

Table 1 Variables of length-weight equation: $W = a \times L^b$, length type, weight type, sampling area and year of sampling for Swordfish (SWO), Indo-Pacific sailfish (SFA) and Short-billed spearfish (SSP) from sampling data collected by scientific observers on Spanish longliners

Species	a	b	R ²	sex	Length type	Weight type	Sampling size	Weight range (Kg)	Length range (cm)	Sampling area	Year of sampling
SWO	1.839E-06	3.39209	0.95996	combined	LJFL	RND	5091	2 - 148	50 - 225	25°-35°S / 30°-50° E	2005
SWO	1.351E-06	3.45674	0.96137	males	LJFL	RND	1596	1.8 - 130	70 - 217	25°-35°S / 30°-50° E	2005
SWO	2.413E-06	3.33727	0.95861	females	LJFL	RND	2866	2.7 - 148	53 - 225	25°-35°S / 30°-50° E	2005
SFA	2.448E-07	3.53599	0.84966	combined	LJFL	RND	81	4.4 - 47	116 - 225	25°-35°S / 30°-50° E	2005
SFA	7.946E-08	3.76934	0.88218	males	LJFL	RND	12	15 - 43	159 - 205	25°-35°S / 30°-50° E	2005
SFA	5.877E-06	2.93222	0.64337	females	LJFL	RND	45	20.4 - 45	169 - 224	25°-35°S / 30°-50° E	2005
SSP	8.485E-07	3.32393	0.70329	combined	LJFL	RND	116	8 - 40	127 - 196	25°-35°S / 30°-50° E	2005
SSP	8.473E-07	3.32485	0.69881	males	LJFL	RND	29	8 - 33	131 - 196	25°-35°S / 30°-50° E	2005
SSP	5.540E-07	3.40617	0.77822	females	LJFL	RND	46	8.5 - 40	127 - 193	25°-35°S / 30°-50° E	2005

Table 2 Sex of swordfish specimens per size interval of 5 cm LJFL, obtained by observers on board during the AP 08-2004, percentage of females per size interval and totals for swordfish (SWO)

Xiphias gladius: SWO
Indian Ocean

RAI-AP-08/2004

Sex ratio

LJFL (cm)	Number of males	Number of females	Total	% FEMALES
50-54	-	1	1	100%
65-69	-	3	3	100%
70-74	7	7	14	50%
75-79	8	14	22	64%
80-84	24	17	41	41%
85-89	16	17	33	52%
90-94	26	30	56	54%
95-99	48	30	78	38%
100-104	67	75	142	53%
105-109	74	89	163	55%
110-114	88	142	230	62%
115-119	135	160	295	54%
120-124	132	221	353	63%
125-129	142	208	350	59%
130-134	187	297	484	61%
135-139	183	275	458	60%
140-144	166	327	493	66%
145-149	160	303	463	65%
150-154	133	297	430	69%
155-159	106	265	371	71%
160-164	124	279	403	69%
165-169	77	232	309	75%
170-174	73	195	268	73%
175-179	56	214	270	79%
180-184	49	179	228	79%
185-189	40	143	183	78%
190-194	34	108	142	76%
195-199	29	88	117	75%
200-204	23	71	94	76%
205-209	16	57	73	78%
210-214	9	37	46	80%
215-219	11	33	44	75%
220-224	5	39	44	89%
225-229	3	26	29	90%
230-234	5	23	28	82%
235-239	-	17	17	100%
240-244	-	16	16	100%
245-249	1	9	10	90%
250-254	-	5	5	100%
255-259	-	10	10	100%
260-264	-	5	5	100%
265-269	2	1	3	33%
270-274	-	5	5	100%
275-279	2	2	4	50%
285-289	-	2	2	100%
300-304	-	1	1	100%
Total	2261	4575	6836	67%

Table 3 Sex of swordfish specimens per size interval of 5 cm LJFL, obtained by observers on board during the AP 08-2004, percentage of females per size interval and totals for Indo-Pacific sailfish (SFA)

Istiophorus platypterus: SFA

Indian Ocean

RAI-AP-08/2004

Sex ratio

LJFL (cm)	Number of males	Number of females	Total	% FEMALES
155-159	1	-	1	-
165-169	1	1	2	50%
170-174	1	-	1	-
175-179	2	3	5	60%
180-184	4	6	10	60%
185-189	2	7	9	78%
190-194	1	8	9	89%
195-199	-	13	13	100%
200-204	-	3	3	100%
205-209	1	5	6	83%
210-214	-	2	2	100%
215-219	-	1	1	100%
220-224	-	1	1	100%
225-229	-	1	1	100%
Total	13	51	64	80%

