

Atajuk Appendix



Table A1: Description of samples collected for this project, 2017–2025

Type of sample	n.d	2017	2018	2019	2020	2021	2022	2023	2024	2025	Total
iKaluk (Arctic char)	(12)	33		96 (53)	107 (11)	60 (8)	15 (60)	5 (44)	32 (120)	(3)	348 (308)
natsik (Ringed seals)				50	21	28	28	25			152
aKiggik (White partridge)							(1)	55	17 (6)	2 (90)	74 (97)
Ogatuinnak (Atlantic cod)				9	3	17		39			68
appak (Thick-billed murre)					10		8 (1)	12	10		40 (1)
natânnavak (Turbot)				33							33
pitsiulâk (Black guillemot)				13 (1)			4	3	12		32 (1)
Ujagak Ogâtsuk (Rock cod)				2		19	11				32
Matsojak (Scallop)									32		32
mitik (Common eider)				3	2		10	1	3	5	24
Pitsuilâppak (Brasswing)				1							1
Ânâtlik (Brook trout)								(4)	19	(1)	19 (5)
niglik (Canada goose)								1 (3)			1 (3)
Appaliatsuk (Dovekie)								8			8
A-angik (Hound duck)								3 (1)			3 (1)
Ânâtlik (Lake trout)					2						2
Nipisak (Lump fish)					1						1
kavaisitik (Salmon)				6					11		17
kanajuk (Sculpin)									3		3
Suglutuk (Surf scoter)			7		4						11
Rainbow trout										(7)	(7)
Shoreline (MDT)				1	8	7	4	18	125	10	173
Shoreline (quadrat)						36		51	785	91	963
Surface water				7	5	5	11	28	16		72
Drinking water									15		15
Fresh water									6 (27)		6 (27)
Snow					6 (14)	(11)		(24)	(44)		6 (93)
Ice							2	1	1		4

The lab receives more samples than we can process in a year, so we prioritize certain species, places, samples with entire GI tracts, or years. The first number is the number processed, and the second number (in brackets) is the number of samples that we received, but did not process. We have returned any unfinished samples to the Nunatsiavut Government.

Table A2: Details of anthropogenic materials in snow samples from Nain, 2020

Place	Sample ID	n plastics	Concentration of plastics (n/L)	n all waste items	Concentration of all waste items (n/L)	Smallest size of waste item (mm)
Rhodes Island	NG2020-NAINSNOW-001	2	13.3	2	13.3	0.23
Rhodes Island	NG2020-Snow-002	0	0	0	0	
Rhodes Island	NG2020-Snow-003	0	0	1	4.8	0.34
Near airstrip	NG2020-NAINSNOW-005	0	0	0	0	
Trouser Lake	NG2020-Snow-010	0	0	3	15	0.18
Trouser Lake	NG2020-NAINSNOW-012	0	0	0	0	
Median	All samples	0	0.0	0.5	2.4	0.23
Mean	All samples	0.3	2.2	1.0	5.5	0.25
SD of the mean	All samples	0.8	5.4	1.3	7.0	0.08
IQR	All samples	0.0	0.0	1.8	11.2	0.10
Nain Total	All samples	2	1.8	6	5.4	0.18

Table A3: Details of anthropogenic materials in ice cores near Nain, 2022–2024^a

Place	Type of ice	Sample size	% samples with no plastic	Total # of plastics	Total # of non-plastic waste materials	Minimum # of plastics	Median # of plastics	Maximum # of plastics	IQR of # plastics	Mean # of plastics	SD of the mean	Median size of plastic (mm)	Smallest size of waste material (mm)
Satsoak Island	Marine	8	4.5%	22	3	0	2	6	4	2.8	2.3	0.24	0.07
Taktok Island	Marine	7	0.0%	23	1	1	4	5	2.5	3.3	1.6	0.19	0.04
TikKoatokak Bay	Marine	11	0.0%	50	2	1	4	9	2	4.5	2.3	0.22	0.08
Trouser Lake	Fresh	5	0.0%	6	1	1	1	4	0.75	1.7	1.2	0.16	0.06
Total	All ice types	31	1.0%	101	7	0	3	9	4	3.3	2.2	n/a^b	0.04

^a We do not provide concentrations of plastics in the ice cores in this study, because many of the ice cores we samples did not include volume measures, as they were used for another project that didn't require them.

