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Midwater Fish Data Report for Warm-Core Gulf Stream Rings Cruises 1981-1982

by

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Technical Report

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INTRODUCTION

This data report is for midwater fishes collected during the multidisciplinary Warm-Core Rings Program in 1981 and 1982.

Stations were made in and near three warm-core rings on five cruises within a period of 14 months. On Atlantis II cruise 110 (September-October 1981) six stations were made in and around ring 81-D (age two months). Stations were made in the vicinity of ring 82-B on three cruises in 1982--twelve stations during Oceanus 118 (April) when the ring was two months old, 15 stations during Oceanus 121 (June) at age four months, and 19 stations during Oceanus 125 (August) at age 5.5 months. Finally, twelve stations were made in and near meander/ring 82-H (age 0) during Knorr 98 in September/October 1982 (Tables 1-10).

The collections were made with a new midwater trawl - the MOCNESS-20 (MOC-20) (Wiebe et al., 1985), a scaled-up version of the MOCNESS-1 (an apparatus for collecting zooplankton; Wiebe et al., 1976) and successor to the MOCNESS-10 (like the MOC-20, a midwater trawl). (The number forming the distinctive part of the name of these nets is equal to the area of the projected mouth in square meters when the apparatus is in a common fishing attitude.) The MOC-20 consists of a set of 3-mm mesh rectangular nets that can be opened and closed by command from the surface via a signal-conducting towing warp. Apparatus attached to the net frame measures and transmits depth, temperature, conductivity, flow, and net-frame angle to the towing ship's laboratory. Flow (net speed), vertical velocity, and net-frame angle allow computation of the water volume filtered. On the WCR cruises a set of five or six nets was used. One net (not used for quantitative analyses) was fished down to 1000 m, then closed and a second net opened. The second and successive nets were closed and opened sequentially at intervals as the apparatus was brought back to the surface. A surface-to-surface cycle with the gear is referred to as a station, the contents of a single net as a collection. In addition to being described by latitude and longitude, stations are located in the same radial coordinate system used to composite the warm-core rings physical data, that is, by distance and bearing from the moving ring center.

A typical 1000-m station (up nets) lasted about two and a half hours and filtered about 150,000 m^3. Individual nets filtered between 30,000 and 40,000 m^3. The MOC-20 was used at 64 stations during the 1981-1984 program; at 57 of these stations, complete 1000-m profiles were successfully made (two profiles were to 1250 m) and a total of 312 collections secured. There were 21 stations in the cores of rings, 15 in the outer, high velocity regions (HVR) of the rings, 17 in the Slope Water, and two each in the Gulf Stream and Northern Sargasso Sea.

When sampled, ring 81-D was about three months old and was elliptically shaped (about 190 by 144 km); it was interacting and exchanging waters with the Gulf Stream (Joyce et al., 1983; Joyce, 1984; Joyce et al., 1984).

The following history of warm-core ring 82-B is taken from Evans et al. (1985), Joyce and Kennelly (1985), Schmitt and Olson (1985), Boyd et al. (1986), and Conte et al. (1986). Ring 82-B was formed in mid-February 1982 and was centered at 38.5°N, 70°W. Between then and mid June, while moving to the southwest about 450 km, it changed little physically. Its diameter shrank from 160 to 130 km; its core cooled from 17.7°C to 15.7° but extended about as deep as before. By August, after interactions with shelf water, the Slope Water, and the Gulf Stream, its diameter had been reduced to only 45 km. Waters in both the upper 100 m and deeper than 500 m had been completely exchanged. Finally, 82-B was swept away by the Gulf Stream in September at age seven months.

When first sampled by us, 82-H was actually a large (190 km diameter) Gulf Stream meander; by October 9 the ring was separated from the stream, was about 220 km in diameter, and was moving to the WSW a about 10 km/day (Stalcup et al., 1986).

A total of 142,630 specimens have been identified, most of them to species, some (Bathylagus, Bregmaceros) to genus only, a few (searsiids, paralepidids) to family only. At least 234 species are represented (Table 11).

Table 12 gives depths where nets were closed and opened (depth intervals fished by each net) and is thus a key for the remaining tables. Tables 13 and 14 give temperature and salinity limits, respectively, for the collections.

The remaining tables concern the abundance and biomass of fishes, and are in two parts. The upper section gives values for each collection (each depth interval) and corresponds with Table 12. Nighttime collections are underlined; daytime ones, not. The lower section gives integrated values for each station to a depth of 1000 m (1 specimen/10,000 m^3 = 1 specimen/10 m^2 of sea surface for the 1000 m water column).

Volumes, measured on a lot-by-lot basis, are wet weight displacements of specimens in 70% ethyl alcohol (specimens had initially been preserved in 10% formaldehyde and transferred to 35% and then 70% alcohol).

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Table 1. Summary of MOCNESS-20 stations, Atlantis II Cruise 110.

MOCNESS	Position N	Position W	Date Sept-Oct 1981	Time (+4)	Depth to 10°C	Area
20-1	40°14' 40°07'	63°28' 63°34'	23-24	(2144-)0009-0242	615	Ring 81-D, Core
20-2	41°05' 41°09'	63°33' 63°34'	28	(0006-)0118-0320	330	Ring 81-D, Edge
20-3	40°57' 41°01'	63°35' 63°31'	28	(1408-)1530-1736	343	Ring 81-D, Edge
20-4	40°08' 40°14'	66°00' 65°57'	3	(0735-)0835-1118	240	Slope Water
20-5	40°15' 40°23'	66°07' 66°08'	3-4	(2218-)0015-0243	240	Slope Water
20-6	39°54' 39°49'	67°42' 67°36'	5-6	(2323-)0038-0302	240	Slope Water

Table 2. Summary of MOCNESS-20 stations, Oceanus Cruise 118.

MOCNESS	Position N	Position W	Date April-May 1982	Time (+5)	Depth to 10°C	Area
20-7	39°13.4' 39°16.2'	69°35.2' 69°34.5'	19	(1354-)1501-1607	252	Slope Water
20-8	39°17.3' 39°21.3'	69°32.9' 69°30.0'	20	(0112-)0250-0421	224	Slope Water
20-9	39°09.2' 39°11.3'	69°41.7' 69°38.9'	21	(1209-)1345-1510	234	Slope Water
20-10	38°57.9' 39°00.7'	71°15.8' 71°15.7'	22	(0034-)0229-0357	568	Ring 82-B, Core
20-11	38°54.6' 38°50.5'	71°36.8' 71°35.1'	23	(1252-)1420-1559	561	Ring 82-B, Core
20-12	38°39.4' 38°38.4'	72°05.0' 72°01.8'	24	(1231-)1407-1623	442	Ring 82-B, Edge
20-13	38°36.0' 38°32.7'	72°03.8' 72°05.4'	24-25	(2255-)0001-0137	452	Ring 82-B, Edge
				Time (+4)		
20-14	38°31.2' 38°30.9'	72°23.6' 72°19.5'	26	(0149-)0318-0504	370	Ring 82-B, Edge
20-15	38°34.6' 38°35.3'	72°31.7' 72°27.5'	26	(1358-)1507-1650	342	Ring 82-B, Edge
20-16	38°49.4' 38°50.0'	71°40.5' 71°49.8'	30	(0733-)1014-1120	548	Ring 82-B, Core
20-17	38°48.3' 38°51.0'	71°44.5' 71°53.0'	30-1	(2210-)2341-0122	553	Ring 82-B, Core
20-18	39°27.1' 39°28.0'	71°08.4' 71°01.7'	1-2	(2155-)2308-0056	255	Slope Water

Table 3. Summary of MOCNESS-20 stations, Oceanus Cruise 121.

MOCNESS	Position N	Position W	Date June 1982	Time (+4)	Depth to 10°C	Area
20-19	39°13.5' 39°07.5'	71°17.6' 71°17.4'	15-16	(2315-)0032-0243	285	Slope Water
20-20	38°58.9' 38°55.7'	71°29.5' 71°34.2'	16	(1131-)1305-1454	246	Slope Water
20-21	37°05.7' 36°59.7'	73°37.0' 73°36.1'	18	(0015-)0141-0343	549	Ring 82-B, Core
20-23	36°58.6' 37°01.7'	73°37.3' 73°34.3'	20	(0126-)0249-0410	543	Ring 82-B, Core
20-24	36°54.6' 36°57.1'	73°36.2' 73°35.0'	20	(1335-)1439-1614	530	Ring 82-B, Core
20-25	37°02.8' 37°02.5'	73°16.2' 73°10.5'	21	(0005-)0126-0255	396	Ring 82-B, Edge
20-26	37°00.3' 37°03.4'	73°07.1' 73°04.7'	21	(1357-)1510-1657	353	Ring 82-B, Edge
20-27	37°07.5' 37°12.8'	73°08.7' 73°11.8'	23	(1505-)1629-1834	215	Ring 82-B, Entrainment Tongue
20-28	36°59.8' 36°56.3'	73°48.9' 73°56.1'	24	(0538-)0713-0926	514	Ring 82-B, Core
20-29	37°05.4' 37°07.6'	73°46.9' 73°51.8'	25-26	(2339-)0128-0327	460	Ring 82-B, Edge
20-30	37°05.5' 37°11.6'	73°45.1' 73°46.7'	26	(1329-)1452-1711	441	Ring 82-B, Edge
20-31	37°02.6' 37°06.8'	73°31.3' 73°30.2'	27	(1156-)1320-1523	406	Ring 82-B, Edge
20-32	37°01.7' 37°05.0'	73°32.3' 73°35.4'	27-28	(2204-)2340-0124	430	Ring 82-B, Edge
20-33	37°41.0' 37°46.9'	72°54.8' 72°50.7'	28-29	(2332-)0053-0313	224	Slope Water
20-34	39°22.3' 39°26.7'	71°36.0' 71°34.4'	30	(2050-)2232-2358	282	Slope Water

Table 4. Summary of MOCNESS-20 stations, Oceanus Cruise 125.

MOCNESS	Position N	Position W	Date August 1982	Time (+4)	Depth to 10°C	Area
20-35	38°53.3' 38°56.5'	71°47.6' 71°42.1'	7	(1316-)1539-1720	255	Slope Water? (or old WCR?)
20-36	38°56.3' 38°54.5'	71°39.8' 71°32.0'	7-8	(2334-0248)	247	Slope Water
20-37	36°37.8' 36°34.6'	73°44.7' 73°45.4'	10	(1355-)1529-1714	398	Ring 82-B, Core
20-38	36°40.9' 36°38.3'	73°43.3' 73°46.9'	11	(0125-)0231-0414	399	Ring 82-B, Core
20-39	36°52.9' 36°51.0'	73°37.4' 73°43.8'	12	(0042-)0155-0408	398	Ring 82-B, Core
20-41	37°01.0' 37°07.3'	73°48.2' 73°47.7'	13	(0113-)0243-0446	352	Ring 82-B, Edge
20-42	36°54.3' 36°58.0'	73°54.7' 73°50.9'	14	(0105-)0228-0441	295	Ring 82-B, Edge
20-43	37°07.7' 37°00.3'	73°39.9' 73°39.9'	14	(1332-)1516-1654	336	Ring 82-B, Edge
20-44	37°07.0' 37°04.3'	73°38.2' 73°48.2'	15	(0008-)0156-0402	327	Ring 82-B, Edge
20-45	36°51.6' 36°50.5'	73°53.7' 73°40.4'	15	(1304-)1411-1758	271	Ring 82-B, Edge
20-46	36°50.0' 36°50.8'	73°40.5' 73°49.8'	15-16	(2239-)2312-0204	256	Ring 82-B, Edge
20-47	37°12.3' 37°15.5'	74°18.1' 74°25.5'	16-17	(2253-)0012-0242	233	Slope Water
20-48	37°15.6' 37°11.9'	74°24.9' 74°17.3'	17	(1424-)1550-1747	208	Slope Water
20-49	36°02.2' 36°05.6'	71°23.5' 71°31.4'	19	(0102-)0225-0431	972	Sargasso Sea
20-50	36°04.4' 36°00.6'	71°29.7' 71°32.8'	19	(1229-)1343-1519	954	Sargasso Sea

(continued)

Table 4 (continued)

20-51	37°00.9' 37°03.7'	71°17.5' 71°16.8'	20	(1403-)1526-1711	624	Gulf Stream
20-52	37°05.3' 37°04.6'	70°58.8' 70°57.3'	21	(0135-)0240-0425	632	Gulf Stream
20-53	38°22.0' 38°28.5'	70°52.7' 70°55.5'	21-22	(2346-)0104-0308	202	Slope Water
20-54	39°11.4' 39°17.5'	70°59.1' 70°58.8'	22	(1235-)1400-1556	230	Slope Water

Table 5. Summary of MOCNESS-20 stations, Knorr Cruise 98.

MOCNESS	Position N	Position W	Date Sept-Oct 1982	Time (+4)	Depth to 10°C	Area
20-55	39°16.7' 39°17.2'	65°43.9 65°43.4'	28	(0111-)0212-0355	568	Ring 82-H, Edge
20-56	39°28.0' 39°22.2'	64°00.6' 63°55.3'	30	(0012-)0131-0333	834	Ring 82-H, Core
20-57	39°30.1' 39°21.9'	64°14.3' 64°23.4'	30-1	(2331-)0040-0329	832	Ring 82-H, Core
20-58	39°28.7' 39°31.9'	64°36.3' 64°43.8'	2	(1241-)1356-1627	836	Ring 82-H, Core
20-59	40°45.0' 40°38.3'	65°03.0' 64°57.1'	5	(0056-)0202-0431	307	Slope Water
20-60	40°42.0' 40°36.4'	65°00.3' 64°53.2'	5	(1344-)1445-1658	301	Slope Water
20-61	39°46.7' 39°40.6'	65°14.0' 65°16.2'	7	(0019-)0119-0354	744	Ring 82-H, Core
20-62	39°26.5' 39°29.6'	65°21.7' 65°25.6'	8	(1121-)1223-1533	820	Ring 82-H, Core
20-63	39°27.4' 39°33.1'	65°35.2' 65°36.1'	8-9	(2313-)0020-0325	831	Ring 82-H, Core
20-64	39°09.7' 39°06.0'	65°57.9' 66°04.0'	13	(1337-)1445-1647	816	Ring 82-H, Core
20-65	39°04.9' 39°02.9'	68°00.3' 68°08.6'	15	(0022-)0155-0428	214	Slope Water
20-66	38°58.2' 38°58.9'	68°18.6' 68°26.2'	15	(1307-)1415-1628	242	Slope Water

Table 6. Summary of MOCNESS-20 collections, Atlantis II Cruise 110.

MOCNESS 20	Time (+4)	Depth (m)	Speed (knots)	Volume ($10,000m^3$)
1,0	2144-0009	0-1260	1.2	-
1,1	0009-0022	1000-750	2.0	1.2
1,2	0022-0057	750-500	1.8	3.2
1,3	0057-0151	500-250	1.9	5.0
1,4	0151-0242	250-0	2.1	5.0
2,0	0006-0118	0-1000	1.1	-
2,1	0118-0134	1000-750	1.9	1.6
2,2	0134-0150	750-500	2.1	1.5
2,3	0150-0223	500-250	2.4	3.7
2,4	0223-0320	250-0	1.8	4.8
3,0	1408-1530	0-1030	1.1	-
3,1	1530-1556	1000-750	1.8	2.6
3,2	1556-1625	750-500	2.0	2.8
3,3	1625-1701	500-250	2.4	3.7
3,4	1701-1736	250-0	1.8	2.8
4,0	0735-0835	0-1000	1.6	-
4,1	0835-0910	1000-750	2.1	3.4
4,2	0910-0944	750-500	2.2	3.2
4,3	0944-1035	500-250	2.1	4.6
4,4	1035-1118	250-0	2.3	4.3
5,0	2218-0015	0-1000	1.4	-
5,1	0015-0057	1000-750	2.1	3.9
5,2	0057-0134	750-500	2.1	3.2
5,3	0134-0206	500-250	2.0	2.7
5,4	0206-0243	250-0	2.1	3.0
6,0	2323-0038	0-1010	1.3	-
6,1	0038-0302	1000-0	2.0	12.6

Table 7. Summary of MOCNESS-20 collections, Oceanus Cruise 118.

MOCNESS 20	Time (+5)	Depth (m)	Speed (knots)	Volume ($10,000m^3$)	Distance to Ring Center (km)	Angle from Ring Center
7,0	1354-1607	0-1022-0	1.6	-	149	079
8,0	0112-0250	0-1026	1.2	-	155	077
8,1	0250-0308	1000-750	2.4	2.2		
8,2	0308-0327	750-500	2.3	2.2		
8,3	0327-0344	500-250	2.1	1.7	161	075
9,0	1209-1345	0-1029	1.1	-	146	080
9,1	1345-1407	1000-750	1.6	1.5		
9,2	1407-1427	750-500	1.7	1.4		
9,3	1427-1450	500-250	1.7	1.7		
9,4	1450-1510	250-0	1.6	1.5	152	079
10,0	0034-0229	0-1019	1.1	-	13	060
10,1	0229-0252	1000-750	1.5	1.7		
10,2	0252-0307	750-500	1.9	1.1		
10,3	0307-0327	500-250	2.1	1.7		
10,4	0327-0355	250-0	2.0	2.5	17	044
11,0	1252-1420	0-1039	1.6	-	13	275
11,1	1420-1452	1000-750	1.7	2.8		
11,2	1452-1509	750-500	2.0	1.6		
11,3	1509-1526	500-250	2.3	1.8		
11,4	1526-1559	250-0	2.0	3.4	11	235
12,0	1231-1407	0-1029	1.4	-	56	240
12,1	1407-1444	1000-750	1.5	2.9		
12,2	1444-1514	750-500	1.6	2.4		
12,3	1514-1544	500-250	1.9	2.6		
12,4	1544-1623	250-0	1.9	3.5	53	235
13,0	2255-0001	0-1010	1.3	-	56	233
13,1	0001-0053	1000-500	1.9	4.1		
13,2	0053-0114	500-250	2.3	1.8		
13,3	0114-0137	250-0	2.2	2.0	61	229
	Time (+4)					
14,0	0149-0318	0-1032	1.3	-	81	238
14,1	0318-0336	1000-750	1.6	1.4		
14,2	0336-0355	750-500	1.9	1.7		
14,3	0355-0426	500-250	2.2	3.0		
14,4	0426-0504	250-0	2.2	3.5	76	235

(continued)

Table 7 (continued)

15,0	1358-1507	0-1006	1.3	-	86	246
15,1	1507-1536	1000-750	1.8	2.1		
15,2	1536-1600	750-500	1.9	1.7		
15,3	1600-1622	500-245	2.1	1.7		
15,4	1622-1650	245-0	1.9	1.8	80	244
16,0	0733-1014	0-1006	1.7	-	10	160
16,1	1014-1033	800-600	1.9	1.5		
16,2	1033-1052	600-400	1.6	1.4		
16,3	1052-1120	400-0	1.6	2.0	14	238
17,0	2210-2341	0-1005	1.4	-	15	221
17,1	2341-0044	1017-500	2.3	6.7		
17,2	0044-0102	500-250	2.3	1.9		
17,3	0102-0122	250-0	2.0	1.8	22	256
18,0	2155-2308	0-1007	1.4	-	74	034
18,1	2308-0056	1000-0	1.9	10.3	81	039

Table 8. Summary of MOCNESS-20 collections, Oceanus Cruise 121.

MOCNESS 20	Time (+4)	Depth (m)	Speed (knots)	Volume ($10,000m^3$)	Distance to Ring Center (km)	Angle from Ring Center
19,0	2315-0032	0-1027	1.1	-	300	041
19,1	0032-0049	1000-751	2.0	1.9		
19,2	0049-0106	751-503	2.2	1.9		
19,3	0106-0149	503-253	2.3	5.6		
19,4	0149-0213	253-103	2.6	2.9		
19,5	0213-0243	103-0	2.3	4.1	294	042
20.0	1131-1305	0-1291	1.1	-	272	041
20,1	1305-1330	1250-1001	1.7	2.5		
20,2	1330-1352	1001-751	1.7	2.2		
20,3	1352-1414	751-500	1.7	2.3		
20,4	1414-1432	500-251	1.8	1.9		
20,5	1432-1454	251-0	1.4	1.9	265	041
21,0	0015-0141	0-1029	1.2	-	3	353
21,1	0141-0158	1000-800	1.8	1.8		
21,2	0158-0220	800-601	2.0	2.4		
21,3	0220-0250	601-401	1.9	3.3		
21,4	0250-0334	401-54	2.0	5.0		
21,5	0334-0343	54-0	1.7	1.0	8	167
23,0	0126-0249	0-1006	1.1	-	10	112
23,1	0249-0304	1000-801	2.1	1.7		
23,2	0304-0322	801-600	2.3	2.2		
23,3	0322-0339	600-400	2.4	2.0		
23,4	0339-0354	400-151	2.5	1.5		
23,5	0354-0410	151-0	2.5	1.7	15	082
24,0	1335-1439	0-1024	1.1	-	17	126
24,1	1439-1455	1000-800	1.9	1.8		
24,2	1455-1509	800-600	1.9	1.6		
24,3	1509-1542	600-400	1.8	3.7		
24,4	1542-1544	400-382	1.8	0.2		
24,5	1544-1614	382-0	2.0	3.4	17	110
25,4	0222-0246	301-51	2.5	2.9	-	-
25,5	0246-0255	51-0	2.5	1.2	54	083
26,0	1357-1510	0-1016	1.3	-	61	088
26,1	1510-1527	1000-750	2.3	2.1		
26,2	1527-1552	750-500	2.1	2.9		
26,3	1552-1610	500-374	2.0	2.1		
26,4	1610-1626	374-251	2.3	1.9		
26,5	1626-1657	251-0	2.3	3.1	65	083

(continued)

Table 8 (continued)

27,0	1505-1629	0-1010	1.2	-	72	071
27,1	1629-1714	1001-750	2.3	5.7		
27,2	1714-1733	750-499	2.3	2.4		
27,3	1733-1751	499-301	2.3	2.2		
27,4	1751-1819	301-150	2.2	3.4		
27,5	1819-1834	150-0	2.3	1.8	73	063
28,0	0538-0713	0-1262	1.1	-	15	045
28,1	0713-0742	1250-1001	2.4	3.9		
28,2	0742-0803	1001-749	2.3	2.6		
28,3	0803-0827	749-501	2.1	2.8		
28,4	0827-0848	501-317	2.3	2.6		
28,5	0848-0926	317-0	2.3	4.7	4	356
29.0	2339-0128	0-1027	1.2	-	26	022
29,1	0128-0327	1000-0	2.1	14.5	30	003
30,0	1329-1452	0-1016	1.3	-	30	022
30,1	1452-1524	1000-755	2.4	4.3		
30,2	1524-1554	800-600	2.2	3.7		
30,3	1554-1618	600-401	2.6	3.2		
30,4	1618-1638	401-301	2.5	2.5		
30,5	1638-1711	301-0	2.6	3.9	40	012
31,0	1156-1320	0-1010	1.1	-	39	051
31,1	1320-1343	1001-800	2.2	2.9		
31,2	1343-1410	800-600	2.2	3.5		
31,3	1410-1434	600-395	2.1	2.8		
31,4	1434-1449	395-300	2.4	2.0		
31,5	1449-1523	300-0	2.4	4.5	45	044
32,0	2204-2340	0-1012	1.2	-	36	049
32,1	2340-0005	1000-727	2.2	2.8		
32,3	0005-0022	727-499	2.3	2.0		
32,4	0022-0041	499-402	2.4	2.5		
32,5	0041-0113	402-50	2.5	3.8	37	038
33,0	2332-0053	0-1013	1.4	-	127	039
33,1	0053-0156	1000-501	2.2	8.1		
33,2	0156-0212	501-401	1.8	1.8		
33,3	0212-0230	401-200	2.3	2.3		
33,4	0230-0248	200-60	2.3	2.4		
33,5	0248-0313	60-0	2.0	3.0	139	039
34,2	2110-2232	0-1015	1.3	-	347	035
34,3	2232-2314	1000-400	2.4	4.4		
34,4	2314-2338	400-80	2.2	2.7		
34,5	2338-2358	80-0	1.6	2.2	356	035

Table 9. Summary of MOCNESS-20 collections, Oceanus Cruise 125.

MOCNESS 20	Time (+4)	Depth (m)	Speed (knots)	Volume ($10,000m^3$)	Distance to Ring Center (km)	Angle from Ring Center
35,0	1316-1539	0-1042	1.0	-	308	035
35,1	1539-1551	992-800	2.1	1.4		
35,2	1551-1608	800-601	1.9	1.8		
35,3	1608-1633	601-402	2.2	3.0		
35,4	1633-1711	402-201	2.4	4.7		
35,5	1711-1720	201-0	2.6	1.0	318	035
36,0	2334-0248	0-1017-0	2.0	-	318	037
37,0	1355-1529	0-1082	1.4	-	23	217
37,1	1529-1714	998-0	2.1	13.0	29	211
38,0	0125-0231	0-1002	1.3	-	21	220
38,1	0231-0414	1000-0	2.1	13.2	30	222
39,1	0042-0155	0-1004	1.1	-	10	264
39,2	0155-0408	1009-0	2.1	17.0	22	255
41,0	0113-0243	0-1004	1.4	-	27	281
41,1	0243-0320	1004-750	2.0	4.7		
41,2	0320-0350	750-500	1.9	3.5		
41,3	0350-0446	500-0	2.2	7.7	29	300
42,0	0105-0228	0-1070	1.3	-	37	242
42,1	0228-0244	1000-800	2.3	2.1		
42,2	0244-0313	800-601	2.5	4.1		
42,3	0313-0339	601-383	2.5	3.4		
42,4	0339-0441	383-0	2.4	8.0	28	246
43,0	1332-1516	0-1037	1.5	-	7	323
43,1	1516-1531	994-797	2.4	2.1		
43,2	1531-1548	797-597	2.3	2.3		
43,3	1548-1607	597-399	2.2	2.4		
43,4	1617-1641	399-115	2.6	4.8		
43,5	1641-1654	115-0	2.3	1.8	8	180
44,0	0008-0156	0-1028	1.5	-	15	059
44,1	0156-0217	1001-797	2.0	2.6		
44,2	0217-0239	797-598	2.2	3.0		
44,3	0239-0402	598-0	2.4	10.8	4	042

(continued)

Table 9 (continued)

45,0	1304-1411	0-612	1.3	-	17	160
45,1	1411-1500	612-631	1.9	6.2		
45,2	1500-1559	620-631	2.2	8.1		
45,3	1559-1659	615-631	2.3	8.2		
45,5	1659-1758	615-635	1.8	8.4	33	115
46,0	2239-2312	0-101	1.6	3.6	33	116
46,1	2312-2341	101-30	2.1	3.8		
46,2	2341-0011	30-101	2.0	3.7		
46,3	0011-0134	101-29	2.3	10.7		
46,4	0134-0204	50-0	2.2	3.8	21	120
47,0	2253-0012	0-1007	1.4	-	43	340
47,1	0012-0055	1000-751	2.0	5.6		
47,2	0055-0132	751-500	2.1	5.1		
47,3	0132-0203	500-249	2.1	4.0		
47,4	0203-0242	249-0	2.5	5.4	56	334
48,0	1424-1550	0-1000	1.8	-	59	343
48,1	1550-1625	1001-748	2.3	4.9		
48,2	1625-1651	748-500	2.3	3.4		
48,3	1651-1717	500-250	2.5	3.5		
48,4	1717-1747	250-0	2.5	4.0	51	355
49,0	0102-0225	0-1006	1.6	-	270	105
49,1	0225-0251	1000-749	2.4	3.9		
49,2	0251-0321	749-500	2.4	4.5		
49,3	0321-0352	500-250	2.5	4.5		
49,4	0352-0431	250-0	2.8	6.2	258	104
50,0	1229-1343	0-1008	1.5	-	260	104
50,1	1343-1406	1001-746	2.2	3.2		
50,2	1406-1425	746-499	2.7	2.9		
50,3	1425-1454	499-250	2.8	4.1		
50,4	1454-1519	250-0	2.9	3.9	257	106
51,0	1403-1526	0-1004	1.3	-	273	081
51,1	1526-1545	1001-750	2.4	2.9		
51,2	1545-1615	750-500	2.6	4.6		
51,3	1615-1648	500-251	2.5	4.6		
51,4	1648-1711	251-0	2.7	3.4	275	078
52,0	0135-0240	0-1010	1.8	-	302	080
52,1	0240-0310	1000-750	2.3	3.9		
52,2	0310-0327	750-496	2.2	2.3		
52,3	0327-0354	496-251	2.5	3.6		
52,4	0354-0425	251-0	2.3	4.4	305	080

(continued)

Table 9 (continued)

53,0	2346-0104	0-1015	1.8	-	364	057
53,1	0104-0134	1002-751	2.4	4.5		
53,2	0134-0200	751-500	2.4	3.9		
53,3	0200-0232	500-250	2.4	4.5		
53,4	0232-0308	250-0	2.5	5.2	368	055
54,0	1235-1400	0-1015	1.5	-	415	046
54,1	1400-1426	1001-750	2.1	3.0		
54,2	1426-1456	750-500	2.0	3.3		
54,3	1456-1526	500-251	2.2	3.2		
54,4	1526-1556	251-0	2.5	3.4	424	044

Table 10. Summary of MOCNESS-20 collections, Knorr Cruise 98.

