



Indian Ocean Tuna Commission
Commission des Thons de l'Océan Indien



Fisheries Indicators For Tropical Tunas

IOTC Secretariat

(October 2008)

Bigeye tuna

(Data as of October 2008)

Table 1. Best scientific estimates of the catches of bigeye tuna by gear and main fleets for the period 1958-2007 (in thousands of tonnes).

Gear	Fleet	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84
Purse seine	Spain																											0.8
	France																								0.0	0.0	0.2	2.3
	NEI-Other																										0.0	0.5
	Other Fleets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5
	Total																						0.0	0.0	0.0	0.0	0.1	0.6
Longline	China																											
	Taiwan,China	1.5	1.5	1.3	1.9	1.2	1.7	1.8	1.4	2.2	2.3	7.2	8.0	10.0	5.6	5.5	4.0	6.0	5.3	4.2	6.2	4.9	7.4	8.9	6.8	11.3	11.3	10.9
	Japan	10.2	8.4	14.8	13.0	17.3	11.6	16.0	17.6	21.4	21.8	23.6	14.4	12.7	11.2	8.3	5.2	6.9	5.5	2.1	3.1	10.9	4.2	5.9	7.8	11.4	18.3	14.0
	Indonesia																0.0	0.2	0.4	0.3	0.3	0.4	0.4	0.5	0.5	0.8	1.9	2.4
	Seychelles																										0.0	0.1
	Korea, Republic of								0.2	0.2	0.6	6.8	7.6	3.5	4.9	4.9	7.3	14.7	26.2	21.8	26.1	34.1	21.5	19.3	19.4	19.5	17.4	11.8
	Other Fleets	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.4	0.1	1.9	0.5	1.6	1.3	1.2	1.0	0.6	0.2	0.1	0.2	0.2	0.0	0.2	0.3	0.3	0.5	0.6
	Total	11.7	9.9	16.1	15.0	18.5	13.3	18.0	19.5	24.1	24.8	39.5	30.5	27.8	23.0	20.0	17.4	28.4	37.7	28.6	35.9	50.6	33.5	34.9	34.8	43.4	49.5	39.7
Other gears	Total	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.4
All	Total	11.7	9.9	16.1	15.0	18.5	13.4	18.1	19.6	24.2	24.8	39.6	30.5	27.9	23.0	20.1	17.6	28.5	37.8	28.7	36.1	50.7	33.6	35.0	35.1	43.6	50.3	44.1

Gear	Fleet	Av03/07	Av58/07	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	
Purse seine	Spain	9.4	3.8	1.3	1.8	5.0	6.8	5.9	4.9	6.0	3.6	5.4	5.9	12.2	11.4	15.9	11.2	16.0	11.3	7.8	10.9	8.5	8.6	10.3	10.0	9.8	
	France	5.8	2.8	4.3	7.1	7.0	6.2	3.6	4.6	5.4	3.8	5.0	5.4	7.3	6.9	7.8	6.4	8.5	6.7	5.5	7.3	5.3	5.8	6.5	5.3	6.1	
	Seychelles	4.0	0.7							0.0	0.0					0.9	2.0	3.0	1.8	2.8	3.7	3.4	4.4	4.8	3.5	3.9	
	Thailand	1.5	0.2																0.2	0.1				1.6	4.0	1.7	
	NEI-Ex-Soviet Union	1.3	0.5						0.0		0.4	1.0	0.3	1.3	1.1	1.2	1.9	3.9	2.9	2.6	0.7	2.4	2.2	1.4	0.7		
	NEI-Other	1.0	1.1	0.6	1.0	0.8	0.8	0.5	1.0	1.5	0.9	1.9	2.5	3.4	3.4	6.2	5.2	7.5	6.0	3.1	4.1	2.4	0.9	0.6	0.6	0.5	
	Other Fleets	0.9	0.8	0.9	0.7	0.7	1.3	2.0	2.2	2.6	2.5	2.6	4.8	4.2	1.7	2.0	1.6	1.7	1.1	1.8	2.4	0.8	0.5	0.8	0.7	1.8	
	Total	23.9	9.9	7.2	10.6	13.4	15.1	12.0	12.7	15.6	11.3	16.0	18.9	28.4	24.5	34.0	28.3	40.7	29.9	23.7	29.0	22.8	22.4	26.1	24.7	23.7	
	China	7.5	1.1											0.2	0.6	1.7	2.3	2.4	2.8	3.1	2.8	4.6	8.3	8.9	8.7	7.2	
Longline	Taiwan,China	45.8	18.0	12.2	16.8	17.6	19.4	19.9	20.8	29.0	24.0	39.7	27.8	32.7	29.8	34.1	39.7	37.1	36.4	42.1	50.2	60.0	56.9	40.2	35.8	36.1	
	Japan	13.3	12.5	17.2	15.8	15.5	12.3	7.7	8.2	7.8	5.6	8.3	17.5	17.2	16.5	18.8	17.1	14.0	13.6	13.0	13.9	10.0	10.6	12.5	14.0	19.2	
	Indonesia	9.1	5.8	2.4	0.7	2.4	3.2	4.5	4.5	4.5	7.6	7.9	10.8	12.2	23.2	27.9	26.1	30.5	20.9	21.1	26.3	11.8	10.3	8.8	7.2	7.2	
	Seychelles	5.3	0.6	0.1									0.0	0.0	0.1	0.0	0.1	0.1	0.5	1.0	2.2	3.7	7.0	6.1	4.1	5.6	
	NEI-Deep-freezing	4.4	3.2	0.1	1.1	0.9	2.9	2.8	4.4	5.5	3.8	10.7	8.1	9.7	13.0	10.8	16.7	16.7	14.0	8.3	8.3	5.6	6.5	4.5	2.5	2.9	
	NEI-Fresh Tuna	3.7	1.3					1.9	2.6	2.3	2.6	2.9	4.6	3.8	4.3	5.3	4.7	4.8	4.6	0.6	2.0	2.6	3.4	3.6	4.5	4.5	
	Korea, Republic of	2.5	8.4	12.8	11.9	14.4	17.1	12.2	10.7	2.3	4.8	5.3	8.8	6.6	11.7	11.1	3.6	1.5	3.6	1.6	0.2	1.2	2.5	2.7	3.1	3.1	
	Philippines	1.5	0.3														1.4	1.0	1.3	0.9	0.8	1.4	0.9	1.5	1.8	2.1	
	NEI-Indonesia	0.0	1.5		0.1		2.0	7.5	9.2	9.4	11.4	9.2	11.9	6.5	2.7	2.9	0.2	0.0									
	Other Fleets	3.0	0.7	0.0	0.3	0.3	0.2	0.0	0.0	0.0	0.3	0.5	0.2	0.1	0.2	0.2	0.4	0.9	0.9	2.7	2.5	2.2	2.5	2.9	3.2	3.9	
	Total	96.2	53.3	44.9	46.6	51.2	57.0	56.6	60.4	60.8	60.1	84.5	89.7	88.9	101.9	112.9	112.3	109.0	98.6	94.3	109.2	103.1	109.0	91.7	85.0	91.9	
	Other gears	Total	1.7	0.5	0.3	0.2	0.4	2.2	0.7	0.7	0.7	0.5	0.6	0.7	1.2	0.9	0.9	0.9	1.2	0.6	1.1	1.2	1.3	1.2	1.2	2.4	2.2
	All	Total	121.7	63.7	52.4	57.5	65.0	74.3	69.3	73.8	77.1	71.9	101.1	109.3	118.5	127.4	147.7	141.6	150.8	129.1	119.1	139.4	127.2	132.6	118.9	112.1	117.9

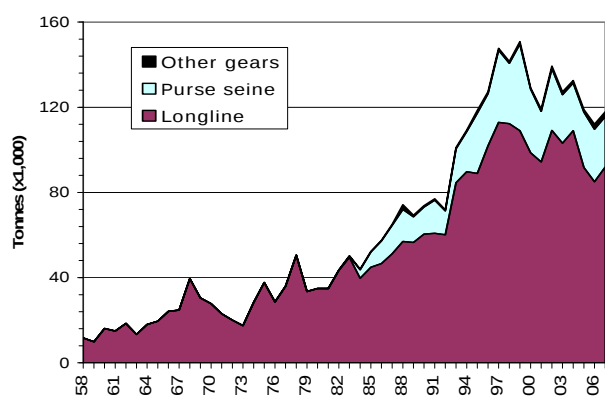


Figure 1. Yearly catches (thousand of metric tonnes) of bigeye tuna by gear from 1958 to 2007

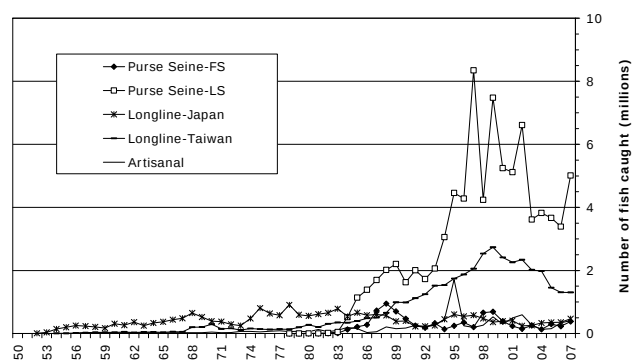


Figure 2. Yearly catches (numbers) of bigeye tuna by gear from 1958 to 2007

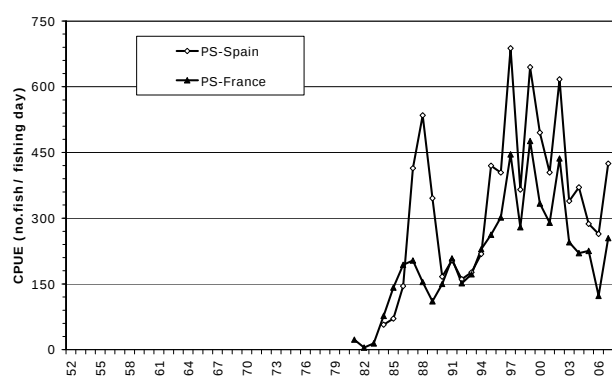


Figure 3. Nominal CPUE for EC purse seine fleets in the Indian Ocean

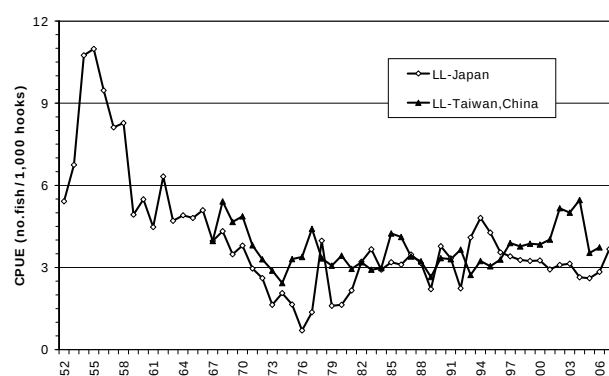


Figure 4. Nominal CPUE for the Japanese and Taiwanese longline fleets in the Indian Ocean

Figure 5: Catches of Bigeye Tuna (tons) in the Indian Ocean for the period 1958- 2007

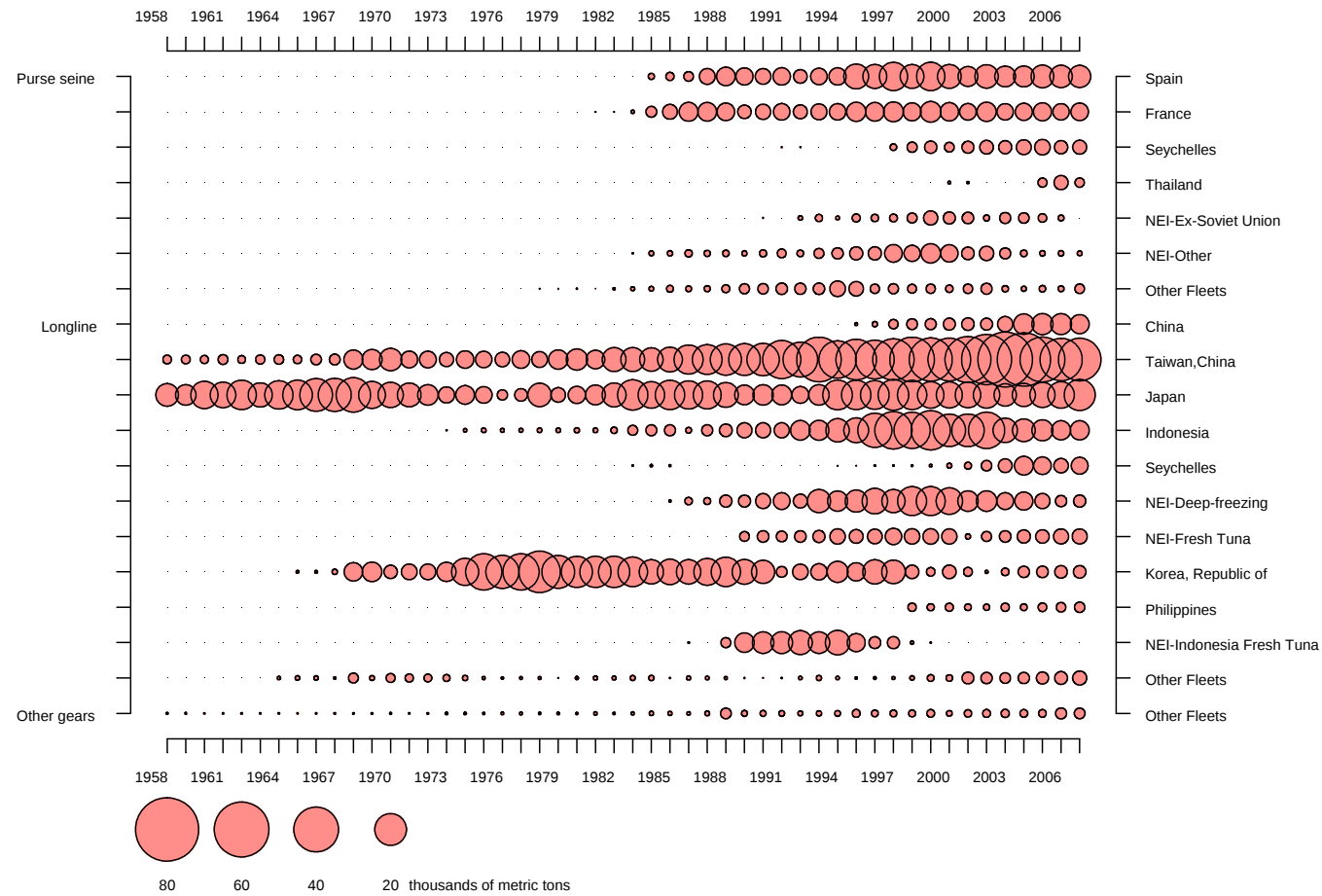


Figure 6: Catches of Bigeye Tuna (tons) by industrial fleets in the Indian Ocean by quarter for the period 1958- 2007

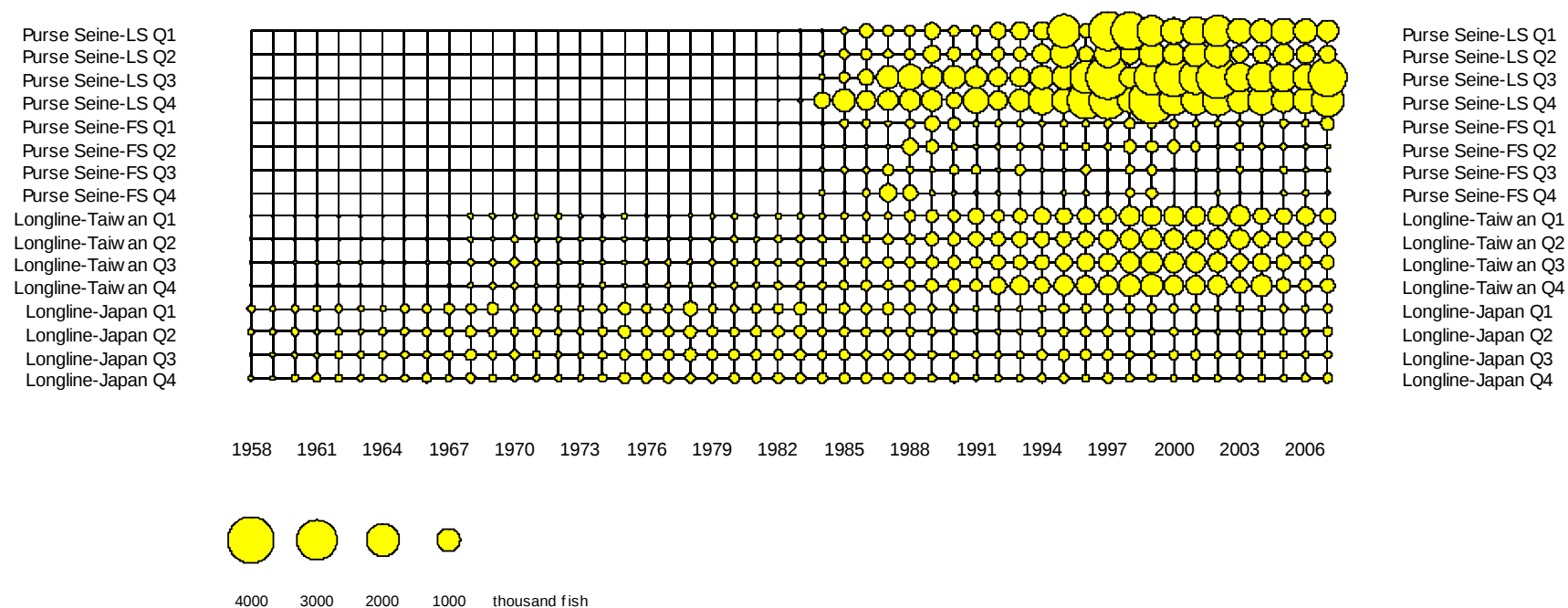
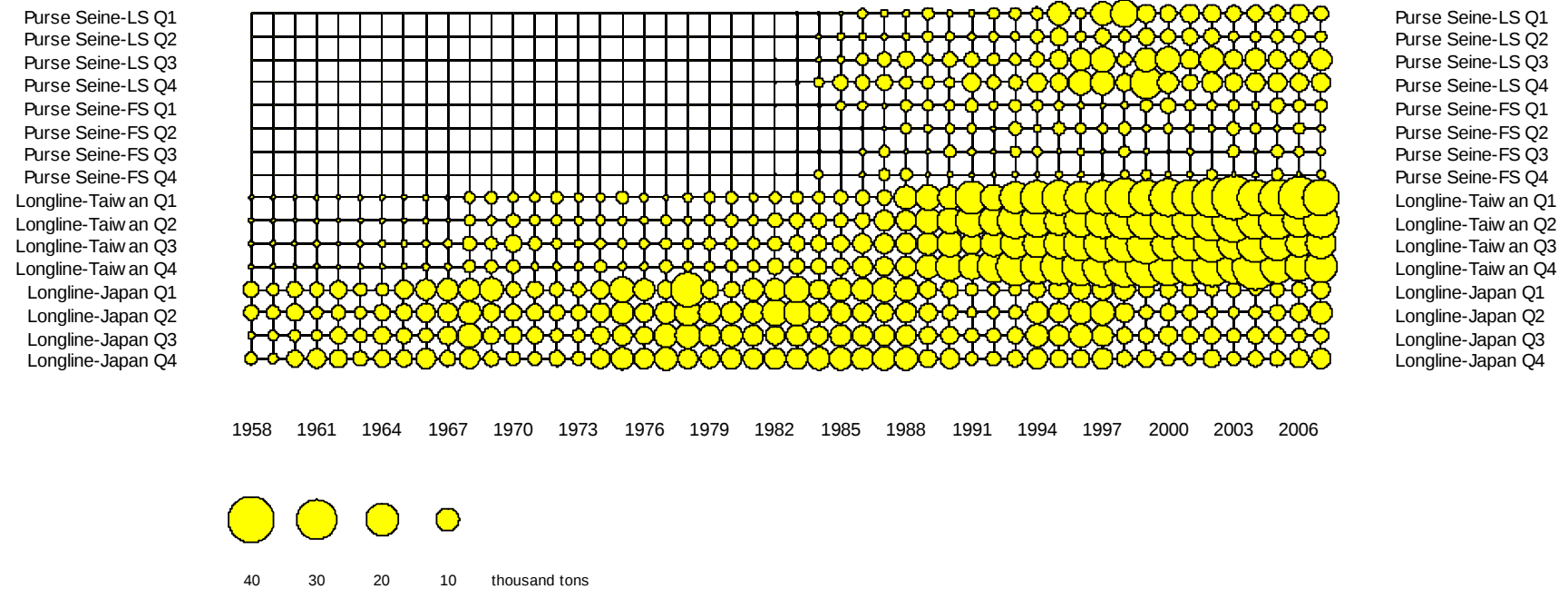


