

THE ATLANTIC COAST SURF CLAM FISHERY—1971

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The 1971 surf clam fishery produced landings of 51.6 million pounds of meats--23% less than in 1970. An increase in landings was recorded only for ports in Virginia. The establishment of ports there resulted in an increase in fleet size, but the number of vessels at all other ports declined.

FISHING AREAS

Cape May-Wildwood, New Jersey, Point Pleasant, New Jersey, and Ocean City, Maryland, were the major surf clam fishing areas in the Middle Atlantic Bight in 1971; Long Island, New York, and Virginia provided the remainder of the catch. The New Jersey fishery continued to supply most of the total landings, although the 35.6 million pounds landed were a smaller percentage (69%) than in 1970 (Table). Landings at Cape May-Wildwood were quadruple those at Point Pleasant.

Surf Clam Landings by Area (1971)

	Number of Vessels		Landings Millions of Lbs.	
	1970	1971	1970	1971
Cape May-Wildwood, N. J.	41	39	34.8	28.5
Ocean City, Md.	14	13	13.7	7.8
Point Pleasant, N. J.	21	17	13.2	7.1
Chincoteague to Norfolk, Va.	4	16	0.9	4.5
Long Island, N. Y.	7	7	4.2	3.7
Total	87	92	66.8	51.6

The areas fished by New Jersey boats in 1971 (Fig. 1) were similar to 1970 (Ropes and Barker, *Marine Fisheries Review*, Sept.-Oct. 1972). The Ocean City, Maryland, vessels worked more offshore beds than in 1970.

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The New York landings were taken off Long Beach and Fire Island. Vessels from Virginia ports fished offshore beds, although interviews begun in late 1971 were too few to determine their location accurately.

FLEETS AND METHODS

The New York fleet, based at Freeport, Long Island, remained at seven vessels. Five fished full time and two part time; the latter landed clams for fish bait. Average catch per trip for the full-time vessels was 205 bushels (3,485 pounds of meats). Total landings of 3.5 million pounds of meats for food and 0.2 million pounds for bait resulted from monthly landings of 181,000 to 408,000 pounds of meats (Fig. 2).

The Point Pleasant fleet decreased for the fifth consecutive year--the 17 vessels were four fewer than in 1970. Five Atlantic City boats were included in the 1971 total because some operated from both ports during the year and fished some of the same beds. Depths fished ranged from 9.1 to 36.0 meters (30 to 118 feet); the average depth was 21.6 meters (71 feet). Most vessels landed daily, but a few overnight trips were made to more distant grounds. Hours fished per boat-day ranged from 2.0 to 15.0. Monthly averages are shown in Figure 3. The average for 1971 was 9.1 hours, 0.1 less than in 1970.



Fig. 1 - The area and intensity of surf clam fishing by the New Jersey, Maryland, and Chincoteague, Virginia, fleet in 1971 (based on 2,838 interviews).

The Cape May-Wildwood fleet decreased to 39--two vessels fewer than 1970. Two stern-dredgers began operating in 1971, bringing the total number of this type based at this port to five. Depths fished ranged from 5.5 to 36.0 meters (18 to 118 feet); average depth was 16.5 meters (54 feet). Most vessels landed daily, but some overnight trips were made to the southern areas. Monthly averages of hours fished per boat-day are shown in Figure 3. Effort ranged from 2.0 to 19.0 hours. The average for 1971 was 7.9 hours, 0.8 hour higher than 1970. Seven vessels landed clams at Lewes, Delaware, in 1971; their landings were included in the Cape May-Wildwood total because five of the vessels were based at Wildwood and all of the clams came from areas fished by the Cape May-Wildwood fleet.

The Ocean City fleet decreased to 13 vessels--one less than in 1970. Depths fished ranged from 9.1 to 33.5 meters (30 to 110 feet); average depth was 19.2 meters (63 feet). Most vessels made daily trips and worked during daylight hours. Monthly averages of hours fished per boat-day ranged from 6.0 to 8.3. Daily effort ranged from 1.0 to 14.0 hours; the average was 7.5 hours (Fig. 3).

