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Dr. Christine Figgener

MARINE BIOLOGIST & AUTHOR

PRESS KIT

Vita

Christine Figgener was born in 1983 in Haltern am See and grew up in Germany's industrial Ruhr valley. After studying biology in Tübingen and Würzburg, she earned a PhD in marine biology from Texas A&M University. Christine has lived and worked in Costa Rica since 2007, researching sea turtles and fighting for their protection.

Her video of the painful removal of a plastic straw from a sea turtle's nose went viral and catalyzed the global debate about single-use plastics that led to them being banned in many countries. For her science communication and outreach efforts, Time magazine honoured her as a Next Generation Leader in 2018. She founded and leads COASTS (the Costa Rican Alliance for Sea Turtle Conservation and Science) and the consulting firm Namaka Conservation Science, both devoted to researching and conserving sea turtles.

She lives with her husband and her dog Fiona on the Caribbean coast of Costa Rica. When she is not rescuing sea turtles or writing, she swims as **Sea Turtle Biologist** through the vast expanses of the internet, trying to make more people fall in love with sea turtles and take action for their conservation

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My Life with Sea Turtles

A Marine Biologist's Quest to Protect One of the Most Ancient Animals on Earth

THE BOOK

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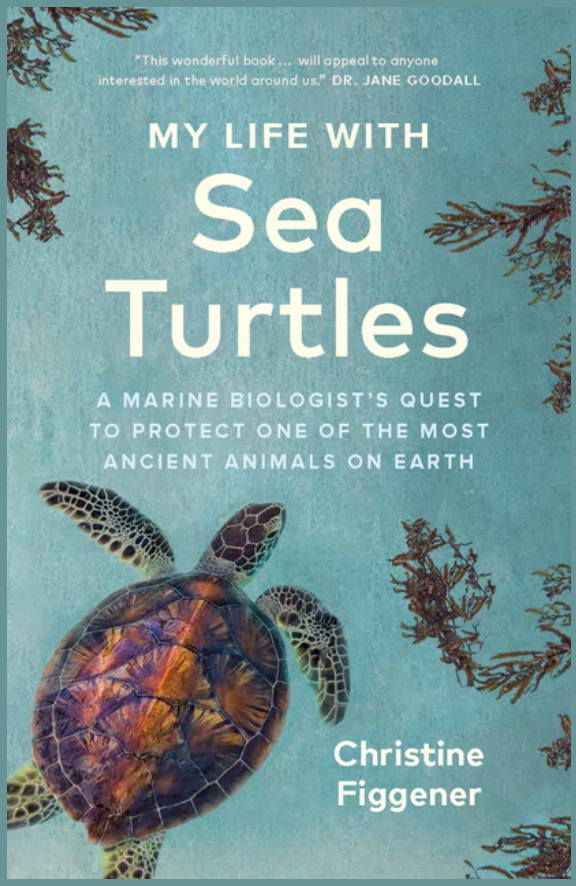

LINK TO PUBLISHER PAGE

For a digital **review copy** send an email to makenzie.pratt@greystonebooks.com

"A wonderful book that will appeal to anyone interested in the world around us."
—DR. JANE GOODALL

Filled with reverence and wonder for the natural world, this captivating book reveals the secret life of sea turtles, one of the oldest living creatures on Earth, alongside one female scientist's fight to save their future.

In 2015, a team of researchers carefully removed a plastic straw from a sea turtle's nostril off the coast of Costa Rica. The disturbing incident, which was captured on video, went viral, leading to corporate straw bans around the world. In this evocative book, reminiscent of Jane Goodall's memoir **In the Shadow of Man**, the marine biologist behind the camera, Christine Figgener, recounts her own life spent studying and protecting sea turtles.

From the time she was a young girl, Figgener was determined to become a biologist and study the marvels of the marine world. In **My Life With Sea Turtles**, she shares how she went from a small, gray town on the edge of industry to the lush coastline of Costa Rica, where she fell in love with the local environment and its famous residents: the sea turtles.

Figgener describes patrolling the beach at night, swimming with turtles in the open ocean, watching tiny turtles emerge from sandy nests, and risking her life during tropical storms. We learn about her experience as a woman in conservation, a male-dominated space where she struggles to be taken seriously. Through discovering the fascinating science of sea turtles and the threats they face today, readers will be inspired to live their own lives differently to ensure the survival of these magnificent creatures.