Figure 7: Catches of Bigeye Tuna (numbers) by industrial fleets in the Indian Ocean by quarter for the period 1958- 2007



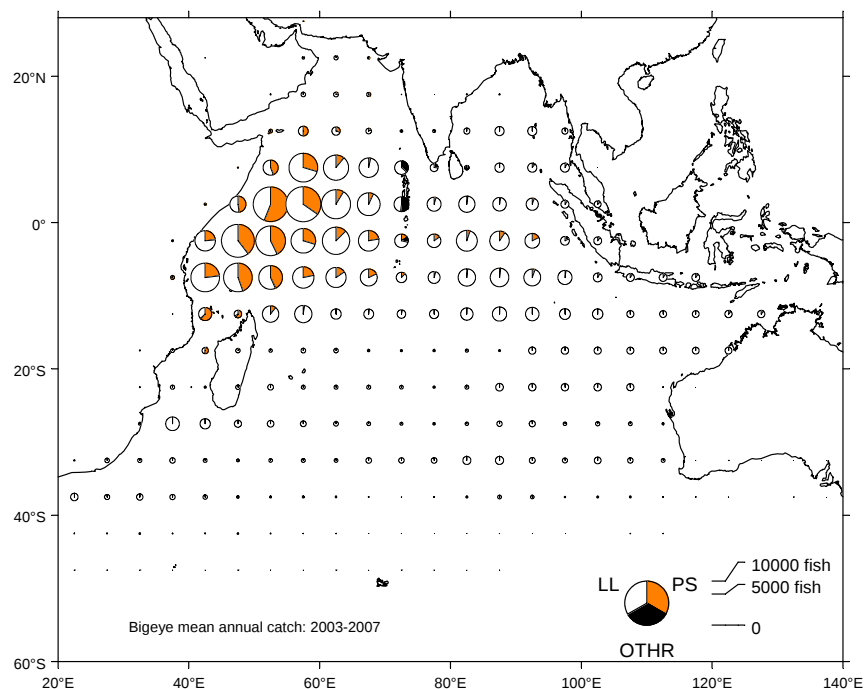
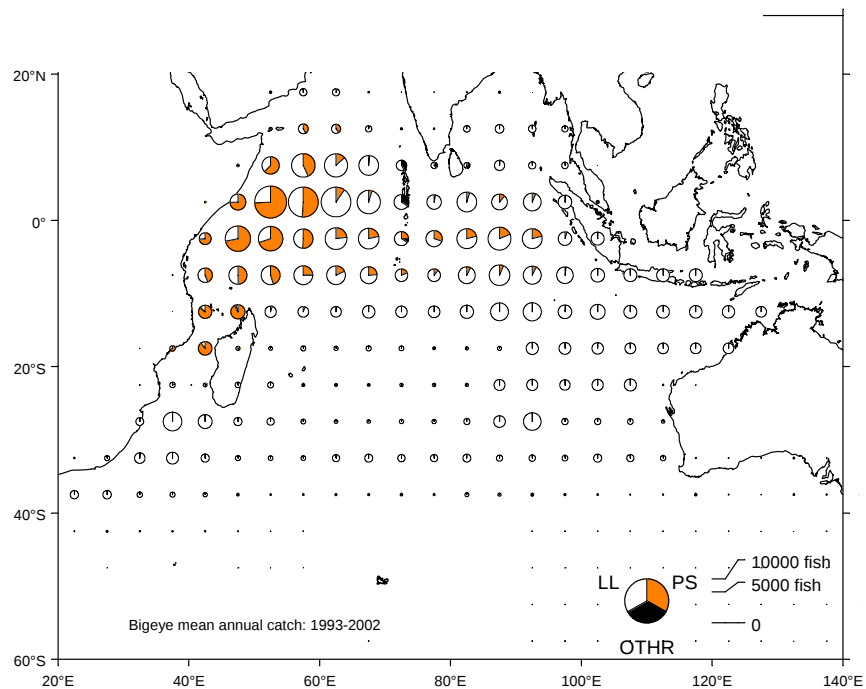


Figure 8-9. Mean of annual total catches of bigeye tuna (t) by longline and purse seine vessels operating in the Indian Ocean over the period 1990 to 1999 (top) and 2000 to 2007 (bottom).

LL = longline, PS = purse seine, OTHR = other gears

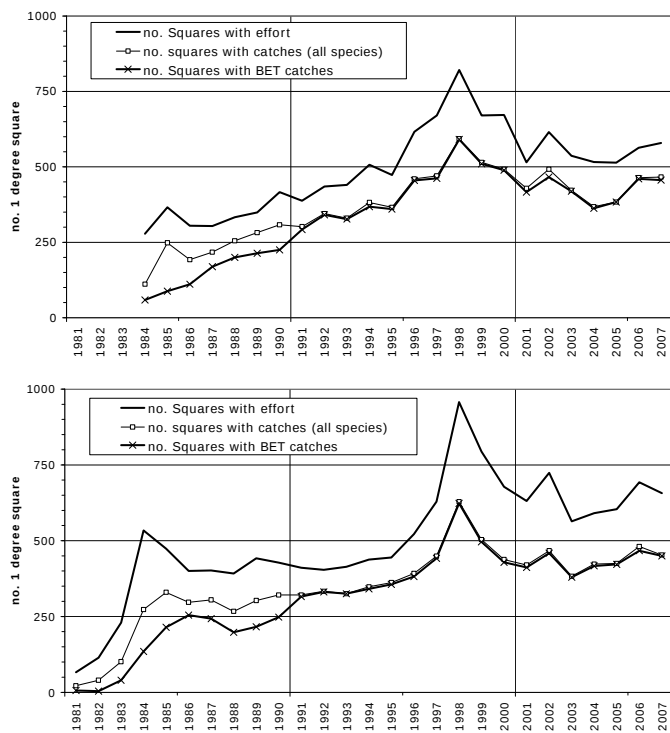


Figure 10-11. Number of one degree squares explored by the purse seine fishery, 1981-2007
Purse seiners from Spain (top) and France (bottom)

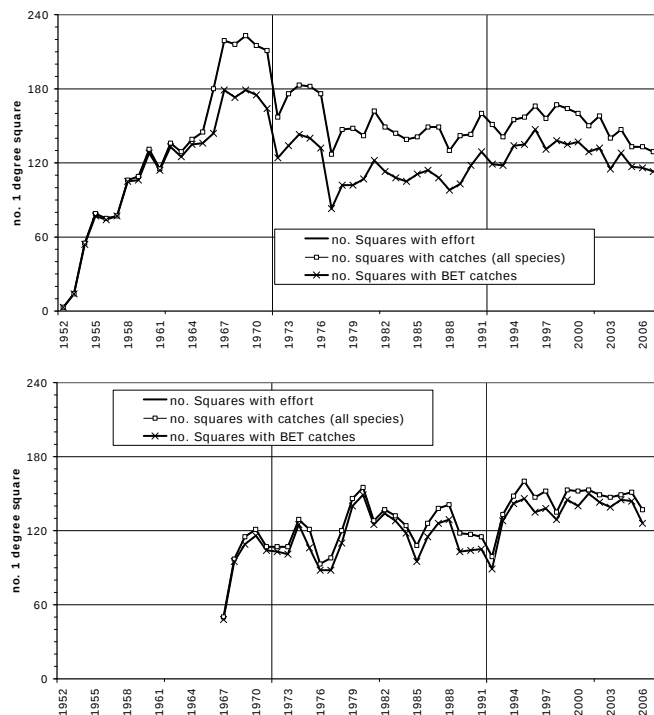


Figure 12-13. Number of five degree squares explored by the longline fishery, 1952-2007
Longliners from Japan (top) and Taiwan, China (bottom)

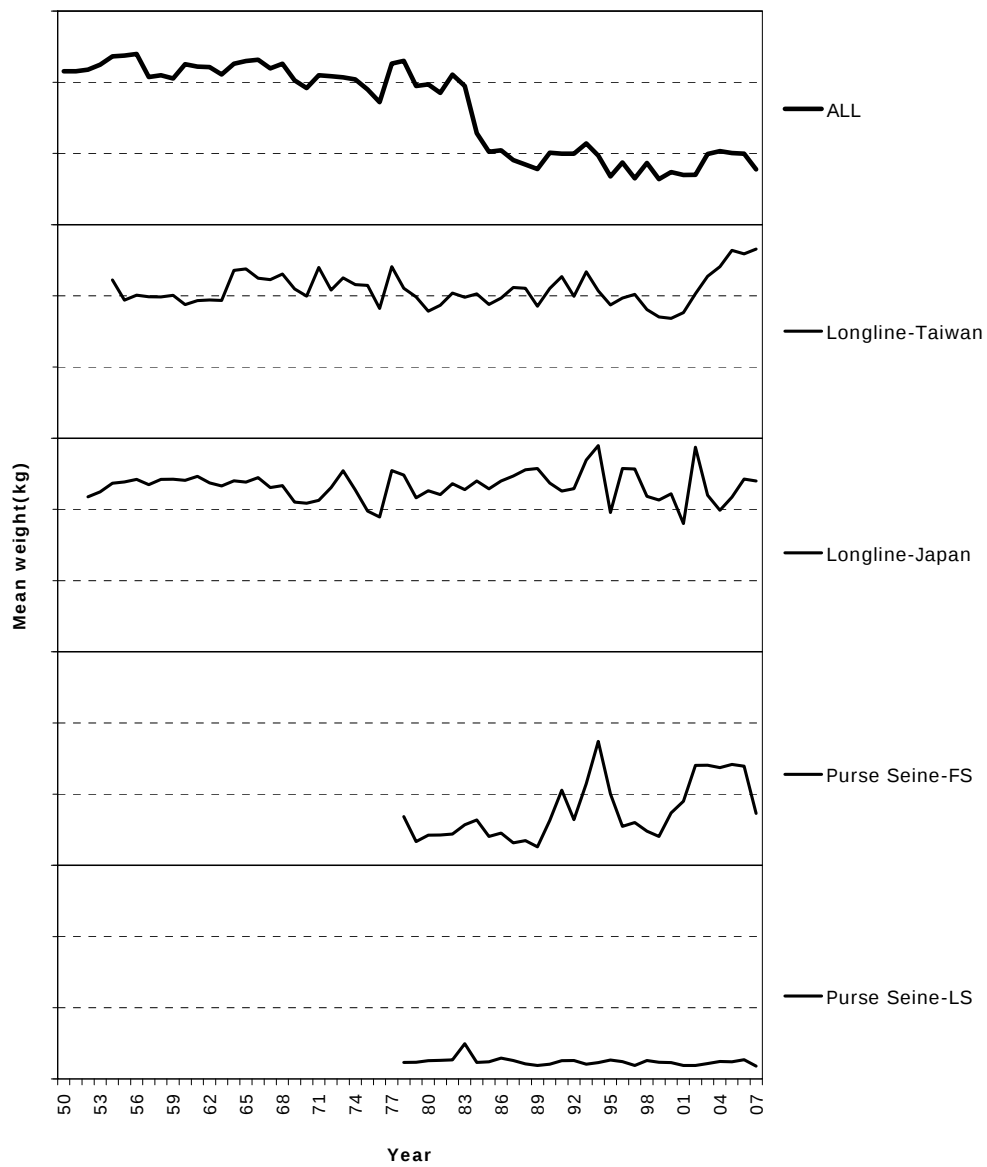
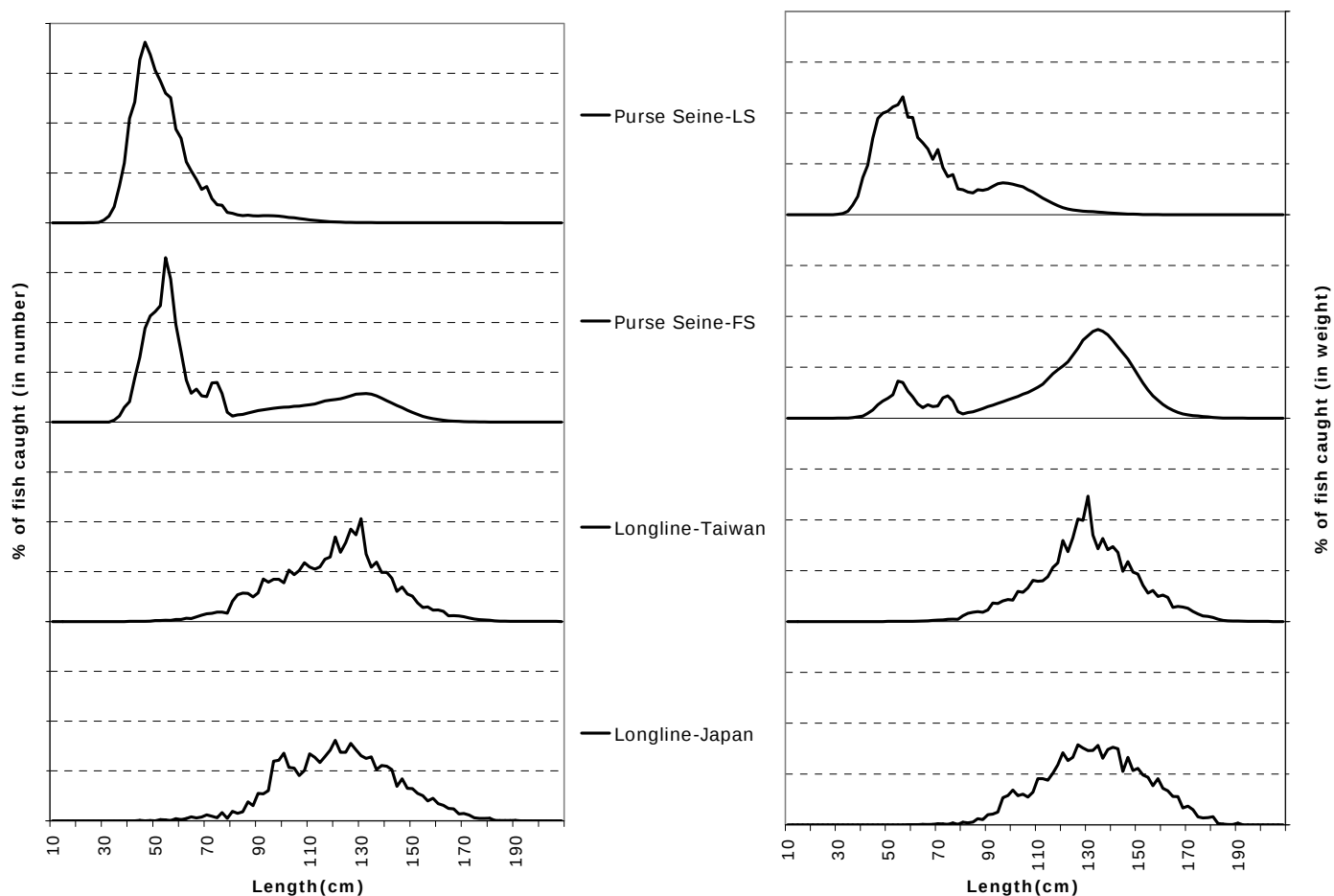


Figure 14. Mean weight of bigeye measured from purse seine and longline catches over time (broken lines represent 20kg each)



Figures 15-16. Mean catch at size of bigeye measured from purse seine and longline catches from 1998-2007, in numbers (left panels) and weight (right panels) (broken lines represent 2.5% each)

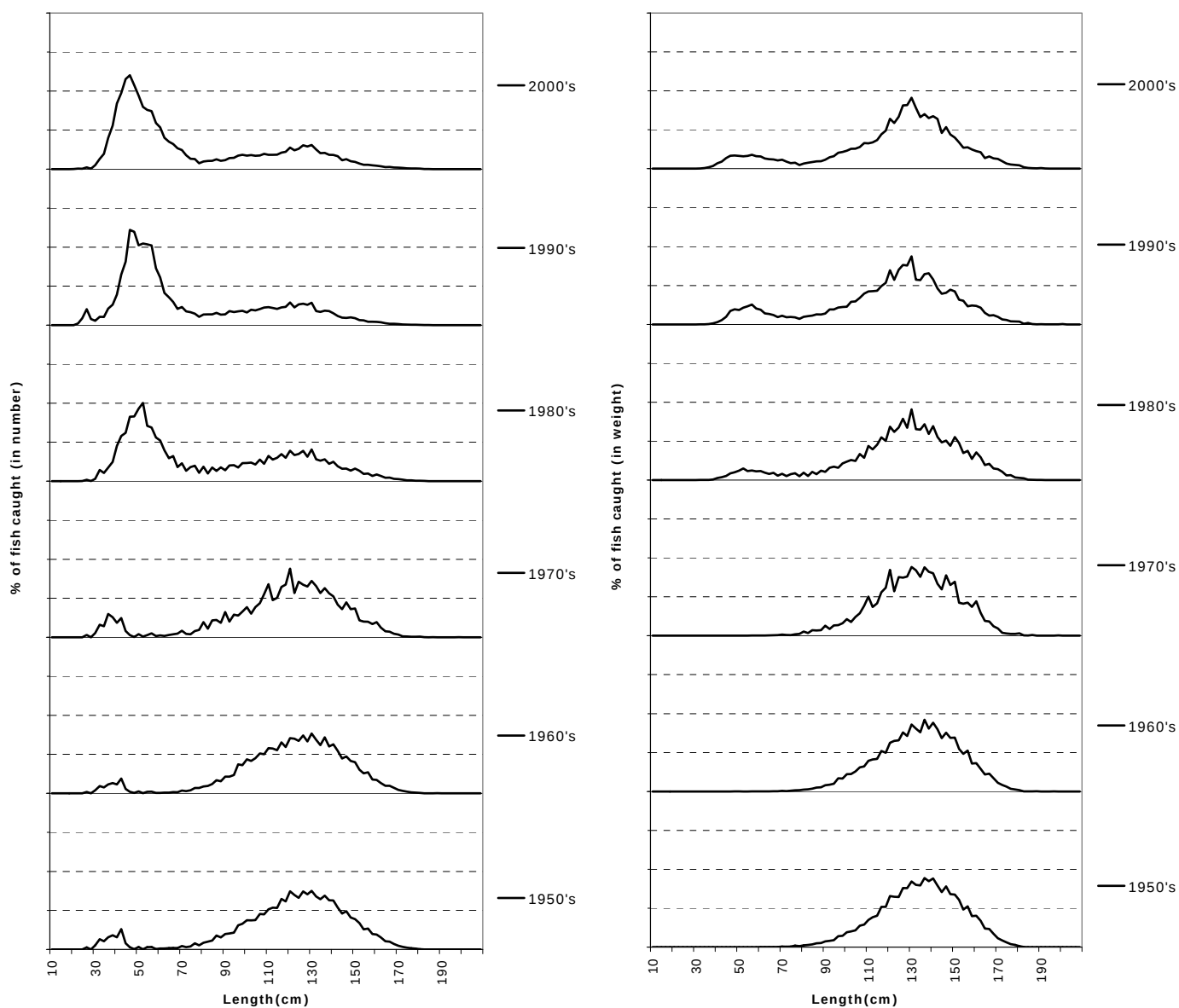


Figure 17-18. Mean catch by size in numbers (left panels) and weight (right panels) for six ten-year mean periods: 1950-59, 1960-69, 1970-79, 1980-89, 1990-99 and 2000-2007 (broken lines represent 2.5% each)

