

Annex I Records of fishing stations

PROJECT STATION: 271
 DATE: 3/11/95 GEAR TYPE: BT No: POSITION: Lat N 944 Long W 1635
 start stop duration Purpose code: 3
 TIME :17:30:00 18:15:00 45 (min)
 LOG :5461.00 5474.70 3.70 Area code :
 FDEPTH: 293 302 GearCond.code:
 BDEPTH: 293 302 Validity code:
 Towing dir: 320° Wire out: 850 m Speed: 25 kn*10
 Sorted: 14 Kg Total catch: 49.76 CATCH/HOUR: 66.35

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP
	weight	numbers		
Chlorophthalmus atlanticus	21.05	849	31.73	
Trichiurus lepturus	10.69	75	16.11	
Parapenaeus longirostris, fem.	7.89	752	11.89	486
Synagrops microlepis	6.59	285	9.93	
Parapenaeus longirostris, male	4.95	593	7.46	485
Shrimps, small, non comm.	4.07	2352	6.13	
NOHEIDAE	2.52	47	3.80	
Chascanopsetta lugubris	1.55	69	2.34	
GALATHEIDAE	1.55	112	2.34	
MYCTOPHIDAE	1.27	1.91	1.91	
Illex coindetii	0.84	136	1.27	
Solenocera africana	0.80	136	1.21	
Bembrops heterurus	0.52	24	0.78	
Lophius vullanti	0.43	5	0.65	
Symphurus sp.	0.33	28	0.50	
Helicolenus dactylopterus	0.28	15	0.42	
Peristodion cataphractum	0.28	33	0.42	
Heterocarpus ensifer	0.24	28	0.36	
Miscellaneous fishes	0.24	37	0.36	
Malacocephalus occidentalis	0.09	19	0.14	
Ariomma bondi	0.09	28	0.14	
Lestrolepis intermedia	0.05	5	0.08	
Brotula barbata	0.05	9	0.08	
Total	66.37		100.05	

PROJECT STATION: 272
 DATE: 4/11/95 GEAR TYPE: PT No:2 POSITION: Lat N 1067 Long W 1610
 start stop duration Purpose code: 1
 TIME :22:47:00 23:17:00 30 (min)
 LOG :5520.20 5522.00 1.80 Area code :
 FDEPTH: 5 5 GearCond.code:
 BDEPTH: 41 40 Validity code:
 Towing dir: 140° Wire out: 150 m Speed: 38 kn*10
 Sorted: 123 Kg Total catch: 123.44 CATCH/HOUR: 246.88

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP
	weight	numbers		
Euthynnus alletteratus	165.80	154	67.16	488
Axidia thazard	71.40	92	29.92	487
Trachurus, Juveniles	4.00	1	1.62	
Scomberomorus tritor	3.12	2	1.26	
Echeneis naucrates	2.28	4	0.92	
Decapterus punctatus	0.28	2	0.11	
Total	246.88		99.99	

PROJECT STATION: 273
 DATE: 4/11/95 GEAR TYPE: BT No: POSITION: Lat N 1012 Long W 1700
 start stop duration Purpose code: 3
 TIME :10:34:00 11:19:00 45 (min)
 LOG :5634.40 5636.90 2.50 Area code :
 FDEPTH: 270 258 GearCond.code:
 BDEPTH: 270 258 Validity code:
 Towing dir: 340° Wire out: 870 m Speed: 30 kn*10
 Sorted: 32 Kg Total catch: 1553.32 CATCH/HOUR: 2604.43

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP
	weight	numbers		
Chlorophthalmus atlanticus	2153.47	73925	82.68	
Synagrops microlepis	202.35	8680	7.77	
Ariomma bondi	84.32	1405	3.24	
NOHEIDAE	75.23	2893	2.89	
Merluccius polli	24.80	83	0.95	
Illex coindetii	23.97	413	0.92	
MYCTOPHIDAE	15.71	3885	0.60	
Coelorinchus coelorrhincus	4.96	243	0.19	
Plesionika martia	4.35	1323	0.17	
Bembrops heterurus	4.13	83	0.16	
Parapenaeus longirostris, male	3.72	516	0.14	489
Miscellaneous fishes	3.31	165	0.13	
Parapenaeus longirostris, fem.	2.48	227	0.10	490
GALATHEIDAE	1.65	207	0.06	
Dibranchius atlanticus	0.00	83		
Total	2604.43		100.00	

