

## Annex I Estimated fish densities from swept area hauls by species and depth ranges.

SWEPT AREA ANALYSIS FROM STATION 211 TO STATION 237

Guinea Bissau - North

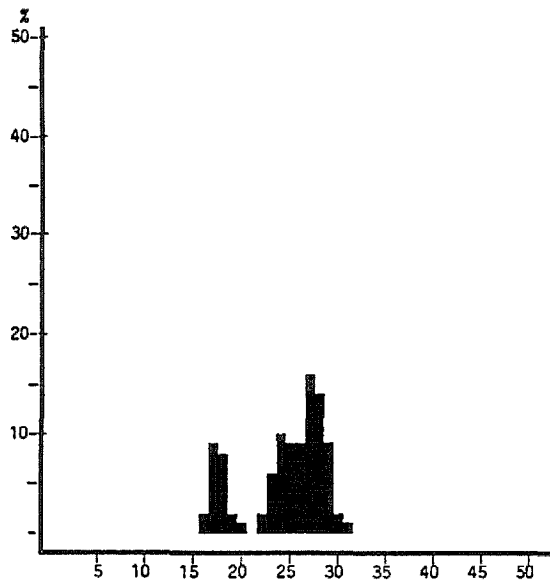
SPECIES NAME	CATCH DISTRIBUTION BY KG/NM GROUPS					% incidence	Mean dens. t/nm <sup>2</sup>	Mean densities by bottom depth strata t/nm <sup>2</sup>			
	<10	10-30	30-100	100-300	300-1000			>1000	10- 20m	20-100m	100-200m
Brachydeuterus auritus	3	4	1	1	3	50	6.45	0.97	13.36		
Trachurus trecae	7	2	3	1		50	1.50		2.79	1.74	0.04
Dentex macrophthalmus	3	1	1			21	0.47		0.01	0.67	4.54
Trichiurus lepturus	6	4	1			46	0.39	0.45	0.53		
Dentex maroccanus	2	2				17	0.19		0.16	0.95	
Mustelus mustelus	4	2				25	0.19	0.05	0.04	1.01	0.31
Zenopsis conchifer			1			4	0.17				2.08
Pagellus bellottii	8	1				38	0.15		0.31	0.05	
Dentex angolensis	2	2				17	0.15		0.02	1.16	
GALATHEIDAE		2				8	0.15				1.75
Chlorophthalmus atlanticus	1	1				8	0.15				1.83
Gobioides ansorgii	2	1				13	0.13	0.38			
Epinephelus aeneus	4	1				21	0.12	0.01	0.23	0.11	
Pseudolithus typus	3	1				17	0.12	0.37			
Saurida brasiliensis	5	1				25	0.10		0.21	0.02	
Dicologlossa cuneata	8	1				38	0.08	0.03	0.14	0.01	0.05
Parapenaeopsis atlantica	3	1				17	0.08	0.24			
Parapandalus brevipes		1				4	0.07				0.86
Carcharhinus signatus	1	1				8	0.07	0.22			
Spicara alta	3	1				17	0.07			0.05	0.81
Engraulis encrasicolus	1	1				8	0.06	0.18			
Cynoglossus browni	6	1				29	0.06	0.17			
Ilisha africana	4					17	0.06	0.18			
Chloroscombrus chrysurus	4					17	0.06	0.17			
Stromateus fiatola	5					21	0.05	0.03	0.09		
Octopus vulgaris	7					29	0.05		0.08	0.11	
Plesionika edwardsii		1					0.05				0.63
Galeoides decadactylus	3	1				17	0.05	0.16			
Penaeus notialis	12					50	0.02	0.01	0.03		
Parapenaeus longirostris	1					4	0.01				0.06
Penaeus kerathurus	4					17		0.01			
Other fish							0.74	0.39	0.72	1.32	1.97
Sum all species							12.01	4.02	18.72	7.20	14.93
Sum Snappers											
Sum Groupers							0.12	0.01	0.23	0.11	
Sum Grunts							6.47	1.02	13.36		
Sum Croakers							0.17	0.49	0.03	0.09	0.02
Sum Seabreams							1.00		0.52	3.07	4.54
Sum Sharks							0.27	0.27	0.04	1.01	0.37
Sum Rays							0.02	0.02	0.02	0.04	
Sum Squids							0.17		0.19	0.36	0.58
Sum											
Sum shrimps (excl. SHRAA01)							0.23	0.26	0.03		1.55
Number of stations included in analysis, total and by depth strata							24	8	11	3	2

SWEPT AREA ANALYSIS FROM STATION 238 TO STATION 270

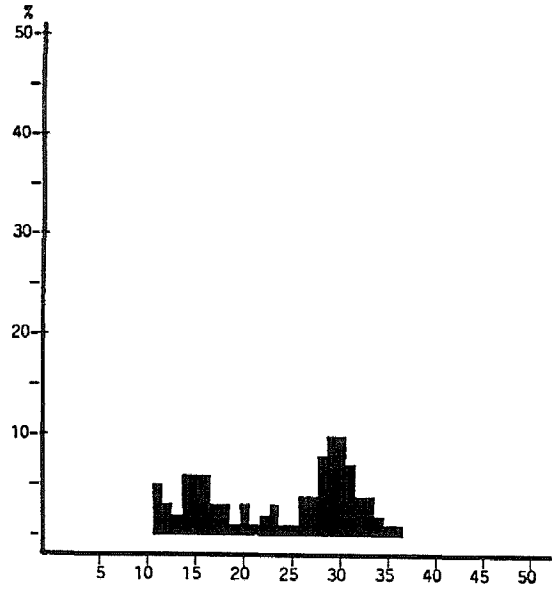
South Bissagos

SPECIES NAME	CATCH DISTRIBUTION BY KG/NM GROUPS					% inci- dence	Mean dens. t/nm <sup>2</sup>	Mean densities by bottom depth strata t/nm <sup>2</sup>				
	<10	10-30	30-100	100-300	300-1000			>1000	10- 50m	50-100m	100-200m	200-300m
Chlorophthalmus atlanticus		1			2	11	3.80					35.47
Arionma bondi	2			1	2	18	3.41			8.19		18.20
Trachurus trecae	6	1	2		1	36	1.77	0.51	0.03	8.20		
Decapterus rhonchus	7		4			39	0.81	1.31	0.13			
Dentex maroccanus	2	1	3			18	0.75		0.05	4.18		
Chelidonichthys gabonensis	14	5				68	0.47	0.57	0.70	0.27		
Spicara alta	4	1		1		21	0.47			2.61		0.04
Pagellus bellottii	15	3	1			68	0.42	0.49	0.92	0.13		
Dactylopterus volitans	8		1			32	0.22	0.34	0.04	0.05		
Hypoclydonia bella		1	1			7	0.19					1.75
Dentex angolensis	3	1				11	0.18			1.00		
Synagrops microlepis	1		1			7	0.18					1.68
Sepia bertheloti	19					68	0.17	0.20	0.46	0.02		
Sparus pagrus africanus	2	3				14	0.17		0.03	0.93		
Mustelus mustelus	6	2				29	0.17	0.05	0.28	0.55		0.08
Pseudupeneus prayensis	13	2				54	0.13	0.16	0.24			
Scomber japonicus	3	1				14	0.11	0.17		0.03		
Scorpaena angolensis	2	1				11	0.10		0.01	0.57		
Lepidotrigla carolae	6					21	0.09		0.08	0.44		
Fistularia petimba	12					43	0.09	0.10	0.25			
Trachinus draco	10					36	0.08	0.07	0.35			
Trachinocephalus myops	17					61	0.08	0.13	0.05			
Sardinella aurita	6	1				25	0.08	0.13		0.03		
Squatina oculata	3					11	0.06		0.17	0.24		
Priacanthus arenatus	12					43	0.06	0.06	0.05	0.10		
Epinephelus aeneus	2	1				11	0.05	0.02	0.38			
Parapenaeus longirostris	2					7	0.01					0.07
Penaeus notialis	3					11						
Plesionika martia	1					4						0.04
Other fish							0.71	0.53	0.75	1.45		0.50
Sum all species							14.83	4.84	4.97	28.99		57.83
Sum Snappers												
Sum Groupers							0.06	0.02	0.38	0.03		
Sum Grunts												
Sum Croakers							0.01			0.06		
Sum Seabreams							1.55	0.49	1.17	6.27		
Sum Sharks							0.24	0.05	0.45	0.84		0.08
Sum Rays							0.02	0.02	0.01	0.05		
Sum Squids							0.29	0.29	0.65	0.09		0.19
Sum												
Sum shrimps (excl. SHRAA01)							0.01					0.11
Number of stations included in analysis, total and by depth strata							28	17	3	5		3

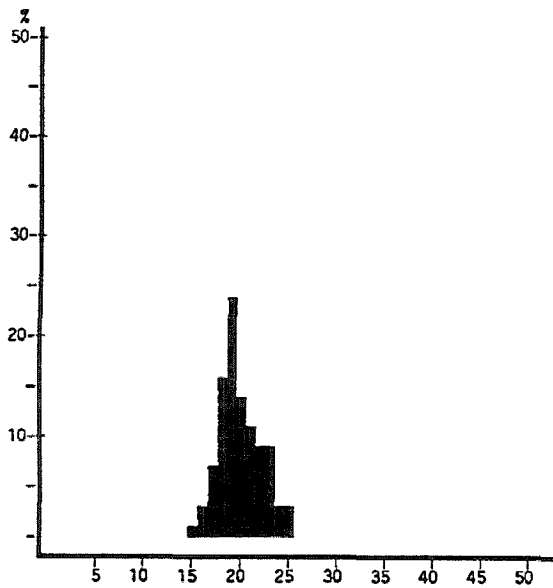
**Annex II Pooled length distributions by main pelagic species.**



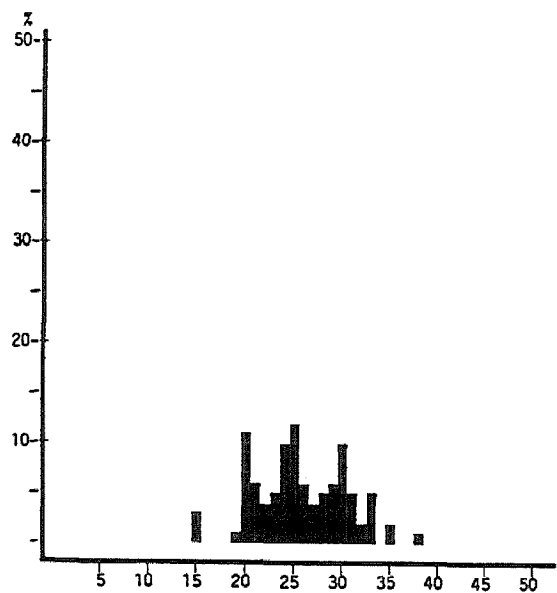
*Sardinella aurita*  
Guinea Bissau Fork-1



*Trachurus trecae*  
Guinea Bissau Fork-1



*Sardinella maderensis*  
Guinea Bissau Fork-1



*Decapterus rhonchus*  
Guinea Bissau Fork-1

**Annex III Stock length compositions by weight and numbers, sardinellas.**

Length	<i>Sardinella aurita</i>		<i>Sardinella maderensis</i>	
	N mill.	1 000 tonnes	N mill.	1 000 tonnes
10				
11				
12	0.4			
13	3.4	0.1		
14	4.2	0.2	1.4	
15	6.9	0.4	6.8	0.4
16	48.8	3.2	13.5	0.9
17	184.1	14.5	31.1	2.6
18	150.0	13.9	75.8	7.5
19	38.9	4.2	113.7	13.3
20	10.2	1.3	63.6	8.7
21			49.0	7.7
22	35.0	6.1	40.8	7.4
23	126.0	24.6	44.5	9.2
24	197.3	43.6	12.5	2.9
25	183.7	45.8	14.9	4.0
26	191.9	53.9	2.7	0.8
27	314.6	99.0		
28	290.1	102.0		
29	182.8	71.3		
30	30.9	13.3		
31	13.6	6.5		
32	0.8	0.4		
<b>Total</b>	<b>2 013.6</b>	<b>504.3</b>	<b>470.3</b>	<b>65.4</b>

