

Jeremy Kiszka

Marine mammals, sea turtles and elasmobranchs are highly charismatic species. They feed at a variety of trophic levels, occur from coastal to open-ocean ecosystems, and are found across virtually all latitudes. Due to their high historical — and sometimes present-day — abundances, capability for large-scale movements and highly variable metabolic rates, they have the potential to affect the structure and function of ecosystems through a variety of mechanisms over both ecological and evolutionary time. They also face major conservation challenges at the global scale due to bycatch, overfishing, habitat destruction and climate change.

I study the ecological roles and importance of marine megafauna in marine ecosystems. More specifically, I investigate how they use habitats and resources (their ecological roles) and how ecosystems can be affected by the presence of these animals, which includes their top down effects on resources and behavior, as well as nutrient dynamics. Empirical studies and a rich theoretical framework also demonstrate marine megafauna can affect ecosystems through more diverse pathways, including those that are driven by behavior. For example, I study the roles of cetaceans, green turtles and several species of elasmobranchs in facilitating access to resources to other species (e.g. teleosts, epipelagic marine predators), and how mixed-species associations can provide evolutionary benefits to species involved in these interactions. My work implies the use and development of new and innovative research tools and methods to study marine megafauna ecology and conservation issues, particularly since these species are so challenging to observe. Through research and education, I also create outreach tools and work on providing opportunities for students from minority groups and developing countries to build capacity.

At FIU, I teach the online course “Biology of Marine Mammals” (OCB 4303).

Study areas

- Western Indian Ocean (East Africa, Madagascar, Mayotte): cetaceans, elasmobranchs and sea turtles
- Caribbean (French West Indies, St Vincent and the Grenadines): cetaceans, elasmobranchs and sea turtles
- Florida: sharks, small cetaceans
- Gulf of Mexico: large whales and small cetaceans
- Northwestern Atlantic (Saint Pierre and Miquelon): marine mammals (cetaceans and seals)

Commissions and scientific committees

- Serve as an Associate Editor of *Frontiers in Marine Science* and *Endangered Species Research*
- Member of the IUCN Cetacean Specialist Group (Species Survival Commission)
- Member of the IUCN Shark Specialist Group (Species Survival Commission)
- Member of the Expert Panel on cetacean bycatch of the International Whaling Commission
- Attendance of the Working Party on Ecosystems and Bycatch of the Indian Ocean Tuna Commission