



## **“Two Sea Fans,” episode 1: Give me an M-O-T-E**

*Joe Nickelson: Today on “Two Sea Fans...”*

*Hayley Rutger: Okay, I think we’ve had enough! Here is the last M-O-T-E from one of our shark researchers. So each episode is gonna give people an inside look at Mote’s research on things like sharks, coral reefs, ocean technology and all the other things we study.*

*Joe: Like, why we collect fish poop?*

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Joe: Hi Hayley!

Hayley: Hey Joe! So hello from “Two Sea Fans,” the podcast of Mote Marine Laboratory in Sarasota, Florida. And I’m Hayley Rutger...

Joe: And I’m Joe Nickelson and we’re Two Sea Fans - marine science fans who created this podcast to give you a window into a real working marine lab.

Hayley: Mote Marine Lab is an independent, nonprofit institution that has been studying the oceans for more than 60 years.

Joe: Yes! And a lot of people hear about the lab when they come to our public Aquarium, but don’t think they really know us deep down.

Hayley: Like, in our souls?

Joe: I mean how much research we do all over the world and why it matters.

Hayley: Okay well that’s what the podcast is for. So each episode is gonna give people an inside look at Mote’s research on things like sharks, coral reefs, ocean technology and all the other things we study.

Joe: Like, why we collect fish poop?

Hayley: Yeah, okay, maybe. The point is, whether you know a little bit about Mote, or nothing, this is your chance to follow along with the inner life of a marine lab and all of the people who make it work.

Joe: Including the fish poop collectors?

Hayley: Yeah... so will you stop doing that if I promise a future episode involving fish poop?

Joe: Okay.

Hayley: Thank you! I think this is going to work. On this episode we're gonna tell you how Mote got started. And first though, we're gonna do something fun.

Joe: A lot of people don't know where Mote got its name. We're gonna tell you the right answer, eventually. But first, we're going to make stuff up. We asked our staff - the scientists, the educators, the Aquarium biologists - to give us words or short phrases starting with M, O, T and E, describing what Mote means to them.

Hayley: Yeah, so here's what we got. M, marine science. O, outreach. T, technology. E, education. This one is pretty darn good. It captures most of our mission, which is doing today's research for tomorrow's oceans, and educating the public so they can be more ocean-literate.

Joe: Well I've got a better one: marine organisms talking educators.

Hayley: So, explain.

Joe: Well, people visit Mote Aquarium to see our marine organisms. While they're here, they usually talk to our very informative volunteers who educate our visitors on marine life. They're pretty awesome.

Hayley: Yep, I agree. So I got a nerdier one for you: marine or terrestrial ectotherms.

Joe: What?

Hayley: An ectotherm is an animal whose body temperature changes depending on its environment. Unlike you, you and your warm heart, or me and any other mammals - we're endotherms, that's our body temperatures being consistent and controlled internally - the ectotherms are more like sharks and other fishes, sea turtles, really most of the stuff that we work on at Mote. And marine fits us just fine but terrestrial really doesn't, it means land dwelling. You can probably tell the answer, this one, came from one of our aquarium biologists.

Joe: Yeah, probably the same guy who sent us this one: monthly odd testicular examinations.

Hayley: Ha ha, okay. Thank you... what?

Joe: Animal care joke.

Hayley: Okay, I think we've had enough. Here is the last M-O-T-E from one of our shark researchers. Mr. Mote would Object To this Exercise. So actually yes, there was a Mr. Mote, that's the answer to this riddle, William R. Mote. I can't actually say what he'd think of this exercise because sadly he's no longer with us, but he is the real reason that our Lab is called Mote. So, Joe why don't you tell us the history, since you've been here pretty much forever?

Joe: Thanks a lot, Hayley. Cue old time music... The lab was founded in 1955 by Dr. Eugenie Clark, who came to be nicknamed "the Shark Lady." She was encouraged to start the lab and was provided funding by the Vanderbilt family. Yes, that Vanderbilt family. The Lab was a one room shack down in Placida, Florida and was called the Cape Haze Marine Lab. Genie's only assistant was a knowledgeable local fisherman named Beryl Chadwick.

Hayley: And some of you might know that Genie lived to age 92 and she did research all of her adult life. I mean, she was still diving at 92. Most of us could only dream of a life like that. She passed away in 2015 so she got to see the lab reach its 60th anniversary that year, and she was just an incredible ichthyologist, which is a fish researcher, and she had a special interest in sharks, hence her name.

Joe: Yup. Right from the start Genie studied sharks in ways no one else had. She was the first to show that sharks could learn through training and also swam with a number of large sharks to study them in the wild, which helped a lot of people to be less afraid and more respectful of sharks.

Hayley: Yeah, today we know that sharks usually aren't out to get us, and actually, ocean ecosystems really need sharks, but back then a lot of things were unknown. And not just about sharks, Genie's research was really exploratory and really exciting in lots of ways during the early days of the lab. Like she wrote about she dissected a 2,200 pound manta ray on the Sarasota City Pier while surrounded by spectators. Who wouldn't go and wanna see that? She also dove into freshwater springs called warm mineral springs in Little Salt Springs here in Florida with this retired lieutenant colonel called Bill Royal and they discovered human remains thousands of years old. And then she also studied a really strange fish that could switch its sex in as little as ten seconds and fertilize its own eggs. You know, proving that fish never cease to amaze us.

Joe: That's for sure. So the Lab moved to Siesta Key in 1960, but soon it was in need of more funding. Mr. William R. Mote stepped in to support it. He was a successful transportation executive, avid fisherman and Tampa native. He wanted to give something back to the sea.

Hayley: Yeah, really that's still a big part of how Mote is supported today as a nonprofit. People who know that the oceans matter will often donate to give something back just like Mr. Mote did.

Joe: So in 1967, Mote got its new name to honor the Mote family. Then in 1978, it moved to City Island in Sarasota, where it is now. The Lab was always a big draw for school kids, and really anybody who wanted to learn about the sea. So we started Mote Aquarium in 1980 to translate research into public education and outreach.

Hayley: Yep. So, how much of that history have you been here for, Joe? No offense. Well anyway, some of our scientists have been here maybe as long as you, decades, and then again, some of them are young Ph.D.'s who are starting their careers, but they all have awesome stories.

Joe: And every two weeks, we'll bring you a new inside look at science here at Mote.

Hayley: Yeah, and maybe after a while there will be more than two sea fans.

Joe: So don't be "shell-fish" or flounder around, and join us.

Hayley: Oh gosh, that's the spirit Joe.

Joe: But really, you're going to like what's next. Look for a new episode in about two weeks at [mote.org/podcasts](http://mote.org/podcasts).

Hayley: And that's it for our first episode, see you later from "Two Sea Fans" at Mote!