# Annex IV Records of fishing stations.

PROJECT STATION: 211  
 DATE: 5/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 1205 Long W 1703  
 start stop duration  
 TIME :08:13:00 08:42:00 29 (min) Purpose code: 3  
 LOG :9100.90 9102.40 1.70 Area code :  
 FDEPTH: 12 12 GearCond.code:  
 BDEPTH: 12 12 Validity code:  
 Towing dir: 200 Wire out: 100 m Speed: 35 kn\*10  
 Sorted: 24 Kg Total catch: 86.12 CATCH/HOUR: 178.18

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	84.00	1769	47.14	
Trichiurus lepturus	38.38	1074	21.54	
Pseudolithus senegalensis	12.31	23	6.91	
Ilisha africana	10.14	145	5.69	
Arius parkii	7.97	8	4.47	
Chloroscombrus chrysurus	7.97	87	4.47	
Selene dorsalis	7.24	130	4.06	
Cynoglossus canariensis	3.62	8	2.03	
Galeoides decadactylus	2.90	52	1.63	
Pteroscion pelli	1.45	37	0.81	
Cynoglossus browni	1.03	23	0.58	
Penaeus notialis	0.87	29	0.49	418
Parapenaeopsis atlantica	0.31	101	0.17	
<b>Total</b>	<b>178.19</b>		<b>99.99</b>	

PROJECT STATION: 215  
 DATE: 5/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 1154 Long W 1718  
 start stop duration  
 TIME :14:06:00 14:36:00 30 (min) Purpose code: 3  
 LOG :9134.20 9135.40 1.80 Area code :  
 FDEPTH: 101 99 GearCond.code:  
 BDEPTH: 101 99 Validity code:  
 Towing dir: 130 Wire out: 400 m Speed: 31 kn\*10  
 Sorted: 21 Kg Total catch: 147.80 CATCH/HOUR: 295.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	167.40	210	56.63	425
Dentex maroccanus	62.40	1080	21.11	426
Octopus vulgaris	24.60	78	8.32	
Priacanthus arenatus	9.60	58	3.25	
Zeus faber	9.60	48	3.25	
Dentex angolensis	6.00	36	2.03	
Dentex macrophthalmus	5.40	96	1.83	
Chelidonichthys gabonensis	3.60	54	1.22	
Illex coindetii	3.00	90	1.01	
Todaropsis eblanae	1.80	30	0.61	
Pontinus kuhlii	1.20	30	0.41	
Syacium micrurum	0.60	18	0.20	
Saurida brasiliensis	0.30	12	0.10	
Arnoglossus imperialis	0.00	6		
<b>Total</b>	<b>295.50</b>		<b>99.97</b>	

PROJECT STATION: 212  
 DATE: 5/ 3/92 GEAR TYPE: PT No: POSITION: Lat N 1203 Long W 1706  
 start stop duration  
 TIME :09:35:00 09:52:00 17 (min) Purpose code: 1  
 LOG :9107.60 9108.50 0.90 Area code :  
 FDEPTH: 10 10 GearCond.code:  
 BDEPTH: 19 16 Validity code:  
 Towing dir: 106 Wire out: 150 m Speed: 30 kn\*10  
 Sorted: 24 Kg Total catch: 129.00 CATCH/HOUR: 455.29

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	345.88	8072	75.97	
Trichiurus lepturus	70.59	1076	15.50	
Chloroscombrus chrysurus	17.65	212	3.88	
Sardinella maderensis	8.82	49	1.94	420
Sardinella aurita	7.41	28	1.63	419
Selene dorsalis	3.53	18	0.78	
Decapterus rhonchus	1.41	4	0.31	
<b>Total</b>	<b>455.29</b>		<b>100.01</b>	

PROJECT STATION: 216  
 DATE: 5/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 1154 Long W 1709  
 start stop duration  
 TIME :15:53:00 16:03:00 10 (min) Purpose code: 3  
 LOG :9145.10 9145.40 0.40 Area code :  
 FDEPTH: 36 35 GearCond.code: 5  
 BDEPTH: 36 35 Validity code: 9  
 Towing dir: 160 Wire out: 200 m Speed: 23 kn\*10  
 Sorted: 24 Kg Total catch: 129.00 CATCH/HOUR: 455.29

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
<b>Total</b>	<b>0.00</b>			

PROJECT STATION: 213  
 DATE: 5/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 1204 Long W 1710  
 start stop duration  
 TIME :10:39:00 11:09:00 30 (min) Purpose code: 3  
 LOG :9113.60 9114.80 1.60 Area code :  
 FDEPTH: 41 49 GearCond.code:  
 BDEPTH: 41 49 Validity code:  
 Towing dir: 270 Wire out: 150 m Speed: 31 kn\*10  
 Sorted: 53 Kg Total catch: 692.80 CATCH/HOUR: 1385.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	1281.80		92.51	
Trachurus trecae	49.40	2184	3.57	421
Pagellus bellottii	26.00	598	1.88	
Decapterus rhonchus	10.40	52	0.75	
Selene dorsalis	10.40	104	0.75	
Chaetodon hoefleri	1.40	26	0.10	
Chelidonichthys gabonensis	1.40	26	0.10	
Sepia bertheloti	1.40	78	0.10	
Trichiurus lepturus	1.40	52	0.10	
Sardinella aurita	1.20	4	0.09	
Sardinella maderensis	0.80	4	0.06	
Citharus linguatula	0.00	26		
Spherooides spengleri	0.00	26		
<b>Total</b>	<b>1385.60</b>		<b>100.01</b>	

PROJECT STATION: 217  
 DATE: 5/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 1155 Long W 1701  
 start stop duration  
 TIME :17:04:00 17:34:00 30 (min) Purpose code: 3  
 LOG :9153.10 9154.40 1.40 Area code :  
 FDEPTH: 11 11 GearCond.code:  
 BDEPTH: 11 11 Validity code:  
 Towing dir: 120 Wire out: 50 m Speed: 26 kn\*10  
 Sorted: 32 Kg Total catch: 64.30 CATCH/HOUR: 128.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Gobioides ansorgii	60.00	3000	46.66	
Chloroscombrus chrysurus	25.60	224	19.91	427
Trichiurus lepturus	16.00	554	12.44	
Ilisha africana	12.40	316	9.64	
Cynoglossus browni	3.60	60	2.80	
Stromateus fiatola	2.80	4	2.18	
Brachydeuterus auritus	2.00	60	1.56	
Galeoides decadactylus	2.00	4	1.56	
Sardinella maderensis	1.60	8	1.24	
Parapenaeopsis atlantica	1.00	144	0.78	
Dicologlossa cuneata	0.40	4	0.31	
Selene dorsalis	0.40	20	0.31	
Penaeus notialis	0.20	6	0.16	
Portunus validus	0.20	20	0.16	
Scorpaena stephanica	0.20	12	0.16	
Pentanemus quinquevatus	0.20	12	0.16	
Squilla acuelata calmani	0.00	12		
<b>Total</b>	<b>128.60</b>		<b>100.03</b>	

PROJECT STATION: 214  
 DATE: 5/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 1204 Long W 1721  
 start stop duration  
 TIME :12:33:00 13:03:00 30 (min) Purpose code: 3  
 LOG :9125.30 9126.80 1.90 Area code :  
 FDEPTH: 110 108 GearCond.code:  
 BDEPTH: 110 108 Validity code:  
 Towing dir: 170 Wire out: 550 m Speed: 32 kn\*10  
 Sorted: 81 Kg Total catch: 215.60 CATCH/HOUR: 431.20

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	197.60	526	45.83	422
Dentex maroccanus	95.00	1124	22.03	423
Dentex angolensis	62.60	516	14.52	424
Mustelus mustelus	12.80	6	2.97	
Epinephelus aeneus	12.60	2	2.92	
Dentex macrophthalmus	10.60	126	2.96	
Umbina canariensis	7.60	46	1.76	
Octopus vulgaris	6.60	16	1.53	
Antigonia capros	4.60	210	1.07	
Branchiostegus semifasciatus	4.00	6	0.93	
Zeus faber	4.00	10	0.93	
Spicara alta	3.00	36	0.70	
Sparus pagrus africanus	2.60	10	0.60	
Pontinus kuhlii	1.50	10	0.35	
Scomber japonicus	1.50	6	0.35	
Decapterus rhonchus	1.50	6	0.35	
Priacanthus arenatus	1.00	6	0.23	
Saurida brasiliensis	1.00	10	0.23	
Sepia bertheloti	0.60	10	0.14	
Illex coindetii	0.60	10	0.14	
Arnoglossus imperialis	0.00	6		
Chelidonichthys gabonensis	0.00	6		
<b>Total</b>	<b>431.30</b>		<b>100.04</b>	

PROJECT STATION: 218  
 DATE: 5/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 1202 Long W 1700  
 start stop duration  
 TIME :19:54:00 20:17:00 23 (min) Purpose code: 3  
 LOG :9174.00 9174.80 1.50 Area code :  
 FDEPTH: 11 11 GearCond.code:  
 BDEPTH: 11 11 Validity code:  
 Towing dir: 150 Wire out: 100 m Speed: 39 kn\*10  
 Sorted: 16 Kg Total catch: 49.56 CATCH/HOUR: 129.29

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	62.61	1137	48.43	
Cynoglossus browni	40.70	297	31.48	
Pseudolithus senegalensis	6.26	47	4.84	
Chloroscombrus chrysurus	3.91	39	3.02	
Cynoglossus canariensis	3.91	23	3.02	
Trichiurus lepturus	3.13	63	2.42	
Sphyrna guachancho	3.13	8	2.42	
Gobioides ansorgii	1.57		1.21	
Epinephelus aeneus	1.57	16	1.21	
Stromateus fiatola	1.57	8	1.21	
Squilla acuelata calmani	0.39	31	0.30	
Pteroscion pelli	0.39	8	0.30	
Penaeus notialis	0.16	8	0.12	
<b>Total</b>	<b>129.30</b>		<b>99.98</b>	

PROJECT STATION: 219  
 DATE: 5/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1155 Long W 1701  
 start stop duration Purpose code: 3  
 TIME :21:53:00 22:27:00 34 (min)  
 LOG :9186.40 9187.80 2.20 Area code :  
 FDEPTH: 12 11 GearCond.code:  
 BDEPTH: 12 11 Validity code:  
 Towing dir: 120 Wire out: 50 m Speed: 38 kn\*10

Sorted: 12 Kg Total catch: 51.23 CATCH/HOUR: 90.41

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Gobioides ansorgii	31.76		35.13	
Brachydeuterus auritus	31.76	664	35.13	
Pseudotolithus typus	12.35	2	13.66	
Sardinella maderensis	6.00	39	6.64	428
Sphyræna guachancho	3.00	5	3.32	
Parapenaeopsis atlantica	2.65		2.93	
Trichiurus lepturus	1.59	106	1.76	
Cynoglossus browni	0.53	16	0.59	
Sardinella aurita	0.35	2	0.39	
Pteroscion pelli	0.26	5	0.29	
Penaeus notialis	0.14	2	0.15	
Total	90.39		99.99	

PROJECT STATION: 224  
 DATE: 6/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1144 Long W 1700  
 start stop duration Purpose code: 3  
 TIME :15:44:00 16:14:00 30 (min)  
 LOG :9301.00 9312.20 1.70 Area code :  
 FDEPTH: 11 13 GearCond.code:  
 BDEPTH: 11 13 Validity code:  
 Towing dir: 180 Wire out: 75 m Speed: 33 kn\*10

Sorted: 21 Kg Total catch: 100.50 CATCH/HOUR: 201.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Pseudotolithus typus	64.80	42	32.24	436
Brachydeuterus auritus	42.00	546	20.90	
Galeoides decadactylus	37.80	114	18.81	
Ilisha africana	24.00	486	11.94	
Trichiurus lepturus	12.00	168	5.97	
Pseudotolithus senegalensis	7.80	26	3.88	435
Chloroscombrus chrysurus	4.20	30	2.09	
Cynoglossus browni	3.00	24	1.49	
Trachinotus terala	2.40	18	1.19	
Argyrosomus regius	2.00	2	1.00	
Selene dorsalis	0.60	6	0.30	
Paraconger notialis	0.30	6	0.15	
Total	200.90		99.96	

PROJECT STATION: 220  
 DATE: 6/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1145 Long W 1721  
 start stop duration Purpose code: 3  
 TIME :09:41:00 10:04:00 23 (min)  
 LOG :9268.10 9269.00 1.20 Area code :  
 FDEPTH: 184 352 GearCond.code:  
 BDEPTH: 184 352 Validity code:  
 Towing dir: 200 Wire out: 750 m Speed: 31 kn\*10

