

AN INVESTIGATION INTO THE PROBABLE DESTRUCTION OF
SMALL HADDOCK BY WHITING FLEET AND EXEMPTED
VESSELS

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The problem of the alleged destructive nature of small mesh gear used by the whiting, industrial, and exempted vessels has been foremost in many minds. When the U. S. Fish and Wildlife Service gathered data for the ICNAF mesh regulation, studies were carried out to determine what size haddock were able to escape from the nets then in use and nets of the proposed 4-1/2-inch mesh. Prior to the regulation fishermen were discarding fish less than 35 cm. in length, about the same size now landed as snapper haddock (Premetz 1953, Premetz et al 1954).

A study of the 1958 landings of haddock taken from ICNAF subarea 5 (Area XXII, D, E, F, G^{1/}) by trawlers using small mesh nets and by trawlers with 10% annual exemption certificates indicates that together they landed about 2.9 million pounds (Table 1). Haddock landings by trawlers using 4-1/2-inch mesh and taking fish from those ICNAF subareas fished by U. S. vessels approximates 94.6 million pounds (Table 2). For the purpose of this study only the landings at the ports of Boston, Gloucester, and Provincetown, Massachusetts; and Portland and Rockland, Maine, were considered. The New Bedford fleet does not fish in the areas under study and was therefore excluded.

<u>1/</u> XXII D	Western Maine
XXII E	Eastern Massachusetts
XXII F	Inner Grounds, Massachusetts
XXII G	West side South Channel

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60 - 4

The mesh sizes used by the small mesh and exempted vessels vary considerably. Those vessels fishing for whiting normally use a 4-1/2-inch mesh with a 1/2- to 1-1/2-inch mesh liner. Those vessels holding exemption certificates use nets with a mesh size of 4-1/2 inches or less; these are vessels which are exempted from the 4-1/2-inch mesh regulation, but may not land haddock from subarea 5 in excess of 10 percent of their annual landings.

Haddock spend nearly their entire life span in waters of 20 to 75 fathoms in depth. They inhabit the same depths and intermingle with other species of fish that are taken by trawlers not necessarily fishing for haddock, e. g. the industrial and redfish fleets.

During 1958 the small mesh fleet landed about 628 thousand pounds of haddock (Table 1). The greatest poundage was landed during the months of June through October. It is during this period the fleet is concentrating on whiting for food and reduction purposes. The vessels with exemption certificates land about equal amounts of haddock monthly throughout the year. During the 1958 season this fleet landed about 2.4 million pounds of large, scrod, and snapper haddock (Table 1).

The snapper haddock landed for food purposes by the exempted vessels amounted to about 36 thousand pounds. These are haddock weighing less than 1-1/2 pounds, too small to be considered scrod.

The vessels landing trash fish at the reduction plants usually bring in everything they catch, including haddock. This fishery during 1958 landed in Gloucester approximately 490 thousand pounds of haddock ranging in size from 11 to 36 centimeters (Edwards and Lawday , in manuscript).

If each snapper haddock is considered to weigh 1/4 pound, then about 2,104,000 undersized haddock, which in another year would have been of marketable size, were landed either as food or for reduction.

There is no information, nor are statistics available, to indicate how many or what size haddock are presently discarded by the small mesh and exempted fleets. Plans are now being formulated to acquire these data. The M/V Delaware will make four 1-week cruises commencing in July 1960. Trawling with gear such as is used by the small mesh and exempted fleets will be used in the areas of Ipswich Bay-Isle of Shoals, Stellwagen Bank, and Nauset to determine what destructive effect this gear has on small haddock.

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5

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whiting
Table 1. --Small mesh^{1/} fleet landings, 1958

(pounds landed)

Sub-area	No. of vessels	No. of trips	Total Effort (days)	Cod	Scrod Cod	Haddock	Scrod Haddock	Snapper Haddock	Redfish	Whiting	Other	Total
64	41	114	84.6	21,970	341	10,715	11,023	--	46,615	3,026,290	126,627	3,279,581
65	85	1,513	910.1	140,335	124,135	129,501	180,819	--	125,330	18,151,412	670,341	19,521,873
66	4	4	2.6	4,769	228	14,913	13,586	--	2,075	19,850	18,008	73,429
68	50	214	214.9	41,722	10,695	95,115	71,810	270	39,225	12,525,487	163,641	12,947,965
Total		1,845	1,212.2	208,796	135,399	250,244	277,238	270	213,245	33,759,039	978,617	35,822,848
Exempted fleet ^{2/} landings, 1958												
64	20	223	233.9	200,509	30,940	540,581	439,695	7,930*	2,196,555	393,625	1,479,767	5,289,602
65	18	368	253.4	185,969	77,128	202,228	181,527	23,559	455,455	2,442,855	3,205,785	6,774,576
66	20	105	167.1	45,607	3,990	309,671	157,540	664	4,030,221	4,000	634,165	5,185,858
68	13	165	221.6	67,566	20,898	285,145	229,991	3,764	684,525	6,240,900	2,109,368	9,642,157
Total		861	876.0	499,651	132,956	1,337,625	1,008,753	35,917	7,336,756	9,081,380	7,429,085	26,892,193

^{1/}Vessels which landed 50 percent or more whiting per trip.

^{2/}Vessels with a 10% annual exemption certificate.

Table 2. --1958 summary of food and industrial landings at selected New England ports, all ICNAF areas (all mesh sizes) (in thousands of pounds)

	Trips	Cod ^{1/}	Haddock	Scrod Haddock	Snapper Haddock	Redfish	Whiting	Other	Total Industrial	Food
Boston, Mass. Food	2,421	16,164	41,137	40,387	--	2,622	593	22,351	--	123,254
Gloucester, Mass. Food	<u>2/</u> 8,178	2,020	5,494	4,307	--	65,389	76,520	15,515	--	169,245
Industrial									79,584	
Provincetown, Mass. Food	<u>2/</u> 4,154	973	722	396	--	--	1,189	6,894	--	10,174
Industrial									11,872	
Portland, Maine Food	2,741	1,369	1,554	614	--	36,495	10,017	4,597	--	54,646
Industrial	1,162								3,774	
Rockland, Maine Food	356	--	--	--	--	27,555	203	1,272	--	29,030
Industrial	86								<u>3/</u> 2,156	
Total	19,098	20,526	48,907	45,704	--	132,061	88,522	50,629	<u>3/</u> 7,386	386,349

U. S. Department of the Interior, Fish and Wildlife Service, Bureau of Commercial Fisheries, New England - Annual Summary 1958 by John J. O'Brien.

1/Includes cod scrod.

2/Includes food and industrial trips.

3/Incomplete.

Table 3. --Landings of snapper haddock from subareas XXII D, E, F,
and G^{1/} by exempted vessels, 1958

Month	Pounds
January	2,959
February	4,561
March	4,705
April	2,136
May	75
June	3,437
July	8,270
August	2,199
September	640
October	720
November	3,188
December	3,027
Total	35,917

- 1/XXII D Western Maine
 XXII E Eastern Massachusetts
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