Appendix A

Table A1. Full table of all samples analysed from both years, with total toxicities in μg STX eq./kg, species and taxanomic groups. nd; not detected, nt; not tested.

Cefas ID	Year	Station	Common Name	Species	Group	Total PST Detected by LC-FLD (μg STX eq./kg)	Total PST Detected by LC-MS/MS (μg STX eq./kg)
CEND 001	2018	22	Rigid cushion starfish	Hippasteria phrygiana	Starfish & Brittlestars (excl Sunstar)	9	4
CEND 002	2018	22	Whelk	Buccinidae (indet.)	Molluscs	27	70
CEND 003	2018	22	Woody canoe bubble	Scaphander lignarius	Molluscs	nt	102
CEND 004	2018	22	Sandstar	Astropecten irregularis	Starfish & Brittlestars (excl Sunstar)	13	66
CEND 005	2018	22	Hermit crab	Pagurus bernhardus	Crustacean (Anomura & Brachyura)	nt	nt
CEND 006	2018	22	Common starfish	Asterias rubens	Starfish & Brittlestars (excl Sunstar)	34	65
CEND 007	2018	22	Circular crab	Atelecyclus rotundatus	Crustacean (Anomura & Brachyura)	4	54
CEND 008	2018	22	Sea mouse	Aphrodita aculeata	Polychaeta	25	359
CEND 009	2018	13	Anemone	Actiniaria (indet.)	Actiniaria	nt	5
CEND 010	2018	13	Dead-man's fingers	Alcyonium digitatum	Sessile colonial fauna	2	2
CEND 011	2018	13	Common starfish	Asterias rubens	Starfish & Brittlestars (excl Sunstar)	16	28
CEND 012	2018	13	Hermit crab	Pagurus bernhardus	Crustacean (Anomura & Brachyura)	nt	48
CEND 013	2018	13	Whelk	Neptunea antiqua (eggmass)	Molluscs	nt	5
CEND 014	2018	8	Masked crab	Corystes cassivelaunus	Crustacean (Anomura & Brachyura)	75	8
CEND 015	2018	8	Square crab	Goneplax rhomboides	Crustacean (Anomura & Brachyura)	14	8
CEND 016	2018	8	Swimming crabs	Liocarcinus sp.	Crustacean (Anomura & Brachyura)	4	13
CEND 017	2018	8	Common starfish	Asterias rubens	Starfish & Brittlestars (excl Sunstar)	6	2
CEND 018	2018	8	Dead-man's fingers	Alcyonium digitatum	Sessile colonial fauna	nt	2
CEND 019	2018	77	Circular crab	Atelecyclus rotundatus	Crustacean (Anomura & Brachyura)	15	13
CEND 020	2018	77	Queen scallop	Aequipecten opercularis	Molluscs	41	103
CEND 021	2018	77	Swimming crabs	Liocarcinus sp.	Crustacean (Anomura & Brachyura)	8	14
CEND 022	2018	77	Brittlestar	Ophiura ophiura	Starfish & Brittlestars (excl Sunstar)	32	39
CEND 023	2018	77	Common starfish	Asterias rubens	Starfish & Brittlestars (excl Sunstar)	18	27
CEND 024	2018	77	Rigid cushion starfish	Hippasteria phrygiana	Starfish & Brittlestars (excl Sunstar)	21	23
CEND 025	2018	77	Seven-armed starfish	Luidia ciliaris	Starfish & Brittlestars (excl Sunstar)	nt	45
CEND 026	2018	77	Squat lobster	Munida rugosa	Crustacean (Anomura & Brachyura)	14	57
CEND 027	2018	77	Anemone	Actiniaria (indet.)	Actiniaria	nt	150
CEND 028	2018	77	Sea mouse	Aphrodita aculeata	Polychaeta	nt	98

Table A1. Cont.

