## **Coral Whisperers: Scientists on the Brink**

## Irus Braverman

Corals are emerging as both a sign and a measure of the imminent catastrophic future of life on Earth. The symbiotic algae-bacterial-animal relationship at the core of their existence and their precarious life turns corals into fascinating windows into the interface of science, culture, and management. Corals are, in other words, "good to think with." My project explores how scientists and conservation managers think about, govern, and feel about corals. It draws on one hundred or in-depth interviews conducted between 2014 and 2017 with coral scientists, government officials, and local activists. Based on these interviews with coral scientists and observations of their work, *Coral Whisperers* discusses how corals challenge and redefine our identity as humans and our understanding of nature. What does it mean to govern coral lives and to care better for our "coralated" communities and futures?

Coral Whisperers documents the physical, intellectual, and emotional plight of coral scientists and their painstaking deliberations as they struggle to understand and save corals from what some see as their inevitable catastrophic future. The chapters provide different windows into this scientific community and its insider quests and debates. Kicking the book off, Chapter 1, "Biopolar: Coral Scientists between Hope and Despair," relies on my observations at the weeklong International Coral Reef Symposium in Hawai'i to lay out the emotional and scientific debates among scientists about how to govern the current crisis and manage the future catastrophe of coral reefs. Chapter 2, "Bleached! Managing Coral Catastrophe," moves to contemplate the existing modes and technologies for documenting coral bleaching and death. Here, the trajectory is typically of devastation and gloom, as the numbers are depressing at best. Yet even in the world of numbers and maps, "bright spots" and optimistic indexes and maps still rear their more hopeful heads. In Chapter 3, "Nursing Corals," I describe the world of coral restoration. While only a few years back it was frowned upon by many coral scientists, this field is currently emerging as more and more vital: namely, as the only place left where scientists can actively resist death by making life. Drawing on my visits to five very different coral nurseries— Culebra in the Caribbean, southern Israel, Honolulu and Coconut Island in Hawai'i, and the Florida Aquarium—this chapter explores the scientific, cultural, and mental challenges facing restoration efforts. Chapter 4 accounts for the ways in which administrative decisions and laws affect corals and how, in turn, corals affect such laws. Insider stories about the ways in which decisions on listing or delisting take place and deliberations about coral classification and status provide a fresh and more lively perspective on legal procedures for the management of corals. I discuss in particular the Endangered Species Act from a variety of angles. Chapter 5 throws robotic life into the mix, contemplating how this form of life is introduced to document coral death, or help save corals by killing other species labeled as "invasive," such as the crown-ofthorns starfish. This chapter also turns to deep-sea scientists to consider the peculiarities of the High Seas. Finally, Chapter 6 documents the genomic and archival aspects of corals, exploring their properties as chimeras, hybrids, and holobionts.

In between the chapters, mini stories (or, to borrow from the coral world: fragments) provide an in-depth, more personalized, and direct perspective about corals from specific scientists.

Throughout the book, a sense of urgency prevails. As in the presence of a dying loved one, coral scientists can't afford to waste time. It is now or never; they must get it right.