

Supplementary material

Table 1. Summary of gear deployments done at the HMMV to obtain physical samples for ground-truthing (MUC: multiple corer; ROV: remotely operated vehicle).

Gear	Deployment	Date	Position,		Depth (m)
			North	East	
ROV Victor 6000	PS64/326-1	01/07/03	71°59.95'	14°43.99'	1293
Box corer	PS64/344-1	06/07/03	72°00.10'	14°44.07'	1284
ROV Victor 6000	PS64/347-1	06/07/03	72°00.295	14°43.39'	1284
MUC	PS64/353-1	08/07/03	72°00.37'	14°43.52'	1281
MUC	PS64/395-1	15/07/03	71°41.96'	13°26.10'	1293
MUC	PS66/003-3	21/06/04	72°0.23'	14°43.80'	1286
Agassiz trawl	PS66/011-1	22/06/04	71°57.96'	14°44.92'	1285
			71°57.57'	14°44.84'	1267
ROV Victor 6000	Dive 254 (ATL1-4)	16/07/05	72°00.20	14°43.70'	1256
MUC	PS70/049-1	24/06/07	72°00.29'	14°43.45'	1291
Fish trap	PS70/061-1	28/06/07	72°00.28'	14°43.52'	1293
Fish trap	PS70/062-1	28/06/07	72°00.34'	14°43.24'	1289
Trap lander	PS70/073-1	27/06/07	72°00.31'	14°43.40'	1291
Box corer	PS70/085-1	28/06/07	72°00.11'	14°44.11'	1294
Fish trap	PS70/127-1	04/07/07	72°00.30'	14°43.49'	1293
ROV Quest 4000	PS70/105-1 (Dive 168)	1/07/07	72°00.12'	14°43.16'	1291
Quest 4000	PS70/119-1 (Dive 170)	03/07/07	72°00.34'	14°43.17'	1292
Quest 4000	PS70/131-1	28/06/07	72°00.33'	14°43.44'	1289
Quest 4000	PS70/140-1 (Dive 173)	06/07/07	72°00.22'	14°43.59'	1292

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Table 2. Megafauna recorded at OFOS transects (+), in stomachs of fish or sampled by other gears.

High taxon/object	Species/morphospecies/morphotype/category	HMMV	Background
Porifera	cf. <i>Stylocordyla borealis</i> Grey form (?Demospongia)		+/Trawl +
Cnidaria Anthozoa	Purple form (cf. Edwardsiida) Small pinkish (cf. Hormathiidae) <i>BathypHELLIA margaritacea</i> Undetermined	+ + BC	
Scyphozoa	<i>Atolla tenella</i>	Trap	+
Nemertea	cf. <i>Nipponnemertes pulchra</i> nemertini-like worm	+/BC	+ +
Annelida Hirudinea Polychaeta	<i>Platybdella fabricii</i> <i>Oligobrachia webbi</i> <i>Archeolinum contortum</i> cf. Polynoidae cf. Sabellidae (tubes) <i>Brada villosa</i> <i>Ephesiella peripatus</i> <i>Aricidea</i> sp. <i>Paramphinome jeffreysii</i> <i>Ophryotrocha</i> sp. <i>Capitella capitata</i> agg. <i>Bylgides elegans</i>	Trap +/BC +/BC + BC BC BC BC <i>L. squamiventer</i> <i>L. squamiventer</i> <i>L. squamiventer</i>	 + +
Sipunculida	<i>Nephasoma lilljeborgi</i>	BC	
Cephalorhyncha	<i>Priapululus caudatus</i>	BC	
Mollusca Cephalopoda Gastropoda	<i>Gonatus fabricii</i> cf. Buccinidae <i>Colus sabini</i> <i>Admete</i> sp.	+ Trap BC	Trawl +
Bivalvia	Whitish burrowing form <i>Thyasira dunbari</i>	+ BC	+
Arthropoda Pycnogonida	cf. <i>Nymphon macronix</i> cf. <i>Collossendeis proboscidea</i> <i>Boreonymphon abyssorum</i>	+/BC + ROV	+ +/Trawl Trawl
Crustacea, Amphipoda	cf. <i>Metacaprella horrida</i> <i>Themisto abyssorum</i> <i>Haploops</i> sp. Phoxocephalidae	+/BC	+ <i>P. bathybius</i> <i>L. paamiuti</i> <i>L. paamiuti</i>

Crustacea, Isopoda	cf. Lysianassidae	+/stomachs	+
	<i>Anonyx nugax</i>	Trap	
Crustacea, Decapoda	<i>Eurythenes gryllus</i>	Trap	<i>L. paamiuti</i>
	<i>Cryptoniscium</i> sp.		<i>L. paamiuti</i>
Tanaidacea	Desmosomatidae		+
	Small whitish form	+	+
	Benthic-pelagic redish form	+	+
	<i>Pseudotanais</i> sp.	<i>L. squamiventer</i>	Trawl
Echinodermata			
Ophiuroidea	<i>Ophiocten gracilis</i>	+/BC	+/Trawl
	<i>Ophiopleura borealis</i>	+/BC	+
Crinoidea	<i>Bathycrinus</i> cf. <i>carpenteri</i>	+	+
Asteroidea	cf. <i>Pontaster</i>	+	+
	<i>Pontaster tenuispinus</i>		Trawl
	Whitish form (cf. <i>Bathybiaster</i>)	+	+
	<i>Bathybiaster vexillifer</i>		Trawl
	Flat pentagonal form, short rays	+	
	Short arms (<i>Hymenaster</i> type)		+
	White short arms		+
	<i>Poraniomorpha tumida</i>		Trawl
Holothuroidea	cf. <i>Elpidia glacialis</i>	+	
Echinoidea	Undetermined	+	+
Ascidiacea	<i>Ciona</i> sp.		Trawl
Pisces			
Rajidae	<i>Amblyraja hyperborea</i>	+	
Zoarcidae	<i>Lycodes squamiventer</i>	+/ROV/Trap	+
	<i>Lycodes paamiuti</i>		Trawl
	<i>Lycodonus flagellicauda</i>		Trawl
Liparidae	<i>Paraliparis bathybius</i>		Trawl
Lotidae	<i>Gaidropsarus argentatus</i>	Trap	
Unknown, morphotype 1	Small brown bushes (?hydroids)		+
Unknown, morphotype 2	Small white sedentary forms (?anemones, sponges)		+

(BC) Box corer; (trawl) Agassiz trawl; (trap) baited fish trap attached to lander; (ROV) ROV Victor 6000 or Quest 4000; (*L. squamiventer*) stomach of *Lycodes squamiventer*, (*L. paamiuti*) stomach of *Lycodes paamiuti*; (*P. bathybius*) stomach of *Paraliparis bathybius*. For more details on gears see Bergmann et al., 2009 and Hildebrandt et al., 2011.