TALKING POINTS

- **Sea Turtles –** How many species are there? How long have they been around? What do they eat? How to distinguish the different species? Where in the world can you observe wild sea turtles? Why are sea turtles on the brink of extinction? Which threats do they face? How is the situation for sea turtles in Costa Rica, and how in the rest of the world? Why is it important to protect sea turtles? What can every one of us do to help sea turtles survive?

- **Researching Sea Turtles** - Why are scientific data important for sea turtle conservation? Why do we tag sea turtles? Why do we excavate nests? How does satellite tracking work? What do you have to do to become a sea turtle biologist?

- **Sea Turtle Conservation** - What are the challenges? Do I have my own conservation organization? What projects do I have in Costa Rica? What else am I doing for sea turtle conservation? Which are my favourite moments working, and which are my worst? Have I experienced dangerous situations in my line of work? What is the emotional burden of sea turtle conservation work?

- **Ocean Plastic Pollution** - What is the problem with plastic in our oceans? How does plastic harm marine life and especially sea turtles? How much plastic is in our oceans? What are the dimensions of the problem? How long has it been a problem? How many sea turtles have ingested plastic? What does plastic have to do with climate change? Where does most of the plastic in our oceans come from? What is microplastic? How dangerous is microplastic?

- **Women in Science and Fieldwork** - What are the challenges? Have I ever encountered sexism in academia, or working in the field? Have I been in dangerous situations because I am a woman? What is it like to work as a woman in a country with very traditional gender ideas?

- **Science Communication** - How did I become a science communicator? Why are science communication and environmental education important? Why do we need a new generation of conservationists? How do you become a better science communicator?

- **White Saviorism and Neocolonial Structures in Nature Conservation/ Parachute Science** - What do these terms mean? Do we have enough local voices in nature conservation? Do we have enough representation of minorities in nature conservation? How can big NGOs (so-called BINGOS) do better to break up neocolonial structures? What happens to the data of scientists from the global North conducting research in the global South? What do universities and academic advisors need to do to create equal opportunities in research and support researchers from the global South?

- **Conservation K9s** - What are conservation dogs? How can dogs help conserve nature and species? Why did I start to train my dog Fiona to help me with my sea turtle conservation work?

Reading Sample

MY LIFE WITH SEA TURTLES

I've been walking in the dark along this deserted beach for several hours. An incredible starry sky stretches out above me. The air feels heavy in my lungs; it smells of salt and musty wood with sweet, floral overtones. An impenetrable black wall of jungle looms up on one side of me, while on the other, I have to steer clear of waves from the Caribbean Sea. It's still warm even though it's after midnight, and under a backpack full of research equipment, my dark, long-sleeved sweatshirt is sticking to my back. Even though my eyes have adjusted to the darkness, I'm stumbling along rather than walking. The beach is a cluttered obstacle course: downed trees, small branches, and dunes and dips everywhere in the soft, damp sand. I am constantly scanning the water's edge. Every once in a while, I spot an elongated shadow, and a shot of adrenaline courses through me. So far, every one of these shadows has turned out to be a tree trunk or stump, and I wonder if I'm going to recognize what I'm looking for if and when the time comes . . .

Behind me, my even less experienced companion, Michael, is sweating and tripping as he tries to keep up with me. After almost falling for the umpteenth time, he swears violently. "Why do we have to walk around in the dark? Why can't we just use our flashlights?"

I half turn toward him. "Sea turtles like darkness when they lay their eggs. When they climb up the beach, they orient themselves by the contrast between the brightest parts of the sky—usually the stars and the moon—reflecting off the water and the pitch black of the beach vegetation," I explain. "If we used white light, we could scare them away and they wouldn't lay their eggs." That seems to satisfy him, and I direct my attention toward the ocean once again.

For the past two weeks, I've been here in Costa Rica taking part in a project to protect leatherback turtles, and even though I pretend to Michael that I know what I'm talking about, I've yet to see a single one. I've been at the research station learning everything I can about the biology, ecology, and conservation of sea turtles—including how to collect data and what we need to do to protect nesting mothers and their eggs from poachers. So far my training has been purely theoretical as we've not come across any nesting females during our beach patrols. My training period is over. I've been thrown into the deep end and now here I am stumbling along the beach with a single volunteer to "save a few sea turtles," as the biologist in charge cheerfully put it to motivate us.

