

Britton Chance Sr., an internationally renowned scientist and Olympic sailor who captured a 1952 gold medal with skills he honed on Barnegat Bay, was still sailing out of Oyster Creek through 2009.

"He had that boat in the water almost all year long. He would go sailing almost every weekend," recalled daughter Jan O'Malley.

Chance died Nov. 16 at age 97, after a scientific career that spanned 70 years and gave him deep professional connections that he later used to assist land conservation projects in Ocean County. The West Philadelphia and Waretown resident started his career with groundbreaking studies of the enzyme-substrate complex at the University of Pennsylvania in the 1930s.

Those findings gave the young graduate student his professional footing, and Chance commemorated it in the name he gave his boats.

Complex II carried Chance and his crew — Michael Schoettle of Island Heights and Sumner and Edgar White of Mantoloking — to victory in the 1952 summer games in Helsinki during the Olympic's first 5.5-meter sailing event, when they sailed the 30-foot keel sloop to what Chance always recalled as "a squeaker" to edge out Norway for the gold. That category of competition was held in the Olympics only in the 1950s and 1960s.

Complex VII — a traditional workboat-style sharpie with a flat bottom that stood Chance well in shallow Barnegat Bay and Florida bays — carried him through his last days on the water.

Chance continued his scientific work to the end of his life. In recent years, he had been spending part of the winter months in Taiwan and China, researching new medical imaging technology in applications such as breast cancer detection imaging and measuring oxygen content in blood, O'Malley said.

She was scheduled to travel again Nov. 16, she said. But Chance fell ill and died after two weeks in the hospital. "His body gave out on him," she said. "His mind was 100 percent there."

Chance was born in Wilkes-Barre, Pa., and grew up spending summers with his family at the Shore — in Ocean City, Seaside Park and Mantoloking — where he developed his passion for sailing.

His attraction to the water and technical skills manifested in his teen years, when he designed an automatic ship-steering device that was novel enough to be tested by the British General Electric Co. during a freighter voyage between England and Australia.

Chance's skills won him scores of Barnegat Bay Yacht Racing Association competitions from the 1930s through the 1950s, routinely taking the E-scow championships and winning a gold medal at the world E-scow championships in

1962. In 2004, Chance was one of the first inductees to the Barnegat Bay Sailing Hall of Fame.

His doctorate degree in physical chemistry from Penn was followed with a second Ph.D. from Cambridge University. During World War II, Chance's skill with electro-optical technology brought him to a secret team working on radar technology at the Massachusetts Institute of Technology. He developed a ground position indicator that helped aircraft crews accurately plot their positions and bomb targets in poor visibility.

Chance's work on the bioenergetic activity inside cells led him to play an important role in the development of magnetic resonance spectroscopy imaging technology — or MRIs — during the 1980s, and by the 1990s he was applying near-infrared optics imaging system for clinic diagnosis of breast cancer and muscle dynamics.

His life's work ultimately earned him the portmanteau title of Eldridge Reeves Johnson Emeritus Professor of Biophysics, Physical Chemistry, and Radiologic Physics at the University of Pennsylvania, a chair he held since 1983. Around that time he acquired his summer home in the Sandy Point area of Waretown.

"There was nothing he liked better than to head out on Friday, stop at Ahearn's Fish Market, and go out on the boat overnight," recalled daughter Ellie Burgess. "He'd cook what he bought and listen to ham radio."

The sharpie "slept six, and sometimes he'd pack eight people on there. It was shallow enough he could just go straight across the bay."

In the upper reaches of the Oyster Creek watershed, Chance quietly assisted the Forked River Mountains Coalition and other conservation groups, helping to bring together scientists he knew and workers with the state Department of Environmental Protection and Pinelands Commission to talk about research needs, Burgess said.

"For four or five years we'd meet at Wells Mills Park to talk about what was most important," Burgess said. "My father was friends with a lot of members of the Philadelphia Academy of Sciences, and he would get them to come out . . . biologists, botanists, herpetologists."

Research projects came out of those meetings and "they were sponsored by grants my father gave to the Academy of Sciences," she said. Findings of rare and endangered plants and animals in the upper reaches of the Oyster Creek and Forked River watersheds helped attract more funding for land acquisitions, and today cooperative efforts by Ocean County, the state Department of Environmental Protection and Pinelands Commission, and nonprofit groups have preserved thousands of acres of forest since the 1990s.