PROJECT STATION: 274
 DATE: 4/11/95 GEAR TYPE: PT No:1 POSITION: Lat N 1022 Long W 1637
 start stop duration Purpose code: 1
 TIME :14:57:00 15:15:00 18 (min)
 LOG :5666.50 5667.30 0.80 Area code :
 FDEPTH: 65 70 GearCond.code: 8
 BDEPTH: 82 84 Validity code: 9
 Towing dir: 228° Wire out: 180 m Speed: 30 kn*10
 Sorted: Kg Total catch: CATCH/HOUR:

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP
	weight	numbers		
Total				

PROJECT STATION: 275
 DATE: 5/11/95 GEAR TYPE: BT No: POSITION: Lat N 1029 Long W 1728
 start stop duration Purpose code: 3
 TIME :01:00:00 02:00:00 60 (min)
 LOG :5761.00 5763.70 2.70 Area code :
 FDEPTH: 624 633 GearCond.code:
 BDEPTH: 624 633 Validity code:
 Towing dir: 180° Wire out: 1600 m Speed: 30 kn*10
 Sorted: 27 Kg Total catch: 73.71 CATCH/HOUR: 73.71

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP
	weight	numbers		
Laemonema laureysi	19.25	186	25.12	
Yarrella blackfordi	13.13	455	17.81	
Malacocephalus laevis	8.75	147	11.87	
Illex coindetii	6.21	39	8.42	
Lamprogrammus exutus	6.16	105	8.36	
Aristeus varidens, female	5.12	213	6.95	492
Chlorophthalmus atlanticus	4.66	105	6.32	
Shrimps, small, non comm.	2.73		3.70	
Aristeus varidens, male	1.88	200	2.55	491
ALBEOCEPHALIDAE	1.82	45	2.47	
Stereomastis sp.	1.19	84	1.61	
Neolithodes asperimus	0.60	1	0.81	
Halosaurus ovenii	0.49	11	0.66	
RAJIDAE	0.42	7	0.57	
Centroscymnus crepidater	0.39	4	0.53	
Plesiopeanaeus edwardsianus, f.	0.39	7	0.53	493
Mezumia sp.	0.14	7	0.19	
Heterocarpus ensifer	0.12	4	0.16	
Coelorinchus coelorrhincus	0.11	4	0.15	
Symphurus sp.	0.07	7	0.09	
Peristodion cataphractum	0.04	4	0.05	
GALATHEIDAE	0.04	4	0.05	
Total	73.71		99.97	

PROJECT STATION: 276
 DATE: 5/11/95 GEAR TYPE: PT No:2 POSITION: Lat N 1057 Long W 1644
 start stop duration Purpose code:
 TIME :08:42:00 09:12:00 30 (min)
 LOG :5829.80 5831.30 1.50 Area code :
 FDEPTH: 0 0 GearCond.code:
 BDEPTH: 34 35 Validity code:
 Towing dir: 310° Wire out: 100 m Speed: 3 kn*10
 Sorted: 13 Kg Total catch: 12.70 CATCH/HOUR: 25.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP
	weight	numbers		
Rachycentron canadum	23.60	2	92.91	
Remora remora	1.40	6	5.51	
Trachurus, Juveniles	0.20	2	0.78	
Chloroscombrus Juvenile	0.20	1	0.78	
Total	25.40		100.00	

PROJECT STATION: 277
 DATE: 5/11/95 GEAR TYPE: BT No: POSITION: Lat N 1114 Long W 1704
 start stop duration Purpose code:
 TIME :14:23:00 14:40:00 17 (min)
 LOG :5883.90 5884.00 0.90 Area code :
 FDEPTH: 39 41 GearCond.code:
 BDEPTH: 39 41 Validity code:
 Towing dir: 228° Wire out: 150 m Speed: 3 kn*10
 Sorted: 8 Kg Total catch: 7.91 CATCH/HOUR: 27.92

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP
	weight	numbers		
Mustelus mustelus	9.81	4	35.14	
RAJIDAE	6.14	42	21.99	
Caranx crysos	5.61	4	20.09	
Alloteuthis africana	3.88	7	13.90	
Syacium micrurum	1.27	7	4.55	
Calappa rubroguttata	1.02	4	3.65	
Bothus poeas africanus	0.18	4	0.64	
Total	27.91		99.96	

