How To Draw a Manatee

Step 1
Step 2
Step 3
Step 4
Step 5
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Step 12
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Step 15
It's a Manatee's Life: Swim, Eat, Rest, Repeat

By: Michelle Konstantinovsky

During a routine third grade school library visit circa 1993, I fell in love. I wasn't really into boys yet (unless they were on TV and looked like Rider Strong — swoon!), but when I randomly flipped the page in a nature magazine, I laid eyes on the most glorious creature I'd ever seen: the sea cow. Formally known as the manatee, the beautiful, bulky, gray, wrinkled swimmer stared at me with generously spaced beady eyes and what I swear was a smile. I knew I'd found my animal soulmate. I promptly showed the page — an advertisement for the Save the Manatee Club — to my teacher and soon, my entire class was grudgingly donating money to sponsor a sea cow in Florida. Honestly, to this day, it's my proudest achievement.

Fast forward a few decades and I'm still just as obsessed with the gentle, flippered giants and am currently the proud sponsor of a lovely little manatee lady named Electra, who was rescued by the Save the Manatee Club after a boat strike in 1998. I have been gifted with no less than three Mana-Tea infusers over the years, I've prominently pasted a sea cow sticker on my laptop, and I am frequently tagged in social media posts related to the aquatic loves of my life. So when I was asked to write a comprehensive article on these super chill marine mammals, I screamed a bit and then got to work. Here is everything you'd ever want to know about manatees, brought to you by a lifelong fan.

What Is a Manatee, Anyway?

There are a lot of ways you could describe a manatee, but Smithsonian.com does a pretty succinct and eloquent job, calling the animals "roly-poly herbivores." There are three species of these slow, sizable swimmers: the Amazonian, West African and West Indian manatees (the last one is divided into two separate subspecies: Florida manatee and Caribbean manatee). All belong to the animal order Sirenia that also includes the dugong and an extinct species called the Steller's sea cow.

Manatees are marine animals that live in shallow, calm waters including rivers, estuaries, canals, coastal areas and saltwater bays, and as you probably could have guessed, many of them are big fans of Florida (though they travel as far north as Virginia and the Carolinas). The West Indian manatee lives along the North American east coast from Florida to Brazil; the Amazonian manatee hangs along the Amazon River; and the African manatee swims along the west coast and rivers of Africa. All they really need in their watery habitat is lots of seagrass or freshwater vegetation since these sweet, migratory swimmers adhere to a strictly plant-based diet.

"Fossil remains of manatee ancestors show they have inhabited Florida for about 45 million years," says Cheyenne Canon, conservation associate at Save the Manatee Club, in an email. "Modern manatees have been in Florida for over 1 million years (probably with intermittent absences during the Ice Ages). The present Florida manatee (Trichechus manatus latirostris) is a subspecies endemic (or "native") to Florida. Genetic studies indicate that it is not derived from the populations in Mexico or Central America but more likely colonized Florida from the Greater Antilles thousands of years ago, after the last ice age."

Manatees may not exactly fit the physical description of what most people would consider cute and cuddly, but to their true fans, they out-cute any stereotypically snuggly pet. They have long, round bodies that come to a taper at their flat, paddle-shaped tail. Their two flippers each have three to four nails, and their signature snout is whiskered. Their tough skin is wrinkled and their size is no joke: they're about 4 to 4.5 feet (1.2 to 1.4 meters) long at birth and average 60-70 pounds (27 to 32 kilograms). When they're fully grown, manatees weigh 800 to 1,200 pounds (360-545 kilograms) and reach 10 feet (3 meters) in length. The largest of the species can grow to be up to 3,500 pounds (1,590 kilograms) and 13 feet (4 meters) in length. And yet, they've got that sweet face and kind disposition to keep up their approachable image.

What Are Manatees Like?

"Manatees are incredibly calm and curious animals," Canon says. "In fact, they can be so curious that they find themselves in dangerous situations, such as approaching a boat. In the wild, manatees are typically independent, but they are not territorial and can be found in large groups in warm water springs. Manatees are not aggressive at all and have no natural predators. They interact peacefully with alligators."

To borrow from another one of my favorite descriptions of the animal found on the U.S. Fish & Wildlife Service website, "Most of their time is spent eating, resting and traveling." I mean honestly, same. Maybe the most relatable mammals on the planet? The eating part is pretty important — an adult manatee can eat a tenth of its own weight in 24 hours.

Why Are Manatees Endangered?

While manatees have no natural enemies (awww) and can live for up to 60 years or more, their lives are often cut short due to human-related causes. The No. 1 culprit: watercraft.

"Manatees spend the majority of their time in shallow water," Canon says. "Especially in Florida, boats are common in these same shallow waters.

