

International Consultations on the Establishment of the South Pacific Regional Fisheries Management Organisation

Eighth International Meeting

SP-08-SWG-09 Rev1

Update of Data Submitted to the Interim Secretariat as at 29 October 2009

Interim Secretariat

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1.0 Introduction

1.1 Catch/ Landing Data

This paper summarises catch/landing data for the key species which have been submitted to the Interim Secretariat as of 29 October 2009. The species included in this report are MACKERELS, SQUIDS, ORANGE ROUGHY and ALFONSINOS.

1.2 Bottom Footprint Data

Chile, Korea and New Zealand have submitted some bottom fishing footprint data to the Interim Secretariat. Additional information about these data is noted in section 8.0 below.

2.0 Summary of Data Received by the Interim Secretariat

Tables 2.1 and 2.2 provide a summary of the catch/landing data provided to the Interim Secretariat by participants for 2007 and 2008.

2.1 Tables 2.1 and 2.2 Explanatory Note

Please note the following explanation regarding “Aggregated annual catch” as it appears in these two tables.

Aggregated Annual Catch

No	- indicates that no separate estimate of annual catch/landing by species was provided (e.g. based on landing rather than estimated catch information), however finer scale data such as tow by tow/ set by set / 1°x1° square or 5°x5° data may have been summed to give an annual catch estimate
Yes	- indicates that a separate estimate of annual catch/landing by species was provided and this estimate did not appear to have been derived directly by the addition of finer scale [estimated] catch data - for example this annual figure may have been derived from landings (as opposed to estimated catch at sea) data, or may have included catch for which there is only broad positional information available, e.g. it is known that the catch was taken in the High Seas, but no latitudinal and longitudinal information is available.

Table 2.1: Summary of Catch/Landing Data Received by the Interim Secretariat for 2007

PARTICIPANT	2007 CATCH/ LANDING DATA		
	Type of data	Type of Data Provided	Species/Fishery/ies for which Data Provided
Australia	Aggregated annual catch (EEZ)	Yes	JAX (EEZ)
Belize	Tow by tow/ set by set data	No	
	1x1 degree square catch	Yes (by vessel/day/month)	JAX, Mackerel (species not specified)
	5x5 degree square catch data	Yes (by vessel)	ALF, BOR, ORY
	Aggregated annual catch	Yes	JAX, Mackerel (species not specified)
Chile	Tow by tow/ set by set data	No	
	1x1 degree square catch data (HS + EEZ)	Yes	CJM (HS + EEZ), MAS (HS + EEZ), GIS (HS + EEZ)
	Aggregated annual catch (HS + EEZ)	Yes	CJM (HS + EEZ), MAS (HS + EEZ), GIS (HS + EEZ)
China	Tow by tow/ set by set data	No	
	5x5 degree square catch	Yes	CJM, GIS
	Aggregated annual catch	No	
Cook Islands	Tow by tow/ set by set data	Yes	JAX
	1x1 degree square catch data	No	
	Aggregated annual catch	Yes	JAX
Ecuador	Aggregated annual catch (EEZ)	Yes	CJM (EEZ)
European Community	Tow by tow/ set by set data	No	
	5x5 degree square catch data	Yes	ALF, CBA, CJM, MAS
	Aggregated annual catch	No	
Faroe Islands	Tow by tow/ set by set data	No	
	5x5 degree square catch data	No	
	Aggregated annual catch	Yes [^]	CJM
Korea	Tow by tow/ set by set data	Yes	CJM, MAS
	Aggregated annual catch	Yes	CJM, MAS
New Zealand	Tow by tow/ set by set data	Can be provided as soon as the SPRFMO database is available to accept these data	ALL
	5x5 degree square catch data	Yes	ALL
	Aggregated annual catch	No	
Peru	Aggregated annual catch (EEZ)	Yes	CJM (EEZ), MAS (EEZ), GIS (EEZ)
Ukraine	Aggregated annual catch (NZ EEZ)	Yes	JAX (NZ EEZ)
Vanuatu	Catch by day and vessel	Yes	CJM
	Aggregated annual catch	Yes (by vessel)	MAS
Chinese Taipei Fishing Entity	Tow by tow/ set by set data	No	
	5x5 degree square catch data	No	
	Aggregated annual catch	No	

Key:

ALL - All species caught in High Seas	MAS - Chub mackerel (<i>Scomber japonicus</i>)
ALF - Alfonsinos	ORY - Orange roughy (<i>Hoplostethus atlanticus</i>)
CJM - Chilean jack mackerel (<i>Trachurus murphyi</i>)	
GIS - Jumbo flying squid (<i>Dosidicus gigas</i>)	
JAX - Jack and horse mackerels (<i>Trachurus</i> species)	EEZ - Exclusive Economic Zone
MAC - Atlantic mackerel (<i>Scomber scombrus</i>)	HS - High Seas

Table 2.2: Summary of Catch/Landing Data Received by the Interim Secretariat for 2008

PARTICIPANT		2008 CATCH/ LANDING DATA		
		Type of data	Type of Data Provided	Species/Fishery/ies for which Data Provided
Belize		Tow by tow/ set by set data	No	
		5x5 degree square catch data	Yes (by month and vessel)	CJM, MAS
		Aggregated annual catch	No	
Chile		Tow by tow/ set by set data	No	
		1x1 degree square catch data (HS + EEZ)	Yes	CJM (HS + EEZ), MAS (HS + EEZ), GIS (HS + EEZ)
		Aggregated annual catch (HS + EEZ)	Yes	CJM (HS + EEZ), MAS (HS + EEZ), GIS (HS + EEZ)
China		Tow by tow/ set by set data	No	
		1x1 degree square catch	Yes	CJM
		5x5 degree square catch data	Yes	GIS
		Aggregated annual catch	No	
European Community	Pelagic	Tow by tow/ set by set data	Yes	ALF, CJM, MAS
		Aggregated annual catch	Yes	ALF, CJM, MAS
	Fixed gill net	Tow by tow/ set by set data	No	
		5x5 degree square catch data	No	
		Aggregated (Dec 2008-Jan 2009)	Yes	ALL
Faroe Islands		Tow by tow/ set by set data	No	
		5x5 degree square catch data	No	
		Aggregated annual catch	Yes	CJM, MAS
Korea		Tow by tow/ set by set data	Yes (by vessel)	CJM, MAS
		Aggregated annual catch	No	
New Zealand		Tow by tow/ set by set data	Can be provided as soon as the SPRFMO database is available to accept these data	ALL
		5x5 degree square catch data	Yes	ALL
		Aggregated annual catch	No	
Peru		Aggregated annual catch (EEZ)	Yes	CJM (EEZ), MAS (EEZ), GIS (EEZ)
Russian Federation		Tow by tow/ set by set data	Yes	
		Aggregated annual catch	Yes (by vessel)	
Vanuatu		Tow by tow/ set by set data	Yes	CJM, MAS
		Aggregated annual catch	Yes (by vessel)	CJM, MAS
Chinese Taipei Fishing Entity		Tow by tow/ set by set data	No	
		5x5 degree square catch data	Yes (preliminary)	GIS
		Aggregated annual catch	No	

Key:

ALL - All species caught in High Seas	MAS - Chub mackerel (<i>Scomber japonicus</i>)
ALF - Alfonsinos	ORY - Orange roughy (<i>Hoplostethus atlanticus</i>)
CJM - Chilean jack mackerel (<i>Trachurus murphyi</i>)	
GIS - Jumbo flying squid (<i>Dosidicus gigas</i>)	
JAX - Jack and horse mackerels (<i>Trachurus</i> species)	EEZ - Exclusive Economic Zone
MAC - Atlantic mackerel (<i>Scomber scombrus</i>)	HS - High Seas

3.0 Mackerel (*Trachurus* species) Catch Summaries (Fish Taken Entirely or Partially within SPRFMO Area)

Table 3.1: Annual Catch Data - *Trachurus* species (Part 1 of 3)

NB: Does not include data submissions specifically identified as chub mackerel, or mackerel where the species/type was not specified

	Catch (t)					
	Belize		Chile		China	Cook Islands
Area	5x5 squares	5x5 squares	FAO 87 High Seas only	FAO 87 High Seas and EEZ combined	FAO87 (Various: totals, 5x5 + 1x1)	FAO87
Species	Chilean jack mackerel	Horse mackerel	Chilean jack mackerel	Chilean jack mackerel	Chilean jack mackerel	Jack mackerel (<i>Trachurus</i> spp)
2008	x		519,738	896,108	143,182	
2007		12,585	262,617	1,302,784	140,582	x
2006		481		1,366,770	160,000	
2005		867		1,430,434	143,000	
2004		0		1,451,599	131,020	
2003		0		1,421,296	94,690	
2002		0		1,518,994	76,261	
2001		0		1,649,933	20,090	
2000				1,234,299	x	
1999				1,219,689		
1998				1,612,912		
1997				2,917,064		
1996				3,883,326		
1995				4,404,193		
1994				4,041,447		
1993				3,236,244		
1992				3,212,060		
1991				3,020,512		
1990				2,471,875		
1989				2,390,117		
1988				2,138,255		
1987				1,770,037		
1986				1,184,317		
1985				1,456,989		
1984						
1983						
1982						
1981						
1980						
1979						
1978						
1977						
1976						
1975						
1974						
1973						
1972						
1971						
1970						

^ Total includes small quantities of unspecified mackerel

X Data not displayed as totals are for less than 3 vessels; Belize chose to display all of their data for 2005 - 2007 irrespective of whether less than 3 vessels were fishing

Table 3.1: Annual Catch Data - *Trachurus* species (Part 2 of 3)

NB: Does not include data submissions specifically identified as chub mackerel, or mackerel where the species/type was not specified

