

**CATCH LIMITS FOR
INDIVIDUAL PURSE-SEINE
VESSELS TO REDUCE
FISHING MORTALITY ON
BIGEYE TUNA IN THE
EASTERN PACIFIC OCEAN.**

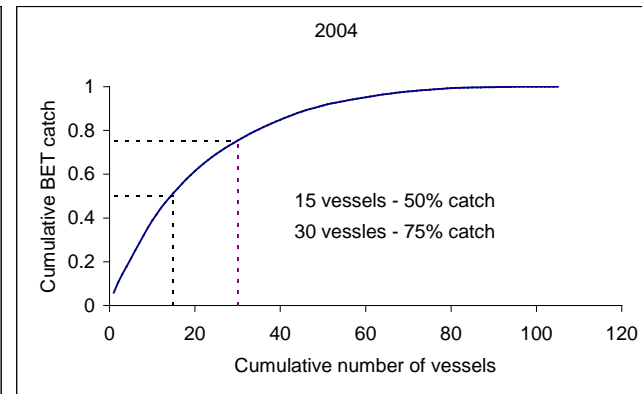
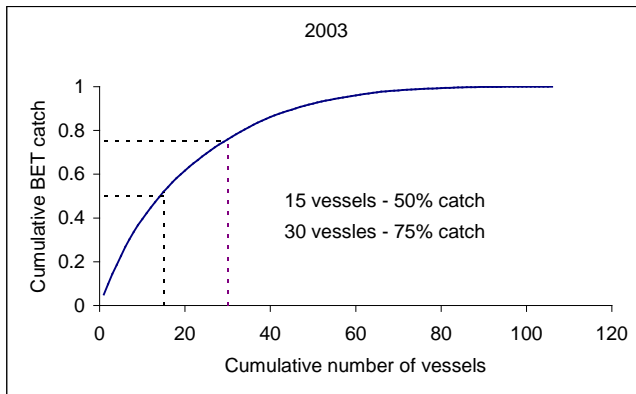
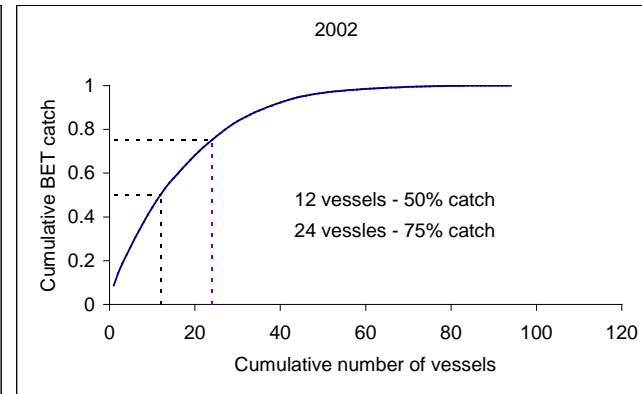
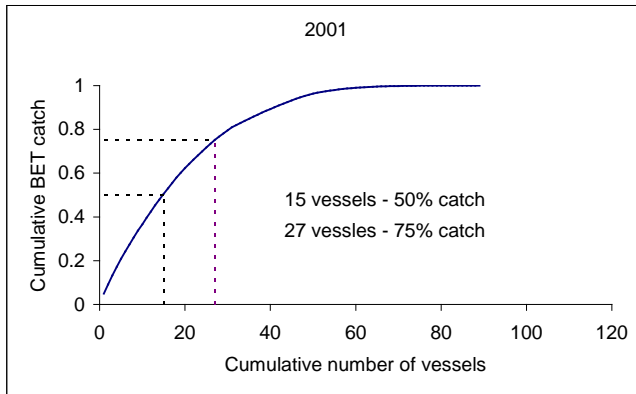
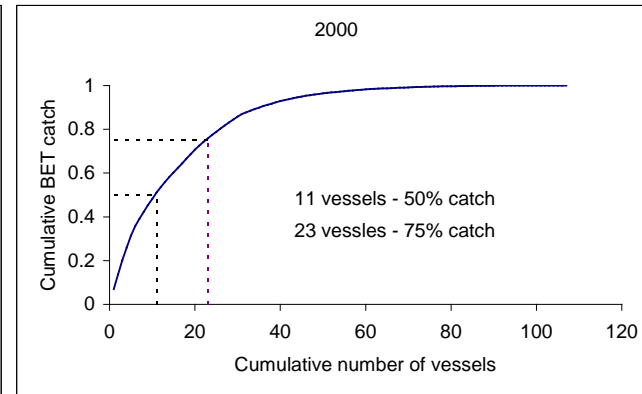
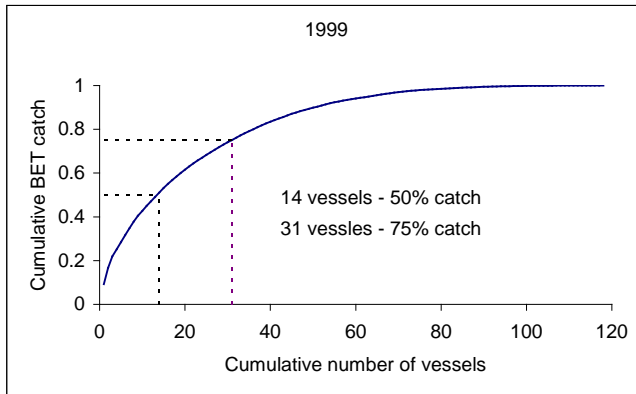


