

## Appendix K. Georges Bank winter flounder by Lisa Hendrickson

Table K1. Number of observed trips, by fleet and quarter, included in the discard estimates of GB winter flounder, 1989-2007.

Year	Large mesh otter trawl					Small mesh groundfish otter trawl					Scallop dredge/otter trawl				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
1989	2	8	3	4	17		3	10	2	15					0
1990	4	3	4	2	13		2	6		8					0
1991	8	1	1	3	13	1		7		8				1	1
1992	9	4		3	16			5	1	6	1	2	1	2	6
1993	4	10		3	17			1		1	2	2	2	2	8
1994	10	6	3	3	22		1		1	2		1	1	3	5
1995	18	9	5	5	37	2		1		3	1		2		3
1996	3	9		1	13	1	1			2	1	1	1	1	4
1997	3		3		6		1			1	1	2	2	1	6
1998	3		2		5	1				1		2	1	1	4
1999		2	2	3	7	1				1		4	12	3	19
2000	4	2	5	6	17	3			2	5		25	64	90	179
2001	8	5	6	7	26	2	3	1	1	7	16				16
2002	5	6	15	22	48		1	2	4	7			4		4
2003	28	33	22	24	107	3	4	5	3	15			1	1	2
2004	32	36	43	43	154		5	8	4	17	2		3	25	30
2005	157	212	82	118	569	19	23	14	23	79	5	3	34	20	62
2006	95	87	91	30	303	8	3	4	3	18	6	8	40	14	68
2007	51	95	63	93	302	4	5	2	1	12	5	12	31	11	59

