern showing a white light which shall be exhibited in sufficient time to prevent collision." (An all-around white light used to be listed as an *option* to meet the requirement. While not *prohibited*, an all-around white light is no longer listed as a formal option by COLREGS.)

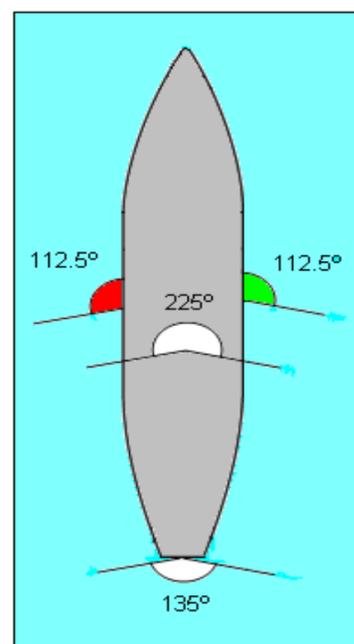
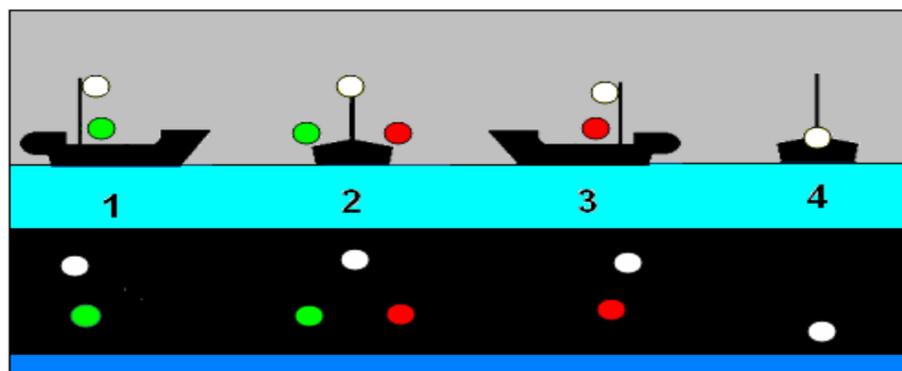


Figure 1. The angle of visibility is important to convey meaning to the light. Illustration: Wikipedia

Kayakers Create Confusion

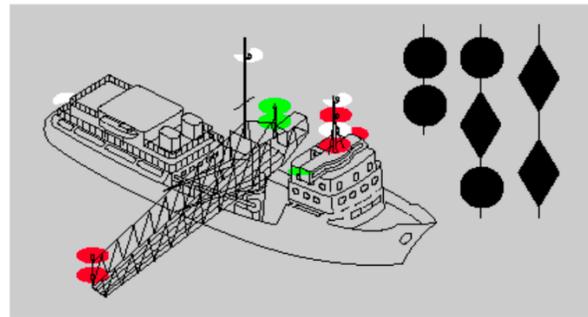
On my many night paddles, more often than not I see kayaks displaying all manner of lighting types and colors. I've seen kayaks where every inch of the deck was practically festooned in light. Some companies make small clip-on LED lights in various colors, which often make their way to the deck lines of kayaks. They are very useful as bike lights and for general outdoor purposes, and I own several. The problem is they do not conform to the visibility constraints prescribed in COLREGS. If someone is using these as sidelights on their kayak, they are visible at 180 degrees, not the required 112.5 degrees. This types out gibberish in the language of navigation lights. You are presenting a picture that makes no sense to a vessel operator already under a certain amount of stress.

Another point to consider is that though technically legal, most mariners are not expecting to see green and red sidelights on a kayak. The image you present may be that of a much larger vessel, possibly misconstruing your actual distance from the observer.

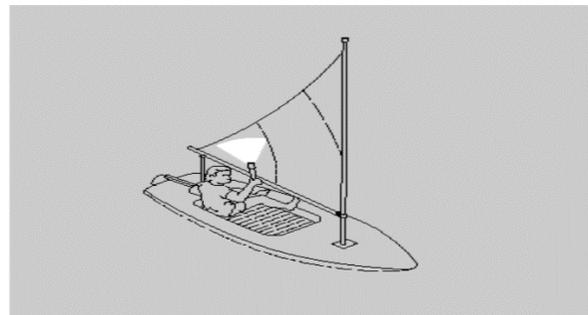
In addition, many paddlers display flashing lights of all colors. According to COLREGS Rule 37, "A high intensity white light flashing at regular intervals from 50 to 70 times per minute" is *considered a distress signal*. A person familiar with these rules, upon seeing a rapidly flashing light, will quite possibly call 911 or otherwise request assistance.

One night early in my career we received a 911 call for a boat in distress off Hunters Point in The Bronx. Someone called to report a rapid flashing white light in the water. Upon investigation we found a jet skier using a strobe as a navigation aid. He was not in distress. The police took over the incident, and I'm sure they also addressed the legality of being on a personal watercraft after sunset. A rapidly flashing light is a distress signal, and should be treated as such, not as a navigation light.