^b Because there is a high variation between freshwater and marine environments—and even within marine environments—we do not provide an overall average plastic size.

Table A4: Summary of concentrations of surface water plastics across sites in Nunatsiavut, 2019–2024

Region	Location	n samples	n samples with concentration data ^a	samples with no plastic (% of total)	Mean concentration (# plastics/m ²)	SD of the mean	Median concentration (# plastics/m ²)	Mean # of plastics per size of NHL hockey rink ^c
Nain, 2023	Nain Bay	3	2 ^b	2 (66%)	0.0000	0.0000	0.0000	0
	Webb's Bay	3	1 ^b	0 (0%)	0.0083	n/a	0.0083	13
	Paul Island	3	2 ^b	1 (33%)	0.0128	0.0119	0.0128	20
	Total	9	5	3 (60%)	0.0068	0.088	0.0044	11
Hopedale, 2024	Hopedale	5	5	0 (0%)	0.0033	0.0013	0.0034	5
	Nunaaksaluk	3	3	0 (0%)	0.0035	0.0013	0.0036	6
	Umiattugiak	3	3	2 (66%)	0.0027	0.0046	0.0000	4
	Uivak Point	1	1 ^b	1 (100%)	0.0000	0.0000	0.0000	0
	Total	12	12	3 (25%)	0.0029	0.0023	0.0030	5
Makkovik, 2019	Makkovik Wharf	1	1 ^b	0 (0%)	0.0738	n/a	0.0738	117
	Makkovik Harbour	4	4	0 (0%)	0.0242	0.0089	0.0217	38
	Outside Makkovik	2	2 ^b	0 (0%)	0.0118	0.0036	0.0118	19
	Total	7	7	0 (0%)	0.0278	0.0221	0.0200	44
Torngats, 2020–2024	Eclipse	5	5	1 (20%)	0.0077	0.0100	0.0034	12
	Saglek	25	18	8 (44%)	0.0039	0.0041	0.0028	6
	Ramah	6	3	3 (50%)	0.0060	0.0062	0.0055	9
	Total	36	26	11 (42%)	0.0049	0.0056	0.0034	8
Hebron, 2022	Total	6	1^b	0 (0%)	0.0052	n/a	0.0052	8
Nunatsiavut	Total	70	51	16 (31%)	0.0077	0.0122	0.0039	12

^a We were unable to measure the concentration of plastics in some samples, meaning this table represents a subsample.

^b To be sure of our results, we usually only calculate concentrations for areas with three samples collected that accurately measured the volume of water sampled. Given that this is a community report, we summarize all data here, but generally 3 or more samples produce more reliable results.

^c The number of plastics in a square meter are scientific standards, but the numbers do not make intuitive sense (what does 0.010 plastics in a meter look like?!) so we use the number of plastics in an area the size of an NHL hockey rink instead. It's much easier to think about 17 plastics in a hockey rink. See the section on surface water plastics for more details.

Table A5: Summary of plastic morphologies (shapes) in surface water from Nunatsiavut, 2019–2024

