

Table 1. Sampling dates of stomachs, the number of stations by gear and number of stomachs from spawning cod according to sex and stock affiliation (North East Arctic Cod and Norwegian Coastal Cod) sampled on the Lofoten cruise 1996-1999 and 2001-2006.

Year	Date	Number of demersal trawl stations	Number of pelagic trawl stations	Number of females NCC	Number of males NCC	Number of females NEAC	Number of males NEAC
1996	19/3-28/3	16	3	39	79	132	305
1997	22/3-28/3	14	2	43	32	144	171
1998	21/3-1/4	13	0	45	68	106	149
1999	27/3-5/4	14	0	36	89	62	150
2001	25/3-7/4	17	1	39	133	93	153
2002	20/3-31/3	14	2	25	133	98	251
2003	26/3-2/4	18	1	69	210	127	267
2004	20/3-3/4	18	6	57	144	313	458
2005	21/3-26/3	19	4	43	43	200	276
2006	22/3-4/4	19	1	38	72	174	194

Table 2. The number of stomachs sampled from large (> 50cm) North East Arctic cod on the winter survey in February and summer survey in August/September.

Year	Number of females Winter	Number of males Winter	Number of females Summer	Number of males Summer
1996	763	624	431	412
1999	419	327	341	358
2003	648	499	307	302
2004	746	679	331	326
2005	625	512	265	266

Table 3. Test statistics three-way ANOVA on the effect of year, sex and stock on the proportion of empty stomachs, Total Fullness index (TFI) and Partial Fullness Index (PFI) herring. Cod length was included as a covariate.

	Prop. empty	TFI	PFI herring
Cod length	F=1.95, p=0.17	F=0.00, p=0.95	F=0.00, p=0.96
Year	F= 9.00, , p<0.0001	F= 2.32, p=0.018	F= 2.95, p=0.027
Sex	F=21.35, p<0.0001	F= 3.23, p=0.07	F=0.64, p=0.43
Stock	F=24.73, p<0.0001	F=12.9, p=0.0003	F=0.23, p=0.64
Year*Sex	F=2.55, p=0.009	F=1.7, p=0.09	F=0.97, p=0.46
Year*Stock	F=0.92, p=0.50	F=0.87, p=0.54	F=0.83, p=0.58
Sex*Stock	F=0.56, p=0.46	F=1.64, p=0.20	F=2.27, p=0.13
Sex*Year*Stock	F=0.87, p=0.54	F=1.33, p=0.22	F=0.97, p=0.46

Table 4. Test statistics two way ANOVA on the effect of season and year on the proportion of empty stomachs and Total Fullness index (TFI) of NEAC >50 cm.

	Prop. empty	TFI
Year	F=13.14, p<0.0001	F=1.40, p<0.23
Season	F=202.57, p<0.0001	F=21.86, p<0.0001
Year*Season	F=9.24, p<0.0001	F=3.93, p=0.0001

Table 5. Prey consumption by mature NEAC during the spawning period (1000 tonnes)

Year	Herring	Norway pout	Other fish	Invertebrates	Total
1996	80	32	11	2	125
1997*	81	7	10	1	99
1998*	32	5	23	8	68
1999*	28	0	20	+	48
2001	68	11	16	+	96
2002	65	3	9	0	77
2003	18	25	48	8	99
2004	79	27	29	5	139
2005	36	34	16	7	92
2006	75	38	13	3	128

* In the years 1997-1999, some of the stomachs were analysed in a simplified way onboard the ship. Then only the most important prey species (including herring, but not Norway pout) were identified, while other fish were grouped into one category. Thus, some of the 'other fish' in these years were probably Norway pout. '+' indicates a consumption between 0 and 500 tonnes.

Table 6. Prey consumption by mature NCC during the spawning period (1000 tonnes)

Year	Herring	Norway pout	Other fish	Invertebrates	Total
1996	17	3	4	20	44
1997*	0	0	18	1	19
1998*	6	2	8	5	21
1999*	4	0	9	0	13
2001	12	5	3	1	21
2002	5	+	5	+	11
2003	0	+	6	+	7
2004	2	2	3	1	9
2005	2	1	2	2	6
2006	1	3	1	1	6

*- see footnote to Table 5

Table 7. Herring MOB ('M-output biomass') and cod consumption of herring (1000 tonnes).