Figure 2. Illustration of lighting scheme on two different vessels

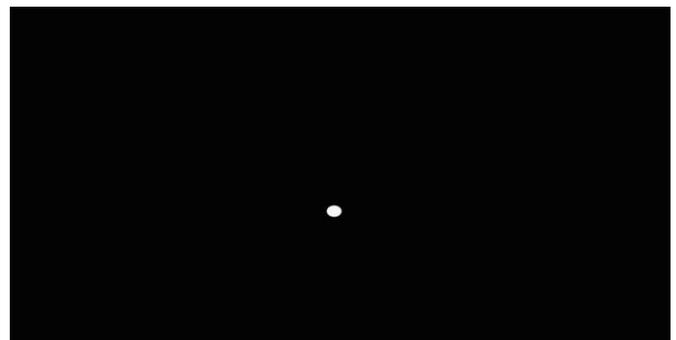
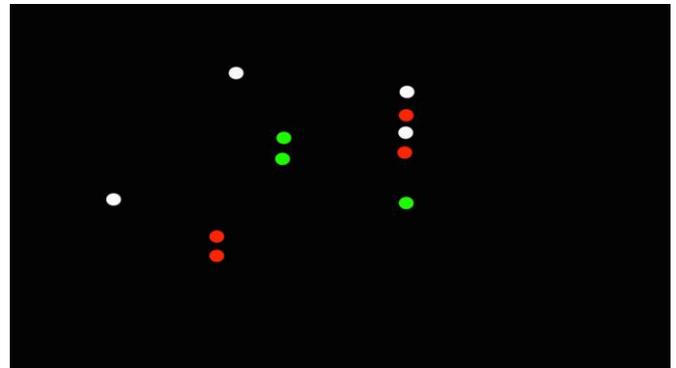


Vessel engaged in dredging or underwater operations when restricted in ability to maneuver—making way with an obstruction on the starboard side. Same for Inland.



Sailing vessel underway—less than 7 meters in length. Same for Inland.

Figure 3. Below is what the vessels in Figure 2 actually look like at night. They each are communicating equally important information. Don't add to the confusion!



Source: U.S. Coast Guard Navigation Rules

A good friend of mine is a veteran police officer in the NYPD Harbor Patrol. He tells me “It’s really frustrating! Some kayakers will use whatever they can find as a light and then go out onto busy waterways at night. Sometimes they have a green light stick attached to their PFD or somewhere on their deck and nothing else. And we’re trying to figure out what we’re looking at. Is it the right side of a sinking boat or a kayak with a glow stick? You can’t tell right away! And on top of that, all of the other lights of the city make it especially hard to identify stuff on the water with any degree of confidence. You’re a foot off the water. You’re hard to see. Maybe wear a helmet with a white light on top. Just follow the rules.”

While technically making your boat more visible, the use of non-standard lights blinds your fellow paddlers, causes confusion and adds additional stress to other mariners when they are trying to figure out what they are seeing. You can even cause an unnecessary rescue operation to be set in motion, potentially putting the safety of first responders at risk, even on land.

There is another aspect to running proper lights - it is the law. Just like not having PFDs and other safety equipment, the Coast Guard and any other law enforcement agency with jurisdiction can levy fines and penalties for having the wrong lights.

Think about this as well: if there is an accident where it is deemed that your improper display of lights contributed, you can be held liable.

What I Use

I have a good quality suction cup white light with a lanyard in case the suction cup fails. (See photo below.) I also carry in my PFD two dimmable yet very bright, waterproof flashlights. I carry two in case one fails. They all use the same batteries, and I carry spares. I have a manually-activated strobe on the shoulder of my PFD, for use in emergencies. These are the only lights I carry at night.

Ideally we should only be paddling at night under good conditions in safe settings. Even if unexpected circumstances arise, having a bright white light on our person and/or running the white light on a suction cup will be more than enough. This is what the Coast Guard mandates, and this is what the boating world expects to see.

Paddling at night can be some of the most fun you have in a kayak. However, it’s an exponentially more dangerous environment than during the day, and we have a duty to be responsible and contribute to the safety of everyone in this environment by using our lights to communicate effectively.



White light on rear deck. Photo: Ted Gormley

Book Review:**The Frayed Atlantic Edge: A Historian's Journey from Shetland to the Channel by David Gange****Reviewed by: *Paul Caffyn***

This is far more than just a sea kayak narrative. Over a year, historian David Gange completed a series of solo trips in his sea kayak along the rugged Atlantic Ocean coasts of Britain and Ireland. He felt that although British land-based histories have been written forever, the significance of coastlines and coastal dwellers had been consistently underestimated and thus he decided to address the imbalance from the sea by using a kayak.

The book to me is what I would have expected from a bloke who is a senior lecturer in Modern History at the University of Birmingham and has other history books in print. It is not your run of the mill sea kayaking narrative, concerned about weather, seas and distances paddled, but a superb coastal history of people, fauna and flora, with a hint of the highs and lows of paddling.

That said, I do have a niggle with the author's research on kayaking literature – in his 'Argyll and Ulster' chapter he claims that *The Canoe Boys* by Alastair Dunnett, "was the first major piece of kayaking literature in the English language; it is likely to be the most significant." I beg to differ. Dunnett's book was first published in 1950 as *Quest by Canoe – Glasgow to Skye*, reprinted by the Travel Book Club under the same title in 1959 but it did not appear in a fully re-vamped edition as *The Canoe Boys* until the 2007 softback edition.

