

Supplementary material

Table .1 GPS locations for sample sites in the Orkney archipelago, Shetland and the North Sea

Table 2. Cross-contamination controls – microfibre colours present in daily desk-based filters, distilled water (n=3), plankton tow (n=3) and test tube samples (n=3)

Table.1

Site	GPS coordinates	Sample collection	Human density
Orkney – Rousey dive boat	N 59° 07' 241" W 02° 59' 929"	Ocean–plankton tow	Low
Orkney – Rousey dive boat	N59° 07' 223" W 02° 59' 909'	Ocean–plankton tow	Low
Orkney – Rousey dive boat	N 59° 07' 683" W 02° 59' 056'	Ocean–plankton tow	Low
Orkney - Cooke Aquaculture	N 59° 07' 68" W 02° 59' 56"	Ocean–plankton tow	Low
Orkney - Cooke Aquaculture	N 59° 08' 44" W 02° 57' 48"	Ocean–plankton tow	Low
Orkney - Cooke Aquaculture	N 59° 08' 44" W 02° 57' 48 "	Ocean–plankton tow	Low
Orkney – Rousay/Birsay dive boat	N 59° 08' 44" W 02° 57' 48"	Ocean–plankton tow	Low
Orkney – Rousay/Birsay dive boat	N 59° 9' 30" W 03° 14' 46"	Ocean–plankton tow	Low
Orkney – Rousay/Birsay dive boat	N 58° 58' 49" W 03° 18' 13" to N 60° 21' 33" W 03° 25' 29"	Ocean–plankton tow	Low
North Sea - Aberdeen 1	N 60° 21' 33" W 03° 25' 29"	Ocean–By the Ocean we Unite–plankton tow	Low
North Sea - Aberdeen 5	N 60° 21' 33"	Ocean–By the Ocean we Unite–plankton tow	Low

	W 03° 25' 29"		
North Sea - Aberdeen 7	N 60° 21' 33" W 03° 25' 29" to N 56° 36' 46" W 01° 43' 58"	Ocean–By the Ocean we Unite–plankton tow	Low
North Sea - Aberdeen 8	N 60° 21' 33" W 03° 25' 29"	Ocean–By the Ocean we Unite–plankton tow	Low
North Sea - Aberdeen 11	N 60° 21' 33" W 03° 25' 29"	Ocean–By the Ocean we Unite–plankton tow	Low
North Sea - Aberdeen 12	N 56° 36' 46" W 01° 43' 58"	Ocean–By the Ocean we Unite–plankton tow	Low
Shetland- Lerwick 1	N 56° 36' 46" W 01° 43' 58"	Ocean – hand net	High
Shetland- Lerwick 2	N 56° 36' 46" W 01° 43' 58"	Ocean – hand net	High
Shetland- Lerwick 3	N 56° 36' 46" W 01° 43' 58"	Ocean–hand net	High
Shetland- Lerwick 4	N 56° 36' 46" W 01° 43' 58"	Ocean–hand net	High
Orkney - Hoy	N 58° 54' 59.13" W 03° 18' 43.3"	Ocean–hand net	High
Orkney Mainland Stromness – caravan site	N 58° 57' 0.5" W 03° 18' 1.9"	Beach–sourced	High
Orkney Mainland Stromness - Construction site	N 58° 57' 14.1" W 03° 17' 56.3"	Mixture of pelagically-sourced and beach-sourced samples– handheld net	High

Orkney Sustainable fisheries (OSF) (Stromness)	N 58° 57' 47.0" W 03° 17' 49.6"	Ocean–handheld net	High
Orkney mainland Waulkmill Bay	N 58° 56' 26.6" W 03° 04' 35.7"	Mixture of pelagically-sourced and beach-sourced samples– handheld net	High
Orkney mainland Warebeth Bay	N 58° 57' 27.2" W 03° 19' 57.8"	Mixture of pelagically-sourced and beach-sourced samples– handheld net	High
Orkney mainland - Scapa Bay	N 58° 57' 44.3" W 02° 58' 43.9"	Mixture of pelagically-sourced and beach-sourced samples– handheld net	High
Orkney mainland – Swanister	N 58° 55' 27.2" W 03° 07' 34.9"	Mixture of pelagically-sourced and beach-sourced samples– handheld net	High
Orkney mainland – Marwick	N 59° 5' 50.2" W 03° 20' 49.4"	Mixture of pelagically-sourced and beach-sourced samples– handheld net	High
Orkney mainland – Yesnaby	N 59° 1' 17.2" W 03° 21' 31.3"	Mixture of pelagically-sourced and beach-sourced samples– handheld net	High
Orkney mainland-Bay of Skail	N 59° 3' 24.3" W 03° 20' 15.2"	Mixture of pelagically-sourced and beach-sourced samples– handheld net	High

Table 2.

Tested for cross-contamination	Microfibre colour				
	Blue	Black	Red	White	Green
Desk-based filters (atmospheric deposition)	3	2	2	0	0
Distilled H ₂ O	3	2	2	0	0
Plankton tow equipment	6	4	6	0	0
Glass test tubes	0	0	0	0	0