PROJECT STATION: 278
 DATE: 5/11/95 GEAR TYPE: BT No: POSITION: Lat N 1131 Long W 1706
 start stop duration Purpose code: 3
 TIME :19:05:00 19:35:00 30 (min)
 LOG :5931.20 5932.80 1.70 Area code :
 FDEPTH: 42 43 GearCond.code:
 BDEPTH: 42 43 Validity code:
 Towing dir: 345° Wire out: 200 m Speed: 34 kn*10
 Sorted: 93 Kg Total catch: 1116.52 CATCH/HOUR: 2233.04

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP
	weight	numbers		
Albula vulpes	2163.00	7560	96.86	
Arnoglossus imperialis	17.64	112	0.79	
Mustelus mustelus	16.80	112	0.75	
Syacium micrurum	16.24	112	0.73	
Pagellus bellottii	6.16	56	0.28	
Saurida undosquamis	5.04	784	0.23	
Grammolites gruvelli	2.52	364	0.11	
Scorpaena stephanica	2.24	28	0.10	
Squilla mantis	1.40	56	0.06	
Uranoscopus sp.	0.84	28	0.04	
Penaeus notialis, female	0.52	28	0.02	495
Penaeus notialis, male	0.34	28	0.02	494
OPHIDIIDAE	0.28	28	0.01	
Penaeus kerathurus, male	0.02	2		
Total	2233.04		100.00	

PROJECT STATION: 279
 DATE: 5/11/95 GEAR TYPE: BT No: POSITION: Lat N 1135 Long W 1706
 start stop duration
 TIME :21:00:00 21:30:00 30 (min) Purpose code: 3
 LOG :5944.70 5946.20 1.50 Area code :
 FDEPTH: 45 48 GearCond.code:
 BDEPTH: 45 48 Validity code:
 Towing dir: 275° Wire out: 200 m Speed: 3 kn*10
 Sorted: 29 Kg Total catch: 64.85 CATCH/HOUR: 129.70

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP
	weight	numbers		
Brachydeuterus auritus	28.00		21.59	
Saurida brasiliensis	22.40		17.27	
Brachydeuterus auritus	21.10	176	16.27	
Gobiidae	16.80		12.95	
Sphyræna guachancho	13.00	24	10.02	
Penaeus notialis, female	8.00	542	6.17	497
Parapenaeopsis atlantica	5.60	5460	4.32	
Caranx crysos	3.98	4	3.07	
Penaeus notialis, male	2.66	258	2.05	496
Decapterus rhonchus	1.92	2	1.48	
Selene dorsalis	1.76	8	1.36	
Scomberomorus tritor	1.60	2	1.23	
Epinephelus aeneus	0.98	2	0.76	
Raja miraletus	0.74	2	0.57	
Trichiurus lepturus	0.52	2	0.40	
Pagellus bellottii	0.18	2	0.14	
Pseudupeneus prayensis	0.16	4	0.12	
Squilla mantis	0.14	4	0.11	
Scyllarides sp.	0.10	24	0.08	
Grammoplites gruvelli	0.04	2	0.03	
Penaeus kerathurus, female	0.02	2	0.02	
Total		129.70	100.01	

PROJECT STATION: 282
 DATE: 6/11/95 GEAR TYPE: BT No: POSITION: Lat N 1139 Long W 1660
 start stop duration
 TIME :01:35:00 02:05:00 30 (min) Purpose code: 3
 LOG :5970.10 5971.20 1.10 Area code :
 FDEPTH: 23 26 GearCond.code:
 BDEPTH: 23 26 Validity code:
 Towing dir: 260° Wire out: 150 m Speed: 3 kn*10
 Sorted: 29 Kg Total catch: 106.38 CATCH/HOUR: 212.76

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP
	weight	numbers		
Arius parkii	59.80	230	28.11	
Galeoides decadactylus	38.70		18.19	
Pseudotolithus senegalensis	26.50	60	12.46	
Brachydeuterus auritus	24.60		11.56	
Ilisha africana	13.90	1792	6.53	
Penaeus notialis, female	12.62	490	5.93	504
Pteroscion pelli	7.70	130	3.62	
Callinectes pallidus	6.80	330	3.20	
Portunus validus	6.00	10	2.82	
Chloroscombrus chrysurus	3.50	60	1.65	
Dasyatis margarita	3.10	10	1.46	
Sphyræna guachancho	2.90	10	1.36	
Stromateus fiatola	2.40	10	1.13	
Penaeus notialis, male	1.84	156	0.86	503
Trichiurus lepturus	1.80	60	0.85	
Drepane africana	0.50	10	0.24	
Lysiosquilla hoevenii	0.10	10	0.05	
Total		212.76	100.02	