Cefas ID	fas ID Year Station Common Name Species		Species	Group	Total PST Detected by LC-FLD (μg STX eq./kg)	Total PST Detected by LC-MS/MS (µg STX eq./kg)	
CEND 029	2018	77	Hermit crab	Pagurus bernhardus	Crustacean (Anomura & Brachyura)	27	63
CEND 030	2018	77	Sandstar	Astropecten irregularis	Starfish & Brittlestars (excl Sunstar)	4	4
CEND 031	2018	3	Brittlestar	Ophiura ophiura	Starfish & Brittlestars (excl Sunstar)	nt	nd
CEND 032	2018	3	Shrimp	Crangon sp.	Crustacean (Natania & Stomatopoda)	nt	nd
CEND 033	2018	3	Swimming crabs	Liocarcinus sp.	Crustacean (Anomura & Brachyura)	nt	14
CEND 034	2018	3	Anemone	Actiniaria (indet.)	Actiniaria	5	12
CEND 035	2018	3	Common starfish	Asterias rubens	Starfish & Brittlestars (excl Sunstar)	nt	1
CEND 036	2018	3	Netted dog whelk	Hinia reticulata	Molluscs	nt	nd
CEND 037	2018	3	Common shore crab	Carcinus maenas	Crustacean (Anomura & Brachyura)	15	44
CEND 038	2018	4	Hermit crab	Paguris bernhardus	Crustacean (Anomura & Brachyura)	3	25
CEND 039	2018	4	Brittlestar	Ophiura ophiura	Starfish & Brittlestars (excl Sunstar)	nt	nd
CEND 040	2018	4	Common starfish	Asterias rubens	Starfish & Brittlestars (excl Sunstar)	3	nd
CEND 041	2018	4	Velvet swimming crab	Necora puber	Crustacean (Anomura & Brachyura)	13	7
CEND 042	2018	4	Sea urchin	Echinus sp.	Sea urchin	13	nd
CEND 043	2018	4	Sea urchin	Echinus sp.	Sea urchin	27	nd
CEND 044	2018	4	Swimming crabs	Liocarcinus sp.	Crustacean (Anomura & Brachyura)	47	16
CEND 045	2018	4	Circular crab	Atelecyclus rotundatus	Crustacean (Anomura & Brachyura)	188	15
CEND 046	2018	1	Shrimp	Crangon sp. & Pandalus sp.	Crustacean (Natania & Stomatopoda)	181	446
CEND 047	2018	1	Dead-man's fingers	Alcyonium digitatum	Sessile colonial fauna	88	36
CEND 048	2018	1	Brittlestar	Ophiura ophiura	Starfish & Brittlestars (excl Sunstar)	nt	113
CEND 049	2018	1	Hermit crab	Pagurus bernhardus	Crustacean (Anomura & Brachyura)	nt	52
CEND 050	2018	1	Whelk	Buccinum undatum	Molluscs	nt	48
CEND 051	2018	1	Circular crab	Atelecyclus rotundatus	Crustacean (Anomura & Brachyura)	nt	7
CEND 052	2018	1	Slipper limpet	Crepidula fornicata	Molluscs	nt	172
CEND 053	2018	1	Green sea urchin	Psammechinus miliaris	Sea urchin	nt	23
CEND 054	2018	1	Sea mouse	Aphrodita aculeata	Polychaeta nt		18
CEND 055	2018	1	Common starfish	Asterias rubens	Starfish & Brittlestars (excl Sunstar)	nt	395
CEND 056	2018	7	Common sea urchin	Echinus esculentus	Sea urchin	nt	2
CEND 057	2018	7	Bloody Henry starfish	Henricia sp.	Starfish & Brittlestars (excl Sunstar)	nt	15
CEND 058	2018	7	Common starfish	Asterias rubens	Starfish & Brittlestars (excl Sunstar)	33	11

Table A1. Cont.

