Table 7·A1. Metals in soil.

Location	Latitude	Longitude	Year/date	Depth, cm	n	Concentration, µg/g dry weight: Copper	Zinc	Lead	Cadmium	Mercury	Remarks	Reference
Canada												
Fairchild Lake			1993		3			13- 28	0.46- 0.60			Gamberg 1996
Pleasant Lake			1993		3			9- 10	0.16- 0.52			Gamberg 1996
Slate Lake			1993		3			3- 6	1.07-3.75			Gamberg 1996
Tay Lake			1993		3			7- 10	0.28- 0.40			Gamberg 1996
Denmark (Greenland)												
Ammassalik	65°37.55'N	44°85'W	1994		5	25.8±16.118	138.1±38.634	9.62±0.666	0.100±0.020	< 0.010±0.0047		Riget *et al.* 1995
Isortoq	60°59.06'N	47°30.63'W	1994		5	36.8±29.939	69.6±29.884	8.48±4.218	0.069±0.018	0.030±0.0077		Riget *et al.* 1995
Itinnera	64°38'N	50°38'W	1994		4	< 12.0±6.297	16.4±5.252	12.63±2.550	0.040±0.007	0.019±0.0141		Riget *et al.* 1995
Olrik Fjord	77°9.52'N	68°2.51'W	1994		5	12.1±4.010	< 12.0±4.640	7.76±1.419	< 0.040	0.010±0.0043		Riget *et al.* 1995
Norway												
Karasjok (N. Norway)			1974	2-5	9	7400	36	18	0.6			Bolviken *et al.* 1977
Karasjok (N. Norway)			1974	20-25	5	3000	58	20	0.9			Bolviken *et al.* 1977
Russia												
Yamal Peninsula	69°48',0N	67°21',0 E	2 July 1995	0-5	1	10.5	15 .8	3.9	0.18	0.19		RCMA 1995
Yamal Peninsula	72°27',0N	72°10',0 E	3 July 1995	0-5	1	8.4	9 .3	3	0.11	0.20		RCMA 1995
Taymyr Peninsula	75°57',0N	99°09',0 E	8 July 1995	0-3	1	3.6	23 .0	4.2	0.10	0.08		RCMA 1995
Taymyr Peninsula	75°57',0N	99°09',0 E	8 July 1995	3-20	1	3.1	18 .2	4.1	0.08	0.15		RCMA 1995
Taymyr Peninsula	77°40',0N	104°06',0E	10 July 1995	0-5	1	5.9	7 .3	1.9	0.08	0.18		RCMA 1995
Taymyr Peninsula	77°40',0N	104°06',0E	10 July 1995	5-20	1	2.1	11 .0	2.6	0.10	0.22		RCMA 1995
Taymyr Peninsula	76°45',0N	110°39',0E	11 July 1995	0-20	1	2.3	10 .0	2.1	0.06	0.14		RCMA 1995
Aion Island	69°48',0N	169°21',0E	21 July 1995	0-5	1	2.5	189	3.1	4.2	0.12		RCMA 1995
Aion Island	69°48',0N	169°21',0E	21 July 1995	5-35	1	1.2	208	5.6	5.6	0.14		RCMA 1995
Aion Island	69°48',0N	169°21',0E	21 July 1995	0-15	1	26.8	333	8	4.9	0.19		RCMA 1995
Wrangel Island	71°08',0N	179°23',0E	25 July 1995	0-9	1	0.3	107	1.3	4.4	0.15		RCMA 1995
Wrangel Island	71°08',0N	179°23',0E	25 July 1995	9-30	1	0.6	83	1.5	3.1	0.20		RCMA 1995
Wrangel Island	71°08',0N	179°23',0E	25 July 1995	0-3	1	10.4	386	21.9	6.2	0.18		RCMA 1995
Yugorskiy Peninsula	68°52',5N	66°46',0E	11 Aug. 1995	0-3	1	8.1	370	26.3	4.5	0.11		RCMA 1995
Yugorskiy Peninsula	69°06',75N	65°48',70E	18 Sept. 1995	0-5	1	7.5	65	23	0.5	0.12		RCMA 1995
Yugorskiy Peninsula	69°06',75N	65°48',70E	18 Sept. 1995	5-10	1	2.8	93	1.3	1.9	0.10		RCMA 1995
Yugorskiy Peninsula	69°06',75N	65°48',70E	18 Sept. 1995	10-15	1	0.6	101	17.5	1.3	0.09		RCMA 1995
Yugorskiy Peninsula	69°45',0N	61°35',1E	15 Aug. 1995	0-5	1	12.4	238	29.4	3.0	0.09		RCMA 1995
Yugorskiy Peninsula	69°45',0N	61°35',1E	15 Aug. 1995	5-10	1	7.5	206	31	3.2	0.15		RCMA 1995
Yamal Peninsula	69°58'N	67°36'E	23 Aug. 1994	0-3		4.8	7 .5	3.8	0.1	0.19		RCMA 1994
Yamal Peninsula	69°58'N	67°36'E	23 Aug. 1994	6-25		7.5	7 .5	2.5	0.12	0.19		RCMA 1994
Yamal Peninsula	72°44'N	70°43'E	20 Aug. 1994	0-5		10	10	3.5	0.12	0.25		RCMA 1994
Yamal Peninsula	72°44'N	70°43'E	20 Aug. 1994	5-25		9.4	9 .6	3	0.14	0.23		RCMA 1994
Taymyr Peninsula	76°28'N	111°13'E	10 Aug. 1994	0-1		2.8	12	4.5	0.12	0.24		RCMA 1994
Taymyr Peninsula	76°28'N	111°13'E	10 Aug. 1994	1-40		2.4	10	2.3	0.06	0.12		RCMA 1994
Taymyr Peninsula	76°11'N	99°24'E	15 Aug. 1994	0-2		3.8	25	5	0.20	0.16		RCMA 1994
Taymyr Peninsula	76°11'N	99°24'E	15 Aug. 1994	2-40		2.9	19	3.1	0.12	0.18		RCMA 1994
Taymyr Peninsula	77°36'N	103°49'E	13 Aug. 1994	0-3		7.5	12 .5	2.3	0.15	0.12		RCMA 1994
Taymyr Peninsula	77°36'N	103°49'E	13 Aug. 1994	3-40		5.8	9 .6	3.8	0.16	0.17		RCMA 1994
Taymyr Peninsula	77°36'N	103°49'E	13 Aug. 1994	0-1		7.5	10	3.8	0.12	0.17		RCMA 1994
Taymyr Peninsula	77°36'N	103°49'E	13 Aug. 1994	1-8		6.2	7 .6	2.1	0.14	0.19		RCMA 1994
Taymyr Peninsula	77°36'N	103°49'E	13 Aug. 1994	0-2		3.8	15	3.8	0.12	0.14		RCMA 1994
Taymyr Peninsula	77°36'N	103°49'E	13 Aug. 1994	2-40		2.7	11 .3	2.4	0.11	0.15		RCMA 1994
Kola Peninsula			1979	Organic	layer	863					6 km from *Severonikel* smelter, exposed to fumes	Barkan *et al.* 1993
Kola Peninsula			1988	Organic	layer	2079					6 km from *Severonikel* smelter exposed to fumes	Barkan *et al.* 1993
Kola Peninsula			1979	Organic	layer	399					2.5 km from *Severonikel* smelter in a clearing	Barkan *et al.* 1993
Kola Peninsula			1988	Organic	layer	486					2.5 km from *Severonikel* smelter in a clearing	Barkan *et al.* 1993
Kola Peninsula			1979	Organic	layer	1814					3 km from *Severonikel* smelter exposed to fumes	Barkan *et al.* 1993
Kola Peninsula			1988	Organic	layer	4262					3 km from *Severonikel* smelter exposed to fumes	Barkan *et al.* 1993
Kola Peninsula			1979	Organic	layer	458					1.5 km from *Severonikel* smelter in a meadow	Barkan *et al.* 1993

Kola Peninsula	1988	Organic layer	1552						1.5 km from *Severonikel* smelter in a meadow	Barkan *et al.* 1993
Kola Peninsula	1979	B horizon	111						2.5 km from *Severonikel* smelter, eroded soil	Barkan *et al.* 1993
Kola Peninsula	1988	B horizon	653						2.5 km from *Severonikel* smelter, eroded soil	Barkan *et al.* 1993
Kola Peninsula	1976	0-10	46						Soil (cultivated podzol) exposed 5 km south of *Severonikel* smelter	Evdokimova and Mozgova 1993a
Kola Peninsula	1977	0-10	30						Soil (cultivated podzol) exposed 5 km south of *Severonikel* smelter	Evdokimova and Mozgova 1993a
Kola Peninsula	1978	0-10	45						Soil (cultivated podzol) exposed 5 km south of *Severonikel* smelter	Evdokimova and Mozgova 1993a
Kola Peninsula	1979	0-10	45						Soil (cultivated podzol) exposed 5 km south of *Severonikel* smelter	Evdokimova and Mozgova 1993a
Kola Peninsula	1980	0-10	64						Soil (cultivated podzol) exposed 5 km south of *Severonikel* smelter	Evdokimova and Mozgova 1993a
Kola Peninsula	1981	0-10	73						Soil (cultivated podzol) exposed 5 km south of *Severonikel* smelter	Evdokimova and Mozgova 1993a
Kola Peninsula	1982	0-10	61						Soil (cultivated podzol) exposed 5 km south of *Severonikel* smelter	Evdokimova and Mozgova 1993a
Kola Peninsula	1983	0-10	46						Soil (cultivated podzol) exposed 5 km south of *Severonikel* smelter	Evdokimova and Mozgova 1993a
Kola Peninsula	1984	0-10	69						Soil (cultivated podzol) exposed 5 km south of *Severonikel* smelter	Evdokimova and Mozgova 1993a
Kola Peninsula	1985	0-10	89						Soil (cultivated podzol) exposed 5 km south of *Severonikel* smelter	Evdokimova and Mozgova 1993a
Kola Peninsula	1986	0-10	76						Soil (cultivated podzol) exposed 5 km south of *Severonikel* smelter	Evdokimova and Mozgova 1993a
Lena Reserve	1992	0-10	9	0.72-5.02/2.5	6.8-18.9/13.0	1.87-4.53/2.83	0.03-0.40/0.12	0.01-0.04/0.02	Conc. are in format range/mean	Rovinsky *et al.* 1995
Ust-Lena Reserve	1992	0-10	4	0.80-2.38	7.9-18	0.72-3.31	0.04-0.11	0.00008-0.06		Rovinsky *et al.* 1995

Table 7·A2. Metals in vegetation.

							Concentration, µg/g dry weight					
Location	Latitude	Longitude	Year	Species	Tissue	n	Lead	Cadmium	Mercury	Selenium	Remarks	Reference
USA												
Arctic Nat. Wildlife Refuge, Alaska			1988	*Carex aquatilis* (sedge)		24	<1.20-1.66	<0.08-0.35	<0.02	<0.03		Snyder-Conn and Lubinsky 1993
Canada												
Yukon/NWT			1993, 1994	*Cladina* sp. (Caribou moss)	Thallus	25	0.4-6.8	<0.03-0.3		0.3-1.2		Gamberg 1996
			1993, 1995	Misc. berry bushes	Berries	80	0.03-0.67	<0.01-0.35	<0.05-0.06	<0.05-1.3	Cloudberry, cranberry, black currant, blueberry, gooseberry, mossberry, raspberry, saskatoon, soapberry, silverberry, strawberry	Gamberg 1996
			1993-1995	Misc. tree twigs	Branches, bark	89	<0.01-6.4	<0.1-22	<0.05-0.09	<0.05-0.55	Alder, willow, aspen, poplar, birch, dogwood, shrubs	Gamberg 1996
			1993, 1995	*Taraxacum officinate* (Dandelion)	Foliage, flowers	5	<1-2.3	0.06-0.3	<0.05	<0.05-0.54		Gamberg 1996
Yellowknife, NWT			1992/1993	*Cladina mitis/Cladina rangifera/ Cetraria nevalis*			0.013	0.012	0.013 (ww)			Elkin 1994
Bathurst (Yellowknife, NWT)				Lichen			0.013	0.012	0.013 (ww)			Elkin 1994
Bathurst (Yellowknife, NWT)			July 1992	Lichen		12	0.01-0.15	0.01-0.09	0.01-0.08 (ww)			Elkin 1994
Cambridge Bay, NWT			June 1993	Lichen		3	0.05-0.41	0.06-0.24	0.05-0.15 (ww)			Elkin 1994
Inuvik, NWT				Lichen		8	n.d.-0.08	0.01-0.08	n.d.-0.04 (22) (ww)			Elkin 1994
Denmark (Greenland)												
Kronprins Christians Land	81°66'N	19°60'W	1980	*Cetraria nivalis* (lichen)		8	2.0±1.5	0.08±0.07				Riget *et al.* 1997a
Thule	77°50'N	66°67'W	1980	*Cetraria nivalis* (lichen)		5	1.1±0.6	0.16±0.12				Riget *et al.* 1997a
Ubekendt Ejland	71°16'N	53°50'W	1980	*Cetraria nivalis* (lichen)		5	4.6±3.2	0.08±0.03				Riget *et al.* 1997a

Location	Latitude	Longitude	Year	Species	Tissue	n	Concentration, µg/g dry weight				Remarks	Reference
							Lead	Cadmium	Mercury	Selenium		
Aternikerdluk	70°09'N	52°39'W	1980	*Cetraria nivalis* (lichen)		10	1.1±0.2	0.12±0.04				Riget *et al.* 1997a
Sarqaq	70°05'N	52°00'W	1980	*Cetraria nivalis* (lichen)		4	1.7±1.0	0.07±0.04				Riget *et al.* 1997a
Disko	69°36'N	53°57'W	1980	*Cetraria nivalis* (lichen)		4	4.4±0.6	0.08±0.02				Riget *et al.* 1997a
Sarfartoq	66°30'N	51°15'W	1989	*Cetraria nivalis* (lichen)		4	0.8±0.2	0.09±0.03				Riget *et al.* 1997a
Godthåbsfjord	64°48'N	50°98'W	1980	*Cetraria nivalis* (lichen)		9	3.1±1.0	0.09±0.03				Riget *et al.* 1997a
Narssaq	60°59'N	46°00'W	1979	*Cetraria nivalis* (lichen)		13	6.4±1.6	0.13±0.04				Riget *et al.* 1997a
Thule	77°50'N	66°67'W	1980	*Hylocomium splendens* (feather moss)		1	2.5	0.10				Riget *et al.* 1997a
Trailo	72°88'N	24.08'W	1985	*Hylocomium splendens* (feather moss)		1	9.90	0.24				Riget *et al.* 1997a
Skeldal	72°23'N	24°24'W	1979	*Hylocomium splendens* (feather moss)		1	8.40	0.03				Riget *et al.* 1997a
Bjørneøer	71°17'N	25°32'W	1985	*Hylocomium splendens* (feather moss)		1	7.00	0.28				Riget *et al.* 1997a
Ummanaq	70°91'N	52°25'W	1985	*Hylocomium splendens* (feather moss)		1	5.30	0.19				Riget *et al.* 1997a
Aternikerdluk	70°09'N	52°39'W	1980	*Hylocomium splendens* (feather moss)		2	4.5±1.9	0.31±0.34				Riget *et al.* 1997a
Sarqaq	70°05'N	52°00'W	1980	*Hylocomium splendens* (feather moss)		3	2.1±0.4	0.21±0.14				Riget *et al.* 1997a
Disko	69°36'N	52°37'W	1980	*Hylocomium splendens* (feather moss)		2	2.9±1.6	0.10±0.02				Riget *et al.* 1997a
Jakobshavn	69°21'N	51°00'W	1980	*Hylocomium splendens* (feather moss)		1	13.00	0.10				Riget *et al.* 1997a
Jakobshavn	69°45'N	50°82'W	1985	*Hylocomium splendens* (feather moss)		1	2.8	0.04				Riget *et al.* 1997a
Sdr. Strømfjord	67°06'N	50°63'W	1980	*Hylocomium splendens* (feather moss)		1	3.40	0.08				Riget *et al.* 1997a
Sarfartoq	66°30'N	51°15'W	1989	*Hylocomium splendens* (feather moss)		3	1.2±0.5	0.09±0.02				Riget *et al.* 1997a
Ammassalik	65°85'N	37°10'W	1985	*Hylocomium splendens* (feather moss)		3	4.3±1.3	0.49±0.14				Riget *et al.* 1997a
Godthåbsfjord	64°48'N	50°98'W	1980	*Hylocomium splendens* (feather moss)		8	5.2±3.1	0.14±0.04				Riget *et al.* 1997a
Frederikshåb	62°00'N	49°67'W	1985	*Hylocomium splendens* (feather moss)		1	3.60	0.06				Riget *et al.* 1997a
Narssaq	60°59'N	46°00'W	1979	*Hylocomium splendens* (feather moss)		8	7.1±2.0	0.17±0.11				Riget *et al.* 1997a
Immarssuaq	40°01'N	44°01'W	1985	*Hylocomium splendens* (feather moss)		2	6.6±0.2	0.20±0.01				Riget *et al.* 1997a
Thule	77°47'N	69°19'W	1982	*Cetraria nivalis* (lichen)		11			0.03±0.03			Riget *et al.* 1997a
Narssaq	60°59'N	46°00'W	1979	*Cetraria nivalis* (lichen)		13			0.05±0.01			Riget *et al.* 1997a
Thule	77°50'N	66°67'W	1980	*Hylocomium splendens* (feather moss)		1			0.17			Riget *et al.* 1997a
Aternikerdluk	70°09'N	52°39'W	1980	*Hylocomium splendens* (feather moss)		1			0.12			Riget *et al.* 1997a
Sarqaq	70°05'N	52°00'W	1980	*Hylocomium splendens* (feather moss)		3			0.12±0.02			Riget *et al.* 1997a
Disko	69°36'N	52°37'W	1980	*Hylocomium splendens* (feather moss)		2			0.16±0.03			Riget *et al.* 1997a
Jakobshavn	69°21'N	51°00'W	1980	*Hylocomium splendens* (feather moss)		1			0.09			Riget *et al.* 1997a
Godthåbsfjord	64°48'N	50°98'W	1980	*Hylocomium splendens* (feather moss)		8			0.08±0.02			Riget *et al.* 1997a
Narssaq	60°59'N	46°00'W	1979	*Hylocomium splendens* (feather moss)		5			0.09±0.03			Riget *et al.* 1997a
Thule	77°47'N	69°19'W	1982	*Cetraria nivalis* (lichen)		11				0.01±0.02		Riget *et al.* 1997a
Disko	69°26'N	53°34'W	1984	*Cetraria nivalis* (lichen)		2				0.09		Riget *et al.* 1997a
Godhavn	69°26'N	53°34'W	1983	*Cetraria nivalis* (lichen)		6				0.14±0.03		Riget *et al.* 1997a
Tartoq	61°41'N	48°72'W	1984	*Cetraria nivalis* (lichen)		4				0.12±0.03		Riget *et al.* 1997a
Ivigtut	61°19'N	48°28'W	1984	*Cetraria nivalis* (lichen)		3				0.12±0.02		Riget *et al.* 1997a
Narssaq	60°59'N	46°00'W	1979	*Cetraria nivalis* (lichen)		11				0.22±0.13		Riget *et al.* 1997a
Quinqua	61°26'N	45°50'W	1984	*Cetraria nivalis* (lichen)		3				0.12		Riget *et al.* 1997a
Thule	77°50'N	66°67'W	1980	*Hylocomium splendens* (feather moss)		1				1.10		Riget *et al.* 1997a
Skeldal	72°23'N	24°24'W	1979	*Hylocomium splendens* (feather moss)		1				15.70		Riget *et al.* 1997a
Aternikerdluk	70°09'N	52°39'W	1980	*Hylocomium splendens* (feather moss)		2				0.7±0.3		Riget *et al.* 1997a
Sarqaq	70°05'N	52°00'W	1980	*Hylocomium splendens* (feather moss)		3				0.6±0.2		Riget *et al.* 1997a
Disko	69°36'N	52°37'W	1980	*Hylocomium splendens* (feather moss)		2				1.1±0.1		Riget *et al.* 1997a
Jakobshavn	69°21'N	51°00'W	1980	*Hylocomium splendens* (feather moss)		1				0.70		Riget *et al.* 1997a
Sdr. Strømfjord	67°06'N	50°63'W	1980	*Hylocomium splendens* (feather moss)		1				12.90		Riget *et al.* 1997a
Godthåbsfjord	64°48'N	50°98'W	1980	*Hylocomium splendens* (feather moss)		8				2.4±3.9		Riget *et al.* 1997a
Narssaq	60°59'N	46°00'W	1979	*Hylocomium splendens* (feather moss)		5				0.29±0.26		Riget *et al.* 1997a
Iceland												
Lake Thingvallavatn			1994	*Myriophyllum*		1	0.7±0.2	0.30±0.02	<0.14	1.8±0.2		Jonsson 1995
Norway												
Svalbard	78°55',N	11°56',E	Aug. 1993	*Racomitrium lanuginosum*		1	12.10	0.01				Steinnes and Jacobsen 1994
Svalbard	78°55',N	11°56',E	Aug. 1993	*Hylocomium splendens* (moss)		1	8.90	0.52				Steinnes and Jacobsen 1994
Svalbard	78°55',N	11°56',E	Aug. 1993	*Hylocomium splendens* (moss)		1	4.80	0.46				Steinnes and Jacobsen 1994
Svalbard	79°00',N	12°18',E	Aug. 1993	*Racomitrium lanuginosum* (moss)		1	5.60	0.04				Steinnes and Jacobsen 1994
Svalbard	79°00',N	12°18',E	Aug. 1993	*Hylocomium splendens* (moss)		1	3.70	0.19				Steinnes and Jacobsen 1994
Svalbard	77°56',N	15°32',E	Aug. 1993	*Racomitrium lanuginosum* (moss)		1	10.90	0.06				Steinnes and Jacobsen 1994
Svalbard	77°56',N	15°32',E	Aug. 1993	*Hylocomium splendens* (moss)		1	9.60	0.12				Steinnes and Jacobsen 1994
Svalbard	78°28',N	15°39',E	Aug. 1993	*Racomitrium lanuginosum* (moss)		1	4.40	0.46				Steinnes and Jacobsen 1994
Svalbard	78°28',N	15°39',E	Aug. 1993	*Hylocomium splendens* (moss)		1	2.00	0.18				Steinnes and Jacobsen 1994
Svalbard			1991	*Dryas octopetala*		2	<0.017	<0.15	<0.015			Jacobsen 1994
				Racomitrium lanuginosum		2	0.02, 0.04	4.5, 2.7	0.18, <0.015			Jacobsen 1994
				Cetraria nivalis		2	0.078, 0.107	2.38, 1.94	0.022, 0.027			Jacobsen 1994

				Hylocomium splendens			0.09	3.50		Jacobsen 1994
				Racomitrium lanuginosum			0.07	2.70		Jacobsen 1994
Dividalen				*Cladonia* spp.		1	0.051	0.32	<0.02	Kålas *et al.*1995
				Hylocomium splendens		5	0.07±0.009	0.96±0.13	<0.02	Kålas *et al.*1995
				Pleurozium schreberi		5	0.10±0.02	1.26±0.66	0.028±0.022	Kålas *et al.*1995
				Vaccinium myrtillus (twig)		5	0.039±0.025	<0.2	<0.02	Kålas *et al.*1995
				Vaccinium myrtillus (leaf)		5	0.051±0.024	0.6±1	<0.02	Kålas *et al.*1995
				Betula nana (twig)		3	0.111±0.029	0.36±0.2	<0.02	Kålas *et al.*1995
				Betula nana (leaf)		3	0.054±0.014	<0.2	<0.02	Kålas *et al.*1995
				Betula pubescens (twig)		5	0.222±0.035	1.12±0.68	<0.02	Kålas *et al.*1995
				Betula pubescens (leaf)		5	0.130±0.037	<0.2	<0.02	Kålas *et al.*1995
				Salix spp. (twig)		10	0.806±0.342	<0.2	0.016±0.002	Kålas *et al.*1995
				Salix spp. (leaf)		10	0.445±0.174	<0.2	<0.02	Kålas *et al.*1995
Borgefjell			1990	*Cladonia* spp.		9	0.024±0.10	1.0±0.4	<0.02	Kålas *et al.*1995
				Hylocomium splendens		9	0.032±0.014	2.8±1.1	<0.02	Kålas *et al.*1995
				Pleurozium schreberi		9	0.032±0.016	3±2	<0.02	Kålas *et al.*1995
				Vaccinium myrtillus (twig)		9	<0.2	0.37±0.47	<0.02	Kålas *et al.*1995
				Vaccinium myrtillus (leaf)		9	<0.2	0.30±0.11	<0.02	Kålas *et al.*1995
				Betula nana (twig)		3	0.167±0.031	1.95±0.81	<0.02	Kålas *et al.*1995
				Betula nana (leaf)		5	0.040±0.029	0.71±0.12	<0.02	Kålas *et al.*1995
				Betula pubescens		4	0.285±0.169	1.75±1.14	<0.02	Kålas *et al.*1995
				Calluna vulgaris		4	<0.2	1.8±1.1	<0.02	Kålas *et al.*1995
Northern Norway			1977	*Hylocomium splendens* (moss)			6			Steinnes and Jacobsen 1994
Norway				Mosses		2	3.5-4.5	0.15-0.18		Mäkinen 1994
Central Norway			1991	Willow shrubs	Leaves, shoots			1.1-1.6		Myklebust *et al.* 1996
				Birches	Leaves, shoots			0.04-0.24		Myklebust *et al.* 1996
				Berry bushes	Stems, berries			<0.01		
Karasjok (N. Norway)			1974	*Betula pubescens*, leaves		4	4	trace		Bolviken *et al.* 1977
Karasjok (N. Norway)			1974	*Betula*, first year twigs		4	2	trace		Bolviken *et al.* 1977
Karasjok (N. Norway)			1974	*Betula*, second year twigs		4	3	trace		Bolviken *et al.* 1977
Karasjok (N. Norway)			1974	*Descampsia flexuosa*		2	3	0.2		Bolviken *et al.* 1977
Karasjok (N. Norway)			1974	*Festuca ovina*		3	4	trace		Bolviken *et al.* 1977
Karasjok (N. Norway)			1974	*Juncus trifidus*		1	3	0.5		Bolviken *et al.* 1977
Karasjok (N. Norway)			1974	*Viscaria alpina*		1	3	0.3		Bolviken *et al.* 1977
Finland										
Finland				Mosses		3	2.5-7.5	0.15-0.20		Mäkinen 1994
Northern Finland			1986	*Hypogymnia physodes*			17.2	0.57		Kubin 1990
Finnish Lakes				*Nuphar luteum* (water plant)			0.10-0.20	0.06, 0.09		Iivonen *et al.* 1992
Finnish Lakes			1987	*Sparganium* sp. (water plant)			0.5-4.5	0.2-1.1		Iivonen *et al.* 1992
Russia										
Yugorskiy Peninsula	68°52',5 N	66°46',0 E	11 Aug. 1995	*Betula tundrarum*		1	1.70	0.62	<0.01	RCMA 1995
Yugorskiy Peninsula	69°45',0 N	61°35',1 E	15 Aug. 1995	*Rumex arcticus* Trant.		1	1.00	0.26	0.02	RCMA 1995
Yugorskiy Peninsula	69°45',0 N	61°35',1 E	15 Aug. 1995	*Rubus chamaemorus*		1	2.30	0.19	0.03	RCMA 1995
Yugorskiy Peninsula	69°06',7 N	65°48',7 E	18 Aug. 1995	*Sanionia uncinata*		1	0.11	0.12	0.02	RCMA 1995
Yugorskiy Peninsula	69°06',7 N	65°48',7 E	18 Aug. 1995	*Armeria maritima*		1	0.30	0.05	0.02	RCMA 1995
Yugorskiy Peninsula	69°06',7 N	65°48',7 E	18 Aug. 1995	*Enupetrum androginum*		1	0.10	0.05	0.01	RCMA 1995
Yugorskiy Peninsula	69°06',7 N	65°48',7 E	18 Aug. 1995	*Rhodiola rosea* L.		1	0.40	0.15	0.02	RCMA 1995
Yugorskiy Peninsula	69°06',7 N	65°48',7 E	18 Aug. 1995	*Salix reptans* Rupr.		1	4.00	0.13	0.03	RCMA 1995
Yugorskiy Peninsula	68°52',5 N	66°46',0 E	11 Aug. 1995	Mycota: Basidiomycetes R.l.		1	0.10	0.14	0.03	RCMA 1995
Yugorskiy Peninsula	69°45',0 N	61°35',1 E	15 Aug. 1995	Mycota: Basidiomycetes R.l.		1	0.54	0.11	0.04	RCMA 1995
Yamal Peninsula	72°43',5 N	70°43',0 E	3 Aug. 1995	Bryophita: Bryales		1	0.60	0.10	0.04	RCMA 1995
Yamal Peninsula	69°48',0 N	67°21',0 E	2-July 1995	*Salix* sp.		1	0.12	0.10	0.02	RCMA 1995
Yamal Peninsula	69°48',0 N	67°21',0 E	2-July 1995	*Betula tundrarum*		1	0.80	0.15	0.01	RCMA 1995
Yamal Peninsula	69°55',0 N	70°40',0 E	3-Jul-95	Bryophyta: *Gylocomium* sp.		1	2.60	0.41	0.03	RCMA 1995
Yamal Peninsula	69°58',0 N	67°36',0 E	2 Aug. 1995	Mycota: *Basidiomycetes* L.s.		1	1.20	0.15	0.03	RCMA 1995
Taymyr Peninsula	76°10',5 N	99°23',6 E	9 Aug. 1995	*Cetraria islandica*		1	1.20	0.41	0.05	RCMA 1995
Taymyr Peninsula	76°10',5 N	99°23',6 E	9 Aug. 1995	Bryophyta: *Sphagnum* sp.		1	2.10	0.45	0.04	RCMA 1995
Taymyr Peninsula	74°33',0 N	98°35',0 E	11 May 1995	*Cetraria islandica*		1	0.57	0.18	0.05	RCMA 1995
Taymyr Peninsula	74°33',0 N	98°35',0 E	11 May 1995	*Cetrariella delisei*		1	0.80	0.08	0.02	RCMA 1995
Taymyr Peninsula	74°33',0 N	98°35',0 E	11 May 1995	*Flauocetraria cucullata*		1	3.20	0.16	0.05	RCMA 1995
Taymyr Peninsula	74°33',0 N	98°35',0 E	11 May 1995	*Flauocetraria nivalis*		1	1.60	0.16	0.04	RCMA 1995
Taymyr Peninsula	74°33',0 N	98°35',0 E	11 May 1995	*Cladina arbuscula*		1	1.70	0.75	0.03	RCMA 1995
Taymyr Peninsula	74°33',0 N	98°35',0 E	11 May 1995	*Asahinea crysantha*		1	1.20	0.36	0.02	RCMA 1995
Taymyr Peninsula	74°33',0 N	98°35',0 E	11 May 1995	*Dactylina arctica*		1	4.30	0.52	0.02	RCMA 1995
Taymyr Peninsula	71°50',0 N	102°20',0 E	16 May 1995	*Cetraria islandica*		1	1.50	0.15	0.03	RCMA 1995
East Siberia	75°29',5 N	143°14',0 E	15 Aug. 1995	*Dicranum*		1	0.47	0.15	<0.01	RCMA 1995
East Siberia	72°11',0 N	148°25',0 E	16 Aug. 1995	*Gylocomium* sp.		1	2.40	0.65	0.04	RCMA 1995
East Siberia	72°11',0 N	148°25',0 E	16 Aug. 1995	*Eriophorum* sp.		1	0.41	0.06	0.02	RCMA 1995

Location	Latitude	Longitude	Year	Species	Tissue	n	Concentration, µg/g dry weight Lead	Cadmium	Mercury	Selenium	Remarks	Reference
East Siberia	69°21',0 N	163°34',5 E	16 July 1995	*Betula tundrarum*		1	0.31	0.18	0.02			RCMA 1995
East Siberia	69°21',0 N	163°34',5 E	16 Aug. 1995	*Salix* sp.		1	0.10	0.32	0.01			RCMA 1995
Wrangel Island	71°08',5 N	179°23',0 E	23 Aug. 1995	*Salix* sp.		1	0.68	0.17	0.02			RCMA 1995
Wrangel Island	71°08',5 N	179°23',0 E	23 Aug. 1995	*Oxytropis* sp.		1	0.81	0.15	0.01			RCMA 1995
Wrangel Island	71°08',5 N	179°23',0 E	23 Aug. 1995	*Dryas punctata*		1	0.40	0.28	0.01			RCMA 1995
Chukotka Peninsula	68°34',0 N	180°30',0 E	3 July 1995	*Gylocomium* sp.		1	0.15	0.33	0.01			RCMA 1995
Chukotka Peninsula	68°34',0 N	180°30',0 E	3 July 1995	*Salix* sp.		1	1.60	0.12	<0.01			RCMA 1995
Kola Peninsula			1992	Terrestrial moss		45		0.34				Niskavaara *et al.*
Belkovskiy Islands	75°12'N	135°50'E	9 July 1994	Lichenophyta			1.7	0.03	0.05			RCMA 1994
Belkovskiy Islands	75°12'N	135°50'E	9 July 1994	Bryales, Bryophyta					0.05			RCMA 1994
East Siberia and Chukotka	69°21'N	164°34.5'E	19 July 1994	*Hylocomium* sp., Bryophyta			0.6	0.06	0.05			RCMA 1994
East Siberia and Chukotka	69°21'N	164°34.5'E	19 July 1994	Lichenophyta			1.6	1.7	0.02			RCMA 1994
East Siberia and Chukotka	69°48'N	169°21.5'E	21 July 1994	*Salix* sp., branches Angiospermatophyta			0.4	0.19	0.05			RCMA 1994
East Siberia and Chukotka	71°8.5'N	179°23'E	25 July 1994	Lichenophyta			2.5	0.11	0.02			RCMA 1994
East Siberia and Chukotka	71°8.5'N	179°23'E	25 July 1994	*Hylocomium* sp., Bryophyta			0.7	0.05	<0.04			RCMA 1994
Kotelny Islands	74°49'N	138°43'E	1 Aug. 1994	*Hylocomium* sp., Bryophyta			2.9	0.1	0.02			RCMA 1994
Kotelny Islands	74°49'N	138°43'E	1 Aug. 1994	Lichenophyta			2.4	0.06				RCMA 1994
Shirokostan Peninsula	72°18'N	140°50'E	6 Aug. 1994	*Salix* sp., leaves Angiospermatophyta					0.06			RCMA 1994
Taymyr Peninsula	76°28'N	111°13'E	10 Aug. 1994	*Hylocomium* sp., Bryophyta			3.6	0.02	<0.01			RCMA 1994
Taymyr Peninsula	76°28'N	111°13'E	10 Aug. 1994	Lichenophyta			2.7	0.13	<0.01			RCMA 1994
Taymyr Peninsula	77°36'N	103°49'E	13 Aug. 1994	Lichenophyta			2.1	0.04	0.01			RCMA 1994
Taymyr Peninsula	76°28'N	111°13'E	13 Aug. 1994	*Hylocomium* sp., Bryophyta			1.9	0.03	0.01			RCMA 1994
Taymyr Peninsula	76°10.5'N	99°23.6'E	15 Aug. 1994	*Hylocomium* sp., Bryophyta			1.3	0.02	<0.01			RCMA 1994
Yamal Peninsula	72°43.5'N	70°43'E	21 Aug. 1994	Lichenophyta			0.9	0.07	0.03			RCMA 1994
Yamal Peninsula	72°43.5'N	70°43'E	21 Aug. 1994	*Salix* sp. Angiospermatophyta	Branches		0.7	0.33	0.02			RCMA 1994
Yamal Peninsula	69°58'N	67°36'E	23 Aug. 1994	*Salix* sp. Angiospermatophyta	Branches		2.9	0.35	<0.01			RCMA 1994
Yamal Peninsula	69°58'N	67°36'E	23 Aug. 1994	*Betula nana* Angiospermatophyta	Leaves		0.5	0.1	<0.01			RCMA 1994
Yamal Peninsula	69°58'N	67°36'E	23 Aug. 1994	*Sphagnum* sp., Bryophyta			0.4	0.1	0.04			RCMA 1994
Kolguev Island	69°9.3'N	49°21.8'E	28 Aug. 1994	Bryales, Bryophyta					0.08			RCMA 1994
Kolguev Island	69°9.3'N	49°21.8'E	28 Aug. 1994	*Salix* sp. Angiospermatophyta	Branches				0.04			RCMA 1994
Kolskiy Peninsula	67°15'N	41°02'E	31 Aug. 1994	Lichenophyta					0.02			RCMA 1994
Kolskiy Peninsula	67°15'N	41°02'E	31 Aug. 1994	*Vaccinium myrtillus* Angiospermatophyta.	Leaves + branches				0.03			RCMA 1994
Pechenga				Mosses		2	5.0-7.5	0.10-0.14				Mäkinen 1994
Murmansk				Mosses		5	4.9-8.5	0.09-0.40				Mäkinen 1994
Olenegorsk				Mosses		1	13	0.7				Mäkinen 1994
Monchegorsk				Mosses		4	11-23	0.10-0.54				Mäkinen 1994
Kandalaksha				Mosses		2	6.5-23	0.28-0.95				Mäkinen 1994
Laplandia Nature Reserve				Mosses		6	7.0-19	0.10-0.30				Mäkinen 1994
Lake Imandra				Mosses		2	8.0-13	0.20-0.24				Mäkinen 1994
Kirovsk				Mosses		2	4.0-14	0.19-0.60				Mäkinen 1994
Ust-Lena Reserve				Peat and grass litter		7	10-1230/400	80-140/100		0.07-0.99/0.33		Rovinsky 1995

Table 7·A3. Metals in terrestrial and aquatic birds.

Location	Latitude	Longitude	Year	Species	Age[a]	Tissue	n, sex	Concentration, µg/g wet weight (unless otherwise indicated) Cadmium	Lead	Mercury	Selenium	Remarks	Reference
USA													
Arctic Nat. Wildlife			1988	*Caladris melanotos*		Egg	23	<0.10-0.49	<1.50-1.82	0.22-1.10	1.02-2.12	dw	Snyder-Conn and Lubinsky 1993
Refuge, Alaska			1988	(Pectoral sandpiper)		Liver	46	<0.150-2.78	<2.2-6.2			dw	Snyder-Conn and Lubinsky 1993
			1988			Feather	46			0.645-4.64		dw	Snyder-Conn and Lubinsky 1993
			1988	*Lagopus mutus*		Liver	18♂	3.11-17.3	<1.00-1.97	<0.02	0.478-1.28	dw	Snyder-Conn and Lubinsky 1993
			1988	(Rock Ptarmigan)		Kidney	18♂	20.8-109				dw	Snyder-Conn and Lubinsky 1993
			1988	*Clangula hyemalis*		Liver	8	2.80-19.1	<0.5-<0.7	1.03-5.55	15.0-59.0	dw	Snyder-Conn and Lubinsky 1993
			1988	(Oldsquaw)		Kidney	1	5.75-87.3				dw	Snyder-Conn and Lubinsky 1993
			1988	*Phalaropus lobatus*		Feather	1			0.93		dw	Snyder-Conn and Lubinsky 1993
			1988	(Red-necked phalarope)		Liver	1	<0.07	<0.5		<10.0	dw	Snyder-Conn and Lubinsky 1993
Canada													
Yukon/NWT			1995	*Bonasa umbrellus*		Feather	4 ♂	0.01-0.03	0.11-1.5	<0.05	0.41-1.1	dw	Gamberg 1996
			1995	(Ruffed grouse)		Kidney	7 ♂	0.4-1200	0.01-0.57	<0.05-0.17	0.33-5.8	dw	Gamberg 1996
			1995	—		Liver	4 ♂	0.6-13.4	<0.01-0.6	<0.05-0.10	1.9-4.2	dw	Gamberg 1996
			1996	—		Liver	3 ♂	16-52	0.03-0.12	<0.05-0.15	1.4-4.3	dw	Gamberg 1996
			1995	*Dendrogapus canadensis*		Feather	12♂+♀	<0.01-0.6	0.01-86	<0.05-0.15	0.2-1.4	dw	Gamberg 1996
			1994, 1995	(Spruce grouse)		Kidney	38♂+♀	1-760	0.07-285	<0.05-0.32	1.1-7.7	dw	Gamberg 1996
			1994-1996	—		Liver	16♂, 12♀	0.5-14.8	0.01-72	<0.05-0.29	0.7-4.7	dw	Gamberg 1996
			1994	—		Muscle		<0.01-0.04	0.01	<0.15-0.15	<0.05-1.1	dw	Gamberg 1996
				Dendrogapus obscurus		Feather	2♂	0.04, 0.13	0.24, 0.38	<0.05	0.14, 0.33	dw	Gamberg 1996
				(Blue grouse)		Kidney	3♂	1.1-10.8	0.2-0.35	<0.05-0.23	0.5-1.2	dw	Gamberg 1996
				—		Liver	2♂	2.9, 3.0	0.2, 0.4	<0.05-0.05	2.5, 4.7	dw	Gamberg 1996
				Lagopus lagopus		Feather	1♂	0.11	0.83	<0.05	0.25	dw	Gamberg 1996
				(Willow ptarmigan)		Kidney	4♂, 5♀	9.1-1020	0.1-7	<0.05-0.3	0.3-4	dw	Gamberg 1996
				—		Liver	4♂, 5♀	20-122	0.08-1.5	<0.05-0.18	0.9-1.8	dw	Gamberg 1996
			1996	*Lagopus mutus*		Kidney	2♂, 2♀	28-887	0.9-176	0.07-0.23	1.5-4.9	dw	Gamberg 1996
			1996	(Rock ptarmigan)		Liver	2♂, 2♀	7-54	0.08-2.8	<0.05-0.21	<0.05-1.4	dw	Gamberg 1996
			1995	*Lagopus leucurus*		Kidney	1♂, 1♀	161, 116	0.19, 0.21	0.16, 0.16	3.8, 4.2	dw	Gamberg 1996
			1995	(White-tailed ptarmigan)		Liver	1♂, 1♀	35, 28	0.3, 0.5	0.3, 0.13	1.4, 2.6	dw	Gamberg 1996
			1994	*Lagopus* sp.		Kidney	4♂, 2♀	7-232	0.1-1.9	<0.05-0.21	0.9-4.2	dw	Gamberg 1996
			1995	—		Liver	4♂, 2♀	2-23	0.4-2.1	0.05-0.23	1-1.7	dw	Gamberg 1996
						Kidney	20	143.0±68.4				dw	Gamberg 1995
						Liver	19	38.8±33.5				dw	Gamberg 1995
			1988	*Anas crecca* (Green-winged teal)		Liver	16♂, 1♀	<0.19-1.3	<0.8-1.9		<3.2-6.7	dw	Gamberg 1996
			1988			Muscle	15♂, 1♀	<0.19	<0.9		<3.1-4.2	dw	Gamberg 1996
			1988	*Anas americana* (American wigeon)		Liver	3♂, 1♀	0.6-2.4	<1		<3.9	dw	Gamberg 1996
			1988			Muscle	3♂, 1♀	<0.16	<0.8		<3.2-3.4	dw	Gamberg 1996
				Anas acuta (Northern pintail)		Liver	3♀	0.25-1.6	<0.9		<3.7	dw	Gamberg 1996
						Muscle	3♀	<0.16	<0.9		<3.5	dw	Gamberg 1996
				Anas platyrhynchos (Mallard duck)		Egg	1	0.02	0.02	<0.05	2.7	dw	Gamberg 1996
						Feather	1♂, 1♀	0.05, 0.07	1.1, 2.1	1, 2.2	1.5, 2.6	dw	Gamberg 1996
						Kidney	1♂, 1♀	1.9, 3.6	0.1, 0.07	<0.05	1, 1.4	dw	Gamberg 1996
						Liver	6♂, 6♀	0.4-3.1	0.4-1	0.25, 0.28	<3.5-14.3	dw	Gamberg 1996
						Muscle	5♂, 5♀	<0.18	<0.9		<3.6	dw	Gamberg 1996
			1995	*Anas manla* (Scaup)		Feather	1♂	0.62	86	<0.05	0.26	dw	Gamberg 1996
			1995			Kidney	1♂	9.2	0.3	<0.05	2	dw	Gamberg 1996
			1995			Liver	1♂	0.41	0.08	0.62	5.9	dw	Gamberg 1996
Various			1991-1994	Rock ptarmigan		Muscle	37	<0.03-<0.10	0.06-0.24				CWS 1996
							28	0.02-0.83					CWS 1996
							32	0.02-0.20					CWS 1996
							5	<0.11-<0.12					CWS 1996
Various			1988-1994	Canada Goose, Snow Goose,		Muscle	240	0.04-0.0.83					CWS 1996
				and Lesser Snow Goose			17	<0.10-<0.20					CWS 1996
							55	0.03-0.3					CWS 1996
							179	<0.02-<0.08					CWS 1996
							276	<0,02-<0.16					CWS 1996
							1	0.41					CWS 1996
							27	0.01-0.44					CWS 1996
							250	<0.01-<0.23					CWS 1996
Various			1991-1994	Willow ptarmigan		Muscle	41	0.07-0.21					CWS 1996
							10	<0.03					CWS 1996
							24	0.02-0.14					CWS 1996
							14	<0.03-<0.04					CWS 1996

Location	Latitude	Longitude	Year	Species	Age[a]	Tissue	n, sex	Concentration, µg/g wet weight (unless otherwise stated) Cadmium	Lead	Mercury	Selenium	Remarks	Reference
Various							51	<0.03-<0.08					CWS 1996
							27	0.07-0.58					CWS 1996
							24	<0.04-<0.06					CWS 1996
Various			1993-1994	Spruce grouse and Ruffed grouse		Muscle	32	<0.05-<0.16	<0.02-<0.04	0.05-0.49			CWS 1996
							8	0.10-0.13					CWS 1996
							20	<0.03-<0.04					CWS 1996
Various			1989-1993	Merganser		Muscle		19	0.37-1.02				CWS 1996
							4	0.30					CWS 1996
							12	<0.01-<0.06					CWS 1996
							21	<0.03-<0.10	0.07-1.23				CWS 1996
Various			1993-1994	Widgeon		Muscle	16	<0.05-<0.09	<0.03				CWS 1996
							14	<0.03-<0.04					CWS 1996
							2	0.64					CWS 1996
Various			1991-1994	Loon		Muscle	26	0.30-1.93	0.44-1.51				CWS 1996
							3	0.03-0.20					CWS 1996
							23	<0.02-<0.06					CWS 1996
							13	0.06-0.44					CWS 1996
							13	<0.07-<0.14					CWS 1996
Various			1988-1994	Pintail		Muscle	45	0.17-2.1					CWS 1996
							33	0.02-0.50					CWS 1996
							17	<0.03-<0.12					CWS 1996
							25	0.03-0.21					CWS 1996
							25	<0.03-0.12					CWS 1996
							50	<0.01-<0.20					CWS 1996
Various			1988-1994	Mallard		Muscle	37	0.21-1.0					CWS 1996
							10	<0.10					CWS 1996
							23	0.05-0.87					CWS 1996
							2	4	<0.03-<0.10				CWS 1996
							34	0.02-0.12					CWS 1996
							13	<0.03-<0.05					CWS 1996
							26	0.01-0.08					CWS 1996
							21	<0.05-<0.10					CWS 1996
Various			1988-1994	Scaup		Muscle	12	0.45-0.93					CWS 1996
							1	<0.01					CWS 1996
							8	0.13					CWS 1996
							23	<0.03-<0.07					CWS 1996
							12	0.06-0.17					CWS 1996
							19	<0.02-<0.08					CWS 1996
							6	0.01-0.05					CWS 1996
							25	<0.06-<0.22					CWS 1996
Various			1989-1994	Teal		Muscle	39	<0.06-<0.11	0.04-0.62	0.18-1.16			CWS 1996
							14	0.03-0.35					CWS 1996
							23	<0.04-<0.05					CWS 1996
Norway													
Jarfjord/Neiden			1986-1987	*Lagopus lagopus*	A	Kidney	4	6.6					Wren 1995
Jarfjord/Neiden			1986-1987	(Willow ptarmigan)	J	Kidney	6	2.4					Wren 1995
Sortland			1986-1987		A	Kidney	5	10.4					Wren 1995
Sortland			1986-1987		J	Kidney	5	1.1					Wren 1995
Sulitjelma	67°N	16°E	1986-1987		A	Kidney	5	39					Wren 1995
Sulitjelma	67°N	16°E	1986-1987		J	Kidney	4	4.3					Wren 1995
Sør-Varanger, Jarfjord			1991		A	Kidney	14	87	0.9	0.08		dw	Kålas *et al.* 1995
Sør-Varanger, Svanvik			1991		A	Kidney	3	109	0.87	0.093		dw	Kålas *et al.* 1995
Sør-Varanger, N-Varanger			1991		A	Kidney	5	88	0.81	0.077		dw	Kålas *et al.* 1995
Sør-Varanger, Neiden			1991		A	Kidney	7	52	0.53	0.062		dw	Kålas *et al.* 1995
Sør-Varanger, Pasvik			1991		A	Kidney	11	121	0.46	0.085		dw	Kålas *et al.* 1995
Finmark County (Ref. Area)			1991		A	Kidney	9	46	0.45	0.086		dw	Kålas *et al.* 1995
Sør-Varanger, Jarfjord			1991		J	Liver	8	0.75	1.09	0.027	0.73	dw	Kålas *et al.* 1995
Sør-Varanger, Jarfjord			1991		A	Liver	14	7.2	0.56	0.027	0.78	dw	Kålas *et al.* 1995
Sør-Varanger, Svanvik			1991		J	Liver	3	1.44	1.28	0.019	0.66	dw	Kålas *et al.* 1995
Sør-Varanger, Svanvik			1991		A	Liver	3	6.9	0.75	0.035	0.85	dw	Kålas *et al.* 1995
Sør-Varanger, N-Varanger			1991		A	Liver	5	4.9	1.47	0.032	0.93	dw	Kålas *et al.* 1995
Sør-Varanger, Neiden			1991		A	Liver	7	4.1	0.61	0.024	0.56	dw	Kålas *et al.* 1995
Sør-Varanger, Pasvik			1991		J	Liver	4	0.79	0.44	0.033	0.67	dw	Kålas *et al.* 1995
Sør-Varanger, Pasvik			1991		A	Liver	11	9.1	0.43	0.029	0.62	dw	Kålas *et al.* 1995

Finnmark County (Ref. Area)			1991		A	Liver	9	5.6	0.52	0.046	0.48	dw	Kålas *et al.* 1995
Sør-Varanger, Pasvik			1991-1993	*Tetrao urogallus*	J	Kidney	9	3.9	0.24	0.12		dw	Kålas *et al.* 1995
Sør-Varanger, Pasvik			1991-1993	(Capercaillie/Woodland grouse)	A	Kidney	5	29	0.61	0.176		dw	Kålas *et al.* 1995
Sør-Varanger, Pasvik			1991-1993		J	Liver	9	1.7	0.15	0.03	0.93	dw	Kålas *et al.* 1995
Sør-Varanger, Pasvik			1991-1993		A	Liver	5	4	0.15	0.1	0.74	dw	Kålas *et al.* 1995
Dividalen			1991-1994	*Ficedulia hypoleuca*	10-14 d	Liver	15	0.067±0.017	0.34±0.13	0.100±0.031		dw	Kålas *et al.* 1995
Borgefjell			1991-1994	(Pied flycatcher)	10-14 d	Liver	13	0.042±0.035	0.33±0.12	0.201±0.082		dw	Kålas *et al.* 1995
Dividalen			1991-1994	*Parus major* (Great tit)	10-14 d	Liver	10	0.030±0.018	<0.40	0.113±0.053		dw	Kålas *et al.* 1995
Borgefjell			1991-1994		10-14 d	Liver	5	0.036±0.027	<0.40	0.162±0.103		dw	Kålas *et al.* 1995
Dividalen			1990-1994	*Lagopus lagopus*	J	Liver	7	0.89±0.40	0.39±0.35	0.019±0.004		dw	Kålas *et al.* 1995
			1990-1994	(Willow ptarmigan)	A	Liver	5	12.6±3.6	0.73±0.45	0.018±0.004		dw	Kålas *et al.* 1995
Borgefjell			1990-1991		J	Liver	10	0.3±0.12	0.38±0.17	0.026±0.004		dw	Kålas *et al.* 1995
			1990-1991		A	Liver	5	7.6±1.9	1.9±1.9	0.044±0.071		dw	Kålas *et al.* 1995
			1993-1994		J	Liver	4	2.1±2.9	0.48±0.10	0.059±0.060		dw	Kålas *et al.* 1995
			1993-1994		A	Liver	5	8.3±2.6	1.3±1.0	0.072±0.034		dw	Kålas *et al.* 1995
Sør Varanger			1907	*Falco columbarius* (Merlin)	2A, 1N	Feathers	3	<0.043-<0.049	<1.1-<2	1.1-7.3		dw	Nygård 1995
Hattfjelldal			1908		A	Feathers	1	<0.039	<1	3.8		dw	Nygård 1995
Sør Varanger			1966		N	Feathers	2	<0.033, <0.03	<0.7, <0.8	0.6, 1.7		dw	Nygård 1995
Vågan			1991		J	Feathers	1	0.009	0.2	1.1		dw	Nygård 1995
Grane			1992		A	Feathers	1	2.98	<0.3	2		dw	Nygård 1995
Alta			1992		A	Feathers	7	<0.023-0.74	<0.2-2.3	0.9-4.7		dw	Nygård 1995
Alta			1993		A	Feathers	5	0.012-0.064	<0.3-1.4	0.8-7.4		dw	Nygård 1995
Kautokeino			1993		A	Feathers	13	<0.010-0.27	<0.2-1.8	0.7-8.3		dw	Nygård 1995
Nordreisa			1993		A	Feathers	1	0.024	<0.3	2.5		dw	Nygård 1995
Målselv			1993		A	Feathers	1	0.022	<0.5	2.8		dw	Nygård 1995
Tana			1993		J	Feathers	2	<0.017, 0.19	<0.4, 5.6	0.8		dw	Nygård 1995
Sweden													
	66°20'N	16°10'E		*Lagopus lagopus*		Liver	6	13±7	0.80±0.38	0.04±0.01		dw	Petersen in press
				(Willow ptarmigan)		Kidney	6	126±44	2.1±3.4	0.10±0.03		dw	Petersen in press
	67°30N	18°40'E				Liver	3	8±9	0.37±0.30	0.02±0.005		dw	Petersen in press
						Kidney	3	56±52	0.73±0.30	0.08±0.03		dw	Petersen in press
Russia													
Yamal Peninsula	70°00',0 N	67°17',0 E	2 Aug. 1995	*Branta bernicla* (Brant)		Liver	1	0.01	0.15	0.05			RCMA, 1995
Yamal Peninsula	70°00',0 N	67°17',0 E	2 Aug. 1995			Muscle	1	0.05	0.60	0.02			RCMA, 1995
Yamal Peninsula	70°00',0 N	67°17',0 E	2 Aug. 1995			Fat	1	0.05	0.19	0.02			RCMA, 1995
Yamal Peninsula	70°00',0 N	67°17',0 E	2 Aug. 1995			Heart	1	0.45	<0.05	0.01			RCMA, 1995
Kara Sea	76°15',0 N	94°48',0 E	7 Aug. 1995			Liver	1	0.08	0.30	0.06			RCMA, 1995
Kara Sea	76°15',0 N	94°48',0 E	7 Aug. 1995			Muscle	1	<0.05	<0.05	0.02			RCMA, 1995
Taymyr Peninsula	77°40',0 N	104°10',0 E	11 Aug. 1995	*Larus hyperboreus* (Glaucous gull)		Heart	1	0.15	0.15	0.05			RCMA, 1995
Taymyr Peninsula	77°40',0 N	104°10',0 E	11 Aug. 1995			Liver	1	<0.05	<0.05	0.08			RCMA, 1995
Taymyr Peninsula	77°40',0 N	104°10',0 E	11 Aug. 1995			Muscle	1	<0.05	0.30	0.05			RCMA, 1995
Arctic regions						Liver	3.6	<DL	1.6	2.2			Melnikov 1994
Arctic regions						Kidney	23	<DL					Melnikov 1994
Taymyr Peninsula	77°40',0 N	104°10',0 E	11 Aug. 1995	*Larus argentatus* (Herring gull)		Liver	1	0.14	0.54	0.05			RCMA, 1995
Taymyr Peninsula	77°40',0 N	104°10',0 E	11 Aug. 1995			Muscle	1	0.05	0.39	0.02			RCMA, 1995
East-Siberian Sea	75°29',5 N	143°14',0 E	15 Aug. 1995	*Lagopus lagopus* (Willow ptarmigan)		Liver	1	0.50	0.30	0.06			RCMA, 1995
East-Siberian Sea	75°29',5 N	143°14',0 E	15 Aug. 1995			Muscle	1	0.36	0.12	0.04			RCMA, 1995
Taymyr Peninsula	75°57',0 N	99°09',0 E	10 Aug. 1995	*Lagopus mutus* (Rock ptarmigan)		Muscle	1	0.05	<0.05	0.02			RCMA, 1995
Taymyr Peninsula	75°57',0 N	99°09',0 E	10 Aug. 1995			Liver	1	0.05	<0.05	0.04			RCMA, 1995
Taymyr Peninsula	76°47',0 N	110°40',0 E	12 Aug. 1995	*Polysticta stelleri* (Steller's eider)		Muscle	1	0.05	0.15	0.09			RCMA, 1995
East-Siberian Sea	75°29',5 N	143°14',0 E	15 Aug. 1995	*Squatarola squatarola* (Grey plover)		Muscle	1	<0.05	0.30	0.06			RCMA, 1995
Various (Pechora River Mouth,Taimyr Peninsula, Lena River Delta, New Siberian Island Archipelago, Indigirka River Mouth)				Herbivores		Muscle		0.02-0.36	0.05-0.62	0.01-0.11			Melnikov *et al.*1996
				Carnivores		Muscle		0.03-1.10	0.05-0.75	0.02-0.15			Melnikov *et al.*1996
				Omnivores		Muscle		0.02-0.55	0.10-0.65	0.02-0.15			Melnikov *et al.*1996
				Herbivores		Liver		0.04-0.50	0.05-0.40	0.05-0.70			Melnikov *et al.*1996
				Carnivores		Liver		0.10-0.93	0.10-0.90	0.10-0.82			Melnikov *et al.*1996
				Omnivores		Liver		0.02-0.11	0.04-0.15	0.04-0.15			Melnikov *et al.*1996

a. A: Adult, J: Juvenile, N: Nestling, d: days

Table 7·A4. Metals in terrestrial mammals.

Location	Latitude	Longitude	Year	Species	Age[a], years	Tissue	n, sex	Concentration, µg/g wet weight (unless otherwise indicated by asterisks under Remarks) Cadmium	Lead	Mercury	Selenium	Remarks[b]	Reference
Canada				*Rangifer tarandus* (Caribou)									
Yukon/NWT			1992	Finlayson Herd	2-12	Kidney	30♀	60-882 (192)	0.22-1.24 (0.51)	2.26-6.76 (3.94)	2.50-8.23 (4.68)	*	Gamberg 1996
					0.5 (1)	Kidney	2♂	33, 39	0.6, 2.9	3.1, 2.9	4.2, 5.2	*	Gamberg 1996
			1993	Bonnet Plume Herd	1-11	Kidney	21♀	7-108 (38)	0.01-0.77 (0.38)		4.5-8 (6.4)	*	Gamberg 1996
					1	Kidney	19♀			1.1-2.6 (1.8)		*	Gamberg 1996
			1993	Finlayson Herd	2-10	Kidney	20♀	51-371 (115)	0.24-1.66 (0.77)		5.9-10.3 (7.8)	*	Gamberg 1996
					2-10	Kidney	19♀			2.5-5.9 (3.3)		*	Gamberg 1996
			1992	Porcupine Herd	1-9	Kidney	16♀	7-92 (30)	<0.9-<1.3	0.9-2.5 (1.5)	<3.8-<5.2)	*	Gamberg 1996
			1994		0.5-7	Kidney	14♂+♀	7-95 (40)	0.09-3.6 (0.49)	0.4-2.9 (1.6)	3.2-10 (4.8)	*	Gamberg 1996
			1995			Kidney	16♀	11-176 (54)	0.02-6.17 (0.11)	<0.5-0.84 (0.17)	3-7.5 (5.4)	*	6 Hg values >d.l. Gamberg 1996
			1993		6-7	Kidney	4♂+♀	19-35 (30)	<1.1-<1.4	0.9-1.7 (1.3)	<4.3-<5.5)	*	Gamberg 1996
			1991		4-10	Kidney	20♀	7-114 (44)	<1.1-35.7	1.8-5.4 (3.2)	<4.3-<5.3	*	1 Pb value >d.l. Gamberg 1996
			1992			Kidney	10♀	13-62 (37)	<1.1-14.7 (3.0)	2.3-3.1 (2.7)	<4.4-<5.6	*	3 Pb values >d.l. Gamberg 1996
			1993	Tay Herd	2-11	Kidney	20♀	44-473 (121)	0.9-2.9 (1.5)	1.5-5.8 (3.3)	3-9.4 (7.7)	*	Gamberg 1996
			1993	Bonnet Plume Herd	1-11	Liver	21♀	1.1-8.3 (3.2)	0.3-0.8 (0.6)		0.9-2.1 (1.2)	*	Gamberg 1996
			1992	Finlayson Herd	2-12	Liver	29♀	5-22 (13)	0.36-1.49 (0.70)	0.26-1.2 (0.62)	0.4-1.9 (1.2)	*	Gamberg 1996
				Finlayson Herd	0.5 (1)	Liver	2♂	3.1, 7.7	0.6, 0.7	0.2, 0.5	0.9, 1.7	*	Gamberg 1996
			1993	Finlayson Herd	2-10	Liver	20♀	3-64 (9)	0.26-0.71 (0.40)		0.8-2.0 (1.4)	*	Gamberg 1996
			1992	Porcupine Herd	1-9	Liver	16♀	1.1-9.7 (3.9)	<0.7-<0.9		<2.8-<3.8	*	Gamberg 1996
			1994		2-7	Liver	13♂+♀	1.6-13.2 (5.6)	0.12-0.34 (0.20)	0.07-0.66 (0.33)	1-3.7 (2.1)	*	Gamberg 1996
			1995			Liver	18♀	1.7-4.8 (3.5)	0.10-0.25 (0.16)	<0.05-0.40 (0.18)	0.6-1.4 (0.9)	*	11 Hg values >d.l. Gamberg 1996
			1993		6-7	Liver	4♂+♀	2.5-5.8 (4.5)	<0.8-<0.9		<3.2-<3.7	*	Gamberg 1996
			1991		4-10	Liver	20♀	1.3-15.2 (5.7)	<0.8-3.3 (1.1)		<3.1-<4.0	*	7 Pb values >d.l. Gamberg 1996
			1992			Liver	10♀	1.9-8.7 (4.6)	<0.9-1.07		<3.5-<4.2	*	2 Pb values >d.l. Gamberg 1996
			1993	Tay Herd	2-11	Liver	20♀	1.7-19.6 (9.6)	0.9-2.7 (1.6)		1-3.1 (1.8)	*	Gamberg 1996
Victoria Island			1973			Liver	3			0.20±0.036			Smith and Armstrong 1975
(Holman)			1973			Muscle	3			0.017±0.006			Smith and Armstrong 1975
Prince of Wales Island	73°06'N	97°41'W	1978			Liver	5		3.00				Shaw and Gunn 1981
Prince of Wales Island	73°06'N	97°41'W	1978			Kidney	5		2.80				Shaw and Gunn 1981
Bathurst Range	64°15'N	113°07'W	1992 (Jul., Sep.)	Bathurst Herd	3-11	Kidney	10♀, 10♂	5-26 (9.68±1.27)	d.l.-0.23 (0.11±0.02)	0.27-1 (0.52±0.04)		**	GNWT 1996
Arviat	61°07'N	94°04'W	1992 (Feb.)	Arviat Herd	2-10	Kidney	10♀	10-63 (33.87±6.06)	d.l.-0.2 (0.10±0.02)	1.9-4.3 (2.93±0.21)		**	GNWT 1996
Southampton Is	64°08'N	83°10'W	1991 (Nov.)		1.5-5.5	Kidney	2♂, 8♀	12-45 (18.79±3.291)2	0.01-0.53 (0.33±0.06)	1.8-3.2 (2.22±0.13)		**	GNWT 1996
Cape Dorset	64°14'N	76°32'W	1992 (Apr.)		2-12	Kidney	5♂, 5♀	4-24 (14.06±2.27)	0.13-0.69 (0.42±0.07)	0.9-1.4 (1.25±0.05)		**	GNWT 1996
Lake Harbour	62°51'N	69°53'W	1992 (Apr.)		2-7	Kidney	5♂, 5♀	5-58 (31.98±5.89)	0.15-1.1 (0.47±0.10)	1.2-4 (2.56±0.25)		**	GNWT 1996
Bathurst Range	64°15'N	113°07'W	1992 (Jul., Sep.)	Bathurst Herd	3-11	Liver	10♀, 10 ♂	0.05-2.7 (1.96±0.14)	0.03-1.2 (0.38±0.07)	0.02-0.61 (0.16±0.03)		**	GNWT 1996
Arviat	61°07'N	94°04'W	1992 (Apr.)	Arviat Herd	2-10	Liver	10♀	1.2-6.6 (3.69±0.62)	d.l.-0.85 (0.25±0.08)	0.52-1.28 (0.92±0.08)		**	GNWT 1996
Cape Dorset	64°14'N	76°32'W	1992 (Apr.)		2-12	Liver	5♂ , 5♀	0.7-4.7 (2.24±0.47)	1.5-4.2 (2.64±0.27)	0.08-1.3 (0.38±0.11)		**	GNWT 1996
Lake Harbour	62°51'N	69°53'W	1992 (Apr.)		2-7	Liver	5♂, 5♀	1.1-7.9 (4.39±0.71)	1.3-7.9 (3.38±0.73)	0.35-1.03 (0.58±0.08)		**	GNWT 1996
Inuvik, NWT			1994 (March)			Liver	8♂, 2♀	1-11 (5.83±1.00)	0.05-0.43 (0.12±0.04)	0.18-0.75 (0.49±0.06)		**	GNWT 1996
NWT			1994 (Apr.)	Beverly Herd	4-11	Liver	5♂, 5♀	2.1-4.7 (3.42±0.27)	0.05-0.22 (0.07±0.02)	0.19-0.55 (0.37±0.04)		**	GNWT 1996
Cambridge Bay, NWT			1993 (Nov.)		1-13	Liver	6♀, 4♂	0.6-4 (1.35±0.32)	0.27-1.7 (0.61±0.13)	0.16-0.39 (0.22±0.02)		**	GNWT 1996
Taloyoak, NWT			1993 (Sept.)			Liver	10 (♂+♀)	0.68-1.5 (1.06±0.08)	0.16-2 (0.62±0.17)	0.13-0.36 (0.23±0.03)		**	GNWT 1996
Pond Inlet, NWT			1993 (Apr.)		5-9	Liver	6♀, 4♂	0.3-1.6 (0.98±0.14)	0.2-1.4 (0.56±0.13)	0.25-0.74 (0.39±0.05)		**	GNWT 1996
Inuvik, NWT			1993 (March)			Kidney	8♂, 2♀	6-89 (42.71±9.25)	0.05-0.19 (0.06±0.01)	1.2-2.8 (1.88±0.19)		**	GNWT 1996
NWT			1993 (Apr.)	Beverly Herd	4-11	Kidney	5♂, 5♀	14-59 (30.96±4.23)	0.05-0.45 (0.10±0.04)	1-2.7 (2.16±0.19)		**	GNWT 1996
Cambridge Bay, NWT			1993 (Nov.)		1-13	Kidney	6 F, 4♂	4-19 (9.41±1.73)	0.13-1.5 (0.48±0.13)	0.27-1 (0.87±0.12)		**	GNWT 1996
Taloyoak, NWT			1993 (Sept.)			Kidney	10 (♂+♀)	5-12 (7.40±0.68)	0.19-0.59 (0.32±0.04)	0.5-1.9 (1.05±0.15)		**	GNWT 1996
Pond Inlet, NWT			1993 (Apr.)		5-9	Kidney	6♀, 4♂	10-19 (14.54±0.89)	0.1-1.4 (0.44±0.13)	1.3-3.1 (2.17±0.18)		**	GNWT 1996
Yukon/NWT			1993	*Alces alces* (Moose)	2, 4	Bone	2♂	<3	<13		<50	*	35 Hg values >d.l. Gamberg 1996
												*	21 Hg values >d.l.
			1993-1995		1-8	Kidney	1♀, 50♂	0.2-1380	<0.01-11.4	<0.05-0.74	2.6-11.8	*	46 Pb values >d.l. Gamberg 1996
												*	30 Cd values >d.l.
					1-8	Liver	59♂, 1♀	0.3-57	<0.01-13.4	<0.05-0.14	0.8-19.2	*	24 Pb values >d.l. Gamberg 1996
												*	19 Hg values >d.l. 24
					1-8	Muscle	36♂	<0.01-0.51	<0.01-62.5	<0.05-0.31	<0.05-0.19	*	Se values >d.l. Gamberg 1996
Banks Island/ Victoria Is.			1985-1990	*Ovibos moschatus* (Muskox)	2-4	Kidney	60	<0.1-13.1 (11.6)				**	Range of means Gamberg and Sheuh. 1994
						Liver	64	0.23-1.2 (0.7)				*	Range of means Gamberg and Sheuh. 1994
			1993	*Ondatra zibethicus* (Muskrat)		Bone	2♂, 1♀	<1-<2	<5-<8		<20-<30	*	Gamberg 1996
			1993-1996			Kidney	8♀, 5♂	<0.18-7.9	0.03-16.6	<0.02-0.36	<3.5-6.4	*	Gamberg 1996
						Liver	8♀, 5♂	<0.01-2.2	0.04-26	<0.05	<3.3-5.0	*	Gamberg 1996
						Muscle		<0.16-<0.19	0.81-64		<3.3-<3.8	*	Pooled samples Gamberg 1996
						Kidney	8	<0.2±0.1				*	Gamberg 1995
						Liver	8	<0.1±0.1				*	Gamberg 1995
			1993	*Erethrizon dorsatum*		Bone	2♂	<3	<13		<50	*	Gamberg 1996
			1993-1995	(Porcupine)		Kidney	4♂, 2♀	40-326	<0.01-4.8	<0.05-3.8	<3.3-4.3	*	Gamberg 1996
						Liver	4♂, 2♀	3-71	<0.01-4.7	<0.05	<3.9	*	Gamberg 1996
						Muscle		0.3	1		<3.3	*	Pooled sample Gamberg 1996
						Kidney	4	168.7±100.9				*	Gamberg 1995