Region	Location	Sample size	Microfibres	Fragments	Thread	Films	Foam	Total plastics
Nain, 2023	Nain Bay	3		4 (100%)				4
	Webb's Bay	3		2 (50%)		1 (25%)	1 (25%)	4
	Paul Island	3		3 (21%)	10 (71%)	1 (7%)		14
	Total	9		9 (41%)	10 (45%)	2 (9%)	1 (5%)	22
Hopedale, 2024	Hopedale	5	1 (13%)	3 (38%)	2 (25%)	2 (25%)		8
	Nunaaksaluk	3	2 (33%)	3 (50%)	1 (17%)			6
	Umiattugiak	3	1 (100%)					1
	Uivak Point	1						0
	Total	12	4 (27%)	6 (40%)	3 (20%)	2 (13%)	0 (0%)	15
Makkovik, 2019	Makkovik Wharf	1	2 (8%)	19 (79%)	2 (8%)	1 (4%)		24
	Makkovik Harbour	4		20 (67%)	6 (20%)	3 (10%)	1 (3%)	30
	Outside Makkovik	2	1 (13%)	3 (38%)		4 (50%)		8
	Total	7	3 (5%)	42 (68%)	8 (13%)	8 (13%)	1 (2%)	62
Torngats, 2020–2024	Eclipse	5	4 (25%)	9 (56%)	3 (19%)			16
	Saglek	25	17 (37%)	22 (48%)	5 (11%)	2 (4%)		46
	Ramah	6	6 (55%)	4 (36%)		1 (9%)		11
	Total	36	27 (37%)	35 (48%)	8 (11%)	3 (4%)		73
Hebron, 2022	Total	6	8 (53%)	4 (27%)		2 (13%)	1 (7%)	15
Nunatsiavut	Total	70	41 (22%)	92 (49%)	30 (16%)	21 (11%)	4 (2%)	187

75–100%

50–74%

25–49%

0–24%

Summary tables of plastic characteristics show what kinds of plastics are present and can help identify changes in their composition, even when the overall amount of plastic does not change. They summarize part of the baseline data, but are not themselves a baseline. The baseline provides the reference point against which future observations can be compared, while the summary table highlights particular characteristics within that reference data.

Blank cells mean there is nothing to record in that part of the table. They do not mean zero: a zero means that an observation was made and the thing being measured was absent.

Table A6: Summary of plastic colours in surface water from Nunatsiavut, 2019–2024

Location	Sample size	Blue	Black	White	Clear	Grey	Green	Brown	Red	Other	Total plastics
Nain Bay	3		1(25%)	1 (25%)						2(50%)	4
Webb's Bay	3	2(50%)	1(25%)						1(25%)		4
Paul Island	3		2(14%)		10(71%)	1(7%)	1(7%)				14
Nain Total	9	2(9%)	4(18%)	1(4%)	10(45%)	1(5%)	1(5%)		1(5%)	2(9%)	22
Hopedale	5		3(38%)		2(25%)		1(13%)			2(25%)	8
Nunaaksaluk	3	4(67%)			1(17%)					1(17%)	6
Umiattugiak	3								1(100%)		1
Uivak Point	1										0
Hopedale Total	12	4(26%)	3(20%)		3(20%)		1(7%)		1(7%)	3(20%)	15
Makkovik Wharf	1	9(38%)	6(25%)	2(8%)	2(8%)		4(17%)			1(4%)	24
Makkovik Harbour	4	10(33%)	8(27%)	2(7%)	7(23%)	1(3%)			1(3%)	1(3%)	30
Outside Makkovik	2	1(13%)	2(25%)	1(13%)	3(38%)				1(13%)		8
Makkovik Total	7	20(32%)	16(26%)	5(8%)	12(19%)	1(2%)	4(6%)		2(3%)	2(3%)	62
Eclipse	5	3(19%)	6(38%)	1 (6%)	5(31%)					1(6%)	16
Saglek	25	10(21%)	17(37%)		8(18%)	6(13%)	2(4%)	1(2%)	2(4%)		46
Ramah	6	1(9%)	1(9%)		3(27%)				4(36%)	2(18%)	11
Torngats Total	36	14(19%)	24(33%)	1(1%)	16(22%)	6(8%)	2(3%)	1(1%)	6(8%)	3(4%)	73
Hebron Total	6	3(20%)	6(40%)	1(7%)		1(7%)			1(7%)	3(20%)	15
Nunatsiavut Total	70	43(23%)	52(28%)	7(4%)	41(22%)	9(5%)	7(4%)	2(1%)	11(6%)	13(7%)	187

75–100%

50–74%

25–49%

1–24%

Summary tables of plastic characteristics show what kinds of plastics are present and can help identify changes in their composition, even when the overall amount of plastic does not change. They summarize part of the baseline data, but are not themselves a baseline. The baseline provides the reference point against which future observations can be compared, while the summary table highlights particular characteristics within that reference data.