Methods

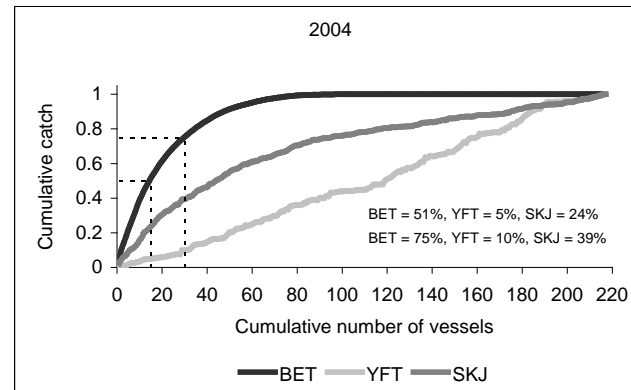
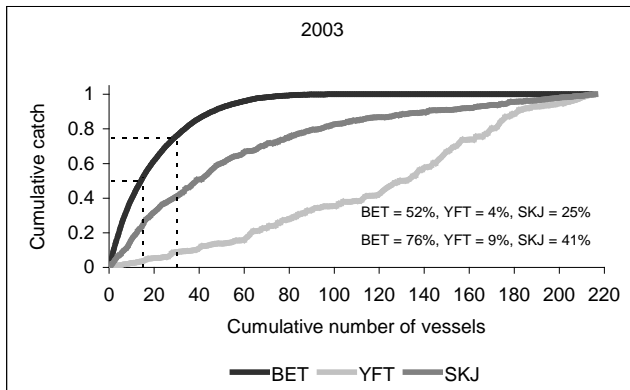
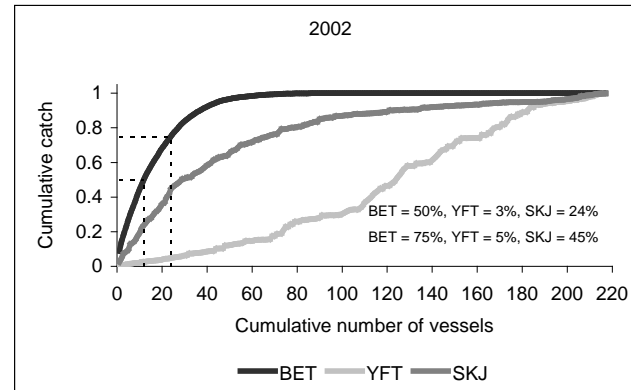
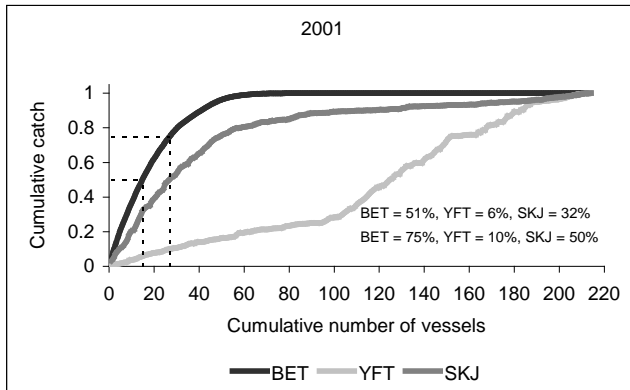
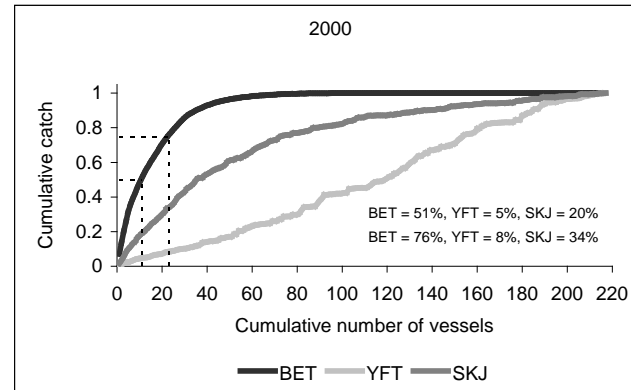
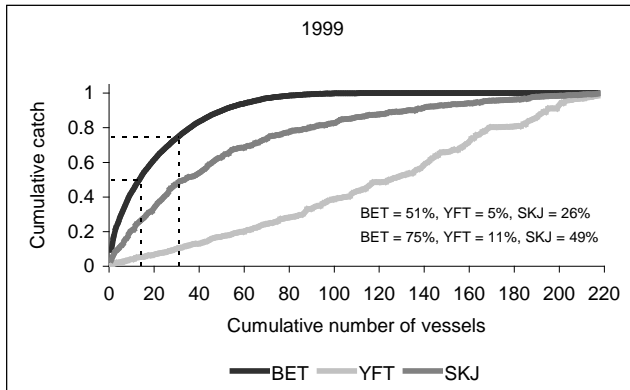
- Based on trip records
- Data for each vessel is summed to provide total catch of bigeye, yellowfin, and skipjack for each year for each vessel.
- 1) Determine the number of vessels that capture the majority of bigeye catch.
 - Order the data by descending catch of bigeye.
- 2) Investigate individual vessel catch limits.
 - Assuming that catch occurs at a constant rate throughout the year
 - Fishing stops as soon as the bigeye limit is taken.