The Virginia fleet was based at Chincoteague, Wachapreague, Oyster, and Little Creek. The fleet size quadrupled from four in 1970. Average catch per trip was 452 bushels (7,684 pounds of meats). Total landings of 4.5 million pounds resulted from monthly landings varying from 21,000 to 996,000 pounds of meats (Fig. 2).

LANDING STATISTICS

Interviews by port samplers provided information on fishing areas and effort in New Jersey and Maryland. Landings in the Middle Atlantic Bight were supplied by the National Marine Fisheries Service, Division of Statistics and Market News.

Landings of 51.6 million pounds of meats were 15.2 million pounds (23%) lower than in 1970 (Table). Most of the decrease was due to lower landings by the Cape May-Wildwood and Point Pleasant, New Jersey, and Ocean City, Maryland, fleets. New Jersey produced 35.6 million pounds--12.4 million pounds

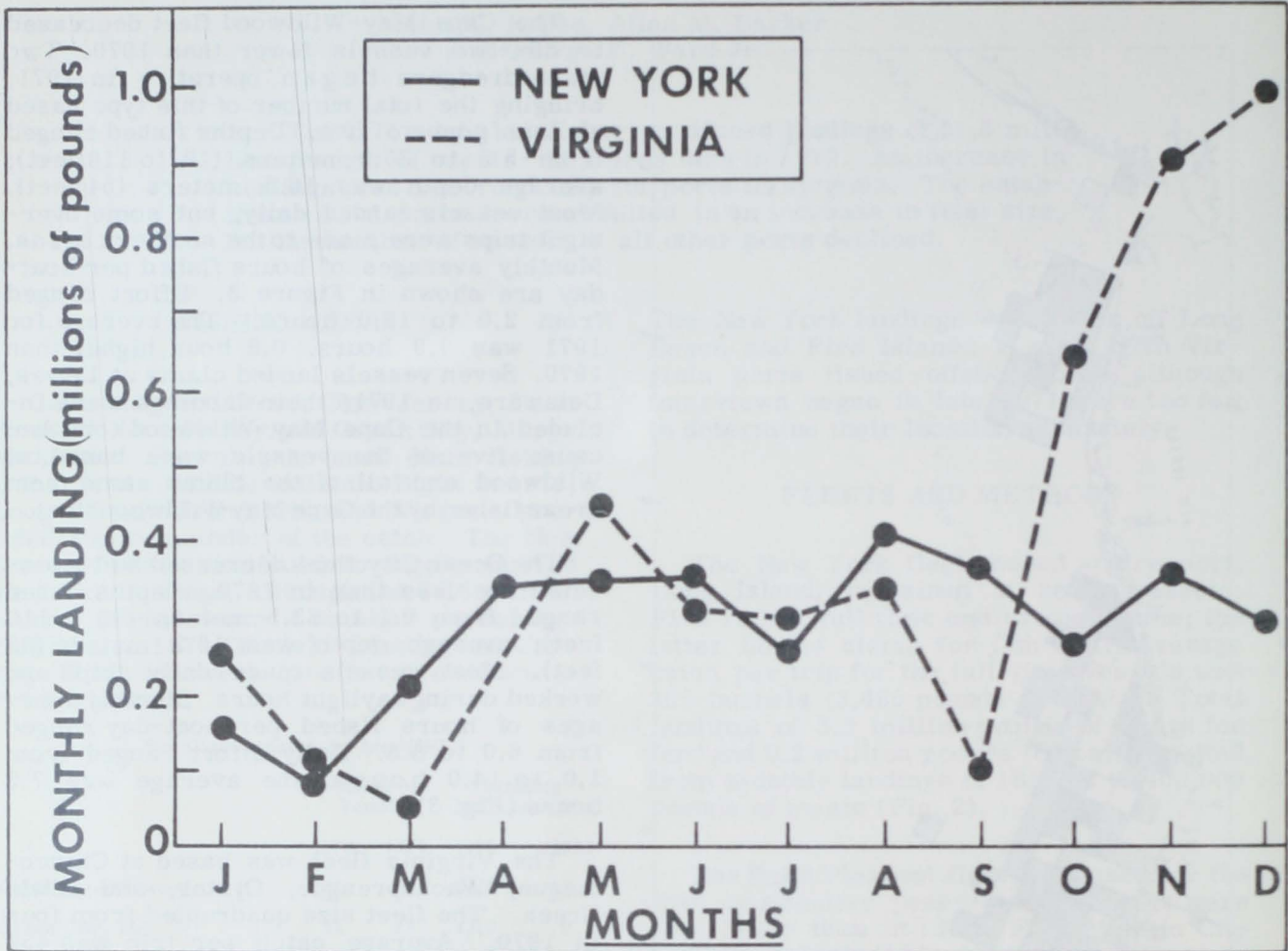


Fig. 2 - Monthly landings of surf clams at New York and Virginia, 1971.

(26%) fewer than in 1970. Maryland landings of 7.8 million pounds were lower by 43% (5.9 million pounds), and New York landings also decreased 12% (0.5 million pounds). Virginia landings showed the only increase (3.6 million pounds and 80% higher than in 1970). New Jersey landings were 69% of the 1971 total--Maryland, 15%; Virginia, 9%; and New York, 7%. In 1970, landings by the respective States were 72%, 21%, 1%, and 6%.

The Cape May-Wildwood fleet has provided more than half of the total New Jersey landings since 1967; in 1971, its contribution was 80% (28.5 million pounds) of the total (35.6 million pounds). Although the percentage landed at Cape May-Wildwood was greater, the weight of meats was less than in 1970 (34.8 million pounds).

At Cape May-Wildwood, landings per boat-day ranged from 55 to 1,052 bushels (935 to 17,884 pounds of meats) and averaged 269 bushels (4,573 pounds). The average in 1970 was 338 bushels (5,746 pounds). Monthly landings varied seasonally, with the catch declining when the boats moved offshore in good weather. Catch per hour decreased from 48 bushels (816 pounds) in 1970 to 34 bushels (578 pounds) in 1971. Figure 4 shows the catch per hour in the areas fished. The catch rate dropped sharply in May when the fleet moved offshore to fish for larger (150 mm) clams (Fig. 5). A total of 2,009 interviews were made in 1971; 46% of the trips were to inshore areas. Compared with 1970, this was a 21% decrease in trips made to inshore areas. The average catch per hour for inshore and offshore clams was 47 bushels