Blank cells mean there is nothing to record in that part of the table. They do not mean zero: a zero means that an observation was made and the thing being measured was absent.

Table A7: Concentration of plastics in each surface water trawl and averages per place (Torngats)

Trawl ID	Location	Year	# plastics/m ²	#plastics/hockey rink
2022-ECL-NG-TRAWL-01	Eclipse Harbour, Torngats	2022	0.025	39
2022-ECL-NG-TRAWL-02	Eclipse Harbour, Torngats	2022	0.002	3
2023-ECL-NG-TRAWL-04	Eclipse Harbour, Torngats	2023	0.003	5
2023-ECL-NG-TRAWL-05	Eclipse Harbour, Torngats	2023	0.000	0
2023-ECL-NG-TRAWL-06	Eclipse Harbour, Torngats	2023	0.008	13
Eclipse Average	Eclipse Harbour		0.008	12
Eclipse Average (w/o hotspot)	Eclipse Harbour		0.003	5
2022-HEB-NG-TRAWL-03	Hebron	2022	0.005	8
Hebron Average	Hebron	2022	N/A ^a	N/A ^a
2022-RAM-NG-TRAWL-01	Ramah Bay	2022	0.012	20
2022-RAM-NG-TRAWL-03	Ramah Bay	2022	0.005	8
2023-RAM-NG-TRAWL-08	Ramah Bay	2023	0.000	0
Ramah Bay Average	Ramah		0.005	9
2024-SAG-LADI-001	Saglek, by base camp	2024	0.003	4
2024-SAG-LADI-002	Saglek, by base camp	2024	0.000	0
2024-SAG-LADI-003	Saglek, by base camp	2024	0.000	0
2024-SAG-LADI-004	Saglek, by base camp	2024	0.001	2
2023-SAG-NG-TRAWL-101	Saglek, by base camp	2023	0.005	8
2023-SAG-NG-TRAWL-103	Saglek, by base camp	2023	0.000	0
2022-SAG-NG-TRAWL-01	Saglek, by base camp	2022	0.014	23
2022-SAG-NG-TRAWL-02	Saglek, by base camp	2022	0.009	15
2022-SAG-NG-TRAWL-03	Saglek, by base camp	2022	0.004	6
2021-SAG-TRAWL-001	Saglek, by base camp	2021	0.002	3
2021-SAG-TRAWL-003	Saglek, offshore	2021	0.003	4
2021-SAG-TRAWL-004	Saglek, north side of Big Island	2021	0.012	18
2021-SAG-TRAWL-005	Saglek, west side of Big Island	2021	0.003	5
Nain-2020-trawl-1	Saglek, Jens Haven Island	2020	0.002	3
Nain-2020-trawl-2	Saglek, North Arm	2020	0.001	2
Nain-2020-trawl-3	Saglek, Near the radar station	2020	0.004	6
Nain-2020-trawl-4	Saglek, by base camp	2020	0.003	5
Nain-2020-trawl-5	Saglek, Torr Bay	2020	0.005	8
Saglek Average	Saglek		0.003	6

^a We always try to take more than one trawl per place to make a stronger average; as you can see, some places have high variation from trawl to trawl. So, we aren't reporting the average for places where we don't have enough trawls (like Hebron). We performed several more trawls that weren't included in this table because we can't calculate concentration from them (we have the number of plastics, but not the amount of water sampled due to equipment malfunction), but plastics from these trawls are included in our discussion of plastic characteristics.

Table A8: Concentration of plastics in each surface water trawl and averages per place (near communities)