Cefas ID	Cefas ID Year Station		Common Name	Species	Group	Total PST Detected by LC-FLD (μg STX eq./kg)	Total PST Detected by LC-MS/MS (μg STX eq./kg)	
CEND 059	2018	7	Seven-armed starfish	Luidia ciliaris	Starfish & Brittlestars (excl Sunstar)	26	72	
CEND 060	2018	7	Swimming crabs	Liocarcinus holsatus &	Crustacean (Anomura &	73	11	
		7	5winining crabs	Liocarcinus depurator	Brachyura)	73		
CEND 061	2018	7	Dead-man's fingers	Alcyonium digitatum	Sessile colonial fauna	nt	12	
CEND 062	2018	7	Sunstar	Crossaster papposus	Sunstar	302	227	
CEND 063	2018	7	Anemone	Actiniaria (indet.)	Actiniaria	nt	22	
CEND 064	2018	7	Sea mouse	Aphrodita aculeata	Polychaeta	14	nd	
CEND 065	2019	71	Common Starfish	Asterias rubens	Starfish & Brittlestars (excl Sunstar)	20	20	
CEND 066	2019	71	Sea urchin	Echinus sp.	Sea urchin	10	nd	
CEND 067	2019	71	Sea cucumber	Parastichopus tremulus	Other	9	nd	
CEND 068	2019	71	Red Cushion Starfish	Porania pulvillus	Starfish & Brittlestars (excl Sunstar)	nd	nd	
CEND 076	2019	71	Sunstar	Crossaster papposus	Sunstar	120	135	
CEND 077	2019	71	Sunstar	Crossaster papposus	Sunstar	132	131	
CEND 078	2019	71	Sunstar	Crossaster papposus	Sunstar	176	169	
CEND 079	2019	71	Sunstar	Crossaster papposus	Sunstar	103	98	
CEND 080	2019	71	Sponge	Porifera sp.	Sessile colonial fauna	7	nd	
CEND 081	2019	71	Sea chervil	Alcyonidium diaphanum	Sessile colonial fauna	nd	9	
CEND 082	2019	71	Anemone	Actiniaria (indet.)	Actiniaria	9	nd	
CEND 083	2019	71	Woody canoe bubble	Scaphander lignarius	Molluscs	nd	nd	
CEND 084	2019	71	Seven-armed Starfish	Luidia ciliaris	Starfish & Brittlestars (excl Sunstar)	nd	nd	
CEND 085	2019	71	Rosy Starfish	Stichastrella rosea	Starfish & Brittlestars (excl Sunstar)	nd	133	
CEND 086	2019	71	Goosefoot starfish	Anseropoda Placenta	Starfish & Brittlestars (excl Sunstar)	8	51	
CEND 087	2019	71	Portunid crabs	Portunidae (indet.)	Crustacean (Anomura & Brachyura)	24	nd	
CEND 088	2019	71	Brittlestar	Ophiura ophiura	Starfish & Brittlestars (excl Sunstar)	8	nd	
CEND 089	2019	71	Shrimp	Natantia sp.	Crustacean (Natania & Stomatopoda)	12	nd	
CEND 090	2019	71	Hermit Crab	Pagurus sp.	Crustacean (Anomura & Brachyura)	93	17	
CEND 091	2019	71	Rigid cushion starfish	Hippasteria phrygiana	Starfish & Brittlestars (excl Sunstar)	11	nd	
CEND 092	2019	43	Common Starfish	Asterias rubens	Starfish & Brittlestars (excl Sunstar)	12	nd	
CEND 093	2019	43	Sandstar	Astropecten irregularis	Starfish & Brittlestars (excl Sunstar)	14	nd	
CEND 094	2019	43	Rigid cushion starfish	Hippasteria phrygiana	Starfish & Brittlestars (excl Sunstar)	nd	nd	
CEND 095	2019	43	Hermit Crab	Pagurus bernhardus	Crustacean (Anomura & Brachyura)	11	8	
CEND 096	2019	43	Flying crab	Liocarcinus holsatus	Crustacean (Anomura & Brachyura)	nd	nd	
CEND 097	2019	43	Anemone	Actiniaria (indet.)	Actiniaria nd		nd	
CEND 098	2019	43	Sea urchin	Echinus sp.	Sea urchin	26	nd	
CEND 099	2019	43	Whelk	Buccinidae (indet.)	Molluscs	nd	nd	
CEND 100	2019	43	Dead-man's fingers	Alyconium digitatum	Sessile colonial fauna	23	nd	

Table A1. Cont.