				Liver	4	38.4±24.3				*	Gamberg 1995
	1993	*Lepus americanus*		Bone	2♂, 2♀	<2	<8-<10		<30-<40	*	Gamberg 1996
	1993-1995	(Snowshoe hare)		Kidney	29♂+♀	6-166	0.01-0.67	<0.01-1.74	<1.7-7.5	*	Gamberg 1996
	1993-1995			Liver	28♂+♀	0.05-8.9	<0.01-1.6	<0.05-0.54	1.5-3.8	*	Gamberg 1996
	1994, 1995			Muscle	7♂+♀	<0.01-0.04	<0.01-0.11	<0.05-0.16	<0.05-3.5	*	Gamberg 1996
				Muscle	4	<0.18-<0.20	<0.92-<1		<3.7-<4.0	* Pooled sample	Gamberg 1996
				Kidney	18	20.7±16.2				*	Gamberg 1995
				Liver	17	2.4±2.1				*	Gamberg 1995
	1993	*Spermophilio* spp.		Bone	2♀	0.4, <0.5	<3, <2		<8, <10	*	Gamberg 1996
	1993, 1995	(Ground squirrel)		Kidney	9♂, 9♀	0.7-538	<0.01-2.9	<0.05-1.4	0.3-12.4	*	Gamberg 1996
	1993, 1995			Liver	9♂, 10♀	0.09-10.2	<0.01-37.2	<0.05-0.40	0.7-8.7	*	Gamberg 1996
				Muscle	2	<0.17, <0.19	<0.9	<3.8, <3.5		* Pooled sample	Gamberg 1996
				Kidney	5	15.3±6.3				*	Gamberg 1995
				Liver	5	5.1±3.0				*	Gamberg 1995
	1993	*Tauriasciurus hudsonicus*		Bone	6♂. 2♀	<0.2-1.2	<1-4		<4-<8	*	Gamberg 1996
	1993, 1995	(Red squirrel)		Kidney	18♂, 8♀	0.6-155	0.2-0.9 (<0.7-<2.8)	<0.03-13.7	1.1-7.3	*	Gamberg 1996
	1993			Liver	16♂, 8♀	<0.2-16.9	<1-2.8		<3.2-<6.7	*	Gamberg 1996
				Muscle	8	<0.2-0.4	<0.9-2		<3.6-<4.1	* Pooled sample	Gamberg 1996
	1993	*Mustela erminea*	1	Bone	2♂	0.4, 0.5	<1, 3.3		<2, <4	*	Gamberg 1996
	1993	(Short-tailed weasel)	1	Kidney	8♂	<0.2-1.1	<0.9		<2.6-6.1	*	Gamberg 1996
	1993		1	Liver	8♂	0.5-6.5	<1.3-<2.5	0.08-0.65	<3.6	*	Gamberg 1996
	1993	*Canis lupus* (Wolf)	1-5	Bone	9♂, 5♀	<0.01-0.14	<0.01-2.8	<0.05-0.19	0.2-5.6	*	Gamberg 1996
	1993, 1994		1-6	Kidney	10♂, 10♀	1.5-21.9	0.03-5.6	0.1-3.6	2.7-9.1	*	Gamberg 1996
	1993, 1994		1-6	Liver	11♂, 10♀	0.4-3.8	0.03-1.3	<0.05-4.0	1.5-5.4	*	Gamberg 1996
				Muscle	11	<0.01-0.11	<0.01-0.3	<0.05-0.23	<0.05-7.2	* Pooled sample	Gamberg 1996
Bathurst Range, NWT	1992-1993			Kidney		1.1	0.11	0.14		**	Elkin 1994
Bathurst Range, NWT	1992 (Jan.)		0.5-4	Liver	6 F, 4♂	0.27-0.79	n.d.-0.18	0.14-0.31		**	Elkin 1994
Cambridge Bay	1993 (Oct.)			Liver	6♂, 4♀	n.d.-0.14	0.05-0.05	0.0103-0.0618		**	Elkin 1994
Inuvik				Liver	10 (♂+♀)	0.15-2.21	0.12-0.68	0.01-0.16		**	Elkin 1994
Bathurst Range, NWT	1992 (Jan.)		0.5-4	Kidney	6 F, 4♂	0.80-2.49	n.d.-0.36	0.06-0.78		**	Elkin 1994
Cambridge Bay	1993 (Oct.)			Kidney	6♂, 4♀	0.03-0.67	0.05-0.11	0.0378-0.3596		**	Elkin 1994
Inuvik				Kidney	10	0.74-7.68	0.15-0.65	0.02-0.26		**	Elkin 1994
Vicoria Island	1973	*Alopex lagopus* (Arctic fox)		Liver	7			0.24±0.15			Smith and Armstrong 1975
Vicoria Island	1973			Muscle	7			0.051±0.027			Smith and Armstrong 1975
Vicoria Island	1973			Liver	16			0.76±1.12			Smith and Armstrong 1975
Vicoria Island	1973			Muscle	16			0.31±0.54			Smith and Armstrong 1975
Fort Good Hope, NWT	1991-1994	*Martes americana*		Kidney	20	3.21±0.34	0.23±0.04			**	Poole and Elkin 1995
		(American marten)		Liver	20			0.28±0.03			Poole and Elkin 1995
Yukon/NWT	1993			Bone	1♀, 1♂	<2	<8, <10		<30, <40	*	Gamberg 1996
	1993			Kidney	2♀, 5♂	0.7-8.2	<0.55-0.9	0.18-0.49	<2.2-<3.1	*	Gamberg 1996
	1993			Liver	2♀, 5♂	0.12-0.7	<0.3-<10		<1-<29	*	Gamberg 1996
	1993			Muscle	2	<0.2	<0.9		<3.7	* Pooled sample	Gamberg 1996
	1993	*Mustela vison* (Mink)		Bone	1♂	<2	<8		<30	*	Gamberg 1996
	1993			Kidney	2♂, 1♀	<0.12-0.5	<0.7	<0.01-2.4	<2.6	*	Gamberg 1996
	1993			Liver	2♂, 1♀	<0.16-0.4	<0.8		<3.8	*	Gamberg 1996
	1993			Muscle		<0.2	<0.9		<3.7	* Pooled sample	Gamberg 1996
Inuvik, NWT	1992			Kidney	23	0.84±0.24	1.07±0.36			**	Poole and Elkin 1995
				Liver	23			1.16±0.13			Poole and Elkin 1995
Inuvik, NWT	1993			Kidney	20	0.50±0.12	1.10±0.02			**	Poole and Elkin 1995
				Liver	20			1.84±0.20			Poole and Elkin 1995
Inuvik, NWT	1994			Kidney	10	0.20±0.05	0.09±0.02			**	Poole and Elkin 1995
				Liver	10			1.35±0.15			Poole and Elkin 1995
Fort Good Hope, NWT	1991-1994			Kidney	20	0.90±0.19	0.27±0.11			**	Poole and Elkin 1995
				Liver	20			2.17±0.29			Poole and Elkin 1995
Fort Rae, NWT	1991-1994			Kidney	16	1.12±0.45	0.99±0.18			**	Poole and Elkin 1995
				Liver	16			3.30±0.65			Poole and Elkin 1995
Fort Providence, NWT	1991-1994			Kidney	10	0.20±0.07	0.20±0.04			**	Poole and Elkin 1995
				Liver	10			1.07±0.37			Poole and Elkin 1995
Fort Liard, NWT	1991-1994			Kidney/	4	3.62±1.94	0.17±0.10			**	Poole and Elkin 1995
				Liver	4			1.45±0.53			Poole and Elkin 1995
Fort Resolution, NWT	1991-1994			Kidney	4	0.83±0.32	0.22±0.12			**	Poole and Elkin 1995
				Liver	4			0.12±0.05			Poole and Elkin 1995
Fort Smith, NWT	1991-1994			Kidney	6	0.14±0.05	0.09±0.03			**	Poole and Elkin 1995
				Liver	6			2.44±0.37			Poole and Elkin 1995
Yukon/NWT		*Castor canadensis* (Beaver)	2-3	Bone	5♂, 1♀	<1-<3	<5-<13		<20-<50	*	Gamberg 1996
			1-6	Kidney	8♂, 6♀	1-256	0.01-1.8	<0.02-0.24	<4.4-10.3	*	Gamberg 1996
			1-6	Liver	7♂, 6♀	2-33	0.18-0.60	<0.05-0.22	1.5-8.3	*	Gamberg 1996
				Muscle	2	<0.22	<1.1		<4.3	*	Gamberg 1996
				Kidney	8	129.7±99.1				*	Gamberg 1995
				Liver	7	17.0±10.2				*	Gamberg 1995
		Ovis dalli (Dall sheep)	9	Bone	2♂	<3	<13		<50	*	Gamberg 1996
			8.5-9.5	Kidney	4♂	5.8-30	<1.2-1.8	0.11-0.55	<5.2	*	Gamberg 1996

Location	Latitude	Longitude	Year	Species	Age, years	Tissue	n, sex	Concentration, µg/g wet weight (unless otherwise indicated by asterisks under Remarks) Cadmium	Lead	Mercury	Selenium	Remarks	Reference
Yukon/NWT					8.5-9.5	Liver	5♂	0.3-3	0.8-1.3		<3.6	*	Gamberg 1996
						Muscle	2	<0.19	<1		<3.9	*	Gamberg 1996
				Vulpes vulpes (Red fox)		Bone	1♀	<3	<13		<50	*	Gamberg 1996
						Kidney	1♀	1.2	<1.1	0.3	<4.5	*	Gamberg 1996
						Liver	1♀	<0.13	<0.9		<2.7	*	Gamberg 1996
						Muscle	1♀	<0.17	<0.9		<3.4	*	Gamberg 1996
				Lynx canadensis (Lynx)	4	Bone		<3	<13		<50	*	Gamberg 1996
					4	Liver		6.4	<0.8		<3.2	*	Gamberg 1996
					4	Muscle		<0.2	<1		<3.9	*	Gamberg 1996
						Liver	1	6.2				*	Gamberg 1995
				Marmota caligata		Kidney	1	45.8	0.07	<0.05	4.1	*	Gamberg 1996
				(Hoary marmot)		Liver	3	0.22-1.5	0.14-0.98	<0.05-0.10	0.07-0.55	*	Gamberg 1996
Denmark (Greenland)													
Isortoq	60°59'N	47°30.6'W	March 1995	*Rangifer tarandus* (Reindeer)		Muscle	8	0.003	0.026	0.156	0.90	*** geometric means	Riget *et al*. 1997a
Isortoq			March 1995			Liver	7	1.42	2.23	2.06	3.27	*** geometric means	Riget *et al*. 1997a
Itinnera	64°38'N	50°38'W	Sept. 1995			Muscle	6	0.003	0.023	0.011	0.33	*** geometric means	Riget *et al*. 1997a
Itinnera			Sept. 1995			Liver	6	0.875	0.392	0.168	0.55	*** geometric means	Riget *et al*. 1997a (and pers. comm.)
Finland													
Southern Lapland			1990-1991	*Rangifer tarandus* (Reindeer)	A	Muscle	15		0.01±0.004	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Southern Lapland			1990-1991		A	Muscle	6		<.01	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Southern Lapland			1990-1991		A	Liver	30		0.16±0.11	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Southern Lapland			1990-1991		A	Kidney	30		0.27±0.09	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Western Lapland			1990-1991		A	Muscle	7		0.01±0.004	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Western Lapland			1990-1991		A	Muscle	8		<0.01	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Western Lapland			1990-1991		A	Liver	30		0.36±0.18	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Western Lapland			1990-1991		A	Kidney	30		0.28±0.08	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Eastern Lapland			1990-1991		A	Muscle	6		0.01±0.005	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Eastern Lapland			1990-1991		A	Muscle	4		<0.01	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Eastern Lapland			1990-1991		A	Liver	19		0.37±0.15	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Eastern Lapland			1990-1991		A	Kidney	19		0.34±0.10	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Northern Lapland			1991-1992		A	Muscle	15		0.02±0.006	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Northern Lapland			1991-1992		A	Liver	24		0.43±0.28	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Northern Lapland			1991-1992		A	Kidney	24		0.29±0.09	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Finnish Lapland			1990-1991		A	Muscle	11		0.12±0.18	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Finnish Lapland			1990-1991		A	Liver	11		0.49±0.28	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Finnish Lapland			1990-1991		A	Kidney	11		0.50±0.21	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Southern Lapland			1990-1991		J	Muscle	3		0.01	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Southern Lapland			1990-1991		J	Muscle	12		<0.01	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Southern Lapland			1990-1991		J	Liver	30		0.13±0.06	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Southern Lapland			1990-1991		J	Kidney	30		0.33±0.09	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Southern Lapland			1991-1992		J	Muscle	24		0.01±0.004	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Southern Lapland			1991-1992		J	Muscle	6		<0.01	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Southern Lapland			1991-1992		J	Kidney	24		0.22±0.07	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Western Lapland			1990-1991		J	Muscle	5		0.01±0.004	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Western Lapland			1990-1991		J	Muscle	10		<0.01	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Western Lapland			1990-1991		J	Liver	30		0.17±0.09	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Western Lapland			1990-1991		J	Kidney	30		0.25±0.08	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Western Lapland			1991-1992		J	Muscle	17		0.01	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Western Lapland			1991-1992		J	Muscle	13		<0.01	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Western Lapland			1991-1992		J	Kidney	30		0.15±0.05	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Eastern Lapland			1990-1991		J	Muscle	6		0.01±0.004	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Eastern Lapland			1990-1991		J	Muscle	10		<0.01	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Eastern Lapland			1990-1991		J	Liver	32		0.28±0.08	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Eastern Lapland			1990-1991		J	Kidney	32		0.25±0.07	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Eastern Lapland			1991-1992		J	Muscle	21		0.01±0.005	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Eastern Lapland			1991-1992		J	Muscle	9		<0.01	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Eastern Lapland			1991-1992		J	Kidney	46		0.20±0.08	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Northern Lapland			1991-1992		J	Muscle	15		0.02±0.01	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Northern Lapland			1991-1992		J	Liver	24		0.36±0.16	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Northern Lapland			1991-1992		J	Kidney	24		0.18±0.03	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Finnish Lapland			1990-1991		J	Muscle	35		0.09±0.06	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Finnish Lapland			1990-1991		J	Liver	35		0.42±0.15	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995
Finnish Lapland			1990-1991		J	Kidney	35		0.55±0.37	<0.006		d.l. (Hg) = 0.005	Rintala *et al*. 1995

Southern Lapland	1990-1991		A	Muscle	14	0.002±0.001		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Southern Lapland	1990-1991		A	Liver	30	0.402±0.358		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Southern Lapland	1990-1991		A	Kidney	30	1.72±1.55		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Western Lapland	1990-1991		A	Muscle	15	0.003±0.004		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Western Lapland	1990-1991		A	Liver	30	0.758±0.483		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Western Lapland	1990-1991		A	Kidney	30	4.62±4.41		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Eastern Lapland	1990-1991		A	Muscle	10	0.003±0.002		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Eastern Lapland	1990-1991		A	Liver	19	0.958±0.537		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Eastern Lapland	1990-1991		A	Kidney	19	4.25±3.98		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Northern Lapland	1991-1992		A	Muscle	15	0.006±0.004		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Northern Lapland	1991-1992		A	Liver	24	0.546±0.431		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Northern Lapland	1991-1992		A	Kidney	24	2.84±3.32		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Southern Lapland	1990-1991		J	Muscle	10	0.001		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Southern Lapland	1990-1991		J	Muscle	5	<0.001		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Southern Lapland	1990-1991		J	Liver	30	0.190±0.073		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Southern Lapland	1990-1991		J	Kidney	30	0.525±0.206		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Southern Lapland	1991-1992		J	Muscle	30	0.001±0.001		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Southern Lapland	1991-1992		J	Kidney	30	0.538±0.193		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Western Lapland	1990-1991		J	Muscle	16	0.001		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Western Lapland	1990-1991		J	Muscle	1	<0.001		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Western Lapland	1990-1991		J	Liver	30	0.233±0.076		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Western Lapland	1990-1991		J	Kidney	30	0.903±0.308		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Western Lapland	1991-1992		J	Muscle	27	0.001		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Western Lapland	1991-1992		J	Muscle	3	<0.001		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Western Lapland	1991-1992		J	Kidney	30	0.650±0.298		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Eastern Lapland	1990-1991		J	Muscle	13	0.002±0.001		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Eastern Lapland	1990-1991		J	Muscle	3	<0.001		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Eastern Lapland	1990-1991		J	Liver	32	0.388±0.254		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Eastern Lapland	1990-1991		J	Kidney	32	1.22±1.02		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Eastern Lapland	1991-1992		J	Muscle	30	0.002±0.001		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Eastern Lapland	1991-1992		J	Kidney	46	0.938±0.383		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Northern Lapland	1991-1992		J	Muscle	15	0.002±0.001		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Northern Lapland	1991-1992		J	Liver	24	0.310±0.096		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
Northern Lapland	1991-1992		J	Kidney	24	1.03±0.52		<0.006		d.l. (Hg) = 0.005	Rintala *et al.* 1995
N. Finland	1980-1982	*Lepus timidus* (Mountain hare)		Muscle	7	0.010±0.007					Venäläinen *et al.* 1996
N. Finland	1980-1982			Liver	36	0.390±0.300					Venäläinen *et al.* 1996
N. Finland	1980-1982			Kidney	35	4.55±4.04					Venäläinen *et al.* 1996
N. Finland	1992-1993			Muscle	8	0.005±0.004					Venäläinen *et al.* 1996
N. Finland	1992-1993			Liver	8	0.185±0.107					Venäläinen *et al.* 1996
N. Finland	1992-1993			Kidney	7	3.73±3.16					Venäläinen *et al.* 1996
N. Finland	1980-1982			Muscle	7		0.09±0.05				Venäläinen *et al.* 1996
N. Finland	1980-1982			Liver	35		0.59±0.34				Venäläinen *et al.* 1996
N. Finland	1980-1982			Kidney	35		0.71±0.60				Venäläinen *et al.* 1996
N. Finland	1992-1993			Muscle	4		0.04±0.01				Venäläinen *et al.* 1996
N. Finland	1992-1993			Liver	8		0.23±0.29				Venäläinen *et al.* 1996
N. Finland	1992-1993			Kidney	7		0.21±0.06				Venäläinen *et al.* 1996
N. Finland	1980-1982	*Lepus europaeus* (European hare)		Muscle	2	0.003					Venäläinen *et al.* 1996
N. Finland	1980-1982			Liver	15	0.171±0.153					Venäläinen *et al.* 1996
N. Finland	1980-1982			Kidney	13	1.46±1.07					Venäläinen *et al.* 1996
N. Finland	1992-1993			Muscle	3	0.001					Venäläinen *et al.* 1996
N. Finland	1992-1993			Liver	3	0.057±0.029					Venäläinen *et al.* 1996
N. Finland	1992-1993			Kidney	3	0.627±0.439					Venäläinen *et al.* 1996
N. Finland	1980-1982			Muscle	2		0.08±0.05				Venäläinen *et al.* 1996
N. Finland	1980-1982			Liver	14		0.47±0.14				Venäläinen *et al.* 1996
N. Finland	1980-1982			Kidney	15		0.76±0.73				Venäläinen *et al.* 1996
N. Finland	1992-1993			Muscle	3		0.01±0.01				Venäläinen *et al.* 1996
N. Finland	1992-1993			Liver	3		0.06±0.01				Venäläinen *et al.* 1996
N. Finland	1992-1993			Kidney	3		0.05±0.01				Venäläinen *et al.* 1996
Norway											
Sør-Varanger, Jarfjord	1991-1993	*Lepus* sp. (Hare)	J	Kidney	14	3.9	0.67	0.17		***	Kålås *et al.* 1995a
Sør-Varanger, Jarfjord	1991-1993		A	Kidney	4	33	0.4	0.359		***	Kålås *et al.* 1995a
Sør-Varanger, N-Varanger	1991-1993		A	Kidney	3	99	0.34	0.176		***	Kålås *et al.* 1995a
Sør-Varanger, Neiden	1991-1993		J	Kidney	3	1.9	0.33	0.212		***	Kålås *et al.* 1995a
Sør-Varanger, Neiden	1991-1993		A	Kidney	2	47	0.2	0.734		***	Kålås *et al.* 1995a
Finnmark County (Reference Area)	1991-1993		J	Kidney	3	1.9	0.15	0.065		***	Kålås *et al.* 1995a
Finnmark County (Reference Area)	1991-1993		A	Kidney	2	16	0.52	0.145		***	Kålås *et al.* 1995a
Sør-Varanger, Jarfjord	1991-1993		J	Liver	14	0.53	0.52	0.025	0.79	***	Kålås *et al.* 1995a
Sør-Varanger, Jarfjord	1991-1993		A	Liver	4	1.7	0.67	0.055	1.69	***	Kålås *et al.* 1995a
Sør-Varanger, N-Varanger	1991-1993		A	Liver	3	5	0.65	0.024	0.8	***	Kålås *et al.* 1995a

Location	Latitude	Longitude	Year	Species	Age, years	Tissue	n, sex	Concentration, µg/g wet weight (unless otherwise indicated by asterisks under Remarks) Cadmium	Lead	Mercury	Selenium	Remarks	Reference
Sør-Varanger, Neiden			1991-1993		J	Liver	3	0.34	0.35	0.025	1.15	***	Kålås *et al.* 1995a
Sør-Varanger, Neiden			1991-1993		A	Liver	2	1.3	0.32	1.06	1.85	***	Kålås *et al.* 1995a
Finnmark County (Reference Area)			1991-1993		J	Liver	3	0.43	0.15	0.01	0.48	***	Kålås *et al.* 1995a
Finnmark County (Reference Area)			1991-1993		A	Liver	2	0.61	1.64	0.024	0.58	***	Kålås *et al.* 1995a
Sør-Varanger, Jarfjord			1992	*Clethrionomys rufocanis*	A	Liver	6	1.67	1/5	0.027	1.68	***	Kålås *et al.* 1995a
Sør-Varanger, N-Varanger			1992	(Grey-side vole)	A	Liver	6	1.14	1/6	0.081	1.67	***	Kålås *et al.* 1995a
Finnmark County (Reference Area)			1992		A	Liver	6	0.57	1/6	0.157	1.77	***	Kålås *et al.* 1995a
Sør-Varanger, Korpfjell			1990-1992	*Sorex araneus* (Common shrew)	A	Liver	5	1.76	3/5	3/5	4.58	***	Kålås *et al.* 1995a
Sør-Varanger, Svanvik			1990-1992		A	Liver	14	3.7	0/14	2/14	3.89	***	Kålås *et al.* 1995a
Sør-Varanger, Elvenes			1990-1992		A	Liver	6	1.97	1/6	1/6	3.57	***	Kålås *et al.* 1995a
Finnmark County (Reference Area)			1990-1992		A	Liver	6	2.5	0/6	2/6	4.51	***	Kålås *et al.* 1995a
Dividalen			1993	*Lepus timidus* (mountain hare)	J	Liver	4	0.23±0.19	0.18±0.11	0.013±0.003		***	Kålås *et al.* 1995a
			1993		A	Liver	1	22.6	0.18	0.309		***	Kålås *et al.* 1995a
Borgefjell			1991-1994	*Clethrionomys glareolus* (Bank fole)		Liver	3	0.23±.0.11	0.22±0.12	0.187±0.248		***	Kålås *et al.* 1995a
Dividalen			1992-1994	*Clethrionomys rufocanis* (grey-sided vole)		Liver	2	0.21±0.20	<0.20	0.03±0.008		***	Kålås *et al.* 1995a
Borgefjell			1992-1994			Liver	2	0.09±0.04	<0.20	0.022±0.010		***	Kålås *et al.* 1995a
N. Norway				*Alces alces* (Moose)		Liver	89	<0.1-1.4/0.2					Frøslie *et al.* 1986
N. Norway						Kidney	73	<0.1-8.7/1.4					Frøslie *et al.* 1986
N. Norway				*Rangifer tarandus* (Reindeer)		Liver	52	0.1-1.7/0.4					Frøslie *et al.* 1986
N. Norway						Kidney	52	0.3-10/1.5					Frøslie *et al.* 1986
Sweden													
Abisko	68°33N	18°80E	1983	*Rangifer tarandus* (Reindeer)		Muscle	10	10.6 (6.08-18.6)	20.8 (13.7-31.7)	2.66 (1.94-3.65)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1983			Liver	10	420 (360-490)	303 (244-375)	55.2 (43.5-70.0)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1984			Muscle	10	10.5 (7.64-14.4)	9.83 (3.93-24.6)	2.62 (1.97-3.46)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1984			Liver	10	414 (309-555)	182 (129-256)	65.7 (47.1-91.7)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1985			Muscle	10	15.8 (12.5-19.9)	29.2 (21.1-40.4)	0.800 (0.368-1.74)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1985			Liver	10	376 (302-469)	243 (156-378)	50.2 (37.3-67.6)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1986			Muscle	10	14.7 (12.2-17.8)	27.1 (22.5-32.5)	0.292 (0.215-0.395)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1986			Liver	10	284 (228-354)	81.9 (59.9-112)	25.5 (18.6-34.8)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1987			Muscle	10	23.6 (19.1-29.1)	48.8 (38.3-62.1)	0.257 (0.179-0.370)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1987			Liver	10	350 (273-448)	93.0 (66.5-130)	18.6 (13.3-26.1)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1988			Muscle	10	9.86 (8.28-11.7)	0.685 (0.58-8.03)	0.676 (0.385-1.189)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1988			Liver	10	446 (359-555)	157 (117-209)	44.7 (35.0-57.1)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1989			Muscle	10	9.08 (7.10-11.6)	14.9 (11.1-20.1)	0.280 (0.205-0.502)*		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1989			Liver	10	438 (325-591)	86.8 (69.8-108)	30.9 (21.6-66.1)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1990			Muscle	10	9.64 (7.03-13.2)	51.8 (38.7-69.4)	0.552 (0.354-0.769)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1990			Liver	10	522 (456-597)	174 (136-222)	52.2 (40.5-67.4)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1991			Muscle	10	12.6 (11.5-13.9)	22.0 (15.4-31.4)			**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1991			Liver	10	484 (408-573)	155 (124-193)			**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1992			Muscle	10	37.4 (32.2-43.5)	50.5 (38.0-67.1)	0.762 (0.641-0.905)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1992			Liver	10	504 (409-622)	193 (129-288)	45.8 (33.4-62.8)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1993			Muscle	10	31.9 (24.2-41.9)	10.1 (5.08-20.1)	1.32 (0.948-1.83)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Abisko	68°33N	18°80E	1993			Liver	10	365 (309-429)	89.2 (60.2-132)	46.9 (27.3-80.7)		**** G.mean (95% c.i)	Olsson (pers. comm. 1997)
Russia													
Yugorskiy Peninsula	70°13',0N	72°22',2E	5 July 1995	*Rangifer tarandus* (Reindeer)		Muscle	1	0.05	0.32	0.01			RCMA 1995
Yugorskiy Peninsula	70°13',0N	72°22',2E	5 July 1995			Liver	1	0.08	0.54	0.01			RCMA 1995
Yugorskiy Peninsula	69°06',8N	65°48',8E	18 Aug. 1995			Muscle	1	<0.05	0.15	0.01			RCMA 1995
Yugorskiy Peninsula	69°06',8N	65°48',8E	18 Aug. 1995			Liver	1	0.05	0.30	0.03			RCMA 1995
Yugorskiy Peninsula	69°06',8N	65°48',8E	18 Aug. 1995			Kidney	1	0.45	0.30	0.02			RCMA 1995
Yugorskiy Peninsula	69°06',8N	65°48',8E	18 Aug. 1995			Heart	1	0.05	0.30	0.01			RCMA 1995
Taymyr Peninsula	72°05',3N	102°29',1E	25 Oct. 1995			Muscle	1	<0.05	0.30	0.02			RCMA 1995
Taymyr Peninsula	72°05',3N	102°29',1E	25 Oct. 1995			Liver	1	0.05	0.30	0.03			RCMA 1995
Taymyr Peninsula	72°05',3N	102°29',1E	25 Oct. 1995			Kidney	1	0.05	0.15	0.03			RCMA 1995
Taymyr Peninsula	72°05',3N	102°29',1E	25 Oct. 1995			Fat	1	0.05	0.10	0.03			RCMA 1995
Kotelniy Island	74°55',0N	139°01',0E	3 July 1995			Muscle	1	<0.05	0.36	<0.01			RCMA 1995
Kotelniy Island	74°55',0N	139°01',0E	3 July 1995			Liver	1	0.05	0.45	0.01			RCMA 1995
Yenisey River	70°05',5N	83°06',0E	9 Oct. 1995			Kidney	1	0.25	0.15	0.03			RCMA 1995
Yenisey River	70°05',5N	83°06',0E	11 Nov. 1995			Liver	1	0.05	0.15	0.04			RCMA 1995
Yenisey River	70°05',5N	83°06',0E	11 Nov. 1995			Kidney	1	0.15	0.30	0.03			RCMA 1995
Yenisey River	70°05',5N	83°06',0E	11 Nov. 1995			Muscle	1	0.10	0.25	0.03			RCMA 1995
Pronchishev Range	73°17'N	116°54'E	7 July 1994			Muscle		<0.02	0.34	<0.01			RCMA 1994

Pronchishev Range	73°17'N	116°54'E	7 July 1994			Heart		<0.02	0.09	<0.01				RCMA 1994
Taymyr Peninsula	76°0'N	94°50'E	25 June 1994			Heart		<0.02	1.2	<0.01				RCMA 1994
Yamal Peninsula	72°44'N	70°45'E	20 Aug. 1994			Muscle		<0.02	0.18	<0.01				RCMA 1994
Yana Gulf Coast	72°18'N	140°50'E	6 Aug. 1994			Muscle		0.02	0.92	<0.01				RCMA 1994
Arctic Region						Liver		0.7						RCMA 1994
Arctic Region						Kidney		4.3						RCMA 1994
Arctic Region				Svalbard reindeer		Liver		30		0.3				RCMA 1994
Novosibirskie Islands	75°30'N	143°14'E	10 July 1994	*Lemus sibiricus* (Lemming)		Liver				<0.004				RCMA 1994
Novosibirskie Islands	75°30'N	143°14'E	10 July 1994			Bones-muscle		<0.02	0.15					RCMA 1994
Wrangel Island	71°10'N	179°24'E	25 July 1994	*Dicrostonyx terquatus* (Lemming)		Bones-muscle		0.04	0.2					RCMA 1994
USA														
Alaska				*Rangifer tarandus* (Caribou)	4, 6	Liver	2♂	7.4, 7.9	<1		3.4, 6.1	*		Gamberg 1996
						Muscle		<0.19	<1		<3.9	*	Pooled sample	Gamberg 1996
					4-6	Bone	3♂	<3	<13		<50	*		Gamberg 1996
					4-6	Kidney	3♂	38-61	<1.3	1.2-5.2	<5.5	*		Gamberg 1996

a. A: Adult, J: Juvenile
b. * Cd, Pb and Se dw, ** Cd and Pb dw, *** Cd, Pb, Hg and Se dw, **** ng/g

Table 7·A5. Metals in freshwater sediment.

								Concentration, µg/g dry weight						
Location	Latitude	Longitude	Year	Depth, cm	%< 63µm	%OC	n	Copper	Zinc	Lead	Cadmium	Mercury	Remarks	Reference
USA														
Arctic Nat. Wildlife Ref., Alaska (Ponds and Lakes)			1988		1.7-72.6	0.2-11.4	102	2.4-30.1	24.0-278	<4-20.0	<0.3-8.6	<0.02-0.12	Particle size def. as silt and clay	Snyder-Conn and Lubinski 1993
Arctic Nat. Wildlife Ref., Alaska (Ponds and Lakes)			1989		5.29-82.5	8.8-74.1	105	5.51-59.5	29.9-412	<2.93-38.7	<0.49-16.7	0.049-0.722	Particle size def. as silt and clay	Snyder-Conn and Lubinski 1993
Canada														
Ya Ya Lake, NWT	69°10'27N	134°39'45W	Sept. 1994	0-28			28	37-49		18-27	0.42-0.8	0.085-0.112		Lockhart *et al*. 1993
Hawk Lake, NWT	63°38'N	90°40'W	1989	SFC								0.137		Lockhart *et al*. 1993
Fox Lake, Yukon			1993	0-35			35			1.5-9				Lockhart and Muir 1996
Kusawa Lake, Yukon			1993	0-29			29			5-28				Lockhart and Muir 1996
Little Atlin Lake, Yukon			1993	0-42			42			8-18				Lockhart and Muir 1996
Lake Laberge, Yukon			1993	0-26			26			4-20				Lockhart and Muir 1996
Lootz Lake			1995				1				21.5	0.05		Gamberg 1996
Denmark (Greenland)														
Ammassalik	65°37.55'N	44°85'W	1994	1-10				55.7	171	12.8	0.16	0.018		Riget *et al*. 1997a
Isortoq	60°59.06'N	47°30.63'W	1994	1-10				28.3	72.7	13	0.12	0.025		Riget *et al*. 1997a
Itinnera	64°38'N	50°38'W	1994	1-10				70.9	84	11.9	0.23	0.052		Riget *et al*. 1997a
Olrik Fjord	77°9.52'N	68°2.51'W	1994	1-10				97.6	80	29.1	0.06	0.023		Riget *et al*. 1997a
Scandinavia														
Northern Scandinavia				0-3		0.89-20.5	149	8.70-779/70.9	14-275/108					Skotvold *et al*. 1996
Northern Scandinavia				0-3		0.89-20.5	232			1.00-185/28.8				Skotvold *et al*. 1996
Northern Scandinavia				0-3		0.89-20.5	235				0.08-1.45/0.44			Skotvold *et al*. 1996
Northern Scandinavia				0-3		0.89-20.5	226					0.01-0.43/0.10		Skotvold *et al*. 1996
Northern Scandinavia				(ref)		0-21.8	55	9.4-779/72.2	22-700/136					Skotvold *et al*. 1996
Northern Scandinavia				(ref)		0-21.8	84			1.0-325/14.5	0.07-2.04/0.52			Skotvold *et al*. 1996
Northern Scandinavia				(ref)		0-21.8	83					0.01-0.17/0.06		Skotvold *et al*. 1996
Norway														
Arctic Norway Lakes				SFC				25-110*	80-175*	17-85*	0.35-0.75*	0.04-0.20*	* means	Skotvold *et al*. 1996
Spitsbergen and Bjørnøya Lakes				SFC						125-225*	0.85-0.90*	0.175-0.250	* means	Skotvold *et al*. 1996
Spitsbergen				0-3		0.33-6.31	20	11-353/60.1	58-263/119	14.7-90/38.7	0.21-0.90/0.51	0.03-0.12/0.06		Skotvold *et al*. 1996
Spitsbergen				(ref)		0.55-3.11	4	10.5-344/123	56.2-165/110	9.38-38/21.5	0.19-0.84/0.49	0.03-0.05/0.04		Skotvold *et al*. 1996
Sweden														
Northern Sweden Lakes			1979	0-1				5-40	20-65	3-25	0.07-1.3			Johansson 1989
Finland														
Subregion S.				18-30			7	12.5	29.1	13.6	0.3	0.13		Verta *et al*. 1990
Subregion S.				0-5			7	17.0	131	119	1.85	0.36		Verta *et al*. 1990
Subregion N.				18-30			9	17.3	72.7	6.6	0.26	0.07		Verta *et al*. 1990

Location	Latitude	Longitude	Year	Depth, cm	%< 63µm	%OC	n	Concentration, µg/g dry weight: Copper	Zinc	Lead	Cadmium	Mercury	Remarks	Reference
Subregion N.				0-5			9	19.1	100	72	0.88	0.18		Verta *et al*. 1990
Nitsijarvi Lake				0-49				50-60	110-170	5-53	0.2-1.2	0.017-0.038		Mannio 1996
Pahtajarvi Lake				0-49				20-30	20-45	2-22	0.05-0.6	0.036-0.102		Mannio 1996
Sierramjarvi Lake				0-49				10-20	60-105	6-52	0.4-0.75	0.019-0.045		Mannio 1996
Lake 222				0-49				60-300	40-105	6-40	0.2-0.7	0.096-0.246		Mannio 1996
Russia														
Nyulay Lake, Komi	67°46'N	53°26'E	Nov. 1994	0-1		5.5	2	8.6	97	37	64	0.069		Dahl-Hansen and Evenset 1995
Nyulay Lake, Komi	67°46'N	53°26'E	Nov. 1994	23-25		5.5	2	11.0	100	36	0.84	0.041		Dahl-Hansen and Evenset 1995
Kotyol Lake, Komi			Nov. 1994	0-1		20	2	12.0	114	33	1.3	0.058		Dahl-Hansen and Evenset 1995
Kotyol Lake, Komi			Nov. 1994	13-15		27	2	11.0	105	18	1.5	0.058		Dahl-Hansen and Evenset 1995
Kapylty Lake, Komi	67°30'N	53°54'E	Nov. 1994	0-1		7.5	2	11.0	95	55	1.5	0.092		Dahl-Hansen and Evenset 1995
Kapylty Lake, Komi	67°30'N	53°54'E	Nov. 1994	17-19		4	2	4.4	76	27	0.8	0.026		Dahl-Hansen and Evenset 1995
Mezen River				Bott. sed.				0.9	1.4	2.0				Melnikov 1991
Northern Divina River				Bott. sed.				1.9	4.0	3.0				Melnikov 1991
Ob River				Bott. sed.				1.5	4.8	4.0				Melnikov 1991
Pechora River				Bott. sed.				1.5	4	1.6				Melnikov 1991
Lake Kyusyur			1992	0-10			1	2.5	10	2.6	0.03	0.03		Rovinsky *et al*. 1995
Kanin	68°21.04'N	45°57.72'E	1994	0-1		20.9		<1	32	3.9	<0.5	0.09		Norw. Inst. Energy Tech. 1994
(Lake Loc. 141)				Ref.		20.4		3.6	55	7.3	0.55	0.05		Norw. Inst. Energy Tech. 1994
Kolguyev Island	68°42.81'N	48°38.84'E	1994	0-1		37.1		<1	50	14	<0.5	0.1		Norw. Inst. Energy Tech. 1994
(Lake Loc. 135)				Ref.		1.6		6.4	46	5.7	<0.5	0.02		Norw. Inst. Energy Tech. 1994
Pechora Bay	68°52.74'N	53°32.36'E	1994	0-1		1.4		<1	<1	1.8	<0.5	0.01		Norw. Inst. Energy Tech. 1994
(Lake Loc. 120)				Ref.		0.3		<1	<1	0.8	<0.5	<0.003		Norw. Inst. Energy Tech. 1994
W. Yamal	70°11.53'N	83°18.65'E	1994	0-1		15.9		<1	96	8	0.73	0.09		Norw. Inst. Energy Tech. 1994
(Lake Loc. 110)				Ref.		1		<1	5	6.3	<0.5	0.01		Norw. Inst. Energy Tech. 1994
Wrangel Island	70°56.79'N	179°03.11'E	1994	0-1		5.2		15	117	14	0.52	0.08		Norw. Inst. Energy Tech. 1994
(Lake Loc. 60)				Ref.		1.2		6.1	74	7.6	<0.5	0.03		Norw. Inst. Energy Tech. 1994
Indiginka Delta	71°35.52'N	149°14.70'E	1994	0-1		25.1		26	89	5.8	<0.5	0.06		Norw. Inst. Energy Tech. 1994
(Lake Loc. 35)				Ref.		25.2		32	113	6.2	<0.5	0.01		Norw. Inst. Energy Tech. 1994
Shirokostan	72°24.36'N	139°26.00'E	1994	0-1		1.4		<1	30	4.6	<0.5	0.02		Norw. Inst. Energy Tech. 1994
(Lake Loc. S1)				Ref.		0.6		<1	13	2.8	<0.5	0.01		Norw. Inst. Energy Tech. 1994
Belyi Island	73°05.41'N	70°04.93'E	1994	0-1		0.1		<1	4	2.1	<0.5	0.01		Norw. Inst. Energy Tech. 1994
(Lake Loc. 106)				Ref.		0.4		<1	4	2.7	<0.5	0.01		Norw. Inst. Energy Tech. 1994
Kotelnyi Island	75°01.12'N	137°44.94'E	1994	0-1		4.9		<1	41	11	<0.5	0.05		Norw. Inst. Energy Tech. 1994
(Lake Loc. 71)				Ref.		0.6		2.8	34	8.1	<0.5	0.06		Norw. Inst. Energy Tech. 1994
N.E. Taimyr	76°26.96'N	112°19.16'E	1994	0-1		1.1		<1	<1	3	<0.5	0.01		Norw. Inst. Energy Tech. 1994
(Lake Loc. V3)				Ref.		0.1		<1	<1	2.9	<0.5	0.01		Norw. Inst. Energy Tech. 1994
Chelyushkin	77°21.34'N	102°19.58'E	1994	0-1		1.7		2.3	26	7.8	<0.5	0.02		Norw. Inst. Energy Tech. 1994
(Lake Loc. V5)				Ref.		1.4		<1	13	4.6	<0.5	0.01		Norw. Inst. Energy Tech. 1994

Table 7·A6. Metals in freshwater particulate.

Location	Year	Depth, m	Type	n	Concentration, µg/g dry weight: Copper	Zinc	Lead	Cadmium	Mercury	Reference
Canada										
Mackenzie River, East Channel	Apr. 1985	2-5 m susp. sediment		6	44.0	188	20.2	0.60	0.210	Erickson and Fowler 1987
Mackenzie River, Main Channel	Febr. 1986	8 m susp sediment		3	77.0	182	24.0	0.57	0.094	Erickson and Fowler 1987
Mackenzie River, East Channel	Febr. 1986	5 m susp. sediment		3	55.8	182	17.7	0.70	0.090	Erickson and Fowler 1987
Mackenzie River, Reindeer Channel	Febr. 1986	8 m susp. sediment		3	64.7	225	25.7	0.68	0.096	Erickson and Fowler 1987
Mackenzie River, Middle Channel	Febr. 1986	8 m susp. sediment		3	63.7	134	31.9	0.62	0.098	Erickson and Fowler 1987
Russia										
Mezen River		Susp. sediment	Coarse		3.5	19	30			Melnikov 1991
Mezen River		Susp. sediment	Fine		12.9	16.8	11.2			Melnikov 1991
Northern Divina River		Susp. sediment	Coarse		3.3	27	42			Melnikov 1991
Northern Divina River		Susp. sediment	Fine		28.0	49.7	28.1			Melnikov 1991
Ob River		Susp. sediment	Coarse		2.9	26	4.0			Melnikov 1991
Ob River		Susp. sediment	Fine		18.0	53	20.0			Melnikov 1991
Pechora River		Susp. sediment	Coarse		2.8	30	35			Melnikov 1991
Pechora River		Susp. sediment	Fine		17.2	27.2	13.2			Melnikov 1991

Table 7·A7. Metals in freshwater.

Location	Latiitude	Longitude	Year	Depth, m	n	Concentration, µg/L Copper	Zinc	Lead	Cadmium	Mercury	Remarks	Reference
USA, Alaska												
Ponds and Lakes in the Arctic Nat. Wildlife Refuge, Alaska			1988		108	< 2-6	< 4-46	< 40-50	< 3-13			Snyder-Conn and Lubinski 1993
Ponds and Lakes in the Arctic Nat. Wildlife Refuge, Alaska			1989		108	< 13-170	< 10-710	< 15-470	< 3-120			Snyder-Conn and Lubinski 1993
Canada												
Mackenzie River, East Channel				2	3	1.30	1.40	0.93	0.012	0.008	Unfiltered	Erickson and Fowler 1987
Mackenzie River, East Channel					3		0.51	0.79	0.018	0.006	Filtered	Erickson and Fowler 1987
Mackenzie River, East Channel					3	1.30	1.40	0.85	0.012	0.008	Unfiltered	Erickson and Fowler 1987
Mackenzie River, East Channel					3		0.72	0.95	0.012	0.008	Filtered	Erickson and Fowler 1987
Mackenzie River, East Channel					3	1.30	1.40	0.95	0.013	0.004	Filtered	Erickson and Fowler 1987
Mackenzie River, East Channel					3	1.30	1.20	0.99	0.013	0.004	Filtered	Erickson and Fowler 1987
Mackenzie River, East Channel					2	1.30	1.30	0.85	0.012	0.006	Filtered	Erickson and Fowler 1987
Mackenzie River, East Channel					3	1.10	1.50	0.68	0.010	0.004	Filtered	Erickson and Fowler 1987
Mackenzie River, East Channel					3	1.40	1.40	0.87	0.010	0.006	Filtered	Erickson and Fowler 1987
Mackenzie River, Main Channel			Febr. 1996	5-10	9	1.40	2.50	0.16	0.123	0.006	Unfiltered	Erickson and Fowler 1987
Mackenzie River, East Channel			Febr. 1996	3- 8	9	1.30	2.30	0.16	0.022	0.004	Unfiltered	Erickson and Fowler 1987
Mackenzie River, Reindeer Channel			Febr. 1996	4-10	9	1.40	2.10	0.15	0.024	0.006	Unfiltered	Erickson and Fowler 1987
Mackenzie River, Middle Channel			Febr. 1996	5-10	8	1.40	2.50	0.17	0.024	0.005	Unfiltered	Erickson and Fowler 1987
11 Rivers (Andrews,Coppermine, Burnside, Ellice, Dubacont, Thelon, Back, Kazan, Hayes, Quoich and Lorillard)			1993/1994		15	<1-2	<1-2	< 0.7-1.3	< 0.2	< 0.02		Jeffries and Carey 1994
Lootz Lake								< 0.10-0.21	< 0.05-0.09	< 0.05-0.10		Gamberg 1996
Simpson Lake								< 0.10, 0.15	< 0.05, 0.45	< 0.05		Gamberg 1996
Norway												
Northern Norway			1977				6.00					Steinnes and Henriksen 1993
Sweden												
Lakes in Northern Sweden			1986-1988							0.0025-0.001		Johansson *et al.* 1991
Finland												
Lakes in Lapland			1992		36	0.28	1.84	0.25	0.02		Median values	Mannio *et al.* 1995
Lakes in Northern Finland						0.05-0.11	0.5-1.0	< 0.01-0.05	< 0.01-0.04		Mean values	Iivonen *et al.* 1992
Russia												
Taymyr Peninsula,	74°32'N	101°42'E	16 May 1995	18		9.40	12.50	1.50	1.20	< 0.01	Unfiltered	RCMA 1995
Pechora Gulf, SW	74°28'N	98°38'E	16 May 1995	95		0.40	2.70	0.20	0.05	< 0.01	Unfiltered	RCMA 1995
Pechora Gulf, SW	68°58'N	54°48'E	9 July 1995	0.5		0.22	1.40	0.10	< 0.01	< 0.01	Unfiltered	RCMA 1995
Pechora Gulf, SW	68°54'N	55°47'E	10 July 1995	0.8		0.15	2.00	0.08	0.01	< 0.01	Unfiltered	RCMA 1995
Pechora Gulf, SW	68°40'N	55°50'E	10 July 1995	0.3		0.41	14.00	1.20	0.08	< 0.01	Unfiltered	RCMA 1995
Ust-Lena Reserve, River Lena Delta							2.60					Rovinsky *et al.* 1995
Ust-Lena Reserve, River Lena Kyusyur						4.25	2.60	16.60	0.29	0.02		Rovinsky *et al.* 1995
Ust-Lena Reserve, River Bulun						0.85	2.60	0.15	0.16	0.022		Rovinsky *et al.* 1995
Ust-Lena Reserve, River Ebitym						0.92	2.60	0.25	0.13	0.066		Rovinsky *et al.* 1995
Ust-Lena Reserve, Kyusyur Lake						2.05	2.60	0.25	0.11	0.021		Rovinsky *et al.* 1995

Table 7·A8. Metals in freshwater invertebrates.

Location	Latitude	Longitude	Year	Species	n	Concentration, µg/g dry weight: Lead	Cadmium	Mercury	Selenium	Remarks	Reference
USA											
Arctic Nat. Wildlife Refuge, Alaska			1988	*Daphnia middendorffiana* (Water flea)	13	<9	<1.00	<0.020-0.0484	1.33-2.48		Snyder-Conn and Lubinsky 1993
Arctic Nat. Wildlife Refuge, Alaska			1988	*Daphnia pulex* (water flea)	3	<9	<1.00-2.99	<0.020-0.0646	1.51-1.66		Snyder-Conn and Lubinsky 1993
Arctic Nat. Wildlife Refuge, Alaska			1988	*Daphnia middendorffiana* (f) (Water flea)	4	<4.14-8.22	<0.68-0.71	<0.342-0.514			Snyder-Conn and Lubinsky 1993
Arctic Nat. Wildlife Refuge, Alaska			1989	Fairy shrimp	1	<10	<1.6	<0.8			Snyder-Conn and Lubinsky 1993
Arctic Nat. Wildlife Refuge, Alaska				*Daphnia middendorffiana* (f) (Water flea)	3	<4-8	<0.7	<03-0.5			Snyder-Conn and Lubinsky 1993
Iceland											
Lake Thingvallavatn			1994	*Limnea peregra*	1	<0.3	0.24±0.01	<0.14	3.4±0.3		Jonsson 1995
Finland											
Lapland Lakes			1987	*Limnophilus* sp., *Phrygenea* sp. (Aquatic insects)		3.6-7.2	0.4-1.1			Range of means	Iivonen *et al*. 1992

Table 7·A9. Metals in freshwater fish.

Location	Latitude	Longitude	Year	Species	Tissue	n	Concentration, µg/g wet weight (unless otherwise indicated under Remarks): Lead	Cadmium	Mercury	Selenium	Remarks	Reference
Canada												
Fort Good Hope, NWT	66°15'N	128°38'W	Oct. 1985	*Lota lota* (Burbot)	Liver			<0.1-0.2	0.06-0.29	0.81-1.36		Lockhart 1989
Arctic Red River, NWT	67°26'N	133°44'W	Oct. 1985		Liver			<0.1-0.3	0.05-0.25	0.35-1.71		Lockhart 1989
Fort Franklin, NWT	65°10'N	123°30'W	Oct. 1985		Liver			<0.1	0.02-0.08	0.20		Lockhart 1989
Fort Simpson, NWT	61°52'N	122°21'W	Oct. 1985		Liver			<0.1-0.4	0.03-0.09	0.81-3.35		Lockhart 1989
Fort Good Hope, NWT	66°15'N	128°38'W	Oct. 1985		Liver			<0.1-0.42	0.01-0.25	0.42-2.87		Wagemann 1985
Fort Good Hope, NWT	66°15'N	128°38'W	Oct. 1985	*Coregonus* sp. (Whitefish)	Muscle			<0.05	0.02-0.08	0.14-0.46		Lockhart 1989
Arctic Red River, NWT	67°26'N	133°44'W	Oct. 1985		Muscle			<0.05	0.04-0.14	0.20-0.59		Lockhart 1989
Fort Franklin, NWT	65°10'N	123°30'W	Oct. 1985		Muscle			<0.05	0.08-0.13	0.15-0.29		Lockhart 1989
Fort Simpson, NWT	61°52'N	122°21'W	Oct. 1985		Muscle			<0.05	0.02-0.18	0.27-1.03		Lockhart 1989
Fort Good Hope, NWT	66°15'N	128°38'W	Oct. 1985		Muscle			<0.01	0.06-0.23	0.28-0.62		Wagemann 1985
Kuhulu Lake, Baffin Island			1974	*Salvelinus alpinus* (Arctic char)	Liver	3		2.0±0.3			Hg in dw	Bohn 1978
Kuhulu Lake, Baffin Island			1974		Liver	4	0.4±0.2				Hg in dw	Bohn 1978
Hay River, NWT				*Coregonus* sp. (Whitefish)		1	0.04	0.04	0.04		Max. levels	Wong 1985
Great Slave All, NWT						1	2.49	0.05	2.49		Max. levels	Wong 1985
Mackenzie Delta, NWT						1	0.11	0.10	0.11		Max. levels	Wong 1985
Ellice River, NWT				*Salvelinus namaycush* (Lake trout)		1	0.02	0.01	4 (mean)		Max. levels	Wong 1985
Great Bear, NWT						1	0.90	0.02			Max. levels	Wong 1985
Mackenzie River			1971	*Coregonus nasus* (Broad whitefish)	Muscle	2	0.03	0.03	0.02±0.01			Hendzel 1990
Mackenzie River			1981		Muscle	6	0.003		0.02	0.39		Hendzel 1990
Ellis River			1971	*Salvelinus alpinus* (Arctic char)	Muscle	2			0.03			Hendzel 1990
Ellis River			1977		Muscle	3	0.05	0.01	0.42	0.39		Hendzel 1990
Ellis River			1987		Muscle	6			0.05			Hendzel 1990
Ellis River			1984		Muscle	5			0.03			Hendzel 1990
Ellis River			1989		Muscle	4			0.04			Hendzel 1990
Ellis River			1990		Muscle	5			0.03±0.012			Hendzel 1990
Ekalluk River			1990		Muscle	5			0.026±0.011			Hendzel 1990
Surrey Lake			1984		Muscle	5			0.04			Hendzel 1990
Tree River			1977		Muscle	8	0.053	0.011	0.02	0.314		Hendzel 1990
Tree River			1980		Muscle	2			0.03			Hendzel 1990
Kuhulu Lake			1974		Liver	3	0.4±0.23	2.0±0.33				Hendzel 1990
Saputing Lake			1979		Muscle	5	0.05	0.01	0.052	0.256		Hendzel 1990
Koukdjuak River			1970		Muscle	1			0.13			Hendzel 1990
Nettilling Lake			1990		Muscle	5			0.084±0.027			Hendzel 1990
Tessikakjuak Lake			1977		Muscle	5	0.05	0.01	0.01	0.29		Hendzel 1990
Thirty Mile Lake			1988		Muscle	5			0.03			Hendzel 1990
Thirty Mile Lake			1989		Muscle	5			0.05			Hendzel 1990
Thirty Mile Lake			1990		Muscle	5			0.024±0.015			Hendzel 1990
Keyhole Lake			1970		Muscle	2			0.04±0.01			Hendzel 1990
Wilson River			1988		Muscle	5			0.03			Hendzel 1990
Kaminuriak Lake			1975		Muscle	1			0.02			Hendzel 1990
Esker Lake			1978		Muscle	17			0.33		Males	Bruce 1979
Esker Lake			1978		Muscle	9			0.33		Females	Bruce 1979

Tasialuk Lake			1978		Muscle	8			0.07		Males	Bruce 1979
Tasialuk Lake			1978		Muscle	16			0.10		Females	Bruce 1979
Peter Lake, NWT				*Salvelinus namaycush* (Lake trout)	Muscle	17			0.681±0.450			Muir and Lockhart 1984
Colville Lake NW NWT					Muscle	11		0.92	0.28	0.17	ng/g	Muir and Lockhart 1984
Colville Lake NW NWT				Lake whitefish	Muscle	23		0.96	0.02	0.14	ng/g	Muir and Lockhart 1984
Lac Belot NW NWT				*Salvelinus namaycush* (Lake trout)	Muscle	23		1.31	0.13	0.10	ng/g	Muir and Lockhart 1984
Hawk Lake W. Hudson Bay					Muscle	9			0.24	0.27		Muir and Lockhart 1984
Peter Lake W. Hudson Bay					Muscle	5			1.04			Muir and Lockhart 1984
Char Lake Cornwallis Island.				*Salvelinus alpinus* (Arctic char)	Muscle	7			0.26			Muir and Lockhart 1984
Lake Cornwallis Island.					Muscle	3			0.26			Muir and Lockhart 1984
Resolute Lake Cornwallis Island.					Muscle	7			0.20			Muir and Lockhart 1984
Small Lake Cornwallis Island.					Muscle	2			0.05			Muir and Lockhart 1984
Victory Lake Cornwallis Island.					Muscle	1			0.42			Muir and Lockhart 1984
Eastern Hudson Bay			1993	*Coregonus* sp. (Whitefish)	Muscle	33		<0.005	0.053-0.176	0.29-0.56		Kingsley 1994
Eastern Hudson Bay			1993	Brook trout	Muscle	29		<0.005	0.041-0.253	0.036-0.061		Kingsley 1994
Hazen Lake, N. Ellesmere Island				*Salvelinus alpinus* (Arctic char)		45	0.002±0.002	0.0015±0.002	0.181±0.093	0.902±0.403		Muir and Lockhart 1994
Amituk Lake, Cornwallis Island.						27		0.0076±0.0102	0.567±0.597	0.846±0.189		Lockhart 1994
Aishihik Lake, Yukon Territory			1990-1991	*Salvelinus namaycush* (Lake trout)	Liver	4	0.17-0.55/0.42	0.09-0.22/0.13	0.05-0.25/0.11			Yukon 1994
Aishihik Lake, Yukon Territory			1990-1991		Muscle	4	n.d.	n.d.	0.06-0.15/0.09			Yukon 1994
Aishihik Lake, Yukon Territory			1990-1991	*Esox lucius* (Northern pike)	Liver	5	0.21-1.17/0.74	0.03-0.12/0.07	0.03-0.43/0.11			Yukon 1994
Aishihik Lake, Yukon Territory			1990-1991		Muscle	5	n.d.-0.20/0.09	n.d.	0.03-0.27/0.13			Yukon 1994
Aishihik Lake, Yukon Territory			1990-1991	Lake whitefish	Liver	5	0.11-1.06/0.59	0.04-0.30/0.19	0.04-0.16/0.08			Yukon 1994
Aishihik Lake, Yukon Territory			1990-1991		Muscle	5	n.d.	n.d.-0.03/0.01	0.01-0.10/0.04			Yukon 1994
Canyon Lake, Yukon Territory			1990-1991	*Salvelinus namaycush* (Lake trout)	Muscle	4	0.15-0.52/0.32	0.006-0.013/0.008	0.12-0.21/0.16			Yukon 1994
Kloo Lake, Yukon Territory			1990-1991		Liver	4	n.d.	0.02-0.21/0.11	0.23-1.08/0.66			Yukon 1994
Kloo Lake, Yukon Territory			1990-1991		Muscle	4	n.d.	n.d.-0.11/0.04	0.29-0.96/0.53			Yukon 1994
Kloo Lake, Yukon Territory			1990-1991	*Esox lucius* (Northern pike)	Liver	5	n.d.	0.01-0.02/0.013	0.06-0.11/0.08			Yukon 1994
Kloo Lake, Yukon Territory			1990-1991		Muscle	5	n.d.	n.d.-0.04/0.009	0.17-0.24/0.20			Yukon 1994
Kloo Lake, Yukon Territory			1990-1991	Lake whitefish	Liver	5	n.d.	0.05-0.46/0.20	0.09-0.24/0.18			Yukon 1994
Kloo Lake, Yukon Territory			1990-1991		Muscle	5	n.d.	n.d.-0.22/0.07	0.07-0.18/0.11			Yukon 1994
Kloo Lake, Yukon Territory			1990-1991	*Lota lota* (Burbot)	Liver	1	n.d.	0.24	0.05			Yukon 1994
Kloo Lake, Yukon Territory			1990-1991		Muscle	1	n.d.	0.09	0.16			Yukon 1994
Mayo Lake, Yukon Territory			1990-1991	*Salvelinus namaycush* (Lake trout)	Liver	5	n.d.	0.04-0.21/0.12	0.09-0.32/0.15			Yukon 1994
Mayo Lake, Yukon Territory			1990-1991		Muscle	5	n.d.	n.d.-0.16/0.03	0.07-0.23/0.11			Yukon 1994
Mayo Lake, Yukon Territory			1990-1991	*Esox lucius* (Northern pike)	Liver	5	n.d.	0.04-0.16/0.10	0.02-0.09/0.05			Yukon 1994
Mayo Lake, Yukon Territory			1990-1991		Muscle	5	n.d.	n.d.-0.18/0.07	0.07-0.18/0.11			Yukon 1994
Mayo Lake, Yukon Territory			1990-1991	Lake whitefish	Liver	5	n.d.	0.12-0.33/0.19	0.09-0.13/0.12			Yukon 1994
Mayo Lake, Yukon Territory			1990-1991		Muscle	5	n.d.	n.d.-0.16/0.03	0.04-0.08/0.06			Yukon 1994
Mayo Lake, Yukon Territory			1990-1991	*Lota lota* (Burbot)	Liver	2	n.d.	0.03-0.06/0.05	0.03-0.03/0.03			Yukon 1994
Mayo Lake, Yukon Territory			1990-1991		Muscle	2	0.37-1.14/0.75	n.d.-0.001/0.0007	0.11-0.11/0.11			Yukon 1994
Sekulmun Lake, Yukon Territory			1990-1991	*Salvelinus namaycush* (Lake trout)	Liver	4	0.20-0.54/0.45	n.d.-0.34/0.29	0.09-3.89/1.05			Yukon 1994
Sekulmun Lake, Yukon Territory			1990-1991		Muscle	4	n.d.-0.32/0.22	n.d.-0.01/0.009	0.11-1.53/0.46			Yukon 1994
Sekulmun Lake, Yukon Territory			1990-1991	*Esox lucius* (Northern pike)	Liver	4	0.48-0.99/0.63	0.06-0.22/0.12	0.04-0.14/0.09			Yukon 1994
Sekulmun Lake, Yukon Territory			1990-1991		Muscle	4	n.d.	n.d.	0.08-0.26/0.19			Yukon 1994
Sekulmun Lake, Yukon Territory			1990-1991	Lake whitefish	Liver	4	n.d.-3.41/0.95	0.12-0.44/0.28	0.06-0.36/0.19			Yukon 1994
Sekulmun Lake, Yukon Territory			1990-1991		Muscle	4	n.d.-1.29/0.57	n.d.-0.05/0.02	0.03-0.14/0.09			Yukon 1994
Sekulmun Lake, Yukon Territory			1990-1991	*Lota lota* (Burbot)	Liver	1	0.26	0.23	0.17			Yukon 1994
Sekulmun Lake, Yukon Territory			1990-1991		Muscle	1	n.d.	0.01	0.30			Yukon 1994
Tatlmain Lake, Yukon Territory			1990-1991	*Salvelinus namaycush* (Lake trout)	Muscle	5	0.23-0.78/0.37	n.d.	0.29-0.71/0.50			Yukon 1994
Denmark (Greenland)												
Ammassalik, Greenland	65°37.55'N	44°85'W	1994	*Salvelinus alpinus* (Arctic char)	Muscle	25			0.165±0.113			Riget *et al.* 1997a
Isortoq, Greenland	60°59.06'N	47°30.63'W	1994		Muscle	25			0.994±0.763			Riget *et al.* 1997a
Itinnera, Greenland	64°38'N	50°38'W	1994		Muscle	25			0.594±0.334			Riget *et al.* 1997a
Olrik Fjord, Greenland	77°9.52'N	68°2.51'W	1994		Muscle	11			0.276±0.141			Riget *et al.* 1997a
Iceland												
Lake Thinkvallavatn												
Vatnskot	64°14'08N	21°05'00W	1994	*Salvelinus alpinus* (Arctic char)	Muscle	1			0.026±0.0026			Jonsson 1995
Thorsteinsvik	64°09'00N	21°12'00W	1994		Muscle	1			0.018±0.0055			Jonsson 1995
Vatnskot	64°14'08N	21°05'00W	1994		Liver	1	<0.3	0.077±0.005		0.25±0.02		Jonsson 1995
Thorsteinsvik	64°09'00N	21°12'00W	1994		Liver	1	<0.3	0.089±0.0029		0.26±0.01		Jonsson 1995
Norway												
Lake Avzejavri (Finnmark)			1995	*Coregonus lavaretus* (Whitefish)	Muscle	20			0.04-0.09			Skotvold *et al.* 1996
Lake Lavvujavri (Finnmark)			1995		Muscle	20			n.d.-0.18			Skotvold *et al.* 1996
Lake Guotkejavri (Finnmark)			1995		Muscle	20			0.07-0.16			Skotvold *et al.* 1996
Lake Goldinjavri (Finnmark)			1995		Muscle	20			0.05-0.11			Skotvold *et al.* 1996
Lake Ravdujavri (Finnmark)			1995		Muscle	20			0.03-0.19			Skotvold *et al.* 199
Lake Coulbmajavri (Finnmark)			1995	*Salvelinus alpinus* (Arctic char)	Muscle	20			0.03-0.06			Skotvold *et al.* 1996

Location	Latitude	Longitude	Year	Species	Tissue	n	Concentration, µg/g wet weight (unless otherwise indicated under Remarks) Lead	Cadmium	Mercury	Selenium	Remarks	Reference
Ellasjøen (Bear Island)			1995		Muscle	20			0.067-0.223			Skotvold *et al*. 1996
Lake Vuorasjavri (Finnmark)				*Perca fluviatilis* (Perch)	Muscle	20			0.04-0.16			Skotvold *et al*. 1996
Lake Finnsnesvatn (Troms)					Muscle	20			0.03-0.12			Skotvold *et al*. 1996
Kautokerno River (Finnmark)				*Esox lucius* (Pike)	Muscle	20			0.09-0.52			Skotvold *et al*. 1996
Sweden												
Storvindeln			1968	*Esox lucius* (Pike)	Muscle	22			0.234		Geometric mean	Olsson (pers. comm. 1997)
			1969		Muscle	10			0.296		Geometric mean	Olsson (pers. comm. 1997)
			1970		Muscle	10			0.301		Geometric mean	Olsson (pers. comm. 1997)
			1971		Muscle	10			0.310		Geometric mean	Olsson (pers. comm. 1997)
			1972		Muscle	17			0.294		Geometric mean	Olsson (pers. comm. 1997)
			1973		Muscle	20			0.306		Geometric mean	Olsson (pers. comm. 1997)
			1974		Muscle	10			0.459		Geometric mean	Olsson (pers. comm. 1997)
			1975		Muscle	9			0.433		Geometric mean	Olsson (pers. comm. 1997)
			1977		Muscle	10			0.332		Geometric mean	Olsson (pers. comm. 1997)
			1978		Muscle	10			0.267		Geometric mean	Olsson (pers. comm. 1997)
			1979		Muscle	9			0.194		Geometric mean	Olsson (pers. comm. 1997)
			1981		Muscle	10			0.324		Geometric mean	Olsson (pers. comm. 1997)
			1982		Muscle	10			0.331		Geometric mean	Olsson (pers. comm. 1997)
			1983		Muscle	10			0.334		Geometric mean	Olsson (pers. comm. 1997)
			1984		Muscle	10			0.264		Geometric mean	Olsson (pers. comm. 1997)
			1985		Muscle	10			0.273		Geometric mean	Olsson (pers. comm. 1997)
			1986		Muscle	10			0.253		Geometric mean	Olsson (pers. comm. 1997)
			1987		Muscle	10			0.280		Geometric mean	Olsson (pers. comm. 1997)
			1992		Muscle	10			0.254		Geometric mean	Olsson (pers. comm. 1997)
			1994		Muscle	10			0.278		Geometric mean	Olsson (pers. comm. 1997)
			1996		Muscle	10			0.311		Geometric mean	Olsson (pers. comm. 1997)
Finland												
Lake 222, Western Lapland			1993	Grayling	Muscle	2	0.003	0.002		0.781		Mannio 1996
Lake 222, Western Lapland			1993-1994	*Salvelinus alpinus* (Arctic char)	Muscle	7	0.001	0.001		0.777		Mannio 1996
Lake 222, Western Lapland			1994	*Salmo trutta* (Brown trout)	Muscle	15	0.001	0.001		1.134		Mannio 1996
Lake Nitsijarvi, Western Lapland			1993-1994	*Esox lucius* (Pike)	Muscle	4	0.002	0.001		0.307		Mannio 1996
Lake Nitsijarvi, Western Lapland			1993-1994	*Salvelinus alpinus* (Arctic char)	Muscle	6	0.001	0.001		0.414		Mannio 1996
Lake Nitsijarvi, Western Lapland			1993-1994	*Coregonus* sp. (Whitefish)	Muscle	9	0.001	0.001		0.435		Mannio 1996
Lake Nitsijarvi, Western Lapland			1993-1994	*Salmo trutta* (Brown trout)	Muscle	4	0.001	0.001		0.356		Mannio 1996
Lake Pahtajarvi, Western Lapland			1993	*Salvelinus alpinus* (Arctic char)	Muscle	11	0.003	0.006		0.735		Mannio 1996
Lake 222, Western Lapland					Muscle	18			0.12			Mannio 1996
Lake Nitsijarvi, Western Lapland					Muscle	8			0.32			Mannio 199
Lake Pahtajarvi, Western Lapland					Muscle	11			0.094			Mannio 1996
Lake Nitsijarvi, Western Lapland				*Coregonus* sp. (Whitefish)	Muscle	14			0.20			Mannio 1996
Lake 222, Western Lapland				Grayling	Muscle	2			0.12			Mannio 1996
Lake Nitsijarvi, Western Lapland					Muscle	2			0.29			Mannio 1996
Lake 222, Western Lapland				*Salmo trutta* (Brown trout)	Muscle	30			0.077			Mannio 1996
Lake Nitsijarvi, Western Lapland					Muscle	8			0.17			Mannio 1996
Lake 222, Western Lapland				*Esox lucius* (Pike)	Muscle	6			0.36			Mannio 1996
Lake 222, Western Lapland				*Lota lota* (Burbot)	Muscle	8			0.23			Mannio 1996
Lake Aalisjarvi, Finnish Lapland			1987	*Salvelinus alpinus* (Arctic char)	Liver		0.25±0.10	1.23±0.68			dw	Iivonen *et al*. 1992
Lake Peltojarvi, Finnish Lapland			1987		Liver		0.30±0.10	0.53±0.15			dw	Iivonen *et al*. 1992
Lake Aalisjarvi, Finnish Lapland			1987	*Salmo trutta* (Brown trout)	Liver		0.20	1.92±0.93			dw	Iivonen *et al*. 1992
Lake Peltojarvi, Finnish Lapland			1987		Liver		0.17±0.05	0.56±0.22			dw	Iivonen *et al*. 1992
Lake Peltojarvi, Finnish Lapland			1987	*Coregonus* sp. (Whitefish)	Liver		0.10	1.05±0.27			dw	Iivonen *et al*. 1992
Lake Iso-Venejarvi			1987	*Esox lucius* (Pike)	Liver		0.05	0.03±0.01			dw	Iivonen *et al*. 1992
Lake Iso-Peralampi			1987	*Perca fluviatilis* (Perch)	Liver		0.47±0.06	0.55±0.04			dw	Iivonen *et al*. 1992
Lake Vasikkajarvi			1987	*Coregonus* sp. (Whitefish)	Liver		2.17±0.38	15.5±4.65			dw	Iivonen *et al*. 1992
Lake Peltojarvi, Finnish Lapland			1987	*Salvelinus alpinus* (Arctic char)	Muscle				0.20±0.13			Iivonen *et al*. 1992
Lake Peltojarvi, Finnish Lapland			1987	*Salmo trutta* (Brown trout)	Muscle				0.06±0.01			Iivonen *et al*. 1992
Lake Iso-Venejarvi, Finnish Lapland			1987	*Esox lucius* (Pike)	Muscle				0.24±0.09			Iivonen *et al*. 1992
Lake Vasikkajarvi, Finnish Lapland			1987	*Coregonus* sp. (Whitefish)	Muscle				0.28±0.08			Iivonen *et al*. 1992
Lake Peltojarvi, Finnish Lapland			1987		Muscle				0.06±0.01			Iivonen *et al*. 1992
Lake Aalisjarvi, Finnish Lapland			1987	*Salvelinus alpinus* (Arctic char)	Muscle				0.10±0.04			Iivonen *et al*. 1992
Russia												
Pechora River	68°58',83N	54°48',08E	7 Sept. 1995	*Coregonus automnalis* Pallas	Muscle	1	0.12	<0.05	0.01			RCMA 1995
Pechora River	68°58',83N	54°48',08E	7 Sept. 1995	*Pleuronectes* sp.	Muscle	1	0.14	<0.05	0.01			RCMA 1995

Pechora River	68°58',83N	54°48',08E	7 Sept. 1995	Gobiidae g. sp.	Muscle	1	0.05	0.05	0.01	RCMA 1995
Yenisey River (near Karaul)	70°05',5N	83°06',0E	11 Nov. 1995	*Coregonus nasus* sp.	Muscle	1	0.21	<0.05	0.01	RCMA 1995
Yenisey River (near Karaul)	70°05',5N	83°06',0E	11 Nov. 1995		Liver	1	0.20	0.05	0.02	RCMA 1995
Yenisey River (near Karaul)	70°05',5N	83°06',0E	11 Nov. 1995	*Stenodus leucichthys nelma* (Pallas)	Muscle	1	0.60	0.05	0.01	RCMA 1995
Yenisey River (near Karaul)	70°05',5N	83°06',0E	11 Nov. 1995		Liver	1	0.90	0.08	0.02	RCMA 1995
Yenisey River (near Karaul)	70°05',5N	83°06',0E	11 Nov. 1995	*Lota lota* L.	Muscle	1	<0.05	<0.05	0.01	RCMA 1995
Yenisey River (near Karaul)	70°05',5N	83°06',0E	11 Nov. 1995		Liver	1	<0.05	<0.05	0.02	RCMA 1995
Yenisey River (near Karaul)	70°05',5N	83°06',0E	11 Nov. 1995	*Coregonus nasus* sp.	Muscle	1	<0.05	<0.05	0.01	RCMA 1995
Yenisey River (near Karaul)	70°05',5N	83°06',0E	11 Nov. 1995		Liver	1	<0.05	0.05	0.02	RCMA 1995
Khatanga R. (near Khatanga)	71°57',0N	102°10',0E	30 Nov. 1995	*Coregonus nasus* Pallas	Muscle	1	0.10	<0.05	0.01	RCMA 1995
Khatanga R. (near Khatanga)	71°57',0N	102°10',0E	30 Nov. 1995		Liver	1	0.13	<0.05	0.01	RCMA 1995
Khatanga R. (near Khatanga)	71°57',0N	102°10',0E	30 Nov. 1995	*Coregonus muksun* Pallas	Muscle	1	0.11	0.05	0.01	RCMA 1995
Khatanga R. (near Khatanga)	71°57',0N	102°10',0E	30 Nov. 1995		Liver	1	0.16	0.06	0.01	RCMA 1995
Khatanga R. (near Khatanga)	71°57',0N	102°10',0E	30 Nov. 1995	*Salvelinus alpinus* L.	Muscle	1	0.25	<0.05	0.01	RCMA 1995
Khatanga R. (near Khatanga)	71°57',0N	102°10',0E	30 Nov. 1995	*Coregonus automnalis* Pallas	Muscle	1	<0.05	<0.05	0.01	RCMA 1995
Ob River (near Salekhard)	66°36'3N	66°21',6E	15 July 1995		Muscle	1	0.12	<0.05	0.02	RCMA 1995
Ob River (near Salekhard)	66°36'3N	66°21',6E	15 July 1995		Liver	1	0.21	0.05	0.03	RCMA 1995
Ob River (near Salekhard)	66°36'3N	66°21',6E	15 July 1995	*Salvelinus alpinus* L.	Muscle	1	0.52	0.06	0.01	RCMA 1995
Ob River (near Salekhard)	66°36'3N	66°21',6E	15 July 1995		Liver	1	0.80	0.06	0.01	RCMA 1995
Ob River (near Salekhard)	66°36'3N	66°21',6E	15 July 1995	*Coregonus automnalis* Pallas.	Muscle	1	0.10	0.05	0.02	RCMA 1995
Ob River (near Salekhard)	66°36'3N	66°21',6E	15 July 1995		Liver	1	0.15	0.05	0.03	RCMA 1995
Ob River (near Salekhard)	66°36'3N	66°21',6E	15 July 1995	*Coregonus lavaretus pidschian* Gm.	Muscle	1	0.18	<0.05	0.02	RCMA 1995
Ob River (near Salekhard)	66°36'3N	66°21',6E	15 July 1995		Liver	1	0.24	<0.05	0.03	RCMA 1995
Indigirka R. (near Chokurdakh)	70°45',8N	148°00',0E	2 July 1995		Muscle	1	0.10	<0.05	0.01	RCMA 1995
Indigirka R. (near Chokurdakh)	70°45',8N	148°00',0E	2 July 1995		Liver	1	0.17	0.05	0.02	RCMA 1995
Indigirka R. (near Chokurdakh)	70°45',8N	148°00',0E	2 July 1995	*Coregonus muksun* Pallas	Muscle	1	0.25	0.05	0.01	RCMA 1995
Indigirka R. (near Chokurdakh)	70°45',8N	148°00',0E	2 July 1995		Muscle	1	0.18	0.08	0.01	RCMA 1995
Indigirka R. (near Chokurdakh)	70°45',8N	148°00',0E	2 July 1995		Muscle	1	<0.05	<0.05	0.01	RCMA 1995
Ob River	66°40'N	67°30E		*Coregonus* sp. (Whitefish)	Muscle	5	0.06-0.25	0.02-0.05	0.03-0.06	RCMA 1994
Pechora River	66°40'N	67°30E		*Coregonus automnalis* (Arctic cisco)	Muscle	5	0.04-0.07	0.02	0.02-0.04	RCMA 1994
Pechora River			1994		Muscle	5	0.53±1.235	0.013±1.462	0.027±1.349	Rosgidromet 1995
Ob River			1994	*Coregonus* sp. (Whitefish)	Muscle	5	0.026±3.152	0.026±1.499	0.040±1.361	Rosgidromet 1995
Pechora River, Komi Rep.	67°40'N	52°59'E	Nov. 1994	*Coregonus lavaretus pidschian*	Muscle	7			0.028-0.087	Dahl-Hansen and Evenset 1995
Lake Kapylty, Komi Rep.	67°30'N	53°54'E	Nov. 1994		Muscle	7			0.024-0.087	Dahl-Hansen and Evenset 1995
Pechora River, Komi Rep.	67°40'N	52°59'E	Nov. 1994	*Coregonus peled*	Muscle	14			0.05-0.11	Dahl-Hansen and Evenset 1995
Pechora River, Russia				Siberian whitefish		21	0.011±0.006	0.005±0.002		Mannio 1996
Pechora River, Russia				*Coregonus nasus* (Broad whitefish)		1	0.013	0.006		Mannio 1996
Pechora River, Russia				*Esox lucius* (Pike)		15	0.016±0.007	0.008±0.007		Mannio 1996

Table 7·A10. Copper, zinc, lead, cadmium and mercury in Arctic marine sediments.