Trawl ID	Location	Year	# plastics/m ²	#plastics/hockey rink
MAKBL19-1	Makkovik wharf	2019	0.074	117
MAKBL19-2	Makkovik: by landfill	2019	0.017	26
MAKBL19-3	Makkovik: middle of bay	2019	0.037	58
MAKBL19-4	Makkovik: by sewage outfall	2019	0.020	32
MAKBL19-5	Makkovik: mouth of the bay	2019	0.023	37
MAKBL19-6	Makkovik: Jack's Cove	2019	0.009	15
MAKBL19-7	Makkovik: Labrador Sea	2019	0.014	23
Makkovik Average	Maggovik (Makkovik)	2019	0.028	44
2024-HOPE-LADI-01	Hopedale: Tooktooshener Bay	2024	0.002	3
2024-HOPE-LADI-02	Hopedale Harbour	2024	0.003	4
2024-HOPE-LADI-03	Hopedale: Uivak Point	2024	0.000	0
2024-HOPE-LADI-04	Hopedale: Umiattugiak	2024	0.000	0
2024-HOPE-LADI-05	Hopedale: Umiattugiak	2024	0.000	0
2024-HOPE-LADI-06	Hopedale: Umiattugiak	2024	0.008	13
2024-HOPE-LADI-07	Hopedale Harbour	2024	0.004	7
2024-HOPE-LADI-08	Hopedale dump	2024	0.004	7
2024-HOPE-LADI-09	Hopedale: Nunaksaaluk	2024	0.005	7
2024-HOPE-LADI-10	Hopedale: Nunaksaaluk	2024	0.004	6
2024-HOPE-LADI-11	Hopedale: Nunaksaaluk	2024	0.002	3
2024-HOPE-LADI-12	Hopedale: Black Heads Tickle	2024	0.003	5
Hopedale average	Hopedale area	2024	0.003	5
2023-NAIN-NG-TRAWL-03	Webb's Bay	2023	0.008	13
2023-NAIN-NG-TRAWL-04	Nain Bay	2023	0.000	0
2023-NAIN-NG-TRAWL-05	Nain Bay	2023	0.000	0
2023-NAIN-NG-TRAWL-07	Paul Island	2023	0.004	7
2023-NAIN-NG-TRAWL-09	Paul Island	2023	0.021	34
Nain area average	Nain area	2023	0.003	5

We always try to take more than one trawl per place to make a stronger average; as you can see, some places have high variation from trawl to trawl. So, we aren't reporting the average for places where we don't have enough trawls at one time (like Hebron). We performed four more trawls (two in Hebron one in Ramah, and one in Eclipse) in 2022 that weren't included in this table because we can't calculate concentration from them (we have the number of plastics, but not the amount of water sampled due to equipment malfunction), but plastics from these trawls are included in our discussion of plastic characteristics.

Table A9: Details on the polymers found in surface water by place

Polymer type	Nain Bay	Webb's Bay	Paul Island	Nain area total	Saglek	Eclipse	Ramah	Hebron	Torngats total
Polypropylene		1 (25%)	10 (71%)	11 (52%)	1 (3%)	1 (6%)			2 (3%)
Polyethylene		2 (50%)		2 (10%)	4 (11%)				4 (6%)
PET	1 (33%)	1 (25%)		2 (10%)	5 (14%)	5 (31%)	1 (11%)	6 (60%)	17 (24%)
Nylon			1 (7%)	1 (5%)	13 (35%)	4 (25%)	6 (67%)		23 (32%)
Alkyd	2 (67%)			2 (10%)	7 (19%)	5 (31%)	2 (22%)	2 (20%)	16 (22%)
ABS			2 (14%)	2 (10%)	1 (3%)	1 (6%)			2 (3%)
Acrylic			1 (7%)	1 (5%)	2 (5%)				2 (3%)
PVC					2 (5%)			1 (10%)	3 (4%)
Cellulose acetate									
Crumb rubber									
Polyurethane									
Polystyrene								1 (10%)	1 (1%)
PAN					1 (3%)				1 (1%)
POM					1 (3%)				1 (1%)
Total plastics^a	3	4	14	21	37	16	9	10	72

Table A10: Details on the polymers found in surface water by place (cont'd)