"Especially in Florida, boats are common in these same shallow waters.
Boats present two threats to manatees: the boat propeller, which can cut a manatee multiple times causing devastating damage; and the boat hull, which can cause severe blunt force trauma if the boat impacts the manatee at a high speed."

"The best thing that boaters can do to help protect manatees is to boat carefully in areas where manatees are common," Canon says. "Boaters should also obey all posted speed signs. Manatee zones are researched extensively for their importance to manatees and the likelihood that manatees will be present — manatee zones are not decided willy-nilly. Boaters can also keep an eye out for manatees that may need help, such as lone calves, manatees with fresh wounds, or manatees that may be cold-stressed, and report them to the Florida Fish and Wildlife Conservation Commission (FWC)."

While manatees have been known to be at risk for decades (hence the creation of the Save the Manatee Club in 1981 by singer/songwriter Jimmy Buffett and former U.S. Senator Bob Graham), many advocates feel we're not doing enough to keep them safe. "Manatees are currently listed as 'threatened' under the Endangered Species Act," Canon says. "They were downgraded from an 'endangered' status in 2017 due to their rebounding population numbers. Save the Manatee Club did not agree with the downlisting as many of the threats that resulted in their endangered status have either not improved, or worsened. For example, based on population counts and death statistics from FWC, 8% of the Florida manatee population died in 2017. In 2018, when there was a statewide case of red tide the manatee lost 13% of its population."

"West Indian manatees in the United States are protected under federal law by the Marine Mammal Protection Act of 1972, and the Endangered Species Act of 1973, which make it illegal to harass, hunt, capture or kill any marine mammal," Canon continues. "West Indian manatees are also protected by the Florida Manatee Sanctuary Act of 1978. Violations of these federal or state laws can be met with civil or criminal convictions associated with monetary fines and/or imprisonment."

How Can You Help Support the Manatees?
If all of this has made you extremely jealous of my status as a certificate-carrying manatee adopter, you too can get in on the glory and sponsor a sea cow through the Save the Manatee club. And if you'd rather show support in a different way, there are plenty of options.
"There are many ways to help or support manatees," Canon says. "Just some of the possibilities are: adopting a manatee, donating to one of Save the Manatee Club's project funds, holding your own fundraisers to raise money and inform people, assisting with education and advocacy efforts, and volunteering." For a more comprehensive list of ways to support these gentle giants of the sea, visit savethemanatee.org/how-to-help.

The I-ATE Method

Processing the article

**Interpretation:** What is your initial impression of the author? What is the author's purpose?

**Investigation:** What facts did you find interesting? What would like to know more about? Questions?

**Ideation:** What ideas did the article inspire?

**Innovation:** What can you do about it?

**Integration:** Who can you share your ideas with and how would you share them?
Find out the scientific names for the structures.

What is the function of each structure?

Write a story from the perspective of a manatee.
It's that time of year when manatees, the slow-moving aquatic mammals of the southeast coast of North America, start to migrate south into warmer waters—and often run into trouble. In Florida, many of the languid giants—also called sea cows—are killed each year in boating collisions. That's why November is also Manatee Awareness Month, which just this year became official in the state of Florida. Governor Rick Scott issued a proclamation to protect the state's official mammal as a "distinctive, valuable, and beloved natural resource."

The International Union for Conservation of Nature lists the American manatee—also known as the West Indian manatee—as vulnerable, with less than 10,000 individuals of that species left in the wild, according to its website. The population in Florida is estimated at 4,831, according to Save the Manatee. The manatee is a sirenian—an order of aquatic mammals that includes three species of manatees and their Pacific cousin, the dugong. The ocean's largest herbivore, sirenians are also notable as the creatures that have long fueled mermaid myths and legend across cultures. Below we take a look at some of the most fascinating fables.

"Their Faces Had Some Masculine Traits"

Christopher Columbus, in his first journey to the Americas, caught a glimpse of three "mermaids" off the prow of his ship, writing in his journal: "On the previous day [8 Jan 1493], when the Admiral went to the Rio del Oro [Haiti], he said he quite distinctly saw three mermaids, which rose well out of the sea; but they are not so beautiful as they are said to be, for their faces had some masculine traits." (Voyages of Columbus 218). Indeed, manatees and dugongs are both known to rise out of the sea like the alluring sirens of Greek myth, occasionally performing "tail stands" in shallow water. With forelimbs containing five sets of fingerlike bones, and neck vertebrae that allow them to turn their heads, it's possible that manatees could be mistaken for humans from afar.

Following Columbus's expedition to the Americas, sideshows in Europe advertised "recently discovered" mermaids from the new world, often a deceased sirenian.