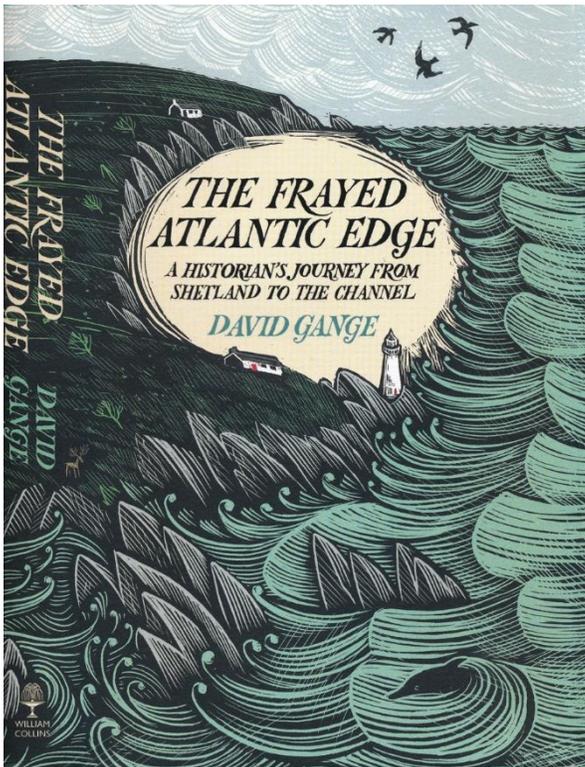
English language kayaking literature really began with John MacGregor back in 1866. The author does an injustice to those who have written so evocatively about paddling in British waters, like

Chris Duff with *On Celtic Tides, Paddle* by Jasper Winn, *Argonauts of the Western Isles* by Robin Lloyd-Jones, *Kayak to Cape Wrath* by J. Lewis Henderson and *Commitments and Open Crossings* by Bill Taylor (1990).

But 'tis just a minor quibble from a bloke who seriously collects paddling books. This is not a quick flick paddling narrative but a superb history of those exposed Atlantic coasts of Ireland, Scotland and England.

There is much to be mulled over. If you have any family links to Ireland, the western isles of Scotland, western Ireland or the south-west bottom bit of England, I suggest you add this tome to your wish list for next Xmas. For paddling bookaphiles who seek a bargain, this hardcover is exceedingly good value. If you have any bucket-list ideas to write a sea kayaking book, start with this excellent example of a superb descriptive writing style.

While the chapter maps are superb, showing key place names and the paddling routes, the photo coverage is on the lean side with just two-colour plate sections. However, in the preface, David notes he has a web resource which includes a photo record to accompany each chapter, "one of two short films, and further practical information for anyone wishing to paddle or research these coasts." I was disappointed by the lack of a full bibliography but David notes the website hosts an extensive bibliography. See: www.frayedatlanticedge.com



Title: The Frayed Atlantic Edge
 Sub-title: A Historian's Journey from Shetland to the Channel
 Author: Gange, David
 Published 2019, William Collins
 Hardcover Price: USD \$30 from Amazon
 ISBN-10: 0008225117
 ISBN-13: 978-0008225117

Editor:

What Others Have Said About The Frayed Atlantic Edge

'His prose runs, breaks and shifts with the force and beauty of the seas that bear him [A book] worth attention for its deeper argument as well as its thrilling surface.' *The Spectator*

'Rarely have our coastlines and cultures been explored with such understanding and respect.' *The Highland Book Prize Judging Panel*

'A brilliant book, and a major step towards a genuinely radical reimagining of the British Isles'. *The Scotsman*

'Remarkable and poetically written... a literary triumph.' *The Times Literary Supplement*

'A tour de force.' Moya Cannon, author of *Donegal Tarantella* (2019)

'Historian David Gange is an excellent guide... This epic kayaker, this human seal... battled gusts, swells and eddies as he took to the tides... his brisk account of the journey is dripping with erudition.' *Irish Examiner, Weekend Magazine*

