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MINISTRY OF AGRICULTURE, FISHERIES AND FOOD
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

1980 RESEARCH VESSEL PROGRAMME

REPORT: MFV PAMELA 'S'

(PROVISIONAL: Not to be quoted without prior reference to the author)

STAFF

P A Large

DURATION

Day trips as follows all from Bridlington:

Date	Time sailed	Time returned
31.7.80.	0600 h	1730 h
3.8.80.	0630 h	1915 h
4.8.80.	0645 h	1430 h
5.8.80.	0300 h	1300 h
6.8.80.	0415 h	1100 h
7.8.80.	0445 h	1315 h

LOCALITY

North East coast

AIMS

To obtain information on the discard rates of commercial fishing vessels off the North East coast.

NARRATIVE

- 31.7.80. PAMELA 'S' sailed at 0600 h and commenced fishing at 0710 h at a position approximately 1.5m NE x N off Flamborough Head. Three tows were made at this location before returning to Bridlington at 1630 h.
- 3.8.80. PAMELA 'S' sailed at 0630 h and commenced fishing at 0735 h at a position approximately 1.8m E off Flamborough Head. One tow was made at this location before steaming to a position approximately 6¹/₂m NE x N off Flamborough Head where fishing recommenced at 1040 h. Two tows were made here before returning to Bridlington at 1915 h.
- 4.8.80. PAMELA 'S' sailed at 0645 h and commenced fishing at 0755 h at a position approximately 1.3m SW off Flamborough Head. Two tows were made, the second being located further around the Head commencing at a point 1.7m thereof. A combination of poor weather and poor fishing resulted in PAMELA 'S' returning to Bridlington at 1430 h.
- 5.8.80. PAMELA 'S' sailed at 0300 h and commenced fishing at 0435 h at a position 6m E of Filey. Two tows were made at this location before extensive damage to the net necessitated an early return to Bridlington at 1300 h.
- 6.8.80. PAMELA 'S' sailed at 0415 h and commenced fishing at 0520 h at a point 4.25 m ESE off Flamborough Head. One tow was made at this location but unfortunately this too resulted in severe damage to the net. The skipper decided that the net was no longer fishing 'true', and it was decided that an early return to Bridlington would enable the crew to measure the sweeps and bridles and thereby possibly locate the source of the problem. PAMELE 'S' docked at 1100 h.

On measuring the chain bottom leg bridles it was soon discovered that one of the chain bottom legs had worn and consequently stretched a distance equivalent to five chain links.

7.8.80. With the bridles and sweeps realigned, PAMELA 'S' sailed at 0445 h and commenced fishing at 0550 h at a position 2.5m NNE off the Head. Two tows were made here before returning to Bridlington at 1315 h.

RESULTS

The skipper's estimates of total catch and quantity retained were recorded on a haul by haul basis. Estimates of the quantity discarded were determined either by subtraction ie total catch - catch retained, or by basketing using a basket of known volume ($\bar{=}$ stones). Length compositions of the main species discarded were obtained from every haul and samples of otoliths from the discarded cod, haddock and whiting were collected on the same basis. A total of 1314 fish were measured and 276 pairs of otoliths were taken.

Catches made in ICES rectangle D07 consisted mainly of cod, whiting, rays, haddock and lemon soles, with monkfish, ling, soles and plaice being caught in small quantities only. The average % of total catch per haul discarded was 24% by weight, the main species discarded being cod, dab, pout whiting and haddock.

Catches made in ICES E07 consisted primarily of cod, haddock, lemon soles, nonkfish and rays. The average % of total catch per haul discarded was 33% by weight, the main species being discarded were cod, lemon sole, haddock, whiting and pout whiting.

A table is attached showing the estimates of retained catch and quantity discarded on a haul by haul basis.

The retained haddock were measured on board PAMELA 'S' while she was steaming, the retained cod and whiting being measured on the Hull Market by Keith Parker (ASO-Hull).

PAMELA 'S' was built at Fraserburgh in 1969, has a registered length of 51 ft and is powered by a 230 HP Gardner engine. She carries a crew of 3/4 and perhaps can best be described as a typical 'Yorkshire Reel boat'. The usual fishing and navigational aids are carried, namely:- Kelvin Hughes MS44 echosounder, a Decca navigator and track-plotter.