	Catch (t)					
	Cuba	EC		Faroe Islands	Japan	Korea
Area	Unspecified	FAO87 (Various: totals, 5x5 + tow by tow)	Unspecified	FAO87	FAO87	FAO87 (EEZ and High Seas)
Species	Jack mackerel	Chilean jack mackerel	Jack mackerel - unspecified	Chilean Jack Mackerel	Chilean Jack Mackerel	Chilean jack mackerel
2008		106,665		x		12,600
2007		123,511		38,700^		10,940
2006		62,137				10,474
2005		6,179				x
2004						7,438
2003						2,010
2002						
2001						
2000						
1999					7	
1998						
1997						
1996						
1995						
1994						
1993						
1992			7,842			
1991	5,769		109,292			
1990	31,047		81,909		157	
1989	14,784		11,584		x	
1988	12,335		76,036		x	
1987	34,226		864		x	
1986	43,387		828		x	
1985	42,287		847		5,229	
1984	24,428		80,848		x	
1983	45,981		40,357		x	
1982	61,016		7,600			
1981	50,930		2,029		x	
1980	54,295		7,540			
1979			45,495		x	
1978			29,455		1,667	x
1977			1,078		2,273	
1976			719		x	
1975			680			
1974			55			
1973			35			
1972						
1971						
1970						

^ Total includes small quantities of unspecified mackerel

X Data not displayed as totals are for less than 3 vessels; Belize chose to display all of their data for 2005 - 2007 irrespective of whether less than 3 vessels were fishing

Table 3.1: Annual Catch Data - *Trachurus* species (Part 3 of 3)

NB: Does not include data submissions specifically identified as chub mackerel, or mackerel where the species/type was not specified

	Catch (t)					
	Russian Fedn.		Ukraine			Vanuatu
Area	FAO81	FAO87	FAO81	FAO81 (NZ EEZ)	FAO87	FAO87
Species	Greenback horse mackerel	Chilean jack mackerel	Chilean jack mackerel	Jack and horse mackerels nei (mix of <i>Trachurus declivis</i> , <i>T. murphyi</i> , <i>T. novaezelandiae</i>)	Chilean jack mackerel	Chilean jack mackerel
2008		x				100,066
2007	0	0		22,067		112,501
2006	0	0				129,535
2005	0	7,040				77,356
2004	0	62,300		22,600		94,685
2003	0	7,540		25,016		53,959
2002	0	0		5,667		
2001	0	0		7,577		
2000	0	0		12,213		
1999	223	0		15,306		
1998	52	0		9,309		
1997	886	0		9,740		
1996	2,280	0		13,093		
1995	1,602	0		8,990		
1994	1,804	0		4,192		
1993	4,260	0		7,937		
1992	2,892	32,000		2,878	2,736	
1991	127,000	591,800	7,838	319	65,126	
1990	67,518	1,122,297	3,574	214	115,049	
1989	56,543	1,096,292	2,292		109,695	
1988	58,797	938,288	868		104,006	
1987	107,329	818,628	5,274		89,116	
1986	146,200	785,000	5,778		81,275	
1985	133,300	837,700	7,313		100,464	
1984	22,300	1,056,600			162,524	
1983	10,651	866,500	1,982		140,185	
1982	4,953	735,898	631		82,633	
1981	0	771,630			85,517	
1980	13	544,970		6	58,677	
1979	0	532,209			90,371	
1978	254	49,220			4,783	
1977	710	0				
1976	0	0				
1975	0	0				
1974	0	0				
1973	0	0				
1972	0	5,500				
1971	0	0				
1970	0	0				

^ Total includes small quantities of unspecified mackerel

X Data not displayed as totals are for less than 3 vessels;

Belize chose to display all of their data for 2005 - 2007 irrespective of whether less than 3 vessels were fishing

Figure 3.1: Annual Catch Data – *Trachurus* species (Part 1 of 2)

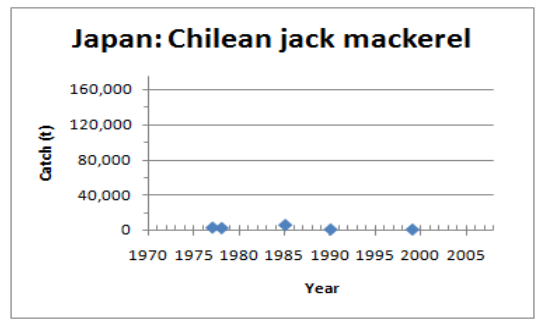
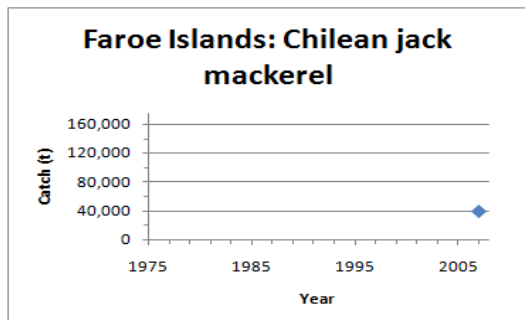
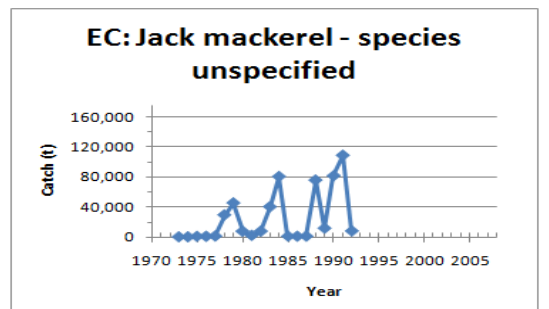
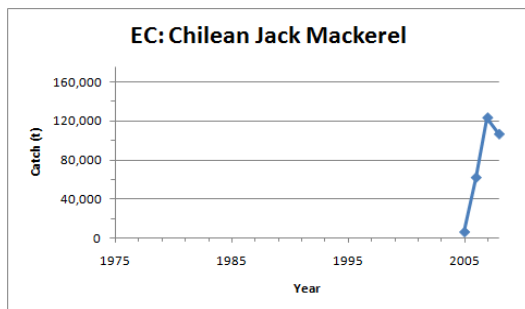
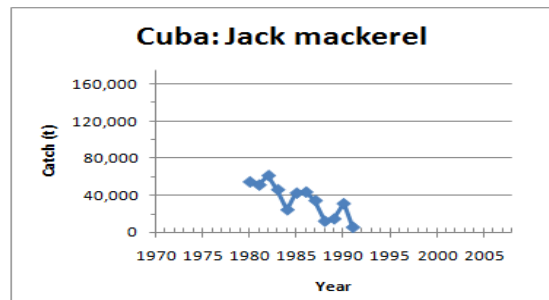
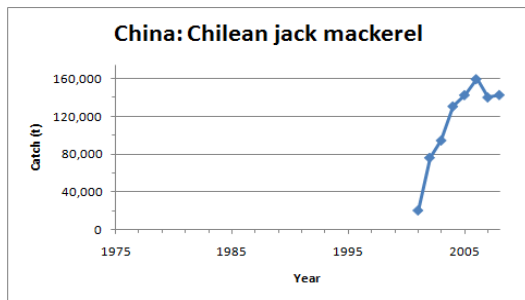
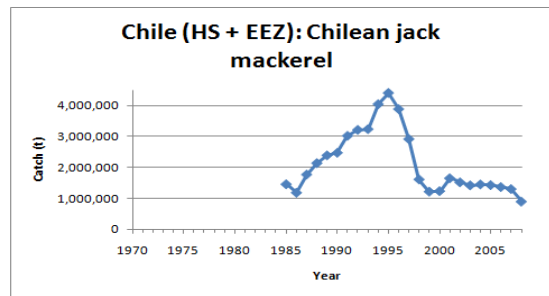
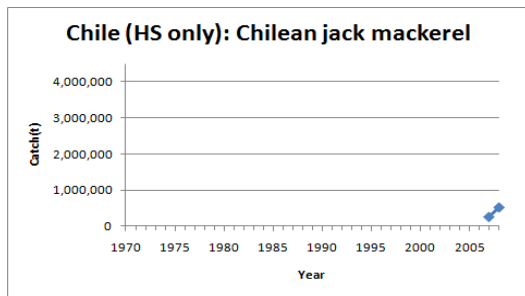
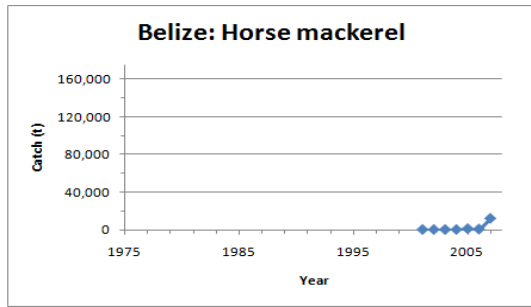


Figure 3.1: Annual Catch Data - *Trachurus* species (Part 2 of 2)