Cefas ID	Year	Station	Common Name	Species	Group	Total PST Detected by LC-FLD (μg STX eq./kg)	Total PST Detected by LC-MS/MS (μg STX eq./kg)
CEND 101	2019	43	Sea urchin	Echinus acutus	Sea urchin	9	nd
CEND 102	2019	43	Slender colus	Colus gracilus	Molluscs	18	48
CEND 103	2019	43	Whelk	Buccinidae (indet.)	Molluscs	20	15
CEND 104	2019	43	Whelk	Buccinidae (indet.)	Molluscs	nd	38
CEND 105	2019	43	Sea mouse	Aphrodita aculeata	Polychaeta	30	Nd
CEND 106	2019	13	Rigid cushion starfish	Hippasteria phrygiana	Starfish & Brittlestars (excl Sunstar)	nd	Nd
CEND 107	2019	13	Hermit Crab	Pagurus sp.	Crustacean (Anomura & Brachyura)	nd	Nd
CEND 108	2019	13	Sea mouse	Aphrodita aculeata	Polychaeta	587	357
CEND 109	2019	13	Dead-man's fingers	Alyconium digitatum	Sessile colonial fauna	nd	nd
CEND 110	2019	13	Brittlestar	Ophiura ophiura	Starfish & Brittlestars (excl Sunstar)	8	nd
CEND 111	2019	13	Anemone	Actiniaria (indet.)	Actiniaria	31	11
CEND 112	2019	13	Common Starfish	Asterias rubens	Starfish & Brittlestars (excl Sunstar)	34	10
CEND 113	2019	13	Plumose anemone	Metridium senile	Actiniaria	9	27
CEND 114	2019	13	Bivalve	Bivalvia (indet.)	Molluscs	28	17
CEND 115	2019	1	Dead-man's fingers	Alcyonium digitatum	Sessile colonial fauna	nd	nd
CEND 116	2019	1	Brittlestar	Ophiura ophiura	Starfish & Brittlestars (excl Sunstar)	rfish & Brittlestars (excl Sunstar) 8	
CEND 117	2019	1	Sea mouse	Aphrodita aculeata	Polychaeta	nd	nd
CEND 118	2019	1	Hermit crab	Pagurus bernhardus	Crustacean (Anomura & Brachyura)	nd	nd
CEND 119	2019	1	Common Starfish	Asterias rubens	Starfish & Brittlestars (excl Sunstar)	14	nd
CEND 120	2019	1	Green sea urchin	Psammechinus miliaris	Sea urchin	nd	nd
CEND 121	2019	1	Echiuran worm	Echiura sp.	Other	nd	nd
CEND 122	2019	1	Inachidae crab	Inachus sp.	Crustacean (Anomura & Brachyura)	66	13
CEND 123	2019	1	Anemone	Actiniaria (indet.)	Actiniaria	92	13
CEND 124	2019	1	Whelk	Buccinum undatum	Molluscs	1	nd
CEND 125	2019	1	Shrimp	Crangon sp. & Rissoides desmarseti	Crustacean (Natania & Stomatopoda)	nd	17
CEND 126	2019	1	Crabs	Portunidae sp. & Ebalia sp.	Crustacean (Anomura & Brachyura)	25	nd
CEND 127	2019	3	Hermit Crab	Pagurus bernhardus	Crustacean (Anomura & Brachyura)	nd	12
CEND 128	2019	3	Swimming crabs	Liocarcinus holsatus & Liocarcinus depurator	Crustacean (Anomura & Brachyura)	nd	9
CEND 129	2019	3	Common shore crab	Carcinus maenas	Crustacean (Anomura & Brachyura)	nd	nd
CEND 130	2019	3	Sea mouse	Aphrodita aculeata	Polychaeta 44		nd
CEND 131	2019	3	Sea chervil	Alcyonidium diaphanum	Sessile colonial fauna	1486	2091
CEND 132	2019	3	Common Starfish	Asterias rubens	Starfish & Brittlestars (excl Sunstar)	21	nd
CEND 133	2019	3	Brittlestar	Ophiura ophiura	Starfish & Brittlestars (excl Sunstar)	14	29

Table A1. Cont.

