

DOGFISH, *SQUALUS ACANTHIAS*, COLLECTION AT MOUNT DESERT ISLAND BIOLOGICAL LABORATORY FROM 1984 TROUGH 1995

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All the data reported here were collected from the fishing trip logs saved at the office of the laboratory. Each log sheet provides information on the number of fish collected per trip, the number delivered to investigator live cars, the number delivered to the common pool, if any. There are no separate entries for fish gender, type of gear used for collection or the area of the bay that was fished.

Figure 1 shows the total fish collected from 1984 through 1995. It also shows the number delivered to the common pool and to investigator live cars. The most notable feature of the dogfish collection is the dramatic fall in the number of fish collected between 1993 and 1995. The total collected dropped from an average of 1730 ± 75 between 1984 and 1993 to 726 in 1995. The fall in the total number of fish collected led to a parallel drop in the number of fish delivered to the common pool which fell from an average of 781 ± 70 in 1984 and 1993 to 175 in 1995. Thus, the reserve of fish available to the investigators was virtually gone in 1995.

Figure 1. Dogfish collected at MDIBL during the summer seasons of 1984 through 1995. The closed symbols represent the total number of dogfish collected. The open circles represent the number of dogfish delivered to individual investigator live cars. The open triangles the number delivered to the common pool.

The number of fishing trips did not changed substantially over the years until 1995 as shown in Figure 2. The average number of trips was 41 ± 1 . During 1995 there was a drop in the number of trips that collected fish to 33. The number of fish collected per trip halved from 40 ± 2 between 1984 and 1993 to 22 in 1995 as can be seen in Figure 2. There was an increase in the number of trips in 1989 to 52 because of additional trips in search of large females.

Figure 2. Number of dogfish collecting trips, in closed circles and number of fish collected per trip, in open circles, during the summer seasons 1984 through 1995.

Fish collection varies considerably throughout the summer months. Fish collection is lowest during the month of June, peaks in August and declines again in September as shown in Figure 3. The pattern for the number of fish caught per trip is similar as shown in Figure 4 and highlights the scarcity of fish during the month of June.

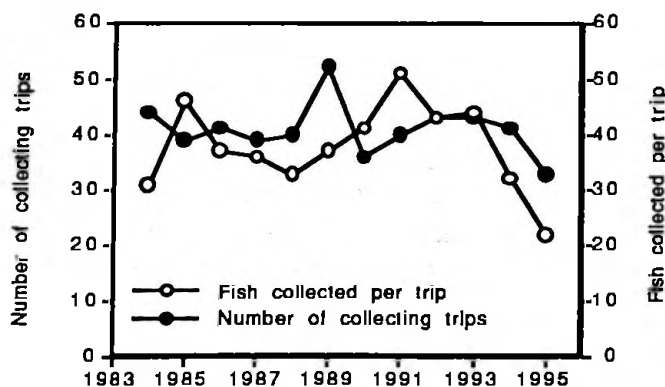
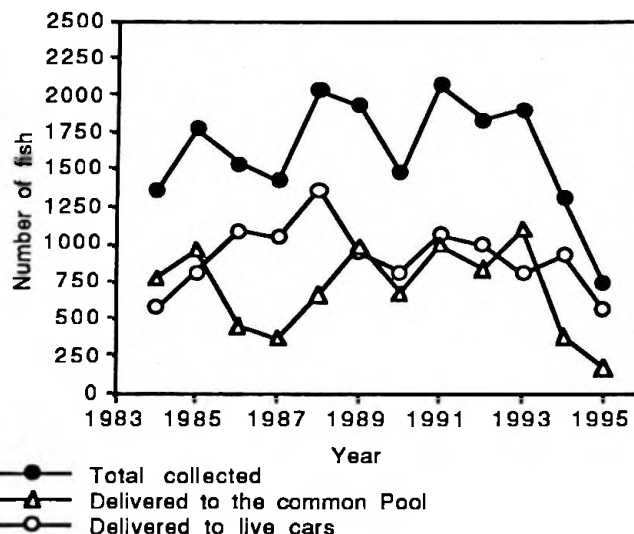