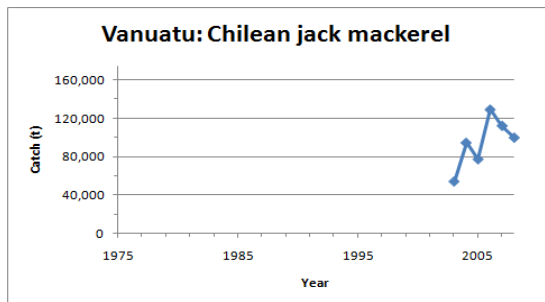
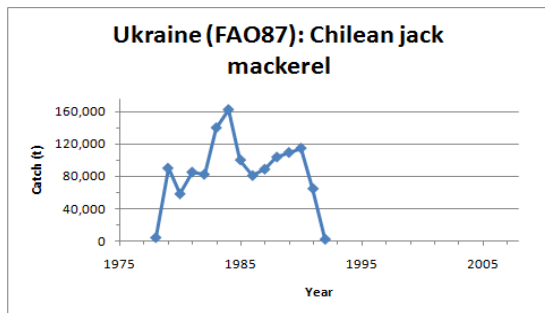
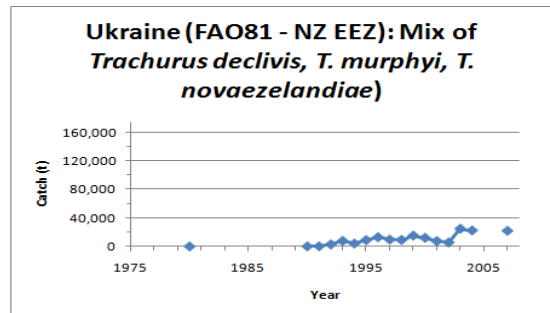
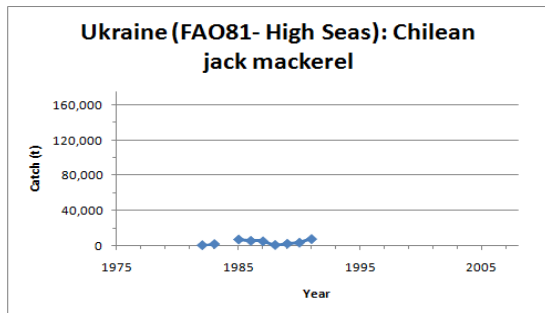
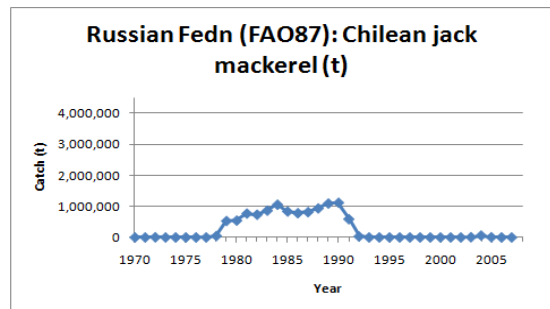
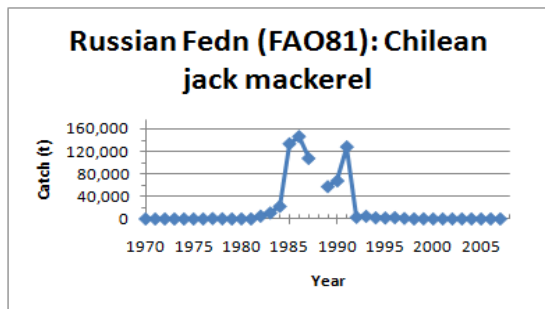
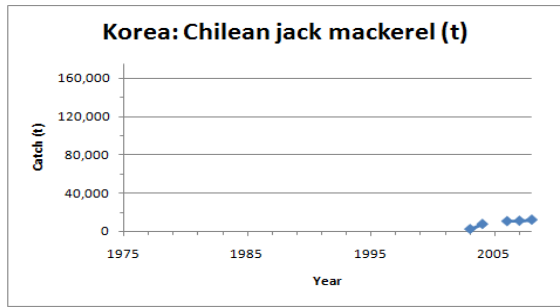


Table 3.2: Summary of 2007 Mackerel (*Trachurus* species) Data Received in 5x5 Degree Squares (t)

Participant 5x5 Degree Square	BELIZE		CHINA		COOK ISLANDS		EUROPEAN COMMUNITY		KOREA	
	No. Vessels Operating	Horse Mackerel (t)	No. Vessels Operating	Jack Mackerel (t)	No. Vessels Operatin	Jack and Horse Mackerel	No. Vessels Operating	Chilean Jack Mackerel (t)	No. Vessels Operating	Chilean Jack Mackerel
00-05S, 80-85W					1	x				
05-10S, 85-90W					2	x				
10-15S, 80-85W							1	x		
10-15S, 85-90W							1	x		
15-20S, 85-90W							1	x		
20-25S, 85-90W							1	x		
20-25S, 80-85W							2	x		
25-30S, 100-105W							1	x		
25-30S, 95-100W	1	78								
25-30S, 85-90W	1	99					3	271	1	x
25-30S, 80-85W							2	x		
25-30S, 75-80W							1	x		
30-35S, 125-130W									1	x
30-35S, 110-115W	1	259	11	935					3	473
30-35S, 105-110W	1	458	11	149			4	3,320	3	704
30-35S, 100-105W	1	76	11	5,659			6	14,209	3	1,418
30-35S, 95-100W	1	260	11	1,700			5	2,220	3	227
30-35S, 90-95W	1	790	11	14,340			7	9,317	3	847
30-35S, 85-90W	1	765	11	17,623			6	6,058	3	1,283
30-35S, 80-85W									1	x
25-30S, 80-85W							1	x		
35-40S, 140-145W									1	x
35-40S, 130-135W									1	x
35-40S, 110-115W									1	x
35-40S, 105-110W	1	181							3	138
35-40S, 100-105W	1	187					5	1,837	3	404
35-40S, 95-100W	1	1,459	11	4,320			4	2,586	3	1,351
35-40S, 90-95W	1	1,272	11	3,149			7	11,850	2	x
35-40S, 85-90W	1	756	11	4,236			5	9,048	2	x
35-40S, 80-85W	1	1,893	11	25,943			4	20,804	1	x
35-40S, 75-80W	1	221	11	3,393			3	2,134	1	x
40-45S, 85-90W			11	8,162			3	8,833		
40-45S, 80-85W	1	2,778	11	46,697			3	25,954	1	x
40-45S, 75-80W			11	3,044			2	x		
45-50S, 80-85W	1	190	11	263						
45-50S, 85-90W			11	969						
60-65S, 85-90W									2	x
65-70S, 95-100W									1	x
65-70S, 140-145W									1	x
65-70S, 110-115W									1	x
65-70S, 105-110W									1	x
TOTALS		11,720		140,582		x		123,511		10,913

X Data not displayed as totals are for less than 3 vessels;

Belize chose to display all of their data for 2005 - 2007 irrespective of whether less than 3 vessels were fishing

Note re Detailed 2008 Chilean Jack Mackerel (*T. murphyi*) Data:

For 2008, the European Community, the Republic of Korea, the Russian Federation and Vanuatu provided *T. murphyi* tow by tow data. Chile provided *T. murphyi* data in 1° x 1° squares, and China provided *T. murphyi* data in 1° x 1° squares by month for 2008.

These data have not yet been incorporated into 5x5 degree square block tables for 2008.

Table 3.3: 2008 5x5 Chilean Jack Mackerel (*T. murphyi*) Data Received from Belize

5x5 Degree Square		No. Vessels Operating	Chilean Jack Mackerel (t)
25-30S	95-100W	1	x
30-35S	90-95W	1	x
30-35S	85-90W	1	x
35-40s	95-100W	1	x
35-40S	85-90W	1	x
35-40S	80-85W	1	x
35-40S	90-95W	1	x
40-45S	85-90W	1	x
40-45S	80-85W	1	x
Total		1	x

X Data not displayed as less than 3 vessels were fishing in that 5x5 degree square at that time

Table 3.4: Historical 5x5 Chilean Jack Mackerel (*T. murphyi*) Data Received from China

YEAR	2000	2001	2002	2003	2004	2005	2006	2007
No. vessels operating	1	5	11	11	14	13	12	11
5x5 Square								
30-35S,110-115W								935
30-35S,105-110W								149
30-35S,100-105W								5,659
30-35S,95-100W	-	-	-	460	-	464	4,100	1,700
30-35S, 90-95W	-	-	-	14,952	11,749	21,131	16,324	14,340
30-35S,85-90W	-	4,760	21,427	14,935	27,399	30,140	37,998	17,623
30-35S, 80-85W	-	3,385	3,656	1,258	3,470	-	-	
35-40S,100-105W	-	-	-	-	-	195	-	
35-40S,95-100W	-	-	-	2,411	14,337	9,937	9,618	4,320
35-40S, 90-95W	-	-	0	7,620	7,242	21,614	10,008	3,149
35-40S,85-90W	-	80	11,857	13,455	5,434	19,902	5,005	4,236
35-40S, 80-85W	x	10,855	14,746	19,174	21,754	10,910	17,598	25,943
35-40S, 75-80W	x	1,010	9,508	2,117	-	1,222	-	3,393
40-45S,95-100W	-	-	-	-	376	2,884	641	
40-45S, 90-95W	-	-	-	-	652	-	111	
40-45S,85-90W	-	-	321	3,675	6,967	846	8,867	8,162
40-45S, 80-85W	x	-	-	13,461	31,640	21,921	43,963	46,697
40-45S,75-80W	x	-	9,874	1,172	-	1,834	5,767	3,044
45-50S,85-90W	x							969
45-50S,80-85W	-	-	4,872	-	-	-	-	263
Total	x	20,090	76,261	94,690	131,020		160,000	140,582

X Data not displayed as less than 3 vessels were fishing in that 5x5 degree square at that time

Table 3.5: Korean Historical (2003 – 2006) 5x5 Chilean Jack Mackerel (*T. murphyi*) Data

a) 2006

5x5 Degree Square	No. Vessels Operating	Chilean Jack Mackerel (t)
30-35S,95-100W	1	x
30-35S,90-95W	3	1,881
30-35S,85-90W	3	4,149
35-40S,95-100W	1	x
35-40S,90-95W	3	933
35-40S,85-90W	2	x
35-40S,80-85W	2	x
35-40S,75-80W	2	x
40-45S,80-85W	1	x
Total		10,474

b) 2005

5x5 Degree Square	No. Vessels Operating	Chilean jack Mackerel (t)
30-35S,85-90W	2	x
30-35S,90-95W	2	x
30-35S,95-100W	2	x
35-40S,95-100W	2	x
35-40S,90-95W	2	x
35-40S,85-90W	2	x
35-40S,80-85W	1	x
35-40S,75-80W	1	x
40-45S,85-90W	1	x
Total		x

c) 2004

5x5 Degree Square	No. Vessels Operating	Chilean Jack Mackerel (t)
25-30S,90-95W	1	x
30-35S,95-100W	2	x
30-35S,90-95W	2	x
30-35S,85-90W	2	x
30-35S,80-85W	1	x
35-40S,95-100W	2	x
35-40S,90-95W	2	x
35-40S,85-90W	1	x
35-40S,80-85W	2	x
40-45S,85-90W	1	x
40-45S,80-85W	1	x
40-45S,75-80W	1	x
Total		7,418

d) 2003

5x5 Degree Square	No. Vessels Operating	Chilean Jack Mackerel (t)
30-35S,95-100W	1	x
30-35S,90-95W	3	899
30-35S,85-90W	2	x
30-35S,80-85W	1	x
35-40S,90-95W	1	x
35-40S,85-90W	1	x
35-40S,80-85W	1	x
Total		1,998