MOCNESS 20	Time (+4)	Depth (m)	Speed (knots)	Volume ($10,000m^3$)	Distance to Ring Center (km)	Angle from Ring Center
55,0	0111-0212	0-1011	1.6	-	97	252
55,1	0212-0226	997-797	1.6	0.9		
55,2	0226-2357	797-400	2.0	2.5		
55,4	0256-0318	400-204	2.6	2.2		
55,5	0318-0355	204-0	2.1	3.8		
56,0	0012-0131	0-1023	1.4	-	88	099
56,1	0131-0202	1006-802	2.2	3.2		
56,2	0202-0222	802-602	2.2	1.9		
56,3	0222-0242	602-401	2.3	1.9		
56,4	0242-0301	401-201	2.2	1.8		
56,5	0301-0333	201-0	2.2	3.4		
57,0	2331-0040	0-1007	1.2	-	70	099
57,1	0040-0116	1001-800	2.4	3.8		
57,2	0116-0146	800-602	2.5	3.2		
57,3	0146-0224	602-401	2.3	4.0		
57,4	0224-0256	401-203	2.0	3.2		
57,5	0256-0329	203-0	2.0	3.2		
58,0	1241-1356	0-1004	1.5	-	39	098
58,1	1356-1431	1000-800	2.4	3.8		
58,2	1431-1502	800-599	2.0	3.1		
58,3	1502-1523	599-400	2.4	2.1		
58,4	1523-1544	400-305	2.5	2.4		
58,5	1544-1627	305-40	1.8	4.0		
59,0	0056-0202	0-1008	1.2	-	150	008
59,1	0202-0242	1002-800	2.2	4.4		
59,2	0242-0308	800-599	2.3	2.9		
59,3	0308-0340	599-401	2.4	3.4		
59,4	0340-0404	401-200	2.5	2.5		
59,5	0404-0431	200-7	2.3	3.0		
60,0	1344-1445	0-1010	1.2	-	148	012
60,1	1445-1515	1000-800	2.3	3.4		
60,2	1515-1536	800-600	2.5	2.3		
60,3	1536-1604	600-399	2.6	2.9		
60,4	1604-1623	399-302	2.8	2.2		
60,5	1623-1658	302-10	2.9	3.8		

(continued)

Table 10 (continued)

61,0	0019-0119	0-1005	1.3	-	55	025
61,1	0119-0157	1002-800	1.9	3.8		
61,2	0157-0223	800-600	2.0	2.6		
61,3	0223-0250	600-400	2.1	2.7		
61,4	0250-0321	400-200	2.2	3.3		
61,5	0321-0354	200-12	2.5	4.1		
62,0	1121-1223	0-1004	1.1	-	32	052
62,1	1223-1252	999-802	1.8	2.8		
62,2	1252-1326	802-602	2.2	3.7		
62,3	1326-1416	602-400	1.9	4.9		
62,4	1416-1448	400-301	2.0	3.4		
62,5	1448-1533	301-5	2.1	4.8		
63,0	2313-0020	0-1015	1.0	-	32	038
63,1	0020-0054	1000-800	1.6	3.2		
63,2	0054-0120	800-600	1.9	2.6		
63,3	0120-0142	600-402	2.0	2.1		
63,4	0142-0225	402-370	2.1	4.6		
63,5	0225-0325	370-5	2.1	6.6		
64,0	1337-1445	0-1015	1.1	-	8	041
64,1	1445-1512	999-800	1.7	2.6		
64,2	1512-1533	800-600	1.9	2.1		
64,3	1533-1548	600-502	1.8	1.4		
64,4	1548-1604	502-400	1.9	1.6		
64,5	1604-1647	400-3	2.3	4.8		
65,0	0022-0155	0-1020	1.3	-		
65,1	0155-0243	1014-800	1.9	5.2		
65,2	0243-0311	800-599	1.6	2.5		
65,3	0311-0335	599-400	1.7	2.2		
65,4	0335-0405	400-199	1.7	2.9		
65,5	0405-0428	199-6	1.6	2.3		
66,0	1307-1415	0-1018	1.0	-		
66,1	1415-1441	1000-799	1.8	2.6		
66,2	1441-1502	799-601	1.9	2.1		
66,3	1502-1530	601-400	1.8	2.7		
66,4	1530-1544	400-299	1.9	1.4		
66,5	1544-1628	299-7	1.9	4.8		

Table 11. Fishes collected with the MOCNESS-20 during the warm-core Gulf Stream rings cruises. (* Number from up nets only)

	Number of specimens				
	A 110	Oc 118	Oc 121	Oc 125	Kn 98
Eurypharynx pelecanoides*	8	3	12	15	11
Saccopharynx ampullaceus*					2
Derichthys serpentinus*	4	10	22	22	6
Nessorhamphus ingolfianus*	3		3	9	1
Serrivomer beanii*	16	6	24	49	28
Serrivomer brevidentatus*	1	2		3	3
Nemichthys curvirostris*	1				
Nemichthys scolopaceus*	1	4	16	27	14
Bathylagus spp.*	16	26	26	27	14
Dolichopteryx binocularis			1		
Opisthoproctus grimaldii					1
Rhynchohyalis natalensis					1
Bonapartia pedaliota	51	44	34	101	180
Cyclothone acclinidens*	20	21	44	59	28
Cyclothone alba*	199	161	298	448	324
Cyclothone braueri*	3387	4373	8435	7707	12108
Cyclothone microdon*	5052	6413	9178	15272	6014
Cyclothone pallida*	158	470	560	1024	914
Cyclothone pseudopallida*	184	263	371	491	388
Diplophos taenia	2		2		
Gonostoma atlanticum	3			7	4
Gonostoma bathyphilum		2	3	3	2
Gonostoma elongatum	63	46	67	908	207
Margrethia obtusirostra	6	1	2	9	38
Ichthyococcus ovatus	24	1	5	40	109
Pollichthys mauli	1	15	33	94	111
Vinciguerria attenuata	34	6	214	176	185
Vinciguerria nimbaria	4	7	24	60	16
Vinciguerria poweriae	21	14	192	647	49
Yarella blackfordi				1	
Argyropelecus aculeatus	47	92	61	62	57
Argyropelecus affinis		1	1	1	
Argyropelecus hemigymnus	90	169	220	84	233
Argyropelecus sladeni			1		

(continued)

Table 11 (continued

Maurolicus muelleri	2	22	131	55	10
Polyipnus asteroides	5	1	2	5	16
Sternoptyx diaphana	166	186	119	590	586
Sternoptyx pseudobscura			5	2	2
Valenciennellus tripunctulatus	36	86	178	132	113
Aristostomias grimaldii		1			3
Aristostomias lunifer				1	
Aristostomias polydactylus		1		1	
Aristostomias tittmanni	1		2		1
Astronesthes gemmifer		1	2		
Astronesthes macropogon		2			17
Astronesthes micropogon	1			3	1
Astronesthes neopogon		1	1		
Astronesthes niger	1			6	2
Astronesthes similis	3				3
Bathophilus altipinnis				1	
Bathophilus brevis				1	
Bathophilus digitatus	1				
Bathophilus longipinnis				1	3
Bathophilus pawneei	2		1	2	7
Bathophilus vaillanti	1		3	2	2
Borostomias antarcticus			1		
Chauliodus danae*	19	10	98	33	37
Chauliodus sloani*	87	23	621	303	126
Chirostomias pliopterus			6	5	
Echiostoma barbatum		1	1		13
Eustomias bibulbosus	1				1
Eustomias enbarbatus			1	1	
Eustomias filifer				1	
Eustomias lipochirus	1		1		
Eustomias macronema				1	
Eustomias obscurus				1	
Eustomias schiffi		1		3	1
Eustomias schmidti				2	2
Eustomias sp. nov.		2			
Flagellostomias boureei	1	1	1		3
Grammatostomias circularis				1	1
Grammatostomias dentatus					1
Grammatostomias flagellibarba					1
Idiacanthus fasciola	13	16	8	19	13
Leptostomias sp.			3	2	1
Macrostomias longibarbatus*			1		3
Malacosteus niger	7	13	5	9	13
Melanostomias bartonbeani	3	2	2	18	13
Melanostomias biseriatus					12
Melanostomias melanopogon				1	1
Melanostomias sp. nov.					1
Melanostomias tentaculatus			1	8	3
Melanostomias valdiviae				1	

(continued)

Table 11 (continued)

Neonesthes capensis		3	1		1
Pachystomias microdon					2
Photonectes braueri		1			1
Photonectes margarita		10	12	3	2
Photonectes mirabilis					5
Photonectes parvimanus					1
Photostomias guernei	5	10	14	11	18
Photostomias megistus		3	5	4	15
Stomias affinis*	6	1		1	3
Stomias boa ferox*	26	16	365	65	12
Stomias brevibarbatus*	1	2		1	3
Photostylus pycnopterus		2			
Xenodermichthys copei		1			1
Searsia koefoedi			1		
Barbantus sp.				1	
Holtbyrnia sp.			1	1	
unidentified searsiids		21	25	21	19
Scopelosaurus argenteus		3		29	16
Scopelosaurus mauli	1	2	9	1	7
Scopelosaurus smithii	1				
Alepisaurus spp.	8			2	16
Omosudis lowei			3		3
Rosenblattichthys hubbsi				1	
Scopelarchoides danae				3	3
Scopelarchus analis	4	2	3	71	39
Scopelarchus michaelsarsi	1		1	10	1
Coccorella atlantica	1	1	1	13	8
Evermannella balbo			1	2	
Evermannella indica		1		34	36
Sudis atrox	1			6	2
Sudis hyalina	1		1		4
unidentified paralepidids	26	54	100	115	111
Benthosema glaciale	577	289	13966	3581	506
Benthosema suborbitale	36	34	27	75	72
Bolinichthys indicus	87	87	49	134	396
Bolinichthys photothorax		1	4	2	
Bolinichthys supralateralis	9	3	6	24	64
Centrobranchus nigroocellatus	1	3	3	8	5
Ceratoscopelus maderensis	424	1	232	9808	960
Ceratoscopelus warmingii	157	29	75	468	424
Diaphus brachycephalus				2	5

(continued)

Table 11 (continued)

Diaphus dumerilii	42	64	51	170	33
Diaphus effulgens		3	5	20	15
Diaphus fragilis				1	4
Diaphus garmani		1		1	
Diaphus lucidus	2	2	7	1	1
Diaphus luetkeni	2				1
Diaphus metopoclampus	42	22	16	8	67
Diaphus mollis	11	13	30	76	71
Diaphus perspicillatus	5	3	2	11	23
Diaphus problematicus				1	1
Diaphus rafinesquii	4	211	262	47	5
Diaphus splendidus	5	1	1	8	67
Diaphus termophilus	2	1	1		1
Diogenichthys atlanticus	95	374	345	345	337
Gonichthys cocco	20	6	14	25	10
Hygophum benoiti	136	4	26	281	303
Hygophum hygomii	25	309	126	123	2
Hygophum macrochir	2		1	1	
Hygophum reinhardtii	3	4	2	11	13
Hygophum taaningi	13	6	7	25	67
Lampadena anomala	1	1	4	1	
Lampadena luminosa	2		4	7	5
Lampadena speculigera	5	26	49	10	5
Lampadena urophaos	1	1	2	6	14
Lampanyctus alatus	32	15	80	331	24
Lampanyctus ater	6	11	6	5	16
Lampanyctus crocodilus	78	2	115	71	23
Lampanyctus cuprarius	24	92	50	48	165
Lampanyctus festivus	9	1		26	19
Lampanyctus intricarius	1				3
Lampanyctus lineatus	2	3	4	6	22
Lampanyctus macdonaldi	3	5	10	9	1
Lampanyctus nobilis	1	1		1	
Lampanyctus photonotus	29	13	16	16	125
Lampanyctus pusillus	88	36	181	427	234
Lampanyctus tenuiformis				1	
Lepidophanes gaussi	8	2	12	98	104
Lepidophanes guentheri	57	33	33	84	114
Lobianchia dofleini	221	8	590	1139	83
Lobianchia gemellarii	8	21	26	17	5
Loweina rara	1	1	2	18	7
Myctophum affine	175	27	41	127	21
Myctophum asperum		1		1	
Myctophum nitidulum	8	1	31	26	13
Myctophum obtusirostre	8	1		3	
Myctophum punctatum		1	491	17	
Myctophum selenops	3			137	6
Notolychnus valdiviae	32	88	344	275	599
Notoscopelus caudispinosus		12	11		

(continued)

Table 11 (continued)

Notoscopelus resplendens	16	9	69	134	4
Protomyctophum arcticum	5	1		7	2
Symbolophorus rufinus				2	1
Symbolophorus veranyi	1	6	69	24	9
Taaningichthys bathyphilus	5	17	8	14	12
Taaningichthys minimus		2		1	
Neoscopelus macrolepidotus				1	
Neoscopelus microchir					1
Ataxolepis apus			1		
Rondeletia loricata	1	1		1	
Barbourisia rufa		1			
Rosaura indica				3	
Chaunax sp.			1		1
Caulophryne jordani				1	
Caulophryne spp.					1
Melanocetus spp.	4	5	7	10	5
Himantolophus albinares?					1
Himantolophus spp.	1			3	
Chaenophryne longiceps		1	1		1
Chaenophryne sp.			1		
Danaphryne nigrifilis					1
Dolopichthys sp. nov.					1
Dolopichthys sp.				3	3
Leptacanthichthys gracilispinis	1			1	
Lophodolus acanthognathus			2	2	2
Microlopichthys microlophus		1	1	1	
Oneirodes macrosteus	2			3	2
Oneirodes eschrishtii				1	
Oneirodes sp.	1				2
Spiniphryne gladisfenae					1
Ceratias holboelli					1
Ceratias uranoscopus				1	
Cryptopsaras couesi	1	1	5	13	19
Gigantactis gibbsi				1	
Gigantactis vanhoeffeni			1	1	1
Gigantactis sp. nov.				1	1
Gigantactis sp.					2

(continued)

Table 11 (continued)

Neoceratias spinifer					1
Haplophryne mollis					1
Linophryne arborifera			1		
Linophryne spp.				1	4
Melanonus zugmayeri	1	4	2	3	
Bregmaceros spp.*	11	9	12	28	36
Melamphaes longivelis*					1
Melamphaes pumilus*	71	28	19	363	496
Melamphaes suborbitalis*	3		6	1	1
Melamphaes ebelingi*	1	1	2		
Poromitra capito*	5	3	5	4	6
Poromitra megalops*		1		1	1
Scopeloberyx opisthopterus*	8	47	41	40	42
Scopeloberyx robustus*	2	3	5	6	24
Scopelogadus beanii*	4	10	91	17	24
Scopelogadus mizolepis*	10	1	7	17	6
Diretmus argenteus					1
Anoplogaster cornuta		1	4	7	6
Howella brodei	16	11	11	17	14
Caristius sp.				2	2
Chiasmodon niger	4	37	16	10	3
Dysalotus alcocki				1	1
Kali normani		1			
Pseudoscopelus sp				1	1
	47,773	28,156	12,549	14,830	39,322

Table 12. Depths (m) at which nets were closed and opened at MOCNESS-20 stations. Nighttime collections are underlined; daytime collections, not. At stations 6, 18, 29, 37, 38, and 39, one net fished from 1000 m to the surface.

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct	
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5
	–	0			0	0	0	0		0	0	0	0	0	7	10	6	7				0	0
Slope	250	250			103	251	60	80		201	249	250	250	251	200	302	199	299				250	250
Water	500	500			253	500	200	400		402	500	500	500	500	401	399	400	400				500	500
	750	750			503	751	401	1000		601	751	748	751	750	599	600	599	601				750	750
	1000	1000			751	1001	501			800	1000	1001	1002	1001	800	800	800	799				1000	1000
					1000	1250	1000			992					1002	1000	1014	1000					
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3
	0	0	0	0	0	0	0	0	50	0	0	0	0		0							0	0
High	250	250	250	245	251	150	301	300	402	500	383	115	598		204							250	250
Velocity	500	500	500	500	374	301	401	395	499	750	601	399	797		400							500	500
Region	750	1000	750	750	500	499	600	600	727	1004	800	597	1001		797							750	750
	1000		1000	1000	750	750	800	800	1000		1000	797			997							1000	1000
						1001	1000	1001				994											
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1	
	0	0	0	0	0	0	0	0							0	0	40	12	5	5	3	0	
Ring	250	250	400	250	54	151	382	317							201	203	305	200	301	370	400	250	
Core	500	500	600	500	401	400	400	501							401	401	400	400	400	402	502	500	
	750	750	800	1017	601	600	600	749							602	602	599	600	602	600	600	750	
	1000	1000			800	801	800	1001							802	800	800	800	802	800	800	1000	
					1000	1000	1000	1250							1006	1001	1000	1002	999	1000	999		
										49	50	51	52										
										0	0	0	0										
Sargasso										250	250	251	251										
Sea										500	499	500	496										
&										749	746	750	750										
Gulf										1000	1001	1001	1000										
Stream																							

Table 13. Temperature (°C) at depths where nets were closed and opened.

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct	
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5
	12.5	13.9			=	-	21.6	19.4		24.6	25.9	26.0	25.2	22.8	23.1	24.3	22.7	23.1				20.9	19.7
Slope	9.5	9.4			=	-	13.7	14.9		11.9	9.4	8.9	8.8	9.2	13.1	10.4	11.8	8.9				9.6	9.7
Water	5.6	5.7			=	-	10.6	7.2		7.0	5.5	5.4	5.1	5.0	6.9	8.3	7.1	7.1				5.4	5.2
	4.6	4.5			=	-	6.0	4.3		5.0	4.6	4.5	4.4	4.5	5.1	5.2	5.3	5.2				5.1	5.1
	4.2	4.2			=	-	5.1			4.5	4.3	4.2	4.1	4.3	4.6	4.5	4.5	4.5				5.1	5.1
					=	-	4.1			4.3					4.3	4.2	4.1	4.3					
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3
	15.6	15.2	14.6	15.0	17.6	14.9	20.4	21.1	15.5	27.1	28.1	27.5	28.0		27.6							22.9	22.2
High	14.9	14.4	13.5	13.0	12.6	12.7	14.4	13.1	10.7	6.5	8.2	15.6	5.2		18.3							11.3	11.7
Velocity	8.9	8.9	7.2	6.9	9.1	7.8	11.0	10.2	8.1	4.8	5.2	8.0	4.5		15.1							5.8	6.3
Rergion	5.1	4.5	4.9	4.9	6.4	5.2	6.2	5.7	5.1	4.3	4.5	5.2	4.2		5.8							5.1	5.1
	4.5		4.3	4.3	4.8	4.5	5.0	4.8	4.4		4.2	4.6			4.8							5.1	5.1
						4.2	4.4	4.3				4.3											
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1	
	15.7	15.9	15.8	15.8	18.2	18.7	18.6	18.6							26.3	26.7	25.9	25.3	25.0	24.9	24.3	23.3	
Ring	15.6	15.7	15.7	15.7	15.7	15.7	14.9	15.6							19.1	18.8	18.0	18.5	18.1	17.7	17.6	17.8	
Core	12.2	12.0	8.8	11.9	15.3	14.9	14.6	10.6							17.7	17.7	17.6	17.4	17.9	17.6	17.0	13.2	
	6.1	6.1	5.7	4.7	8.6	8.3	7.7	5.5							15.2	15.9	15.5	14.4	15.5	15.1	15.3	7.2	
	4.8	4.7			5.4	5.3	5.2	4.6							10.5	11.1	10.9	8.8	10.2	10.6	10.3	5.1	
					4.7	4.6	4.6	4.2							6.5	6.7	6.7	5.5	6.2	6.3	6.4		
Sargasso Sea & Gulf Stream										49	50	51	52										
										26.8	26.9	28.7	28.4										
										18.7	18.6	17.9	18.0										
										17.5	17.5	13.0	13.7										
										14.1	13.9	6.8	7.4										
										9.4	8.9	4.7	4.8										

Table 14. Salinity (°/$_{oo}$) at depths where nets were closed and opened.

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct	
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5
	=	-			=	-	35.70	34.90		34.86	31.65	31.83	34.80	34.19	35.73	35.86	35.35	35.63				-	=
Slope	=	-			=	-	35.20	35.82		35.46	35.26	35.21	35.19	35.22	35.69	35.34	35.47	35.16				-	=
Water	=	-			=	-	35.32	35.08		35.09	35.03	35.04	35.04	35.00	34.99	35.16	35.06	35.08				-	=
	=	-			=	-	35.04	34.97		35.03	35.00	35.00	35.01	34.99	34.96	34.95	35.00	35.02				-	=
	=	-			=	-	35.01			35.01	34.98	34.99	35.00	34.98	34.99	34.95	34.93	35.00				-	=
					=	-	34.98			34.98					34.97	34.97	34.95	34.98					
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3
	-	=	=	-	33.50	33.02	35.11	34.44	36.21	34.33	36.03	34.72	35.24		36.15							=	-
High	-	=	=	-	35.58	35.52	35.93	35.69	35.38	35.08	35.13	36.26	35.01		36.55							=	-
Velocity	-	=	=	-	35.19	35.13	35.43	35.30	35.14	35.02	35.04	35.13	35.01		36.03							=	-
Rergion	-	=	=	-	35.05	34.98	35.03	34.98	34.99	34.99	35.02	35.02	34.99		35.07							=	-
	-		=	-	35.01	34.99	35.00	35.01	34.99		34.99	35.01			35.02							=	-
						34.97	34.99	34.99				34.99											
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1	
	=	-	-	=	=	35.49	35.72	35.70							36.12	36.10	36.07	36.17	36.20	36.17	36.27	=	
Ring	=	-	-	=	=	36.27	36.06	36.22							36.62	36.59	36.55	36.57	36.57	36.51	36.45	=	
Core	=	-	-	=	=	36.05	35.98	35.37							36.51	36.51	36.48	36.43	36.53	36.50	36.34	=	
	=	-	-	=	=	35.14	35.08	35.02							36.04	36.16	36.12	35.89	36.09	36.03	36.02	=	
	=	-			=	35.01	35.01	34.98							35.35	35.43	35.41	35.18	35.33	35.36	35.29	=	
					=	34.99	34.99	34.99							35.07	35.09	35.08	35.03	35.08	35.06	35.05		
Sargasso Sea & Gulf Stream										49	50	51	52										
										36.33	36.24	36.09	36.07										
										36.59	36.58	36.53	36.53										
										36.47	36.46	35.70	35.82										
										35.89	35.83	35.12	35.12										
										35.25	35.20	35.01	35.07										

Table 15. Abundance of midwater fishes (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	5.3			154.9	10.5	499.0	136.8		5.0	36.9	5.8	76.5	7.4	72.3	7.6	44.3	5.4				1.2	39.7	
Slope	152.4	323.5			37.9	101.6	15.4	11.5		46.2	49.0	92.9	71.3	110.0	51.6	76.4	12.1	63.6				196.7	87.0	
Water	230.5	350.0			13.2	293.5	13.5	210.7		749.7	176.9	219.4	186.2	583.0	101.5	237.2	245.0	347.0				300.6	244.7	
	43.6	75.3			252.6	74.1	217.2			245.0	86.8	125.0	36.0	225.7	167.2	280.9	178.0	214.3				102.1	117.4	
					56.3	27.6	145.9			68.6					65.7	68.5	79.6	106.5						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	6.6	44.0	46.6	13.3	6.8	8.9	6.2	3.1	47.6	32.6	23.6	2.8	86.3		79.5							39.6	10.0	
Velocity	234.6	195.0	197.0	311.8	5.8	562.9	53.2	3.5	232.4	175.7	194.4	5.4	193.0		12.3							56.8	460.5	
Region	295.8	184.6	291.8	318.8	358.1	815.5	862.5	390.7	512.5	60.0	310.5	279.6	60.8		146.8							232.7	245.4	
	86.6		65.7	71.4	550.7	220.4	156.5	180.6	59.6		83.3	153.5			150.0							111.9	145.0	
					–	48.2	110.0	50.7				68.1												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	54.8	2.4	7.5	48.9	455.0	146.5	22.1	9.1							117.1	124.1	8.3	83.9	5.2	55.3	16.3	60.4		
Ring	374.7	224.4	565.7	137.9	34.4	50.0	220.0	308.8							28.3	39.1	14.6	28.5	4.4	16.3	126.9	189.4		
Core	262.7	220.0	214.0	168.5	423.3	264.5	597.3	1078.6							408.9	412.3	438.6	468.5	437.6	414.3	591.4	232.3		
	166.5	174.6			208.8	196.4	303.8	130.4							456.8	328.4	249.7	205.0	456.5	185.8	266.7	143.3		
					155.0	93.5	91.1	40.0							185.0	194.2	165.0	97.1	116.4	105.0	50.0			
Sargasso Sea & Gulf Stream									49	50	51	52												
										91.3	10.3	9.4	73.2											
										42.4	40.2	319.1	121.9											
										326.4	274.1	330.4	196.5											
										117.4	110.9	147.6	170.0											
Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	–	188.8	69.8		101.6	120.1	129.3	139.3		261.0	87.3	110.4	92.9	231.7	91.6	127.5	111.9	141.8				150.2	126.6	153.1
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	156.1	152.4	150.7	180.2	316.2	149.6	233.3	125.7	–	74.0	130.1	103.2	102.4		107.1							111.3	215.3	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	214.6	155.6	–	130.7	192.2	145.4	211.2	370.6		72.9	93.4	83.3			237.4	219.4	174.9	176.7	204.1	162.2	141.9	157.2		
SS & GS										49	50	51	52											
										144.8	108.9	201.9	140.6											

Table 16. Volume of midwater fishes (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	1.2			31.3	1.9	66.4	13.6		0.4	31.1	1.3	21.6	3.9	13.5	0.6	18.0	0.5				0.1	43.0	
Slope	29.1	67.6			18.0	10.6	43.3	16.4		3.8	25.2	13.9	10.6	11.1	9.0	11.2	2.0	8.4				18.7	23.5	
Water	87.1	136.7			1.2	57.9	1.9	48.6		41.2	33.1	75.9	26.3	79.5	26.1	22.0	24.1	38.7				40.1	82.5	
	30.8	37.6			39.6	37.2	10.9			46.8	31.1	67.8	5.6	61.3	86.4	77.8	56.8	84.3				65.1	63.6	
					27.4	38.6	30.1			39.6					63.6	39.1	14.2	37.4						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0.3	24.3	19.7	3.1	0.4	0.4	0.3	0.2	39.9	6.2	12.1	0.3	26.1		6.4							29.1	1.0	
Velocity	15.7	52.9	37.4	27.2	1.0	17.9	9.3	0.2	16.8	67.2	14.2	0.5	52.9		91.8							9.2	39.1	
Region	102.9	36.6	53.9	57.2	19.4	46.2	48.7	27.9	38.8	29.7	71.0	32.8	20.2		35.1							85.4	33.0	
	69.2		10.4	30.0	95.2	78.9	48.6	65.5	21.1		23.9	52.7			82.9							31.0	52.9	
					–	28.6	27.9	14.8				13.4												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	13.7	0.1	0.4	11.1	34.5	36.4	1.6	0.8							8.7	8.6	0.6	6.8	0.3	5.2	0.6	17.7		
Ring	24.2	9.1	27.6	23.1	37.3	32.1	23.0	34.2							2.9	5.8	1.0	3.3	0.8	5.5	4.0	31.9		
Core	32.0	25.2	32.0	28.2	42.9	75.1	45.4	74.2							22.2	17.1	9.8	12.9	13.3	15.4	16.8	15.3		
	24.4	42.4			21.5	22.6	73.7	37.7							17.0	15.0	15.7	25.8	25.2	13.1	20.6	12.1		
					22.1	18.4	43.7	28.6							10.5	13.2	68.9	25.0	25.0	25.7	40.6			
Sargasso Sea & Gulf Stream										49	50	51	52											
										10.3	0.5	0.6	11.5											
										4.1	1.7	6.4	7.8											
										13.3	17.2	21.7	13.0											
										23.0	32.7	8.5	10.7											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	60.8	32.4		22.9	26.9	26.5	35.4		26.3	30.1	39.8	15.9	38.9	39.7	29.1	22.6	33.1				31.0	53.2	50.6
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	47.0	37.7	30.4	29.4	39.0	24.4	26.1	21.7	–	27.4	26.7	20.0	29.2		50.3							38.8	31.6	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	23.6	19.2	–	22.7	32.2	36.8	33.6	34.5		16.7	19.3	14.4			12.4	12.0	20.1	14.7	12.9	13.0	14.6	19.4		
SS & GS										49	50	51	52											
										12.9	13.0	9.3	10.8											

Table 17. Abundance of gonostomatids (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	2.7			1.0	4.7	1.3	1.8		4.0	1.3	2.2	1.2	3.8	7.3	1.8	4.8	2.3				0.7	5.7	
Slope	145.9	268.8			4.1	66.8	2.1	2.6		11.7	40.2	26.0	32.9	79.7	2.0	0.9	1.7	17.9				145.4	77.8	
Water	222.3	332.9			8.9	246.1	6.1	172.3		555.3	150.0	173.5	140.5	369.4	67.9	110.7	222.7	287.0				231.6	210.3	
	39.5	71.3			209.5	65.5	172.8			125.6	71.8	105.2	33.6	210.3	143.1	170.0	121.6	147.1				76.8	104.4	
					52.1	24.0	111.5			62.1					48.9	50.3	75.8	95.0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	2.6	8.5	3.4	5.0	3.2	3.9	3.3	1.6	7.6	16.4	1.5	0	39.8		10.0							3.7	3.6	
Velocity	200.0	180.0	175.7	266.5	0	0.3	1.6	1.5	204.0	142.0	153.5	1.7	127.7		0.9							43.8	398.1	
Region	253.3	173.7	283.5	301.2	121.4	184.5	549.4	234.6	423.0	49.8	240.7	148.3	56.2		111.2							196.0	191.8	
	81.0		62.9	62.9	272.1	201.3	132.4	162.9	53.2		74.3	99.1			133.3							103.1	127.7	
					-	41.4	94.2	45.5				62.9												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	4.8	1.2	4.0	1.1	7.0	4.1	4.7	3.2							6.8	9.4	3.2	4.1	3.7	6.1	4.8	7.8		
Ring	343.5	198.9	540.7	103.7	3.0	7.3	105.0	274.2							14.4	17.8	2.1	6.4	1.8	2.8	106.9	171.8		
Core	236.4	204.4	149.3	156.6	283.9	184.0	402.7	415.7							378.9	392.2	391.0	421.9	399.8	381.4	558.6	187.5		
	162.9	163.9			131.7	125.5	177.5	117.3							430.0	289.4	151.6	134.6	368.9	150.0	196.7	116.7		
					148.9	81.2	82.2	36.4							157.2	161.6	118.7	76.1	57.5	70.0	26.5			
Sargasso Sea & Gulf Stream										49	50	51	52											
										7.4	3.6	5.9	11.1											
										23.1	18.0	306.1	103.1											
										314.9	225.9	244.8	150.9											
										85.9	71.6	122.1	147.7											
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	-	168.9	61.6		68.3	95.8	74.6	104.3		189.7	65.8	76.0	52.1	165.8	53.8	66.8	85.3	108.3				113.6	99.6	119.0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	134.2	134.0	131.4	160.2	98.3	75.2	156.4	89.2	-	56.2	97.3	63.5	60.7		121.8							86.7	180.3	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	186.9	142.1	-	104.5	114.3	80.6	136.4	192.7		42.2	56.3	58.9			197.5	174.1	133.4	128.6	166.5	122.6	113.1	121.0		
SS & GS										49	50	51	52											
										107.8	79.8	169.7	103.2											

Table 18. Volume of gonostomatids (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct	
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5
	-	0.1			0.2	0.6	0.1	1.5		0.3	9.8	0.1	6.6	3.2	6.8	0.2	6.7	0.1				0	17.0
Slope	19.3	12.0			8.4	2.9	4.6	9.3		0.4	20.7	1.4	5.1	3.1	0.4	0	0.1	0.6				7.4	4.5
Water	26.9	109.5			0.8	41.9	0.2	12.5		23.0	8.6	20.6	6.5	28.9	3.6	7.6	5.4	14.1				12.1	22.5
	10.0	22.9			12.0	10.4	6.9			10.8	9.3	12.2	4.4	22.9	17.8	18.1	5.6	21.9				10.3	22.1
					7.9	6.0	10.9			7.6					8.5	8.6	6.3	10.1					
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3
High	0.1	15.5	5.3	0.4	0.2	0.3	0.2	0.1	14.9	1.5	4.0	0	3.9		1.3							10.1	0.3
Velocity	10.7	42.4	18.1	14.6	0	0	0	0.1	10.0	7.5	6.6	0.3	8.8		0.1							6.9	21.5
Region	32.6	18.5	20.5	40.4	6.4	9.2	27.7	10.8	23.4	6.9	16.2	7.8	7.8		4.0							14.3	10.4
	11.6		10.2	8.8	30.5	19.4	31.2	38.6	8.4		8.3	21.3			79.7							10.1	16.2
					-	8.4	11.8	8.3				8.9											
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1	
	6.3	0.1	0.2	0.2	0.3	0.5	0.3	0.4							0.4	1.2	0.2	0.2	0.2	1.1	0.1	0.7	
Ring	17.9	7.1	24.5	9.9	8.9	1.7	6.0	14.1							1.1	1.3	0.2	0.5	0.2	0.6	3.2	19.3	
Core	12.3	19.4	13.7	13.2	19.3	12.3	25.2	38.8							20.9	15.8	7.9	11.1	11.8	12.4	14.4	11.8	
	21.9	19.2			10.0	7.5	64.2	13.5							14.5	10.6	8.5	19.4	19.0	7.5	13.4	8.2	
					18.9	14.1	38.7	7.5							4.2	5.7	5.6	5.9	12.8	5.9	5.5		
Sargasso Sea & Gulf Stream										49	50	51	52										
										0.7	0.2	0.2	1.1										
										1.2	0.5	6.0	4.4										
										12.3	8.3	9.8	6.7										
										3.1	2.8	5.0	6.3										

Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	-	36.1	17.1		6.5	14.0	6.8	10.6		8.4	12.1	8.6	5.7	14.5	7.4	6.9	4.8	9.3				7.5	16.5	12.3
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	13.8	23.7	13.5	16.1	8.8	8.1	13.9	11.6	-	4.4	7.9	7.7	5.7		17.8							10.4	12.1	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	14.6	11.5	-	9.1	12.7	7.3	25.8	15.8		5.6	4.4	5.2			8.2	6.9	4.5	7.4	8.8	5.6	5.6	10.0		
SS & GS										49	50	51	52										
										4.3	3.0	5.3	4.6										

Table 19. Abundance of melamphaids (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.2	0	0	0		0	0.2	0	0	0	5.3	0.3	1.3	0				0	0.3	
Slope	0	0			0.3	0	0.4	0		0	0	0	0.2	0	0.4	0	1.0	0				0	0.4	
Water	0.9	0			0	0.4	0	0.9		0	0.6	0.9	0.5	0	1.2	1.0	0.9	0.4				0.9	1.3	
	2.7	2.7			0.5	1.4	0			0.6	0.4	0.8	0.2	2.0	1.4	0	1.6	2.4				1.5	0.5	
					0.5	0	0.9			0.7					1.1	0.3	0.6	2.3						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	1.0	0.3	0	0	0	0	0	2.9	0.8	1.1	0	0.9		2.9							0.4	0	
Velocity	0.4	1.1	1.7	0	0	0	0	0	3.2	0.9	0.3	0	0.3		2.7							0.8	1.1	
Region	0.8	1.5	0	1.2	0.5	0	0	0	0	2.3	0.2	0	1.5		0.8							1.3	1.4	
	1.4		0.7	4.3	0.7	0.8	2.4	0.6	0		0.5	0			3.3							1.3	1.2	
					–	1.4	1.2	2.1				1.4												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	4.8	0	0	3.3	0	0	0	0							8.8	17.2	0.3	2.7	0	14.4	0	13.4		
Ring	0.6	0	0.7	3.2	0.4	2.7	0	0							3.3	10.3	0	10.9	0	2.2	0	2.2		
Center	0	0.6	2.0	0.8	4.5	2.5	0	1.4							0	0.8	1.0	1.1	0.2	1.9	1.4	1.6		
	0.6	1.4			3.3	2.7	3.7	1.9							2.6	1.9	10.6	1.2	11.1	0.4	13.3	2.5		
					0.6	4.1	1.7	1.5							4.1	3.9	10.5	2.6	9.3	1.6	6.2			
Sargasso Sea & Gulf Stream										49	50	51	52											
										16.8	0.8	0	17.7											
										1.1	0	0	1.9											
										0	3.4	21.3	0.4											
										0	7.5	6.6	2.1											
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0.7	0.4		0.3	0.5	0.5	0.5		0.3	0.3	0.4	0.2	0.5	1.9	0.4	1.1	1.0				0.6	0.4	0.4
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.7	1.3	0.7	1.4	0.6	2.2	0.7	0.5	–	1.2	0.6	0.3	0.9		2.3							1.0	0.9	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Center	1.5	0.5	–	1.9	1.8	2.5	1.1	1.2		0.4	0.5	0.6			3.8	6.8	4.5	3.7	4.1	6.2	4.0	4.9		
										49	50	51	52											
SS & GS										4.5	2.9	7.0	5.5											