Area	Latitude Dec. deg.	Longitude Dec. deg.	Sampling year	Sediment sample type	Water depth, m	n	Concentration, mg/kg dw ± SD (unless otherwise indicated) Copper	Zinc	Lead	Cadmium	Mercury	Aluminum %	Lithium	Remarks	Reference
Alaska															
Alaska North Slope			1972-1973			53					0.087±0.035				Weiss *et al.* 1974**
Beaufort Sea			1979	Cont. Shelf		7	32.±7	112.±14							Naidu *et al.* 1980**
Beaufort Lagoon			1979			5	28.±6	103.±14							Naidu *et al.* 1980**
Alaskan Beaufort			1979		1500	3	53.±4	127.±15							Naidu *et al.* 1980**
Beaufort Sea	70.3683N	147.9572W	1989	<63 µm N		1	25.70	116.7	8.83	0.203					USA***
	70.0677N	142.8525W	1989	<63 µm N		1	24.00	111.0	17.13	0.180					USA***
	70.495N	148.7683W	1989	<63 µm N		1	23.37	107.3	10.07	0.167					USA***
	70.7898N	151.9372W	1989	<63 µm N		1	20.47	101.7	10.60	0.090					USA***
	70.7488N	150.4752W	1989	<63 µm N		1	29.67	130.0	16.83	0.113					USA***
	70.3568N	147.881W	1989	<63 µm N		1	24.20	118.0	10.20	0.220					USA***
	70.308N	147.6708W	1989	<63 µm N		1	22.20	111.0	5.90	0.140					USA***
	70.6718N	150.5353W	1989	<63 µm N		1	28.50	122.0	14.40	0.150					USA***
	70.7258N	152.0733W	1989	<63 µm N		1	21.10	101.0	7.70	0.100					USA***
	70.435N	148.3015W	1989	<63 µm N		1	24.63	111.7	8.23	0.147					USA***
	70.5367N	149.962W	1989	<63 µm N		1	25.80	111.0	11.40	0.190					USA***
	70.4167N	148.0582W	1989	<63 µm N		1	23.60	113.3	10.27	0.217					USA***
	70.2835N	147.0925W	1989	<63 µm N		1	22.60	103.0	11.40	0.170					USA***
	70.6483N	151.894W	1989	<63 µm N		1	17.40	92.0	11.10	0.200					USA***
	70.379N	148.0068W	1989	<63 µm N		1	24.80	111.7	8.17	0.247					USA***
	70.6485N	149.2757W	1989	<63 µm N		1	26.90	120.0	15.80	0.160					USA***
	70.1532N	145.0243W	1989	<63 µm N		1	27.40	116.0	11.60	0.070					USA***

Area	Latitude Dec. deg.	Longitude Dec. deg.	Sampling year	Sediment sample type	Water depth, m	n	Concentration, mg/kg dw ± SD (unless otherwise indicated) Copper	Zinc	Lead	Cadmium	Mercury	Aluminum %	Lithium	Remarks	Reference
Beaufort Sea	70.1633N	145.3362W	1989	<63 µm N		1	25.20	116.0	15.60	0.120					USA***
	70.96N	153.2928W	1989	<63 µm N		1	21.60	107.0	13.80	0.190					USA***
	70.1717N	146.035W	1989	<63 µm N		1	18.40	96.0	7.20	0.150					USA***
	70.0942N	144.0902W	1989	<63 µm N		1	22.90	103.0	23.20	0.140					USA***
	70.07N	144.7933W	1989	<63 µm N		1	23.20	110.0	11.50	0.110					USA***
	70.0682N	145.2065W	1989	<63 µm N		1	19.80	99.0	12.60	0.130					USA***
	70.06N	145.3217W	1989	<63 µm N		1	24.60	117.0	10.20	0.280					USA***
	70.0267N	144.547W	1989	<63 µm N		1	29.70	108.0	12.50	0.110					USA***
	70.4352N	147.7183W	1989	<63 µm N		1	24.80	122.0	12.20	0.120					USA***
	70.215N	146.195W	1989	<63 µm N		1	18.60	102.0	11.90	0.250					USA***
	70.0083N	145.095W	1989	<63 µm N		1	38.10	131.0	19.50	0.260					USA***
	70.3817N	147.956W	1989	<63 µm N		1	25.67	120.3	9.37	0.187					USA***
	70.3698N	147.7968W	1989	<63 µm N		1	22.70	102.0	6.60	0.100					USA***
	70.4557N	148.502W	1989	<63 µm N		1	21.50	105.0	10.50	0.190					USA***
	70.4413N	148.826W	1989	<63 µm N		1	14.30	90.0	3.90	0.100					USA***
	70.6695N	151.202W	1989	<63 µm N		1	27.00	113.0	12.20	0.100					USA***
	70.3497N	147.6632W	1989	<63 µm N		1	23.30	123.0	5.80	0.170					USA***
	70.5817N	148.9167W	1989	<63 µm N		1	27.50	134.0	15.30	0.140					USA***
	70.361N	148.9935W	1989	<63 µm N		1	18.63	121.0	7.50	0.147					USA***
	70.0953N	142.81W	1989	<63 µm N		1	25.20	104.7	11.80	0.100					USA***
	70.3652N	148.0258W	1989	<63 µm N		1	23.13	125.3	9.43	0.170					USA***
	70.0993N	142.9017W	1989	<63 µm N		1	23.20	106.3	15.40	0.127					USA***
	70.4885N	148.0432W	1989	<63 µm N		1	24.10	108.0	11.90	0.160					USA***
	70.1022N	143.775W	1989	<63 µm N		1	19.20	79.7	14.83	0.120					USA***
	70.556N	150.4103W	1989	<63 µm N		1	30.80	119.0	17.10	0.200					USA***
	70.2983N	147.04W	1989	<63 µm N		1	18.13	88.0	10.02	0.123					USA***
	70.3567N	147.9188W	1989	<63 µm N		1	23.47	108.3	5.07	0.147					USA***
	70.5233N	149.91W	1989	<63 µm N		1	23.70	107.0	9.60	0.130					USA***
	70.4085N	148.5595W	1989	<63 µm N		1	22.50	110.0	10.20	0.270					USA***
	70.6277N	152.1648W	1989	<63 µm N		1	18.40	100.0	10.60	0.060					USA***
	70.9142N	152.005W	1989	<63 µm N		1	23.20	107.0	14.90	0.190					USA***
Canadian Arctic															
Baffin Bay	60.0683N	57.8022W	1977	GS,0-2 cm<2000 µm *	2720	1	28.00	59.00	17.00	0.107	0.060	4.70	29.00		Doug Loring/Canada
	60.7512N	57.0853W	1977	GS,0-2 cm<2000 µm	658	1	14.00	45.00	19.00	0.069	0.040	5.50	17.00		Doug Loring/Canada
	64.868N	57.168W	1977	GS,0-2 cm<2000 µm *	750	1	12.00	45.00	15.00	0.078	0.050	6.20	15.00		Doug Loring/Canada
	66.7187N	60.2355W	1977	GS,0-2 cm<2000 µm	580	1	14.00	34.00	17.00	0.053	0.040	5.10	16.00		Doug Loring/Canada
	66.7342N	58.9672W	1977	GS,0-2 cm<2000 µm	933	1	25.00	58.00	26.00	0.088	0.050	5.80	37.00		Doug Loring/Canada
	66.7503N	55.417W	1977	GS,0-2 cm<2000 µm	104	1	5.00	23.00	13.00	0.087	0.020	4.70	8.00		Doug Loring/Canada
	66.7508N	61.0358W	1977	GS,0-2 cm<2000 µm	335	1	14.00	25.00	18.00	0.071	0.040	4.90	11.00		Doug Loring/Canada
	68.1172N	61.3337W	1977	GS,0-2 cm<2000 µm *	1682	1	67.00	99.00	12.00	0.151	0.100	5.50	62.00		Doug Loring/Canada
	69.9692N	62.767W	1977	GS,0-2 cm<2000 µm *	2012	1	72.00	91.00	32.00	0.132	0.090	7.20	62.00		Doug Loring/Canada
	71.0012N	69.6505W	1977	GS,0-2 cm<2000 µm	119	1	4.00	17.00	30.00	0.058	0.040	6.30	6.00		Doug Loring/Canada
	71.117N	70.3505W	1977	GS,0-2 cm<2000 µm	260	1	7.00	29.00	33.00	0.051	0.040	6.90	10.00		Doug Loring/Canada
	71.2167N	69.5853W	1977	GS,0-2 cm<2000 µm *	182	1	14.00	48.00	25.00	0.062	0.070	6.10	26.00		Doug Loring/Canada
	71.2667N	70.45W	1977	GS,0-2 cm<2000 µm	476	1	6.00	28.00	28.00	0.048	0.060	6.30	12.00		Doug Loring/Canada
	71.4017N	70.1183W	1977	GS,0-2 cm<2000 µm	348	1	14.00	50.00	25.00		0.050	6.00	22.00		Doug Loring/Canada
	71.4167N	69.6358W	1977	GS,0-2 cm<2000 µm	285	1	12.00	40.00	26.00	0.053	0.070	6.20	18.00		Doug Loring/Canada
	72.2003N	65.9675W	1977	GS,0-2 cm<2000 µm *	2323	1	81.00	90.00	25.00	0.110	0.090	7.00	66.00		Doug Loring/Canada
	73.6838N	61.635W	1977	GS,0-2 cm<2000 µm *	540	1	46.00	106.00	30.00	0.152	0.080	6.80	48.00		Doug Loring/Canada
	73.6842N	64.552W	1977	GS,0-2 cm<2000 µm *	1518	1	68.00	106.00	23.00	0.195	0.100	6.60	50.00		Doug Loring/Canada
	73.6855N	58.6513W	1977	GS,0-2 cm<2000 µm	214	1	5.00	21.00	23.00	0.081	0.040	6.40	8.00		Doug Loring/Canada
	73.7N	66.9858W	1977	GS,0-2 cm<2000 µm *	2326	1	81.00	86.00	30.00	0.099	0.110	7.80	62.00		Doug Loring/Canada
	73.7N	70.4833W	1977	GS,0-2 cm<2000 µm *	1463	1	66.00	105.00	29.00	0.146	0.090	6.70	62.00		Doug Loring/Canada
	73.7N	75.9167W	1977	GS,0-2 cm<2000 µm *	901	1	36.00	79.00	18.00	0.292	0.050	6.10	56.00		Doug Loring/Canada
	73.7837N	81.952W	1977	GS,0-2 cm<2000 µm	483	1	21.00	41.00	16.00	0.170	0.080	3.40	43.00		Doug Loring/Canada
	73.9167N	82W	1977	GS,0-2 cm<2000 µm *	655	1	29.00	62.00	12.00	0.150	0.080	3.20	45.00		Doug Loring/Canada
	74.117N	90.3683W	1977	GS,0-2 cm<2000 µm	214	1	23.00	41.00	14.00	0.259	0.040	3.60	41.00		Doug Loring/Canada
	74.1692N	85.968W	1977	GS,0-2 cm<2000 µm *	520	1	35.00	66.00	12.00	0.145	0.020	4.50	66.00		Doug Loring/Canada
	74.2508N	90.4192W	1977	GS,0-2 cm<2000 µm	232	1	19.00	33.00	11.00	0.155	0.060	3.00	34.00		Doug Loring/Canada
	74.3333N	94.2522W	1977	GS,0-2 cm<2000 µm	174	1	12.00	28.00	12.00	0.080	0.070	2.70	24.00		Doug Loring/Canada
	74.4003N	90.3672W	1977	GS,0-2 cm<2000 µm *	232	1	26.00	40.00	12.00	0.233	0.080	3.40	57.00		Doug Loring/Canada
	74.4342	81.9675W	1977	GS,0-2 cm<2000 µm *	750	1	24.00	64.00	23.00		0.050	6.10	34.00		Doug Loring/Canada
	74.452N	94.2672W	1977	GS,0-2 cm<2000 µm	155	1	20.00	44.00	13.00	0.198	0.050	3.70	43.00		Doug Loring/Canada
	75.8522N	83.8192W	1977	GS,0-2 cm<2000 µm *	590	1	39.00	77.00	14.00	0.311	0.050	5.90	71.00		Doug Loring/Canada

	75.9667N	83.8347W	1977	GS,0-2 cm<2000 µm *	658	1	42.00	83.00	15.00	0.176	0.020	5.60	74.00		Doug Loring/Canada
	76.0687N	83.8175W	1977	GS,0-2 cm<2000 µm *	585	1	32.00	65.00	16.00	0.105	0.050	5.10	55.00		Doug Loring/Canada
	76.1667N	83.8512W	1977	GS,0-2 cm<2000 µm *	374	1	28.00	62.00	12.00	0.100	0.050	5.00	59.00		Doug Loring/Canada
	76.3337N	83.8175W	1977	GS,0-2 cm<2000 µm	120	1	20.00	41.00	10.00	0.262	0.020	3.00	51.00		Doug Loring/Canada
	77.3187N	74.4853W	1977	GS,0-2 cm<2000 µm *	724	1	37.00	74.00	11.00	0.139	0.020	5.90	58.00		Doug Loring/Canada
	77.6672N	74.3022W	1977	GS,0-2 cm<2000 µm	227	1	11.00	25.00	16.00	0.098	0.050	4.50	17.00		Doug Loring/Canada
	78.0005N	73.9517W	1977	GS,0-2 cm<2000 µm	560	1	19.00	47.00	11.00	0.175	0.060	4.50	36.00		Doug Loring/Canada
	78.3025N	74.2667W	1977	GS,0-2 cm<2000 µm	500	1	10.00	25.00	12.00	0.094	0.050	3.40	15.00		Doug Loring/Canada
	–		1977	GS,0-2 cm<2000 µm	534	1	18.00	46.00	15.00	0.158		4.30	35.00		Doug Loring/Canada
Beaufort shelf				0% mud		Many		22.5	9.1		0.0115				Macdonald and Thomas 1991
Beaufort shelf				50% mud		Many		91.5	14.6		0.0540				Macdonald and Thomas 1991
Beaufort shelf				100% mud *		Many		160.5	20.1		0.0965				Macdonald and Thomas 1991
Beaufort Sea			1982	*		41	12.5±12.9	73.8±46.9	12.4±3.11	0.32±0.31	0.030±0.028				Thomas *et al.* 1983**
			1982	*		16	4.38±1.78	25.4±8.30	6.09±1.18	0.072±0.059	0.006±0.006				Thomas *et al.* 1983**
Issungnak			1981	*	0-61 m	9	24.±7	121.±36	–	0.25±0.06	0.088±0.045				Erickson *et al.* 1983**
Crozier Strait			1982	*		77	–	33.-107	1.7-6.1	0.14-0.63	–				Thomas and Erickson 1983**
Tuktoyaktuk Hb.			1980	*		26	32.±0.16	171..±3.4	5.80±0.29	–	0.14±0.006				Thomas *et al.* 1982**
Kugmalit Bay			1981	*		9	8.77±0.20	41.2±4.9	8.31±0.17	0.14±0.0002	0.017±0.001				Thomas *et al.* 1982**
Mackenzie Delta			1977	*		134	–	101.±9.1	20.7±4.97	1.33±0.54	0.062±0.011				Thomas *et al.* 1982**
McKinley Bay			1981	*		15	20.6±0.62	96.1±11.5	–	–	0.027±0.004				Thomas *et al.* 1982**
S. Beaufort Sea			1976	Cont Shelf *		26	40.0±5.32	160.±18	6.0±6.2	1.09±0.32	0.243±0.043				Thomas *et al.* 1982**
			1977	Cont Shelf *		204	25.4±1.02	105.±3	3.40±0.60	–	0.070±0.004				Thomas *et al.* 1982**
			1978	Cont Shelf *		124	26.6±0.16	124.±1.9	1.4±0.2	4.60±0.30	0.074±0.004				Thomas *et al.* 1982**
			1979	Cont Shelf *		11	22.9±0.2	118.±2.4	43.5±2.2	0.12±0.007	–				Thomas *et al.* 1982**
			1980	Cont Shelf *		38	31.4±0.2	158.±3.2	5.18±0.26	–	0.102±0.004				Thomas *et al.* 1982**
			1981	Cont Shelf *		50	26.1±0.60	181.±21.7	–	0.38±0.0005	0.068±0.010				Thomas *et al.* 1982**
Strathcona Sound			1975	*		11	–	81.±41	17.±11	<0.2	1.6±1.2				Fallis 1982
			1982	*		133	–	55.-132	26.-150	1.-5.	–				Thomas *et al.* 1984
Lancaster Sound	74.22N	84W	1983	62.3% mud		9 surface	23.±6.5	47.±14	14.±3.7	0.15±0.08	0.06±0.02	4.9±1.13			Loring 1984
Jones Sound	76N	86W	1983	69.7% mud		5 surface	32.±8.7	66.±16	13.±2.4	0.19±0.09	0.04±0.02	4.92±1.12			Loring 1984
Baffin Bay	70-75N	65-80W	1983	59.3% mud		26 surface	30.±26	57.±30	22.±6.0	0.11±0.06	0.06±0.03	5.93±093			Loring 1984
Arctic nearshore muds	70-76N	65-86W	1983	m.th.70% mud		12	29	61	15		0.05				Loring 1984
Baffin Bay deep-sea muds	70-76N	65-86W	1983	m.th.70% mud		7	66	91	24		0.09				Loring 1984
Sand	70-76N	65-86W	1983	l.th.5% mud		1	4	17	30	0.058	0.04	6.30			Loring 1984
Muddy sand	70-76N	65-86W	1983	5-30% mud		5	9±4.8	28±9.6	20±5.6	0.071±0.015	0.04±0.014	5.56±0.78			Loring 1984
Very sandy mud	70-76N	65-86W	1983	m.th.30% mud		12	16±5.2	40±10	18±7.5	0.106±0.063	0.05±0.020	4.58±1.4			Loring 1984
Sandy mud	70-76N	65-86W	1983	m.th.70% mud		11	29±10	64±18.4	18±6.0	0.145±0.097	0.06±0.014	5.33±1.18			Loring 1984
Mud	70-76N	65-86W	1983	m.th.95% mud		9	61±18.2	89±13.5	21±8.5	0.144±0.030	0.07±0.039	6.31±1.02			Loring 1984
3 sites near Pangnirtung															Bourgoin and Risk 1987
Fossil site									21						Bourgoin and Risk 1987
Control site									22						Bourgoin and Risk 1987
Hamlets dump site									22						Bourgoin and Risk 1987
Hawkin 1	63.65N	90.65W	1988	0-25 cm		24			14.9±4.24	0.31±0.15	0.019±0.009				L. Lockhart, unpubl.
Fogo 4	58.01N	81.28W	1993	25-35		10			10.7±1.63	0.32±0.11	0.027±0.003				L. Lockhart, unpubl.
Hudson Bay 10	55.55N	78.75W	1992	1-28		26			4.17±0.72	0.18±0.073	0.021±0.005				L. Lockhart, unpubl.
Arctic costal areas and sounds			1977						18		0.05				Campbell and Loring 1980
Baffin Bay m.th. 500 m			1977						23		0.07				Campbell and Loring 1980
Beaufort Sea															
Carotte L-014	73.1925N	126.4593W	1990	0-2 cm *	112	5	60.6±4.9	100±3	19.3±1.6	0.222±0.148		6.4±0.2			Gobeil and Macdonald, unpubl.
															Gobeil and Macdonald, unpubl.
Carotte L-024	70.145N	133.426W	1990	0-2 cm *	41	5	40.3±1.2	171±2	26.1±1.8	0.218±0.038		9.4±0.2			Gobeil and Macdonald, unpubl.
Carotte L-050	70.408N	139.0808W	1990	0-2 cm *	711	5	49.0±1.9	181±6	33.6±1.0	0.240±0.029		9.3±0.3		Strong Mn-profile	Gobeil and Macdonald, unpubl.
Carotte ss-3	70.9707N	134.69W	1990	0-2 cm *	274	5	42.1±1.2	159±2	27.4±2.6	0.150±0.027		8.7±0.2		Cd max at 17 cm, Mn max at 2.5 cm	Gobeil and Macdonald, unpubl.
															Gobeil and Macdonald, unpubl.
Carotte ss-4	70.0017N	138.5883W	1990	0-2 cm *	268	5	41.7±0.8	168±4	26.3±1.8	0.238±0.019		8.6±0.1		Mn high in upper 3 cm	Gobeil and Macdonald, unpubl.
Station 44, Crosiere 9170	71.1900N	141.4517W	1992	0-2 cm *	>3000	5	48.4±1.5	153±2	29.0±0.6	0.136±0.015	0.112	8.9±0.3		Cd and Ag increase strongly at 21 cm, where Mn is min.	Gobeil and Macdonald, unpubl.
West Greenland															
NW Greenland	64.31N	51.3117W	1987	NC,0-1 cm<2000 µm	390	1	33.00	75.00	24.00	0.120		7.09	36.00		Doug Loring/Canada
	64.31N	51.3117W	1987	NC,0-1 cm<2000 µm	390	1	37.00	85.00	24.00	0.310		7.65	38.00		Doug Loring/Canada
	64.8633N	53.0933W	1987	NC,0-1 cm<2000 µm	400	1	20.00	58.00	16.00	0.110		6.51	21.00		Doug Loring/Canada
	66.4633N	54.815W	1987	NC,0-1 cm<2000 µm	260	1	8.00	41.00	10.00	0.090		6.57	13.00		Doug Loring/Canada
	69.3083N	51.19W	1987	NC,0-1 cm<2000 µm	380	1	37.00	76.00	19.00	0.840		6.68	36.00		Doug Loring/Canada
	69.3667N	54.8383W	1987	NC,0-1 cm<2000 µm	265	1	55.00	76.00	12.00	0.090		5.62	24.00		Doug Loring/Canada
	69.7167N	51.5667W	1987	NC,0-1 cm<2000 µm	51	1	137.00	90.00	8.00	0.150		7.25	18.00		Doug Loring/Canada
	69.7167N	51.5667W	1987	NC,0-1 cm<2000 µm	51	1	128.00	90.00	8.00	0.130		7.29	18.00		Doug Loring/Canada
	69.9167N	51.55W	1987	NC,0-1 cm<2000 µm	420	1	43.00	65.00	19.00	0.050		6.96	28.00		Doug Loring/Canada
	70.295N	53.6233W	1987	NC,0-1 cm<2000 µm	390	1	145.00	100.00	6.00	0.120		6.35	19.00		Doug Loring/Canada

Area	Latitude Dec. deg.	Longitude Dec. deg.	Sampling year	Sediment sample type	Water depth, m	n	Concentration, mg/kg dw ± SD (unless otherwise indicated) Copper	Zinc	Lead	Cadmium	Mercury	Aluminum %	Lithium	Remarks	Reference
NW Greenland	71.255N	53.4833W	1987	NC,0-1 cm<2000 µm	525	1	59.00	100.00	26.00	0.070		7.25	41.00		D.Loring/Canada, pers. comm.
	71.375N	54.54W	1987	NC,0-1 cm<2000 µm	52	1	89.00	79.00	8.00	0.070		6.04	22.00		D.Loring/Canada, pers. comm.
	71.6617N	59.3567W	1987	NC,0-1 cm<2000 µm	425	1	60.00	105.00	20.00	0.100		7.38	41.00		D.Loring/Canada, pers. comm.
	72.7217N	55.675W	1987	NC,0-1 cm<2000 µm	500	1	28.00	68.00	32.00	0.200		6.58	25.00		D.Loring/Canada, pers. comm.
	72.8967N	55.6517W	1987	NC,0-1 cm<2000 µm	350	1	30.00	84.00	34.00	0.100		6.80	44.00		D.Loring/Canada, pers. comm.
	72.9283N	55.2733W	1987	NC,0-1 cm<2000 µm	970	1	25.00	98.00	34.00	0.060		7.57	50.00		D.Loring/Canada, pers. comm.
	76.5167N	69.1667W	1987	NC,0-1 cm<2000 µm	227	1	27.00	68.00	20.00	0.080		6.85	31.00		D.Loring/Canada, pers. comm.
	76.6383N	69.445W	1987	NC,0-1 cm<2000 µm	126	1	21.00	48.00	17.00	0.190		6.14	30.00		D.Loring/Canada, pers. comm.
	77.3667N	73.2267W	1987	NC,0-1 cm<2000 µm	295	1	14.00	38.00	13.00	0.070		5.39	23.00		D.Loring/Canada, pers. comm.
	77.505N	70.2633W	1987	NC,0-1 cm<2000 µm	162	1	19.00	63.00	16.00	0.160		6.48	28.00		D.Loring/Canada, pers. comm.
	77.5333N	68.5W	1987	NC,0-1 cm<2000 µm	500	1	33.00	86.00	19.00	0.080		7.45	37.00		D.Loring/Canada, pers. comm.
	77.64N	69.9233W		NC,0-1 cm<2000 µm	110	1	38.00	98.00	20.00	0.110		7.99	53.00		D.Loring/Canada, pers. comm.
Bowdoin Fjord	77.533N	68.5W	1987	0-N cm	500 m	17[∂]	31.0±1.65	70.1±8.4	15.9±1.24	0.08±0.04		7.93±0.21	40±1		Loring and Asmund 1996
Murchinson Sound	77.505N	70.247W	1987	0-N cm	162 m	1[$]	15.2	45.1	16.3	0.09		6.48	16		Loring and Asmund 1996
Mac Cormic Fjord	77.640N	69.64W	1987	0-N cm	110 m	22-23[∂]	37.6±4.80	71.8±20.1	20.4±2.40	0.21±0.07		8.31±0.26	56±2		Loring and Asmund 1996
Mac Cormic Fjord	77.640N	69.64W	1987	0-N cm	110 m	20-22[∂]	40.3±3.28	106.±13.1	19.4±1.41	0.24±0.08					Loring and Asmund 1996
Hacluyt Island	77.367N	73.21W	1987	0-N cm	295 m	12[∂]	15.0±4.50	40.3±10.7	14.1±1.39	0.14±0.03		5.66±0.51	25±4		Loring and Asmund 1996
Hacluyt Island	77.367N	73.21W	1987	0-N cm	295 m	9-10[∂]	13.2±2.53	37.1±4.43	12.8±0.63	0.12±0.03	0.011±0.006				Loring and Asmund 1996
North Star Bay St. 7	76.5N	69W	1987	0-N cm	200	8-9[∂]	32.7±3.0	81.0±10.7	21.3±1.8	0.112±0.021					Loring and Asmund 1996
North Star Bay St. 6	76.5N	69W	1987	0-N cm	5	3[∂]	38.5±3.0	62.1±10.7	23.2±1.8	0.123±0.021					Loring and Asmund 1996
Wolstenholme Fjord	76.638N	69.422W	1987	0-N cm	126 m	15[∂]	22.8±3.10	49.2±10.8	16.8±1.16	0.113±0.030		6.67±0.38	35±4		Loring and Asmund 1996
Wolstenholme Fjord	76.638N	69.422W	1987	0-N cm	126 m	12-14[∂]	22.9±2.62	43.5±11.4	15.8±1.80	0.175±0.132					Loring and Asmund 1996
Bylot Sound	76.517N	69.167W	1987	0-N cm	227 m	11-14[∂]	28.5±1.87	75.5±14.5	20.5±3.37	0.142±0.030		7.02±0.12	35±3		Loring and Asmund 1996
Bylot Sound	76.517N	69.167W	1987	0-N cm	227 m	17-18[∂]	26.7±2.55	88.6±15.7	18.3±1.27	0.229±0.132	0.019±0.003				Loring and Asmund 1996
Avanersuaq			1994			5[$]	25.4±8.09	58.7±30.96	12.7±5.42	0.181±0.099	0.012±0.006				Riget *et al*. 1997a
Upernavik Icefjord	72.917N	55.273W	1987	0-N cm	960 m	19-21[∂]	22.4±3.21	76.3±12.4	31.4±2.29	0.08±0.04		7.74±0.16	51±1		Dietz *et al*. 1997b; Loring and Asmund 1996
Upernavik Icefjord	72.917N	55.273W	1987	0-N cm	960 m	17-19[∂]	22.6±2.18	72.8±13.6	32.0±2.18	0.09±0.05					
Upernavik	72.880N	55.652W	1987	0-N cm	350 m	18-21[∂]	28.3±3.13	77.0±7.60	30.4±2.75	0.10±0.04	0.012±0.004	7.27±0.34	46±1		Dietz *et al*. 1997b; Loring and Asmund 1996
Upernavik	72.880N	55.652W	1987	0-N cm	350 m	16-17[∂]	26.4±2.47	89.5±	32.9±1.24	0.10±0.04	0.013±0.003				
Black Hole Upk.	72.685N	55.668W	1987	0-N cm	520 m	14[∂]	38.2±10.5	73.6±7.86	27.5±2.25	0.15±0.07		6.83±0.17	27±1		Dietz *et al*. 1997b; Loring and Asmund 1996
Black Hole Upk.	72.685N	55.668W	1987	0-N cm	520 m	12-13[∂]	33.3±5.05	56.9±8.05	24.3±2.42	0.12±0.05					
Black Hole Upk.	72.685N	55.668W	1987	0-N cm	520 m	10-11[∂]	37.1±5.97	47.7±11.6	26.8±1.66	0.16±0.10					
Svartenhuk	71.644N	59.333W	1987	0-N cm	425	21	64.0±1.8	99.6±5.2	16.8±0.3	0.218±0.021		7.45±0.18	45±2		Dietz *et al*. 1997b; Loring and Asmund 1996
Uummannaq	71.358N	54.54W	1987	0-N cm	52 m	14-18[∂]	92.4±8.49	48.3±9.48	7.8±1.27	0.08±0.04		6.13±0.07	23±1		Dietz *et al*. 1997b; Loring and Asmund 1996
Uummannaq	71.358N	54.54W	1987	0-N cm	52 m	15-16[∂]	98.1±8.91		8.4±1.94		0.009±0.004				
Igdlorssuit, Uum.	71.255N	53.483W	1987	0-N cm	525 m	17-18[∂]	57.1±7.21	65.6±9.76	21.3±2.12	0.06±0.04		7.27±0.06	41±1		
Qeqertarsuaq	69.717N	51.9W	1987	0-N cm	51 m	15-17[∂]	131.±10.0		10.7±1.20	0.10±0.04	0.042±0.031	7.41±0.16	19±1		Dietz *et al*. 1997b; Loring and Asmund 1996
Qeqertarsuaq			1994	0-2 cm		5[$]	27.8±10.99	48.9±10.19	11.9±1.29	0.150±0.067	0.015±0.009				Riget *et al*. 1997a
Vaigat	70.278N	53.623W	1987	0-N cm	390 m	1[$]	137	124.00	7.0			6.35	19		Dietz *et al*. 1997b;
Mudderbugt, Qeq.	69.717N	51.9W	1987	0-N cm	51 m	10-18[∂]	119.±13.2	40.4±16.8	8.9±1.70	0.17±0.03		7.35±0.12	18±1		Loring and Asmund 1996
Ritenbenk, e.o.Qeq.	69.917N	51.55W	1987	0-N cm	420 m	17-18[∂]	43.5±5.23	49.3±12.6	18.8±2.89	0.06±0.03		7.52±0.41	30±1		Loring and Asmund 1996
Ritenbenk, e.o.Qeq.	69.917N	51.55W	1987	0-N cm	420 m	18-20[∂]	39.3±6.79	55.1±13.2	16.7±1.27	0.10±0.05	0.018±0.004				Loring and Asmund 1996
Ilulissat, e.o.Qeq.	69.292N	51.19W	1987	0-N cm	380 m	17-19[∂]	33.7±5.23	68.1±8.66	16.2±1.70	0.11±0.06		7.55±0.63	41±3		Loring and Asmund 1996
Godhavn Rende	69.367N	54.838W	1987	0-N cm	265	21	70.6±1.8	87±8	12.5±0.4	0.142±0.020	0.028±0.004	6.64±0.72	27±2		Loring and Asmund 1996
Holsteinborg Dybet	66.447N	54.798W	1987	0-N cm	260	6	4.0±0.2	44±3	11.0±0.3	0.075±0.018		6.55±0.03	13±1		Loring and Asmund 1996
Manitsoq	64.847N	53.077W	1987	0-N cm	400 m	18-20[∂]	20.4±1.79	62.3±9.39	15.2±1.34	0.15±0.04		6.92±0.30	24±2		Loring and Asmund 1996
Manitsoq	64.847N	53.077W	1987	0-N cm	400 m	1[$]	18.0	87.5	7.1						Loring and Asmund 1996
Godthåb Fjord	64.293N	51.295W	1987	0-N cm	390 m	14-16[∂]	28.5±3.6	80.5±19.8	22.2±1.60	0.22±0.06	0.045±0.016	7.21±0.17	38±1		Loring and Asmund 1996
Godthåb Fjord	64.293N	51.295W	1987	0-N cm	390 m	1[$]	43.9	90.0	21.4	0.12		7.65	38		Loring and Asmund 1996
Nanortalik			1994	0-2 cm		5	22.3±7.05	86.5±19.94	17.1±2.52	0.194±0.018	0.035±0.012				Riget *et al*. 1997a
East Greenland															
East Greenland	60.075N	44.0417W	1985	NC,0-1 cm<2000 µm	450	1	16.00	71.00	21.00	0.235		7.13	23.00		D.Loring/Canada, pers. comm.
	65.55N	37.45W	1985	NC,0-1 cm<2000 µm	525	1	19.00	70.00	14.00	0.083		7.18	10.00		D.Loring/Canada, pers. comm.
	65.9383N	37.1333W	1985	NC,0-1 cm<2000 µm *	250	1	32.00	85.00	14.00	0.087		7.73	17.00		D.Loring/Canada, pers. comm.
	67.9667N	30.1W	1985	NC,0-1 cm<2000 µm	227	1	117.00	100.00	8.00	0.100		6.80	17.00		D.Loring/Canada, pers. comm.
	68N	23.3333W	1985	NC,0-1 cm<2000 µm	1300	1	82.00	105.00	20.00	0.112		7.26	35.00		D.Loring/Canada, pers. comm.
	71.1N	25.1W	1985	NC,0-1 cm<2000 µm *	470	1	56.00	119.00	28.00	0.099		7.87	44.00		D.Loring/Canada, pers. comm.
	72.05N	22.6W	1985	NC,0-1 cm<2000 µm	315	1	33.00	111.00	29.00	0.104		8.62	52.00		D.Loring/Canada, pers. comm.
	72.7633N	22.9833W	1985	NC,0-1 cm<2000 µm *	65	1	25.00	58.00	19.00	0.064		6.07	34.00		D.Loring/Canada, pers. comm.
	72.94N	24.8283W	1985	NC,0-1 cm<2000 µm *	245	1	29.00	86.00	24.00	0.084		7.76	44.00		D.Loring/Canada, pers. comm.
Kong Oscars Fjord	72.05N	22.6W	1985	0-N cm	315 m	16-18[∂]	31.2±2.89	111.3±12.8	24.5±2.55	0.09±0.03	0.165±0.068				Dietz *et al*. 1997b;
Kong Oscars Fjord	72.05N	22.6W	1985	0-N cm	315 m	9-12[∂]	35.1±2.01	92.1±10.2	27.5±3.81	0.12±0.05	0.078±0.027	8.55±0.28	51±3		Loring and Asmund 1996

Ella Island	72.94N	24.812W	1985	0-N cm	245 m	17[∂]	30.8±6.60	74.6±7.83	24.1±2.47	0.07±0.04		8.07±0.27	46±2	Loring and Asmund 1996
Ella Island	72.94N	24.812W	1985	0-N cm	245 m	20[∂]	29.3±1.79	79.0±7.64	23.1±2.24	0.06±0.06	0.042±0.040			Loring and Asmund 1996
Vega Sound	72.747N	22.983W	1985	0-N cm	65 m	16	31.8±4.40	67.9±30.0	22.7±2.40	0.09±0.04				Loring and Asmund 1996
Vega Sound	72.747N	22.983W	1985	0-N cm	65 m	14-15[∂]	32.2±4.26	69.7±8.66	19.1±1.91	0.13±0.04	0.024±0.009	7.33±1.11	46±11	Loring and Asmund 1996
Denmark Strait	68.000N	23.333W	1985	0-N cm	1300 m	18	75±3	102±3	18±2	0.08±0.03	0.165±0.016	7.44±0.16	38±11	Loring and Asmund 1996
Scoresbysund	71.100N	25.1W	1985	0-N cm	470 m	7-8	50.9±6.51	83.2±5.37	26.1±2.26	0.12±0.07				Loring and Asmund 1996
Scoresbysund	71.100N	25.1W	1985	0-N cm	470 m	14-16	54.7±3.17	92.1±21.4	25.0±3.20	0.12±0.06		7.87	44	Loring and Asmund 1996
Scoresbysund			1994	0-2 cm		6	14.8±10.0	60.3±38.5	15.5±2.95	0.094±0.020	0.014±0.011			Riget *et al*. 1997a
Denmark Strait	67.967N	30.1W	1985	0-N cm	227 m	9-18[∂]	120±10.0	57.6±9.73	12.±1.20	0.18±0.10	0.019±0.004			Dietz *et al*. 1997b;
Denmark Strait	67.967N	30.1W	1985	0-N cm	227 m	9[∂]	131±7.50	79.3±8.77	10.0±1.20	0.15±0.08		6.92±0.13	19±2	Loring and Asmund 1996
Denmark Strait	66.067N	35.017W	1985	0-N cm *	230 m	16[∂]	59.3±7.83	84.2±9.35	11.1±3.20	0.12±0.06	0.097±0.024	7.59±0.09	22±2	Loring and Asmund 1996
Ammassalik	65.550N	34.45W	1985	0-N cm	525 m	11-16[∂]	35.3±18.7	83.2±20.1	14.0±1.33	0.05±0.05	0.070±0.071			Loring and Asmund 1996
Ammassalik	65.550N	34.45W	1985	0-N cm	525 m	19-12[∂]	49.9±12.6	103.5±17.0	15.1±1.31	0.04±0.02	0.070±0.020	7.49±0.32	15±6	Loring and Asmund 1996
Ammassalik	65.938N	37.133W	1985	0-N cm	250 m	18[∂]	27.8±2.97	81.4±16.1	13.2±2.12	0.14±0.06	0.026±0.013			Loring and Asmund 1996
Ammassalik	65.938N	37.133W	1985	0-N cm	250 m	16[∂]	31.8±4.00	69.4±6.97	12.7±1.20	0.05±0.05		7.78±0.07	18±1	Loring and Asmund 1996
South Greenland	60.058N	44.025W	1985	0-N cm	450 m	18-19[∂]	20.7±2.62	91.8±9.15	23.0±2.12	0.10±0.07		7.13	23	Loring and Asmund 1996
South Greenland	60.058N	44.025W	1985	0-N cm	450 m	13[∂]	17.3±3.25	84.3±18.4	21.2±3.97	0.13±0.05				Loring and Asmund 1996
Iceland														
J70371C1	63.7217N	21.941W	1990	GC<63 µm,0-1 cm *	127	1	59.8	157.00	5.69	0.370	0.012	7.35		OSPARCOM/MRll Iceland
	63.7377N	21.814W	1990	GC<63 µm,0-1 cm *	119	1	61.4	171.00	4.59	0.400	0.011	7.14		OSPARCOM/MRll Iceland
J70371C2	63.744N	21.699W	1990	GC<63 µm,0-1 cm *	117	1	58.4	165.00	4.13	0.420	0.012	7.25		OSPARCOM/MRll Iceland
J70424D1	64.1477N	24.252W	1990	GC<63 µm,0-1 cm *	298	1	47.4	161.00	14.80	0.300	.	6.67		OSPARCOM/MRll Iceland
J70424D2	64.196N	24.2W	1990	GC<63 µm,0-1 cm *	280	1	56.5	190.00	11.70	0.230	0.012	6.72		OSPARCOM/MRll Iceland
	64.2253N	24.051W	1990	GC<63 µm,0-1 cm	261	1	56	164.00	11.20	0.260	0.015	6.46		OSPARCOM/MRll Iceland
J70424D3	64.0217N	24.322W	1990	GC<63 µm,0-1 cm *	374	1	56.3	136.00	15.30	0.180	0.017	5.82		OSPARCOM/MRll Iceland
	64.0568N	24.353W	1990	GC<63 µm,0-1 cm *	360	1	49	154.00	18.00	0.220	0.018	5.98		OSPARCOM/MRll Iceland
	64.1048N	24.298W	1990	GC<63 µm,0-1 cm *	323	1	48.2	126.00	12.10	0.270	0.015	6.24		OSPARCOM/MRll Iceland
J70563B1	65.9362N	13.351W	1990	GC<63 µm,0-1 cm	255	1	93.7	239.00	12.60	0.730	0.027	6.77		OSPARCOM/MRll Iceland
J70563B2	65.924N	13.191W	1990	GC<63 µm,0-1 cm *	330	1	85.4	186.00	15.60	0.740	0.036	6.83		OSPARCOM/MRll Iceland
J70563B4	65.825N	13.242W	1990	GC<63 µm,0-1 cm *	264	1	76.4	163.00	16.50	0.630	0.035	6.98		OSPARCOM/MRll Iceland
J70563D1	65.707N	13.357W	1990	GC<63 µm,0-1 cm *	226	1	82	133.00	8.45	0.650	0.028	7.14		OSPARCOM/MRll Iceland
J70616A1	66.4188N	16.776W	1990	GC<63 µm,0-1 cm *	225	1	112	174.00	4.54	0.260	0.02	7.35		OSPARCOM/MRll Iceland
Norway														
Aalesund	62.155N	5.355E	1992	0-1 cm/2000 µm		3	29.8±0.764	106.±2.08	53.0±2.18	0.123±0.006	0.117±0.006		30.0±0.5	OSPARCOM/NIVA
				45-50 cm/2000 µm		1	28	75	22	0.21	0.03		31.5	OSPARCOM/NIVA
Raudøya	64.378N	10.463E	1992	0-1 cm/2000 µm		1	23.5±2.0	73.3±3.5	25.3±0.8	0.120±0.020	0.027±0.012		19.5±0.5	OSPARCOM/NIVA
				20-22 cm/2000 µm		2	25.5±2.8	70±1.4	20.3±1.8	0.165±0.007	0.015±0.007		25±0	OSPARCOM/NIVA
Rødøy	66.696N	13.165E	1992	0-1 cm/2000 µm		3	19.5±1.5	85.3±6.5	30.5±1.8	0.076±0.006	0.037±0.006		26.7±1.5	OSPARCOM/NIVA
				20-25 cm/2000 µm		2	19.0±1.4	75.0±5.7	15.8±0.4	0.145±0.007	l.th.0.01		30.5±4.2	OSPARCOM/NIVA
Lundøy	68.096N	15.168E	1992	0-1 cm/2000 µm		3	18.8±1.7	160±3	39.0±0.0	0.097±0.006	0.037±0.006		58.2±1.2	OSPARCOM/NIVA
				31-40 cm/2000 µm		2	15.5±0.7	153±4	26.5±0.7	0.090±0.00	0.015±0.007		63.3±1.8	OSPARCOM/NIVA
Skrova	68.116N	14.683E	1992	0-1 cm/2000 µm		3	12.7±1.5	99.3±4.1	27.3±0.8	0.087±0.006	0.020±0.000		30.8±1.3	OSPARCOM/NIVA
				20-27 cm/2000 µm		2	10.3±1.1	95.0±7.1	20.3±1.1	0.095±0.007	≤0.01		30.3±3.9	OSPARCOM/NIVA
Finnsnes-Skjervøy area/ Andfjord	68.9375N	17.0873E	1994	0-1 cm,<2000 µm	487	3	25.33	120.33	40.67	0.090	0.097		42.83	OSPARCOM/NIVA
				20-30 cm,<2000 µm		2	25.00	111.50	17.40	0.115	0.019		49.25	OSPARCOM/NIVA
Finnsnes-Skjervøy area/ Kvænangen	70.0552N	21.1323E	1994	0-1 cm,<2000 µm	272	3	32.33	94.67	28.47	0.070	0.052		31.00	OSPARCOM/NIVA
				35-40 cm,<2000 µm		2	29.50	80.50	12.50	0.145	0.011		33.25	OSPARCOM/NIVA
Finnsnes-Skjervøy area/ Tennskjær-Malangen	69.5063N	18.1128E	1994	0-1 cm,<2000 µm	342	3	26.07	102.67	29.27	0.080	0.077		39.67	OSPARCOM/NIVA
Hammerf.-Honningsv. area/Hammerfest area	70.7143N	24.4442E	1994	0-1 cm,<2000 µm	224	3	28.00	85.67	22.97	0.123	0.055		30.50	OSPARCOM/NIVA
				30-35 cm,<2000 µm		2	19.50	63.50	13.85	0.200	0.009		30.75	OSPARCOM/NIVA
Hammerf.-Honningsv. area/Laksefjord	70.916N	26.9185E	1994	0-1 cm,<2000 µm	330	3	18.93	86.67	25.03	0.087	0.089		31.67	OSPARCOM/NIVA
Hammerf.-Honningsv. area/Porangen area	70.8822N	26.1982E	1994	0-1 cm,<2000 µm	300	3	26.33	85.67	24.33	0.083	0.046		30.83	OSPARCOM/NIVA
				40-45 cm,<2000 µm		2	23.00	72.00	11.75	0.205	0.014		32.50	OSPARCOM/NIVA
Hammerf.-Honningsv. area/Sørøya (south)	70.4318N	22.5305E	1994	0-1 cm,<2000 µm	450	3	27.57	86.00	24.77	0.110	0.069		34.00	OSPARCOM/NIVA
Orkdalsfjorden/ Outer Orkdal	63.4567N	10.05E	1992	0-1 cm,<2000 µm	494	3	45.33	172.00	37.17	0.055	0.073		46.33	OSPARCOM/NIVA
				40-45 cm,<2000 µm		1	26.50	114.00	18.50	0.050	0.020		46	OSPARCOM/NIVA
Orkdalsfjorden/Thamshavn (inner Orkdal)	63.318N	9.8675E	1992	0-1 cm,<2000 µm	180	3	280.33	307.33	52.33	0.740	0.093		34.50	OSPARCOM/NIVA
Orkdalsfjorden/ Trossavika	63.3617N	9.9567E	1992	0-1 cm,<2000 µm	355	3	408.33	453.33	108.33	1.710	0.21		43.83	OSPARCOM/NIVA
Varanger Peninsula area/Syltefjord	70.5657N	30.3318E	1994	0-1 cm,<2000 µm	126	3	8.63	35.00	10.33	0.113	0.09		12.00	OSPARCOM/NIVA
Varanger Peninsula area/Tanafjord	70.8757N	28.6422E	1994	0-1 cm,<2000 µm	340	3	29.67	78.33	24.53	0.110	0.06		27.33	OSPARCOM/NIVA

Area	Latitude Dec. deg.	Longitude Dec. deg.	Sampling year	Sediment sample type	Water depth, m	n	Concentration, mg/kg dw ± SD (unless otherwise indicated) Copper	Zinc	Lead	Cadmium	Mercury	Aluminum %	Lithium	Remarks	Reference
Varanger Peninsula area/Varangerfjorden	69.9345N	30.1117E	1994	0-1 cm,<2000 µm	412	3	32.00	108.33	27.17	0.093	0.05		40.00		OSPARCOM/NIVA
				40-45 cm,<2000 µm		2	31.00	101.00	13.50	0.175	0.02		40.25		OSPARCOM/NIVA
North Atlantic															
St. 588	61.6500N	7.8333W	1994	0-1 cm 5%<63 µm	347	1	59.3	86.8	7.3	0.15	<0.06		6.0		Stange *et al.* 1996
St. 604	62.4167N	11.0000W	1994	0-1 cm 4%<63 µm	789	1	17.8	47.1	11.2	0.08	<0.06		7.5		Stange *et al.* 1996
St. 624	62.3500N	25.3500W	1994	0-1 cm 49%<63 µm	312	1	57.7	85.0	7.3	0.14	<0.06		6.3		Stange *et al.* 1996
St. 652	68.1667N	16.1667W	1994	0-1 cm 89%<63 µm *	1396	1	35.2	98.7	19.8	0.11	<0.06		25.7		Stange *et al.* 1996
St. 787	67.0000N	12.5000W	1994	0-1 cm 96%<63 µm *	1548	1	46.4	104.7	15.1	0.16	<0.06		13.7		Stange *et al.* 1996
St. 796	70.7917N	9.7600W	1994	0-1 cm78%<63 µm *	918	1	48.7	110.1	16.5	0.14	<0.06		9.3		Stange *et al.* 1996
St. 808	67.7667N	5.9667E	1994	0-1 cm 99%<63 µm *	1258	1	31.2	84	21.6	0.19	<0.06		29.8		Stange *et al.* 1996
642	61.6917N	7.7833W	1990	GS, 0-1 cm,<2000 µm	345	3	61.40	73.33	7.20	0.120	<0.010	2.16			IMRN/Norway
657	61.7067N	5.83W	1990	GS, 0-1 cm,<2000 µm	357	3	50.50	73.33	9.33	0.137	<0.010	1.79			IMRN/Norway
674	62.1167N	6.8333W	1990	GS, 0-1 cm,<2000 µm *	72	3	85.53	93.33	10.37	0.110	0.013	2			IMRN/Norway
North of Russia															
1	78.2268N	15.6685E	1992	GC,0-2 cm,<2000 µm			27.10		19.50	0.120	0.050		67.0		Akvaplan-NIVA/Norway
	70.0015N	61.6927E	1993	GC,0-1 cm,<2000 µm *	195		22.00	94.00	17.00	0.070	0.040		47.0		Akvaplan-NIVA/Norway
10	74.4522N	73.296E	1993	GS,0-1 cm,<2000 µm	27		6.00	8.00	11.00	0.010	0.010		8.0		Akvaplan-NIVA/Norway
11	70.7073N	54.6415E	1992	GS,0-2 cm,<2000 µm *	68		24.00	92.00	19.00	0.085			49.0		Akvaplan-NIVA/Norway
	74.3105N	78.5807E	1993	GS,0-1 cm,<2000 µm	31		9.00/	25.00	11.00	0.030	0.010		13.0		Akvaplan-NIVA/Norway
12	70.2833N	55.6067E	1992	GS,0-2 cm,<2000 µm *	186		23.00	91.00	19.00	0.080	0.020		49.0		Akvaplan-NIVA/Norway
	70.496N	54.649E	1992	GC,0-2 cm,<2000 µm *	186		21.00	81.00	20.00	0.043			41.0		Akvaplan-NIVA/Norway
	80.3833N	52.3267E	1992	GS,0-2 cm,<2000 µm			27.70	51.00	10.50	0.080	0.020		25.0		Akvaplan-NIVA/Norway
	73.5933N	80.1102E	1993	GS,0-1 cm,<2000 µm	45		24.00	67.00	13.00	0.050	0.030		27.0		Akvaplan-NIVA/Norway
13	70.4047N	55.1238E	1992	GS,0-2 cm,<2000 µm *	207		25.00	97.00	22.00	0.085			48.0		Akvaplan-NIVA/Norway
	72.4322N	80.6522E	1993	GC,0-1 cm,<2000 µm *	17		51.00	106.10	13.00	0.100	0.070		40.0		Akvaplan-NIVA/Norway
14	70.231N	55.0415E	1992	GS,0-2 cm,<2000 µm *	172		21.00	76.00	18.00	0.054			39.0		Akvaplan-NIVA/Norway
	75.3667N	26.6167E	1992	GS,0-2 cm,<2000 µm			18.00	80.00	22.50	0.060	0.030		47.5		Akvaplan-NIVA/Norway
	73.9065N	81.054E	1993	GC,0-1 cm,<2000 µm *	41		40.00	101.10	18.00	0.100	0.060		43.0		Akvaplan-NIVA/Norway
15	81.125N	58.7E	1992	GS,0-2 cm,<2000 µm			20.20	67.00	13.60	0.110	0.040		40.5		Akvaplan-NIVA/Norway
18	75.0568N	30.4683E	1992	GS,0-2 cm,<2000 µm			26.20	103.10	28.80	0.230	0.030		62.5		Akvaplan-NIVA/Norway
19	70.1727N	57.2085E	1992	GS,0-2 cm,<2000 µm	83		8.00/	27.00	11.00	0.023			14.0		Akvaplan-NIVA/Norway
2	78.2265N	15.6745E	1992	GC,0-2 cm,<2000 µm			29.80		20.40	0.120	0.050		74.5		Akvaplan-NIVA/Norway
	79.6242N	47.0108E	1992	GS,0-2 cm,<2000 µm *			25.70	110.10	23.90	0.120	0.060		67.5		Akvaplan-NIVA/Norway
	69.6613N	65.6112E	1993	GC,0-1 cm,<2000 µm	23		9.00/	39.00	13.00	0.030	0.030		21.0		Akvaplan-NIVA/Norway
20	70.276N	57.543E	1992	GS,0-2 cm,<2000 µm	126		12.00	37.00	13.00	0.035			20.0		Akvaplan-NIVA/Norway
	74.85N	33.2167E	1992	GS,0-2 cm,<2000 µm			18.30	70.00	20.40	0.120	0.030		52.5		Akvaplan-NIVA/Norway
21	70.1948N	58.1447E	1992	GS,0-2 cm,<2000 µm	85		8.00/	35.00	13.00	0.038			16.0		Akvaplan-NIVA/Norway
22	69.827N	59.1707E	1992	GS,0-2 cm,<2000 µm	20		11.00	37.00	12.00	0.025			18.0		Akvaplan-NIVA/Norway
	66.4983N	34.2475E	1994	GS,0-2 cm,<2000 µm	292		12.00	49.00	16.40	0.080	0.020		17.0		Akvaplan-NIVA/Norway
23	66.1852N	35.1153E	1994	GS,0-2 cm,<2000 µm	257		8.00/	33.00	13.30	0.030	0.050		16.0		Akvaplan-NIVA/Norway
24	69.3513N	58.943E	1992	GS,0-2 cm,<2000 µm	16		5.00/	7.00	9.00/	0.015			6.0		Akvaplan-NIVA/Norway
25	65.2055N	35.1828E	1994	GS,0-2 cm,<2000 µm	37		5.00/	17.00	10.40	0.030	0.010		5.0		Akvaplan-NIVA/Norway
26	69.2443N	57.15E	1992	GS,0-2 cm,<2000 µm	17		4.00/	14.00	9.00/	0.015			5.0		Akvaplan-NIVA/Norway
	77.2333N	27.6167E		GS,0-2 cm,<2000 µm			24.90	110.10	28.00	0.100	0.050		70.5		Akvaplan-NIVA/Norway
	64.7358N	36.0742E	1994	GS,0-2 cm,<2000 µm	47		32.50	92.00	16.40	0.170	0.230		43.0		Akvaplan-NIVA/Norway
27	69.0035N	56.0225E	1992	GS,0-2 cm,<2000 µm	7		4.00/	13.00	10.00	0.017			6.0		Akvaplan-NIVA/Norway
	65.3213N	36.7063E	1994	GS,0-2 cm,<2000 µm	130		28.50	109.10	23.30	0.230	0.100		48.0		Akvaplan-NIVA/Norway
28	64.765N	39.2652E	1994	GS,0-2 cm,<2000 µm	24		12.00	42.00	17.30	0.040	0.030		14.0		Akvaplan-NIVA/Norway
29	68.5885N	55.2248E	1992	GS,0-2 cm,<2000 µm *	11		15.00	55.00	14.00	0.085			26.0		Akvaplan-NIVA/Norway
				GC,0-2 cm,<2000 µm	11		19.80	74.00	15.00	0.130	0.040		34.0		Akvaplan-NIVA/Norway
	64.864N	39.6168E	1994	GS,0-2 cm,<2000 µm	15		24.50	91.00	22.10	0.110	0.050		36.0		Akvaplan-NIVA/Norway
3	68.57N	49.9843E	1992	GS,0-2 cm,<2000 µm	53		10.00	40.00	13.00	0.033			21.0		Akvaplan-NIVA/Norway
	78.2383N	15.6683E	1992	GS,0-2 cm,<2000 µm			30.80		20.10	0.120	0.060		84.5		Akvaplan-NIVA/Norway
	79.4867N	48.62E	1992	GS,0-2 cm,<2000 µm *			28.30	100.10	21.10	0.120	0.050		57.5		Akvaplan-NIVA/Norway
	69.3302N	66.2383E	1993	GS,0-1 cm,<2000 µm	21		7.00/	33.00	12.00	0.030	0.020		19.0		Akvaplan-NIVA/Norway
30	65.0577N	39.7773E	1994	GS,0-2 cm,<2000 µm	23		6.00/	26.00	9.80/	0.030	0.010		11.0		Akvaplan-NIVA/Norway
31	65.1327N	38.8322E	1994	GS,0-2 cm,<2000 µm	106		30.00	105.10	26.20	0.090	0.100		43.0		Akvaplan-NIVA/Norway
32	65.507N	37.8753E	1994	GS,0-1 cm,<2000 µm	126		27.50	103.10	21.50	0.350	0.070		58.0		Akvaplan-NIVA/Norway
33	65.9057N	39.4552E	1994	GS,0-2 cm,<2000 µm *	85		28.50	106.10	25.30	0.120	0.090		42.0		Akvaplan-NIVA/Norway
4	70.0038N	66.0118E	1993	GS,0-1 cm,<2000 µm	20		19.00	81.00	17.00	0.040	0.040		37.0		Akvaplan-NIVA/Norway
41	78.0468N	14.2095E	1992	GC,0-2 cm,<2000 µm			29.10		26.00	0.090	0.060		76.5		Akvaplan-NIVA/Norway
42	78.0483N	14.2033E	1992	GC,0-2 cm,<2000 µm			27.90		24.00	0.080	0.050		72.5		Akvaplan-NIVA/Norway
43	78.0467N	14.19E	1992	GC,0-2 cm,<2000 µm			28.80		22.50	0.100	0.050		73.5		Akvaplan-NIVA/Norway

44	78.0467N	14.1867E	1992	GC,0-2 cm,<2000 µm			30.00		22.80	0.090	0.050	73.5	Akvaplan-NIVA/Norway
45	78.0483N	14.2033E	1992	GC,0-2 cm,<2000 µm			29.80		23.70	0.080	0.050	72.5	Akvaplan-NIVA/Norway
46	78.0483N	14.2033E	1992	GC,0-2 cm,<2000 µm			30.50		24.00	0.120	0.050	75.0	Akvaplan-NIVA/Norway
5	79.4915N	49.9617E	1992	GC,0-2 cm,<2000 µm *			27.50	98.00	18.60	0.130	0.050	53.0	Akvaplan-NIVA/Norway
	70.997N	65.8265E	1993	GS,0-1 cm,<2000 µm	22		7.00/	10.00	10.00	0.010	0.010	8.0	Akvaplan-NIVA/Norway
6	69.6393N	50.753E	1992	GS,0-2 cm,<2000 µm	88		12.00	38.00	14.00	0.058		19.0	Akvaplan-NIVA/Norway
				GC,0-2 cm,<2000 µm	88		12.00	43.00	14.00	0.060	0.020	23.0	Akvaplan-NIVA/Norway
	72.5057N	74.422E	1993	GC,0-1 cm,<2000 µm *	16		32.00	96.00	22.00	0.100	0.040	40.0	Akvaplan-NIVA/Norway
7	70.1472N	53.4047E	1992	GS,0-2 cm,<2000 µm	75		6.00/	17.00	10.00	0.015		9.0	Akvaplan-NIVA/Norway
	78N	29.066E	1992	GS,0-2 cm,<2000 µm			25.70	113.10	23.60	0.160	0.080	70.5	Akvaplan-NIVA/Norway
	80.7042N	57.75E	1992	GS,0-2 cm,<2000 µm *			28.50	83.00	15.20	0.100	0.060	47.5	Akvaplan-NIVA/Norway
	72.9978N	72.9767E	1993	GC,0-1 cm,<2000 µm *	27		21.00	57.00	18.00	0.070	0.030	27.0	Akvaplan-NIVA/Norway
				8-10			24.00	67.00	20.00	0.060	0.030	31.0	Akvaplan-NIVA/Norway
8	70.5163N	54.6427E	1992	GS,0-2 cm,<2000 µm *	193		20.00	85.00	20.00	0.140	0.040	46.0	Akvaplan-NIVA/Norway
				GS,0-2 cm,<2000 µm	193		20.00	81.00	19.00	0.044		40.0	Akvaplan-NIVA/Norway
9	76.505N	21.7517E	1992	GS,0-2 cm,<2000 µm *			19.90	80.00	28.50	0.080	0.030	75.0	Akvaplan-NIVA/Norway
				GC,0-1 cm,<2000 µm								77.0	Akvaplan-NIVA/Norway
	73.9832N	73.2942E	1993	GC,0-1 cm,<2000 µm *	30		30.00	92.00	20.00	0.080	0.050	42.0	Akvaplan-NIVA/Norway
100	72.6667N	73.3333E	1995	GS, 0-5 cm, <1000 µm	23	1	13.90	34.00	15.00	0.500	0.050		Rosgidromet/RCMA
102	72.6667N	74.4167E	1995	GS, 0-5 cm, <1000 µm	16	1	10.50	37.50	30.00	0.400	0.040		Rosgidromet/RCMA
105	72.005N	73.2317E	1995	GS, 0-5 cm, <1000 µm	14	1	9.50	34.00	43.20	1.100	0.010		Rosgidromet/RCMA
109	71.4183N	72.5E	1995	GS, 0-5 cm, <1000 µm	19	1	10.40	280.00	19.70	1.000	0.080		Rosgidromet/RCMA
114	70.1333N	73.1333E	1995	GS, 0-5 cm, <1000 µm	11	1	11.90	420.00	28.90	0.300	0.040		Rosgidromet/RCMA
118	68.7833N	74.3383E	1995	GS, 0-5 cm, <1000 µm	10	1	21.30	48.00	34.80	1.200	0.050		Rosgidromet/RCMA
119	68.3833N	74.07E	1995	GS, 0-5 cm, <1000 µm	11	1	23.70	55.00	22.30	0.100	0.020		Rosgidromet/RCMA
120	68.4N	73.835E	1995	GS, 0-5 cm, <1000 µm	17	1	10.40	45.00	22.50	1.100	0.050		Rosgidromet/RCMA
141	69.6N	65.8333E	1995	GS, 0-5 cm, <1000 µm	27	1	13.20	20.00	13.30	0.500	0.040		Rosgidromet/RCMA
142	69.2833N	66.45E	1995	GS, 0-5 cm, <1000 µm	24	1	12.20	345.00	12.60	0.400	0.050		Rosgidromet/RCMA
143	68.8667N	67.0333E	1995	GS, 0-5 cm, <1000 µm	11	1	9.40	32.00	12.50	0.600	0.020		Rosgidromet/RCMA
144	68.9167N	67.6667E	1995	GS, 0-5 cm, <1000 µm	16	1	11.60	12.50	6.30	0.920	0.010		Rosgidromet/RCMA
145	69.0667N	67.6667E	1995	GS, 0-5 cm, <1000 µm	19	1	10.10	28.00	20.60	0.800	0.080		Rosgidromet/RCMA
B-01	69.3133N	65.1627E	1994	GS, 0-5 cm, <1000 µm	13	1	8.70	38.50	16.40	0.100	0.020		Rosgidromet/RCMA
B-02	69.1723N	66.1837E	1994	GS, 0-5 cm, <1000 µm	15	1	16.10	37.50	14.10	0.060	0.020		Rosgidromet/RCMA
B-03	68.8657N	67.0217E	1994	GS, 0-5 cm, <1000 µm	9	1	10.10	46.20	5.40	0.100	0.100		Rosgidromet/RCMA
B-04	68.4992N	68.3132E	1994	GS, 0-5 cm, <1000 µm	10	1	13.80	25.80	8.00	0.040	0.020		Rosgidromet/RCMA
B-05	68.7608N	68.1678E	1994	GS, 0-5 cm, <1000 µm	13	1	11.10	50.10	11.20	0.080	0.040		Rosgidromet/RCMA
B-06	68.9158N	67.6643E	1994	GS, 0-5 cm, <1000 µm	13	1	12.30	35.20	15.70	0.050	0.050		Rosgidromet/RCMA
B-07	69.0175N	67.3445E	1994	GS, 0-5 cm, <1000 µm	19	1	14.20	48.90	16.20	0.080	0.060		Rosgidromet/RCMA
B-08	69.3632N	67.376E	1994	GS, 0-5 cm, <1000 µm	9	1	13.20	40.40	12.10	0.050	0.050		Rosgidromet/RCMA
B-10	69.0667N	67.6587E	1994	GS, 0-5 cm, <1000 µm	16	1	10.20	48.50	14.50	0.070	0.060		Rosgidromet/RCMA
B-13	69.2843N	66.437E	1994	GS, 0-5 cm, <1000 µm	23	1	11.60	41.60	10.20	0.100	0.030		Rosgidromet/RCMA
B-17	69.7322N	66.17E	1994	GS, 0-5 cm, <1000 µm	19	1	10.20	35.50	9.70	0.080	0.020		Rosgidromet/RCMA
E-02	73.0492N	80.0108E	1994	GS, 0-5 cm, <1000 µm	21	1	8.90	42.00	23.80	0.300	<0.02		Rosgidromet/RCMA
E-03	73.0345N	79.7162E	1994	GS, 0-5 cm, <1000 µm	18	1	13.00	116.00	30.80	0.250	0.030		Rosgidromet/RCMA
E-04	72.7355N	80.1847E	1994	GS, 0-5 cm, <1000 µm	14	1	10.60	63.00	19.60	0.180	<0.02		Rosgidromet/RCMA
E-05	72.0987N	82.0023E	1994	GS, 0-5 cm, <1000 µm	7	1	9.60	102.00	16.30	0.100	0.080		Rosgidromet/RCMA
E-08	72.554N	79.0953E	1994	GS, 0-5 cm, <1000 µm	9	1	9.20	50.30	18.10	0.200	<0.02		Rosgidromet/RCMA
K049	73.339N	74.9703E	1994	GS, 0-5 cm, <1000 µm	12	1	7.30	7.30	25.00	0.160	0.070		Rosgidromet/RCMA
K058	73.6627N	78.2898E	1994	GS, 0-5 cm, <1000 µm	14	1	17.90	7.90	11.60	0.070	0.030		Rosgidromet/RCMA
K059	74.2483N	79.991E	1994	GS, 0-5 cm, <1000 µm	35	1	24.00	80.50	10.00	0.200	<0.02		Rosgidromet/RCMA
K061	74.3293N	84.2898E	1994	GS, 0-5 cm, <1000 µm	19	1	17.00	53.70	12.50	0.070	0.210		Rosgidromet/RCMA
K110	76.0003N	78.307E	1994	GS, 0-5 cm, <1000 µm	150	1	6.50	50.60	29.00	0.150	0.020		Rosgidromet/RCMA
K111	74.994N	72.1958E	1994	GS, 0-5 cm, <1000 µm	29	1	7.10	15.00	10.40	0.100	0.050		Rosgidromet/RCMA
K112	73.827N	73.3392E	1994	GS, 0-5 cm, <1000 µm	26	1	13.00	8.60	12.80	0.110	0.030		Rosgidromet/RCMA
K116	75.0002N	79.6733E	1994	GS, 0-5 cm, <1000 µm	39	1	10.40	96.20	9.80	0.060	<0.02		Rosgidromet/RCMA
K118	76.998N	85.2523E	1994	GS, 0-5 cm, <1000 µm	57	1	12.80	3.40	36.70	0.300	0.080		Rosgidromet/RCMA
K120	76.004N	87.2717E	1994	GS, 0-5 cm, <1000 µm	43	1	12.10	43.70	29.50	0.100	<0.02		Rosgidromet/RCMA
L013	75.5N	126E	1994	GS, 0-5 cm, <1000 µm	36	1	13.90	41.00	13.50	0.090	0.030		Rosgidromet/RCMA
L017	75.5N	130.5E	1994	GS, 0-5 cm, <1000 µm	44	1	6.00	49.00	14.80	0.250	0.030		Rosgidromet/RCMA
L024	75.95N	136.733E	1994	GS, 0-5 cm, <1000 µm	20	1	15.30	33.70	7.40	0.100	<0.02		Rosgidromet/RCMA
L062	74.5N	136E	1994	GS, 0-5 cm, <1000 µm	27	1	4.20	75.00	38.80	0.100	0.040		Rosgidromet/RCMA
L072	72N	130.5E	1994	GS, 0-5 cm, <1000 µm	16	1	16.70	65.00	26.00	0.100	0.020		Rosgidromet/RCMA
L081	73.75N	134E	1994	GS, 0-5 cm, <1000 µm	13	1	16.70	52.00	19.50	0.120	0.030		Rosgidromet/RCMA
L094	74.5N	114.283E	1994	GS, 0-5 cm, <1000 µm	36	1	10.20	60.00	24.70	0.150	0.040		Rosgidromet/RCMA
O-02	72.6668N	73.3317E	1994	GS, 0-5 cm, <1000 µm	21	1	7.00	28.00	33.00	0.100	0.070		Rosgidromet/RCMA
O-05	72.0033N	73.1928E	1994	GS, 0-5 cm, <1000 µm	13	1	6.20	33.10	31.00	0.150	0.070		Rosgidromet/RCMA
O-07	71.5027N	72.5813E	1994	GS, 0-5 cm, <1000 µm	14	1	7.40	16.00	13.70	0.100	0.050		Rosgidromet/RCMA
O-10	70.3398N	73.439E	1994	GS, 0-5 cm, <1000 µm	12	1	5.30	37.00	11.60	0.020	0.050		Rosgidromet/RCMA
O-13	68.9837N	74.0592E	1994	GS, 0-5 cm, <1000 µm	10	1	7.40	58.00	8.00	0.020	0.080		Rosgidromet/RCMA
O-16	68.3665N	74.1333E	1994	GS, 0-5 cm, <1000 µm	7	1	7.90	50.00	7.50	0.250	0.110		Rosgidromet/RCMA

Area	Latitude Dec. deg.	Longitude Dec. deg.	Sampling year	Sediment sample type	Water depth, m	n	Concentration, mg/kg dw ± SD (unless otherwise indicated) Copper	Zinc	Lead	Cadmium	Mercury	Aluminum %	Lithium	Remarks	Reference
O-17	68.3818N	73.854E	1994	GS, 0-5 cm, <1000 µm	15	1	14.60	38.00	35.00	0.600	0.050				Rosgidromet/RCMA
P005	69N	55.6333E	1994	GS, 0-5 cm, <1000 µm	.	1	14.40	10.10	15.00	0.070	<0.02				Rosgidromet/RCMA
P010	68.6667N	55.8167E	1994	GS, 0-5 cm, <1000 µm	.	1	8.50	58.80	16.50	0.200	<0.02				Rosgidromet/RCMA
P018	68.3N	54.4333E	1994	GS, 0-5 cm, <1000 µm	.	1	6.10	13.60	13.80	0.070	0.040				Rosgidromet/RCMA
P020	68.5667N	55.5E	1994	GS, 0-5 cm, <1000 µm	.	1	12.50	11.00	2.70	0.100	0.080				Rosgidromet/RCMA
P023	68.75N	57.2E	1994	GS, 0-5 cm, <1000 µm	.	1	13.00	34.70	14.10	0.160	<0.02				Rosgidromet/RCMA
T-02	74.5208N	98.6213E	1994	GS, 0-5 cm, <1000 µm	.	1	13.00	46.20	48.80	0.460	0.020				Rosgidromet/RCMA
						2	15.00	59.00	27.80	0.300	0.020				Rosgidromet/RCMA
						3	14.00	26.00	20.90	0.400	0.020				Rosgidromet/RCMA
T-03	74.408N	98.6213E	1994	GS, 0-5 cm, <1000 µm	.	1	12.00	95.00	7.30	0.350	0.020				Rosgidromet/RCMA
						2	12.00	70.00	7.40	0.400	0.220				Rosgidromet/RCMA
						3		50.00	7.30	0.400	0.260				Rosgidromet/RCMA
Barents Sea															
			1991-1993	57%±28%<63 µm, surface			17.2±7.3	64.2±28.4	19.0±5.8	0.08±0.08	<0.06		35.7±19.9	Highly variable As	Maage *et al.* 1996
1045-91	71.3833N	28.1667E	1991	77%<63 µm, surface *	399 m		23.8	68.6	22.6	0.10	<0.06		24.6		Maage *et al.* 1996
1046-91	69.9167N	34.7500E	1991	80%<63 µm, surface *	243 m		17.2	63.6	20.2	0.09	<0.06		32.4		Maage *et al.* 1996
1075-91	77.0000N	39.0000E	1991	92%<63 µm, surface *	180 m		12.3	49.6	11.1	0.06	<0.06		64.1		Maage *et al.* 1996
1079-91	77.0000N	47.0000E	1991	80%<63 µm, surface *	226 m		18.8	70.5	20.3	0.08	<0.06		44.5		Maage *et al.* 1996
1087-91	75.0000N	49.0000E	1991	63%<63 µm, surface	240 m		25.4	84.8	23.7	0.17	<0.06		45.2		Maage *et al.* 1996
1099-91	78.7500N	47.0000E	1991	89%<63 µm, surface *	240 m		25.1	123.5	20.0	0.52	<0.06		59.1		Maage *et al.* 1996
1147-91	73.0000N	51.0000E	1991	34%<63 µm, surface	180 m		13.1	45.5	13.6	0.11	<0.06		24.5		Maage *et al.* 1996
1165-91	76.5833N	61.0000E	1991	48%<63 µm, surface	82 m		25.4	99.1	20.1	0.12	<0.06		66.0		Maage *et al.* 1996
1200-91	78.1050N	14.0833E	1991	56%<63 µm, surface	165 m		23.5	78.3	20.7	0.09	<0.06		59.2		Maage *et al.* 1996
1201-91	78.2733N	15.4500E	1991	79%<63 µm, surface *	115 m		23.1	84.4	21.4	0.1	<0.06		66.5		Maage *et al.* 1996
1216-91	73.7250N	13.2633E	1991	90%<63 µm, surface *	1680 m		35.5	93.4	16.7	0.04	<0.06		55.2		Maage *et al.* 1996
1223-91	73.5000N	19.3333E	1991	67%<63 µm, surface	425 m		16.9	66.8	22.1	0.07	<0.06		51.8		Maage *et al.* 1996
901-92	72.5000N	29.5000E	1992	66%<63 µm, surface	280 m		16.0	60.2	18.3	0.02	<0.06		35.3		Maage *et al.* 1996
919-92	76.3333N	21.0833E	1992	90%<63 µm, surface *	220 m		19.6	75.3	28.9	0.03	<0.06		66.8		Maage *et al.* 1996
972-92	72.5000N	16.2500E	1992	51%<63 µm, surface	385 m		10.2	38.7	17.6	0.02	<0.06		15.0		Maage *et al.* 1996
975-92	72.0000N	17.7500E	1992	54%<63 µm, surface	302 m		14.1	54.3	26.40	0.090	<0.06		19.8		Maage *et al.* 1996
979-92	71.5000N	19.5000E	1992	26%<63 µm, surface	225 m		16.9	37.1	15.8	0.02	<0.06		13.8		Maage *et al.* 1996
999-92	79.0000N	35.7500E	1992	90%<63 µm, surface *	310 m		28.6	118.9	27.0	0.05	<0.06		66.3		Maage *et al.* 1996
1000-92	78.6666N	32.0000E	1992	91%<63 µm, surface *	275 m		26.2	116.8	22.4	0.02	<0.06		63.3		Maage *et al.* 1996
1003-92	78.2500N	27.0000E	1992	94%<63 µm, surface *	309 m		27.0	123.0	22.9	0.10	<0.06		60.0		Maage *et al.* 1996
1071-92	71.5000N	27.0000E	1992	42%<63 µm, surface	342 m		10.2	46.4	19.4	0.05	<0.06		13.3		Maage *et al.* 1996
1074-92	71.2500N	23.0000E	1992	56%<63 µm, surface	390 m		11.2	48.4	17.0	0.05	<0.06		16.7		Maage *et al.* 1996
1076-92	71.0000N	21.0000E	1992	16%<63 µm, surface	166 m		6.5	36.4	9.0	0.10	<0.06		9.1		Maage *et al.* 1996
1096-92	78.5000N	59.5833E	1992	86%<63 µm, surface *	261 m		23.4	87.0	18.1	0.08	<0.06		44.2		Maage *et al.* 1996
1115-92	79.6666N	56.0000E	1992	40%<63 µm, surface	201 m		18.8	72.4	13.8	0.06	<0.06		37.0		Maage *et al.* 1996
1145-92	70.5000N	37.0000E	1992	32%<63 µm, surface	242 m		13.0	41.7	16.0	0.05	<0.06		17.1		Maage *et al.* 1996
1147-92	71.5000N	41.0000E	1992	79%<63 µm, surface *	329 m		21.6	73.7	19.0	0.10	<0.06		35.7		Maage *et al.* 1996
1149-92	72.5000N	41.0000E	1992	70%<63 µm, surface	346 m		14.9	54.4	14.4	0.10	<0.06		28.7		Maage *et al.* 1996
1154-92	75.0000N	41.0000E	1992	15%<63 µm, surface	189 m		5.7	28.0	11.4	0.05	<0.06		10.5		Maage *et al.* 1996
194-93	70.4167N	33.1000E	1993	59%<63 µm, surface	257 m		15.8	51.6	17.5	0.03	<0.06		21.7		Maage *et al.* 1996
197-93	39.5000N	35.5000E	1993	22%<63 µm, surface	187 m		6.9	27.6	12.8	0.03	<0.06		10.63		Maage *et al.* 1996
201-93	68.6666N	40.0000E	1993	0.4%<63 µm, surface	100 m		5.1	9.5	7.5	0.02	<0.06		4.7		Maage *et al.* 1996
205-93	69.5000N	43.6000E	1993	1%<63 µm, surface	51 m		2.2	9.9	5.1	0.02	<0.06		4.6		Maage *et al.* 1996
207-93	70.0000N	45.0000E	1993	18%<63 µm, surface	103 m		4.8	18.8	9.9	0.04	<0.06		9.2		Maage *et al.* 1996
210-93	70.8667N	47.6333E	1993	52%<63 µm, surface	165 m		18.1	71.1	24.8	0.08	<0.06		27.7		Maage *et al.* 1996
219-93	74.4000N	45.0000E	1993	62%<63 µm, surface	302 m		24.2	84.4	23.2	0.13	<0.06		39.4		Maage *et al.* 1996
683-93	79.0000N	8.0000E	1993	11%<63 µm, surface	1094 m		14.2	43.4	20.6	0.06	<0.06		28.5		Maage *et al.* 1996
690-93	80.5000N	14.0000E	1993	37%<63 µm, surface	120 m		14.3	56.1	22.4	0.15	<0.06		27.9		Maage *et al.* 1996
694-93	80.0000N	6.0000E	1993	64%<63 µm, surface	890 m		15.2	58.8	24.8	0.06	<0.06		34.4		Maage *et al.* 1996
700-93	78.0000N	10.0000E	1993	42%<63 µm, surface	172 m		18.1	65.8	26.1	0.09	<0.06		44.6		Maage *et al.* 1996
707-93	77.0000N	12.0000E	1993	76%<63 µm, surface *	750 m		17.8	69.7	22.8	0.06	<0.06		40.3		Maage *et al.* 1996
720-93	75.8333N	16.0000E	1993	92%<63 µm, surface *	380 m		22.3	87.5	31.5	0.12	<0.06		59.6		Maage *et al.* 1996
Russia															
Pechora Sea	68.57N	59.9843E	1992	GS,0-2 cm<2000 µm	88	1	10.00	40.00	13.00	0.033		4.98	21.00		Doug Loring, pers. comm.
	68.5885N	55.2248E		NC,0-2 cm<2000 µm	11	1	15.00	55.00	14.00	0.085		5.67	26.00		Doug Loring, pers. comm.
	69.0035N	56.0225E		GS,0-2 cm<2000 µm	8	1	4.00	13.00	10.00	0.017		3.01	6.00		Doug Loring, pers. comm.
	69.2443N	57.15E		GS,0-2 cm<2000 µm	17	1	4.00	14.00	9.00	0.015		2.79	5.00		Doug Loring, pers. comm.
	69.3513N	58.943E		GS,0-2 cm<2000 µm	16	1	5.00	70.00	9.00	0.015		2.83	6.00		Doug Loring, pers. comm.
	69.6393N	50.753E		NC,0-2 cm<2000 µm	88	1	12.00	38.00	14.00	0.058		4.81	19.00		Doug Loring, pers. comm.