Polymer type	Hopedale	Nunaksaaluk	Umiattiguik	Uivak Point	Hopedale area total	Makkovik wharf	Makkovik harbour	Outside Makkovik	Makkovik total
Polypropylene		3 (50%)	1 (100%)		4 (40%)	11 (48%)	5 (17%)		16 (17%)
Polyethylene		1 (17%)			1 (10%)	7 (30%)	15 (50%)	3 (50%)	25 (42%)
PET	1 (33%)	1 (17%)			2 (20%)	2 (9%)	3 (10%)	1 (17%)	6 (10%)
Nylon						1 (4%)	4 (13%)		5 (8%)
Alkyd									
ABS	2 (67%)				2 (20%)				
Acrylic		1 (17%)			1 (10%)				
PVC						1 (4%)			1 (2%)
Cellulose acetate							2 (7%)	1 (17%)	3 (5%)
Crumb rubber						1 (4%)		1 (17%)	2 (3%)
Polyurethane							1 (3%)		1 (2%)
Polystyrene									
PAN									
POM									
Total plastics^a	3	6	1	0	10	29	30	6	59

^aThis table does not include plastics which have no polymer result from FTIR analysis. This happens when plastics are lost in the visual identification process in the lab (e.g. during weighing, or when using heat to see if the particle will melt like a plastic).

Table A11: Baseline figures for likely plastic sources ingested across all animals from Nunatsiavut, 2017–2025

Type of sample	Laundry Wastewater (microfibers)	Packaging ^b	Fishing line ^c	Paint ^d	Commercial foams ^e	Cigarette butts	Tires (crumb rubber)	Unknown ^f	Total plastics	% Local ^g
iKaluk (Arctic char)	64(51%)	6(5%)	8(6%)	14(11%)	2(2%)			31(25%)	125	10(8%)
natsik (Ringed seal)	51(47%)	8(7%)	12(11%)	11(10%)	2(2%)			25(23%)	109	16(15%)
aKiggik (White partridge)	6(23%)	2(8%)	4(15%)	1(4%)	1(4%)			12(46%)	26	6(23%)
pitsiulāk (Black guillemot)	4(21%)	3(16%)		5(26%)	1(5%)			6(32%)	19	4(21%)
mitik (Common eider)	10(91%)							1(9%)	11	0%
Ogatuinnak (Atlantic cod)	4(40%)	1(10%)		3(30%)				2(20%)	10	1(10%)
appak (Thick-billed murre)	1(10%)		6(60%)					3(30%)	10	0%
Suglutuk (Surf scoter)	2(22%)		4(45%)					3(33%)	9	0%
Matsojak (Scallop)	2(50%)							2(50%)	4	0%
Nipisak (Lump fish)		1(25%)	1(25%)	1(25%)				1(25%)	4	1(25%)
Natânnavak (Turbot)				1(33%)				2(67%)	3	0%
Appaliatsuk (Dovekie)		2(67%)		1(33%)					3	3(100%)
Ujagak Ogâtsuk (Rock cod)	1(50%)				1(50%)				2	1(50%)
kavaisitik (Salmon)	1(50%)				1(50%)				2	1(50%)
Ânâtlik (Brook trout)	1(100%)								1	0%
Pitsuilâppak (Brasswing)	1(100%)								1	0%
A-angik (Hound duck)						1(100%)			1	0%
Ânâtlik (Lake trout)								1(100%)	1	0%
niglik (Canada goose)									0	
kanajuk (Sculpin)									0	

75–100%

50–74%

25–49%

1–24%

^b Plastic bags or films usually made from polyethylene or polypropylene.

^c Threads with neutrally buoyant polymers.

^d Mainly alkyd fragments. However acrylic, polystyrene and polyester paints were also found.

^e Styrofoams, upholstery filling or housing insulation.

^f Small, hard fragments of larger plastics that could not be identified further.

^g To determine locality, we consider a number of factors, namely morphology, particle erosion, duplication in samples, and buoyancy.

