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INTERIOR REPORTS ON ATLANTIC SHARK AND GAME FISH STUDY

A total of 311 sharks was taken in a recent two-month research project coordinated by the Fish and Wildlife Service in the Middle Atlantic Bight, the Department of the Interior reported today. The study was undertaken to determine the abundance and food habits of sharks in the area and to serve as a pilot survey extending from Long Island to Cape Henlopen, Delaware, and seaward to the edge of the Continental Shelf, of oceanic conditions affecting the distribution and abundance of marine game fishes.

Results showed there were more large sharks in the area than anticipated, suggesting that important relationships of sharks to environmental conditions and to sport fishing may exist.

The 311 sharks taken represented 10 species, seven of which have reputations of being dangerous to man--the great white shark, mako, tiger, sandbar, dusky, and two species of hammerhead. The largest specimen, a 12-foot tiger shark, weighed 1,100 pounds. The smallest shark weighed a pound and a half.

Several big game fish were taken: albacore, bluefin and yellowfin tunas, dolphin, swordfish and white marlin. Largest of these was a 247-pound yellowfin.

Examination of the shark stomachs indicated the sluggish species fed upon bottom-dwelling fish, but the swiftly swimming great white shark and the mako fed upon bluefish and other active fish. Garbage, such as fish heads, beef cuttings, and bacon and sausage, were eaten. Even aluminum foil was consumed. Chumming material used to entice sport fish to the vicinity of fishing boats was found, as well as waste which could only have come from ocean-going vessels or from garbage scows.

Eight three-to-five day cruises were made between August 13 and October 13. Three types of gear used were longlines, two to 10 miles in length; 1,500-foot gillnets; and 2,000-foot chain gear set for bottom fishing.

Shark catches declined when surface water temperatures went down in late September and early October. Continuous surface temperature recording was maintained on all cruises and 300 surface-to-bottom temperature profiles were obtained. Over 1,000 surface-drift bottles and bottom-drift indicators were released, and 300 water samples were taken for laboratory examination for salinity and other chemical constituents.

The 1961 research was planned and coordinated by the Sandy Hook (New Jersey) Laboratory of the Bureau of Sport Fisheries and Wildlife. Agencies cooperating in the project included the Bureau of Commercial Fisheries of the Department of the Interior; the Delaware Game and Fish Commission; Lamont Geological Observatory of Columbia University; New Jersey Conservation Department; the Aquarium of the New York Zoological Society; and the United States National Museum, Washington, D. C.

It was the first cooperative study of its kind and may serve as a basis for similar studies along the coasts, the Fish and Wildlife Service said.

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