"A short time back, the skeleton of a mermaid, as it was called, was brought to Portsmouth, which had been shot in the vicinity of the island of Mombass. This was allowed to be submitted to the members of the Philosophical Society, when it proved to be the Dugong ... It was, if I recollect right, about six feet long: the lower dorsal vertebrae, with the broad caudal extremity, suggested the idea of a powerful fish-like termination; whilst the fore legs, from the scapula to the extremities of the phalanges, presented to the unskillful eye an exact resemblance to the bones of a small female arm." —Description of a mermaid in England's Magazine of Natural History.

Lady of the Sea

Thousands of miles from the seas Columbus sailed, the dugong—found in the Pacific Ocean—had been living in legend for centuries.

In 1959, 3,000-year-old cave drawings depicting dugongs—the word translates to "lady of the sea" in the Malay language—inside Malaysia's Tumbun Cave were discovered. In Palau, a Pacific nation that extends across 340 islands, the dugong plays a central role in traditional ceremony and lore. Stories of young women transformed into these gentle grazers endure, and wooden storyboard carvings illustrate dugongs aiding fishermen lost at sea.

Olympia E. Morei, director of the Belau National Museum, says that "Palauans respected their environment and all the living things in that environment—trees, plants, all the animals and birds. We believed that dugong was once a human, according to the legend."

The International Union for Conservation of Nature also lists the dugong as vulnerable to extinction.

The animal's population across its range remains unknown, but up to 15 animals are likely killed in Palau each year for food, according to the Etpison Museum's Dugong Awareness Project.

"If the dugong were to be extinct [in Palau], we would, as a people, lose our connection to our environment and to our tradition," Morei said. Without stronger conservation efforts, the gentle creatures that once inspired fantastic mermaid myths will themselves be consigned to mere legend.
SIRENIANS OF THE WORLD

EXTANT VS EXTINCT
Descripción:

Los manatíes antillanos son mamíferos marinos de gran talla y de color gris, con cuerpos que se estrechan en una superficie plana, con una cola en forma de cuchara. Tienen dos brazos, llamadas aletas, con tres o cuatro uñas en cada aleta. Sus cabezas y sus caras son arrugadas con bigotes en el hocico.

Los parientes más cercanos de los manatíes son el elefante y el damán (un pequeño mamífero del tamaño de una tuza). Se cree que los manatíes han evolucionado a partir de un animal herbívoro semi-acuático. El manatí antillano está relacionado con el manatí de África Occidental, el manatí del Amazonas, el dugongo y la vaca marina de Steller, que fue cazada hasta su extinción en 1768. Un manatí adulto promedio mide alrededor de 3 metros de largo y pesa 550 kilos aproximadamente.

Hábitat y Distribución:

Los manatíes se encuentran en aguas llanas, ríos lentos, estuarios, bahías de agua salada, canales y zonas costeras – en particular donde las praderas de hierbas marinas o las vegetaciones de agua dulce proliferan. Los manatíes son una especie migratoria. En los Estados Unidos, se concentran en Florida en el invierno. En los meses de verano, se pueden encontrar hacia el oeste hasta Texas y hacia el norte hasta Massachusetts, sin embargo los avistamientos en Alabama, Georgia y Carolina del Sur en verano son más comunes. El manatí antillano también se puede encontrar en las costas y ríos de América Central y a lo largo de la costa norte de América del Sur, aunque su distribución en estas áreas es discontinuada.

El manatí antillano se puede encontrar en los siguientes países: México, Belice, Guatemala, Honduras, Nicaragua, Costa Rica, Panamá, Colombia, Venezuela, Trinidad, Guyana, Surinam, Guyana Francesa, Brasil, Puerto Rico, República Dominicana, Jamaica, Cuba y en las Bahamas.

Comportamiento:

Los manatíes son animales apacibles y lentos. La mayor parte de su tiempo se dedican a comer, descansar y viajar. Los manatíes son mayormente herbívoros, sin embargo, en ocasiones pueden ingerir pequeños peces e invertebrados junto con la vegetación, la cual es la dieta normal de un manatí. Se alimentan de una gran variedad de plantas emergentes, sumergidas y flotantes y pueden consumir el 10-15% de su peso corporal, a diario, en vegetación.