Cefas ID	Cefas ID Year Statio		Station Common Name		Group	Total PST Detected by LC-FLD (μg STX eq./kg)	Total PST Detected by LC-MS/MS (μg STX eq./kg)	
CEND 134	2019	3	Shrimp	Crangon sp.	Crustacean (Natania & Stomatopoda)	16	18	
CEND 135	2019	3	Spider crab	Macropodia sp.	Crustacean (Anomura & Brachyura)	35	31	
CEND 136	2019	3	Green sea urchin	Psammechinus miliaris	Sea urchin	10	19	
CEND 137	2019	2	Common Starfish	Asterias rubens	Starfish & Brittlestars (excl Sunstar)	317	354	
CEND 138	2019	2	Green sea urchin	Psammechinus miliaris	Sea urchin	377	257	
CEND 139	2019	2	Sea chervil	Alcyonidium diaphanum	Sessile colonial fauna	2744	1461	
CEND 140	2019	2	Brittlestar	Ophiura ophiura	Starfish & Brittlestars (excl Sunstar)	593	489	
CEND 141	2019	2	Sea mouse	Aphrodita aculeata	Polychaeta	443	386	
CEND 142	2019	2	Swimming crabs	Liocarcinus sp.	Crustacean (Anomura & Brachyura)	76	88	
CEND 143	2019	2	Whelk	Baccinum undatum	Molluscs	133	110	
CEND 144	2019	2	Sea chervil	Alcyonidium diaphanum	Sessile colonial fauna	562	288	
CEND 145	2019	?	Rigid cushion starfish	Hippasteria phrygiana	Starfish & Brittlestars (excl Sunstar)	nd	nd	
CEND 146	2019	7	Sea mouse	Aphrodita aculeata	Polychaeta	nd	nd	
CEND 147	2019	7	Common Starfish	Asterias rubens	Starfish & Brittlestars (excl Sunstar)	nd	10	
CEND 148	2019	7	Bloody Henry starfish	Henricia oculata	Starfish & Brittlestars (excl Sunstar)	nd	11	
CEND 149	2019	7	Sunstar	Crossaster papposus	Sunstar	654	1275	
CEND 156	2019	7	Swimming crabs	Liocarcinus holsatus & Liocarcinus depurator	Crustacean (Anomura & Brachyura)	nd	nd	
CEND 157	2019	7	Masked crab	Corystes cassivelaunus	Crustacean (Anomura & Brachyura)	nd	nd	
CEND 158	2019	7	Dead-man's fingers	Alcyonium digitatum	Sessile colonial fauna	nd	nd	
CEND 159	2019	7	Mermaids glove	Haliclona oculata	Sessile colonial fauna	21	nd	
CEND 160	2019	4	Common starfish	Asterias rubens	Starfish & Brittlestars (excl Sunstar)	nd	nd	
CEND 161	2019	4	Sea mouse	Aphrodita aculeata	Polychaeta	nd	nd	
CEND 162	2019	4	Green sea urchin	Psammechinus miliaris	Sea urchin	nd	nd	
CEND 163	2019	4	Hermit Crab	Pagurus bernhardus	Crustacean (Anomura & Brachyura)	nd	nd	
CEND 164	2019	4	Brittlestar	Ophiura ophiura	Starfish & Brittlestars (excl Sunstar)	nd	nd	
CEND 165	2019	4	Swimming crabs	Liocarcinus holsatus & Liocarcinus depurator	Crustacean (Anomura & Brachyura)	nd	15	
CEND 166	2019	4	Circular Crab	Atelecyclus sp.	Crustacean (Anomura & Brachyura)	nd	nd	
CEND 167	2019	4	Whelk	Buccinum undatum	Molluscs	nd	nd	
CEND 168	2019	22	Rigid cushion starfish	Hippasteria phrygiana	Starfish & Brittlestars (excl Sunstar) nd		nd	
CEND 169	2019	22	Anemone	Actiniaria (indet.)	Actiniaria 14		45	
CEND 170	2019	22	Sea mouse	Aphrodita aculeata	Polychaeta	37	46	
CEND 171	2019	22	Sandstar	Astropecten irregularis	Starfish & Brittlestars (excl Sunstar)	nd	183	
CEND 172	2019	22	Woody canoe bubble	Scaphander lignarius	Molluscs	nd	nd	