	69.827N	59.1707E		GS,0-2 cm<2000 µm	20	1	11.00	37.00	12.00	0.025		4.52	18.00	Doug Loring, pers. comm.
	70.1472N	53.4046E		GS,0-2 cm<2000 µm	78	1	6.00	17.00	10.00	0.015		3.19	9.00	Doug Loring, pers. comm.
	70.1727N	55.2058E		GS,0-2 cm<2000 µm	83	1	8.00	27.00	11.00	0.023		3.68	14.00	Doug Loring, pers. comm.
	70.1948N	57.1447E		GS,0-2 cm<2000 µm	85	1	8.00	35.00	13.00	0.038		2.97	16.00	Doug Loring, pers. comm.
	70.231N	55.0415E		GS,0-2 cm<2000 µm	172	1	21.00	76.00	18.00	0.054		6.18	39.00	Doug Loring, pers. comm.
	70.276N	57.543E		GS,0-2 cm<2000 µm	126	1	12.00	37.00	13.00	0.035		4.42	20.00	Doug Loring, pers. comm.
	70.2833N	55.6067E		NC,0-2 cm<2000 µm	188	1	21.00	81.00	20.00	0.043		6.20	41.00	Doug Loring, pers. comm.
	70.4047N	55.121E		GS,0-2 cm<2000 µm	207	1	25.00	97.00	22.00	0.085		6.88	48.00	Doug Loring, pers. comm.
	70.496N	54.6488E		NC,0-2 cm<2000 µm	193	1	20.00	81.00	19.00	0.044		6.13	40.00	Doug Loring, pers. comm.
	70.7073N	54.6415E		GS,0-2 cm<2000 µm	68	1	24.00	92.00	19.00	0.085		6.49	49.00	Doug Loring, pers. comm.
Pechora Sea	68-71N	50-59E	1992	0-2 cm		16	13±7	47±30	14±4	0.04±0.03	0.02±0.009	4.67±1.46	24±15	High As near Loring *et al.*1995
Pechora Sea St. 6	69.7N	51E	1992	0-20	88 m	10	12±1	43±4	14±1	0.07±0.03	0.02±0.006	5.18±0.17	23±2	Novaya Zemlya Loring *et al.*1995
Pechora Sea St. 8	70.5N	54E	1992	0-20	193 m	13	20±1	85±5	20±1	0.14±0.06	0.02±0.004	6.84±0.36	46±4	Loring *et al.*1995
Pechora Sea St. 12	70.3N	56E	1992	0-70	188 m	15	23±3	91±3	19±1	0.08±0.02	0.02±0.006	7.10±0.30	49±3	Loring *et al.*1995
Pechora Sea St. 29	68.9N	55E	1992	0-30	11 m	11	20±2	74±9	15±1	0.13±0.03	0.04±0.005	6.49±0.36	33±4	Loring *et al.*1995
Pechora Sea							21.±4	80.±15	19.±3	0.06±0.03	–			Loring and Asmund 1996
Pechora Estuary			1994	0-5 cm		5	11.±4	25.±21	12.±6	0.12±0.06	0.031±0.030			Rosgidromet 1995
Kara Sea			1994	0-5 cm		5	17.±5	65.±22	18.±10	0.12±0.06	0.054±0.087			Rosgidromet 1995
Ob Gulf			1994	0-5 cm		5	7.7±1.5	30.±9	25.±11	0.23±0.21	0.058±0.011			Rosgidromet 1995
Yenisey Gulf			1994	0-5 cm		5	10.5±1.6	75.±33	22.±6	0.21±0.08	0.029±0.029			Rosgidromet 1995
Laptev Sea			1994	0-5 cm		5	10.9	53.±17	21.±12	0.10±0.01	0.024±0.010			Rosgidromet 1995
East Siberian Sea/Canada Basin														
9324, St C01	74.9943N	162.04630W	1993	*	1965	2	64.9	143	29.4	0.146		8.85		Strong Mn and Cd profiles Gobeil and Macdonald, unpubl.
9324, St E	78.7998N	176.1058E	1993	*	2065	2	48.91	130	29.40	0.125		8.775		Mn discontinuity at 20 cm Gobeil and Macdonald, unpubl.
9324, St E04	76.9517N	174.1202E	1993	*	850	2	41.05	129.5	25.8	0.11		8.65		Strong Mn and Cd profiles Gobeil and Macdonald, unpubl.
9324, St TC	75.3188N	173.8950W	1993	*	630	2	40.40	137	23.95	0.19		7.45		Strong Mn and Cd profiles Gobeil and Macdonald, unpubl.
9324, St F02	74.4838N	171.0388W	1993	*	210	2	46.9	187.5	22.0	0.66		7.05		Very strong Mn Ag, P, and Cd profiles in the upper 20 cm Gobeil and Macdonald, unpubl.
9324, St F09	73.4540N	166.2503W	1993	*	75	2	25.3	148	20.65	0.28		6.85		
St. 2, Crosiere 9470	72.165N	168.805W	1994	*	52	2			15.9	0.076		6.84		
St. 11, Crosiere 9470	76.6533N	173.385W	1994	*	2265	2			23.4	0.141	0.125	8.02		Strong profiles for Cd, Ca, and Mn in upper 20 cm Gobeil and Macdonald, unpubl.
Polar Sea														
St. 18 Crosiere 9470	80.1417N	173.3367W	1994	*	2860	2			23.66	0.112		7.55		Strong Ca and Mn prof. Gobeil and Macdonald, unpubl.
St. 26 Crosiere 9470	84.0633N	175.0883W	1994	*	3130	2			23.93	0.094	0.0858	8.0		Strong Ca profile Gobeil and Macdonald, unpubl.
St. 35 Crosiere 9470	90N		1994	*	4230	2			29.16	0.083	0.1456	8.90		The North Pole Gobeil and Macdonald, unpubl.
St. 36 Crosiere 9470	85.7133N	37.650E	1994	*	3605	2			28.22	0.0825		7.95		
St. 37 Crosiere 9470	82.8917N	35.4333E	1994	*	4000	2			29.00	0.067	0.0945	8.15		Profiles of Mn, Ca, Pb, and Cd Gobeil and Macdonald, unpubl.
St. 39 Crosiere 9470	75.015N	6.1767W	1994	*	3550	2			18.80	0.067		5.45		Ca high in upper 10 cm Gobeil and Macdonald, unpubl.

* Fine grained sediments (see Figure 7·36) defined as ≥ 70% of sediment < 63µm; in samples lacking grain size determination, defined as Al ≥ 4.8, 5.7, 7.0, 6.8 and 7.8% *or* Li ≥ 53, 32, 25, 31 and 39 mg/kg for the Arctic shelves, Pechora Sea, Kara Sea, East Greenland and West Greenland regions, respectively.
** Cited from Muir *et al.*(1992). *** Data from NOAA.

Table 7·A11. Lead, cadmium, mercury and selenium in Arctic algae. Values presented as geometric means are shown as mean */ SD and arithmetic means as mean ± SD
Values are given in µg/g dry weight, except those marked with § which are in µg/g wet weight.

							Metals, µg/g dry weight (unless otherwise indicated)				
Species	Location	Latitude	Longitude	Year	Tissue	n	Lead	Cadmium	Mercury	Selenium	Reference
Fucus distichus	Avanersuaq	76.5N	69W	1984	Gr.tips	8	0.336*/1.37	1.56*/1.27			Dietz *et al.* 1997b
	Nuuk fjord, Greenland	64.75N	51.1W	1980	Gr. tips	10		1.63*/1.16			Dietz *et al.* 1997b
	Nuuk outer fjord, Greenland	64.25N	51.50W	1980	Gr. tips	5		1.98*/1.14			Dietz *et al.* 1997b
	Nuuk fjord, Greenland			1981	Gr. tips	10		1.60*/1.12			Dietz *et al.* 1997b
	Nuuk outer fjord, Greenland	64.25N	51.50W	1981	Gr. tips	5		1.49*/1.11			Dietz *et al.* 1997b
	Nuuk fjord, Greenland			1982	Gr. tips	10		1.14*/1.17			Dietz *et al.* 1997b
	Nuuk inner fjord, Greenland	64.75N	50.50W	1982	Gr. tips	5		0.773*/1.14			Dietz *et al.* 1997b
	Nuuk outer fjord, Greenland	64.25N	51.50W	1982	Gr. tips	5		1.79*/1.56			Dietz *et al.* 1997b

Species	Location	Latitude	Longitude	Year	Tissue	n	Metals, µg/g dry weight (unless otherwise indicated) Lead	Cadmium	Mercury	Selenium	Reference
Fucus distichus	Paamiut, Greenland	62.00N	49.47W	1983	Gr.tips	3	0.312*/1.46	2.66*/1.07			Dietz *et al.* 1997b
	Uummannaq, Greenland	71.5N	52.5W	1988	Whole	1		1.35			Dietz *et al.* 1997b
					Gr. tips	2		1.33*/1.20			Dietz *et al.* 1997b
				1989	Whole	4		1.53*/1.13			Dietz *et al.* 1997b
					Gr. tips	7		1.14*/1.13			Dietz *et al.* 1997b
				1990	Whole	8		1.70*/1.21			Dietz *et al.* 1997b
					Gr. tips	16		1.53*/1.13			Dietz *et al.* 1997b
				1991	Whole	6		2.09*/1.04			Dietz *et al.* 1997b
					Gr. tips	12		1.83*/1.11			Dietz *et al.* 1997b
				1992	Whole	6		2.03*/1.36			Dietz *et al.* 1997b
					Gr. tips	12		1.67*/1.16			Dietz *et al.* 1997b
				1993	Gr. tips	12		2.16*/1.10			Dietz *et al.* 1997b
Bladder wrack	Frobisher Bay, Canada	62.5N	66.0W	1984	Gr.tips	6	0.71*/1.32	5.35*/1.08			Fallis, unpubl.
(*Fucus vesiculosus*)				1984	Old growth	12	1.55*/1.07	5.10*/1.04			Fallis, unpubl.
	Uummannaq, Greenland	71.5N	52.5W	1983	Gr.tips	2	0.360*/1.00				Dietz *et al.* 1997b
				1988	Whole	8		1.27*/1.09			Dietz *et al.* 1997b
					Gr. tips	18		0.953*/1.18			Dietz *et al.* 1997b
				1989	Whole	6		1.34*/1.32			Dietz *et al.* 1997b
					Gr. tips	11		0.892*/1.17			Dietz *et al.* 1997b
				1990	Whole	4		1.793*/1.33			Dietz *et al.* 1997b
					Gr. tips	8		1.169*/1.24			Dietz *et al.* 1997b
				1991-1993	Gr.tips	6	0.175*/1.39				Dietz *et al.* 1997b
				1991	Whole	4		1.38*/1.27			Dietz *et al.* 1997b
					Gr. tips	8		1.04*/1.18			Dietz *et al.* 1997b
				1992	Whole	4		1.32*/1.44			Dietz *et al.* 1997b
					Gr. tips	8		1.23*/1.22			Dietz *et al.* 1997b
				1993	Whole	1		1.17			Dietz *et al.* 1997b
	Nuuk fjord, Greenland			1980	Gr. tips	10		1.50*/1.19			Dietz *et al.* 1997b
	Nuuk inner fjord, Greenland	64.75N	50.50W	1980	Gr. tips	5		0.491*/1.07			Dietz *et al.* 1997b
	Nuuk outer fjord, Greenland	64.25N	51.50W	1980	Gr. tips	5		2.49*/1.10			Dietz *et al.* 1997b
	Nuuk fjord, Greenland			1981	Gr. tips	10		1.29*/1.14			Dietz *et al.* 1997b
	Nuuk inner fjord, Greenland	64.75N	50.50W		Gr. tips	5		0.530*/1.09			Dietz *et al.* 1997b
	Nuuk outer fjord, Greenland	64.25N	51.50W		Gr. tips	5		2.05*/1.25			Dietz *et al.* 1997b
	Nuuk fjord, Greenland			1982	Gr. tips	10		1.02*/1.14			Dietz *et al.* 1997b
	Nuuk inner fjord, Greenland	64.75N	50.50W		Gr. tips	5		0.4530*/1.06			Dietz *et al.* 1997b
	Nuuk outer fjord, Greenland	64.25N	51.50W		Gr. tips	5		1.79*/1.59			Dietz *et al.* 1997b
	Nuuk, Greenland	61.16N	51.75W	1987	Gr. tips	6-10	0.230*/1.28	2.69*/1.09			Dietz *et al.* 1997b
				1988	Gr. tips	6-8	0.184*/1.28	2.77*/1.17			Dietz *et al.* 1997b
				1989	Gr. tips	4-8	0.356*/1.28	3.50*/1.40			Dietz *et al.* 1997b
				1990	Gr. tips	6-9	0.259*/2.24	2.52*/1.14			Dietz *et al.* 1997b
	Paamiut, Greenland	62.00N	49.47W	1983	Gr. tips	3	0.318*/1.24	2.15*/1.22			Dietz *et al.* 1997b
					Gr. tips	10		1.49*/1.19			Dietz *et al.* 1997b
Knotted wrack	Nuuk fjord, Greenland			1980	Gr. tips	10		0.236*/1.07			Dietz *et al.* 1997b
(*Ascophyllum*	Nuuk inner fjord, Greenland	64.75N	50.50W		Gr. tips	5		0.142*/1.08			Dietz *et al.* 1997b
nodosum)	Nuuk outer fjord, Greenland	64.25N	51.50W		Gr. tips	5		0.400*/1.21			Dietz *et al.* 1997b
	Nuuk fjord, Greenland			1981	Gr. tips	10		0.325*/1.16			Dietz *et al.* 1997b
	Nuuk inner fjord, Greenland	64.75N	50.50W		Gr. tips	5		0.185*/1.14			Dietz *et al.* 1997b
	Nuuk outer fjord, Greenland	64.25N	51.50W		Gr. tips	5		0.439*/1.10			Dietz *et al.* 1997b
	Nuuk fjord, Greenland			1982	Gr. tips	10		0.241*/1.16			Dietz *et al.* 1997b
	Nuuk inner fjord, Greenland	64.75N	50.50W		Gr. tips	5		0.147*/1.14			Dietz *et al.* 1997b
	Nuuk outer fjord, Greenland	64.25N	51.50W		Gr. tips	5		0.244*/1.50			Dietz *et al.* 1997b
	Paamiut, Greenland	62.00N	49.47W	1983	Gr. tips	3	0.21*/1.24	0.373*/1.28			Dietz *et al.* 1997b
Palmaria palmata	N. Baffin Island, Canada			1976	Whole	2	1.0±0.1	1.0±0.1	<0.01	0.2±0.1	Fallis 1982
Kelp	N.W. Svalbard, Norway	79N	13E	1984		2	1.83	0.22	0.025	<0.2	Carlberg and Bøler 1985
(Laminariaceae)	Kara Sea, Russia			1994	Whole	1			0.100§		Rosgidromet 1995
Algae g. sp.	Kara Sea, Russia			1994	Whole	1			0.100§		Rosgidromet 1995

Table 7·A12. Lead, cadmium, mercury and selenium concentrations in Arctic invertebrates.

Species	Location	Latitude	Longitude	Year	Tissue	n	Size/age	Metals, µg/g wet weight (unless otherwise indicated by footnote in Reference column) Lead	Cadmium	Mercury	Selenium	Reference
Annelids												
Maldanidae g. sp.	Kara Sea, Russia			1994	Whole	1		1.70	0.400	0.010		Rosgidromet 1995 (2)
Nephtys sp.	Baydaratskaya Gulf, Russia	69N	67E	1994	Whole	1-3		0.441*/3.01	0.356*/3.12			Rosgidromet 1995 (2)
	Kara Sea, Russia			1994	Whole	1				0.010		Rosgidromet 1995 (2)
Travisia sp.	Baydaratskaya Gulf, Russia	69N	67E	1994	Whole	1		1.30	0.800			Rosgidromet 1995 (2)
Mollusks												
Gastropods												
Buccinum sp.	Baydaratskaya Gulf, Russia	69N	67E	1994	Muscle	1				0.010		Rosgidromet 1995 (2)
Buccinum undatum	Pechora Sea, Russia	69.87N	50.17E	1993	Soft tissue	5		0.57	0.99			Savinova in press
Neptunea despecta	Pechora Sea, Russia	69N	50-57E	1993	Soft tissue	4		0.61	1.14			Savinova in press
Clione limacina	Cape Hatt, Canada	72.5N	80W	1983		3			1.86*/1.11			Macdonald and Sprague 1988 (4)
	Northwest Greenland			1987	Whole	5	All		0.430*/1.19	<0.005	0.24*/1.13	Dietz *et al.* 1996 (2)
Bivalves												
Iceland scallop	Avanersuaq, Greenland	76.5N	69W	1984	Soft tissue	13	<0 mm	0.103*/1.58	3.22*/1.22	0.016*/1.35	0.489*/1.31	Dietz *et al.* 1996, 1997b (2)
(*Chlamys islandica*)					Soft tissue	11	>80 mm	0.140*/1.38	3.35*/1.24	0.020*/1.60	0.425*/1.22	Dietz *et al.* 1996, 1997b (2)
Green crenella	Avanersuaq, Greenland	76.5N	69W	1984	Soft tissue	4	All	0.128*/1.17	1.30*/1.11	0.013*/1.05	0.869*/1.11	Dietz *et al.* 1996, 1997b (2)
(*Musculus discors*)	Ittoqqortoomiit, Greenland	70N	22W	1985	Soft tissue	4	All	0.186*/1.12	0.495*/2.06			Dietz *et al.* 1996, 1997b (2)
Cockle	Foxe Basin, Canada			1982-1988	Innards	3-6	All	1.67±0.79	0.14±0.04	0.021±0.001		Wagemann and Stewart 1994 (1)
(*Serripes groenlandicus*)					Foot	3-6	All	0.31±0.06	0.03±0.03	0.020±0.004		Wagemann and Stewart 1994 (1)
	Avanersuaq, Greenland	76.5N	69W	1984	Soft tissue	4		0.069*/1.20	0.784*/1.33	0.011*/1.33	0.326*/1.07	Dietz *et al.* 1996, 1997b (2)
	Baydaratskaya Gulf, Russia	69N	67E	1994	Muscle	1-3		1.00	8.70	0.022*/7.12		Rosgidromet 1995 (2)
	Pechora Sea, Russia	69.25N	57.28E	1993	Soft tissue	7		1.42	1.86			Savinova in press
Blue mussel	Hudson Bay, Canada			1989?	Muscle	6-8		0.47	0.45		1.3	Langlois and Langis 1995 (1)
(*Mytilus edulis*)	Uummannaq, Greenland	71.5N	52.5W	1988	Soft tissue	2	50-70 mm		0.535*/1.21			Dietz *et al.* 1997b (2)
					Soft tissue	3	>70 mm		0.594*/1.07			Dietz *et al.* 1997b (2)
				1989	Soft tissue	2	50-70 mm		0.653*/1.24			Dietz *et al.* 1997b (2)
					Soft tissue	3	>70 mm		0.774*/1.13			Dietz *et al.* 1997b (2)
				1990	Soft tissue	2	50-70 mm		0.722*/1.04			Dietz *et al.* 1997b (2)
					Soft tissue	3	>70 mm		0.719*/1.19			Dietz *et al.* 1997b (2)
				1991	Soft tissue	1	<50 mm		0.458			Dietz *et al.* 1997b (2)
					Soft tissue	2	50-70 mm		0.532*/1.08			Dietz *et al.* 1997b (2)
					Soft tissue	5	>70 mm		0.644*/1.20			Dietz *et al.* 1997b (2)
				1992	Soft tissue	1	<50 mm		0.435			Dietz *et al.* 1997b (2)
					Soft tissue	2	50-70 mm		0.553*/1.28			Dietz *et al.* 1997b (2)
					Soft tissue	4	>70 mm		0.573*/1.16			Dietz *et al.* 1997b (2)
				1993	Soft tissue	1	<50 mm		0.534			Dietz *et al.* 1997b (2)
					Soft tissue	2	50-70 mm		0.624*/1.36			Dietz *et al.* 1997b (2)
					Soft tissue	5	>70 mm		0.759*/1.22			Dietz *et al.* 1997b (2)
	Qeqertarsuaq, Greenland			1994	Soft tissue	3	40-50 mm	0.072*/1.29	0.692*/1.12	0.014*/1.09	0.94*/1.11	Riget *et al.* 1997b (2)
					Soft tissue	3	50-60 mm	0.080*/1.31	0.824*/1.07	0.014*/1.07	0.81*/1.16	Riget *et al.* 1997b (2)
					Soft tissue	3	60-70 mm	0.104*/1.20	1.11*/1.15	0.016*/1.09	0.72*/1.18	Riget *et al.* 1997b (2)
					Soft tissue	3	70-80 mm	0.113*/1.28	1.25*/1.06	0.017*/1.12	0.64*/1.39	Riget *et al.* 1997b (2)
					Soft tissue	3	80-90 mm	0.115*/1.01	1.09*/1.15	0.016*/1.09	0.53*/1.20	Riget *et al.* 1997b (2)
	Nuuk, Greenland	64.16N	51.75W	1987	Soft tissue	20	<50 mm	0.143*/1.24	0.474*/1.17			Dietz *et al.* 1997b (2)
					Soft tissue	10	50-70 mm	0.204*/1.22	0.534*/1.21			Dietz *et al.* 1997b (2)
				1988	Soft tissue	16	<50 mm	0.142*/1.23	0.450*/1.18			Dietz *et al.* 1997b (2)
					Soft tissue	8	50-70 mm	0.190*/1.13	0.477*/1.15			Dietz *et al.* 1997b (2)
				1989	Soft tissue	12	<50 mm	0.154*/1.23	0.513*/1.24			Dietz *et al.* 1997b (2)
					Soft tissue	4	50-70 mm	0.226*/1.42	0.512*/1.09			Dietz *et al.* 1997b (2)
					Soft tissue	2	>70 mm	0.191*/1.23	0.725*/1.47			Dietz *et al.* 1997b (2)
				1990	Soft tissue	16	<50 mm	0.189*/1.72	0.482*/1.24			Dietz *et al.* 1997b (2)
					Soft tissue	9	50-70 mm	0.213*/1.27	0.587*/1.28			Dietz *et al.* 1997b (2)
	Paamiut, Greenland	62.00N	49.47W	1983	Soft tissue	3	<50 mm	0.246*/1.35	0.679*/1.68			Dietz *et al.* 1997b (2)
					Soft tissue	2	50-70 mm	0.457*/1.06	0.697*/1.03			Dietz *et al.* 1997b (2)
					Soft tissue	1	>70 mm	0.476	1.07			Dietz *et al.* 1997b (2)
	Nanortalik, Greenland	60N	45W	1994	Soft tissue	3	30-40 mm	0.124*/1.15	0.582*/1.11	0.016*/1.20	0.94*/1.05	Riget *et al.* 1997b (2)
					Soft tissue	3	40-50 mm	0.127*/1.13	0.736*/1.11	0.017*/1.29	0.87*/1.08	Riget *et al.* 1997b (2)

Species	Location	Latitude	Longitude	Year	Tissue	n	Size/age	Metals, µg/g wet weight (unless otherwise indicated by footnote in Reference column) Lead	Cadmium	Mercury	Selenium	Reference
Blue mussel					Soft tissue	3	50-60 mm	0.127*/1.13	0.561*/1.17	0.017*/1.17	0.75*/1.05	Riget *et al.* 1997b (2)
					Soft tissue	3	60-70 mm	0.188*/1.94	0.563*/1.24	0.016*/1.14	0.78*/1.04	Riget *et al.* 1997b (2)
					Soft tissue	3	70-80 mm	0.136*/1.12	0.617*/1.65	0.017*/1.04	0.71*/1.07	Riget *et al.* 1997b (2)
	S.W. Iceland	64.8N	21.5W	1978	Soft tissue			0.56	0.63	0.09		Olafsson J. 1986 (2)
					Soft tissue	4	>70 mm	0.805*/1.24	0.573*/1.16			Olafsson J. 1986 (2)
	S. Iceland			1991	Soft tissue	1	70 mm	<0.195	1009	<0.003		OSPARCOM/JMG data - MRII (2)
				1992	Soft tissue	1	50 mm	0.025	0.569	0.009		OSPARCOM/JMG data - MRII (2
	W. Iceland			1990	Soft tissue	2	45 mm	<0.090	0.430*/1.22	<0.014*/2.53		OSPARCOM/JMG data - MRII (2
				1991	Soft tissue	5	44 mm	<0.158	0.165*/1.60			OSPARCOM/JMG data - MRII (2
				1992	Soft tissue	5	45 mm	0.020*/1.44	0.227*/1.80	0.009*/1.30		OSPARCOM/JMG data - MRII (2
	E. Iceland			1990	Soft tissue	1	43 mm	<0.137	1016	0.014		OSPARCOM/JMG data - MRII (2
				1991	Soft tissue	1	52 mm	<0.118	0.407			OSPARCOM/JMG data - MRII (2
				1992	Soft tissue	1	55 mm	0.022	0.240	0.012		OSPARCOM/JMG data - MRII (2
	N. Iceland			1990	Soft tissue	2	54 mm	<0.109	0.908*/1.27	0.020*/1.48		OSPARCOM/JMG data - MRII (2
				1991	Soft tissue	2	56 mm	<0.114	0.612*/1.02			OSPARCOM/JMG data - MRII (2
				1992	Soft tissue	2	56 mm	0.019*/1.51	0.269*/1.71	0.010*/1.15		OSPARCOM/JMG data - MRII (2
	Aalesund, Norway			1992	Soft tissue	6	46 mm	0.236*/1.09	0.196*/1.07	0.016*/1.10		OSPARCOM/JMG data - NIVA (2)
				1993	Soft tissue	3	25-45 mm	0.377*/1.13	0.204*/1.10	0.011*/1.10		OSPARCOM/JMG data - NIVA (2)
	Finnsnes, Norway	69.27N	42.00W	1994	Soft tissue	3	44 mm	0.244*/1.08	0.319*/1.05	0.011*/1.03		OSPARCOM/JMG data - NIVA (2)
	Froan, Norway	64N	9.17E	1992	Soft tissue	6	45 mm	0.162*/1.34	0.183*/1.13	0.009*/1.08		OSPARCOM/JMG data - NIVA (2)
				1993	Soft tissue	3	26-43 mm	0.246*/1.05	0.163*/1.10	0.014*/1.05		OSPARCOM/JMG data - NIVA (2)
				1994	Soft tissue	3	44 mm	0.268*/1.03	0.237*/1.02	0.011*/1.23		OSPARCOM/JMG data - NIVA (2)
	Hammerfest-, Norway	70.66N	23.73E	1994	Soft tissue	3	45 mm	0.257*/1.06	0.433*/1.03	0.011*/1.10		(1)
	Helgeland, Norway			1992	Soft tissue	6	44 mm	0.204*/1.24	0.182*/1.02	0.011*/1.16		(1)
				1993	Soft tissue	3	25-46 mm	0.286*/1.06	0.208*/1.03	0.010*/1.04		(1)
	Lofoten, Norway	68.25N	13.50E	1992	Soft tissue	6	45 mm	0.228*/1.18	0.226*/1.04	0.014*/1.04		(1)
				1993	Soft tissue	3	25-45 mm	0.236*/1.06	0.253*/1.09	0.013*/1.05		(1)
				1994	Soft tissue	3	44 mm	0.836*/1.13	0.136*/1.06	0.061*/1.09		(1)
	Nordfjorden, Norway			1994	Soft tissue	3	44 mm	0.400*/1.00	0.259*/1.03	0.010*/1.12		(1)
	Orkdalsfjorden, Norway	63.58N	10.00E	1984	Soft tissue	2	25 mm		0.194*/1.11	0.013*/1.11		(1)
				1985	Soft tissue	3	25-34 mm	0.277*/1.12	0.252*/1.19	0.022*/1.36		(1)
				1986	Soft tissue	3	26-42 mm	0.132*/1.32	0.302*/1.23	0.019*/1.30		(1)
				1987	Soft tissue	3	25-43 mm	0.183*/1.14	0.206*/1.23	0.010*/1.12		(1)
				1988	Soft tissue	3	25-42 mm	0.217*/1.29	0.143*/1.31	0.029*/1.53		(1)
				1989	Soft tissue	3	22-43 mm	0.192*/1.06	0.235*/1.04	0.013*/1.16		(1)
				1991	Soft tissue	3	27-44 mm	0.209*/1.18	0.245*/1.12	0.013*/1.05		(1)
				1992	Soft tissue	3	26-44 mm	0.169*/1.10	0.263*/1.06	0.012*/1.03		(1)
				1993	Soft tissue	3	24-42 mm	0.193*/1.37	0.257*/1.18	0.011*/1.00		(1)
	Trollfjorden, Norway	68.37N	15.00E	1994	Soft tissue	3	25-44 mm	0.120*/1.23	0.241*/1.03	0.014*/1.16		(1)
	Varanger Fjord, Norway	70.37N	29.67E	1994	Soft tissue	3	34 mm	0.265*/1.05	0.236*/1.01	0.015*/1.01		(1)
	Baydaratskaya Gulf, Russia	69N	67E	1994	Muscle	1	23 mm	0.600	0.300	0.010		Rosgidromet 1995 (2)
					Whole	1		1.00	0.400			Rosgidromet 1995 (2)
	Pechora Sea, Russia	69.25N	57.28E	1993	Soft tissue	2		2.31	1.67			Savinova in press
Clam (*Mya* sp.)	Faulkland Is., Canada			1984	Muscle	3		0.47	0.543			Hendzel 1992, Unpublished (1)
Clam (*Mya truncata*)	Foxe Basin, Canada			1982-1988	Siphon	7-12	All	0.15±0.08	0.21±0.13	0.007±0.005		Wagemann and Stewart 1994 (1)
					Sheath	7-11	All	3.33±1.75	0.16±0.12	<0.005		Wagemann and Stewart 1994 (1)
	Frobisher Bay, Canada			1984	Soft tissue	30	64.1 mm	0.46*/1.32	0.84*/1.58			Fallis, unpubl. (4)
Ciliatocardium ciliatum	Pechora Sea, Russia	68.87-69.87N	50.72-58.81E	1993	Soft tissue	11		1.30	1.28			Savinova in press
Nicania montaqui	Pechora Sea, Russia	69.25N	57.28E	1993	Soft tissue	3		1.32	4.31			Savinova in press
Macoma sp.	Kara Sea, Russia			1994	Muscle	1				0.020		Rosgidromet 1995 (2)
Tridonta borealis	Baydaratskaya Gulf, Russia	69N	67E	1994	Muscle	1				0.010		Rosgidromet 1995 (2)
	Pechora Sea, Russia	68.87-69.87N	50.72-58.81E	1993	Soft tissue	13		1.35	8.91			Savinova in press
Crustacea												
Copepods												
Mixed species	Bering Sea			198?		6			6.62±2.90			Hamanaka and Mishima 1981(1)
	Resolute Bay, Canada	74.68N	94.83W	1983	Whole	11			2.01*/0.85			Macdonald and Sprague 1988 (4)
	Admiralty Inlet, Canada	73N	85W	1984		39			2.10±0.72			Macdonald 1986, in Muir *et al.* 1992 (1)
	Qeqertarssuaq, Greenland			1987	Whole				0.07	<0.005		DAE, NERI unpublished (2)
Calanus hyperboreus	Cape Hatt, Canada	72.5N	80W	1982	Whole	5			3.04*/0.55			Macdonald and Sprague 1988 (4)
	Fram Strait, Greenland			1993	Whole	28		0.34	0.75	0.31		Ritterhoff and Zauke 1995 (3)
	Greenland Sea			1993	Whole	84		0.26	0.69	0.22		Ritterhoff and Zauke 1995 (3)
Calanus finmarchicus	Central West Greenland			1987	Whole	4	All		0.257*/1.03	<0.005	0.28*/1.08	Dietz *et al.* 1996 (2)
	Barents Sea, Russia			1993		18		2.39*/1.28	3.91*/1.28			Savinov and Savinova in press (4)

	Fram Strait, Greenland			1993	Whole	28		0.20	0.33	0.56	Ritterhoff and Zauke 1995 (3)
	Greenland Sea			1993	Whole	37		0.26	0.28	0.35	Ritterhoff and Zauke 1995 (3)
Calanus glacialis	Fram Strait, Greenland			1993	Whole	8		0.18	0.63	0.42	Ritterhoff and Zauke 1995 (3)
Metridia longa	Fram Strait, Greenland			1993	Whole	9		0.60	0.71	0.68	Ritterhoff and Zauke 1995 (3)
	Greenland Sea			1993	Whole	25		0.65	0.65	0.51	Ritterhoff and Zauke 1995 (3)
Euchaeta glacialis	Greenland Sea			1993	Whole	23		0.25	0.12	0.30	Ritterhoff and Zauke 1995 (3)
Euchaeta norvegica	Greenland Sea			1993	Whole	19		0.09	0.13	0.35	Ritterhoff and Zauke 1995 (3)
Euchaeta barbata	Greenland Sea			1993	Whole	11		0.45	0.15	0.27	Ritterhoff and Zauke 1995 (3)
Ostracods											
Conchoecia borealis	Fram Strait, Greenland			1993	Whole	7		3.07	1.21	0.45	Ritterhoff and Zauke 1995 (3)
	Greenland Sea			1993	Whole	34		2.69	1.53	0.30	Ritterhoff and Zauke 1995 (3)
Mysids											
Mysis litoralis	Cape Hatt, Canada	72.5N	80W	1982		9			0.17*/0.85		Macdonald and Sprague 1988 (4)
				1983	Whole	23			0.29*/0.67		Macdonald and Sprague 1988 (4)
Isopods											
Isopoda g. sp.	Baydaratskaya Gulf, Russia	69N	67E	1994	Whole	2		2.57*/2.35	0.735*/3.55		Rosgidromet 1995 (2)
Isopoda g. sp.	Kara Sea, Russia			1994	Whole	2		0.542*/6.79	0.134*/3.12	0.014*/1.63	Rosgidromet 1995 (2)
Amphipods											
Gammarus setosus	Resolute, Canada	74.68N	94.83W	1984	Whole	34			3.07*/0.62		Macdonald and Sprague 1988 (4)
	Cape Hatt , Canada	72.5N	80W	1983	Whole	45			0.45*/0.50		Macdonald and Sprague 1988 (4)
	Cape Hatt , Canada	72.5N	80W	1983	Whole	22			9.57*/0.53		Macdonald and Sprague 1988 (4)
Boeckismus edwardsi	Cape Hatt, Canada	72.5N	80W	1983	Whole	24			0.75*/0.72		Macdonald and Sprague 1988 (4)
Anonyx sp.	S. Beaufort Sea, Canada			1984-1985	Soft tissue	8		<0.1-0.67§	0.25±1.53		Boehm *et al.*1986 (3)
Anonyx sarsi	Cape Hatt, Canada	72.5N	80W	1983	Whole	29			2.66*/0.59		Macdonald and Sprague 1988 (4)
Onisimus glacialis	Cape Hatt, Canada	72.5N	80W	1983	Whole	14			6.07*/0.70		Macdonald and Sprague 1988 (4)
Parathemisto libellula	Bering Sea			198?		11			5.27		Hamanaka and Mishima 1981 (1)
				198?		3			6.68		Hamanaka and Tsujita 1981 (1)
				198?		18			9.07±7.71		Hamanaka and Olgi 1984 (1)
	Grise Fjord, Canada	76N	86W	1983		10			6.31*/1.19		Macdonald and Sprague 1988 (4)
	Resolute Bay, Canada	74.68N	94.83W	1983	Whole	10			5.79*/0.56		Macdonald and Sprague 1988 (4)
				1984	Whole	10			11.3*/1.14		Macdonald and Sprague 1988 (4)
	Cape Hatt, Canada	72.5N	80W	1983	Whole	62			15.2*/0.58		Macdonald and Sprague 1988 (4)
	Frobisher Bay, Canada	62.5N	66W	1979	Whole	10			6.80*/0.66		Macdonald and Sprague 1988 (4)
	Avanersuaq, Greenland	77.5N	70W	1987	Whole	5	All		0.893*/1.20	<0.005	0.24*/1.14 Dietz *et al.* 1996 (2)
	Uummannaq, Greenland	71.5N	52.5W	1987	Whole	5	All		1.38*/1.20		0.28*/1.10 Dietz *et al.* 1996 (2)
					Whole	4	Large		4.60*/1.42	<0.005	0.56*/1.15 Dietz *et al.* 1996 (2)
					Whole	5	Medium		1.97*/1.32		0.52*/1.14 Dietz *et al.* 1996 (2)
					Whole	4	Small		2.31*/1.07		0.66*/1.14 Dietz *et al.* 1996 (2)
Parathemisto pacifica	Bering Sea			198?		1			6.72		Hamanaka and Tsujita 1981(1)
Parathemisto abyssorum	Resolute Bay, Canada	74.68N	94.83W	1984	Whole	3			16.1*/0.76		Macdonald and Sprague 1988 (4)
Hyperia galba	Bering Sea			198?		2			11.3±0.41		Hamanaka and Tsujita 1981 (1)
Hyperoche medusarum	Resolute Bay, Canada	74.68N	94.83W	1984	Whole	6			7.31*/0.55		Macdonald and Sprague 1988 (4)
	Cape Hatt, Canada	72.5N	80W	1983	Whole	6			14.6*/0.64		Macdonald and Sprague 1988 (4)
Euphausiaceans											
Euphausiacea sp.	Uummannaq, Greenland	71.5N	52.5W	1987	Whole	5	All		<0.015	<0.005	0.31*/1.05 DAE, NERI unpublished (2)
Decapods											
Deep-sea prawn	Flemish Cap, Canada			1994	Meat	1		0.050	0.010	0.010	National Veterinary Institute (2)
(*Pandalus borealis*)	Upernavik, Greenland	74N	57W	1987	Whole	10	>5 g		5.20*/1.31	0.119*/1.38	1.58*/1.15 Dietz *et al.* 1996, 1997b (2)
	Uummannaq, Greenland	71.5N	52.5W	1983	Meat	4	<5 g	0.043*/2.09	0.014*/1.33		Dietz *et al.* 1997b (2)
					Shell	4	<5 g	0.106*/1.43	0.879*/1.13		Dietz *et al.* 1997b (2)
					Meat	2	>5 g	0.009*/2.50	0.026*/1.68		Dietz *et al.* 1997b (2)
					Shell	2	>5 g	0.070*/1.11	3.93*/1.18		Dietz *et al.* 1997b (2)
				1987	Whole	9	>5 g		4.29.*/1.27	0.218*/1.53	1.89*/1.07 Dietz *et al.* 1997b (2)
				1993	Meat	2	>5 g	0.008*/2.21	0.046*/1.36		Dietz *et al.* 1997b (2)
					Shell	2	>5 g	0.093*/1.11	2.66*/1.45		Dietz *et al.* 1997b (2)
	Baffin Bay			1987	Whole	2	<5 g		2.44*/3.63	0.08*/2.95	1.17*/1.03 Dietz *et al.* 1997b (2)
						3	>5 g		7.09*/1.08	0.258*/1.07	1.44*/1.19 Dietz *et al.* 1997b (2)
	Qeqertarssuaq, Greenland	69.83N	52.00W	1987	Whole	3	<5 g		4.10*/1.67	0.074*/1.41	1.94*/1.30 Dietz *et al.* 1997b (2)
						4	>5 g		5.09*/1.28	0.114*/1.09	1.70*/1.10 Dietz *et al.* 1997b (2)
	Kangatsiaq, Greenland	68.3N	53.5W	1987	Whole	8	<5 g		2.59*/1.21	0.051*/1.15	1.12*/1.18 Dietz *et al.* 1997b (2)
						8	>5 g		4.27*/1.16	0.105*/1.35	1.32*/1.12 Dietz *et al.* 1997b (2)
	Sisimiut, Greenland	66.92N	53.50W	1987	Whole	1	<5 g		1.79	0.039	1.46 Dietz *et al.* 1997b (2)
						4	>5 g		2.18*/1.81	0.086*/1.56	1.52*/1.17 Dietz *et al.* 1997b (2)
	Nuuk, Greenland	64.16N	51.75W	1983	Meat	6	<5 g	0.046*/1.79	0.013*/2.19		Dietz *et al.* 1997b (2)
					Shell	6	<5 g	0.181*/1.97	0.344*/1.15		Dietz *et al.* 1997b (2)

Species	Location	Latitude	Longitude	Year	Tissue	n	Size/age	Metals, µg/g wet weight (unless otherwise indicated by footnote in Reference column) Lead	Cadmium	Mercury	Selenium	Reference
Deep-sea prawn					Meat	6	>5 g	0.038*/1.43	0.010*/1.63			Dietz *et al.* 1997b (2)
					Shell	6	>5 g	0.092*/1.59	0.516*/1.23			Dietz *et al.* 1997b (2)
				1987	Whole	1	<5 g		2.03	0.056	2.00	Dietz *et al.* 1997b (2)
						9	>5 g		2.26*/1.11	0.075*/1.30	2.01*/1.08	Dietz *et al.* 1997b (2)
	Maniitsoq, Greenland	65.42N	52.90W	1985	Whole	5	<5 g		1.28*/1.29	0.027*/1.09	1.36*/1.09	Dietz *et al.* 1997b (2)
						5	>5 g		2.76*/1.69	0.052*/1.54	1.58*/1.12	Dietz *et al.* 1997b (2)
	Paamiut, Greenland	62.00N	49.47W	1983	Meat	4	<5 g	0.041*/2.31	0.013*/1.25			Dietz *et al.* 1997b (2)
					Shell	4	<5 g	0.127*/1.34	0.383*/1.11			Dietz *et al.* 1997b (2)
					Meat	2	>5 g	0.050*/1.03	0.017*/1.03			Dietz *et al.* 1997b (2)
					Shell	2	>5 g	0.119*/1.44	0.892*/1.23			Dietz *et al.* 1997b (2)
	Nanortalik, Greenland	60N	45W	1985	Whole	5	<5 g		1.84*/1.22	0.078*/1.17	1.23*/1.06	Dietz *et al.* 1996, 1997b (2)
						6	>5 g		3.18*/1.37	0.189*/1.46	1.42*/1.13	Dietz *et al.* 1996, 1997b (2)
	Ammassalik, Greenland			1985	Whole	3	<5 g		2.38*/1.07	0.094*/1.48	1.69*/1.13	Dietz *et al.* 1997b (2)
						7	>5 g		1.31	0.107*/1.29	1.64*/1.13	Dietz *et al.* 1997b (2)
	Svalbard, Norway			1994	Meat	1		0.050	0.030	0.020		National Veterinary Institute (2)
	Barents Sea, Norway			1994	Meat	1		0.050	0.010	0.020		National Veterinary Institute (2)
	Tromsø, Norway	69.70N	19.00E	1994	Meat	1		0.050	0.050	0.010		National Veterinary Institute (2)
	Bodø, Norway	67.30N	14.43E	1994	Meat	1		0.050	0.010	0.010		National Veterinary Institute (2)
Bikini	Avanersuaq, Greenland	77.5N	70W	1987	Whole	3	<5 g		6.35*/1.80	0.023*/1.65	1.09*/1.73	Dietz *et al.* 1997b (2)
						2	>5 g		7.91*/1.29	0.051*/2.01	1.32*/1.10	Dietz *et al.* 1997b (2)
Shrimp	Avanersuaq, Greenland	76.5N	69W	1984	Meat	13	All	<0.020	0.039*/1.64	0.019*/2.10	<0.20	Dietz *et al.* 1997b (2)
(*Eualus belcheri*)					Shell	13	All	0.057*/1.29	1.03*/1.58	0.027*/1.86	0.31*/1.12	Dietz *et al.* 1997b (2)
Sabinea sp.	Ammassalik, Greenland			1985	Whole	1	<5 g		3.25	0.118	2.67	Dietz *et al.* 1997b (2)
						1	>5 g		7.54	0.126	2.63	Dietz *et al.* 1997b (2)
	Nanortalik, Greenland	60N	45W	1985	Whole	4	<5 g		3.84*/1.14	0.149*/1.29	2.96*/1.49	Dietz *et al.* 1996, 1997b (2)
						1	>5 g		4.77	0.18	4.71	Dietz *et al.* 1996, 1997b (2)
	Ittoqortoormiit, Greenland	70N	22W	1985	Whole	3	<5 g		2.55*/1.43	0.359*/1.77	0.75	Dietz *et al.* 1996, 1997b (2)
						1	>5 g		3.66	0.884	<0.20	Dietz *et al.* 1996, 1997b (2)
Sclerocrangon sp.	Kangatsiaq, Greenland	68.3N	53.5W	1987	Whole	2	<5 g		6.30*/1.06	0.072*/1.21	1.40*/1.05	Dietz *et al.* 1997b (2)
						4	>5 g		7.79*/1.14	0.055*/1.14	1.86*/1.29	Dietz *et al.* 1996, 1997b (2)
	Kong Oscars Fjord, Greenland	72.15N	24W	1985	Whole	1	<5 g		4.4	0.179	3.13	Dietz *et al.* 1997b (2)
						1	>5 g		4.28	0.149	1.75	Dietz *et al.* 1997b (2)
	Ittoqortoormiit, Greenland	70N	22W	1985	Whole	1	<5 g		5.03	0.307	2.92	Dietz *et al.* 1997b (2)
						3	>5 g		6.05*/1.08	0.424*/1.34	3.91*/1.18	Dietz *et al.* 1997b (2)
Echininoderms												
Echiuridae g. sp.	Kara Sea, Russia			1994	Whole	1		0.600	0.150			Rosgidromet 1995 (2)
Ophiuroidea g. sp.	Kara Sea, Russia			1994	Whole	1-2		1.90	0.100*/1.00	<0.010		Rosgidromet 1995 (2)
Ophiopleura borealis	Kara Sea, Russia			1994	Whole	1				0.010		Rosgidromet 1995 (2)
Stegophiura nodosa	Baydaratskaya Gulf, Russia	69N	67E	1994	Whole	1		0.100	1.00	0.060		Rosgidromet 1995 (2)
Stegophiura nodosa	Kara Sea, Russia			1994	Whole	1		1701	0.250			Rosgidromet 1995 (2)
Trochostoma sp.	Kara Sea, Russia			1994	Whole	1				<0.010		Rosgidromet 1995 (2)
Ascidians												
Ascidiaceae	N.W. Svalbard, Norway	79N	13E	1984		2		0.24	0.102	0.017	1.69	Carlberg and Bøler 1985 (2)
Ascidiacea g. sp.	Baydaratskaya Gulf, Russia	69N	67E	1994	Whole	1		0.320	0.190			Rosgidromet 1995 (2)
Ascidiacea g. sp.	Kara Sea, Russia			1994	Whole	1				0.020		Rosgidromet 1995 (2)
Chaetognaths												
Unidentified	Resolute Bay, Canada	74.68N	94.83W	1984		4			1.31*/0.73			Macdonald and Sprague 1988 (4)
	Cape Hatt, Canada	72.5N	80W	1983		11			1.0*/0.67			Macdonald and Sprague 1988 (4)
Eukrohnia spec.	Fram Strait, Greenland			1993	Whole	3		0.19	0.85	0.35		Ritterhoff and Zauke 1995 (3)
	Greenland Sea			1993	Whole	25		0.30	1.09	0.26		Ritterhoff and Zauke 1995 (3)

1. Wet weight, Arithmetic mean.
2. Wet weight., Geometric mean.
3. Dry weight, Arithmetic mean.
4. Dry weight, Geometric mean.
± Standard Deviation.
*/ Relative Standard Deviation.

Table 7·A13. Lead, cadmium, mercury and selenium in Arctic fish.

									Metals, µg/g wet weight (unless otherwise indicated by footnote in Reference column)				
Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Lead	Cadmium	Mercury	Selenium	Reference
Pacific herring	Beaufort Sea, Alaska			1981	Muscle	28			0.026	0.01	0.028	0.371	Hendzel 1990, unpubl. (1)
(*Clupea harengus*)		72.0N	140.0W	1981	Muscle	25		30.0 cm			0.026		Lockhart pers. comm. (2)
		72.0N	140.0W	1981	Gonads	27		29.9			<0.01		Lockhart pers. comm. (2)
	Tuktoyaktuk Harbor, Canada	69.43N	132.93W	1984	Liver	2		5 yrs		30.6	0.05±0.03	3.26±0.90	Muir *et al*. 1992 (1)
					Muscle	2		5 yrs		<0.05	0.02±0.00	0.51±0.06	Muir *et al*. 1992 (1)
	Malvik, Norway			1976?	Muscle	2					0.01		Lande 1977 in Macdonald and Spraque 1988 (3)
	Saltfjorden, Nordland, Norway	67.25N	14.17E	1994	Muscle	1			0.050	0.010	0.040		NVI, Norway unpubl. (2)
	Tysfjord, Nordland, Norway	68.12N	16.42E	1994	Muscle	1			0.050	0.010	0.030		NVI, Norway unpubl. (2
	Barents Sea			1985	Muscle	1				0.006	0.011		IN, Norway unpubl. (2)
													IN, Norway unpubl. (2)
Broad whitefish	Tuktoyaktuk Harbor, Canada	69.43N	132.93W	1984	Liver	1		13 yrs		40.3	0.08	0.68	Muir *et al*. 1987 (1)
(*Coregonus nasus*)					Muscle	1		13 yrs		<0.05	0.01	0.52	Muir *et al*. 1987 (1)
Whitefish	Mckenzie Delta, Canada	69.3N	134.1W	1977	Muscle	25		45.7 cm			0.052*/1.54		Lockhart (2) pers. comm.
(*Coregonus* sp.)				1981	Muscle	6		44.6 cm			0.056*/1.89		Lockhart (2) pers. comm.
				1981	Muscle	2		46.9 cm			0.003*/5.09		Lockhart (2) pers. comm.
				1991	Muscle	5		54.2 cm			0.052*/2.32		Lockhart (2) pers. comm.
				1992	Muscle	6		49.4 cm			0.055*/1.74		Lockhart (2) pers. comm.
	Eastern Hudson Bay, Canada			1993	Muscle	28-30			<0.05	<0.005	0.10*/ 1.50	0.43*/1.15	Kingsley (2) pers .comm.
Arctic char	Saputing, Canada	70.7N	85.4W	1979	Muscle	5		73.3 cm			0.051*/1.28		Lockhart (2) pers. comm.
(*Salvelinus alpinus*)	Paulatuk, Canada	69.8N	124.0W	1984	Muscle	6		54.7 cm			0.040*/1.32		Lockhart (2) pers. comm.
	Wellington Bay, Canada	69.3N	106.6W	1984	Muscle	5		69.2 cm			0.060*/1.13		Lockhart (2) pers. comm.
				1988	Muscle	5		61.6 cm			0.024*/1.71		Lockhart (2) pers. comm.
				1989	Muscle	4		60.0 cm			0.032*/2.17		Lockhart (2) pers. comm.
	Cambridge Bay, Canada	69.1N	105.0W	1977	Muscle	5		53.8 cm			0.062*/1.31		Lockhart (2) pers. comm.
				1978	Muscle	6					0.032*/1.32		Lockhart (2) pers. comm.
				1991	Muscle	5		68.0 cm			0.044*/1.13		Lockhart (2) pers. comm.
				1992	Muscle	5		69.6 cm			0.043*/1.30		Lockhart (2) pers. comm.
				1993	Muscle	5		75.6 cm			0.055*/1.20		Lockhart (2) pers. comm.
	Lauchlan River, Canada	69.0N	108.5W	1993	Muscle	5		71.9 cm			0.024*/1.25		Lockhart (2) pers. comm.
	Byron Bay, Canada	68.9N	108.5W	1984	Muscle	4		72.4 cm			0.045*/1.14		Lockhart (2) pers. comm.
				1988	Muscle	5		71.1 cm			0.034*/1.42		Lockhart (2) pers. comm.
				1989	Muscle	5		67.4 cm			0.029*/1.28		Lockhart (2) pers. comm.
				1990	Muscle	5		60.7 cm			0.026*/1.86		Lockhart (2) pers. comm.
	Hall Beach, Canada	68.8N	81.2W	1992	Muscle	5		69.8 cm			0.051*/1.43		Lockhart (2) pers. comm.
	Dease Strait, Canada	68.7N	108.0W	1977	Muscle	5		59.2 cm			0.058*/1.89		Lockhart (2) pers. comm.
	Foggy Bay, Canada	68.3N	104.7W	1993	Muscle	5		64.0 cm			0.076*/1.48		Lockhart (2) pers. comm.
	Ellice River, Canada	68.1N	104.0W	1977	Muscle	3		51.3 cm			0.32*/*1.75*		Lockhart (2) pers. comm.
				1984	Muscle	6		65.1 cm			0.048*/1.50		Lockhart (2) pers. comm.
				1988	Muscle	5		62.4 cm			0.025*/1.37		Lockhart (2) pers. comm.
				1989	Muscle	4		59.3 cm			0.037*/1.15		Lockhart (2) pers. comm.
				1990	Muscle	5		60.6 cm			0.027*/1.78		Lockhart (2) pers. comm.
				1993	Muscle	5		67.0 cm			0.075*/1.17		Lockhart (2) pers. comm.
	Tree River, Canada	67.7N	111.9W	1977	Muscle	8		66.0 cm			0.017*/1.85		Lockhart (2) pers. comm.
				1980	Muscle	5		66.1 cm			0.030*/1.0		Lockhart (2) pers. comm.
	Surrey River, Canada	67.5N	106.7W	1989	Muscle	5		68.0 cm			0.036*/1.50		Lockhart (2) pers. comm.
				1990	Muscle	5		61.8 cm			0.022*/1.90		Lockhart (2) pers. comm.
				1993	Muscle	5		75.3 cm			0.035*/1.26		Lockhart (2) pers. comm.
	Nettilling, Canada	66.5N	70.9W	1990	Muscle	5		56.1 cm			0.080*/1.40		Lockhart (2) pers. comm.
	Gore Bay, Canada	66.3N	84.4W	1992	Muscle	5		63.4 cm			0.024*/1.25		Lockhart (2) pers. comm.
	Pangnirtung Fiord, Canada	66.1N	66.0W	1990	Muscle	13		44.9 cm			0.029*/1.41		Lockhart (2) pers. comm.
				1992	Muscle	10		54.4 cm			0.032*/1.55		Lockhart (2) pers. comm.
	Tessikakjuak, Canada	64.3N	76.8W	1977	Muscle	5		37.9 cm			0.013*/1.46		Lockhart (2) pers. comm.
	Stony Point Area, Canada	63.9N	92.8W	1988	Muscle	5		63.6 cm			0.027*/1.81		Lockhart (2) pers. comm.
	Sylvia Grin. River, Canada	63.7N	68.6W	1991	Muscle	5		30.2 cm			0.080*/1.26		Lockhart (2) pers. comm.
	Chesterfield Inlet, Canada	63.4N	90.8W	1977	Muscle	5		58.8 cm			0.014*/1.67		Lockhart (2) pers. comm.
				1984	Muscle	6		56.3 cm			0.043*/1.23		Lockhart (2) pers. comm.
				1989	Muscle	5		59.1 cm			0.044*/1.35		Lockhart (2) pers. comm.
				1991	Muscle	5		59.4 cm			0.058*/1.38		Lockhart (2) pers. comm.
				1992	Muscle	5		60.0 cm			0.028*/2.08		Lockhart (2) pers. comm.

Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Metals, µg/g wet weight (unless otherwise indicated by footnote in Reference column) Lead	Cadmium	Mercury	Selenium	Reference
Arctic char				1993	Muscle	5		61.8 cm			0.047*/1.28		Lockhart (2) pers. comm.
	Baker Foreland, Canada	62.9N	90.8W	1989	Muscle	5		61.8 cm			0.048*/1.40		Lockhart (2) pers. comm.
	Rankin Inlet, Canada	62.8N	92.2W	1984	Muscle	6		56.3 cm			0.051*/2.01		Lockhart (2) pers. comm.
				1991	Muscle	5		50.7 cm			0.039*/1.52		Lockhart (2) pers. comm.
				1992	Muscle	5		56.0 cm			0.015*/1.46		Lockhart (2) pers. comm.
				1993	Muscle	5		57.3 cm			0.074*/2.42		Lockhart (2) pers. comm.
	Corbet Inlet, Canada	62.5N	92.3W	1989	Muscle	5		64.5 cm			0.057*/1.23		Lockhart (2) pers. comm.
	Pistol Bay, Canada	62.4N	92.6W	1988	Muscle	6		70.0 cm			0.030*/1.60		Lockhart (2) pers. comm.
	Wilson River, Canada	62.3N	93.1W	1988	Muscle	5		62.4 cm			0.029*/2.02		Lockhart (2) pers. comm.
				1993	Muscle	5		58.4 cm			0.067*/1.22		Lockhart (2) pers. comm.
	Ferguson River, Canada	61.7N	93.3W	1992	Muscle	5		66.3 cm			0.029*/2.15		Lockhart (2) pers. comm.
	Sandy Point, Canada	61.7N	93.3W	1992	Muscle	5		63.4 cm			0.047*/1.47		Lockhart (2) pers. comm.
				1993	Muscle	5		54.2 cm			0.059*/1.21		Lockhart (2) pers. comm.
	Richmond Gulf, Canada			1994	Muscle	5					0.055*/1.32		Lockhart (2) pers. comm.
	Paulatuk, Canada	69.35N	124.07W	1984	Muscle	6					0.042		Hendzel 1990, unpubl. (1)
	Holman Island, Canada	70.65N	117.73W	1972	Muscle	12					0.049±0.017		Smith and Armstrong 1975 (1)
	Ivittuut, Greenland	61.25N	48.25W	1983	Liver	10	♂ ♀	33.6 cm		0.053*/1.73			Dietz *et al.* 1997b (2)
	Narsaq, Greenland	61.0N	46.0W	1983	Liver	10	♂ ♀	34.5 cm		0.022*/1.83			Dietz *et al.* 1997b (2)
					Muscle	10	♂ ♀	34.5 cm		<0.015			Dietz *et al.* 1997b (2)
					Bone	10	♂ ♀	34.5 cm		<0.015			Dietz *et al.* 1997b (2)
Capelin (*Mallotus villosus*)	Uummannaq, Greenland	71.5N	52.5W	1988	Whole	40	♂ ♀	15.5 cm		0.016*/1.69			Dietz *et al.* 1997b (2)
				1989	Whole	20	♂ ♀	17.5 cm		0.053*/1.44			Dietz *et al.* 1997b (2)
				1990	Whole	49	♂ ♀	17.7 cm		0.035*/1.39			Dietz *et al.* 1997b (2)
				1993	Whole	20	♂ ♀	17.1 cm		0.039*/1.39			Dietz *et al.* 1997b (2)
	Ivittuut, Greenland	61.25N	48.25W	1983	Whole	20	♂ ♀	14.4 cm		0.024*/1.97			Dietz *et al.* 1997b (2)
	Barents Sea	71.3N	37.8E	1985	Muscle	3				0.003*/1.68	0.011*/1.26		IN, Norway, unpubl. (2)
Arctic cod (*Boreogadus saida*)	Kugmallit Bay, Canada	69.55N	133.58W	1984	Liver	6		3 yrs				0.48±0.22	Muir *et al.* 1992 (1)
					Muscle	6		3 yrs		<0.05	0.02±0.01	0.42±0.06	Muir *et al.* 1992 (1)
					Kidney	4		3 yrs			0.05	0.58±0.26	Muir *et al.* 1992 (1)
	Grise Fjord, Canada	76.58N	83.23W	1983	Liver	6				1.14*/0.679			Macdonald and Sprague 1988 (4)
	Resolute Bay, Canada	74.68N	94.83W	1984	Muscle	2		2-3 yrs		0.05	0.04±0.02	0.43±0.01	Muir *et al.* 1992 (1)
					Liver	2		2-3 yrs				0.58±0.4	Muir *et al.* 1992 (1)
	Resolute Bay, Canada	74.68N	94.83W	1984	Gonads	2		2-3 yrs				0.8±0.04	Muir *et al.* 1992 (1)
	Barrow Strait, Canada			1984	Liver	2		2 yrs				0.58±0.40	Muir *et al.* 1992 (1)
					Muscle	2		2 yrs		<0.05	0.04±0.02	0.43±0.01	Muir *et al.* 1992 (1)
	Cambridge Bay, Canada	69.05N	105.17W	1984	Muscle	1				0.05	0.02	0.33	Muir *et al.* 1992 (1)
					Kidney	1						1.2	Muir *et al.* 1992 (1)
					Gonads	3			0.73				Muir *et al.* 1992 (1)
	Arctic Bay, Canada	73.02N	85.12W	1983	Whole	50		7.0-16.8 cm		0.40*/0.53			Macdonald and Sprague 1988 (4)
					Whole	47				0.62±0.22			Macdonald and Sprague 1988 (4)
				1984	Liver	8		5 yrs				0.85±0.14(1)	Muir *et al.* 1992 (1)
					Muscle	8		5 yrs		<0.05	0.02±0.004	0.51±0.19	Muir *et al.* 1992 (1)
					Kidney	6		5 yrs				0.91±0.32	Muir *et al.* 1992 (1)
					Gonads	3		5 yrs				0.7(1)	Muir *et al.* 1992 (1)
	Pangnirtung, Canada	66.15N	65.72W	1984	Muscle	6		11-12 yrs		0.06	0.03±0.01	0.35±0.1	Muir *et al.* 1992 (1)
					Liver	6		11-12 yrs		0.91±0.47	0.01±0.01	0.62±0.2	Muir *et al.* 1992 (1)
					Kidney	6		11-12 yrs			0.05	0.81±0.19	Muir *et al.* 1992 (1)
					Gonads	6		11-12 yrs		0.33±0.15	0.03±0.01	0.62±0.27	Muir *et al.* 1992 (1)
	Cumberland Sound, Canada	65.2N	65.5W	1984	Liver	6				0.83±0.45	0.01±0.01	0.62±0.20	Muir *et al.* 1992 (1)
					Muscle	6				<0.05	0.03±0.01	0.35±0.10	Muir *et al.* 1992 (1)
	Avanersuaq, Greenland	77.5N	70W	1987	Liver	34	♂ ♀	14.9 cm		0.802*/1.63	0.016*/1.73	0.90*/1.26	Dietz *et al.* 1997b (2)
					Muscle	38	♂ ♀	14.8 cm		0.036*/2.70	0.039*/1.31	0.54*/1.43	Dietz *et al.* 1997b (2)
	Nanortalik, Greenland	60N	45W	1985	Liver	21-22	♂ ♀	12.6 cm		0.162*/2.42	<0.005	0.59*/1.62	Dietz *et al.* 1997b (2)
					Muscle	21-22	♂ ♀	12.6 cm		<0.015	0.011*/1.70	0.24*/1.59	Dietz *et al.* 1997b (2)
	Kong Oscar Fjord, Greenland	77.15N	24W	1985	Liver	2-3	♂ ♀	14.5 cm		1.10*/4.26	0.007*/2.73	0.95*/1.69	Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	14.5 cm		<0.015	0.019*/1.24	<0.20	Dietz *et al.* 1997b (2)
	Ittoqqortoormiit, Greenland	70N	22W	1985	Liver	3	♂ ♀	14.5 cm		0.356*/1.72	0.008*/1.27	0.81*/1.53	Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	14.5 cm		<0.015	0.018*/1.87	0.21*/1.96	Dietz *et al.* 1997b (2)
	Denmark Strait, Greenland	69.5N	21.5W	1985	Liver	1	♂ ♀	19.0 cm		0.659	0.007	1.00	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	19.0 cm		<0.015	0.019	0.23	Dietz *et al.* 1997b (2)
	Jan Mayen, Norway	71.53N	10W	1994	Liver	25	♂ ♀	12-18 cm	0.017	0.373		0.65	Stange *et al.* 1996 (2)
					Muscle	25	♂ ♀	12-18 cm	0.008	0.015	0.01		Stange *et al.* 1996 (2)
	Greenland Sea	78.37N	10W	1994	Liver	25	♂ ♀	11-15 cm	0.023	0.462		0.78	Stange *et al.* 1996 (2)

					Muscle	25	♂ ♀	11-15 cm	0.009	0.0127	<0.01		Stange *et al.* 1996 (2)
	Barents Sea	76.05N	41E	1992	Liver	25	♂ ♀	16-19 cm	0.011±0.006	0.132±0.030		0.68±0.02	Maage *et al.* 1996 (1)
					Muscle	25	♂ ♀	16-19 cm	0.009±0.002	0.0066±0.0029	<0.01		Maage *et al.* 1996 (1)
	Barents Sea	73.04N	48.1E	1993	Liver	25	♂ ♀	15-19 cm	0.045±0.026	0.175±0.049		0.69±0.08	Maage *et al.* 1996 (1)
					Muscle	25	♂ ♀	15-19 cm	0.005±0.005	0.0034±0.0017	<0.01		Maage *et al.* 1996 (1)
Cusk (*Brosme brosme*)	Nanortalik, Greenland	60N	45W	1985	Liver	1	♂ ♀	61.5 cm		4.22	0.018	1.82	Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	61.5 cm		0.069		3.07	Dietz *et al.* 1997b (2)
					Spleen	1	♂ ♀	61.5 cm		<0.015		0.39	Dietz *et al.* 1997b (2)
	Ammassalik, Greenland	65.50N	37.62W	1985	Liver	1	♂ ♀	59.5 cm				1.71	Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	59.5 cm		0.042		4.72	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	59.5 cm		<0.015		0.51	Dietz *et al.* 1997b (2)
Cod (*Gadus* sp.)	Svalbard, Norway	79N	13E	1984	Liver	1			<0.024	0.089	0.011	0.82	Carlberg and Bøler 1985
					Muscle	1			0.02	0.014	0.025	0.38	Carlberg and Bøler 1985
Atlantic cod (*Gadus morhua*)	Frobisher Bay, Canada	62.5N	66W	1976	Muscle	1			0.14		0.02		Hendzel 1990, unpubl. (1)
	Labrador, Canada	54N	50W	1990	Liver	12	♀	64-75 cm	<0.1	0.75±0.45	<0.05	1.1±0.35	Hellou *et al.* 1992 (3)
					Muscle	12	♀	64-75 cm	<0.04	<0.01	0.52 ±0.03	1.6	Hellou *et al.* 1992 (3)
	Newfoundland, Canada	46N	57W		Liver	10	♀	43-108 cm	<0.1	0.75±0.53	<0.05	2.3±0.66	Hellou *et al.* 1992 (3)
					Muscle	10	♀	43-108 cm	<0.04	0.03±0.03	0.44±0.07	1.7±0.33	Hellou *et al.* 1992 (3)
	Nuuk, Greenland	64.16N	51.75W	1986	Liver	5	♂ ♀	87.6 cm		0.053*/3.17	0.022*/3.90	1.07*/1.31	Dietz *et al.* 1997b (2)
					Muscle	5	♂ ♀	87.6 cm		<0.015	0.068*/3.97	<0.20	Dietz *et al.* 1997b (2)
					Gonades	1	♂ ♀	115 cm			0.037	0.46	Dietz *et al.* 1997b (2)
	Nanortalik, Greenland	60N	45W	1985	Liver	3	♂ ♀	59.3 cm		0.286*/1.45	0.016*/1.31		Dietz *et al.* 1997b (2)
					Kidney	3	♂ ♀	59.3 cm		0.125*/1.31	0.046*/1.20		Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	59.3 cm		<0.015	0.038*/1.25		Dietz *et al.* 1997b (2)
	Ammassalik, Greenland	65.50N	37.62W	1985	Liver	3	♂ ♀	47.9 cm		0.121*/1.84	0.009*/1.04		Dietz *et al.* 1997b (2)
					Kidney	2	♂ ♀	47.1 cm		0.082*/1.35	0.045*/1.20		Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	47.9 cm		<0.015	0.069*/2.09		Dietz *et al.* 1997b (2)
					Bile	1	♂ ♀	49.4 cm		0.067	0.013		Dietz *et al.* 1997b (2)
	Faeroe Island	62.34N	6.14W	1994	Liver	25	♂ ♀	46-59 cm	0.003	0.06		0.98	Stange *et al.* 1996 (2)
					Muscle	25	♂ ♀	46-59 cm	0.004	0.0004	0.01		Stange *et al.* 1996 (2)
	Iceland			1990	Liver	35		28-46 cm	<0.208	0.133			OSPARCOM/MRII, unpubl. (1)
					Muscle	35		28-46 cm			0.046		OSPARCOM/MRII, unpubl. (1)
				1991	Liver	17	♂ ♀	31-43 cm	<0.070	0.184			OSPARCOM/MRII, unpubl. (1)
					Muscle	17	♂ ♀	31-43 cm			0.029		OSPARCOM/MRII, unpubl. (1)
				1992	Liver	4		36-42 cm	<0.030	0.064			OSPARCOM/MRII, unpubl. (1)
					Muscle	4		36-42 cm			0.025		OSPARCOM/MRII, unpubl. (1)
	Norway				Muscle	2				0.01			Lande 1977 in Macdonald and Spraque 1988 (3)
	Malvik, Norway				Muscle	4				0.02			
	Froan area/Stokken area, Norway	64N	10E	1993	Liver	25	♂ ♀	43.5-72.0 cm	<0.024*/1.25	0.041*/2.50			OSPARCOM/NIVA, unpubl. (2)
					Muscle	25	♂ ♀	43.5-72.0 cm			0.055*/1.40		OSPARCOM/NIVA, unpubl. (2)
				1994	Liver	24	♂ ♀	37.5-81.5 cm	<0.030*/1.00	0.029*/2.79			OSPARCOM/NIVA, unpubl. (2)
					Muscle	24	♂ ♀	37.5-81.5 cm			0.083*/1.38		OSPARCOM/NIVA, unpubl. (2)
	Lofoten area/Lille Molla, Norway	68.2N	14.8E	1992	Liver	25	♂ ♀	50-70 cm	<0.030*/1.00	0.068*/2.58			OSPARCOM/NIVA, unpubl. (2)
					Muscle	25	♂ ♀	50-70 cm			0.070*/1.57		OSPARCOM/NIVA, unpubl. (2)
				1993	Liver	24		61-57 cm	<0.033*/1.36	0.151*/1.86			OSPARCOM/NIVA, unpubl. (2)
					Muscle	24		61-57 cm			0.067*/1.72		OSPARCOM/NIVA, unpubl. (2)
				1994	Liver	25		49-60 cm	<0.030*/1.00	0.031*/0.03			OSPARCOM/NIVA, unpubl. (2)
					Muscle	25		49-60 cm			0.071*/1.43		OSPARCOM/NIVA, unpubl. (2)
	Orkdalsfjorden/Trossavika, Norway	64N	10E	1984	Liver	13	♂ ♀	32-69 cm		0.142*/1.90			OSPARCOM/JMG data
					Muscle	13	♂ ♀	32-69 cm			0.047*/1.38		OSPARCOM/NIVA, unpubl. (2)
				1985	Liver	1		48.1 cm		0.095			OSPARCOM/NIVA, unpubl. (2)
					Muscle	10	♂ ♀	52-77 cm			0.048*/1.49		OSPARCOM/NIVA, unpubl. (2)
				1986	Liver	1	♀	64 cm	0.206	0.069			OSPARCOM/NIVA, unpubl. (2)
					Muscle	1	♀	64 cm			0.025		OSPARCOM/NIVA, unpubl. (2)
				1988	Liver	1		47.1 cm	<0.087	0.029			OSPARCOM/NIVA, unpubl. (2)
					Muscle	1		47.1 cm			0.044		OSPARCOM/NIVA, unpubl. (2)
	Finnsnes-Skervøy area, Norway	69N	18E	1994	Liver	25		49.5-71.5 cm	<0.031*/1.15	0.179*/2.01			OSPARCOM/NIVA, unpubl. (2)
					Muscle	25		49.5-71.5			0.063*/1.52		OSPARCOM/NIVA, unpubl. (2)
	Hammerfest area	71N	24E	1994	Liver	24		46.5-67.0 cm	<0.035*/1.44	0.231*/1.82			OSPARCOM/NIVA, unpubl. (2)
					Muscle	24		46.5-67.0 cm			0.036*/1.47		OSPARCOM/NIVA, unpubl. (2)
	Varangerfjorden, Norway	70.10N	29.25E	1994	Liver	21		42.5-78.0 cm	<0.030*/1.07	0.217*/1.82			OSPARCOM/NIVA, unpubl. (2)
					Muscle	21		42.5-78.0 cm			0.050*/1.74		OSPARCOM/NIVA, unpubl. (2)
	Baatsfjord/Eastern Finmark, Norway			1994	Liver	1			0.050	0.130	0.030		NVI, Norway, unpubl.
					Muscle	1			0.050	0.010	0.010		NVI, Norway, unpubl.
	Lofoten area, Norway	68.25N	13.50E	1994	Liver	1	♀		0.050	0.140	0.010		NVI, Norway, unpubl.
					Muscle	1	♀		0.050	0.010	0.080		NVI, Norway, unpubl.
					Gonads	1	♀		0.050	0.010	0.010		NVI, Norway, unpubl.

Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Metals, µg/g wet weight (unless otherwise indicated by footnote in Reference column) Lead	Cadmium	Mercury	Selenium	Reference
Atlantic cod					Liver	3			<0.050	<0.010	<0.010		NVI, Norway, unpubl.
					Muscle	3			<0.050	<0.010	<0.010		NVI, Norway, unpubl.
					Gonads	1			<0.050	<0.010	<0.010		NVI, Norway, unpubl.
				1995	Liver	1			<0.050	<0.010	<0.010		NVI, Norway, unpubl.
					Muscle	1			<0.050	<0.010	<0.010		NVI, Norway, unpubl.
					Gonads	1			<0.050	<0.010	<0.010		NVI, Norway, unpubl.
	Halten Banken, Norway	67.06N	8.31E	1994	Liver	13	♂ ♀	65-103 cm	0.013	0.10		0.29	Stange *et al.* 1996 (2)
					Muscle	11	♂ ♀	65-103 cm	0.004	0.0004	0.05		Stange *et al.* 1996 (2)
	Barents Sea	71.4N	37.8E	1985	Liver	2		21-23 cm		0.019*/1.46	0.010*/1.72		IN, Norway, unpubl. (2)
					Muscle	2		21-23 cm		0.003*/1.23	0.017*/1.04		IN, Norway, unpubl. (2)
					Liver	1		18 cm		0.017	0.025		IN, Norway, unpubl. (2)
					Muscle	1		18 cm		0.004	0.019		IN, Norway, unpubl. (2)
	Svalbard, Norway	76.39N	14.52E	1993	Liver	25	♂ ♀	56-94 cm	0.033±0.055	0.168±0.098		0.79±0.40	Maage *et al.* 1996 (1)
					Muscle	25	♂ ♀	56-94 cm	0.007±0.004	0.0024±0.0015	0.04±0.02		Maage *et al.* 1996 (1)
	Barents Sea	69.28N	35.49E	1993	Liver	25	♂ ♀	39-51 cm	0.011±0.010	0.056±0.038		0.69±0.19	Maage *et al.* 1996 (1)
					Muscle	25	♂ ♀	39-51 cm	0.003±0.002	0.0003±0.0002	0.01±0.01		Maage *et al.* 1996 (1)
	Kara Sea, Russia	69.2N	67.7E	1995	Liver	1			0.250	<0.050	0.020		Rosgidromet 1995 (1)
					Muscle	1			0.250	0.050	0.010		Rosgidromet 1995 (1)
Greenland cod (*Gadus ogac*)	Cambridge Bay, Canada	69.05N	105.17W	1984	Liver	6				<0.05	0.04±0.02	1.14±0.21	Muir *et al.* 1992 (1)
					Kidney	7					0.17	1.1±0.09	Muir *et al.* 1992 (1)
					Muscle	7				<0.05	0.04±0.01	0.33±0.05	Muir *et al.* 1992 (1)
					Gonads	7				0.03±0.01	0.02	0.88±0.2	Muir *et al.* 1992 (1)
	Maquatua River, Canada			1987	Muscle	46					0.13±0.11		Whoriskey and Brown 1988 (1)
	Hopedale, Canada	55.50N	61.17W	1978	Muscle	4	♂	8.6 cm			0.1		Bruce *et al.* 1979 (1)
					Muscle	10	♀	8.6 cm			0.15		Bruce *et al.* 1979 (1)
	Makkovik Bay, Canada	55.00N	59.17W	1978	Muscle	3	♂	7.7 cm			0.11		Bruce *et al.* 1979 (1)
					Muscle	3	♀	5.7 cm			0.05		Bruce *et al.* 1979 (1)
	Uummannaq, Greenland	71.5N	52.5W	1988	Muscle	10	♂ ♀	42.5 cm		<0.015			Dietz *et al.*, 1997b (2)
				1989	Muscle	10	♂ ♀	47.9 cm		<0.015			Dietz *et al.*, 1997b (2)
				1990	Muscle	10	♂ ♀	51.5 cm		<0.015			Dietz *et al.*, 1997b (2)
				1991	Muscle	16	♂ ♀	54.6 cm		<0.015			Dietz *et al.*, 1997b (2)
				1992	Muscle	10	♂ ♀	51.5 cm		<0.015			Dietz *et al.*, 1997b (2)
				1993	Muscle	5-10	♂ ♀	52.5-54.7 cm	<0.01	<0.015			Dietz *et al.*, 1997b (2)
	Nuuk, Greenland	64.16N	51.75W	1985	Liver	5	♂ ♀	51.4 cm		0.311*/1.54	0.022*/1.49	1.35*/1.54	Dietz *et al.*, 1997b (2)
					Kidney	5	♂ ♀	51.4 cm		0.033*/1.66	0.025*/1.94	1.21*/1.12	Dietz *et al.*, 1997b (2)
					Muscle	5	♂ ♀	51.4 cm		<0.015	0.066*/1.57	<0.20	Dietz *et al.*, 1997b (2)
					Spleen	4	♂ ♀	52.3 cm		0.049*/1.78	0.037*/1.15	2.02*/1.15	Dietz *et al.*, 1997b (2)
					Bile	1	♂ ♀	58.0 cm		<0.015	0.010	0.53	Dietz *et al.*, 1997b (2)
					Gonades	1	♂ ♀	58.0 cm		<0.015	0.007	0.75	Dietz *et al.*, 1997b (2)
	Ivittuut, Greenland	61.25N	48.25W	1983	Liver	8	♂ ♀	48.8 cm		0.316*/1.84			Dietz *et al.*, 1997b (2)
					Muscle	8	♂ ♀	48.8 cm		<0.015			Dietz *et al.*, 1997b (2)
					Bone	8	♂ ♀	48.8 cm		<0.015			Dietz *et al.*, 1997b (2)
Haddock (*Melanogrammus aeglefinus*)	Orkdalsfjorden/Trossavika, Norway	63.58N	10.00E	1986	Liver	1		42.9 cm	0.099	0.004			OSPARCOM/NIVA, unpubl. (2)
					Muscle	1		42.9 cm			0.022		OSPARCOM/NIVA, unpubl. (2)
				1987	Liver	1		43.3 cm	<0.169	0.124			OSPARCOM/NIVA, unpubl. (2)
					Muscle	1		43.3 cm			0.076		OSPARCOM/NIVA, unpubl. (2)
				1988	Liver	1		45.1 cm	<0.071	0.024			OSPARCOM/NIVA, unpubl. (2)
					Muscle	1		45.1 cm			0.014		OSPARCOM/NIVA, unpubl. (2)
	Baatsfjord/Eastern Finnmark, Norway			1994	Liver	1			0.070	0.170	0.010		NVI, Norway, unpubl.
					Muscle	1			0.050	0.010	0.010		NVI, Norway, unpubl.
	Lofoten, Henningsvær, Norway	68.13N	14.23E	1994	Liver	2			<0.050	<0.010	<0.010		NVI, Norway, unpubl.
					Muscle	2			<0.050	<0.010	<0.010		NVI, Norway, unpubl.
	Saltfjorden, Nordland, Norway	67.25N	14.17E	1994	Muscle	1			0.050	0.014	0.055		NVI, Norway, unpubl.
Whiting (*Merlangius merlangus*)	Orkdalsfjorden/Trossavika, Norway	63.58N	10.00E	1987	Liver	1		18 cm	<0.141	0.069			NVI, Norway, unpubl.
					Muscle	1		18 cm			0.045		NVI, Norway, unpubl.
				1988	Liver	1		15.2 cm	0.077	0.054			NVI, Norway, unpubl.
					Muscle	1		15.2 cm			0.043		NVI, Norway, unpubl.
Pollack (*Pollachius pollachius*)	Orkdalsfjorden/Trossavika, Norway	63.58N	10.00E	1985	Liver	2		50.1 cm		0.070			NVI, Norway, unpubl.
					Muscle	6	♂ ♀	42.0-65.0 cm			0.046*/1.34		NVI, Norway, unpubl.
				1986	Liver	1	♂	41 cm	0.160	0.083			NVI, Norway, unpubl.
					Muscle	1	♂	41 cm			0.030		NVI, Norway, unpubl.

				1988	Liver	1		51.1 cm	<0.103	0.024			NVI, Norway, unpubl.
					Muscle	1		51.1 cm			0.036		NVI, Norway, unpubl.
	Lofoten, Henningsvær, Norway	68.13N	14.23E	1994	Liver	2			<0.050	<0.010	<0.010		NVI, Norway, unpubl.
					Muscle	2			<0.050	<0.010	<0.010		NVI, Norway, unpubl.
					Gonads	1			<0.050	<0.010	<0.010		NVI, Norway, unpubl.
Saithe	Orkdalsfjorden/Trossavika,	63.58N	10.00E	1988	Liver	1		46.5 cm	0.097	0.016			NVI, Norway, unpubl.
(*Pollachius virens*)	Norway				Muscle	1		46.5 cm			0.005		NVI, Norway, unpubl.
Atlantic Tomcod	Northwest River, Canada	53.50N	60.17W	1977	Muscle	4	♂	4.0 cm			0.39		Bruce *et al*. 1979 (1)
(*Microgadus tomcod*)					Muscle	4	♀	4.3 cm			0.22		Bruce *et al*. 1979 (1)
Polar cod	Upernavik, Greenland	74N	57W	1987	Liver	11	♂ ♀	21.0 cm		0.192*/1.54	0.187*/1.27	0.28*/2.07	Dietz *et al*. 1997b (2)
(*Arctogadus glacialis*)					Muscle	11	♂ ♀	21.0 cm		<0.015	0.278*/1.13	<0.20	Dietz *et al*. 1997b (2)
	Kong Oscars Fjord, Greenland	72.15N	24W	1985	Liver	1	♂ ♀	24.1 cm		1020	0.011	1.64	Dietz *et al*. 1997b (2)
					Muscle	1	♂ ♀	24.1 cm		<0.015	0.882	0.29	Dietz *et al*. 1997b (2)
	Ittoqqortoormiit, Greenland	70N	22W	1985	Liver	3	♂ ♀	20.7 cm		0.535*/1.68	0.016*/2.14	0.88*/1.57	Dietz *et al*. 1997b (2)
					Muscle	3	♂ ♀	18.7-20.7 cm		<0.015	0.060*/1.63	0.37*/1.49	Dietz *et al*. 1997b (2)
					Spleen	1-2	♂ ♀	18.5-21.7 cm		0.366	0.031*/1.80	5.25*/1.16	Dietz *et al*. 1997b (2)
East siberian cod	Ammassalik, Greenland	65.50N	37.62W	1985	Liver	3	♂ ♀	35.9 cm		0.284*/1.40	0.012*/1.73	0.99*/1.14	Dietz *et al*. 1997b (2)
(*Arctogadus borisovi*)					Muscle	3	♂ ♀	35.9 cm		<0.015	0.045*/1.49	<0.20	Dietz *et al*. 1997b (2)
					Spleen	3	♂ ♀	35.9 cm		0.058*/1.31	0.017*/1.61	3.48*/1.34	Dietz *et al*. 1997b (2)
Silver rockling	Nanortalik, Greenland	60N	45W	1985	Liver	2	♂ ♀	23.2 cm		0.107*/1.03			Dietz *et al*. 1997b (2)
(*Onogadus argentatus*)					Muscle	2	♂ ♀	23.2 cm		<0.015	0.030*/1.01		Dietz *et al*. 1997b (2)
					Spleen	1	♂ ♀	25.5 cm		0.044	0.054		Dietz *et al*. 1997b (2)
	Ammassalik, Greenland	65.50N	37.62W	1985	Liver	2	♂ ♀	22.9 cm		0.322*/1.97	0.022*/1.07		Dietz *et al*. 1997b (2)
					Kidney	1	♂ ♀	16.1 cm		0.122	0.051		Dietz *et al*. 1997b (2)
					Muscle	3	♂ ♀	21.6 cm		<0.015	0.046*/1.47		Dietz *et al*. 1997b (2)
					Spleen	1-2	♂ ♀	22.9 cm		0.174*/1.12	0.122		Dietz *et al*. 1997b (2)
Fish Doctor	Resolute Bay, Canada	74.68N	94.83W	1984	Liver	2		12 yrs				0.59±0.37	Muir *et al*. 1992 (1)
(*Gymnelis viridis*)					Muscle	2		12 yrs		<0.05	0.08±0.01	0.29±0.08	Muir *et al*. 1992 (1)
					Kidney	2		12 yrs				0.55±0.06	Muir *et al*. 1992 (1)
					Gonads	2		12 yrs				0.26±0.13	Muir *et al*. 1992 (1_
Eelpout	Nanortalik, Greenland	60N	45W	1985	Liver	3	♂ ♀	25.9 cm		1.03*/2.75	0.027*/1.16		Dietz *et al*. 1997b (2)
(*Lycodes*					Kidney	1	♂ ♀	27.0 cm		0.077	0.020		Dietz *et al*. 1997b (2)
eudipleurostichus)					Muscle	2	♂ ♀	26.5 cm		<0.015	0.045*/1.16		Dietz *et al*. 1997b (2)
					Spleen	3	♂ ♀	25.9 cm		0.077*/1.53	0.027*/1.12		Dietz *et al*. 1997b (2)
	Ittoqqortoormiit, Greenland	70N	22W	1985	Kidney	1	♂ ♀	32.8 cm		4.64	0.078		Dietz *et al*. 1997b (2)
					Muscle	1	♂ ♀	32.8 cm		<0.015	0.101		Dietz *et al*. 1997b (2)
					Spleen	1	♂ ♀	32.8 cm		0.643	0.037		Dietz *et al*. 1997b (2)
					Bile	1	♂ ♀	32.8 cm		2.06	0.067		Dietz *et al*. 1997b (2)
	Ammassalik, Greenland	65.50N	37.62W	1985	Liver	3	♂ ♀	23.3 cm		0.531*/1.88	0.019*/1.20		Dietz *et al*. 1997b (2)
					Muscle	3	♂ ♀	23.3 cm		<0.015	0.030*/1.06		Dietz *et al*. 1997b (2)
					Spleen	3	♂ ♀	23.3 cm		0.159*/1.50	0.024*/1.56		Dietz *et al*. 1997b (2)
Esmarks eelpout	Ammassalik, Greenland	65.50N	37.62W	1985	Liver	1	♂ ♀	46.0 cm		2.01	0.044		Dietz *et al*. 1997b (2)
(*Lycodes esmarki*)					Muscle	1	♂ ♀	46.0 cm		<0.015	0.035		Dietz *et al*. 1997b (2)
					Spleen	1	♂ ♀	46.0 cm		0.380	0.030		Dietz *et al*. 1997b (2)
Eelpout	Ittoqqortoormiit, Greenland	70N	22W	1985	Liver	3	♂ ♀	38.4 cm		0.475*/1.41	0.052*/1.36		Dietz *et al*. 1997b (2)
(*Lycodes seminudus*)					Muscle	3	♂ ♀	38.4 cm		<0.015	0.159*/1.50		Dietz *et al*. 1997b (2)
					Spleen	3	♂ ♀	38.4 cm		0.023*/3.12	0.046*/1.45		Dietz *et al*. 1997b (2)
					Bile	2	♂ ♀	39.1 cm		0.020*/4.02	0.015*/2.97		Dietz *et al*. 1997b (2)
Arctic eelpout	Kong Oscar Fjord, Greenland	72.15N	24W	1985	Liver	4	♂ ♀	22.9 cm		0.796*/1.26	0.084*/1.91		Dietz *et al*. 1997b (2)
(*Lycodes reticulatus*)					Muscle	2	♂ ♀	22.5 cm		<0.015	0.241*/1.79		Dietz *et al*. 1997b (2)
					Spleen	2	♂ ♀	32.0 cm		0.258*/5.48	0.064*/2.21		Dietz *et al*. 1997b (2)
					Bile	2	♂ ♀	32.0 cm		0.258*/1.42	0.026*/2.74		Dietz *et al*. 1997b (2)
	Ittoqqortoormiit, Greenland	70N	22W	1985	Liver	3	♂ ♀	17.6 cm		0.570*/1.31	0.054*/1.86		Dietz *et al*. 1997b (2)
					Muscle	3	♂ ♀	17.6 cm		<0.015	0.082*/2.29		Dietz *et al*. 1997b (2)
					Spleen	2	♂ ♀	19.5 cm		0.149*/2.40	0.026*/1.57		Dietz *et al*. 1997b (2)
	Ammassalik, Greenland	65.50N	37.62W	1985	Liver	1	♂ ♀	11.0 cm		0.149	0.018		Dietz *et al*. 1997b (2)
					Muscle	1	♂ ♀	11.0 cm		<0.015	0.006		Dietz *et al*. 1997b (2)
Vahl's eelpout	Nanortalik, Greenland	60N	45W	1985	Liver	1	♂ ♀	30.3 cm		0.886	0.037		Dietz *et al*. 1997b (2)
(*Lycodes vahli*)					Kidney	1	♂ ♀	30.3 cm		0.416			Dietz *et al*. 1997b (2)
					Muscle	1	♂ ♀	30.3 cm		<0.015	0.028		Dietz *et al*. 1997b (2)
					Spleen	1	♂ ♀	30.3 cm		0.433			Dietz *et al*. 1997b (2)

Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Metals, µg/g wet weight (unless otherwise indicated by footnote in Reference column) Lead	Cadmium	Mercury	Selenium	Reference
Northern wolffish (*Anarhichas denticulatus*)	Nuuk, Greenland	64.16N	51.75W	1985	Liver	3	♂ ♀	101 cm		0.639*/2.66	0.033*/2.95	2.68*/1.28	Dietz *et al.* 1997b (2)
					Kidney	3	♂ ♀	101 cm		0.069*/2.42	0.031*/1.81	1.14*/1.65	Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	101 cm		<0.015	0.014*/3.55	<0.20	Dietz *et al.* 1997b (2)
					Spleen	3	♂ ♀	101 cm			0.042*/2.67	1.50*/1.51	Dietz *et al.* 1997b (2)
					Bile	2	♂ ♀	97 cm			<0.005	<0.20	Dietz *et al.* 1997b (2)
					Gonads	1	♂ ♀	108 cm			0.023	0.36	Dietz *et al.* 1997b (2)
	Ivittuut, Greenland	61.25N	48.25W	1983	Liver	5	♂ ♀	104 cm		1.11*/2.43			Dietz *et al.* 1997b (2)
					Bone	5	♂ ♀	104 cm		<0.015			Dietz *et al.* 1997b (2)
	Nanortalik, Greenland	60N	45W	1985	Liver	1	♂ ♀	101 cm		1.37	0.053	1.27	Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	101 cm		0.022	0.030	2.59	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	101 cm		<0.015	0.029	<0.20	Dietz *et al.* 1997b (2)
	Ammassalik, Greenland	65.50N	37.62W	1985	Liver	2	♂ ♀	102 cm		1.06*/2.21	0.046*/1.58	1.13*/1.00	Dietz *et al.* 1997b (2)
					Kidney	2	♂ ♀	102 cm		0.046*/1.08	0.048*/1.77	2.45*/1.37	Dietz *et al.* 1997b (2)
					Muscle	2	♂ ♀	102 cm		<0.015	0.056*/1.49	<0.20	Dietz *et al.* 1997b (2)
					Bile	1	♂ ♀	106 cm		<0.015	<0.005		Dietz *et al.* 1997b (2)
					Gonades	1	♂ ♀	102-106 cm		<0.015	<0.005	0.68	Dietz *et al.* 1997b (2)
Atlantic wolffish (*Anarhichas lupus*)	Nuuk, Greenland	64.16N	51.75W	1986	Liver	1	♂ ♀	55.0 cm		1.61	0.013	3.33	Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	55.0 cm		0.094	0.025	2.56	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	55.0 cm		<0.015	0.064	0.30	Dietz *et al.* 1997b (2)
					Spleen	1	♂ ♀	55.0 cm		0.104	0.024	4.06	Dietz *et al.* 1997b (2)
					Bile	1	♂ ♀	55.0 cm		0.122	<0.005	0.74	Dietz *et al.* 1997b (2)
	Nanortalik, Greenland	60N	45W	1985	Liver	2	♂ ♀	24.4 cm		0.184*/1.08	0.033*/1.15		Dietz *et al.* 1997b (2)
					Kidney	2	♂ ♀	24.4 cm		0.055*/1.09	0.032*/1.15		Dietz *et al.* 1997b (2)
					Muscle	2	♂ ♀	24.4 cm		<0.015	0.036*/1.17		Dietz *et al.* 1997b (2)
					Spleen	1	♂ ♀	27.8 cm		0.158	0.023		Dietz *et al.* 1997b (2)
Spottet wolffish (*Anarhichas minor*)	Uummannaq, Greenland	71.50N	52.50W	1988	Liver	16	♂ ♀	79.0 cm		2.58*/1.59			Dietz *et al.* 1997b (2)
					Muscle	9	♂ ♀	80.8 cm		<0.015			Dietz *et al.* 1997b (2)
					Bone	16	♂ ♀	79.0 cm		<0.015			Dietz *et al.* 1997b (2)
				1989	Liver	20	♂ ♀	75.3 cm		1.69*/1.83			Dietz *et al.* 1997b (2)
					Muscle	10	♂ ♀	75.2 cm		<0.015			Dietz *et al.* 1997b (2)
					Bone	20	♂ ♀	75.3 cm		<0.015			Dietz *et al.* 1997b (2)
				1990	Liver	18	♂ ♀	74.9 cm		2.12*/2.12			Dietz *et al.* 1997b (2)
					Muscle	8	♂ ♀	70.9 cm		<0.015			Dietz *et al.* 1997b (2)
					Bone	14	♂ ♀	75.1 cm		<0.015			Dietz *et al.* 1997b (2)
				1991	Liver	16	♂ ♀	69.8 cm		2.33*/1.63			Dietz *et al.* 1997b (2)
					Muscle	12	♂ ♀	72.5 cm		<0.015			Dietz *et al.* 1997b (2)
					Bone	16	♂ ♀	71.5 cm		<0.015			Dietz *et al.* 1997b (2)
				1992	Liver	9	♂ ♀	79.2 cm		1.84*/2.82			Dietz *et al.* 1997b (2)
					Muscle	8	♂ ♀	72.6 cm		<0.015			Dietz *et al.* 1997b (2)
					Bone	10	♂ ♀	75.8 cm		<0.015			Dietz *et al.* 1997b (2)
				1993	Liver	10-16	♂ ♀	74.1-79.2 cm	0.013*/1.78	2.88*/2.69			Dietz *et al.* 1997b (2)
					Muscle	5-6	♂ ♀	77.9-78.4 cm	<0.01	<0.015			Dietz *et al.* 1997b (2)
					Bone	10-16	♂ ♀	74.1-80.8 cm	0.016*/1.99	<0.015			Dietz *et al.* 1997b (2)
	Kangaatsiaq, Greenland	68.3N	53.5W	1978	Muscle	18	♂ ♀	80.4 cm		<0.015			Dietz *et al.* 1997b (2)
	Ivittuut, Greenland	61.25N	48.25W	1983	Liver	8	♂ ♀	64.0 cm		1.15*/1.90			Dietz *et al.* 1997b (2)
					Muscle	8	♂ ♀	64.0 cm		<0.015			Dietz *et al.* 1997b (2)
					Bone	8	♂ ♀	64.0 cm		<0.015			Dietz *et al.* 1997b (2)
Redfish (*Sebastes* sp.)	Kap Farvel, Greenland	59.50N	41.75W	1994	Liver	25	♂ ♀	32-35 cm	0.042	6.65	0.28	2.15	Stange *et al.* 1996 (2)
					Muscle	25	♂ ♀	32-35 cm	0.005	0.0133	0.19	0.44	Stange *et al.* 1996 (2)
	Denmark Strait, Greenland	61.43N	31.70W	1994	Liver	26	♂ ♀	33-40 cm	0.031	10.1	0.37	2.68	Stange *et al.* 1996 (2)
					Muscle	26	♂ ♀	33-40 cm	0.003	0.009	0.21	0.40	Stange *et al.* 1996 (2)
	Iceland	66.00N	11.90W	1994	Liver	25	♂ ♀	17-33 cm	0.018	0.509	0.01	1.44	Stange *et al.* 1996 (2)
					Muscle	25	♂ ♀	17-33 cm	0.006	0.002	0.03	0.36	Stange *et al.* 1996 (2)
	Faeroe Island	60N	9.55W	1994	Liver	25	♂ ♀	39-44 cm	0.014	4.21	0.25	1.74	Stange *et al.* 1996 (2)
					Muscle	25	♂ ♀	39-44 cm	0.004	0.004	0.18	0.51	Stange *et al.* 1996 (2)
	Halten Banken, Norway	76.10N	8.52E	1994	Liver	25	♂ ♀	36-42 cm	0.022	0.957	0.07	2.20	Stange *et al.* 1996 (2)
					Muscle	25	♂ ♀	36-42 cm	0.003	0.003	0.07	0.39	Stange *et al.* 1996 (2)
Golden redfish (*Sebastes marinus*)	Nuuk, Greenland	64.16N	51.75W	1985	Liver	5	♂ ♀	46.4 cm		0.730*/2.12	0.027*/1.32	2.75*/1.61	Dietz *et al.* 1997b (2)
					Kidney	5	♂ ♀	46.4 cm		0.104*/1.92	0.037*/1.39	1.38*/1.20	Dietz *et al.* 1997b (2)
					Muscle	5	♂ ♀	46.4 cm		<0.015	0.036*/1.25	0.25*/1.74	Dietz *et al.* 1997b (2)
					Spleen	3	♂ ♀	47.7 cm		0.053*/1.87	0.056*/1.78	1.56*/1.50	Dietz *et al.* 1997b (2)

					Bile	1	♂ ♀	46.0-46.4 cm		0.027	<0.005	<0.20	Dietz *et al.* 1997b (2)
					Gonades	1	♂ ♀	43.0-46.4 cm		0.136	0.010	0.94	Dietz *et al.* 1997b (2)
	Nanortalik, Greenland	60N	45W	1985	Liver	3	♂ ♀	23.6 cm		1.96*/1.35	0.021*/1.16	1.47*/1.15	Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	23.6 cm		<0.015	<0.005	<0.20	Dietz *et al.* 1997b (2)
					Spleen	1	♂ ♀	23.0 cm		0.175	0.073	3.08	Dietz *et al.* 1997b (2)
	Ammassalik, Greenland	65.50N	37.62W	1985	Liver	1	♂ ♀	22.3 cm		1.66	0.020	1.06	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	22.3 cm		<0.015	0.006	0.37	Dietz *et al.* 1997b (2)
Arctic staghorn sculpin (*Gymnocanthus tricuspis*)	Upernavik, Greenland	74N	57W	1985	Liver	5	♂ ♀	20.0 cm		1.04*/1.65			Dietz *et al.* 1997b (2)
					Kidney	6	♂ ♀	19.8 cm		0.118*/1.28			Dietz *et al.* 1997b (2)
					Muscle	6	♂ ♀	19.8 cm		<0.015			Dietz *et al.* 1997b (2)
Twohorn sculpin (*Icelus bicornis*)	Nanortalik, Greenland	60N	45W	1985	Liver	2	♂ ♀	7.8 cm		0.037*/9.53	0.023*/1.04	1.10*/1.81	Dietz *et al.* 1997b (2)
					Muscle	2-3	♂ ♀	7.8-7.8 cm		<0.015	0.052*/1.09	0.41*/1.57	Dietz *et al.* 1997b (2)
	Kong Oscars Fjord, Greenland	72.15N	24W	1985	Liver	2	♂ ♀	7.2 cm		0.608*/2.77	0.034*/2.27	2.02*/1.02	Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	7.0 cm		0.064*/1.70	0.074*/1.71	0.76*/1.21	Dietz *et al.* 1997b (2)
	Ittoqqortoormiit, Greenland	70N	22W	1985	Liver	3	♂ ♀	7.0 cm		0.553*/1.48	0.040*/1.25	2.05*/1.18	Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	7.0 cm		0.040*/1.31	0.078*/1.41	0.83*/1.17	Dietz *et al.* 1997b (2)
	Ammassalik, Greenland	65.50N	37.62W	1985	Liver	2	♂ ♀	6.6 cm		0.893*/9.65	0.052*/3.55	2.09*/2.14	Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	6.5 cm		0.035*/2.25	0.096*/1.70	0.65*/1.27	Dietz *et al.* 1997b (2)
Fourhorn Sculpin (*Myoxocephalus quadricornis*)	Barrow Strait, Canada	73.50N	95.00W	1984	Liver	1						0.15	Muir *et al.* 1992 (1)
					Muscle	1				0.25	0.05		Muir *et al.* 1992 (1)
	Resolute Bay, Canada	74.68N	94.83W	1984	Liver	1						0.15	Muir *et al.* 1992 (1)
					Kidney	1						0.56	Muir *et al.* 1992 (1)
					Muscle	1					0.05	0.25	Muir *et al.* 1992 (1)
Shorthorn sculpin (*Myoxycephalus quadricornis*)	Kuujjuaq, Canada	58.0N	63.5W	1989	Muscle	22					0.18		Boivin 1990, unpublished (1)
	Avanersuaq, Greenland	77.5N	70W	1987	Liver	24	♂ ♀	26.7 cm		1.73*/1.66	0.024*/1.86	0.75*/1.26	Dietz *et al.* 1997b (2)
					Muscle	24	♂ ♀	26.7 cm		0.045*/3.92	0.065*/1.60	<0.20	Dietz *et al.* 1997b (2)
	Upernavik, Greenland	74N	57W	1985	Liver	10	♂ ♀	28.2 cm		2.34*/1.48			Dietz *et al.* 1997b (2)
					Kidney	10	♂ ♀	28.2 cm		0.127*/2.17			Dietz *et al.* 1997b (2)
					Muscle	10	♂ ♀	28.2 cm		<0.015			Dietz *et al.* 1997b (2)
					Bile	1	♂ ♀	34.6 cm		<0.015			Dietz *et al.* 1997b (2)
	Uummannaq, Greenland	71.5N	52.5W	1988	Liver	20	♂ ♀	25.4 cm		0.350*/2.63			Dietz *et al.* 1997b (2)
					Muscle	9	♂ ♀	27.4 cm		<0.015			Dietz *et al.* 1997b (2)
					Bone	20	♂ ♀	25.4 cm		0.008*/1.45			Dietz *et al.* 1997b (2)
				1989	Liver	20	♂ ♀	30.5 cm		0.331*/2.14			Dietz *et al.* 1997b (2)
					Muscle	10	♂ ♀	31.1 cm		<0.015			Dietz *et al.* 1997b (2)
					Bone	20	♂ ♀	30.5 cm		0.009*/1.76			Dietz *et al.* 1997b (2)
				1990	Liver	14	♂ ♀	29.1 cm		0.523*/2.54			Dietz *et al.* 1997b (2)
					Muscle	8	♂ ♀	26.7 cm		<0.015			Dietz *et al.* 1997b (2)
					Bone	12	♂ ♀	28.5 cm		0.009*/1.55			Dietz *et al.* 1997b (2)
				1991	Liver	14	♂ ♀	28.2 cm		0.654*/2.04			Dietz *et al.* 1997b (2)
					Muscle	8	♂ ♀	27.6 cm		<0.015			Dietz *et al.* 1997b (2)
					Bone	14	♂ ♀	26.4 cm		<0.015			Dietz *et al.* 1997b (2)
				1992	Liver	15	♂ ♀	25.6 cm		0.341*/4.85			Dietz *et al.* 1997b (2)
					Muscle	13	♂ ♀	26.5 cm		<0.015			Dietz *et al.* 1997b (2)
					Bone	16	♂ ♀	26.8 cm		<0.015			Dietz *et al.* 1997b (2)
				1993	Liver	9-23	♂ ♀	22.2-27.6 cm	0.011*/1.79	0.548*/2.21			Dietz *et al.* 1997b (2)
					Muscle	8-15	♂ ♀	23.2-28.0 cm	0.0537*/1.23	<0.015			Dietz *et al.* 1997b (2)
					Bone	9-23	♂ ♀	22.2-27.9 cm	0.0611*/1.45	<0.015			Dietz *et al.* 1997b (2)
	Maniitsoq, Greenland	65.42N	52.90W	1987	Liver	18	♂ ♀	26.8 cm		1.13*/2.34	0.019*/1.98		Dietz *et al.* 1997b (2)
					Kidney	18	♂ ♀	26.8 cm		0.008*/1.39			Dietz *et al.* 1997b (2)
					Muscle	18	♂ ♀	26.8 cm			0.040*/2.04		Dietz *et al.* 1997b (2)
	Nuuk, Greenland	64.16N	51.75W	1986	Liver	2	♂ ♀	35.0 cm		0.193*/2.46	0.007*/4.17	1.10*/1.48	Dietz *et al.* 1997b (2)
					Kidney	2	♂ ♀	35.0 cm		0.014*/2.50	0.008*/4.77	0.93*/2.10	Dietz *et al.* 1997b (2)
					Muscle	2	♂ ♀	35.0 cm		<0.015	0.022*/7.85	<0.20	Dietz *et al.* 1997b (2)
					Spleen	1-2	♂ ♀	35.0 cm		0.039	0.007*/4.66	1.59*/1.05	Dietz *et al.* 1997b (2)
				1987	Liver	3	♂ ♀	12.0 cm		0.956*/1.30	0.006*/2.28		Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	12.0 cm		0.063*/1.49	0.013*/1.18		Dietz *et al.* 1997b (2)
	Nanortalik, Greenland	60N	45W	1985	Liver	1-30	♂ ♀	24.2-26.5 cm		1.44*/2.08	0.037*/3.43	0.64	Dietz *et al.* 1997b (2)
					Kidney	5-27	♂ ♀	25.5-28 cm		0.085*/1.85	0.040*/2.13		Dietz *et al.* 1997b (2)
					Muscle	1-31	♂ ♀	24.2-26.4 cm		0.011*/2.57	0.081*/2.30	0.48	Dietz *et al.* 1997b (2)
					Spleen	1-4	♂ ♀	24.2-27.3 cm		0.379*/1.76	0.024*/3.81	2.69	Dietz *et al.* 1997b (2)
					Bile	1	♂ ♀	22.7 cm		0.125			Dietz *et al.* 1997b (2)
	Kong Oscars Fjord, Greenland	72.15N	24W	1985	Liver	14	♂ ♀	16.8 cm		0.478*/3.12	0.029*/1.53		Dietz *et al.* 1997b (2)
					Kidney	8	♂ ♀	18.9 cm		0.139*/1.86	0.024*/3.12		Dietz *et al.* 1997b (2)
					Muscle	14	♂ ♀	16.8 cm		0.011*/1.83	0.058*/1.66		Dietz *et al.* 1997b (2)
					Spleen	12	♂ ♀	18.1 cm		0.266*/1.98	0.012*/3.28		Dietz *et al.* 1997b (2)

Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Metals, µg/g wet weight (unless otherwise indicated by footnote in Reference column) Lead	Cadmium	Mercury	Selenium	Reference
Shorthorn sculpin				1991	Liver	10	♂ ♀	18.6 cm	<0.14				Dietz *et al.* 1997b (2)
					Muscle	10	♂ ♀	18.6 cm	<0.032				Dietz *et al.* 1997b (2)
					Bone	10	♂ ♀	18.6 cm	<0.12				Dietz *et al.* 1997b (2)
	Ittoqqortoormiit, Greenland	70N	22W	1985	Liver	1-3	♂ ♀	9.2-10.3 cm		1.07	0.021*/1.23	1.53*/1.39	Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	9.2 cm		0.029*/4.44	0.033*/1.27	1.01*/1.05	Dietz *et al.* 1997b (2)
	Ammassalik, Greenland	65.50N	37.62W	1985	Liver	2-25	♂ ♀	26.9-27.1 cm		0.623*/2.44	0.087*/1.23	0.72*/1.88	Dietz *et al.* 1997b (2)
					Kidney	1-25	♂ ♀	23.7-27.2 cm		0.081*/3.19	0.066	1.91	Dietz *et al.* 1997b (2)
					Muscle	1-25	♂ ♀	23.7-27.3 cm		0.008*/1.51	0.144*/1.17	0.57	Dietz *et al.* 1997b (2)
					Spleen	1-2	♂ ♀	23.7-29.6 cm	<0.005	0.095*/2.75	0.066*/1	2.08	Dietz *et al.* 1997b (2)
Ribbed sculpin (*Triglops pingeli*)	Ittoqqortoormiit, Greenland	70N	22W	1985	Liver	1	♂ ♀	9.0 cm		0.339			Dietz *et al.* 1997b (2)
Sea tadpole (*Careproctus reinhardti*)	Nanortalik, Greenland	60N	45W	1985	Liver	3	♂ ♀	7.8 cm		0.165*/1.37	0.006*/2.29	0.83*/1.66	Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	7.8 cm		0.021*/2.47	0.006*/2.01	0.35*/1.36	Dietz *et al.* 1997b (2)
	Kong Oscars Fjord	72.15N	24W	1985	Liver	1	♂ ♀	16.0 cm		<0.015	<0.005	<0.20	Dietz *et al.* 1997b (2)
					Muscle	2	♂ ♀	12.0 cm		0.032*/7.91	0.014*/1.71	0.36*/1.46	Dietz *et al.* 1997b (2)
	Ammassalik, Greenland	65.50N	37.62W	1985	Liver	1	♂ ♀	10.4 cm		0.762	0.007	1.23	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	10.4 cm		0.019	0.012	0.31	Dietz *et al.* 1997b (2)
Gelatinous snailfish (*Liparis koefoedi*)	Kong Oscars Fjord, Greenland	72.15N	24W	1985	Liver	3	♂ ♀	12.9 cm		0.270±2.39			Dietz *et al.* 1997b (2)
					Muscle	2	♂ ♀	13.9 cm		0.020±1.50			Dietz *et al.* 1997b (2)
	Ittoqqortoormiit, Greenland	70N	22W	1985	Liver	2-1	♂ ♀	12.2 cm		0.474±1.49			Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	12.4 cm		<0.015	0.027		Dietz *et al.* 1997b (2)
	Denmark Strait, Greenland	69.5N	21.5W	1985	Liver	3	♂ ♀	12.7 cm		0.294±1.96			Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	12.7 cm		0.022±2.54			Dietz *et al.* 1997b (2)
Greenland seasnail (*Liparis tunicatus*)	Nanortalik, Greenland	60N	45W	1985	Liver	2	♂ ♀	15.6 cm		0.182*/1.02			Dietz *et al.* 1997b (2)
					Kidney	3	♂ ♀	15.2 cm		0.231*/1.33			Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	15.2 cm		0.012*/2.39			Dietz *et al.* 1997b (2)
	Kong Oscars Fjord, Greenland	72.15N	24W	1985	Liver	3	♂ ♀	15.4 cm		0.144*/5.60			Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	15.9 cm		<0.015			Dietz *et al.* 1997b (2)
	Ittoqqortoormiit, Greenland	70N	22W	1985	Liver	1	♂ ♀	16.0 cm		0.024			Dietz *et al.* 1997b (2)
					Muscle	2	♂ ♀	16.3 cm		0.027*/1.62			Dietz *et al.* 1997b (2)
	Ammassalik, Greenland	65.50N	37.62W	1985	Liver	1	♂ ♀	15.2 cm		0.077			Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	15.2 cm		<0.015			Dietz *et al.* 1997b (2)
	Denmark Strait, Greenland	69.5N	21.5W	1985	Liver	1	♂ ♀	17.5 cm		1.51			Dietz *et al.* 1997b (2)
Flounder (*Platichthys stellatus*)	Tuktoyaktuk harbor, Canada	69.43N	132.93W	1984	Liver	2		6 yrs		0.5	0.03±0.04	1.61±0.35	Muir *et al.* 1992 (1)
					Kidney	2		6 yrs				1.03±0.04	Muir *et al.* 1992 (1)
					Muscle	2		6 yrs		<0.05	0.03±0.01	0.49±0.04	Muir *et al.* 1992 (1)
					Gonads	2		6 yrs		0.05±0.03	0.03±0.01	0.6±0.23	Muir *et al.* 1992 (1)
	Tuktoyaktuk/Mason Bay, Canada	69.33N	134.13W	1986-1987	Muscle	17	♂ ♀	6 yrs			0.356±0.385		Thomas 1988 (1)
				1986-1987	Muscle	30	♂ ♀	6 yrs			0.307±0.234		Thomas 1988 (1)
Long rough dab (*Hippoglossoides platessoides*)	Nanortalik, Greenland	60N	45W	1985	Liver	3	♂ ♀	22.9 cm		0.347*/1.98		1.38*/1.60	Dietz *et al.* 1997b (2)
					Kidney	3	♂ ♀	22.9 cm		0.039*/2.15		5.15*/2.38	Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	22.9 cm		<0.015		0.30*/2.87	Dietz *et al.* 1997b (2)
	Ittoqqortoormiit, Greenland	70N	22W	1985	Muscle	1	♂ ♀	6.0 cm		<0.015	0.024	0.52	Dietz *et al.* 1997b (2)
	Iceland	66N	11.90W	1994	Liver	25	♂ ♀	30-36 cm	0.018	0.260		1.19	Stange *et al.* 1996 (2)
					Muscle	25	♂ ♀	30-36 cm	0.004	0.002	0.02		Stange *et al.* 1996 (2)
	Svalbard, Norway	79N	13E	1984	Liver	1			0.030	0.078			Carlberg and Bøler 1985
					Muscle	1			0.017	<0.005	0.029	0.26	Carlberg and Bøler 1985
	Svalbard, Norway	76.39N	14.52E	1993	Liver	25	♂ ♀	27-36 cm	0.015±0.007	0.062±0.022		1.70±0.66	Maage *et al.* 1996 (1)
					Muscle	25	♂ ♀	27-36 cm	0.014±0.003	0.0035±0.0004	0.02±0.01		Maage *et al.* 1996 (1)
	Barents Sea	74.22N	41.02E	1992	Liver	25	♂ ♀	24-28 cm	0.016±0.004	0.099±0.021		1.18±0.15	Maage *et al.* 1996 (1)
					Muscle	25	♂ ♀	24-28 cm	0.010±0.006	0.0018±0.0005	0.01±0.00		Maage *et al.* 1996 (1)
		73.04N	48.1E	1993	Liver	25	♂ ♀	19-30 cm	0.062±0.044	0.485±0.239		1.70±0.66	Maage *et al.* 1996 (1)
					Muscle	25	♂ ♀	19-30 cm	0.031±0.043	0.0015±0.0003	0.01±0.00		Maage *et al.* 1996 (1)
Common dab (*Limanda limanda*)	Iceland			1990	Liver	15	♂ ♀	19.0-30.8 cm	<0.107	0.332			OSPARCOM/MRII, unpubl. (1)
					Muscle	15	♂ ♀	19.0-30.8 cm			0.044		OSPARCOM/MRII, unpubl. (1)
				1991	Liver	13	♂ ♀	23.0-33.0 cm	<0.040	0.355			OSPARCOM/MRII, unpubl. (1)
					Muscle	13	♂ ♀	23.0-33.0			0.054		OSPARCOM/MRII, unpubl. (1)
				1992	Liver	3		26.4-28.4 cm	<0.015m0.560				OSPARCOM/MRII, unpubl. (1)

					Muscle	3		26.4-28.4 cm			0.043		OSPARCOM/MRII, unpubl. (1)
	Lofoten area/Lille Molla, Norway	68.2N	14.8E	1993	Liver	4		59.9-3.58 cm	0.047*/1.51	0.298*/1.33			OSPARCOM/MRII, unpubl. (2)
					Muscle	4		59.9-35.8 cm			0.087*/1.70		OSPARCOM/MRII, unpubl. (2)
				1994	Liver	1	♂	35.6 cm	<0.020	0.980			OSPARCOM/MRII, unpubl. (2)
Lemon sole (*Microstomus kitt*)	Orkdalsfjorden/Trossavika, Norway	63.58N	10.00E	1988	Liver	1		51 cm	0.122	0.176			OSPARCOM/MRII, unpubl. (2)
					Muscle	1		51 cm			0.012		OSPARCOM/MRII, unpubl. (2)
	Lofoten area/ Lille Molla Norway	68.2N	14.8E	1994	Liver	1	♀	40.4 cm	0.070	0.780			OSPARCOM/MRII, unpubl. (2)
European plaice (*Pleuronectes platessa*)	Lofoten area/ Lille Molla Norway	68.2N	14.8E	1993	Liver	3		33.2-50.0 cm	0.033*/1.18	0.103*/1.16			OSPARCOM/MRII, unpubl. (2)
					Muscle	3		33.2-50.0 cm			0.020*/1.23		OSPARCOM/MRII, unpubl. (2)
	Saltfjorden, Nordland, Norway	67.25N	14.17E	1994	Muscle	1			0.050	0.010	0.030		OSPARCOM/MRII, unpubl. (2)
Greenland halibut (*Reinhardtius hippoglossoides*)	Uummannaq, Greenland	71.5N	52.5W	1988	Muscle	9	♂ ♀	51.4 cm		<0.015			Dietz *et al.* 1997b (2)
				1989	Muscle	10	♂ ♀	50.3 cm	<0.01	<0.015	<0.015		Dietz *et al.* 1997b (2)
				1990	Muscle	18	♂ ♀	50.2 cm	<0.01	<0.015			Dietz *et al.* 1997b (2)
				1991	Muscle	10	♂ ♀	54.5 cm	<0.01	<0.015			Dietz *et al.* 1997b (2)
				1993	Muscle	11-12	♂ ♀	64.1-64.3 cm	0.0503	<0.015			Dietz *et al.* 1997b (2)
				1993	Bone	1	♂ ♀	67.0 cm		<0.015			Dietz *et al.* 1997b (2)
				1994	Muscle	10	♂ ♀	52.3 cm	<0.005	<0.015			Dietz *et al.* 1997b (2)
	Nuuk, Greenland	64.16N	51.75W	1985	Liver	4-5	♂ ♀	71.4-72.5 cm		1.94*/1.63	0.023*/4.03	2.83*/1.41	Dietz *et al.* 1997b (2)
					Kidney	5	♂ ♀	71.4 cm		0.114*/1.87	0.032*/1.49	0.84*/1.18	Dietz *et al.* 1997b (2)
					Muscle	5	♂ ♀	71.4 cm		<0.015	0.033*/1.32	<0.20	Dietz *et al.* 1997b (2)
					Bile	3	♂ ♀	71.4-75.7 cm			<0.005	<0.20	Dietz *et al.* 1997b (2)
					Gonades	1	♂ ♀	71.4-91 cm			0.021	0.78	Dietz *et al.* 1997b (2)
	Ivittuut, Greenland	61.25N	48.25W	1983	Liver	15	♂ ♀	60.7 cm		0.747*/1.39			Dietz *et al.* 1997b (2)
					Muscle	15	♂ ♀	60.7 cm		<0.015			Dietz *et al.* 1997b (2)
					Bone	15	♂ ♀	60.7 cm		<0.015			Dietz *et al.* 1997b (2)
	Nanortalik, Greenland	60N	45W	1985	Liver	1	♂ ♀	37.0 cm		0.327	0.018	1.18	Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	37.0 cm		0.027	0.017	0.90	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	37.0 cm		<0.015	0.018	0.28	Dietz *et al.* 1997b (2)
					Spleen	1	♂ ♀	37.0 cm		0.081	0.023	1.14	Dietz *et al.* 1997b (2)
	Kong Oscars Fjord, Greenland	72.15N	24W	1985	Liver	1	♂ ♀	47.0 cm		0.133	0.040	1.94	Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	47.0 cm		0.132	0.035	1.22	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	47.0 cm		<0.015	0.059	<0.20	Dietz *et al.* 1997b (2)
					Spleen	1	♂ ♀	47.0 cm		0.298	0.062	2.19	Dietz *et al.* 1997b (2)
					Bile	1	♂ ♀	47.0 cm		0.166	<0.005		Dietz *et al.* 1997b (2)
	Ittoqqortoormiit, Greenland	70N	22W	1985	Liver	1	♂ ♀	35.8 cm		0.423	0.017	0.82	Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	35.8 cm		0.047	0.016	0.66	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	35.8 cm		<0.015	0.039	0.24	Dietz *et al.* 1997b (2)
	Ammassalik, Greenland	65.50N	37.62W	1985	Liver	3	♂ ♀	40.8 cm		0.891*/1.34	0.014*/1.37	1.07*/1.39	Dietz *et al.* 1997b (2)
					Kidney	3	♂ ♀	40.8 cm		0.038*/4.88	0.016*/1.30	0.77*/1.29	Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	40.8 cm		<0.015	0.025*/2.34	0.32*/3.45	Dietz *et al.* 1997b (2)
					Spleen	1-3	♂ ♀	38.6-40.8 cm		0.178	0.028*/1.89	1.66*/1.61	Dietz *et al.* 1997b (2)
	Paamiut, Greenland	62.00N	49.78W	1983	Muscle	5	♂ ♀		<0.002				Dietz *et al.* 1997b (2)

1. Wet weight, Arithmetic mean.
2. Wet weight., Geometric mean.
3. Dry weight, Arithmetic mean.
4. Dry weight, Geometric mean.

± Standard Deviation.
*/ Relative Standard Deviation.

Table 7·A14. Lead, cadmium, mercury and selenium in Arctic seabirds.

								Metals, µg/g wet weight (unless otherwise indicated by footnote in Reference column)					
Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Lead	Cadmium	Mercury	Selenium	Reference
Northern fulmar (*Fulmarus glacialis*)	Lancaster Sound, Canada	74N	85W	1977	Liver	10		Adult		20.9*/1.99	1.27*/2.44		RRCS Ltd. 1977 (2)
					Muscle	10		Adult		2.59*/3.37	0.141*/2.40		RRCS Ltd. 1977 (2)
	Prince Leopold Island, Canada	74.02N	90.05W	1993	Liver	10		1+ yrs	<0.02	11.8	2.44	10.3	Braune (2) pers. comm.
					Kidney	10		1+ yrs		37.5*/1.39			Braune (2) pers. comm.
	Avanersuaq, Greenland	77.50N	70W	1984	Liver	4	♂ ♀	1+ yrs		13.1*/1.58	1.79*/1.46	9.62*/1.16	Dietz *et al.* 1997b (2)
					Kidney	4	♂ ♀	1+ yrs		34.8*/1.68	0.804*/1.30	16.9*/1.18	Dietz *et al.* 1997b (2)
					Muscle	4	♂ ♀	1+ yrs		0.74*/2.08	0.316*/1.59	2.68*/1.51	Dietz *et al.* 1997b (2)
	Upernavik, Greenland	74N	57W	1985	Liver	5	♂ ♀	1+ yrs		8.26*/2.09	2.70*/1.64	9.37*/1.42	Dietz *et al.* 1997b (2)
					Kidney	5	♂ ♀	1+ yrs		33.8*/1.63	0.780*/1.32	18.3*/1.17	Dietz *et al.* 1997b (2)
					Muscle	5	♂ ♀	1+ yrs		0.614*/2.94	0.311*/1.31	2.76*/1.44	Dietz *et al.* 1997b (2)

Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Metals, µg/g wet weight (unless otherwise indicated by footnote in Reference column) Lead	Cadmium	Mercury	Selenium	Reference
Northern fulmar	Uummannaq, Greenland	71.5N	52.50W	1985	Liver	7	♂ ♀	1+ yrs		8.12*/1.60	1.49*/2.54	7.66*/1.19	Dietz *et al.* 1997b (2)
					Kidney	7	♂ ♀	1+ yrs		28.3*/1.64	0.494*/2.01	12.5*/1.30	Dietz *et al.* 1997b (2)
					Muscle	7	♂ ♀	1+ yrs		1.14*/3.37	0.176*/1.75	1.80*/1.38	Dietz *et al.* 1997b (2)
	Ittoqqortoormiit, Greenland	70N	22W	1986	Liver	1	♂ ♀	1+ yrs		6.74	1.36	4.80	Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	1+ yrs		27.8	0.475	14.5	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	1+ yrs		0.483	0.184	2.60	Dietz *et al.* 1997b (2)
	Iceland	65.30N	24.30W	1986-1991	Feather	25	♂ ♀				3.8±1.5		Thompson *et al.* 1992 (1)
	West Svalbard, Norway	78N	13E	1980	Liver	10	♂ ♀			17	2.1	3.0	Norheim 1987 (1)
				1980	Kidney	10	♂ ♀			55			Norheim 1987 (1)
	Svalbard, Norway	77N	16E	1984	Liver	2			<0.5	0.283*/1.63	0.073*/71.00	2.12*/1.30	Carlberg and Bøler 1985 (2)
				1984	Kidney	2			0.775*/4.95	0.8*/1.0			Carlberg and Bøler 1985 (2)
	Ny Ålesund, Svalbard, Norway	79N	12E	1991	Liver	3	♀	Adult	4.15±5.16	102.8±41.1	5.65±0.81	19.75±1.74	Savinova and Gabrielsen 1994 (3)
					Liver	2	♂	Adult	0.25±0.21	29.27±19.62	3.74±4.16	10.25±3.76	Savinova and Gabrielsen 1994 (3)
					Muscle	3	♀	Adult	32.16±30.48	8.66±4.57	0.59±0.22	9.95±3.00	Savinova and Gabrielsen 1994 (3)
					Muscle	2	♂	Adult	89.92±123.49	97.79±135.23	3.03±2.77	13.84±11.70	Savinova and Gabrielsen 1994 (3)
	Bear Island, Svalbard, Norway	74.33N	18.77E	1991	Liver	4	♀	Adult	0.10±0.01	43.10±14.62	1.81±1.44	10.27±1.39	Savinova and Gabrielsen 1994 (3)
					Liver	1	♂	Adult	0.08	10.47	2.52	9.91	Savinova and Gabrielsen 1994 (3)
					Muscle	4	♀	Adult	0.07±0.01	5.10±5.25	0.23±0.06	2.63±0.61	Savinova and Gabrielsen 1994 (3)
	Kara Sea, Russia			1995	Liver	1			0.360	0.080	0.060		Rosgidromet 1995 (1)
					Kidney	1			0.210	0.070	0.060		Rosgidromet 1995 (1)
					Muscle	1			<0.050	<0.050	0.020		Rosgidromet 1995 (1)
Great cormorant (*Phalococorax carbo*)	Kangaatsiaq, Greenland	68.3N	53.5W	1986	Liver	1	♂ ♀	1+ yrs		1.11	10.6	2.54	Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	1+ yrs		6380	28.1	9.26	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	1+ yrs		0.167	2.16	0.75	Dietz *et al.* 1997b (2)
Common eider (*Somateria molissima*)	Pangnirtung, Canada	66.15N	65.72W	1990	Muscle	5	♂ ♀	Immature	0.1	0.03	0.11	0.4	CWS Database 1992 (1)
					Muscle	3	♀	Adult	0.1	0.11	0.09	0.7	CWS Database 1992 (1)
	Salluit, Canada	62.5N	76W	1991	Muscle	3	♂ ♀	Adult	0.063	0.172	0.264	0.846	CWS Database 1992 (1)
	Inukjuak, Canada	66.98N	86.78W	1991	Muscle	3	♀	Adult	0.083	0.081	0.048	0.578	CWS Database 1992 (1)
	Sanikiluaq, Canada	56.53N	79.23W	1988	Muscle	5	♂ ♀	Immature	0.41	0.02	0.05	0.78	CWS Database 1992 (1)
					Muscle	5	♂	Adult	0.29	0.07	0.05	0.32	CWS Database 1992 (1)
					Muscle	2	♀	Adult	0.05	0.06	0.1	1.06	CWS Database 1992 (1)
	Kangiqsualujjuaq, Canada	58.42N	65.57W	1991	Muscle	6	♂ ♀	Adult	0.208	0.176	0.235	1.22	CWS Database 1992 (1)
	Tinker Harbour, Canada			1970	Muscle	1					0.05		Noble and Elliott 1986 (2)
	Avanersuaq, Greenland	77.5N	70W	1984	Liver	1	♂ ♀	1+ yrs		3.96	0.388	3.40	Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	1+ yrs		13.7	0.194	3.26	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	1+ yrs		0.066		1.07	Dietz *et al.* 1997b (2)
	Uummannaq, Greenland	71.5N	52.50W	1982	Liver	3	♂ ♀	0 yr		0.661*/1.19			Dietz *et al.* 1997b (2)
					Kidney	3	♂ ♀	0 yr		1.84*/1.45			Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	0 yr		0.135*/1.63			Dietz *et al.* 1997b (2)
					Bone	3	♂ ♀	0 yr		0.013*/2.23			Dietz *et al.* 1997b (2)
				1983	Liver	12	♂ ♀	1+ yrs		3.45*/1.34			Dietz *et al.* 1997b (2)
					Kidney	12	♂ ♀	1+ yrs		16.8*/1.54			Dietz *et al.* 1997b (2)
					Muscle	12	♂ ♀	1+ yrs		0.271*/1.81			Dietz *et al.* 1997b (2)
					Bone	12	♂ ♀	1+ yrs		0.021*/3.27			Dietz *et al.* 1997b (2)
				1984	Liver	2	♂ ♀	0 yr		0.092*/1.35			Dietz *et al.* 1997b (2)
					Kidney	2	♂ ♀	0 yr		0.249*/1.19			Dietz *et al.* 1997b (2)
					Muscle	2	♂ ♀	0 yr		0.005*/2.49			Dietz *et al.* 1997b (2)
					Bone	2	♂ ♀	0 yr		<0.010			Dietz *et al.* 1997b (2)
					Liver	19	♂ ♀	1+ yrs		3.131*/1.53			Dietz *et al.* 1997b (2)
					Kidney	19	♂ ♀	1+ yrs		13.7*/1.49			Dietz *et al.* 1997b (2)
					Muscle	19	♂ ♀	1+ yrs		0.135*/2.06			Dietz *et al.* 1997b (2)
					Bone	19	♂ ♀	1+ yrs		0.012*/2.23			Dietz *et al.* 1997b (2)
				1985	Liver	1	♂ ♀	0 yr		0.406			Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	0 yr		1.38			Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	0 yr		0.017			Dietz *et al.* 1997b (2)
					Bone	1	♂ ♀	0 yr		<0.010			Dietz *et al.* 1997b (2)
					Liver	1	♂ ♀	1+ yrs		4540			Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	1+ yrs		58.1			Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	1+ yrs		1123			Dietz *et al.* 1997b (2)
					Liver	1-9	♂ ♀	1+ yrs		2.80*/2.00	0.338	21.4	Dietz *et al.* 1997b (2)
					Kidney	1-9	♂ ♀	1+ yrs		11.0*/2.74	0.136	10.54	Dietz *et al.* 1997b (2)
					Muscle	1-9	♂ ♀	1+ yrs		0.156*/5.38	0.035	0.66	Dietz *et al.* 1997b (2)
					Bone	9	♂ ♀	1+ yrs		<0.010			Dietz *et al.* 1997b (2)

				1987	Liver	20	♂ ♀	1+ yrs		3.66*/1.53			Dietz *et al.* 1997b (2)
					Kidney	20	♂ ♀	1+ yrs		15.4*/1.58			Dietz *et al.* 1997b (2)
					Muscle	10	♂ ♀	1+ yrs		0.076*/4.26			Dietz *et al.* 1997b (2)
					Bone	20	♂ ♀	1+ yrs		0.052*/1.35			Dietz *et al.* 1997b (2)
				1988	Liver	4	♂ ♀	0 yr		0.042*/1.09			Dietz *et al.* 1997b (2)
					Kidney	3	♂ ♀	0 yr	0.069*/1.12	0.764*/9.77			Dietz *et al.* 1997b (2)
					Muscle	4	♂ ♀	0 yr	0.108*/1.08	0.013*/4.85			Dietz *et al.* 1997b (2)
					Bone	4	♂ ♀	0 yr	<0.125	<0.010			Dietz *et al.* 1997b (2)
					Liver	15	♂ ♀	1+ yrs		3.38*/1.42			Dietz *et al.* 1997b (2)
					Kidney	15	♂ ♀	1+ yrs	0.054*/1.76	12.6*/1.59			Dietz *et al.* 1997b (2)
					Muscle	15	♂ ♀	1+ yrs	0.063*/1.65	0.141*/2.35			Dietz *et al.* 1997b (2)
					Bone	15	♂ ♀	1+ yrs	<0.013	0.032*/1.65			Dietz *et al.* 1997b (2)
				1991	Liver	19	♂ ♀	1+ yrs		2.64*/1.66			Dietz *et al.* 1997b (2)
					Kidney	19	♂ ♀	1+ yrs	0.038*/2.05	10.6*/1.83			Dietz *et al.* 1997b (2)
					Muscle	10	♂ ♀	1+ yrs	0.073*/1.71	0.066*/3.39			Dietz *et al.* 1997b (2)
					Bone	19	♂ ♀	1+ yrs	<0.018	0.027*/1.74			Dietz *et al.* 1997b (2)
	Kangaatsiaq, Greenland	68.3N	53.5W	1986	Liver	8	♂ ♀	1+ yrs		2.50*/2.20	0.697*/1.85	5.42*/2.76	Dietz *et al.* 1997b (2)
					Kidney	7	♂ ♀	1+ yrs		8.82*/2.15	0.233*/1.38	5.60*/1.64	Dietz *et al.* 1997b (2)
					Muscle	8	♂ ♀	1+ yrs		0.047*/4.70	0.114*/1.30	0.94*/2.67	Dietz *et al.* 1997b (2)
	Nanortalik, Greenland	60N	45W	1986	Liver	11	♂ ♀	1+ yrs		2.65*/1.83	0.784*/1.96	6.09*/1.53	Dietz *et al.* 1997b (2)
					Kidney	11	♂ ♀	1+ yrs		11.1*/1.92	0.302*/1.51	5.06*/1.52	Dietz *et al.* 1997b (2)
					Muscle	11	♂ ♀	1+ yrs		0.084*/3.33	0.166*/1.64	0.63*/2.81	Dietz *et al.* 1997b (2)
	West Svalbard, Norway	78N	13E	1980	Liver	9	♂ ♀			4.3	1.0	8.9	Norheim 1987 (1)
				1980	Kidney	9	♂ ♀			14			Norheim 1987 (1)
	Svalbard, Norway	77N	16E	1984	Liver	2			<0.5	0.45*/8.31	0.061*/1.77	2.27*/1.10	Carlberg and Bøler 1985 (2)
					Kidney	2			<0.5	1.18*/2.50			Carlberg and Bøler 1985 (2)
	Svalbard, Norway			1994	Liver	8			<0.108*/4.57	3.13*/1.56	0.368*/1.22	5.10*/1.37	NPRI, Norway, unpubl. (2)
	Ny Ålesund, Svalbard, Norway	79N	12E	1991	Liver	2		Adult	0.38±0.16	44.85±3.55	2.56±1.20	16.39±3.11	Savinova and Gabrielsen 1994 (3)
					Liver	2	♀	Adult	0.51±0.26	15.94±7.26	1.86±0.29	9.56±0.95	Savinova and Gabrielsen 1994 (3)
					Liver	2	♂	Adult	0.56±0.46	16.48±4.54	1.23±0.66	10.86±3.32	Savinova and Gabrielsen 1994 (3)
					Muscle	2		Adult	0.08±0.00	0.85±0.46	0.39±0.11	4.66±0.76	Savinova and Gabrielsen 1994 (3)
					Muscle	2	♀	Adult	1.53±1.44	0.33±0.31	0.43±0.06	4.09±0.83	Savinova and Gabrielsen 1994 (3)
					Muscle	2	♂	Adult	2.78±3.69	0.53±0.26	0.38±0.27	2.25±0.08	Savinova and Gabrielsen 1994 (3)
	Franz Josef Land, Russia	80.32N	52.87E	1991	Liver	5		Adult	0.24±0.04	0.30±0.07	0.08±0.00	5.14±0.28	Savinova and Gabrielsen 1994 (3)
					Muscle	5		Adult	2.24±0.71	0.08±0.03	0.04±0.00	1.32±0.34	Savinova and Gabrielsen 1994 (3)
King eider (*Somateria spectabilis*)	Holman Island, Canada	70.65N	117.73W	1989	Muscle	1	♀	Adult	1		0.15	1.1	CWS Database 1992 (1)
					Muscle	1	♂	Adult	0.3	0.51	0.15	1.9	CWS Database 1992 (1)
	Salluit, Canada	62.5N	76W	1991	Muscle	1	♂	Adult	0.048	0.202	0.24	0.911	CWS Database 1992 (1)
	Inukjuak, Canada	66.98N	86.78W	1991	Muscle	1	♂	Immature	0.048	0.088	0.163	0.638	CWS Database 1992 (1)
					Muscle	1	♀	Adult	0.26	0.091	0.250	0.587	CWS Database 1992 (1)
	Uummannaq, Greenland	71.5N	52.5W	1982	Liver	7	♂ ♀	0 yr		0.343*/1.50			Dietz *et al.* 1997b (2)
					Kidney	7	♂ ♀	0 yr		0.704*/1.53			Dietz *et al.* 1997b (2)
					Muscle	7	♂ ♀	0 yr		0.183*/2.45			Dietz *et al.* 1997b (2)
					Bone	7	♂ ♀	0 yr		0.013*/2.89			Dietz *et al.* 1997b (2)
				1983	Liver	15	♂ ♀	1+ yrs		3.49*/1.62			Dietz *et al.* 1997b (2)
					Kidney	15	♂ ♀	1+ yrs		19.3*/1.64			Dietz *et al.* 1997b (2)
					Muscle	15	♂ ♀	1+ yrs		0.545*/2.24			Dietz *et al.* 1997b (2)
					Bone	15	♂ ♀	1+ yrs		0.026*/2.43			Dietz *et al.* 1997b (2)
				1984	Liver	3	♂ ♀	1+ yrs		5.15*/1.33			Dietz *et al.* 1997b (2)
					Kidney	3	♂ ♀	1+ yrs		17.3*/1.34			Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	1+ yrs		0.227*/2.80			Dietz *et al.* 1997b (2)
					Bone	3	♂ ♀	1+ yrs		0.023*/4.13			Dietz *et al.* 1997b (2)
				1985	Liver	1	♂ ♀	0 yr		2.86			Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	0 yr		5.78			Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	0 yr		0.022			Dietz *et al.* 1997b (2)
					Bone	1	♂ ♀	0 yr		<0.010			Dietz *et al.* 1997b (2)
					Liver	6	♂ ♀	1+ yrs		8.82*/1.81		12.4*/1.65	Dietz *et al.* 1997b (2)
					Kidney	6	♂ ♀	1+ yrs		26.7*/1.85		5.46*/1.42	Dietz *et al.* 1997b (2)
					Muscle	6	♂ ♀	1+ yrs		0.679*/1.68		0.56*/2.77	Dietz *et al.* 1997b (2)
	Uummannaq, Greenland	71.5N	52.5W	1986	Liver	6	♂ ♀	1+ yrs			0.481*/1.70		Dietz *et al.* 1997b (2)
					Kidney	6	♂ ♀	1+ yrs			0.313*/1.34		Dietz *et al.* 1997b (2)
					Muscle	6	♂ ♀	1+ yrs			0.101*/1.38		Dietz *et al.* 1997b (2)
	Kangaatsiaq, Greenland	68.3N	53.5W	1986	Liver	13	♂ ♀	1+ yrs		3.36*/2.00	0.422*/1.79	4.66*/1.78	Dietz *et al.* 1997b (2)
					Kidney	12	♂ ♀	1+ yrs		10.9*/2.45	0.259*/1.48	7.36*/1.37	Dietz *et al.* 1997b (2)
					Muscle	13	♂ ♀	1+ yrs		0.093*/4.51	0.113*/1.44	0.53*/3.20	Dietz *et al.* 1997b (2)
	Nanortalik, Greenland	60N	45W	1986	Liver	2	♂ ♀	1+ yrs		4.01*/1.02	1.32*/1.36	3.69*/3.00	Dietz *et al.* 1997b (2)
					Kidney	2	♂ ♀	1+ yrs		8.73*/1.08	0.463*/1.36	4.75*/1.70	Dietz *et al.* 1997b (2)
					Muscle	2	♂ ♀	1+ yrs		0.030*/1.35	0.232*/2.16	0.89*/1.50	Dietz *et al.* 1997b (2)
	Cape Russkiy Zavorot, Russia	68N	54.5E	1994	Muscle	1			0.190	0.010	<0.010		Rosgidromet 1995 (1)

Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Metals, µg/g wet weight (unless otherwise indicated by footnote in Reference column) Lead	Cadmium	Mercury	Selenium	Reference
King eider	Laptev Sea, Russia			1995	Muscle	2			0.170	<0.050	0.040		Rosgidromet 1995 (1)
Long-tailed duck	Kangiqsualujjuaq, Canada	58.42N	65.57W	1991	Muscle	5	♂ ♀	Adult	0.054	0.105	0.237	0.815	CWS Database 1992 (1)
(*Clangula hyemalis*)	Inukjuak, Canada	66.98N	86.78W	1991	Muscle	4	♂ ♀	Immature	0.095	0.098	0.160	0.488	CWS Database 1992 (1)
					Muscle	1	♀	Adult	0.053	0.116	0.083	0.571	CWS Database 1992 (1)
	Lac Waswanipi, Canada			1989	Muscle	10	♂	Im./Adult	0.2	0.04	0.16	0.2	CWS Database 1992 (1)
	Kangaatsiaq, Greenland	68.3N	53.5W	1986	Liver	5	♂ ♀	1+ yrs		4.28*/1.98	0.624*/1.30	2.73*/1.83	Dietz *et al.* 1997b (2)
					Kidney	5	♂ ♀	1+ yrs		11.2*/1.45	0.310*/1.21	5.07*/1.76	Dietz *et al.* 1997b (2)
					Muscle	5	♂ ♀	1+ yrs		0.157*/2.64	0.108*/1.29	0.65*/2.98	Dietz *et al.* 1997b (2)
	East-Siberian Sea			1995	Liver	2			0.800	0.225	0.105		Rosgidromet 1995 (1)
Red-breasted merganser	Kangiqsualujjuaq, Canada	58.42N	65.57W	1991	Muscle	1	♂	Adult	0.061	0.098	1232	0.649	CWS Database 1992 (1)
(*Mergus serrator*)	Inukjuak, Canada	66.98N	86.78W	1991	Muscle	4	♀	Adult	0.302	0.098	0.557	0.406	CWS Database 1992 (1)
					Muscle	1	♂	Immature	0.053		0.488	0.480	CWS Database 1992 (1)
	Big Trout Lake, Canada			1988	Muscle	3	♀	Adult	0.093	0.006	0.032	0.046	CWS Database 1992 (1)
	Nanortalik, Greenland	60N	45W	1986	Liver	1	♂ ♀	1+ yrs		1410	1.38	1.24	Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	1+ yrs		9320	0.651	2.75	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	1+ yrs		0.060	0.207	<0.20	Dietz *et al.* 1997b (2)
Pomarine skua	Uummannaq, Greenland	71.5N	52.5W	1985	Liver	1	♂ ♀	1+ yrs		0.935	1.41	3.14	Dietz *et al.* 1997b (2)
(*Stercorarius pomarinus*)					Kidney	1	♂ ♀	1+ yrs		4210	0.637	4.54	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	1+ yrs		0.025	0.154	<0.20	Dietz *et al.* 1997b (2)
Stercorarius sp.	East-Siberian Sea			1995	Liver	1			0.300	0.700	0.100		Rosgidromet 1995 (1)
					Muscle	1			0.180	0.550	0.060		Rosgidromet 1995 (1)
Herring gull	Hornøya Island, Svalbard,	70.37N	31.17E	1991	Liver	2		Adult	0.12±0.07	0.09±0.06	0.14±0.00	3.66±0.52	Savinova and Gabrielsen 1994 (3)
(*Larus argentatus*)	Norway				Liver	2	♀	Adult	0.10±0.02	1.99±0.06	1.37±0.85	5.24±1.61	Savinova and Gabrielsen 1994 (3)
					Liver	2	♂	Adult	0.07±0.00	2.37±0.26	0.85±0.59	4.13±0.73	Savinova and Gabrielsen 1994 (3)
					Muscle	2		Adult	0.08±0.02	0.10±0.12	0.44±0.56	2.62±2.02	Savinova and Gabrielsen 1994 (3)
					Muscle	2	♀	Adult	0.07±0.01	0.21±0.13	0.18±0.11	1.27±0.55	Savinova and Gabrielsen 1994 (3)
					Muscle	2	♂	Adult	0.10±0.02	1.63±1.99	0.46±0.15	2.67±1.77	Savinova and Gabrielsen 1994 (3)
	East Taimyr, Russia			1994	Muscle	3			0.238*/1.29	0.033*/1.18	0.008*/1.49		Rosgidromet 1995 (1)
	Yamal Peninsula, Russia			1994	Muscle	1			0.250	0.030	<0.010		Rosgidromet 1995 (1)
				1995	Liver	1			0.540	0.140	0.050		Rosgidromet 1995 (1)
					Muscle	1			0.390	0.050	0.020		Rosgidromet 1995 (1)
Iceland gull	Uummannaq, Greenland	71.5N	52.5W	1983	Liver	10	♂ ♀	0 yr		0.172*/1.77			Dietz *et al.* 1997b (2)
(*Larus glaucoides*)					Kidney	10	♂ ♀	0 yr		0.387*/1.46			Dietz *et al.* 1997b (2)
					Muscle	10	♂ ♀	0 yr		0.007*/1.72			Dietz *et al.* 1997b (2)
					Bone	10	♂ ♀	0 yr		0.023*/2.55			Dietz *et al.* 1997b (2)
					Liver	3	♂ ♀	1+ yrs		5.46*/11.3			Dietz *et al.* 1997b (2)
					Kidney	3	♂ ♀	1+ yrs		15.3*/16.6			Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	1+ yrs		0.109*/7.77			Dietz *et al.* 1997b (2)
					Bone	3	♂ ♀	1+ yrs		0.072*/11.6			Dietz *et al.* 1997b (2)
				1985	Liver	9	♂ ♀	0 yr		0.138*/2.74			Dietz *et al.* 1997b (2)
					Kidney	9	♂ ♀	0 yr		0.540*/2.23			Dietz *et al.* 1997b (2)
					Muscle	9	♂ ♀	0 yr		<0.004			Dietz *et al.* 1997b (2)
					Bone	9	♂ ♀	0 yr		0.019*/4.59			Dietz *et al.* 1997b (2)
					Liver	1	♂ ♀	1 yr		0.048		1.05	Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	1 yr		0.114		1.57	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	1 yr		<0.015			Dietz *et al.* 1997b (2)
					Liver	4	♂ ♀	1+ yrs		5.32*/2.45			Dietz *et al.* 1997b (2)
					Kidney	5	♂ ♀	1+ yrs		40.9*/1.72			Dietz *et al.* 1997b (2)
					Muscle	5	♂ ♀	1+ yrs		0.246*/1.64			Dietz *et al.* 1997b (2)
					Bone	5	♂ ♀	1+ yrs		0.065*/3.54			Dietz *et al.* 1997b (2)
				1987	Liver	4	♂ ♀	0 yr		0.074*/1.81			Dietz *et al.* 1997b (2)
					Kidney	4	♂ ♀	0 yr		0.149*/1.51			Dietz *et al.* 1997b (2)
					Muscle	4	♂ ♀	0 yr		0.018*/2.84			Dietz *et al.* 1997b (2)
					Bone	4	♂ ♀	0 yr		<0.010			Dietz *et al.* 1997b (2)
					Liver	10	♂ ♀	1+ yrs		4.52*/1.73			Dietz *et al.* 1997b (2)
					Kidney	10	♂ ♀	1+ yrs		31.4*/1.66			Dietz *et al.* 1997b (2)
					Muscle	6	♂ ♀	1+ yrs		0.485*/1.69			Dietz *et al.* 1997b (2)
					Bone	10	♂ ♀	1+ yrs		0.040*/1.66			Dietz *et al.* 1997b (2)
				1988	Liver	4	♂ ♀	0 yr	0.016*/1.16	0.056*/1.20			Dietz *et al.* 1997b (2)

					Kidney	4	♂ ♀	0 yr	0.040*/1.46	0.185*/1.58			Dietz *et al.* 1997b (2)
					Muscle	4	♂ ♀	0 yr	0.014	0.008*/3.66			Dietz *et al.* 1997b (2)
					Bone	4	♂ ♀	0 yr		<0.010			Dietz *et al.* 1997b (2)
					Liver	8	♂ ♀	1+ yrs	0.036*/3.30	1.536*/4.14			Dietz *et al.* 1997b (2)
					Kidney	8	♂ ♀	1+ yrs	0.166*/5.63	10.2*/5.76			Dietz *et al.* 1997b (2)
					Muscle	8	♂ ♀	1+ yrs	0.018*/1.46	0.086*/7.28			Dietz *et al.* 1997b (2)
					Bone	8	♂ ♀	1+ yrs		0.029*/7.08			Dietz *et al.* 1997b (2)
				1991	Liver	11	♂ ♀	1+ yrs	<0.018	10.1*/2.14			Dietz *et al.* 1997b (2)
					Kidney	10	♂ ♀	1+ yrs	0.035*/1.45	57.5*/2.11			Dietz *et al.* 1997b (2)
					Muscle	10	♂ ♀	1+ yrs	<0.018	0.459*/2.58			Dietz *et al.* 1997b (2)
					Bone	11	♂ ♀	1+ yrs		0.075*/1.92			Dietz *et al.* 1997b (2)
	Qeqertarssuaq, Greenland			1994	Liver	6	♂ ♀	1	<0.009/3.12	0.278*/2.04	0.238*/1.25	0.77*/1.12	Dietz *et al.* 1997b (2)
	Nanortalik, Greenland	60N	45W	1986	Liver	10	♂ ♀	1+ yrs		1.52*/1.55	0.680*/1.57	2.02*/1.44	Dietz *et al.* 1997b (2)
					Kidney	9	♂ ♀	1+ yrs		12.0*/1.48	0.613*/1.57	4.60*/1.49	Dietz *et al.* 1997b (2)
					Muscle	10	♂ ♀	1+ yrs		0.069*/1.68	0.148*/1.68	0.53*/1.25	Dietz *et al.* 1997b (2)
				1994	Liver	1	♂ ♀	1	0.011	0.354	0.315	1.56	Dietz *et al.* 1997b (2)
						2	♂ ♀	2	0.021*/1.94	0.541*/1.29	0.424*/1.64	1.39*/1.33	Dietz *et al.* 1997b (2)
						5	♂ ♀	Adult	0.014*/4.15	2.61*/2.63	0.456*/2.52	2.37*/1.68	Dietz *et al.* 1997b (2)
Glaucous Gull (*Larus hyperboreus*)	Inukjuak, Canada	66.98N	86.78W	1991	Muscle	3	♀	Im./Adult	0.054	0.105	0.207	0.324	CWS Database 1992 (1)
	Coats Island, Canada	62.30N	83.00W	1992	Liver	2		1+ yrs	<0.02	2.65	2.10	2.85	Braune (2)
				1993	Kidney	2		1+ yrs		31.8/*1.86			Braune (2)
	Aktapok Island, Canada	60.25N	68.08W	1983	Liver	5		1+ yrs	20.03	5.23	2.83	5.87	Braune (2)
					Kidney	10		1+ yrs		20.8/*1.52			
	Avanersuaq, Greenland	77.5N	70W	1984	Liver	4	♂ ♀	1+ yrs		22.7*/1.66	3.20*/1.32	4.69*/1.32	Dietz *et al.* 1997b (2)
					Kidney	4	♂ ♀	1+ yrs		76.8*/1.68	2.33*/1.39	7.04*/1.30	Dietz *et al.* 1997b (2)
					Muscle	4	♂ ♀	1+ yrs		0.486*/1.97	1.05*/1.30	2.14*/1.29	Dietz *et al.* 1997b (2)
				1994	Liver	17	♂ ♀	1	<0.009*/3.23	0.290*/1.45	0.542*/1.48	2.75*/1.56	Riget *et al.* 1997b (2)
						2	♂ ♀	2	0.011*/3.56	0.301*/1.42	0.462*/1.05	3.31*/1.56	Riget *et al.* 1997b (2)
						6	♂ ♀	Adult	<0.009*/4.21	8.38*/2.39	1.76*/1.92	4.99*/2.32	Riget *et al.* 1997b (2)
	Upernavik, Greenland	74N	57W	1985	Liver	4	♂ ♀	1+ yrs		6.96*/1.17	2.23*/2.02	2.87*/1.47	Riget *et al.* 1997b (2)
					Kidney	4	♂ ♀	1+ yrs		47.8*/1.19	1.82*/2.47	4.40*/1.33	Riget *et al.* 1997b (2)
					Muscle	4	♂ ♀	1+ yrs		0.247*/1.39	0.422*/2.24	0.53*/1.24	Riget *et al.* 1997b (2)
	Uummannaq, Greenland	71.5N	52.5W	1983	Liver	4	♂ ♀	1+ yrs		0.202*/2.66			Riget *et al.* 1997b (2)
					Kidney	4	♂ ♀	1+ yrs		0.397*/1.64			Riget *et al.* 1997b (2)
					Muscle	4	♂ ♀	1+ yrs		0.009*/1.34			Riget *et al.* 1997b (2)
					Bone	4	♂ ♀	1+ yrs		0.013*/2.45			Riget *et al.* 1997b (2)
				1985	Liver	1	♂ ♀	0 yr		0.331			Riget *et al.* 1997b (2)
					Kidney	1	♂ ♀	0 yr		1.29			Riget *et al.* 1997b (2)
					Muscle	1	♂ ♀	0 yr		<0.004			Riget *et al.* 1997b (2)
					Bone	1	♂ ♀	0 yr		<0.010			Riget *et al.* 1997b (2)
					Liver	4	♂ ♀	1 yr		0.125*/1.28			Riget *et al.* 1997b (2)
					Kidney	3	♂ ♀	1 yr		0.346*/1.09			Riget *et al.* 1997b (2)
					Muscle	4	♂ ♀	1 yr		<0.015			Riget *et al.* 1997b (2)
					Liver	1	♂ ♀	1+ yrs		9.36			Riget *et al.* 1997b (2)
					Kidney	1	♂ ♀	1+ yrs		80.1			Riget *et al.* 1997b (2)
					Muscle	1	♂ ♀	1+ yrs		0.451			Riget *et al.* 1997b (2)
					Bone	1	♂ ♀	1+ yrs		<0.010			Riget *et al.* 1997b (2)
				1985	Liver	4	♂ ♀	1 yr			0.242*/1.26	1.24*/1.04	Riget *et al.* 1997b (2)
					Kidney	4	♂ ♀	1 yr			0.198*/1.29	2.04*/1.24	Riget *et al.* 1997b (2)
					Muscle	4	♂ ♀	1 yr			0.042*/1.48	<0.20	Riget *et al.* 1997b (2)
				1988	Liver	2	♂ ♀	0 yr		0.256*/2.48			Riget *et al.* 1997b (2)
					Kidney	2	♂ ♀	0 yr		0.342*/1.55			Riget *et al.* 1997b (2)
					Muscle	2	♂ ♀	0 yr		0.007*/1.40			Riget *et al.* 1997b (2)
					Bone	2	♂ ♀	0 yr		<0.010			Riget *et al.* 1997b (2)
					Liver	4	♂ ♀	1+ yrs		3.05*/11.5			Riget *et al.* 1997b (2)
					Kidney	4	♂ ♀	1+ yrs		16.3*/17.7			Riget *et al.* 1997b (2)
					Muscle	4	♂ ♀	1+ yrs		0.102*/18.0			Riget *et al.* 1997b (2)
					Bone	4	♂ ♀	1+ yrs		0.033*/3.85			Riget *et al.* 1997b (2)
				1991	Liver	9	♂ ♀	1+ yrs	<0.018	8.13*/1.72			Riget *et al.* 1997b (2)
					Kidney	9	♂ ♀	1+ yrs	0.030*/3.81	43.4*/2.28			Riget *et al.* 1997b (2)
	Qeqertarssuaq, Greenland			1994	Liver	7	♂ ♀	1	<0.009*/2.63	0.145*/3.34	0.461*/2.12	1.05*/1.33	Riget *et al.* 1997b (2)
						1	♂ ♀	2	0.010	4.23	0.875	1.44	Riget *et al.* 1997b (2)
						11	♂ ♀	Adult	<0.009*/4.86	9.05*/1.93	0.171*/2.12	1.33*/1.36	Riget *et al.* 1997b (2)
					Bone	9	♂ ♀	1+ yrs		0.053*/1.88			Riget *et al.* 1997b (2)
	Nanortalik, Greenland	60N	45W	1986	Liver	5	♂ ♀	1+ yrs		5.13*/2.47	1.32*/2.00	2.85*/1.30	Riget *et al.* 1997b (2)
					Kidney	5	♂ ♀	1+ yrs		39.9*/1.92	1.37*/1.74	6.75*/1.26	Riget *et al.* 1997b (2)
					Muscle	5	♂ ♀	1+ yrs		0.202*/3.30	0.39*/1.95	0.52*/2.93	Riget *et al.* 1997b (2)
				1994	Liver	2	♂ ♀	1	0.042*/4.01	0.726*/2.13	2.77*/1.25	1.90*/1.26	Riget *et al.* 1997b (2)
						11	♂ ♀	2	0.013*/1.92	2.74*/2.21	1.91*/1.41	2.44*/1.45	Riget *et al.* 1997b (2)

Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Metals, µg/g wet weight (unless otherwise indicated by footnote in Reference column) Lead	Cadmium	Mercury	Selenium	Reference
Glaucous Gull						1	♂ ♀	3	<0.009	5.70	1.37	2.86	Riget *et al.* 1997b (2)
						3	♂ ♀	Adult	0.019*/2.72	12.2*/1.44	1.68*/1.35	3.05*/1.88	Riget *et al.* 1997b (2)
	Ittoqqortormiit, Greenland	70N	22W	1986	Liver	2	♂ ♀	1+ yrs		2.34*/1.128	3.40*/1.12	13.2*/1.24	Riget *et al.* 1997b (2)
					Kidney	2	♂ ♀	1+ yrs		13.2*/1.04	2.06*/1.04	27.0*/2.02	Riget *et al.* 1997b (2)
					Muscle	2	♂ ♀	1+ yrs		0.158*/1.50	0.72*/1.17	3.24*/1.31	Riget *et al.* 1997b (2)
				1994	Liver	2	♂ ♀	4	0.118*/1.33	2.26*/5.29	3.39*/2.16	3.98*/2.74	Riget *et al.* 1997b (2)
						20	♂ ♀	Adult	0.034*/2.33	1.59*/2.19	2.40*/1.40	3.35*/2.52	Riget *et al.* 1997b (2)
	West Svalbard, Norway	78N	13E	1980	Liver	11	♂ ♀			3.6	1.6	2.2	Norheim 1987 (1)
				1980	Kidney	11	♂ ♀			23			Norheim 1987 (1)
	Svalbard, Norway	77N	16E	1984	Liver	2			<0.50	2.1*/1.0	0.21*/1.0	2.2*/1.2	Carlberg and Bøler 1985 (2)
				1984	Kidney	2			<0.50	12.9*/1.7			Carlberg and Bøler 1985 (2)
	Ny Ålesund, Svalbard, Norway	79N	12E	1991	Liver	1		Adult	0.21	4.85	1.25	5.29	Savinova and Gabrielsen 1994 (3)
					Liver	3	♀	Adult	0.21±0.25	11.50±9.98	1.07±0.74	4.98±2.41	Savinova and Gabrielsen 1994 (3)
					Liver	1	♂	Adult	0.25	6.61	2.92	6.82	Savinova and Gabrielsen 1994 (3)
					Muscle	1		Adult	0.07	0.08	0.28	1.50	Savinova and Gabrielsen 1994 (3)
					Muscle	3	♀	Adult	0.12±0.08	0.82±0.71	0.73±0.69	2.82±2.26	Savinova and Gabrielsen 1994 (3)
					Muscle	1	♂	Adult	0.18	0.16	0.75	1.62	Savinova and Gabrielsen 1994 (3)
	Bear Island, Svalbard, Norway	74.33N	18.77E	1991	Liver	2	♂	Adult	1.58±1.55	7.12±6.59	1.47±0.77	5.17±0.78	Savinova and Gabrielsen 1994 (3)
					Liver	3	♀	Adult	0.12±0.05	5.35±1.39	0.73±0.19	5.30±0.74	Savinova and Gabrielsen 1994 (3)
					Muscle	2	♂	Adult	1.12±1.15	0.30±0.04	0.39±0.21	1.38±0.19	Savinova and Gabrielsen 1994 (3)
					Muscle	3	♀	Adult	3.32±5.07	0.54±0.09	0.23±0.07	1.43±0.13	Savinova and Gabrielsen 1994 (3)
	Taimyr Peninsula, Russia			1995	Liver	1			<0.050	<0.050	0.080		Rosgidromet 1995 (1)
					Muscle	1			0.300	<0.050	0.050		Rosgidromet 1995 (1)
Kittiwake (*Rissa tridactyla*)	Lancaster Sound, Canada	74N	85W	1977	Liver	5		Young		0.767*/1.26	0.071*/1.16		RRCS Ltd. 1977 (2)
					Muscle	5		Young		0.583*/1.77	0.032*/1.34		RRCS Ltd. 1977 (2)
					Bone	5		Young	27.5*/1.84				RRCS Ltd. 1977 (2)
					Liver	5		Adult		14.5*/1.32	0.394*/1.47		RRCS Ltd. 1977 (2)
					Muscle	5		Adult		1.62*/1.68	0.206*/2.34		RRCS Ltd. 1977 (2)
					Bone	5		Adult	18.0*/1.33				RRCS Ltd. 1977 (2)
	Prince Leopold Island, Canada	74.02N	90.05W	1993	Liver	10		1+ yrs	<0.04	7.76	0.98	11.6	Braune (2)
					Kidney	10		1+ yrs		36.9/*1.86			Braune (2)
	Avanersuaq, Greenland	77.5N	70W	1984	Liver	4	♂ ♀	1+ yrs		9.71*/1.39	1.04*/1.20	12.2*/1.35	Dietz *et al.* 1997b (2)
					Muscle	4	♂ ♀	1+ yrs		0.497*/1.49	0.282*/1.12	3.86*/1.19	Dietz *et al.* 1997b (2)
	Upernavik, Greenland	74N	57W	1985	Liver	4	♂ ♀	1+ yrs		6.91*/1.64	0.900*/1.29	16.4*/1.30	Dietz *et al.* 1997b (2)
					Kidney	4	♂ ♀	1+ yrs		57.1*/1.21	0.641*/1.31	17.4*/1.29	Dietz *et al.* 1997b (2)
					Muscle	4	♂ ♀	1+ yrs		0.776*/1.41	0.214*/1.26	4.95*/1.11	Dietz *et al.* 1997b (2)
	Uummannaq, Greenland	71.5N	52.5W	1985	Liver	1	♂ ♀	1 yr		0.405	0.082	1.13	Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	1 yr		1.34	0.053	2.55	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	1 yr		<0.015	0.018	<0.20	Dietz *et al.* 1997b (2)
					Liver	6	♂ ♀	1+ yrs		5.58*/1.94	0.150*/1.22	3.53*/1.72	Dietz *et al.* 1997b (2)
					Kidney	6	♂ ♀	1+ yrs		21.4*/2.82	0.197*/1.20	6.65*/1.71	Dietz *et al.* 1997b (2)
					Muscle	6	♂ ♀	1+ yrs		0.095*/3.36	0.037*/1.36	0.97*/1.48	Dietz *et al.* 1997b (2)
	Nanortalik, Greenland	60N	45W	1986	Liver	1	♂ ♀	1+ yrs		7.91	0.864	6.92	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	1+ yrs		0.425	0.288	2.56	Dietz *et al.* 1997b (2)
	Iceland	65.50N	24.50W	1986-1991	Feather	36	♂ ♀				5.5±1.7		Thompson *et al.* 1992 (1)
	Svalbard, Norway	77N	16E	1984	Liver	2			<0.5	5.4*/1.1	0.06*/1.39	3.9*/1.5	Carlberg and Bøler 1985 (2)
				1984	Kidney	2			<0.5	31.*/1.2			
	Ny Ålesund, Svalbard, Norway	79N	12E	1991	Liver	2	♀	Adult	85.37±120.60	51.72±13.91	1.53±0.35	16.26±1.86	Savinova and Gabrielsen 1994 (3)
					Liver	3	♂	Adult	1.41±1.16	45.54±23.96	2.23±0.19	14.32±5.55	Savinova and Gabrielsen 1994 (3)
					Muscle	2	♀	Adult	0.22±0.16	1.40±1.07	0.33±0.00	5.89±0.81	Savinova and Gabrielsen 1994 (3)
					Muscle	3	♂	Adult	27.69±34.66	2.29±1.40	0.49±0.12	5.98±1.61	Savinova and Gabrielsen 1994 (3)
	Hornøya Island, Svalbard, Norway	70.37N	31.17E	1991	Liver	3	♀	Adult	0.10±0.01	21.26±3.72	0.73±0.42	23.54±10.47	Savinova and Gabrielsen 1994 (3)
					Liver	2	♂	Adult	0.09±0.00	37.69±18.83	0.92±0.02	20.75±12.57	Savinova and Gabrielsen 1994 (3)
					Muscle	3	♀	Adult	0.08±0.00	1.00±0.66	0.21±0.09	5.74±2.14	Savinova and Gabrielsen 1994 (3)
					Muscle	2	♂	Adult	0.09±0.03	1.15±0.25	0.20±0.03	6.20±0.15	Savinova and Gabrielsen 1994 (3)
	Bear Island, Svalbard, Norway	74.33N	18.77E	1991	Liver	2	♂	Adult	0.09±0.00	13.83±6.80	0.60±0.13	12.44±7.06	Savinova and Gabrielsen 1994 (3)
					Liver	2	♀	Adult	0.09±0.01	18.55±5.95	0.56±0.00	16.23±3.15	Savinova and Gabrielsen 1994 (3)
					Muscle	2	♂	Adult	0.09±0.03	1.18±1.18	0.21±0.08	3.77±0.21	Savinova and Gabrielsen 1994 (3)
					Muscle	2	♀	Adult	0.08±0.00	1.78±0.98	0.18±0.05	3.97±0.45	Savinova and Gabrielsen 1994 (3)
	Franz Josef Land, Russia	80.32N	52.87E	1991	Liver	3		Adult	1.75±1.43	4.16±3.66	0.35±0.21	4.83±1.53	Savinova and Gabrielsen 1994 (3)
					Liver	1	♀	Adult	0.08	20.25	0.72	9.40	Savinova and Gabrielsen 1994 (3)
					Liver	1	♂	Adult	0.73	16.78	0.66	7.77	Savinova and Gabrielsen 1994 (3)
					Muscle	3		Adult	4.37±6.55	0.22±0.27	0.05±0.03	1.12±0.64	Savinova and Gabrielsen 1994 (3)
					Muscle	1	♀	Adult	10.52	0.02	0.05	0.72	Savinova and Gabrielsen 1994 (3)

					Muscle	1	♂	Adult	2.03	1.41	0.17	2.80	Savinova and Gabrielsen 1994 (3)
	Northwest Norway	69.35N	16E	1986-1991	Feather	34	♂ ♀				4.2±1.3		Thompson *et al.* 1992 (1)
	Northeast Norway	70N	31E	1986-1991	Feather	60	♂ ♀				3.1±1.2		Thompson *et al.* 1992 (1)
	Isfjorden, Svalbard, Norway	78.20N	15E	1993	Liver	23				12.0*/1.57	0.841*/1.50		NPRI, Norway, unpubl. (2)
					Kidney	29				38.6*/1.36	0.500*/1.32	1.96*/2.71	NPRI, Norway, unpubl. (2)
					Brain	1				0.900	0.173	1300	NPRI, Norway, unpubl. (2)
					Muscle	24				1.11*/1.34	0.286*/1.30	0.916*/2.19	NPRI, Norway, unpubl. (2)
	Belkovskiy Island, Russia	76N	136E	1994	Muscle	1			0.070	0.060	<0.010		Rosgidromet 1995 (1)
Ivory gull (*Pagophila eburna*)	Avanersuaq, Greenland	77.5N	70W	1984	Liver	4	♂ ♀	1+ yrs		8.90*/1.29	1.19*/1.66	5.93*/1.48	Dietz *et al.* 1997b (2)
					Muscle	4	♂ ♀	1+ yrs		0.194*/1.86	0.225*/2.04	1.72*/1.15	Dietz *et al.* 1997b (2)
	Upernavik, Greenland	74N	57W	1985	Liver	4	♂ ♀	1+ yrs		6.27*/1.52	0.460*/1.15	5.91*/1.38	Dietz *et al.* 1997b (2)
					Kidney	4	♂ ♀	1+ yrs		32.4*/1.48	0.414*/1.30	6.45*/1.60	Dietz *et al.* 1997b (2)
					Muscle	4	♂ ♀	1+ yrs		0.699*/1.35	0.132*/1.12	1.50*/1.19	Dietz *et al.* 1997b (2)
	Uummannaq, Greenland	71.5N	52.5W	1985	Liver	1	♂ ♀	1+ yrs		3133	0.520	1.62	Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	1+ yrs		2510	0.485	1.24	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	1+ yrs		0.022	0.114	<0.20	Dietz *et al.* 1997b (2)
Common guillemot (*Uria aalge*)	Iceland	65.30N	24.30W	1986-1991	Feather	45	♂ ♀				1.6±0.6		Thompson *et al.* 1992 (1)
	Northeast Norway	70N	31W	1986-1991	Feather	45	♂ ♀				1.2±0.3		Thompson *et al.* 1992 (1)
Brünnichs guillemot (*Uria lomvia*)	Lancaster Sound, Canada	74N	85W	1977	Liver	2		Young		1.20	0.055		RRCS Ltd. 1977 (1)
					Muscle	2		Young		0.309	0.042		RRCS Ltd. 1977 (1)
					Bone	2		Young	22.8				RRCS Ltd. 1977 (1)
					Liver	8		Adult		23.3*/1.398	0.610*/1.640		RRCS Ltd. 1977 (1)
					Muscle	8		Adult		1.55*/2.33	0.291*/1.53		RRCS Ltd. 1977 (1)
					Bone	8		Adult	7.46*/2.16				RRCS Ltd. 1977 (1)
	Salluit, Canada	62.14N	75.38W	1991	Liver	4		1+ yrs	0.03	4.38	0.85	1.64	Braune (2)
					Kidney	4		1+ yrs		15.8/*1.53			Braune (2)
					Muscle	4	♂ ♀	Adult	0.058	0.547	0.442	0.976	CWS Database 1992 (1)
	Ivujivik, Canada	62.24N	77.55W	1991	Liver	5		1+ yrs	0.09	11.7	1.05	1.76	Braune (2)
					Kidney	5		1+ yrs		56.5/*1.76			Braune (2)
					Muscle	5	♂ ♀	Adult	0.070	0.405	0.294	0.995	Braune (2)
	Prince Leopold Island, Canada	74.02N	90.05W	1993	Liver	10		1+ yrs	<0.03	6.80	1.05	1.76	Braune (2)
					Kidney	10		1+ yrs		36.9/*1.42			Braune (2)
	Coats Island, Canada	62.50N	82.00W	1993	Liver	10		1+ yrs	<0.03	6.77	0.69	1.45	Braune (2)
					Kidney	10		1+ yrs		42.6/*1.29			Braune (2)
	Greenland			1974	Feather	8		Adult			1.07±0.453		Applequist *et al.* 1985 (1)
				1977	Feather	5		Adult			0.866±0.356		Applequist *et al.* 1985 (1)
	Smith Sound, Canada			1940	Feather	1	♂	Adult			0.969		Somer *et al.* 1974 (1)
				1939	Feather	2	♂ ♀	Adult			1023		Somer *et al.* 1974 (1)
	Avanersuaq, Greenland	77.5N	70W	1984	Liver	4	♂ ♀	1+ yrs		6.36*/1.45	0.892*/1.10	2.04*/1.11	Dietz *et al.* 1997b (2)
					Kidney	4	♂ ♀	1+ yrs		28.6*/1.17	0.435*/1.29	3.90*/1.24	Dietz *et al.* 1997b (2)
					Muscle	3-4	♂ ♀	1+ yrs		0.395*/1.57	0.230*/1.13	0.80*/1.39	Dietz *et al.* 1997b (2)
	Upernavik, Greenland	74N	57W	1985	Liver	8	♂ ♀	1+ yrs		6.82*/1.46	0.647*/1.24	1.75*/1.18	Dietz *et al.* 1997b (2)
					Kidney	7-8	♂ ♀	1+ yrs		32.1*/1.74	0.447*/1.28	3.57*/1.26	Dietz *et al.* 1997b (2)
					Muscle	8	♂ ♀	1+ yrs		0.328*/2.40	0.179*/1.41	0.58*/1.46	Dietz *et al.* 1997b (2)
	Qeqertarsuup Tunua, Greenland	69N	57W	1915	Feather	1	♂	Adult			1.03		Somer *et al.* 1974 (1)
	Qeqertarsuaq, Greenland	77.15N	70.18W	1860	Feather	2	♀	Adult			0.455		Somer *et al.* 1974 (1)
				1949	Feather	1	♀	Adult			0.899		Somer *et al.* 1974 (1)
	Kangaatsiaq, Greenland	68.3N	53.5W	1986	Liver	2	♂ ♀	1+ yrs		3.76*/1.13	0.333*/1.38	2.79*/1.92	Dietz *et al.* 1997b (2)
					Kidney	2	♂ ♀	1+ yrs		17.3*/1.42	0.071*/3.66	9.62*/1.29	Dietz *et al.* 1997b (2)
					Muscle	2	♂ ♀	1+ yrs		0.088*/2.97	0.100*/1.12	1.39*/1.25	Dietz *et al.* 1997b (2)
	Maniitsoq, Greenland	65.42N	52.90W	1917	Feather	1		Adult			0.609		Somer *et al.* 1974 (1)
				1925	Feather	1	♀	Adult			1.48		Somer *et al.* 1974 (1)
	Nuuk, Greenland	64.16N	51.75W	1897	Feather	1	♀	Adult			1.13		Somer *et al.* 1974 (1)
	Agpanguit (S. of Nuuk), Greenl.	64N	51W	1893	Feather	1		Adult			0.635		Somer *et al.* 1974 (1)
	East Greenland			1891	Feather	1		Adult			0.439		Somer *et al.* 1974 (1)
				1958	Feather	1	♀	Adult			0.294		Somer *et al.* 1974 (1)
				1973	Feather	1		Adult			0.610		Somer *et al.* 1974 (1)
	Ittoqqortoomiit, Greenland	70.13N	22.00W	1925	Feather	1	♀	Adult			0.740		Somer *et al.* 1974 (1)
				1929	Feather	1	♂	Adult			0.611		Somer *et al.* 1974 (1)
				1986	Liver	6	♂ ♀	1+ yrs		8.75*/1.29	0.946*/1.26	2.54*/1.40	Dietz *et al.* 1997b (2)
					Kidney	5	♂ ♀	1+ yrs		32.1*/1.25	0.513*/1.26	9.01*/1.55	Dietz *et al.* 1997b (2)
	Iceland	65.30N	24.30W	1986-1991	Feather	38	♂ ♀				2.1±0.7		Thompson *et al.* 1992 (1)
	West Svalbard, Norway	78N	13E	1980	Liver	9	♂ ♀			3.9	0.6	1.9	Norheim 1987 (1)
				1980	Kidney	9	♂ ♀			16			Norheim 1987 (1)
	Svalbard, Norway	77N	16E	1984	Liver	4			<0.5	2.9*/1.4	0.15*/2.4	1.8*/1.6	Carlberg and Bøler 1985 (2)
				1984	Kidney	4			0.6*/5.3	21.9*/2.1			Carlberg and Bøler 1985 (2)
	Ny Ålesund, Svalbard, Norway	79N	12E	1991	Liver	3	♀	Adult	0.20±0.19	16.80±7.46	1.76±0.40	6.47±1.87	Savinova and Gabrielsen 1994 (3)

Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Metals, µg/g wet weight (unless otherwise indicated by footnote in Reference column) Lead	Cadmium	Mercury	Selenium	Reference
Brünnichs guillemot					Liver	2	♂	Adult	0.09±0.00	12.06±3.64	1.38±0.47	4.02±0.35	Savinova and Gabrielsen 1994 (3)
					Muscle	3	♀	Adult	0.55±0.70	1.36±0.32	0.65±0.04	3.54±0.90	Savinova and Gabrielsen 1994 (3)
					Muscle	2	♂	Adult	0.20±0.19	1.05±0.08	0.52±0.10	3.10±0.87	Savinova and Gabrielsen 1994 (3)
	Hornøya Island, Svalbard, Norway	70.37N	31.17E	1991	Liver	3	♀	Adult	0.09±0.02	5.08±1.97	0.83±0.20	8.29±2.41	Savinova and Gabrielsen 1994 (3)
					Liver	2	♂	Adult	0.10±0.04	6.89±2.02	0.94±0.16	6.38±0.49	Savinova and Gabrielsen 1994 (3)
					Muscle	3	♀	Adult	0.12±0.05	0.64±0.44	0.30±0.06	4.05±1.12	Savinova and Gabrielsen 1994 (3)
					Muscle	2	♂	Adult	0.09±0.00	3.79±4.86	0.28±0.15	3.01±0.50	Savinova and Gabrielsen 1994 (3)
	Bear Island, Svalbard, Norway	74.33N	18.77E	1991	Liver	5	♀	Adult	0.07±0.00	6.51±2.56	0.33±0.12	4.27±0.57	Savinova and Gabrielsen 1994 (3)
					Muscle	5	♀	Adult	0.08±0.00	0.61±0.22	0.15±0.08	1.74±0.28	Savinova and Gabrielsen 1994 (3)
	Hopen, Svalbard, Norway			1993	Liver	32			<0.067*/2.45	3.12*/1.48	0.183*/1.59	0.965*/1.85	NPRI, Norway. Unpubl. (2)
	Belkovskiy Island, Russia	76N	136E	1994	Muscle	4			0.336*/1.18	0.370*/2.17	<0.010		Rosgidromet 1995 (1)
	Laptev Sea, Russia			1995	Liver	1			0.300	0.180	0.060		Rosgidromet 1995 (1)
					Muscle	1			0.150	<0.050	0.050		Rosgidromet 1995 (1)
Razorbill	Iceland	65.50N	24.50W	1986-91	Feather	37	♂ ♀				2.7±0.6		Thompson *et al.* 1992 (1)
(*Alca torda*)	Northeast Norway	70N	31E	1986-1991	Feather	30	♂ ♀				1.7±0.6		Thompson *et al.* 1992 (1)
Black guillemot	Lancaster Sound, Canada	74N	85W	1977	Liver	5		Young		0.812*/1.24	0.212*/1.50		RRCS Ltd. 1977 (2) (4)
(*Cepphus grylle*)					Muscle	5		Young		0.548*/1.62	0.123*/1.48		RRCS Ltd. 1977 (2) (4)
					Bone	5		Young	17.0*/1.21				(4)
					Liver	5		Adult		14.5*/1.37	0.752*/1.35		(4)
					Muscle	5		Adult		0.569*/2.03	0.267*/1.14		(4)
					Bone	5		Adult	20.6*/1.38				(4)
	Inukjuaq, Canada	66.98N	86.78W	1991	Muscle	5	♂	Adult	0.078	0.268	0.288	0.912	CWS Database 1992 (1)
	Kangiqsualujjuaq, Canada	58.42N	65.57W	1991	Muscle	5	♂ ♀	Adult	0.096	0.360	0.320	1.02	CWS Database 1992 (1)
	Grady Harbour, Canada			1970	Muscle	1					0.29		Noble and Elliott 1986 (2)
	Prince Leopold Island, Canada	74.02N	90.05W	1993	Liver	5		1+ yrs	<0.02	7.38	1.15		Braune (2) pers. comm.
					Kidney	5		1+ yrs		31.9*/1.31			Braune (2) pers. comm.
	Green Island, Canada	62.24N	78.03W	1993	Liver	10		1+ yrs	0.02	4.62	1.13	2.72	Braune (2) pers. comm.
					Kidney	10		1+ yrs		20.5*/1.41			Braune (2) pers. comm.
	Greenland				Feathers	5					2.02±0.182		Appelquist *et al.* 1984 (1)
				1974	Feather	4		Adult			1.33±0.036		Applequist *et al.* 1985 (1)
				1975	Feather	1		Adult			2.21		Applequist *et al.* 1985 (1)
	Avanersuaq, Greenland	77.5N	70W	1984	Liver	4	♂ ♀	1+ yrs		3.32*/1.61	0.738*/1.17	2.73*/1.41	Dietz *et al.* 1997b (2)
					Kidney	3	♂ ♀	1+ yrs		20.4*/1.52	0.464*/1.12	4.02*/1.11	Dietz *et al.* 1997b (2)
					Muscle	4	♂ ♀	1+ yrs		0.220*/1.82	0.217*/1.18	0.91*/1.74	Dietz *et al.* 1997b (2)
	Upernavik, Greenland	74N	57W	1985	Liver	5	♂ ♀	1+ yrs		4.80*/1.39	0.566*/1.61	4.07*/1.51	Dietz *et al.* 1997b (2)
					Kidney	5	♂ ♀	1+ yrs		31.9*/1.48	0.391*/2.38	5.83*/1.27	Dietz *et al.* 1997b (2)
					Muscle	5	♂ ♀	1+ yrs		0.384*/1.21	0.235*/1.62	0.78*/1.31	Dietz *et al.* 1997b (2)
	Uummannaq, Greenland	71.5N	52.5W	1982	Liver	1	♂ ♀	0 yr		0.410			Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	0 yr		1.62			Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	0 yr		0.518			Dietz *et al.* 1997b (2)
					Bone	1	♂ ♀	0 yr		0.078			Dietz *et al.* 1997b (2)
				1985	Liver	17	♂ ♀	0 yr		0.099*/2.15			Dietz *et al.* 1997b (2)
					Kidney	14	♂ ♀	0 yr		0.351*/1.40			Dietz *et al.* 1997b (2)
					Muscle	17	♂ ♀	0 yr		0.007*/3.11			Dietz *et al.* 1997b (2)
					Liver	4	♂ ♀	1 yr		0.183*/4.03	0.125*/1.37	1.03*/1.51	Dietz *et al.* 1997b (2)
					Kidney	4	♂ ♀	1 yr		0.570*/7.10	0.073*/2.31	1.94*/1.27	Dietz *et al.* 1997b (2)
					Muscle	4	♂ ♀	1 yr		<0.015	0.032*/1.84	<0.20	Dietz *et al.* 1997b (2)
					Liver	5	♂ ♀	1+ yrs		1.55*/5.18	0.337*/3.07	1.44*/1.35	Dietz *et al.* 1997b (2)
					Kidney	5	♂ ♀	1+ yrs		8.64*/6.75	0.229*/2.55	2.58*/1.39	Dietz *et al.* 1997b (2)
					Muscle	5	♂ ♀	1+ yrs		0.093*/7.84	0.075*/2.67	0.25*/1.78	Dietz *et al.* 1997b (2)
					Bone	10	♂ ♀	1+ yrs		<0.010			Dietz *et al.* 1997b (2)
					Liver	3	♂ ♀	1+ yrs		4.88*/1.39			Dietz *et al.* 1997b (2)
					Muscle	3	♂ ♀	1+ yrs		0.336*/1.62			Dietz *et al.* 1997b (2)
					Bone	2	♂ ♀	1+ yrs		0.112*/1.36			Dietz *et al.* 1997b (2)
				1987	Liver	20	♂ ♀	1+ yrs		3.93*/1.44			Dietz *et al.* 1997b (2)
					Kidney	20	♂ ♀	1+ yrs		22.2*/1.46			Dietz *et al.* 1997b (2)
					Muscle	20	♂ ♀	1+ yrs		0.135*/1.73			Dietz *et al.* 1997b (2)
					Bone	20	♂ ♀	1+ yrs		0.085*/1.28			Dietz *et al.* 1997b (2)
				1991	Liver	20	♂ ♀	1+ yrs	0.023*/1.14	4.15*/1.61			Dietz *et al.* 1997b (2)
					Kidney	20	♂ ♀	1+ yrs	0.026*/1.13	24.7*/1.61			Dietz *et al.* 1997b (2)
					Muscle	10	♂ ♀	1+ yrs	0.022*/1.39	0.138*/2.03			Dietz *et al.* 1997b (2)
					Bone	20	♂ ♀	1+ yrs		0.086*/1.46			Dietz *et al.* 1997b (2)
	Qeqertarssuaq, Greenland	77.15N	70.18W	1860	Feather	1	♂	Adult			0.878		Somer *et al.* 1974 (1)

				1949	Feather	2	♀	Adult			1.13		Somer *et al.* 1974 (1)
				1973	Feather	5	♀	Adult			2.02*/0.182		Somer *et al.* 1974 (1)
	Kangaatsiaq, Greenland	68.3N	53.5W	1986	Liver	11	♂ ♀	1+ yrs		2.37*/2.08	0.771*/1.91	2.89*/1.62	Dietz *et al.* 1997b (2)
					Kidney	10	♂ ♀	1+ yrs		15.0*/2.37	0.605*/1.77	7.07*/1.35	Dietz *et al.* 1997b (2)
					Muscle	11	♂ ♀	1+ yrs		0.115*/2.85	0.245*/1.86	0.94*/1.74	Dietz *et al.* 1997b (2)
	Sisimiut, Greenland	66.92N	53.50W	1901	Feather	1	♀	Adult			0.631		Somer *et al.* 1974 (1)
	Maniitsoq, Greenland	65.42N	52.90W	1925	Feather	1	♂	Adult			0.800		Somer *et al.* 1974 (1)
	Nuuk, Greenland	64.16N	51.75W	1896	Feather	1	♀	Adult			0.553		Somer *et al.* 1974 (1)
				1925	Feather	2	♀	Adult			1.12		Somer *et al.* 1974 (1)
				1926	Feather	1	♀	Adult			0.899		Somer *et al.* 1974 (1)
	Arsuk Fjord, Greenland	61.25N	48.50W	1955	Feather	2	♂ ♀	Adult			1.08		Somer *et al.* 1974 (1)
	Ivittuut, Greenland	61.25N	48.25W	1955	Feather	1	♀	Adult			2.08		Somer *et al.* 1974 (1)
	Nanortalik, Greenland	60N	45W	1986	Liver	9	♂ ♀	1+ yrs		1.63*/1.31	0.497*/1.44	1.87*/1.53	Dietz *et al.* 1997b (2)
					Kidney	9	♂ ♀	1+ yrs		13.6*/1.57	0.402*/1.46	4.45*/1.33	Dietz *et al.* 1997b (2)
					Muscle	9	♂ ♀	1+ yrs		0.068*/1.54	0.150*/1.61	0.60*/1.70	Dietz *et al.* 1997b (2)
	Ittoqqortoormiit, Greenland	70.13N	22.00W	1928	Feather	1	♀	Adult			0.961		Somer *et al.* 1974 (1)
				1986	Liver	8	♂ ♀	1+ yrs		3.479*/1.24	0.505*/1.26	2.16*/1.21	Dietz *et al.* 1997b (2)
					Kidney	7	♂ ♀	1+ yrs		19.8*/1.48	0.351*/1.36	4.52*/1.23	Dietz *et al.* 1997b (2)
					Muscle	8	♂ ♀	1+ yrs		0.165*/1.98	0.123*/1.50	0.60*/1.69	Dietz *et al.* 1997b (2)
	Svalbard, Norway	77N	16E	1984	Liver	2			0.25	0.283	0.084	2.04	Carlberg and Bøler 1985 (2)
					Kidney	2			0.25	0.825			
Little auk (*Alle alle*)	Lancaster Sound, Canada	74N	85W	1977	Liver	10		Adult		2.20*/1.26	0.078*/1.70		RRCS Ltd. 1977 (2)
					Muscle	10		Adult		0.387*/1.09	0.050*/1.46		RRCS Ltd. 1977 (2)
					Bone	10		Adult	20.7*/1.71				RRCS Ltd. 1977 (2)
	Avanersuaq, Greenland	77.5N	70W	1984	Liver	2	♂ ♀	1+ yrs		3.91*/1.15	0.214*/1.40	4.54*/1.12	Dietz *et al.* 1997b (2)
					Muscle	2	♂ ♀	1+ yrs		0.49*/1.41	0.120*/1.07	1.86*/1.02	Dietz *et al.* 1997b (2)
	Uummannaq, Greenland	71.50N	52.50W	1985	Liver	1	♂ ♀	1+ yrs		0.740	0.106	1.03	Dietz *et al.* 1997b (2)
					Kidney	1	♂ ♀	1+ yrs		4.25	0.075	1.26	Dietz *et al.* 1997b (2)
					Muscle	1	♂ ♀	1+ yrs		0.019	0.035	<0.20	Dietz *et al.* 1997b (2)
	Ittoqqortormiit, Greenland	70N	22W	1986	Liver	10	♂ ♀	1+ yrs		5.77*/1.49	0.552*/1.51	6.55*/1.48	Dietz *et al.* 1997b (2)
					Kidney	10	♂ ♀	1+ yrs		34.3*/1.23	0.314*/1.61	12.1*/1.35	Dietz *et al.* 1997b (2)
					Muscle	9-11	♂ ♀	1+ yrs		0.366*/1.35	0.135*/1.82	2.60*/1.68	Dietz *et al.* 1997b (2)
	Svalbard, Norway	77N	16E	1984	Liver	1-2			<0.5	0.7*/1.0	0.035*/1.23	1.5	Carlberg and Bøler 1985 (2)
				1984	Kidney	2			0.65*/3.9	7.5*/1.0			Carlberg and Bøler 1985 (2)
	West Svalbard, Norway	78N	13E	1980	Liver	9	♂ ♀			4.3	0.5	2.6	Norheim 1987 (1)
				1980	Kidney	9	♂ ♀			21			Norheim 1987 (1)
	Franz Josef Land, Russia			1991	Liver	2	♂	Adult	0.11±0.01	6.64±0.99	0.24±0.02	4.86±0.90	Savinova and Gabrielsen 1994 (3)
					Muscle	6	♂	Adult	1.88±3.37	0.65±0.25	0.08±0.02	2.15±0.40	Savinova and Gabrielsen 1994 (3)
					Muscle	4	♀	Adult	0.15±0.12	1.05±0.34	0.13±0.07	2.10±0.80	Savinova and Gabrielsen 1994 (3)
Atlantic puffin (*Fratercula arctica*)	Iceland	65.50N	24.50W	1986-1991	Feather	37	♂ ♀				4.8±0.6		Thompson *et al.* 1992 (1)
	Northwest Norway	69.35N	16E	1986-1991	Feather	46	♂ ♀				3.7±1.8		Thompson *et al.* 1992 (1)
	Northeast Norway	70N	31E	1986-1991	Feather	31	♂ ♀				1.0±0.5		Thompson *et al.* 1992 (1)
	Ny Ålesund, Svalbard, Norway	79N	12E	1991	Liver	2	♀	Adult	0.50±0.60	9.07±4.05	0.91±0.21	13.17±3.07	Savinova and Gabrielsen 1994 (3)
					Liver	3	♂	Adult	0.30±0.39	10.24±3.41	1.26±0.33	11.03±4.10	Savinova and Gabrielsen 1994 (3)
					Muscle	2	♀	Adult	0.32±0.21	0.62±0.21	0.34±0.12	9.71±1.54	Savinova and Gabrielsen 1994 (3)
					Muscle	3	♂	Adult	0.23±0.17	0.88±0.53	0.44±0.21	9.98±2.78	Savinova and Gabrielsen 1994 (3)
	Hornøya Island, Svalbard, Norway	70.37N	31.17E	1991	Liver	4	♀	Adult	0.10±0.02	2.83±1.00	1.20±0.40	8.96±1.86	Savinova and Gabrielsen 1994 (3)
					Liver	1	♂	Adult	0.12	1.68	1.30	10.06	Savinova and Gabrielsen 1994 (3)
					Muscle	4	♀	Adult	0.08±0.00	0.32±0.09	0.29±0.16	5.37±1.72	Savinova and Gabrielsen 1994 (3)
					Muscle	1	♂	Adult	0.07	0.18	0.39	5.14	Savinova and Gabrielsen 1994 (3)

1. Values expressed as arithmetic means.
2. Values expressed as geometric means.
3. Dry weight, values expressed as arithmetic means.
4. Dry weight

Table 7·A15. Lead, cadmium, mercury and selenium in Arctic marine mammals.

									Metals, µg/g ww (unless otherwise indicated; see footnotes)				
Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Lead	Cadmium	Mercury	Selenium	Reference
Ringed seal	Nome, Alaska	64.50N	165.50W	1989	Liver	2	♂	1 yr	0.026	0.666	1.52		Zeisler 1993 (1)
(*Phoca hispida*)	Chukchi Sea			1988	Liver	2	♂	2 yrs	0.030	2.39	3.52		Zeisler 1993 (1)
	Point Barrow	71.30N	156.70W	1988	Kidney	2	♂	2 yrs		4.89			Zeisler 1993 (1)
	Somerset Island	73.73N	95W	1975	Liver	12-88					19.3±18.4	16.4±7.83	Smith and Armstrong 1978
					Muscle	89					0.44±0.16		Smith and Armstrong 1978
	Barrow Strait	74.4N	94.17W	1976	Liver	10-27		10 yrs			16.1±13.8	9.44±6.66	Smith and Armstrong 1978
					Muscle	27		10 yrs			0.91±0.38		Smith and Armstrong 1978
	Beaufort Sea	70.3N	125.0W	1972	Liver	13		1.3 yrs			1.0±1.16		Smith and Armstrong 1978
					Muscle	13		1.3 yrs			0.23±0.11		Smith and Armstrong 1978
	Holman Island	70.65N	117.73W	1972-1973	Liver	80-83		12.8 yrs			27.5±30.1	15.2±7.82	Smith and Armstrong 1975, 1978
					Muscle	80-83		12.8 yrs			0.72±0.33	1.06±0.35	Smith and Armstrong 1975, 1978
				1977	Liver	112		8.1 yrs			25.5±15.0	15.0±6.42	Smith and Armstrong 1978
				1981	Liver	38	♂ ♀	7.4 yrs		7.3			Macdonald 1986 ($)
					Kidney	43	♂ ♀	7.4 yrs		25.9			Macdonald 1986 ($)
					Muscle	36	♂ ♀	7.4 yrs		1.02			Macdonald 1986 ($)
					Brain	21	♂ ♀	7.4 yrs		0.35			Macdonald 1986 ($)
					Blubber	9	♂ ♀	7.4 yrs		0.030			Macdonald 1986 ($)
	Western Arctic			1987-1993	Liver	140-142	♂ ♀	10.0±8.9 yrs	0.083±0.118	5.6±3.14	32.6±35.2	15.2±12.9	Wagemann *et al.* 1996
					Kidney	144	♂ ♀	10.0±8.9 yrs		21.1±14.2	2.05±1.34		Wagemann *et al.* 1996
					Muscle	118-133	♂ ♀	10.0±8.9 yrs	0.052±0.049	0.041±0.043	0.41±0.29	0.51±0.14	Wagemann *et al.* 1996
	Arctic Bay	72.90N	85.0W	1974	Liver	17		6.7 yrs		8.35			Fallis, unpubl., cited in
	Admiralty Inlet	73N	85W	1983	Liver	15	♂ ♀	8.2 yrs	0.016±0.009	10.1±6.32	8.63±6.57	6.23±4.23	Wagemann 1989
					Kidney	15	♂ ♀	8.2 yrs	0.019±0.014	50.1±40.2	1.34±0.69	2.25±0.30	Fallis, unpubl., cited in
					Muscle	15	♂ ♀	8.2 yrs	0.009±0.007	0.12±0.064	0.32±0.14	0.45±0.057	Wagemann 1989
	Northern Baffin Islands	68N	75W	1975	Liver	5			<0.04	4.2±3.3	3.27±0.75		Fallis, unpubl., cited in
					Muscle	6			<0.04	0.03±0.02			Muir *et al.* 1992
				1977	Liver	5			<0.05	5.5±0.8			Fallis, unpubl., cited in
					Muscle	7				0.05±0.01	0.33±0.06		Muir *et al.* 1992
	Eureka	79.60N	89.85W	1994	Kidney	4		0-1yrs	0.018*/1.76	0.10*/5.06	1.67*/1.40		R. Wagemann, unpubl.
					Liver	4		0-1yrs	0.026*/4.29	0.01*/3.97	0.83*/1.54	1.01*/1.19	R. Wagemann, unpubl.
					Muscle	4		0-1yrs	0.008*/5.74	0.00*/4.93	0.11*/1.57	0.42*/1.38	R. Wagemann, unpubl.
					Kidney	2		2-4yrs	0.010*/1.34	11.54*/1.40	1.42*/1.85		R. Wagemann, unpubl.
					Liver	2		2-4yrs	0.007*/1.17	5.01*/1.01	7.65*/1.84	3.93*/1.42	R. Wagemann, unpubl.
					Muscle	1		2-4yrs	0.001*/–	0.01*/–		2-4*/–	R. Wagemann, unpubl.
					Kidney	3		5-10 yrs	0.004*/3.07	19.26*/2.17	3.37*/1.96		R. Wagemann, unpubl.
					Liver	3		5-10 yrs	0.004*/2.84	5.96*/1.68	21.8*/1.92	10.5*/1.54	R. Wagemann, unpubl.
					Muscle	3		5-10 yrs	0.005*/1.32	0.02*/1.67	0.97*/1.44	0.28*/1.19	R. Wagemann, unpubl.
					Kidney	2		>10-15 yrs	0.006*/1.29	11.75*/1.19	2.80*/1.21		R. Wagemann, unpubl.
					Liver	2		>10-15 yrs	0.007*/1.16	2.54*/2.94	22.0*/1.81	11.1*/2.53	R. Wagemann, unpubl.
					Muscle	2		>10-15 yrs	0.006*/1.39	0.02*/1.13	1.05*/1.19	0.28*/1.05	R. Wagemann, unpubl.
					Kidney	6		>15 yrs	0.011*/1.22	22.79*/1.48	3.94*/1.73		R. Wagemann, unpubl.
					Liver	7		>15 yrs	0.004*/4.02	6.36*/1.89	28.6*/3.52	19.5*/2.57	R. Wagemann, unpubl.
					Muscle	5-7		>15 yrs	0.006*/1.82	0.06*/1.92	0.75*/1.27	0.30*/1.13	R. Wagemann, unpubl.
	Eureka	79.60N	89.85W	1994	Liver	18	♂ ♀	12.9±12.2 yrs		4.65±3.78	26.5±36.9	14.0±16.7	Wagemann *et al.* 1996
					Kidney	17	♂ ♀	12.9±12.2 yrs		15.6±13.8	3.17±1.91		Wagemann *et al.* 1996
	Resolute Bay	74.68N	94.83W	1993	Kidney	6		0-1yrs		35.31*/1.30	0.89*/1.26		R. Wagemann, unpubl.
					Liver	6		0-1yrs	0.011*/1.54	8.81*/1.29	2.68*/1.63	1.33*/1.48	R. Wagemann, unpubl.
					Muscle	6		0-1yrs	0.007*/2.12	0.04*/1.31	0.30*/1.18	0.32*/1.08	R. Wagemann, unpubl.
					Kidney	11		2-4 yrs		41.24*/1.44	1.24*/1.27		R. Wagemann, unpubl.
					Liver	11		2-4 yrs	0.014*/1.83	15.61*/1.43	7.67*/1.97	3.10*/1.71	R. Wagemann, unpubl.
					Muscle	11		2-4 yrs	0.008*/1.90	0.06*/1.94	0.57*/1.42	0.34*/1.16	R. Wagemann, unpubl.
					Kidney	8		5-10 yrs		59.07*/1.51	1.64*/1.30		R. Wagemann, unpubl.
					Liver	8		5-10 yrs	0.010*/2.21	17.74*/2.31	13.1*/2.18	5.66*/1.88	R. Wagemann, unpubl.
					Muscle	8		5-10 yrs	0.008*/1.91	0.09*/1.63	0.59*/1.32	0.32*/1.10	R. Wagemann, unpubl.
					Kidney	7		10-15 yrs		35.83*/1.94	1.71*/1.43		R. Wagemann, unpubl.
					Liver	7		10-15 yrs	0.01*/1.77	8.76*/2.37	15.3*/2.24	5.49*/1.96	R. Wagemann, unpubl.
					Muscle	7		10-15 yrs	0.006*/1.78	0.13*/1.68	0.60*/1.31	0.33*/1.13	R. Wagemann, unpubl.
					Kidney	1		>15 yrs		28.90*/–	1.53*/–		R. Wagemann, unpubl.
					Liver	1		>15 yrs	0.009*/–	13.23*/–	14.1*/–	6.79*/–	R. Wagemann, unpubl.
					Muscle	1		>15 yrs	0.005*/–	0.16*/–	0.45*/–	0.35*/–	R. Wagemann, unpubl.
					Kidney	2		Undeterm.		52.86*/2.97	1.42*/1.95		R. Wagemann, unpubl.
					Liver	2		Undeterm.	0.012*/1.98	18.29*/1.31	10.7*/1.01	4.09*/1.28	R. Wagemann, unpubl.
					Muscle	2		Undeterm.		0.18*/3.29	0.48*/1.62	0.29*/1.13	R. Wagemann, unpubl.
	Nanisivik Mine	73.03N	84.55W	1983	Kidney	9		0-1 yrs	0.007*/9.56	2.69*/7.92	0.74*/1.36	1.63*/1.21	R. Wagemann, unpubl.

				Liver	9	0-1 yrs	0.024*/1.71	0.99*/4.77	0.63*/1.99	1.11*/1.47	R. Wagemann, unpubl.
				Muscle	9	0-1 yrs	0.008*/3.00	0.00*/13.5	0.081*/1.73	0.47*/1.15	R. Wagemann, unpubl.
				Kidney	1	2-4 yrs	0.010*/–	8.93*/–	0.50*/–	2.90*/–	R. Wagemann, unpubl.
				Liver	1	2-4 yrs	0.020*/–	2.09*/–	0.20*/–	0.55*/–	R. Wagemann, unpubl.
				Muscle	1	2-4 yrs	0.020*/–	0.04*/–	2.10*/–	3.65*/–	R. Wagemann, unpubl.
				Kidney	1	5-10 yrs	0.040*/–	42.35*/–	0.14*/–	0.60*/–	R. Wagemann, unpubl.
				Liver	1	5-10 yrs	0.070*/–	6.05*/–	1.47*/–	2.13*/–	R. Wagemann, unpubl.
				Muscle	1	5-10 yrs	0.050*/–	0.07*/–	1.09*/–	2.10*/–	R. Wagemann, unpubl.
				Kidney	1	10-15 yrs	0.010*/–	32.01*/–	0.38*/–	0.39*/–	R. Wagemann, unpubl.
				Liver	1	10-15 yrs	0.060*/–	4.17*/–	3.04*/–	2.38*/–	R. Wagemann, unpubl.
				Muscle	1	10-15 yrs	0.010*/–	0.04*/–	53.4*/–	18.8*/–	R. Wagemann, unpubl.
				Kidney	1	>15 yrs	0.020*/–	37.64*/–	0.37*/–	0.53*/–	R. Wagemann, unpubl.
				Liver	1	>15 yrs	0.030*/–	8.73*/–	1.62*/–	2.19*/–	R. Wagemann, unpubl.
				Muscle	1	>15 yrs	0.030*/–	0.18*/–	28.9*/–	19.1*/–	R. Wagemann, unpubl.
Admiralty Inlet	72.50N	86.00W	1983	Kidney	2	0-1 yrs		0.42*/1.03	0.37*/1.28	1.78*/1.29	R. Wagemann, unpubl.
				Liver	2	0-1 yrs		0.25*/1.05	0.77*/1.46	0.86*/1.28	R. Wagemann, unpubl.
				Muscle	2	0-1 yrs	0.011*/1.20	0.01*/1.63	0.32*/1.09	–	R. Wagemann, unpubl.
				Kidney	10	5-10 yrs		56.92*/1.77	1.27*/1.40	2.29*/1.15	R. Wagemann, unpubl.
				Liver	10	5-10 yrs	0.016*/1.58	12.68*/1.40	8.32*/2.25	5.75*/2.17	R. Wagemann, unpubl.
				Muscle	10	5-10 yrs	0.006*/2.181	0.16*/1.29	0.27*/1.33	0.45*/1.10	R. Wagemann, unpubl.
				Kidney	2	>10-15 yrs		32.29*/2.68	1.37*/1.48	2.24*/1.13	R. Wagemann, unpubl.
				Liver	2	>10-15 yrs	0.023*/1.32	8.97*/2.08	4.69*/3.44	7.37*/2.02	R. Wagemann, unpubl.
				Muscle	2	>10-15 yrs	0.005*/2.175	0.09*/1.17	0.28*/1.05	0.50*/1.10	R. Wagemann, unpubl.
				Kidney	1	>15 yrs		13.53*/–	2.80*/–	1.94*/–	R. Wagemann, unpubl.
				Liver	1	>15 yrs	0.014*/–	2.15*/–	15.1*/–	7.80*/–	R. Wagemann, unpubl.
				Muscle	1	>15 yrs	0.006*/–	0.04*/–	0.79*/–	0.42*/–	R. Wagemann, unpubl.
Sachs Harbour	71.98N	125.25W	1987	Kidney	2	0-1 yrs		5.10*/1.25	0.67*/1.04		R. Wagemann, unpubl.
				Liver	2	0-1 yrs	0.054*/3.97	0.92*/1.61	0.80*/1.77	1.93*/1.81	R. Wagemann, unpubl.
				Muscle	1	0-1 yrs	0.035*/–	0.01*/–	0.19*/–	.47*/–	R. Wagemann, unpubl.
				Kidney	8	2-4 yrs		18.71*/1.55	1.22*/1.51		R. Wagemann, unpubl.
				Liver	8	2-4 yrs	0.010*/1.91	5.85*/1.28	3.86*/2.30	3.95*/1.71	R. Wagemann, unpubl.
				Muscle	42-43	2-4 yrs	0.014*/2.01	0.03*/1.43	0.25*/1.66	0.49*/1.21	R. Wagemann, unpubl.
				Kidney	42-43	5-10 yrs		20.03*/1.90	1.63*/1.86		R. Wagemann, unpubl.
				Liver	40-42	5-10 yrs	0.017*/2.32	6.10*/1.65	20.9*/2.99	11.9*/1.92	R. Wagemann, unpubl.
				Muscle	31-35	5-10 yrs	0.017*/2.16	0.03*/2.31	0.30*/1.91	0.57*/1.24	R. Wagemann, unpubl.
				Kidney	5	>10-15 yrs		18.64*/1.33	2.13*/1.64		R. Wagemann, unpubl.
				Liver	5	>10-15 yrs	0.029*/2.28	6.66*/1.80	46.9*/1.61	21.8*/1.50	R. Wagemann, unpubl.
				Muscle	4-5	>10-15 yrs	0.035*/1.63	0.06*/2.74	0.39*/1.54	0.52*/1.14	R. Wagemann, unpubl.
			1988	Kidney		0-1 yrs		1.90*/3.64	0.57*/1.99		R. Wagemann, unpubl.
				Liver	9	0-1 yrs	0.033*/2.80	0.19*/11.8	0.58*/2.02	1.74*/1.18	R. Wagemann, unpubl.
				Muscle	6-8	0-1 yrs	0.008*/2.02	0.00*/1.46	0.11*/1.96	0.46*/1.38	R. Wagemann, unpubl.
				Kidney	6-7	2-4 yrs		26.35*/1.83	2.64*/1.57		R. Wagemann, unpubl.
				Liver	6	2-4 yrs	0.031*/1.63	4.78*/2.20	18.1*/2.54	9.77*/2.06	R. Wagemann, unpubl.
				Muscle	6-7	2-4 yrs	0.018*/2.38	0.03*/2.33	0.51*/1.34	0.56*/1.51	R. Wagemann, unpubl.
				Kidney	35	5-10 yrs		19.37*/1.80	2.08*/1.77		R. Wagemann, unpubl.
				Liver	35	5-10 yrs	0.023*/1.92	5.15*/1.73	22.8*/3.01	13.0*/2.31	R. Wagemann, unpubl.
				Muscle	27-33	5-10 yrs	0.012*/2.10	0.02*/2.16	0.48*/1.72	0.43*/1.35	R. Wagemann, unpubl.
				Kidney	5	10-15 yrs		23.18*/1.79	3.33*/1.24		R. Wagemann, unpubl.
				Liver	5	10-15 yrs	0.035*/2.33	5.71*/1.33	103*/2.14	36.3*/2.10	R. Wagemann, unpubl.
				Muscle	4-5	10-15 yrs	0.013*/2.32	0.06*/2.02	0.62*/1.58	0.42*/1.45	R. Wagemann, unpubl.
				Kidney	4	>15 yrs		22.99*/1.72	2.92*/1.64		R. Wagemann, unpubl.
				Liver	4	>15 yrs	0.019*/1.46	3.89*/1.55	70.1*/1.71	29.2*/1.61	R. Wagemann, unpubl.
				Muscle	4	>15 yrs	0.021*/2.04	0.05*/1.89	0.57*/1.41	0.47*/1.36	R. Wagemann, unpubl.
				Kidney	1	Undeterm.		9.39*/–	29.5*/–		R. Wagemann, unpubl.
				Liver	1	Undeterm.	0.016*/–	4.69*/–	0.56*/–	11.6*/–	R. Wagemann, unpubl.
Holman Island	70.65N	117.73W	1993	Kidney	3	5-10 yrs		12.06*/1.41	1.19*/1.77		R. Wagemann, unpubl.
				Liver	3	5-10 yrs	0.004*/1.25	3.37*/1.12	7.33*/5.45	6.34*/2.59	R. Wagemann, unpubl.
				Muscle	3	5-10 yrs	0.002*/2.19	0.02*/1.19	0.17*/1.84	0.53*/1.23	R. Wagemann, unpubl.
				Kidney	4	10-15 yrs		15.66*/1.96	2.29*/1.71		R. Wagemann, unpubl.
				Liver	4	10-15 yrs	0.004*/1.62	4.65*/1.57	7.45*/4.25	7.69*/2.30	R. Wagemann, unpubl.
				Muscle	4	10-15 yrs	0.002*/1.65	0.03*/1.51	0.20*/1.82	0.56*/1.17	R. Wagemann, unpubl.
				Kidney	4-5	>15 yrs		19.68*/1.87	2.16*/3.67		R. Wagemann, unpubl.
				Liver	6	>15 yrs	0.007*/2.39	5.94*/1.59	35.3*/1.79	20.6*/1.51	R. Wagemann, unpubl.
				Muscle	6-7	>15 yrs	0.001*/1.86	0.06*/1.52	0.43*/1.45	0.43*/1.32	R. Wagemann, unpubl.
				Kidney	1	Undeterm.		20.67*/–	2.01*/–		R. Wagemann, unpubl.
				Liver	1	Undeterm.	0.005*/–	8.23*/–	52.2*/–	27.3*/–	R. Wagemann, unpubl.
				Muscle	1	Undeterm.	0.001*/–	0.03*/–		0.47*/–	R. Wagemann, unpubl.
Paulatuk	69.35N	124.07W	1993	Kidney	1	0-1 yrs		6.26*/–	0.41*/–		R. Wagemann, unpubl.
				Muscle	1	0-1 yrs	0.002*/–	0.03*/–	0.077*/–	0.52*/–	R. Wagemann, unpubl.
				Kidney	1	2-4 yrs		8.90*/–	0.63*/–		R. Wagemann, unpubl.

Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Metals, µg/g ww (unless otherwise indicated; see footnotes) Lead	Cadmium	Mercury	Selenium	Reference
Ringed seal					Liver	1		2-4 yrs	0.002*/–	1.39*/–	1.27*/–	2.00*/–	R. Wagemann, unpubl.
					Muscle	1		2-4 yrs	0.001*/–	0.01*/–	0.14*/–	0.43*/–	R. Wagemann, unpubl.
					Kidney	7		5-10 yrs		11.05*/1.49	0.71*/1.35		R. Wagemann, unpubl.
					Liver	6		5-10 yrs	0.004*/1.93	2.82*/1.15	4.28*/1.44	4.10*/1.33	R. Wagemann, unpubl.
					Muscle	7		5-10 yrs	0.003*/2.58	0.02*/1.32	0.17*/1.60	0.54*/1.22	R. Wagemann, unpubl.
					Kidney	1		>10-15 yrs		15.99*/–	0.55*/–		R. Wagemann, unpubl.
					Liver	1		>10-15 yrs	0.004*/–	4.54*/–	5.06*/–	4.50*/–	R. Wagemann, unpubl.
					Muscle	1		>10-15 yrs	0.002*/–	0.02*/–	0.14*/–	0.46*/–	R. Wagemann, unpubl.
	Inukjuak	58.5N	78W	1989	Liver	1		0-1 yrs	0.006*/–	2.26*/–	0.68*/–	2.50*/–	R. Wagemann, unpubl.
					Liver	1		5-10 yrs	0.011*/–	13.34*/–	4.04*/–	5.26*/–	R. Wagemann, unpubl.
				1990	Liver	1		0-1 yrs	0.030*/–	18.39*/–	1.18*/–	2.56*/–	R. Wagemann, unpubl.
					Liver	1		2-4 yrs	0.011*/–	12.32*/–	6.01*/–	5.44*/–	R. Wagemann, unpubl.
					Liver	6		5-10 yrs	0.013*/1.89	14.38*/2.27	5.75*/1.57	6.31*/1.24	R. Wagemann, unpubl.
	Salluit	62.5N	76W	1989	Liver	1		5-10 yrs	0.005*/–	7.26*/–	11.9*/–	6.77*/–	R. Wagemann, unpubl.
					Liver	1		10-15 yrs	0.009*/–	14.21*/–	26.4*/–	9.12*/–	R. Wagemann, unpubl.
	Shingle Point	69N	135W	1993	Kidney	3		Undeterm.		31.01*/1.73	2.48*/1.92		R. Wagemann, unpubl.
					Liver	3		Undeterm.	0.003*/1.45	6.94*/1.49	30.9*/5.75	22.0*/3.65	R. Wagemann, unpubl.
					Muscle	3		Undeterm.		0.04*/1.94	0.51*/3.53	0.47*/1.03	R. Wagemann, unpubl.
	Wakeham Bay	61.63N	71.97W	1989	Liver	13		0-1 yrs	0.010*/2.24	2.10*/3.14	0.52*/1.54	1.27*/1.12	R. Wagemann, unpubl.
					Liver	3		2-4 yrs	0.007*/1.35	8.63*/1.97	2.51*/1.19	2.84*/1.21	R. Wagemann, unpubl.
					Liver	6		5-10 yrs	0.009*/1.69	10.65*/2.24	6.21*/2.97	4.86*/2.13	R. Wagemann, unpubl.
					Liver	1		10-15 yrs	0.025*/–	13.99*/–	22.3*/–	11.37*/–	R. Wagemann, unpubl.
				1990	Liver	1		0-1 yrs	0.010*/–	1.58*/–	0.41*/–	1.17*/–	R. Wagemann, unpubl.
					Liver	2		2-4 yrs	0.009*/1.44	1.98*/2.15	2.49*/1.60	2.57*/1.06	R. Wagemann, unpubl.
					Liver	6		5-10 yrs	0.008*/2.30	3.79*/3.10	5.42*/1.98	4.14*/1.35	R. Wagemann, unpubl.
					Liver	1		>15 yrs	0.007*/–	2.32*/–	19.5*/–	7.05*/–	R. Wagemann, unpubl.
	Belcher Islands	56.25N	79.25W	1991	Liver	5		2-4 yrs			2.86*/2.92		M. Kingsley, unpubl.
					Muscle	5		2-4 yrs			0.14*/1.27		M. Kingsley, unpubl.
					Liver	14		5-10 yrs			5.40*/3.85		M. Kingsley, unpubl.
					Muscle	14		5-10 yrs			0.13*/1.71		M. Kingsley, unpubl.
					Liver	6		10-15 yrs			6.09*/1.98		M. Kingsley, unpubl.
					Muscle	5		10-15 yrs			0.18*/2.68		M. Kingsley, unpubl.
					Liver	2		>15 yrs			9.12*/2.05		M. Kingsley, unpubl.
					Muscle	2		>15 yrs			0.18*/1.69		M. Kingsley, unpubl.
	George River (Kangiqsualujjuaq)	58.82N	66.17W	1989	Liver	2		5-10 yrs	0.013*/2.57	3.82*/8.42	13.1*/3.01	7.73*/2.33	R. Wagemann, unpubl.
					Liver	1		10-15 yrs	0.011*/–	2.04*/–	4.14*/–	3.51*/–	R. Wagemann, unpubl.
				1990	Liver	2		5-10 yrs	0.017*/3.11	3.44*/1.02	12.4*/2.23	5.66*/1.00	R. Wagemann, unpubl.
				1991	Liver	2		5-10 yrs	0.013*/1.57	4.30*/2.70	4.27*/1.75	2.94*/1.64	R. Wagemann, unpubl.
					Liver	2		5-10 yrs	0.018*/1.04	17.38*/3.63	10.9*/1.24	6.79*/1.12	R. Wagemann, unpubl.
	Umiujaq	56.56N	76.56W	1994	Heart	30				0.06*/2.43	0.13*/1.77	0.49*/1.61	M. Kingsley, unpubl.
					Kidney	30				40.16*/2.42	0.92*/1.74	2.12*/1.27	M. Kingsley, unpubl.
					Liver	28				14.02*/2.41	9.07*/3.52	9.78*/1.93	M. Kingsley, unpubl.
					Muscle	32				0.08*/3.89	0.18*/1.86	0.43*/1.20	M. Kingsley, unpubl.
	Great Whale (Kuujjuarpik)	55.25N	77.75W	1993	Liver	3				3.34*/3.22	1.10*/2.47	2.31*/1.22	M. Kingsley, unpubl.
					Muscle	3				0.06*/5.54	0.073*/1.27	0.60*/1.13	M. Kingsley, unpubl.
					Muscle	16-18	♂ ♀	12.9±12.2 yrs		0.032±0.033	0.66±0.42	0.33±0.098	M. Kingsley, unpubl.
	Pond Inlet	72.78N	77W	1976	Liver	33		5 yrs			3.76±3.42		Smith and Armstrong 1978
					Muscle	33		5 yrs			0.31±0.17		Smith and Armstrong 1978
	Eastern Arctic			1987-1993	Liver	115-133	♂ ♀	6.1±4.6 yrs	0.013±0.011	11.9±9.2	8.34±7.03	4.81±3.12	Wagemann *et al.* 1996
					Kidney	35	♂ ♀	6.1±4.6 yrs		47.7±23.3	1.49±0.58		Wagemann *et al.* 1996
					Muscle	35-61	♂ ♀	6.1±4.6 yrs	0.009±0.013	0.098±0.086	0.39±0.17	0.33±0.04	Wagemann *et al.* 1996
	Avanersuaq, Greenland (Thule)	77.5N	70W	1984	Liver	1	♂ ♀	0 yr		9110		1.61	Dietz *et al.* 1997b
					Kidney	1	♂ ♀	0 yr		49.3		3.21	Dietz *et al.* 1997b
					Muscle	1	♂ ♀	0 yr		0.212		0.39	Dietz *et al.* 1997b
					Liver	12-14	♂ ♀	1 yr		2.84*/5.11	0.621*/2.35	1.03*/1.72	Dietz *et al.* 1997b
					Kidney	11-13	♂ ♀	1 yr		16.9*/4.57	0.561*/2.13	2.57*/1.66	Dietz *et al.* 1997b
					Muscle	12-14	♂ ♀	1 yr		0.035*/3.65	0.152*/2.58	0.24*/1.42	Dietz *et al.* 1997b
					Liver	10-22	♂ ♀	2-4 yrs		13.5*/6.28	1.58*/1.38	1.82*/1.75	Dietz *et al.* 1997b
					Kidney	10-22	♂ ♀	2-4 yrs		72.9*/2.80	0.813*/1.32	2.92*/1.28	Dietz *et al.* 1997b
					Muscle	10-22	♂ ♀	2-4 yrs		0.206*/2.49	0.225*/2.62	0.33*/1.28	Dietz *et al.* 1997b
					Liver	6-11	♂ ♀	5-10 yrs		36.7*/1.76	2.59*/2.23	2.38*/2.08	Dietz *et al.* 1997b
					Kidney	6-11	♂ ♀	5-10 yrs		111.*/2.04	0.966*/1.79	3.32*/1.11	Dietz *et al.* 1997b
					Muscle	6-11	♂ ♀	5-10 yrs		0.311*/1.75	0.241*/5.09	0.30*/1.26	Dietz *et al.* 1997b
					Liver	1-4	♂ ♀	10-15 yrs		14.7*/1.92	2.96*/1.75	1.50	Dietz *et al.* 1997b
					Kidney	1-4	♂ ♀	10-15 yrs		103.*/3.62	1.06*/1.52	2.56	Dietz *et al.* 1997b

				Muscle	2-4	♂ ♀	10-15 yrs		0.311*/8.47	0.170*/4.08	0.17	Dietz *et al.* 1997b
				Liver	3-4	♂ ♀	>15 yrs		12.3*/3.41	1.47*/1.81	1.34*/1.48	Dietz *et al.* 1997b
				Kidney	2-4	♂ ♀	>15 yrs		58.1*/2.61	1.03*/2.08	1.34	Dietz *et al.* 1997b
				Muscle	3-4	♂ ♀	>15 yrs		0.296*/2.06	0.416*/1.73	0.14*/1.89	Dietz *et al.* 1997b
			1994	Liver	7	♂ ♀	0 yr	0.044*/4.102	0.611*/4.54	0.562*/2.07	1.00*/1.50	Riget *et al.* 1995
				Liver	4	♂ ♀	1 yr	0.014*/4.049	0.452*/5.10	0.533*/1.57	0.93*/1.22	Riget *et al.* 1995
				Liver	4	♂ ♀	2-4 yrs	0.019*/2.626	7.31*/3.04	6.16*/1.96	3.23*/1.65	Riget *et al.* 1995
				Liver	8	♂ ♀	5-10 yrs	0.019*/2.276	8.21*/2.90	6.05*/1.98	3.77*/1.57	Riget *et al.* 1995
				Liver	2	♂ ♀	>15 yrs	0.032*/1.205	24.8*/1.70	10.2*/1.93	5.292*/1.45	Riget *et al.* 1995
Upernavik	74N	57W	1973	Liver	10					2.40±1.49		Johansen *et al.* 1980 (1)
				Muscle	10					0.23±0.16		Johansen *et al.* 1980 (1)
			1974	Liver	7			<0.03	17.0	0.34±0.38		Johansen *et al.* 1980 (1)
				Muscle	7			0.16	0.15	0.09±0.04		Johansen *et al.* 1980 (1)
			1976	Liver	31					2.10±4.10		Johansen *et al.* 1980 (1)
				Muscle	31					0.18±0.18		Johansen *et al.* 1980 (1)
			1980	Liver	12		0.5 yrs		5.86			Macdonald 1986
				Kidney	12		0.5 yrs		43.8			Macdonald 1986
				Muscle	12		0.5 yrs		0.05			Macdonald 1986
			1985	Liver	2-5	♂ ♀	0 yr		4.82*/5.69	1.19*/1.02	0.95*/1.08	Dietz *et al.* 1997b
				Kidney	2-6	♂ ♀	0 yr		18.3*/5.89	1.37*/1.08	1.73*/1.22	Dietz *et al.* 1997b
				Muscle	2-4	♂ ♀	0 yr		0.153*/1.78	0.18*/1.17	5.56*/1.59	Dietz *et al.* 1997b
				Bile	4	♂ ♀	0 yr		0.132*/8.11			Dietz *et al.* 1997b
				Liver	10-12	♂ ♀	1 yr		15.3*/1.64	0.868*/1.38	1.04*/1.22	Dietz *et al.* 1997b
				Kidney	10-12	♂ ♀	1 yr		73.4*/1.53	0.616*/1.47		Dietz *et al.* 1997b
				Muscle	10-12	♂ ♀	1 yr		0.200*/2.27	0.182*/1.57		Dietz *et al.* 1997b
				Bile	10-11	♂ ♀	1 yr		1.89*/1.923	0.043*/1.60	0.47*/1.61	Dietz *et al.* 1997b
				Liver	21	♂ ♀	2-4 yrs		22.3*/1.55			Dietz *et al.* 1997b
				Kidney	21	♂ ♀	2-4 yrs		71.7*/1.556			Dietz *et al.* 1997b
				Muscle	21	♂ ♀	2-4 yrs		0.295*/3.13			Dietz *et al.* 1997b
				Bile	19	♂ ♀	2-4 yrs		3.81*/1.82			Dietz *et al.* 1997b
				Liver	8-10	♂ ♀	5-10 yrs		36.4*/1.69	3.46*/2.28	1.52*/1.45	Dietz *et al.* 1997b
				Kidney	10.00	♂ ♀	5-10 yrs		109.*/1.68	1.10*/1.33		Dietz *et al.* 1997b
				Muscle	10.00	♂ ♀	5-10 yrs		0.446*/2.81	0.215*/1.60		Dietz *et al.* 1997b
				Bile	10.00	♂ ♀	5-10 yrs		4.97*/2.08	0.065*/2.20	0.25*/1.55	Dietz *et al.* 1997b
				Liver	2-4	♂ ♀	10-15 yrs		34.8*/1.37	2.26*/1.74	1.85	Dietz *et al.* 1997b
				Kidney	2-4	♂ ♀	10-15 yrs		81.1*/1.36	0.988*/1.19	1.79	Dietz *et al.* 1997b
				Muscle	2-4	♂ ♀	10-15 yrs		0.375*/1.71	0.107*/3.11	0.10*/1.00	Dietz *et al.* 1997b
				Bile	4	♂ ♀	10-15 yrs		8.78*/1.26			Dietz *et al.* 1997b
				Liver	1	♂ ♀	>15 yrs		23.4	1.46	1.73	Dietz *et al.* 1997b
				Kidney	1	♂ ♀	>15 yrs		69.7	0.948		Dietz *et al.* 1997b
				Muscle	1	♂ ♀	>15 yrs		0.215	0.136		Dietz *et al.* 1997b
				Bile	1	♂ ♀	>15 yrs		8.98	0.444	0.61	Dietz *et al.* 1997b
Uummannaq	71.5N	52.5W	1978	Liver	25		1.9 yrs		13.2			Macdonald 1986 ($)
				Kidney	25		1.9 yrs		106			Macdonald 1986 ($)
				Muscle	25		1.9 yrs		0.11			Macdonald 1986 ($)
			1979	Liver	29		1.3 yrs	0.01	7.32±3.0			Johansen *et al.* 1980 ,
				Muscle	29		1.3 yrs	0.04±0.02	0.07±0.10			Macdonald 1986
				Kidney	29		1.3 yrs	0.05	37.4±33.7			Macdonald 1986
			1980	Liver	30		2.3 yrs		20.8			Macdonald 1986 ($)
				Kidney	30		2.3 yrs		120			Macdonald 1986 ($)
				Muscle	30		2.3 yrs		0.09			Macdonald 1986 ($)
			1978-1987	Liver	4	♂ ♀	0 yr		6.34*/1.71			Dietz *et al.* 1997b
				Kidney	4	♂ ♀	0 yr		37.5*/1.26			Dietz *et al.* 1997b
				Muscle	4	♂ ♀	0 yr		0.038*/1.20			Dietz *et al.* 1997b
				Liver	75	♂ ♀	1 yr		6.09*/2.16			Dietz *et al.* 1997b
				Kidney	75	♂ ♀	1 yr		27.6*/1.93			Dietz *et al.* 1997b
				Muscle	75	♂ ♀	1 yr		0.029*/2.11			Dietz *et al.* 1997b
				Liver	79	♂ ♀	2-4 yrs		6.69*/2.48			Dietz *et al.* 1997b
				Kidney	79	♂ ♀	2-4 yrs		32.9*/2.04			Dietz *et al.* 1997b
				Muscle	79	♂ ♀	2-4 yrs		0.036*/2.10			Dietz *et al.* 1997b
				Liver	16	♂ ♀	5-10 yrs		5.69*/3.68			Dietz *et al.* 1997b
				Kidney	16	♂ ♀	5-10 yrs		35.3*/3.53			Dietz *et al.* 1997b
				Muscle	16	♂ ♀	5-10 yrs		0.046*/3.64			Dietz *et al.* 1997b
				Liver	2	♂ ♀	10-15 yrs		1.67			Dietz *et al.* 1997b
				Kidney	2	♂ ♀	10-15 yrs		14.2			Dietz *et al.* 1997b
				Muscle	2	♂ ♀	10-15 yrs		0.071			Dietz *et al.* 1997b
				Liver	3	♂ ♀	>15 yrs		4.27*/1.91			Dietz *et al.* 1997b
				Kidney	3	♂ ♀	>15 yrs		33.3*/2.00			Dietz *et al.* 1997b
			1985	Liver	10	♂ ♀	1 yr			0.514*/1.51	0.97*/1.23	Dietz *et al.* 1997b
				Kidney	10	♂ ♀	1 yr			0.368*/1.37		Dietz *et al.* 1997b

									Metals, µg/g ww (unless otherwise indicated; see footnotes)				
Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Lead	Cadmium	Mercury	Selenium	Reference
Ringed seal					Muscle	10	♂ ♀	1 yr			0.068*/1.34		Dietz *et al.* 1997b
					Liver	7	♂ ♀	5-10 yrs			0.878*/2.01	0.90*/1.55	Dietz *et al.* 1997b
					Kidney	7	♂ ♀	5-10 yrs			0.920*/1.98		Dietz *et al.* 1997b
					Muscle	7	♂ ♀	5-10 yrs			0.191*/2.07		Dietz *et al.* 1997b
					Liver	3	♂ ♀	>15 yrs			1.27*/2.43	1.12*/1.44	Dietz *et al.* 1997b
					Kidney	2	♂ ♀	>15 yrs			2.37*/1.19		Dietz *et al.* 1997b
					Muscle	3	♂ ♀	>15 yrs			0.26*/2.08		Dietz *et al.* 1997b
				1987	Liver	20	♂ ♀	99.7 cm	0.024*/1.97				Dietz *et al.* 1997b
					Kidney	20	♂ ♀	99.7 cm	0.032*/2.84				Dietz *et al.* 1997b
					Muscle	20	♂ ♀	99.7 cm	<0.015				Dietz *et al.* 1997b
	Qeqertarssuaq			1994	Liver	5	♂ ♀	0 yr	0.017*/1.73	13.2*/1.35	0.930*/1.39	1.21*/1.13	Riget *et al.* 1995
					Liver	13	♂ ♀	1 yr	0.023*/1.74	15.7*/1.38	1.18*/1.61	1.19*/1.36	Riget *et al.* 1995
					Liver	11	♂ ♀	2-4 yrs	0.021*/1.59	23.5*/1.31	2.10*/1.67	1.62*/1.33	Riget *et al.* 1995
					Liver	8	♂ ♀	5-10 yrs	0.012*/1.31	21.9*/1.55	3.92*/2.21	2.89*/1.83	Riget *et al.* 1995
	Nanortalik	60N	45W	1986	Liver	10	♂ ♀	1 yr		1.91*/1.79	0.948*/1.41		Dietz *et al.* 1997b
					Kidney	10	♂ ♀	1 yr		8.93*/1.59	0.464*/1.23		Dietz *et al.* 1997b
					Muscle	10	♂ ♀	1 yr		0.010*/1.56	0.084*/1.49		Dietz *et al.* 1997b
				1994	Liver	1	♂ ♀	0 yr	0.010	3.37	0.700	1.18	Riget *et al.* 1995
					Liver	13	♂ ♀	1 yr	0.012*/1.853	3.00*/1.91	1.27*/1.30	1.94*/1.21	Riget *et al.* 1995
					Liver	11	♂ ♀	2-4 yrs	0.011*/1.849	3.74*/2.07	1.91*/1.92	2.18*/1.60	Riget *et al.* 1995
	Danmarkshavn	76.5N	19W	1985-1987	Liver	1-2	♂ ♀	1 yr		0.660	1.06*/1.06	0.67	Dietz *et al.* 1997b
					Kidney	1-2	♂ ♀	1 yr		3.63	0.477*/2.69	1.21	Dietz *et al.* 1997b
					Muscle	1-2	♂ ♀	1 yr		0.020	0.109*/4.46	0.10	Dietz *et al.* 1997b
					Liver	1	♂ ♀	2-4 yrs		5.74	0.590	3.91	Dietz *et al.* 1997b
					Kidney	2	♂ ♀	2-4 yrs		15.4	1.84*/4.83	3.66	Dietz *et al.* 1997b
					Muscle	2	♂ ♀	2-4 yrs		0.132	0.153*/1.02	0.62	Dietz *et al.* 1997b
					Liver	5-6	♂ ♀	5-10 yrs		8.58*/1.97	12.5*/1.96	4.38*/1.66	Dietz *et al.* 1997b
					Kidney	6	♂ ♀	5-10 yrs		22.1*/2.28	2.01*/2.16	2.04*/1.44	Dietz *et al.* 1997b
					Muscle	6	♂ ♀	5-10 yrs		0.063*/2.03	0.553*/1.54	0.23*/1.77	Dietz *et al.* 1997b
					Liver	4	♂ ♀	10-15 yrs		11.2*/1.08	29.3*/1.55	2.28*/1.16	Dietz *et al.* 1997b
					Kidney	4	♂ ♀	10-15 yrs		27.1*/1.48	1.91*/1.37	0.10*/1.00	Dietz *et al.* 1997b
					Muscle	3-4	♂ ♀	10-15 yrs		0.128*/1.38	0.585*/1.14		Dietz *et al.* 1997b
					Liver	1-10	♂ ♀	>15 yrs		4.79*/2.41	20.3*/2.94	6.83*/2.20	Dietz *et al.* 1997b
					Kidney	9-10	♂ ♀	>15 yrs		22.1*/2.34	2.51*/1.29	2.17*/1.29	Dietz *et al.* 1997b
					Muscle	9-10	♂ ♀	>15 yrs		0.197*/3.77	0.684*/1.53	0.18*/1.83	Dietz *et al.* 1997b
	Daneborg	74N	18W	1974	Liver	7	♂ ♀		<0.03	6.6	2.9		Johansen *et al.* 1980 (1)
					Muscle	7	♂ ♀				0.42		Johansen *et al.* 1980 (1)
	Kong Oscars Fjord	72.15N	24W	1985	Liver	6-7	♂ ♀	0 yr		1.92*/2.21	0.504*/1.83	1.11*/1.65	Dietz *et al.* 1997b
					Kidney	6-7	♂ ♀	0 yr		9.86*/2.57	0.462*/1.46		Dietz *et al.* 1997b
					Muscle	6-7	♂ ♀	0 yr		0.036*/2.48	0.041*/3.66	0.28*/1.39	Dietz *et al.* 1997b
					Bile	1	♂ ♀	0 yr		0.369			Dietz *et al.* 1997b
					Liver	1	♂ ♀	1 yr		12.4	0.955	1.39	Dietz *et al.* 1997b
					Kidney	1	♂ ♀	1 yr		71.7	1.24		Dietz *et al.* 1997b
					Muscle	1	♂ ♀	1 yr		0.070	0.087	0.10	Dietz *et al.* 1997b
					Liver	4-5	♂ ♀	5-10 yrs		10.8*/1.88	30.0*/2.55	14.2*/1.95	Dietz *et al.* 1997b
					Kidney	5	♂ ♀	5-10 yrs		50.95*/1.98	4.65*/1.85		Dietz *et al.* 1997b
					Muscle	4-5	♂ ♀	5-10 yrs		0.073*/1.83	0.684*/2.23	0.28*/2.02	Dietz *et al.* 1997b
					Bile	1	♂ ♀	5-10 yrs		1.26	0.607		Dietz *et al.* 1997b
					Liver	2-4	♂ ♀	10-15 yrs		3.37*/2.14	23.2*/3.49	18.39	Dietz *et al.* 1997b
					Kidney	3	♂ ♀	10-15 yrs		19.3*/1.63	4.05*/1.23		Dietz *et al.* 1997b
					Muscle	2-4	♂ ♀	10-15 yrs		0.060*/1.68	0.963*/1.83	0.25	Dietz *et al.* 1997b
					Bile	2	♂ ♀	10-15 yrs		1.58*/1.29	0.703*/1.58		Dietz *et al.* 1997b
					Liver	10-11	♂ ♀	>15 yrs		3.41*/5.00	24.9*/5.02	7.58*/7.24	Dietz *et al.* 1997b
					Kidney	11	♂ ♀	>15 yrs		20.6*/2.46	3.64*/1.54		Dietz *et al.* 1997b
					Muscle	10-11	♂ ♀	>15 yrs		0.089*/2.08	0.691*/1.60	0.37*/1.33	Dietz *et al.* 1997b
					Bile	5	♂ ♀	>15 yrs		1.92*/1.90	0.367*/1.53		Dietz *et al.* 1997b
				1991	Liver	16	♂ ♀	109 cm	0.058*/2.06				Dietz *et al.* 1997b
					Kidney	16	♂ ♀	109 cm	<0.040				Dietz *et al.* 1997b
					Muscle	16	♂ ♀	109 cm	<0.040				Dietz *et al.* 1997b
	Ittoqqortoormiit	70.33N	22.33W	1986	Liver	2	♂ ♀	0 yr		1.19*/3.70	1.71*/1.48		Dietz *et al.* 1997b
					Kidney	2	♂ ♀	0 yr		3.83*/3.21	0.847*/1.66		Dietz *et al.* 1997b
					Liver	7-9	♂ ♀	1 yr		7.55*/1.67	1.46*/1.40	2.21*/1.11	Dietz *et al.* 1997b
					Kidney	7-9	♂ ♀	1 yr		25.6*/1.81	0.797*/1.43	3.64*/1.10	Dietz *et al.* 1997b
					Muscle	7-9	♂ ♀	1 yr		0.035*/1.33	0.174*/1.49	0.23*/1.47	Dietz *et al.* 1997b
					Liver	24	♂ ♀	2-4 yrs		13.9*/1.93	2.78*/1.82		Dietz *et al.* 1997b

					Kidney	24	♂ ♀	2-4 yrs		46.7*/1.64	1.05*/1.46		Dietz *et al.* 1997b
					Muscle	24	♂ ♀	2-4 yrs		0.070*/1.76	0.251*/1.45		Dietz *et al.* 1997b
					Liver	22	♂ ♀	5-10 yrs		15.2*/1.66	5.89*/1.64		Dietz *et al.* 1997b
					Kidney	22	♂ ♀	5-10 yrs		42.3*/1.93	1.57*/1.82		Dietz *et al.* 1997b
					Muscle	20	♂ ♀	5-10 yrs		0.113*/2.31	0.292*/1.33		Dietz *et al.* 1997b
					Liver	4	♂ ♀	10-15 yrs		5.82*/1.77	9.05*/1.119		Dietz *et al.* 1997b
					Kidney	4	♂ ♀	10-15 yrs		22.3*/1.57	2.13*/1.29		Dietz *et al.* 1997b
					Muscle	4	♂ ♀	10-15 yrs		0.075*/2.43	0.563*/1.61		Dietz *et al.* 1997b
					Liver	7	♂ ♀	>15 yrs		12.1*/2.07	14.4*/2.56		Dietz *et al.* 1997b
					Kidney	6	♂ ♀	>15 yrs		65.5*/1.46	2.74*/1.52		Dietz *et al.* 1997b
					Muscle	7	♂ ♀	>15 yrs		0.184*/1.47	0.323*/1.41		Dietz *et al.* 1997b
				1994	Liver	1	♂ ♀	0 yr	<0.010	0.062	0.357	1.04	Riget *et al.* 1995
					Liver	13	♂ ♀	2-4 yrs	0.021*/2.23	4.79*/2.75	3.38*/1.61	2.17*/1.44	Riget *et al.* 1995
					Liver	10	♂ ♀	5-10 yrs	0.015*/2.08	10.3*/1.84	6.11*/1.56	3.34*/1.37	Riget *et al.* 1995
					Liver	3	♂ ♀	10-15 yrs	0.015*/2.36	10.6*/2.07	9.06*/1.76	4.58*/1.56	Riget *et al.* 1995
	Svalbard, Norway	78N	13E	1984	Liver	5	♂ ♀		0.048*/1.54	0.288*/1.52	0.329*/1.94	1.69*/0.673	Carlberg and Bøler 1985
					Blubber	5	♂ ♀		0.039*/1.51	<0.02	<0.01	<0.2	Carlberg and Bøler 1985
				1986	Liver	6-7	♂ ♀	2-4 yrs		2.94*/3.21	1.01*/1.95		Dietz *et al.* 1997b
					Kidney	6-7	♂ ♀	2-4 yrs		10.9*/4.01	0.353*/1.41		Dietz *et al.* 1997b
					Muscle	6-7	♂ ♀	2-4 yrs		0.021*/2.94	0.094*/1.75		Dietz *et al.* 1997b
					Liver	14-16	♂ ♀	5-10 yrs		9.11*/2.12	0.691*/2.35		Dietz *et al.* 1997b
					Kidney	15-17	♂ ♀	5-10 yrs		34.3*/2.32	0.288*/1.56		Dietz *et al.* 1997b
					Muscle	15-17	♂ ♀	5-10 yrs		0.102*/1.54	0.070*/1.60		Dietz *et al.* 1997b
					Liver	3-5	♂ ♀	10-15 yrs		8.87*/4.35	2.88*/6.90		Dietz *et al.* 1997b
					Kidney	3-5	♂ ♀	10-15 yrs		22.7*/4.50	0.312*/1.69		Dietz *et al.* 1997b
					Muscle	3-5	♂ ♀	10-15 yrs		0.105*/3.57	0.080*/1.87		Dietz *et al.* 1997b
					Liver	11-12	♂ ♀	>15 yrs		3.42*/4.05	3.97*/3.05		Dietz *et al.* 1997b
					Kidney	11-12	♂ ♀	>15 yrs		14.6*/3.98	0.557*/1.44		Dietz *et al.* 1997b
					Muscle	11-12	♂ ♀	>15 yrs		0.065*/4.02	0.174*/1.28		Dietz *et al.* 1997b
	Svalbard/Kongsfjorden	79N	13E	1992	Liver	1	♂	1 yr	<0.050	12.3	0.300	0.900	Norwegian Polar Inst. 1996
					Kidney	1	♂	1 yr	<0.050	53.2	0.300	1.60	Norwegian Polar Inst. 1996
					Liver	2-4	♂	2-3 yrs	0.055*/1.14	6.13*/3.12	0.458*/2.08	0.363*/2.04	Norwegian Polar Inst. 1996
					Kidney	2-4	♂	3 yrs	0.056*/1.21	15.7*/2.06	0.391*/1.80	0.915*/2.63	Norwegian Polar Inst. 1996
					Liver	6	♂ ♀	6-7 yrs	0.060*/1.31	2.33*/4.16	0.42*/1.77	1.01*/1.55	Norwegian Polar Inst. 1996
					Kidney	6	♂ ♀	6-7 yrs	0.075*/1.73	4.87*/3.77	0.367*/1.37	0.989*/1.91	Norwegian Polar Inst. 1996
					Liver	1	♂	13 yrs	0.100	0.500	0.700	0.700	Norwegian Polar Inst. 1996
					Kidney	1	♂	13 yrs	<0.050	3.30	0.300	1.00	Norwegian Polar Inst. 1996
				1993	Liver	1	♀	1 yr	<0.050	6.30	0.500	1.40	Norwegian Polar Inst. 1996
					Muscle	1	♀	1 yr	<0.050	<0.100	0.100	0.600	Norwegian Polar Inst. 1996
					Liver	1	♂	4 yrs	<0.050	<0.600	0.960	2.10	Norwegian Polar Inst. 1996
					Muscle	1	♂	4 yrs	0.060	<0.100	0.170	0.450	Norwegian Polar Inst. 1996
					Liver	6	♂	5-10 yrs	<0.050	1.56*/3.28	1.09*/2.33	1.99*/1.52	Norwegian Polar Inst. 1996
					Muscle	7	♂	5-10 yrs	<0.050	<0.100	0.185*/1.39	0.498*/1.19	Norwegian Polar Inst. 1996
					Liver	3	♂	11-15 yrs	<0.050	2.14*/3.70	0.304*/3.93	1.48*/1.60	Norwegian Polar Inst. 1996
					Muscle	4	♂	11-15 yrs	<0.050	0.132*/1.73	0.134*/1.42	0.400*/1.00	Norwegian Polar Inst. 1996
					Liver	2	♀	16-17 yrs	0.067*/1.52	1.15*/4.45	0.742*/1.75	2.54*/1.51	Norwegian Polar Inst. 1996
					Muscle	2	♀	16-17 yrs	0.100*/2.67	<0.100	0.100*/1.00	0.490*/1.33	Norwegian Polar Inst. 1996
					Liver	3	♂	Undeterm.	<0.050	2.51*/2.44	0.600*/1.50	2.13*/1.67	Norwegian Polar Inst. 1996
					Muscle	3	♂	Undeterm.	<0.050	<0.100	0.182*/1.74	0.448*/1.12	Norwegian Polar Inst. 1996
	Northern Norway	68.50N	14.50E	1989-1990	Liver	7	♀	Juvenile			0.45±0.15	2.53±0.59	Skaare 1994
	Jarfjord	70N	30E		Kidney	7	♀	Juvenile			0.28±0.09	3.54±1.06	Skaare 1994
					Liver	6	♂	Juvenile			0.39±0.14	1.81±0.51	Skaare 1994
					Kidney	6	♂	Juvenile			0.21±0.08	3.19±0.92	Skaare 1994
Harp seal (*Phoca groenlandica*)	Escoumins, Canada	48.30N	69.50W	1971	Liver	2	♂ ♀	1 yr			1.21*/1.67		Sergeant and Armstrong 1973
					Muscle	2	♂ ♀	1 yr			0.226*/1.63		Sergeant and Armstrong 1973
					Blubber	2	♂ ♀	1 yr			0.025*/1.33		Sergeant and Armstrong 1973
					Liver	8	♂ ♀	2-4 yrs			2.84*/1.68		Sergeant and Armstrong 1973
					Muscle	7	♂ ♀	2-4 yrs			0.333*/1.21		Sergeant and Armstrong 1973
					Blubber	7	♂ ♀	2-4 yrs			0.026*/1.40		Sergeant and Armstrong 1973
					Liver	5	♂ ♀	5-10 yrs			3.32*/1.30		Sergeant and Armstrong 1973
					Muscle	5	♂ ♀	5-10 yrs			0.340*/1.13		Sergeant and Armstrong 1973
					Blubber	5	♂ ♀	5-10 yrs			0.029*/1.42		Sergeant and Armstrong 1973
					Liver	3	♂ ♀	11-15 yrs			4.93*/1.41		Sergeant and Armstrong 1973
					Muscle	3	♂ ♀	11-15 yrs			0.381*/1.31		Sergeant and Armstrong 1973
					Blubber	3	♂ ♀	11-15 yrs			0.034*/1.61		Sergeant and Armstrong 1973
					Liver	1	♂ ♀	>15 yrs			10.0		Sergeant and Armstrong 1973
					Muscle	1	♂ ♀	>15 yrs			0.330		Sergeant and Armstrong 1973
					Blubber	1	♂ ♀	>15 yrs			0.020		Sergeant and Armstrong 1973
	Newfoundland	55N	59W	1976-1978	Liver	5	♂	Pups	0.11±0.06	0.92±1.65	1.46±0.80		Ronald *et al.* 1984

Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Metals, µg/g ww (unless otherwise indicated; see footnotes) Lead	Cadmium	Mercury	Selenium	Reference
Harp seal	Labrador				Kidney	5	♂	Pups	0.06±0.06	1.32±2.7	0.75±0.29		Ronald *et al*. 1984
					Muscle	5	♂	Pups	0.05±0.04	0.02±0.01	0.12±0.44		Ronald *et al*. 1984
					Brain	4	♂	Pups	0.09	0.02±0.02	0.07±0.02		Ronald *et al*. 1984
					Blood	3	♂	Pups	0.04±0.02	0.01±0.00	0.01±0.00		Ronald *et al*. 1984
					Liver	2	♀	Pups	0.16±0.04	0.05±0.02	1.77±0.09		Ronald *et al*. 1984
					Kidney	2	♀	Pups	0.16±0.12	0.15±0.02	0.49±0.16		Ronald *et al*. 1984
					Muscle	2	♀	Pups	0.11±0.10	0.01±0.01	0.18±0.07		Ronald *et al*. 1984
					Brain	2	♀	Pups	0.12±0.00	0.02±0.02	0.09±0.04		Ronald *et al*. 1984
					Liver	10-22	♂	Juveniles	0.16±0.14	3.36±2.21	1.62±0.69	1.77±0.45	Ronald *et al*. 1984
					Kidney	3-22	♂	Juveniles	0.04±0.03	15.4±11.4	0.85±0.25	2.47±0.15	Ronald *et al*. 1984
					Muscle	6-22	♂	Juveniles	0.22±0.47	0.06±0.04	0.26±0.09	0.57±0.05	Ronald *et al*. 1984
					Brain	2-18	♂	Juveniles	0.21	0.04±0.02	0.12±0.04	0.7±0.70	Ronald *et al*. 1984
					Blood	19.00	♂	Juveniles	0.14±0.26	0.01±0.01	0.02±0.01		Ronald *et al*. 1984
					Liver	9-14	♀	Juveniles	0.08±0.06	3.38±1.62	2.8±1.95	2.59±1.44	Ronald *et al*. 1984
					Kidney	5-14	♀	Juveniles	0.07±0.07	23.4±26.1	1.03±0.50	2.46±0.97	Ronald *et al*. 1984
					Muscle	2-14	♀	Juveniles	0.06±0.06	0.05±0.01	0.24±0.07	0.55±0.07	Ronald *et al*. 1984
					Brain	1-10	♀	Juveniles	0.22±0.25	0.05±0.05	0.12±0.04	0.7	Ronald *et al*. 1984
					Blood	12.00	♀	Juveniles	0.16±0.43	0.01±0.01	0.03±0.01		Ronald *et al*. 1984
					Liver	3-4	♂	Adults	0.11±0.09	6.20±3.87	11.6±9.42	7.73±3.26	Ronald *et al*. 1984
					Kidney	1-4	♂	Adults	0.03±0.03	26.6±18.5	2.14±0.53	2.60	Ronald *et al*. 1984
					Muscle	1-4	♂	Adults	0.14±0.15	0.10±0.04	0.49±0.22	0.6	Ronald *et al*. 1984
					Brain	1-2	♂	Adults	0.21	0.06±0.03	0.21±0.08	0.5	Ronald *et al*. 1984
					Blood	3	♂	Adults	0.02±0.01	0.01±0.00	0.04±0.02		Ronald *et al*. 1984
					Liver	1	♀	Adults	0.77	4.39	8.62	6.00	Ronald *et al*. 1984
					Kidney	1	♀	Adults	0.03	21.9	1.27		Ronald *et al*. 1984
					Muscle	1	♀	Adults	0.02	0.2	0.31	0.40	Ronald *et al*. 1984
					Brain	1	♀	Adults	0.16	0.05	0.14		Ronald *et al*. 1984
					Blood	1	♀	Adults	0.02	0.01	0.02		Ronald *et al*. 1984
	Newfoundland	50N	56.50W	1980	Liver	6	♂ ♀	3-8 weeks			0.50±0.27		Botta *et al*. 1983*
	White Bay				Muscle	6	♂ ♀	3-8 weeks			0.4±0.03		Botta *et al*. 1983*
					Liver	6	♂ ♀	1 yr			1.67±0.81		Botta *et al*. 1983*
					Muscle	6	♂ ♀	1 yr			0.14±0.04		Botta *et al*. 1983*
					Liver	6	♂ ♀	2 yrs			2.42±1.48		Botta *et al*. 1983*
					Muscle	6	♂ ♀	2 yrs			0.14±0.02		Botta *et al*. 1983*
					Liver	6	♂ ♀	3 yrs			3.96±1.32		Botta *et al*. 1983*
					Muscle	6	♂ ♀	3 yrs			0.21±0.04		Botta *et al*. 1983*
					Liver	6	♂ ♀	≥4 yrs			3.08±1.53		Botta *et al*. 1983*
					Muscle	6	♂ ♀	≥4 yrs			0.24±0.03		Botta *et al*. 1983*
	St. Lawrence	49N	68.5W	1976-1978	Liver	13-33	♂	Pups	0.14±1.5	0.18±0.20	0.70±0.48	1.02±0.61	Ronald *et al*. 1984
					Kidney	10-34	♂	Pups	0.09±0.10	1.55±5.43	0.36±0.10	1.84±0.62	Ronald *et al*. 1984
					Muscle	9-30	♂	Pups	0.02±0.12	0.05±0.03	0.13±0.05	0.68±0.11	Ronald *et al*. 1984
					Brain	10-28	♂	Pups	0.08±0.09	0.05±0.03	0.08±0.04	0.31±0.09	Ronald *et al*. 1984
					Blood	16	♂	Pups	0.13±0.29	0.02±0.02	0.04±0.01		Ronald *et al*. 1984
					Liver	9-16	♀	Pups	0.14±0.06	0.23±0.40	0.81±0.73	1.01±0.11	Ronald *et al*. 1984
					Kidney	6-19	♀	Pups	0.10±0.25	0.43±0.69	0.36±0.11	1.88±0.37	Ronald *et al*. 1984
					Muscle	7-19	♀	Pups	0.04±0.04	0.08±0.09	0.12±0.04	0.59±0.07	Ronald *et al*. 1984
					Brain	10-17	♀	Pups	0.10±0.09	0.05±0.03	0.08±0.05	0.36±0.07	Ronald *et al*. 1984
					Blood	7	♀	Pups	0.07±0.06	0.10±0.15	0.01±0.11		Ronald *et al*. 1984
					Liver	10	♂	Juveniles	0.17±0.09	2.03±0.91	2.16±2.24		Ronald *et al*. 1984
					Kidney	12	♂	Juveniles	0.06±0.02	9.75±4.23	0.58±0.13		Ronald *et al*. 1984
					Muscle	11	♂	Juveniles	0.06±0.05	0.04±0.01	0.18±0.06		Ronald *et al*. 1984
					Brain	10	♂	Juveniles	0.21±0.16	0.06±0.06	0.10±0.05		Ronald *et al*. 1984
					Blood	7	♂	Juveniles	0.30±0.44	0.03±0.04	0.06±0.02		Ronald *et al*. 1984
					Liver	12	♀	Juveniles	0.15±0.09	3.35±2.38	2.51±2.17		Ronald *et al*. 1984
					Kidney	12	♀	Juveniles	0.19±0.28	16.6±10.1	0.64±0.25		Ronald *et al*. 1984
					Muscle	12	♀	Juveniles	0.05±0.03	0.05±0.02	0.19±0.06		Ronald *et al*. 1984
					Brain	10	♀	Juveniles	0.23±0.20	0.05±0.02	0.11±0.05		Ronald *et al*. 1984
					Blood	7	♀	Juveniles	0.11±0.13	0.03±0.02	0.08±0.03		Ronald *et al*. 1984
					Liver	9-10	♂	Adults	0.13±0.08	6.97±3.45	13.3±7.52	7.02±2.68	Ronald *et al*. 1984
					Kidney	9-10	♂	Adults	0.01±0.02	20.4±6.6	1.15±0.68	3.27±0.46	Ronald *et al*. 1984
					Muscle	8-9	♂	Adults	0.02±0.02	0.06±0.02	0.35±0.13	0.58±0.05	Ronald *et al*. 1984
					Brain	2	♂	Adults	0.21±0.02	0.06±0.00	0.15±0.02	0.55±0.21	Ronald *et al*. 1984
					Blood	2	♂	Adults	0.21±0.11	0.06±0.00	0.15±0.02	0.55±0.21	Ronald *et al*. 1984
					Liver	16-57	♀	Adults	0.13±0.15	12.0±6.9	12.7±16.3	5.78±3.95	Ronald *et al*. 1984
					Kidney	12-56	♀	Adults	0.04±0.05	38.8±36.4	1.04±0.47	2.87±0.75	Ronald *et al*. 1984

				Muscle	13-57	♀	Adults	0.03±0.03	0.14±0.10	0.29±0.10	0.56±0.07	Ronald *et al.* 1984
				Brain	2-34	♀	Adults	0.26	0.09±0.06	0.13±0.09	0.5±0.14	Ronald *et al.* 1984
				Blood	48	♀	Adults	0.06±0.08	0.03±0.09	0.07±0.04		Ronald *et al.* 1984
Grise Fjord, Pangnirtung and North-West Greenland	76.2N	83.0W	1976-1978	Liver	1	♂	Pups	0.04	1.44	3.22	1.50±0.57	Ronald *et al.* 1984
				Kidney	2-7	♂	Pups	0.03±0.02	7.01±2.96	0.62±0.07	2.30	Ronald *et al.* 1984
				Muscle	2	♂	Pups	0.05±0.01	0.05±0.06	0.26		Ronald *et al.* 1984
				Brain	1	♂	Pups	0.08	0.01	0.08		Ronald *et al.* 1984
				Liver	2	♀	Pups	0.02±0.04	0.90±0.15	2.82	1.48±0.35	Ronald *et al.* 1984
				Kidney	1-9	♀	Pups	0.03±0.02	4.62±2.55	0.6±0.32	4.40	Ronald *et al.* 1984
				Muscle	1-4	♀	Pups	0.05±0.02	0.03±0.04	0.27±0.03	0.5	Ronald *et al.* 1984
				Brain	4	♀	Pups	0.57±0.54	0.06±0.04	0.12±0.01		Ronald *et al.* 1984
				Blood	1	♀	Pups	0.06±0.00	0.01	0.06	1.8	Ronald *et al.* 1984
				Liver	6	♂	Juveniles	0.14±0.11	2.56±1.13	4.16±3.35	2.83±1.11	Ronald *et al.* 1984
				Kidney	6-11	♂	Juveniles	0.07±0.10	15.4±7.16	0.95±0.50	3.32±0.65	Ronald *et al.* 1984
				Muscle	1-11	♂	Juveniles	0.06±0.05	0.07±0.04	0.32±0.11	0.50	Ronald *et al.* 1984
				Brain	1-8	♂	Juveniles	0.15±0.10	0.04±0.04	0.17±0.05	0.40	Ronald *et al.* 1984
				Blood	1-3	♂	Juveniles	0.10±0.06	0.09±0.11	0.07±0.05	0.80	Ronald *et al.* 1984
				Liver	2-6	♀	Juveniles	0.06±0.01	3.15±1.63	5.49	3.85±1.42	Ronald *et al.* 1984
				Kidney	3-8	♀	Juveniles	0.03±0.01	16.9±5.13	0.90±0.33	3.79±1.11	Ronald *et al.* 1984
				Muscle	10	♀	Juveniles	0.12±0.18	0.09±0.06	0.37±0.11		Ronald *et al.* 1984
				Brain	5	♀	Juveniles	0.18±0.09	0.05±0.03	0.13±0.05		Ronald *et al.* 1984
				Blood	3-6	♀	Juveniles	0.08±0.04	0.10±0.18	0.08±0.07	1.17±0.40	Ronald *et al.* 1984
				Liver	9	♂	Adults	0.08±0.08	4.74±2.41	9.03±9.03		Ronald *et al.* 1984
				Kidney	9	♂	Adults	0.06±0.03	20.8±7.25	0.46±0.46		Ronald *et al.* 1984
				Muscle	1-9	♂	Adults	0.05±0.03	0.15±0.04	0.27±0.07	0.50	Ronald *et al.* 1984
				Brain	1-4	♂	Adults	0.38±0.20	0.11±0.03	0.16±0.03	0.50	Ronald *et al.* 1984
				Blood	6	♂	Adults	0.03±0.01	0.08±0.06	0.11±0.02		Ronald *et al.* 1984
				Liver	1-6	♀	Adults	0.07±0.02	7.98±5.83	12.6±12.5	12.1	Ronald *et al.* 1984
				Kidney	6	♀	Adults	0.05±0.03	25.4±12.8	1.66±0.68		Ronald *et al.* 1984
				Muscle	6	♀	Adults	0.03±0.02	0.48±0.70	0.29±0.15		Ronald *et al.* 1984
				Brain	1-5	♀	Adults	0.75±0.76	0.28±0.21	0.14±0.05	0.50	Ronald *et al.* 1984
				Blood	3	♀	Adults	0.110.14	0.42±0.53	0.09±0.02		Ronald *et al.* 1984
Upernavik, Greenland	74N	57W	1985	Liver	4-7	♂ ♀	0 yr		1.56*/3.06	1.61*/3.16	1.47*/1.61	Dietz *et al.* 1997b
				Kidney	4-7	♂ ♀	0 yr		5.69*/2.85	0.385*/1.54	0.78*/1.79	Dietz *et al.* 1997b
				Muscle	4-7	♂ ♀	0 yr		0.038*/2.76	0.194*/1.66	0.43*/1.35	Dietz *et al.* 1997b
				Bile	3	♂ ♀	0 yr		0.255*/3.47			Dietz *et al.* 1997b
				Liver	8	♂ ♀	1 yr		4.20*/1.66			Dietz *et al.* 1997b
				Kidney	8	♂ ♀	1 yr		24.9*/1.63			Dietz *et al.* 1997b
				Muscle	8	♂ ♀	1 yr		0.040*/1.66			Dietz *et al.* 1997b
				Bile	6	♂ ♀	1 yr		0.575*/2.38			Dietz *et al.* 1997b
				Liver	2-17	♂ ♀	2-4 yrs		3.69*/1.80	1.83*/2.62	4.05	Dietz *et al.* 1997b
				Kidney	2-17	♂ ♀	2-4 yrs		21.9*/1.791	0.568*/1.57	3.40	Dietz *et al.* 1997b
				Muscle	2-16	♂ ♀	2-4 yrs		0.059*/1.68	0.309*/1.39	0.22	Dietz *et al.* 1997b
				Bile	13	♂ ♀	2-4 yrs		0.890*/2.77			Dietz *et al.* 1997b
				Liver	1-2	♂ ♀	5-10 yrs		5.38	1.01	3.93	Dietz *et al.* 1997b
				Kidney	1-2	♂ ♀	5-10 yrs		40.8	1.07	2.33	Dietz *et al.* 1997b
				Muscle	1-2	♂ ♀	5-10 yrs		0.121	0.253	0.26	Dietz *et al.* 1997b
				Bile	2	♂ ♀	5-10 yrs		0.348			Dietz *et al.* 1997b
				Liver	1	♂ ♀	>15 yrs		4.18	12.7	12.1	Dietz *et al.* 1997b
				Kidney	1	♂ ♀	>15 yrs		21.2	2.13	0.50	Dietz *et al.* 1997b
				Muscle	1	♂ ♀	>15 yrs		0.241	0.450	0.50	Dietz *et al.* 1997b
Uummannaq	71.50N	52.50W	1985	Liver	5	♂ ♀	0 yr		1.63*/1.51			Dietz *et al.* 1997b
				Kidney	5	♂ ♀	0 yr		7.72*/1.72			Dietz *et al.* 1997b
				Muscle	5	♂ ♀	0 yr		0.105*/2.88			Dietz *et al.* 1997b
				Bile	5	♂ ♀	0 yr		0.275*/2.07			Dietz *et al.* 1997b
				Liver	7	♂ ♀	1 yr		1.80*/1.40			Dietz *et al.* 1997b
				Kidney	7	♂ ♀	1 yr		8.74*/1.35			Dietz *et al.* 1997b
				Muscle	7	♂ ♀	1 yr		0.023*/1.82			Dietz *et al.* 1997b
				Bile	7	♂ ♀	1 yr		0.575*/1.85			Dietz *et al.* 1997b
				Liver	3	♂ ♀	2-4 yrs		2.80*/1.71			Dietz *et al.* 1997b
				Kidney	3	♂ ♀	2-4 yrs		18.0*/1.70			Dietz *et al.* 1997b
				Muscle	3	♂ ♀	2-4 yrs		0.031*/2.20			Dietz *et al.* 1997b
Jarfjord, Norway	70N	30E	1989-1990	Liver	10	♀	Juvenile			0.29±0.28	2.01±0.81	Skaare 1994
				Kidney	10	♀	Juvenile			0.17±0.08	3.78±1.80	Skaare 1994
				Liver	8	♀	Adult			0.33±0.08	1.55±0.20	Skaare 1994
				Kidney	8	♀	Adult			0.16±0.04	1.94±0.28	Skaare 1994
				Liver	8	♂	Juvenile			0.39±0.24	2.28±0.66	Skaare 1994
				Kidney	8	♂	Juvenile			0.16±0.08	3.93±1.57	Skaare 1994
				Liver	8	♂	Adult			0.44±0.29	2.09±0.76	Skaare 1994
				Kidney	8	♂	Adult			0.22±0.87	2.66±0.87	Skaare 1994

Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Metals, µg/g ww (unless otherwise indicated; see footnotes) Lead	Cadmium	Mercury	Selenium	Reference
Hooded seal	Magdalen Island, Canada	47.35N	61.5W	1971	Liver	2	♂ ♀	5-10 yrs			35.1*/1.43		Sergeant and Armstrong 1973
(*Cystophora cristata*)					Muscle	2	♂ ♀	5-10 yrs			0.890*/1.67		Sergeant and Armstrong 1973
					Blubber	1	♂ ♀	5-10 yrs			0.080		Sergeant and Armstrong 1973
					Liver	1	♂ ♀	11-15 yrs			39.2		Sergeant and Armstrong 1973
					Muscle	1	♂ ♀	11-15 yrs			1.93		Sergeant and Armstrong 1973
	Upernavik, Greenland	72.30N	56W	1974	Liver	4					6.5±4.5		Johansen *et al.* 1980
					Muscle	4					0.20±0.04		Johansen *et al.* 1980
				1976	Liver	10					16.7±13.5		Johansen *et al.* 1980
					Muscle	10					0.33±0.08		Johansen *et al.* 1980
				1985	Liver	1	♂ ♀	2-4 yrs		2220	37.9	12.4	Dietz *et al.* 1997b
					Kidney	1	♂ ♀	2-4 yrs			3.28	2.42	Dietz *et al.* 1997b
					Muscle	1	♂ ♀	2-4 yrs		0.050	0.485	0.25	Dietz *et al.* 1997b
					Liver	1	♂ ♀	5-10 yrs		1.61			Dietz *et al.* 1997b
					Kidney	1	♂ ♀	5-10 yrs		6.10			Dietz *et al.* 1997b
					Muscle	1	♂ ♀	5-10 yrs		0.033			Dietz *et al.* 1997b
					Liver	4	♂ ♀	10-15 yrs		1.88*/1.54			Dietz *et al.* 1997b
					Kidney	4	♂ ♀	10-15 yrs		9.48*/2.10			Dietz *et al.* 1997b
					Muscle	4	♂ ♀	10-15 yrs		0.057*/2.19			Dietz *et al.* 1997b
					Liver	1	♂ ♀	>15 yrs		2.76	91.8	29.9	Dietz *et al.* 1997b
					Kidney	2	♂ ♀	>15 yrs		19.8*/1.08	3900	2.11	Dietz *et al.* 1997b
					Muscle	2	♂ ♀	>15 yrs		0.030*/1.02	0.812*/1.117	0.46	Dietz *et al.* 1997b
	Davis Strait			1984	Liver	3				13.3±7.38	77.9±22.2	31.6±7.60	Nielsen and Dietz 1990
				1985	Liver	7	♂ ♀	5-10 yrs		8.070*/2.36			Dietz *et al.* 1997b
					Kidney	8	♂ ♀	5-10 yrs		55.2*/2.09			Dietz *et al.* 1997b
					Muscle	8	♂ ♀	5-10 yrs		0.074*/1.690			Dietz *et al.* 1997b
					Liver	5	♂ ♀	10-15 yrs		8.26*/1.36			Dietz *et al.* 1997b
					Kidney	11	♂ ♀	10-15 yrs		34.7*/1.68			Dietz *et al.* 1997b
					Muscle	12	♂ ♀	10-15 yrs		0.056*/1.51			Dietz *et al.* 1997b
					Liver	3	♂ ♀	>15 yrs		7.21*/1.13			Dietz *et al.* 1997b
					Kidney	4	♂ ♀	>15 yrs		41.8*/1.92			Dietz *et al.* 1997b
					Muscle	4	♂ ♀	>15 yrs		0.071*/2.32			Dietz *et al.* 1997b
	Ammassalik	65.35N	38.00W	1984	Liver	8	♂ ♀	1 yr		3.46*/1.49	7.85*/1.33	4.22*/1.28	Dietz *et al.* 1997b
					Kidney	8	♂ ♀	1 yr		18.6*/1.46	1.40*/1.592	4.59*/1.35	Dietz *et al.* 1997b
					Muscle	8	♂ ♀	1 yr		0.019*/1.892	0.244*/1.472	0.38*/1.52	Dietz *et al.* 1997b
					Liver	1	♂ ♀	2-4 yr		3.09	5.32	9.55	Dietz *et al.* 1997b
					Kidney	1	♂ ♀	2-4 yr		29.1	1.62	1.76	Dietz *et al.* 1997b
					Muscle	1	♂ ♀	2-4 yr		0.065	0.100	0.27	Dietz *et al.* 1997b
Bearded seal	Amundsen Gulf	71N	119W	1973	Liver	6		8.5 yrs			143.±170	34.4±33.2	Smith and Armstrong 1975, 1978
(*Erignathus barbatus*)					Muscle	3		8.5 yrs			0.53±0.35		Smith and Armstrong 1975, 1978
	Eastern Hudson Bay	77.43N	93.75W	1974	Liver	10-56		4.9 yrs			26.2±26.1	20.8±13.5	Smith and Armstrong 1975, 1978
	Belcher Islands	56.25N	79.25W		Muscle	55		4.9 yrs			0.09±0.04		Smith and Armstrong 1975, 1978
	Rankin Inlet	62.52N	92.00W	1972	Muscle	1					0.05	0.27	Hendzel 1990, unpubl. (1)
	West Greenland			1984-1987	Liver	3	♀				7.72-27.3		Dietz *et al.* 1990
	Svalbard, Norway	77N	16E	1984	Liver	2			0.014	5.80	5.87	2049	Carlberg and Bøler 1985 (2)
					Blubber	2			0.035	<0.02	<0.01	<0.2	Carlberg and Bøler 1985 (2)
Harbour seal	Bering Sea, Alaska			1971	Liver	3	♂ ♀				4.23±4.25		Anas 1974
(*Phoca vitulina*)	Sable Island, Canada	44N	66W	1971	Liver	4	♂ ♀	1 yr			2.87*/1.23		Sergeant and Armstrong 1973
					Muscle	4	♂ ♀	1 yr			0.71*/1.05		Sergeant and Armstrong 1973
					Blubber	4	♂ ♀	1 yr			0.029*/2.12		Sergeant and Armstrong 1973
					Liver	2	♂ ♀	2-4 yrs			7.67*/1.16		Sergeant and Armstrong 1973
					Muscle	2	♂ ♀	2-4 yrs			0.444*/1.12		Sergeant and Armstrong 1973
					Blubber	2	♂ ♀	2-4 yrs			0.025*/1.33		Sergeant and Armstrong 1973
					Liver	2	♂ ♀	5-10 yrs			19.0*/1.20		Sergeant and Armstrong 1973
					Muscle	2	♂ ♀	5-10 yrs			0.413*/1.50		Sergeant and Armstrong 1973
					Blubber	2	♂ ♀	5-10 yrs			0.025*/1.33		Sergeant and Armstrong 1973
	Jarfjord, Norway	70N	30E	1989-1990	Liver	4	♀	Juvenile			0.30±1.61	1.76±1.49	Skaare 1994
					Kidney	4	♀	Juvenile			0.23±0.12	2.86±1.06	Skaare 1994
					Liver	2	♀	Adult			0.83	3.71	Skaare 1994
					Kidney	2	♀	Adult			0.19	2.80	Skaare 1994
					Liver	4	♂	Juvenile			0.49±0.23	2.13±0.73	Skaare 1994
					Kidney	4	♂	Juvenile			0.21±0.61	4.45±2.33	Skaare 1994
					Liver	1	♂	Adult			0.54	1.85	Skaare 1994
					Kidney	1	♂	Adult			0.33	2.95	Skaare 1994

Grey seal (*Halichoerus grypus*)	Sable Island, Canada	44N	66W	1971	Liver	3	♂ ♀	0 yr			0.680*/1.63		Sergeant and Armstrong 1973
					Muscle	3	♂ ♀	0 yr			0.319*/1.75		Sergeant and Armstrong 1973
					Blubber	3	♂ ♀	0 yr			0.042*/1.89		Sergeant and Armstrong 1973
					Liver	1	♂ ♀	1 yr			14.3		Sergeant and Armstrong 1973
					Muscle	1	♂ ♀	1 yr			1.80		Sergeant and Armstrong 1973
					Blubber	1	♂ ♀	1 yr			0.070		Sergeant and Armstrong 1973
					Liver	4	♂ ♀	5-10 yrs			59.4*/1.82		Sergeant and Armstrong 1973
					Muscle	4	♂ ♀	5-10 yrs			1.29*/1.50		Sergeant and Armstrong 1973
					Blubber	4	♂ ♀	5-10 yrs			0.082*/1.70		Sergeant and Armstrong 1973
					Liver	1	♂ ♀	11-15 yrs			170		Sergeant and Armstrong 1973
					Muscle	1	♂ ♀	11-15 yrs			0.900		Sergeant and Armstrong 1973
					Blubber	1	♂ ♀	11-15 yrs			0.090		Sergeant and Armstrong 1973
					Liver	2	♂ ♀	>15 yrs			226.*/2.14		Sergeant and Armstrong 1973
					Muscle	2	♂ ♀	>15 yrs			1.40*/2.09		Sergeant and Armstrong 1973
					Blubber	2	♂ ♀	>15 yrs			0.089*/2.28		Sergeant and Armstrong 1973
	Jarfjord, Norway	70N	30E	1989-1990	Liver	2	♀	Juvenile			0.78	1.19	Skaare 1994 (1)
					Kidney	2	♀	Juvenile			0.12	3.18	Skaare 1994 (1)
					Liver	6	♂	Juvenile			3.55±2.39	3.01±1.27	Skaare 1994 (1)
					Kidney	6	♂	Juvenile			0.49±0.18	2.70±0.42	Skaare 1994 (1)
					Liver	18	♀	Adult			22.4±11.9	12.6±5.13	Skaare 1994 (1)
					Kidney	18	♀	Adult			1.45±0.84	2.69±0.63	Skaare 1994 (1)
					Liver	7	♂	Adult			9.18±5.77	5.79±3.54	Skaare 1994 (1)
					Kidney	7	♂	Adult			1.62±1.11	2.73±0.69	Skaare 1994 (1)
Fur seal (*Callorhinus ursinus*)	Bering Sea, Alaska Pribiloff Islands	57N	170W	1970	Liver	10	♂ ♀	Pups			0.01-0.3		Anas 1974 (1)
					Muscle	5	♂ ♀	Pups			0.1		Anas 1974 (1)
				1970	Liver	29	♂	2-3 yrs			3.0-19.0		Anas 1974 (1)
					Muscle	29	♂	2-3 yrs			0.1-0.4		Anas 1974 (1)
	Bering Sea	57N	170W	1975	Liver	36-37	♂	2-5 yrs	0.328±0.702	16.1±8.06	3.11±1.89		Goldblatt and Anthony 1983 (3)
					Kidney	36-37	♂	2-5 yrs	0.057±0.046	56.1±20.5			Goldblatt and Anthony 1983 (3)
					Muscle	36	♂	2-5 yrs	0.089±0.145	0.271±0.135			Goldblatt and Anthony 1983 (3)
	Bering Sea	57N	170W	1987	Liver	2	♂	2-3 yrs		13.3		5.87	Becker *et al*. 1989 (1),
					Muscle	2.00	♂	2-3 yrs		<0.4		2.63	cited in Muir *et al*. 1992
	St. Paul Island	57.15N	170.20W	1987	Liver	2	♂	2-3 yrs	0.032	12.0	9.11		Zeisler 1993 (1)
					Kidney	2	♂	2-3 yrs		44.0			Zeisler 1993 (1)
					Muscle	2	♂	2-3 yrs		_0.39			
Walrus (*Odobenus rosmarus*)	Northern Bering Sea, Alaska	64N	169W	1981-1984	Liver	40-45	♂		0.02±0.07	10.7±9.41	1.23±1.77	1.95±1.32	Taylor *et al*. 1989
					Liver	17-20	♀		0.11±0.29	6.78±3.72	2.17±5.26	3.14±2.80	Taylor *et al*. 1989
					Kidney	25-26	♂		0.05±0.17	50.8±21.3			Taylor *et al*. 1989
					Kidney	14-16	♀		0.07±0.18	39.6±16.7			Taylor *et al*. 1989
	Diomede	65.75N	169W	1981-1983	Liver	13-18	♂ ♀		0.04±0.08	7.00±3.50	1.98±5.31	2.38±1.82	Taylor *et al*. 1989
					Kidney	18	♂ ♀		0.09±0.20	43.9±21.3			Taylor *et al*. 1989
				1986	Liver	12	♂ ♀	10-32 yrs	0.16	5.26	0.97	1.10	Wartburton and Seagers 1993 (1)
					Kidney	12	♂ ♀	10-32 yrs	0.21	38.0	0.26	4.20	Wartburton and Seagers 1993 (1)
				1989	Liver	9	♂ ♀	10-32 yrs	0.13	8.41	0.71	1.73	Wartburton and Seagers 1993 (1)
					Kidney	9	♂ ♀	10-32 yrs	0.29	46.8	0.29	4.56	Wartburton and Seagers 1993 (1)
	Wales	65.74N	168W	1981-1983	Liver	6	♂ ♀		0.20±0.49	8.73±4.60	0.56±0.40	2.42±0.70	Wartburton and Seagers 1993 (1)
	Nome	64.50N	165.35W	1981-1983	Liver	9	♂ ♀			5.83±2.88	1.48±1.59	2.42±0.96	Wartburton and Seagers 1993 (1)
					Kidney	9	♂ ♀			43.9±21.3			Wartburton and Seagers 1993 (1)
	St. Lawrence Island and St. Mathew Island	61.5N	170W	197?	Liver	7					0.49±0.10		Galster (pers comm.),
					Muscle	6					0.02±0.00		in Born *et al* . 1981
	Gambel	63.75N	171.75W	1981-1983	Liver	14-18	♂ ♀		0.02±0.05	11.2±9.92	1.72±2.33	2.24±2.89	Galster (pers comm.),
					Kidney	12	♂ ♀		0.05±0.19	54.2±22.2			in Born *et al* . 1981
	Gambel, Savoonga			1988	Liver	35	♂ ♀	10-32 yrs	0.18	7.70	1.20	1.57	Wartburton and Seagers 1993 (1)
					Kidney	35	♂ ♀	10-32 yrs	0.34	43.1	0.29	2.93	Wartburton and Seagers 1993 (1)
	Savoonga	63.75N	170.50W	1981-1983	Liver	11	♂ ♀		0.05±0.11	14.4±12.9	0.90±0.98	2.32±1.85	Wartburton and Seagers 1993 (1)
	Herschel Island	69.65N	139W	197?	Liver	1					9.8		Born *et al*. 1981 (1)
	Holman Island	71N	117.50W	197?	Liver	2					10.5		Born *et al*. 1981 (1)
	Pond Inlet	72.78N	77W	197?	Liver	1					10.6		Born *et al*. 1981 (1)
	Foxe Basin, Canada	67N	79W		Liver	17	♀		0.11±0.29	6.78±3.72	2.17±5.26	2.87±1.142	Wagemann and Stewart 1994
				1982-1988	Liver	114-130	♂ ♀	All	0.077±0.06	11.2±6.58	1.35±1.08		Wagemann and Stewart 1994
					Kidney	112	♂ ♀	All		56.6±28.5	0.318±0.123	3.33±1.40	Wagemann and Stewart 1994
	Inukjuak	58.5N	78W	1993	Liver	4		322		2.52*/1.96	1.32*/2.81	1.62*/1.28	M. Kingsley, unpubl.
					Muscle	4		322		0.01*/2.83	0.071*/1.27	0.94*/1.32	M. Kingsley, unpubl.
	Hudson Bay				Muscle	112-114	♂ ♀	All	0.021±0.479	0.138±0.128	0.112±0.133	2.65±1.02	M. Kingsley, unpubl.
				1990	Liver	13	♂ ♀	All	0.155±0.141	6.61±5.26	2.045±1.64		M. Kingsley, unpubl.
	Frobisher Bay	63.45N	68.30W	1978	Muscle	3					0.03		Hendzel 1990, unpubl. (1)
	Avanersuaq, Greenland	77.5N	70W	1975-1977	Liver	9	♂ ♀	Newborn			0.31±0.45		Born *et al*. 1981
					Kidney	7	♂ ♀	Newborn			0.094±0.032		Born *et al*. 1981

Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Metals, µg/g ww (unless otherwise indicated; see footnotes) Lead	Cadmium	Mercury	Selenium	Reference
Walrus					Muscle	9	♂ ♀	Newborn			0.057±0.028		Born *et al.* 1981
					Liver	46	♂ ♀	11 yrs			1.78±1.54		Born *et al.* 1981
					Muscle	58	♂ ♀	11 yrs			0.08±0.05		Born *et al.* 1981
	Zakharovo, Russia			1984	Liver	3	♂ ♀			8.30±6.56		1.90±0.56	Taylor *et al.* 1989
					Kidney	3	♂ ♀			39.3±21.1		9.53±6.32	Taylor *et al.* 1989
Baleen whales													
Bowhead whale (*Balaena mysticetus*)	Western Arctic stock (Bering Sea, Chukchi Sea, Beaufort Sea)	65N	170W	1979-1980	Liver	1	♂ ♀	10.0 m		1.50	0.009	0.11	Byrne *et al.* 1985 (2)
					Kidney	2	♂ ♀	8.7-10.0 m		0.335	0.005	0.016	Byrne *et al.* 1985 (2)
					Muscle	2	♂ ♀	8.7-10.0 m		0.014	<0.001	0.035	Byrne *et al.* 1985 (2)
					Blubber	7	♂ ♀	8.7-13.6 m		0.016*/2.76	<0.001	<0.01	Byrne *et al.* 1985 (2)
					Spleen	2	♂ ♀	8.7-10.0 m		0.01	<0.001	0.027	Byrne *et al.* 1985 (2)
	Barrow, Alaska	71.35N	156.65W	1992	Liver	1	♀	8.5 m	0.046	<0.34	0.30	0.46	Becker *et al.* 1995
					Liver	1	♀	15.0 m	0.049	17.5	0.12	1.09	Becker *et al.* 1995
					Liver	1	♂	14.5 m	0.048	18.9	0.10	1.19	Becker *et al.* 1995
Fin whale (*Balaenoptera physalus*)	Iceland	66.5N	20W	1986	Liver	5	♂	12-26 yrs			0.546±0.155		Sanpera *et al.* 1993
					Kidney	5	♂	12-26 yrs			0.397±0.248		Sanpera *et al.* 1993
					Muscle	4	♂	12-26 yrs			0.221±0.083		Sanpera *et al.* 1993
Minke whale (*Balaenoptera acutorostrata*)	Uummannaq, Greenland	70N	52W	1972	Liver	4					0.15±0.08		Johansen *et al.* 1980
					Muscle	9					0.11±0.05		Johansen *et al.* 1980
	Disko Bay	69N	57W	1978	Liver	6					0.018±0.13		Johansen *et al.* 1980
					Muscle	6					0.015±0.06		Johansen *et al.* 1980
	West Greenland	66.5N	55W	1980	Liver	17	♂ ♀			0.90	0.39	1.6	Hansen *et al.* 1990 (3)
					Kidney	13	♂ ♀			3.72	0.28	1.5	Hansen *et al.* 1990 (3)
					Muscle	16	♂ ♀			0.02	0.17	0.21	Hansen *et al.* 1990 (3)
	Davis Strait	66.5N	55W	1980	Liver	10	♂ ♀	4-6 yrs		0.812*/1.32	0.382*/2.49	1.62*/1.35	Dietz *et al.* 1997b
					Kidney	4	♂ ♀	4-6 yrs		4.24*/1.14	0.364*/2.23	1.51*/1.31	Dietz *et al.* 1997b
					Muscle	10	♂ ♀	4-6 yrs		<0.015*/1.44	0.160*/1.48	0.21*/1.25	Dietz *et al.* 1997b
					Liver	7	♂ ♀	7-12 yrs		0.913*/1.40	0.452*/1.42	1.78*/1.23	Dietz *et al.* 1997b
					Kidney	9	♂ ♀	7-12 yrs		3.17*/1.47	0.293*/1.52	1.46*/1.14	Dietz *et al.* 1997b
Toothed whales													
Beluga, white whale (*Delphinapterus leucas*)	Chukchi Sea, Alaska	71.20N	156.40W	1989	Liver	1	♀	<5 yrs	0.044	0.62	3.80		Zeisler *et al.* 1993 (2)
					Liver	3	♂ ♀	>5 yrs	0.074*/1.61	0.682*/2.38	3.69*/2.70		Zeisler *et al.* 1993 (2)
				1990	Liver	2	♀	>5 yrs	0.017	3.63	42.4		Zeisler *et al.* 1993 (2)
	Point Lay,	69.45N	163.10W	1990	Liver	6-11	♂ ♀	13-43glg	0.022±0.016	1.80±1.05	36.5±35.9	24.2±19.4	Becker *et al.* 1995a, 1995b
	Point Hope	68.20N	166.50W	1989	Liver	4	♂ ♀	9-20 glg	0.169±0.182	1.31±0.637	4.73±3.79	7.92±4.43	Becker *et al.* 1995a, 1995b
	Beaufort Sea, Canada	70N	135W	1977	Muscle	1			0.05	0.02	3.01	0.54	Hendzel 1990, unpubl. (1)
	MacKenzie delta	68.50N	136.15W	1972	Liver	7	♂ ♀				6.26±3.71		Lutz and Armstrong 1978
					Muscle	7	♂ ♀				0.71±0.14		Lutz and Armstrong 1978
				1977	Liver	8	♂ ♀				30.6±20.5		Imperial Oil 1978
					Muscle	11	♂ ♀				2.12±1.15		Imperial Oil 1978
					Blubber	11	♂ ♀				0.08±0.09		Imperial Oil 1978
				1981-1984	Liver	42-43	♂ ♀		0.010±0.010	2.27±1.45	11.8±12.1	6.22±5.26	Wagemann *et al.* 1990
					Kidney	43.00	♂ ♀			9.56±4.48	2.83±1.71	2.44±0.75	Wagemann *et al.* 1996
					Muscle	34-43	♂ ♀		0.007±0.007	0.12±0.27	1.07±1.47	0.61±1.47	Wagemann *et al.* 1996
	Coral Harbour	64.17N	83.25W	1993	Kidney	2		5-15		31.43*/2.33	2.53*/1.06		R. Wagemann, unpubl.
					Liver	5		5-15	0.007*/7.41	5.86*/1.86	5.44*/1.35	2.87*/1.46	R. Wagemann, unpubl.
					Muktuk	3		5-15	0.005*/2.56	0.01*/1.94	0.49*/1.15	5.88*/1.08	R. Wagemann, unpubl.
					Muscle	4		5-15	0.021*/2.11	0.13*/1.92	0.68*/1.22	0.37*/1.08	R. Wagemann, unpubl.
					Kidney	6		15-25		26.43*/5.82	3.49*/1.33		R. Wagemann, unpubl.
					Liver	6		15-25	0.008*/2.79	9.84*/1.62	6.30*/1.59	4.25*/1.68	R. Wagemann, unpubl.
					Muktuk	4		15-25	0.003*/1.81	0.01*/1.88	0.54*/1.35	5.90*/1.31	R. Wagemann, unpubl.
					Muscle	6		15-25	0.015*/1.93	0.08*/2.84	0.71*/1.16	0.34*/1.06	R. Wagemann, unpubl.
	Hendrickson Island	69.50N	133.58W	1993	Kidney	1		5-15		10.79*/–	3.50*/–		R. Wagemann, unpubl.
					Liver	1		5-15	0.015*/–	2.44*/–	8.09*/–	11.9*/–	R. Wagemann, unpubl.
					Muktuk	1		5-15	0.001*/–	0.00*/–	0.27*/–	5.86*/–	R. Wagemann, unpubl.
					Muscle	1		5-15	0.003*/–	0.01*/–	0.56*/–	0.33*/–	R. Wagemann, unpubl.
					Kidney	6		15-25		9.38*/1.52	5.16*/1.46		R. Wagemann, unpubl.
					Liver	6		15-25	0.016*/1.29	2.17*/1.44	24.3*/2.10	18.1*/1.86	R. Wagemann, unpubl.
					Muktuk	5-6		15-25		0.00*/1.63	0.86*/1.52	5.23*/1.29	R. Wagemann, unpubl.
					Muscle	6		15-25	0.001*/2.88	0.02*/1.55	1.42*/1.46	0.42*/1.18	R. Wagemann, unpubl.
					Kidney	2-3		>25		10.93*/1.09	5.72*/2.12		R. Wagemann, unpubl.