Table 20. Volume of melamphaids (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.1	0	0	0		0	0	0	0	0	0.3	0	0.2	0				0	0	
Slope	0	0			0.9	0	0.1	0		0	0	0	0	0	1.2	0	0.1	0				0	2.4	
Water	11.8	0			0	0.1	0	11.5		0	3.2	0.9	0.1	0	8.7	0	9.1	0				0.1	19.7	
	20.6	1.3			2.0	0.5	0			0.1	0.7	10.8	0	1.5	16.6	0	16.8	0.3				0.4	0.4	
					0.1	0	0.5			0.2					22.4	0.1	0.1	4.2						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.2	0.1	0	0	0	0	0	0.2	0.4	0.4	0	6.3		0.3							0.7	0	
Velocity	0.1	0.2	0.9	0	0	0	0	0	0.1	28.6	1.2	0	0		0.5							1.2	0.1	
Region	0.1	1.3	0	0.3	0	0	0	0	0	0.7	0.1	0	0.9		0.1							37.3	0.4	
	13.8		0.1	7.4	0	0	0.6	0.1	0		0.3	0			0.3							0.4	3.8	
					–	4.2	0.5	0.9				0.6												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	1.2	0	0	0.1	0	0	0	0							0.4	0.9	0	0.2	0	1.1	0	1.4		
Ring	0.1	0	0.6	0.4	0.1	0.5	0	0							0.4	1.1	0	0.8	0	0.3	0	0.1		
Center	0	0.1	0.2	1.2	0.2	0.1	0	0							0	0.1	0	0	0	0.2	0.3	0.1		
	0.1	0.5			0.3	9.7	0.1	2.6							0.1	0	0.3	0	0.4	0	0.6	0.3		
					0.2	1.6	1.7	10.5							0.3	0.3	9.1	0.3	0.8	0.8	1.9			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.8	0	0	1.0											
										0.1	0	0	0.2											
										0	0.1	1.1	0											
										0	1.7	0.6	0.6											
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0.3	0.2		0.3	0.2	0.3	6.9		0.1	1.0	3.0	0.1	0.4	9.9	0.1	5.3	0.9				0.1	5.6	3.8
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	3.5	0.8	0.3	1.9	1.1	1.4	0.2	0.2	–	7.5	0.5	0.1	4.0		0.3							9.9	1.1	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Center	0.4	0.2	–	0.8	0.2	2.4	0.4	0.7		2.4	0.1	0.2			0.2	0.5	1.9	0.3	0.2	0.6	0.5	0.5		
SS & GS										49	50	51	52											
										0.2	0.5	0.4	0.5											

Table 21. Abundance of myctophids (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			108.0	1.1	479.3	93.6		0	22.0	1.0	65.6	2.6	45.0	1.6	23.5	0.4				0.5	24.0	
Slope	2.9	48.2			3.4	28.9	7.9	2.6		27.4	7.8	63.1	35.6	27.2	16.8	19.1	2.4	30.0				44.1	4.8	
Water	2.7	10.7			1.6	42.6	5.2	32.3		133.7	24.1	39.7	40.8	201.8	31.2	119.7	8.6	47.8				59.4	29.4	
	0	0.7			38.4	5.0	44.4			107.8	13.4	17.6	1.1	10.3	21.7	107.4	47.6	56.7				20.0	11.3	
					2.6	2.4	31.0			2.9					14.3	16.2	1.5	6.9						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0.3	25.0	23.1	3.3	1.9	4.4	2.6	1.3	21.1	10.6	14.5	1.7	39.9		57.1							25.8	2.5	
Velocity	11.2	3.3	6.7	28.8	4.2	561.8	41.6	0	20.4	28.6	31.2	3.1	61.3		3.6							2.4	45.4	
Region	31.7	2.0	5.9	11.2	231.9	626.4	272.8	143.2	83.5	6.6	64.9	125.4	1.9		11.2							24.7	40.0	
	1.4		2.1	1.4	271.4	13.3	15.4	13.7	5.4		6.7	50.4			6.7							6.2	13.8	
					–	3.7	7.9	0.3				3.3												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	13.6	0	0	37.8	396.0	127.1	6.5	1.7							84.1	86.9	0.8	63.7	0.4	25.2	0.2	30.8		
Ring	12.4	6.1	15.0	4.2	17.2	23.3	90.0	21.2							3.9	2.5	0	3.9	0.3	1.3	11.2	1.6		
Core	11.8	8.1	46.7	2.4	35.5	33.0	126.8	574.6							0	2.2	14.3	4.1	22.0	2.4	21.4	12.8		
	1.2	5.7			48.7	55.9	112.5	6.2							7.4	18.4	63.2	48.1	56.5	19.6	34.3	19.2		
					3.3	5.9	2.2	1.0							13.1	16.6	21.8	12.9	26.8	21.9	11.5			
Sargasso Sea & Gulf Stream										49	50	51	52											
										48.9	0.8	1.5	33.0											
										3.6	2.9	0.9	4.7											
										2.7	32.1	46.5	23.0											
										4.6	10.6	14.5	16.9											
Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	–	14.9	4.7		22.0	19.4	50.8	27.7		54.4	16.8	30.4	35.8	60.5	25.8	51.1	16.7	25.4				31.0	17.4	21.4
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	11.2	8.1	9.5	11.2	214.5	66.8	64.2	31.8	–	14.1	26.7	36.9	36.6		23.0							14.8	25.4	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	9.8	5.0	–	11.7	43.3	43.9	52.6	149.8		21.1	29.9	18.0			21.7	25.3	20.1	26.5	21.2	18.1	12.5	16.1		
SS & GS										49	50	51	52											
										15.0	11.6	15.9	19.4											

Table 22. Volume of myctophids (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			12.0	1.0	33.4	2.9		0	6.8	0.1	6.3	0.1	3.8	0	4.1	0.3				0	9.6	
Slope	2.9	37.5			0.7	2.0	3.4	0.5		2.8	1.8	11.1	3.2	5.9	0.8	7.8	1.2	3.7				7.2	1.9	
Water	5.9	15.8			0.1	6.1	1.4	10.9		9.4	11.6	24.3	14.7	22.2	11.1	12.8	0.3	7.4				10.2	14.4	
	0	0.7			1.4	7.5	4.1			10.4	19.7	36.9	0.6	13.0	29.5	40.0	24.3	18.8				29.1	18.6	
					11.6	2.6	8.4			1.1					29.8	25.2	1.2	5.3						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	6.1	8.6	0.2	0.1	0.1	0.1	0.1	7.4	1.8	5.4	0.2	6.2		4.3							12.0	0.3	
Velocity	2.5	2.2	2.5	4.6	0.8	17.8	8.5	0	2.7	10.4	1.9	0.1	12.4		1.0							0.2	14.4	
Region	4.2	2.4	8.1	15.2	12.5	33.0	14.7	15.9	10.3	13.4	25.5	21.3	2.9		6.1							5.9	10.6	
	2.1		0.1	13.4	12.7	9.2	8.4	10.5	9.8		10.4	23.6			2.1							8.0	9.6	
					-	4.1	7.1	0.1				3.9												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	3.0	0	0	9.4	29.9	33.2	0.6	0.1							5.0	5.5	0.1	5.1	0	2.0	0	6.8		
Ring	4.1	0.4	1.1	2.6	8.5	4.1	10.0	12.7							0.3	1.5	0	0.8	0	1.5	0.3	4.2		
Core	2.8	4.8	9.6	2.3	5.6	5.7	14.4	22.0							0	0.5	0.6	0.2	0.7	1.1	1.0	1.3		
	0.1	9.8			2.7	4.7	6.1	4.8							0.4	3.4	4.8	2.7	4.4	2.7	2.3	1.2		
					1.2	1.7	0.5	2.6							2.2	1.9	2.9	4.4	7.4	10.2	3.2			
Sargasso										49	50	51	52											
Sea										7.5	0.1	0.1	3.0											
&										2.3	0.1	0	1.7											
Gulf										0.2	1.2	6.3	0.8											
Stream										0.7	0.8	0.8	1.1											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	-	13.5	5.3		4.6	4.2	7.4	6.9		4.7	10.0	18.1	6.2	10.3	15.0	16.4	6.2	6.8				11.6	11.1	17.4
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	2.2	3.3	4.8	8.4	12.6	10.2	6.9	5.3	-	6.9	9.7	9.8	6.8		3.9							6.5	8.7	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	2.5	3.8	-	4.2	6.5	8.4	4.6	9.1		6.7	5.3	4.9			1.6	2.6	1.7	2.6	2.5	3.6	1.2	3.4		
SS & GS										49	50	51	52											
										2.7	0.6	1.8	1.7											

Table 23. Abundance of photichthyids (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			22.9	0	1.7	17.7		0	1.9	0	2.1	0	5.0	0.8	2.6	1.5				0	1.3	
Slope	0	0			0	0.5	0.4	0		1.7	0	0.6	0.9	0	4.8	13.2	0.3	4.3				0.9	0.7	
Water	0	0			0	0	0	0		0.7	0	0	0	0	0.3	0.3	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	1.5	0.3	0	0	0	0	0	4.5	2.7	3.9	0	1.7		2.4							2.7	1.8	
Velocity	0	0	0.3	0	0.5	0.3	4.0	0.5	1.2	0	0.9	0.2	0		0							0.5	1.1	
Region	0	0	0	0	1.4	0	12.2	2.5	0	0	0	0.8	0		1.6							0	0	
	0		0	0	0	0	0	0.3	0		0	0			0							0	0	
					–	0	0.2	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.8	0	0	1.7	31.0	2.9	2.1	0.9							8.2	4.7	0.5	3.4	0.2	3.6	3.7	0.8		
Ring	0	0.6	0	1.1	3.2	1.3	0	4.6							2.2	3.7	4.6	1.8	1.5	5.9	3.1	2.6		
Core	0	0	0	0	8.8	0.5	3.2	2.1							1.6	3.5	17.6	8.9	5.1	3.8	2.1	0.3		
	0	0			0	0	0	0							0.5	2.2	0.6	0.4	1.1	0	0	0		
					0.6	0.6	0	0							0	0	0	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										4.2	0	0	5.9											
										5.8	5.1	8.0	6.9											
										0.7	0	1.1	0											
										0.3	0.6	0	0											
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0	0		2.3	0.1	0.2	1.4		0.5	0.5	0.2	0.8	0	2.0	1.6	0.6	0.9				0.2	0.5	0.2
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0.4	0.2	0	0	1.3	2.9	0.6	–	0.1	1.7	0.2	1.0		1.1							0.8	0.7	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.2	0.2	–	0.7	4.6	1.0	1.4	1.6		5.2	2.3	1.8			2.5	2.8	4.3	2.9	1.5	2.3	2.2	0.9		
SS & GS										49	50	51	52											
										2.8	1.4	2.3	3.2											

Table 24. Volume of photichthyids (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			1.1	0	0.1	2.4		0	0.1	0	0.2	0	1.1	0.1	0.3	0.1				0	0.1	
Slope	0	0			0	0.3	0	0		0.1	0	0.1	0	0	0.2	0.7	0	0.4				0.2	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.3	0.1	0	0	0	0	0	0.3	0.1	0.6	0	0.1		0.1							0.4	0.2	
Velocity	0	0	0	0	0.1	0	0.1	0.1	0	0	0.1	0	0		0							0	0.1	
Region	0	0	0	0	0	0	0.3	0.1	0	0	0	0.1	0		0.1							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					-	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.1	0	0	0.9	0.6	0.7	0.1	0.2							0.7	0.3	0.2	0.1	0	0.1	0.2	0.2		
Ring	0	0.1	0	0.3	0.9	1.2	0	0.3							0.2	0.2	0.5	0.1	0.5	0.2	0.2	0.1		
Center	0	0	0	0	0.2	0.1	0.1	0							0.2	0.1	0.6	0.3	0.2	0.1	0.2	0.1		
	0	0			0	0	0	0							0.1	0.1	0	0	0	0	0	0		
					0.1	0.1	0	0							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										0.4	0	0	0											
Sea										0.2	0.5	0.2	0.2											
&										0	0	0	0											
Gulf										0	0	0	0											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope	-	0	0		0.1	0.1	0.1	0.2		0.1	0.1	0.1	0.1	0	0.3	0.1	0.1	0.1				0	0.1	0.1
Water																								
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High	0	0.1	0.1	0	0	0.1	0.1	0.1	-	0.1	0.3	0.1	0.1		0.1							0.1	0.1	
Velocity																								
Region																								
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring	0.1	0.1	-	0.1	0.4	0.5	0.1	0.1		0.2	0.1	0.1			0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1		
Center																								
										49	50	51	52											
SS & GS										0.1	0.1	0.1	0.1											

Table 25. Abundance of sternoptychids (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	1.3			19.0	1.6	12.3	0.5		1.0	5.0	1.5	3.5	0.6	5.0	2.1	6.1	1.3				0	3.0	
Slope	1.2	0.6			16.2	3.2	2.9	2.2		5.1	0.5	2.3	1.1	0.3	26.0	43.2	5.9	9.3				2.0	1.5	
Water	2.3	2.1			2.7	0.9	2.2	1.1		2.3	0.8	1.8	2.8	2.4	0.3	0.7	10.0	5.6				4.1	0.6	
	0	0			2.6	0.5	0			5.6	0.4	0	0.2	0.3	0	0	3.2	1.9				0.3	0	
					0.5	0	0.9			1.4					0	0	0.2	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0.3	2.5	6.0	1.7	0.3	0.6	0	0	8.9	0.6	1.7	0	1.1		0							3.7	2.1	
Velocity	20.0	3.9	6.7	10.0	1.1	0.6	6.0	1.5	1.6	2.6	2.1	0.4	1.7		3.2							7.8	8.6	
Region	0.8	3.2	0.6	1.8	1.0	0	8.8	4.6	1.0	0.2	2.7	0.4	0		18.0							6.7	6.8	
	0.3		0	0	1.4	3.3	1.6	0.6	0.4		0	1.3			0							0	0	
					–	0.4	2.6	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	2.8	0	0	0	4.0	4.1	2.4	0							0	0	2.0	0	0.4	0.5	5.4	0		
Ring	17.6	18.3	6.4	23.2	4.8	10.7	20.0	4.6							2.2	3.4	7.9	1.5	0.3	2.6	4.4	10.0		
Core	4.5	3.1	10.7	4.8	0.9	4.0	3.5	1.8							26.3	11.8	11.0	31.5	8.2	23.3	1.4	18.4		
	0	1.4			1.7	0.9	2.5	0.4							11.6	10.9	13.5	13.1	9.5	9.6	10.5	3.3		
					0.6	0	0.6	0							4.7	7.4	6.8	1.6	16.1	5.0	0.8			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.3	0.3	0	0											
										7.8	13.7	3.9	3.9											
										4.0	5.2	6.3	16.1											
										23.1	15.9	0	0.5											
Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	–	1.0	1.4		5.8	1.6	2.0	1.4		3.1	1.7	1.4	1.9	0.9	6.3	5.1	5.1	2.8				1.6	1.3	0.6
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	5.4	3.2	3.3	3.4	1.1	3.8	3.2	1.2	–	1.0	1.6	0.5	1.0		7.8							4.6	4.4	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	6.3	5.7	–	8.2	2.5	4.3	2.6	1.4		2.9	1.9	1.1			8.9	6.7	7.7	9.5	6.9	7.8	5.0	7.9		
SS & GS										49	50	51	52											
										8.8	8.8	2.6	5.1											

Table 26. Volume of sternoptychids (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	1.0			7.1	0.2	1.1	0		0.1	2.6	0.1	0.7	0.1	0.8	0.2	3.0	0.1				0	3.0	
Slope	0.1	0.1			1.3	0.7	3.1	1.2		0.4	0.1	1.4	0.2	0	1.4	2.6	0.4	2.4				1.2	0.5	
Water	0.2	1.1			0.2	0.5	0.3	1.6		0.2	0.4	0.3	0.3	0.6	0	0.6	1.1	0.6				1.2	1.0	
	0	0			0.3	0	0			1.9	0.2	0	0.2	0.3	0	0	0.2	0.2				0.1	0	
					0.1	0	0.7			0.6					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.9	3.6	2.3	0	0.1	0	0	10.2	0.6	1.5	0	0.5		0							4.0	0.2	
Velocity	2.2	0.4	1.8	7.1	0.1	0.1	0.6	0.1	1.0	1.5	0.2	0	0.2		0.3							0.7	1.7	
Region	0.4	1.0	0.6	0.3	0.3	0	4.7	0.4	0.6	0.1	1.5	2.1	0		0.6							1.8	1.3	
	0		0	0	0.6	2.6	0.8	0.2	0.1		0	0.1			0							0	0	
					-	0.7	1.3	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	1.4	0	0	0	1.2	0	0.4	0							0	0	0.1	0	0	0	0.1	0		
Ring	2.1	1.5	1.1	7.5	2.9	6.5	6.5	5.0							0.7	1.0	0.3	0.2	0	2.2	0.3	7.5		
Center	0.6	0.5	4.7	2.6	0.3	0.6	0.3	0.5							1.1	0.5	0.6	1.1	0.5	1.5	0.1	0.7		
	0	0.7			0.4	0.1	0.6	0.3							0.1	0.2	0.2	1.0	0.3	0.3	0.2	2.2		
					0.1	0	0.2	0							0.9	2.5	1.4	0.6	2.9	0.7	0.1			
										49	50	51	52											
Sargasso										0	0	0	0.5											
Sea										0.2	0.5	0.2	0.1											
&										0.3	0.3	1.3	1.0											
Gulf										1.2	2.0	0	0.4											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	-	0.6	0.1		1.1	0.3	0.9	1.3		0.6	0.8	0.5	0.4	0.3	0.4	0.4	0.9	0.4				0.6	1.1	0.4
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.7	0.8	1.5	2.4	0.9	1.7	1.4	0.1	-	0.7	0.9	0.4	0.3		0.3							1.6	0.8	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Center	1.0	0.7	-	3.2	1.2	1.8	0.5	1.1		1.5	0.5	0.2			0.6	0.8	0.5	0.6	0.7	0.6	0.1	2.6		
										49	50	51	52											
SS & GS										0.4	0.7	0.4	0.5											

Table 27. Abundance of stomiids (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			1.0	0	1.0	1.9		0	1.1	0	1.2	0	0.3	0.6	2.1	0				0	3.6	
Slope	1.8	1.8			1.7	1.1	1.2	0.4		0.2	0.3	0.9	0	2.2	0.8	0	0	1.4				4.1	1.1	
Water	1.8	2.1			0	1.3	0	3.2		56.0	0.8	1.5	1.1	8.8	0	3.1	2.7	6.3				3.1	1.9	
	0.5	0			0.5	0.5	0			2.8	0	0.4	0	0.7	0.3	2.5	1.2	2.9				1.2	0	
					0	0	0.5			0					0	0.3	0.2	1.2						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	2.9	2.0	2.4	0	1.2	0	0.3	0.2	1.1	0.1	0.2	0	1.2		3.0							1.2	0	
Velocity	1.2	1.2	1.7	4.2	0	0	0	0	1.6	1.2	5.0	0	0.3		1.0							0.8	5.7	
Region	3.3	1.9	1.2	0.6	1.9	4.1	18.8	5.1	4.0	0	1.1	4.6	0		3.6							2.6	2.2	
	0.3		0	0	2.7	0.4	1.4	1.2	0		0	0.4			0							0.6	0	
					–	0.2	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	22.8	0.9	2.5	3.3	17.0	7.1	6.5	3.2							2.1	0.3	0	1.7	0	1.6	0	3.6		
Ring	0	0.6	2.1	3.2	4.4	2.7	5.0	4.3							0.6	0.6	0	0.6	0	0.2	1.2	1.6		
Center	4.5	0.4	1.6	0.8	88.8	35.0	60.0	82.2							1.6	1.3	3.3	0.7	2.2	1.4	5.7	10.3		
	1.8	0.6			21.2	11.0	4.3	0.4							3.7	4.3	8.0	5.8	7.1	5.5	10.5	0.8		
					1.2	0	0	0.3							1.5	1.1	2.7	0.8	2.1	2.5	0.8			
Sargasso Sea & Gulf Stream										49	50	51	52											
										3.6	0	0.3	1.2											
										0.2	0.2	0	1.1											
										2.9	4.8	7.2	4.8											
										2.4	2.2	0.6	1.7											

Slope Water	8 –	9 1.0	18 0.9		19 0.5	20 0.7	33 0.5	34 2.2		35 11.8	47 0.6	48 0.7	53 0.6	54 2.9	59 0.3	60 1.4	65 1.2	66 2.2				4 2.1	5 1.7	6 6.9
High Velocity Region	12 1.9	13 1.8	14 1.3	15 1.2	27 1.0	29 2.7	30 4.1	31 1.3	32 –	41 0.4	42 1.4	43 1.0	44 0.8		55 2.2							2 1.3	3 2.0	
Ring Center	10 7.3	11 0.6	16 –	17 2.0	21 24.7	23 10.9	24 15.4	28 22.5		37 0.4	38 1.2	39 1.3			56 1.9	57 1.5	58 2.8	61 1.9	62 2.3	63 2.5	64 3.0	1 4.1		
SS & GS										49 2.3	50 1.8	51 2.0	52 2.2											

Table 28. Volume of stomiids (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			1.2	0	0.1	2.2		0	1.2	0	5.2	0	0	0.2	1.2	0				0	13.1	
Slope	5.8	1.2			6.3	0.5	30.4	1.9		0	1.5	0	0	0.7	1.0	0	0	1.2				2.8	0.1	
Water	42.3	5.7			0	8.3	0	3.9		8.2	2.2	18.8	4.6	23.9	0	0.9	8.2	16.5				15.8	23.6	
	0	0			0.2	10.0	0			20.6	0	4.5	0	19.3	5.1	18.3	9.7	42.2				10.0	0	
					0	0	7.8			0					0	3.5	4.8	15.4						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	1.4	1.2	0	0	0	0	0	1.7	0	0.1	0	5.0		0.2							0.4	0	
Velocity	0.2	3.7	13.0	0.7	0	0	0	0	0	13.5	0.2	0	11.0		89.8							0.2	1.4	
Region	64.8	12.0	23.5	0.2	0.1	4.0	1.1	0.5	1.2	0	19.8	1.6	0		24.2							26.0	6.0	
	31.7		0	0	34.5	17.5	3.3	11.5	0		0	0			0							0.1	0	
					–	3.7	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	1.3	0	0.1	0.1	2.5	1.2	0.2	0.1							1.3	0.1	0	0.9	0	0.8	0	1.3		
Ring	0	0.1	0.2	2.2	1.2	2.2	0.5	2.1							0.1	0.7	0	0.7	0	0.3	0.2	0.1		
Center	2.4	0.1	3.5	8.2	17.0	20.5	5.5	12.6							0.1	0.1	0.1	0.1	0.1	0	0.8	1.3		
	2.3	10.7			7.8	0.6	0.2	1.5							1.5	0.5	1.7	2.0	0.7	2.3	3.1	0.1		
					1.8	0	0	6.7							2.5	1.8	29.8	13.4	0.5	7.0	1.4			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.8	0	0	5.0											
										0.1	0	0	1.1											
										0.4	1.3	2.5	0.4											
										17.0	25.0	1.6	2.3											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	–	1.7	5.7		1.1	4.7	8.2	3.1		5.8	1.2	5.8	2.5	11.0	1.2	4.6	4.8	14.9				7.2	9.2	16.4
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	24.3	7.3	9.4	0.2	5.0	1.9	0.8	2.4	–	3.4	4.0	0.3	5.2		22.8							6.7	1.9	
Ring Center	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	1.5	2.7	–	4.7	5.9	5.0	1.2	4.1		0.1	8.1	1.3			1.1	0.4	6.2	3.4	0.3	2.2	1.1	0.7		
SS & GS										49	50	51	52											
										4.6	6.6	1.0	2.2											

Table 29. Volume of Anoplogaster cornuta (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	27.30	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
	0		0	0	0	30.00	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0	31.50	0	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0	19.21	0	0	0	18.80			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											
										0.02	0.03	0	0											

Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	–	0	0		0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	0
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0	0	0	0	7.50	0	0	0	–	0	0	0	0		0							0	0	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0	0	–	0	0	6.30	0	0		0	0	0			0	0	3.84	0	0	0	3.62	0		
SS & GS										49	50	51	52											
										0.01	0.01	0	0											

Table 30. Abundance of Argyropelecus aculeatus (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.2	0	0	0		0	0.6	0	0.4	0	2.0	0.5	0.9	0				0	1.3	
Slope	0	0			0.3	0.5	0.8	0.7		0.2	0	0.6	0	0	0.8	6.4	0	0.7				0.7	0.4	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0.7	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.5	3.1	0.6	0	0	0	0	2.1	0.1	0.9	0	0.2		0							0.8	0.4	
Velocity	4.2	0	0.3	2.4	0	0	0.4	0	0	0	0	0	0		0.5							1.4	0.3	
Region	0	0	0	0	0.5	0	0	0.4	0	0	0	0.4	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0.5	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	1.2	0	0	0	2.0	0	0.3	0							0	0	0	0	0	0.3	0	0		
Ring	0.6	1.7	0	5.8	1.6	3.3	0	0.8							1.1	0.6	0.4	0.6	0	0.9	0	2.0		
Core	0.9	0	0	0	0	0	0	0							0	0	0.5	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0	0.6	0							0	0	0	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0.4	1.0	0	0											
										0	0	0.2	0											
										0	0	0	0											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0	0		0.1	0.1	0.1	0.2		0	0.2	0.2	0.1	0	0.6	0.9	0.2	0.1				0.2	0.4	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	1.1	0.1	0.9	0.8	0	0.5	0.2	0.1	–	0.1	0.3	0.1	0.1		0.1							0.6	0.2	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.7	0.4	–	1.5	0.7	0.8	0.2	0.2		0.5	0.2	0.1			0.2	0.1	0.1	0.1	0	0.1	0	0.5		
										49	50	51	52											
SS & GS										0.1	0.3	0.1	0											

Table 31. Volume of Argyropelecus aculeatus (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			1.22	0	0	0		0	2.22	0	0.44	0	0.67	0.07	2.83	0				0	2.67	
Slope	0	0			0.14	0.53	2.92	0.93		0.21	0	1.14	0	0	0.08	0.77	0	1.43				1.09	0.04	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0.55	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.75	3.43	2.22	0	0	0	0	8.42	0.52	1.38	0	0.46		0							3.75	0.04	
Velocity	1.15	0	0.83	5.59	0	0	0.12	0	0	0	0	0	0		0.07							0.08	1.35	
Region	0	0	0	0	0.19	0	0	0	0	0	0	2.08	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0.16	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	1.20	0	0	0	0.60	0	0.04	0							0	0	0	0	0	0.02	0	0		
Ring	0.12	0.56	0	2.11	1.20	4.67	0	2.42							0.56	0.94	0.04	0.12	0	2.17	0	6.52		
Core	0.18	0	0	0	0	0	0	0							0	0	0.05	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0	0.17	0							0	0	0	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0.07	0.05	0	0											
										0	0	0.43	0											
										0	0	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	–	0	0		0.14	0.13	0.41	0.30		0.04	0.56	0.29	0.11	0	0.15	0.21	0.57	0.14				0.27	0.68	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.29	0.19	1.07	1.95	0	0.90	0.04	0	–	0.26	0.52	0.42	0.28		0.01							0.96	0.35	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.38	0.14	–	0.53	0.45	1.17	0.05	0.44		1.12	0.38	0.04			0.11	0.19	0.01	0.02	0	0.07	0	1.63		
										49	50	51	52											
SS & GS										0.02	0.01	0.11	0											

Table 32. Abundance of Argyropelecus hemigymnus (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0.1	0	0	0	0	0				0	0	
Slope	0	0.6			0	0	0	0		0.4	0.3	0	0	0	8.8	10.5	2.8	3.6				0.4	0	
Water	0	0			0.7	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0.3	0.6	0	0	0	0	4.5	0.1	0.4	0	0		0							0.4	0.4	
Velocity	6.2	1.7	3.0	2.9	0	0	2.8	0	1.6	0	0	0	0		2.7							5.4	5.9	
Region	0	0	0	0	0	0	8.8	1.4	0	0	0	0	0		2.0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	1.6	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.8	0	0	0	1.0	0	0.9	0							0	0	0	0	0	0	0.8	0		
Ring	9.4	13.3	5.0	11.6	1.8	5.3	15.0	3.5							0	0.3	1.3	0	0	0	0.6	6.6		
Core	0	0	0	0	0.6	3.0	2.7	0							8.4	3.0	2.9	12.2	3.3	10.0	0.7	0		
	0	0			0	0	0	0							0	0	0	0.4	0	0.4	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										0	0	0	0											
Sea										0.4	2.9	0.4	0.3											
&										1.3	1.7	0	0											
Gulf										0	0	0	0											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope	–	0.2	0		0.2	0	0	0		0.1	0.1	0	0	0	1.8	1.1	0.6	0.4				0.1	0	0
Water																								
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High	1.6	0.4	0.8	0.9	0	1.8	2.4	0.3	–	0.1	0.2	0	0		1.3							1.5	1.6	
Velocity																								
Region																								
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring	2.6	3.3	–	2.9	0.8	1.9	1.2	0.6		0.3	0.5	0.2			1.7	0.7	0.7	0.9	0.7	2.1	0.5	1.7		
Core																								
										49	50	51	52											
SS & GS										0.4	1.2	0.1	0.1											

Table 33. Volume of Argyropelecus hemigymnus (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0.06			0	0	0	0		0.04	0.05	0	0.18	0	0.64	0.55	0.48	0.64				0.02	0	
Water	0	0			0.03	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0.06	0.06	0	0	0	0	1.58	0.03	0.13	0	0		0							0.04	0.04	
Velocity	0.85	0.28	0.73	1.18	0	0	0.28	0	1.00	0	0	0	0		0.23							0.54	0.27	
Region	0	0	0	0	0	0	4.69	0	0	0	0	0	0		0.24							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0.51	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.12	0	0	0	0.50	0	0.21	0							0	0	0	0	0	0	0.04	0		
Ring	1.76	0.72	1.07	4.74	1.52	1.67	5.00	2.50							0	0.03	0.04	0	0	0	0.06	0.80		
Core	0	0	0	0	0.03	0.55	0.27	0							0.53	0.38	0.29	0.63	0.39	1.23	0.07	0		
	0	0			0	0	0	0							0	0	0	0.15	0	0.06	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0.02	0.22	0.09	0.03											
										0.22	0.28	0	0											
										0	0	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	–	0.02	0		0.01	0	0	0		0.01	0.01	0	0.05	0	0.13	0.06	0.10	0.06				0.01	0	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.21	0.07	0.20	0.31	0	0.41	1.07	0	–	0.02	0.05	0	0		0.14							0.15	0.08	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.47	0.18	–	1.19	0.56	0.53	0.23	0.45		0.08	0	0.09			0.10	0.08	0.06	0.15	0.08	0.26	0.03	0.20		
SS & GS										49	50	51	52											
										0.06	0.13	0.02	0.01											

Table 34. Volume of Aristostomias grimaldii (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	33.33				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0	14.47	0	0	0	0			
Sargasso										49	50	51	52											
Sea										0	0	0	0											
&										0	0	0	0											
Gulf										0	0	0	0											
Stream										0	0	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	–	0	0		0	0	0	0		0	0	0	0	0	0	0	0	6.67				0	0	0
High	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
Velocity	0	0	0	0	0	0	0	0	–	0	0	0	0		0							0	0	
Region																								
Ring	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Core	0	0	–	0	0	0	0	0		0	0	0			0	0	2.89	0	0	0	0	0		
SS & GS										49	50	51	52											
										0	0	0	0											