Year	MOB age 3+ herring	Consumption of herring by NEAC	Consumption of herring by NCC	Total consumption	Consumption by cod in % of MOB
1996	1439	80	17	97	6.7
1997	1330	81	0	81	6.1
1998	1187	32	6	32	2.7
1999	1108	28	4	32	2.9
2001	1128	68	12	80	7.1
2002	1317	65	5	70	5.3
2003	1341	18	0	18	1.3
2004	1323	79	2	81	6.1
2005	1666	36	2	38	2.3
2006	1725	75	1	76	4.4

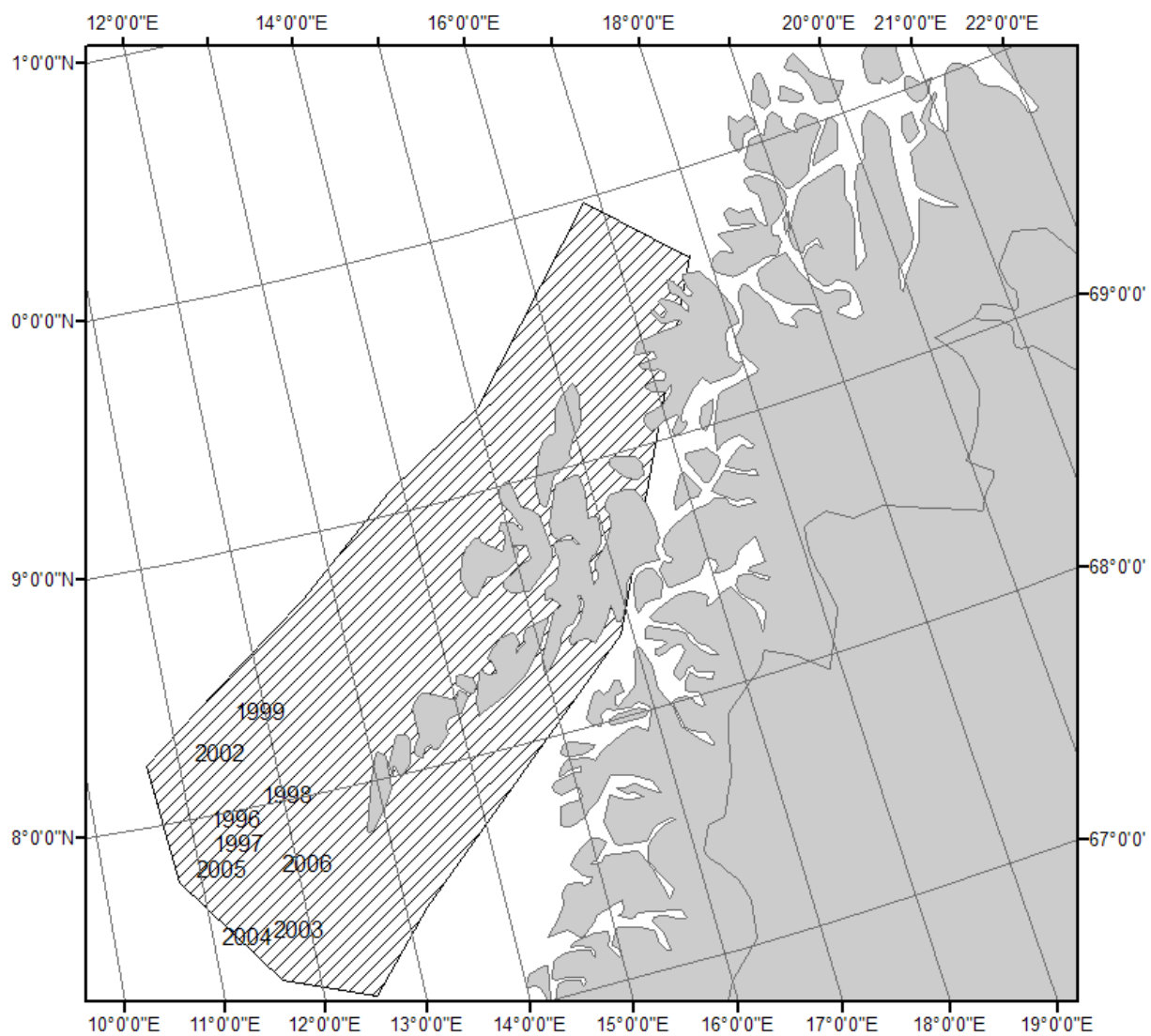
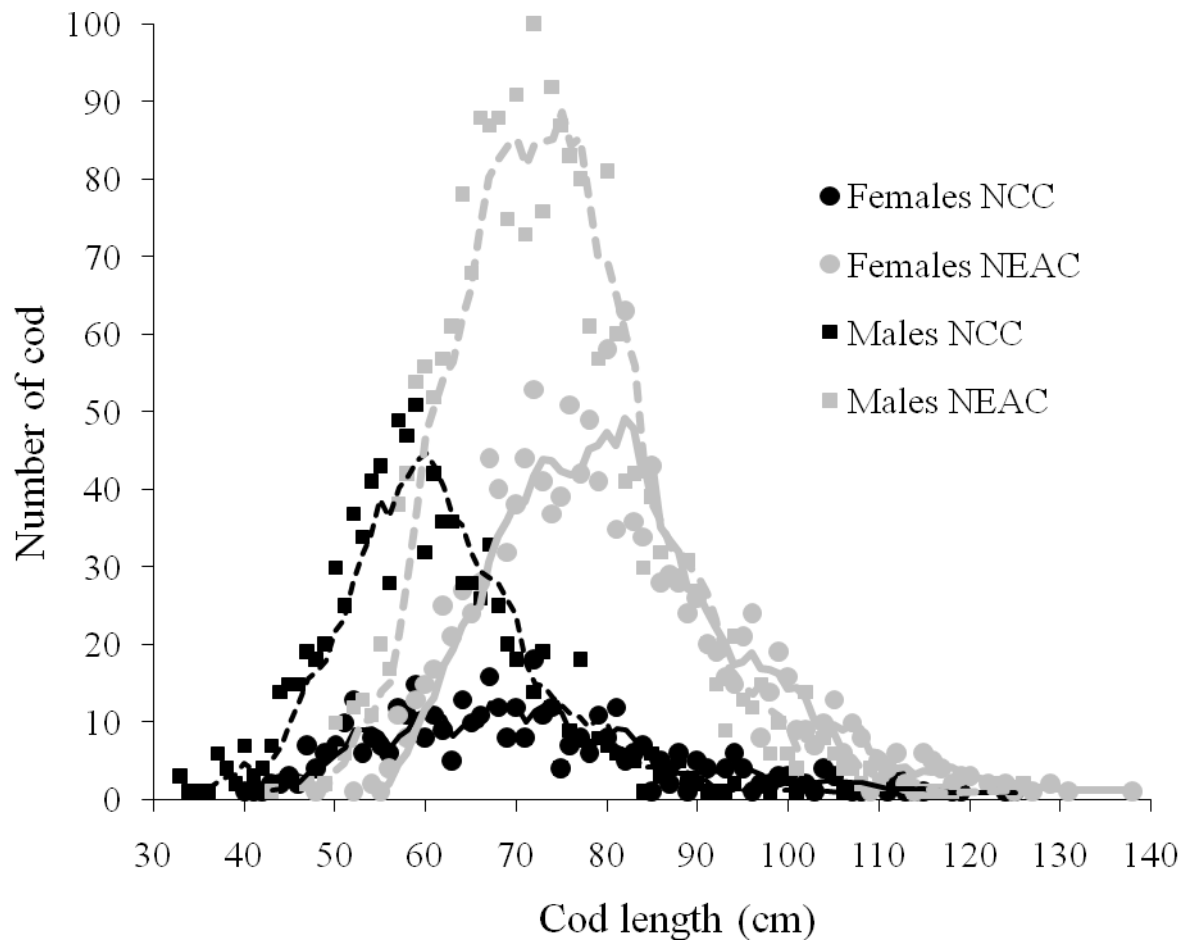