Photos of the Month



Photo: Bill Vonnegut

Photos of the Month



Photo: Beklen Kerimoglu

Photos of the Month

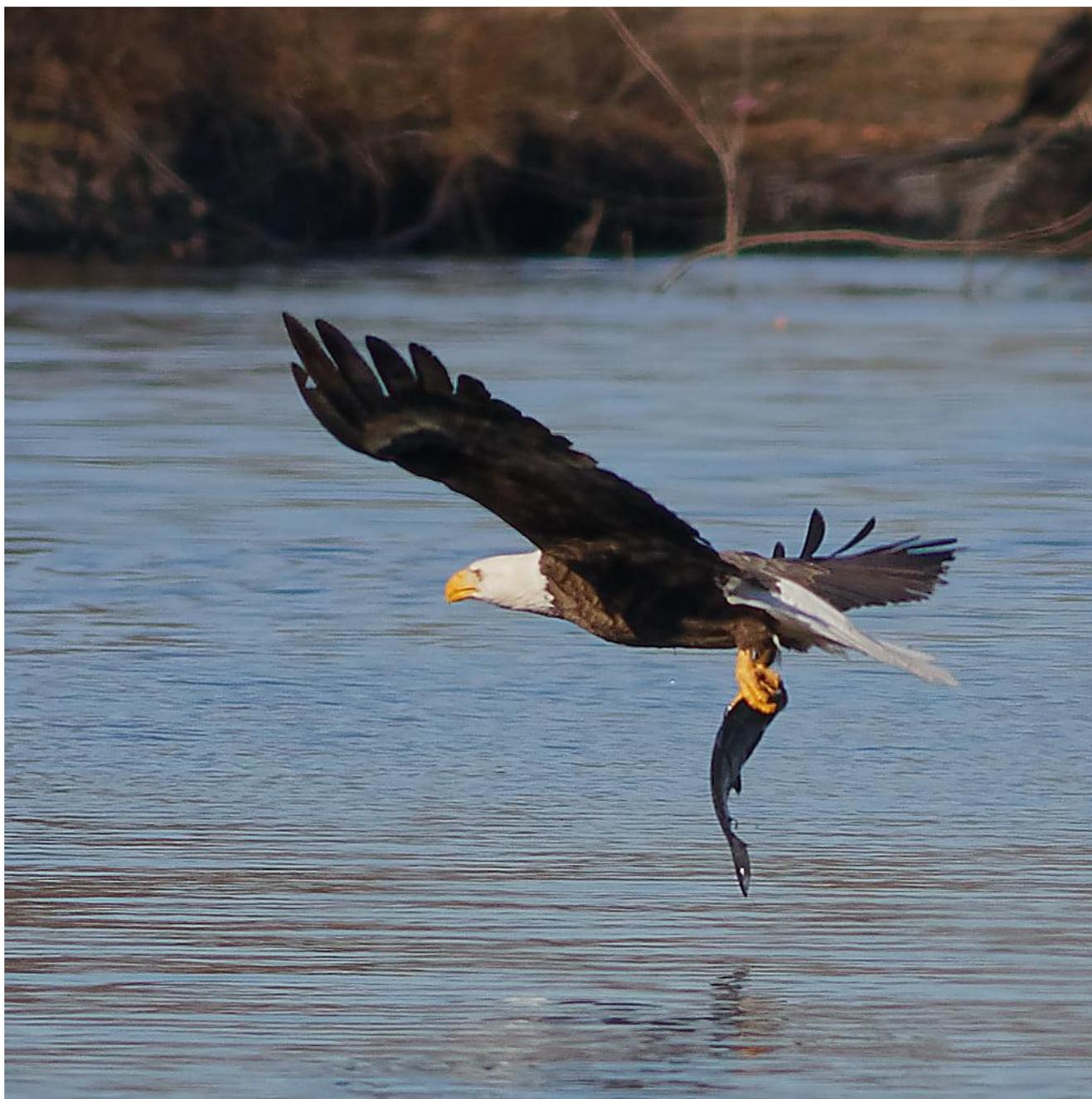


Photo: Curtis Warrenfeltz

**4 Days and 80 Miles on Open Water:
Big winds, big crossings, big horseflies and a cockroach in my cockpit.**

Ashley Brown



Staring at an 11 mile crossing. Photo: Ashley Brown

The inlet at Winyah Bay, near Georgetown, SC, has a rock jetty that sticks out into the ocean about a mile. From the chart it appears the only way to avoid going around would be to portage over the rocks at the shore to get on the other side. It didn't seem like that big of a deal to simply paddle around instead of landing, unpacking everything, carrying the boats and gear over giant jetty rocks, re-packing everything, and re-launching. So we decide to go around.

It's getting windy, around 15 kts. The surf is breaking perpendicular to the coast line and *into* the rock jetty. It's getting a little hairy and I start arguing with myself for a few minutes:

“Put on your helmet!

“No, not now, DON'T stop to put on your helmet!!!!!”

“You should have put on your helmet!!”

The waves are crashing and bumping to my right, the rock jetty is raising and lowering on the left. But I watch this pelican, in the middle of a larger rock pile - a big wave crashes over the top and the water swirls around his feet and he lifts his wings and body in a shrug to keep his feathers dry. He looks so relaxed, so I relax, and we make it around the south end of the big rock jetty.

The Start

This was the second of a four-day, three-night, 80 nm journey from Charleston to Georgetown, almost all of it out on the ocean. It was something we had talked about for ages, something we had never had (or taken) the time to do. Then the planets aligned. The wind direction and weather were favorable. Jeff, James and I were available and ready. So, on June 3, we set out.

Leaving Charleston Harbor on an outgoing tide, we got on to a conveyor belt of consistent SE wind around 15 kt. We rocketed past Sullivan's Island, Isle of Palms, Dewees, and Capers. Ultimately camping

on the North oceanside point of Capers. 16 miles, just like that.

This was my first time kayak camping while traveling oceanside and I was struck by how much more weather cocking my boat was subject to. I extended the paddle so that the right blade was as far away as possible and the left was in my hand.

The other thing that was new, but expected, was how sloooooowly the fully-loaded boat floats back up when a wave breaks over you. My body was reacting to the typically nimble Sportive's reaction to the surf, and then reminded, while the boat submarined, to hang on - it is going to take a minute to float.



Figure 1. Charleston (southern circle) to Georgetown (northern circle)

#NDK: I paddled my Sportive. It is my bigger boat, the Pilgrim decided she wanted to stay home. The Sportive performed well, but I think for anything longer than 4 days, I'm gonna need a bigger boat. Jeff paddled his nearly one of a kind Expedition Excel, which weighed ALOT when loaded. James paddled his famous yellow-over-other-yellow Explorer.

That first night the moon was nearly full, the breeze felt nice, the horse flies and no-see-ums were delighted to have a 3 course meal.

EEEEK!

Day two started with a five-mile paddle across the oceanside of Bull Island. We were underway and something skittered across my thigh. I screamed a tiny surprised scream, popped the skirt to free the beast - and couldn't find it. I put things back together and got back underway - and again.... The Skittering!!! This time I popped the skirt quickly enough to see that it was a cockroach. But - gone. I slid out and straddled the back deck trying to catch it - rolling up and down over the swell hoping to scare it, catch it, and feed it to the fish. Unsuccessfully. James glides over to check on me. "There is a cockroach in my cockpit!" James gets the big grin on his face - "Well, this should be fun!"



