

VI.—EXTRACTS FROM NORWEGIAN OFFICIAL STATISTICS OF FISHERIES FOR THE YEAR 1880.*

BY BOYE STRØM, *Clerk.*

As the introduction to the fishery statistics for the year 1878 furnishes a full summary of the results of the Norwegian fishing industry during the decade from 1869 to 1878, I shall on the present occasion confine myself to setting forth the most important data presented by the statistics for 1880 as compared with those of 1879 and with those of the above-named decade.

The total money value of the Norwegian coast fisheries, the fishing for home use excepted, on the basis of the prices paid at the fishing-stations in 1880, was 22,579,000 crowns [\$6,051,172]. In 1879 the yield was somewhat less, namely, 21,340,000 crowns [\$5,719,120], but in the decade from 1869 to 1878 the average annual yield was 23,211,000 crowns [\$6,220,548].

The values here quoted, which represent the annual gross receipts which the industry has yielded the fishermen, are thus divided among the different kinds of fisheries:

Fisheries.	1880.		1879.		Average 1869-1878.	
	Value.	Per cent.	Value.	Per cent.	Value.	Per cent.
Cod	\$3,360,452	55.5	\$3,666,776	64.1	\$3,781,096	60.1
Pat herring	1,534,568	25.4	1,038,232	18.1	1,008,484	16.2
Sprat and other small herring	138,288	2.3	69,043	1.2	90,048	1.4
Great herring					849,472	5.6
Spring herring	230,748	3.8	210,880	3.7	272,556	4.4
Mackerel	186,528	3.1	182,508	3.2	194,300	3.1
Summer fishing for pollock, ling, &c.	388,064	6.4	367,428	6.5	406,556	6.6
Salmon and sea trout	102,376	1.7	90,048	1.6	90,048	1.4
Lobster	108,540	1.8	91,656	1.6	75,844	1.2
Oyster	1,608		2,144		2,144	
Total	6,051,172	100.0	5,719,120	100.0	6,220,548	100.0

Of the total money value in 1880, the sum of 5,734,000 crowns [\$1,536,712] was produced by the cod fishery in the Loffoden inspection district, which sum is a little less than the average result of this fishery, which may be estimated at about 6,500,000 crowns [\$1,742,000].

As regards the catch in numbers, the cod fisheries in 1880 furnished a total yield of 68,273,000, which not only considerably exceeds the average of the above-named decade, this having been only 49,200,000,

* Norges officielle Statistik. Ny Række. Udgiven i Aaret 1882. C. No. 9. Tabeller vedkommende Norges Fiskerier i Aaret 1880 samt Beretninger angaaende deres Drift m. v. Udgivne af det statistiske Central Bureau. Kristiania. I Kommission hos H. Aschehoug & Co. Translated by TARLETON H. BEAN.

but even surpasses the catch of the year 1877, which, until now, was the largest known. The fishery in the Loffoden inspection district yielded 27,500,000, while in 1879 26,300,000 were caught there, and the average annual catch from 1869 to 1878 was about 21,800,000, with, however, a maximum in 1877 of 28,400,000. The fat herring fisheries, which ever since 1876 have been decreasing, and which in 1879 did not yield more than 443,000 hectoliters [1,257,012½ bushels], increased greatly in 1880, and yielded not less than 720,000 hectoliters [2,043,000 bushels]. Of this amount 440,000 hectoliters [1,248,500 bushels] were taken in Loffoden and Vesteraalen inspection districts alone, and the great majority of these—about 420,000 hectoliters [1,191,750 bushels]—were caught in Eidstjörd.