Table 4 Sex of swordfish specimens per size interval of 5 cm LJFL, obtained by observers on board during the AP 08-2004, percentage of females per size interval and totals for short-billed spearfish (SSP)

Tetrapturus angustirostris: SSP

Indian Ocean

RAI-AP-08/2004

Sex ratio

LJFL (cm)	Number of males	Number of females	Total	% FEMALES
125-129	0	1	1	100%
130-134	1	0	1	0%
135-139	2	5	7	71%
140-144	1	7	8	88%
145-149	1	8	9	89%
150-154	9	10	19	53%
155-159	8	5	13	38%
160-164	4	8	12	67%
165-169	3	3	6	50%
170-174	0	1	1	100%
180-184	0	1	1	100%
185-189	0	2	2	100%
190-194	0	1	1	100%
195-199	1	1	2	50%
Total	30	53	83	64%

Figure 1 Area covered by the AP-08/2004 in international waters of the South Western Indian Ocean and sets made during this AP. Points show shooting long line position

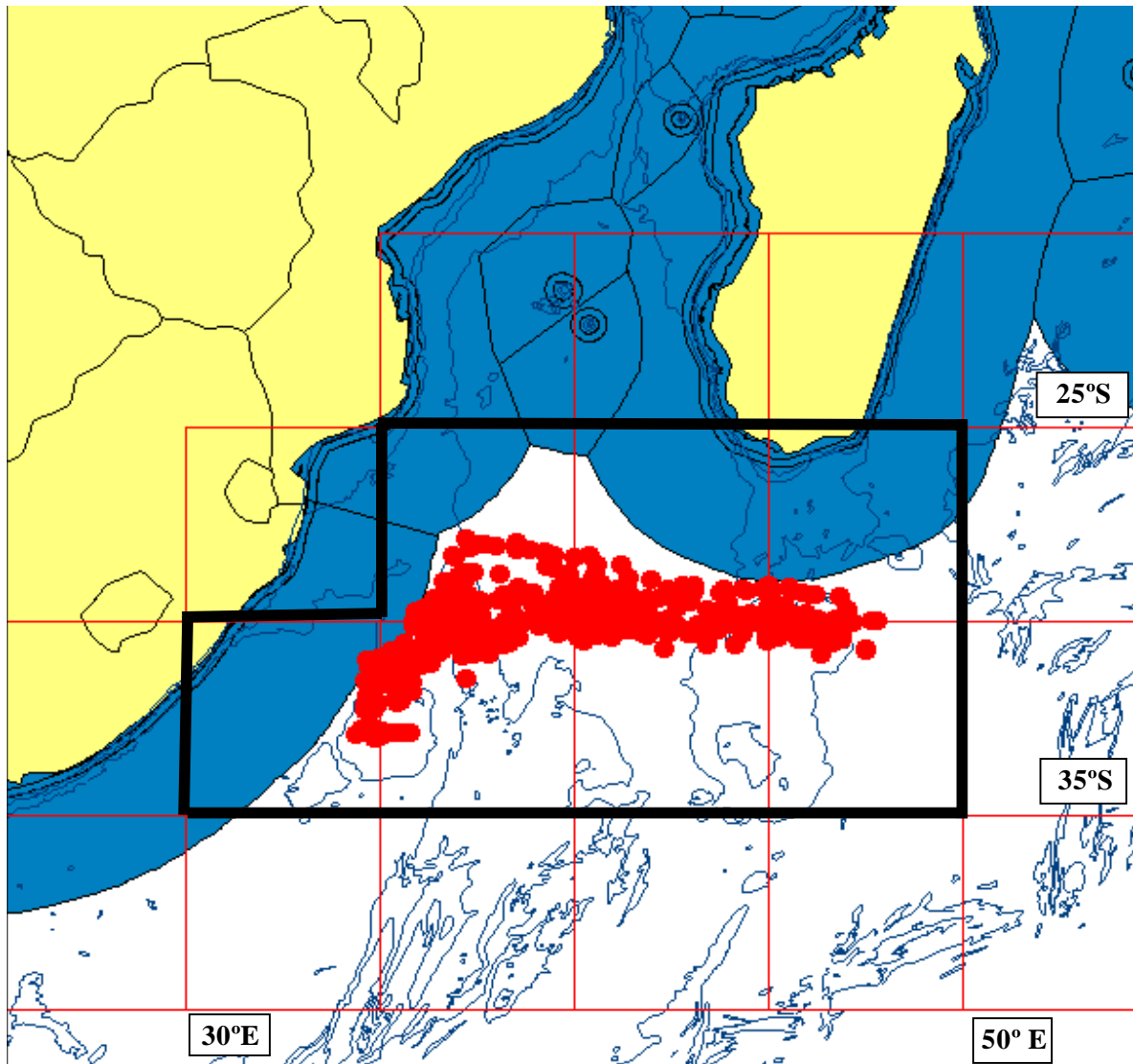


Figure 2 Length-weight relationship for Xiphiidae: swordfish (SWO) in the Southwestern Indian Ocean, based on data collected by Spanish longliners during experimental cruise from December 2004 to December 2005