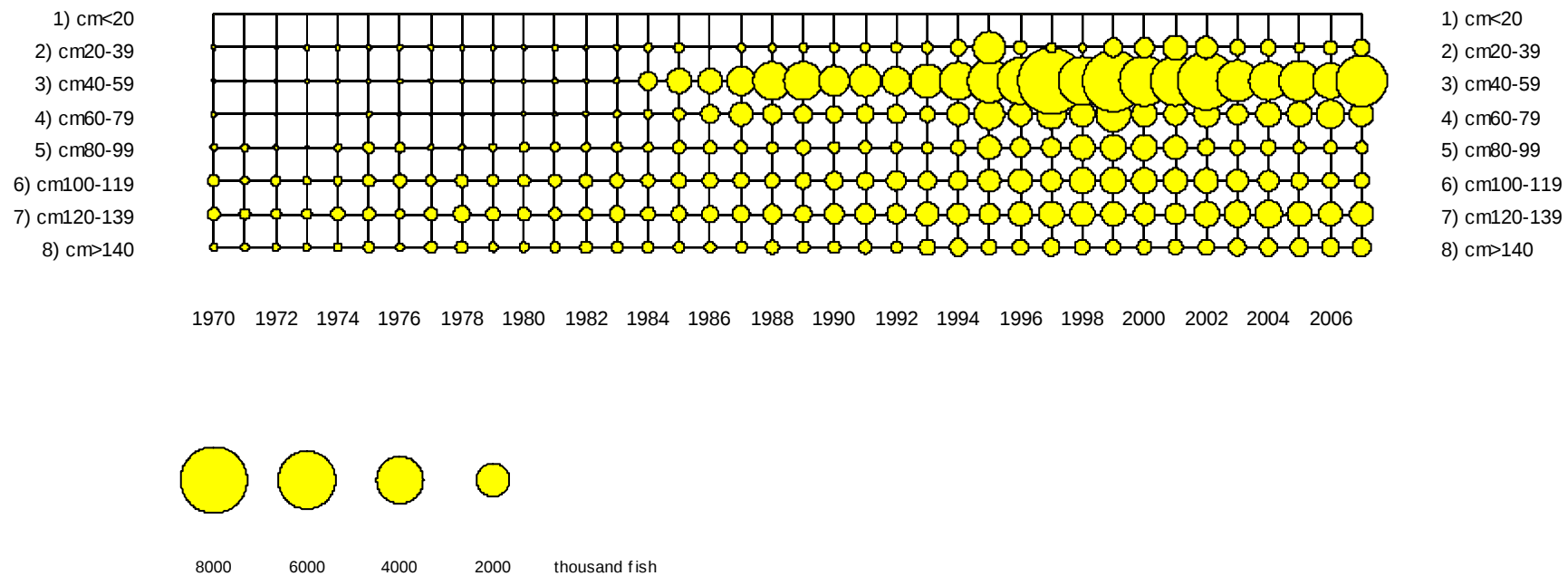


Figure 19. Mean catch at size (number) of bigeye tuna in purse seine, longline and other gears (including lines, gillnets and baitboats) catches over the period 1970-2007

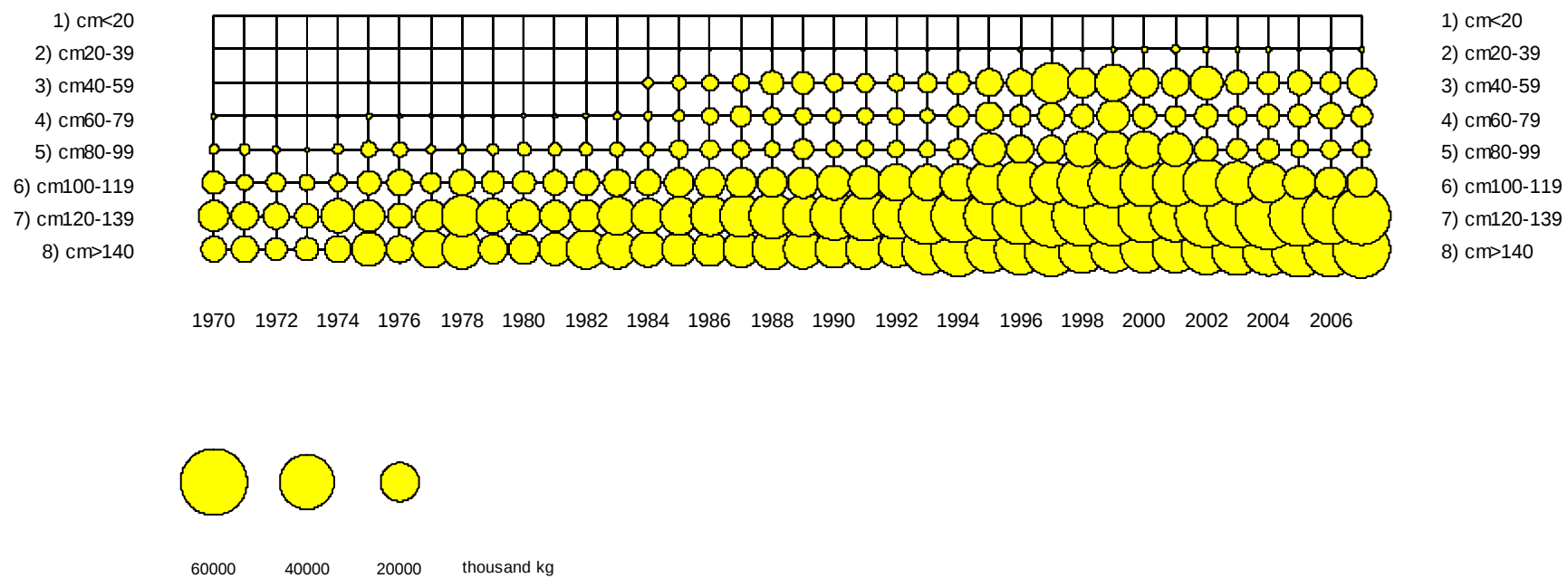


Figure 20. Mean catch at size (weight) of bigeye tuna in purse seine, longline and other gears (including lines, gillnets and baitboats) catches over the period 1970-2007

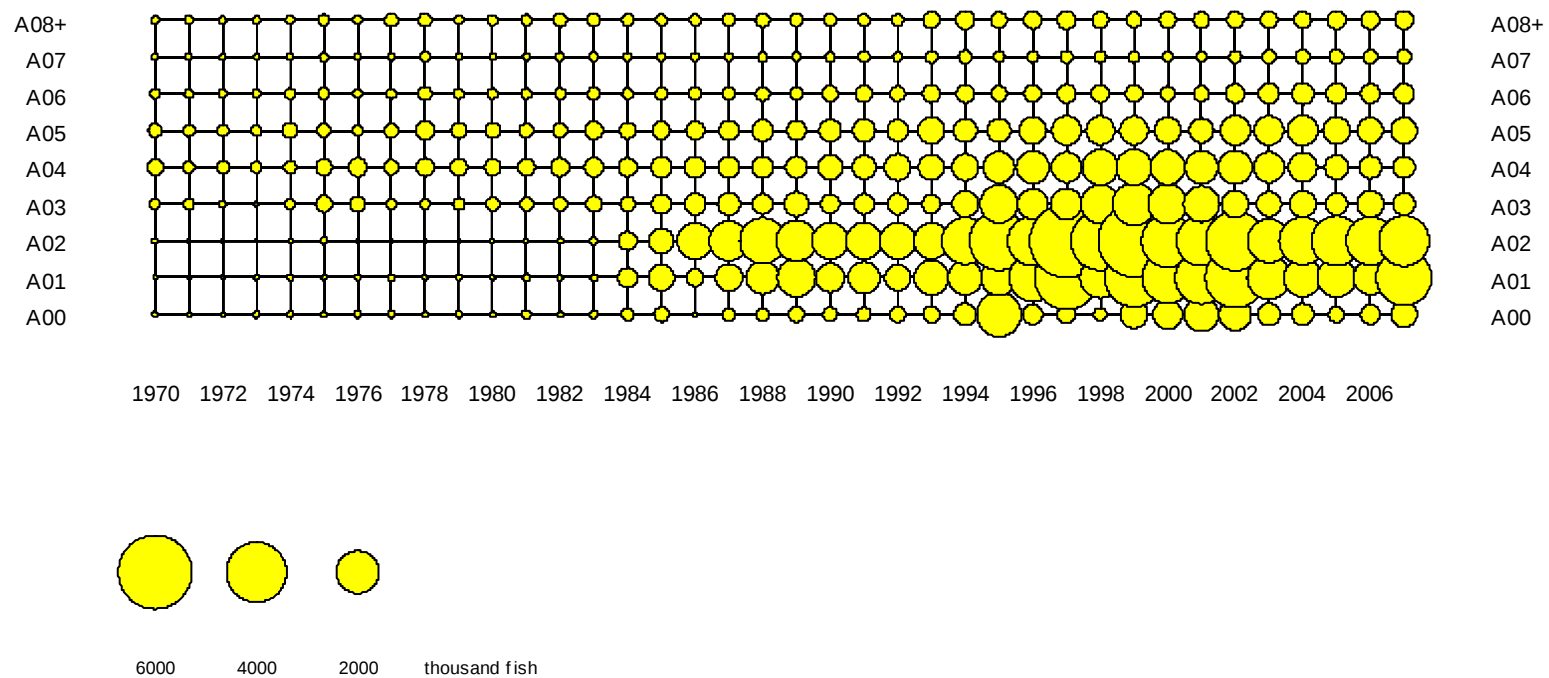


Figure 21. Mean catch at age (number) of bigeye tuna per quarter over the period 1970-2007

Skipjack tuna

(Data as of October 2008)

Table 1. Best scientific estimates of the catches of skipjack tuna by gear and main fleets for the period 1957-2006 (in thousands of tonnes).

Gear	Fleet	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	
Purse seine	Spain																											6.4	
	France																								0.2	1.0	9.4	27.3	
	NEI-Other																										0.4	8.2	
	Indonesia	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.4	0.6	0.4	0.4	0.4	0.6	0.7	0.7	1.0	1.2	1.0
	Japan																				0.1	0.9	0.6	0.4	0.1	0.5	0.6	0.7	
	Other Fleets	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.8	2.7	1.5	3.1
	Total	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.4	0.6	0.6	1.3	1.2	2.1	2.7	5.2	13.1	46.8
Baitboat	Maldives	10.0	10.0	9.0	8.0	8.0	8.0	8.0	14.1	16.9	18.9	17.5	19.6	27.6	28.0	17.5	19.5	22.5	14.9	18.6	13.7	13.2	17.3	22.2	19.6	15.3	19.3	32.3	
	Indonesia	0.8	0.8	0.8	1.0	1.0	1.0	1.1	1.2	1.3	1.3	1.4	1.5	1.1	1.1	1.7	1.9	2.1	3.2	4.3	3.2	3.1	4.7	5.2	5.3	7.7	9.1	7.8	
	India	0.3	0.2	0.4	0.6	0.2	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.6	0.6	2.6	0.8	1.0	1.9	1.3	1.7	2.3	2.7	1.7	2.2	2.5	3.2	
	Other Fleets	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.3	5.0	10.8	2.1	0.1	0.6	0.8	0.4	0.0	0.2	0.7	0.6	0.4	
	Total	11.1	11.0	10.2	9.6	9.2	9.4	9.3	15.6	18.4	20.5	19.2	21.3	29.2	29.8	20.1	29.1	36.2	21.3	24.9	18.8	18.8	24.6	30.1	26.8	25.9	31.4	43.7	
	Sri Lanka	1.8	1.9	2.4	3.0	4.5	6.1	5.8	5.6	6.4	7.1	8.0	8.9	6.9	5.0	8.9	10.5	9.3	7.2	12.7	12.6	14.8	12.4	16.3	18.4	18.0	16.3	13.3	
	Indonesia	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.5	0.5	0.5	0.8	1.1	0.8	0.8	1.2	1.3	1.4	2.0	2.4	2.0	
Gillnet	Pakistan	0.9	0.9	1.2	1.0	1.6	2.4	3.4	3.6	4.9	4.7	4.7	4.3	3.9	3.2	3.8	3.0	4.1	4.5	4.2	3.8	2.2	3.8	1.8	2.7	3.4	1.1	1.2	
	Other Fleets	0.3	0.3	0.5	0.8	0.2	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.4	0.7	0.8	3.2	1.0	1.3	2.6	1.5	2.0	2.8	0.2	0.3	0.6	0.3	0.4	
	Total	3.2	3.3	4.3	5.0	6.6	9.2	9.8	9.9	11.8	12.6	13.5	13.9	11.5	9.2	13.9	17.2	15.0	13.9	20.7	18.8	19.9	20.2	19.7	22.8	24.0	20.2	17.0	
	Indonesia	0.4	0.3	0.3	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.5	0.5	0.8	0.9	1.0	1.5	2.0	1.5	1.4	2.2	2.4	2.4	3.6	4.2	3.6	
	Other Fleets	0.5	0.5	0.6	0.7	1.0	1.4	1.3	1.2	1.4	1.6	1.8	2.0	3.1	2.8	3.1	3.7	3.5	3.5	4.7	4.2	4.2	3.8	4.7	5.1	3.3	3.4	3.4	
	Total	0.8	0.8	1.0	1.2	1.4	1.8	1.8	1.8	2.0	2.2	2.4	2.7	3.6	3.3	3.9	4.6	4.4	5.0	6.7	5.7	5.6	6.0	7.1	7.5	6.8	7.6	7.0	
	Indonesia	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.3	0.5	0.5	0.6	0.9	1.2	0.9	0.8	1.2	1.4	1.4	2.1	2.4	2.1	
Other gears	Other Fleets	0.2	0.2	0.4	0.4	0.4	0.3	0.3	0.3	0.5	0.4	0.6	0.3	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Total	0.4	0.4	0.6	0.6	0.7	0.5	0.6	0.7	0.9	0.7	1.0	0.7	0.5	0.4	0.7	0.5	0.6	0.9	1.2	0.9	0.9	1.3	1.4	1.4	2.1	2.4	2.1	
	All	15.7	15.7	16.2	16.6	18.1	21.1	22.0	28.1	33.4	36.2	36.3	38.8	45.0	42.9	38.8	51.8	56.5	41.5	54.1	44.7	46.5	53.4	60.4	61.2	64.0	74.6	116.5	

Gear	Fleet	Av03/07	Av58/07	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07
Purse seine	Spain	86.1	28.5	18.6	19.1	27.9	39.7	63.9	47.9	41.8	46.7	51.3	61.6	69.6	66.3	62.9	58.6	74.3	79.4	68.5	91.3	88.0	64.4	94.3	118.9	65.0
	France	39.7	19.2	29.8	36.1	35.6	36.1	43.1	29.0	39.4	45.0	48.2	58.4	48.7	40.1	31.3	30.3	42.7	39.9	36.3	54.4	38.9	38.0	43.2	48.1	30.4
	Seychelles	38.0	5.8							1.8	0.6					4.9	10.7	15.8	11.6	26.2	29.9	36.8	30.0	46.0	47.5	29.7
	NEI-Ex-Soviet Union	11.3	4.0						0.7		10.1	8.7	8.2	18.4	14.7	11.2	10.2	17.3	19.8	19.2	6.8	24.7	17.8	11.3	2.8	
	NEI-Other	7.2	7.6	8.4	6.4	4.8	7.0	7.9	11.0	10.8	10.8	17.4	24.5	22.3	18.4	24.3	31.2	33.4	40.8	26.4	31.9	20.6	4.7	4.0	4.5	2.2
	Thailand	6.7	0.7																1.1	0.5			8.0	16.9	8.4	
	Indonesia	6.4	1.6	1.1	1.1	1.3	1.4	1.6	1.4	1.5	1.6	1.9	2.0	1.9	2.7	3.1	2.9	3.0	3.0	3.6	2.3	2.4	3.3	3.0	11.7	11.7
	Japan	2.6	3.6	0.3	0.6	0.9	2.3	3.4	10.9	15.9	31.6	31.3	20.1	16.1	7.0	6.7	5.7	4.6	2.3	1.8	1.9	2.4	1.5	3.1	2.0	4.0
	Other Fleets	2.5	3.2	3.2	4.5	10.1	7.9	8.4	8.8	13.1	6.4	7.1	6.3	3.9	2.7	4.9	3.2	9.4	4.9	9.7	22.4	0.0	0.1	1.2	6.3	5.0
	Total	200.6	74.4	61.5	67.7	80.6	94.3	128.5	109.7	124.3	153.0	165.9	181.2	180.9	151.8	149.4	152.9	200.6	202.8	192.1	240.9	214.0	159.8	214.1	258.6	156.5
Baitboat	Maldives	115.0	44.6	42.2	45.1	42.6	58.2	57.8	60.7	58.3	57.6	58.0	69.0	69.9	66.2	68.1	77.8	92.3	78.8	86.8	113.9	107.5	104.5	130.4	136.7	95.8
	Indonesia	14.5	8.6	8.5	8.1	10.0	10.5	12.3	10.7	11.5	12.1	14.4	15.1	14.5	19.8	23.4	21.6	22.2	22.1	26.5	17.3	18.0	24.7	22.1	3.8	3.8
	India	4.4	2.9	3.1	4.0	5.4	4.7	5.9	5.4	5.6	5.9	12.7	6.8	6.9	7.2	7.8	2.0	2.3	4.6	2.7	3.2	3.1	4.0	0.4	7.2	7.2
	Other Fleets	0.0	0.6	0.4	0.5	0.6	0.5	0.5	0.6	0.6	0.7	0.7	0.1	0.5	0.2	0.0	1.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total	133.9	56.7	54.2	57.7	58.7	73.9	76.5	77.5	76.0	76.3	85.8	90.8	91.8	93.4	99.3	103.3	117.4	105.5	116.1	134.3	128.6	133.2	152.9	147.8	106.8
Gillnet	Sri Lanka	68.7	26.1	14.9	14.6	15.3	15.9	17.4	20.5	23.1	27.0	31.5	38.8	40.6	47.3	56.1	56.9	72.6	79.4	74.7	72.9	83.0	83.2	48.0	60.2	69.3
	Iran, Islamic Republic	67.1	9.0					0.3	0.8	1.1	4.3	4.4	7.4	1.1	2.5	8.3	4.7	13.9	18.5	23.2	23.1	36.0	53.6	79.4	98.8	67.6
	Indonesia	10.7	2.9	2.2	2.1	2.6	2.7	3.2	2.8	3.0	3.2	3.8	3.9	3.8	5.2	6.1	5.6	5.8	5.8	6.9	4.5	4.7	6.4	5.8	18.3	18.3
	Pakistan	4.3	3.9	2.0	1.5	3.7	5.6	7.5	7.7	7.5	6.1	6.9	8.1	7.1	4.4	4.6	4.5	4.9	4.7	3.7	3.5	3.4	3.7	4.1	5.2	5.2
	Other Fleets	1.0	0.9	0.5	0.5	0.5	0.6	0.9	0.9	0.6	0.7	1.1	1.2	1.4	1.2	1.8	0.6	0.7	0.8	1.1	0.4	0.5	0.7	1.0	1.3	1.3
	Total	151.8	42.8	19.6	18.8	22.2	24.8	29.3	32.6	35.4	41.3	47.7	59.5	54.1	60.5	76.9	72.4	97.8	109.1	109.6	104.4	127.6	147.6	138.3	183.7	161.7
Line	Indonesia	11.1	4.4	3.9	3.7	4.6	4.8	5.7	4.9	5.3	5.6	6.6	6.9	6.7	9.1	10.8	9.9	10.2	10.2	12.2	8.0	8.3	11.4	10.2	12.8	12.8
	Other Fleets	7.1	3.9	3.2	3.3	3.3	3.4	6.2	6.3	6.3	10.7	7.7	4.5	4.7	4.5	4.8	4.5	3.5	3.9	4.0	4.8	4.0	9.5	6.2	8.2	7.7
	Total	18.2	8.3	7.1	7.0	7.9	8.3	11.8	11.3	11.6	16.2	14.4	11.5	11.4	13.6	15.6	14.4	13.8	14.1	16.2	12.8	12.2	20.9	16.3	21.0	20.5
Other gears	Indonesia	4.3	2.3	2.3	2.2	2.7	2.8	3.3	2.9	3.0	3.2	3.8	4.0	3.8	5.3	6.2	5.7	5.9	5.9	7.1	4.6	5.3	7.0	6.2	1.4	1.4
	Other Fleets	0.3	0.2	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.6	0.1	0.3	0.3	0.2
	Total	4.6	2.5	2.3	2.2	2.7	2.9	3.4	3.0	3.1	3.3	4.1	4.1	4.0	5.4	6.3	5.8	6.0	5.9	7.1	4.8	6.0	7.1	6.5	1.8	1.7
All	Total	509.0	184.7	144.7	153.4	172.2	204.1	249.5	234.0	250.4	290.1	317.8	347.1	342.2	324.6	347.5	348.9	435.6	437.5	441.0	497.2	488.4	468.5	528.1	612.9	447.1