Figure 1.



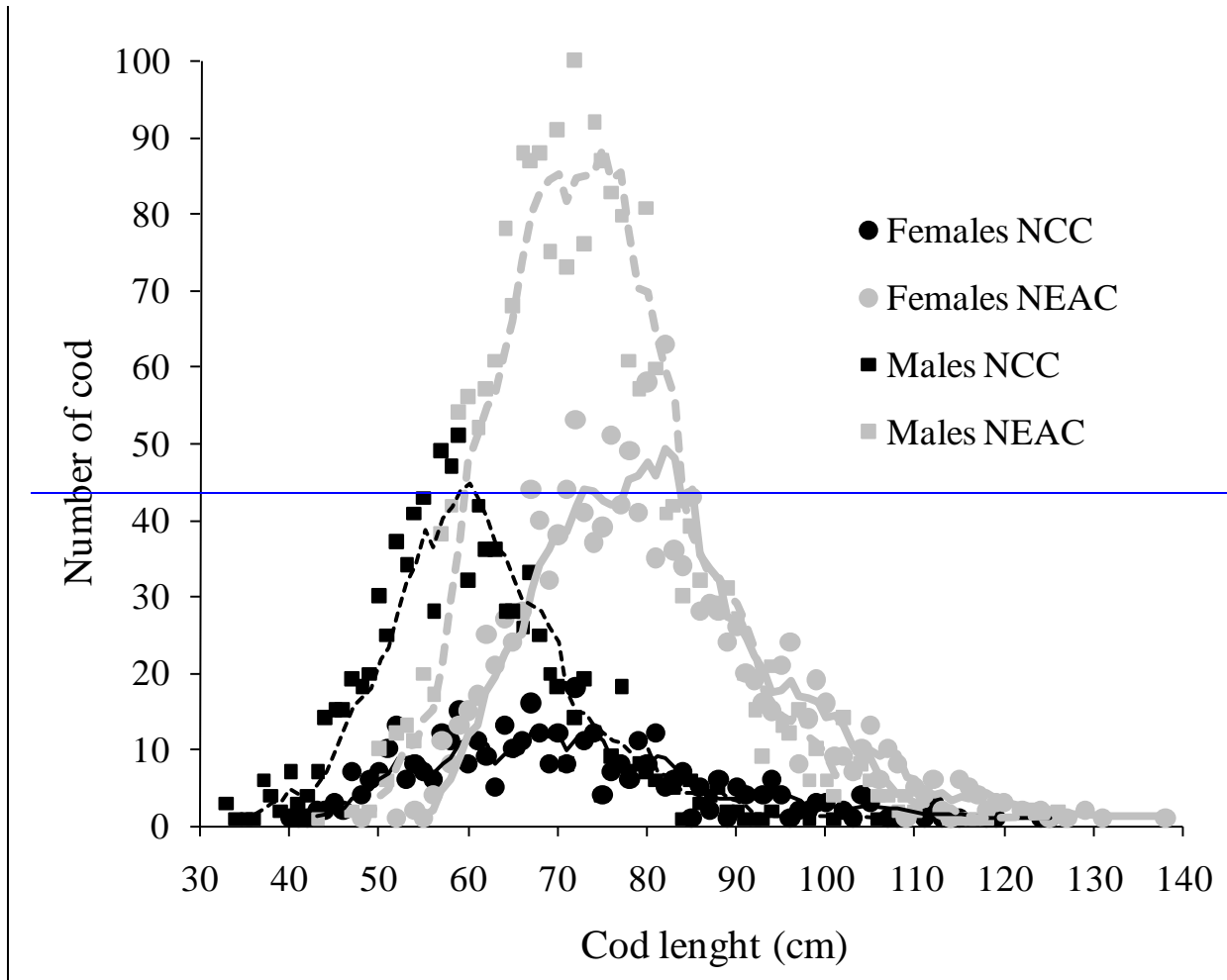


Figure 2.

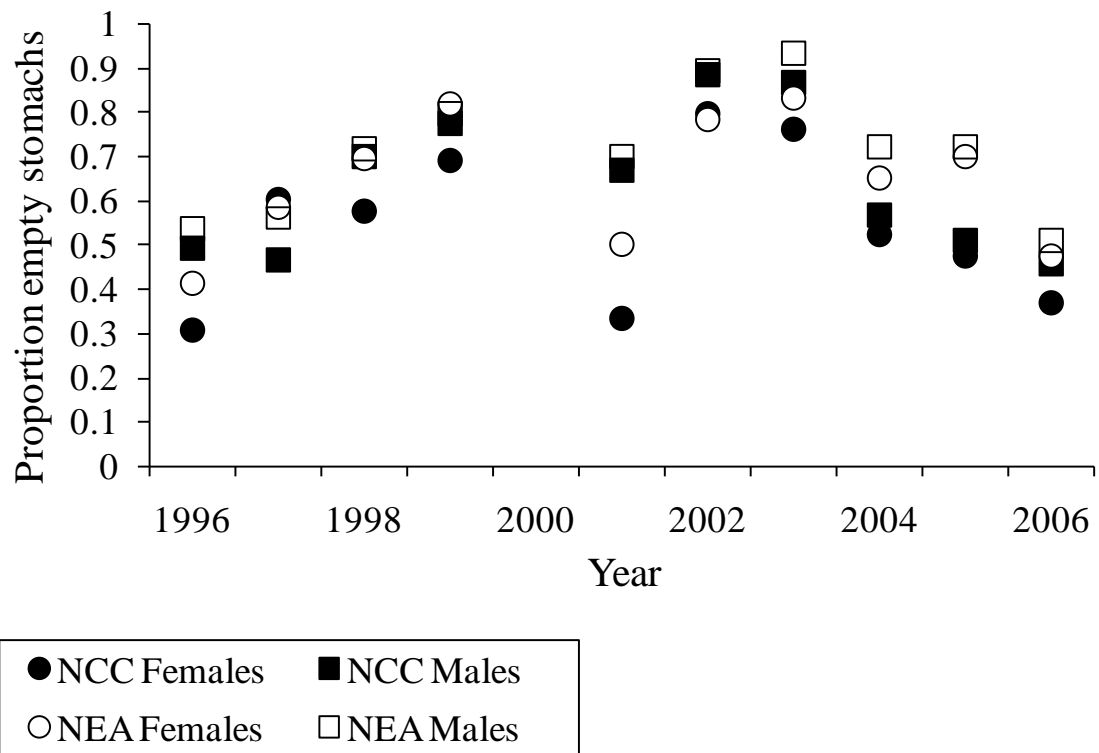
