

128.—CATCH OF SHAD IN CONNECTICUT FOR 1885.

By ROBERT B. CHALKER.

The statistics and other information about the catch of shad in the State of Connecticut for the year 1885* are as follows:

POUND FISHERIES.

From the mouth of the Connecticut River to New Haven Harbor:

15 traps in Saybrook	44,400
22 traps in Westbrook	52,700
12 traps in Clinton	26,000
13 traps in Madison	8,400
7 traps in Guilford	1,500
7 traps in Branford	6,500
3 traps in East Haven	1,800

Total shore fisheries..... 141,300

RIVER FISHERIES.

Thames River, hauling-seines

300

Connecticut River and tributaries:

Hauling-seines..... 25,300

Gill-nets:

15 at Saybrook..... 13,500

18 at Lyme

14,400

10 at Brockway's Ferry

7,000

7 at Comstock's Ferry

6,300

9 at Essex

7,200

73,700

Quinepiac River, 6 hauling-seines

3,500

Housatonic River:

16 hauling-seines

33,600

54 gill-nets

17,000

50,600

Total river fisheries..... 128,100

Total catch of shad in the State..... 269,400

This year's catch in the Thames is about double that of 1884, and has been gradually increasing for nine years, while in the Quinepiac the catch is only about one-half as great as in 1884. In the Farmington River, a branch of the Connecticut, there were taken in hauling-seines 3,400 shad, which are included in the report on the Connecticut.

The fishermen on all the rivers of the State report that the pollution of streams by factories and sewerage is yearly destroying great quantities of young fish of all kinds, especially shad. One net owner on the Housatonic says that he has seen "a ton of young shad at one time floating down the river." It is the opinion of shore fishermen that the con-

* For catch in 1886 see Fish Commission Bulletin for 1886, page 297.

struction of jetties and breakwaters changes the movements of the shad. The breakwater at the entrance of New Haven Harbor has so changed the course of the fresh water from the Quinepiac River that it now nearly all flows east, along the Branford shore, the result of which is thought to be a greater catch of shad in that vicinity. For instance, the first pound eastward caught 3,500 shad the past season, the average yearly catch before the building of the breakwater never having exceeded 500. The construction of jetties at the mouth of the Connecticut River causes a distribution of fresh water farther to the westward, and therefore a marked increase in the catch of shad in Clinton and Madison.

Shad fishing in the Connecticut River commenced about April 20, somewhat later than usual, and from that time until May 25 was remarkably good and the shad very large. After that date until the close of the season there was a marked falling off. It was thought that this was caused by the unusually small supply of fresh water in the rivers for that season of the year. The first shad was caught in a gill-net in the Connecticut River, 4 miles from its mouth, on April 18, the temperature of the water that day being 48° Fahr. The same day two shad were caught in a pound 6 miles west of the mouth of the river. As is usually the case, no shad were caught directly at the mouth of the river till six days later. The heaviest run of the season was on May 11 and 12. The highest number caught in one pound was 1,500 at one haul.

The contract price for the season was 20 cents apiece, delivered at the shipping points. The following are the daily prices per shad at the mouth of the Connecticut River for those not sold by contract:

Date.	Price.	Date.	Price.
April 18.....	\$5 00	May 2-5.....	\$0 25
April 19-21.....	1 00	May 5-12.....	30
April 21.....	80	May 12-18.....	20
April 22.....	70	May 18-20.....	15
April 23-27.....	60	May 20-26.....	10
April 27-29.....	30	May 26-June 1.....	15
April 29-May 1.....	25	June 1-20.....	25
May 1.....	30		

From May 18 to June 1 few could be sold on account of the dull market, and they had to be salted.

There is only one section in the State from which a regular report of the shad catch has been made during the past six years, and it is within these limits that the greater proportion of the shad of the State is taken. The catch for this section is as follows:

Year.	Catch.	Year.	Catch.
1880.....	269,000	1884.....	150,100
1881.....	351,670	1885.....	190,300
1882.....	272,900		
1883.....	177,308	Average.....	235,303

The section covered by the above table extends from Deep River, situated on the Connecticut River, 10 miles from its mouth, to Madison, 18 miles westward on Long Island Sound.

The following table shows the annual number of shad taken during a period of thirty years by a single pound-net located about 6 miles west of the mouth of the Connecticut River, near Westbrook, at a station called Money Point, the location of the net being the same each year:

Year.	Shad.	Year.	Shad.	Year.	Shad.
1850.....	3, 043	1867.....	12, 500	1878.....	4, 550
1857.....	5, 183	1868.....	13, 000	1879.....	19, 175
1858.....	6, 111	1869.....	11, 000	1880.....	13, 175
1859.....	3, 000	1870.....	16, 558	1881.....	10, 500
1860.....	6, 000	1871.....	13, 508	1882.....	9, 647
1861.....	6, 100	1872.....	8, 271	1883.....	6, 240
1862.....	6, 853	1873.....	7, 343	1884.....	7, 200
1863.....	10, 730	1874.....	9, 290	1885.....	7, 858
1864.....	12, 265	1875.....	20, 037	Total.....	291, 297
1865.....	9, 410	1876.....	11, 041	Average.....	9, 710
1866.....	10, 594	1877.....	10, 465		

In 1872, 1873, and 1874 fishing was allowed by law for only three days a week. In 1878 the nets were much injured by jelly-fish. There was a good run of shad in that year, but it was impossible to continue pound-fishing after May 5. The above table is thought to indicate a fair average of increase in the catch of pound-nets since their introduction in place of hauling-seines, though of recent years there has been somewhat of a falling off. The first pound-net set for shad in the town of Westbrook was in 1849.

SAYBROOK, CONN., October 28, 1885.

129.—REPORT ON EXAMINATION OF CLUPEOIDS FROM CARP PONDS.

By TARLETON H. BEAN,

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I have to-day re-examined the *Clupeoids* which were sent over in large numbers from the carp ponds in November and December, 1885, and desire to present herewith a brief report upon them.

Most of the fishes received on the 28th of November were glut alewives, *Clupea æstivalis*. I selected out of the lot 3 specimens, catalogue No. 37380, and 43 specimens, No. 37381. These examples range from 5 to 6 inches in length. There was one specimen of the branch alewife, *Clupea vernalis*, $4\frac{3}{4}$ inches long, No. 37379. There were also 8 shad, *Clupea sapidissima*, varying from 4 to 6 inches in length, No. 37378. Only two of these shad were of the shorter length.

We did not preserve all of the fishes sent over, but the statement already made will show that the great mass of them were glut alewives and that the percentage of shad was small.