For information concerning the prices of fish at the fishing stations is given the following tabular synopsis:

	1880	1879	1869-'78
Cod fisheries (excepting with capelin).....per 1,000 round fish..	\$58 06	\$65 39	\$84 15
Capelin fishery (for cod).....do.....	30 55	37 25	52 20
Fat herring.....per hectoliter*	2 14	2 33	1 54
Sprat and other small herring fishery.....do.....	04	54	1 49
Spring herring fishery.....do.....	8 75	2 30	30 82
Mackerel fishery.....per 1,000 round fish..	32 43	30 02	29
Salmon and sea trout fishery.....per kilogram†	29	28	179 86
Lobster fishery.....per 1,000.....	90 05	81 74	
Oyster fishery.....per hectoliter*	6 70	6 16	

* One hectoliter equals 2 bushels, 3.35 pecks, or 20.417 wine gallons.

† One kilogram equals 2.2046 pounds avoirdupois.

‡ In the years 1876-'78.

The number of men engaged in the fisheries in 1880 was as follows: The capelin fishery (for cod) employed 17,084 men against 18,996 in 1879, and 14,200 on the average during the years 1870-1878. In the remaining cod fisheries 63,357 fishermen took part; the number in 1879 was 64,593, and in the decade 1869-1878 the average was about 52,000. In the fat herring fisheries 35,130 fishermen were engaged this year as against 32,476 in 1879. During the years 1876-'78, on the contrary, the number of these fishermen was as high as 41,000.

The average catch which fell to each fisherman for the year 1880, compared with 1879, was as follows.

Fish yield.	Quantity per man.		Money value per man.	
	1880.	1879.	1880.	1879.
Cod fisheries (except with capelin).....	707	708	\$41 81	\$46 36
Capelin fishery (for cod).....	1, 376	923	41 81	84 57
Fat herring fishery.....bushels..	68	38.8	43 68	31 89
Mackerel fishery with drag nets.....	1, 618	1, 048	52 53	53 42

In conclusion, several tables, compiled principally from trade statistics, are given, which show the exportation of fish products since 1856 and the prices obtained for them during the years 1871-1880.

CHRISTIANIA, September 29, 1882.