Ashley at Little Murphy Island camp. Photo: Jeff Atkins

F#*&%!@#!

We planned a route from the north end of Bull's Island to the Cape Romaine lighthouse: a nine-mile crossing of Bull's Bay. Before the crossing, we climbed to the top of a sand dune and could just barely find the top of the lighthouse - it looked like a pencil point. We still had a southeast wind, but probably not even 10 kts. We paddled for a long time - a really long time: two hours in the morning, then a short break, then three more hours.

It was only 1:30 or so, but I was tired - really tired. I am glad no one was close by, because I was having a full-blown adult hissy fit! I was angry at myself for going on this idiotic trip! And the shrimp boat didn't help - the one that somehow managed to keep its' diesel smell near me, even though it was the only other boat you could see in any direction. Where did the wind assistance go? Jeff - you idiot, this is too far!! Wah, wah, wah.

When I finally arrived on the beach I put my adult fit in time-out and took a nap, beside the boat, flat on my back on the beach. When reason returned, we paddled again for another 11 miles. The crossing ended up being 11.5 miles. The 25+ mile day was done!

We camped on Little Murphy Island, which turned out to be beautiful. The current in between Little Murphy and Cedar Island had a great-looking tide race.

There were dolphins, black skimmers, a giant sea turtle, terns. A beautiful moon rise. That night there were a couple of thunderstorms and howling winds. I reached up and held the tent poles a couple of times when they threatened to bend too far. I discovered I need to re-do the waterproofing on my rain fly. I learned one other thing, which is embarrassing, as I am pretty late to the game. You can pee in a Gatorade bottle in your tent! What!?! It's true and it's easy. The first thing you have to do is well, wait, never mind.....

We got on the water around 8:30 for day three. We paddled about 10 miles north to South Island where we waited on the beach for a few hours for the tide to turn. We were able to go for long walks and there were huge dunes and maritime forests and enough wildlife activity to keep us entertained. The wind was picking up and we had our most challenging, and not-pretty-breaking-surf, beach launch yet!

Then we dealt with that whole sideways-waves-crashing-into-the-jetty thing followed, thankfully, by the calming effect of the pelican shrugging off the crashing waves and swirling water.

Once around the jetty, we paddled inland to North Island, (clever island names, South and North) where there is another lighthouse and another beach campsite. The wind was whipping, which was good, because the hungry horse flies still managed to feast until we were all in long pants and long sleeve shirts.

There were dark, heavy clouds making a dramatic sunset; full moon rise. I can never capture that beauty on film, or explain it in a way that people can understand. But I can remind you of that feeling: a scene so lovely in every direction that it takes your breath away. Be there, open your eyes, keep them open.

The next morning, we were on the water by 7 so we would have the current with us up into Winyah Bay. This was only an 11-mile segment and the only stretch with headwinds. After an uneventful couple of hours, we landed in Georgetown, happy to be



Sunset. Photo; Ashley Brown



James and old friend RN 18. Photo: Ashley Brown

done, but at the same time already missing the fabulous time on the water.

Reflecting

I asked James and Jeff the thing I ask students at the end of class. What did you like? What did you learn? What would you change? And what hurts the most?

James said that he really liked getting to know people he had known for years. (aw, so sweet). He learned that he was not familiar enough with the jetties at Winyah bay entrance. Study those charts! What would he change? He would bring Bev. What hurts the most? Abdominal muscles.

Jeff said that he loved how many remote, pristine, protected beaches are between Charleston and Myrtle Beach. He learned (or was reminded) that if you want to take time to explore, you have to build in more time. What would he change? Better foreknowledge of the jetties at Winyah bay. What hurts? Rash on his armpit because he forgot the anti-chafing lotion.

I loved that it happened, it is so easy to NOT make time for adventure! I learned the Gatorade bottle in the tent trick. What would I would change? I would have taken a minute to put on the helmet at the beach when I realized the conditions had increased significantly. What hurts? My right forearm.

I can't wait to do the next section!

Baja: Islands, Endemics and Redefining Normal

Ginni Callahan

Islands hold particular allure for kayakers. In addition to being fitting rewards for successful navigation, and holding the romance of remoteness, islands are home to a disproportionate share of the world's rare and odd plants and animals.

Take the rattle-less rattlesnake of Santa Catalina Island, *Crotalus catalinesis*, for example. It's odd in two ways. There's the missing rattle, of course. And then there's its size. Described in scholarly texts as "slender and stunted", it grows to a mere 2.4 feet. In contrast, I've seen rattlesnakes measuring at least five feet on nearby islands. On mainland Baja, rattlesnakes can reach eight feet and are the largest venomous snakes in North America, which makes *C. catalinesis* slightly more than a quarter of the potential size of its relatives.

Islands are valuable for the scientific insights they provide on how life works on the planet. Together with these insights, the experience of islands expands our horizon. Islands give us different perspectives... on a familiar landscape, on the things we take for granted, on what is life.

Not everything on Santa Catalina Island is tiny. On the other end of the spectrum is the giant barrel cactus, *Ferocactus diguetii*. This endemic grows only on five Gulf islands, but the largest individuals occur on Santa Catalina.