Table 3.6: Annual Catch Data - Other Mackerels (including chub & unspecified mackerel) Part 1 of 2

	Catch (t)						
	Belize	Chile		EC		Faroe Islands	Japan
Area	5x5 squares	FAO 87 High Seas only	FAO 87 High Seas and EEZ combined	Unspecified		FAO87	FAO87
Species	Mackerel-species not specified	Chub mackerel - <i>Scomber japonicus</i>	Chub mackerel - <i>Scomber japonicus</i>	Chub mackerel	Mackerel-species not specified	<i>Scomber japonicus</i>	Chub mackerel
2008	x*	45,702	133,018	5,879		x	
2007	966	63,492	297,189	9,067			
2006			345,673	5,989			
2005			280,756	211			
2004			577,336				
2003			572,052				
2002			343,371				
2001			365,031				
2000			95,789				
1999			120,123				1
1998			71,769				
1997			211,649				
1996			146,649				
1995			110,210				
1994			27,171				
1993			96,023				
1992			72,364		36		
1991			191,723		14,396		
1990			192,948		98,123		<0.5
1989			39,328		109,556		
1988			26,423		90,655		
1987			32,799		82,955		
1986			1,584		79,454		
1985			11,314		81,361		
1984					69,055		1
1983					39,792		
1982					44,628		
1981					78,261		
1980					48,129		
1979					93,311		1
1978					13,273		<0.5
1977					596		
1976					97		
1975					7		

X Data not displayed as totals are for less than 3 vessels

(Belize chose to display all of their data for 2007, irrespective of whether less than 3 vessels were fishing)

* Species confirmed as *Scomber japonicus*

Table 3.6: Annual Catch Data - Other Mackerels (including chub & unspecified mackerel) Part 2 of 2

Area	Catch (t)						
	Korea	New Zealand	Russian Fedn.		Ukraine		Vanuatu
	FAO87 (EEZ and High Seas)	5x5	FAO81	FAO87	FAO81 (includes some catch from NZ EEZ)	FAO87	FAO87
Species	Chub mackerel	<i>Scomber australasicus</i>	Pacific mackerel	Chub mackerel	<i>Scomber australasicus</i>	<i>Scomber japonicus</i>	Chub mackerel
2008	968			x*			8,945
2007	1,240		0	0			7,705
2006	1,460	0	0	0			3,352
2005	x	5	0	0			1,819
2004	708	3	0	0	0		3,137
2003	39	0	0	0	0		1,553
2002		5	0	0	0		
2001			0	0	0		
2000			0	0	0		
1999			0	0	0		
1998			0	0	0		
1997			0	0	0		
1996			0	0	0		
1995			75	0			
1994			204	0	0		
1993			326	0	0		
1992				0	0	17	
1991			828	18,257	0	1,063	
1990			100	74,168		2,085	
1989			700	28,160	25	999	
1988			x	34,805		519	
1987			50	3,835	1	79	
1986			0	1,920		647	
1985			50	38,275		39	
1984			0	71,952		78	
1983			0	4,416			
1982			0	41,878		565	
1981			0	41,500		4,708	
1980			0	48,300		1,282	
1979			0	5,800		522	
1978			0	1,773		122	
1977			0	0			
1976			0	0			
1975			0	0			

X Data not displayed as totals are for less than 3 vessels

(Belize chose to display all of their data for 2007, irrespective of whether less than 3 vessels were fishing)

* Species confirmed as *Scomber japonicus*

Figure 3.2: Annual Catch Data - Other Mackerels (including chub & unspecified mackerel)

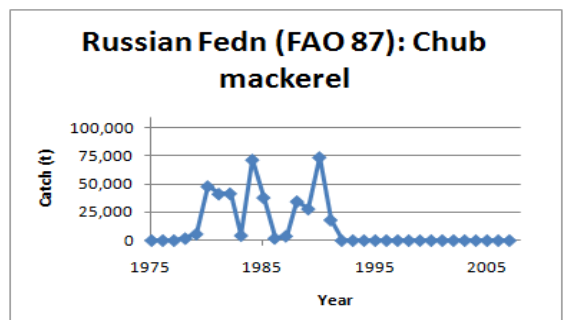
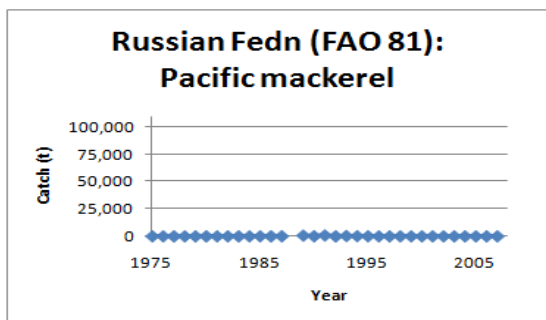
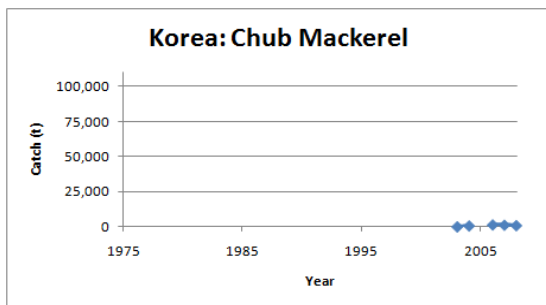
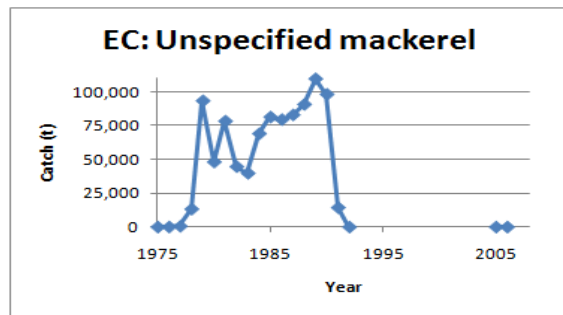
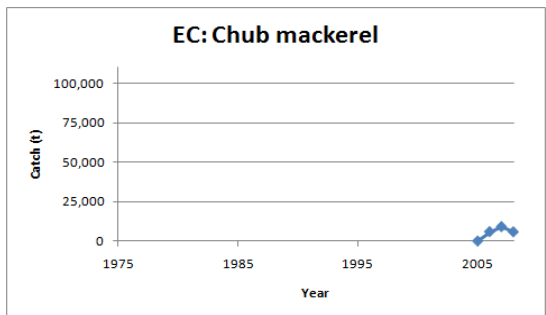
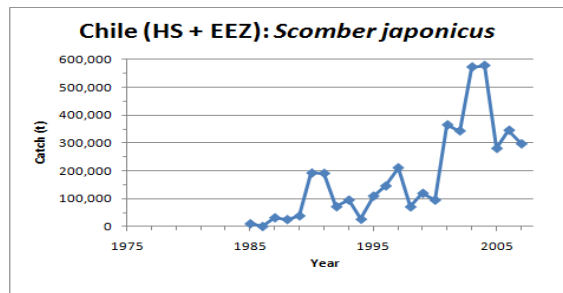
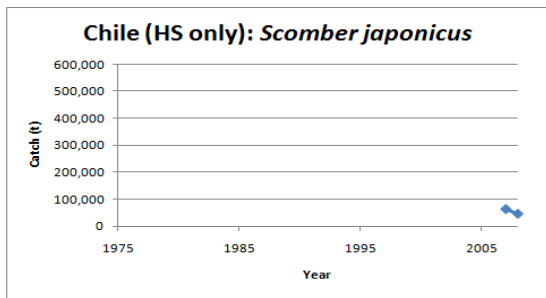
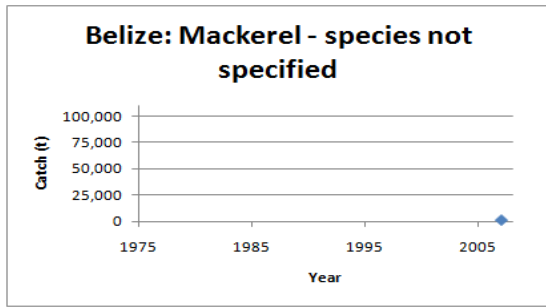


Figure 3.2 contd: Annual Catch Data - Other Mackerels (including chub & unspecified mackerel)