Number of vessels that capture the majority of bigeye

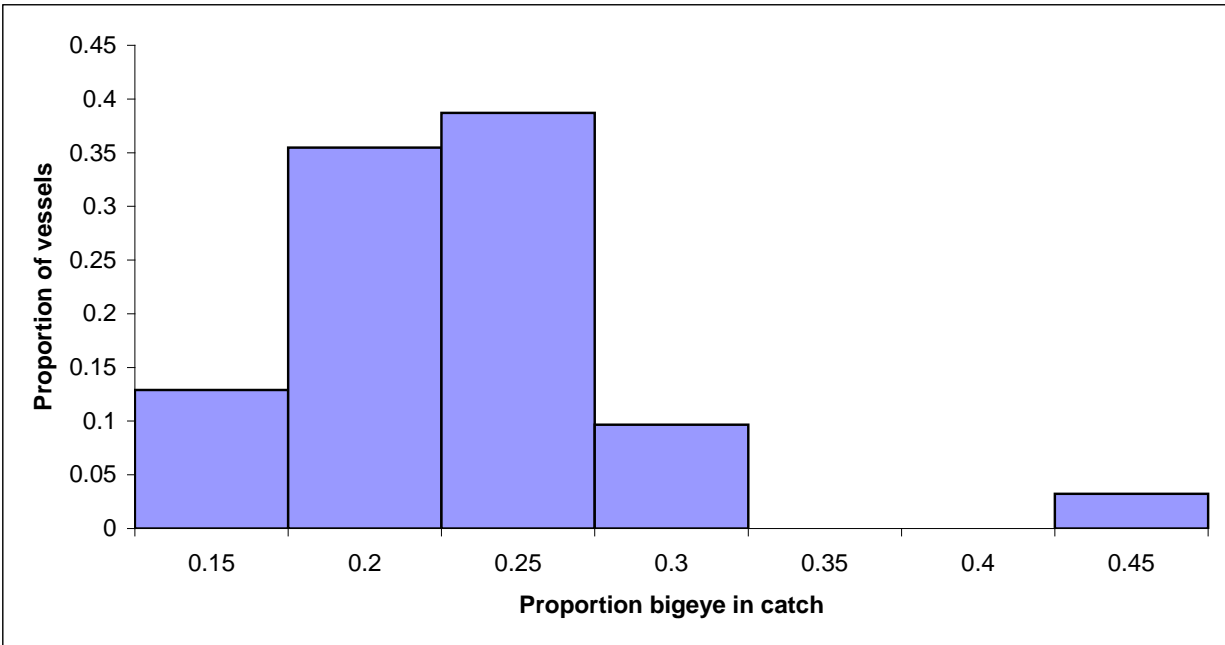
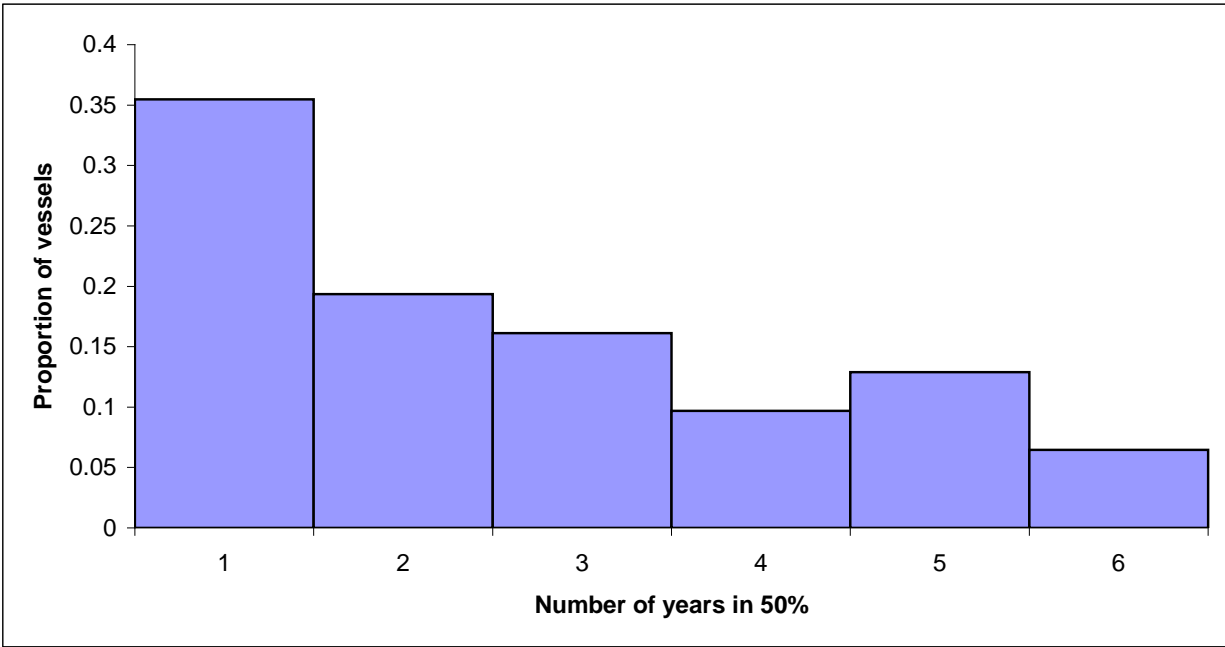