Santa Catalina Island is the most remote of the islands in the Loreto National Marine Park, nearly 14nm from the nearest point of the Baja peninsula and 12nm from the nearest island. It sits just south of the middle of the Gulf of California, which separates the Baja peninsula from mainland Mexico. All of the Marine Park's 244 islands are UNESCO World Heritage listed, for scientific importance as well as for beauty and uniqueness.

By kayak, Santa Catalina is 17nm around, and is relatively well-suited to support viable populations of odd things. Unlike nearby islands, Santa Catalina Island was never connected to the mainland. Never having been connected means that the plants and animals that live there were not stranded when it broke off, but had to arrive by one means or another.

Several of Santa Catalina Island's inhabitants live nowhere else in the world, including seven snake species, one mouse, which is the only native land mammal of the island, and several lizards, including the Catalina side-blotched lizard *Uta squamata*. Normally side-blotched lizards have a dark patch just behind their armpits. Perhaps in solidarity with the rattle-less rattlesnake, the Catalina side-blotched lizard has lost its side blotches.





Santa Catalina. Stock photo

Odd things happen

We did say islands were places where odd things happen. Animals and plants change size. Reptiles struggle with their identities. And it doesn't stop there. In addition to gigantism and dwarfism, other common island adaptations include loss of mobility, such as birds losing the ability to fly, and niche shift—a career change, in ecological terms.

Isla Santa Catalina is a special odd place that has been sitting on my horizon for a couple decades. Being the furthest island in the Marine Park, it beckons to the kayaker. Before I succumbed to that call the first time, I asked around. If you tell anyone in Baja you're going to Santa Catalina Island, people mention the rattle-less rattlesnake. Just the existence of this oxymoron inspires trepidation.

“Are there many?” I asked.

“!Si! They're all over! Wear big boots!”

On my first trip I saw exactly zero. I admit I wasn't looking very hard. And I didn't know they were small.

Nobody talks about the diminutive size *C. catalinesis*. Its notorious shortcoming is what sticks in people's minds. Mexican fishermen, the population most familiar with this rugged place, speak of this docile little reptile with fear. Foreigners often wax philosophical.

“How can you call it a rattlesnake if it has no rattle?”

It's a bold move to let go of something that you're identified with, even if you don't need it any more. The rattlesnake is an evolutionary novelty that apparently evolved once, then radiated through the New World, enjoying the appropriateness of its design for the situations it encountered. *C. catalinesis* is still a rattlesnake for genetic reasons, sharing the most recent common ancestor with *C. ruber*, the red diamondback currently found in the southwest United States and throughout the Baja California Peninsula. Apparently, the rattle met the end of its usefulness on the isolated outpost of Santa Catalina.

But change is a process that takes time. *C. catalinesis* is still a rattlesnake for structural reasons, too. Rattles of keratin - fingernail material - grow out of a “matrix” at the tip of the snake's tail supported by fused vertebrae. *C. catalinesis* retains the fused vertebrae and the matrix, but each new rattle that is generated simply falls off.

Why the rattlesnake lost its rattle has been the subject of much head scratching. Why, in general, things on islands tend to get bigger or smaller than their continental cousins, is another conundrum.



Rattle-less rattler. Photo: Ginni Callahan

The “Island Rule”

The first attempt to account for such island oddities was made in 1964 by a young biologist, J. Bristol Foster. Fresh out of a doctoral program at the University of British Columbia, Foster surveyed 116

insular (island-dwelling) species living mostly off the coasts of western North America and Europe. Foster published an influential paper in *Nature* entitled "Evolution of Mammals on Islands."

He noted that rodents tend toward gigantism, while carnivores, rabbits, deer, and hippos are more likely to become dwarfed. Overall, amongst mammal species that colonize islands, big ones have a tendency to shrink while small ones are apt to enlarge. This is known as the "island rule."

Robert MacArthur and Edward O. Wilson followed Foster's paper with the publication of *The Theory of Island Biogeography*. This work launched an entirely new field of scientific endeavor, the study of how insular plants and animals got to be where they are today. And it spurred a host of young biologists to tackle the gigantism/dwarfism question.

Island rule not so simple

One of those young scientists was Ted Case. In 1978 Case noted exceptions to Foster's island rule: how the same lizard or rodent could be relatively large on some islands but not on others, and how one island may have gigantic forms of one type of lizard or rodent and dwarf races of another. The island rule was not so simple!

As an example, Case cited the curious instance of two rattlesnake species that cohabit Angel de la Guarda, another island in the Gulf of California a few hundred miles north of Santa Catalina. On the nearby Mexican mainland, *C. ruber* is roughly twice the size of *C. mitchelli*, but on Angel de la Guarda, the situation is exactly reversed, with *C. mitchelli* about two times as big as *C. ruber*.

How did this happen? Judging from a close look at the two species, *C. mitchelli* appears to have diverged more from its mainland progenitor than has *C. ruber*, Case says, which implies that *C. mitchelli* arrived first on Angel de la Guarda. In order to make use of all available prey, *C. mitchelli* went in for a larger size. When *C. ruber* finally reached the island, it found the big-rattlesnake niche already taken. So it had to accept the little-rattlesnake niche, and it evolved a smaller frame to do so.

Island biology is currently enjoying a new wave of research at the intersections of macro-ecology, community ecology, evolutionary biology, biogeography and conservation, with diverse, in-depth studies occurring on island groups worldwide. International conferences gather scientists together, on islands, of course, to discuss and collaborate.

Islands, with their varied biota, reveal that the way we see usually things is not the only way they can be. Islands reveal our biases and assumptions. Islands reveal how fragile is the balance, and suggest how vast and interesting are the options.