Figure 3. Fish collected per fishing trip as a function of the month of the summer season

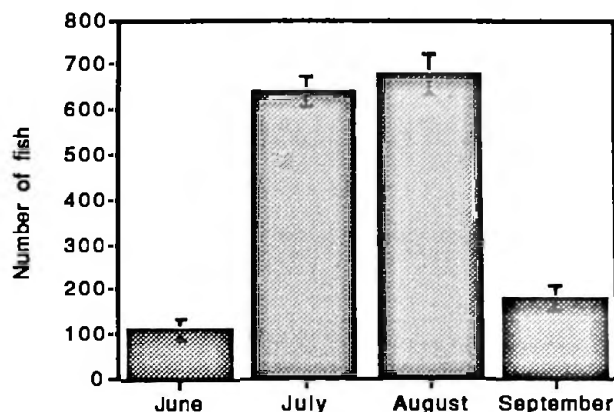


Figure 4. Number of fish collected per fishing trip as a function of the month of the summer season.

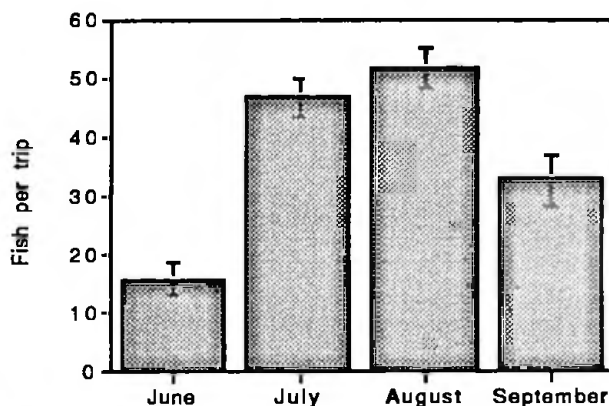
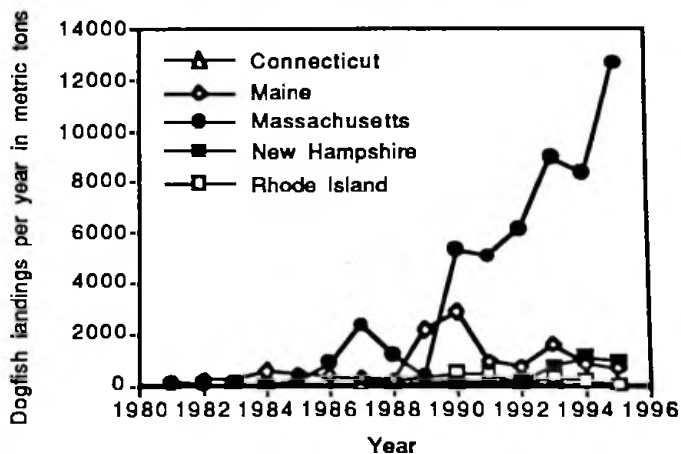


Figure 5. Annual commercial landing statistics for spiny dogfish by New England State, published by the Fisheries Statistics Division of the National Marine Fisheries Service.



Annual commercial landing statistics published by the Fisheries Statistics Division of the National Marine Fisheries Service are shown in graphic form in Figure 5. The landings of dogfish, in metric tons, has increased linearly over time in the waters off New England due to the increase in landings in the State of Massachusetts. Assuming an average weight of two kilos per dogfish, an estimate probably larger than the weight of fish caught in the last few seasons, there are 500 fish per metric ton. The 1995 commercial catch of dogfish in Massachusetts was over six million fish. It is tempting to speculate that the large number of fish caught off the southern New England waters will in time decrease the number that reach the Gulf of Maine.