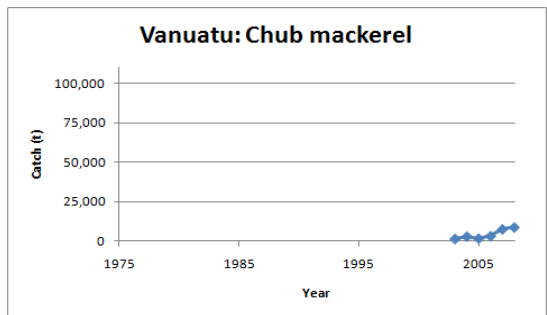
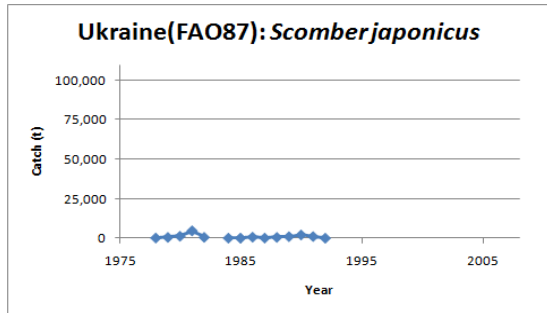
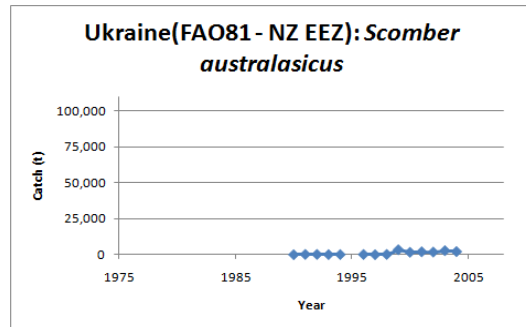
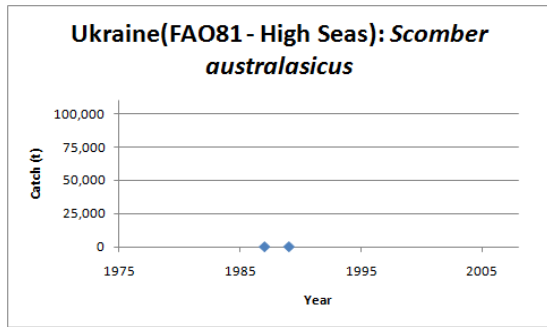


Table 3.7: 2007 5x5 Catch Data (t) - Other Mackerels (including chub & unspecified mackerel)

Participant	BELIZE	BELIZE	EC	EC	Korea	Korea
5x5 Degree Square	No. Vessels Operating	Mackerel - species not specified (t)	No. Vessels Operating	<i>Scomber japonicus</i> (t)	No. Vessels Operating	Chub Mackerel (t)
10-15S, 80-85W						
15-20S, 85-90W						
20-25S,85-90W						
20-25S,80-85W						
25-30S, 100-105W						
25-30S, 95-100W	1	2				
25-30S, 85-90W	1	0	2	x	1	x
25-30S, 80-85W			1	x		
25-30S, 75-80W			1	x		
30-35S, 125-130W					1	x
30-35S,110-115W	1	48			3	60
30-35S, 105-110W	1	78	4	268	3	65
30-35S, 100-105W	1	5	6	1,513	3	147
30-35S, 95-100W	1	22	4	87	3	30
30-35S, 90-95W	1	43	6	594	3	70
30-35S, 85-90W	1	51	4	328	3	128
30-35S, 80-85W					1	x
25-30S, 80-85W			1	x		
35-40S, 140-145W					1	x
35-40S, 130-135W					1	x
35-40S, 110-115W					1	x
35-40S, 105-110W	1	16			3	12
35-40S, 100-105W	1	51	3	203	3	50
35-40S, 95-100W	1	123	3	49	3	168
35-40S, 90-95W	1	282	5	1,061	2	x
35-40S, 85-90W	1	116	4	522	2	x
35-40S, 80-85W	1	175	4	1,741	1	x
35-40S, 75-80W	1	33	3	93	1	x
40-45S, 85-90W			3	468		
40-45S, 80-85W	1	298	3	2,002	1	x
40-45S, 75-80W			2	x		
45-50S, 80-85W	1	15				
45-50S, 85-90W						
65-70S, 140-145W					1	x
65-70S, 110-115W					1	x
65-70S, 105-110W					1	x
65-70S, 95-100W					1	x
60-65S, 85-90W					2	x
TOTALS		1,361		9,067		1,234

X Data not displayed as less than 3 vessels were fishing in that 5x5 degree square at that time

Belize chose to display all of their data, irrespective of whether less than 3 vessels were fishing

Note: that the European Community and Korea have provided tow by tow chub mackerel data for 2008 and that these data have yet to be incorporated into 5x5 degree square block tables.

Table 3.8: Summary of 2008 5x5 Chub Mackerel Data Received from Belize

5x5 Degree Square		No. Vessels Operating	Chub Mackerel - <i>Scomber japonicus</i> (t)
25-30S	95-100W	1	x
30-35S	85-90W	1	x
35-40S	90-95W	1	x
35-40S	85-90W	1	x
35-40S	80-85W	1	x
40-45S	80-85W	1	x
40-45S	85-90W	1	x
Total		1	x

X Data not displayed as less than 3 vessels were fishing in that 5x5 degree square at that time

Table 3.9: Summary of Historical (2003 – 2006) 5x5 Chub Mackerel Data Received from Korea

a) 2006

5x5 Degree Square	No. Vessels Operating	Chub Mackerel (t)
30-35S,95-100W	1	x
30-35S,90-95W	3	199
30-35S,85-90W	3	595
35-40S,95-100W	1	x
35-40S,90-95W	3	128
35-40S,85-90W	2	x
35-40S,80-85W	2	x
35-40S,75-80W	2	x
40-45S,80-85W	1	x
Total		1,460

b) 2005

5x5 Degree Square	No. Vessels Operating	Chub Mackerel (t)
30-35S,85-90W	2	x
30-35S,90-95W	2	x
30-35S,95-100W	2	x
35-40S,95-100W	2	x
35-40S,90-95W	2	x
35-40S,85-90W	2	x
35-40S,80-85W	1	x
35-40S,75-80W	1	x
40-45S,85-90W	1	x
Total		x

c) 2004

5x5 Degree Square	No. Vessels Operating	Chub Mackerel (t)
25-30S,90-95W	1	x
30-35S,95-100W	2	x
30-35S,90-95W	2	x
30-35S,85-90W	2	x
30-35S,80-85W	1	x
35-40S,95-100W	2	x
35-40S,90-95W	2	x
35-40S,85-90W	1	x
35-40S,80-85W	2	x
40-45S,85-90W	1	x
40-45S,80-85W	1	x
40-45S,75-80W	1	x
Total		707

d) 2003

5x5 Degree Square	No. Vessels Operating	Chub Mackerel (t)
30-35S,95-100W	1	x
30-35S,90-95W	3	10
30-35S,85-90W	2	x
30-35S,80-85W	1	x
35-40S,90-95W	1	x
35-40S,85-90W	1	x
35-40S,80-85W	1	x
Total		39

4.0 EEZ Catch Data Summaries of Mackerel (*Trachurus* species)

Table 4.1: Annual Catch Data of EEZ *Trachurus* Species

Area	Catch (t)				
	Australia	Chile	Ecuador	New Zealand	Peru
	EEZ	EEZ	EEZ	EEZ	EEZ
Species	Jack mackerel (<i>T. Declivis</i> , <i>T. novae zelandiae</i>)	Chilean jack mackerel (<i>T. murphyi</i>)	Chilean jack mackerel (<i>T. murphyi</i>)	Chilean jack mackerel (<i>T. murphyi</i>)	Chilean jack mackerel (<i>T. murphyi</i>)
2008		376,370			169,537
2007	680	1,040,167	927		254,426
2006				4,645	277,568
2005				3,759	80,663
2004				3,083	187,369
2003				2,401	217,734
2002			604	4,470	154,219
2001			133,969	5,345	723,733
2000			7,122	8,226	296,579
1999			19,072	16,203	184,679
1998			25,900	20,376	386,946
1997			30,302	19,569	649,751
1996			56,782	25,331	438,736
1995			174,393	21,013	376,600
1994			36,575	20,604	196,771
1993			2,673	19,938	130,681
1992			15,022	9,301	96,660
1991			45,313	7,519	136,337
1990			4,144	3,154	191,139
1989				3,167	140,720
1988				1,488	118,076
1987				0	46,304
1986				2,228	49,863
1985				?	87,466
1984				?	184,333
1983					76,825
1982					50,013
1981					37,875
1980					123,380
1979					151,591
1978					386,793
1977					504,992
1976					54,154
1975					37,899
1974					129,211
1973					42,781
1972					18,782
1971					9,189
1970					4,711