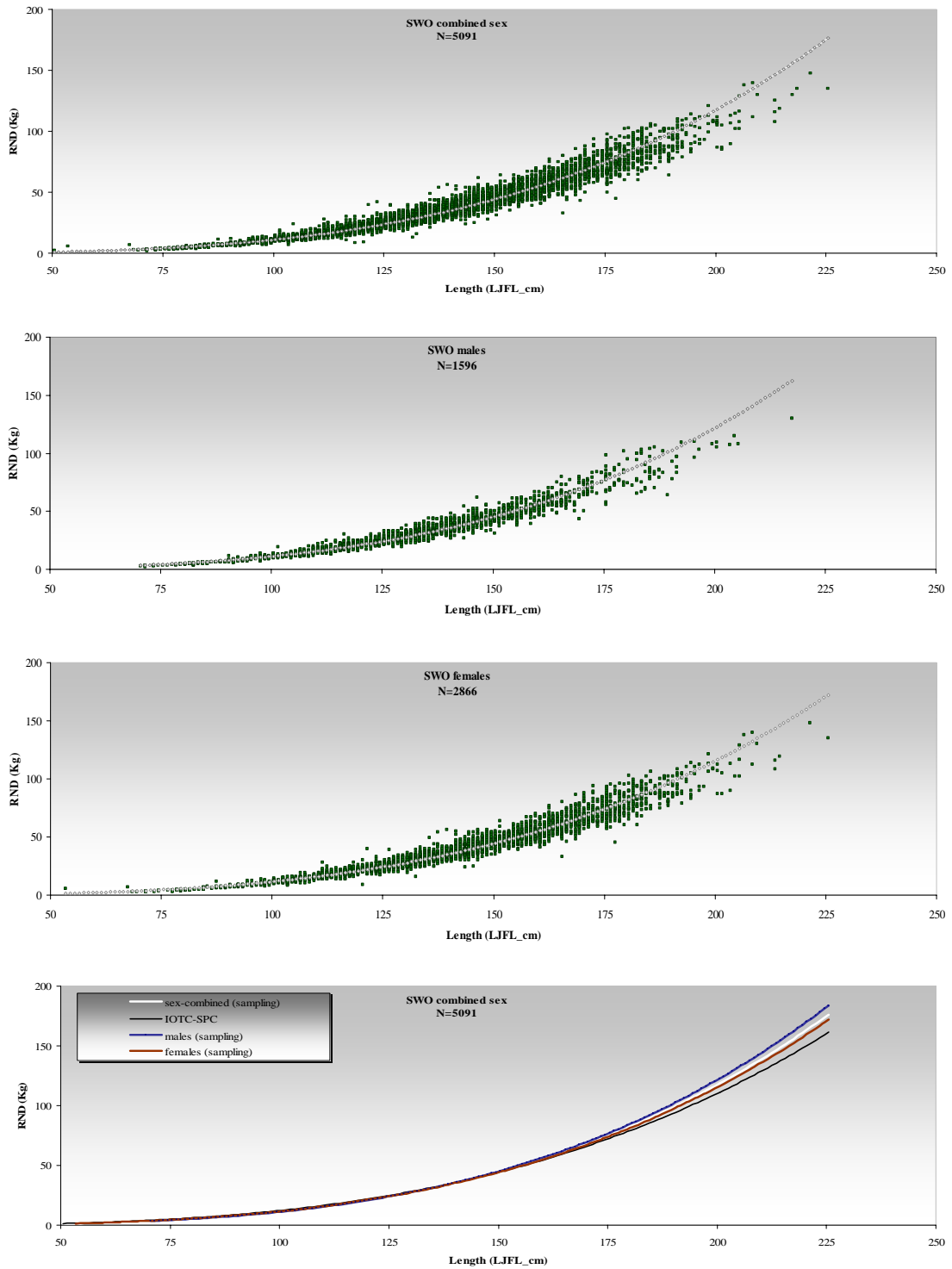


Figure 3 Length-weight relationship for Istiophoridae: Indo-Pacific sailfish (SFA) and Short-billed spearfish (SSP) in the Southwestern Indian Ocean, based on the data collected by Spanish longliners during experimental cruise from December 2004 to December 2005