Sorted: 43 Kg Total catch: 275.00 CATCH/HOUR: 717.39

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Dentex macrophthalmus	284.35	1521	39.64	429
Zenopsis conchifer	130.43	52	18.18	
Chlorophthalmus atlanticus	90.00	5520	12.55	
Spicara alta	50.87	261	7.09	
GALATHEIDAE	45.65		6.36	
Mustelus mustelus	19.57	8	2.73	
Todaropsis eblanae	18.26	509	2.55	
Malacocephalus occidentalis	16.96	2679	2.36	
Pontinus kuhlii	14.35	39	2.00	
Synagrops microlepis	10.43	430	1.45	
Pterothrissus bellioi	9.13	65	1.27	
Sepia elegans	7.83	209	1.09	
Zeus faber	5.22	39	0.73	
Merluccius polli	3.91	65	0.55	
Squalus blainvillei	3.91	3	0.55	
Hypoclydonia bella	2.61	313	0.36	
Trachurus trecae	2.61	91	0.36	
Pentheroscion mbizi	1.30	13	0.18	
Parasudis sp.	0.00	26		
Antigonia capros	0.00	13		
Total	717.39		100.00	

PROJECT STATION: 225  
 DATE: 6/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1136 Long W 1700  
 start stop duration Purpose code: 3  
 TIME :17:10:00 17:40:00 30 (min)  
 LOG :9309.10 9310.50 1.50 Area code :  
 FDEPTH: 29 27 GearCond.code:  
 BDEPTH: 29 27 Validity code:  
 Towing dir: 180 Wire out: 150 m Speed: 32 kn\*10

Sorted: 23 Kg Total catch: 411.25 CATCH/HOUR: 822.50

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	737.80	10012	89.70	
Trichiurus lepturus	51.00	3740	6.20	
Stromateus fiatola	24.40	34	2.97	
Argyrosomus regius	3.00	4	0.36	
Scomberomorus tritor	2.60	2	0.32	
Penaeus notialis	2.00	90	0.24	437
Schedophilus pamarco	1.70	34	0.21	
Total	822.50		100.00	

PROJECT STATION: 226  
 DATE: 6/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1135 Long W 1706  
 start stop duration Purpose code: 3  
 TIME :18:32:00 19:02:00 30 (min)  
 LOG :9316.60 9318.00 1.50 Area code :  
 FDEPTH: 40 44 GearCond.code:  
 BDEPTH: 40 44 Validity code:  
 Towing dir: 275 Wire out: 200 m Speed: 28 kn\*10

Sorted: 26 Kg Total catch: 534.20 CATCH/HOUR: 1068.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	1024.00	139094	95.84	
Trichiurus lepturus	32.00	1480	3.00	
Sardinella aurita	8.20	28	0.77	438
Sardinella maderensis	2.00	12	0.19	439
Penaeus notialis	1.04	40	0.10	440
Tylosurus crocodilus crocodil.	1.00	2	0.09	
Trachinotus ovatus	0.60	2	0.06	
Total	1068.84		100.05	

PROJECT STATION: 221  
 DATE: 6/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1144 Long W 1717  
 start stop duration Purpose code: 3  
 TIME :10:51:00 11:27:00 36 (min)  
 LOG :9273.10 9274.80 1.70 Area code :  
 FDEPTH: 98 95 GearCond.code:  
 BDEPTH: 98 95 Validity code:  
 Towing dir: 90 Wire out: 400 m Speed: 27 kn\*10

Sorted: 27 Kg Total catch: 393.70 CATCH/HOUR: 656.17

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	424.67	1120	64.72	432
Trachurus trecae	198.33	5590	30.23	431
Mustelus mustelus	13.33	5	2.03	
Scomber japonicus	8.67	18	1.47	430
Sardinella aurita	8.17	23	1.25	
Umbrina canariensis	1.17	2	0.18	
Octopus vulgaris	0.83	2	0.13	
Illex coindetii	0.00	23		
Total	656.17		100.01	

PROJECT STATION: 227  
 DATE: 6/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1139 Long W 1700  
 start stop duration Purpose code: 3  
 TIME :20:08:00 20:38:00 30 (min)  
 LOG :9326.40 9327.70 2.10 Area code :  
 FDEPTH: 20 20 GearCond.code:  
 BDEPTH: 20 20 Validity code:  
 Towing dir: 60 Wire out: 100 m Speed: 35 kn\*10

Sorted: 29 Kg Total catch: 76.98 CATCH/HOUR: 153.96

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Parapenaeopsis atlantica	76.00	66712	49.36	
Carcharhinus signatus	29.20	20	18.97	
Brachydeuterus auritus	25.20	504	16.37	
Pseudotolithus typus	10.80	4	7.01	
Cynoglossus browni	2.80	56	1.82	
Pseudotolithus senegalensis	2.20	2	1.43	
Trichiurus lepturus	2.00	68	1.30	
Scorpaena stephanica	2.00	80	1.30	
Cynoglossus canariensis	1.20	12	0.78	
Citharus linguatula	0.80	56	0.52	
Epinephelus aeneus	0.80	8	0.52	
Sardinella aurita	0.50	2	0.32	
Penaeus notialis	0.26	6	0.17	
Dicologlossa cuneata	0.20	16	0.13	
Pteroscion pelli	0.00	4		
Ilisha africana	0.00	4		
Serranus cabrilla	0.00	12		
Squilla acuelata calmani	0.00	4		
Total	153.96		100.00	

PROJECT STATION: 222  
 DATE: 6/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1143 Long W 1710  
 start stop duration Purpose code: 3  
 TIME :12:27:00 12:57:00 30 (min)  
 LOG :9281.90 9282.90 1.70 Area code :  
 FDEPTH: 48 51 GearCond.code:  
 BDEPTH: 48 51 Validity code:  
 Towing dir: 180 Wire out: 200 m Speed: 31 kn\*10

Sorted: 30 Kg Total catch: 814.90 CATCH/HOUR: 1629.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	1485.00	7398	91.12	433
Trichiurus lepturus	102.60	4806	6.30	
Selene dorsalis	16.20	108	0.99	
Trachurus trecae	16.20	486	0.99	
Stromateus fiatola	6.60	10	0.40	
Sardinella aurita	2.80	54	0.17	
Penaeus notialis	0.36	16	0.02	434
Total	1629.76		99.99	

PROJECT STATION: 228  
 DATE: 6/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1139 Long W 1654  
 start stop duration Purpose code: 3  
 TIME :21:18:00 21:39:00 21 (min)  
 LOG :9331.50 9332.60 0.70 Area code :  
 FDEPTH: 15 16 GearCond.code:  
 BDEPTH: 15 16 Validity code:  
 Towing dir: 227 Wire out: 100 m Speed: 20 kn\*10

Sorted: 45 Kg Total catch: 45.63 CATCH/HOUR: 130.37

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trichiurus lepturus	28.57	3571	21.91	
Engraulis encrasicolus	28.57	8143	21.91	441
Brachydeuterus auritus	21.43	857	16.44	
Carcharhinus signatus	20.86	11	16.00	
Pseudotolithus typus	9.14	3	7.01	
Pomadasys peroteti	8.57	17	6.57	
Mustelus mustelus	8.57	3	6.57	
Fortunus validus	2.00	3	1.53	
Stromateus fiatola	1.71	3	1.31	
Dicologlossa cuneata	0.43	43	0.33	
Galeoides decadactylus	0.43	86	0.33	
Penaeus kerathurus	0.09	3	0.07	
Total	130.37		99.98	

PROJECT STATION: 223  
 DATE: 6/ 3/92 GEAR TYPE: PT No: POSITION:Lat N 1142 Long W 1707  
 start stop duration Purpose code: 1  
 TIME :13:50:00 14:20:00 30 (min)  
 LOG :9288.80 9290.00 1.90 Area code :  
 FDEPTH: 10 10 GearCond.code:  
 BDEPTH: 30 41 Validity code:  
 Towing dir: 240 Wire out: 150 m Speed: 33 kn\*10

Sorted: 47 Kg Total catch: 47.00 CATCH/HOUR: 94.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	47.00	784	50.00	
Selene dorsalis	17.40	34	18.51	
Stromateus fiatola	11.00	16	11.70	
Sphyræna afra	5.80	14	6.17	
Chloroscombrus chrysurus	4.00	104	5.11	
Trichiurus lepturus	3.20	168	3.40	
Rhizoprionodon acutus	3.00	4	3.19	
Scomberomorus tritor	1.00	2	1.06	
Illex coindetii	0.40	8	0.43	
Chaetodon hoefleri	0.40	4	0.43	
Total	94.00		100.00	

PROJECT STATION: 229  
 DATE: 6/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 1135 Long W 1658  
 start stop duration  
 TIME :22:23:00 22:55:00 32 (min) Purpose code: 3  
 LOG :9337.60 9339.20 1.20 Area code :  
 FDEPTH: 18 25 GearCond.code:  
 BDEPTH: 18 25 Validity code:  
 Towing dir: 234 Wire out: 100 m Speed: 23 kn\*10  
 Sorted: 10 Kg Total catch: 130.35 CATCH/HOUR: 244.41

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	101.25	12049	41.43	
Epinephelus aeneus	56.63	13	23.17	
Saurida brasiliensis	52.31	4641	21.40	
Dicologlossa cuneata	24.77	641	10.01	
Peneus notialis	5.06	238	2.07	442
Azygus regius	2.81	4	1.15	
Sepia officinalis hierredda	0.84	17	0.34	
Syacium micrurum	0.84	51	0.34	
Pennaeus kerathurus	0.19	4	0.08	
Sepiella ornata	0.00	17		
Sparus caeruleostictus	0.00	17		
Pagellus bellottii	0.00	17		
Pseudupeneus prayensis	0.00	17		
Total	244.40		99.99	

PROJECT STATION: 230  
 DATE: 6/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 1130 Long W 1700  
 start stop duration  
 TIME :23:42:00 00:12:00 30 (min) Purpose code: 3  
 LOG :9344.20 9345.60 1.70 Area code :  
 FDEPTH: 20 20 GearCond.code:  
 BDEPTH: 20 20 Validity code:  
 Towing dir: 183 Wire out: 100 m Speed: 30 kn\*10  
 Sorted: 12 Kg Total catch: 12.80 CATCH/HOUR: 25.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Dicologlossa cuneata	6.40	386	25.00	
Torpedo torpedo	6.20	14	24.22	
Pisodonophis semicinctus	4.00	14	15.63	
Syacium micrurum	2.00	84	7.81	
Pennaeus kerathurus	1.80	70	7.03	444
Bothus podas africanus	0.80	48	3.13	
Octopus vulgaris	0.66	22	2.58	443
Peneus notialis	0.60	2	2.34	
Epinephelus aeneus	0.40	12	1.56	
Pagellus bellottii	0.40	6	1.56	
Pomadasys incisus	0.20	2	0.78	
Paraconger notialis	0.20	6	0.78	
Trachinocephalus myops	0.20	8	0.78	
Grammolites gruvelli	0.20	8	0.78	
Epinephelus goreensis	0.20	2	0.78	
Engraulis encrasicolus	0.20	30	0.78	
Saurida brasiliensis	0.20	20	0.78	
Cynoglossus browni	0.20	2	0.78	
Pseudupeneus prayensis	0.10	2	0.39	
Total	25.56		99.84	

PROJECT STATION: 231  
 DATE: 7/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 1126 Long W 1701  
 start stop duration  
 TIME :00:45:00 01:15:00 30 (min) Purpose code: 3  
 LOG :9348.20 9349.30 1.70 Area code :  
 FDEPTH: 20 22 GearCond.code:  
 BDEPTH: 20 22 Validity code:  
 Towing dir: 195 Wire out: 125 m Speed: 32 kn\*10  
 Sorted: 26 Kg Total catch: 53.10 CATCH/HOUR: 106.20

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Pagellus bellottii	64.00	744	60.26	
Dicologlossa cuneata	10.80	460	10.17	
Pseudupeneus prayensis	5.60	128	5.27	
Syacium micrurum	4.40	120	4.14	
Sparus caeruleostictus	4.40	276	4.14	
Torpedo torpedo	4.00	28	3.77	
Sepia berthelotii	2.40	20	2.26	
Cynoglossus monodi	2.00	176	1.88	
Bothus podas africanus	2.00	20	1.88	
Chaetodon hoefleri	0.40	4	0.38	
Stephanolepis hispidus	0.40	8	0.38	
Chilomycterus spinosus mauret.	0.40	12	0.38	
Trachurus trecae	0.40	4	0.38	
Pomadasys incisus	0.40	4	0.38	
Chelidonichthys gabonensis	0.40	4	0.38	
Pennaeus kerathurus	0.20	8	0.19	
Total	106.20		100.00	