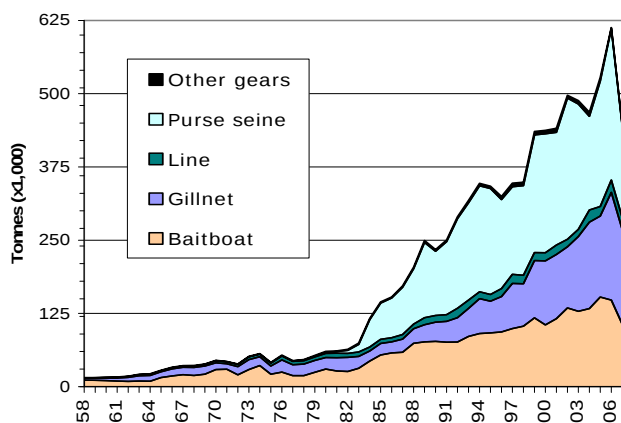


Figure 1. Yearly catches (thousand of metric tonnes) of skipjack tuna by gear from 1958 to 2007

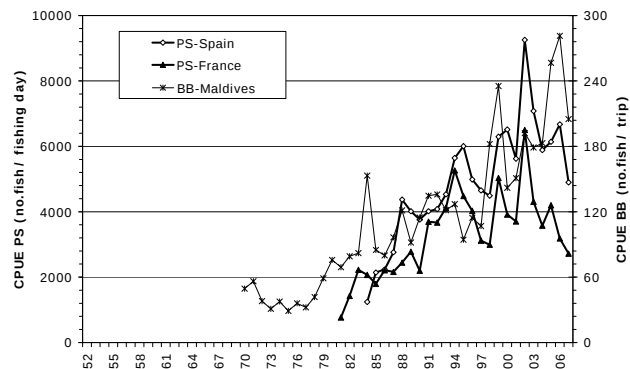


Figure 2. Nominal CPUEs for the baitboat fishery of Maldives (1970-2007) and industrial purse seiners from the EC (1981-2007)

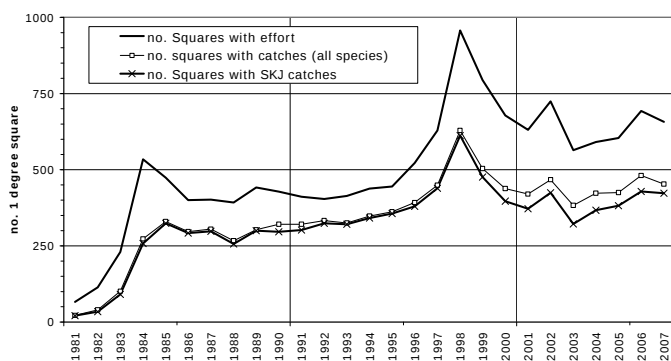
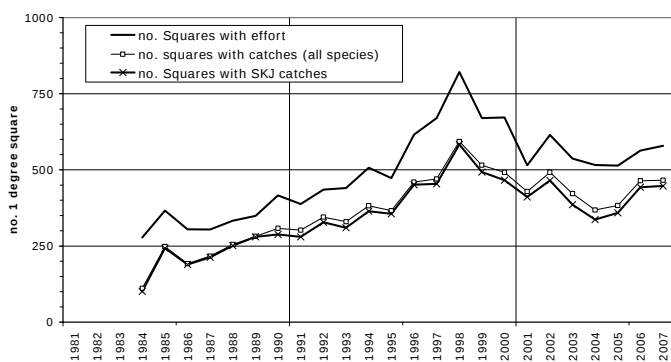


Figure 3-4. Number of one degree squares explored by the purse seine fishery, 1981-2007
Purse seiners from Spain (top) and France (bottom)

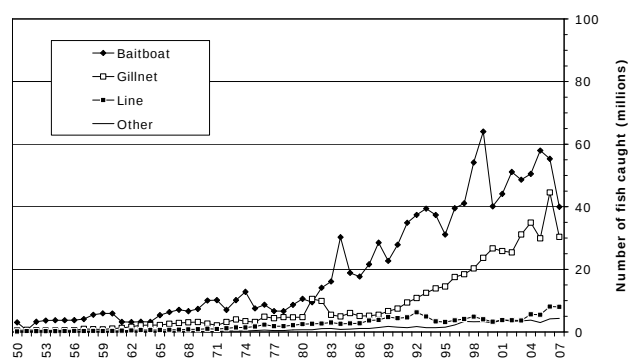
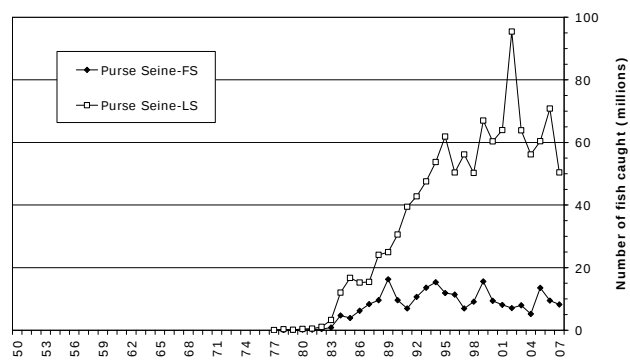


Figure 5-6: Yearly catches (numbers) of skipjack tuna by gear from 1950 to 2007
Industrial fleets (top) and artisanal fleets (bottom)

Figure 7: Catches of Skipjack Tuna (SKJ) in the Indian Ocean for the period 1958- 2007

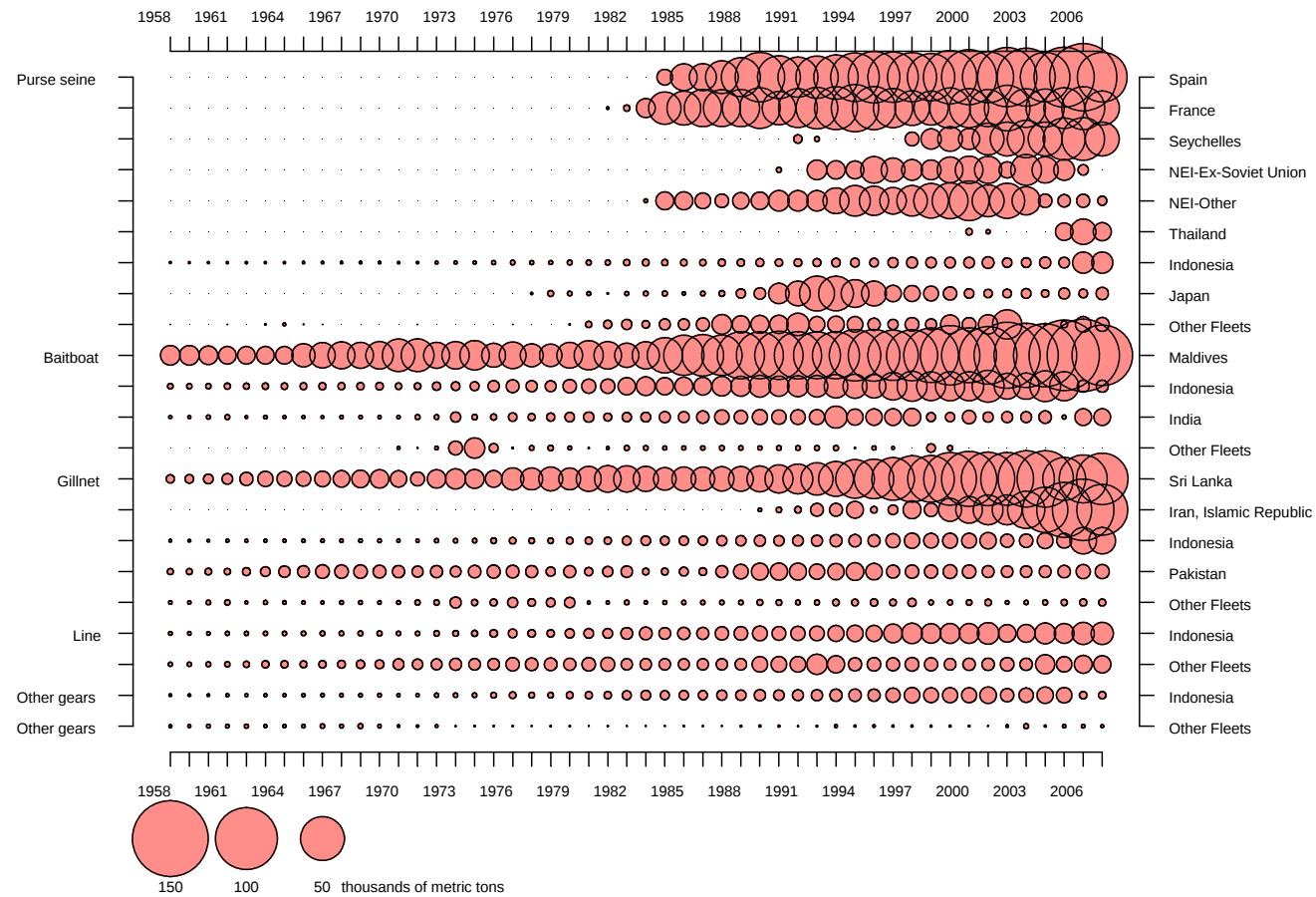


Figure 8: Catches of skipjack tuna (tons) by industrial fleets in the Indian Ocean by quarter for the period 1958- 2007

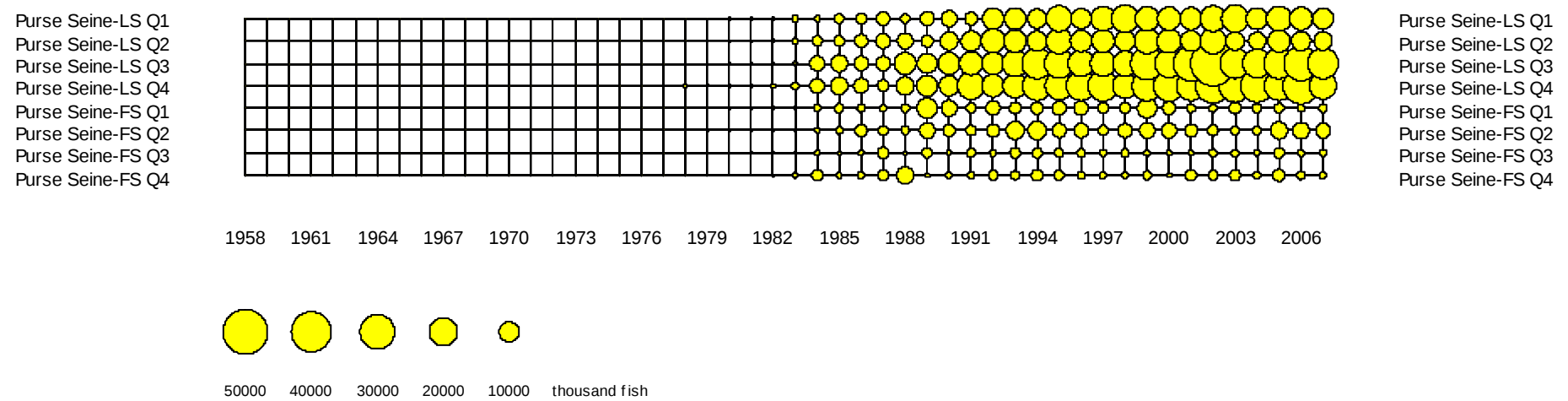
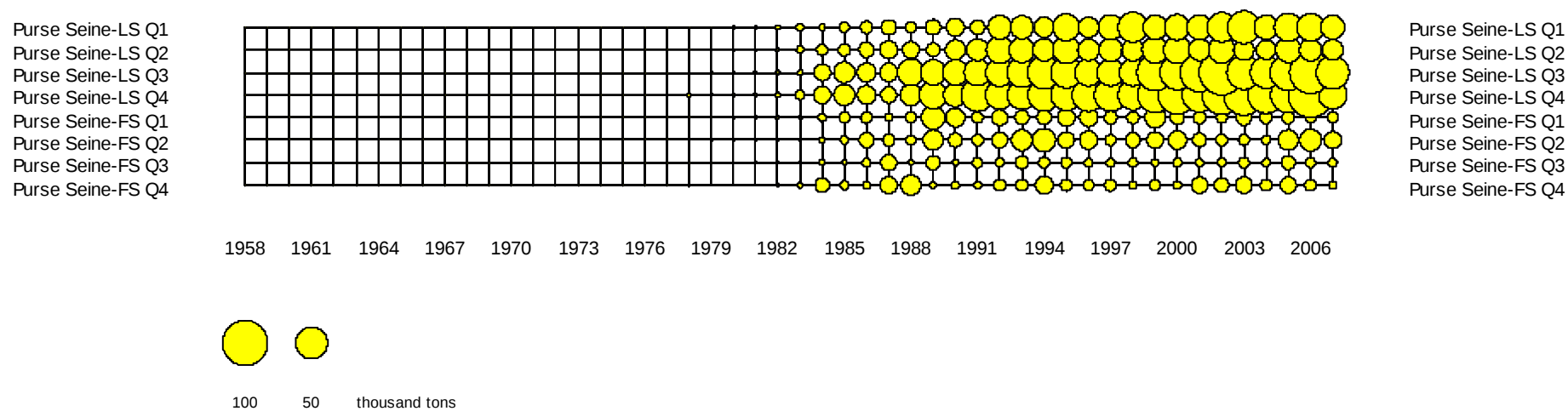


Figure 9: Catches of skipjack tuna (numbers) by industrial fleets in the Indian Ocean by quarter for the period 1958- 2007



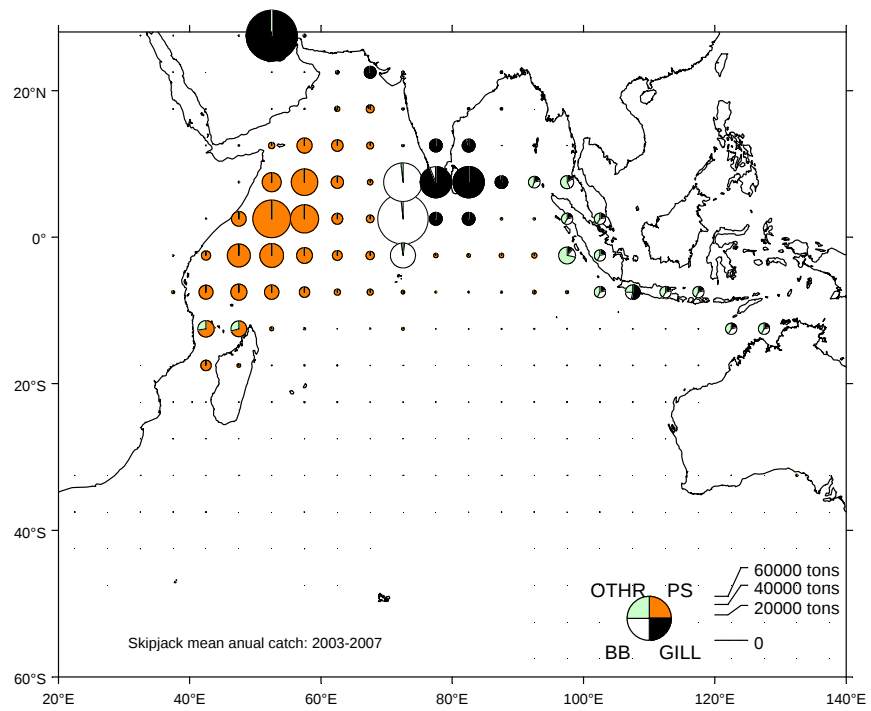
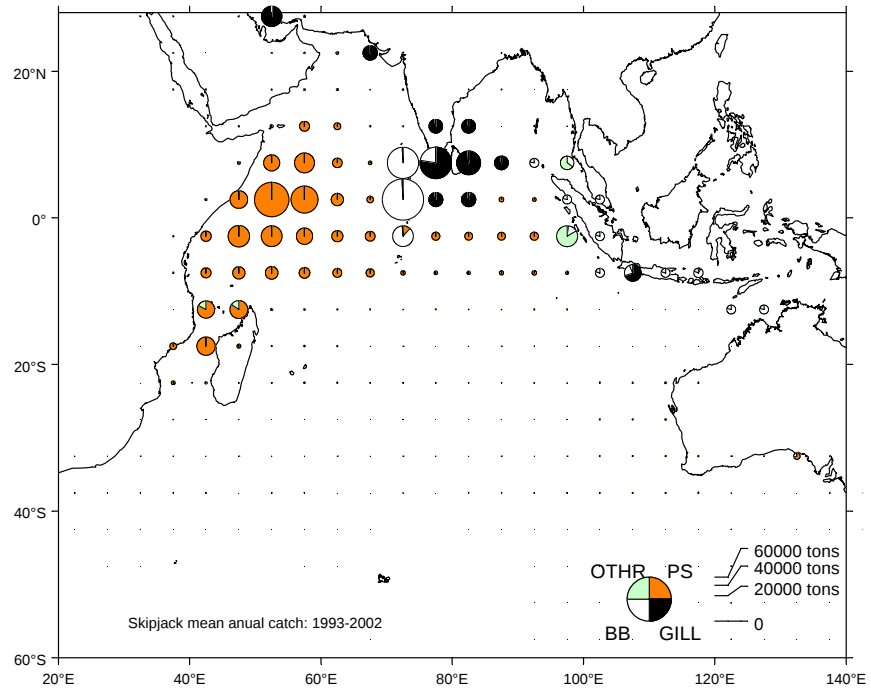
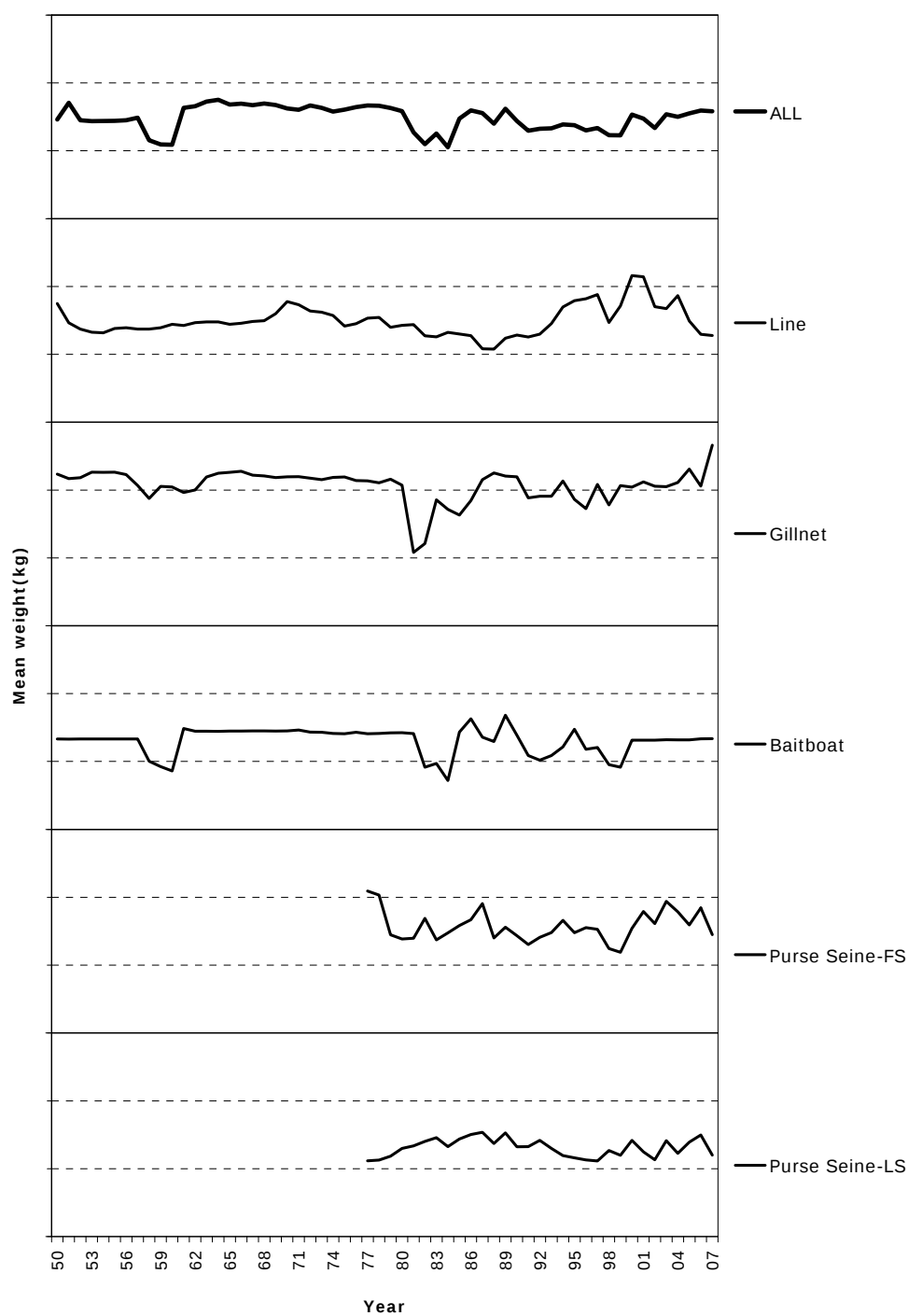