Debido a que son mamíferos, tienen queemerger para respirar aire. Ellos pueden descansar sumergidos en el fondo o justo debajo de la superficie del agua, llegando a respirar en promedio cada tres a cinco minutos. Cuando los manatíes utilizan una gran cantidad de energía, pueden salir a la superficie para respirar cada 30 segundos. En reposo, se sabe que los manatíes pueden permanecer sumergido hasta por 20 minutos. Los manatíes pueden nadar a una velocidad de hasta 30 kilómetros por hora en distancias cortas, pero lo usual es que naden a una velocidad de 5 a 8 kilómetros por hora.
The first time I ever saw a manatee was on a trip to Florida’s Wakulla Springs State Park. The filming location of several Hollywood productions like *Creature From the Black Lagoon*, *Tarzan’s Secret Treasure*, and *The Creature Walks Among Us*, the park is a beautiful, timeless location. There you will find the largest and deepest freshwater spring in the world. The year-round 70 degree water is the perfect wintering habitat for manatees.

I remember jumping off the platform into the shockingly cold, crystal clear water. While submerged I looked over towards the black hole that was the spring. There, hovering in the water like an army of helicopters was a school of alligator gar. It was pretty eerie, and I became aware of everything swimming around me like birds, fish, turtles, and...?!

Later that day, my dad, my brother, and I put our kayaks in just south of the park. We planned to float out to the gulf. After paddling for a while my dad yelled out and pointed downriver. He had seen a nose and a spray of water! Minutes later I looked down and right below my boat was a huge beast! Armed with a waterproof camera I fell off my kayak, and entered their world.

I soon found out that the manatee was a mother with her calf swimming below her. The baby turned towards me and my camera and gave me a big, whiskered smile and blew me a kiss. Behind him, his mom just kind of rolled her eyes and gave me a wink.

It seemed like we floated underwater there forever. However, when I resurfaced I was quickly reminded that I was in a moving river. The huge manatees were not affected by the deceivingly quick water, but my boat had been!

I began scanning the water and found my boat floating downriver without me. I began to swim towards it becoming a little anxious of what else might be in the water. Just before I caught my boat, I looked over at the bank where another mama was busy making a nest out of the grasses and earth. The 8’ alligator did not pay me much mind except to hiss and open her mouth.

I’m sure she was just saying, “Hello!”

*Alligator moms are very protective, caring mothers who will defend their babies!*
Who are the manatee’s closest relatives? Whales like Billy? Seals? Dolphins? Hippos maybe?

Nope. Their closest cousins are elephants and hyraxes. Talk about extremes! The hyrax grows to be 12 to 24 inches, and the elephant is the largest land animal on earth!

What are the unique similarities between hyraxes, elephants, and manatees?

Draw a family tree that shows the connections.
After meeting manatees
How would you describe them to your friends?
<table>
<thead>
<tr>
<th>YEAR</th>
<th>WATERCRAFT</th>
<th>FLOOD GATE/LOCK</th>
<th>OTHER</th>
<th>HUMAN</th>
<th>PERINATAL</th>
<th>COLD STRESS</th>
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<td>Reading Comprehension and Fluency</td>
<td>Qualitative Thinking</td>
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<td>Application</td>
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<td>Cloze reading of the articles to build fluency and aid in comprehension leading to confidence in reading and understanding nonfiction articles.</td>
<td>Complete the chart on page 11. Using math skills complete the chart by adding the totals and finding the averages. What do these numbers mean?</td>
<td>Design and create a poster for a science classroom on your grade level. Or, Submit your own idea</td>
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<td>Written Expression</td>
<td>Response to the experience (use prewriting activity on page 10). Write a short story with original characters (add illustrations).</td>
<td>Using numbers and statistics, compose a persuasive letter in favor of doing more to protect manatees.</td>
<td>Produce an essay to accompany your qualitative and quantitative work AND send it to someone who is a stakeholder.</td>
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<td>Oral Communication</td>
<td>Develop and deliver a speech to your peers about your manatee experience using descriptive language that paints a picture in your audience’s minds.</td>
<td>Give a TED Talk. Watch mosquito TED Talk. How does using numbers in your talk make it more effective?</td>
<td>Produce a Youtube video that is entertaining, informational, and authentic. Or Submit your own idea</td>
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<td>Researching Methods</td>
<td>Research the legends and myths surrounding manatees. Choose 2 or 3 specific accounts and compare and contrast their details. Give a reflection.</td>
<td>Manatees by the numbers including anatomy, habits, interactions, and human impact.</td>
<td>Develop a thesis statement and support it with a 3 page research paper that highlights 3 details. Include a works cited page.</td>
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EXTENSION

WRITE YOUR OWN MYTH.

CHOOSE YOUR MEDIUM OF EXPRESSION AND CREATE IT.

MAKE UP A MANATEE GAME. ACTIVE OR STRATEGY.

THE ABC’S OF ALLIGATORS!

CONDUCT LOCAL INTERVIEWS TO GAUGE WHAT PEOPLE KNOW ABOUT MANATEES.

FIELD GUIDE

CAMPFIRE COOKBOOK

SPANISH ESSENTIALS!
References and Works Cited