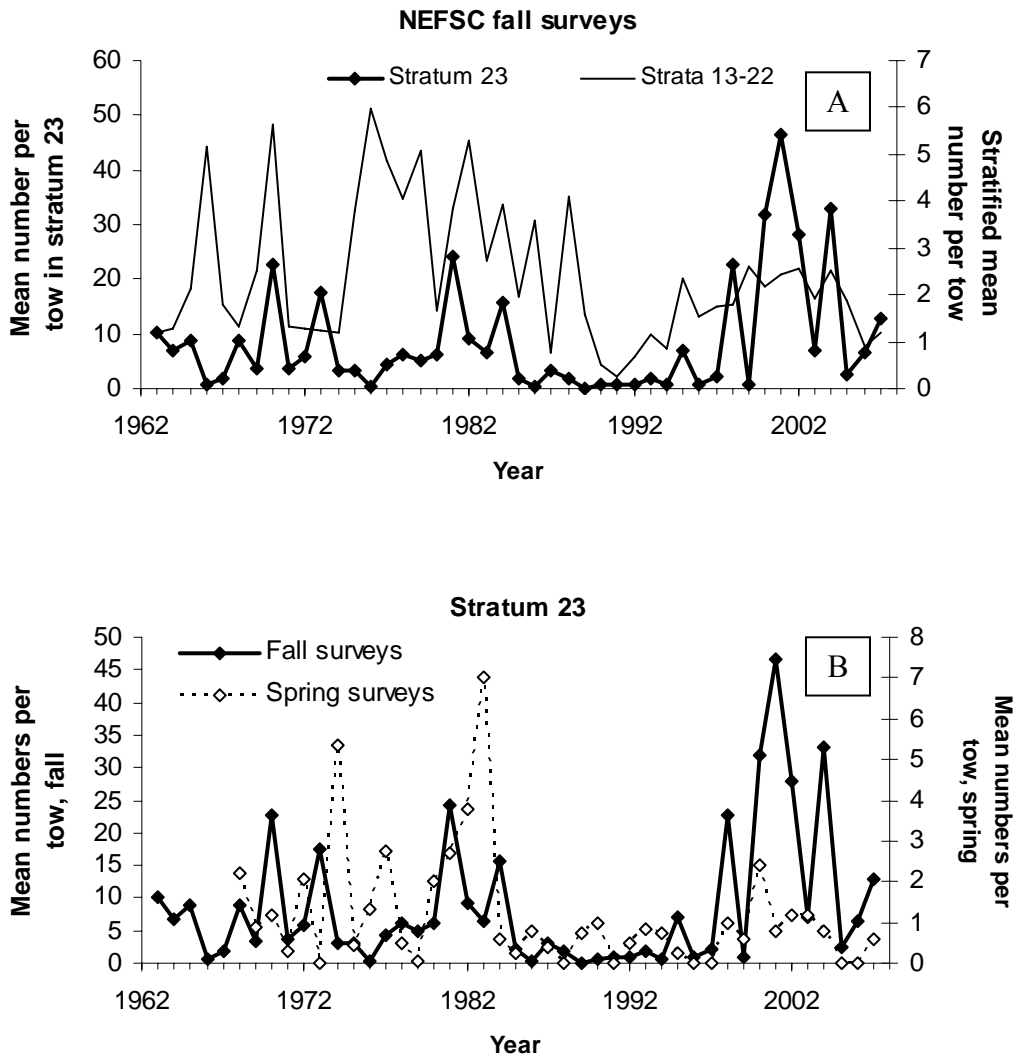


Figure K1. Trends in (A) relative abundance indices for winter flounder caught during NEFSC fall surveys in Georges Bank strata 13-22 versus stratum 23 and (B) relative abundance of winter flounder