Figure 4.1: Annual Catch Data of EEZ *Trachurus* Species Catch

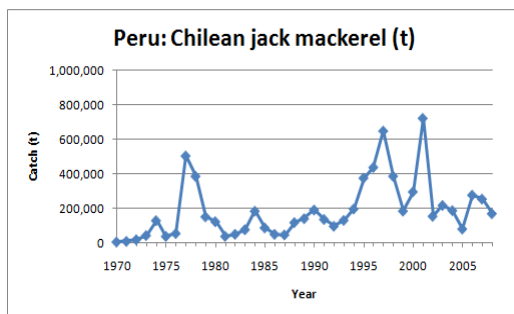
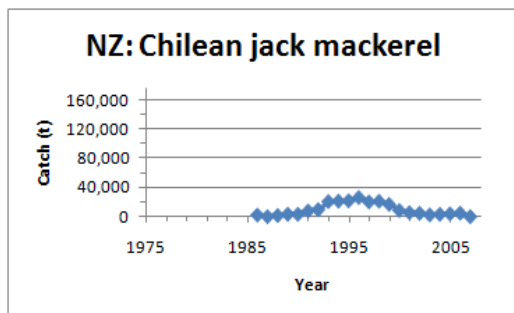
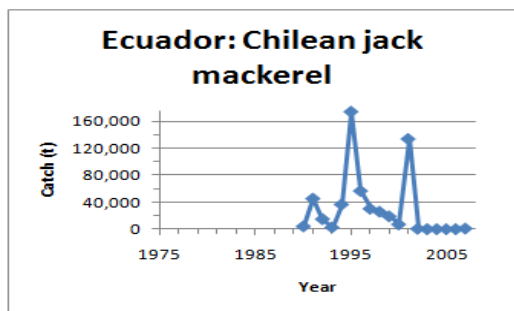
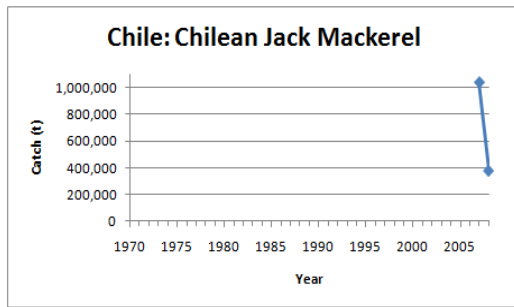
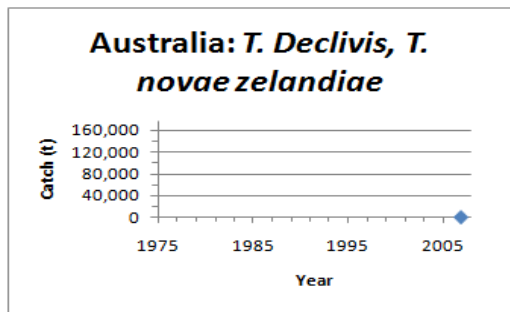
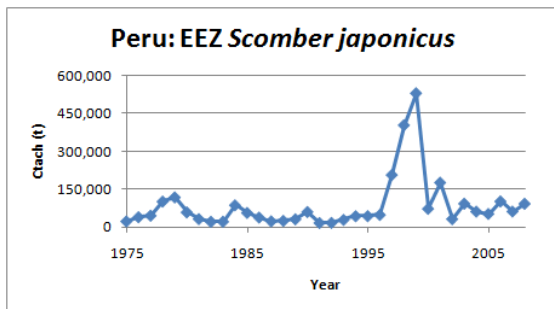
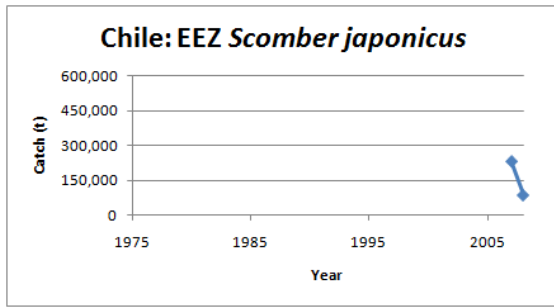


Table 4.2: Annual Catch Data of EEZ Chub Mackerel

Area	Catch (t)	
	Chile	Peru
	EEZ	EEZ
Species	<i>Scomber japonicus</i>	<i>Scomber japonicus</i>
2008	87,316	92,989
2007	233,697	62,387
2006		102,322
2005		52,895
2004		62,255
2003		93,384
2002		32,698
2001		176,202
2000		73,263
1999		527,729
1998		401,903
1997		206,183
1996		49,221
1995		44,259
1994		44,115
1993		29,504
1992		17,939
1991		17,304
1990		60,776
1989		32,042
1988		25,554
1987		24,072
1986		38,709
1985		57,069
1984		87,134
1983		22,579
1982		22,072
1981		32,803
1980		59,062
1979		118,067
1978		101,505
1977		46,071
1976		40,172
1975		23,588
1974		63,270
1973		64,966
1972		8,707
1971		10,113
1970		8,791

Figure 4.2: Annual Catch Data of EEZ Chub Mackerel (*Scomber japonicus*) Catch



5.0 Squid Data Summary: Fish Taken Entirely or Partially within SPRFMO Area

Chile (for 2007 – 08) and Peru (1990 – 2008) have also submitted data on EEZ only catches of jumbo flying squid.

Table 5.1: Squid Annual Catch Data Received

Area	Catch (t)												
	Belize	Chile	China	EC	Japan	Korea	New Zealand	Russian Fedn.	Russian Fedn.	Ukraine		Chinese Taipei Fishing Entity	Chinese Taipei Fishing Entity
Species	5x5 square	Includes catch from within national waters of jurisdiction	FAO87	Unspecified	FAO87	FAO87 (EEZ and High Seas)	5x5	FAO81	FAO87	FAO81 (NZ EEZ)	FAO87	FAO87	NZ EEZ
	Squid - species not specified	Squid - Jumbo Flying squid	Squid - Jumbo Flying squid	Squid - species not specified	Squid - Jumbo Flying squid	Squid - species not specified	Squid (OMZ, UHX, UHU)	Squid - species not specified	Squid - species not specified	Squids: <i>Nototodarus sloani</i> , <i>N. gouldi</i>	Squid - Jumbo Flying squid	Squid - Jumbo Flying squid	Squid - <i>N. solani</i>
2008		145,171	79,064				0					31161~	
2007	0	124,389	49,963				<0.5	0	0				
2006	0	219,800	62,000		323		<0.5	0	0			18,349	3,304
2005	825	296,953	86,000		1,633	x	0	0	0			15,976	3,831
2004	681	175,134	205,600		4,615	13,574	<0.5	0	0	20,122		39,450	0
2003	479	15,191	81,000		4,510	4,722	<0.5	0	0	10,379		23,009	0
2002	588	5,589	50,483		33,978	23,979	<0.5	0	0	11,230		12,064	0
2001	453	3,476	17,770		1,132	11,517		0	0	8,623		0	0
2000		9			1,704	20,822		0	0	2,872		0	0
1999		6			x	19,728		1,352	0	1,462		0	761
1998		5						1,907	0	5,321		0	3,974
1997					x	3,359		5,809	0	7,955		0	6,620
1996		2			644	12,896		8,365	0	4,136		0	14,747
1995					37	35,719		17,004	0	6,630		0	8,284
1994		205			2,698	69,664		22,098	0	10,428		0	0
1993		7,442			3,579	62,887		15,600	0	5,546		0	0
1992		9,400			1,874	43,022		28,767	0	2,932	1	1,698	0
1991		445				50		17,331	23,240	699	398		0
1990						6,497		21,654	7,860		142		0
1989						2,003							0
1988						x		13,413	380				0
1987						x		x	0				0
1986								9,135	0				850
1985								15,818	0				1,253
1984								18,267	130				8,343
1983								19,076	10				17,900
1982								20,319	0				16,377
1981								18,118	10				13,100
1980								12,902	60				8,147
1979								15,506	0	6,986			3,497
1978								14,308	45	6,191			1,601
1977								3,112	0				2,163
1976								26,837	0				1,797
1975								0	0				1,379
1974								0	0				254
1973								0	0				95
1972								0	<0.5				109
1971								0					
1970								0					
1969								100					

~ Catch figures are preliminary

X Data not displayed as totals are for less than 3 vessels; Belize chose to display all of their data, irrespective of whether less than 3 vessels were fishing

Figure 5.1: Squid Annual Catch Data Received

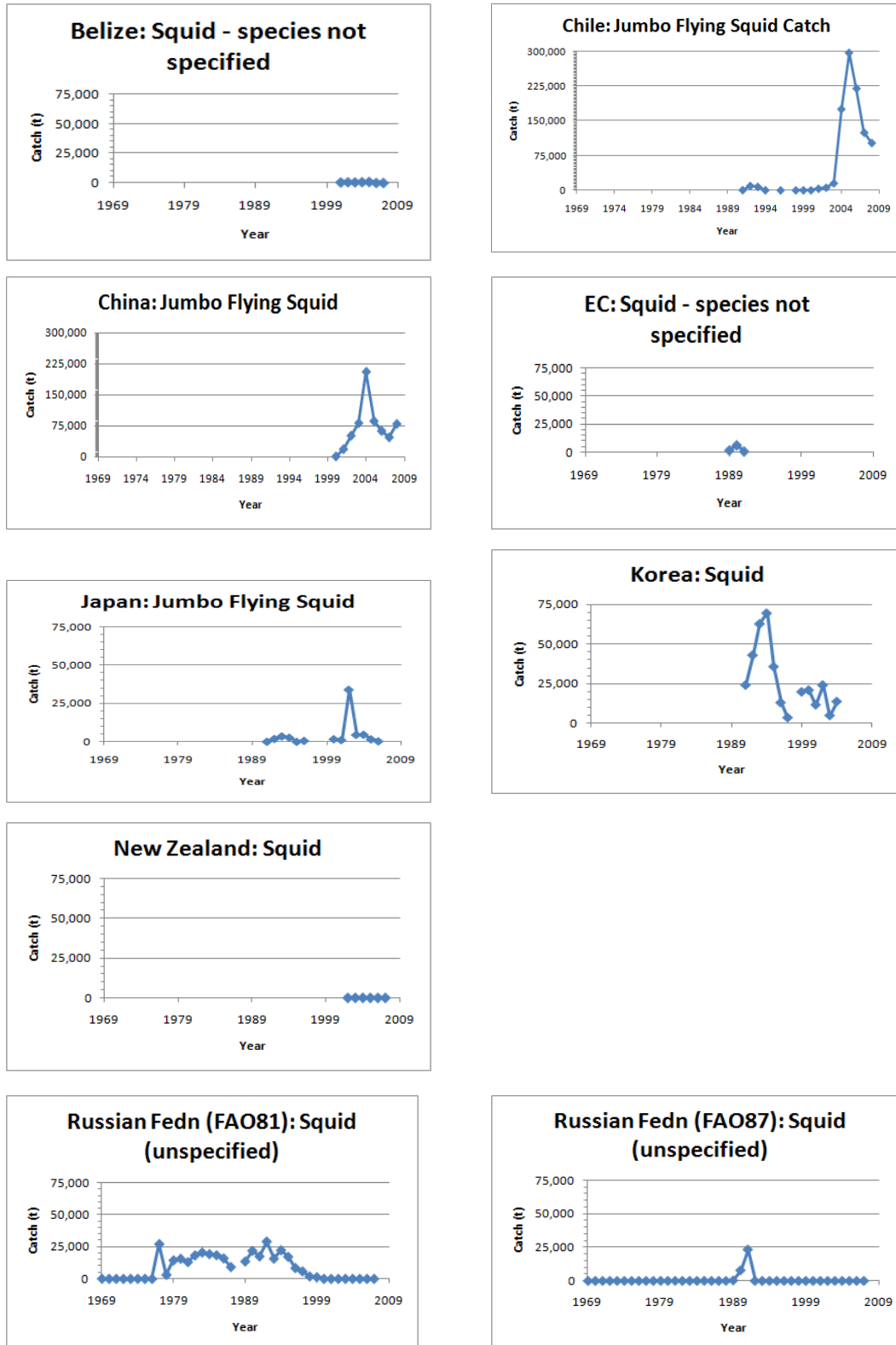
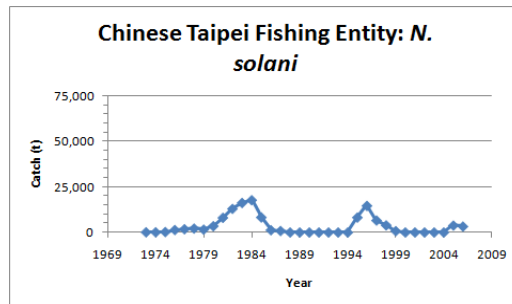
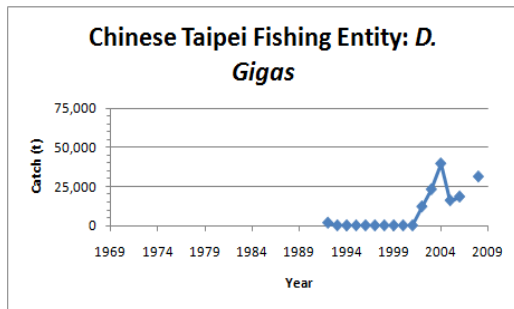
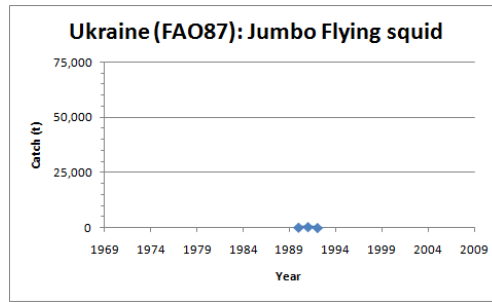
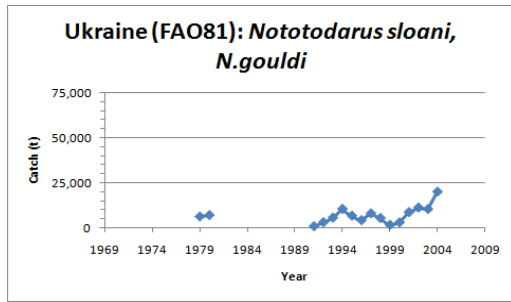