Table A12: Baseline of plastics collected from shoreline cleanups in Nunatsiavut with weight data, from 2023–2025

Type of plastic		Makkovik, 2023						Hopedale, 2024				Rigolet, 2025	Total plastic
		Wharf	By the clinic	Ranger Bight	Ford's Bight	Cape Strawberry	Long Tickle	By the airport	North Uivak	South Uivak	Cross Island	Rigolet Town	
Fishing line/rope	Count ^a	0	0	0	0	1	235	40	16	4	3	0	299
	Weight (kg) ^b	0.00	0.00	0.00	0.00	0.03	20.56	2.03	4.17	0.11	0.68	2.18	29.77
Other fishing gear ^c	Count	1	1	4	5	3	26	2	1	0	2	222	267
	Weight	0.01	0.02	0.10	8.30	0.23	6.67	<0.01	0.00	0.00	3.04	<0.01	18.38
Food packaging	Count	1	0	1	0	4	18	114	63	2	2	5	210
	Weight	<0.01	0.00	0.02	0.00	0.16	0.51	2.07	0.18	0.02	0.06	0.38	3.40
Other packaging	Count	20	13	16	27	5	100	93	221	12	37	0	544
	Weight	0.53	0.14	0.09	0.81	0.43	2.10	2.27	4.79	0.26	1.00	3.92	16.34
Foam	Count	0	4	1	22	0	10	30	64	49	26	0	206
	Weight	0.00	<0.01	<0.01	<0.01	0.00	0.03	0.45	0.06	0.42	0.00	0.11	1.08
Cigarette	Count	0	3	1	0	0	0	0	2	0	0	0	9
	Weight	0.00	<0.01	<0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<0.01
Shotgun cartridge	Count	2	0	0	24	0	211	0	24	7	0	0	268
	Weight	0.07	0.00	0.00	0.09	0.00	0.91	0.00	0.11	0.09	0.00	0.00	1.70
Building material	Count	0	0	0	0	2	0	5	0	0	0	0	7
	Weight	0.00	0.00	0.00	0.00	5.11	0	0.47	0.00	0.00	0.00	0.00	5.88
Other plastic	Count	16	0	1	111	5	528	54	363	0	18	0	1096
	Weight	0.12	0.00	<0.01	1.68	0.13	15.08	2.73	0.91		0.05	2.24	22.94
Total plastic	Count	40	21	24	189	20	1128	333	759	74	88	230	2906
	Weight	724	164	217	10.89	6.09	45.87	9.56	10.67	0.91	4.83	9.57	99.49

^a Smaller items are grouped by type wherever possible, and the total number of individual items is recorded as the count.

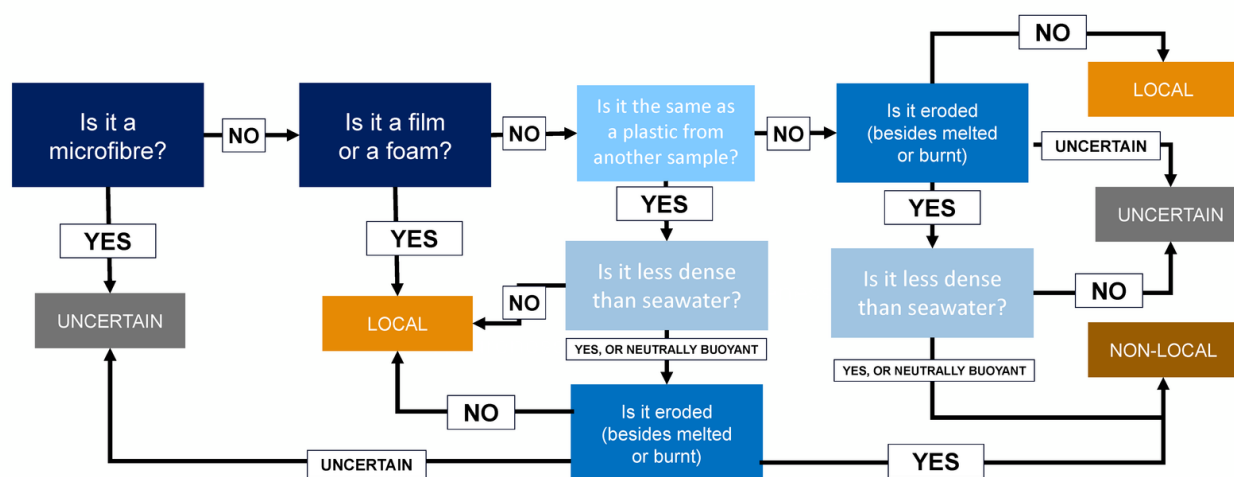
^b Larger, heavy (or small, many) items are recorded by weight in kilograms (kg). If the number of weighed items is unclear (like with tangled fishing line), it is not included in the count.