TABLE I.—Synoptical table of the exports of fish products since 1856.*

Fish products.	Average amount annually.					Annual amount.				
	1856-1860.	1861-1865.	1866-1870.	1871-1875.	1876-1880.	1876.	1877.	1878.	1879.	1880.
A.—QUANTITY.										
1. Spring herring.....hectl..	512,300	702,450	538,092	84,181	42,395	27,384	19,258	41,220	72,633	51,480
2. Other herring.....do....	174,000	235,940	468,669	955,446	735,313	1,013,261	776,042	744,101	658,312	484,853
3. Anchovies.....do.....	386	539	1,150	2,521	7,381	5,983	4,505	7,181	7,420	11,755
4. Dried cod.....lbs.....	30,455,557	29,386,657	35,063,832	40,519,556	42,679,831	43,394,685	46,648,564	35,329,927	45,536,939	42,444,039
5. Split cod.....do.....	42,219,523	43,403,834	57,463,450	60,533,726	65,906,993	72,835,685	101,125,112	90,302,731	98,510,699	116,760,686
6. Other salted fish.....hectl..	70,980	58,601	57,072	80,625	101,099	106,058	109,679	71,507	99,904	118,348
7. Cod-liver oil.....do.....	60,158	73,255	99,318	120,462	142,613	111,833	132,354	137,059	143,165	168,555
8. Roe.....do.....	33,102	37,071	42,777	47,198	63,869	52,435	62,294	68,305	58,682	77,630
9. Fish guano.....lbs.....	146,606	830,032	1,535,835	4,415,483	14,098,017	19,999,741	12,509,782	14,478,821	12,167,370	19,334,121
10. Fresh salmon.....lbs.....			247,688	411,489	586,018	619,713	571,542	583,117	631,309	624,409
11. Fresh mackerel, &c. do. do. }	26,455	4,150,159	6,885,627	6,526,630	3,965,573	3,248,919	2,639,016	4,038,166	5,010,130	4,891,633
12. Smoked salmon.....do.....	6,894	3,541	2,425	2,094	2,359	1,543	992	5,070	3,287	897
13. Lobsters.....individuals..	889,000	1,464,000	1,482,000	922,000	1,066,000	1,270,000	1,070,000	1,081,000	1,019,000	991,000
SUMMARY.										
1-3. Herring fisheries.....lbs.	131,647,689	178,440,324	191,171,689	197,935,967	149,056,075	198,884,351	151,193,171	150,581,565	139,958,039	103,863,243
4-9. Cod fisheries.....do.....	109,094,631	109,414,298	136,398,602	164,566,004	219,190,155	155,398,333	229,819,850	200,478,387	222,432,733	257,830,472
10-13. Other fisheries.....do.....	1,036,162	5,873,259	87,632,850	7,956,622	5,731,352	5,276,427	4,590,371	5,818,270	6,668,415	6,009,080
Total pounds.....	241,778,482	293,729,881	415,203,241	370,598,493	373,997,582	399,544,111	385,403,592	356,878,222	369,059,187	368,302,795
B.—VALUE.										
1. Spring herring.....		\$1,933,548 40	\$326,477 60	\$211,827 20	\$136,010 00	\$102,322 40	\$190,467 80	\$330,928 40	\$290,382 80	\$290,742 80
2. Other herring.....		1,673,579 60	3,937,616 80	3,247,061 20	5,007,874 80	3,516,615 80	2,502,369 60	2,960,076 40	2,467,974 80	1,883,698 80
3. Anchovies.....		22,458 40	46,706 00	116,365 60	114,436 00	71,207 00	93,890 40	113,578 40	143,485 60	183,698 80
4. Dried cod.....		1,114,960 40	1,617,460 40	1,610,680 00	1,888,890 80	1,945,726 80	1,318,236 40	1,483,031 60	3,379,185 20	3,297,006 00
5. Split cod.....		2,052,719 20	2,684,154 00	3,627,058 40	3,711,585 60	3,849,820 00	2,897,068 40	3,379,185 20	216,892 40	215,881 20
6. Other salted fish.....		89,110 00	187,436 20	229,098 40	254,462 00	268,000 00	160,022 80	1,288,698 00	410,068 80	352,654 00
7. Cod-liver oil.....		1,324,818 00	1,504,223 20	1,484,854 00	1,420,614 40	1,823,820 40	1,474,187 60	344,406 80	103,340 80	123,769 20
8. Roe.....		394,261 60	466,203 20	422,502 00	536,670 00	381,300 80	433,972 40	256,100 80	894 00	106,208 40
9. Fish guano.....		30,927 20	101,739 60	271,805 60	246,620 80	228,121 60	281,614 40	100,902 00	109,290 40	
10. Fresh salmon.....		44,273 60	78,497 20	109,585 20	105,458 00	104,225 20	113,417 60	128,824 80		
11. Fresh mackerel, &c.....		132,258 00	151,259 20	103,638 20	89,458 40	77,318 00	241 20	1,232 80		
12. Smoked salmon.....		493 40	482 40	662 80	875 20	241 20	1,232 80			
13. Lobsters.....		78,282 80	75,870 80	112,211 60	129,363 60	100,329 20	115,910 00			

TABLE I.—*Synoptical table of the exports of fish products since 1856—Continued.*

Fish products.	Average amount annually.					Annual amount.				
	1856-1860.	1861-1865.	1866-1870.	1871-1875.	1876-1880.	1876.	1877.	1878.	1879.	1880.
SUMMARY.										
1-3. Herring fisheries;.....			3, 679, 586 40	4, 310, 800 40	3, 575, 254 00	5, 253, 320 80	3, 690, 145 60	2, 786, 717 60	3, 405, 181 20	2, 735, 824 40
4-9. Cod fisheries;.....			5, 011, 814 40	6, 581, 329 60	7, 645, 986 40	8, 082, 833 80	8, 500, 879 60	7, 565, 104 00	6, 966, 284 80	7, 114, 730 00
10-13. Other fisheries;.....			255, 296 80	306, 109 60	339, 048 80	324, 655 20	282, 123 60	331, 462 40	340, 360 00	351, 069 60
Total.....			8, 946, 697 60	11, 198, 239 60	11, 547, 289 20	13, 665, 909 60	12, 473, 148 80	10, 683, 284 00	10, 711, 826 00	10, 202, 224 00