PROJECT STATION: 232  
 DATE: 7/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 1130 Long W 1706  
 start stop duration  
 TIME :02:19:00 02:49:00 30 (min) Purpose code: 3  
 LOG :9356.90 9358.30 1.60 Area code :  
 FDEPTH: 37 38 GearCond.code:  
 BDEPTH: 37 38 Validity code:  
 Towing dir: 345 Wire out: 200 m Speed: 32 kn\*10  
 Sorted: 23 Kg Total catch: 23.30 CATCH/HOUR: 46.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Pagellus bellottii	14.00	150	30.04	
Chelidonichthys gabonensis	8.80	134	18.88	
Sepia berthelotii	5.20	66	11.16	
Dicologlossa cuneata	3.00	160	6.44	
Pseudupeneus prayensis	3.00	32	6.44	
Syacium micrurum	2.80	136	6.01	
Scorpaena stephanica	2.40	68	5.15	
Sparus pagrus africanus	1.60	34	3.43	
Peneus notialis	1.30	38	2.79	445
Tylosurus crocodilus crocodil.	0.80	4	1.72	
Raja miraletus	0.80	2	1.72	
Squilla mantis	0.60	12	1.29	
Trachurus trecae	0.60	2	1.29	
Grammolites gruvelli	0.40	10	0.86	
Arroglossus imperialis	0.40	30	0.86	
Paraconger notialis	0.20	2	0.43	
Pomadasys incisus	0.20	2	0.43	
Chaetodon hoefleri	0.20	2	0.43	
Torpedo torpedo	0.20	2	0.43	
Sphoeroides cutaneus	0.00	2		
Trachinocephalus myops	0.00	2		
Epinephelus goreensis	0.00	2		
Total	46.50		99.80	

PROJECT STATION: 233  
 DATE: 7/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 1134 Long W 1718  
 start stop duration  
 TIME :07:22:00 07:53:00 31 (min) Purpose code: 3  
 LOG :9370.80 9372.10 1.50 Area code :  
 FDEPTH: 103 101 GearCond.code:  
 BDEPTH: 103 101 Validity code:  
 Towing dir: 180 Wire out: 400 m Speed: 30 kn\*10  
 Sorted: 20 Kg Total catch: 66.50 CATCH/HOUR: 129.71

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Mustelus mustelus	40.26	21	31.28	
Lepidotrigla cadmani	10.06	209	7.82	
Illex coindettii	9.29	341	7.22	
Dentex congongensis	8.90	252	6.91	
Dentex angolensis	6.97	74	5.42	
Zeus faber	5.42	12	4.21	
Lepidotrigla carolae	5.03	314	3.91	
Dentex macrophthalmus	4.65	236	3.61	
Dentex maroccanus	4.65	135	3.61	
Sepia berthelotii	3.48	50	2.70	
Scorpaena angolensis	3.48	8	2.70	
Pagellus bellottii	3.10	35	2.41	
Todaropsis eblanae	3.10	89	2.41	
Raja miraletus	3.10	4	2.41	
Scomber japonicus	2.32	35	1.80	
Octopus vulgaris	2.32	15	1.80	
Priacanthus arenatus	2.32	12	1.80	
Caranx crysos	2.32	2	1.80	
Brotula barbata	2.13	2	1.65	
Pontinus kuhlii	1.94	39	1.51	
Dicologlossa cuneata	0.97	62	0.75	
Pterothrissus belloci	0.77	4	0.60	
Serranus cabrilla	0.39	12	0.30	
Chaetodon hoefleri	0.39	4	0.30	
Umbriina canariensis	0.39	8	0.30	
Arroglossus imperialis	0.39	43	0.30	
Citharus linguatula	0.39	8	0.30	
Grammolites gruvelli	0.19	19	0.15	
Cepola pauciradiatus	0.00	4		
Boops boops	0.00	4		
Trachurus trecae	0.00	4		
Spicara alta	0.00	12		
Total	128.72		99.98	

PROJECT STATION: 234  
 DATE: 7/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 1133 Long W 1720  
 start stop duration  
 TIME :08:51:00 09:29:00 38 (min) Purpose code: 3  
 LOG :9378.60 9379.70 1.60 Area code :  
 FDEPTH: 208 215 GearCond.code:  
 BDEPTH: 208 215 Validity code:  
 Towing dir: 180 Wire out: 850 m Speed: 24 kn\*10  
 Sorted: 4 Kg Total catch: 111.25 CATCH/HOUR: 175.66

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
GALATHEIDAE	51.32	27368	29.22	
Parapandalus brevipes	43.42	31906	24.72	
Plesionika edwardsii	31.58	5921	17.98	
Chlorophthalmus atlanticus	19.74	2053	11.24	
Sepia elegans	7.89	513	4.49	
Hypoclydyona bella	3.16	592	1.80	
Pontinus kuhlii	2.76	355	1.57	
Parapenaeus longirostris	2.76	474	1.57	
Dicologlossa cuneata	2.37	197	1.35	
Synegreps microlepis	1.97	197	1.12	
Monolete microstoma	1.58	197	0.90	
Parasudis sp	1.58	197	0.90	
Nemuria aequalis	1.58	553	0.90	
PORTUNIDAE	1.18	197	0.67	
Synchiropus phaeton	1.18	79	0.67	
Chascanopsetta lugubris	0.79	39	0.45	
Todaropsis eblanae	0.39	39	0.22	
Peristedion cataphractum	0.39	39	0.22	
Total	175.64		99.99	

PROJECT STATION: 235  
 DATE: 7/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 1125 Long W 1719  
 start stop duration  
 TIME :10:36:00 11:10:00 34 (min) Purpose code: 3  
 LOG :9386.20 9387.50 1.90 Area code :  
 FDEPTH: 108 95 GearCond.code:  
 BDEPTH: 108 95 Validity code:  
 Towing dir: 130 Wire out: 450 m Speed: 33 kn\*10  
 Sorted: 55 Kg Total catch: 111.70 CATCH/HOUR: 197.12

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Dentex angolensis	52.84	395	26.86	446
Dentex macrophthalmus	52.41	369	26.59	447
Mustelus mustelus	43.41	16	22.02	
Dentex maroccanus	6.71	244	3.40	
Dentex congongensis	6.18	85	3.14	
Sparus pagrus africanus	5.56	7	2.82	
Scorpaena angolensis	4.24	16	2.15	
Branchiostegus semifasciatus	3.71	5	1.88	
Octopus vulgaris	3.00	11	1.52	
Illex coindettii	3.00	127	1.52	
Spicara alta	2.65	101	1.34	
Umbriina canariensis	1.85	19	0.94	
Saurida brasiliensis	1.59	242	0.81	
Sepia berthelotii	1.41	25	0.72	
Pagellus bellottii	1.06	37	0.54	
Todaropsis eblanae	1.06	48	0.54	
Lepidotrigla carolae	0.88	51	0.45	
Selene dorsalis	0.88	5	0.45	
Raja miraletus	0.88	9	0.45	
Zeus faber	0.88	5	0.45	
Priacanthus arenatus	0.88	5	0.45	
Chaetodon hoefleri	0.53	5	0.27	
Monolete microstoma	0.26	5	0.13	
Lepidotrigla cadmani	0.26	5	0.13	
Trachurus trecae	0.26	5	0.13	
Scomber japonicus	0.26	5	0.13	
Synchiropus phaeton	0.18	9	0.09	
Boops boops	0.18	4	0.09	
Pontinus kuhlii	0.00	4		
Total	197.11		100.01	

PROJECT STATION: 236  
 DATE: 7/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1125 Long W 1713  
 start stop duration  
 TIME :11:54:00 12:24:00 30 (min) Purpose code: 3  
 LOG :9392.00 9393.30 1.60 Area code :  
 FDEPTH: 49 46 GearCond.code:  
 BDEPTH: 49 46 Validity code:  
 Towing dir: 90 Wire out: 250 m Speed: 31 kn\*10  
 Sorted: 28 Kg Total catch: 28.60 CATCH/HOUR: 57.20

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	15.60	44	27.27	449
Fistularia petimba	9.00	28	15.73	
Decapterus rhonchus	8.60	26	15.03	448
Octopus vulgaris	6.00	16	10.49	
Sepia bertheloti	5.00	34	8.74	
Chelidonicichthys gabonensis	3.40	46	5.94	
Dactylopterus volitans	2.40	4	4.20	
Pagellus bellottii	2.20	20	3.85	
Syacium micrurum	1.40	16	2.45	
Raja miraletus	0.60	2	1.05	
Sphoeroides spengleri	0.60	10	1.05	
Ephippium guttifer	0.60	8	1.05	
Trachinocephalus myops	0.40	4	0.70	
Priacanthus arenatus	0.40	2	0.70	
Chaetodon hoefleri	0.40	2	0.70	
Bothus podas africanus	0.20	2	0.35	
Scorpaena stephanica	0.20	4	0.35	
Todaropsis eblanae	0.20	8	0.35	
Total	57.20		100.00	

PROJECT STATION: 237  
 DATE: 7/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1124 Long W 1706  
 start stop duration  
 TIME :13:09:00 13:39:00 30 (min) Purpose code: 3  
 LOG :9398.10 9399.20 1.70 Area code :  
 FDEPTH: 34 35 GearCond.code:  
 BDEPTH: 34 35 Validity code:  
 Towing dir: 190 Wire out: 200 m Speed: 33 kn\*10  
 Sorted: 52 Kg Total catch: 52.40 CATCH/HOUR: 104.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	50.00	192	47.71	450
Alloteuthis africana	16.00	10	15.27	
Decapterus rhonchus	14.00	40	13.36	451
Pagellus bellottii	8.40	194	8.02	
Raja miraletus	3.40	12	3.24	
Chelidonicichthys gabonensis	3.00	42	2.86	
Priacanthus arenatus	2.40	6	2.29	
Argyrosomus regius	2.00	2	1.91	
Sepia bertheloti	2.00	20	1.91	
Pseudupeneus prayensis	1.20	16	1.15	
Syacium micrurum	0.60	10	0.57	
Fistularia petimba	0.40	2	0.38	
Illex coindetii	0.40	8	0.38	
Fistularia tabacaria	0.20	4	0.19	
Paraconger notialis	0.20	2	0.19	
Bothus podas africanus	0.20	12	0.19	
Chaetodon hoefleri	0.20	2	0.19	
Decapterus punctatus	0.10	6	0.10	
Synchropus phaeton	0.00	2		
Penaeus notialis	0.00	2		
Trachinocephalus myops	0.00	4		
Saurida brasiliensis	0.00	6		
Total	104.70		99.91	

PROJECT STATION: 238  
 DATE: 7/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1118 Long W 1700  
 start stop duration  
 TIME :14:33:00 15:03:00 30 (min) Purpose code: 3  
 LOG :9405.90 9407.20 1.40 Area code :  
 FDEPTH: 17 18 GearCond.code:  
 BDEPTH: 17 18 Validity code:  
 Towing dir: 124 Wire out: 100 m Speed: 29 kn\*10  
 Sorted: 77 Kg Total catch: 171.90 CATCH/HOUR: 343.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Decapterus rhonchus	194.00	488	56.43	452
Scomber japonicus	58.80	244	17.10	453
Pagellus bellottii	44.00	476	12.80	455
Sardinella aurita	34.00	106	9.89	454
Trachurus trecae	4.40	32	1.28	
Pseudupeneus prayensis	2.40	28	0.70	
Chelidonicichthys gabonensis	2.00	60	0.58	
Trachinocephalus myops	1.60	20	0.47	
Syacium micrurum	1.20	12	0.35	
Chloroscombrus chrysurus	0.80	8	0.23	
Remora remora	0.60	2	0.17	
Total	343.80		100.00	

