

The Life Aquatic

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WINDOWLESS AND LANDLOCKED, Dr. Artie Kopelman's eighth-floor office in the Science and Math Department still somehow speaks of the sea. Maybe it's the oversized photo of a humpback whale that rests on the biologist's cluttered sofa, a photo taken during one of the whale-watching cruises that Kopelman regularly leads in the waters off Long Island and Cape Cod. "That whale breached 144 times before stopping," he says with obvious admiration. Maybe it's the golden whale-tail earring he wears, and which gives him a vaguely piratical look. Or maybe it has something to do with the man himself.

Kopelman came to FIT in 1981, just weeks before defending his doctoral dissertation at Queens College on the population dynamics of a species of miniature wasp. "*Leptopilina bouvardi*," he says, searching his memory for the tiny beast's Latin moniker. "It has no common name. My family thought I was nuts."

But Kopelman had long been drawn to the life aquatic. In the 1970s, he was one of the first volunteers to crew Pete Seeger's sloop, the *Clearwater*, a floating conservancy that continues to ply the Hudson preaching environmental awareness. And he began whale-watching while still in graduate school.

In 1986, Kopelman finally succumbed to the lure of the sea, turning his attention from some of nature's smallest creatures to some of its largest – fin whales, the second largest species of whale in the world, and an endangered one, to boot. "I decided to put my intellect where my rhetoric was," he says. "Both as a scientist and as an environmentalist, I'd been concerned with endangered species and ecosystems, and with habitat protection." On one of his very first outings, he found himself surrounded by 100 of the giant cetaceans, which can reach 90 feet in length and weigh up to 200,000 lbs.

In 1989, Kopelman began leading whale-watching expeditions for the Viking Fleet, a charter and ferry company with berths in New York and Massachusetts. And in 1996, he and a handful of others – including his wife, Amanda Johnson, who holds a BA in cosmetics and fragrance marketing from FIT – founded the Coastal Research and Education Society of Long Island (CRESLI). The CRESLI-sponsored cruises that Kopelman leads not only support the organization financially, but also serve its mission of promoting stewardship and understanding of coastal ecosystems. Each cruise is staffed by volunteer research assistants, several of whom have come from FIT, who gather valuable data on regional whale populations for CRESLI scientists. Even pleasure-boaters and commercial fisherman are enlisted in the cause. "We'll call on the radio and ask if anyone has seen any whales or dolphins, and they'll give us reports," Kopelman says.

This summer, Kopelman will take a group of students from Dowling College, where CRESLI is headquartered, on a 51-hour cruise to the Great Southern Channel, a stretch of deep water between Nantucket and Georgia's Bank at the southern end of the Gulf of Maine. Pointing to a map of the region on a computer screen in his office, Kopelman notes that "if the weather's nice, people sleep on deck – though they do get kind of soggy and wet, which is what happens on a boat." Last year, on a similar trip, Kopelman and his charges found themselves surrounded by a pod of 50-foot-long, 100,000 lb. right whales – a rare pleasure, since there are only 300 of them left in existence. (Kopelman has had similarly memorable experiences closer to home; in the early 90s, he came across a "super-aggregation" of approximately 5000 dolphins off Montauk. "We were surrounded for at least a half-mile in every direction," he says.)

Bringing people face-to-face with such beleaguered creatures is central to Kopelman's mission as an educator and environmentalist. As he sees it, the key to protecting our oceans lies in making people aware of the impact their actions have on the environment.

"The major challenge is to provide people who are on land with a connection to what's happening out there. People who are applying pesticide to their lawns aren't thinking in terms of it being washed out to sea," he says by way of example. And certain forms of marine life, like the whales Kopelman studies, are particularly vulnerable to the behavior of their landlubberly mammalian cousins.

"Our rapacious appetite for seafood means we're competing with them, and eating stuff that they should be feeding on," Kopelman says. And the trawlers that ply coastal areas searching for fish cause additional damage by indiscriminately snatching up vast quantities of marine life, known as "bycatch," from the ocean.

The news isn't all bad, however. In his nearly 25 years at FIT, Kopelman has observed a growing sense of environmental awareness among staff and students alike. Enrollment in the ecology class he initiated 16 years ago has more than doubled, and he credits the building and grounds staff at the college with pursuing more energy-efficient and environmentally sound policies. And that means a lot, considering the environmental track record of the design and manufacturing industries.

"The industries that the college deals with have not always had a benign relationship with life on this planet," Kopelman says. "But many of the people here are making sure that what's being done is more sustainable, and isn't causing further damage."

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