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Norway

(A. Hylen)

The spawning migration of Arctic cod was followed in 3 periods by R.V. "G.O. Sars". In the period 20-26 February the cod was located west of Vesterålen, Skomvær and Røst, and the cod were at this time still on migration southwards from the banks between Malangen and Andenes. In the period 3-11 March most of the spawning cod had arrived to the western part of the Vestfjord, east of Værøy and Røst. During the period 24-25 March the fish disappeared from this area, and the echo-sounding in the period 26-30 March may indicate that at least some part of the fish migrated to the inner part of the Vestfjord.

A purse-seiner was hired in the second half of March and the beginning of April to fish in Lofoten for sampling and tagging. Since purse-seining are difficult in the western part of the Vestfjord, the vessel had to wait for fish arriving to the eastern part of the area. However, the fish arrived so late in this area that the sampling and tagging programme could not be carried out.

R.V. "G.O. Sars" was in the periods 5-15 May and 15-23 September trawling along the Finmarken coast, while the more shallow waters were sampled in the period 18 August to 13 September by R.V. "Peder Rønnestad". The main task of the cruises was to study the abundance of different age-groups of cod and haddock in increasing distance from the coast-line.

A joint survey of 0-group of commercially important species was undertaken in the period 28 August to 10 September in the Barents Sea, around Bear Island and along Spitsbergen by R.V. "G.O. Sars" and R.V. "Johan Hjort", 2 Russian and 1 English research vessels. The coastal area was surveyed in the period 18 August to 13 September by R.V. "Peder Rønnestad". The abundance of 0-group cod and haddock were low, while the 0-group of redfish, long rough dab and polar cod were found in significant quantities.

Sampling for serological studies on cod was made on some cruises with the research vessels and on commercial fishing vessels. Discarding of cod and haddock was studied on some Norwegian trawlers.

Tagging and sampling of cod, haddock, coalfish and Greenland halibut were included in the programme for cruises with research vessels and with commercial fishing vessels.

The number of fish measured, age-determined and tagged are given in the table.

Data collected during 1966

	North Sea	Møre-Lofoten	Røst North Cape	Finmark Barents Sea	Bear Island	Total
<u>Otoliths</u>						
cod	-	3832	2469	6567	-	12868
haddock	-	-	1590	6583	-	8173
coalfish	312	392	1163	922	-	2789
<u>Measurements</u>						
cod	-	27785	3199	75955	-	106939
haddock	-	-	4233	41040	-	45273
coalfish	2410	1993	2409	8146	-	15958
<u>Tagging</u>						
cod	-	1106	97	1074	-	2277
haddock	-	-	-	684	-	684
coalfish	-	789	-	697	-	1486
Greenland-halibut	-	-	-	-	100	100

Poland

(W. Cioglewicz)

Baltic

Cod. During the year 1966 the length of 42,246 cod from the commercial catches made in the Gdańsk Bay and Bornholm Bassin was measured. From this material sex, stage of maturity, length, weight and age of 6,000 fish were estimated. From the comparative catches made by means of a standard trawl, the length of 6,204 cod and age of 1,518 cod were investigated.

Flatfish. Length, weight, sex, stage of maturity and age of 4,228 fish were investigated.

North Sea

Investigations on the occurrence of demersal fish as bycatch in the herring trawl fishery were conducted. The length of 8,347 and age of 1,002 fish were estimated.

NE Atlantic

The material was worked up from the experimental fishing of the research vessel M.T. "Wieczno" conducted during November/December 1965 on the Faroe, Halten Pank, SE Iceland and Rosengarten fishing grounds. The yield of catches was investigated, and stock analyses of cod, haddock, coalfish, redfish and silver smelt were carried out.

Scotland

(B.B. Parrish & R. Jones)

Routine sampling of commercial stocks in the North Sea, off the west of Scotland and at Faroes was continued as usual by Scottish research vessels. The North Sea was sampled by F.R.S. "Scotia" in April, July and November. F.R.S. "Explorer" sampled west coast grounds in February/March and Faroe grounds in May.

Commercial landings of cod, haddock and whiting at the major Scottish trawl and seine-net ports were sampled as in previous years. In addition, a number of trips were made by scientific personnel on board commercial vessels to assess the length-composition and quantity of haddock and whiting rejected at sea. Data collected from these sources were used to provide forecasts for the major Scottish fisheries and formed the basis of material submitted to Annales Biologiques, the ICES News Letters and the U.K. Fish Stock Record.

Tagging of cod, haddock and whiting was continued throughout the year in Scottish and Faroese waters. Thanks are again due to the staff of the Fisheries Research Laboratory in Torshavn for their help in this work.