PROJECT STATION: 280
 DATE: 5/11/95 GEAR TYPE: BT No: POSITION: Lat N 1135 Long W 1659
 start stop duration
 TIME :22:51:00 23:21:00 30 (min) Purpose code: 3
 LOG :5957.90 5958.40 0.50 Area code :
 FDEPTH: 25 29 GearCond.code:
 BDEPTH: 25 29 Validity code:
 Towing dir: 234° Wire out: 150 m Speed: 3 kn*10
 Sorted: 59 Kg Total catch: 72.33 CATCH/HOUR: 144.66

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP
	weight	numbers		
Pseudotolithus senegalensis	54.80	40	37.88	
Brachydeuterus auritus	21.10	1206	14.59	
Parapenaeopsis atlantica	12.00		8.30	
Chloroscombrus chrysurus	10.68	174	7.38	
Galeoides decadactylus	9.54	2982	6.59	
Arius parkii	8.52	16	5.89	
Ilisha africana	6.30	294	4.36	
Penaeus notialis, female	4.28	192	2.96	499
Sardinella maderensis	2.64	30	1.82	502
Torpedo torpedo	2.10	8	1.45	
Dactylopterus volitans	1.78	2	1.23	
Syacium micrurum	1.56	2	1.08	
Stromateus fiatola	1.38	2	0.95	
Penaeus notialis, male	1.22	118	0.84	498
Cynoglossus senegalensis	1.04	8	0.72	
Ephippion guttifer	1.00	2	0.69	
Trichiurus lepturus	1.00	4	0.69	
Sepia officinalis hierredda	0.92	2	0.64	
Galeoides decadactylus	0.92	6	0.64	
Sphyræna guachancho	0.90	4	0.62	
Calappa rubroguttata	0.40	2	0.28	
Epinephelus aeneus	0.20	2	0.14	
Epinephelus goreensis	0.20	2	0.14	
Penaeus kerathurus, female	0.12	4	0.08	501
Penaeus kerathurus, male	0.06	2	0.04	500
Total		144.66	100.00	

PROJECT STATION: 283
 DATE: 6/11/95 GEAR TYPE: PT No:2 POSITION: Lat N 1147 Long W 1709
 start stop duration
 TIME :05:53:00 06:23:00 30 (min) Purpose code: 1
 LOG :6006.10 6007.70 1.60 Area code :
 FDEPTH: 12 12 GearCond.code:
 BDEPTH: 42 51 Validity code:
 Towing dir: 244° Wire out: m Speed: 32 kn*10
 Sorted: 129 Kg Total catch: 781.00 CATCH/HOUR: 1562.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP
	weight	numbers		
Selene dorsalis	632.00	3398	40.46	
Brachydeuterus auritus	486.00	632	31.11	
Sphyræna guachancho	174.00	54	11.14	
Mustelus mustelus	116.00	34	7.43	
Scomberomorus tritor	50.00	52	3.20	
Stromateus fiatola	46.00	52	2.94	
Uraspis secunda	34.00	294	2.18	
Caranx senegallus	24.00	28	1.54	
Total		1562.00	100.00	

PROJECT STATION: 281
 DATE: 6/11/95 GEAR TYPE: BT No: POSITION: Lat N 1137 Long W 1656
 start stop duration
 TIME :00:25:00 00:55:00 30 (min) Purpose code: 3
 LOG :5966.50 5968.20 1.70 Area code :
 FDEPTH: 19 22 GearCond.code:
 BDEPTH: 19 22 Validity code:
 Towing dir: 43° Wire out: 140 m Speed: 3 kn*10
 Sorted: 24 Kg Total catch: 61.65 CATCH/HOUR: 123.30

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP
	weight	numbers		
Galeoides decadactylus	50.70	552	41.12	
Arius parkii	32.10	84	26.03	
Pseudotolithus senegalensis	11.10	8	9.00	
Pisodonophis semicinctus	7.50	18	6.08	
Epinephelus aeneus	6.12	6	4.96	
Callinectes pallidus	3.54	156	2.87	
Brachydeuterus auritus	3.54	78	2.87	
Dasyatis margarita	1.98	12	1.61	
Sepia officinalis hierredda	1.68	12	1.36	
Sphyræna guachancho	1.62	6	1.31	
Ilisha africana	1.02	144	0.83	
Rypticus saponaceus	0.66	2	0.54	
Cynoglossus senegalensis	0.66	12	0.54	
Parapenaeopsis atlantica	0.48		0.39	
Syacium micrurum	0.30	12	0.24	
Drepane africana	0.12	6	0.10	
Selene dorsalis	0.12	36	0.10	
Trachinus draco	0.06	6	0.05	
Total		123.30	100.00	