Sweat is running slowly from my butt down my legs, and I can feel the sandflies that have found their way under my long pants and are now helping themselves to a meal of blood. Perhaps next time I should pay attention to the recommendation to wear long socks. My thoughts wander to my bed and the safety of my mosquito net back at the research station. How much longer is my shift going to last? I peek at my watch. The display, fogged up from the inside because of the humidity, tells me that I still have two hours to go. It will be four in

the morning before I'm finally able to creep, dead tired, into bed. Suddenly my subconscious pulls my thoughts back to the beach. Did that dark log out in the waves just move? I stop abruptly and hold my breath. My companion crashes into me. "What's going on?" he wants to know.

"I think that's a turtle over there," I whisper. The log does indeed seem to have pushed itself somewhat farther up the beach. I take a couple of steps in its direction, and now I can see it clearly: the silhouette of an enormous sea turtle beginning to emerge from the shallow water. Waves are washing over her, and the silvery light of the moon is reflecting off her smooth shell. She keeps lifting her head as though trying to get her bearings.

My heart begins to beat wildly and my mind races. Frantically, I try to recall everything I learned during training. As information swirls in my brain, one detail in particular rises to the surface: a sea turtle is easily spooked, especially in the early stages before laying her eggs, and will crawl back into the water if she feels uneasy. The first thing we should do, therefore, is retreat. I tug on Michael's sleeve, and we walk a short distance higher up the beach, where the trees are casting dark shadows. I tell him we'll need to wait until the female begins to dig her nest. Only then will it be safe for us to approach.

Over the roar of the surf I hear the turtle's long flippers slapping the sand, and her grunts and groans as she pulls herself laboriously up the beach. At some point, the noise changes and it sounds as though sand is being thrown
around. I creep forward under cover of darkness. The female appears to have found a suitable spot and is now busy preparing the site for nesting. For the next half hour, I leave the shadows at regular intervals and cautiously approach her from behind to see how she's doing. Time seems to stand still as I worry that the turtle might abort her nest building despite our precautions.

At least the long wait gives me time to get my nervousness under control and prepare our equipment. I take a data sheet out of the backpack and fill in the date and time. Then I scan the vegetation line with my red light until a white reflector gleams in the darkness. I walk up and read the number 25 written on a tree above it. Over the past couple of weeks, starting at the north end of the beach and moving south, we painted numbers on trees from 1 to 160 every 50 meters (55 yards) to help orient us as we gather our data. With the waves crashing behind us and marker 25 to our left, the turtle must be directly in front of the tree with the number 24 or maybe between 24 and 25. I make a careful note of that as well. We are going to need all this information later for our statistics. We also need it so we can find the nest again when we return to see how many of the eggs have hatched.

Finally, the huge body of the turtle stops moving, and she begins to dig her nest with her hind flippers. We both carefully creep forward to get closer to her. Now, for the first time, it's okay for us to shine our flashlights in her direction— but still using only red light and only on her back and tail. She is most sensitive to what's going on around her before she starts laying her eggs. As soon as she lays her first eggs, she will fall into a sort of nesting trance—and once in their trance, the females of most species are not easily disturbed.

I can't believe how big she is, I think, as I settle down on my stomach on the sand behind the turtle and run the beam of my flashlight up and over her back. From head to tail, she is longer than I am tall (I am 1.7 meters/5.6 feet!) and must weigh between 300 and 600 kilograms (660–1,320 pounds). As I will learn over the coming years, that's nothing out of the ordinary for a leatherback turtle, but my first sighting takes my breath away. I'm also fascinated by how gracefully she moves her hind flippers despite her bulk and her rather awkward

appearance on land—she is using her flippers like hands to remove sand from her half-finished nest. Amazing!

Michael and I keep an awestruck silence as we watch the hind flippers at work. First one, then the other slides slowly into the ever-deepening egg chamber, the rear edge of each flipper scraping the sand as it reaches for the opposite side of the hole, and then the flipper bends to carry the sand up and out of the nest. The turtle then tosses the sand to one side with an expert flick of her flipper. It is a hypnotizing sight and might even have lulled me to sleep if I hadn't been so pumped full of adrenaline.