The trawl net was of the Bons Box Type with a 75 ft ground rope fitted with 10" rubber discs. In the bosom the discs were 12" apart with 2" rubber disc spacers, whilst towards the wings the distance between the large discs increased to 24". Short lengths of chain were also carried between the large discs in the bosom and between every other disc towards the wings. The headline was 58ft long and was fitted with 8" floats. The cod-end was of 80mm mesh courlene. The bridles were 20 fathoms long with a chain bottom leg. These graded into single wire sweeps, the length of which could be varied according to the type of ground being worked eg 10 fathoms long on rough ground and 30 fathoms long on fine ground. 6ft 6in steel V-doors were used throughout.

The grounds close to Flamborough Head are littered with wrecks and fastners, and until recently the standard gear employed by local fishing vessels has been a rough ground trawl fitted with a heavy bobbin groundrope and short sweeps. The use of fine ground trawls is a comparatively recent development although they have been used further off the Head for a number of years. The Skipper of the PAMELA 'S' was of the opinion that the fine ground trawl fished extremely well on the sandy stretches of sea bed in between the wrecks and fastners but

HAUL BY HAUL SUMMARY

MFV PAMELA 'S' - SINGLE DAY TRIPS

DATE	HAUL NO & RECT	SKIPPER'S ESTIMATE OF TOTAL CATCH - ALL SPPS (STONES)	SKIPPER'S ESTIMATE OF RETAINED CATCH (STONES) (main spps in descending order of abundance by weight)	ESTIMATE OF DISCARDS (STONES)
31.7.80.	1-D07	50	34 (cod) (rays)	7 (cod) (dab)
	2-D07	30	20 (cod) (whiting)	4 (cod) (dab)
	3-D07	14	15 $\frac{1}{4}$ (cod) (whiting)	3 $\frac{1}{2}$ (cod) (dab)
			<u>69$\frac{1}{4}$</u>	
Actual landed weight = 68 $\frac{1}{4}$ st				
3.8.80.	1-D07	15	12 (cod) (whiting)	2 $\frac{1}{2}$ (Pout whiting) (cod)
	2-E07	8	5 $\frac{1}{2}$ (cod) (lemon sole)	3 $\frac{3}{4}$ (cod) (lemon sole)
	3-E07	7	4 $\frac{1}{2}$ (haddock) (monks & rays)	2 $\frac{1}{2}$ (haddock) (cod)
			<u>22st</u>	
Actual landed weight = 25 st (approx)				
4.8.80.	1-D07	14	12 $\frac{1}{4}$ (whiting) (cod)	3 (cod) (whiting)
	2-D07	16 $\frac{1}{2}$	13 $\frac{1}{2}$ (whiting) (cod)	3 $\frac{1}{2}$ (cod) (pout whiting)
			<u>25$\frac{3}{4}$st</u>	
Actual landed weight = 29 $\frac{3}{4}$ st				
5.8.80.	1-D07	40	25 (haddock) (whiting)	13 $\frac{1}{2}$ (cod) (dab)
	2-D07	6	4 (whiting) (plaice)	2 (haddock) (dab)
			<u>29st</u>	
Actual landed weight = 30 $\frac{3}{4}$ st				

perhaps its greatest attribute is its lightness in that its use has resulted in a 25% decrease in fuel consumption. Two thirds of the day boats working out of Bridlington now use fine ground gear when working close into the Head, however it is very susceptible to damage and in a number of cases the ground-rope has had to be strengthened by using 14" rubber discs of double thickness.

The skipper and crew were extremely helpful throughout the week and I would like to thank them for their co-operation.

I would also like to thank Keith Parker (ASO-Hull) for his kind assistance in sampling the daily retained catch of cod and whiting on the Hull market.

P A Large
3 October 1980

INITIALLED: AJL

DISTRIBUTION:

Basic List
P A Large + 4

HAUL BY HAUL SUMMARY (contd)

MFV PAMELA 'S' - SINGLE DAY TRIPS

DATE	HAUL NO & RECT	SKIPPER'S ESTIMATE OF TOTAL CATCH - ALL SPPS (STONES)	SKIPPER'S ESTIMATES OF RETAINED CATCH (STONES) (main spps in descending order of abundance by weight)	ESTIMATE OF DISCARDS (STONES) order of abun-
6.8.80.	1-E07	7	5 $\frac{1}{2}$ (whiting) (rays)	*1 $\frac{1}{2}$ (pout whiting) (whiting)
7.8.80.	1-D07	19	14 $\frac{3}{4}$ (cod) (whiting)	6 (cod) (whiting)
	2-D07	15	10 (cod) (whiting)	4 (cod) (whiting)
			<u>24$\frac{3}{4}$st</u>	

NOTE: * denotes that the weight of discards has been obtained by subtraction using the Skipper's estimates of total and retained catch.
All other discard estimates have been obtained by basketing.