In connection with the tagging programme further observations have been made on the relative survival rates of haddock tagged underwater by divers and those tagged on board ship in the normal manner. These observations again showed a much higher survival rate of those tagged underwater.

Further observations on the food and feeding of cod and haddock have been supplemented by aquarium experiments to determine the digestion rates of various food species.

Underwater observations have been made on the behaviour and the factors governing the survival of haddock and cod as they were raised to the surface diving capture.

Fecundity determinations of whiting have been continued with particular reference to comparisons of the fecundity of northern and southern North Sea whiting.

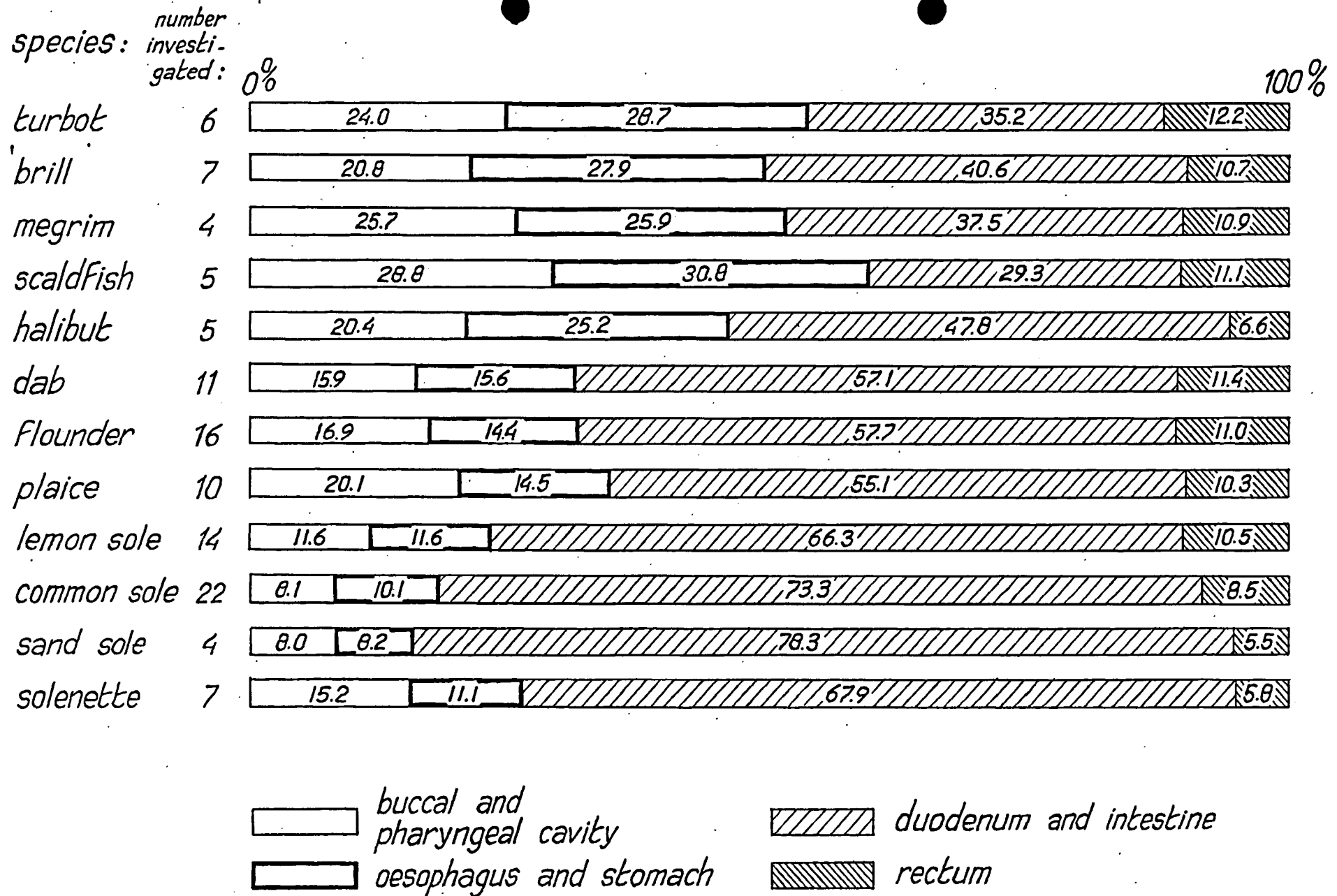


Fig. 2 relative length of different parts of the alimentary tract