caught in stratum 23, during NEFSC fall and spring surveys, 1963-2007.

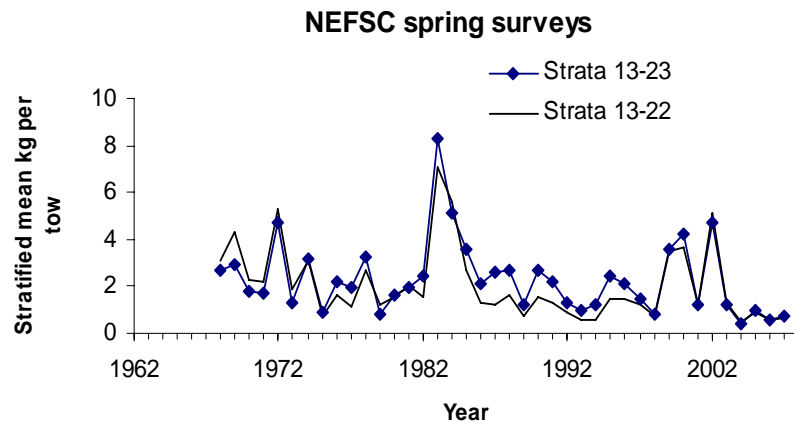
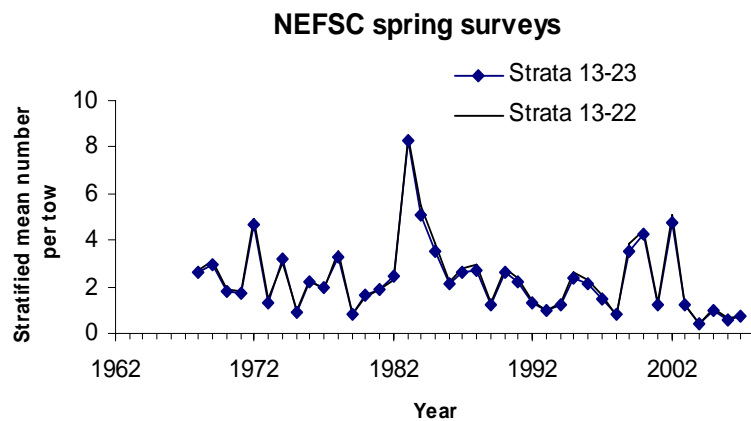
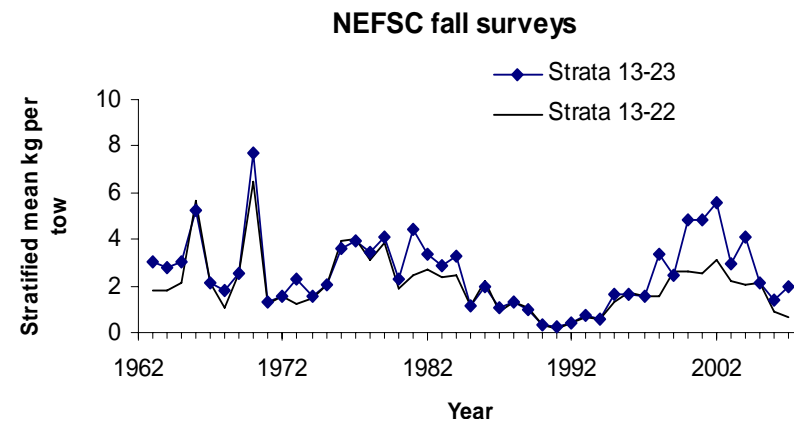
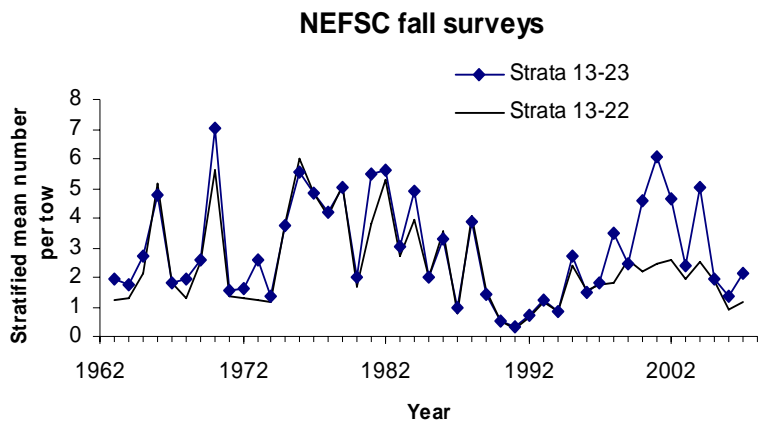