PROJECT STATION: 239  
 DATE: 7/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1115 Long W 1657  
 start stop duration  
 TIME :15:36:00 16:06:00 30 (min) Purpose code: 3  
 LOG :9410.80 9412.10 1.40 Area code :  
 FDEPTH: 13 15 GearCond.code:  
 BDEPTH: 13 15 Validity code:  
 Towing dir: 120 Wire out: 100 m Speed: 28 kn\*10  
 Sorted: 24 Kg Total catch: 99.20 CATCH/HOUR: 198.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Decapterus rhonchus	168.00	704	84.68	456
Pagellus bellottii	17.60	256	8.87	
Epinephelus aeneus	5.60	8	2.82	
Trachinocephalus myops	1.60	8	0.81	
Syacium micrurum	1.60	24	0.81	
Pseudupeneus prayensis	1.60	24	0.81	
Dactylopterus volitans	1.60	8	0.81	
Sepia bertheloti	0.80	8	0.40	
Total	198.40		100.01	

PROJECT STATION: 240  
 DATE: 8/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1115 Long W 1705  
 start stop duration  
 TIME :07:55:00 08:25:00 30 (min) Purpose code: 3  
 LOG :9423.40 9424.90 1.50 Area code :  
 FDEPTH: 37 40 GearCond.code:  
 BDEPTH: 37 40 Validity code:  
 Towing dir: 270 Wire out: 200 m Speed: 28 kn\*10  
 Sorted: 28 Kg Total catch: 140.67 CATCH/HOUR: 281.34

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Decapterus rhonchus	95.00	390	33.77	458
Trachurus trecae	95.00	690	33.77	457
Priacanthus arenatus	27.00	750	9.60	
Scomber japonicus	20.00	110	7.11	
Pagellus bellottii	13.00	270	4.62	
Chelidonicichthys gabonensis	10.00	240	3.55	
Sepia bertheloti	9.00	90	3.20	
Pseudupeneus prayensis	4.00	110	1.42	
Dicologlossus cuneata	3.00	60	1.07	
Sparus caeruleostictus	2.00	10	0.71	
Chaetodon hoefleri	2.00	20	0.71	
Fistularia petimba	0.50	10	0.18	
Sardinella aurita	0.50	10	0.18	
Penaeus notialis	0.34	8	0.12	
Sphoeroides spengleri	0.00	20		
Total	281.34		100.01	

PROJECT STATION: 241  
 DATE: 8/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1114 Long W 1712  
 start stop duration  
 TIME :09:33:00 10:03:00 30 (min) Purpose code: 3  
 LOG :9433.20 9434.10 1.60 Area code :  
 FDEPTH: 72 74 GearCond.code: 8  
 BDEPTH: 72 74 Validity code: 9  
 Towing dir: 180 Wire out: 350 m Speed: 30 kn\*10  
 Sorted: Kg Total catch: CATCH/HOUR:

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
N O C A T C H	0.00			
Total				

PROJECT STATION: 242  
 DATE: 8/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1113 Long W 1710  
 start stop duration  
 TIME :12:00:00 12:30:00 30 (min) Purpose code: 3  
 LOG :9438.00 9438.90 1.80 Area code :  
 FDEPTH: 66 70 GearCond.code:  
 BDEPTH: 66 70 Validity code:  
 Towing dir: 140 Wire out: 300 m Speed: 34 kn\*10  
 Sorted: 29 Kg Total catch: 87.30 CATCH/HOUR: 174.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Pagellus bellottii	46.00	822	26.35	
Epinephelus aeneus	40.60	6	23.25	
Pseudupeneus prayensis	20.00	240	11.45	
Dentex gibbosus	13.80	70	7.90	
Sepiella ornata	10.40	52	5.96	
Lepidotrigla carolae	8.80	524	5.04	
Zeus faber	7.20	20	4.12	
Scorpaena scrofa	6.80	16	3.89	
Dentex maroccanus	5.60	392	3.21	
Octopus vulgaris	3.20	12	1.83	
Sparus caeruleostictus	3.20	12	1.83	
Sparus pagrus africanus	2.80	20	1.60	
Mustelus mustelus	1.80	2	1.03	
Chelidonicichthys gabonensis	1.20	12	0.69	
Lepidotrigla cadmani	1.20	32	0.69	
Boops boops	0.80	20	0.46	
Chaetodon hoefleri	0.80	4	0.46	
Illex coindetii	0.40	8	0.23	
Saurida brasiliensis	0.00	12		
Sphoeroides spengleri	0.00	4		
Total	174.60		99.99	

PROJECT STATION: 243  
 DATE: 8/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1104 Long W 1714  
 start stop duration  
 TIME :13:37:00 14:07:00 30 (min) Purpose code: 3  
 LOG :9446.60 9447.80 1.70 Area code :  
 FDEPTH: 121 241 GearCond.code:  
 BDEPTH: 121 241 Validity code:  
 Towing dir: 140 Wire out: 500 m Speed: 32 kn\*10  
 Sorted: 56 Kg Total catch: 224.00 CATCH/HOUR: 448.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Dentex maroccanus	206.40	1680	46.07	459
Dentex angolensis	101.60	664	22.68	460
Sparus pagrus africanus	75.20	200	16.79	461
Erythrocles monodi	34.40	128	7.68	
Spicara alta	13.60	104	3.04	
Umbrina canariensis	6.40	16	1.43	
Boops boops	4.00	32	0.89	
Anthias anthias	2.40	56	0.54	
Priacanthus arenatus	1.60	8	0.36	
Lepidotrigla carolae	0.80	16	0.18	
Saurida brasiliensis	0.80	24	0.18	
Zeus faber	0.80	8	0.18	
Antigonia capros	0.00	8		
Total	448.00		100.02	



PROJECT STATION: 244  
 DATE: 8/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1105 Long W 1702  
 start stop duration Purpose code: 3  
 TIME :15:30:00 16:00:00 30 (min) Area code :  
 LOG :9459.10 9460.70 1.30 GearCond.code:  
 FDEPTH: 41 37 Validity code:  
 BDEPTH: 41 37  
 Towing dir: 360 Wire out: 200 m Speed: 27 kn\*10  
 Sorted: 28 Kg Total catch: 28.40 CATCH/HOUR: 56.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Chelidonichthys gabonensis	28.40	378	50.35	
Decapterus rhonchus	6.40	12	11.27	
Epinephelus aeneus	5.00	2	8.60	
Sphoeroides cutaneus	4.60	108	8.10	
Sepia bertheloti	4.00	26	7.04	
Octopus vulgaris	2.00	6	3.52	
Trachinocephalus myops	0.80	8	1.41	
Scorber japonicus	0.80	2	1.41	
Syacium micrurum	0.80	6	1.41	
Epinephelus alexandrinus	0.60	2	1.06	
Trachinus draco	0.60	10	1.06	
Paraconger notialis	0.40	4	0.70	
Priacanthus arenatus	0.40	14	0.70	
Bothus podas africanus	0.40	4	0.70	
Fistularia petimba	0.20	8	0.35	
Pseudupeneus prayensis	0.20	4	0.35	
Grammolites gruvelli	0.20	4	0.35	
Pagellus bellottii	0.20	4	0.35	
Fistularia tabacaria	0.20	2	0.35	
Xyrichtys novacula	0.10	2	0.18	
Sardinella aurita	0.10	2	0.18	
Dicologlossa cuneata	0.00	2		
Total	56.80		99.99	

PROJECT STATION: 245  
 DATE: 8/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1104 Long W 1650  
 start stop duration Purpose code: 3  
 TIME :17:26:00 17:56:00 30 (min) Area code :  
 LOG :9472.30 9473.30 1.40 GearCond.code:  
 FDEPTH: 17 19 Validity code:  
 BDEPTH: 17 19  
 Towing dir: 140 Wire out: 100 m Speed: 26 kn\*10  
 Sorted: 26 Kg Total catch: 79.80 CATCH/HOUR: 159.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Decapterus rhonchus	141.60		88.72	462
Syacium micrurum	4.80	30	3.01	
Pagellus bellottii	4.20	48	2.63	
Sepia bertheloti	1.80	18	1.13	
Sphoeroides spengleri	1.50	54	0.94	
Trachinocephalus myops	1.20	12	0.94	
Pseudupeneus prayensis	1.20	18	0.75	
Uranoscopus polli	0.60	6	0.38	
Octopus vulgaris	0.60	6	0.38	
Chloroscombrus chrysurus	0.60	12	0.38	
Dicologlossa hexophthalma	0.60	12	0.38	
Chilomycterus spinosus maurzet.	0.30	6	0.19	
Bothus podas africanus	0.30	30	0.19	
Sepia elegans	0.00	12		
Decapterus punctatus	0.00	6		
Total	159.60		100.02	

PROJECT STATION: 246  
 DATE: 8/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1059 Long W 1654  
 start stop duration Purpose code: 3  
 TIME :18:48:00 19:18:00 30 (min) Area code :  
 LOG :9479.30 9480.50 1.20 GearCond.code:  
 FDEPTH: 42 46 Validity code:  
 BDEPTH: 42 46  
 Towing dir: 212 Wire out: 200 m Speed: 30 kn\*10  
 Sorted: 23 Kg Total catch: 167.65 CATCH/HOUR: 335.30

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Dactylopterus volitans	133.00	4302	39.67	
Trachurus trecae	96.60	1046	28.81	463
Chelidonichthys gabonensis	61.60	1288	18.37	
Sepia bertheloti	15.40	140	4.59	
Pagellus bellottii	14.00	154	4.18	
Sphoeroides spengleri	7.00	140	2.09	
Trachinocephalus myops	1.40	42	0.42	
Syacium micrurum	1.40	14	0.42	
Bothus podas africanus	1.40	70	0.42	
Dicologlossa hexophthalma	1.40	42	0.42	
Dicologlossa cuneata	1.40	56	0.42	
Sardinella aurita	0.70	14	0.21	
Grammolites gruvelli	0.00	28		
Serranus scriba	0.00	14		
Total	335.30		100.02	

PROJECT STATION: 247  
 DATE: 8/ 3/92 GEAR TYPE: PT No:1 POSITION:Lat N 1105 Long W 1659  
 start stop duration Purpose code: 1  
 TIME :20:36:00 21:06:00 30 (min) Area code :  
 LOG :9490.10 9491.50 1.40 GearCond.code:  
 FDEPTH: 10 10 Validity code:  
 BDEPTH: 38 43  
 Towing dir: 270 Wire out: 150 m Speed: 30 kn\*10  
 Sorted: 28 Kg Total catch: 115.07 CATCH/HOUR: 230.14

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Sardinella aurita	209.60	2760	91.07	464
Decapterus rhonchus	9.60	40	4.17	
Trachurus trecae	4.80	40	2.09	
Dactylopterus volitans	3.20	104	1.39	
Sepia bertheloti	1.60	40	0.70	
Scorber japonicus	0.80	8	0.35	
Uranoscopus polli	0.40	8	0.17	
Penaeus notialis	0.14	2	0.06	
Total	230.14		100.00	

PROJECT STATION: 248  
 DATE: 8/ 3/92 GEAR TYPE: PT No:1 POSITION:Lat N 1104 Long W 1649  
 start stop duration Purpose code: 1  
 TIME :22:43:00 23:16:00 33 (min) Area code :  
 LOG :9504.10 9505.30 1.20 GearCond.code:  
 FDEPTH: 5 5 Validity code:  
 BDEPTH: 20 18  
 Towing dir: 338 Wire out: 150 m Speed: 25 kn\*10  
 Sorted: 28 Kg Total catch: 141.87 CATCH/HOUR: 257.95

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Sardinella aurita	254.55	3193	98.68	465
Trachurus trecae	1.82	18	0.71	
Dactylopterus volitans	0.91	27	0.35	
Sepia bertheloti	0.45	9	0.17	
Penaeus kerathurus	0.22	5	0.09	
Total	257.95		100.00	

