

Helping Rutgers Rule the Waves

In 1989, Rutgers was hardly pre-eminent in marine science, a shame considering that New Jersey is almost as much an ocean state as the Ocean State, surrounded mostly by water (Delaware River on the West, bay on the south and Atlantic Ocean on the east).

“If Rutgers were trying to stifle the study of marine biology, it couldn’t have done a better job,” a faculty member said.

But wide minds, including those of Edward Blaustein, the university’s president at the time, and former Gov. Thomas H. Kean, collaborated, and - poaching from the Woods Hole Oceanographic Institution in Massachusetts - brought J. Frederick Grassle to New Brunswick.

Sixteen years later, the story has a terrific ending.

The Institution of Marine and Coastal Sciences is now not only one of the top 15 marine science institutions in the national, in some categories it’s the best in the world.

Much of the credit goes to Dr. Grassle (pronounced GRASS-lee), a biological oceanographer who is as widely admired - and liked - by scientists as he is by the lowliest undergraduates, even ones who become sea-sick. “He has a passion for the ocean that just sparkles,” said Michael P. DeLuca, associate director of the institute. “It’s contagious.”

Tall, hearty, enthusiastic, humble, fiercely intelligent and a member of so many prestigious committees it would be hard to list them all here, Dr. Grassle is a man who likes nothing better than to stand in the mud, sifting through sediment in search of *Leitoscoloplos robustus* (worms to you) and other benthic invertebrates (deep sea animals).

“He had a vision of what he would build here in New Jersey as a marine institute, and he’s achieved it,” said Charlotte Fuller, a colleague of Dr. Grassle’s. The irony, a faculty member at Rockefeller University wrote, is that “under Fred’s leadership, the state has become a *big* center for marine science, but few people in New Jersey know it.”

You don’t need to recognize the difference between an *Anadara ovalis* (little clam) and a *Riftia pachyptila* (giant tubeworm) to appreciate the work that Dr. Grassle and his blue-ribbon team has achieved.

Because of it, for example, the state’s surf-clam industry is thriving; forecasting - of sea breezes, and therefore power needs and a thousand other vital statistics - is state of the art, and sewage is no longer dumped into the sea. Contrary to the government’s assertion, Dr. Grassle and his team proved that sewage had, in fact, lowered the sea urchin population. Laws changed, dumping stopped and the sewage is now recycled as fertilizer.

The real breakthrough at the institute, however, is in the way that people study the ocean. Forget the complicated name LEO-15 (it stand for Long-term Ecosystem Observatory at 15 meters). All you need to know is that because of a cable laid in 1996 a the institutes field station in Tuckerton to nodes farther out to sea, scientists all over the world - and you - can monitor conditions in the ocean, any time and almost anywhere. Want to see whether the water will be warm enough for swimming at Long Beach Island at 2 p.m. today? Log on to www.marine.rutgers.edu/cool and find the answer.

As for being a student at the institute, “I don’t want to say that it’s like being a kid in a candy shop, but it really is amazing,” said Matt Oliver, a graduate student in biological oceanography from California.

In 1979, Dr. Grassle led the first team of biologists in the submersible Alvin to the hydrothermal vents off the Galapagos; his work on the diversity of life on the ocean floor, as rich as in any rain forest, remains seminal. And yet, Dr. Grassle is beloved not merely for his vision, but because of the way he collaborates, with everyone from Mr. Kean, a crucial force in the institute’s founding, to the pilot who steers the boats.

“Scientists have a tendency to step on a boat and be disrespectful,” said Rosemarie Petrecca, a scientist who has accompanied Dr. Grassle. “Fred isn’t like that. He treats everyone as equal. As soon as the crew sees Fred’s name on the schedule, they know it’s going to be one of the best trips they’ll have all year.”

How did a person from Cleveland become interested in the ocean? Dr. Grassle said his mother, who gardened, knew the scientific names of plants; his father, the manager of battery factories, liked ideas.

But college awakened him. “He was very influenced when he first arrived at Yale - his mind just ate everything up,” said Judith Grassle, his wife, a professor and expert on *Capitella*, species 1 (another worm).

In those heady days, the dawn of the 1960’s, people talked not only about knowledge, but about making a difference, she said, and “combined with what he’d acquired from his background, he took it to heart.”

At a recent meeting of marine scientists, a friend reported that 45 of the 55 marine scientists “picked the pork chop over the mahi-mahi.”

Dr. Grassle, on the other hand, enjoys seafood, but not *Dissostichus eleginoides* (Chilean sea bass) or any other species in danger of extinction.