Figure 10-11: Mean spatial distribution of skipjack tuna catches in the Indian Ocean by gear type, 1993-2002 (top) and 2003-2007 (bottom).

BB = bait boat (pole and line); GILL = gillnet; PS = purse seine; OTHR = Other gears



**Figure 12. Skipjack tuna average weight by main gear (from size-frequency data) and for the whole fishery (estimated from the total catch at size), 1950-2007
(broken lines represent 2kg each)**

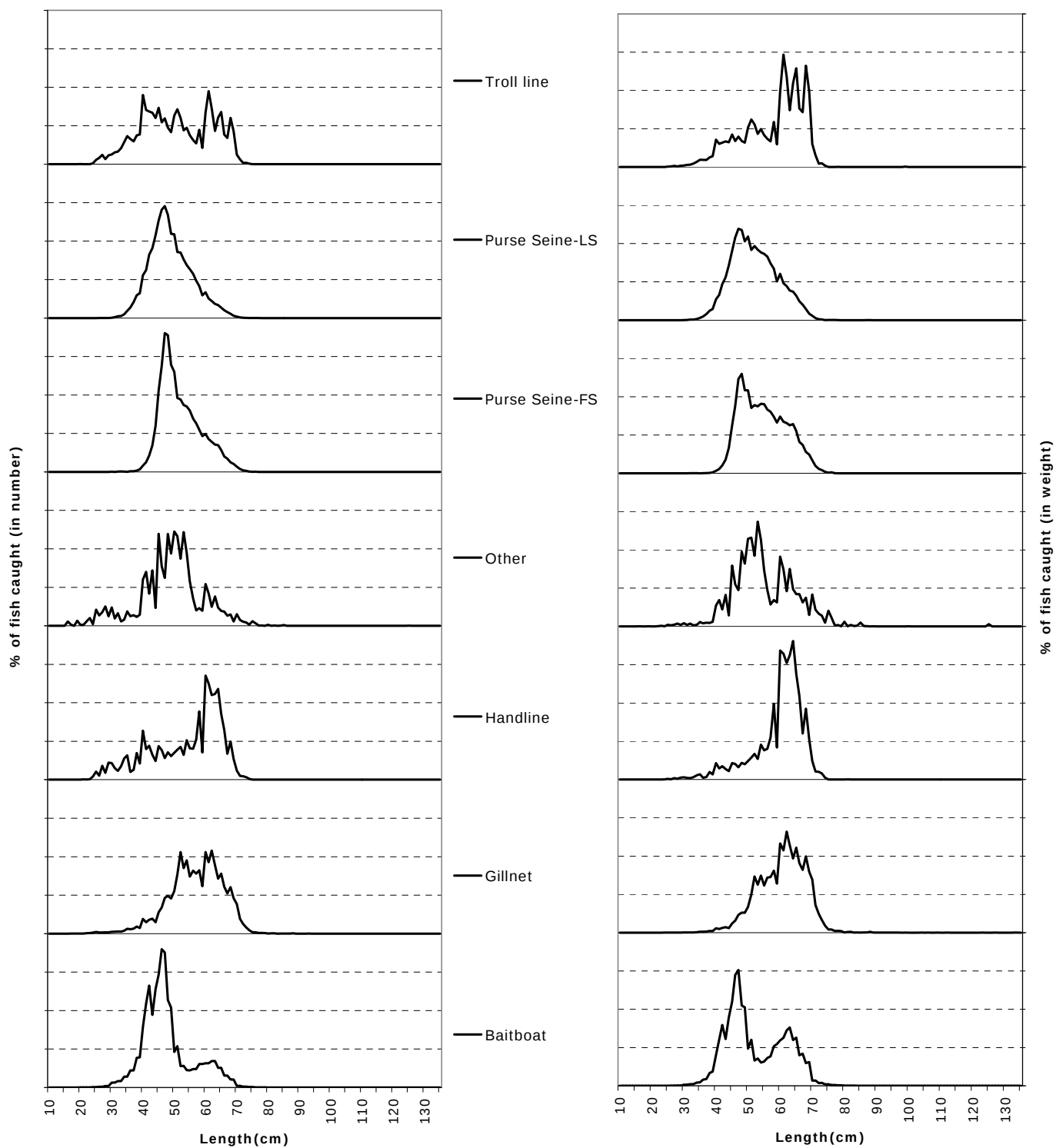


Figure 13-14. Mean catch at size of skipjack tuna by gear for 1998-2007: in number (left panels) and in weight (right panels)
(broken lines represent 2.5% each)

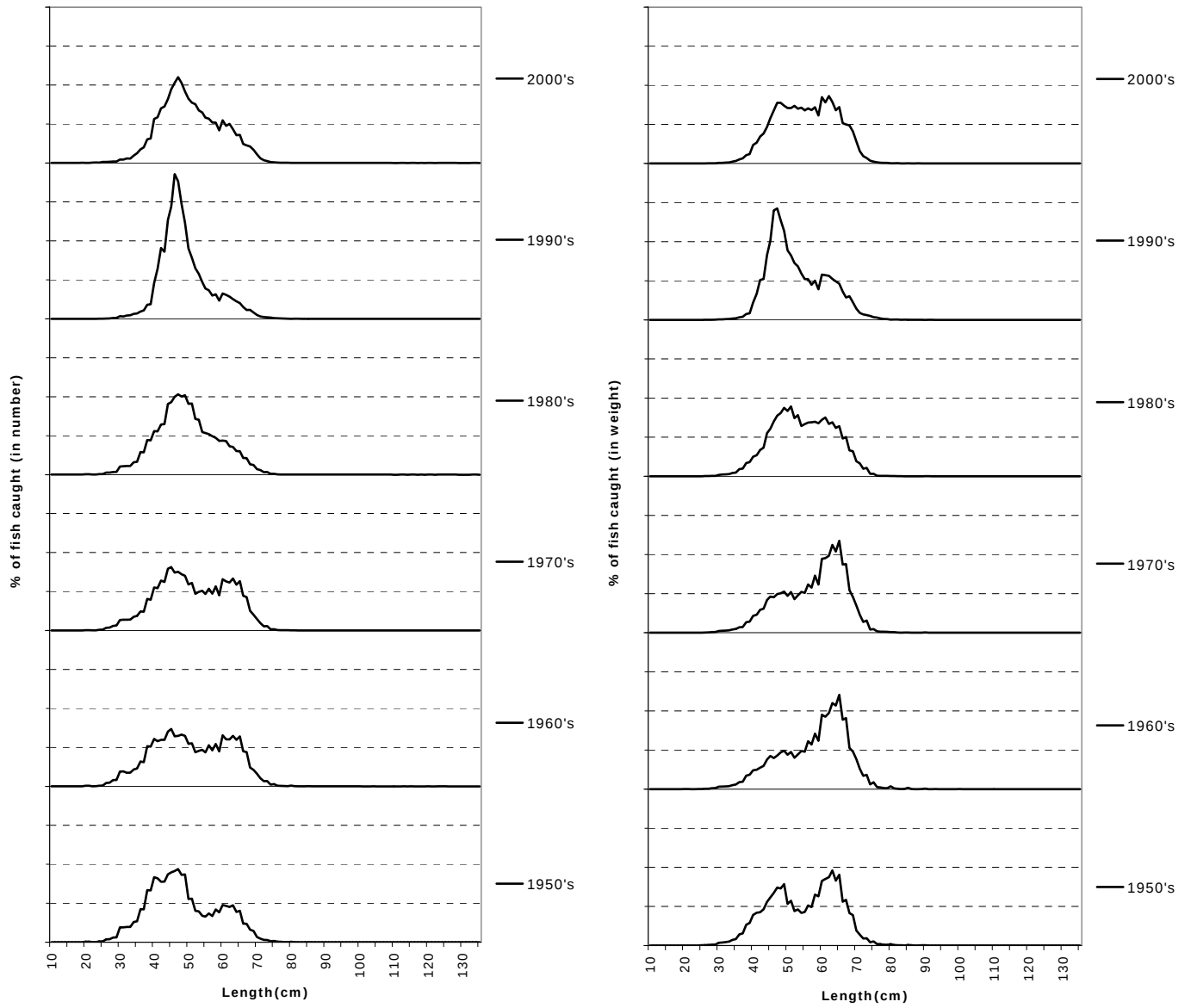


Figure 15-16. Mean catch by size in numbers (left panels) and weight (right panels) for six ten-year mean periods: 1950-59, 1960-69, 1970-79, 1980-89, 1990-99 and 2000-2007 (broken lines represent 2.5% each)

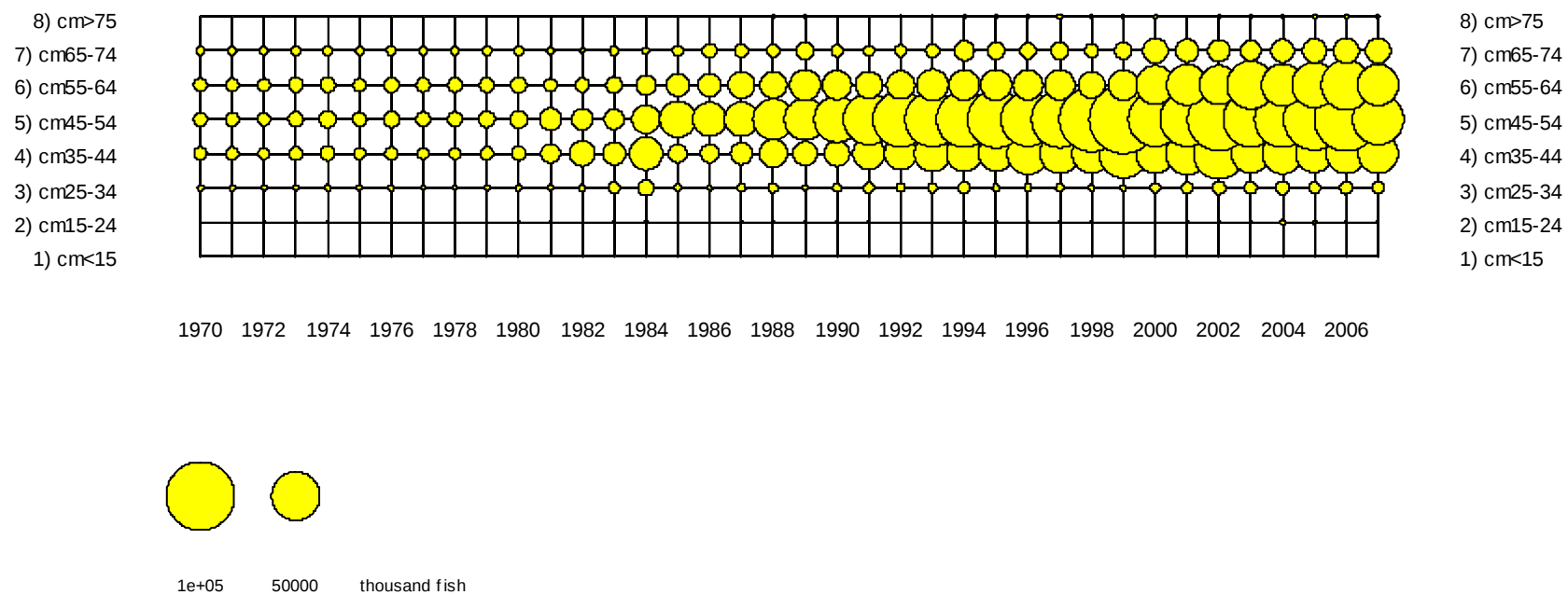


Figure 17. Mean catch at size (number) of skipjack tuna in purse seine, baitboat, gillnet and other gears (including lines and longlines) catches over the period 1980-2007

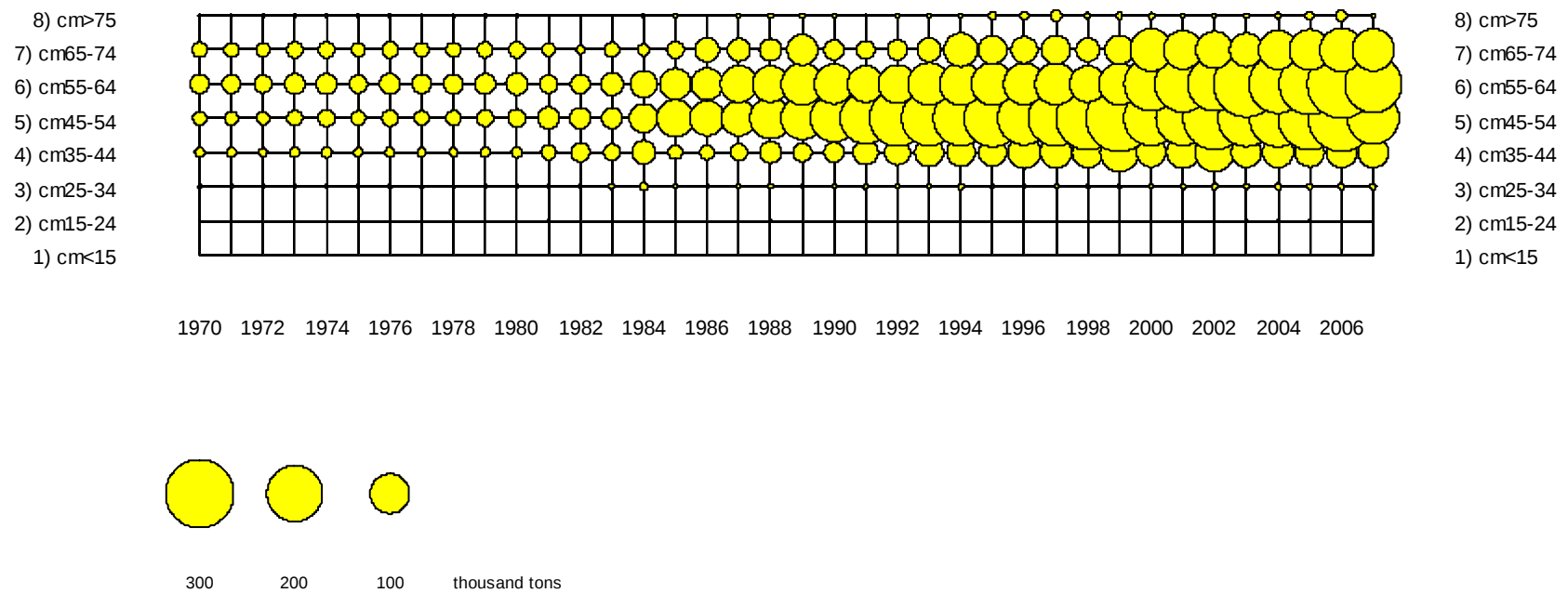


Figure 18. Mean catch at size (weight) of skipjack tuna in purse seine, baitboat, gillnet and other gears (including lines and longlines) catches over the period 1980-2007

Yellowfin tuna

(Data as of October 2008)

Table 1. Best scientific estimates of the catches of yellowfin tuna by gear and main fleets for the period 1957 to 2006. Data as of June 2007