PROJECT STATION: 249  
 DATE: 9/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1059 Long W 1645  
 start stop duration Purpose code: 3  
 TIME :00:22:00 00:52:00 30 (min) Area code :  
 LOG :9513.20 9514.40 1.70 GearCond.code:  
 FDEPTH: 26 33 Validity code:  
 BDEPTH: 26 33  
 Towing dir: 210 Wire out: 150 m Speed: 32 kn\*10  
 Sorted: 26 Kg Total catch: 52.70 CATCH/HOUR: 105.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Chelidonichthys gabonensis	50.80	624	48.20	
Dicologlossa cuneata	16.40	616	15.56	
Sepia bertheloti	11.60	104	11.01	
Torpedo torpedo	6.00	20	5.69	
Trachurus trecae	4.00	40	3.80	
Dicologlossa hexophthalma	4.00	88	3.80	
Paraconger notialis	2.80	16	2.66	
Grammolites gruvelli	1.20	56	1.14	
Trachinocephalus myops	1.20	16	1.14	
Pagellus bellottii	1.20	12	1.14	
Dactylopterus volitans	1.20	16	1.14	
Trachinus armatus	0.80	16	0.76	
Fistularia petimba	0.80	8	0.76	
Syacium micrurum	0.80	24	0.76	
Pomadasyus incisus	0.80	4	0.76	
Bothus podas africanus	0.40	24	0.38	
Sardinella aurita	0.40	8	0.38	
Penaeus notialis	0.20	16	0.19	
Synaptura cadenati	0.20	4	0.19	
Ephippion guttifer	0.20	8	0.19	
Pseudupeneus prayensis	0.20	4	0.19	
Scorpaena scrofa	0.20	8	0.19	
Decapterus punctatus	0.00	4		
Total	105.40		100.05	

PROJECT STATION: 250  
 DATE: 9/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1053 Long W 1703  
 start stop duration Purpose code: 3  
 TIME :07:16:00 07:46:00 30 (min) Area code :  
 LOG :9533.00 9534.10 1.70 GearCond.code:  
 FDEPTH: 96 114 Validity code:  
 BDEPTH: 96 114  
 Towing dir: 240 Wire out: 400 m Speed: 33 kn\*10  
 Sorted: 28 Kg Total catch: 434.00 CATCH/HOUR: 868.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Spicara alta	358.40	6452	41.29	
Dentex maroccanus	291.20	3136	33.55	466
Anthias anthias	39.20	728	4.52	
Sparus pagrus africanus	36.40	140	4.19	
Mustelus mustelus	36.00	8	4.15	
Dentex angolensis	30.80	252	3.55	
Squatina oculata	21.60	2	2.49	
Chelidonichthys gabonensis	19.60	224	2.26	
Trachinus pellegrini	11.20	196	1.29	
Pagellus bellottii	8.40	224	0.97	
Serranus cabrilla	5.60	28	0.65	
Chaetodon hoefleri	2.80	28	0.32	
Lepidotrigla carolae	2.80	196	0.32	
Squalus blainvilliei	2.60	2	0.30	
Raja miraletus	1.40	28	0.16	
Total	868.00		100.01	

PROJECT STATION: 251  
 DATE: 9/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1048 Long W 1703  
 start stop duration Purpose code: 3  
 TIME :08:42:00 09:12:00 30 (min) Area code :  
 LOG :9540.30 9541.20 1.70 GearCond.code:  
 FDEPTH: 200 210 Validity code:  
 BDEPTH: 200 210  
 Towing dir: 180 Wire out: 700 m Speed: 34 kn\*10  
 Sorted: 60 Kg Total catch: 1215.51 CATCH/HOUR: 2431.02

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Ariomma bondi	1180.00	31030	48.54	
Chlorophthalmus atlanticus	1088.00	43520	44.75	
Hypoclydonia bella	116.00	8236	4.77	
Illex colledatii	16.00	800	0.66	
Pterothrissus belloci	12.00	160	0.49	
Mustelus mustelus	8.00	2	0.33	
Aulopus cadenati	6.00	80	0.25	
Spicara alta	4.00	40	0.16	
Antigonia capros	0.80	40	0.03	
Parapenaeus longirostris	0.22	14	0.01	
Total	2431.02		99.99	

PROJECT STATION: 252  
 DATE: 9/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1038 Long W 1706  
 start stop duration  
 TIME :10:41:00 11:11:00 30 (min) Purpose code: 3  
 LOG :9552.50 9553.40 1.70 Area code :  
 FDEPTH: 212 215 GearCond.code:  
 BDEPTH: 212 215 Validity code:  
 Towing dir: 123 Wire out: 700 m Speed: 33 kn\*10  
 Sorted: 32 Kg Total catch: 1671.80 CATCH/HOUR: 3343.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Chlorophthalmus atlanticus	2433.60	104104	72.78	
Ariomma bondi	676.00	19154	20.22	
Synagrops microlepis	166.40	11278	4.98	
Hypoclydonia bella	62.40	1976	1.87	
Antigonia capros	3.20	104	0.10	
Illex coindetii	2.00	104	0.06	
Total	3343.60		100.01	

PROJECT STATION: 253  
 DATE: 9/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1045 Long W 1655  
 start stop duration  
 TIME :12:54:00 13:24:00 30 (min) Purpose code: 3  
 LOG :9567.40 9568.90 1.60 Area code :  
 FDEPTH: 119 101 GearCond.code:  
 BDEPTH: 119 101 Validity code:  
 Towing dir: 30 Wire out: 500 m Speed: 30 kn\*10  
 Sorted: 63 Kg Total catch: 1422.00 CATCH/HOUR: 2844.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	1305.00	21138	45.89	467
Ariomma bondi	1278.00	33616	44.94	468
Dentex maroccanus	99.00	1744	3.48	
Sparus pagrus africanus	40.50	90	1.42	
Ephippion guttifer	27.00	46	0.95	
Spicara alta	27.00	316	0.95	
Scorpaena scrofa	18.00	46	0.63	
Pterothrissus bellocci	9.00	90	0.32	
Trachinus pellegrini	9.00	46	0.32	
Todaropsis eblanae	4.50	90	0.16	
Lepidotrigla carolae	4.50	226	0.16	
Priacanthus arenatus	4.50	46	0.16	
Scomber japonicus	4.50	46	0.16	
Sardinella aurita	4.50	90	0.16	
Pagellus bellottii	4.50	136	0.16	
Dentex angolensis	4.50	46	0.16	
Total	2844.00		100.02	

PROJECT STATION: 254  
 DATE: 9/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1051 Long W 1647  
 start stop duration  
 TIME :14:26:00 14:56:00 30 (min) Purpose code: 3  
 LOG :9576.40 9577.90 1.50 Area code :  
 FDEPTH: 47 45 GearCond.code:  
 BDEPTH: 47 45 Validity code:  
 Towing dir: 100 Wire out: 200 m Speed: 29 kn\*10  
 Sorted: 18 Kg Total catch: 18.80 CATCH/HOUR: 37.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Fistularia petimba	14.20	72	37.77	
Sepia bertheloti	7.40	44	19.68	
Allotenuis africana	6.00	40	15.96	
Chelidonichthys gabonensis	3.40	108	9.04	
Syacium micrum	1.80	16	4.79	
Octopus vulgaris	1.40	4	3.72	
Pagellus bellottii	1.20	14	3.19	
Spherooides spengleri	1.00	22	2.66	
Todaropsis eblanae	0.40	4	1.06	
Priacanthus arenatus	0.40	2	1.06	
Illex coindetii	0.20	4	0.53	
Pseudupeneus prayensis	0.20	4	0.53	
Bothus podas africanus	0.00	4		
Total	37.60		99.99	

PROJECT STATION: 255  
 DATE: 9/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1048 Long W 1636  
 start stop duration  
 TIME :16:03:00 16:33:00 30 (min) Purpose code: 3  
 LOG :9587.10 9588.20 1.80 Area code :  
 FDEPTH: 31 36 GearCond.code:  
 BDEPTH: 31 36 Validity code:  
 Towing dir: 210 Wire out: 150 m Speed: 35 kn\*10  
 Sorted: 32 Kg Total catch: 32.30 CATCH/HOUR: 64.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Fistularia petimba	30.00	148	46.44	
Chelidonichthys gabonensis	12.80	130	19.81	
Syacium micrum	8.60	50	13.31	
Sepia bertheloti	7.00	70	10.84	
Dactylopterus volitans	1.40	2	2.17	
Todaropsis eblanae	1.00	8	1.55	
Priacanthus arenatus	0.80	2	1.24	
Echeneis naucrates	0.60	2	0.93	
Decapterus rhonchus	0.60	2	0.93	
Paraconger notialis	0.40	2	0.62	
Dicologlossa hexophthalma	0.40	12	0.62	
Bothus podas africanus	0.40	12	0.62	
Trachinus draco	0.20	2	0.31	
Trachinocephalus myops	0.20	4	0.31	
Octopus vulgaris	0.10	4	0.15	
Spherooides spengleri	0.10	4	0.15	
Total	64.60		100.00	

PROJECT STATION: 256  
 DATE: 9/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1043 Long W 1642  
 start stop duration  
 TIME :17:17:00 17:47:00 30 (min) Purpose code: 3  
 LOG :9593.50 9594.70 1.60 Area code :  
 FDEPTH: 49 56 GearCond.code:  
 BDEPTH: 49 56 Validity code:  
 Towing dir: 225 Wire out: 250 m Speed: 35 kn\*10  
 Sorted: 87 Kg Total catch: 87.85 CATCH/HOUR: 175.70

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Pagellus bellottii	47.00	646	26.75	469
Sepia bertheloti	31.00	170	17.64	
Mustelus mustelus	25.40	4	14.46	
Fistularia petimba	24.00	112	13.66	
Squatina oculata	16.60	4	9.45	
Chelidonichthys gabonensis	7.00	102	3.98	
Octopus vulgaris	5.20	10	2.96	
Dactylopterus volitans	3.40	12	1.94	
Pseudupeneus prayensis	3.40	48	1.94	
Trachurus trecae	3.00	8	1.71	
Trachinus draco	2.00	54	1.14	
Spherooides cutaneus	1.80	24	1.02	
Priacanthus arenatus	1.60	10	0.91	
Trachinocephalus myops	0.80	8	0.46	
Torpedo torpedo	0.80	2	0.46	
Bothus podas africanus	0.60	18	0.34	
Scorpaena angolensis	0.60	10	0.34	
Uranoscopus polli	0.40	4	0.23	
Paraconger notialis	0.40	2	0.23	
Syacium micrum	0.20	2	0.11	
Dicologlossa hexophthalma	0.20	2	0.11	
Chaetodon hoefleri	0.20	2	0.11	
Grammolites gruvelli	0.10	2	0.06	
Spherooides spengleri	0.00	2		
Serranus scriba	0.00	8		
Total	175.70		100.01	

PROJECT STATION: 257  
 DATE: 9/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1037 Long W 1648  
 start stop duration  
 TIME :18:38:00 19:06:00 28 (min) Purpose code: 3  
 LOG :9600.80 9602.10 1.50 Area code :  
 FDEPTH: 125 134 GearCond.code:  
 BDEPTH: 125 134 Validity code:  
 Towing dir: 180 Wire out: 500 m Speed: 30 kn\*10  
 Sorted: 28 Kg Total catch: 95.80 CATCH/HOUR: 205.29

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Ariomma bondi	32.14	512	15.66	
Dentex angolensis	31.50	399	15.34	470
Lepidotrigla carolae	30.21	2417	14.72	
Mustelus mustelus	20.14	9	9.81	
Dentex maroccanus	16.07	225	7.83	471
Pterothrissus bellocci	12.86	122	6.26	
Priacanthus arenatus	10.29	270	5.01	
Dactylopterus volitans	8.36	19	4.07	
Raja miraletus	7.07	13	3.44	
Aulopus cadenati	5.79	116	2.82	
Chelidonichthys gabonensis	5.79	174	2.82	
Umbrina canariensis	3.86	45	1.88	
Illex coindetii	3.86	174	1.88	
Trachurus trecae	3.21	51	1.56	
Todaropsis eblanae	3.21	64	1.56	
Squalus blainvilliei	2.57	2	1.25	
Scorpaena angolensis	2.57	13	1.25	
Dentex congoensis	1.29	32	0.63	
Citharus linguatula	1.29	45	0.63	
Sepia bertheloti	1.29	13	0.63	
Spherooides cutaneus	1.29	19	0.63	
Pagellus bellottii	0.32	19	0.16	
Spicara alta	0.32	13	0.16	
Pontinus kuhlii	0.00	6		
Serranus sp.	0.00	6		
Arnoglossus imperialis	0.00	19		
Total	205.30		100.00	