After watching for a few minutes, not moving a muscle, I notice something metallic flashing every time the female switches flippers. When I look more closely, I see a metal tag attached to the base of each flipper on the side closest to the tail. I'm briefly overtaken by a feeling of relief. This turtle has already been identified and tagged. Today is not the day I am going to have to put my sparse and, up until this point, purely theoretical knowledge of tagging sea turtles into practice. I pull on a pair of latex gloves and hand the clipboard with the waterproof data sheet to Michael. Without touching either the turtle or her tail, I carefully rub the sand off both metal tags with one finger and read out the numbers and letters: "V1858, V1357." I get Michael to repeat the serial numbers back to me. They are correct. We have verified two more important pieces of information. So far all is going well, and that helps me calm down. I now turn my attention to the surroundings because I need to decide whether the nest can be left alone or whether the eggs should be moved. If the latter, that means I will have to either hide the eggs in a more secure spot on the beach or move them to our hatchery a few miles away. We are about 30 meters (100 feet) above the last high tide line and about 3 meters (10 feet) from the trees bordering the beach. The turtle did not hit any tree roots or water as she was digging. Also, there are no homes along this section of the beach. All the signs bode well, and for the time being, the eggs appear to be safe here in the nest the turtle has dug.

I grab the clicker counter from the backpack and let Michael know what's going to happen next. "You'll know when she's finished digging when she scrapes a bit more at the side of the nest with one flipper but doesn't remove any sand. She'll then pull her flipper out of the nest and use it to cover her tail. That's your cue she's going to start laying her eggs." Michael will have to pay close attention, because his task is to count every egg that drops out of her cloaca, the opening at the base of her tail.

We don't have to wait long. After a few more minutes, the female pulls her flipper out of the nest and places it over her tail. Gently, Michael pushes his hand under the flipper and lifts it so he has a clear view into the egg chamber. I can see the female's flipper pressing down as she starts to push with her whole body, and then two white eggs about the size of billiard balls fall into the nest.

While Michael counts carefully, I pull out the most expensive piece of equipment in my backpack. It's a scanner I will use to search the turtle for embedded microchips. To my delight, I get a beep right away when I slide the scanner over her shoulder, and a number appears on the display panel. More information for our data sheet!

I look over Michael's shoulder. "Has she started to lay her false eggs yet?" He says she has and now I, too, see the smaller eggs lying in the nest. They vary in size from tennis balls to peas and everything in between. These false eggs or SAGs (short for shelled albumen globes) are simply egg white enclosed in a shell. They presumably serve as placeholders so that when the baby turtles hatch later on, they can interact with each other and coordinate their movements more easily. The false eggs create extra pockets of space by slowly deflating while the true eggs are incubating. We watch together as the last eggs plop into the nest. When the female is finished, she moves the flipper she had positioned over her tail into the nest and presses down on the eggs. Then she pulls that flipper out, places it next to the nest, and slides her other hind flipper inside the nest along with a little sand. She presses down once more on the eggs and compacts the sand. If I still needed to attach tags to her flippers, now would be the perfect time. She repeats the process until the eggs are completely covered and the nest chamber is full of sand.

All we have to do now is measure our leading lady. Generally we use a tape measure placed over the curve of the turtle's back to measure the curved length and width of the top shell, or carapace, excluding the head and tail. With a leatherback turtle, this takes two people as most leatherbacks are longer and wider, even, than the span of most people's arms. Apart from that, it's quite uncomfortable to be practically doing the splits over a turtle's back. That's something I will learn the hard way with other turtles later on. Tonight, however, we have no trouble taking our measurements even though the female has begun to camouflage her nest and we have to be careful that her enormous front flippers don't knock us off our feet. With a carapace length of 1.62 meters (5.31 feet), she is definitely an impressive specimen; the average for a Caribbean leatherback turtle is 1.55 meters (5.09 feet). After we have made a note of her measurements, along with the number of eggs (ninety-six!), our initial work is done. We gather up our equipment and sit down on the sand a short distance from the nesting area to watch as the turtle makes final sweeps with her flippers. I notice how I am gradually relaxing, and how, finally, adrenalin is slowly giving way to endorphins. My first leatherback turtle! Absolutely breathtaking!

While the female grunts as she's throwing sand around to camouflage the nest and cover her tracks, I allow my thoughts to wander. Never in my wildest dreams did I imagine that I would one day move from Germany to Central America to research and protect sea turtles. But now here I am, sitting on the other side of the world under a starry sky so bright that I've seen its equal only a handful of times in my life. In the darkness, I can still make out the silhouette of the huge leatherback that has just laid her eggs in my presence. I pinch myself. But this is no dream. I can feel the breeze from the ocean on my skin and am aware of the smell of algae and cloacal fluid wafting toward me from the mother turtle.

Looking back as I write this, I can truly say that my encounter with this single leatherback turtle kick-started the greatest adventure of my life.