Table 35. Abundance of Benthosema glaciale (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			23.9	0.5	400.0	56.4		0	6.1	0	18.7	0	0	0	1.3	0.2				0.2	1.7	
Slope	2.9	38.8			1.4	23.7	1.3	0.7		17.9	6.8	43.7	5.3	7.8	0	0	0	10.7				21.3	1.1	
Water	2.7	10.0			1.1	39.1	5.2	20.5		77.7	11.8	16.8	3.1	7.3	3.8	3.8	2.3	11.9				10.6	13.8	
	0	0			32.6	3.6	41.7			4.4	12.3	15.3	0.2	4.0	19.7	26.5	24.8	21.9				12.4	11.0	
					1.6	1.2	29.4			0					13.4	13.2	0.6	0.8						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.5	1.1	0	1.6	4.4	1.3	0.4	1.3	0.4	0	0	5.5		0							0.8	0.4	
Velocity	0	0	1.0	1.2	1.1	558.8	4.4	0	19.6	9.4	5.3	2.1	6.3		0							0.8	0.5	
Region	1.7	0.7	3.5	7.1	214.3	618.2	250.6	126.1	79.0	6.0	16.8	65.8	1.2		0							6.0	9.3	
	0		0.7	0	244.5	8.8	6.2	4.0	5.0		4.8	18.7			1.1							3.1	9.6	
					-	1.8	3.3	0				1.9												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	263.0	44.7	1.8	0.4							0.3	0	0	0	0	0	0	0		
Ring	0	0	0	0.5	6.2	10.7	20.0	2.3							0	0	0	0	0	0	0	0.2		
Core	0.9	0	0.7	0.6	21.8	30.5	107.0	535.7							0	0	0	0	0	0	0	0		
	0	0.4			27.5	27.3	80.0	0.4							0	0	0	0	0	0	0	0		
					1.7	1.2	0	0.5							0.3	0.5	0	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											
										0.3	0	0.3	0											

Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	-	12.2	3.6		11.4	16.7	44.1	17.0		19.9	9.3	19.0	6.8	4.8	7.4	8.7	5.8	8.1				11.1	6.9	9.6
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.4	0.5	1.6	2.1	210.8	49.0	52.7	26.8	-	4.1	5.5	17.7	4.8		0.2							2.7	5.0	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0.2	0.1	-	0.4	26.5	21.2	38.5	134.6		1.2	13.3	1.2			0.1	0.1	0	0	0	0	0	0.1		
SS & GS										49	50	51	52											
										0.1	0	0.1	0											

Table 36. Volume of Benthosema glaciale (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0.73	0.95	14.33	1.59		0	0.41	0	0.85	0	0	0	0.39	0.25				0.02	0.77	
Slope	2.94	36.47			0.07	1.05	0.04	0.04		0.85	1.75	4.86	1.78	1.63	0	0	0	0.50				2.28	1.67	
Water	5.91	15.71			0.07	5.65	1.39	9.55		5.67	10.98	22.65	3.85	10.90	2.65	3.86	0.09	1.19				5.63	12.50	
	0	0			1.05	5.91	3.89			4.44	19.29	27.55	0.02	11.00	25.86	34.78	23.20	14.76				12.65	17.95	
					3.68	1.80	6.17			0					21.14	22.06	0.60	1.35						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.45	1.77	0	0.03	3.97	0.03	0.02	0.03	0.01	0	0	0.28		0							0.10	0.04	
Velocity	0	0	1.67	0.06	0.05	6.18	0.56	0	0.48	9.43	0.74	0.08	9.33		0							0.08	0.05	
Region	1.54	1.22	4.41	6.47	6.67	30.45	8.13	6.61	10.00	12.77	17.56	4.17	2.31		0							1.87	7.14	
	0		0.07	0	10.00	24.17	6.49	4.00	11.30		10.00	21.30			1.77						2.81	9.04		
					-	0.04	5.58	0				2.86												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	10.00	1.35	0.03	0.02							0.03	0	0	0	0	0	0	0		
Ring	0	0	0	0.05	0.20	0.33	0.50	0.08							0	0	0	0	0	0	0	0.50		
Core	0.64	0	0.53	1.12	0.45	0.75	3.24	16.61							0	0	0	0	0	0	0	0		
	0	1.36			0.63	2.27	1.25	0.96							0	0	0	0	0	0	0	0		
					0.06	1.18	0	0.03							0.31	0.97	0	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											
										0.13	0	0.17	0											
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	-	13.05	1.84		1.28	3.39	4.62	5.87		2.19	8.11	13.77	1.63	5.88	9.93	12.14	4.57	3.59				5.15	8.22	9.37
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.39	0.72	1.98	1.63	13.67	2.97	4.11	2.13	-	5.56	5.67	5.68	2.50		0.35							1.22	4.07	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.16	0.34	-	0.57	0.80	1.13	0.92	4.41		0.96	4.02	1.35			0.07	0.19	0	0	0	0	0	0.13		
SS & GS										49	50	51	52											
										0.03	0	0.04	0											

Table 37. Abundance of Benthosema suborbitale (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			1.0	0	1.0	1.4		0	0.4	0	0.4	0	0	0	1.7	0				0	0.7	
Slope	0	0.6			0	0.5	0	0		0	0	0.9	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0.7	0	0	0	0	0	2.1	0	1.5				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	1.0	0.9	0	0	0	0	0	0	0.4	0.1	0.6	0.1		1.6							0	0	
Velocity	0.8	0	0.7	0.6	0	0	0	0	0	0	0	0	0		0							0	5.1	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.8	0	0	0.6	0	0	0	0							2.6	0.9	0	1.5	0	0	0	0		
Ring	0	1.1	0.7	0	0	0.7	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0	0	0	0							0	0	1.4	0	0.6	0	0	0.3		
	0	0			0	0.5	0	0							0	0.6	0	0	0.3	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.3	0	0	0											
										0	0	0	0											
										0.2	0	0	0											
										0	0	0	0											

Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	–	0.2	0		0.1	0.1	0.1	0.1		0.1	0.1	0.2	0.1	0	0	0.4	0.3	0.3				0	0.2	0
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.2	0.3	0.4	0.2	0	0	0	0	–	0.2	0.1	0.1	0.1		0.3							0	1.3	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0.2	0.3	–	0.2	0	0.3	0	0		0	0	0			0.5	0.3	0.3	0.3	0.2	0	0	0.1		
SS & GG										49	50	51	52											
										0.1	0	0	0											

Table 38. Abundance of Bolinichthys indicus (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0.9		0	0	0	0	0	2.0	0	0.9	0				0	0	
Slope	0	1.2			0	0	0	0		0	0	0	0	0	0	0	0	0				2.0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	2.4	0	1.1				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	1.5	1.7	0.6	0	0	0	0	0	0.6	0.1	0	1.0		4.5							0.4	0	
Velocity	0	0	0	1.2	0	0	0	0	0	0	0	0	0		0							0	2.7	
Region	0.8	0	0	0	0	0.9	0.3	0	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0.5	0.3	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.8	0	0	6.1	1.0	5.3	0	0							7.6	16.9	0	19.5	0	2.1	0	6.0		
Ring	0	0	0.7	1.6	0.8	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	10.7	0.1	0	0	1.4	3.6							0	0.3	1.4	0.4	0	0	5.0	0		
	0	0			0	0	0.6	0							0	0	9.4	1.2	9.7	0.4	3.8	0		
					0	0	0	0							0	0	0.3	0	0	0	0			
										49	50	51	52											
Sargasso										3.1	0	0	6.6											
Sea										0	0.2	0	0											
&										0	1.0	4.3	0											
Gulf										0	0	0	0											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0.3	0		0	0	0	0.1		0	0	0	0	0	0.4	0.5	0.2	0.2				0.5	0	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.2	0.4	0.4	0.5	0.2	0.1	0.2	0.1	–	0.3	0.1	0	0.6		0.9							0.1	0.7	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.2	0	–	2.0	0.3	0.8	0.4	0.9		0.2	0	0			1.5	3.4	2.2	4.2	1.9	0.9	1.3	1.5		
										49	50	51	52											
SS & GS										0.8	0.3	1.1	1.7											

Table 39. Volume of Bolinichthys indicus (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.02	0	0.03	0		0	0	0	0	0	0.07	0	0.04	0				0	0	
Slope	0	0.12			0	0	0	0		0	0	0	0	0	0	0	0	0				0.09	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0.14	0	0.04				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.10	0.43	0.06	0	0	0	0	0	0.36	0.06	0	0.46		0.39							0.02	0	
Velocity	0	0	0	0.35	0	0	0	0	0	0	0	0	0		0							0	0.08	
Region	0.13	0	0	0	0	0.41	0.09	0	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0.22	0.11	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.12	0	0	1.22	0.40	0.29	0	0							0.35	0.97	0	0.85	0	0.14	0	0.76		
Ring	0	0	0.79	0.42	0.44	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	2.33	0.04	0	0	0.62	2.14							0	0.03	0.05	0.04	0	0	0.14	0		
	0	0			0	0	0.25	0							0	0	0.77	0.04	0.43	0.04	0.43	0		
					0	0	0	0							0	0	0.03	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.26	0	0	0.50											
										0	0	0	0											
										0	0	1.63	0											
										0	0	0	0											

Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	–	0.03	0		0.01	0	0.01	0		0	0	0	0	0	0.01	0.03	0.01	0.01				0.02	0	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.03	0.03	0.11	0.09	0.08	0.02	0.06	0.02	–	0.18	0.02	0	0.28		0.08							0.01	0.02	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.03	0	–	0.43	0.17	0.04	0.17	0.54		0.06	0	0			0.07	0.20	0.17	0.19	0.09	0.06	0.10	0.19		
SS & GS										49	50	51	52											
										0.07	0	0.41	0.13											

Table 40. Abundance of Bolinichthys supralateralis (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0	0	0	0		0	0	0	0	0	0.3	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	1.2	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0.5	0.3	0	1.4	0	0.7				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0		0.8							0.4	0	
Velocity	0	0	0.3	0	0	0	0	0	0	0	0	0	0		0							0	1.4	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			1.7							0	0	
					-	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0.8	0	0		
Ring	0	0	0	0	0.2	0	0	0							0.6	0.3	0	1.8	0.3	0.7	0	0		
Core	0	0.6	0	0	0.6	0	0.3	0							0	0	0	0.4	0	0	1.4	0		
	0	0			0	0	0	0							0	0	1.3	0.8	3.5	0.8	1.0	0		
					0	0	0	0							0	0	0	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.3	0	0	0											
										0.4	0	0	0.3											
										0	0.3	0.2	0											
										0	0	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	-	0	0		0	0	0	0		0	0	0	0.1	0.1	0.3	0.3	0	0.2				0	0	0
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0	0	0.1	0	0	0.1	0	0	-	0	0	0	0		0.5							0.1	0.3	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0	0.2	-	0	0.2	0	0.1	0		0	0	0			0.1	0.1	0.3	0.6	0.7	0.5	0.3	0		
SS & GS										49	50	51	52											
										0.2	0.1	0.1	0.1											

Table 41. Abundance of Bonapartia pedaliota (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.5	0	0	0		0	1.3	0	0.2	0	0.7	0	0	0.2				0	0	
Slope	0	0			0	0	0	0		0.2	0	0	0	0	0.4	0	0	0				0	0	
Water	0	0			0.2	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0.3	0	0.3	0	0	0.2	1.1	0.4	0.3	0	0.4		0.8							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0.5							0	0	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.4	0	0	0	0	0	0	0							2.6	0	0.8	0.2	0.6	3.2	1.0	2.4		
Ring	4.7	0.6	0	6.3	1.8	0.7	0	0							10.6	13.1	0.8	3.6	0.6	0.7	0	0		
Core	0	0	0	0	2.1	0.5	0	0							0	0.3	0	0.7	0	1.0	0	0		
	0.6	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										2.1	1.5	1.8	3.2											
										2.2	0.2	0.2	2.2											
										0.2	0	0	0											
										0	0	0.3	0											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0	0		0.1	0	0	0		0	0.3	0	0.1	0	0.2	0	0	0.1				0	0	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0	0.1	0	0	0.2	0	0.1	–	0.2	0.1	0	0.2		0.3							0	0	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	1.4	0.2	–	1.6	1.0	0.3	0	0		0	0.2	0.3			2.6	2.7	0.6	0.5	0.2	1.2	0.4	0.6		
	49	50	51	52																				
SS & GS	1.1	0.4	0.6	1.3																				

Table 42. Volume of Bonapartia pedaliota (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0.02	0	0.03	0	0	0.02				0	0	
Slope	0	0			0	0	0	0		0.11	0	0	0	0	0.36	0	0	0				0	0	
Water	0	0			0.18	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0.03	0	0.03	0	0	0.02	0.66	0.39	0.01	0	0.21		0.04							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0.05							0	0	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.08	0	0	0	0	0	0	0							0.06	0	0.05	0.02	0.04	0.38	0.04	0.08		
Ring	3.53	0.83	0	6.05	1.80	0.53	0	0							0.78	1.03	0.13	0.39	0.10	0.50	0	0		
Core	0	0	0	0	3.03	0.75	0	0							0	0.18	0	0.52	0	0.81	0	0		
	1.12	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										0.10	0.05	0.06	0.14											
Sea										0.67	0.12	0.04	0.69											
&										0.18	0	0	0											
Gulf										0	0	0.07	0											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope	–	0	0		0.05	0	0	0		0.02	0	0	0.01	0	0.08	0	0	0.01				0	0	0
Water																								
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High	0	0	0.01	0	0	0.07	0	0.01	–	0.20	0.01	0	0.13		0.02							0	0	
Velocity																								
Region																								
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring	1.18	0.21	–	1.51	1.24	0.28	0	0		0	0.18	0.05			0.17	0.24	0.03	0.19	0.02	0.32	0.02	0.02		
Core																								
										49	50	51	52											
SS & GS										0.24	0.04	0.04	0.21											

Table 43. Abundance of Ceratoscopelus maderensis (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			1.5	0	31.0	1.8		0	1.5	0.3	26.2	2.6	30.0	1.6	5.7	0				0.2	3.0	
Slope	0	0			0.7	0	2.9	0.4		0.2	0.8	0.9	29.8	6.9	11.6	0	0.3	0				1.7	3.3	
Water	0	0			0.4	0	0	6.8		37.7	10.8	20.3	30.3	182.1	24.4	74.8	2.7	14.4				21.2	13.1	
	0	0			3.2	0	2.2			98.9	0	0.2	0.2	3.7	0.7	76.5	13.6	12.4				0	0	
					0	0	0.4			0.7					0	0	0	1.2						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.5	0	0	0	0	0.3	0	0.5	1.4	3.4	0	21.7		1.1							4.8	0.4	
Velocity	0	0	0	0	0	0	0	0	0	14.0	20.9	0	53.0		0							0.3	7.3	
Region	0	0	0	0	0	0	0.9	0.4	2.5	0	44.6	15.0	0		2.8							12.0	8.2	
	0		0	0	0	0	0	0	0		0.5	27.0			2.2							0	0	
					–	0	0	0				0.5												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	1.0	0.6	0	0							0.6	0.3	0	0	0	0.3	0	1.0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0.3	0	0	0	0.2		
Core	0	0	0	0	0.6	0	0.5	3.6							0	0	0	1.9	0.2	0	0	2.5		
	0	0			2.1	0	0.6	0							1.6	0.3	5.5	0.4	1.1	0	1.0	0.8		
					0	0	0	0							0	0	0.8	1.3	0.7	0	0.4			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0.4	0	0.4	0											
										1.5	0	0	0											
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0	0		1.2	0	2.9	4.4		27.3	3.3	5.4	21.6	48.8	13.3	30.7	4.5	5.6				5.8	4.9	3.3
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0.1	0	0	0	0.2	0.3	0.1	–	4.2	14.8	8.5	23.5		1.8							4.3	4.0	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0	–	0	0.6	0.1	0.2	0.9		2.4	4.0	11.5			0.4	0.1	1.3	0.8	0.4	0.1	0.3	1.1		
SS & GS										49	50	51	52											
										0.5	0	0.1	0											

Table 44. Volume of Ceratoscopelus maderensis (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0.02	0	2.16	0.09		0	0.07	0.03	1.06	0.13	0.83	0.03	0.26	0				0.02	0.20	
Slope	0	0			0.03	0	0.04	0.04		0.02	0.03	0.06	1.33	0.47	0.48	0	0.03	0				0.13	0.19	
Water	0	0			0.04	0	0	0.36		1.83	0.49	0.97	1.54	10.00	1.06	3.45	0.05	0.67				1.34	0.75	
	0	0			0.05	0	0.11			5.00	0	0.02	0.02	0.27	0.03	3.48	0.48	0.52				0	0	
					0	0	0.01			0.07					0	0	0	0.04						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.85	0	0	0	0	0	0	0.03	0.08	0.15	0	0.97		0.05							0.31	0.04	
Velocity	0	0	0	0	0	0	0	0	0	0.77	1.03	0	3.00		0							0.03	0.54	
Region	0	0	0	0	0	0	0.03	0.04	0.05	0	1.95	0.46	0		0.12							0.60	0.36	
	0		0	0	0	0	0	0	0		0.05	1.52			0.11							0	0	
					-	0	0.02	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0.10	0.06	0	0							0.03	0.03	0	0	0	0.02	0	0.08		
Ring	0	0	0	0	0	0	0	0							0	0	0	0.03	0	0	0	0.02		
Core	0	0	0	0	0.03	0	0.03	0.18							0	0	0	0.04	0.02	0	0	0.16		
	0	0			0.04	0	0.06	0							0.05	0.03	0.29	0.04	0.03	0	0.05	0.08		
					0	0	0	0							0	0	0.03	0.05	0.04	0	0.04			
Sargasso										49	50	51	52											
Sea										0	0	0	0											
&										0	0	0	0											
Gulf										0.02	0	0.02	0											
Stream										0.05	0	0	0											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	-	0	0		0.03	0	0.15	0.24		1.38	0.15	0.27	0.99	2.72	0.48	1.40	0.16	0.25				0.37	0.29	0.48
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0.21	0	0	0	0.01	0.01	0.01	-	0.23	0.68	0.40	1.18		0.08							0.24	0.24	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0	-	0	0.02	0.01	0.02	0.05		0.12	0.19	0.59			0.02	0.01	0.06	0.03	0.02	0.01	0.02	0.09		
SS & GS										49	50	51	52											
										0.02	0	0.01	0											

Table 45. Abundance of Ceratoscopelus warmingii (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			2.0	0	5.7	2.3		0	0.4	0	8.8	0	0	0	3.0	0				0	6.7	
Slope	0	0			0	0	0.4	0		0	0	0	0	0	0.4	0	0	0				0	0	
Water	0	0			0	0	0	1.4		0	0	0	0	0	0	0	0	0				1.9	0	
	0	0			0.5	0	0			0	0	0.6	0	0.7	0.3	0.4	0.4	3.8				1.8	0	
					0	0.8	0			0.7					0.2	0.6	0	1.9						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	1.0	0.9	0	0	0	0	0	0.3	0.8	1.0	0	0.6		7.1							4.2	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Region	0.4	0	0	0.6	0	0	0	0	0	0	0	0	0		1.6							0	3.2	
	0.3		0	0.5	0	0	0	0	0		0	0			1.1							0	1.2	
					-	0	0.5	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.4	0	0	0	0	1.8	0	0							4.1	6.2	0	0	0	3.0	0	4.6		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0.6	0.7	0	0	0	0	0							0	0.3	0.5	0	0	0	0.7	0		
	0	1.1			0	0	0	0.4							0.5	2.2	0.6	15.4	10.3	5.0	7.1	0		
					0	0	0	0							0	5.0	6.1	0	7.5	4.1	1.9			
Sargasso Sea & Gulf Stream										49	50	51	52											
										11.5	0	0	10.5											
										0	0	0	0.8											
										0	0	1.5	0.4											
										0	2.8	6.6	4.9											

Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	–	0	0		0.3	0	0.4	1.0		0.1	0.1	0.2	2.2	0.2	0.2	0.2	0.7	1.1				0.9	1.7	0
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.2	0.3	0.2	0.3	0	0.3	0.1	0	-	0.4	0.4	0	0.4		2.3							1.1	1.1	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0.1	0.4	-	0	0	0.3	0	0.1		0	0.7	0.4			0.9	2.7	1.4	3.1	3.6	2.9	1.9	1.2		
SS & GS										49	50	51	52											
										2.9	0.7	2.0	4.2											

Table 46. Volume of Ceratoscopelus warmingii (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			2.93	0	3.83	0.09		0	0.06	0	1.44	0	0	0	0.43	0				0	3.33	
Slope	0	0			0	0	1.00	0		0	0	0	0	0	0.04	0	0	0				0	0	
Water	0	0			0	0	0	0.09		0	0	0	0	0	0	0	0	0				0.06	0	
	0	0			0.05	0	0			0	0	0.08	0	0.10	0.03	0.04	0.04	0.10				0.32	0	
					0	0.52	0			0.07					0.18	0.06	0	0.77						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.50	1.29	0	0	0	0	0	0.92	0.17	1.00	0	0.09		0.97							1.67	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Region	0.04	0	0	0.06	0	0	0	0	0	0	0	0	0		0.08							0	0.14	
	0.03		0	0.05	0	0	0	0	0		0	0			0.11							0	0.08	
					-	0	0.05	0				0.05												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.28	0	0	0	0	4.12	0	0							0.68	1.25	0	1.83	0	0.53	0	2.20		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0.06	0.07	0	0	0	0	0							0	0.33	0.05	0	0	0	0.07	0		
	0	0.14			0	0	0	0.35							0.05	0.06	0.16	0.77	0.38	0.23	0.29	0		
					0	0	0	0							0	0.21	0.39	0	0.39	0.25	0.19			
Sargasso Sea & Gulf Stream										49	50	51	52											
										4.68	0	0	1.00											
										0	0	0	0.19											
										0	0	0.06	0.04											
										0	0.19	0.31	0.21											
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	-	0	0		0.31	0	0.37	0.06		0.01	0.02	0.02	0.36	0.03	0.05	0.02	0.09	0.17				0.10	0.83	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.02	0.13	0.32	0.03	0	0.48	0.01	0	-	0.09	0.38	0.01	0.05		0.25							0.42	0.06	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.07	0.05	-	0	0	0.62	0	0.09		0	0.12	0.15			0.15	0.37	0.12	0.52	0.15	0.29	0.10	0.55		
SS & GS										49	50	51	52											
										1.17	0.05	0.09	0.36											

Table 47. Abundance of Chauliodus danae (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0	0	0.3	0	0	0				0	0	
Slope	0.6	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.5	0	0	0	0	0	0	0	0	0	0	0		1.1							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0.7	1.1	
Region	0.4	0.2	0	0	0	0	0.6	0	0.5	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0.6	0.3	0							0	0.3	0	0.5	0	0.3	0	1.6		
Ring	0	0	0	1.6	0.2	0	0	0							0	0	0	0	0	0	0.6	0		
Core	1.8	0	0	0.2	7.6	2.0	3.5	4.6							0	0	0	0.7	0.6	0	0.7	1.9		
	0	0			9.6	0.5	0.6	0							0.5	1.3	0.7	0.8	1.4	1.9	0.5	0		
					0.6	0	0	0							0	0	0	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.5	0	0	0											
										0	0	0	0											
										0.9	2.4	2.4	0.9											
										0.5	0.3	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	–	0	0		0	0	0	0		0	0	0	0	0	0.1	0	0	0				0	0	0
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.1	0.3	0	0	0	0.6	0.1	0	–	0	0	0	0		0.2							0.2	0.3	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0.5	0	–	0.5	3.6	0.6	0.9	1.2		0.1	0.2	0			0.1	0.3	0.1	0.4	0.4	0.5	0.2	0.9		
SS & GS										49	50	51	52											
										0.5	0.7	0.6	0.2											

Table 48. Volume of Chauliodus danae (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0	0	0.03	0	0	0				0	0	
Slope	1.06	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0.71	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.75	0	0	0	0	0	0	0	0	0	0	0		0.05							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0.03	0.95	
Region	0.42	0.02	0	0	0	0	0	0.04	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0	0.87		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0.06	0.03	0							0	0.03	0	0.02	0	0.02	0	0.16		
Ring	0	0	0	2.11	0.10	0	0	0							0	0	0	0	0	0	0.06	0		
Core	1.82	0	0	1.08	2.73	2.25	0.19	3.57							0	0	0	0.07	0.02	0	0.07	0.47		
	0	0			2.92	0.05	0.06	0							0.11	0.16	0.10	1.15	0.05	1.92	0.05	0		
					0.06	0	0	0							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										0.02	0	0	0											
Sea										0	0	0	0											
&										0.04	0.52	1.08	0.22											
Gulf										0	0.47	0	0											
Stream																								
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope	–	0	0		0	0	0	0		0	0	0.18	0	0	0.01	0	0	0				0	0	0
Water																								
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High	0.11	0.20	0	0	0	0.83	0.01	0	–	0	0	0	0		0.01							0.01	0.24	
Velocity																								
Region																								
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring	0.46	0	–	0.80	1.18	0.47	0.06	0.89		0.03	0.01	0			0.02	0.04	0.02	0.39	0.01	0.39	0.02	0.16		
Core																								
										49	50	51	52											
SS & GS										0.02	0.25	0.27	0.06											

Table 49. Abundance of Chauliodus sloani (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0	0	0.3	0.9		0	0.2	0	0.2	0	0	0	1.3	0				0	1.0	
Slope	0.6	1.8			0	1.1	0	0		0.2	0.3	0	0	2.2	0.8	0	0	0.7				1.7	1.1	
Water	0	0			0	1.3	0	0.9		52.0	0.4	0.3	0.8	5.5	0	1.4	1.8	3.3				0.9	1.3	
	0	0			0.5	0.5	0			1.1	0	0.2	0	0	0	0.4	0.4	0				0	0	
					0	0	0.3			0					0	0.3	0.2	0.4						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0.3	0	0	0	0.5		0							0.8	0	
Velocity	1.2	0.6	0.7	1.2	0	0	0	0	0.8	0.3	2.9	0	0.3		0							0.7	3.2	
Region	0	0.7	0.6	0	1.9	1.4	5.9	1.1	2.5	0	0.7	1.7	0		2.8							1.3	1.1	
	0		0	0	1.7	0.4	0	0.3	0		0	0			0							0	0	
					-	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.4	0	0	0	1.0	4.1	5.9	0.4							0.6	0	0	0.5	0	0.2	0	0.6		
Ring	0	0	0.7	0	0.8	0.7	0	3.1							0	0	0	0	0	0	0	1.6		
Core	0	0	0	0.2	62.4	20.0	17.8	52.9							1.6	1.3	3.3	0	1.4	1.4	2.1	7.8		
	0	0.4			8.3	8.6	3.1	0							2.6	2.5	2.9	2.3	2.4	1.5	5.7	0		
					0	0	0	0							0	0	0	0.5	0.7	0	0.4			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.8	0	0	0.7											
										0.2	0.2	0	0.8											
										2.0	1.4	3.3	3.9											
										1.5	1.3	0	0.3											

Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	-	0.4	0.3		0.1	0.7	0.1	0.6		10.7	0.2	0.1	0.2	1.9	0.2	0.4	0.7	0.8				0.7	0.8	0.6
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.3	0.5	0.3	0.3	0.4	1.0	1.2	0.3	-	0.1	0.8	0.3	0.3		1.1							0.7	1.1	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0.1	0.1	-	0.1	14.5	6.5	6.4	13.9		0.2	0.5	0.9			1.0	0.8	1.3	0.7	0.9	0.7	1.4	2.5		
SS & GS										49	50	51	52											
										1.1	0.7	0.8	1.4											

Table 50. Volume of Chauliodus sloani (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0	0	0.03	1.36		0	0.02	0	0.02	0	0	0	0.96	0				0	1.07	
Slope	4.12	1.18			0	0.53	0	0		0.02	1.50	0	0	0.72	1.00	0	0	0.07				2.39	0.07	
Water	0	0			0	8.26	0	0.05		6.67	2.16	4.71	4.62	12.12	0	0.41	8.18	2.04				3.37	17.19	
	0	0			0.16	10.00	0			18.33	0	3.98	0	0	0	2.17	9.60	0				0	0	
					0	0	3.09			0					0	3.53	4.81	10.00						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0.53	0	0	0	1.11		0							0.42	0	
Velocity	0.19	0.11	0.17	0.24	0	0	0	0	0.04	13.43	0.15	0	11.00		0							0.03	0.27	
Region	0	9.27	17.65	0	0.14	3.18	0.28	0.29	0	0	18.29	1.33	0		24.00							4.67	0.14	
	0		0	0	34.48	17.50	0	0.03	0		0	0			0							0	0	
					-	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.04	0	0	0	0.10	0	0	0.02							0.74	0	0	0.02	0	0.02	0	0.10		
Ring	0	0	0.07	0	0.02	0.07	0	0.15							0	0	0	0	0	0	0	0.08		
Core	0	0	0	3.28	3.06	1.05	1.57	2.86							0.05	0.05	0.10	0	0.06	0.05	0.29	0.84		
	0	10.71			0.38	0.36	0.06	0							1.32	0.28	0.29	0.31	0.19	0.19	0.76	0		
					0	0	0	0							0	0	0	13.42	0.07	0	0.19			
										49	50	51	52											
Sargasso										0.16	0	0	5.00											
Sea										0.09	0.02	0	0.03											
&										0.38	0.69	0.13	0.22											
Gulf										13.33	17.19	0	0.38											
Stream																								
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope	-	0.30	0.04		0.04	4.70	1.55	0.14		6.26	0.92	2.17	1.16	3.21	0.25	1.22	4.71	2.42				1.44	4.58	7.46
Water																								
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High	0.05	4.66	4.46	0.06	5.01	0.03	0.06	0.06	-	3.36	3.69	0.27	2.87		9.60							1.28	0.10	
Velocity																								
Region																								
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring	0.01	2.68	-	1.64	0.70	0.30	0.33	0.75		0.01	1.89	0.82			0.42	0.07	0.08	2.75	0.06	0.06	0.25	0.26		
Core																								
										49	50	51	52											
SS & GS										3.49	4.48	0.03	1.41											

Table 51. Abundance of Cyclothone acclinidens (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	1.3	0	0.2		0	0	0	0.5	1.5	0	0	0	0				0.6	0.6	
	1.4	0			0	0.5	0			2.2	0.5	0.7	0.2	1.3	0	0.4	0.8	0.5				0	1.3	
					0	0.4	0.5			0					0	0.3	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0.3	0	0	0	0	0	0	0	0		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0.6	0	0	0.7		0							0	0	
Region	0	1.5	0	1.2	0	0	0	0	0	1.1	0.2	0	0.4		0.4							0	1.8	
	0.7		0	0.5	0	0.8	0.8	0	0		0	0			1.1							0.6	1.2	
					–	0.4	0.5	1.7				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0.6	0.3	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0.7	0	0	0	0	0							0	0	0	0	0	0	0	0		
	0.6	0.4			0.8	0.9	2.5	0.8							0	0	0	0.4	0	0	0	1.7		
					0.6	1.2	1.7	0							0.3	0.5	0	0.8	1.1	2.5	1.2			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											
										0	0	0.3	0.8											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	0.4	0	0.4		0	0.5	0.3	0.1		0.4	0.1	0.2	0.2	0.7	0	0.1	0.2	0.1				0.2	0.5	0
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.2	0.8	0	0.4	0.3	0.1	0.3	0.3	0	0.4	0	0	0.2		0.6							0.2	0.8	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0.2	0.1	–	0	0.3	0.5	1.0	0.2		0.1	0	0			0.1	0.1	0	0.2	0.2	0.5	0.2	0.4		
SS & GS										49	50	51	52											
										0	0	0.1	0.2											