Figure K2. Relative biomass (stratified mean kg per tow) and abundance (stratified mean numbers per tow) indices for Georges Bank winter flounder caught during NEFSC spring (1968-2007) and autumn (1963-2007) bottom trawl surveys. Survey indices were computed using data from strata 13-23 versus strata 13-22 and standardization coefficients for gear changes (weight = 1.86 and numbers = 2.02) and trawl door changes (weight = 1.39 and numbers = 1.46) were applied to all sets of survey indices.

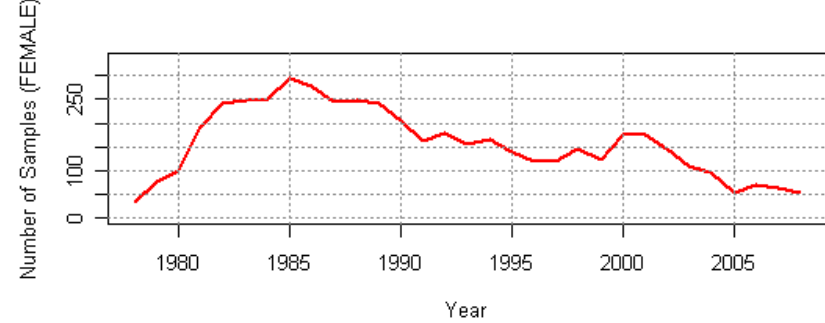
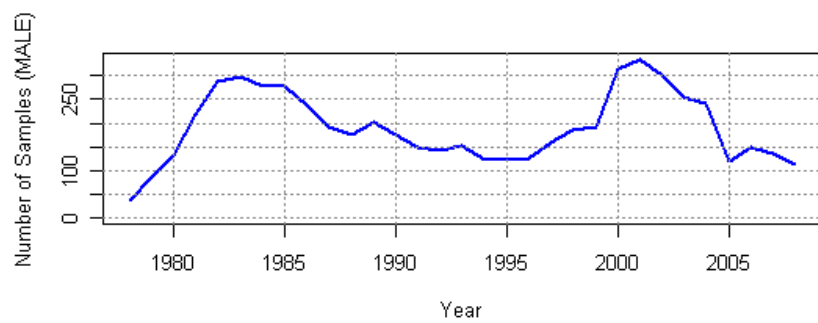
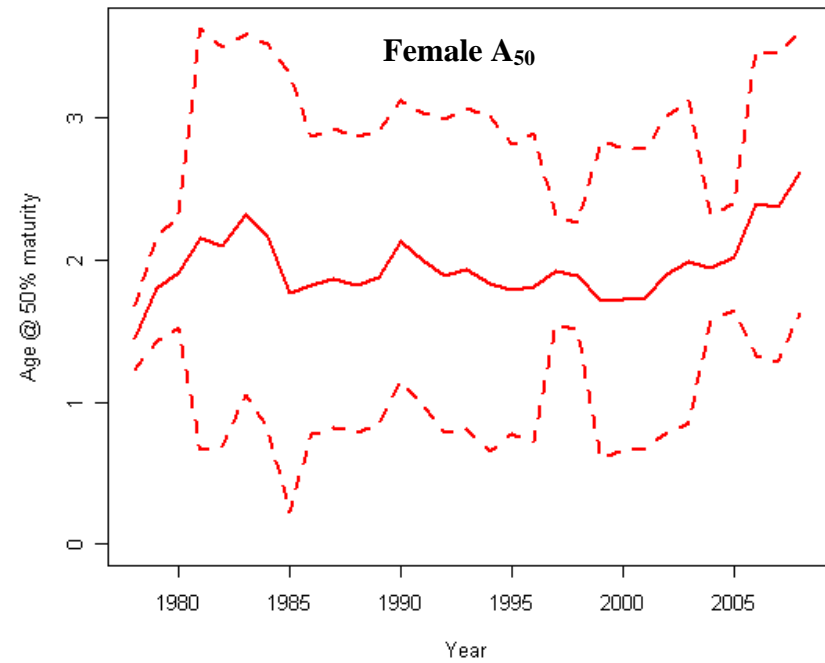
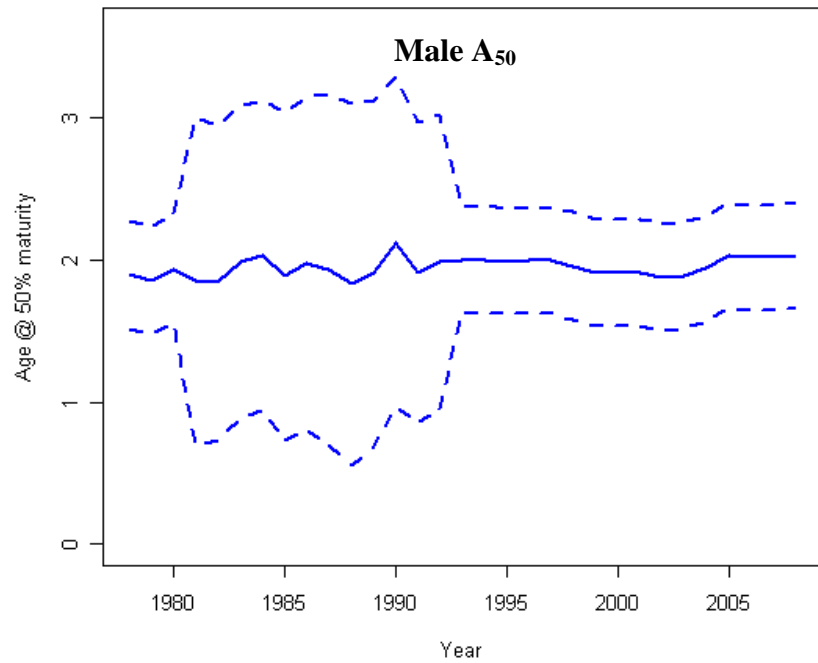


Figure K3. Trends in male and female ages at 50% maturity ( $A_{50}$ ), and 95% confidence intervals, along with sample sizes for Georges Bank winter flounder based on catches from NEFSC spring bottom trawl surveys conducted during 1978-2008.

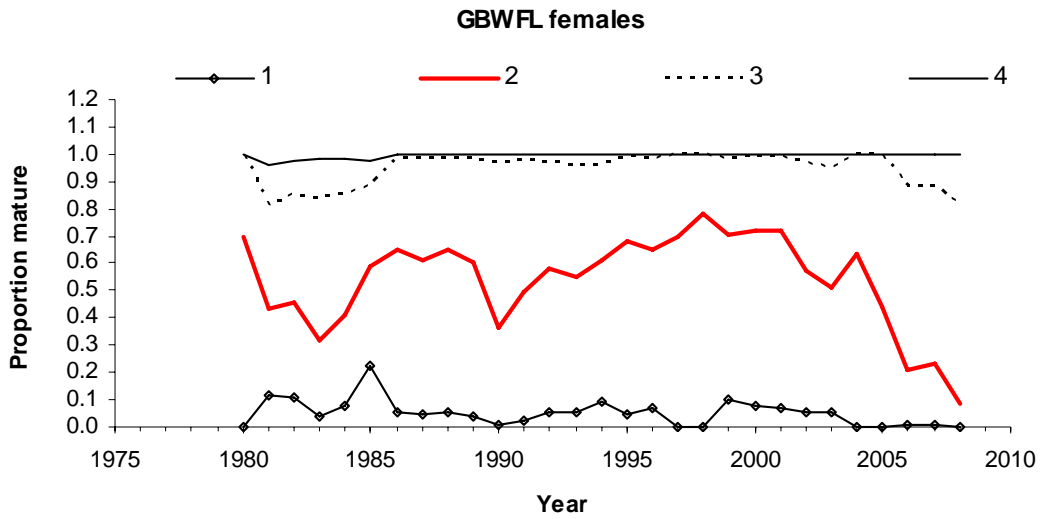


Figure K4. Trends in female proportion mature at age for ages 1-4 winter flounder caught on Georges Bank during NEFSC spring bottom trawl surveys conducted during 1980-2008.