* In the table are not included the following articles, whose quantity and value in 1871-1880 were:

Export.	Average annual.				Annual.							
	1871-1875.		1876-1880.		1877.		1878.		1879.		1880.	
	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.	Pounds.	Dollars.
Smoked herring.....	413, 671	13, 721 60	289, 967	11, 282 80	60, 516	2, 358 40	246, 584	9, 504 40	339, 943	13, 212 40	255, 052	9, 916 00
Fish stomachs.....	3, 263	321 60	19, 974	2, 304 80	13, 117	1, 286 40	11, 243	1, 098 80	26, 301	3, 189 20	18, 893	2, 674 80
Fish meal.....	6, 658	268 00	4, 475	187 60	4, 630	187 60	3, 968	160 80	9, 094	348 40	2, 817	107 20

† One hectoliter equals 2 bushels 3.35 pecks, or 26.417 wine gallons.

‡ For calculating the weight the following equivalents are used:

	Pounds.
Herring, all kinds, one hectoliter equals 86 kilograms.....	189.6
Anchovies, one hectoliter equals 84 kilograms.....	185
Other salted fish in "Foustager," one hectoliter equals 86 kilograms.....	189.6
Other salted fish in vessels, one hectoliter equals 93 kilograms.....	205
Cod-liver oil, one hectoliter equals 93 kilograms.....	205
Roe, one hectoliter equals 120 kilograms.....	264.5
Lobsters, each equals 0.5 kilograms.....	1.1

TABLE II.—Table of export prices 1871-1880.

Fish products.	Average.		Annual average.				
	1871-'75.	1876-'80.	1876.	1877.	1878.	1879.	1880.
Spring herring..... per hectoliter..	\$4. 23	\$5. 05	\$4. 97	\$5. 31	\$4. 62	\$4. 56	\$5. 22
Great herring..... do	4. 82	5. 49	6. 01	5. 78		4. 82	5. 36
Herring..... do	3. 00	3. 07	3. 38		8. 00		4. 29
Fat herring..... do	3. 94	4. 60	5. 08	4. 71	8. 47	4. 69	5. 07
Sprat..... do	1. 88	1. 83	1. 85	1. 85	1. 57	1. 90	1. 88
Dried cod..... per pound..	. 04	. 038	. 044	. 041	. 038	. 033	. 043
Split cod..... do	. 04	. 039	. 05	. 038	. 042	. 034	. 028
Cod-liver oil..... per hectoliter..	12. 71	10. 56	12. 09	11. 97	10. 76	8. 99	8. 45
Roe..... do	9. 91	6. 79	10. 23	6. 12	6. 35	5. 87	5. 36
Fish guano..... per pound..	. 023	. 019	. 022	. 018	. 019	. 019	. 018
Fresh salmon..... do	. 192	. 19	. 17	. 18	. 194	. 194	. 194
Fresh mackerel, &c..... do	. 023	. 027	. 028	. 029	. 025	. 025	. 025
Lobsters..... per hundred..	8. 88	10. 34	10. 18	9. 88	10. 72	10. 72	10. 72
RECAPITULATION.							
Herring fishery.. products per pound..	. 022	. 024	. 027	. 024	. 018	. 024	. 027
Cod fishery..... do	. 04	. 035	. 044	. 036	. 038	. 032	. 028
Other fishery..... do	. 039	. 057	. 062	. 064	. 057	. 051	. 054
Average per pound.....	. 03	. 032	. 035	. 033	. 03	. 029	. 028

TABLE III.—Statement of the number of men engaged in the cod, fat herring, and mackerel fisheries in 1880, and of the yield of the combined coast fisheries, excepting the catch for home use, based upon the prices paid at the fishing-stations.