Figure 5.1 continued: Squid Annual Catch Data Received



Note: In addition to the 5x5 data shown in Table 12 below, Belize provided 5x5 catch data for squid for the period 2001 – 2005, China provided 5x5 squid catch data for the period 2003 – 2008, New Zealand provided 5x5 squid catch data for the period 2002 – 2007 (0 catch in 2008), and the Chinese Taipei Fishing Entity provided preliminary 5x5 catch figures for 2008.

Table 5.2: Japan- Jumbo Flying Squid 5x5 Degree Square Catch Data: 1988 – 2006

Year		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
5x5 Degree Square																				
0°00' - 4°59'S	80°00' - 84°59'W					5		96			x					x				
0°00' - 4°59'S	85°00' - 89°59'W	x	x			23	x	795	2	4	x									
0°00' - 4°59'S	90°00' - 94°59'W	x	x							x										
0°00' - 4°59'S	95°00' - 99°59'W	x						x		0										
0°00' - 4°59'S	100°00' - 104°59'W				x															
0°00' - 4°59'S	105°00' - 109°59'W				x															
5°00' - 9°59'S	80°00' - 84°59'W	x	x		x	296	81	957	x	6	x		x	x	x	22,982	2,257	506	176	x
5°00' - 9°59'S	85°00' - 89°59'W	x	x		x	98	x	237	x	71	x					382	868		x	
5°00' - 9°59'S	90°00' - 94°59'W	x	x		x	x		x	x	x			x							
5°00' - 9°59'S	95°00' - 99°59'W	x							x	x	x		x							
5°00' - 9°59'S	100°00' - 104°59'W				x				x	x	x									
10°00' - 14°59'S	75°00' - 79°59'W					72	x	x	x	x	x			965	x	325	22	111	x	
10°00' - 14°59'S	80°00' - 84°59'W	x		x	x	1,057	2,336	375	x	32	x		x	360	715	2,102	1,008	1,386	707	168
10°00' - 14°59'S	85°00' - 89°59'W	x				x		22	x	63					x					
10°00' - 14°59'S	95°00' - 99°59'W										x		x							
10°00' - 14°59'S	100°00' - 104°59'W										x									
15°00' - 19°59'S	70°00' - 74°59'W										x									x
15°00' - 19°59'S	75°00' - 79°59'W			x	37	108	129	35		x				379	308	8,143	350	1,139	x	
15°00' - 19°59'S	80°00' - 84°59'W	x		x	1	191	952	163	x	x				x	x	x	x	1,461	x	x
15°00' - 19°59'S	85°00' - 89°59'W	x						x												
20°00' - 24°59'S	70°00' - 74°59'W							x			x								x	
20°00' - 24°59'S	75°00' - 79°59'W	x		x		x	x													
20°00' - 24°59'S	80°00' - 84°59'W					x	x													
20°00' - 24°59'S	85°00' - 89°59'W					x														
25°00' - 29°59'S	70°00' - 74°59'W						x													
25°00' - 29°59'S	75°00' - 79°59'W					x													x	
25°00' - 29°59'S	80°00' - 84°59'W			x	x															
25°00' - 29°59'S	85°00' - 89°59'W			x		x														
30°00' - 34°59'S	75°00' - 79°59'W															x				
Total Catch (t)		x	x	x	50	1,874	3,579	2,698	37	644	x		x	1,704	1,132	33,978	4,510	4,615	1,633	323

x Data not displayed as less than 3 vessels were fishing in that 5x5 degree square at that time

6.0 Orange Roughy Data Summary: Fish Taken Entirely or Partially within SPRFMO Area

In addition to the data shown in Table 13 below, Belize provided 5x5 degree square data for orange roughy for the years 2003 – 2007. These data are not displayed for confidentiality reasons as the data was supplied for one vessel. New Zealand has provided 5x5 orange roughy catch data for the years 2002 – 2008.

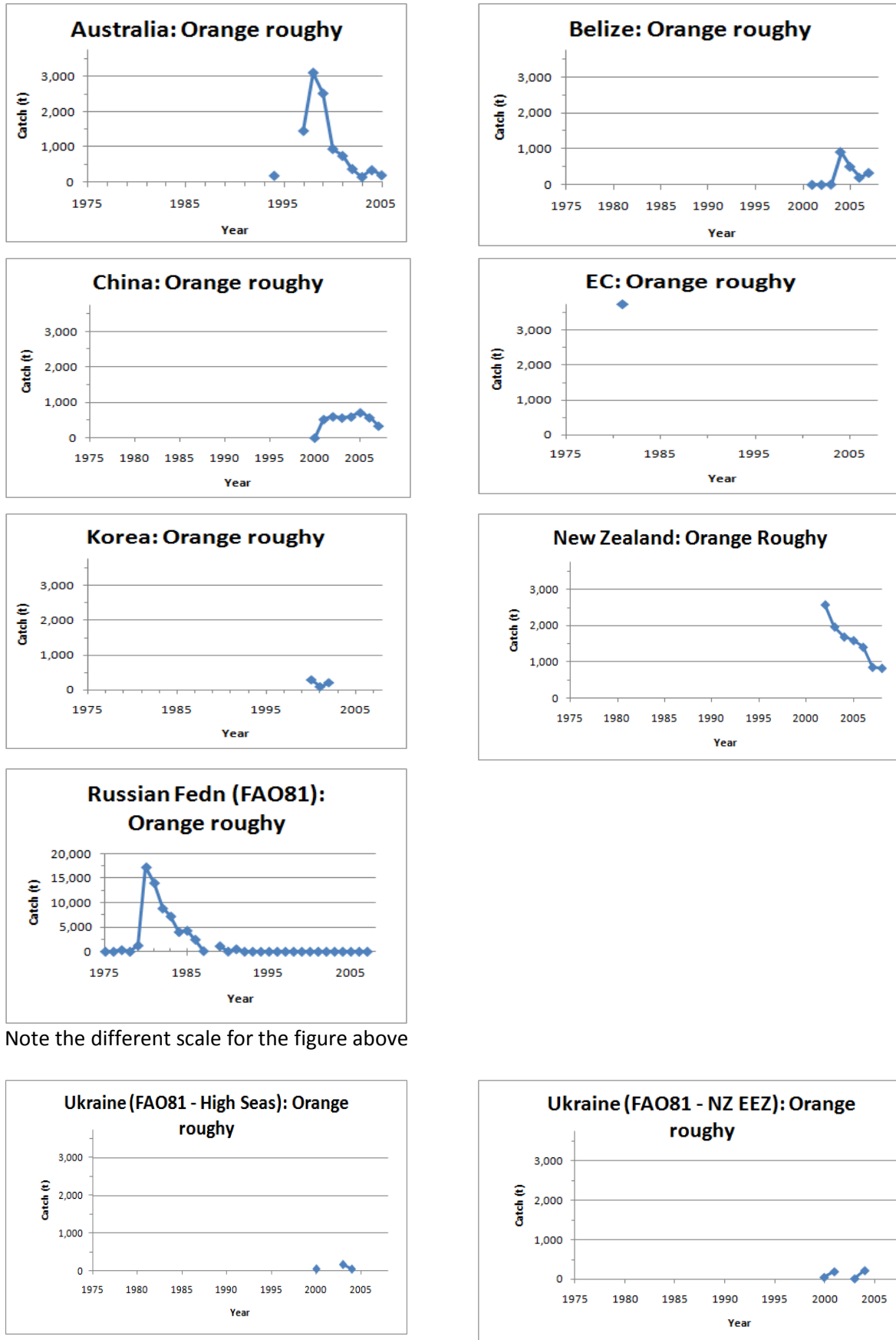
Table 6.1: Annual Catch Data for Orange Roughy Received