Table A1. Cont.

Cefas ID	Year Station Common Name Species Group		Total PST Detected by LC-FLD (μg STX eq./kg)	Total PST Detected by LC-MS/MS (µg STX eq./kg)			
CEND 173	2019	22	Seven-armed Starfish	Luidia ciliaris	Starfish & Brittlestars (excl Sunstar)	nd	nd
CEND 174	2019	22	Brittlestar	Ophiura ophiura	Starfish & Brittlestars (excl Sunstar)	nd	27
CEND 175	2019	22	Shrimp	Natantia (indet.)	Crustacean (Natania & Stomatopoda)	7	nd
CEND 176	2019	77	Sea mouse	Aphrodita aculeata	Polychaeta	12	13
CEND 177	2019	77	Rigid cushion starfish	Hippasteria phrygiana	Starfish & Brittlestars (excl Sunstar)	nd	nd
CEND 178	2019	77	Brittlestar	Ophiura ophiura	Starfish & Brittlestars (excl Sunstar)	nd	nd
CEND 179	2019	77	Sandstar	Astropecten irregularis	Starfish & Brittlestars (excl Sunstar)	nd	6
CEND 180	2019	77	Anemone	Actiniaria (indet.)	Actiniaria	22	72
CEND 181	2019	73	Sunstar	Crossaster papposus	Sunstar	1600	1102

Table A2. Table describing additional station information.

Station	Coordinates	Bottom Salinity	Surface Salinity	Bottom Temp. (°C)	Surface Temp. (°C)	Depth (m)	Date
1	51:42N 01:45E	33.7	34.5	19.6	19.8	33	11 August 2018
3	51:50N 03:37E	32.4	32.5	20.9	21	24	11 August 2018
4	52:49N 02:45E	34.4	34.4	17.6	17.6	38	12 August 2018
7	53:59N 00:15E	34.5	34.5	12.6	12.4	53	14 August 2018
13	54:56N 00:16W	34.7	34.5	7.4	16.3	77	14 August 2018
77	55:56N 01:27W	34.8	34.8	9.5	13.9	84	7 September 2018
22	55:35N 00:49W	34.9	34.9	7.4	15.3	96	7 September 2018
8	53:56N 01:17E	34.8	34.8	14.2	16.4	42	14 August 2018
1	51:45N 01:44E	35.1	35.0	18.8	19	30	7 August 2019
2	51:35N 02:46E	34.8	34.8	19.6	19.6	32	7 August 2019
3	51:50N 03:38E	33.5	33.4	20.1	20.2	27	8 August 2019
4	52:50N 02:46E	34.7	34.7	17.8	18.1	41	8 August 2019
7	53:60N 00:16E	34.4	34.4	13.1	14.5	55	11 August 2019
13	54:33N 00:02W	34.6	34.6	9.6	15.9	65	11 August 2019
22	55:35N 00:48W	34.9	34.5	8.4	16.2	99	18 August 2019
71	61:01N 00:60W	35.4	35.3	9.6	13.3	132	24 August 2019
43	57:19N 02:27E	35.1	34.8	7.7	16.9	84	28 August 2019
73	61:16N 00:34E	35.4	35.4	9.3	13.4	170	24 August 2019
50	57:43N 05:10E	35.3	34.0	8	16	110	27 August 2019
77	55:58N 01:25W	34.7	34.5	9.3	15	90	18 August 2019