PROJECT STATION: 258  
 DATE: 9/ 3/92 GEAR TYPE: BT No:1 POSITION:Lat N 1030 Long W 1646  
 start stop duration  
 TIME :20:05:00 20:35:00 30 (min) Purpose code: 3  
 LOG :9608.80 9610.30 1.80 Area code :  
 FDEPTH: 106 98 GearCond.code:  
 BDEPTH: 106 98 Validity code:  
 Towing dir: 342 Wire out: 450 m Speed: 33 kn\*10  
 Sorted: 27 Kg Total catch: 194.40 CATCH/HOUR: 388.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Scorpaena angolensis	99.60	324	25.62	
Dentex maroccanus	96.00	852	24.69	472
Spicara alta	45.40	432	11.68	
Mustelus mustelus	38.40	12	9.88	
Lepidotrigla carolae	36.00	2430	9.26	
Chelidonichthys gabonensis	20.40	348	5.25	
Squatina oculata	19.60	2	5.04	
Pagellus bellottii	9.60	300	2.47	
Trachinus pellegrini	8.40	264	2.16	
Trachurus trecae	3.60	72	0.93	
Sparus pagrus africanus	3.60	12	0.93	
Squalus blainvilliei	2.80	2	0.72	
Sepia bertheloti	1.20	48	0.31	
Citharus linguatula	1.20	12	0.31	
Antigonia capros	1.20	36	0.31	
Aulopus cadenati	0.60	12	0.15	
Todaropsis eblanae	0.60	24	0.15	
Dicologlossa hexophthalma	0.60	12	0.15	
Physiculus huloti	0.00	12		
Blennius normani	0.00	12		
Microchirus variegatus	0.00	24		
Anthias anthias	0.00	12		
Arnoglossus imperialis	0.00	48		
Total	388.80		100.01	

PROJECT STATION: 259  
 DATE: 9/ 3/92 GEAR TYPE: PT No: POSITION: Lat N 1035 Long W 1635  
 start stop duration  
 TIME :22:37:00 23:07:00 30 (min) Purpose code: 1  
 LOG :9626.00 9627.40 1.40 Area code :  
 FDEPTH: 10 10 GearCond.code:  
 BDEPTH: 46 51 Validity code:  
 Towing dir: 232 Wire out: 150 m Speed: 30 kn\*10  
 Sorted: 30 Kg Total catch: 154.50 CATCH/HOUR: 309.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Sardinella aurita	302.00	1000	97.73
Sardinella maderensis	7.00	40	2.27
Total	309.00	100.00	

PROJECT STATION: 260  
 DATE:10/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 1041 Long E 1626  
 start stop duration  
 TIME :00:29:00 00:59:00 30 (min) Purpose code: 3  
 LOG :9637.80 9639.00 1.40 Area code :  
 FDEPTH: 28 27 GearCond.code:  
 BDEPTH: 28 27 Validity code:  
 Towing dir: 140 Wire out: 150 m Speed: 29 kn\*10  
 Sorted: 26 Kg Total catch: 26.30 CATCH/HOUR: 52.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Sepia bertheloti	13.20	48	25.10
Trachinocephalus myops	8.80	70	16.73
Paraconger notialis	8.60	52	16.35
Dicologlossa hexophthalma	6.80	106	12.93
Dicologlossa cuneata	3.40	122	6.46
Syacium micrurum	3.40	24	6.46
Trachinus draco	2.80	38	5.32
Fistularia petimba	2.20	10	4.18
Grammolites gruvelli	1.00	18	1.90
Spherooides spengleri	0.80	28	1.52
Synaptura cadenati	0.80	6	1.52
Bothus podas africanus	0.60	26	1.14
Uranoscopus polli	0.20	2	0.38
Peneus notialis	0.00	6	
Chelidonichthys gabonensis	0.00	2	
Total	52.60	99.99	

PROJECT STATION: 261  
 DATE:10/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 1033 Long W 1619  
 start stop duration  
 TIME :02:01:00 02:08:00 7 (min) Purpose code: 3  
 LOG :9646.80 9646.80 0.40 Area code :  
 FDEPTH: 27 28 GearCond.code:  
 BDEPTH: 47 28 Validity code:  
 Towing dir: 135 Wire out: 150 m Speed: 32 kn\*10  
 Sorted: 9 Kg Total catch: 9.20 CATCH/HOUR: 78.86

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Trachurus trecae	37.71	129	47.82
Trachinocephalus myops	12.00	103	15.22
Paraconger notialis	5.14	26	6.52
Sepia bertheloti	4.29	34	5.44
Bothus podas africanus	4.29	129	5.44
Dicologlossa cuneata	3.43	146	4.35
Spherooides spengleri	3.43	77	4.35
Trachinus draco	3.43	51	4.35
Dicologlossa hexophthalma	1.71	43	2.17
Epinephelus goreensis	0.86	9	1.09
Fistularia petimba	0.86	9	1.09
Syacium micrurum	0.86	9	1.09
Uranoscopus polli	0.86	9	1.09
Grammolites gruvelli	0.00	9	
Total	78.87	100.02	

PROJECT STATION: 262  
 DATE:10/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 949 Long W 1628  
 start stop duration  
 TIME :07:16:00 07:46:00 30 (min) Purpose code: 3  
 LOG :9686.80 9687.70 1.80 Area code :  
 FDEPTH: 61 56 GearCond.code:  
 BDEPTH: 61 56 Validity code:  
 Towing dir: 51 Wire out: 300 m Speed: 35 kn\*10  
 Sorted: 24 Kg Total catch: 80.75 CATCH/HOUR: 161.50

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Chelidonichthys gabonensis	66.00	872	40.87
Trachinus draco	36.00	588	22.29
Spherooides cutaneus	16.20	144	10.03
Sepia bertheloti	15.00	36	9.29
Decapterus rhonchus	13.60	30	8.42
Trachinocephalus myops	4.20	42	2.60
Priacanthus arenatus	3.60	36	2.23
Uranoscopus polli	2.40	18	1.49
Dicologlossa hexophthalma	1.80	30	1.11
Pseudupeneus prayensis	1.80	30	1.11
Bothus podas africanus	0.60	18	0.37
Illex coindetii	0.30	6	0.19
Pagellus bellottii	0.00	6	
Total	161.50	100.00	

PROJECT STATION: 263  
 DATE:10/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 958 Long W 1618  
 start stop duration  
 TIME :09:07:00 09:36:00 29 (min) Purpose code: 3  
 LOG :9698.00 9699.30 1.90 Area code :  
 FDEPTH: 45 43 GearCond.code:  
 BDEPTH: 45 43 Validity code:  
 Towing dir: 44 Wire out: 250 m Speed: 38 kn\*10  
 Sorted: 25 Kg Total catch: 55.30 CATCH/HOUR: 114.41

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Chelidonichthys gabonensis	37.66		32.92
Pagellus bellottii	34.76		30.38
Sepia bertheloti	6.62	29	5.79
Trachinus draco	6.62	102	5.79
Spherooides spengleri	6.21	50	5.43
Pseudupeneus prayensis	5.38	58	4.70
Spherooides cutaneus	4.14	29	3.62
Dactylopterus volitans	2.90	8	2.53
Fistularia petimba	2.07	8	1.81
Uranoscopus polli	2.07	4	1.81
Mustelus mustelus	1.45	2	1.27
Xyrichtys novacula	0.83	12	0.73
Raja miraletus	0.83	4	0.73
Syacium micrurum	0.83	4	0.73
Trachinocephalus myops	0.62	17	0.54
Dicologlossa hexophthalma	0.41	4	0.36
Priacanthus arenatus	0.41	12	0.36
Octopus vulgaris	0.41	8	0.36
Grammolites gruvelli	0.21	4	0.18
Total	114.43	100.04	

PROJECT STATION: 264  
 DATE:10/ 3/92 GEAR TYPE: PT No: POSITION: Lat N 1002 Long W 1613  
 start stop duration  
 TIME :10:28:00 10:48:00 20 (min) Purpose code: 1  
 LOG :9704.10 9705.40 1.30 Area code :  
 FDEPTH: 5 5 GearCond.code:  
 BDEPTH: 38 41 Validity code:  
 Towing dir: 180 Wire out: 150 m Speed: 40 kn\*10  
 Sorted: 38 Kg Total catch: 38.70 CATCH/HOUR: 116.10

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Sardinella aurita	104.40	423	89.92
Sardinella maderensis	9.90	45	8.53
Trachurus trecae	1.80	6	1.55
Total	116.10	100.00	

PROJECT STATION: 265  
 DATE:10/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 1000 Long W 1605  
 start stop duration  
 TIME :12:23:00 12:53:00 30 (min) Purpose code: 3  
 LOG :9718.10 9719.40 1.60 Area code :  
 FDEPTH: 38 37 GearCond.code:  
 BDEPTH: 38 37 Validity code:  
 Towing dir: 300 Wire out: 200 m Speed: 32 kn\*10  
 Sorted: 51 Kg Total catch: 51.40 CATCH/HOUR: 102.80

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Pseudupeneus prayensis	35.00	532	34.05
Decapterus rhonchus	22.00	100	21.40
Chelidonichthys gabonensis	11.20	102	10.89
Trachinocephalus myops	10.80	68	10.51
Trachinus draco	7.60	98	7.39
Sepia bertheloti	6.80	24	6.61
Alutera punctata	4.80	4	4.67
Syacium micrurum	1.40	10	1.36
Spherooides spengleri	0.80	16	0.78
Dactylopterus volitans	0.60	2	0.58
Bothus podas africanus	0.60	12	0.58
Chilomycterus spinosus mauret.	0.40	2	0.39
Pagellus bellottii	0.40	4	0.39
Fistularia petimba	0.20	2	0.19
Dicologlossa hexophthalma	0.10	2	0.10
Total	102.70	99.89	

PROJECT STATION: 266  
 DATE:10/ 3/92 GEAR TYPE: BT No:1 POSITION: Lat N 1007 Long W 1618  
 start stop duration  
 TIME :14:33:00 15:03:00 30 (min) Purpose code: 3  
 LOG :9732.10 9733.50 1.40 Area code :  
 FDEPTH: 44 41 GearCond.code:  
 BDEPTH: 44 41 Validity code:  
 Towing dir: 25 Wire out: 200 m Speed: 25 kn\*10  
 Sorted: 28 Kg Total catch: 86.00 CATCH/HOUR: 172.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Pagellus bellottii	109.20	1180	63.49
Pseudupeneus prayensis	31.20	408	18.14
Chelidonichthys gabonensis	8.40	90	4.88
Trachinus armatus	7.20	78	4.19
Trachinocephalus myops	4.20	42	2.44
Ephippion guttifer	2.40	6	1.40
Sepia bertheloti	1.80	18	1.05
Priacanthus arenatus	1.80	12	1.05
Decapterus rhonchus	1.80	12	1.05
Octopus vulgaris	1.20	12	0.70
Spherooides spengleri	1.20	24	0.70
Raja miraletus	0.60	6	0.35
Syacium micrurum	0.60	6	0.35
Bothus podas africanus	0.30	6	0.17
Total	171.90	99.96	

PROJECT STATION: 267  
 GEAR TYPE: BT No:1 POSITION: Lat N 1016  
 DATE: 10/ 3/92 start stop duration Long W 1612  
 TIME :16:15:00 16:45:00 30 (min) Purpose code: 3  
 LOG :9742.70 9744.10 1.40 Area code :  
 FDEPTH: 36 32 GearCond.code:  
 BDEPTH: 36 32 Validity code:  
 Towing dir: 35 Wire out: 150 m Speed: 26 kn\*10  
 Sorted: 38 Kg Total catch: 38.70 CATCH/HOUR: 77.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Mustelus Mustelus	24.00	22	31.01	
Trachinus armatus	15.60	188	20.16	
Sepia bertheloti	9.40	34	12.14	
Fistularia petimba	4.40	26	5.68	
Chelidonichthys gabonensis	4.20	32	5.43	
Syacium micrurum	4.00	26	5.17	
Alutera punctata	3.40	2	4.39	
Sphoeroides spengleri	2.80	50	3.62	
Trachinocephalus myops	2.80	16	3.62	
Pagellus bellottii	2.20	20	2.84	
Decapterus rhonchus	1.80	6	2.33	
Octopus vulgaris	0.80	8	1.03	
Trachurus trachurus	0.60	2	0.78	
Xyrichtys novacula	0.40	4	0.52	
Priacanthus arenatus	0.40	2	0.52	
Synaptura cadonati	0.20	2	0.26	
Bothus podas africanus	0.20	6	0.26	
Dicologlossa hexopthalma	0.10	2	0.13	
Pseudupeneus prayensis	0.10	2	0.13	
Total	77.40		100.02	