Table 52. Abundance of Cyclothone alba (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0.2	0	0	0	0	0				0	0	
Slope	8.8	12.9			1.0	8.4	0	0		3.8	15.7	7.4	5.3	10.6	0	0	1.4	2.9				6.1	8.1	
Water	0.5	0			3.6	0	1.3	1.6		10.3	1.2	1.2	0	0.6	5.3	2.8	4.5	6.3				0.9	0.3	
	0	0			0	0	10.0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	1.1			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0.3	4.9	0	0	2.0		0							0.2	0.7	
Velocity	4.2	7.8	8.3	6.5	0	0	0	0	6.4	0.6	7.6	0	0		0							8.9	12.7	
Region	4.6	0.7	0	0.6	10.5	5.9	12.5	10.0	8.0	0	0	7.1	0		6.8							0.7	0	
	0		0	0	0	0.4	0.5	0	0		0	0			0							0	0	
					–	0	0.2	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0.5	0	0	0.6	0	0							0	0	0	0	0.2	0	0	0		
Ring	4.1	1.7	5.7	0.5	0	0	0	3.5							0	0	0	0	0	0	0	1.0		
Core	5.5	1.9	0.7	1.2	2.1	3.0	4.9	3.6							0	4.0	3.3	4.1	5.5	2.9	3.6	9.4		
	0	0			1.7	5.0	1.9	0							15.3	7.5	5.8	5.0	8.1	4.6	5.2	2.5		
					0	0	0	0							5.0	3.4	0.8	0	1.1	0.3	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.2	0	0	0											
										0.2	0	0.9	0.8											
										0.9	2.8	5.7	2.2											
										2.8	3.4	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	2.3	3.2	0.9		1.1	2.1	1.8	1.0		2.8	4.2	2.1	1.4	2.8	1.1	0.6	1.2	1.6				1.8	2.1	1.8
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	2.2	2.3	2.1	1.8	1.3	0.9	2.6	2.0	2.6	2.6	1.7	1.4	1.2		2.7							2.5	3.4	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	2.4	0.9	–	0.7	0.8	1.7	1.4	1.5		1.2	1.4	1.5			4.1	3.0	2.0	1.8	3.0	1.6	1.4	3.2		
SS & GS										49	50	51	52											
										1.0	1.6	1.7	0.8											

Table 53. Volume of Cyclothone alba (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0.02	0	0	0	0	0				0	0	
Slope	0.53	0.88			0.03	0.53	0	0		0.15	0.88	0.49	0.33	0.63	0	0	0.03	0.07				0.43	0.52	
Water	0.05	0			0.27	0	0.04	0.18		0.50	0.12	0.10	0	0.06	0.18	0.17	0.18	0.26				0.06	0.03	
	0	0			0	0	0.67			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0.06			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0.04	0.26	0	0	0.11		0							0.02	0.07	
Velocity	0.31	0.33	0.40	0.59	0	0	0	0	0.36	0.06	0.47	0	0		0							1.14	0.65	
Region	0.33	0.02	0	0.06	0.57	0.45	0.63	0.54	0.50	0	0	0.42	0		1.16							0.07	0	
	0		0	0	0.07	0.04	0.05	0	0		0	0			0							0	0	
					–	0	0.02	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0.05	0	0	0.06	0	0							0	0	0	0	0.02	0	0	0		
Ring	0.18	0.06	0.14	0.05	0	0	0	0.19							0	0	0	0	0	0	0	0.06		
Core	0.27	0.13	0.13	0.06	0.09	0.20	0.35	0.25							0	0.10	0.05	0.07	0.06	0.10	0.07	0.50		
	0.12	0			0.03	0.36	0.13	0							0.47	0.25	0.29	0.19	0.24	0.19	0.19	0.25		
					0	0	0	0							0.25	0.18	0.08	0	0.04	0.03	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.02	0	0	0											
										0	0	0.02	0.03											
										0.02	0.03	0.24	0.09											
										0.13	0.16	0	0											

Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	–	0.22	0.03		0.07	0.13	0.11	0.11		0.13	0.25	0.15	0.09	0.17	0.04	0.03	0.04	0.06				0.12	0.14	0.13
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.16	0.09	0.10	0.14	0.10	0.03	0.14	0.11	0.17	0.15	0.10	0.08	0.07		0.45							0.31	0.18	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0.14	0	–	0.03	0.02	0.12	0.10	0		0.05	0.07	0.07			0.14	0.11	0.08	0.05	0.07	0.06	0.05	0.20		
SS & GS										49	50	51	52											
										0.03	0.05	0.07	0.03											

Table 54. Abundance of Cyclothone braueri (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct	
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5
	-	0			0	0.5	0	0.5		3.0	0	0.5	0	0.3	0.3	0	0	0.4				0	0
Slope	74.7	47.1			0	8.9	1.7	0		7.0	20.5	13.4	4.2	33.1	0	0	0.3	9.3				42.2	50.4
Water	0	0.7			3.9	0.9	4.3	54.8		377.0	17.1	6.2	0	15.2	26.5	29.0	27.3	49.6				14.1	8.8
	0	0.7			4.2	0	56.1			0	0.2	0	0	0	0.7	0	0	0				0	0
					0	0	6.9			1.4					0.2	0	0.2	0.4					
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3
High	1.4	4.5	1.7	1.1	0.3	0	2.3	0.7	4.5	2.5	0	0	18.5		0							0	2.5
Velocity	183.1	163.9	127.3	135.9	0	0.3	1.6	0	197.2	15.7	50.6	0	2.3		0							17.0	364.6
Region	60.8	9.3	21.8	7.6	45.7	65.0	492.2	29.3	251.5	0.2	3.9	35.4	0.4		54.8							7.3	18.6
	1.4		0	1.4	3.4	0.8	2.4	28.6	4.3		0	3.9			0							0	0
					-	0.2	3.0	1.0				0.5											
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1	
	1.2	0.6	2.0	0.6	3.0	0	3.2	1.7							0.6	1.9	0.8	0.2	1.9	1.1	2.1	1.2	
Ring	334.1	195.0	478.6	93.7	0.8	5.3	105.0	270.0							1.7	2.8	0.8	1.5	0.9	2.2	106.3	170.0	
Core	129.1	127.5	12.0	50.6	268.5	174.0	388.6	299.3							376.3	386.5	385.2	415.2	392.9	375.7	539.3	148.4	
	1.8	1.4			8.8	4.5	5.6	0							362.6	214.1	104.5	44.6	311.1	110.8	153.3	3.3	
					3.3	0	1.7	0.5							7.5	12.9	3.7	0.5	2.1	1.6	1.9		
Sargasso Sea & Gulf Stream										49	50	51	52										
										1.1	0.8	2.1	0.9										
										20.4	17.8	304.3	99.7										
										313.1	219.0	167.6	86.5										
										26.9	16.2	1.7	1.0										

Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	18.7	12.1	2.9		2.0	2.6	10.2	32.8		77.7	9.5	5.0	1.1	12.2	5.5	5.8	5.6	11.1				14.1	14.8	13.3
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	61.7	46.8	37.7	37.2	13.3	39.8	100.3	12.0	79.2	5.2	11.8	8.2	11.6		21.9							6.1	96.4	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	116.6	81.1	-	48.9	56.6	37.0	82.3	125.0		6.2	9.9	12.6			149.7	123.6	99.0	92.4	141.9	98.1	96.4	80.7		
SS & GS										49	50	51	52										
										90.4	63.5	118.9	47.0										

Table 55. Volume of Cyclothone braueri (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0.05	0	0.05		0.20	0	0.03	0	0.03	0.03	0	0	0.02				0	0	
Slope	4.88	2.94			0	0.53	0.04	0		0.13	0.88	0.71	0.13	1.41	0	0	0.03	0.21				3.04	2.96	
Water	0	0.07			0.27	0.04	0.13	3.18		16.67	1.27	0.59	0	1.36	1.03	1.72	1.23	2.22				1.19	0.88	
	0	0.07			0.42	0	3.06			0	0.02	0	0	0	0.07	0	0	0				0	0	
					0	0	0.56			0.14					0.02	0	0.02	0.04						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0.09	0.30	0.06	0.06	0.03	0	0.13	0.04	0.24	0.09	0	0	1.11		0							0	0.18	
Velocity	10.00	8.56	6.67	8.23	0	0.03	0.04	0	9.60	0.77	2.65	0	0.20		0							0.78	18.92	
Region	4.79	0.85	1.76	0.71	2.86	4.09	25.00	1.61	13.00	0.02	2.20	2.29	0.04		2.40							0.60	1.25	
	0.07		0	0.05	0.45	0.08	0.16	2.00	0.87		0	0.26			0							0	0	
					–	0.02	0.23	0.07				0.05												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.04	0.03	0.10	0.06	0.10	0	0.18	0.09							0.03	0.09	0.03	0.02	0.08	0.02	0.04	0.04		
Ring	14.12	6.11	22.14	3.68	0.05	0.27	6.00	13.85							0.06	0.09	0.04	0.06	0.03	0.13	3.13	6.60		
Core	7.27	15.00	0.80	2.99	15.76	11.00	24.32	19.64							7.63	8.00	7.62	10.37	11.63	11.43	14.29	10.00		
	0.12	0.07			0.83	0.41	0.56	0							13.16	9.38	6.13	3.08	16.76	6.15	8.10	0.17		
					0.17	0	0.11	0.03							0.34	0.79	0.26	0.05	0.11	0.09	0.12			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.03	0.05	0.06	0.05											
										0.47	0.41	5.87	3.61											
										12.00	7.93	7.61	4.56											
										1.67	0.94	0.07	0.03											
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	1.22	0.77	0.15		0.17	0.16	0.62	1.91		3.43	0.54	0.33	0.03	0.70	0.23	0.34	0.26	0.48				1.06	0.96	0.90
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	3.74	2.57	2.12	2.26	0.85	2.00	5.12	0.76	4.22	0.24	1.02	0.52	0.71		0.96							0.35	5.09	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	5.39	5.30	–	2.43	3.37	2.35	5.17	7.47		0.31	0.49	0.53			4.24	3.67	2.82	2.72	5.73	3.55	3.40	4.22		
										49	50	51	52											
SS & GS										3.54	2.33	3.40	2.06											

Table 56. Abundance of Cyclothone microdon (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	2.7			0.5	4.2	1.3	0.9		0	0	1.7	0.6	2.9	1.3	1.6	3.0	1.5				0.7	2.3	
Slope	105.9	190.0			1.4	44.7	0	1.1		0.4	1.7	2.9	21.6	31.9	1.6	0.9	0	5.7				85.9	18.5	
Water	209.5	313.6			0.9	232.2	0.4	106.4		143.0	122.7	158.8	129.2	310.9	35.0	72.1	162.3	213.0				204.7	194.7	
	34.5	70.0			193.2	63.6	99.4			111.7	63.9	98.8	32.7	199.7	138.3	163.5	112.0	136.7				74.1	98.5	
					49.5	23.6	98.0			60.7					45.0	47.1	74.0	92.7						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	1.1	1.0	1.1	3.3	2.3	3.9	1.0	0.7	0	5.8	0.1	0	15.7		0							0.2	0.4	
Velocity	8.5	5.0	33.3	115.3	0	0	0	1.5	0.4	115.1	83.2	0.4	115.7		0.5							17.6	10.3	
Region	164.6	148.8	251.2	282.4	52.4	94.1	32.5	180.7	146.5	41.9	227.8	94.6	53.5		44.8							184.0	161.4	
	73.4		52.9	51.4	256.9	194.2	120.5	126.6	43.6		70.0	84.8			127.8							96.9	121.2	
					-	37.0	87.4	35.5				60.0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	2.0	0.6	1.5	0	2.0	2.9	0.9	1.5							0.9	0.3	1.0	0.7	0.4	0.3	0.6	0.8		
Ring	0.6	1.7	30.0	2.1	0	0.7	0	0							0.6	0.9	0.4	0.9	0	0	0.6	0		
Core	82.7	51.2	81.3	91.3	4.8	0.5	2.7	83.6							1.1	1.3	0.5	0.4	0.2	1.4	0	2.2		
	151.8	152.5			85.8	88.2	140.6	110.8							30.0	34.4	12.9	39.6	13.2	8.1	10.5	98.3		
					141.1	74.7	77.2	35.4							131.3	130.0	85.5	60.0	29.3	48.1	5.0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	1.5	0.2											
										0	0	0.7	0.3											
										0.2	0	58.0	43.5											
										32.3	20.0	115.9	139.7											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	87.5	144.1	50.8		61.2	86.2	59.1	64.3		63.2	47.1	65.6	46.0	136.4	44.2	57.1	70.3	89.5				91.4	78.5	99.3
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	61.9	75.9	84.6	113.7	77.2	29.1	48.4	68.9	45.3	42.2	77.7	48.0	43.3		43.6							74.7	73.3	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	59.3	51.5	-	46.2	46.5	33.3	44.4	49.1		31.5	35.6	40.2			32.8	33.4	20.1	20.3	8.7	11.6	3.4	25.3		
SS & GS										49	50	51	52											
										8.1	5.0	44.0	45.9											

Table 57. Volume of Cyclothone microdon (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0.13			0.02	0.53	0.13	0.05		0	0	0.10	0.04	0.18	0.07	0.13	0.09	0.04				0.05	0.27	
Slope	4.00	7.06			0.07	1.58	0	0.04		0.02	0.13	0.09	0.33	0.94	0.08	0.05	0	0.29				3.07	0.93	
Water	25.91	32.86			0.09	16.52	0.04	7.95		4.00	6.27	9.41	5.64	15.15	2.21	3.79	3.18	4.44				9.41	20.31	
	9.18	22.67			10.53	10.00	2.78			8.33	7.50	10.82	4.22	20.67	17.24	12.61	5.00	5.24				9.71	20.77	
					7.37	6.00	9.63			7.50					7.73	7.94	5.96	9.62						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0.06	0.10	0.03	0.22	0.16	0.28	0.08	0.07	0	0.19	0.01	0	0.42		0							0.02	0.04	
Velocity	0.23	0.11	1.13	4.82	0	0	0	0.05	0.04	5.43	2.65	0.04	7.33		0.05							0.62	0.22	
Region	10.00	9.27	17.65	22.35	1.43	3.32	1.09	7.86	9.00	5.11	12.68	4.17	7.31		1.00							13.33	7.86	
	10.34		8.21	7.62	21.38	18.33	11.62	12.86	8.26		8.10	7.17			6.67							9.38	14.62	
					–	7.37	10.93	6.21				8.10												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.16	0.06	0.05	0	0.10	0.29	0.03	0.32							0.03	0.03	0.03	0.02	0.04	0.02	0.02	0.08		
Ring	0.12	0.11	1.07	0.11	0	0.07	0	0							0.06	0.03	0	0.03	0	0	0.06	0		
Core	3.18	3.13	4.00	8.36	0.12	0.05	0.08	3.04							0.05	0.03	0.05	0.04	0.02	0.05	0	0.13		
	18.23	16.43			4.17	3.41	8.13	12.31							0.37	0.38	0.16	0.46	0.16	0.12	0.14	5.67		
					17.78	11.18	10.56	6.92							2.50	3.68	2.11	2.63	0.43	1.47	0.19			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0.06	0.02											
										0	0	0.02	0.03											
										0.02	0	1.00	0.78											
										0.38	0.63	3.45	4.10											
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	9.77	15.68	3.69		4.51	7.16	5.11	4.79		3.97	3.48	5.11	2.56	9.24	5.47	4.91	2.85	3.90				5.56	10.57	10.40
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	5.16	4.69	6.76	8.75	7.13	2.28	4.74	5.45	4.31	2.73	4.73	3.90	3.27		1.74							5.84	5.69	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	5.42	4.93	–	4.21	4.42	2.99	3.77	3.94		2.62	2.42	2.00			0.60	0.83	0.47	0.64	0.13	0.34	0.08	1.47		
SS & GS										49	50	51	52											
										0.10	0.16	1.13	1.23											

Table 58. Abundance of Cyclothone pallida (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0	0	0	0	0.9	0.2				0	0.3	
Slope	0	1.2			0	0.5	0	0.4		0	0	0	0	0	0	0	0	0				0.2	0	
Water	10.5	7.9			0	7.4	0	6.4		7.0	2.5	3.5	6.9	19.7	0	0.3	12.7	7.4				1.6	4.7	
	3.6	0			7.9	1.4	0.6			11.7	7.0	5.5	0.4	9.0	3.4	5.7	8.4	7.6				2.6	4.6	
					2.1	0	4.4			0					3.6	2.9	1.5	1.9						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0.2		0							0.2	0	
Velocity	0.8	0.6	3.0	1.8	0	0	0	0	0	7.4	3.8	0	8.3		0							0	0	
Region	9.6	9.5	4.7	6.5	0.5	2.3	2.8	0.7	7.0	6.6	8.3	3.7	1.9		2.4							2.7	4.6	
	5.5		10.0	9.5	6.2	4.6	4.9	4.9	5.4		4.3	9.6			3.3							5.6	5.4	
					–	3.9	3.0	7.2				2.4												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	2.0	0	0.3	0							0	0	0.5	0	0.2	0	0	0.2		
Ring	0	0	15.7	1.1	0	0	0	0							0	0	0	0	0	0	0	0		
Core	10.0	15.0	42.0	10.0	4.5	2.5	1.4	12.5							1.1	0	1.0	1.1	0.8	0.5	0	8.1		
	8.2	9.6			30.0	21.8	19.4	5.8							17.9	23.7	21.0	31.5	21.9	18.1	18.6	8.3		
					3.3	5.3	0.6	0.5							3.1	7.1	22.1	14.7	18.6	13.1	16.9			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0.3	0											
										0	0	0	0											
										0.2	0.3	5.9	11.3											
										15.6	19.1	3.8	5.6											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	3.5	2.3	4.9		2.5	2.3	2.3	4.0		3.7	2.4	2.3	1.8	7.2	1.4	1.8	4.7	3.4				1.1	2.4	2.5
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	4.0	4.9	4.4	4.5	2.6	2.8	2.1	2.6	3.1	3.5	3.4	3.1	2.2		1.6							2.1	2.5	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	4.6	6.2	–	5.3	7.7	5.9	4.4	4.6		1.8	1.4	0.9			4.4	6.2	9.0	9.5	8.3	6.3	7.1	4.2		
										49	50	51	52											
SS & GS										4.0	4.9	2.5	4.2											

Table 59. Volume of Cyclothone pallida (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0	0	0	0	0.04	0.02				0	0.03	
Slope	0	0.06			0	0.05	0	0		0	0	0	0	0	0	0	0	0				0.02	0	
Water	0.68	0.43			0	1.09	0	0.80		0.50	0.18	0.18	0.36	3.79	0	0.03	0.23	0.37				0.13	1.13	
	0.73	0			0.47	0.32	0.06			2.22	1.70	1.25	0.06	2.00	0.38	1.09	0.48	0.71				0.59	1.03	
					0.53	0	0.56			0					0.80	0.59	0.37	0.46						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0.01		0							0.02	0	
Velocity	0.04	0.06	0.03	0.06	0	0	0	0	0	1.00	0.09	0	1.00		0							0	0	
Region	0.50	0.78	0.24	0.29	0.05	0.09	0.06	0.04	0.20	1.70	1.22	0.08	0.42		0.08							0.13	0.50	
	1.10		2.00	1.05	0.69	0.75	1.22	0.49	1.09		0.71	0.78			0							0.63	1.38	
					–	0.96	0.58	1.72				0.71												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0.10	0	0.03	0							0	0	0.03	0	0.02	0	0	0.02		
Ring	0	0	0.71	0.05	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0.36	0.75	7.33	1.57	0.12	0.10	0.05	1.07							0.05	0	0.05	0.04	0.02	0.05	0	0.41		
	2.35	2.68			3.03	2.50	4.38	1.04							0.32	0.34	0.71	1.92	1.35	0.77	0.67	1.67		
					0.83	0	0.06	0.51							0.25	0.39	2.50	3.16	4.29	3.75	5.00			
										49	50	51	52											
Sargasso										0	0	0.03	0											
Sea										0	0	0	0											
&										0.02	0	0.41	0.52											
Gulf										0.51	0.78	1.38	2.05											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope	–	0.12	0.63		0.25	0.37	0.29	0.48		0.54	0.47	0.36	0.11	1.45	0.24	0.34	0.22	0.31				0.19	0.55	0.56
Water																								
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High	0.41	0.21	0.57	0.35	0.45	0.17	0.37	0.45	0.34	0.68	0.41	0.31	0.29		0.03							0.20	0.47	
Velocity																								
Region																								
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring	0.68	0.86	–	0.41	0.80	0.52	0.91	0.53		0.19	0.16	0.06			0.12	0.15	0.66	1.02	1.14	0.91	1.13	0.53		
Core																								
										49	50	51	52											
SS & GS										0.13	0.20	0.46	0.64											

Table 60. Abundance of Cyclothone pseudopallida (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		1.0	0	0	0	0.3	0	0	0	0				0	0.3	
Slope	14.7	17.6			0	4.2	0	0		0	1.5	2.0	1.6	4.1	0	0	0	0				11.1	0.7	
Water	1.8	7.9			0.4	2.6	0	3.0		18.0	6.5	3.2	3.8	20.3	1.2	2.8	15.9	9.3				9.7	1.3	
	0	0			4.2	0	6.7			0	0.2	0.2	0.2	0.3	0.7	0	0.4	0.5				0	0	
					0.5	0	0.5			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0.6	0	0	0	0	0.3	1.2	0	0	1.3		0							0	0	
Velocity	3.5	1.1	3.0	12.9	0	0	0	0	0	2.3	8.2	0	0.7		0							0	8.4	
Region	11.7	3.7	5.9	2.4	11.9	16.8	9.4	13.9	10.0	0	0.5	7.5	0		2.0							1.3	5.4	
	0		0	0	4.5	0.4	2.4	0.6	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0.2	0	0	0	0		
Ring	0	0	10.7	0	0	0	0	0.8							0	0	0	0	0.3	0	0	0		
Core	9.1	8.8	12.7	3.4	1.8	3.5	5.1	16.4							0	0	0.5	0.4	0.4	0	1.4	5.0		
	0	0			4.6	5.0	5.6	0							4.2	9.7	5.8	13.1	14.1	8.5	8.6	2.5		
					0.6	0	0.6	0							10.0	7.4	6.3	0	5.0	4.4	1.5			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0.2	0.3	5.9	7.0											
										8.2	12.8	0	0.5											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	4.1	6.4	1.2		1.3	1.7	0.9	1.8		3.8	2.1	0.9	1.4	6.3	0.4	0.6	3.3	2.0				5.2	0.6	2.2
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	3.8	2.1	2.2	4.0	3.5	1.9	2.4	2.9	2.4	1.2	1.9	1.5	0.9		0.8							0.3	3.5	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	2.3	2.2	–	1.7	1.4	1.7	2.3	4.3		0.9	1.0	2.6			2.8	3.4	2.5	2.7	3.9	2.6	2.2	1.9		
SS & GS										49	50	51	52											
										2.1	3.3	1.5	1.9											

Table 61. Volume of Cyclothone pseudopallida (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0.10	0	0	0	0.03	0	0	0	0				0	0.03	
Slope	1.06	1.06			0	0.26	0	0		0	0.06	0.09	0.07	0.16	0	0	0	0				0.80	0.07	
Water	0.23	1.14			0.04	0.30	0	0.34		1.33	0.78	0.29	0.46	3.03	0.15	0.31	0.59	0.56				1.22	0.13	
	0	0			0.58	0	0.33			0	0.04	0.04	0.04	0.03	0.14	0	0.04	0.14				0	0	
					0.05	0	0.05			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0.11	0	0	0	0	0.04	0.05	0	0	0.09		0							0	0	
Velocity	0.15	0.06	0.17	0.94	0	0	0	0	0	0.20	0.74	0	0.23		0							0	0.57	
Region	1.54	0.61	0.88	0.41	0.67	1.14	0.94	0.79	0.70	0	0.07	0.83	0		0.16							0.13	0.57	
	0		0	0	0.69	0.08	0.49	0.09	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0.02	0	0	0	0		
Ring	0	0	0.43	0	0	0	0	0.04							0	0	0.04	0	0.03	0	0	0		
Core	1.18	0.44	1.33	0.22	0.15	0.20	0.41	1.61							0	0	0.05	0.04	0.02	0	0	0.47		
	0	0.07			0.55	0.64	0.75	0							0.21	0.25	0.19	0.65	0.43	0.27	0.48	0.25		
					0.11	0	0.06	0							0.78	0.53	0.66	0	0.36	0.41	0.12			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0.02	0.03	0.43	0.70											
										0.38	0.63	0	0.03											

Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	–	0.58	0.17		0.17	0.14	0.06	0.20		0.29	0.22	0.11	0.14	0.81	0.06	0.06	0.13	0.14				0.51	0.06	0.27
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.42	0.17	0.26	0.37	0.25	0.14	0.29	0.18	0.18	0.08	0.18	0.17	0.10		0.06							0.03	0.29	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0.30	0.13	–	0.06	0.16	0.17	0.24	0.41		0.07	0.07	0.16			0.20	0.16	0.18	0.14	0.17	0.14	0.12	0.18		
SS & GS										49	50	51	52											
										0.10	0.17	0.11	0.18											

Table 62. Abundance of Derichthys serpentinus (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	1.5	0	0.2	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0.3	0	0	0.3	0.4	0	0	0				0	0.4	
Water	0	0.7			0	0	0	0.5		0	0	0.3	0	0	0.6	0	0	0				0	0	
	0	0.7			0	0	0			0.6	0	0.2	0	0	0	0.4	0	0.5				0.3	0	
					0	0	0.1			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0.5	0	0	0	0.1		0							0	0	
Velocity	0	0.6	0.3	0	0	0	0	0	0.4	0.3	0.3	0	0		0							0	0	
Region	0	0	0.6	0	0	0	0	0	0	0	0	0	0		0							0	0	
	1.0		0	0	0.7	0	0.3	0	0		0	0			0							0	0	
					–	0	0.9	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0.2	0	0		
Ring	0	0	0	0	0.2	0	0	0							0	0	0	0	0	0	0	0.2		
Core	0	0	0	0	0	1.5	0	0							0	0	0	0	0	0	0	0		
	0	0.4			0	0	0.6	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0	0	0.2	0.4											
										0	0	0	0											

Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	–	0.4	0.1		0	0	0.1	0.3		0.1	0.4	0.1	0.1	0.1	0.2	0.1	0	0.1				0.1	0.1	0.1
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.3	0.1	0.2	0	0	0.1	0.3	0	–	0.1	0.1	0	0.1		0							0	0	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0	0.1	–	0	0.1	0.3	0.1	0		0.1	0	0.1			0	0	0	0	0	0.1	0	0.1		
SS & GS										49	50	51	52											
										0	0	0.1	0.1											

Table 63. Volume of Derichthys serpentinus (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0	0	0	0		0	5.56	0	0.42	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	1.00	0	0	1.25	1.52	0	0	0				0	1.11	
Water	0	4.29			0	0	0	2.73		0	0	2.06	0	0	2.65	0	0	0				0	0	
	0	12.67			0	0	0			1.67	0	1.02	0	0	0	1.26	0	0.48				0.88	0	
					0	0	0.74			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	3.68	0	0	0	0.14		0							0	0	
Velocity	0	3.06	0.67	0	0	0	0	0	2.80	2.57	3.53	0	0		0							0	0	
Region	0	0	1.18	0	0	0	0	0	0	0	0	0	0		0							0	0	
	8.62		0	0	9.66	0	0.30	0	0		0	0			0							0	0	
					-	0	2.79	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0.02	0	0		
Ring	0	0	0	0	0.08	0	0	0							0	0	0	0	0	0	0	0.30		
Core	0	0	0	0	0	3.50	0	0							0	0	0	0	0	0	0	0		
	0	0.93			0	0	2.06	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										0	0	0	0											
Sea										0	0	0	0											
&										0	0	0.02	3.91											
Gulf										0	0	0	0											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	-	4.24	0.24		0	0	0.37	1.64		0.33	1.64	0.77	0.11	0.31	0.83	0.25	0	0.10				0.22	0.28	0.03
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	2.16	0.77	0.46	0	0	0.04	0.62	0	-	0.64	0.78	0	0.08		0							0	0	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0.23	-	0	0.03	0.70	0.41	0		0.19	0	0.14			0	0	0	0	0	0.01	0	0.10		
										49	50	51	52											
SS & GS										0	0	0.01	0.98											

Table 64. Abundance of Diaphus dumerilii (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			2.4	0	6.3	1.8		0	0.2	0	1.7	0	0.3	0	2.2	0				0	0.7	
Slope	0	1.2			0	0.5	0	0		0	0	0.9	0	0.3	0	0	0	1.4				0.4	0	
Water	0	0			0	0.4	0	0		1.3	0	0	0	0	0	0	0	0.7				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.5	0.9	0	0	0	0	0	0	1.0	0.6	0	3.2		3.4							2.5	0	
Velocity	0.4	0	0	1.8	0	0	0	0	0	0	0	0	0		0							0	0.8	
Region	0	0	0	0	1.0	0.5	0	0	0	0	0	0.4	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							1.2	0	0	0	0	0	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0	0	0.3	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
Sargasso										49	50	51	52											
Sea										0	0	0	0.2											
&										0	0	0	0											
Gulf										0	0	0.7	0											
Stream										0	0	0	0											
Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	–	0.3	0.1		0.3	0.2	0.4	0.1		0.3	0.1	0.2	0.4	0.1	0.1	0	0.4	0.3				0.1	0.2	0.2
High	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
Velocity	0.1	0.1	0.2	0.5	0.1	0	0	0	–	0.5	0.2	0.1	1.9		0.7							0.6	0.2	
Region																								
Ring	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Core	0	0	–	0	0	0	0	0		0.7	0.2	0.5			0.2	0	0	0	0.1	0	0	0		
SS & GS										49	50	51	52											
										0	0	0.2	0.1											

Table 65. Volume of Diaphus effulgens (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0	0	2.67				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0.75	0	0.27		0.16							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	3.38	
Region	0	0	0	0	0	0	0	0	0	0	0	2.92	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0.03	0	0	0.02	0	0.03	0	0		
Ring	0	0	0	0	1.00	1.27	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0	0	0.49	0							0	0	0.05	0	0.02	0	0.07	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										0.24	0	0	0											
Sea										0	0	0	0											
&										0	0.07	0.02	0											
Gulf										0	0	0	0											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0	0		0	0	0	0		0	0	0	0	0	0	0	0	0.53				0	0	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0	0	0	0	0	0	0	–	0	0.29	0.58	0.16		0.03							0	0.85	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0	–	0	0.35	0.32	0.10	0		0	0	0.32			0.01	0	0.01	0.01	0.01	0.01	0.01	0		
										49	50	51	52											
SS & GS										0.06	0.02	0.01	0											

Table 66. Abundance of Diaphus metopoclampus (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.2	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0.9	0	0	0	0				0	0	
Water	0	0			0.2	0	0	0		0	0	0	0	0	0.9	1.4	0	0.7				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0.3	0	0.6	0	0	0	0	0	0.5	0	0.1	0	0.1		0							0.8	0	
Velocity	0.4	0	0.3	0	0	0	0	0	0	0	0	0	0		0							1.4	2.4	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0.8							0	0.7	
	0		0	0	0.3	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	1.8	0	2.1	0	0.4	0	0	0							0	0	0	0	0	0	0.6	0.2		
Core	0	0.6	0	0	0.6	0	0.3	0.4							0	0	0	0.7	0	0	0.7	3.4		
	0	0			0	0	0	0							1.1	3.4	2.3	3.9	1.6	1.2	1.4	0		
					0	0	0	0							0	0.8	0.3	0.3	0.4	0.9	0			
										49	50	51	52											
Sargasso										0	0	0	0											
Sea										0	0	0	0											
&										0	0	0.2	0											
Gulf										0.5	0	0	0											
Stream																								

	Slope Water				High Velocity Region					Ring Core															
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	–	0	0		0.1	0	0	0		0	0	0	0	0.2	0.2	0.3	0	0.2				0	0	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.2	0	0.2	0	0	0.1	0	0	–	0	0.1	0	0.1		0.4							0.6	0.8	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0.4	0.2	–	0	0.3	0	0.1	0.1		0	0	0.1			0.2	0.8	0.5	1.0	0.4	0.4	0.4	0.9		
										49	50	51	52											
SS & GS										0.1	0	0.1	0											

Table 67. Volume of Diaphus metopoclampus (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0.02	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0.50	0	0	0	0				0	0	
Water	0	0			0.02	0	0	0		0	0	0	0	0	7.35	2.10	0	0.11				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0.03	0	0.09	0	0	0	0	0	0.18	0	0.01	0	0.08		0							0.29	0	
Velocity	0.04	0	0.03	0	0	0	0	0	0	0	0	0	0		0							0.05	4.46	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		4.40							0	0.04	
	0		0	0	0.07	0	0	0	0		0	0			0							0	0	
					-	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0.06	0	0.07	0	0.12	0	0	0							0	0	0	0	0	0	0.06	0.02		
Core	0	0.06	0	0	0.15	0	0.03	0.18							0	0	0	0.04	0	0	0.07	0.09		
	0	0			0	0	0	0							0.05	2.56	0.05	0.04	0.03	0.04	0.05	0		
					0	0	0	0							0	0.03	0.03	0.03	0.04	0.03	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0	0	0.09	0											
										0.03	0	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	-	0	0		0.01	0	0	0		0	0	0	0	0.13	1.47	0.42	0	0.02				0	0	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.02	0	0.03	0	0	0.04	0	0	-	0	0.01	0	0.05		1.76							0.07	1.13	
Ring	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Core	0.02	0.02	-	0	0.07	0	0.01	0.05		0	0	0.03			0.01	0.52	0.02	0.02	0.01	0.01	0.03	0.03		
SS & GS										49	50	51	52											
										0.01	0	0.02	0											

