

Eastern Conservation Science Team Member Profile:



Marta Ribera

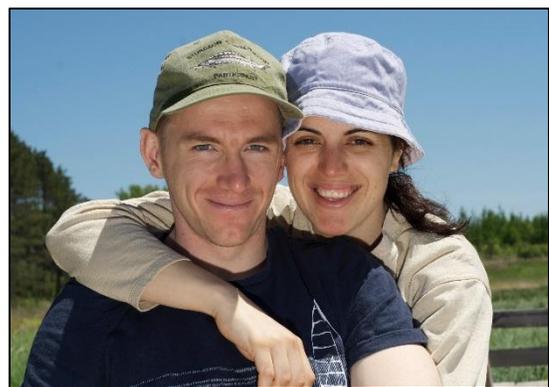
**Spatial Ecologist
North America Fisheries
Boston, MA**

When you were little, what did you want to be?

So many things: a teacher, a baker, a dolphin trainer - anything but an engineer. My dad is an engineer, as was my grandfather, and I was always very good at math, so the whole family thought I would follow in the family tradition. But I was a rebel and wanted to be different. It's ironic because now my work on seascape modeling is more like engineering than field biology, and my parents give me grief about that! My family is from near Barcelona, which is a wonderful city. However, I wasn't born there. My parents moved to Gainesville, Florida so my dad could pursue a PhD in statistics at the University of Florida and they brought my two-month-old sister with them. I appeared shortly thereafter while my dad was still in school. Three years later we moved back to Barcelona and that is where I grew up. I have a large extended family there. Many cousins, all loud like me, and so fun to visit! My sister is now a doctor and manages a hospital north of the city.

Why did you choose your profession?

In high school I loved marine biology, especially anything to do with marine mammals. Unfortunately, I could not dive because of medical reasons, and bad advice from guidance counselors persuaded me to give up on the marine world and focus on land. That is what I did. My undergraduate education was full of botany, forestry, and landscape ecology classes. I learned GIS while helping a PhD student study the distribution of biodiversity gradients near populated areas, and I was hooked. Through a friend of the family, I heard about an internship at NOAA in Florida to create a marine database. Even though I had little experience in marine biology, I applied and was soon back in Florida living in Panama City. It is amazing how one person, seeing some potential and giving you a chance, can make all the difference. In this case, my supervisor, Andy David, a research biologist, gave me opportunities to work with seagrass and corals and be on research cruises learning multibeam mapping and using ROVs (remote operated vehicles). That three-month internship ended up lasting five years and by the end I was running a GIS lab. I also organized Friday happy hours at a bar on the beach which became very popular, and eventually that is where I met my husband Jake. He



is also a biologist who, at the time, was working at the local Fish and Wildlife office.

After 5 years in Panama City, I decided I wanted to get a PhD. After applying to several schools, I chose Boston University because of their excellent remote sensing program. Remote sensing was transforming the way the terrestrial world was being studied, and I wanted to know if we could apply the same techniques to marine surveys. I was deep into the technology, but one of my advisors, Les Kaufman, kept pulling me back and saying “hey, let’s talk ecology first and then think about the data.” That was great advice, and I still apply that mentality to my current job. I loved Boston immediately, it has a European flair, its walkable, and full of history. It is definitely not Mediterranean, but it has a diverse melting-pot population that fits my personality and I feel at home here.

After I finished my PhD, I moved back to (you guessed it) Florida and started volunteering with a nonprofit that was mapping seagrass using side-scan sonar. The director had this great idea of getting retired people to do water and seagrass sampling and it worked wonderfully because many of the retirees had been at the marine lab or stayed in the area because they loved being near the water. That’s what I was doing when I saw the TNC job announcement, and shortly after that I moved back to Boston. Recently, when I was assembling seagrass data for the whole East coast, I called my old director and sure enough she sent me some great data.



What’s one project that you’re working on right now?

I am working on a project to inform the siting of offshore wind energy. It is tricky. Regional data portals, such as the [Northeast Ocean Portal](#), have many ocean data layers. But resource managers find it difficult to make decisions solely on those layers, as there are several thousand. For example, how does average sea surface temperature provide an understanding of what happens across an ecosystem? By itself, not much, but if you combine it with other pieces of information you can start understanding what habitats exist at the surface that continuously aggregate certain marine species. Trying to bring data into decision-making is very exciting and trying to do it with wind energy is really needed. We are good at mapping the seafloor and its benthic habitats, but we are just learning how to map the water column in ecologically meaningful ways. I hope we can apply the same conserving-the-stage ideas that have worked on land to the ocean, and use the data to identify marine strongholds. It should work, but the ocean is more variable, and you have to think in 3-dimensions. Our goal is to create a tool that a manager can use to select an area under evaluation for a wind farm, and easily see, for example, that in some seasons the area has breeding whales and the seafloor has high concentrations of scallops and groundfish. Tools don’t make decisions, but they can provide good information so managers can make the right decision based on knowledge. That’s why the project has had a transparent collaborative process from the beginning.

What was an accomplishment from last year that you’re proud of?

I am proud of my participation in the Marine Coda Fellowship. Mary Conley and Mark Anderson put together a team of five staff, each volunteering a portion of their time, to develop draft outcomes for marine protection in North America and guidance on how to apply the conserving-the-stage and resilient sites concepts to ocean systems. The Coda forced me to look beyond science at big organizational objectives and understand how decisions are made in

TNC. It also challenged me to be more successful in communicating our objectives and thinking strategically about how we recruit partners. It was sometimes frustrating, but ultimately interesting and rewarding to participate in. I grew a lot.

How do you spend your free time?

Running behind a toddler, trying to keep up! I have an energetic two-year-old who loves to be outside and has energy to spare. She is so interested in nature, she stops and looks at every bug and shell (she can recognize and say Chambered Nautilus!). I hope we are not forcing this on her. A big hike might take two hours, but we don't move very far. We love to paddle but our kayaks haven't moved since Joanna was born; we are thinking maybe a canoe would get us out on the water together.



What is your favorite place to hike?

We still have so much to explore around New England, so any suggestions are welcome. My favorite place is still back in Spain. In the Pyrenees, there is a National Park called "[Aigüestortes i Estany de Sant Maurici](#)." We hiked it with Jake once, just after Christmas, with snow up to our knees and nobody there. It was totally beautiful. That whole area is amazing, with many small Romanesque churches, spectacular mountains, and alpine lakes.

Finally, tell us something fun – seasonal, or personal – new house, travel, summer activity etc.

We have a new house! It's our first house so we are really excited. It took us a while, we have moved a lot during the past 10 years. Now we have a kid and we wanted a place of our own and a community to belong to. The house is old and has a lot of character, and it does feel weird to own it. I keep thinking someone will yell at us about what we can or can't do! We don't spend much time at home though, since we love travelling. Last fall we went to Costa Rica and had a lot of fun. I was worried about putting a one-year-old in the jungle, but she was mesmerized by the hummingbirds and monkeys (at least when she wasn't sleeping), so I highly recommend it.