PROJECT STATION: 268  
 GEAR TYPE: BT No:1 POSITION: Lat N 1027  
 DATE: 10/ 3/92 start stop duration Long W 1605  
 TIME :18:17:00 18:47:00 30 (min) Purpose code: 3  
 LOG :9755.00 9756.70 1.60 Area code :  
 FDEPTH: 23 24 GearCond.code:  
 BDEPTH: 23 24 Validity code:  
 Towing dir: 245 Wire out: 100 m Speed: 30 kn\*10  
 Sorted: 19 Kg Total catch: 19.10 CATCH/HOUR: 38.20

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Sepia officinalis hierredda	23.20	56	60.73	
Scomberomorus toror	3.60	2	9.42	
Rachycentron canadum	2.80	4	7.33	
Trachinocephalus myops	2.00	26	5.24	
Fistularia petimba	1.40	6	3.66	
Lagocephalus laevis	1.20	2	3.14	
Rhinobatos rhinobatos	1.00	2	2.62	
Echeneis naucrates	1.00	2	2.62	
Dicologlossa hexopthalma	0.60	10	1.57	
Raja miraletus	0.40	2	1.05	
Syacium micrurum	0.40	18	1.05	
Pegusa lascaris	0.20	2	0.52	
Trachinus draco	0.20	2	0.52	
Bothus podas africanus	0.10	4	0.26	
Decapterus rhonchus	0.10	10	0.26	
Sphoeroides cutaneus	0.00	4		
Total	38.20		99.99	

PROJECT STATION: 269  
 GEAR TYPE: BT No:1 POSITION: Lat N 1020  
 DATE: 10/ 3/92 start stop duration Long W 1619  
 TIME :20:29:00 21:00:00 31 (min) Purpose code: 3  
 LOG :9768.30 9769.30 1.40 Area code :  
 FDEPTH: 39 38 GearCond.code:  
 BDEPTH: 39 38 Validity code:  
 Towing dir: 246 Wire out: 200 m Speed: 27 kn\*10  
 Sorted: 22 Kg Total catch: 78.40 CATCH/HOUR: 151.74

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Chelidonichthys gabonensis	52.84	495	34.82	
Sardinella aurita	24.00	70	15.82	483
Trachinocephalus myops	15.68	99	10.33	
Sepia officinalis hierredda	13.94	70	9.19	
Trachinus draco	13.94	180	9.19	
Alutera punctata	7.55	12	4.98	
Dicologlossa hexopthalma	5.81	81	3.83	
Bothus podas africanus	5.23	116	3.45	
Torpedo torpedo	2.90	6	1.91	
Pseudupeneus prayensis	2.32	46	1.53	
Dicologlossa cuneata	2.32	29	1.53	
Dactylopterus volitans	1.74	6	1.15	
Pegusa lascaris	0.87	12	0.57	
Sepia bertheloti	0.58	6	0.38	
Paraconger notialis	0.58	6	0.38	
Syacium micrurum	0.58	6	0.38	
Sphoeroides spengleri	0.29	17	0.19	
Grammolites gruvelli	0.29	12	0.19	
Uranoscopus polli	0.29	6	0.19	
Total	151.75		100.01	

PROJECT STATION: 270  
 GEAR TYPE: BT No:1 POSITION: Lat N 1004  
 DATE: 11/ 3/92 start stop duration Long W 1654  
 TIME :03:03:00 03:33:00 30 (min) Purpose code: 3  
 LOG :9807.80 9809.40 1.50 Area code :  
 FDEPTH: 295 293 GearCond.code:  
 BDEPTH: 295 293 Validity code:  
 Towing dir: 300 Wire out: 1000 m Speed: 29 kn\*10  
 Sorted: 25 Kg Total catch: 54.10 CATCH/HOUR: 108.20

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Chlorophthalmus atlanticus	84.80	2232	78.37	
Parapenaeus longirostris	6.20	530	5.73	484
Syngnops microlepis	4.00	196	3.70	
Plesionika martia	3.20	892	2.96	
Peristedion cataphractum	3.20	260	2.96	
GALATHEIDAE	2.20	296	2.03	
Helicolenus dactylopterus	1.60	44	1.48	
Illex coindetii	1.20	16	1.11	
Malacocephalus occidentalis	0.80	32	0.74	
Bombrops heterurus	0.40	12	0.37	
Arionna bondi	0.40	8	0.37	
Dibranchius atlanticus	0.20	36	0.18	
Trachinus armatus	0.00	4		
Total	108.20		100.00	

## **Annex V Description of instruments and fishing gear.**

### **ACOUSTIC INSTRUMENTS**

A SIMRAD scientific echo sounder, EK 500/38kHz, was used during the survey for estimation of fish density.

Based on a calibration experiment using a standard copper sphere in Harbour of Las Palmas on 1st February 1992, the following settings were used:

Absorption Coeff.	10 dB/km
Pulse length	Medium
Bandwidth	Wide
Max. Power	2000 W
Angle sensitivity	21.9
2-way Beam Angle	-21.0 Db
Sv Transd. Gain	27.9 dB
Ts Transd. Gain	28.0 dB
3 dB Beamwidth	6.9°
Along-ship Offset	0°
Athwart-ship	0°

### **HYDROGRAPHY**

Temperature and salinity and oxygen were sampled at standard depths with a mini CTD sonde model SD202. Surface temperature was registered by a Furuno Temperature Indicator model TI-20, and logged on PC every nautical mile sailed.

### **FISHING GEAR**

Bottom trawl: High opening shrimp and fish trawl with net headline 31m (floatline), foot-rope 47m, gear with 12 cm diameter roller disks, 40 m sweeps, estimated headline height 6m and distance between wings during towing 18-20m. This gear was also used for some of the mid-water trawls.

Pelagic trawl: Swedish type mid-water trawl with a vertical opening of 20-25m.

Cod ends of trawls with fine meshed inner lining.

### **DATA PROCESSING**

The biological and acoustic data were stored into and analyzed by the Nansen Survey Information System, NAN-SIS.

## Annex VI Processed length data by species.

FAMILY/SPECIES	STATION	LENGTHS IN SAMPLE				N	MEAN W.	COND.
		LOWEST	HIGHEST	MEAN	VARIANCE			
<b>ARIOMMIDAE</b>								
<i>Ariomma bondi</i>	253	11.00	16.00	12.78	1.01	121	0.0380	1.79
<b>CARANGIDAE</b>								
<i>Chloroscombrus chrysurus</i>	217	14.00	24.00	19.75	3.50	56	0.1143	1.45
<i>Decapterus rhonchus</i>	236	27.00	31.00	29.54	1.44	13	0.3308	1.28
	237	23.00	38.00	28.30	12.43	20	0.3500	1.48
	239	15.00	34.00	24.59	11.14	88	0.2386	1.52
	240	23.00	29.00	25.15	2.29	39	0.2436	1.51
	245	14.00	30.00	19.53	12.17	70	0.1400	1.71
	262	28.00	35.00	32.27	4.35	15	0.4533	1.33
	265	21.00	28.00	24.60	2.53	50	0.2200	1.46
	238	17.00	26.00	21.19	1.74	122	0.3975	4.13
<i>Trachurus trecae</i>	213	10.00	17.00	11.88	2.18	84	0.0226	1.28
	214	26.00	35.00	31.13	4.15	102	0.3873	1.27
	215	15.00	36.00	28.96	20.86	105	0.3333	1.29
	221	12.00	16.00	14.13	0.97	62	0.0355	1.24
	221	28.00	36.00	31.04	5.57	48	0.3792	1.25
	236	26.00	36.00	30.18	3.39	22	0.3545	1.28
	237	24.00	32.00	27.33	2.16	96	0.2604	1.26
	240	14.00	28.00	21.17	12.91	69	0.1377	1.34
	246	12.00	26.00	18.04	9.08	76	0.0908	1.43
	253	15.00	19.00	16.69	1.37	115	0.0617	1.31
	261	26.00	31.00	28.73	1.92	15	0.2933	1.23
<b>CLUPEIDAE</b>								
<i>Sardinella aurita</i>	212	23.00	30.00	25.13	4.98	8	0.2625	1.62
	226	24.00	29.00	26.50	2.73	14	0.2929	1.56
	238	25.00	30.00	27.75	1.30	53	0.3208	1.49
	247	13.00	19.00	17.18	1.07	79	0.0759	1.48
	248	16.00	20.00	17.59	0.79	74	0.0797	1.45
	259	16.00	30.00	26.03	6.35	100	0.3020	1.67
	264	22.00	29.00	24.51	2.84	141	0.2468	1.65
	269	24.00	31.00	27.86	2.58	36	0.3444	1.58
<i>Sardinella maderensis</i>	212	20.00	25.00	22.71	2.22	14	0.1786	1.51
	219	18.00	25.00	20.77	2.47	22	0.1545	1.70
	226	20.00	23.00	22.17	1.37	6	0.1667	1.52
	264	21.00	24.00	22.60	0.54	15	0.2200	1.90
<b>ENGRAULIDIDAE</b>								
<i>Engraulis encrasicolus</i>	228	6.00	8.50	7.18	0.24	57	0.0035	0.93
<b>MULLIDAE</b>								
<i>Pseudupeneus prayensis</i>	265	12.00	18.00	15.32	1.89	85	0.0659	1.79
	266	13.00	19.00	16.03	2.45	68	0.0765	1.81

FAMILY/SPECIES	STATION	LENGTHS IN SAMPLE				N	MEAN W.	COND.
		LOWEST	HIGHEST	MEAN	VARIANCE			
<b>POMADASYIDAE (HAEMULIDAE)</b>								
<i>Brachydeuterus auritus</i>	222	5.00	15.00	8.77	1.89	137	0.0102	1.40
<b>SCIAENIDAE</b>								
<i>Pseudotolithus senegalensis</i>	224	24.00	53.00	32.23	51.19	13	0.3000	0.78
<i>Pseudotolithus typus</i>	224	22.00	94.00	50.10	446.59	21	1.5429	0.78
<b>SCOMBRIDAE</b>								
<i>Scomber japonicus</i>	221	32.00	36.00	33.73	2.02	11	0.5273	1.37
	238	24.00	28.00	26.15	0.59	61	0.2410	1.34
<b>S H R I M P S</b>								
<i>Parapenaeus longirostris</i>	270	24.00	36.00	29.78	9.03	64	0.0117	0.04
<i>Penaeus notialis</i>	211	30.00	44.00	34.43	25.19	14	0.0300	0.07
	222	26.00	35.00	31.38	8.55	8	0.0225	0.07
	225	21.00	44.00	30.38	31.42	45	0.0222	0.07
	226	26.00	42.00	32.15	28.03	20	0.0260	0.07
	229	18.00	46.00	29.47	34.28	127	0.0213	0.07
	230	25.00	48.00	33.64	59.25	11	0.0300	0.07
	232	27.00	45.00	36.47	45.15	19	0.0342	0.06
<i>Penaeus kerathurus</i>	230	28.00	48.00	37.40	25.60	35	0.0257	0.05
<b>SPARIDAE</b>								
<i>Dentex angolensis</i>	214	14.00	26.00	17.58	6.89	103	0.1214	2.09
	235	11.00	27.00	18.68	13.13	139	0.1439	1.98
	243	13.00	24.00	19.25	2.70	83	0.1530	2.10
	257	9.00	20.00	15.39	4.54	62	0.0790	2.06
<i>Dentex macrophthalmus</i>	220	18.00	29.00	20.97	6.75	62	0.1871	1.94
	235	12.00	22.00	18.58	2.39	149	0.1329	2.03
<i>Dentex maroccanus</i>	214	13.00	22.00	16.34	2.91	97	0.0845	1.88
	215	9.00	20.00	13.81	5.60	180	0.0578	2.02
	243	12.00	22.00	18.28	2.83	210	0.1229	1.96
	250	10.00	20.00	16.48	3.96	42	0.0929	1.99
	257	11.00	19.00	15.09	4.20	35	0.0714	1.97
	258	12.00	21.00	17.54	3.34	71	0.1127	2.03
<i>Pagellus bellottii</i>	238	12.00	21.00	16.34	4.79	119	0.0924	2.01
	256	11.00	20.00	15.38	5.25	66	0.0727	1.87
	263	13.00	17.00	15.19	0.94	52	0.0654	1.84
	266	14.00	19.00	16.54	1.24	80	0.0925	2.02
<i>Sparus pagrus africanus</i>	243	22.00	34.00	25.76	8.52	25	0.3760	2.12