Table 68. Abundance of Diaphus mollis (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.7	0	1.0	0.5		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	1.8			0	1.1	0	0		0.2	0	0.6	0	0	0	0	0	0.7				0.2	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0.3	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0.3	0	0.9	0	0		2.4							0.2	0.7	
Velocity	0.8	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0.3	
Region	0	0	0	0	0	0	0	0	0	0	0.2	0	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.8	0	0	2.8	0	1.8	0	0							1.8	1.9	0	2.9	0	1.1	0	0.2		
Ring	0	0	0	0	1.2	0.7	10.0	0							0	0	0	0	0	0	1.9	0		
Core	0	0	0	0	0	0	0	0							0	0	2.4	0	1.4	0	0.7	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										1.9	0	0	0.5											
Sea										0.2	0.2	0.4	0											
&										0	2.1	2.2	0											
Gulf										0	0	0	0											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope	–	0.5	0		0.1	0.3	0.1	0.1		0.1	0	0.2	0	0	0	0.1	0	0.1				0.1	0	0
Water																								
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High	0.2	0	0	0	0	0.1	0	0	–	0	0.4	0	0		0.5							0.1	0.3	
Velocity																								
Region																								
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring	0.2	0	–	0.7	0.4	0.5	0.2	0		0	0.2	0			0.4	0.4	0.5	0.6	0.3	0.4	0.3	0.1		
Core																								
										49	50	51	52											
SS & GS										0.5	0.6	0.7	0.1											

Table 69. Abundance of Diaphus rafinesquii (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			1.0	0	0	0		0	0	0	0.2	0	0.3	0	0.4	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0.5	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.5	1.4	0	0	0	0	0	3.7	0	0	0	0.5		0							0	0	
Velocity	4.2	0	0	11.8	0	0.3	6.0	0	0.4	0	0	0	0		0							0	0.5	
Region	0.4	0	0	0	10.0	0	5.0	1.4	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.4	0	0	0.6	0	16.5	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	1.4	1.3	0	4.6							0	0.3	0	0	0	0.2	0	0.4		
Core	0	0	0	0	0.3	0.5	2.4	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0	0	0.3	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										0	0	0	0											
Sea										0.2	0	0	0											
&										0	0	0.2	0											
Gulf										0	0	0	0											
Stream																								
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope	–	0	0		0.1	0	0	0		0	0	0	0.1	0	0.1	0.1	0.1	0				0	0	0
Water																								
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High	1.1	0.1	0.4	3.0	0.1	2.8	1.6	0.3	–	0	0	0	0.3		0							0	0.1	
Velocity																								
Region																								
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring	0.1	0	–	0.2	0.6	2.9	0.5	0.9		0.5	0	0.2			0	0.1	0	0	0.1	0	0	0.1		
Core																								
										49	50	51	52											
SS & GS										0.1	0	0.1	0											

Table 70. Volume of Diaphus rafinesquii (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.29	0	0	0		0	0	0	0.08	0	0.50	0	1.43	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0.23	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.05	0.20	0	0	0	0	0	1.84	0.19	0	0	0.39		0							0	0	
Velocity	0.27	0	0	0	0	0.18	1.92	0	2.20	0	0	0	0		0							0	2.70	
Region	0.08	0	0	0	3.81	0	1.56	5.71	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.04	0	0	0.28	0	9.41	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	1.50	0.80	0	10.00							0	1.34	0	0	0	0.98	0	3.00		
Core	0	0	0	0	1.91	4.25	7.57	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0	0	1.62	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										0	0	0	0											
Sea										1.44	0	0	0											
&										0	0	1.24	0											
Gulf										0	0	0	0											
Stream																								

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	–	0	0		0.03	0	0	0		0	0	0	0.02	0	0.10	0.02	0.29	0				0	0	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.09	0.01	0.05	0	0.03	1.59	0.50	1.14	–	0.10	0	0	0.23		0							0	0.68	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.01	0	–	0.07	0.91	2.46	1.51	1.80		0.42	0	0.50			0	0.27	0	0	0.32	0.03	0	0.75		
										49	50	51	52											
SS & GS										0.36	0	0.31	0											

Table 71. Abundance of Diogenichthys atlanticus (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			2.4	0	2.7	0		0	0	0	1.0	0	0.3	0	0.4	0				0	0.7	
Slope	0	0			0	0	0	0		0	0	0.3	0.2	0	0.4	0	0	0				0.4	0	
Water	0	0			0	0.4	0	0.2		0.3	0.4	0.3	1.0	1.5	0	2.8	0	2.6				1.6	0	
	0	0			0.5	0	0			0	0	0	0	0	0	0	0	1.9				0.6	0	
					0	0	0.1			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	3.0	2.3	0	0	0	0	0	0	0.6	0.8	0	0.1		4.5							0	0	
Velocity	1.2	0	0	0.6	0	0	0	0	0	0.6	0.3	0	0		0.9							0	7.6	
Region	22.5	0	0	1.2	0	0.5	3.4	0.7	0	0	0	1.7	0		0							0	0.4	
	0		0	0	0	0	1.9	0.3	0		0	0			0							0	0	
					–	0	0.2	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	4.8	0	0	14.4	38.0	14.7	0	0							18.5	16.6	0.5	6.1	0	2.0	0	5.8		
Ring	0	0	4.3	0	0	0	0	0.8							0	0	0	0	0	0	0	0		
Core	0	2.5	22.7	0.3	0	0	5.1	2.9							0	0	1.0	0	0.2	0	2.1	1.6		
	0	0			0	0.5	4.4	0							0.5	1.3	8.7	0.8	3.8	1.9	1.4	0		
					0.6	0	0	0							0.9	0.5	0.8	0.3	0	2.2	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										10.8	0	0	6.6											
										0	0	0	0											
										0.7	7.2	2.8	1.3											
										0	1.3	0	0.3											
Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	–	0	0.1		0.4	0.1	0.2	0.1		0.1	0.1	0.2	0.6	0.4	0.1	0.6	0.1	0.9				0.5	0.2	0
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	5.8	0.8	0.6	0.5	0.1	3.5	1.1	0.2	–	0.5	0.4	0.3	0.1		1.1							0	2.0	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	1.2	0.6	–	3.8	2.2	2.3	1.9	0.9		0.4	0	0.3			4.0	3.7	2.3	1.4	0.8	1.6	0.5	1.9		
SS & GS										49	50	51	52											
										2.9	2.1	0.7	2.1											

Table 72. Volume of Eurypharynx pelecanoides (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	=	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0.28	
	0.09	0			0	3.64	0			0.28	0.18	0.16	0.24	4.33	0	0	0	0				5.29	1.54	
					0	2.80	0.86			0					1.34	0.15	1.44	2.31						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Region	0	0.49	0	0	0	0	0	0.05	0	0.43	0	0	1.15		0							0	0	
	0		0	0	0	0	0	0	1.74		0.95	0			0							12.50	6.54	
					-	2.28	0.05	0.52				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0.03	0	0.05	0	0.16	0.12			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0.06											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	-	0	0		0	0.91	0.43	0		0.06	0.05	0.04	0.06	1.08	0.27	0.03	0.29	0.46				1.32	0.46	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0.25	0	0	0.57	0	0.01	0.11	-	0.11	0.19	0	0.23		0							3.13	1.64	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0	-	0	0	0	0	0		0	0.04	0			0	0.01	0	0.01	0	0.03	0.02	0		
SS & GS										49	50	51	52											
										0	0	0	0.02											

Table 73. Abundance of Gonostoma elongatum (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0	0	0	0		0	0	0	0.2	0.3	5.0	0.3	0.9	0				0	2.7	
Slope	0.6	0			1.7	0	0.4	1.1		0	0.8	0.3	0.2	0	0	0	0	0				0	0	
Water	0	2.9			0	1.7	0	0		0	0	0.6	0	1.2	0	3.8	0	1.5				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0.4	0	1.9				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0.6	0	0	0	0	0	0.8	1.6	1.1	0	1.7		8.7							3.1	0	
Velocity	0	1.7	0.7	0	0	0	0	0	0	0	0	1.0	0		0							0.3	1.9	
Region	2.1	0.2	0	0.6	0	0.5	0	0	0	0	0	0	0		0							0	0	
	0		0	0	0.7	0	0.8	2.3	0		0	0.9			1.1							0	0	
					-	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	1.2	0	0	0.6	0	0	0	0							2.4	5.3	0	2.2	0.4	1.1	0.6	2.2		
Ring	0	0	0	0	0.4	0.7	0	0							0	0	0	0	0	0	0	0.8		
Core	0	0	0	0	0	0	0	0.4							0.5	0.3	0.5	0	0	0	0	0		
	0	0			0	0	1.9	0							0	0	1.6	0.4	0.5	0	0.5	0		
					0	0	0.6	0							0	0	0	0	0.4	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										3.5	1.3	0.3	6.8											
										0	0	0	0											
										0	3.4	1.7	0.4											
										0	0	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	-	0.7	0.6		0.3	0.4	0.1	0.4		0	0.2	0.2	0.1	0.4	1.0	0.9	0.2	0.7				0	0.7	0
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.5	0.5	0.3	0.2	0.1	0.3	0.2	0.5	-	0.8	0.4	0.5	1.0		2.0							0.9	0.5	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0.3	0	-	0.2	0.1	0.2	0.5	0.1		0.7	6.9	0.8			0.6	1.1	0.4	0.3	0.3	0.4	0.3	0.8		
SS & GS										49	50	51	52											
										0.9	1.2	0.5	1.8											

Table 74. Volume of Gonostoma elongatum (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0.17	0	0	0		0	9.81	0	6.54	2.94	6.67	0.05	6.52	0				0	16.67	
Slope	8.82	0			8.28	0	4.58	9.26		0	18.75	0.03	4.22	0	0	0	0	12.14				0	0	
Water	0	75.00			0	23.91	0	0		0	0	10.00	0	5.45	0	1.55	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	4.35	0	15.71				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	15.10	5.14	0	0	0	0	0	13.94	0.51	4.00	0	1.94		1.24							10.04	0	
Velocity	0	33.33	9.67	0	0	0	0	0	0	0	0	0.04	0		0							4.32	1.08	
Region	15.42	6.83	0	16.47	0	0.07	0	0	0	0	0	0	0		0							0	0	
	0		0	0	7.24	0	17.57	23.14	0		0	13.04			71.11							0	0	
					-	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	6.00	0	0	0.11	0	0	0	0							0.24	0.94	0	0.07	0.02	0.23	0.02	0.50		
Ring	0	0	0	0	7.00	0.80	0	0							0	0	0	0	0	0	0	12.60		
Core	0	0	0	0	0	0	0	13.21							13.16	7.50	0.05	0	0	0	0	0		
	0	0			0	0	50.00	0							0	0	1.06	13.08	0.05	0	2.86	0		
					0	0	27.78	0							0	0	0	0	7.50	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.56	0.05	0.03	0.91											
										0	0	0	0											
										0	0.28	0.15	0.04											
										0	0	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	-	18.75	11.94		1.26	5.98	0.64	2.96		0	7.14	2.51	2.69	2.10	1.33	0.42	1.30	4.40				0	4.17	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	3.86	13.82	3.70	4.12	0.01	3.31	3.51	4.63	-	0.26	1.52	2.61	1.16		14.47							3.59	0.27	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	1.50	0	-	0.03	2.45	0.20	15.56	3.30		2.31	0.98	2.35			2.68	1.69	0.22	2.63	1.52	0.09	0.58	3.28		
SS & GS										49	50	51	52											
										0.14	0.08	0.05	0.24											

Table 75. Abundance of Hygophum benoiti (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0	0	4.7	0	0	0				0	0.3	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0.5	0	0				0	0	
Water	0	0			0	0	0	0		2.7	0	0.3	1.8	3.9	0	14.5	0.9	0.4				10.3	0.6	
	0	0			0	0	0			0.6	0	0	0	0	0	0	4.0	4.3				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0.3	0	0	0	0	0	0.3	0	0	0	0.3		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	3.4	2.9	0	1.7		0							0	0.5	
Region	0	0	0	0	0	0	0.9	0.4	0.5	0	0.7	1.3	0		2.0							3.3	10.4	
	0		0	0	0	0	0	0.3	0		0	0.4			0							0	0.4	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							3.2	8.4	0.3	1.5	0	0	0	0		
Ring	0	0	0	0	0	0	0	0							1.1	0.6	0	0	0	0	0	0		
Core	0	0	0	0	0	0	0.3	2.5							0	0.8	0	0	0	0.5	0	1.9		
	0	0			1.7	0.5	0	0							0	0	7.1	0	1.9	1.2	0	10.0		
					0	0	0	0							0	0	0.3	0	0.7	0	3.8			
Sargasso										49	50	51	52											
Sea										0	0	0	0											
&										0	0	0	0											
Gulf										0	0	8.7	12.2											
Stream										0.5	1.3	3.1	2.1											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	–	0	0		0	0	0	0		0.7	0	0.1	0.5	1.0	0.9	2.9	1.0	0.9				2.6	0.2	0.7
High	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
Velocity	0	0	0.1	0	0	0.3	0.2	0.1	–	0.9	0.8	0.3	0.2		0.8							0.8	2.8	
Region																								
Ring	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Core	0	0	–	0	0.3	0.1	0.1	0.6		0.5	0.5	0.5			0.9	2.0	1.6	0.3	0.5	0.3	0.8	3.0		
SS & GS										49	50	51	52											
										0.1	0.3	3.0	3.6											

Table 76. Abundance of Hygophum hygomii (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.7	0	0	0		0	0.2	0	0.4	0	0	0	0	0				0	0	
Slope	0	1.2			0	0.5	0	0.4		0	0	0.9	0	0.3	0	0	0	0				0.4	0	
Water	0	0.7			0	0	0	0		0.3	0	0	0	0.6	0	0	0	0.4				0.3	0	
	0	0			0	0	0			0	0.2	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	1.5	3.7	1.1	0	0	0	0	0	0	0.6	0	0.3		0							0.8	0	
Velocity	2.3	1.1	1.0	2.9	0	0.6	0	0	0	0	0	0	0		0							0	0	
Region	1.7	0.2	0.6	0	0.5	1.8	1.6	1.4	0	0	0	0	0		0							0	0	
	0		0	0	0.7	0	0	1.4	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.4	0	0	5.0	24.0	3.5	0	0							0	0	0	0	0	0	0	0		
Ring	5.3	0.6	0.7	0	0	0	0	1.2							0	0	0	0	0	0	0	0		
Core	7.3	2.5	0	0	0.6	0	1.1	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0.6	0							0	0	0.3	0	0	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										0.2	0	0	0											
Sea										0	0	0	0											
&										0	0	0	0											
Gulf										0	0	0	0											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0.5	0		0.1	0.1	0	0.1		0.1	0.1	0.2	0.1	0.2	0	0	0	0.1				0.2	0	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	1.0	0.7	1.3	1.0	0.5	0.4	0.3	0.6	–	0	0.2	0	0.2		0							0.2	0	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	3.3	0.6	–	1.3	1.4	0.5	0.3	0.2		0	0	0.2			0	0	0.1	0	0	0	0	0		
										49	50	51	52											
SS & GS										0.1	0	0	0											

Table 77. Volume of Hygophum hygomii (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.02	0	0	0.05		0	0.30	0	0.73	0	0	0	0	0				0	0	
Slope	0	0.06			0	0.37	0	0.04		0	0	1.43	0	0.22	0	0	0	0				0.80	0	
Water	0	0.07			0	0	0	0		0.10	0	0	0	0.36	0	0	0	0.56				0.53	0	
	0	0			0	0	0			0	0.11	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.40	0.86	0.06	0	0	0	0	0	0	1.31	0	0.60		0							1.77	0	
Velocity	0.77	0.06	0.03	0.76	0	0.29	0	0	0	0	0	0	0		0							0	0	
Region	0.29	0.02	0.06	0	0.81	1.45	0.34	1.61	0	0	0	0	0		0							0	0	
	0		0	0	0.62	0	0	1.29	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.04	0	0	0.22	8.50	5.88	0	0							0	0	0	0	0	0	0	0.38		
Ring	0.12	0.06	0.07	0	0	0	0	0.96							0	0	0	0	0	0	0	0		
Core	0.09	0.06	0	0	0.03	0	0.81	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0.06	0							0	0	0.87	0	0	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.31	0	0	0											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	–	0.03	0		0.01	0.09	0	0.02		0.02	0.10	0.36	0.18	0.15	0	0	0	0.11				0.33	0	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.27	0.13	0.24	0.21	0.33	0.15	0.07	0.58	–	0	0.50	0	0.36		0							0.44	0	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.06	0.03	–	0.06	0.43	0.88	0.17	0.17		0	0	0.41			0	0	0.17	0	0	0	0	0.10		
SS & GS										49	50	51	52											
										0.08	0	0	0											

Table 78 Abundance of Hygophum taaningi (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.2	0	0	1.4		0	0	0	0	0	0	0	0	0				0	0.3	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0.8	0	0	0.7	1.4	1.1				0.9	0	
	0	0			0.5	0	0			0.6	0	0	0	0	0	0	1.2	0.5				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0		0.5							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0.3	0	0		0.5							0	0	
Region	0.4	0	0	0	0	0	0	0	0	0	0	0	0		0							1.3	0.7	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							3.8	1.9	0	0.5	0	0.3	0	0		
Ring	0	0	0	0	0	0	0	0							1.1	0	0	0	0	0	0	0		
Core	0.9	0	0	0	0	0	0	0							0	0.3	0	0	0	0	0	0.3		
	0.6	0			0	0	0	0							0	0	1.6	0	0.3	0	0	1.7		
					0	0	0	0							0.3	0	0.5	0	0	0.3	0			
										49	50	51	52											
Sargasso										0	0	0	0											
Sea										0	0	0	0											
&										0	0	0.2	1.7											
Gulf										0	0	0	0.8											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0	0		0.2	0	0	0.1		0.1	0	0	0.2	0	0	0.1	0.5	0.3				0.2	0.1	0.1
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.1	0	0	0	0	0	0	0	–	0	0.1	0	0		0.2							0.3	0.2	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.4	0	–	0	0	0	0	0		0	0	0			1.1	0.4	0.4	0.1	0.1	0.2	0	0.5		
										49	50	51	52											
SS & GS										0	0	0.1	0.6											

Table 79. Abundance of Ichthyococcus ovatus (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0.2	0	0	0	0	2.4	3.2	0.3	0				0	0.7	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0.1		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0.5	0.5	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		1.2							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0.2							0.9	0.9	0.3	0	0	0	0.2	0		
Ring	0	0	0	0	0.2	1.3	0	0							0	0.9	1.7	0	1.2	1.5	1.9	1.6		
Core	0	0	0	0	0	0	0	0							0.5	2.5	0.5	3.3	2.9	1.9	0.7	1.6		
	0	0			0	0	0	0							0.5	2.2	0.6	0.4	1.1	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0.2											
										0.4	0.5	2.0	0.3											
										0.4	0	1.1	0											
										0.3	0.6	0	0											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0	0		0	0	0	0		0.1	0	0	0	0	0.5	0.3	0.1	0				0	0.2	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0	0	0	0	0	0	0	–	0	0	0	0.1		0.5							0.1	0.1	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0	–	0	0.1	0.3	0	0.1		0	0	0.2			0.4	1.3	0.5	0.3	0.9	0.4	0.4	0.8		
SS & GS										49	50	51	52											
										0.3	0.3	0.8	0.1											

Table 80. Abundance of Lampadena speculigera (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.2	0	0.3	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0.2		0	0.2	0	0.3	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0.2	0	0	0.3	0	0	0.5				0.3	0	
					0	0	0			0					0.2	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.5	0.6	0	0	0	0	0	0.5	0	0.1	0	0		0							0	0	
Velocity	0	0.6	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Region	0.8	0	0	0	0	0.5	0	0	0	0	0	0	0		0							0.7	0	
	0		0	0	0.7	0	0.5	0.9	0		0	0			0							0	0	
					–	0	0.2	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	1.7	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	0.4	1.3	0	0							0	0	0	0	0	0	0	0		
Core	0	0.6	2.0	0.2	0.3	0	0	0.7							0	0	0	0	0	0	0	0		
	0	0			1.3	0.5	5.0	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0.3	0	0	0	0	0			
Sargasso										49	50	51	52											
Sea										0	0	0	0											
&										0	0	0	0											
Gulf										0	0	0	0											
Stream										0	0	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	–	0	0.4		0.1	0	0.1	0.1		0	0.1	0.1	0.1	0	0.1	0	0	0.1				0.1	0	0.1
High	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
Velocity	0.2	0.3	0.1	0	0.1	0.1	0.2	0.2	–	0	0.1	0	0		0							0.2	0	
Region																								
Ring	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Core	0	0.2	–	0.5	0.5	0.4	1.0	0.2		0	0	0.1			0	0.1	0	0	0	0	0	0		
SS & GS										49	50	51	52											
										0	0	0	0											

Table 81. Volume of Lampadena speculigera (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.05	0	0.07	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0.68		0	0.06	0	8.97	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	7.14	0	0	3.45	0	0	0.38				10.29	0	
					0	0	0			0					7.05	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.05	0.03	0	0	0	0	0	0.05	0	0.06	0	0		0							0	0	
Velocity	0	0.06	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Region	0.04	0	0	0	0	0.05	0	0	0	0	0	0	0		0							3.00	0.11	
	0		0	0	0.14	0	0.05	0.09	0		0	0			0							0	0	
					–	0	0.23	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0.06	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	0.06	0.15	0	0							0	0	0	0	0	0	0	0		
Core	0	0.06	0.07	0.01	0.03	0	0	0.04							0	0	0	0	0	0	0	0		
	0	0			0.04	0.05	0.56	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0.11	0	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	–	0	3.32		0.01	0	0.01	0.41		0	0.02	1.79	2.24	0	2.10	0	0	0.08				2.57	0	3.17
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.01	0.03	0.01	0	0.01	0.01	0.06	0.02	–	0	0.02	0	0		0							0.75	0.03	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0	0.02	–	0.02	0.04	0.05	0.11	0.01		0	0	0			0	0.02	0	0	0	0	0	0		
SS & GS										49	50	51	52											
										0	0	0	0											

Table 82. Abundance of Lampanyctus alatus (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			6.8	0	7.0	0.9		0	1.1	0	1.2	0	0	0	0.9	0				0	0.3	
Slope	0	0			0	0	0.4	0		0	0	0	0	0	0	0	0	0				0.2	0	
Water	0	0			0	0.9	0	0		3.3	0.2	0.9	0	0.9	0	0	0	1.9				0	0	
	0	0			0	0	0			0	0	0.4	0	0	0	0.9	0	0.5				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.5	0.3	0	0	0	0	0	0.3	0	0.3	0	0.3		0.3							0.6	0	
Velocity	0	0	0.3	0.6	0	0	0	0	0	0	0	0	0		0							0	0.8	
Region	0	0	0	0.6	0	0	0	0	0	0	0	0	0		0							0	0	
	0		0	0	0.3	0	0.8	0.9	0		0	0			0							0	0	
					–	0	0.2	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.4	0	0	0	0	0	0	0							0	0	0	0.2	0	0.5	0	2.0		
Ring	0	0	0	0	0	0	0	0							0	0.3	0	0	0	0	0	0		
Core	0	0	0	0	0	0	0	0.4							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0	0.4	0	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										0.6	0	0	0											
Sea										0	0	0	0											
&										0.2	0.7	0.2	0.4											
Gulf										0	0	0	0											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0	0.1		0.7	0.2	0.5	0.1		0.7	0.3	0.3	0.3	0.2	0	0.2	0.2	0.5				0.1	0.1	0.1
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0.1	0.2	0.3	0	0.2	0.2	0.2	–	0	0.1	0	0.2		0.1							0.2	0.2	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.1	0	–	0	0	0	0	0.1		0.3	0.1	0			0	0.1	0	0.1	0	0.2	0	0.5		
										49	50	51	52											
SS & GS										0.2	0.2	0.1	0.1											

Table 83. Volume of Lampanyctus ater (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0	0	0	0	0.17	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0.62	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0.41	
	0	0			0	0	0			0	0	0	0	0.80	0	0	0	0.86				0	0	
					0	0	1.23			0					0	0	0.10	1.35						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0		0							1.00	0	
Velocity	0	1.39	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Region	0	0	3.53	5.88	0	0	0	0	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	3.14	0		0	0.35			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	2.94	0	0	0	0.02	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0	0	0	0							0	0	0	0	0	0.95	0	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0	0.17	0.07	0.14	6.25	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0.21											
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0	0		0	0	0.62	0		0	0	0	0	0.20	0	0	0.18	0.44				0	0.10	0.79
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0.35	0.88	1.47	0	0	0	0.63	–	0	0	0.07	0		0							0.25	0	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.74	0	–	0	0.01	0	0	0		0	0	0			0	0	0.03	0.01	0.03	1.44	0	0		
SS & GS										49	50	51	52											
										0	0	0	0.05											

Table 84. Abundance of Lampanyctus crocodilus (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct	
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5
	-	0			0	0	1.0	0		0	0.4	0	1.0	0	0	0	0	0.2				0	1.0
Slope	0	0			0	0	0.4	0		0	0	0	0	0	0	0	0	0				0	0
Water	0	0			0	0	0	0.5		0	0	0	0	0	0	0	0	0				0	0
	0	0			0	0	0			0	0.2	0	0	1.0	0.3	1.3	0	0.5				3.8	0
					0	0	0.1			0					0.5	0.6	0.2	1.5					
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3
High	0	0	0	0	0	0	0	0	0	0.1	0	0	0		0							0.2	0
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0
Region	0	0	0	0	0	0	0	0	0.5	0	0	0	0		0							0	1.4
	0		0	0	0	2.1	1.9	1.1	0		0	0			0							0	0
					-	0	1.2	0				0											
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1	
	0	0	0	0	0	0	0.3	0							0	0	0	0	0	0.2	0	1.6	
Ring	0	0	0	0	0	0	0	0.4							0	0	0	0	0	0	0	0	
Core	0	0	0	0	0	0.5	0	2.5							0	0	0	0	0	0	0	0	
	0	0.4			1.7	19.1	1.3	0							0	0.3	0	0	0	0	0	0	
					0	0	0	0							0	0.3	0	0	0	0.3	0		
Sargasso Sea & Gulf Stream										49	50	51	52										
										0.2	0	0	0										
										0	0	0	0										
										0.2	0	0	0										
										0	0.3	0	0.3										

Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	-	0	0		0	0	0.2	0.3		0	0.2	0	0.3	0.3	0.2	0.4	0	0.5				1.0	0.3	0.2
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0	0	0	0	0.5	0.2	0.7	0.2	-	0.1	0	0	0		0							0.1	0.4	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0	0.1	-	0	0.3	3.9	0.4	0.7		0	0.5	0.1			0	0.1	0	0	0	0.1	0	0.4		
SS & GS										49	50	51	52											
										0.1	0.1	0	0.1											

Table 85. Abundance of Lampanyctus cuprarius (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0.2	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	1.4	0.7				0	0	
Water	0	0			0	0	0	0		0	0	0.3	0	0	0	0	0	0.4				0.3	0.3	
	0	0.7			0	0	0			0.6	0	0	0.2	0.3	0	0	0.8	1.0				0	0	
					0	0	0.1			0.7					0	0	0.2	0.4						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	1.5	0	0	0	0	0	0	0	0	0.3	0	0		0.5							0.4	0	
Velocity	0	0.6	0.7	0	0	0	0	0	0	0	0	0	0		0.9							0	0.3	
Region	1.7	1.0	0.6	1.2	0	0	0	0	0	0.2	0	0	0		0.8							0	0.4	
	0.3		0	0	0	0.4	1.4	0.3	0.4		0	0			0							1.9	0	
					–	0.4	0	0.3				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0.8	0	0.2		
Ring	0.6	0	0	1.6	0.6	2.7	0	0							0	0	0	0.3	0	0.4	0	0.2		
Core	2.7	0	4.0	0.7	0.3	0.5	0	0.4							0	0	0	0	0	0	0	0.3		
	0	3.2			1.7	0.5	1.3	0.8							0	0	0	0.8	5.4	1.5	3.3	0		
					0.6	0	0	0							1.3	0.3	2.9	3.2	4.6	2.8	1.9			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.5	0	0	0.2											
										0.2	0	0	1.1											
										0	0	0	0.4											
										0.3	0	0	0											

Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	–	0.2	0		0	0	0.1	0		0.3	0	0.1	0.1	0.1	0	0	0.5	0.4				0.1	0.1	0
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.5	0.8	0.3	0.3	0.2	0.1	0.3	0.1	–	0.1	0.1	0	0		0.6							0.6	0.2	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0.8	0.8	–	0.8	0.7	0.9	0.3	0.3		0.1	0.1	0.2			0.3	0.1	0.6	0.9	2.0	1.2	1.0	0.2		
SS & GS										49	50	51	52											
										0.3	0	0	0.4											

Table 86. Volume of Lampanyctus cuprarius (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0.29	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0.52	0.14				0	0	
Water	0	0			0	0	0	0		0	0	0.09	0	0	0	0	0	0.04				0.03	0.41	
	0	0.67			0	0	0			0.67	0	0	0.56	0.40	0	0	0.04	0.10				0	0	
					0	0	0.23			1.00					0	0	0.23	0.58						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	1.50	0	0	0	0	0	0	0	0	0.15	0	0		0.45							1.04	0	
Velocity	0	0.67	0.13	0	0	0	0	0	0	0	0	0	0		0.82							0	0.03	
Region	0.83	1.17	0.12	2.64	0	0	0	0	0	0.64	0	0	0		1.24							0	0.36	
	0.86		0	0	0	0.08	0.86	0.09	0.65		0	0			0							5.13	0	
					–	0.21	0	0.14				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0.23	0	0.20		
Ring	0.65	0	0	2.11	0.80	1.73	0	0							0	0	0	0.61	0	0.43	0	0.60		
Core	2.00	0	4.00	0.97	0.15	0.45	0	0.21							0	0	0	0	0	0	0	0.69		
	0	6.43			1.25	0.77	1.56	1.65							0	0	0	0.69	0.24	1.54	0.43	0		
					1.00	0	0	0							0.66	0.03	1.32	3.68	5.71	3.13	2.31			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.16	0	0	0.43											
										0.02	0	0	1.39											
										0	0	0	0.17											
										0.36	0	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	–	0.17	0		0	0	0.12	0		0.33	0	0.02	0.21	0.10	0	0	0.16	0.18				0.01	0.10	0
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.42	1.13	0.06	0.66	0.07	0.11	0.17	0.05	–	0.16	0.06	0	0		0.75							1.54	0.10	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0.66	1.61	–	1.01	0.76	0.68	0.31	0.47		0.08	0.14	0.41			0.13	0.01	0.26	1.00	1.19	1.03	0.55	0.37		
SS & GS										49	50	51	52											
										0.14	0	0	0.50											

Table 87. Volume of Lampanyctus macdonaldi (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0.03	0	0	0	0				0	0	
	0	0			0	0.36	0			0	0	0	0	0	0	0.09	0	0				0	0	
					0	0	0.68			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0.03	0	0	0		0							0	0	
Region	0	0	0	0	0	0	0	0	0	0	5.61	0	0		0							0	0	
	1.04		0	13.33	0	0	0	0	0		0.33	0.04			0							0	0.31	
					–	0.61	0.14	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0	0	2.56							0	0	0	0	0	0	0			
Sargasso										49	50	51	52											
Sea										0	0	0	0											
&										0	0	0	0											
Gulf										0	0	0	0											
Stream										0.03	0	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	–	0	0		0	0.09	0.34	0		0	0	0	0	0.01	0	0.02	0	0				0	0	0.04
High	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
Velocity	0.26	0	0	3.33	0.15	0	0.03	0	–	0.01	1.19	0.01	0		0							0	0.08	
Region																								
Ring	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Core	0	0	–	0	0	0	0	0		0	0	0			0	0	0	0	0	0	0	0		
SS & GS										49	50	51	52											
										0.01	0	0	0											