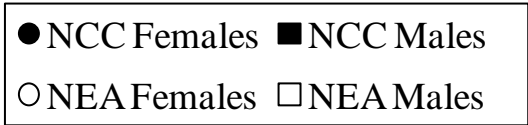
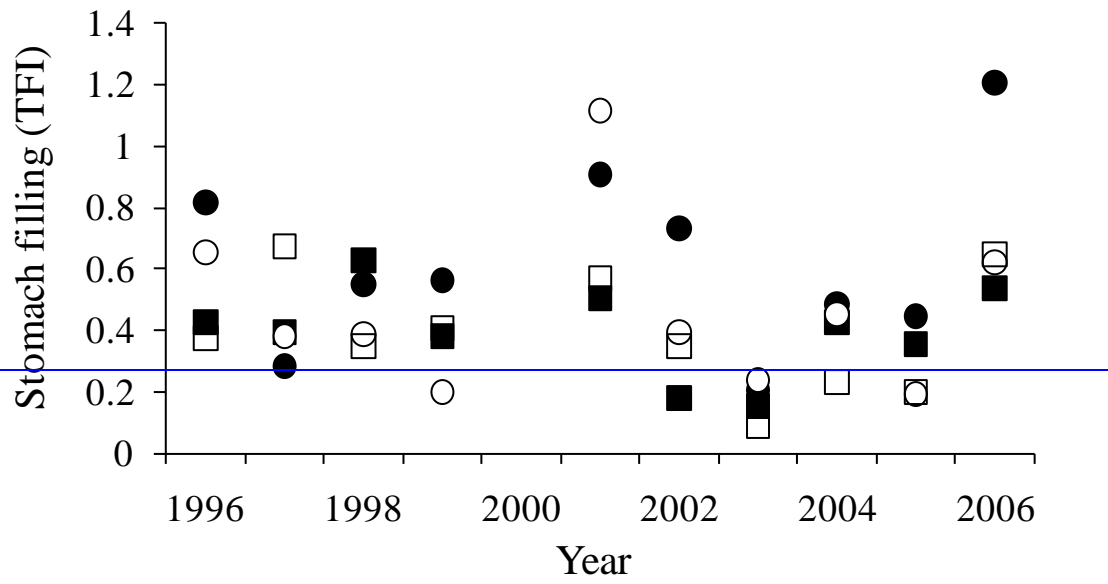