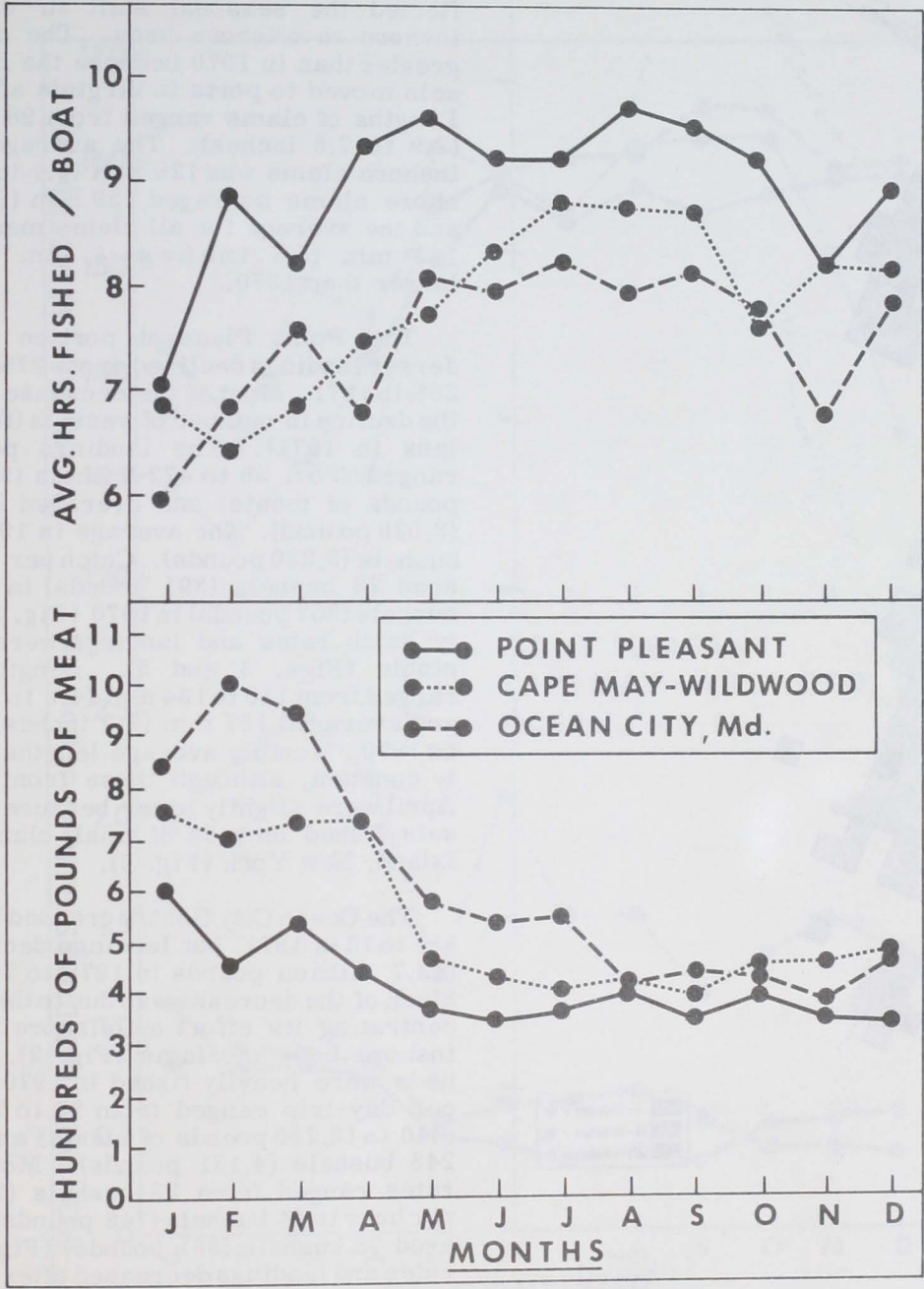


Fig. 3 - Monthly averages of daily effort (upper) and catch per hour (lower) at Point Pleasant and Cape May-Wildwood, New Jersey, and Ocean City, Maryland - 1971.