Catch of other species

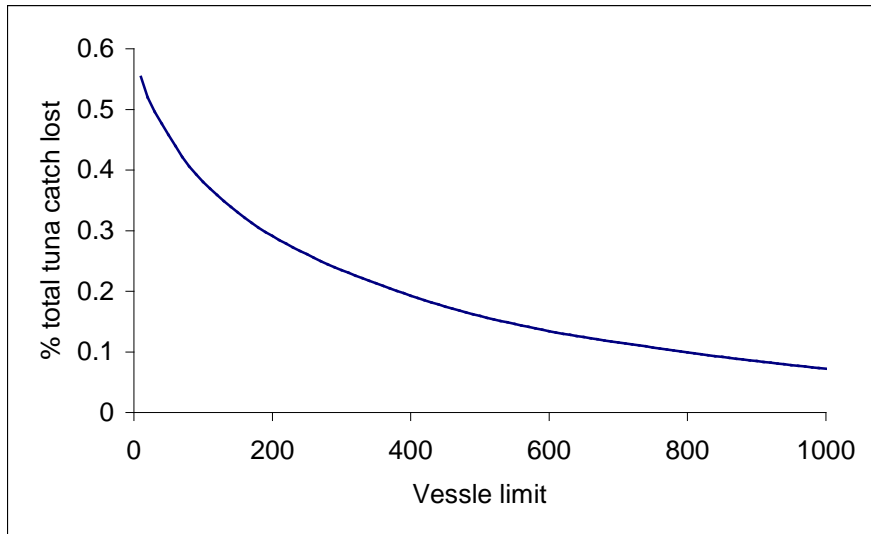
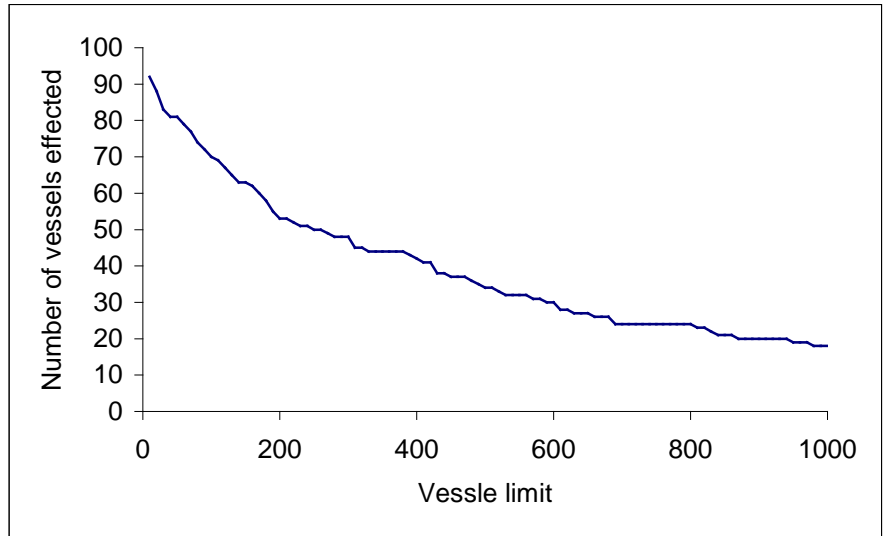
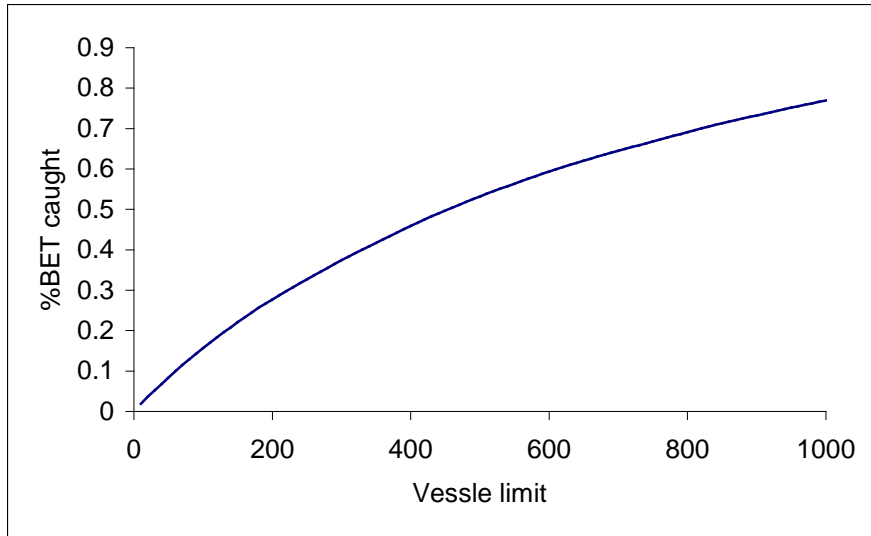


Number of vessels that capture the majority of bigeye

	50% of the BET catch				75% of the BET catch			
	Vessels	%BET	%YFT	%SKJ	Vessels	%BET	%YFT	%SKJ
1999	14	51	5	26	31	75	11	49
2000	11	51	5	20	23	76	8	34
2001	15	51	6	32	27	75	10	50
2002	12	50	3	24	24	75	5	45
2003	15	52	4	25	30	76	9	41
2004	15	51	5	24	30	75	10	39



Vessel limits – 2004 data



Vessel limits – 50% bigeye reduction

	Limit	Vessels	Lost catch %
1999	350	39	0.19
2000	889	30	0.17
2001	474	31	0.16
2002	459	30	0.12
2003	416	38	0.16
2004	454	37	0.17