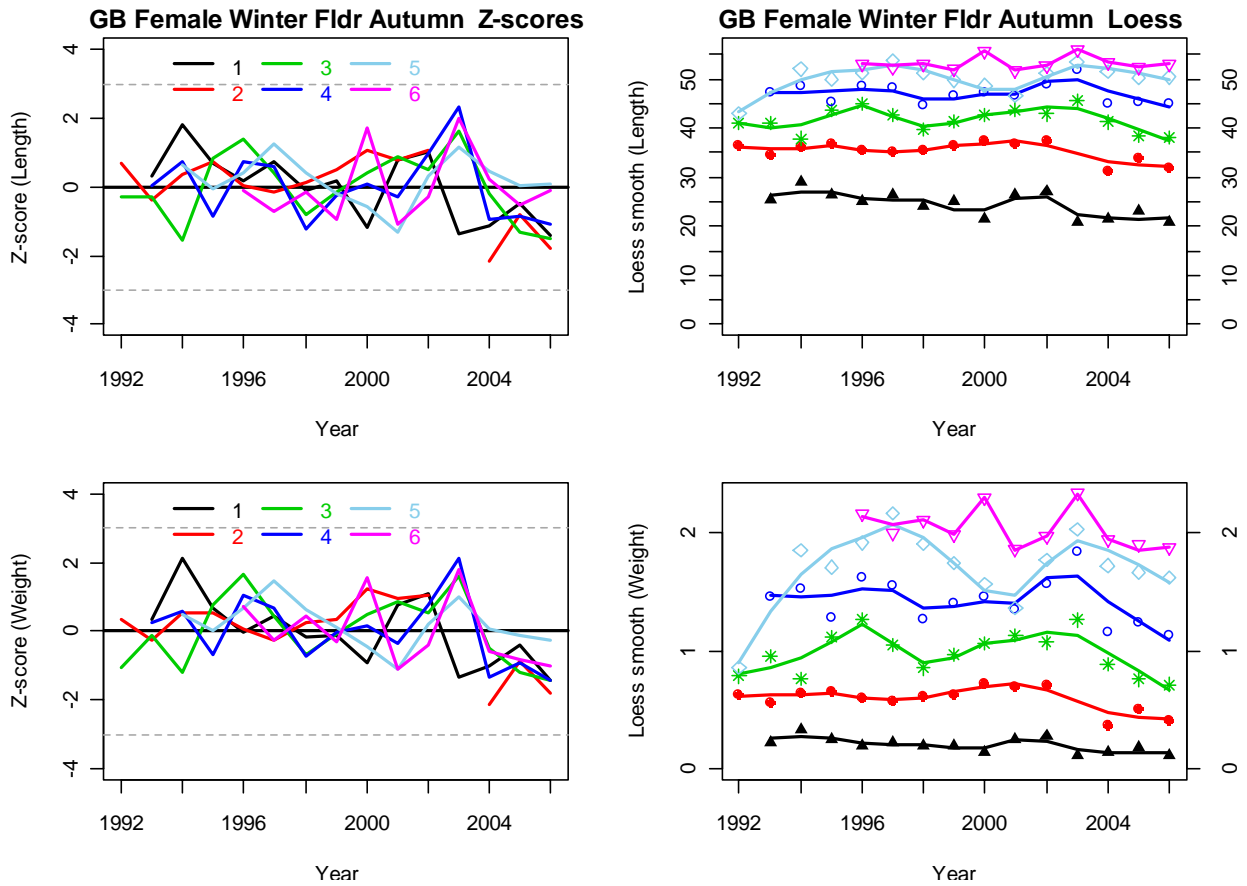


Figure K5. Trends in female mean length and mean weight for ages 1-6 winter flounder caught on Georges Bank during NEFSC fall bottom trawl surveys conducted during 1992-2006.