Gear	Fleet	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	
Purse seine	Spain																											11.5	
	France																								0.2	1.0	10.5	36.7	
	NEI-Other																										0.7	8.4	
	Other Fleets	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.5	0.4	0.3	0.1	0.3	1.6	1.8
	Total	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.5	0.4	0.3	0.3	1.3	12.7	58.3
Baitboat	Maldives	1.9	1.9	1.0	1.4	1.4	1.4	1.4	1.0	1.4	1.6	1.6	1.7	2.3	1.4	2.5	6.9	5.0	4.6	5.2	4.9	3.8	4.4	4.4	5.6	4.5	7.7	8.2	
	Other Fleets	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.8	1.3	0.3	0.2	0.2	0.4	0.5	0.5	0.6	0.5	0.2	0.3
	Total	2.0	2.0	1.0	1.5	1.5	1.5	1.5	1.0	1.5	1.7	1.7	1.8	2.4	1.5	2.7	7.7	6.3	4.9	5.4	5.1	4.2	4.8	4.9	6.1	5.0	7.9	8.5	
Longline	China																												
	Taiwan,China	1.8	2.4	2.2	2.9	3.5	3.4	2.9	2.2	4.4	3.4	22.7	21.1	14.9	11.9	11.8	5.7	4.4	4.6	3.4	8.1	4.2	3.7	3.8	4.1	4.7	5.6	5.8	
	Japan	22.6	22.2	36.1	32.7	44.2	22.0	22.2	24.9	40.8	30.2	48.3	23.1	10.3	13.4	7.9	3.9	4.9	6.4	2.8	2.1	4.6	3.3	3.2	4.9	7.3	7.8	7.9	
	Indonesia																0.1	0.3	0.7	1.0	1.3	1.3	1.4	2.1	2.6	2.7	0.8	0.8	
	Korea, Republic of									0.1	0.1	0.4	5.3	9.1	5.2	7.4	10.3	10.8	13.2	13.4	13.7	33.1	26.5	18.0	13.2	12.4	19.4	16.2	10.2
Gillnet	Other Fleets	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.5	0.1	2.4	0.6	1.9	1.6	1.5	1.2	0.7	0.2	1.1	0.9	0.2	0.4	0.5	0.4	0.4	0.7	0.7	
	Total	24.5	24.6	38.3	35.6	47.7	25.4	25.3	27.7	45.7	34.0	78.6	53.9	32.4	34.4	31.5	21.7	23.5	25.3	21.9	45.4	37.0	26.9	22.8	24.4	34.5	31.2	25.5	
	Sri Lanka	1.1	1.2	1.5	1.8	2.7	3.6	3.5	3.3	3.7	4.1	4.6	5.1	4.0	2.9	4.4	5.4	4.8	3.9	7.0	6.4	6.9	7.6	8.3	9.6	9.5	9.1	6.4	
	Oman	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	1.5	1.8	2.0	2.2	2.4	2.2	2.2	2.7	2.5	1.9	0.8	2.5	
	Pakistan	0.7	0.7	0.9	0.8	1.2	1.8	2.5	2.7	3.6	3.5	3.5	3.2	2.9	2.4	2.8	2.2	3.0	3.3	3.1	2.8	1.6	2.8	1.3	2.0	2.5	0.8	0.9	
Line	Other Fleets	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6	0.2	0.3	0.8	0.3	0.4	0.6	0.7	0.5	1.0	0.4	0.5	
	Total	2.2	2.3	2.8	3.1	4.3	5.8	6.4	6.4	7.7	8.1	8.6	8.8	7.3	5.7	7.9	8.7	9.6	9.3	12.9	11.6	11.3	13.1	13.0	14.7	14.8	11.2	10.3	
	Yemen	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.8	1.0	1.1	1.2	1.3	1.2	1.3	1.0	0.9	1.6	2.6	
	Oman	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.8	1.0	1.1	1.2	1.3	1.2	1.5	1.4	1.0	0.5	1.3	
	Comoros														0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Other gears	Maldives													0.3	0.2	0.2	0.3	0.3	0.3	0.5	0.4	0.5	0.7	0.7	0.7	0.7	0.3	0.3	
	Other Fleets	0.8	0.8	1.0	1.2	1.2	1.5	1.7	1.5	1.6	1.7	1.9	2.0	1.5	1.6	2.2	3.1	2.2	1.8	2.7	6.1	5.8	5.7	5.2	3.9	5.0	3.9	3.3	
	Total	1.2	1.3	1.4	1.6	1.6	1.9	2.1	1.9	2.0	2.3	2.4	2.6	2.3	2.4	3.1	4.1	4.4	4.2	5.6	9.0	9.0	8.9	8.9	7.1	7.4	6.5	7.7	
	Other gears	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.6	0.7	0.8	1.0	1.3	1.4	1.3	0.9	0.9	0.5	1.0	
	All	Total	30.0	30.4	43.7	42.0	55.3	34.9	35.6	37.4	57.3	46.4	91.6	67.4	44.7	44.2	45.6	42.6	44.4	44.4	46.6	72.4	63.3	55.5	51.2	53.5	63.9	69.9	111.2

Gear	Fleet	Av03/07	Av58/07	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07
Purse seine	Spain	69.2	23.0	18.4	20.0	26.3	44.9	41.1	43.7	44.0	37.8	47.8	43.1	65.1	59.4	61.0	38.6	51.9	49.4	47.7	53.4	79.0	80.8	77.5	70.9	37.8
	France	52.2	20.2	39.1	43.3	46.8	59.9	38.4	45.3	38.1	45.3	39.5	35.8	39.6	35.6	31.2	22.4	30.8	37.7	34.1	36.4	63.3	63.5	57.2	44.3	32.7
	Seychelles	32.6	4.5							0.4	0.2					2.8	7.4	9.8	11.6	12.9	16.6	33.3	48.8	36.5	28.1	16.1
	NEI-Other	9.0	6.5	9.4	6.3	5.2	7.9	4.5	11.9	11.9	8.1	15.5	19.7	19.3	16.7	21.9	20.3	25.8	27.1	18.9	19.1	24.5	10.1	4.4	3.7	2.5
	Iran, Islamic Republic	7.4	1.3								1.5	2.4	1.9	3.0	1.6	1.9	3.3	2.5	2.2	2.2	5.0	8.3	11.0	7.3	8.4	2.3
	NEI-Ex-Soviet Union	7.4	2.7						0.8		5.2	8.7	5.8	14.6	11.7	9.8	5.3	11.8	10.9	8.9	2.2	15.1	13.8	7.8	0.4	
	Other Fleets	3.1	2.7	2.0	4.1	5.7	6.1	5.9	7.0	11.1	14.3	13.7	7.3	6.6	4.7	3.7	3.3	2.3	1.5	5.5	6.5	0.8	0.5	3.9	4.1	6.2
	Total	181.0	60.8	69.0	73.8	84.0	118.8	89.8	108.7	105.5	112.4	127.5	113.7	148.3	129.8	132.3	100.5	134.9	140.4	130.1	139.1	224.2	228.6	194.5	159.8	97.6
	Baitboat	14.9	6.7	6.9	6.2	7.4	5.9	5.5	4.9	7.0	8.0	9.3	12.4	11.8	11.5	12.2	13.0	12.6	10.0	11.1	16.3	16.1	14.4	14.9	15.8	13.2
	Other Fleets	1.4	0.5	0.6	0.5	0.5	0.3	0.3	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.7	0.8	0.7	0.7	0.8	0.6	2.7	1.5	1.5
Longline	Total	16.3	7.2	7.5	6.7	7.9	6.3	5.8	5.3	7.6	8.6	9.9	13.0	12.3	12.1	12.9	13.6	13.3	10.8	11.8	17.0	16.8	15.0	17.6	17.3	14.8
	China																									
	Taiwan,China	41.5	17.9	7.3	16.2	22.3	22.7	22.4	31.6	30.7	56.0	88.2	34.1	23.1	27.9	18.4	23.4	17.7	17.4	26.9	33.2	29.7	49.8	67.6	34.7	25.7
	Japan	19.6	14.9	9.5	10.7	8.3	9.3	4.6	6.3	4.4	5.7	5.7	9.7	8.0	12.8	15.6	16.8	14.7	15.5	13.9	13.9	17.2	16.0	21.5	23.1	20.3
	Indonesia	12.9	7.6	0.8	0.7	1.3	2.3	3.8	4.6	5.5	9.3	10.8	14.8	16.7	31.8	38.2	35.7	41.7	29.6	28.4	24.2	20.2	15.3	12.0	8.5	8.5
	NEI-Fresh Tuna	6.9	4.8					11.9	16.6	14.4	16.7	16.5	23.7	17.1	17.7	21.2	16.6	14.8	13.3	0.9	3.3	4.6	5.8	6.9	8.5	8.5
	NEI-Deep-freezing	4.1	2.9	0.1	1.1	1.2	3.4	3.2	6.7	5.9	8.9	23.8	9.9	6.9	12.1	5.9	9.8	7.7	6.6	4.2	5.3	3.3	6.8	6.8	2.0	1.5
	Korea, Republic of	3.3	7.2	12.5	15.5	13.2	14.1	8.7	7.5	3.2	4.4	4.3	3.9	2.6	3.8	4.0	2.6	1.0	2.0	1.6	0.3	2.2	4.2	3.5	3.4	3.4
	NEI-Indonesia Fresh Tuna	0.0	2.0		0.1		2.7	10.3	12.6	12.9	15.6	12.6	16.3	8.9	3.7	4.0	0.3	0.0								
	Other Fleets	15.9	4.0	0.3	1.0	0.6	0.4	0.4	0.1	1.9	20.1	34.4	8.0	5.2	3.9	2.0	4.0	6.0	5.6	5.3	4.6	7.6	12.3	26.2	18.1	15.5
	Total	104.2	61.2	30.5	45.2	46.9	54.9	65.2	86.0	78.8	136.7	196.4	120.4	88.6	113.6	109.1	109.3	103.7	89.9	81.2	84.8	84.7	110.2	144.6	98.2	83.5
	Gillnet	30.1	7.3					1.0	2.3	3.2	12.1	13.3	19.5	22.5	28.5	20.0	18.0	24.3	13.5	18.0	19.0	29.5	39.7	35.8	32.1	13.6
	Sri Lanka	37.5	13.3	6.9	7.1	7.4	7.7	8.3	9.6	11.6	13.9	16.6	21.5	18.9	23.7	29.5	29.2	37.0	33.8	30.7	32.4	38.5	39.3	26.5	38.9	44.1
	Oman	6.3	3.0	1.2	1.4	3.1	8.3	8.7	7.7	2.8	7.0	5.9	5.0	9.5	4.6	3.4	6.3	3.8	3.7	3.3	3.0	7.2	13.8	7.9	1.4	1.4
	Pakistan	3.2	2.9	1.5	2.6	2.4	3.8	8.6	3.3	4.9	3.9	2.6	2.4	2.1	3.2	3.9	3.9	9.3	5.3	3.9	3.4	3.6	3.4	2.2	1.7	5.1
	Other Fleets	1.9	0.7	1.1	0.6	0.8	0.5	0.7	1.0	0.8	0.9	0.9	0.9	0.8	0.9	1.0	0.8	0.9	1.0	0.9	0.9	1.0	0.8	2.2	2.8	2.8
	Total	79.0	27.2	10.7	11.6	13.8	20.4	27.3	23.8	23.4	37.8	39.3	49.3	53.8	60.8	57.8	58.2	75.3	57.2	56.7	58.7	79.7	97.0	74.5	76.8	67.1
Line	Yemen	24.0	7.3	3.3	4.1	4.8	5.5	6.3	7.1	7.9	8.7	7.8	8.5	13.4	15.2	17.3	19.3	21.4	23.4	25.5	27.5	25.7	31.7	26.8	19.6	16.3
	Oman	10.2	3.0	0.7	0.7	1.7	4.5	4.8	4.3	6.0	6.0	5.3	13.5	9.1	5.2	6.2	4.4	3.5	3.3	2.9	2.2	2.3	9.6	7.3	15.9	15.9
	Comoros	6.2	2.1	0.2	0.2	0.2	0.2	3.7	3.7	3.7	5.0	5.0	5.9	5.9	5.8	5.6	5.6	5.5	5.9	5.5	5.9	6.1	6.2	6.2	6.2	6.2
	Maldives	5.6	0.9	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.6	0.7	1.6	2.5	4.2	2.5	6.8	5.5	5.8	7.4
	Other Fleets	6.8	3.6	5.0	5.7	4.7	4.3	3.1	3.6	3.9	3.9	4.3	4.4	4.4	4.3	4.3	3.8	4.1	4.7	4.4	4.3	4.3	4.4	11.1	7.2	7.1
	Total	52.8	17.0	9.4	10.9	11.7	14.9	18.1	18.9	21.7	23.8	22.7	32.5	33.0	30.8	33.7	33.6	35.0	38.9	40.8	44.1	40.8	58.6	56.8	54.8	52.9
	Other gears	1.5	0.9	0.9	1.2	1.5	3.2	3.0	2.7	0.4	0.7	0.6	1.2	3.3	2.2	0.6	1.0	0.6	0.6	0.5	0.5	1.4	1.9	2.3	0.9	0.8
All	Total	434.8	174.3	128.0	149.4	165.8	218.5	209.2	245.4	237.4	320.0	396.5	330.1	339.3	349.4	346.4	316.2	362.9	338.0	321.1	344.4	447.7	511.2	490.4	407.9	316.7

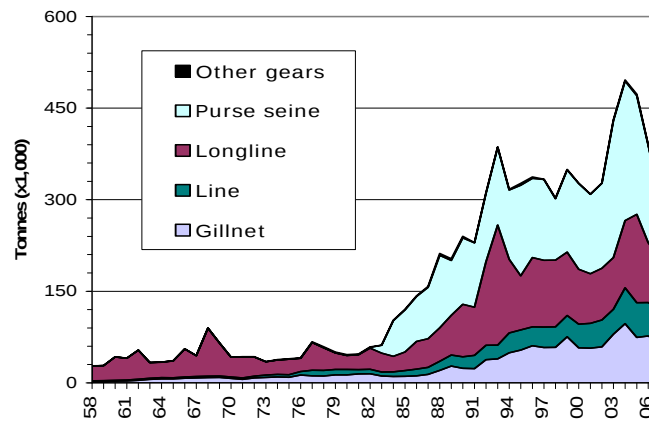


Figure 1. Yearly catches (thousand of metric tonnes) of yellowfin tuna by gear from 1958 to 2007

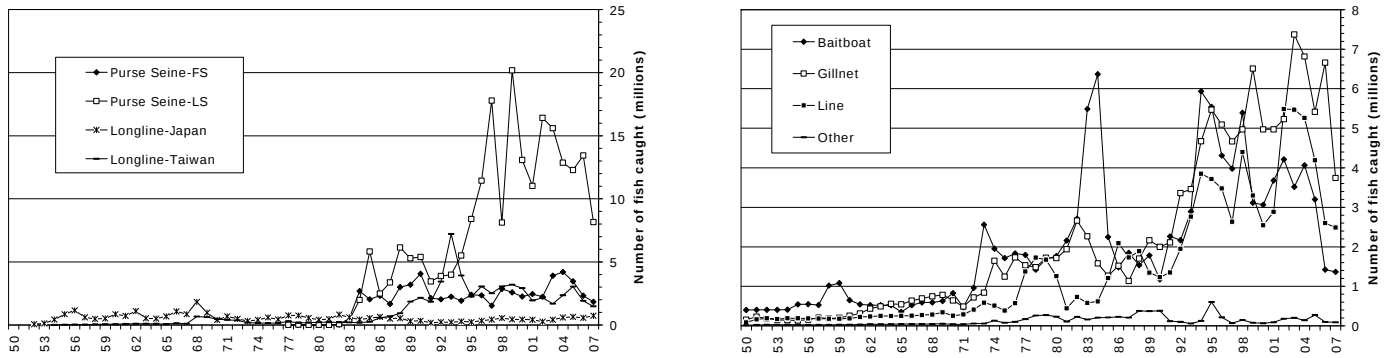


Figure 2-3. Yearly catches (numbers) of yellowfin tuna by gear from 1958 to 2007
Industrial fleets (Left) and artisanal fleets (right)

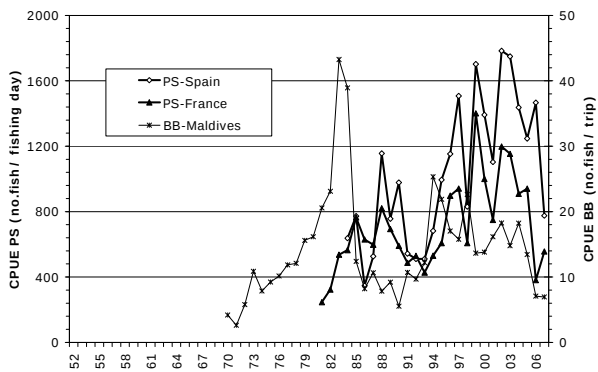


Figure 4. Nominal CPUE for EC purse seine fleets and Maldivian baitboats in the Indian Ocean

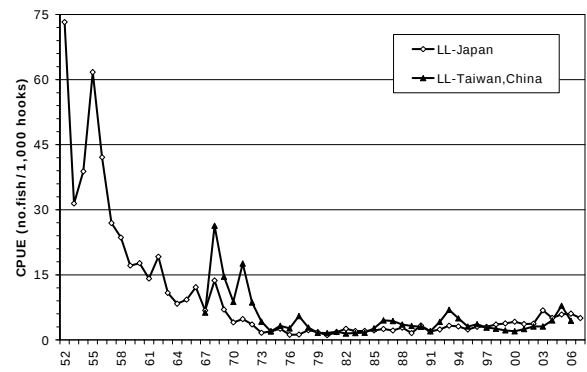


Figure 5. Nominal CPUE for the Japanese and Taiwanese longline fleets in the Indian Ocean

Figure 6: Catches of Yellowfin Tuna (YFT) in the Indian Ocean for the period 1958- 2007

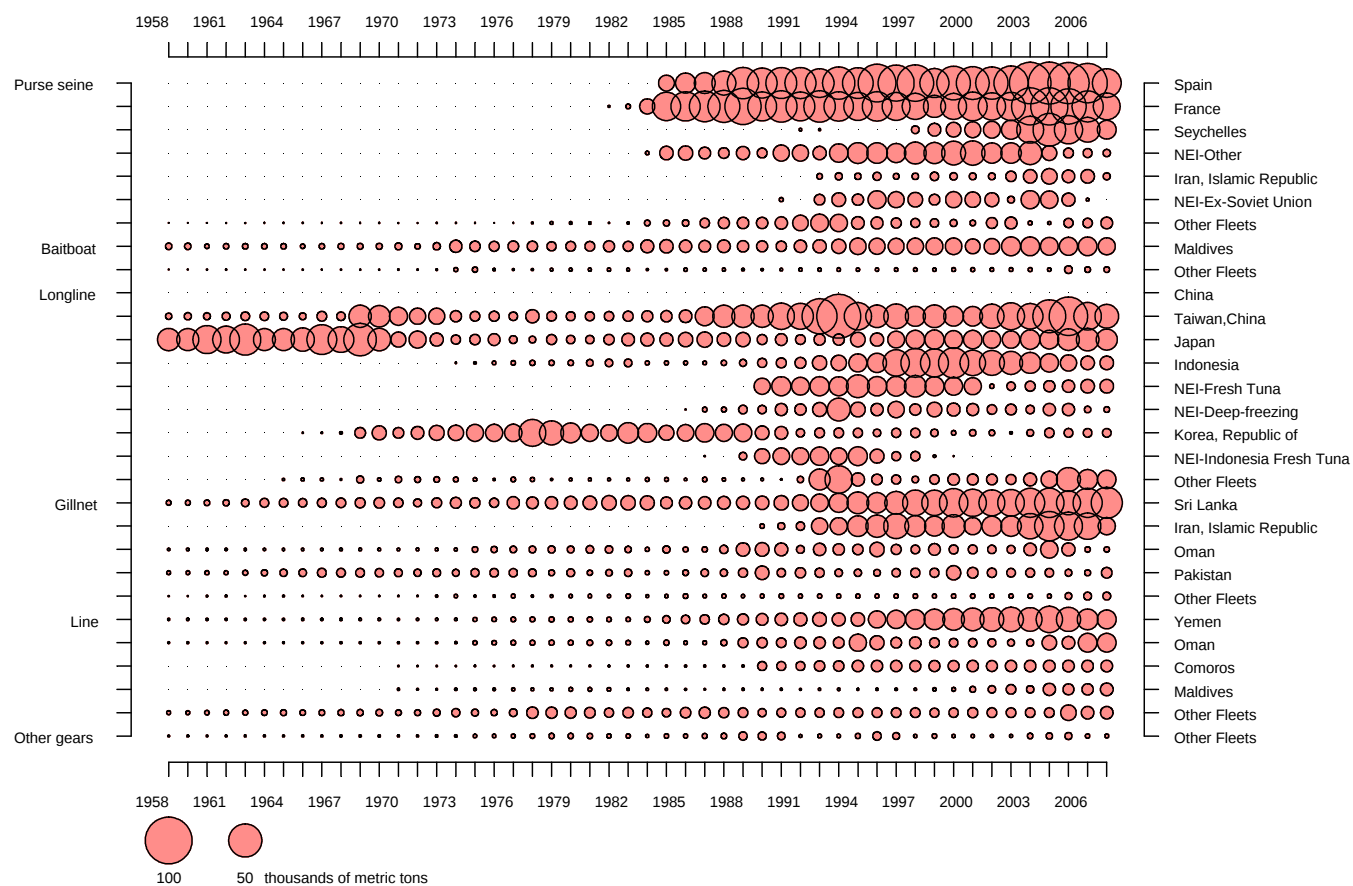


Figure 7: Catches of yellowfin tuna (tons) by industrial fleets in the Indian Ocean by quarter for the period 1958- 2007