Figure 3.



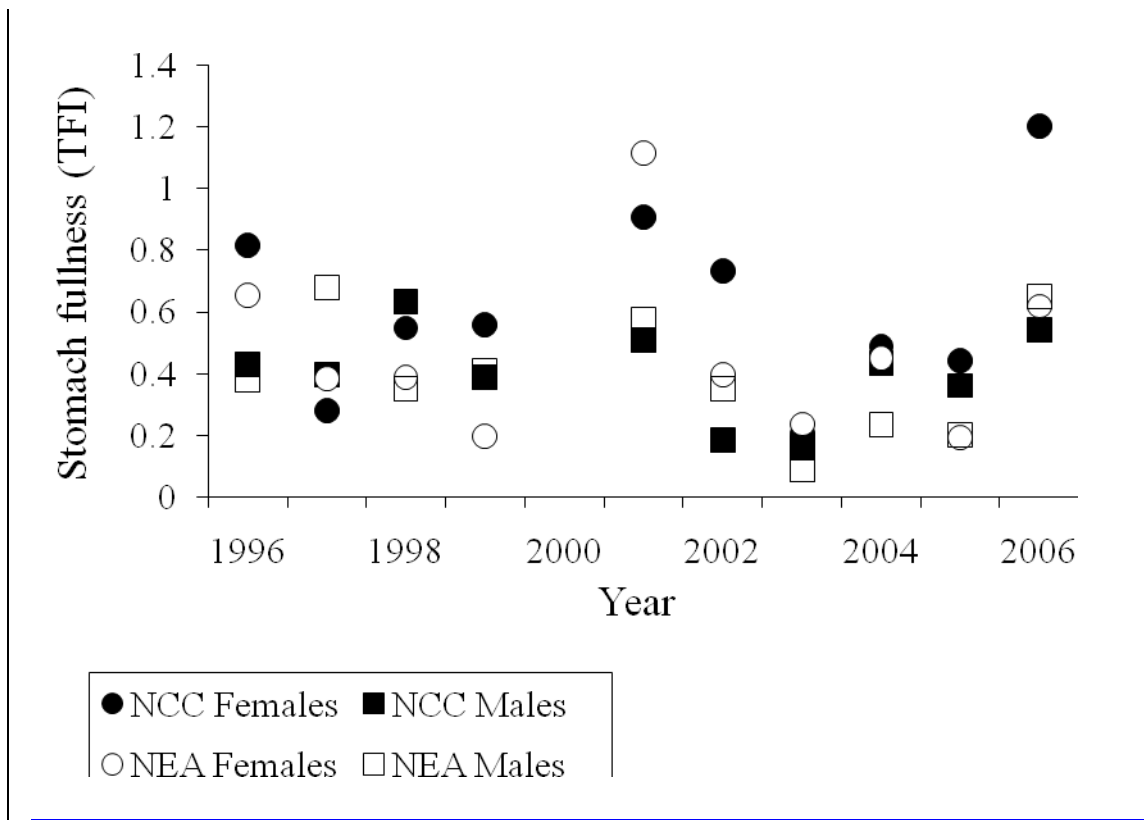
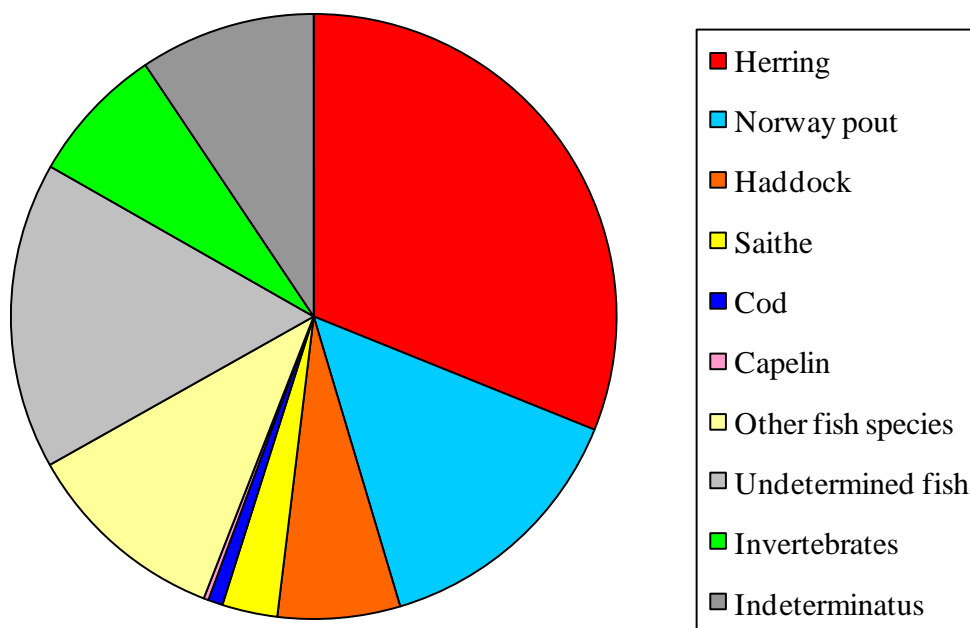