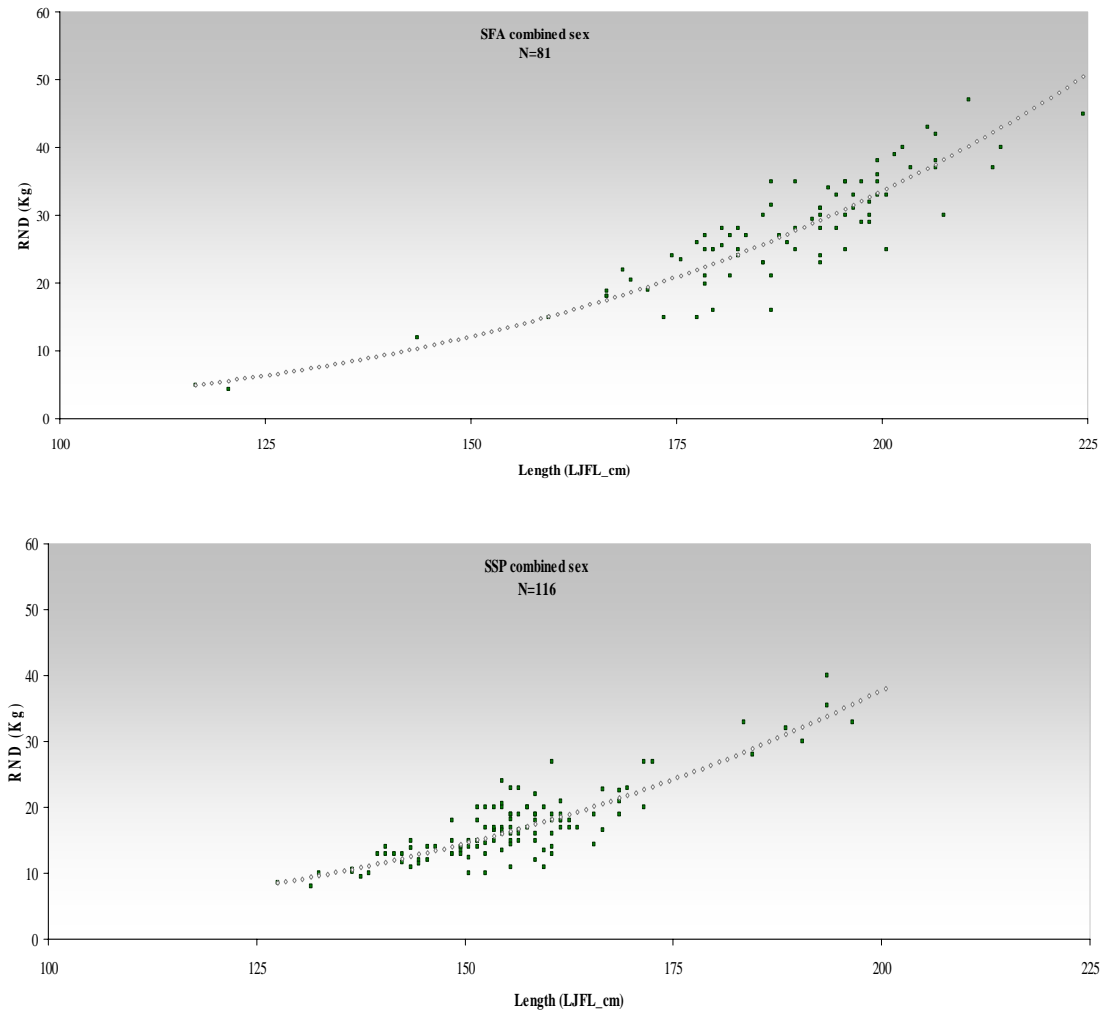


Figure 4 Sex-ratio by length class for *Xiphias gladius* (SWO), *Istiophorus platypterus* (SFA), and *Tetrapturus angustirostris* (SSP) from longline fishery in the South Western Indian Ocean