Year	Catch (t)								
	Australia	Belize	China	EC	Korea	New Zealand	Russian Fedn.	Ukraine	
Area	23.5-60S, 120-180E	5x5 square	FAO87	Unspecified	FAO81 (EEZ and HS)	5x5	FAO81	FAO81 (outside NZ EEZ)	FAO81 (NZ EEZ)
2008						837			
2007		332	336		x	866	0		
2006	166	200	570		x	1,415	0		
2005	207	506	710		x	1,597	0		
2004	351	914	592		x	1,697	0	49	223
2003	156	9	562		x	1,973	0	164	12
2002	383	0	597		208	2,578	0		
2001	751	0	520		94		0		195
2000	948				288		0	53	49
1999	2,514				x		0		
1998	3,098						0		
1997	1,458						0		
1996	x						0		
1995	x						0		
1994	192						0		
1993	x						0		
1992	x						0		
1991	x						506		
1990	x						36		
1989	x						1,132		
1988	x						x		
1987	x						130		
1986							2,475		
1985							4,306		
1984							4,028		
1983							7,229		
1982							8,860		
1981				3,748			14,076		
1980							17,300		
1979							1,251		
1978							0		
1977							319		
1976							0		
1975							0		
1974							0		
1973							0		
1972							0		
1971							0		
1970							0		
1969							0		

X Data not displayed as totals are for less than 3 vessels

Belize chose to display all of their data, irrespective of whether less than 3 vessels were fishing

Figure 6.1: Annual Catch Data for Orange Roughy



Note the different scale for the figure above

7.0 Alfonsino Data Summary: Fish Taken Entirely or Partially within SPRFMO Area

In addition to the data shown in Table 14 below, Belize provided 5x5 degree square data for alfonsino for the years 2004 – 2007. These data are not displayed for confidentiality reasons as the data was submitted from a single vessel. New Zealand has provided 5x5 alfonsino catch data for the years 2002 – 2008.

Table 7.1: Annual Catch Data for Alfonsino

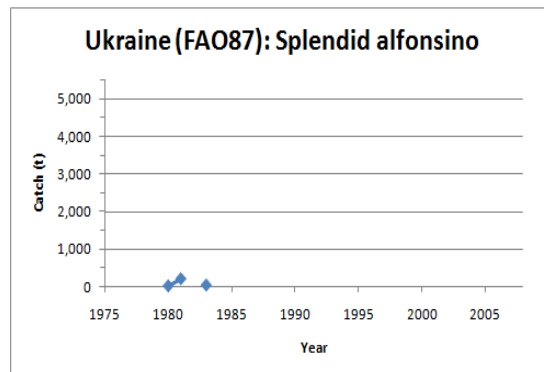
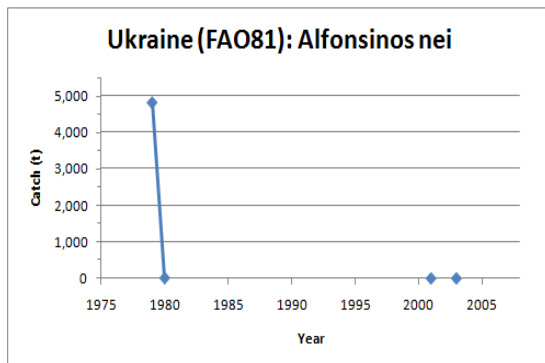
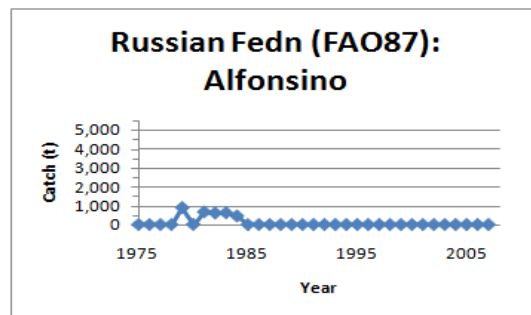
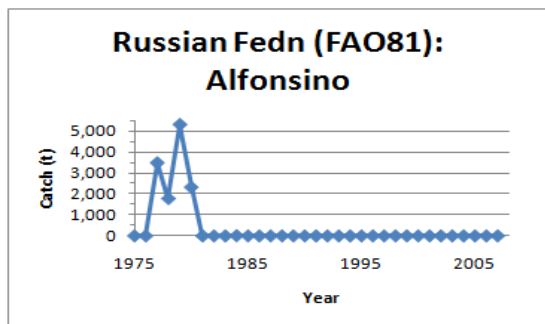
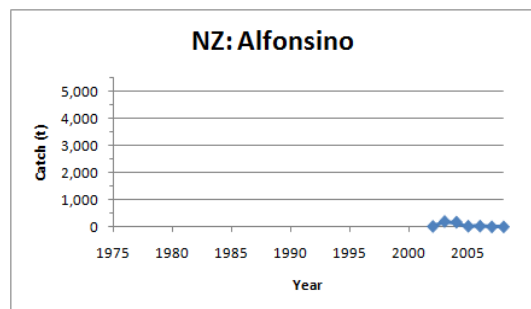
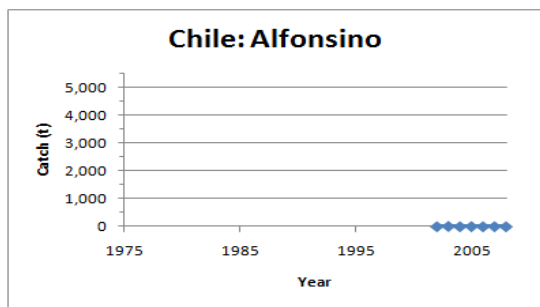
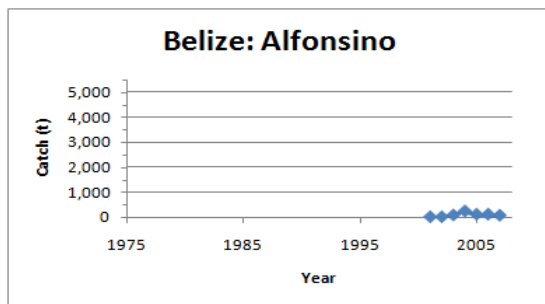
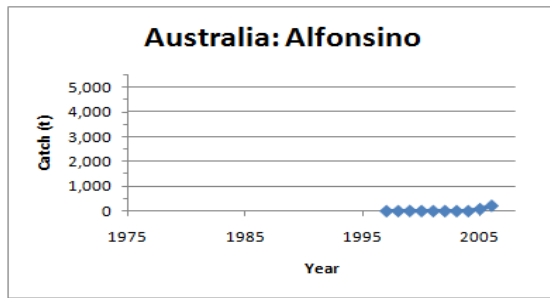
Area	Catch (t)								
	Australia	Belize	Chile	EC	New Zealand	Russian Fedn.	Russian Fedn.	Ukraine	Ukraine
Area	23.5-60S, 120-180E	5x5 square	Nazca Ridge	5x5 square	5x5 square	FAO81	FAO87	FAO81 (NZ EEZ)	FAO87
Species								Alfonsinos nei	Splendid alfonsino
2008				x	3				
2007		61		x	4	0	0		
2006	209	101			29	0	0		
2005	81	102	5		26	0	0		
2004	1	229			85	0	0		
2003	2	73	11		94	0	0	11	
2002	3	0	2		17	0	0		
2001	1	0	>0.5			0	0	9	
2000	4					0	0		
1999	8					0	0		
1998	1		144			0	0		
1997	1					0	0		
1996	0					0	0		
1995	0					0	0		
1994	0					0	0		
1993	0					0	0		
1992	0					0	0		
1991	0					0	0		
1990	0					0	0		
1989	0					0	0		
1988	0					0	0		
1987	0					0	0		
1986						0	0		
1985						0	0		
1984						9	458		
1983						0	633		32
1982						0	620		
1981						0	676		198
1980						2,325	12	21	12
1979						5,323	907	4,804	
1978						1,783	0		
1977						3,491	0		
1976						0	0		
1975						0	0		

X Data not displayed as totals are for less than 3 vessels

Belize chose to display all of their data, irrespective of whether less than 3 vessels were fishing

Note that Belize also provided 5x5 degree square data for boarfish for 2007.

Figure 7.1: Annual Catch Data for Alfonsino



8.0 Bottom Trawl Fishing Footprint Data Received

The Interim Benthic Assessment Framework adopted at the 4th Meeting in September 2007, noted that a 'joint trawl footprint' map should be expressed as grid blocks of 20 minute resolution, with a 'fished' block being defined as any grid block partially crossed by at least one trawl track. The period 2002 to 2006 should be used as the reference period for developing this joint trawl footprint map.

Therefore, participants that bottom trawled within the proposed SPRFMO area between 2002 and 2006, should have submitted data to generate the joint trawl footprint map.

The following participants have submitted high seas bottom trawl fishing footprints in 20 by 20 minute blocks for the period 2002 – 2006:

Chile,
Korea, and
New Zealand.

The New Zealand trawl footprint map includes information from New Zealand and foreign-flagged vessels that submitted information on NZ High Seas Trawl Catch and Effort returns.