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Sanibel Seashells Podcast and Scientist Interview

Epitonium angulatum, Astralium phoebium

Ari Daniel Shapiro joins the serious beachcombers along the high-tide line of Sanibel Island, Florida. These "shellers" come in search of beautiful sea shells, sometimes no bigger than a grain of rice, that are the remains of marine snails, bivalves, and other mollusks. Along the way, Ari learns why Sanibel's shores are so rich in molluscan treasure, and how shelling has captured the imaginations of scientists and enthusiasts alike.

Transcript

Ari: From the Encyclopedia of Life, this is One Species at a Time. I'm Ari Daniel Shapiro. I'm going to tell you about two guys who love seashells. One of them's an enthusiast, the other's a scientist, and they're tied together by the thrill of discovery.

Oths: Let's walk down this way and see if we can find something else.

Ari: Jeff Oths is the enthusiast. He made his big discovery in his own backyard. If the beaches of Sanibel Island count as a backyard. He's lived on the west coast of Florida for 8 years. Several days a week, he's out here, working the shoreline, scanning the sand for shells.

Oths: When you live here, the bottom of your feet become like leather cause you're barefoot all the time.

Ari: Oths is vice president of the local shell club, and he's got a big collection at home.

Oths: I stay in the guest room, cause the master bedroom was larger and I had more space for my shells.

Ari: And when the tide's out here, the beaches are just coated with seashells.

Oths: Beautiful – this is a little rice shell, and you probably wouldn't see it right away.

Ari: Yeah, it looks like a rice grain. Why is Sanibel such a good place to find shells?

Oths: Well, it's all about the geography cause the island is sort of perpendicular to the current. It's like a big catcher's mitt so the shells come up and down the coast with the currents, and they wash up here on the beaches.

But, uh, let's see what else we got here…

Ari: Oths bends down to pick up what looks like a little clam. Except that it's tiny, shiny, and pink. It's a rosepetal tellin.

Oths: These are adorable, aren't they. They're just beautiful – look at that color.

Mom: Oh, that's pretty.

Ari: That's my mom. Oths was showing me and my parents around the beach.

Mom: Do you think that since you're looking at all these shells that tend to be pretty much the same that you seek out the ones that are so different?

Oths: It's almost like a texture that you look for – and you'll see this sort of a matrix of rubble. I did have some really good fortune earlier.

Ari: He shows us two shells in his hand. They're like mini soft-serve ice cream cones. Two tiny swirls of white shell. These wentletraps, or Epitonium angulatum, look small to me – no bigger than a double A battery – but the other shellers on the beach – they're impressed. Maybe even a little jealous.

Woman: Oh, wow. Where'd you get those? Those are gorgeous.

Oths: Just on the driftline.

Man: Those are huge. I've never found anything like that. Wow, good for you.

Ari: The amateur shellers of Sanibel <Well, have a great day> are a beach-scanning army <That's super, have fun>. Every day of the year, they fan across the island, looking for curious shapes and textures. And once in a while, one of them gets lucky. Like Jeff Oths, on Christmas day in 2009.

Oths: You never know what you're gonna find, or what to expect. So immediately I knew that it was something unusual.

Ari: In a pile of shells, he struck upon Astralium phoebium, or the long spine star snail. And it turned out to be Sanibel's 300th reported species of shell. But rather than adding it to his collection in his master bedroom, Oths gave it to another shell lover.

Leal: I do have some of the favorites in this area.

Ari: José Leal is the scientist in this story. He's the director and curator of Sanibel's shell museum.

Jeff Oths' shell now resides amongst well over 100,000 other shells, from across the world. Leal says he's skeptical when a new shell's found on Sanibel.

Leal: We have to be very careful before we fully assume that is actually living out there.

Ari: So did you have any doubts when Jeff turned up this 300th species?

Leal: Well, yes, and then I proceeded to ask him questions. Where did you find it? Well, I found it in the water. That's a good sign. Another hint is that that shell is not a very collectible shell. It is a nice shell, but it is not something you can buy elsewhere.

Ari: Now, the museum does house a number of specimens valuable to the shell trade. That's why the cabinets are locked up tight. Shells also get secured if they're important to science. Leal opens a cabinet and pulls out one such shell that came from the Florida Keys. The two halves fit together like a little orange heart. Leal named this specimen.

Leal: I created a new genus name, which is a higher category, including a few species. When I first saw the shell, it didn't strike me as anything that anybody knew at that time. The combination of being a predator and living its entire life glued to a rock was unheard of in molluscs.

Ari: Leal had to unravel these puzzling features of the shell's life, which is how he came up with the genus name.

Leal: I created the name Dilemma.

Ari: This one's Dilemma frumarkernorum. Leal loves shells, and seeing one for the first time – there's nothing like it. It's what got him hooked as a boy growing up on the beaches of Rio.

Leal: I still have these recollections of the water – the glimmering, the sunlight going through. And all of a sudden, you find a little clam, that special shell. I think if you collect your own shells, and you're walking, you know, and you found 5 different kinds, there is always a chance that you'll find a 6th one, a 7th one. And eventually the 10th one will be something wonderful, and beyond your imagination.

Ari: It's this feeling that keeps both Jeff Oths and Jose Leal combing the Sanibel beaches. Wondering whether their next step will bring them face to face with something they've never seen before. A little sandy promise.

Leal: So I think that's the main attraction – is being consumed by the unknown. You know, the surprise element in shelling.

Ari: You just have to keep your eyes open.

Our series, One Species at a Time, is produced by Atlantic Public Media in Woods Hole, Massachusetts. I'm Ari Daniel Shapiro.

Meet the Scientist

Meet Dr. José H. Leal, the scientist featured in our Sanibel Seashells podcast:

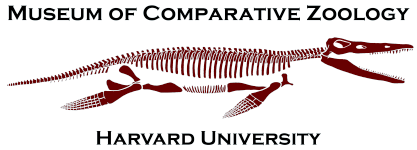
Where do you work?
I am the Director/Curator at the Bailey-Matthews Shell Museum in Sanibel, Florida, USA.

What do you study?
My field of research is systematics of marine mollusks.

What are three titles you would give yourself?
Marine Biologist, Systematist, Museum Administrator.

What do you like to do when you are not working?
Most of all, I direct the Shell Museum on Sanibel. A little of my current time is devoted to research, and my free time spent listening to all kinds of music, reading, or stand-up paddleboarding or surfing. With my fiancée Kim Nealon, I take my vacations back in my hometown of Rio de Janeiro, Brazil.

What do you like most about science?
First the exploratory side of doing systematics, second, the feeling that I am somehow contributing to the knowledge of what kinds of living things are out there in the ocean, and, third, the reassuring realization that I work with the coolest group of animals on the planet, the mollusks!



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