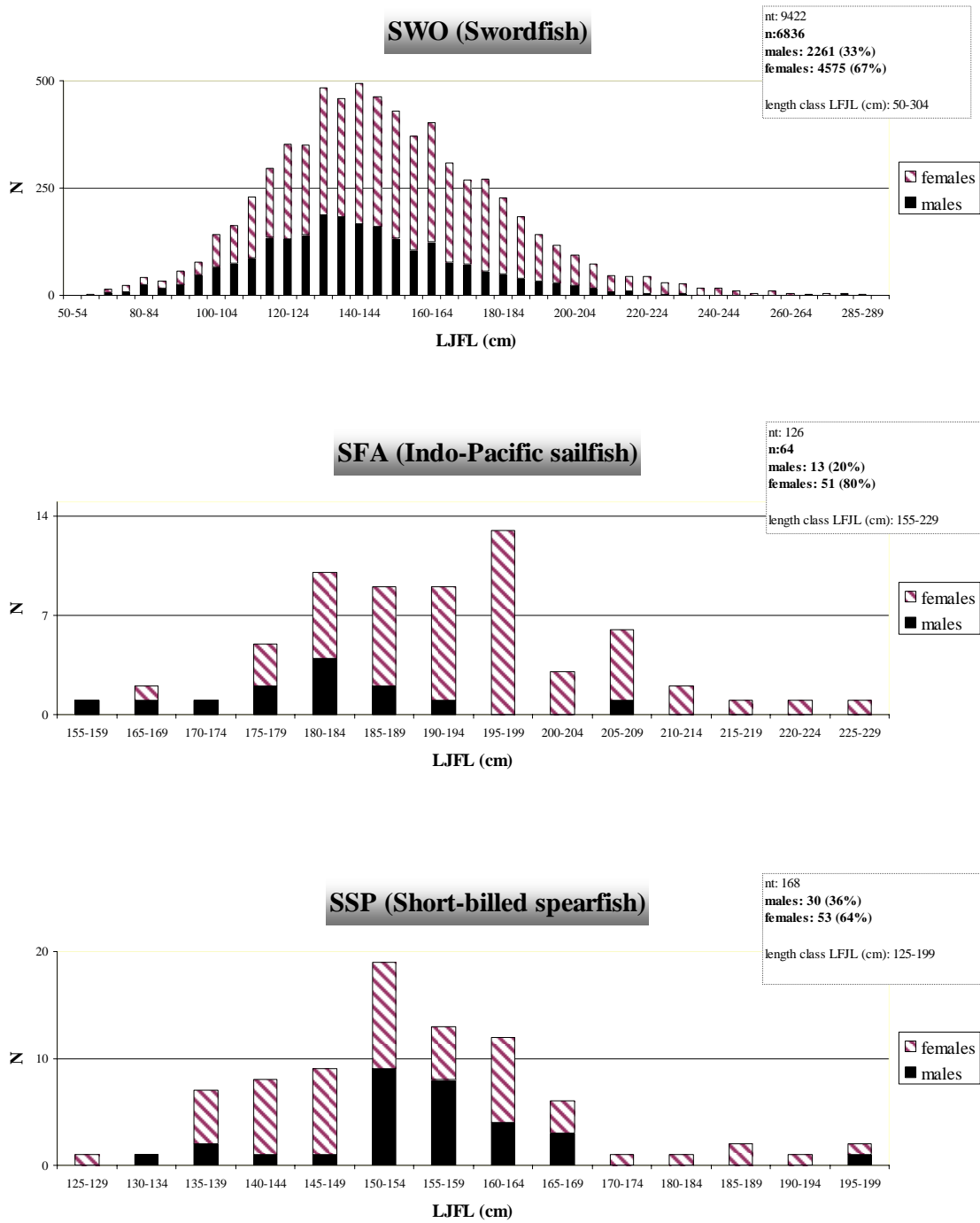


Figure 5 Percentage of females by length class for *Xiphias gladius* (SWO), *Istiophorus platypterus* (SFA), and *Tetrapturus angustirostris* (SSP) from long-line fishing in the South Western Indian Ocean

