## Super Squid Lies in State

## Giant mollusc amply fills gap in Smithsonian collection

By JULIE ANN MILLER



The giant squid in legends grabs sailors and clutches hapless ships; in real life it seldom comes to the surface of the sea. But visitors to the Smithsonian Institution's Museum of Natural History can now view a 450-pound specimen,

preserved in 125 gallons of alcohol. Clyde F. E. Roper, the Smithsonian zoologist who studies squid and its other cephalopod relatives — octopi, cuttlefish and chambered Nautili — says the Smithsonian is "the only U.S. museum with an actual specimen of giant squid on display."

The particular giant squid that is on display was washed ashore on Plum Island off the coast of Massachusetts in February 1980. It was the first giant squid to be found stranded on a U.S. beach in 20 years. Tossed about by waves, the squid's two long feeding tentacles and most of the arm tips were broken off, and much of its maroon-colored skin was rubbed away. But otherwise the specimen, still 12 feet long and with 10-inch-diameter eyes intact, is in "very good shape," Roper says.

Scientists surmise that this squid was half-grown at the time of its death, only about 30 feet long. The largest giant squid are 60 feet, tip of tentacles to tip of tail.

It took four men to carry the squid off the Plum Island beach on a stretcher. Then the specimen was displayed at the New England Aquarium in Boston before being moved to the Smithsonian. After it is displayed in Washington for a year, Roper plans to dissect the giant squid to learn more about its anatomy. "We have a tremendous number of unanswered questions about giant squid," he says.

Roper estimates there are millions of giant squid in the oceans, and the number is probably increasing as the population of whales, which eat giant squid, decreases.

But they are seldom caught in fishing nets, so there are only about a hundred specimens or parts available to scientists. Most of these specimens were washed ashore, dying or dead. Others were picked up as they floated on the ocean surface or were removed from the stomachs of stranded sperm whales. Roper believes it unlikely that a giant squid will soon be captured alive or observed in its natural habitat, so those who study the creatures must make do with rare remains.

Our objective [in displaying the specimen] is to try to show people that giant squid are real," Roper says. "Biology is more interesting than fables." Although the myths of monstrous animals are exaggerated, these animals truly are giants, he says. Adults are 60 times the length and 1,000 times the weight of the commonplace squid, which are served Italian-style as calamari and Japanesestyle as ika (for example in a type of sushi). Roper reports from bitter experience that the taste of giant squid is chiefly that of ammonia. Subsequent to that disappointment, he discovered the buoyancy of the heavy animal is due to the high concentration of ammonium ions in its muscles.

When the Smithsonian's giant squid specimen goes off display, Roper plans to map the digestive, circulatory and reproductive systems. "They haven't been worked out before," he says. He and colleagues also hope to learn what the animal ate, its sex and state of maturity and whether it harbored any parasites. They plan to do the dissection so that the outer form of the specimen remains intact, and it may continue to fill the previous gap in the Smithsonian's cephalopod collection.

Meeting with reporters the day before the squid went on display, and the day of President Reagan's State of the Union address, Roper was asked to describe "the state of the squid." His squid assessment was far more positive than Reagan's national one. "It's fabulous, a wonderful specimen," Roper replied. "It's valuable both scientifically and for the public."

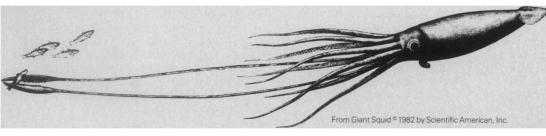






Giant squid was moved by stretcher from the beach where it was found (top). Clyde F. E. Roper

top). Clyde F. E. Roper (above, center of photo) examines it upon its arrival at the Museum of Natural History. In the drawing at left, a giant squid is depicted seizing a fish while propelling itself forward with a funnel, below the eye, pointing



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toward its tail.

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