PROJECT STATION: 284
 DATE: 6/11/95 GEAR TYPE: BT No: POSITION: Lat N 1150 Long W 1718
 start stop duration
 TIME :09:29:00 09:49:00 20 (min) Purpose code: 1
 LOG :6032.60 6033.70 1.10 Area code :
 FDEPTH: 106 104 GearCond.code:
 BDEPTH: 106 104 Validity code:
 Towing dir: 90° Wire out: 350 m Speed: 35 kn*10
 Sorted: 26 Kg Total catch: 77.04 CATCH/HOUR: 231.12

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP
	weight	numbers		
Trachurus trecae	75.33	3312	32.59	505
Mustelus mustelus	63.45	9	27.45	
Dentex angolensis	46.44	873	20.09	
Ariomma bondi	13.95	288	6.04	
Lepidotrigla cadmani	12.24	261	5.30	
Pontinus kuhlii	9.27	126	4.01	
Chelidonichthys lucerna	2.88	18	1.25	
Illex coindetii	2.61	45	1.13	
Penaeus notialis	1.44	18	0.62	
Boops boops	1.26	45	0.55	
Pagellus bellottii	0.90	27	0.39	
Zeus faber	0.81	9	0.35	
Scorpaena scrofa	0.54	18	0.23	
Total		231.12	100.00	

PROJECT STATION: 285
 DATE: 6/11/95 GEAR TYPE: BT No: POSITION: Lat N 1205 Long W 1710
 start stop duration
 TIME :22:10:00 22:40:00 30 (min) Purpose code:
 LOG :6131.20 6132.90 1.70 Area code :
 FDEPTH: 47 38 GearCond.code:
 BDEPTH: 47 38 Validity code:
 Towing dir: 55° Wire out: 175 m Speed: 34 kn*10
 Sorted: 58 Kg Total catch: 291.45 CATCH/HOUR: 582.90

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP
	weight	numbers		
Brachydeuterus auritus	321.50	120466	55.16	
Mustelus mustelus	238.80	48	40.97	
Penaeus notialis, female	11.50	770	1.97	507
Sphyrna couardi	8.70	2	1.49	
Penaeus notialis, male	2.00	240	0.34	506
Symphurus sp.	0.40	60	0.07	
Total		582.90	100.00	

PROJECT STATION: 286
 DATE: 6/11/95 GEAR TYPE: BT No: POSITION: Lat N 1209
 start stop duration Long W 1705
 TIME :23:40:00 00:10:00 30 (min) Purpose code: 3
 LOG :6140.70 6142.10 1.40 Area code :
 FDEPTH: 18 27 GearCond.code:
 BDEPTH: 18 27 Validity code:
 Towing dir: 270° Wire out: 100 m Speed: 30 kn*10
 Sorted: 30 Kg Total catch: 414.06 CATCH/HOUR: 828.12

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP
	weight	numbers		
Arius parkii	229.04	756	27.66	
Galeoides decadactylus	160.72	336	19.41	
Drepane africana	123.76	84	14.94	
Pteroscion pelli	92.12	1260	11.12	
Pseudotolithus senegalensis	74.48	196	8.99	
Shrimps, small, ncn comm.	28.00		3.38	
Trichiurus lepturus	22.12	1176	2.67	
Ilisha africana	16.52	364	1.99	
Pentapenaeus quinquecarinus	15.12	196	1.83	
Pomadourys peroteti	14.84	56	1.79	
Albula vulpes	14.56	28	1.76	
Parapenaeopsis atlantica	14.56	3640	1.76	
Brachydeuterus auritus	13.72	224	1.66	
Arius heudeloti	6.72	28	0.81	
Cynoglossus canariensis	0.56	28	0.07	
Penaeus notialis, female	0.50	14	0.06	509
Penaeus notialis, male	0.50	42	0.06	508
Syacium micrurum	0.28	28	0.03	
Total	828.12		99.99	

PROJECT STATION: 287
 DATE: 7/11/95 GEAR TYPE: BT No: POSITION: Lat N 1209
 start stop duration Long W 1711
 TIME :01:00:00 01:30:00 30 (min) Purpose code: 3
 LOG :6145.50 6147.10 1.60 Area code :
 FDEPTH: 59 60 GearCond.code:
 BDEPTH: 59 60 Validity code:
 Towing dir: 270° Wire out: 150 m Speed: 30 kn*10
 Sorted: 25 Kg Total catch: 50.91 CATCH/HOUR: 101.82