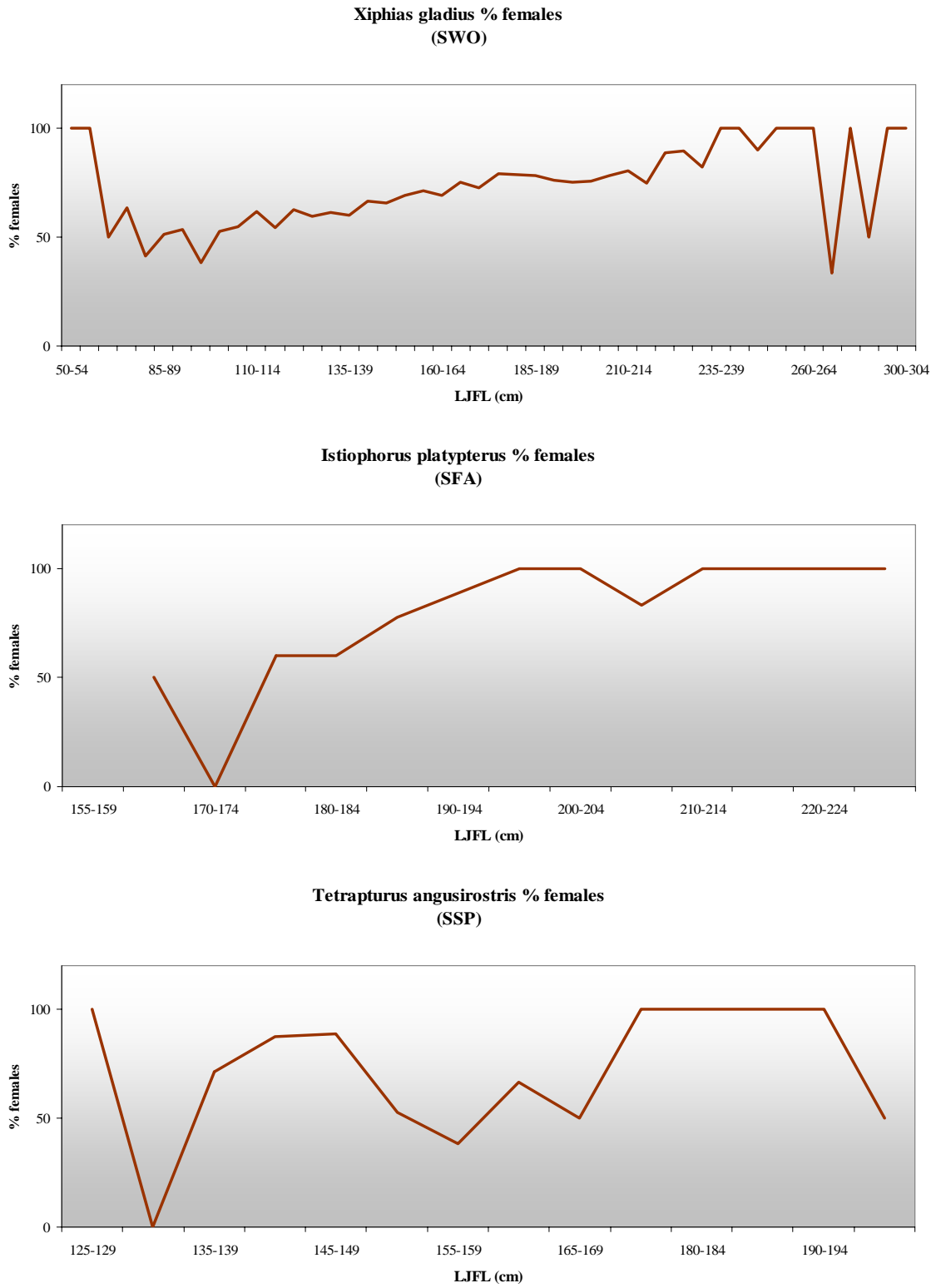


Figure 6. Percentage of females by quarters of year 2005 for *Xiphias gladius* (SWO) from long-line fishing in the South Western Indian Ocean