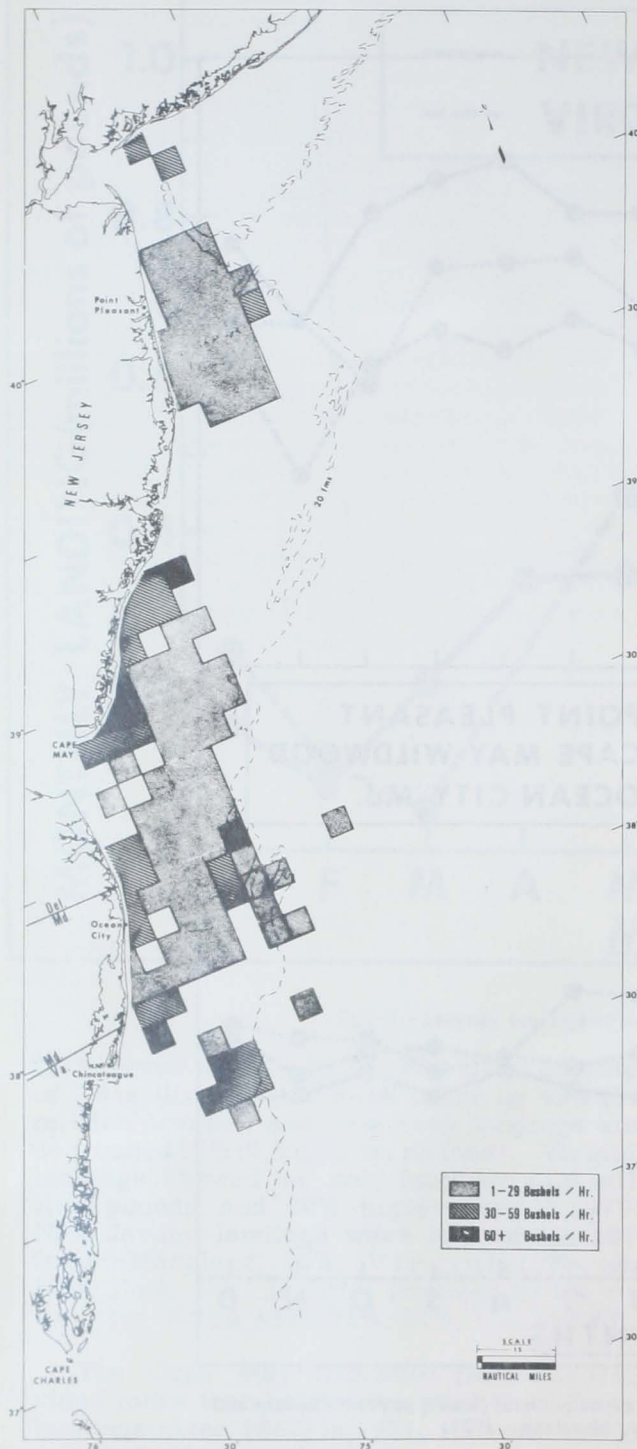


Fig. 4 - Catch per hour within the area fished by the New Jersey, Maryland, and Chincoteague, Virginia, fleet in 1971 (based on 2,838 interviews).

(799 pounds) and 25 bushels (425 pounds), respectively. Monthly average lengths reflected the seasonal shift in effort from inshore to offshore beds. The change was greater than in 1970 because the larger vessels moved to ports in Virginia after March. Lengths of clams ranged from 98 to 190 mm (3.9 to 7.5 inches). The average length of inshore clams was 129 mm (5.1 inches); offshore clams averaged 159 mm (6.3 inches); and the average for all clams measured was 143 mm (5.6 inches--6 mm (0.24 inch) larger than 1970.

The Point Pleasant portion of the New Jersey landings declined from 27% in 1970 to 20% in 1971. Most of the decrease was due to the decline in number of vessels (four vessels less in 1971). The landings per day-trip ranged from 55 to 472 bushels (935 to 8,024 pounds of meats) and averaged 208 bushels (3,536 pounds). The average in 1970 was 190 bushels (3,230 pounds). Catch per hour averaged 23 bushels (391 pounds) in 1971 and 21 bushels (357 pounds) in 1970 (Fig. 3). Monthly catch rates and landings were relatively stable (Figs. 3 and 5). Lengths of clams ranged from 110 to 184 mm (4.0 to 7.2 inches) and averaged 157 mm (6.2 inches), the same as 1970. Monthly average lengths were fairly constant, although those from January to April were slightly lower because some vessels fished on beds of small clams off Long Island, New York (Fig. 5).

The Ocean City fleet decreased by one vessel to 13 in 1971, but landings decreased 43% (13.7 million pounds in 1970 to 7.8 in 1971). Much of the decrease was due to the fleet concentrating its effort on offshore rather than inshore beds of clams (Fig. 2). The latter beds were heavily fished in 1970. Landings per day-trip ranged from 20 to 750 bushels (340 to 12,750 pounds of meats) and averaged 243 bushels (4,131 pounds). Monthly catch rates ranged from 23 bushels (391 pounds) per hour to 44 bushels (748 pounds) and averaged 33 bushels (561 pounds) (Fig. 3). Catch rates and landings decreased after April when the fleet moved offshore (Fig. 4). Lengths of clams ranged from 100 to 198 mm (3.9 to 7.8 inches) and averaged 151 mm (5.9 inches) (Fig. 5). Monthly average lengths varied with the seasonal shift of effort from inshore to offshore beds.

