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Discarding Of Fish By The Commercial Fishery,

Canada (Nfld.) in 1962.

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When catching a commercially acceptable species the amounts rejected are dependent upon the minimum size of fish which the shore plant will accept for production. Generally, when a catch is taken on board at sea, fish below the commercially acceptable size are thrown away. When the catch retained is being landed at the shore plant, generally a check is made on the sizes being landed and undersized fish are rejected together with crushed, broken and soft fish. These are used with the fish skeletons, offal, etc. in the production of meal in most cases.

The "cull" size for a particular species sometimes changes with the season and with the changing success of a fishery. When catches are large there is a tendency to discard fish of a somewhat larger size than when catches are small. Also, in times of scarcity of a species much in demand, plants often accept fish of somewhat a smaller size than usual.

Minimum sizes of fish generally acceptable at processing plants in Canada (Nfld.) in 1962:

<u>Species</u>	<u>Length of fish to midfork of tail</u>	
	<u>cm.</u>	<u>inches</u>
Cod - whole	43	17
- head on, gutted	48 - 50	19 - 20
Haddock - whole	41	16
- head on, gutted	46	18
Redfish - whole	27	10½
Plaice - whole	36	14
Witch - whole	36	14

The difference in the minimum size acceptable for a species landed whole and head on gutted is the result of a price difference for the two categories.

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Gears involved in catching undersized fish which must be discarded are traps and otter trawls, especially. Discards of fish from the various line gears are generally negligible. When discards of fish occur from cod traps, it is usually in the areas where fresh-fish processing plants operate in which case the discards are often sold to the plant for processing as meal. Outside the areas of fresh-fish plants, where catches from the inshore gears are salted, discards are at a very low level since fish of smaller sizes are used for salting, both for sale and for local consumption.

For catches of otter trawlers landing in Newfoundland ports the discard information has been obtained from log book records in which the captains of the various ships have kept records of the amounts of fish discarded at sea. Since all captains are not equally good at keeping records, a difficulty arose in the interpretation of the results since it was uncertain, in records of some ships, if a blank space in the discard row on the record indicated "no discard" or "no account kept of discard". However, after a careful examination of the records, those from 11 ships of the 151 - 500 gross tons class appeared reliable enough to use and the results of these have been summarized in the attached table.

The data obtained indicate that from Newfoundland otter trawlers discarding at sea takes place principally in the haddock and American plaice fisheries but is apparently negligible in the cod and redfish fisheries. Discarding of undersized redfish occurs in the processing plant, generally; these fish are used in meal.

In haddock the per cent discarded seems to be related with abundance of fish in the fishery, the greater the total catch the higher the rate of discard, ranging from over 9% during the period of intense and successful fishery at the beginning of the year to 0 in the period of reduced fishery in the fall. In the plaice fishery the discarding rate is generally below 1%.

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Canada (Nfld.) Otter Trawlers (151 - 500 tons) Discarding At Sea

Per cent discarded is per cent of landing + discard

Species Division	Amounts in metric tons, round fresh												Total
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	
Haddock 3-0	5,403	4,909	4,512	2,837	1,537	Nil	Nil	Nil	Nil	Nil	79	646	19,923
Landings with discard data	2,485	2,114	2,063	1,166	767						15	283	8,893
Discards	246	161	62	21	15						0	0	505
Landing + discard	2,731	2,275	2,125	1,187	782						15	283	9,398
Per cent discarded	9.0	7.1	2.9	1.8	1.9						0	0	5.4
3-N Total landing (Nfld.)	40	151	386	68	*	Nil	4	Nil	Nil	*	17	111	777
Landings with discard data	40	151	313	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	45	549
Discards	4	2	16									0	22
Landings + discard	44	153	329									45	571
Per cent discarded	9.6	1.6	5.0									0	3.9
Plaice 3-L Total landing (Nfld.)	337	2,213	1,763	751	863	606	1,092	825	56	8,506			
Landings with discard data	325	737	416	77	207	163	452	256	14	2,647			
Discards	0	5	1	0	7	0	0	0	0	13			
Landings + discard	325	742	417	77	214	163	452	256	14	2,660			
Per cent discarded	0	0.6	0.3	0	3.5	0	0	0	0	9.5			
3-N Total landing (Nfld.)	96	Nil	3	24	156	336	49	683	335	3,604			
Landings with discard data	96	Nil	Nil	24	150	326	47	550	111	2,493			
Discards	0	0	0	0	0	1	0	0	0	1			
Landings + discard	96	0	0	24	150	327	47	550	111	2,494			
Per cent discarded	0	0	0	0	0	0.2	0	0	0	0.04			

\* Less than one metric ton

(Landing includes fish processed for meal as well as for fillets, blocks, etc.)