Mauricio Cantor

“Foraging synchrony is key to the resilience of dolphin-human cooperation”

Our ability as humans to interact with nature has been the key to both our global ecological success and to the global ecological crisis that followed. Human-nature interactions are typically one-sided -- humans tend to gain the largest benefits, nature pays the larger cost. By contrast, cultural practices involving cooperation between humans and wildlife are rare, and declining faster than our ability to comprehend their ecological and cultural importance. In this talk, we will discuss the behavioral mechanisms, population consequences, and conservation implications of recent environmental change on a rare mutually beneficial ecological interaction between humans and wild animals -- the cultural fishing practice involving artisanal net-casting fishers and wild bottlenose dolphins. First, we combine fine-scale behavioral sampling with long-term demographic surveys to reveal that foraging synchrony is the key driver generating both short- and long-term benefits for dolphins and fishing, in terms of increased foraging success and survival. Second, we couple these empirical insights to numerical models to predict the conditions under which this century-old practice could persist, and show that recent declines in prey availability and foraging specialization can push it toward extinction. Finally, consider how local conservation actions could prevent one of the last cases of human-wildlife cooperation from turning into one more human–wildlife conflict.