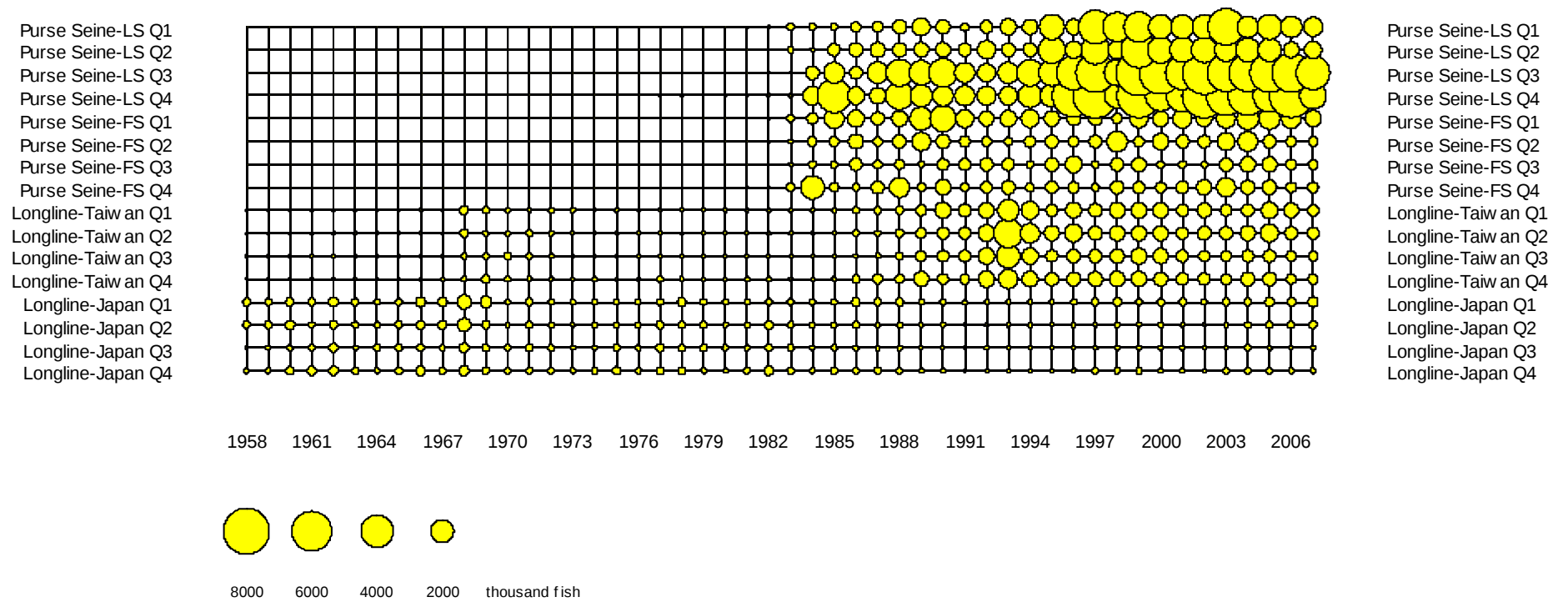
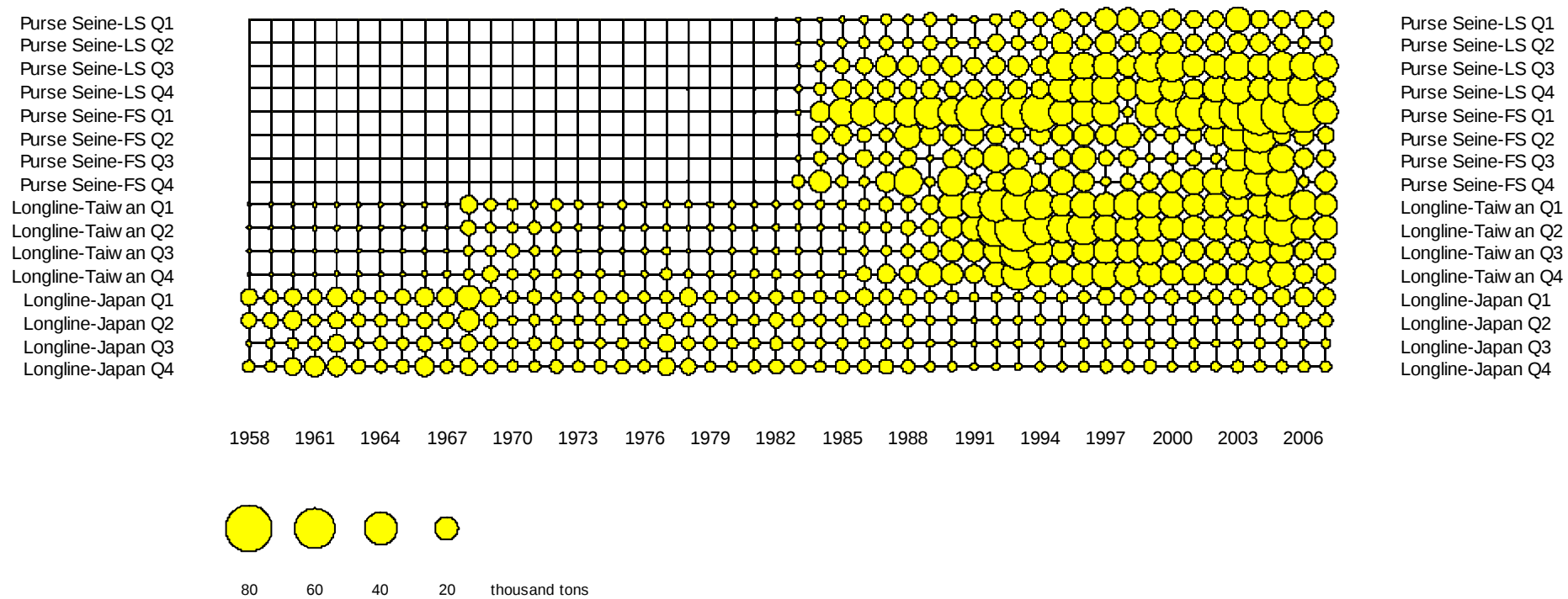
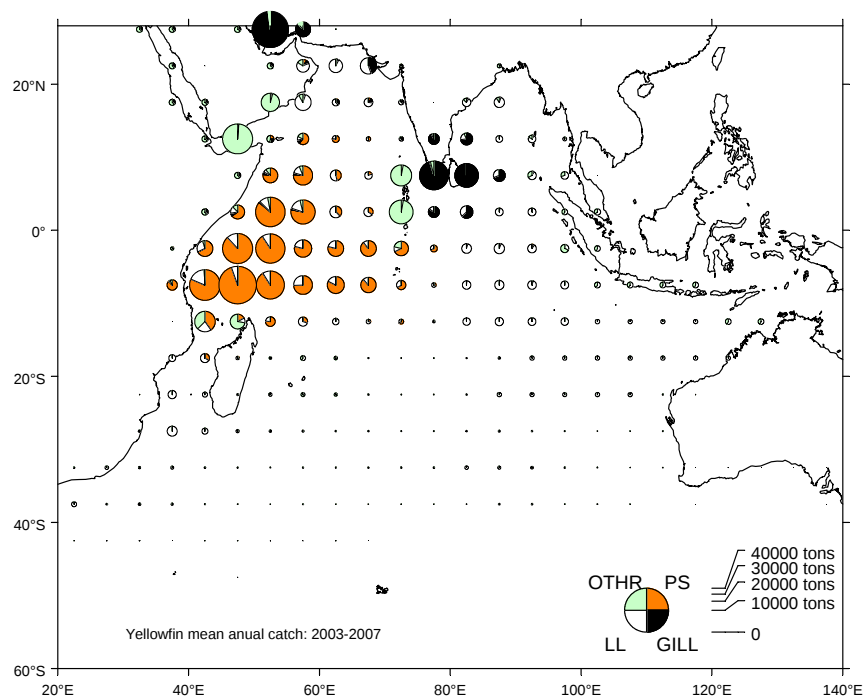
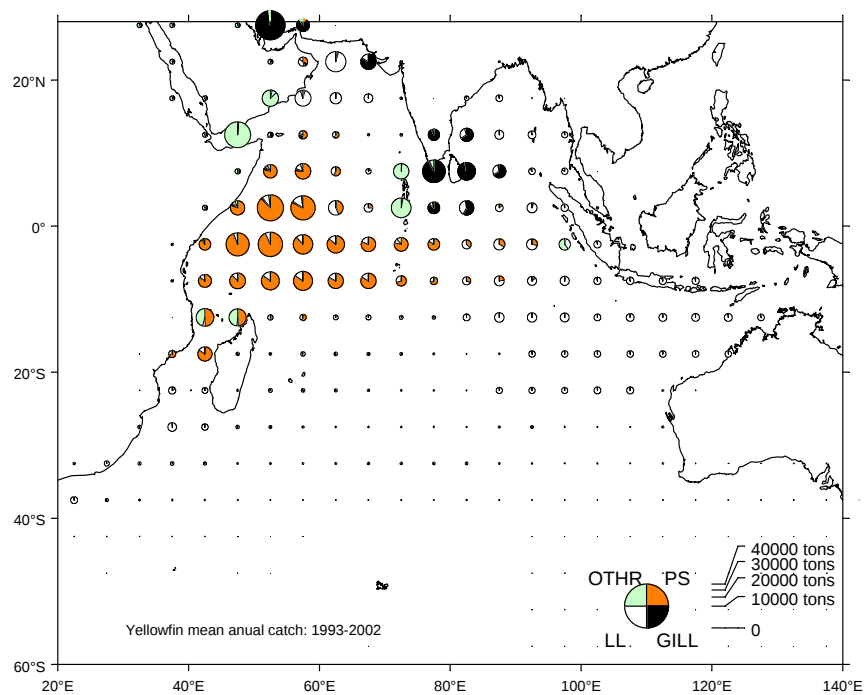


Figure 8: Catches of yellowfin tuna (numbers) by industrial fleets in the Indian Ocean by quarter for the period 1958- 2007





**Figure 9-10. Location and size of yellowfin tuna catches in the Indian Ocean by gear type for 1993-02 (top), 2003-07 (bottom).
 GILL = gillnet, LL = longline, PS = purse seine, OTHR = other gears**

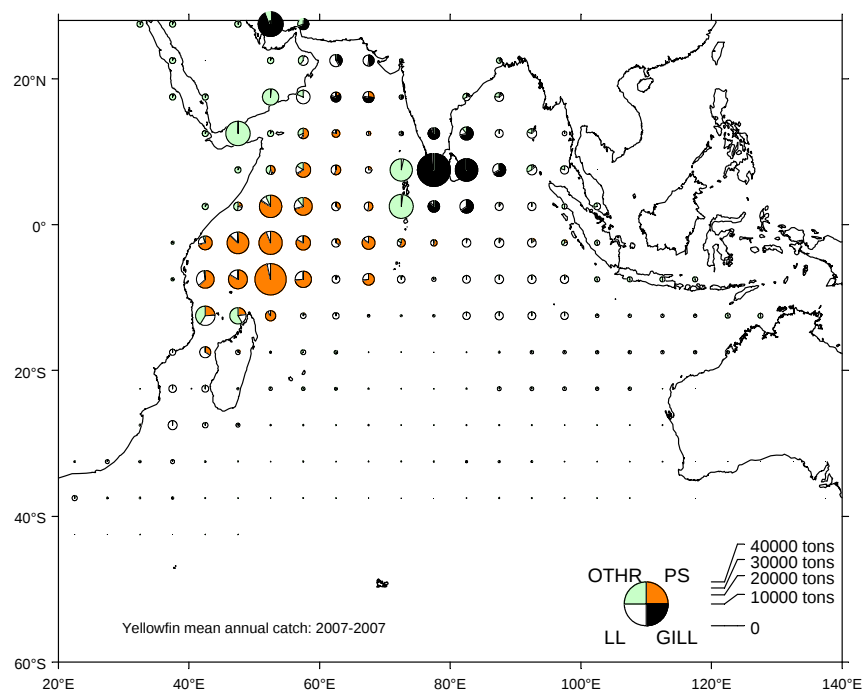
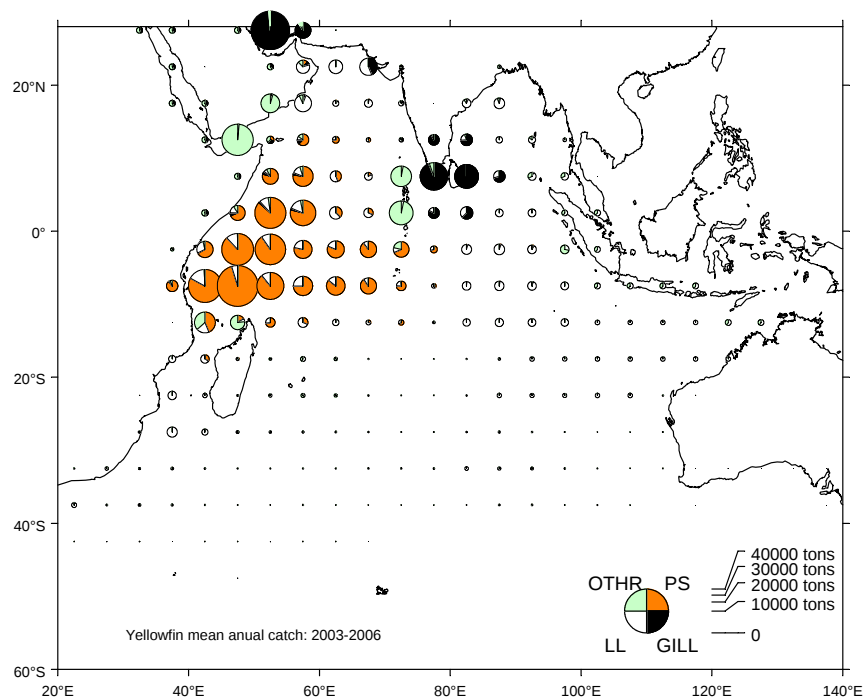


Figure 11-12. Location and size of yellowfin tuna catches in the Indian Ocean by gear type for 2003-2006 (top) and 2007 (bottom)
GILL = gillnet, LL = longline, PS = purse seine, OTHR = other gears

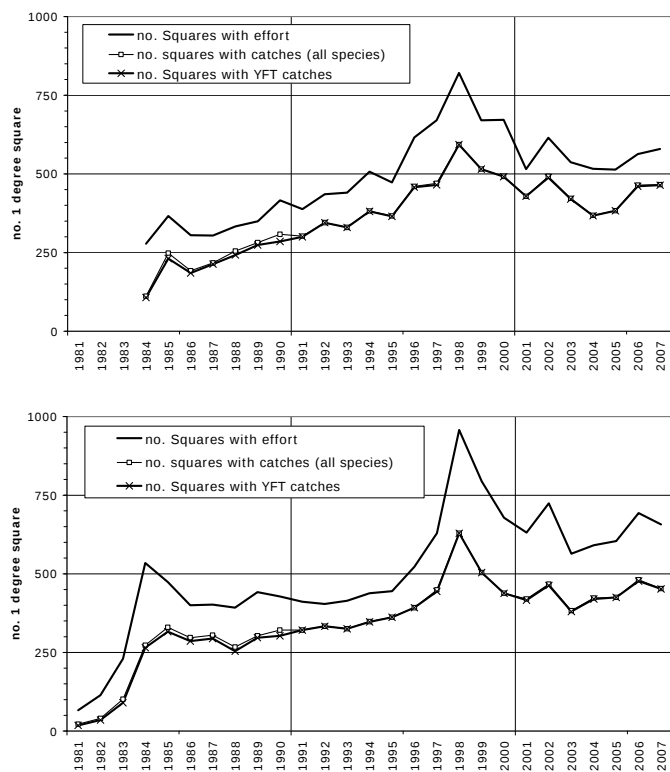


Figure 13-14. Number of one degree squares explored by the purse seine fishery, 1981-2007
Purse seiners from Spain (top) and France (bottom)

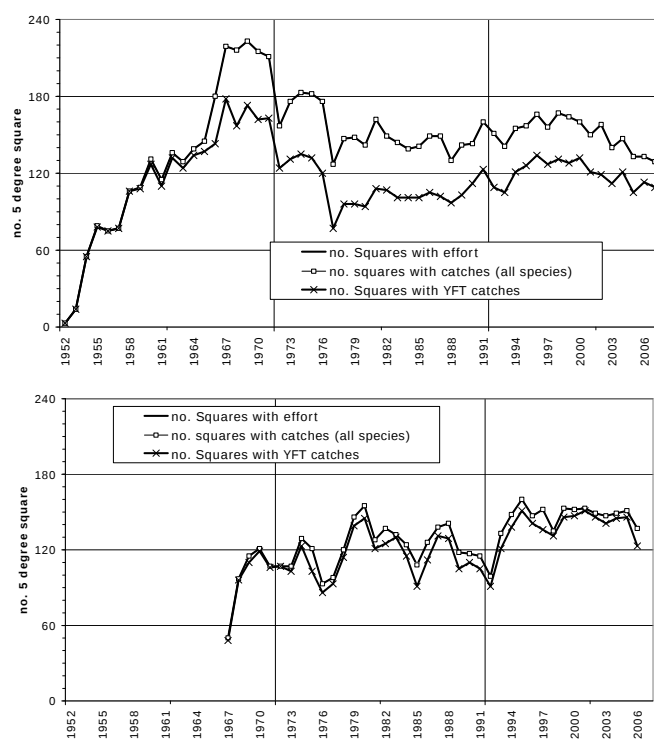


Figure 15-16. Number of five degree squares explored by the longline fishery, 1952-2007
Longliners from Japan (top) and Taiwan, China (bottom)