Table 88. Abundance of Lampanyctus photonotus (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0	0	0	0		0	0	0	0	0	0	0	1.7	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0.3	0	0				2.2	0	
	0	0			0	0.5	0			0	0	0	0	0	0	0	0.4	2.4				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0.3	0	0	0	0	0	0	0	0	0	0		0.8							1.0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0.3		0							0	0	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0.4							0	0.4	
	0		0	0	0	0	0	0.3	0		0	0			0							0	0	
					-	0	0.2	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.4	0	0	1.1	1.0	0	0.3	0							2.1	1.6	0	0.5	0	0.6	0.2	0.6		
Ring	0	0	0	0	0	0	0	0							0	0.3	0	0.3	0	0	0	0		
Core	0	0	0	0	0	0	0	0							0	0	0	0	0.2	0.5	0.7	0		
	0	0			0	0	0	0.8							0	0	1.3	5.0	1.4	0.4	1.0	0.8		
					0	0	0	0							0	1.6	1.6	1.3	4.3	1.6	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0	0	0.2	0											
										0	0.6	0	0											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	-	0	0		0	0.1	0	0		0	0	0	0	0	0	0.1	0.4	0.5				0.6	0	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0	0.1	0	0	0.3	0.1	0.1	-	0	0	0	0.1		0.3							0.3	0.1	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.1	0	-	0.4	0.1	0	0.1	0.2		0	0	0			0.4	0.7	0.6	1.4	1.2	0.7	0.4	0.4		
										49	50	51	52											
SS & GS										0	0.2	0.1	0											

Table 89. Abundance of Lampanyctus pusillus (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			11.2	0.5	2.0	0.5		0	0.4	0	0.4	0	1.0	0	2.2	0				0	0.3	
Slope	0	0.6			0	0	0	0.4		0	0	0.3	0	0	0	0	0	10.0				0.4	0	
Water	0	0			0	0	0	0.5		2.3	0	0	0	3.0	0	2.4	0	1.5				0.6	0.3	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	1.3	1.1	0	0.4		0.8							1.5	0.7	
Velocity	0	0	0	0	0	0	0	0	0	0.6	0	0	0		0							0	3.5	
Region	0.8	0	0	0	0	0	3.1	1.4	0.5	0	0.5	0	0		0.4							0	0.4	
	0		0	0	0.3	0.8	0	0	0		0	0.9			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	1.6	0	0	1.1	4.0	3.5	0.3	0.4							2.1	2.2	0	0.2	0	1.1	0	4.6		
Ring	0.6	0	0	0	0.8	1.3	0	0							0	0	0	0	0	0	0	0		
Core	0	0	4.0	0	0.6	0.5	1.1	8.9							0	0.5	0	0	0	0	5.7	0.6		
	0	0			2.1	4.1	0.6	0							1.1	4.7	6.8	6.5	6.8	5.0	2.9	0.8		
					0	0	0.6	0							0.3	0.5	3.2	0.5	1.8	0.3	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										4.7	0	0	0											
										0	0	0	0.6											
										0.2	3.1	10.2	0											
										0	0	0.3	0											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0.2	0		1.2	0.1	0.1	0.5		0.5	0.1	0.1	0.1	0.8	0.2	0.5	0.4	1.3				0.3	0.2	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.2	0	0	0	0.2	1.2	0.6	0.3	–	0.8	0.5	0.2	0.2		0.3							0.4	1.2	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.6	0	–	0.3	1.0	1.8	0.6	2.3		0.1	0.3	0.3			0.7	1.6	2.0	1.4	1.7	1.5	1.2	1.5		
										49	50	51	52											
SS & GS										1.2	0.8	2.6	0.2											

Table 90. Volume of Lampanyctus pusillus (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	=	0			1.10	0	0.17	0.05		0	0.02	0	0.04	0	0.23	0	0.35	0				0	0.10	
Slope	0	0.06			0	0	0	0.04		0	0	0.03	0	0	0	0	0	0				0.02	0	
Water	0	0			0	0	0	0.02		0.37	0	0	0	0.06	0	0.45	0	0.22				0.03	0.03	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0.03	0.14	0.38	0	0.08		0.05							0.21	0.04	
Velocity	0	0	0	0	0	0	0	0	0	0.03		0	0		0							0	0.54	
Region	0.17	0	0	0	0	0	0.31	0.04	0.05	0	0.02	0	0		0.08							0	0.04	
	0		0	0	0.10	0.04	0	0	0		0	0.04			0							0	0	
					-	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.48	0	0	0.22	0.50	0.47	0.03	0							0.06	0.09	0	0.05	0	0.03	0	0.68		
Ring	0.12	0	0	0	0.36	0.07	0	0							0	0.03	0	0	0	0	0	0		
Core	0	0	0.93	0	0.03	0.05	0.14	0.31							0	0.05	0	0	0	0	0.21	0.03		
	0	0			0.04	0.05	0.06	0							0.05	0.38	0.77	0.38	0.54	0.54	0.24	0.04		
					0	0	0.25	0							0.03	0.05	0.26	0.05	0.29	0.29	0			
										49	50	51	52											
Sargasso										0.37	0	0	0.14											
Sea										0	0	0	0.03											
&										0.02	0.24	1.15	0											
Gulf										0	0	0.03	0											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope	-	0.02	0		0.11	0	0.01	0.03		0.07	0.01	0.01	0.01	0.02	0.05	0.09	0.07	0.04				0.01	0.03	0
Water																								
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High	0.04	0	0	0	0.01	0.04	0.06	0.01	-	0.08	0.15	0.01	0.05		0.04							0.05	0.16	
Velocity																								
Region																								
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring	0.15	0	-	0.06	0.17	0.11	0.10	0.18		0.01	0.01	0.06			0.03	0.12	0.21	0.10	0.17	0.13	0.07	0.19		
Core																								
										49	50	51	52											
SS & GS										0.10	0.06	0.30	0.04											

Table 91. Abundance of *Lepidophanes gaussi* (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.5	0	0.7	0.5		0	0	0.3	1.0	0	0.3	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0.3	0	0	0	0	0	0	0	0.4				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0		4.5							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0.8	
Region	0	0	0	0	0	0	0.6	0	0	0	0	0	0		0							0	0	
	0		0	0	0.3	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							9.1	0.3	0	1.2	0	0.5	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0	0	0	0.4							0	0	0	0	0	0	0	0.6		
	0	0			0	0	0	0							0	0.3	4.5	1.5	1.4	0	2.9	0		
					0	0	0	0							0	0	0	0	0	0	0			
Sargasso										49	50	51	52											
Sea										2.4	0	0	0.2											
&										0	0	0	0											
Gulf										0	4.5	1.3	0.9											
Stream										0	0.9	0	0											

Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	–	0	0		0.1	0	0	0		0.1	0	0.1	0.3	0	0.1	0	0	0.1				0	0	0
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0	0	0	0	0	0	0.1	0	–	0	0	0	0		0.9							0	0.2	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0	0	–	0	0	0	0	0.1		0	0	0			1.8	0.1	0.9	0.5	0.3	0.2	0.6	0.2		
SS & GS										49	50	51	52											
										0.6	1.4	0.3	0.3											

Table 92. Abundance of Lepidophanes guentheri (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			1.5	0	0.7	1.4		0	0.6	0	0.8	0	1.7	0	0.4	0				0	1.7	
Slope	0	0.6			0	0	0	0		0	0	0	0	0	0	0	0	0				1.5	0	
Water	0	0			0	0.9	0	0		0	0	0	0	0.3	0	1.4	0	2.6				3.1	0	
	0	0			0	0	0			0	0	0	0	0	0	0.4	0	1.0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	3.0	0.3	0	0	0	0	0	0.3	0	0	0	0.4		4.5							0.4	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	3.0	
Region	0.4	0	0	0	0	0.5	0.3	1.1	0	0	0	0	0		0							0	1.1	
	0		0	0	0.7	0	0	0.3	0		0	0			0							0	0	
					-	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.8	0	0	0.6	1.0	0.6	0	0							4.4	1.3	0	1.2	0	0.2	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	1.3	0	0	0	0	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0							0	0	8.4	0.8	0	0	0.5	0		
					0	0	0	0							0	0	0.3	0	0.4	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.5	0	0	0.5											
										0	0	0	0											
										0	0.7	2.0	0											
										0	0	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	-	0.2	0		0.2	0.2	0.1	0.1		0	0.2	0	0.2	0.1	0.3	0.4	0.1	0.7				1.2	0.4	0
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.1	0.8	0.1	0	0.1	0.1	0.1	0.3	-	0	0	0	0.2		0.9							0.1	0.4	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0.2	0	-	0.2	0.1	0.1	0	0		0.1	0	0			0.9	0.3	1.7	0.4	0.1	0.1	0.1	0		
SS & GS										49	50	51	52											
										0.1	0.2	0	0.1											

Table 93. Volume of Lepidophanes guentheri (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	=	0			0.10	0	0.07	0.05		0	0.04	0	0.17	0	0.57	0	0.04	0				0	1.07	
Slope	0	0.35			0	0	0	0		0	0	0	0	0	0	0	0	0				0.09	0	
Water	0	0			0	0.09	0	0		0	0	0	0	0.06	0	0.28	0	1.30				1.03	0	
	0	0			0	0	0			0	0	0	0	0	0	0.39	0	0.19				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.50	2.43	0	0	0	0	0	0.50	0	0	0	0.34		0.21							0.77	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0.32	
Region	0.04	0	0	0	0	0.05	0.03	0.21	0	0	0	0.04	0		0							0	0.89	
	0		0	0	0.07	0	0	0.57	0		0	0			0							0	0	
					-	0	0.14	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.12	0	0	0.78	0.10	0.06	0	0							0.29	0.50	0	0.07	0	0.02	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0.27	0	0	0	0	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0.32	0.04	0	0	0.05	0		
					0	0	0	0							0.03	0	0.11	0	0.04	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.02	0	0	0.02											
										0	0	0	0											
										0	0.03	0.24	0											
										0	0	0	0											

Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	-	0.09	0		0.01	0.02	0.01	0.01		0	0.01	0	0.04	0.02	0.11	0.13	0.01	0.30				0.28	0.27	0
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.01	0.13	0.61	0	0.01	0.24	0.03	0.16	-	0	0	0.01	0.20		0.04							0.19	0.30	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0.03	0	-	0.20	0.01	0.01	0	0		0.08	0	0			0.06	0.10	0.09	0.02	0.01	0.01	0.01	0		
SS & GS										49	50	51	52											
										0.01	0.01	0.06	0.01											

Table 94. Abundance of Lobianchia dofleini (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			11.5	0	13.0	20.5		0	9.1	0	2.1	0	2.3	0	0.4	0				0	5.0	
Slope	0	0			0	1.6	1.7	0.7		8.7	0	11.1	0	9.1	0	17.3	0	0				6.7	0	
Water	0	0			0.2	0	0	0		1.0	0.2	0	0	0	0	0.7	0	0				0	0	
	0	0			0	0	0			0	0	0.4	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0.3	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	8.7	1.4	2.1	0	2.0		1.1							2.3	0.4	
Velocity	0	0	0	1.2	3.2	0.6	30.8	0	0	0	0	0	0		0							0	0.8	
Region	0	0	0	0	3.3	0	2.8	6.8	0	0	0	36.7	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0.6	16.0	20.6	2.6	0							0	0	0	0	0	0	0	0.6		
Ring	0	0.6	0.7	0	1.0	0	55.0	6.9							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0.3	0	3.5	0.4							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0.6	0	0							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										0.3	0	0	0.5											
Sea										0	0	0	0											
&										0	0	0.7	0											
Gulf										0	0	0	0											
Stream																								

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	–	0	0		1.2	0.4	1.0	1.9		2.0	2.3	2.9	0.5	2.3	0.5	1.9	0.1	0				1.7	1.3	5.8
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0	0	0	0.3	0.1	2.3	3.6	1.4	–	0.4	0.8	7.3	1.2		0.2							0.6	0.3	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0	0.2	–	0.2	1.3	3.2	2.7	1.4		13.2	0.4	1.1			0	0	0	0	0	0	0	0.2		
SS & GS										49	50	51	52											
										0.1	0	0.2	0.1											

Table 95. Volume of Lobianchia dofleini (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			2.44	0	4.00	5.00		0	4.26	0	0.58	0	0.83	0	0.13	0				0	2.00	
Slope	0	0			0.21	0.37	0.63	0.37		1.91	0	4.00	0	2.65	0	6.36	0	2.71				2.39	0	
Water	0	0			0	0	0	0		0.10	0.04	0	0	0	0	0.34	0	0				0	0	
	0	0			0	0	0			0	0	0.10	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0.09	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	1.84	0.52	1.03	0	0.65		0.21							0.83	0.11	
Velocity	0	0	0	0.06	0.79	0.15	6.00	0	0	0	0	0	0		0							0	0.49	
Region	0	0	0	0	0.95	0	0.38	1.36	0	0	0	13.33	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0.28	0.60	2.35	0.21	0							0	0	0	0	0	0	0	0.24		
Ring	0	0.06	0.07	0	0.20	0	3.00	1.15							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0.03	0	0.35	0.04							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0.06	0	0							0	0	0	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.03	0	0	0.16											
										0	0	0	0											
										0	0	0.11	0											
										0	0	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	–	0	0		0.28	0.09	0.33	0.52		0.40	1.08	1.03	0.15	0.66	0.17	0.72	0.03	0.27				0.60	0.50	2.62
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0	0	0	0.02	0.02	0.34	0.68	0.27	–	0.26	0.39	2.67	0.39		0.04							0.21	0.15	
Ring	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Core	0	0.02	–	0.07	0.11	0.36	0.21	0.22		4.54	0.08	0.41			0	0	0	0	0	0	0	0.06		
SS & GS										49	50	51	52											
										0.01	0	0.03	0.04											

Table 96. Abundance of Lobianchia gemellarii (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0.2	0	0	0		0	0	0	0	0	0.3	0	0	0				0	0	
Slope	0	0			0.3	0	0	0		0	0	0	0	0	0	0.9	0	0				0.4	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0.3	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	4.0	1.1	1.7	0	0	0	0	0.3	0	0	0	0.4		0.3							0.4	0	
Velocity	0	0	0.3	0	0	0	0.4	0	0	0	0	0	0		0							0	0.3	
Region	0	0	0	0	0	0	0.6	0	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					-	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0.6	0	0.6	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0.7	0	0.2	0	5.0	0.4							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0.3	0	0.5	0.4							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										0	0	0	0.5											
Sea										0	0	0	0											
&										0	0	0	0											
Gulf										0	0	0	0											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope	-	0	0.1		0.1	0	0	0		0	0	0	0	0	0.1	0.2	0	0				0.1	0	0.1
Water																								
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High	0	1.0	0.4	0.4	0	0	0.2	0	-	0	0	0	0.2		0.1							0.1	0.1	
Velocity																								
Region																								
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring	0	0	-	0.1	0.1	0.1	0.2	0.2		0.2	0.1	0			0	0	0	0	0	0	0	0		
Core																								
										49	50	51	52											
SS & GS										0	0	0	0.1											

Table 97. Volume of Malacosteus niger (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0	0	0	0		0	0	0	2.88	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	40.00	0			0	0	0	0		0	0	0	0	4.85	0	0	0	0				8.44	5.94	
	0	0			0	0	0			0	0	0	0	0	4.14	7.39	0	0				10.00	0	
					0	0	0			0					0	0	0	3.85						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Region	0	0	5.88	0	0	0	0	0	0	0	0	0	0		0							0	5.43	
	31.72		0	0	0	0	0	0	0		0	0			0							0	0	
					-	3.68	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	1.47	3.73	0	0	0	3.57							0	0	0	0	0	0	0	0		
	2.06	0			0	0	0	0							0	0	0	0.31	0	0	0	0		
					0	0	0	6.67							2.50	1.71	0	0.03	0.04	2.34	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											
										2.82	0	0	0											
Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	-	0	0		0	0	0	0		0	0	0	0.72	1.21	0.83	1.48	0	0.77				4.61	1.49	0.52
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	7.93	0	1.47	0	0.92	0	0	0	-	0	0	0	0		0							0	1.36	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0.52	0	-	1.87	0	0	0	0.89		0	0	0			0.50	0.34	0	0.07	0.01	0.47	0	0		
SS & GS										49	50	51	52											
										0.71	0	0	0											

Table 98. Abundance of Maurolicus muelleri (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			18.8	1.1	12.3	0		0	1.7	1.5	1.5	0.6	1.0	0	0.4	0.4				0	0.3	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0.9	0	0.3	0.3	0	0	0	0	0	0	0		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.4	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										0	0	0	0											
Sea										0	0	0	0											
&										0	0	0	0											
Gulf										0	0	0	0											
Stream										0	0	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	–	0	0.1		1.9	0.3	0.7	0		0	0.4	0.4	0.4	0.2	0.2	0	0.1	0.1				0	0.1	0.1
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0	0.2	0	0.1	0	0	0	–	0	0	0	0		0							0	0	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.1	0	–	0	0	0	0	0		0.3	0	0.1			0	0	0	0	0	0	0	0		
										49	50	51	52											
SS & GS										0	0	0	0											

Table 99. Abundance of Melamphaes pumilus (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.2	0	0	0		0	0	0	0	0	5.3	0.3	1.3	0				0	0.3	
Slope	0	0			0	0	0.4	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	1.0	0	0				0	0	
	0	0			0	0.5	0			0	0	0	0	0.3	0	0	0	0.5				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	1.0	0.3	0	0	0	0	0	0.8	0.4	0.6	0	0.6		4.0							0	0	
Velocity	0.4	1.1	1.0	0	0	0	0	0	0	0	0	0	0		2.7							0	1.1	
Region	0.4	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	4.0	0	0	0.6	0	0	0	0							8.8	17.2	0.3	2.7	0	14.4	0	13.2		
Ring	0.6	0	0	2.1	0.2	1.3	0	0							3.3	10.3	0	10.9	0	2.2	0	0		
Core	0	0	0	0	0	0	0	0							0	0.8	1.0	1.1	0.2	1.4	1.4	0		
	0	0.4			0	0	0	0							0	0	10.7	0	9.7	0	12.9	0		
					0	0	0	0.5							0	0	8.7	0	8.2	0	3.1			
Sargasso Sea & Gulf Stream										49	50	51	52											
										16.1	0	0	17.7											
										0.7	0	0	1.1											
										0	3.1	21.1	0.4											
										0	6.9	4.8	0											
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0	0		0	0.1	0.1	0		0	0	0	0	0.1	1.1	0.3	0.3	0.1				0	0.1	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.2	0.5	0.3	0	0	0.6	0	0	–	0.2	0.2	0	0.4		1.3							0	0.3	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	1.2	0.1	–	0.7	0.1	0.3	0	0		0	0	0			2.4	5.7	4.2	2.9	3.6	5.7	3.3	3.3		
SS & GS										49	50	51	52											
										4.2	2.5	6.5	4.8											

Table 100. Volume of Melamphaes pumilus (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.02	0	0	0		0	0	0	0	0	0.27	0.03	0.22	0				0	0.03	
Slope	0	0			0	0	0.08	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0.03	0	0				0	0	
	0	0			0	0.07	0			0	0	0	0	0.03	0	0	0	0.05				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.20	0	0	0	0	0	0	0.11	0	0.13	0	0.12		0.26							0	0	
Velocity	0.08	0.22	0.23	0	0	0	0	0	0	0	0	0	0		0.45							0	0.11	
Region	0.04	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.80	0	0	0.06	0	0	0.07	0							0.44	0.94	0.03	0.24	0	1.06	0	1.40		
Ring	0.06	0	0	0	0.04	0.27	0	0							0.44	1.13	0	0.79	0	0.35	0	0		
Core	0	0.13	0	0	0	0	0	0							0	0.05	0.05	0.04	0.02	0.10	0.29	0		
	0	0.07			0	0	0	0							0	0	0.32	0	0.38	0	0.57	0		
					0	0	0	0.10							0	0	0.66	0	0.54	0	0.46			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.81	0	0	1.02											
										0.09	0	0	0.19											
										0	0.07	1.09	0.04											
										0	0.63	0.34	0											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0	0		0.01	0.02	0.01	0		0	0	0	0	0.01	0.05	0.02	0.04	0.01				0	0.01	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.03	0.11	0.06	0	0	0.12	0	0	–	0	0.05	0	0.07		0.14							0	0.03	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.22	0.05	–	0.01	0.01	0.07	0	0		0.01	0.09	0.13			0.18	0.42	0.22	0.21	0.19	0.42	0.26	0.35		
										49	50	51	52											
SS & GS										0.23	0.18	0.36	0.31											

Table 101. Volume of Melamphaes suborbitalis (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	14.69	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0.58						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0							15.33	0	
	0		0	0	0	0	0.05	0	0		0	0			0							0	0	
					–	0	0.05	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
	0	0			0	9.55	0	0							0	0	0	0	0	0	0	0		
					0	0	0	10.00							0	0	0	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											

Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	–	0	0		0	0	0	0		0	0	0	0	0	0	0	0	0.12				0	3.67	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0	0	0	0	0.93	0.02	0	–	0	0	0	0		0							3.83	0	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0	–	0	0	1.91	0	0		0	0	0			0	0	0	0	0	0	0	0		
SS & GS										49	50	51	52											
										0	0	0	0											

Table 102. Volume of Melanostomias bartonbeani (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0.10	0	0	0		0	0.39	0	0	0	0	0.05	0	0				0	0	
Slope	0	0			0	0	25.00	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0.03	0	0.41	0	14.07				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0.26	0	0	0	0	0	0	0	0	0	0		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					-	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0.13	0	0	0	0	0		
					0	0	0	0							0	0	13.16	0	0	0	0			
										49	50	51	52											
Sargasso										0.08	0	0	0											
Sea										0	0	0	0											
&										0	0.03	0.02	0											
Gulf										0	0	0	0											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	-	0	0		0.01	0	3.50	0		0	0.10	0	0	0.01	0	0.11	0	2.81				0	0	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0	0.07	0	0	0	0	0	-	0	0	0	0		0							0	0	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0	-	0	0	0	0	0		0	0	0			0	0	2.66	0	0	0	0	0		
										49	50	51	52											
SS & GS										0.02	0.01	0.01	0											

Table 103. Abundance of Myctophum affine (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0	0	0	1.8		0	0.9	0	1.4	0	0	0	0	0				0	0.7	
Slope	0	0.6			0	0	0	0		0	0	0.3	0	0.6	0	0	0	0				7.0	0	
Water	0	0			0	0	0	0		1.7	0	0.3	0	0	0	1.4	0	1.1				3.8	0	
	0	0			0	0	0			1.7	0	0	0	0	0	0	0	0				0	0	
					0	0	0.3			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.5	0.6	0	0	0	0	0	0	0.1	0.3	0	0.3		0							0.2	0	
Velocity	0	0	0	1.2	0	0	0	0	0	0	0.9	0	0		0							0	0.3	
Region	0	0	0	0	0	0.5	0.3	0.6	0	0	0.7	0.4	0		0							0	0.7	
	0		1.4	0	0	0	0	0	0		0.5	0			0							1.3	1.4	
					-	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	1.0	0	0	0							0	0.3	0	0	0	0	0	0.6		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0.2	0	0	0	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0.3	0	0.5	0.4	0	0.8		
					0	0	0	0							0	0.8	0.3	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.7	0	0	0											
										0	0	0	0											
										0	0	0	0.4											
										0	0	0	0.8											

Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	-	0.2	0		0	0	0.1	1.1		0.7	0.2	0.2	0.3	0.2	0	0.3	0	0.2				2.7	0.2	0.9
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0.1	0.5	0.3	0.1	0	0.1	0.1	-	0.1	0.5	0.1	0.2		0							0.4	0.6	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0	-	0.1	0.1	0	0	0		0	0	0.1			0	0.2	0.1	0	0.1	0.1	0	0.4		
SS & GS										49	50	51	52											
										0.2	0	0	0.3											

Table 104. Abundance of Myctophum punctatum (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.5	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0.2		0.3	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0.6	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0.3	0	0.5	0	0	0	0		0							0	0	
Velocity	0	0	0	0	0	0.6	0	0	0	0	0	0	0		0							0	0	
Region	0	0	0	0	0.5	2.7	2.2	0.4	0.5	0	0	0	0		0							0	0	
	0		0	0	13.4	0.8	1.9	2.0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	33.0	7.1	0	0.2							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	2.6	0.7	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0	7.6	0.5	0.3	8.9							0	0	0	0	0	0	0	0		
	0	0			6.7	3.2	8.8	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0	0	0	0	0				
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	–	0	0		0.1	0	0	0.1		0.2	0	0	0	0	0	0	0	0				0	0	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0	0	0	0.8	0.8	0.9	0.5	–	0	0	0	0		0							0	0	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0	–	0	5.5	2.0	1.8	2.9		0	0	0			0	0	0	0	0	0	0	0		
SS & GS										49	50	51	52											
										0	0	0	0											

Table 105. Abundance of Myctophum selenops (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.5	0	0	0		0	0	0.3	0	0	0	0	0.4	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	1.4	0	0.6	0.5		0.5							0.6	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	1.0	0		0							0	0	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0.3	0	0.2	0	0.2	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										0	0	0	0.2											
Sea										0	0	0	0											
&										0	0	0	0											
Gulf										0	0	0	0											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0	0		0.1	0	0	0		0	0	0.1	0	0	0	0	0.1	0				0	0	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0	0	0	0	0	0	0	–	0.7	0	0.3	0.3		0.1							0.2	0	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0	–	0	0	0	0	0		0.1	0.7	0.2			0	0.1	0	0.1	0	0.1	0	0		
										49	50	51	52											
SS & GS										0	0	0	0.1											

Table 106. Abundance of Nemichthys scolopaceus (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.7	0	1.0	0.9		0	0.4	0.5	0	0.3	0	0	0	0				0	0	
Slope	0	1.8			0	1.1	0.4	0.7		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0.4	0.6	0	0.3	0	0.3	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0.5				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0.3		0							0	0	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0.4	
	0		0	0	0	0	0	0.3	0		0.5	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0.3	0	0	0	0	0	0	0		
Ring	0	0	0	0	0.2	0	0	0							0	0	0	0	0	0	0	0		
Core	0.9	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0.4							0	0	0	0.4	0	0	0	0		
					0	0	0	0							0.3	0.3	0.3	0	0.4	0.9	1.2			
Sargasso										49	50	51	52											
Sea										0	0	0	0											
&										0	0	0	0											
Gulf										0	0.3	0	0											
Stream										0.3	0	0.3	0											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope	–	0.4	0		0.1	0.3	0.1	0.3		0	0.2	0.3	0	0.2	0	0.1	0	0.1				0	0	0
Water																								
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0.1	–	0	0.1	0	0.1		0							0	0.1	
Velocity																								
Region																								
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring	0.2	0	–	0	0.1	0	0	0.1		0	0	0.1			0.1	0.1	0.1	0.1	0.1	0.2	0.2	0		
Core																								
										49	50	51	52											
SS & GS										0.1	0.1	0.1	0											

Table 107. Volume of Nemichthys scolopaceus (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			9.02	0	31.33	3.18		0	3.15	0.75	0	0.59	0	0	0	0				0	0	
Slope	0	16.47			0	4.21	1.67	3.33		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	6.08	7.94	0	3.64	0	0.14	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0.07				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	1.33		0							0	0	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	2.86	
	0		0	0	0	0	0	3.71	0		3.81	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0.35	0	0	0	0	0	0	0		
Ring	0	0	0	0	3.00	0	0	0							0	0	0	0	0	0	0	0		
Core	13.64	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0	5.77							0	0	0	0.19	0	0	C	0		
					0	0	0	0							0.13	0.24	0.24	0	0.05	0.63	0.54			
Sargasso										49	50	51	52											
Sea										0	0	0	0											
&										0	0	0	0											
Gulf										0	5.86	0	0											
Stream										0.03	0	0.17	0											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	4.12	0		0.90	1.05	2.11	1.32		0	2.31	2.17	0	1.06	0	0.03	0	0.01				0	0	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0	0	0	0	0	0	0.74	–	0	0.76	0	0.27		0							0	0.72	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	3.41	0	–	0	1.05	0	0	1.44		0	0	0.78			0.10	0.05	0.05	0.04	0.01	0.13	0.11	0		
										49	50	51	52											
SS & GS										0.01	1.47	0.04	0											

Table 108. Abundance of Notolychnus valdiviae (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			4.1	0	2.3	1.4		0	0.6	0	0	0	1.0	0	0	0				0	0	
Slope	0	1.8			0	1.1	0.4	0		0.4	0.3	2.3	0	0.6	2.4	0	0	6.4				1.1	0	
Water	0	0			0.2	0	0	0		3.0	0	0	0	0	1.8	7.6	0	3.0				0	0	
	0	0			0	0	0.6			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	3.0	2.3	0	0	0	0	0	0.5	0	0.3	0	0.6		4.7							0.8	0	
Velocity	0.4	0	1.7	4.7	0	0	0	0	0.4	0	0.6	0	0		1.4							0	1.4	
Region	0.8	0	0	0	2.4	0	38.4	2.9	0	0	0	3.3	0		2.0							0	0	
	0		0	0	0.3	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	1.2	0	0	1.1	0	0	0	0							14.1	25.0	0	17.6	0.2	8.0	0	1.8		
Ring	2.9	3.9	4.3	0.5	0.4	2.7	2.7	4.6							0	0.6	0	1.2	0	0	8.8	0.2		
Core	0	0.6	0	0	1.2	0	0	2.9							0	0.3	5.2	0	18.6	1.0	2.9	0		
	0	0			0	0	0	0							0	2.2	2.3	7.7	3.2	0	1.4	0		
					0	0	0	0							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										0.5	0	0	1.6											
Sea										2.2	2.4	0	1.9											
&										0	8.6	5.0	0											
Gulf										0	0	0.3	0											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope	–	0.5	0		0.5	0.3	0.3	0.1		0.7	0.2	0.6	0	0.2	1.0	1.5	0	1.2				0.3	0	0.1
Water																								
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High	0.3	0.8	1.0	1.2	0	2.8	7.6	0.6	–	0	0.3	0.7	0.4		2.0							0.2	0.4	
Velocity																								
Region																								
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring	1.0	1.1	–	0.4	0.4	0.7	0.5	1.6		0.5	0.4	0.1			2.8	5.6	1.5	5.3	4.4	3.1	1.5	0.5		
Core																								
										49	50	51	52											
SS & GS										1.8	2.8	1.3	0.9											

Table 109. Abundance of Notoscopelus resplendens (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct	
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5
	-	0			0.7	0	2.0	0		0	0	0	0	0	0	0	0	0				0	0.7
Slope	0	0			0	0	0.4	0		0	0	0	0	0	0	0	0	0				0	0
Water	0	0			0	0	0	0		0	0	0.3	0	0	0	0	0	0				0	0
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0
					0	0.4	0			0					0	0.9	0	0					
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3
High	0	0.5	0.3	0	0	0	0	0	1.1	0.1	0.1	0	0.5		0							1.0	0
Velocity	0	0.6	0	0	0	0	0	0	0	0	0	0	0		0							0	0
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0
	0		0	0	0	0	0	0	0		0	0			0							0	0
					-	0.7	0.7	0				1.0											
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1	
	0	0	0	0	1.0	1.8	0.9	0							0	0	0	0	0	0	0	0.4	
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0	
Core	0	0	0	0	0.3	0	0	0.4							0	0	0	0	0	0	0	0	
	0	0			0	0	0	0.4							0	0	0	0	0	0	0	0	
					0	0	0	0							0	0	0	0	0	0	0		
Sargasso Sea & Gulf Stream										49	50	51	52										
										0.3	0	0	0										
										0	0	0	0										
										0	0	0	0										
										0	0	0	0										

Slope Water	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
	-	0	0		0.1	0	0.2	0		0	0	0.1	0	0	0	0.2	0	0				0	0.2	0.1
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0.4	0.1	0	0.2	0.1	0.2	0	-	0.1	0	0.2	0.3		0							0.3	0	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0	-	0	0.1	0.3	0.3	0.2		0.1	0.5	0.3			0	0	0	0	0	0	0	0.1		
SS & GS										49	50	51	52											
										0.1	0	0	0											

Table 110. Volume of Notoscopelus resplendens (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0.98	0	5.00	0		0	0	0	0	0	0	0	0	0				0	0.90	
Slope	0	0			0	0	1.25	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0.24	0			0					0	0.91	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.05	0.03	0	0	0	0	0	0.68	0.01	0.08	0	0.79		0							1.67	0	
Velocity	0	0.06	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					-	0.35	0.19	0				0.95												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0.10	0.12	0.03	0							0	0	0	0	0	0	0	0.50		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0.03	0	0	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0.04							0	0	0	0	0	0	0	0		
					0	0	0	0.03							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										0.18	0	0	0											
Sea										0	0	0	0											
&										0	0	0	0											
Gulf										0	0	0	0											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope	-	0	0		0.10	0	0.48	0		0	0	0	0	0	0	0.18	0	0				0	0.23	0.16
Water																								
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High	0	0.03	0.01	0	0.09	0.01	0.04	0	-	0.01	0.03	0.19	0.47		0							0.42	0	
Velocity																								
Region																								
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring	0	0	-	0	0.01	0.02	0.01	0.01		0.02	0.52	0.71			0	0	0	0	0	0	0	0.13		
Core																								
										49	50	51	52											
SS & GS										0.05	0	0	0											