Paddling toward Santa Catalina Photo: Ginni Callahan

Little theories: Dwarfism

Insular dwarfism is the reduction in size of large animals over a number of generations when their population's range is limited to a small environment, primarily islands.

One theory involves a selective process where only smaller animals trapped on the island survive, as food periodically declines to a borderline level. Smaller animals need fewer resources to survive and reproduce. They are more efficient at absorbing nutrients and require smaller territories. Small individuals are more likely to get past the break-point where population decline allows food sources to replenish enough for the survivors to flourish.

Among predators, the main factor in dwarfism is thought to be the size and availability of prey resources. In tiger snakes, for example, insular

dwarfism occurs on islands where available prey is restricted to smaller sizes than are normally taken by mainland snakes. Since prey size preference in snakes is generally proportional to body size, small snakes may be better adapted to take small prey.

The apparent dwarfism in *C. catalinensis* was thus hypothesized as well. However, the endemic island mice that comprise 70% of its diet are actually larger than most deer mice, at 8.3 in. - nose to tail - of which about half is tail. They are relatively plentiful. That theory didn't seem to fit.

Smaller size is advantageous from a reproductive standpoint, as it entails shorter gestation periods and younger reproductive ages. This does seem to apply to *C. catalinensis*. Typical rattlesnakes reproduce at three years of age. Based on a study of growth rate and reproductive size, our island rattlesnake is speculated to reproduce at age two.

Small creatures are also better at coping with stressful environmental conditions. In hot areas, for example, small size should make thermoregulation easier. Heat is a factor in the life of *C. catalinensis*. They have been found climbing into the lower branches of shrubs, especially in the hot summer. This is not typical behavior for rattlesnakes, which normally hide under things.

Interestingly, the island mice are considered arboreal, and also climb into the shrubs. Was it hunger that drove the first snake to climb? Do the mice climb more in the heat of the summer and the snakes simply follow the pattern while hunting? Did the snakes discover that they liked air conditioning and return for comfort? What temperature do the snakes, who are cold-blooded and should like heat, actually prefer? At any rate, being small would make it easier to climb into the low shrubs of Santa Catalina Island, and remain supported there.

Now for the big question. Why did the snake lose its rattle? Theories have included the need for stealth to capture birds, so assumed because the snakes were found in trees, but a complete lack of bird remains in rattlesnake scat debunked that myth. The current favored theory for the loss of its rattle is a lack of predators. The little reptile is also docile and often

encountered in the open, behaviors which also suggest a lack of predators.

Prickly Barrel and Gigantism

From the little to the big, gigantism is also well known in island biology. It is common for species found on islands—both plants and animals—to be larger and more robust than their nearest relatives on the mainland. Remember the giant barrel cactus *Ferocactus diguetii*, which grows more than twice as big as “normal” barrels.

The species name *Ferocactus* comes from ancient Greek *ferox* meaning very spiny, which is appropriate for barrel cacti. Like other cacti, barrels are well adapted to life in areas of inconsistent rainfall and long dry periods. Ribs or pleats form its exterior. These can expand to store water, and contract as that moisture is used. After some good rain, they will look plump and satisfied, whereas a skeletal, thirsty cactus tells of a recent dry spell. The Loreto area has gone up to two years without measurable rain.

Spines grow out of the ridges of the pleats and form a complete protective barrier. This prickly exterior is not only armor, but also provides some shade from the generous sun.



Ramon looks short! Photo: Ginni Callahan

Giant barrel cacti make me smile. Their height is almost as impressive as their prickliness. Young, shorter individuals, with their stoutness and their occasionally comical postures, ironically strike me as teddy-bear-like when the sun backlights their golden coat of spines. But what makes these barrels grow to mamma-bear proportions on this island?

Big theories

The path to gigantism has common factors and a lot of variables, and everything has to be right for a species to grow. There has to be enough food, and no disadvantages to the implications of that growth.

Once an animal gets to a certain size, for example, flying isn't an option. New Zealand could evolve so many relatively large flightless birds (e. g., the Kiwi) because it had no predatory mammals. Generally, when an animal is being preyed upon, it's advantageous to be small enough to hide. With a lack of predators, Minorca ended up with a prehistoric giant rabbit and Flores has giant rats. In Baja, predation was only a factor for mainland barrels after the introduction of pigs.

Nutrition is certainly a factor in gigantism. On the nearby islands, the giant barrel cactus does not grow taller than its mainland cousins, but on Santa Catalina, it flourishes in the grainy granitic soil.

Hazards of island life

All the Santa Catalina endemics noted here, the rattle-less rattlesnake, the side-blotchless side-blotched lizard, the mouse, and the giant barrel cactus, are on the IUCN Red List of threatened species. According to this list, the lizard and cactus are both of "least concern, stable" but the rattle-less rattlesnake and its primary food source, the endemic mouse, are critically endangered and declining.

The mouse is suffering from competition by introduced species of other mice, which probably came over aboard local panga boats. Cats released on the island by fishermen have also contributed to the reduction in the mouse population.



Blooming barrel. Photo: Ginni Callahan

The snake also has been eaten by the cats left to go feral. Supposedly the cats were eradicated around 2002, but there exists the possibility of fishermen bringing more. From what I've heard from fishermen, this is a strong probability. Anything that eats a rattlesnake is still seen as a valuable camp companion. Collectors also threaten the population. Its passive behavior makes it easy to catch or kill.