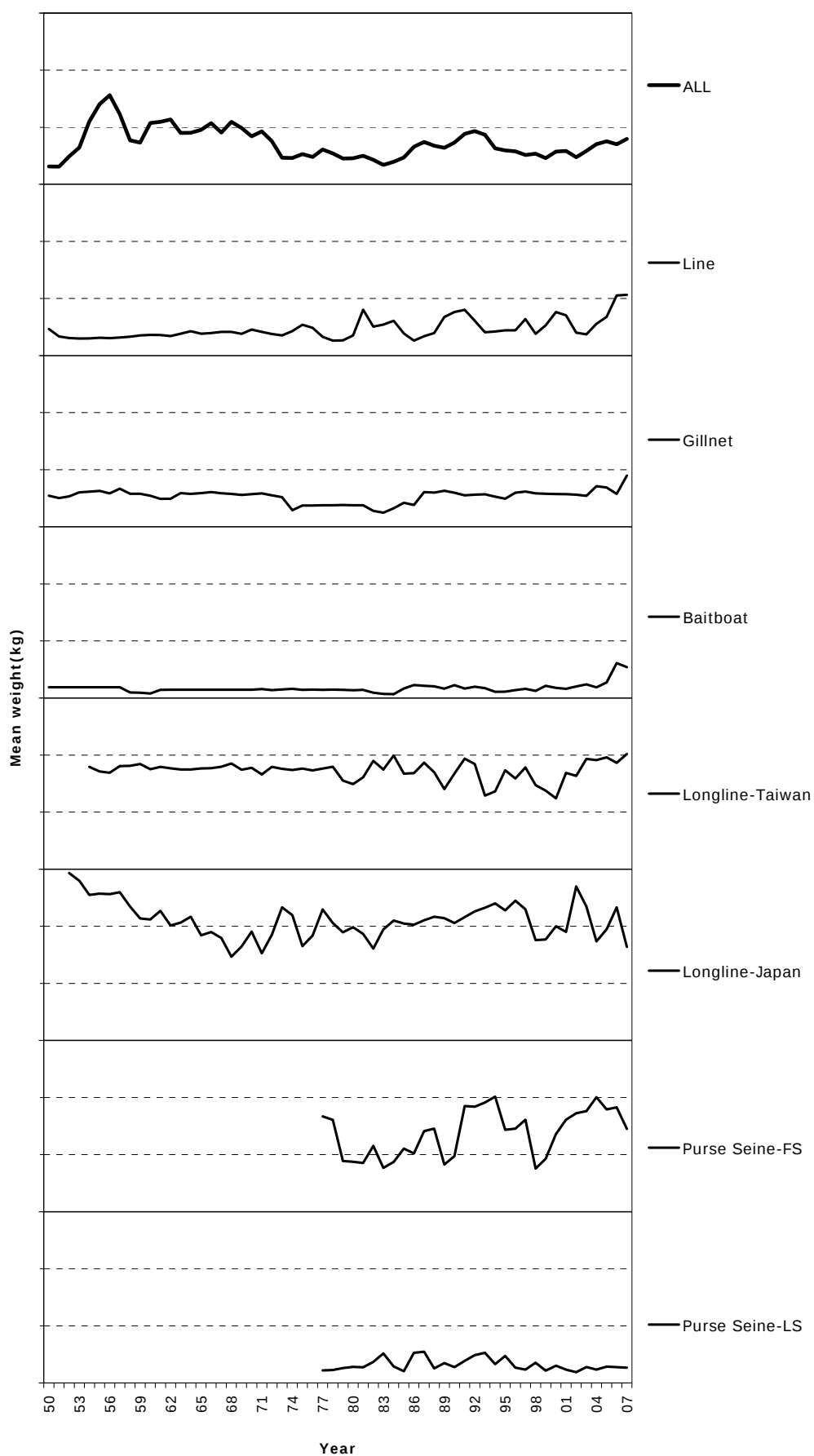
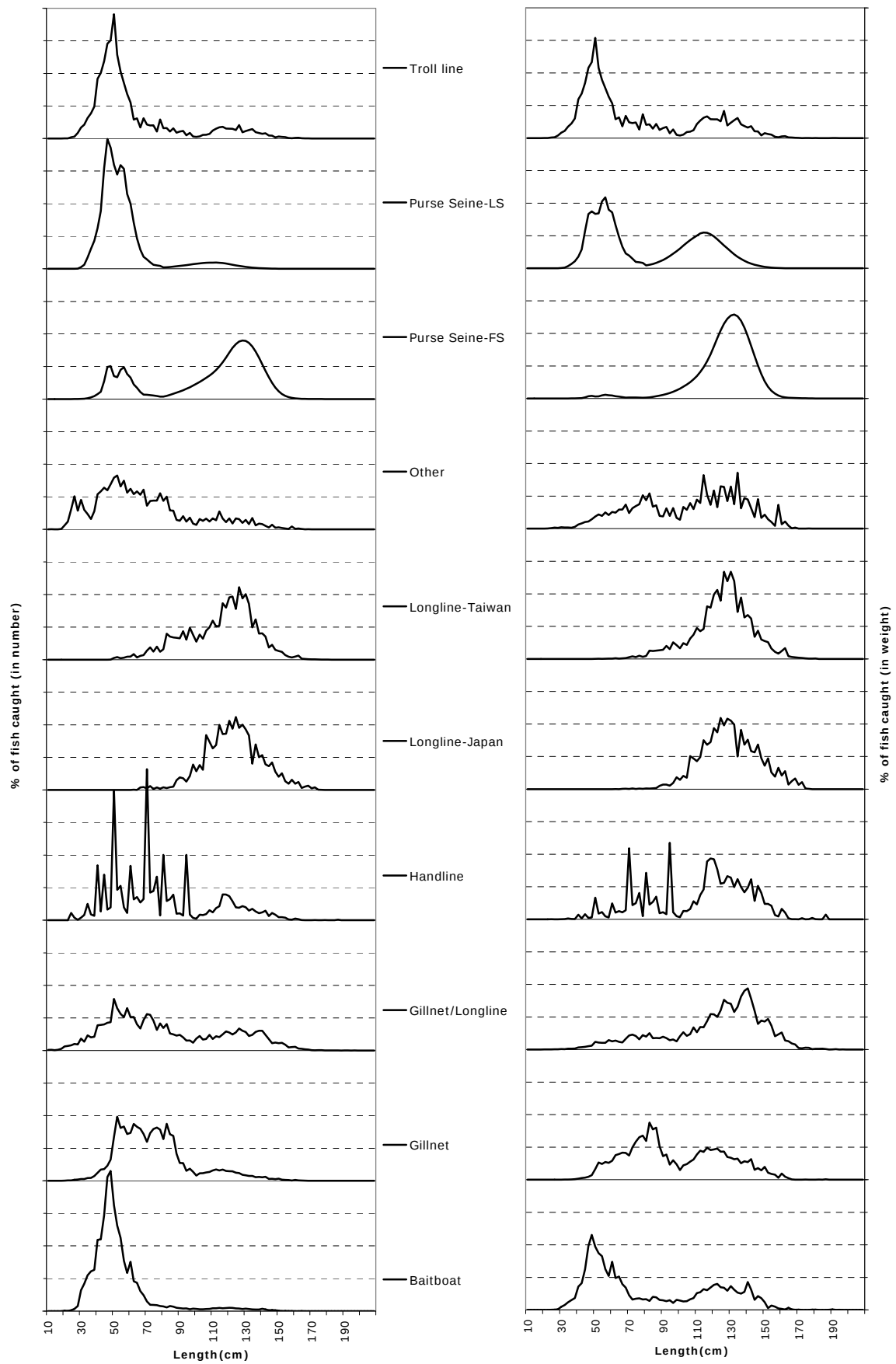


Figure 17. Mean weight (kg) of yellowfin tuna individuals in the catch by gear and for all gear-types (estimated from the total catch at size); (broken lines represent 20kg each)



Figures 18-19. Mean catch at size of yellowfin tuna measured from purse seine, longline, baitboat, line (hand line and troll line), gillnet and other gears catches from 1998-2007: in numbers (left panels) and weight (right panels) (broken lines represent 2.5% each)

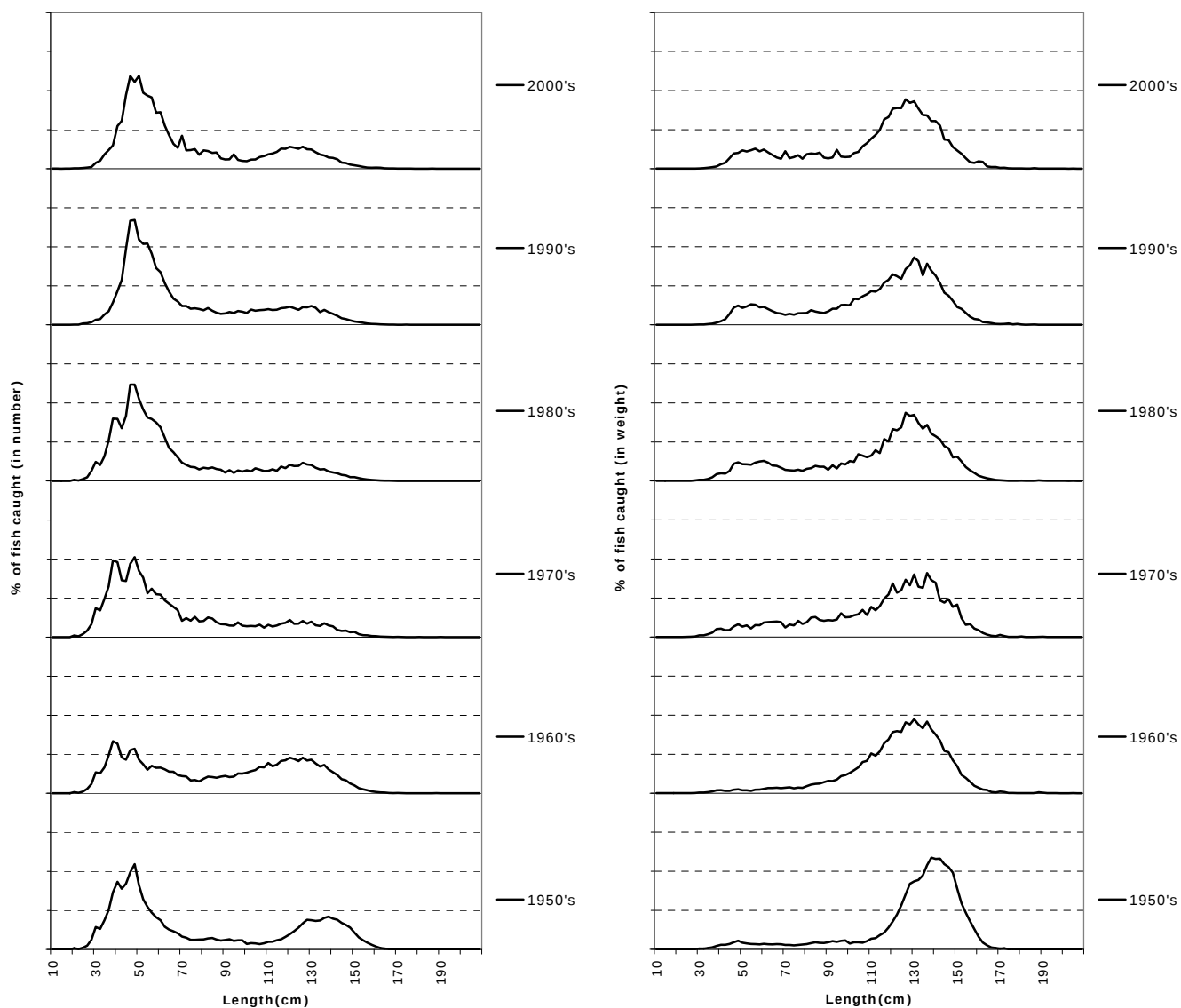


Figure 20-21. Mean catch by size in numbers (left panels) and weight (right panels) for six ten-year mean periods: 1950-59, 1960-69, 1970-79, 1980-89, 1990-99 and 2000-2007 (broken lines represent 2.5% each)

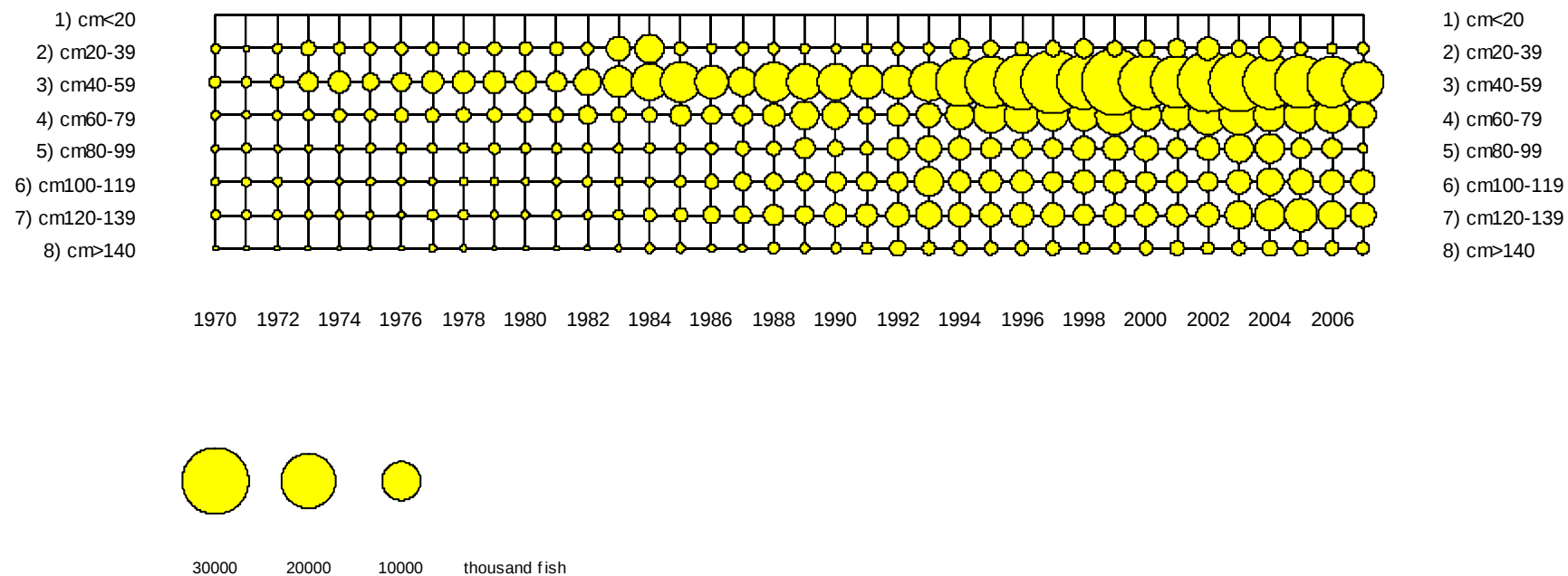


Figure 22. Mean catch at size (number) of yellowfin tuna in purse seine, longline, gillnet and other gears (including baitboats and lines) catches over the period 1970-2007

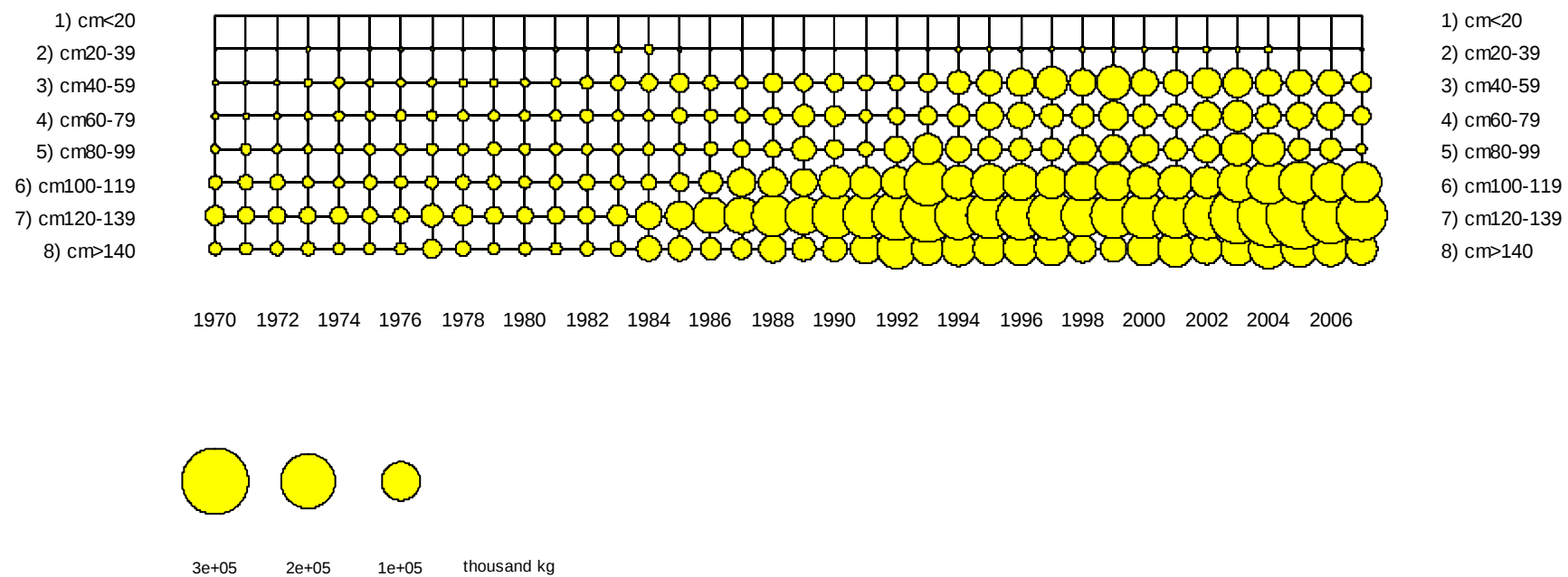


Figure 23. Mean catch at size (weight) of yellowfin tuna in purse seine, longline, gillnet and other gears (including baitboats and lines) catches over the period 1970-2007

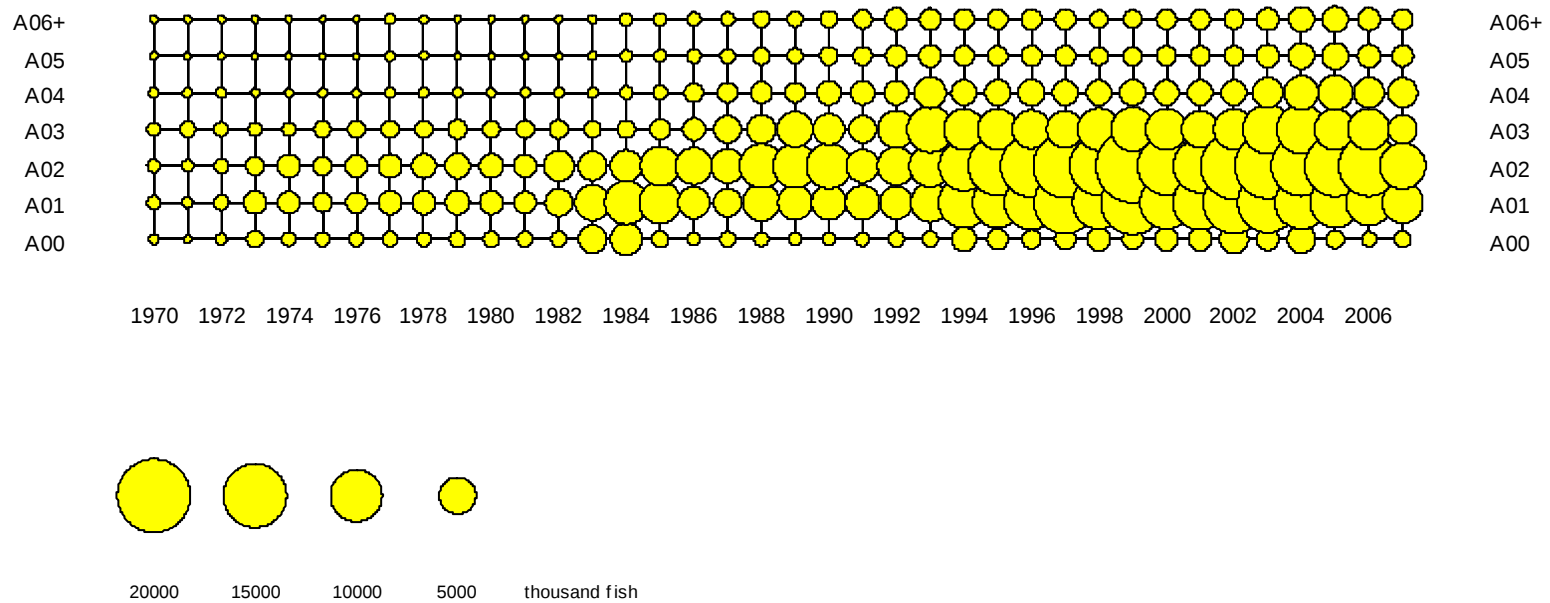


Figure 24. Mean catch at age (number) of yellowfin tuna per quarter over the period 1970-2007