Table 111. Volume of Photonectes margarita (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0.10	0.09	0	0	0	0	0	0	0	0	0	2.41		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		86.36							0	0	
Region	56.25	0	0	0	0	0	0.03	0	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	1.80	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0.47	0	0	0	0	0.64							0	0	0	0	0	0	0	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0.86	0		
					0	0	0	0							0	0	0	0	0	0	0			
Sargasso										49	50	51	52											
Sea										0	0	0	0											
&										0	0	0	0											
Gulf										0	0	0	0											
Stream										0	0	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	–	0	0.01		0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	0
High	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
Velocity	14.06	0.03	0.02	0	0	0	0.01	0	–	0	0	0	1.45		17.27							0	0	
Region																								
Ring	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Core	0	0	–	0	0.09	0	0	0.16		0	0	0			0	0	0	0	0	0	0.17	0		
SS & GS										49	50	51	52											
										0	0	0	0											

Table 112. Volume of Photostomias guernei (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0	0	0	0		0	0	0	1.54	0	0	0	0	0				0	1.03	
Slope	0	0			5.86	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	2.27	0			0	0	0	0		0	0	0	0	0	0	0	0	0.15				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	1.90				0	0	
					0	0	0			0					0	0	0	1.54						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0.71	0	0	0	0	0	0	0	0	0	0.32		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0.43	
	0		0	0	0	0	1.76	0	0		0	0			0							0	0	
					-	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0.15	0	0	0	0	0	0	0.28		
Ring	0	0	0	0	0	0	0	0							0	0	0	0.15	0	0	0	0		
Core	0	0	0.67	1.08	0	0	0	0							0	0	0	0	0	0	0	0		
	0	0			4.17	0	0	1.54							0	0	0	0	0.05	0	0	0		
					0	0	0	0							0	0.13	1.18	0	0.18	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	1.11											
										0	0	0	0											
										0	0	0	1.79											
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	-	0	0		0.88	0	0	0		0	0	0	0.39	0	0	0	0	0.72				0	0.26	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0	0.18	0	0	0.31	0.35	0	-	0	0	0	0.19		0							0	0.11	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0	-	0.80	0.83	0	0	0.39		0	0.23	0			0.03	0.03	0.24	0.03	0.05	0	0	0.07		
SS & GS										49	50	51	52											
										0	0	0	0.73											

Table 113. Abundance of Pollichthys mauli (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.5	0	0.3	0		0	0.4	0	0	0	0	0.3	0	0				0	0	
Slope	0	0			0	0	0	0		0.2	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0.8	0.4	0	0	0.1		0.8							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0.2	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.4	0	0	0	0	2.9	0.3	0							6.2	2.8	0	2.7	0	1.1	2.5	0		
Ring	0	0.6	0	0.5	0.4	0	0	0							0	0	0	0	0	0.2	0	0		
Core	0	0	0	0	0	0	0	0							0	0	9.5	0	1.2	0	0	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										3.2	0	0	3.4											
Sea										0	3.9	0.7	0											
&										0	0	0	0											
Gulf										0	0	0	0											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0	0		0.1	0	0	0		0	0.1	0	0	0	0	0.1	0	0				0	0	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0	0	0	0	0.2	0.1	0	–	0.2	0	0	0.1		0.2							0	0	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.1	0.2	–	0.1	0.1	0.4	0.1	0		0.1	0.2	0			1.2	0.6	1.9	0.4	0.2	0.4	1.0	0		
										49	50	51	52											
SS & GS										0.8	1.0	0.2	0.9											

Table 114. Volume of Poromitra capito (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0.31	0	0	0		0	0	0	0	0	1.20	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	1.92						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0.21	0.25	0	0		0							0.73	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							1.22	0	
Region	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
	0.34		0	0	0	0	0.49	0	0		0	0			0							0	3.85	
					-	0	0.14	0.41				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0.36	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
	0	0.18			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0	0.89	0							0	0	8.16	0	0	0	1.15			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	-	0	0		0.05	0	0	0		0	0	0	0	0	0.24	0	0	0.38				0	0	0
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.09	0	0	0	0	0	0.13	0.08	-	0.11	0.10	0	0		0							0.49	0.96	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0.09	0.05	-	0	0	0	0.18	0		0	0	0.06			0	0	1.63	0	0	0	0.23	0		
SS & GS										49	50	51	52											
										0	0	0	0											

Table 115. Abundance of Scopeloberyx opisthopterus (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0.4	0	0.2		0	0.2	0	0.5	0	0	0	0	0				0	0.3	
	2.3	2.7			0	0.9	0			0.6	0.2	0	0.2	1.3	0	0	0	1.0				1.2	0	
					0.5	0	0.9			0					0.5	0.3	0.6	0.4						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0.3		0							0	0	
Region	0.4	1.0	0	0.6	0	0	0	0	0	1.7	0.2	0	0.8		0							0	0	
	0.7		0.7	3.8	0	0	0	0.3	0		0.5	0			3.3							0.6	0	
					–	0.5	0.5	1.7				1.4												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0.7	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	1.3	2.1	0	0	0	0							0	0	0	0	0	0.5	0	0		
	0	0.7			0.8	0.5	0	0.8							0	0	0	0	0	0	0	0.8		
					0.6	2.9	1.1	0							1.9	1.3	0.5	2.1	0	0.6	1.5			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											
										0	0	1.4	2.1											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0.7	0.2		0.1	0.4	0.4	0.1		0.1	0.1	0	0.2	0.3	0.1	0.1	0.1	0.3				0.3	0.1	0.1
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.3	0.3	0.2	1.1	0.1	0.2	0.1	0.4	–	0.4	0.1	0.3	0.2		0.7							0.2	0	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0.2	–	1.1	0.3	0.7	0.2	0.2		0.1	0.1	0			0.4	0.3	0.1	0.4	0	0.2	0.3	0.2		
										49	50	51	52											
SS & GS										0	0	0.4	0.5											

Table 116. Volume of Scopeloberyx opisthopterus (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0.11		0	0.02	0	0.10	0	0	0	0	0				0	0.03	
	0.64	1.33			0	0.09	0			0.11	0.16	0	0.04	0.60	0.07	0	0	0.19				0.26	0	
					0.11	0.45	0.49			0					0.14	0.12	0.13	0.08						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0.03		0							0	0	
Region	0.04	0.29	0	0.12	0	0	0	0	0	0.53	0.12	0	0.46		0							0	0	
	0.34		0.07	2.14	0	0	0	0.06	0		0.29	0			0.33							0.31	0	
					-	0.26	0.02	0.48				0.57												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0.57	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0.13	1.00	0	0	0	0							0	0	0	0	0	0.14	0	0		
	0	0.25			0.08	0.09	0	0.27							0	0	0	0	0	0	0	0.08		
					0.17	1.47	0.83	0.38							0.19	0.16	0.08	0.26	0.21	0.03	0.19			
										49	50	51	52											
Sargasso										0	0	0	0											
Sea										0	0	0	0											
&										0	0	0	0											
Gulf										0	0	0	0											
Stream										0	0	0.17	0.64											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	-	0.33	0.09		0.03	0.14	0.25	0.07		0.02	0.05	0	0.04	0.15	0.04	0.02	0.03	0.05				0.07	0.01	0.02
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.10	0.07	0.02	0.57	0.07	0.16	0.01	0.11	-	0.13	0.08	0.11	0.10		0.07							0.08	0	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0	0.06	-	0.25	0.05	0.31	0.17	0.07		0.02	0.01	0			0.04	0.03	0.02	0.05	0.04	0.03	0.04	0.02		
SS & GS										49	50	51	52											
										0	0	0.04	0.16											

Table 117. Abundance of Scopelogadus beanii (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0.2	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0.2	0	0	0	1.0	0				0	0.4	
Water	0.9	0			0	0	0	0.2		0	0	0.6	0	0	0.6	0	0.9	0.4				0	0.3	
	0.5	0			0	0	0			0	0	0	0	0	1.0	0	0.8	0				0	0	
					0	0	0			0.7					0.2	0	0	0.4						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	2.1	0.1	0	0	0.1		0							0	0	
Velocity	0	0	0.7	0	0	0	0	0	3.2	0.9	0	0	0		0							0	0	
Region	0	0	0	0.6	0	0	0	0	1.0	0	0	0	0		0							0.7	0	
	0		0	0.5	0.7	0.8	1.9	0.3	0		0	0			0							0	0	
					–	0.7	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0.2	4.6	2.5	0	1.4							0	0	0	0	0	0	0	0		
	0	0			2.5	1.8	3.8	0							0	0	0	0	0	0.4	0.5	0.8		
					0	0	0	0							0.6	0.3	0	0.3	0.4	0	0.8			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.2	0	0	0											
										0	0	0	0											
										0	0.3	0.2	0											
										0	0	0.3	0											
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0	0.2		0	0	0	0.1		0.1	0.1	0.2	0.1	0	0.4	0	0.6	0.2				0	0.2	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0	0.2	0.3	0.4	1.2	0.4	0.1	–	0.3	0	0	0.1		0							0.2	0	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0	–	0.1	1.4	0.9	0.8	0.4		0	0	0			0.1	0.1	0	0.1	0.1	0.1	0.3	0.2		
										49	50	51	52											
SS & GS										0.1	0.1	0.1	0											

Table 118. Volume of Scopelogadus beanii (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0.02	0	0	0	0.10	0				0	2.41	
Water	11.82	0			0	0	0	7.27		0	0	0.09	0	0	0.44	0	9.09	0.04				0	5.00	
	20.00	0			0	0	0			0	0	0	0	0	16.55	0	16.00	0				0	0	
					0	0	0			0.21					10.91	0	0	1.54						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0.08	0.01	0	0	0.01		0							0	0	
Velocity	0	0	0.67	0	0	0	0	0	0.12	0	0	0	0		0							0	0	
Region	0	0	0	0.18	0	0	0	0	0	0	0	0	0		0							22.00	0	
	0		0	5.24	0.03	0.04	0.05	0.03	0		0	0			0							0	0	
					-	2.81	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0.16	0.18	0.10	0	0.04							0	0	0	0	0	0	0	0		
	0	0			0.17	0.05	0.13	0							0	0	0	0	0	0.04	0.05	0.17		
					0	0	0	0							0.06	0.03	0	0.03	0.04	0	0.04			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0.02	0	0	0											
										0	0	0	0											
										0	0.03	0.02	0											
										0	7.19	0.03	0											
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	-	0	0.16		0	0	0	4.36		0.04	0	0.02	0.01	0	5.58	0	5.04	0.32				0	1.85	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0	0.17	1.36	0.71	0.05	0.01	0.01	-	0.01	0	0	0.01		0							5.50	0	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0	-	0.08	0.07	0.03	0.03	0.01		0	0	0			0.01	0.01	0	0.01	0.01	0.01	0.02	0.04		
										49	50	51	52											
SS & GS										0.01	1.81	0.01	0											

Table 119. Volume of Scopelogadus mizolepis (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0.02	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	4.09		0	0.06	0.79	0	0	8.24	0	0	0				0.03	0	
	0	0			1.05	0	0			0	0.57	10.82	0	0.83	0	0	0	0				0.09	0.38	
					0	0	0			0					11.36	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	5.74		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	28.57	1.18	0	0		0							0.03	0	
Region	0	0	0	0	0	0	0	0	0	0.11	0	0	0.38		0							0	0.32	
	13.10		0	0	0	0	0	0	0		0	0			0							0	0	
					–	1.14	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0	2.31							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0	0.18	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											
										0	0.09	0	0											
	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0	0		0.26	0	0	2.45		0	0.13	2.90	0	0.21	3.92	0	0	0				0.03	0.10	3.81
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	3.28	0	0	0	0.29	0.10	0	0	–	7.17	0.26	0	3.52		0							0.01	0.08	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0	–	0	0	0	0	0.58		2.31	0	0			0	0	0.04	0	0	0	0	0		
SS & GS										49	50	51	52											
										0	0.02	0	0											

Table 120. Abundance of Serrivomer beanii (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0	0	0	0		0	0	0.3	0.2	0	0	0	0.4	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0.4	0	0	0	0.3	0				0	0.4	
Water	0	0			0	0.4	0	0		1.0	0.2	0	0.3	0	0	0	0	0				0	0.6	
	0.5	0			1.1	0	0			0	0.2	0.2	0	0	0.3	0	0	0				0.3	0.3	
					0.5	0	0.1			0					0.2	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0.1	0	0	0.1		0							0.2	0	
Velocity	0	0	0.3	0	0	0	0	0	0	0	0.9	0	1.3		0							0.3	0.3	
Region	0	0.2	0	0	0	0.5	0	0	1.0	0	0.5	0	0		0							0.7	0.4	
	0.3		0	0	1.4	0	0.5	0	0		0	0.4			0							0	0.8	
					-	0	0.2	0				0.5												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0.2		
Core	0	0	0	0.3	0	1.5	0.3	0							0	0	0	0	0	0	0	0.3		
	0	0			0.4	0	0.6	0							0.5	0.9	0.7	0.4	1.6	0.8	0	0		
					0	0	0	0.3							0	0.8	0	0.3	1.1	0	0.4			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0.7	0.7	0.9	0											
										0.3	0.3	0	0											

Slope	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Water	-	0	0		0.4	0.1	0.1	0		0.2	0.1	0.1	0.2	0	0.1	0	0.2	0				0.1	0.3	0.2
High Velocity Region	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
	0.1	0.1	0.1	0	0.1	0.1	0.2	0	-	0.1	0.1	0.2	0.3		0							0.3	0.4	
Ring Core	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
	0	0	-	0.2	0.1	0.3	0.2	0		0	0	0.1			0.1	0.4	0.1	0.1	0.5	0.2	0.1	0.1		
SS & GS										49	50	51	52											
										0.2	0.3	0.2	0											

Table 121. Volume of Serrivomer beanii (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0	0	0.25	0.04	0	0	0	0.04	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0.24	0	0	0	0.09	0				0	12.96	
Water	0	0			0	0.52	0	0		0.33	0.88	0	0.03	0	0	0	0	0				0	0.63	
	0.68	0			24.74	0	0			0	0.89	2.04	0	0	17.24	0	0	0				0.35	16.67	
					7.63	0	0			0					0.80	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	1.56	0	0	1.48		0							0.02	0	
Velocity	0	0	0.03	0	0	0	0	0	0	0	0.44	0	19.00		0							0.05	0.03	
Region	0	0.20	0	0	0	0.05	0	0.14	3.50	0	7.80	0	0		0							0.07	0.18	
	1.03		0	0	7.24	0	0.59	0	0		0	4.35			0							0	12.31	
					–	0	2.56	0				0.10												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
Ring	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0.04		
Core	0	0	0	0.27	0	0.25	0.03	0							0	0	0	0	0	0	0	0.06		
	0	0			0.21	0	0.19	0							0.37	0.19	0.08	0.38	0.32	0.19	0	0		
					0	0	0	0.26							0	0.32	0	0.05	0.21	0	0.27			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0.07	0.03	0.20	0											
										0.05	0.03	0	0											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0	0		8.09	0.13	0	0		0.07	0.44	0.57	0.08	0	3.61	0	0.03	0				0.09	7.57	0.40
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.26	0.10	0.01	0	0.01	0.55	0.63	0.03	–	0.78	1.66	0.89	4.69		0							0.04	3.18	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0	–	0.14	0.04	0.05	0.04	0		0	0	1.41			0.07	0.10	0.02	0.09	0.11	0.04	0.05	0.03		
SS & GS										49	50	51	52											
										0.03	0.02	0.05	0											

Table 122. Abundance of Sternoptyx diaphana (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		1.0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0.3	0	0.3	0	0	0.3	0				0	1.1	
Water	2.3	2.1			0	0.9	0	0.9		2.3	0.6	1.5	2.8	2.4	0.3	0	10.0	5.2				4.1	0.6	
	0	0			2.1	0.5	0			5.6	0.4	0	0.2	0.3	0	0	3.2	1.9				0.3	0	
					0.5	0	0.6			0.7					0	0	0.2	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0.2		0							0	0.4	
Velocity	0	0	0	0	0	0	0	0	0	2.6	1.8	0.2	1.7		0							1.1	2.4	
Region	0.8	3.2	0.6	1.8	0	0	0	0	1.0	0.2	2.7	0	0		6.4							6.7	6.8	
	0.3		0	0	1.4	2.4	1.6	0.6	0.4		0	1.3			0							0	0	
					–	1.9	0.5	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0.5	0	0.4	0	0	0		
Ring	0	0	0	0	0	0	0	0							0.6	0	0.4	0	0	0.2	0	0.2		
Core	3.6	3.1	10.7	4.8	0.3	0	0	1.8							0	0	1.4	0.7	0.8	1.0	0	18.4		
	0	1.4			1.7	0.9	2.5	0.4							11.6	10.9	13.5	12.7	9.5	9.2	10.5	3.3		
					0.6	0	0	0							4.7	7.4	6.8	1.3	16.1	4.7	0.8			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										2.2	3.4	6.1	16.1											
										23.1	15.9	0	0.5											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	0.6	0.5	1.0		0.7	0.4	0.3	0.5		1.9	0.3	0.5	0.8	0.8	0.1	0	2.7	1.4				1.1	0.4	0.1
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.3	1.6	0.2	0.5	1.1	0.3	0.4	0.1	0.3	0.7	1.6	0.3	0.5		2.6							2.0	2.4	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.9	1.1	–	2.4	0.5	0.2	0.5	0.6		0.2	0.4	0.4			3.4	3.7	4.5	1.1	5.4	3.0	2.3	5.5		
										49	50	51	52											
SS & GS										6.3	4.8	1.5	4.2											

Table 123. Volume of Sternoptyx diaphana (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0	0	0	0		0.10	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0.14	0	0.03	0	0	0.03	0.96				0	0.44	
Water	0.23	1.14			0	0.48	0	0.20		0.20	0.41	0.25	0.26	0.64	0.03	0	1.14	0				1.19	1.00	
	0	0			0.21	0.05	0			1.86	0.23	0	0.22	0.30	0	0	0.17	0.24				0.09	0	
					0.05	0	0.70			0.57					0	0	0.02	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	0	0	0	0	0.02		0							0	0.04	
Velocity	0	0	0	0	0	0	0	0	0	1.49	0.21	0.02	0.22		0							0.05	0.05	
Region	0.42	1.02	0.59	0.29	0	0	0	0	0.55	0.11	1.49	0	0		0.16							1.80	1.25	
	0.03		0	0	0.55	2.54	0.84	0.19	0.09		0	0.11			0							0	0	
					–	0.70	0.58	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0	0	0	0							0	0	0.05	0	0.02	0	0.02	0		
Ring	0	0	0	0	0.06	0	0	0							0.06	0	0.04	0	0	0.02	0	0.02		
Core	0.45	0.50	4.73	2.58	0.30	0.65	0	0.50							0	0	0.05	0.19	0.02	0.05	0	0.66		
	0	0.75			0.38	0.13	0.63	0.31							0.11	0.16	0.19	0.85	0.30	0.20	0.20	2.25		
					0.06	0	0	0							0.88	2.53	1.74	0.53	2.93	0.69	0.12			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0.02	0.06	0.85	1.00											
										1.23	2.00	0	0.36											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0.29	0.07		0.07	0.13	0.35	0.12		0.55	0.16	0.10	0.12	0.24	0.01	0	0.27	0.14				0.32	0.36	0.32
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.11	0.26	0.15	0.07	0.81	0.01	0.28	0.04	–	0.40	0.34	0.02	0.06		0.06							0.46	0.34	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.11	0.31	–	1.29	0.17	0.16	0.13	0.20		0.24	0.05	0.04			0.21	0.54	0.42	0.31	0.66	0.19	0.07	0.73		
SS & GS										49	50	51	52											
										0.31	0.52	0.21	0.34											

Table 124. Abundance of Stomias boa ferox (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct	
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5
	-	0			0.5	0	0.3	0		0	0.7	0	0.4	0	0	0	0.4	0				0	1.7
Slope	0	0			0.3	0	0.8	0.4		0	0	0.9	0	0	0	0	0	0				1.5	0
Water	0	1.4			0	0	0	2.7		3.7	0.2	1.2	0	2.1	0	0	0	2.2				1.3	0.3
	0	0			0	0	0			1.1	0	0.2	0	0.7	0.3	1.3	0	0.5				0	0
					0	0	0.1			0					0	0	0	0					
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3
High	0	0	0.3	0	0.3	0	0	0	0	0.1	0	0	0.3		0							0	0
Velocity	0	0	0.7	1.2	0	0	0	0	0.8	0.9	2.1	0	0		0							0	0.3
Region	0.4	0.5	0	0	0	2.7	11.6	3.6	1.0	0	0	2.9	0		0							1.3	0
	0		0	0	0	0	0.3	0.3	0		0	0			0							0	0
					-	0	0	0				0											
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1	
	0	0	0	0	8.0	1.2	0.3	0							0	0	0	0	0	0	0	0	
Ring	0	0	0.7	0	0.6	1.3	5.0	0							0	0	0	0	0	0	0	0	
Core	0.9	0	0	0	17.3	9.5	33.8	16.8							0	0	0	0	0	0	0	0	
	0	0			1.7	0.5	0.6	0							0	0	0	0	0	0	0	0	
					0	0	0	0							0	0	0	0	0	0	0		
										49	50	51	52										
Sargasso										0	0	0	0										
Sea										0	0	0	0										
&										0	0	0	0										
Gulf										0	0	0	0										
Stream										0	0	0	0.3										

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	-	0.4	0.4		0.1	0	0.2	1.8		1.0	0.2	0.6	0.1	0.7	0.1	0.3	0.1	0.5				0.7	0.5	0.5
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0.1	0.3	0.2	0.3	0.6	1.0	2.4	0.8	-	0.3	0.5	0.6	0.2		0							0.3	0.1	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.2	0	-	0	4.4	2.5	7.1	4.2		0	0.2	0.2			0	0	0	0	0	0	0	0		
										49	50	51	52											
SS & GS										0	0	0	0.1											

Table 125. Volume of Stomias boa ferox (ml/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			0.73	0	0.03	0		0	0.83	0	0.77	0	0	0	0.09	0				0	11.00	
Slope	0	0			0.41	0	5.42	1.85		0	0	0.03	0	0	0	0	0	0				0.22	0	
Water	0	5.71			0	0	0	3.86		0.27	0.02	14.12	0	6.67	0	0	0	0.30				2.50	0.53	
	0	0			0	0	0			2.22	0	0.51	0	19.33	1.03	8.70	0	0				0	0	
					0	0	0.01			0					0	0	0	3.85						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0.03	0	0.04	0	0	0	0	0.01	0	0	0.56		0							0	0	
Velocity	0	0	12.67	0.06	0	0	0	0	0.05	0.06	0.04	0	0		0							0	0.03	
Region	4.16	2.68	0	0	0	0.77	0.84	0.18	0.05	0	0	0.25	0		0							21.33	0	
	0		0	0	0	0	0.68	10.86	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	0.50	0.12	0.04	0							0	0	0	0	0	0	0	0		
Ring	0	0	0.07	0	0	0.07	0.50	0							0	0	0	0	0	0	0	0		
Core	0.09	0	0	0	0.91	0	2.30	1.61							0	0	0	0	0	0	0	0.03		
	0	0			0.08	0.09	0.06	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0											
										0	0	0	0.05											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	1.43	3.11		0.13	0	0.77	2.91		0.50	0.21	3.67	0.19	6.50	0.21	1.74	0.02	0.83				0.68	2.88	5.00
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	1.04	1.34	3.18	0.02	0.15	0.06	0.30	2.19	–	0.02	0.01	0.05	0.34		0							5.33	0.01	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0.02	0	–	0	0.22	0.05	0.50	0.40		0	5.15	0.26			0	0	0	0	0	0	0	0.01		
SS & GS										49	50	51	52											
										0	0	0	0.01											

Table 126. Abundance of Symbolophorus veranyi (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Slope	0	0			0	0	0	0		0	0	0	0	0	0	0	0	0				0	0	
Water	0	0			0	0	0	0		0	0.2	0.3	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0.4	0	0	0.3	0	0	0	0.5				0	0	
					0	0	0.1			0					0	0.3	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0.3	0	0.8	0.9	0.3	0	0	0	0		0							0	0	
Velocity	0	0	0	0	0	0	0	0	0	0	0	0	0		0							0	0	
Region	0	0	0	0	0	0	0	0	0	0.4	0.5	0	0.4		0							0	0	
	0		0	0	0	0	0	0	0		0	0.9			0							0	0	
					-	0.2	0.9	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	2.0	1.8	0.3	0							0	0	0	0	0	0.3	0	0		
Ring	0	0	0	0	0.2	0	0	0							0	0	0	0	0	0	0	0		
Core	0	0	0	0	0	0	0	0							0	0	0	0	0	0	0	0		
	0	0			0	0	0.6	1.2							0	0	0	0	0	0	0	0		
					0	4.1	1.1	0							0.3	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										0	0	0	0											
Sea										0	0	0	0											
&										0	0	0	0											
Gulf										0	0	0	0											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	-	0	0		0	0	0.1	0		0	0.2	0.1	0	0.1	0	0.1	0	0				0	0	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0	0	0	0.1	0.2	0.5	0.3	-	0.1	0.1	0.2	0.1		0							0	0	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0	-	0	0.2	1.1	0.5	0.3		0	0.2	0			0.1	0	0	0	0	0.1	0	0		
										49	50	51	52											
SS & GS										0	0	0	0											

Table 127. Abundance of Valenciennellus tripunctulatus (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	1.3			0	0.5	0	0.5		0	2.8	0	1.5	0	1.3	1.1	1.3	0.8				0	1.0	
Slope	0	0			15.9	2.6	2.1	1.1		1.9	0.3	1.4	0.2	0	5.2	10.5	2.1	2.9				0.9	0	
Water	0	0			0.5	0	2.2	0		0	0	0.3	0	0	0	0	0	0				0	0	
	0	0			0.5	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0.3	2.0	1.7	0	0	0	0	0	1.8	0.1	0.5	0	0.5		0							2.1	0.7	
Velocity	1.5	1.7	1.7	3.5	1.1	0.5	2.8	0.5	0	0	0.3	0.2	0		0							0	0	
Region	0	0	0	0	0.5	0	0	2.1	0	0	0	0	0		0.8							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	1.0	0	1.2	0							0	0	0.3	0	0	0	0.4	0		
Ring	1.8	1.7	0	2.1	0	2.0	5.0	0							0.6	0.3	0.4	0.6	0	0	1.3	1.2		
Core	0	0	0	0	0	0	0	0							3.2	0.3	1.0	1.5	0.4	1.4	0	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0	0	0							0	0	0	0	0	0	0			
Sargasso										49	50	51	52											
Sea										0.3	0.3	0	0											
&										0.9	1.2	0.4	0.3											
Gulf										0.4	0	0	0											
Stream										0	0	0	0											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope	–	0.3	0.3		2.6	0.8	0.7	0.4		0.4	0.8	0.4	0.4	0	1.3	1.4	0.7	0.5				0.2	0.3	0.5
Water																								
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High	0.5	0.9	0.9	0.9	0.1	0.8	0.3	0.5	–	0.1	0.3	0.1	0.3		0.3							0.5	0.2	
Velocity																								
Region																								
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring	0.5	0.4	–	0.5	0.1	0.5	0.6	0		0.5	0.9	0.4			0.8	0.1	0.3	0.2	0.1	0.3	0.3	0.3		
Core																								
										49	50	51	52											
SS & GS										0.4	0.4	0.1	0.1											

Table 128. Abundance of Vinciguerria attenuata (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	-	0			0	0	0	0		0	0	0	0	0	0.3	0.5	1.3	1.5				0	0	
Slope	0	0			0	0.5	0	0		0.4	0	0	0.4	0	2.4	8.2	0	3.6				0.9	0	
Water	0	0			0	0	0	0		0	0	0	0	0	0.3	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0	0	0	0	3.4	0.6	1.0	0	0.7		0							1.3	1.4	
Velocity	0	0	0	0	0.5	0.5	3.6	0.5	1.2	0	0.9	0.2	0		0							0	0.3	
Region	0	0	0	0	1.4	0	12.2	2.1	0	0	0	0	0		0							0	0	
	0		0	0	0	0	0	0.3	0		0	0			0							0	0	
					-	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	1.7	23.0	1.8	1.5	0.6							0	0	0.3	0	0	2.0	0.8	0		
Ring	0	0	0	0	1.2	0	0	3.8							1.7	2.8	2.9	1.8	0.3	4.1	0.6	1.0		
Core	0	0	0	0	8.8	0.5	3.2	2.1							0	1.0	6.7	5.6	1.0	1.9	0.7	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0.6	0	0	0							0	0	0	0	0	0	0			
										49	50	51	52											
Sargasso										0	0	0	0											
Sea										5.3	0	0.7	3.9											
&										0	0	0	0											
Gulf										0	0	0	0											
Stream																								

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope	-	0	0		0	0.1	0	0		0.1	0	0	0.1	0	0.6	1.0	0.3	0.8				0.2	0	0.2
Water																								
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High	0	0	0	0	0.1	0.8	2.8	0.5	-	0.3	0.6	0.1	0.4		0							0.3	0.4	
Velocity																								
Region																								
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring	0	0	-	0.4	3.5	0.4	1.2	1.4		4.4	0.9	0.7			0.3	0.8	1.7	0.6	0.2	1.2	0.5	0.3		
Core																								
										49	50	51	52											
SS & GS										1.3	0	0.2	1.0											

Table 129. Abundance of Vinciguerria poweriae (specimens/10,000 m^3).

	Oceanus 118 April				Oceanus 121 June					Oceanus 125 August					Knorr 98 Sept-Oct							A2 110 Sept-Oct		
	8	9			19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	
	–	0			21.7	0	1.3	13.2		0	1.5	0	1.3	0	4.3	0	1.3	0				0	1.3	
Slope	0	0			0	0	0.4	0		0.6	0	0.3	0.4	0	0	0.5	0	0				0	0	
Water	0	0			0	0	0	0		0.3	0	0	0	0	0	0	0	0				0	0	
	0	0			0	0	0			0	0	0	0	0	0	0	0	0				0	0	
					0	0	0			0					0	0	0	0						
	12	13	14	15	26	27	30	31	32	41	42	43	44		55							2	3	
High	0	0	0.3	0	0	0	0	0	0.3	1.7	2.6	0	0.7		0.8							0.8	0.4	
Velocity	0	0	0.3	0	0	0	0	0	0	0	0	0	0		0							0	0.3	
Region	0	0	0	0	0	0	0	0.4	0	0	0	0.4	0		0.4							0	0	
	0		0	0	0	0	0	0	0		0	0			0							0	0	
					–	0	0	0				0												
	10	11	16	17	21	23	24	28							56	57	58	61	62	63	64	1		
	0	0	0	0	8.0	2.4	0.3	0							0.9	0.6	0	0.5	0.2	0.3	0.2	0.6		
Ring	0	0	0	0.5	1.6	0	0	0.8							0.6	0	0	0	0	0	0	0		
Core	0	0	0	0	0	0	0	0							1.1	0	0	0	0	0	0.7	0		
	0	0			0	0	0	0							0	0	0	0	0	0	0	0		
					0	0.6	0	0							0	0	0	0	0	0	0			
Sargasso Sea & Gulf Stream										49	50	51	52											
										1.0	0	0	1.6											
										0	0.7	4.8	2.8											
										0	0	0	0											
										0	0	0	0											

	8	9	18		19	20	33	34		35	47	48	53	54	59	60	65	66				4	5	6
Slope Water	–	0	0		2.2	0	0.1	1.1		0.2	0.4	0.1	0.4	0	0.9	0.1	0.3	0				0	0.3	0
	12	13	14	15	27	29	30	31	32	41	42	43	44		55							2	3	
High Velocity Region	0	0	0.2	0	0	0.5	0	0.1	–	0.9	1.0	0.1	0.4		0.3							0.2	0.2	
	10	11	16	17	21	23	24	28		37	38	39			56	57	58	61	62	63	64	1		
Ring Core	0	0	–	0.1	1.0	0.5	0.1	0.2		0.8	1.3	0.9			0.5	0.1	0	0.1	0.1	0.1	0.3	0.2		
										49	50	51	52											
SS & GS										0.3	0.2	1.2	1.1											

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During the multidisciplinary Warm-Core Rings Program in 1981 and 1982, 312 collections were made at 64 stations with a 20 m^2 MOCNESS midwater trawl. This report presents collection and station data, a list of species collected, and catch data (specimens and volume per 10^4 m^3, respectively) for the important families and species of midwater fishes.

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