Figure 4.

Diet composition of NCC



Diet composition of NEAC

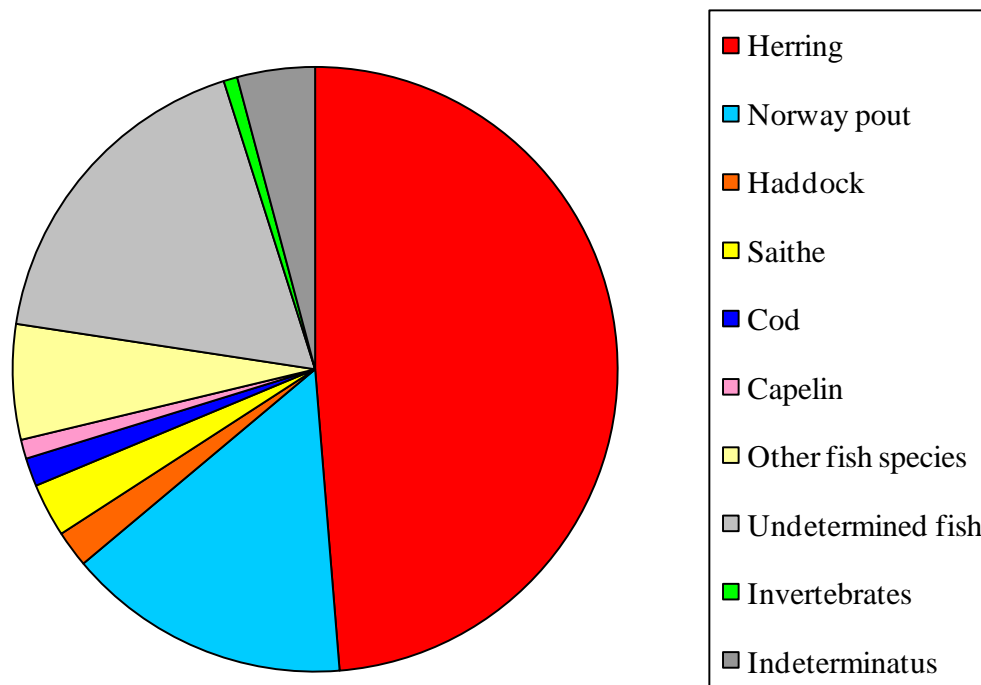


Figure 5

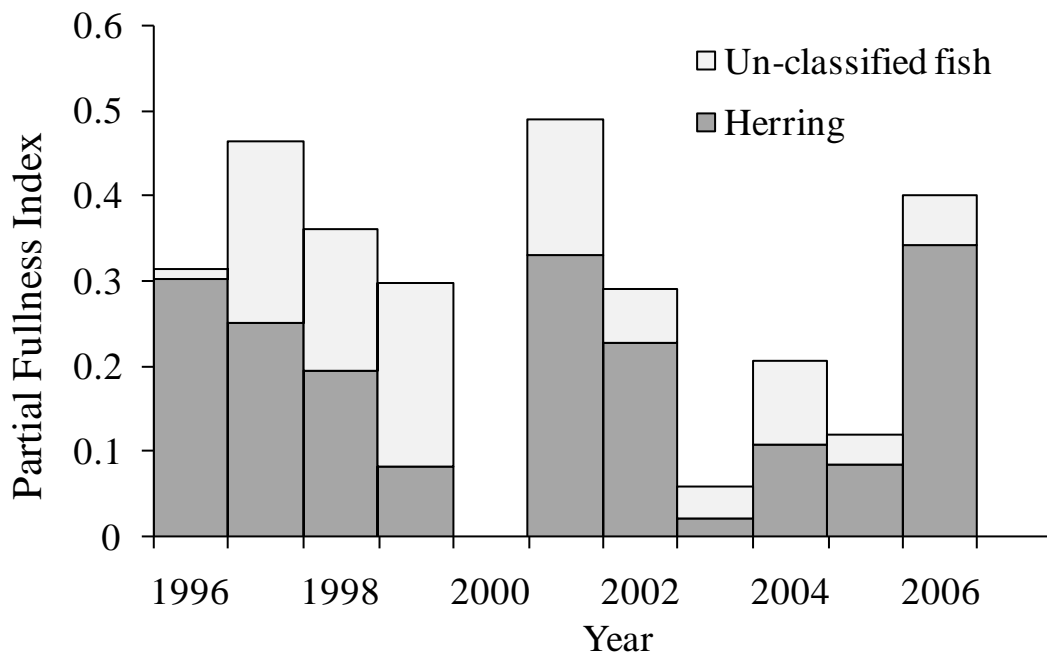


Figure 6.

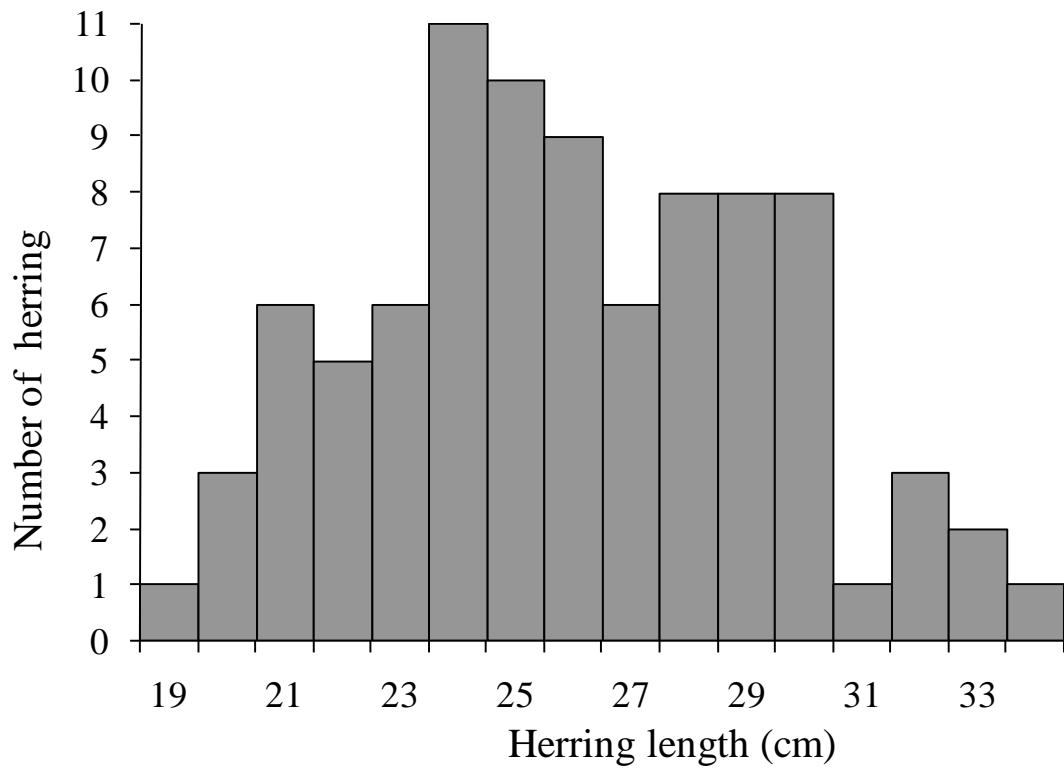


Figure 7.