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP
	weight	numbers		
Arius parkii	35.40	78	34.77	
Brachydeuterus auritus Juv.	21.24		20.86	
Rhizoprionodon acutus	15.00	6	14.73	
Selene dorsalis	9.54	42	9.37	
Mustelus mustelus	7.80	4	7.66	
Pomadourys peroteti	4.38	6	4.30	
Brachydeuterus auritus	3.72	168	3.65	
CONGRIDAE	1.92	6	1.89	
Parapenaeopsis atlantica	1.14	372	1.12	
Protula barbata	0.84	18	0.82	
Penaeus notialis, female	0.34	22	0.33	511
Trichiurus lepturus	0.18	24	0.18	
Pagellus bellottii	0.12	6	0.12	
Pseudopenaeus prayensis	0.12	6	0.12	
Penaeus notialis, male	0.08	8	0.08	510
Total	101.82		100.00	

PROJECT STATION: 288
 DATE: 7/11/95 GEAR TYPE: BT No: POSITION: Lat N 1209
 start stop duration Long W 1709
 TIME :02:20:00 02:50:00 30 (min) Purpose code: 3
 LOG :6152.50 6154.10 1.60 Area code :
 FDEPTH: 39 39 GearCond.code:
 BDEPTH: 39 39 Validity code:
 Towing dir: * Wire out: 150 m Speed: 30 kn*10
 Sorted: 104 Kg Total catch: 608.28 CATCH/HOUR: 1216.56

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP
	weight	numbers		
Rhizoprionodon acutus	740.00	296	60.83	
Selene dorsalis	313.20	1126	25.74	513
Scomberomorus tritor	55.20	52	4.54	512
Lutjanus agennes	40.00	6	3.29	
Carcharhinus limbatus	22.00	4	1.81	
Alectis alexandrinus	17.04	35	1.40	
Caranx senegalus	9.72	12	0.80	
Trachinotus maxillosus	8.00	2	0.66	
Sphyrna mokarran	8.00	6	0.66	
Sphyrna guachancho	3.40	4	0.28	
Total	1216.56		100.01	

Annex II Instruments and fishing gear used

The Simrad EK-500/38kHz scientific sounder was used during the survey for fish abundance estimation. The Bergen Echo Integrator system (BEI) was used to scrutinize the acoustic records from the 38kHz echo sounder, and to allocate integrator values to fish species.

The details of the settings of the 38kHz echo sounder were as follows:

Tranceiver-1 menu (38 kHz lowering keel)

Transducer depth	0.00 m
Absorbtion coeff.	10 dB/km
Pulse length	medium (1ms)
Bandwidth	wide
Max power	2000 Watt
2-way beam angle	-21.0 dB
SV transducer gain	28.1 dB
TS transducer gain	28.0 dB
Angle sensitivity	21.9
3 dB beamwidth	6.8 dg
Alongship offset	0.00 "
Athwardship offset	0.04 "

Display menu

Echogram	1 (38 kHz)
Bottom range	12 m
Bottom range start	10 m
Sv colour min	-67 dB

Printer- menu

Echogram	1 (38 kHz)
Range	100, 250 and 500 m
Range start	0
Bottom range	12 m
Bottom range start	10 m
Sv colour min	-67 dB
TVG	20 log R

Bottom detection menu Minimum level -50 dB

Fishing gear

The vessel has two different sized "Åkrahamn" pelagic trawls and one "Gisund super bottom trawl". Both the bottom trawl and the smallest pelagic trawl were used during the survey.

The bottom trawl has a headline of 31 m, footrope 47 m and 20 mm meshsize in the codend with an innernett of 10 mm meshsize. The estimated opening is 6 m (observed 5.7) and distance between wings during towing about 18 m. The sweeps are 40 m long. The trawl is equipped with a 12" rubber bobbins gear. The doors are of 'Thyborøn' combi type, 7.81 m², 1670 kg, their distance while trawling about 46 m in average. A tickler chain was used when trawling for shrimp.

The SCANMAR system was used on all trawl hauls. This equipment consists of sensors, a hydrophone, a receiver, a display unit and a battery charger. Communication between sensors and ship is based on acoustic transmission. The doors are fitted with sensors to provide information on their distance and a height sensor is fitted to the bottom trawl to measure the trawl opening and provide information on clearance and bottom contact..

The pelagic trawl is equipped with a trawleye that provides information on the trawl opening and the distance of the footrope to the bottom.