				Liver	2	>25	0.018*/1.17	2.94*/1.03	53.7*/1.21	25.2*/1.10	R. Wagemann, unpubl.
				Muktuk	1-2	>25	0.003*/–	0.00*/1.63	0.88*/–	3.39*/–	R. Wagemann, unpubl.
				Muscle	2	>25		0.06*/2.68	1.10*/2.96	0.40*/1.22	R. Wagemann, unpubl.
				Kidney	2	Undeterm.		9.57*/1.35	5.85*/1.01		R. Wagemann, unpubl.
				Liver	2	Undeterm.	0.022*/1.67	1.86*/1.16	32.6*/1.14	21.8*/1.27	R. Wagemann, unpubl.
				Muktuk	1-2	Undeterm.	0.024*/33.8	0.00*/1.63	1.29*/–	6.95*/–	R. Wagemann, unpubl.
				Muscle	2	Undeterm.	0.001*/3.55	0.01*/1.16	2.18*/1.06	0.45*/1.09	R. Wagemann, unpubl.
			1994	Kidney	14	5-15		7.79*/1.31	3.06*/1.60		R. Wagemann, unpubl.
				Liver	13	5-15	0.010*/1.63	2.19*/1.53	11.5*/1.74	11.2*/1.68	R. Wagemann, unpubl.
				Muktuk	14	5-15			0.53*/1.62	3.34*/1.45	R. Wagemann, unpubl.
				Muscle	14	5-15	0.001*/2.03	0.01*/1.38	1.00*/1.37	0.35*/1.25	R. Wagemann, unpubl.
				Kidney	13	15-25		7.89*/1.39	4.91*/1.74		R. Wagemann, unpubl.
				Liver	13	15-25	0.012*/1.80	2.26*/1.29	20.5*/2.86	15.8*/2.24	R. Wagemann, unpubl.
				Muktuk	13	15-25			0.69*/1.93	3.64*/1.26	R. Wagemann, unpubl.
				Muscle	12-13	15-25	0.001*/2.14	0.01*/1.68	1.31*/1.78	0.40*/1.25	R. Wagemann, unpubl.
				Kidney	3	>25		12.03*/1.04	5.00*/2.03		R. Wagemann, unpubl.
				Liver	3	>25	0.011*/1.31	2.36*/1.37	48.3*/2.19	28.0*/1.98	R. Wagemann, unpubl.
				Muktuk	3	>25			0.67*/1.86	3.15*/1.40	R. Wagemann, unpubl.
				Muscle	3	>25		0.03*/1.58	1.23*/1.75	0.42*/1.18	R. Wagemann, unpubl.
				Kidney	3	Undeterm.		11.66*/1.11	5.62*/1.10		R. Wagemann, unpubl.
				Liver	3	Undeterm.	0.012*/1.24	3.12*/1.16	38.9*/1.69	17.6*/3.00	R. Wagemann, unpubl.
				Muktuk	3	Undeterm.			0.97*/1.13	3.31*/1.25	R. Wagemann, unpubl.
				Muscle	3	Undeterm.		0.02*/1.17	1.61*/1.55	0.39*/1.59	R. Wagemann, unpubl.
Kendall Island	69.49N	135.29W	1981	Kidney	7	5-15		9.01*/1.55	2.44*/2.11	2.50*/1.45	R. Wagemann, unpubl.
				Liver	7	5-15		2.41*/2.01	8.10*/2.50	4.70*/1.82	R. Wagemann, unpubl.
				Muscle	7	5-15		0.05*/4.10	0.75*/1.33	0.35*/1.12	R. Wagemann, unpubl.
				Kidney	2	15-25		9.95*/2.28	2.16*/1.28	2.41*/1.04	R. Wagemann, unpubl.
				Liver	2	15-25		0.92*/10.3	2.75*/9.80	1.99*/5.87	R. Wagemann, unpubl.
				Muscle	2	15-25		0.03*/1.37	0.80*/1.33	0.36*/1.04	R. Wagemann, unpubl.
				Kidney	3	Undeterm.		9.55*/1.39	2.87*/1.26	2.10*/1.12	R. Wagemann, unpubl.
				Liver	3	Undeterm.		2.93*/1.06	17.2*/2.06	7.05*/2.21	R. Wagemann, unpubl.
				Muscle	3	Undeterm.		0.22*/1.43	0.88*/1.14	0.32*/1.07	R. Wagemann, unpubl.
Tuktoyaktuk	69.44N	132.94W	1981	Kidney	2	5-15		8.06*/1.99	1.47*/1.13	1.98*/1.12	R. Wagemann, unpubl.
				Liver	2	5-15		2.03*/1.16	2.44*/1.08	5.15*/2.47	R. Wagemann, unpubl.
				Muscle	2	5-15		0.02*/1.25	0.58*/1.11	0.35*/1.09	R. Wagemann, unpubl.
				Kidney	2	15-25		8.97*/1.50	3.08*/2.03	2.94*/1.24	R. Wagemann, unpubl.
				Liver	2	15-25		3.36*/1.38	10.8*/3.39	6.54*/2.84	R. Wagemann, unpubl.
				Muscle	2	15-25		0.04*/2.14	0.67*/1.75	0.38*/1.08	R. Wagemann, unpubl.
				Kidney	1	Undeterm.		14.32*/–	2.49*/–	2.05*/–	R. Wagemann, unpubl.
				Liver	1	Undeterm.		4.81*/–	13.8*/–	3.16*/–	R. Wagemann, unpubl.
				Muscle	1	Undeterm.		0.09*/–	0.74*/–	0.33*/–	R. Wagemann, unpubl.
			1984	Kidney	3	Undeterm.		9.33*/1.31		3.17*/1.32	R. Wagemann, unpubl.
				Liver	3-6	Undeterm.		1.41*/1.05	7.73*/2.64	8.19*/2.60	R. Wagemann, unpubl.
East Whitefish Station	69.42N	133.67W	1981	Kidney	6	5-15		7.93*/1.44	2.39*/1.24	2.19*/1.18	R. Wagemann, unpubl.
				Liver	6	5-15		1.77*/1.78	5.99*/2.18	3.93*/1.42	R. Wagemann, unpubl.
				Muscle	6	5-15		0.03*/1.42	0.72*/1.27	0.38*/1.07	R. Wagemann, unpubl.
				Kidney	1	15-25		11.04*/–	8.89*/–	5.16*/–	R. Wagemann, unpubl.
				Liver	1	15-25		2.88*/–	46.9*/–	19.5*/–	R. Wagemann, unpubl.
				Muscle	1	15-25		0.06*/–	1.70*/–	0.42*/–	R. Wagemann, unpubl.
East Whitefish	69.40N	133.53W	1993	Kidney	2	5-15		9.70*/1.15	1.67*/1.00		R. Wagemann, unpubl.
				Liver	2	5-15	0.008*/4.09	0.37*/4.14	0.85*/4.22	1.59*/1.90	R. Wagemann, unpubl.
				Muktuk	2	5-15	0.001*/1.63	0.001***/–	0.30*/1.61	4.93*/1.19	R. Wagemann, unpubl.
				Muscle	2	5-15	0.002*/1.33	0.02*/1.04	0.52*/1.31	0.37*/1.15	R. Wagemann, unpubl.
				Kidney	6	15-25		11.63*/1.39	6.51*/1.87		R. Wagemann, unpubl.
				Liver	6	15-25	0.017*/1.40	2.09*/1.83	24.1*/2.60	16.9*/2.10	R. Wagemann, unpubl.
				Muktuk	6	15-25	0.001*/1.78	0.00*/1.43	0.79*/1.92	3.75*/1.21	R. Wagemann, unpubl.
				Muscle	6	15-25	0.002*/1.76	0.02*/1.61	1.22*/1.85	0.40*/1.23	R. Wagemann, unpubl.
				Kidney	5	>25		10.83*/1.14	7.61*/1.56		R. Wagemann, unpubl.
				Liver	5	>25	0.025*/1.30	1.45*/3.45	31.0*/3.23	16.1*/3.69	R. Wagemann, unpubl.
				Muktuk	5	>25	0.002*/3.86	0.00*/1.00	1.60*/1.50	3.72*/1.43	R. Wagemann, unpubl.
				Muscle	5	>25	0.002*/2.02	0.03*/1.46	1.02*/1.53	0.43*/1.12	R. Wagemann, unpubl.
			1994	Kidney	5	5-15		8.05*/1.16	2.84*/1.82		R. Wagemann, unpubl.
				Liver	5	5-15	0.006*/4.84	1.14*/2.79	6.36*/4.83	8.51*/2.63	R. Wagemann, unpubl.
				Muktuk	3	5-15			0.68*/2.11	3.96*/1.23	R. Wagemann, unpubl.
				Muscle	5	5-15	0.002*/1.74	0.01*/1.24	0.98*/1.74	0.45*/1.22	R. Wagemann, unpubl.
				Kidney	6	15-25		7.86*/1.21	3.92*/1.65		R. Wagemann, unpubl.
				Liver	6	15-25	0.002*/2.06	1.74*/1.53	17.2*/2.92	14.3*/2.32	R. Wagemann, unpubl.
				Muktuk	1-2	15-25			0.30*/–	3.64*/1.16	R. Wagemann, unpubl.
				Muscle	6	15-25	0.001*/1.57	0.02*/1.53	1.25*/1.86	0.53*/1.14	R. Wagemann, unpubl.
				Kidney	1	>25		7.75*/–	3.17*/–		R. Wagemann, unpubl.

Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Metals, µg/g ww (unless otherwise indicated; see footnotes) Lead	Cadmium	Mercury	Selenium	Reference
Beluga, white whale					Liver	1		>25	0.036*/–	0.15*/–	0.50*/–	0.72*/–	R. Wagemann, unpubl.
					Muktuk	1		>25		0.02*/–	1.03*/–		R. Wagemann, unpubl.
					Muscle	1		Undeterm.	0.003*/–	9.28*/–	1.99*/–		R. Wagemann, unpubl.
					Kidney	1		Undeterm.		1.75*/–	3.33*/–		R. Wagemann, unpubl.
					Liver	1		Undeterm.	0.002*/–		1.14*/–	4.66*/–	R. Wagemann, unpubl.
					Muscle	1		Undeterm.	0.001*/–	0.01*/–	0.57*/–	0.44*/–	R. Wagemann, unpubl.
	Paulatuk	69.35N	124.07W	1993	Kidney	2		5-15		6.44*/1.85	1.92*/1.05		R. Wagemann, unpubl.
					Liver	2		5-15	0.008*/1.97	1.13*/1.22	2.71*/1.43		R. Wagemann, unpubl.
					Muktuk	2		5-15	0.002*/2.18	0.00*/1.63	0.27*/1.60		R. Wagemann, unpubl.
					Muscle	2		5-15	0.007*/3.55	0.01*/1.25	0.47*/1.19		R. Wagemann, unpubl.
					Liver	1		5-15				6.60*/–	R. Wagemann, unpubl.
					Liver	1		5-15				10.0*/–	R. Wagemann, unpubl.
					Muktuk	1		5-15				5.79*/–	R. Wagemann, unpubl.
					Muktuk	1		5-15				5.09*/–	R. Wagemann, unpubl.
					Muscle	1		5-15				0.24*/–	R. Wagemann, unpubl.
					Muscle	1		5-15				0.32*/–	R. Wagemann, unpubl.
					Kidney	1		15-25		7.77*/–	3.98*/–		R. Wagemann, unpubl.
					Liver	1		15-25	0.016*/–	0.96*/–	20.2*/–	4.52*/–	R. Wagemann, unpubl.
					Muktuk	1		15-25	0.002*/–	0.00*/–	0.86*/–	4.47*/–	R. Wagemann, unpubl.
					Muscle	1		15-25	0.003***/–	0.02*/–	1.71*/–	0.31*/–	R. Wagemann, unpubl.
	West Whitefish Station	69.34N	135.75W	1981	Kidney	2		5-15		9.62*/1.04	2.40*/1.19	2.16*/1.33	R. Wagemann, unpubl.
					Liver	2		5-15		0.51*/13.7	3.07*/7.96	5.37*/1.80	R. Wagemann, unpubl.
					Muscle	2		5-15		0.17*/19.1	2.84*/4.59	0.35*/1.04	R. Wagemann, unpubl.
					Kidney	2		15-25		7.61*/1.20	2.74*/1.42	2.17*/1.25	R. Wagemann, unpubl.
					Liver	1-2		15-25		1.38*/1.41	7.70*/–	1.31*/9.80	R. Wagemann, unpubl.
					Muscle	2		15-25		0.06*/3.96	1.04*/1.36	1.61*/9.97	R. Wagemann, unpubl.
					Kidney	6		Undeterm.		3.86*/2.42	1.14*/2.59	1.72*/1.59	R. Wagemann, unpubl.
					Liver	6		Undeterm.		0.75*/3.02	2.26*/5.46	2.59*/3.08	R. Wagemann, unpubl.
					Muscle	4-5		Undeterm.		0.03*/4.59	0.67*/1.56	0.41*/1.29	R. Wagemann, unpubl.
	Western Canadian Arctic			1993-1994	Liver	71-77	♂ ♀	19.3±6.6 yrs		2.27±1.04	27.1±24.7	18.8±13.9	R. Wagemann, unpubl.
					Kidney	71-79	♂ ♀	19.3±6.6 yrs		9.68±3.00	4.91±2.84		R. Wagemann, unpubl.
					Muscle	71-76	♂ ♀	19.3±6.6 yrs		0.019±0.015	1.34±0.67	0.41±0.088	R. Wagemann, unpubl.
					Mattak	28-65	♂ ♀	19.3±6.6 yrs		0.002±0.001	0.78±0.41	4.02±1.17	R. Wagemann, unpubl.
	Jones Sound	76N	85W	1984	Liver	17	♂ ♀		0.009±0.007	3.26±3.76	2.21±2.06	2.46±1.26	R. Wagemann, unpubl.
					Kidney	17	♂ ♀			9.08±4.86	1.47±1.06	1.94±0.46	R. Wagemann, unpubl.
					Muscle	17	♂ ♀		0.006±0.013	0.061±0.047	0.66±0.28	0.32±0.030	R. Wagemann, unpubl.
	Grise Fiord	76.58N	83.23W	1984	Kidney	1		0-1		2.93*/–	0.32*/–	1.44*/–	R. Wagemann, unpubl.
					Liver	1		0-1		0.54*/–	0.37*/–	0.75*/–	R. Wagemann, unpubl.
					Muscle	1		0-1		0.03*/–	0.85*/–	0.32*/–	R. Wagemann, unpubl.
					Kidney	5		2-4		11.63*/1.40	1.28*/1.94	1.87*/1.23	R. Wagemann, unpubl.
					Liver	5		2-4		1.29*/3.56	0.89*/1.86	1.43*/1.94	R. Wagemann, unpubl.
					Muscle	4		2-4		0.02*/2.56	0.55*/1.54	0.33*/1.10	R. Wagemann, unpubl.
					Kidney	6		5-15		8.14*/1.50	1.34*/2.09	1.98*/1.27	R. Wagemann, unpubl.
					Liver	6		5-15		2.12*/2.00	2.14*/2.70	2.35*/1.68	R. Wagemann, unpubl.
					Muscle	6		5-15		0.02*/1.75	0.68*/1.62	0.33*/1.08	R. Wagemann, unpubl.
					Kidney	1		Undeterm.		1.10*/–	2.26*/–	1.98*/–	R. Wagemann, unpubl.
					Liver	1		Undeterm.		16.90*/–	2.54*/–	2.99*/–	R. Wagemann, unpubl.
					Muscle	1		Undeterm.		0.02*/–	0.93*/–	0.35*/–	R. Wagemann, unpubl.
	Repulse Bay	66.33N	86.00W	1993	Kidney	1		2-4		35.59*/–	0.96*/–		R. Wagemann, unpubl.
					Liver	1		2-4	0.010*/–	6.07*/–	1.24*/–	3.37*/–	R. Wagemann, unpubl.
					Muktuk	1		2-4	0.001*/–	0.00*/–	0.32*/–	13.7*/–	R. Wagemann, unpubl.
					Kidney	1		5-15		31.41*/–	2.11*/–		R. Wagemann, unpubl.
					Liver	1		5-15	0.014*/–	13.42*/–	5.61*/–	6.28*/–	R. Wagemann, unpubl.
					Muktuk	1		5-15		0.01*/–	0.45*/–	8.10*/–	R. Wagemann, unpubl.
					Muscle	1-2		5-15	0.002*/2.67	0.09*/–	0.66*/–	0.44*/–	R. Wagemann, unpubl.
	Iqaluit	62.50N	66.00W	1993	Kidney	19		5-15		19.77*/1.50	4.12*/1.58		R. Wagemann, unpubl.
					Liver	17		5-15	0.004*/3.32	4.31*/1.67	5.65*/1.90	3.85*/1.47	R. Wagemann, unpubl.
					Muktuk	8		5-15	0.004*/1.58	0.00*/1.41	0.54*/1.24	4.53*/1.75	R. Wagemann, unpubl.
					Muscle	18-19		5-15	0.001*/1.89	0.02*/1.45	1.09*/1.28	0.35*/1.14	R. Wagemann, unpubl.
					Kidney	5		15-25		12.63*/1.59	4.26*/1.58		R. Wagemann, unpubl.
					Liver	6		15-25	0.002*/2.42	3.17*/1.51	8.81*/1.48	4.13*/1.27	R. Wagemann, unpubl.
					Muktuk	5		15-25	0.003*/1.57	0.00*/1.35	0.63*/1.11	4.86*/1.17	R. Wagemann, unpubl.
					Muscle	6		15-25	0.004*/4.27	0.02*/1.44	1.18*/1.13	0.41*/1.40	R. Wagemann, unpubl.
				1994	Kidney	4		5-15		37.16*/1.42	4.27*/1.79		R. Wagemann, unpubl.
					Liver	4		5-15	0.004*/1.69	14.53*/1.64	9.33*/2.05	5.71*/1.35	R. Wagemann, unpubl.

				Muktuk	2		5-15	0.003*/1.23	0.01*/2.17	0.60*/1.14	7.02*/1.42	R. Wagemann, unpubl.
				Muscle	4		5-15	0.002*/3.16	0.03*/1.65	1.19*/1.27	0.42*/1.23	R. Wagemann, unpubl.
				Kidney	3		15-25		36.05*/1.61	5.44*/1.32		R. Wagemann, unpubl.
				Liver	3		15-25	0.003*/3.77	12.32*/1.43	22.4*/1.41	11.8*/1.57	R. Wagemann, unpubl.
				Muktuk	1		15-25	0.02*/–	0.01*/–	0.86*/–	5.50*/–	R. Wagemann, unpubl.
				Muscle	4		15-25	0.002*/2.07	0.06*/2.19	1.58*/1.32	0.45*/1.16	R. Wagemann, unpubl.
Cumberland Sound	65N	65W	1984	Liver	11	♂ ♀		0.009±0.006	6.27±6.38	4.99±4.48	3.75±1.49	R. Wagemann, unpubl.
				Kidney	11	♂ ♀			22.1±13.9	3.11±1.29	2.53±0.64	R. Wagemann, unpubl.
				Muscle	11	♂ ♀		0.008±0.003	0.018±0.64	0.98±0.22	0.32±0.042	R. Wagemann, unpubl.
Hudson Bay	59N	85W	1969	Liver	1					8.87		Bligh and Armstrong 1971 (1)
				Muscle	1					0.97		Bligh and Armstrong 1971 (1)
				Kidney	1					2.44		Bligh and Armstrong 1971 (1)
			1971	Muscle	43					0.53		Bligh and Armstrong 1971 (1)
Eastern Hudson Bay	59N	80W	1984	Liver	15	♂ ♀		0.045±0.043	5.04±2.64	10.2±12.8	4.46±2.13	Wagemann *et al.* 1991
				Kidney	15	♂ ♀			14.9±2.59	2.89±2.07	2.73±0.91	Wagemann *et al.* 1991
				Muscle	15	♂ ♀		0.030±0.045	0.044±0.050	0.83±0.55	0.42±0.15	Wagemann *et al.* 1991
Western Hudson Bay	59N	94W	1984	Liver	23	♂ ♀		0.009±0.006	6.67±6.11	6.64±6.08	4.19±2.34	Wagemann *et al.* 1991
				Kidney	23	♂ ♀			20.98±13.9	2.44±1.35	2.75±0.88	Wagemann *et al.* 1991
				Muscle	23	♂ ♀		0.008±0.003	0.18±0.64	0.87±0.57	0.49±0.31	Wagemann *et al.* 1991
Shingle Point	69N	135W	1993	Kidney	3		15-25		10.91*/1.54	4.82*/1.21		R. Wagemann, unpubl.
				Liver	3		15-25	0.027*/3.02	2.55*/1.23	38.4*/1.73	33.4*/1.61	R. Wagemann, unpubl.
				Muktuk	2		15-25	0.002*/2.18	0.00*/1.33	0.73*/1.43	4.10*/1.10	R. Wagemann, unpubl.
				Muscle	2		15-25	0.007*/1.63	0.02*/1.14	1.33*/1.50	0.30*/1.35	R. Wagemann, unpubl.
				Kidney	2		Undeterm.		20.85*/1.07	2.56*/1.13		R. Wagemann, unpubl.
				Liver	2		Undeterm.	0.028*/1.23	6.71*/1.02	16.2*/1.02	19.6*/1.39	R. Wagemann, unpubl.
Eskimo Point (Arviat)	61.10N	93.96W	1984	Kidney	3-4		0-1		0.42*/23.4	0.41*/2.00	1.27*/1.51	R. Wagemann, unpubl.
				Liver	3		0-1		0.11*/11.1	0.012*/1.24	1.01*/1.25	R. Wagemann, unpubl.
				Muscle	3		0-1		0.01*/1.37	0.15*/1.65	0.39*/1.17	R. Wagemann, unpubl.
				Kidney	2-3		2-4		22.34*/1.39	1.53*/1.04	2.37*/1.17	R. Wagemann, unpubl.
				Liver	3		2-4		4.94*/2.02	1.89*/1.19	3.18*/1.16	R. Wagemann, unpubl.
				Muscle	3		2-4		0.02*/1.83	0.58*/1.17	0.47*/1.78	R. Wagemann, unpubl.
				Kidney	9		5-15		21.18*/2.24	2.56*/1.53	2.75*/1.33	R. Wagemann, unpubl.
				Liver	10		5-15		3.86*/5.42	3.53*/2.83	2.97*/2.40	R. Wagemann, unpubl.
				Muscle	10		5-15		0.05*/5.75	0.83*/1.86	0.45*/1.70	R. Wagemann, unpubl.
				Kidney	7		15-25		17.30*/1.35	3.04*/1.23	3.00*/1.22	R. Wagemann, unpubl.
				Liver	7		15-25		6.63*/1.74	11.8*/1.81	6.31*/1.28	R. Wagemann, unpubl.
				Muscle	7		15-25		0.06*/1.29	0.96*/1.38	0.41*/1.09	R. Wagemann, unpubl.
Sanikiluaq (Belcher Islands)	56.53N	79.23W	1994	Kidney	1		2-4		25.83*/–	1.32*/–		R. Wagemann, unpubl.
				Liver	1		2-4	0.001*/–	5.99*/–	2.56*/–	1.59*/–	R. Wagemann, unpubl.
				Muktuk	1		2-4		0.00*/–	0.41*/–	4.55*/–	R. Wagemann, unpubl.
				Muscle	1		2-4	0.018*/–	0.03*/–	0.57*/–	0.43*/–	R. Wagemann, unpubl.
				Kidney	18		5-15		21.81*/1.68	2.19*/1.64		R. Wagemann, unpubl.
				Liver	18		5-15	0.004*/2.82	5.70*/1.64	6.72*/1.84	7.37*/1.42	R. Wagemann, unpubl.
				Muktuk	3-17		5-15	0.002*/1.26	0.01*/2.78	0.45*/1.28	2.85*/1.24	R. Wagemann, unpubl.
				Muscle	17-18		5-15	0.017*/3.47	0.06*/2.28	0.72*/1.27	0.41*/1.18	R. Wagemann, unpubl.
				Kidney	11		15-25		25.33*/1.79	3.55*/1.74		R. Wagemann, unpubl.
				Liver	11		15-25	0.006*/2.10	9.06*/1.48	18.7*/1.78	12.8*/1.51	R. Wagemann, unpubl.
				Muktuk	3-7		15-25		0.01*/1.38	0.84*/1.49	3.58*/1.21	R. Wagemann, unpubl.
				Muscle	11		15-25	0.012*/1.79	0.11*/1.63	1.26*/1.64	0.40*/1.24	R. Wagemann, unpubl.
Umiujaq	56.56N	76.56W	1993	Liver	2				16.39*/1.25	17.6*/1.30	7.06*/1.43	M. Kingsley, unpubl.
				Muktuk	2				0.03*/2.24	1.13*/1.44	8.16*/1.16	M. Kingsley, unpubl.
				Muscle	2				0.12*/2.01	1.83*/1.60	0.40*/1.07	M. Kingsley, unpubl.
			1994	Kidney	3				7.97*/1.45	1.26*/1.73		M. Kingsley, unpubl.
				Liver	3				2.36*/1.46	3.05*/1.26		M. Kingsley, unpubl.
				Muktuk	3				0.00*/1.18	0.29*/1.13		M. Kingsley, unpubl.
				Muscle	3				0.01*/1.48	0.51*/1.10		M. Kingsley, unpubl.
Great Whale (Kuujjuarpik)	55.25N	77.45W	1993	Liver	2				5.07*/4.23	51.3*/2.52	10.4*/3.45	M. Kingsley, unpubl.
				Muktuk	3				<0.001*/–	0.50*/2.79	8.04*/1.45	M. Kingsley, unpubl.
				Muscle	3				0.04*/2.40	1.69*/1.48	0.48*/1.42	M. Kingsley, unpubl.
			1994	Kidney	5				15.75*/5.44	2.11*/3.08	2.35*/1.37	M. Kingsley, unpubl.
				Liver	7				5.26*/5.28	5.03*/4.84	4.41*/2.53	M. Kingsley, unpubl.
				Muktuk	7				0.00*/1.63	0.38*/2.35	6.93*/1.60	M. Kingsley, unpubl.
				Muscle	7				0.03*/2.64	1.71*/2.23	0.36*/1.15	M. Kingsley, unpubl.
				Kidney	3						2.20*/1.10	M. Kingsley, unpubl.
				Liver	3						8.11*/1.41	M. Kingsley, unpubl.
				Muktuk	3						10.7*/1.60	M. Kingsley, unpubl.
				Muscle	3						0.41*/1.08	M. Kingsley, unpubl.
Eastern Canadian Arctic			1984-1994	Liver	134-139	♂ ♀	11.9±6.0 yrs		6.51±4.88	8.40±8.25	5.35±3.18	Wagemann *et al.* 1996
				Kidney	135-139	♂ ♀	11.9±6.0 yrs		22.4±13.0	3.10±1.71		Wagemann *et al.* 1996
				Muscle	107-138	♂ ♀	11.9±6.0 yrs		0.079±0.27	0.94±0.44	0.40±0.17	Wagemann *et al.* 1996

Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Metals, µg/g ww (unless otherwise indicated; see footnotes) Lead	Cadmium	Mercury	Selenium	Reference
Beluga, white whale				1984	Liver	64-66	♂ ♀	10.2±6.6 yrs			6.1±8.37		Wagemann *et al.* 1996
					Kidney	64.00	♂ ♀	10.2±6.6 yrs			2.38±1.59		Wagemann *et al.* 1996
					Muscle	64.00	♂ ♀	10.2±6.6 yrs			0.82±0.46		Wagemann *et al.* 1996
				1993-1994	Liver	73-79	♂ ♀	13.5±4.9 yrs			10.2±8.00		Wagemann *et al.* 1996
					Kidney	71-79	♂ ♀	13.5±4.9 yrs			3.73±1.95		Wagemann *et al.* 1996
					Muscle	74-79	♂ ♀	13.5±4.9 yrs			1.04±0.43		Wagemann *et al.* 1996
					Mattak	44-45	♂ ♀	11.9±6.0 yrs		0.009±0.011	0.59±0.22	4.75±1.43	Wagemann *et al.* 1996
	St. Lawrence	49N	68.5W	1982-1987	Liver	30-34	♂ ♀	18.1±9.1 yrs	0.159±0.170		33.6±43.0		Wagemann *et al.* 1996
					Kidney	30-34	♂ ♀	18.1±9.1 yrs	0.152±0.103		6.37±9.16		Wagemann *et al.* 1996
					Muscle	9-34	♂ ♀	18.1±9.1 yrs	0.104±0..126		2.46±1.46		Wagemann *et al.* 1996
	Canadian Arctic			1984-1994	Liver	215	♂ ♀	~15 yrs	0.016±0.025				Wagemann *et al.* 1996
					Muscle	212	♂ ♀	~15 yrs	0.012±0.039				Wagemann *et al.* 1996
					Mattak	60	♂ ♀	~15 yrs	0.008±0.038				Wagemann *et al.* 1996
	West Greenland	74N	57W	1980-1985	Liver	40	♂ ♀			2.21	1.77	3.70	Hansen *et al.* 1990 (3)
					Kidney	37	♂ ♀			10.3	1.29	2.22	Hansen *et al.* 1990 (3)
					Muscle	41	♂ ♀			0.03	0.51	<0.20	Hansen *et al.* 1990 (3)
	Avanersuaq	77.5N	70W	1984	Liver	1	♂ ♀	Undeterm.		4080	29.8	27.8	Dietz *et al.* 1997b
					Kidney	1	♂ ♀	Undeterm.		11500	2.39	2.83	Dietz *et al.* 1997b
					Muscle	1	♂ ♀	Undeterm.		0.028	0.857	0.41	Dietz *et al.* 1997b
	Upernavik	74N	57W	1985	Liver	16	♂ ♀	0-6 yrs		0.845*/4.76	0.799*/2.22	2.02*/1.80	Dietz *et al.* 1997b
					Kidney	13-15	♂ ♀	0-6 yrs		5.23*/7.90	0.442*/4.98	1.96*/1.74	Dietz *et al.* 1997b
					Muscle	17	♂ ♀	0-6 yrs		<0.015	0.343*/1.69	<0.20	Dietz *et al.* 1997b
					Liver	12	♂ ♀	7-13 yrs		2.70*/1.80	2.38*/1.60	4.99*/1.24	Dietz *et al.* 1997b
					Kidney	12	♂ ♀	7-13 yrs		12.4*/1.62	1.44*/1.80	2.43*/1.27	Dietz *et al.* 1997b
					Muscle	11	♂ ♀	7-13 yrs		0.035*/2.10	0.281*/5.87	<0.20	Dietz *et al.* 1997b
					Liver	2	♂ ♀	14+ yrs		3.61*/1.32	3.37*/1.18	3.57*/1.16	Dietz *et al.* 1997b
					Kidney	2	♂ ♀	14+ yrs		16.8*/1.23	1.84*/1.34	2.07*/1.10	Dietz *et al.* 1997b
					Muscle	3	♂ ♀	14+ yrs		0.031*/1.47	0.173*/3.89	0.22*/1.98	Dietz *et al.* 1997b
					Liver	3	♂ ♀	Undeterm.		0.281*/23.3	0.691*/4.26	1.89*/3.01	Dietz *et al.* 1997b
					Kidney	3-4	♂ ♀	Undeterm.		0.658*/48.4	0.180*/5.44	0.61*/2.05	Dietz *et al.* 1997b
					Muscle	3	♂ ♀	Undeterm.		0.019*/2.23	0.162*/1.93	0.20*/1.89	Dietz *et al.* 1997b
	Kangaatsiaq	68.3N	53.5W	1986	Liver	1	♂ ♀	7-13 yrs		2.22	5.03	3.55	Dietz *et al.* 1997b
					Kidney	1	♂ ♀	7-13 yrs		10.7	4.33	3.87	Dietz *et al.* 1997b
					Muscle	1	♂ ♀	7-13 yrs		0.042	1.73	<0.20	Dietz *et al.* 1997b
					Liver	4	♂ ♀	14+ yrs		3.28*/1.50	16.9*/1.64	12.03*/1.78	Dietz *et al.* 1997b
					Kidney	3	♂ ♀	14+ yrs		8.21*/1.70	4.77*/2.20	2.10*/2.22	Dietz *et al.* 1997b
					Muscle	4	♂ ♀	14+ yrs		0.021*/2.29	1.46*/1.14	<0.20*/1.66	Dietz *et al.* 1997b
					Liver	1	♂ ♀	Undeterm.		4.23	20.7	0.75	Dietz *et al.* 1997b
					Kidney	1	♂ ♀	Undeterm.		7.04	5.71	4.24	Dietz *et al.* 1997b
					Muscle	1	♂ ♀	Undeterm.		0.026	1.60	<0.20	Dietz *et al.* 1997b
Narwhal (*Monodon monoceros*)	Grise Fiord	76.58N	83.23W	1993	Kidney	3		*		64.71*/1.59	1.34*/1.52		R. Wagemann, unpubl.
					Liver	3		*	0.005*/1.54	47.72*/2.96	7.43*/2.50	3.77*/1.27	R. Wagemann, unpubl.
					Muktuk	3		*	0.003*/1.47	0.02*/3.27	0.47*/1.17	3.55*/1.26	R. Wagemann, unpubl.
					Muscle	3		*	0.002*/4.84	0.30*/5.18	0.92*/1.33	0.33*/1.10	R. Wagemann, unpubl.
	Pond Inlet	72.78N	77W	1978	Blubber	45-49		378 cm	0.009*/2.02	0.04*/2.51	0.021*/2.07	0.05*/2.36	R. Wagemann, unpubl.
					Kidney	55		375 cm	0.016*/1.48	46.89*/2.41	1.41*/1.80	2.98*/1.30	R. Wagemann, unpubl.
					Liver	38		376 cm	0.025*/1.66	19.52*/3.34	5.20*/2.07	3.60*/1.92	R. Wagemann, unpubl.
					Muscle	58		375 cm	0.007*/1.63	0.11*/3.08	0.79*/1.47	0.43*/1.23	R. Wagemann, unpubl.
				1982	Kidney	18-24		381 cm		45.69*/3.59	1.43*/1.80	2.87*/1.31	R. Wagemann, unpubl.
				1992	Kidney	9		381 cm		69.77*/1.65			R. Wagemann, unpubl.
					Liver	9-18		381 cm	0.031*/1.69	34.98*/2.35	3.79*/2.70	4.74*/1.77	R. Wagemann, unpubl.
					Muscle	9		381 cm	0.003*/1.90	0.16*/2.41	0.82*/1.33	0.36*/1.10	R. Wagemann, unpubl.
				1994	Kidney	16		393 cm		51.42*/1.54	1.92*/2.13		R. Wagemann, unpubl.
					Liver	16		393 cm	0.03*/1.55	24.55*/2.02	11.1*/2.31	7.76*/2.02	R. Wagemann, unpubl.
					Muktuk	16		393 cm	0.003*/1.64	0.01*/1.59	0.62*/1.53	3.57*/1.46	R. Wagemann, unpubl.
					Muscle	15-16		393 cm	0.001*/2.66	0.14*/2.42	1.09*/1.43	0.41*/1.11	R. Wagemann, unpubl.
	Clyde River	70.47N	68.60W	1993	Kidney	5				34.34*/1.67	1.48*/1.80		R. Wagemann, unpubl.
					Liver	5			0.003*/3.23	11.12*/2.80	6.72*/3.59	6.04*/2.05	R. Wagemann, unpubl.
					Muktuk	5			0.003*/1.73	0.01*/2.90	0.46*/1.66	3.91*/2.15	R. Wagemann, unpubl.
					Muscle	4-5			0.003*/2.82	0.10*/4.24	0.91*/1.67	0.38*/1.06	R. Wagemann, unpubl.
	Broughton Island	67.55N	64.03W	1993	Kidney	14		455 cm		31.31*/1.26	1.71*/1.59		R. Wagemann, unpubl.
					Liver	14		455 cm	0.024*/1.51	14.08*/1.53	8.25*/1.65	7.23*/1.77	R. Wagemann, unpubl.
					Muktuk	14		455 cm	0.001*/2.52	0.01*/1.50	0.66*/1.12	4.43*/1.66	R. Wagemann, unpubl.
					Muscle	13-14		455 cm	0.023*/1.41	0.15*/1.70	1.22*/1.27	0.44*/1.17	R. Wagemann, unpubl.

	Repulse Bay	66.53N	86.25W	1993	Kidney	4		398 cm		74.66*/1.61	1.23*/1.41		R. Wagemann, unpubl.
					Liver	4		398 cm	0.015*/3.53	19.53*/3.53	4.01*/5.83	2.50*/7.59	R. Wagemann, unpubl.
					Muktuk	4-5		393 cm	0.001*/4.01	0.03*/2.36	0.42*/1.20	8.92*/1.21	R. Wagemann, unpubl.
					Muscle	3-4		398 cm	0.005*/1.46	0.20*/2.63	0.62*/1.26	0.41*/1.13	R. Wagemann, unpubl.
	Iqaluit	62.50N	66.00W	1994	Kidney	4		367 cm		49.49*/1.63	1.29*/2.24		R. Wagemann, unpubl.
					Liver	4		367 cm	0.012*/3.51	22.84*/2.08	3.63*/2.94	3.62*/2.08	R. Wagemann, unpubl.
					Muktuk	5		350 cm	0.003*/1.44	0.02*/2.67	0.40*/1.74	6.33*/1.72	R. Wagemann, unpubl.
					Muscle	5		350 cm	0.005*/1.88	0.11*/2.38	0.71*/1.48	0.36*/1.10	R. Wagemann, unpubl.
	Pond Inlet	72.78N	77W	1977	Liver	6			0.17±0.13	7.76±6.63	5.98±3.13	5.54±4.65	Fallis, unpubl. (cited by
					Muscle	6			0.11±0.06	0.11±0.11	0.84±0.32	0.37±0.09	Wagemann and Muir 1984)
					Kidney	6			0.21±0.27	30.5±21.4	1.18±0.57	2.59±0.49	Fallis, unpubl. (cited by
					Blubber	6			0.31±0.34	0.02±0.02	<0.01	0.03±0.04	Wagemann and Muir 1984)
				1979	Liver	37-56	♂ ♀	376±47 cm	0.028±0.012	32.0±33.2	6.10±3.13	4.06±1.84	Wagemann *et al.* 1983, 1996
					Kidney	54	♂ ♀	376±47 cm	0.018±0.009	63.5±41.0	1.71±1.01	3.15±0.85	Wagemann *et al.* 1983, 1996
					Muscle	56-58	♂ ♀	376±47 cm	0.009±0.006	0.19±0.22	0.85±0.28	0.44±0.10	Wagemann *et al.* 1983, 1996
					Blubber	44	♂ ♀		0.016±0.014	0.05±0.05	0.03±0.01	0.07±0.06	Wagemann *et al.* 1983, 1996
	Admiralty Inlet	72.5N	86W	1975	Liver	26			0.11±0.13	30.4±25.7			
					Muscle	27			0.05±0.07	0.24±0.24			Fallis, unpubl., (cited by
					Blubber	11			0.27±0.78	0.04±0.03			Wagemann and Muir 1984)
	Eastern Canadian Arctic			1984-1994	Liver	26-55	♂ ♀	420±57 cm	0.026±0.018	29.7±25.4	10.8±8.05	7.35±4.37	Wagemann *et al.* 1996
					Kidney	26-55	♂ ♀	420±57 cm		54.1±24.1	1.93±1.12		Wagemann *et al.* 1996
					Muscle	26-56	♂ ♀	420±57 cm	0.008±0.002	0.21±0.19	1.03±0.37	0.40±0.43	Wagemann *et al.* 1996
					Mattak	26-48	♂ ♀	420±57 cm	0.002±0.002	0.018±0.013	0.59±0.18	5.05±2.38	Wagemann *et al.* 1996
	West Greenland	77.5N	70W	1980	Liver	90	♂ ♀			10.8	5.26	3.14	Hansen *et al.* 1990 (3)
					Kidney	94	♂ ♀			39.1	1.22	2.70	Hansen *et al.* 1990 (3)
					Muscle	85	♂ ♀			0.11	0.75	0.25	Hansen *et al.* 1990 (3)
	Avanersuaq	77.5N	70W	1985	Liver	5-8	♂ ♀	Yearling		0.042*/2.49	0.655*/2.37	0.34*/2.02	Dietz *et al.* 1997b
					Kidney	7-8	♂ ♀	Yearling		0.100*/4.09	0.177*/1.26	0.74*/1.31	Dietz *et al.* 1997b
					Muscle	5	♂ ♀	Yearling		0.022*/2.94	0.149*/2.06	<0.20	Dietz *et al.* 1997b
					Liver	4-5	♂ ♀	Juvenile		4.71*/1.97	0.592*/21.4	2.16*/2.68	Dietz *et al.* 1997b
					Kidney	5.00	♂ ♀	Juvenile		28.267*/1.739	0.324*/2.29	1.99*/1.20	Dietz *et al.* 1997b
					Muscle	4-5	♂ ♀	Juvenile		0.084*/1.703	0.076*/19.5	0.22*/1.73	Dietz *et al.* 1997b
					Liver	5-8	♂ ♀	Mature		14.2*/1.69	1.26*/13.3	3.36*/2.30	Dietz *et al.* 1997b
					Kidney	8	♂ ♀	Mature		54.3*/1.43	0.447*/4.34	1.98*/1.39	Dietz *et al.* 1997b
					Muscle	5-8	♂ ♀	Mature		0.204*/2.021	0.137*/11.8	0.21*/1.53	Dietz *et al.* 1997b
					Liver	18-42	♂ ♀	Adults		13.0*/1.72	6.71*/2.97	4.03*/2.33	Dietz *et al.* 1997b
					Kidney	41-44	♂ ♀	Adults		40.6*/1.73	1.41*/2.37	3.21*/1.36	Dietz *et al.* 1997b
					Muscle	18-41	♂ ♀	Adults		0.134*/2.85	0.563*/5.92	0.28*/1.52	Dietz *et al.* 1997b
					Liver	11-22	♂ ♀	Undeterm.		3.26*/12.8	3.85*/3.76	3.37*/3.08	Dietz *et al.* 1997b
					Kidney	23-25	♂ ♀	Undeterm.		13.3*/12.7	0.835*/3.18	2.34*/1.65	Dietz *et al.* 1997b
					Muscle	13-24	♂ ♀	Undeterm.		0.076*/3.71	0.484*/3.65	<0.20	Dietz *et al.* 1997b
	Upernavik	74N	57W	1985	Liver	1	♂ ♀	Adults		28.1	41.1	31.50	Dietz *et al.* 1997b
					Kidney	1	♂ ♀	Adults		86.4	0.607	0.32	Dietz *et al.* 1997b
					Muscle	1	♂ ♀	Adults			1.04		Dietz *et al.* 1997b
	Uummannaq	71.50N	52.50W	1985	Liver	4	♂ ♀	Undeterm.		17.6*/1.37	5.20*/1.56	2.75*/1.31	Dietz *et al.* 1997b
					Kidney	4	♂ ♀	Undeterm.		38.4*/1.19	1.34*/1.54	2.10*/1.12	Dietz *et al.* 1997b
					Muscle	4	♂ ♀	Undeterm.		0.308*/1.69	0.912*/1.20	0.26*/1.18	Dietz *et al.* 1997b
Pilot whale (*Globicephala melaena*)	Newfoundland, Canada Grand Beach	47.08N	55.24W	1980	Liver	13	♂ ♀	Undeterm.	0.141±0.112	19.7±12.6	27.9±26.1	13.4±12.9	Muir *et al.* 1988 (1)
					Kidney	15	♂ ♀	Undeterm.	0.038±0.019	37.5±24.6	2.47±1.80	3.54±1.15	Muir *et al.* 1988 (1)
					Muscle	15	♂ ♀	Undeterm.	0.011±0.005	0.052±0.300	0.890±0.416	0.333±0.096	Muir *et al.* 1988 (1)
					Blubber	14	♂ ♀	Undeterm.	0.010±0.01	0.03±0.02	0.15±0.14	0.49±0.37	Muir *et al.* 1988 (1)
	Point Leamington	47.20N	55.24W		Liver	26	♂ ♀	1-17 yrs	0.090±0.050	11.8±9.50	17.4±24.3	8.70±8.56	Muir *et al.* 1988 (1)
					Kidney	26	♂ ♀	1-17 yrs	0.048±0.022	28.9±23.5	2.16±2.70	4.215±1.719	Muir *et al.* 1988 (1)
					Muscle	26	♂ ♀	1-17 yrs	0.012±0.009	0.024±0.021	0.823±0.538	0.873±0.618	Muir *et al.* 1988 (1)
					Blubber	26	♂ ♀	1-17 yrs	0.010±0.01	0.03±0.03	0.13±0.17	0.59±0.26	Muir *et al.* 1988 (1)
	Faeroe Islands	62N	70W	1977	Liver	8	♂ ♀			12.±3	280.±100	172.±10	Julshamn *et al.* 1987
					Kidney	6	♂ ♀			6.2±2.6	18.±6	1.3±0.8	Julshamn *et al.* 1987
					Muscle	10	♂ ♀			1.1±0.9	3.3±1.7	0.25±0.11	Julshamn *et al.* 1987
					Blubber	9	♂ ♀			0.8±0.4	0.70±0.28	0.12±0.08	Julshamn *et al.* 1987
				1978	Liver	2		Fetus		0.115	0.93	0.163	Julshamn *et al.* 1987 (2)
					Kidney	2		Fetus		0.669	0.286	0.306	Julshamn *et al.* 1987 (2)
					Muscle	2		Fetus		0.214	0.339	0.039	Julshamn *et al.* 1987 (2)
					Liver	14	♂ ♀	All		33.2*/3.25	38.7*/3.33	12.1*/2.41	Julshamn *et al.* 1987 (2)
					Kidney	10	♂ ♀	All		69.1*/1.40	3.10*/2.49	3.26*/1.48	Julshamn *et al.* 1987 (2)
					Muscle	18	♂ ♀	All		0.344*/1.75	1.26*/0.851	0.346*/1.80	Julshamn *et al.* 1987 (2)
				1986	Kidney	43	♂ ♀	All		86.±49			Caurant *et al.* 1994
					Liver	52	♂ ♀	All		41.±32	56.±83	20.±25	Caurant *et al.* 1994
					Kidney	23	♂ ♀	All		93.±45	5.7±3.8	4.5±1.6	Caurant *et al.* 1994
					Liver	28	♂ ♀	All		77.±35			Caurant *et al.* 1994

Species	Location	Latitude	Longitude	Year	Tissue	n	Sex	Size/age	Metals, µg/g ww (unless otherwise indicated; see footnotes) Lead	Cadmium	Mercury	Selenium	Reference
Pilot whale				1987	Liver	11	♂ ♀	All		80.±29	52.±38	13.6±8.9	Caurant *et al*. 1994
					Liver	22	♂ ♀	All		57.±29	62.±57	16.5±14.6	Caurant *et al*. 1994
					Liver	41	♂ ♀	All		91.±61			Caurant *et al*. 1994
					Liver	40	♂ ♀	All		33.±19	84.±92	23.±24	Caurant *et al*. 1994
					Kidney	31	♂ ♀	All		55.±20	4.9±3.8	3.1±1.1	Caurant *et al*. 1994
Harbour porpoise (*Phocoena phocoena*)	Maniitsoq, Greenland (Sukkertoppen)	65.42N	52.90W	1988-1989	Liver	43-44	♂ ♀	All		3.25*/2.51	4.33*/2.46	2.77*/1.82	Paludan-Müller *et al*. 1993,
					Kidney	26	♂ ♀	All		13.22*/3.12	0.923*/1.69	5.79*/1.48	Dietz *et al*. 1997b (2)
					Muscle	77	♂ ♀	All		0.053*/2.57	0.493*/1.75	0.54*/1.46	Dietz *et al*. 1997b (2)
					Skin	34	♂ ♀	All		0.007*/2.13	0.488*/1.77	28.6*/2.25	Dietz *et al*. 1997b (2)
					Liver	2	♂ ♀	<1 yr		0.161	0.737	1.02	Dietz *et al*. 1997b (2)
					Kidney	1	♂ ♀	<1 yr		0.114	0.185	3.97	Dietz *et al*. 1997b (2)
					Muscle	7	♂ ♀	<1 yr		0.013*/1.64	0.167*/2.17	0.59*/1.88	Dietz *et al*. 1997b (2)
					Skin	3	♂ ♀	<1 yr		0.004*/2.04	0.124*/1.14	4.03*/1.83	Dietz *et al*. 1997b (2)
					Liver	4-5	♂ ♀	1 yr		1.32*/1.22	1.34*/1.29	1.38*/1.12	Dietz *et al*. 1997b (2)
					Kidney	3	♂ ♀	1 yr		6.90*/1.86	0.499*/1.77	5.04*/1.10	Dietz *et al*. 1997b (2)
					Muscle	12	♂ ♀	1 yr		0.020*/1.95	0.321*/1.67	0.50*/1.41	Dietz *et al*. 1997b (2)
					Skin	5	♂ ♀	1 yr		0.004*/1.95	0.339*/1.28	18.4*/1.21	Dietz *et al*. 1997b (2)
					Liver	9	♂ ♀	2-4 yrs		3.18*/1.48	2.37*/1.35	1.99*/1.28	Dietz *et al*. 1997b (2)
					Kidney	2	♂ ♀	2-4 yrs		11.9	0.749	6.25	Dietz *et al*. 1997b (2)
					Muscle	15	♂ ♀	2-4 yrs		0.035*/1.44	0.486*/1.22	0.51*/1.32	Dietz *et al*. 1997b (2)
					Skin	8	♂ ♀	2-4 yrs		0.005*/1.93	0.497*/1.27	38.5*/1.37	Dietz *et al*. 1997b (2)
					Liver	12	♂ ♀	4-6 yrs		4.11*/1.62	6.01*/1.79	3.17*/1.46	Dietz *et al*. 1997b (2)
					Kidney	12	♂ ♀	4-6 yrs		20.3*/1.77	1.02*/1.24	5.77*/1.63	Dietz *et al*. 1997b (2)
					Muscle	22	♂ ♀	4-6 yrs		0.096*/1.82	0.657*/1.21	0.55*/1.42	Dietz *et al*. 1997b (2)
					Skin	10	♂ ♀	4-6 yrs		0.012*/1.70	0.594*/1.274	33.3*/1.98	Dietz *et al*. 1997b (2)
					Liver	13	♂ ♀	≥7 yrs		4.99*/1.65	8.21*/2.012	4.34*/1.68	Dietz *et al*. 1997b (2)
					Kidney	8	♂ ♀	≥7 yrs		16.5*/1.58	1.29*/1.39	6.30*/1.45	Dietz *et al*. 1997b (2)
					Muscle	18	♂ ♀	≥7 yrs		0.107*/1.80	0.669*/1.37	0.50*/1.41	Dietz *et al*. 1997b (2)
					Skin	8	♂ ♀	≥7 yrs		0.007*/2.30	0.787*/1.46	47.9*/1.23	Dietz *et al*. 1997b (2)
	Norwegian waters			1989-1990	Liver	19	♂	<2 yrs			1.28 ±1.34	1.76±0.86	Teigen *et al*. 1993
					Kidney	19	♂	<2 yrs			0.48±0.25	2.84±1.59	Teigen *et al*. 1993
					Liver	10	♀	<2 yrs			0.84±0.45	1.58±0.30	Teigen *et al*. 1993
					Kidney	10	♀	<2 yrs			0.51±0.28	2.86±1.18	Teigen *et al*. 1993
					Liver	7	♂	2 yrs			2.32±1.73	2.41±0.91	Teigen *et al*. 1993
					Kidney	7	♂	2 yrs			0.71±0.23	3.92±0.83	Teigen *et al*. 1993
					Liver	16	♀	2 yrs			1.85±1.35	2.41±0.81	Teigen *et al*. 1993
					Kidney	16	♀	2 yrs			1.00±1.00	4.01±1.55	Teigen *et al*. 1993
					Liver	10	♂	3 yrs			3.42±2.74	3.52±2.45	Teigen *et al*. 1993
					Kidney	10	♂	3 yrs			0.86±0.66	3.95±1.51	Teigen *et al*. 1993
					Liver	6	♀	3 yrs			4.62±6.19	4.36±4.84	Teigen *et al*. 1993
					Kidney	6	♀	3 yrs			1.00±0.58	4.40±1.54	Teigen *et al*. 1993
					Liver	9	♂	4-5 yrs			5.02±3.03	4.70±1.77	Teigen *et al*. 1993
					Kidney	9	♂	4-5 yrs			0.78±0,39	4.32±1.34	Teigen *et al*. 1993
					Liver	3	♀	4-5 yrs			4.90±2.45	3.90±1.57	Teigen *et al*. 1993
					Kidney	3	♀	4-5 yrs			0.99±0.37	4.83±1.22	Teigen *et al*. 1993
					Liver	11	♂	6-8 yrs			5.42±5.36	4.81±3.20	Teigen *et al*. 1993
					Kidney	11	♂	6-8 yrs			1.06±0.78	3.50±0.83	Teigen *et al*. 1993
					Liver	1	♀	6-8 yrs			4.20	4.50	Teigen *et al*. 1993
					Kidney	1	♀	6-8 yrs			2.20	3.70	Teigen *et al*. 1993
White-beaked dolphin (*Lagenorhynchus albirostris*)	Newfoundland, Canada Port aux Basques	47.30N	60.45W	1982	Liver	26-27	♂ ♀	2-6 yrs	0.147±0.089	5.52±0.068	0.831±0.366	2.26±0.593	Muir *et al*. 1988
					Kidney	25	♂ ♀	2-6 yrs	0.126±0.133	2.97±2.07	0.229±0.085	1.28±0.996	Muir *et al*. 1988
					Muscle	26-27	♂ ♀	2-6 yrs	0.066±0.061	0.025±0.019	0.45±0.115	0.527±0.246	Muir *et al*. 1988
Polar bear (*Ursus maritimus*)	Chukchi Sea, Alaska	70N	165W	1972	Liver	12	♂ ♀	2-5 yrs			3.92±1.276		Lentfer and Galster 1987
					Muscle	4	♂ ♀	2-5 yrs			0.04±0.014		Lentfer and Galster 1987
					Liver	16	♂ ♀	>5 yrs			4.80±1.461		Lentfer and Galster 1987
					Muscle	9	♂ ♀	>5 yrs			0.04±0.026		Lentfer and Galster 1987
	Western Beaufort Sea, Alaska	72N	155W	1972	Liver	19	♂ ♀	2-5 yrs			22.4±22.0		Lentfer and Galster 1987
					Muscle	11	♂ ♀	2-5 yrs			0.15±0.009		Lentfer and Galster 1987
					Liver	22	♂ ♀	>5 yrs			38.1±20.1		Lentfer and Galster 1987
					Muscle	15	♂ ♀	>5 yrs			0.19±0.010		Lentfer and Galster 1987
	Eastern Beaufort Sea (H1), Canada	69N	130W	1982	Liver	7	♂ ♀	6.9 yrs #		0.528±0.587	53.0±24.9	23.4±9.23	Norstrom *et al*. 1986 Braune *et al*. 1991

			1982	Hair	35	♂	All			8.99		Renzoni and Norstrom 1990 (1)
				Hair	20	♀	All			10.2		Renzoni and Norstrom 1990 (1)
Amundsen Gulf (H2)	70N	115W	1977	Hair	5	♂ ♀	Subadult & Adult			18.5±14.5		Eaton and Farant 1982
			1982	Liver	8	♂ ♀	6.9 yrs #		0.371±0.397	35.9±17.2	11.8±5.70	Norstrom *et al.* 1986, Braune *et al.* 1991
SW. Melville Island (G)	76N	110W	1982	Liver	8	♂ ♀	6.9 yrs #		0.213±.201	71.1±15.8	22.5±5.12	Norstrom *et al.* 1986, Braune *et al.* 1991
Hadley Bay (Victoria Island, E1)	73N	109W	1982	Liver	7	♂ ♀	6.9 yrs #		0.18±0.172	18.3±8.04	7.32±2.87	Norstrom *et al.* 1986, Braune *et al.* 1991
Spence Bay (E2)	69N	102W	1982	Liver	14	♂ ♀	6.9 yrs #		0.659±0.366	23.2±9.48	7.93±3.12	Norstrom *et al.* 1986, Braune *et al.* 1991
Cornwallis Island (F1, F)	74N	88W	1977	Hair	7	♂ ♀	Subadult & Adult			6.59±1.72		Eaton and Farant 1982
			1980	Hair	7	♂ ♀	Subadult & Adult			7.85±4.49		Eaton and Farant 1982
			1982	Liver	22	♂ ♀	6.9 yrs #		0.780±0.417	22.0±10.2	8.19±3.55	Norstrom *et al.* 1986, Braune *et al.* 1991
Northern Hudson Bay (C)	63N	85W	1984	Liver	10	♂ ♀	6.9 yrs #		0.877±0.403	6.01±4.96	1.27±1.34	Braune *et al.* 1991
Western Hudson Bay	60N	93W	1988	Hair	42					3.0		Renzoni and Norstrom 1990 ¤
Southern Hudson Bay (A1)	55.1N	85W	1980	Hair	41	♂ ♀	Subadult & Adult			2.54±1.00		Eaton and Farant 1982
			1984	Liver	10	♂ ♀	6.9 yrs #		1.09±0.534	6.54±6.47	1.54±1.75	Braune *et al.* 1991
			1988	Hair	6	♂	Juvenile			2.57		Renzoni and Norstrom 1990 (1)
				Hair	12	♀	Adult			3.12		Renzoni and Norstrom 1990 (1)
				Hair	4	♂	Juvenile			3.11		Renzoni and Norstrom 1990 (1)
				Hair	20	♀	Adult			2.97		Renzoni and Norstrom 1990 (1)
Northern Baffin Island (F2)	68N	75W	1980	Hair	27	♂ ♀	Subadult & Adult			6.93±1.80		Eaton and Farant 1982
			1984	Liver	8	♂ ♀	6.9 yrs #		1.18±0.43	25.1±9.10	7.93±2.95	Braune *et al.* 1991
Southern Baffin Island	68N	75W	1977	Hair	13	♂ ♀	Subadult & Adult			3.53±0.77		Eaton and Farant 1982
Clyde River (D1)	70.47N	68.6W	1980	Hair	9	♂ ♀	Subadult & Adult			4.92±0.63		Eaton and Farant 1982
			1984	Liver	10	♂ ♀	6.9 yrs #		0.952±0.422	13.2±7.98	4.41±2.60	Braune *et al.* 1991 (1)
Cumberland Peninsula (D2)	66N	63W	1984	Liver	9	♂ ♀	6.9 yrs #		1.40±0.727	6.72±5.96	2.98±2.30	Braune *et al.* 1991 (1)
Cape Mercy (D3)	64.88N	63.53W	1984	Liver	11	♂ ♀	6.9 yrs #		1.21±0.457	16.7±7.69	6.07±2.60	Braune *et al.* 1991 (1)
Avanersuaq, Greenland (Thule)	77.5N	70W	1978-1989	Hair	1	♂ ♀	Yearling			9.51		Born *et al.* 1991
				Hair	21	♂ ♀	>2 yrs			8.38*/1.31		Born *et al.* 1991
				Hair	24	♂ ♀	6.9 yrs #			8.69		Dietz and Born, unpubl.
				Liver	40	♂ ♀	6.9 yrs #		1.75	17.8	7.66	Dietz and Born, unpubl.
			1988-1990	Liver	4	♂ ♀	1 yr		0.315*/1.38	2.53*/1.49	1.29*/1.31	Born and Dietz, unpubl., cited in Dietz *et al.* 1997a, 1997b
				Kidney	4	♂ ♀	1 yr		5.86*/3.54	4.71*/5.65	4.27*/2.87	
				Muscle	4	♂ ♀	1 yr		<0.020	0.068*/1.86	0.30*/1.72	
				Liver	28	♂ ♀	2-6 yrs		1.46*/1.82	12.6*/1.60	5.87*/1.50	Born and Dietz, unpubl., cited in Dietz *et al.* 1997a, 1997b
				Kidney	31	♂ ♀	2-6 yrs		14.3*/1.83	10.8*/2.33	7.21*/1.63	
				Muscle	33	♂ ♀	2-6 yrs		<0.020	0.056*/3.07	0.43*/1.28	Born and Dietz, unpubl., cited in Dietz *et al.* 1997a, 1997b
				Liver	8	♂ ♀	≥7 yrs		1.67*/1.39	21.6*/1.26	9.09*/1.31	
				Kidney	8	♂ ♀	≥7 yrs		19.7*/1.51	20.9*/2.22	11.6*/1.73	Born and Dietz, unpubl., cited in Dietz *et al.* 1997a, 1997b
				Muscle	8	♂ ♀	≥7 yrs		0.024*/2.17	0.057*/1.06	0.42*/1.17	
Ittoqqortoormiit (Scoresby Sound)	70.48N	21.97W	1984-1990	Liver	4	♂ ♀	1 yr		0.287*/1.55	2.30±1.02	1.20*/1.54	Dietz *et al.* 1997a, 1997b
				Kidney	3	♂ ♀	1 yr		2.16*/1.92	3.10±1.32	2.34*/1.70	Dietz *et al.* 1997a, 1997b
				Muscle	1	♂ ♀	1 yr		<0.020	0.100		Dietz *et al.* 1997a, 1997b
				Liver	28	♂ ♀	2-6 yrs		0.651*/2.72	7.16*/1.51	3.11*/1.35	Dietz *et al.* 1997a, 1997b
				Kidney	28	♂ ♀	2-6 yrs		8.22*/2.37	11.3*/1.74	5.98*/1.57	Dietz *et al.* 1997a, 1997b
				Muscle	21	♂ ♀	2-6 yrs		<0.020	0.080*/1.63	0.29*/1.41	Dietz *et al.* 1997a, 1997b
				Liver	21	♂ ♀	≥7 yrs		0.812*/3.20	10.3*/2.08	4.00*/1.98	Dietz *et al.* 1997a, 1997b
				Kidney	21	♂ ♀	≥7 yrs		18.6*/3.45	23.2*/2.28	6.18*/2.30	Dietz *et al.* 1997a, 1997b
				Muscle	10	♂ ♀	≥7 yrs		0.023*/3.47	0.078*/1.66	<0.20	Dietz *et al.* 1997a, 1997b
			1984-1989	Hair	3		Yearling			1.81*/1.11		Born *et al.* 1991
				Hair	37	♂ ♀	>2 yrs			4.62*/1.36		Born *et al.* 1991
			1973-1991	Hair	147	♂ ♀	6.9 yrs #			6.51		Dietz and Born, unpubl.
				Liver	53	♂ ♀	6.9 yrs #		1.23	9.62	3.85	Dietz and Born, unpubl.
Ammassalik	65.35N	38.00W	1989	Hair	4		>2 yrs			4.21*/1.310		Dietz and Born, unpubl.
				Hair	4	♂ ♀	6.9 yrs #			4.21		Dietz and Born, unpubl.
Svalbard, Norway	78N	14E	1978-1989	Liver	6	♂ ♀	<2 yrs	<0.5	0.3 ± 0.2	1.9 ± 1.3	2.0 ± 0.5	Norheim *et al.* 1
				Kidney	3	♂ ♀	<2 yrs	1.0 ± 0.8	3.8 ± 2.8	1.9 ± 1.3	2.5 ± 0.8	Norheim *et al.* 1992
				Liver	16	♂ ♀	>2 yrs	0.5 ± 0.5	0.6 ± 0.3	2.6 ± 2.0	2.4 ± 0.9	Norheim *et al.* 1992
				Kidney	7	♂ ♀	>2 yrs	0.6 ± 0.5	8.1 ± 7.2	4.9 ± 6.6	4.6 ± 3.3	Norheim *et al.* 1992
Svalbard			1980	Hair	1		Cub			0.34		Born *et al.* 1991
				Hair	1		Yearling			1.04		Born *et al.* 1991
				Hair	29		>2 yrs			1.98*/1.49		Born *et al.* 1991
			1988	Hair	31					4.0		Born *et al.* 1991
Lena River, Russia	73N	128E	1984-1986	Hair	3					1.6		Renzoni and Norstrom 1990 ¤
Wrangel Island	71N	180	1976-1980	Hair	10					1.7		Renzoni and Norstrom 1990 ¤

*/ Concentrations given as geometric mean */ relative standard deviation. 1. Concentrations given as arithmetic mean. 2. Concentrations given as geometric mean. 3. Concentrations given as median.
($) Concentrations given in µg/g dry weight. # Concentrations adjusted to mean age through regressions. * measure of weight basis not given. ¤ Values read from histogram.

Table 7·A16. Metals in selected Russian wetlands (all data from Zhulidov *et al.* submitted).

Region	Location	Latitude	Longitude	Time	Compartment	n	Concentration (water concentrations, µg/L; otherwise, mg/kg)				
							Hg	Cd	Pb	Zn	Cu
Russian plain (tundra and forest tundra)	Pen. Kanin Nos Cape Laydenny	68°39'45''N	43°18'7''E	August 1992	Water	1	–	0.001	0.02	0.05	0.20
					Susp. matter	1	<0.01	0.05	1.5	2.4	1.4
					Sediments	1	0.02	0.05	1.8	3.3	1.7
					Hydric Soils	1	0.02	0.07	2.1	6.4	1.6
					Peat	1	0.01	0.06	1.5	15	1.9
	Pen. Kanin Nos r. More-Yu, mouth	68°20'46''N	59°45'27''E	August 1992	Water	1	–	0.001	0.02	0.06	0.25
					Susp. matter	1	<0.01	0.06	1.6	2.6	1.6
					Sediments	1	0.02	0.05	1.9	3.7	1.8
					Hydric Soils	1	0.02	0.08	2.3	6.8	1.9
					Peat	1	0.02	0.07	1.6	1.8	2.2
	Vorkuta town	67°29'09''N	64°00'E	August 1992	Water	5	–	0.8	3.5	11	32
					Susp. matter	7	8.5	6.4	51	457	154
					Sediments	5	19	21	123	375	370
					Hydric soils	7	26	25	186	477	220
					Peat	9	20	34	224	310	410
Kola Peninsula	Pen. Rybachiy Cape Nemetsky	69°58'N	31°57'E	June-July 1991	Water	1	–	0.07	0.06	0.11	0.35
					Susp. matter	1	0.06	0.11	3.2	6.5	5.3
					Sediments	1	0.05	0.12	3.0	15	4.2
					Hydric soils	1	0.07	0.15	4.1	18	11
					Peat	1	0.06	0.16	2.6	27	13
	Nickel town	69°17'N	30°15'E	August 1992	Water	5	–	0.45	6.1	25	67
					Susp. matter	5	8.3	8.1	8.5	314	220
					Sediments	8	23	29	114	650	335
					Hydric soils	8	35	82	226	870	560
					Peat	7	42	103	287	440	310
West Siberia (tundra)	Pen. Yamal Cape Hesal	72°53'12''N	71°36'13''E	August 1989	Water	1	–	0.007	0.07	0.14	0.7
					Susp. matter	1	<0.01	0.06	2.0	2.8	1.7
					Sediments	1	0.01	0.06	2.2	3.7	2.6
					Hydric soils	1	0.02	0.06	2.6	7.5	4.2
					Peat	1	0.01	0.05	1.9	19	l3.6
	Pen. Tazovsky Settl. Yamburg	68°00'N	74°53'43''E	July 1992	Water	4	–	0.12	2.5	9.4	16
					Susp. matter	4	6.4	6.5	62	430	170
					Sediments	6	13	45	156	720	650
					Hydric soils	8	15	56	288	920	664
					Peat	7	24	64	274	878	442
West Siberia (forest tundra)	R. Ob Settl. Aksarka	66°32'15''N	67°46'28''E	August 1992	Water	1	–	0.008	0.06	0.09	0.31
					Susp. matter	1	0.06	0.08	2.4	9.6	2.5
					Sediments	1	0.07	0.15	3.1	12	4.2
					Hydric soils	2	0.08	0.17	3.9	16	5.0
					Peat	1	0.05	0.10	2.9	34	6.6
	R. Pur Settl. Samburg	67°00'40''N	78°13'42''E	August 1992	Water	5	–	0.17	1.1	12	22
					Susp. matter	5	2.5	4.2	38	154	95
					Sediments	6	9.6	33	65	545	130
					Hydric soils	6	14	41	97	870	186
					Peat	7	17	27	110	950	210
Central Yakutia	R. Ukhanku mouth	67°03'00''N	122°37'32''E	July 1990	Water	1	–	0.002	0.04	0.05	0.30
					Susp. matter	1	0.04	0.05	1.6	3.1	1.9
					Sediments	1	0.03	0.07	2.0	4.4	3.1
					Hydric soils	1	0.03	0.07	2.3	5.3	3.2
					Peat	1	0.04	0.06	1.9	10	2.3
Central Siberia (Arctic desert)	R. Faddeya mouth	76°33'30''N	106°27'16''E	August 1990	Water	1	–	0.003	0.05	0.06	0.39
					Susp. matter	1	0.05	0.07	3.1	5.1	2.2
					Sediments	3	0.08	0.12	4.2	10	5.1
					Hydric soils	3	0.08	0.10	4.0	14	7.8
					Peat	4	0.07	0.13	3.5	18	4.3
	Lake Taimyr (south coast)	74°31'14''N	102°00'E	August 1990	Water	1	–	0.001	0.02	0.05	0.28
					Susp. matter	1	0.01	0.06	1.5	3.1	1.7
					Sediments	1	0.01	0.06	2.0	3.6	3.1
					Hydric soils	1	0.02	0.06	2.2	4.0	2.8
					Peat	1	0.01	0.04	1.7	7.8	3.0

Central Siberia (Byranga Mtns)	Lake Taimyr (north coast)	74°36'12''N	102°00'E	August 1990	Water	1	–	0.003	0.03	0.07	0.43
					Susp. matter	1	0.02	0.07	1.8	3.3	1.5
					Sediments	1	0.03	0.06	2.0	4.2	3.0
					Hydric soils	1	0.02	0.08	2.3	4.8	4.8
					Peat	1	0.03	0.07	1.6	12	8.6
Central Siberia (forest tundra)	Settl. Olenyok	68°29'39''N	112°27'36''E	August 1990	Water	1	–	0.008	0.07	0.12	0.60
					Susp. matter	1	0.02	0.07	3.2	6.3	3.4
					Sediments	1	0.02	0.11	3.0	9.6	2.6
					Hydric soils	1	0.03	0.15	3.8	15	6.5
					Peat	2	0.05	0.10	2.4	21	2.4
Central Siberia (Putorana and Anabar Mount. areas)	R. Ayan (upper reaches)	69°49'16''N	93°46'27''E	August 1992	Water	2		0.011	0.08	0.12	0.90
					Susp. matter	4	0.10	0.09	2.8	11	5.6
					Sediments	5	0.13	0.14	3.2	14	8.3
					Hydric soils	7	0.18	0.12	4.0	24	7.6
					Peat	6	0.15	0.14	2.4	32	7.2
	Lake Pyasino (south coast)	69°28'29''N	88°00'E	August 1992	Water	4	–	1.8	8.3	63	95
					Susp. matter	4	8.6	6.4	51	275	155
					Sediments	8	14	54	125	1250	436
					Hydric soils	12	25	72	146	1420	470
North-East Siberia (tundra)	R. Yana Nizhneyansk town	71°26'17''N	136°06'03''E	August 1992	Water	1		0.09	2.3	4.3	2.1
					Sediments	1	0.06	0.12	2.9	8.5	5.2
					Hydric soils	1	0.05	0.10	3.6	12	6.4
					Peat	1	0.04	0.07	4.1	18	7.6
North-East Siberia (forest tundra)	R. Indigirka Settl. Ozhogino	69°17'56''N	147°18'05''E	August 1992	Water	1		0.08	2.2	5.4	2.6
					Sediments	1	0.04	0.12	2.9	8.3	4.7
					Hydric soils	1	0.08	0.17	3.5	12	6.4
					Peat	1	0.05	0.06	4.2	15	11
Kolyma- Anyuy Mount. Region	R. Omolon Settl. Omolon	65°14'09''N	160°32'25''E	Sept. 1992	Hydric soils	1	0.04	0.07	2.5	18	12
Momsky Chersky Mount. Region	R. Indigirka Settl. Obolokh	66°15'30''N	143°18'19''E	Sept. 1992	Hydric soils	1	0.07	0.10	3.3	25	6.4
Yana-Oymyakon Mount. Region	R. Yana Settl. Verkhoyansk	67°33'10''N	133°24'42''E	August 1992	Susp. matter	2	0.09	0.08	2.4	12	2.5
					Sediments	2	0.04	0.12	2.9	8.3	4.7
					Hydric soils	2	0.11	0.21	5.1	27	16
					Peat	2	0.06	0.12	3.5	35	13
Wrangel Island	Settl. Ushakov-skoye	70°59'19''N	178°30'W	July 1989	Hydric soils	2	0.11	0.18	4.1	14	9.4
					Peat	2	0.07	0.06	3.3	23	12
Far North-East (tundra)	Lake Krasnoye Settl. Krasneno	64°38'25''N	174°47'21''E	August 1992	Susp. matter	1	0.12	0.08	3.0	12	3.5
					Sediments	2	0.15	0.13	3.7	1.8	5.2
					Hydric soils	2	0.19	0.16	4.5	23	12
					Peat	3	0.11	0.08	3.3	30	16
Amguem-Anadyr Mount. Region	R. Anadyr Settl. Lamutskoye	65°32'21''N	168°50'16''E	August 1992	Susp. matter	1	0.15	0.10	3.6	13	4.2
					Sediments	1	0.12	0.19	4.5	21	12
					Hydric soils	1	0.17	0.27	6.2	32	18
					Peat	1	0.10	0.09	2.8	23	12

Table 7·A17. Comparison of effects-based criteria for water, sediment, and soil quality in various countries (compiled from BKH Consulting Engineers 1995).

Country	Criterion	Pb	Cd	Hg	Se
Soil quality criteria (µg/g dry weight)					
Netherlands	MPC	–	0.0035	0.2	0.7
	NC	–	0.000035	0.002	0.7
Canada	Quality assessment	25	0.5	0.1	1
Finland	Guideline	60	0.5	0.2	1
	Limit	300	10	5	10
EC	Limit	50-300	1-3	1-1.5	–
	Most Stringent	**25**	**0.0035**	**0.1**	**0.7**
Freshwater (Marine) sediment quality criteria (µg/g dry weight)					
Netherlands	MPC	4300	29	0.21	2
	NC	–	0.29	0.0021	0.7
Canada	TEL	35 (30.2)	0.596 (676)	0.174 (0.13)	–
	PEL	91.3 (112)	3.53 (4210)	0.486 (0.70)	–
Sweden	Quality	15-60	0.6-2.4	0.15-0.6	–
	Most Stringent	**15**	**0.6**	**0.15**	**2**
Freshwater (seawater) quality criteria (µg/L)					
Netherlands	MPC (sfc water)	10	0.35	0.0019	5
	NC (sfc water)	–	0.0035	0.000019	0.05
Canada	Guideline value	0.1	2	–	–
United States	Acute Criterion	83 (220)	3.9 (43)	2.4 (2.1)	20 (300)
	Chronic Criterion	3.2 (8.5)	1.1 (9.3)	0.012 (0.025)	5 (71)
Sweden	Env. Qual. Criterion	0.6-1.2	0.045-0.09	–	–
Denmark	Quality	9.2	2.5	1	–
UK	Quality Std. (Annual Avg.)	4-20 (10)	–	–	–
EC	Quality	–	5	1	–
	Most Stringent	**0.1**	**0.045**	**0.012**	**5**

MPC = Maximum Permissible Concentration.
NC = Negligible Concentration (set at MPC/100).
TEL = Threshold Effect Level.
PEL = Probable Effect Level.