The balance of life is constantly in flux. Islands are like art classrooms, bubbles of opportunity to be creative with a temporary moat of safety before a new species comes in, or an environmental factor changes, or the buzzer rings.

Perspective

Literally and simply, gazing back from a distant island, our perception of where we came from changes. Perhaps also our perception of how we fit, or what is "normal". Islands let us appreciate how different things could be when just a few variables are shifted, variables that we might not have recognized as variables had we not had an island to show us.

Islands suggest to us the spectrum of possibility. When we look back at home and at ourselves, the perspective of islands can open our eyes to the wonder of what is.

Covid 19 Reset: Revised Cross Currents Courses and Trips for 2020

Day/Date	Course	Location	Instructors/Guides	Cost
Fri – Sun July 3 – 5	VA Northern Neck: Vineyards and Brewery FULL	Reedville, VA	Rick Wiebush Laurie Collins	\$350 Incl. housing
Sat July 25	Advanced Strokes: Combination and Coordination	Rocky Gorge Reservoir Laurel, MD	Rick Wiebush	\$110
Sun. July 26	Deep Trouble: Advanced Rescues	Annapolis, MD	Rick Wiebush	\$110
Fri – Sun July 31- Aug 2	Redpoint: Advanced Navigation + Trip Planning FULL	Wachapreague, VA	James Kesterson	\$295 + housing
Sat – Sun Aug. 1 -2	Women’s Skills Weekend: “Paddle Smarter, Not Harder”	Kent Island, MD	Paula Hubbard	\$225
Sat. Aug. 8	Risk Assessment and Incident Management	Chestertown, MD (Sassafras River)	Paula Hubbard	\$110
Fri – Sun Aug 14 - 16	Rocks and Ledges in RI FULL	Newport RI	Ken Fandetti Rick Wiebush	\$325 + housing
Sat – Sun Aug 22 - 23	Intensive Intermediate Skills	Kent Island, MD	Laurie Collins, Denise Parisi, Shelly Wiechelt	\$225
Fri Aug 28 – Sun Aug 30	Surf and Rough Water Weekend	Cape Charles, VA	Jeff Atkins	\$295 + housing
Fri – Sun Sept 18-20	Intro to Current, Surf and Open Water	Susquehanna River, Ocean City, NJ The Pine Barrens	Rick Wiebush	\$295 + housing
Fri – Sun Oct 2 – 4	The (Re) Gathering at Chincoteague	Chincoteague, VA	Ashley Brown Jeff Atkins Rick Wiebush	\$325 + housing
Mon – Sat Oct 19 - 24	Savannah Low Country, Barrier Islands and Tybee, Part I	Savannah and Tybee Island, GA	Kathryn Lapolla Rick Wiebush	\$695 + housing
Mon – Sat Oct 26 – 31	Savannah Low Country, Barrier Islands and Tybee, Part II FULL	Savannah and Tybee Island, GA	Kathryn Lapolla Rick Wiebush	\$695 + housing
Sat – Sun Nov 7 - 15	Pacific Baja: Rocks and Ledges	Ensenada, Baja, Mexico	Jen Kleck, Victor Leon Rick Wiebush	\$895 Incl housing

Risk Mitigation During These Courses

1. All courses and trips will be limited to 10 -15 people.
2. All courses will require participants to wear masks during on-land lessons, and during launching and landing procedures. Social distancing is mandated during paddling, breaks and lunches.
3. For multi-day courses that involve overnight stays: participants will choose whether they want to be in a group house (shared or single room) OR a motel (shared or single room) OR camping.
4. The number of people in group houses is limited to eight. Masks and/or social distancing will be practiced in common areas of the house (especially the kitchen). Access to the kitchen for meal prep will be done in shifts of four people per shift. People will be encouraged to eat meals outside whenever possible. Common areas, especially kitchens and bathrooms will be wiped down with disinfectant after each use.
5. People in group houses will be encouraged to bring their own linens and towels.

Contributors

Ashley Brown lives in Charleston, is an ACA L5 Instructor, L2 IT, and is Adjunct Professor of Coastal Kayaking at the College of Charleston.

Paul Caffyn lives on the west coast of New Zealand's South Island. In addition to being the first person to circumnavigate Australia in a sea kayak, he has circumnavigated the British Isles, New Zealand, New Caledonia and Japan and has done major expeditions in Alaska (the whole coast) and Greenland. Paul also has an extraordinary collection of sea kayaking-related books from around the world. Check out his website at <http://paulcaffyn.co.nz/>

Ginni Callahan – lives in Loreto, Baja for most of the year, operating Sea Kayak Baja Mexico. She is a BC 5* paddler, an ACA L5 instructor and a fabulous writer. Her article in this issue was excerpted from a longer version that originally appeared *Ocean Paddler* in 2018.

Ted Gormley is a retired NYC Firefighter and EMT. He has been paddling most of his life, and sea kayaking since 2009. He holds a BCU 3* Assessment and is working towards BCU 4* and ACA L3 Trip Leader. He is also a PADI certified Divemaster and Rescue Diver and is currently learning to crew a 37' racing sailboat. He paddles a lot at night.

Larry Meisner is an avid rough water paddler and BC 4* Sea Leader. Larry lives in southeast Pennsylvania.

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.

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 750 – 1,000 words and submitted in Word. Photos should be submitted in .jpg format. Please send your submissions to Rick Wiebush at rwiebush@gmail.com.