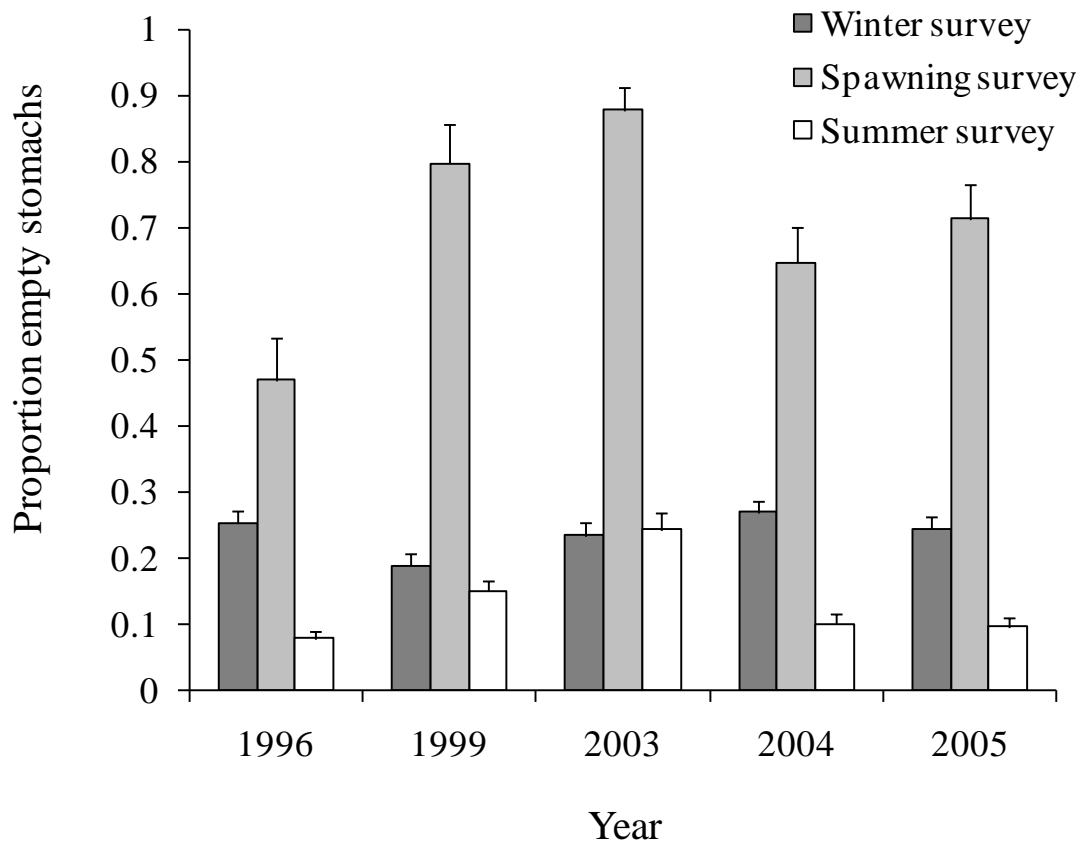


Figure 8.

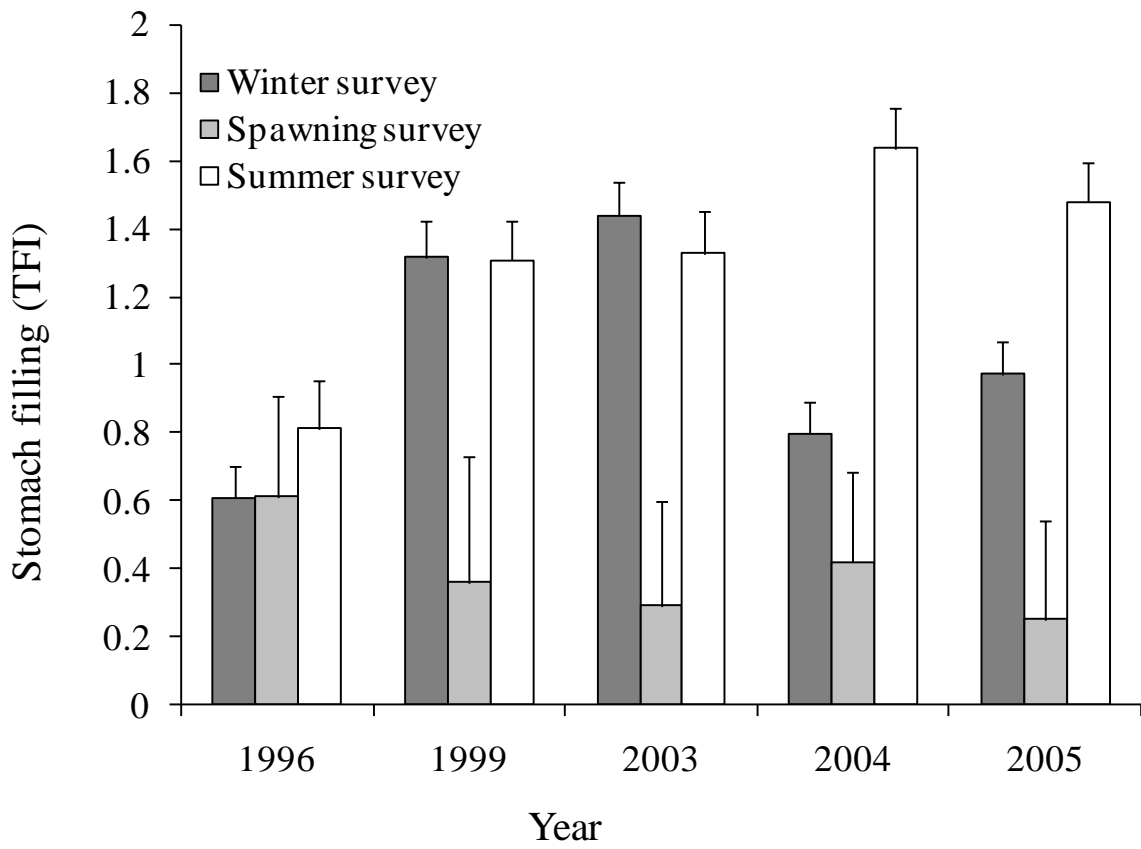


Figure 9.