Fishermen engaged—	80,441
In cod fisheries.....	35,130
In fat-herring fisheries	3,719
In mackerel fisheries	
Value of the coast fisheries:	\$3,360,526 00
Cod	1,534,654 00
Fat herring	138,343 00
Sprat and other small herring	230,700 00
Spring herring	186,558 00
Mackerel	388,150 00
Summer fisheries for pollock, ling, &c*	102,403 00
Salmon and sea trout.....	108,455 00
Lobster.....	1,506 00
Oyster.....	
Total	6,051,297 00

TABLE IV.—Detailed account of the cod fisheries in 1880, giving the number of fishermen and boats, and their equipment.

Total number of fishermen.....	80,441
Fishermen furnished with—	
Nets only	25,809
Trawls only	16,865
Hooks and lines only.....	16,806
Both nets and trawls.....	3,094
Nets and hooks and lines	2,518
Trawls and hooks and lines.....	12,258
Nets, trawls, and hooks and lines.....	3,091
Total	18,475
Total number of boats	

* Including only the portions sold.

Boats furnished with—

Nets only	4, 156
Trawls only	4, 633
Hooks and lines only	4, 309
Nets and trawls	725
Nets and hooks and lines	388
Trawls and hooks and lines	3, 663
Nets, trawls, and hooks and lines	601

TABLE V.—*A statement of the yield of the cod fisheries in 1880, giving the number of fish taken.*

Total catch	68, 272, 800
Taken by—	
Nets	25, 003, 000
Trawls	23, 989, 000
Hook and line	19, 281, 000
Barrels of livers	166, 626
Barrels of roe	60, 860
Fish-heads sold	45, 578, 300

TABLE VI.—*Statement of the yield of the winter and spring cod fisheries in 1880, giving the money value and the prices paid at the fishing-stations, from which the value is reckoned.*

Money value:

Total value	\$3, 360, 525 00
-------------------	------------------

Value of the different products:

Fish, without liver and roe	2, 303, 093 00
Livers	674, 619 00
Roe	313, 633 00
Fish-heads sold	69, 180 00

Average price at fishing-stations:

Of 100 cod	3 38
Of livers, per barrel	4 05
Of roe, per barrel	5 15
Of 100 fish-heads	16

Estimated price of 100 round fish	4 93
---	------

TABLE VII.—*Detailed statements concerning the persons, &c., engaged in, and the yield of, the fat-herring fisheries in 1880, and of prices paid at the fishing-stations.*

a. Men, &c., engaged in the fisheries:

Whole number of fishermen	35, 130
Division of fishermen:	
Net	17, 261
Seine	17, 869
Number of boats using nets	6, 443
Number of seiners	1, 258

b. Yield of the fisheries, and prices:

Total catch	barrels..	517, 874
Taken in—		
Nets	barrels..	148, 900
Seines	do	368, 974

Value	\$1, 534, 654 00
Average price per barrel	2 97

TABLE VIII.—*Detailed statements of the operations and the yield of the mackerel fisheries in quantity and value in 1880, and of the prices paid at the fishing-stations, from which the value is reckoned.*

Total number of fishermen.....	3,719
Number using drag-nets.....	3,477
Number of boats using drag-nets.....	966
Total number of fish caught.....	5,743,884
Number caught with drag-nets.....	5,627,384
Money value of the fishery.....	\$186,558 00
Average price per 100 fish.....	3 24

TABLE IX.—*Statements concerning the yield of: 1. The sprat and other small herring fishery; 2. The lobster fishery; 3. The salmon and sea-trout fishery, and 4. The oyster fishery, in 1880.*

1. Sprat and other small herring:	
Total catch, in barrels.....	152,898
Money value.....	\$138,343 00
Average price per barrel *.....	91
2. The lobster:	
Total catch.....	1,205,616
Money value.....	\$108,455 00
Average price per 100 †.....	9 00
3. Salmon and sea-trout:	
Total catch, in barrels.....	57,085
Money value.....	\$102,403 00
Average price per barrel *.....	1 80
4. The oyster:	
Total catch, in barrels.....	164
Money value.....	\$1,506 00
Average price per barrel †.....	9 14

* At the fishing-stations.

† At the place of capture.