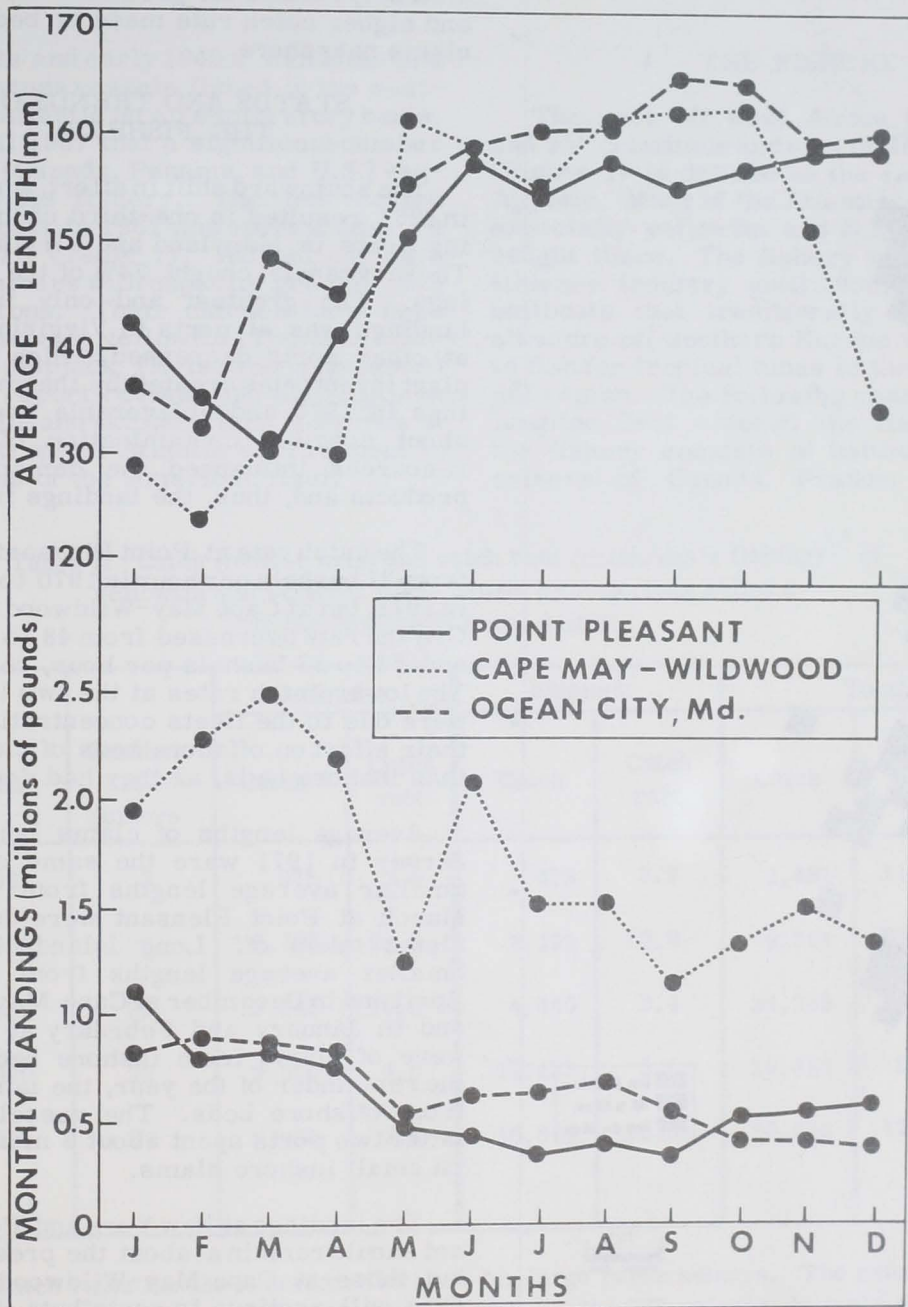


Fig. 5 - Monthly mean lengths of surf clams (upper) and landings (lower) at Point Pleasant and Cape May-Wildwood, New Jersey, and Ocean City, Maryland - 1971.

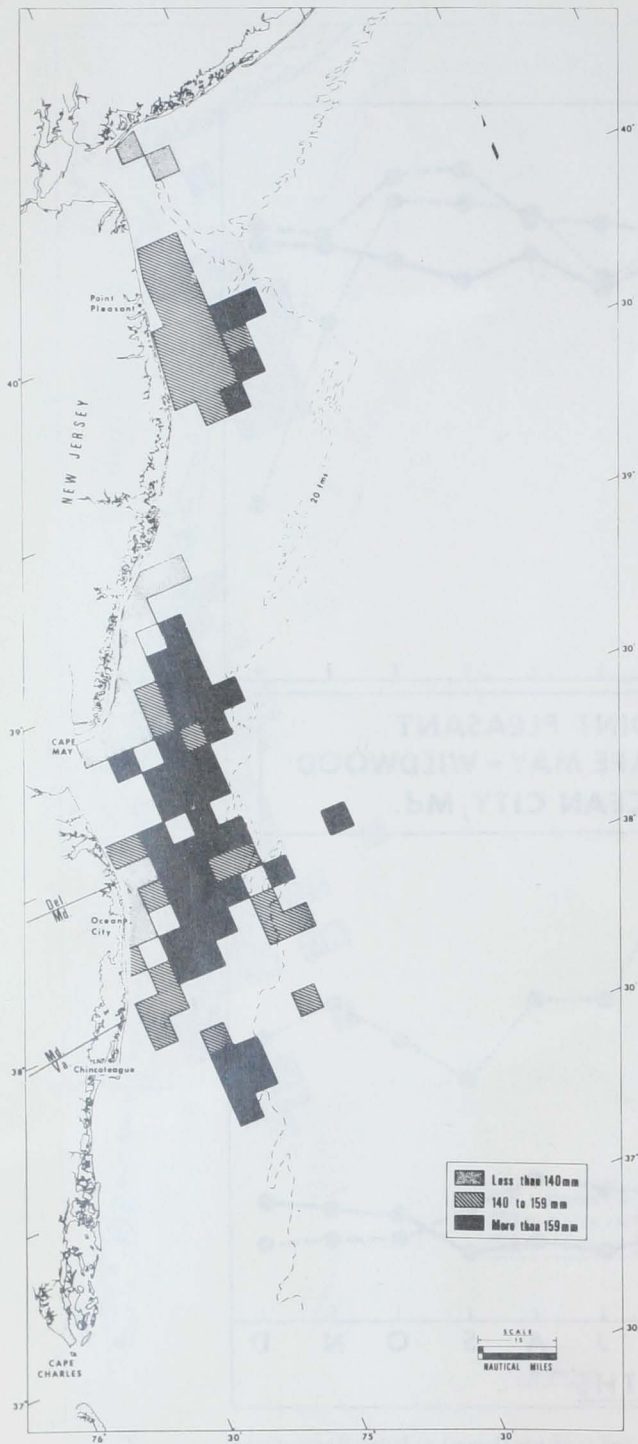


Fig. 6 - Average shell length of surf clams and area of catch by the New Jersey, Maryland, and Chincoteague, Virginia, fleet, 1971.

Figure 6 shows the average shell length and area of catch of surf clams in 1971. A comparison of this figure with Figures 1 and 4 clearly relates the greater number of trips and higher catch rate made on beds of small clams nearshore.

STATUS AND TRENDS OF THE FISHERY

The southward shift in effort, which started in 1967, resulted in one-third of the fleet using ports in Maryland and Virginia in 1971. These vessels caught 24% of the total landings. The greatest and only increase in landings was at ports in Virginia; landings at other ports decreased. High processing plant inventories created by the record landings in 1970 and unfavorable news reports about possible contamination of shellfish resources influenced the demand for clam products and, thus, the landings in 1971.

The catch rate at Point Pleasant increased from 21 bushels per hour in 1970 to 23 bushels in 1971, but at Cape May-Wildwood and Ocean City the rate decreased from 48 to 34 bushels and 53 to 33 bushels per hour, respectively. The lower catch rates at the two latter ports were due to the fleets concentrating more of their effort on offshore beds of clams rather than inshore beds, as they had done in 1970.

Average lengths of clams landed in New Jersey in 1971 were the same as in 1970. Smaller average lengths from January to March at Point Pleasant were due to small clams taken off Long Island, New York. Smaller average lengths from January to April and in December at Cape May-Wildwood and in January and February at Ocean City were of clams from inshore beds. During the remainder of the year, the landings were from offshore beds. The vessels from the latter two ports spent about 3 months fishing on small inshore clams.

The landings at New York and Point Pleasant should remain at about the present levels, but those at Cape May-Wildwood and Ocean City will continue to contribute the greatest portion of the total. Significantly large landings are expected at Virginia ports, and these will probably result in a grand total greater than that for 1971.