^c Other fishing gear includes fish tags, buoys, floaties, bailers and other fishing equipment marked as plastic but not recorded as fishing line.

Table A13: Comparison of concentrations of plastics on shorelines in and near Nunatsiavut, 2017–2025

Region	Location	Our Study		Comparable Northern studies		
		Sample size	Plastics/ m ²	Plastics/ m ²	Sample size	Source
Nunatsiavut	Hopedale (Town)	85	1.40			
	Hopedale (Total)	226	1.00			
	Makkovik (Wharf)	11	3.60			
	Makkovik (Total)	51	1.40			
	Nain (Town)	5	8.40	3.30	28	Mallory et al. 2021
	Nain (Kauk Bay)	8	0.00			
	Nain (Kauk Harbour)	23	0.30			Mallory et al. 2021
	Rigolet (Town)	12	8.30			
	Rigolet (Total)	91	1.50			
	Torngats (Nachvak)	38	0.08	0.00	12	Mallory et al. 2021
	Torngats (Ramah Bay)	14	0.00	0.00	13	Mallory et al. 2021
	Torngats (Saglek) ^a	184	0.30	0.60	18	Mallory et al. 2021
	Torngats (Total)	271	0.19			
	Nunatsiavut	675	0.80	1.00	71	Mallory et al. 2021
Island of Newfoundland	L'Anse aux Meadows			1.40	57	Mallory et al. 2021
	Indian Harbour			0.50	19	Mallory et al. 2021
	Fogo Island ^b			7.70 ^c	19	McWilliams et al. 2017
	Quidi Vidi Lake			58.90	22	Oladimeji, 2019 (unpub)
	NL highways average			1.50 ^c	231	MMSB 2016
	Newfoundland			14.00	348	Based on above
	Newfoundland without St. John's			2.80	326	Based on above
Kalaallit Nunaat (Greenland)	Nordre Stromfjord, GN			0.70	10	Mallory et al. 2021
	Sisimiut, GN			1.70	11	Mallory et al. 2021
	Disko Fjord, GN			0.00	5	Mallory et al. 2021
	Ilulissat (2018), GN			1.10	10	Mallory et al. 2021
	Ilulissat (2019) GN			1.40	5	Mallory et al. 2021
	Eqip Sermia, GN			0.00	7	Mallory et al. 2021
	Qilakitsoq, GN			0.00	5	Mallory et al. 2021
	Kalaallit Nunaat			0.70	53	Based on above
Nunavut	Qikiqtarjuaq (2018), NU			1.40	10	Mallory et al. 2021
	Qikiqtarjuaq (2019), NU			2.50	8	Mallory et al. 2021
	Port Epworth, NU			0.10	13	Mallory et al. 2021
	Nedlukseak Fjord, NU			0.10	13	Mallory et al. 2021
	Cambridge Bay, NU			0.00	9	Mallory et al. 2021
	Fort Ross, NU			0.30	15	Mallory et al. 2021
	Pond Inlet, NU			1.20	16	Mallory et al. 2021
	Tay Bay, NU			0.40	11	Mallory et al. 2021
	Dundas Harbour, NU			1.20	10	Mallory et al. 2021
	Croker Bay, NU			0.10	10	Mallory et al. 2021
	Maxwell Bay, NU			0.60	15	Mallory et al. 2021
	Nunavut			0.70	130	Based on above

Figure A14: Decision tree for classifying plastics as local or non-local



This decision tree was developed by Riley Cotter (2025) to identify plastics as more or less likely to be from a local or non-local source (long-range transport).

Microfibres can be local or from distant sources and do not appear to have readily visible differences after long periods in the water or air.

Any film or foam we find is likely local since the kinetic energy of seawater and ice formation/thawing would likely shred these fragile plastics to smaller than 333um, our cut-off size.

When plastics replicate across samples and are not contamination, this may indicate a local point source in combination with other factors.

When a plastic is found in surface water, we expect plastics that usually sink to be more local in origin, as they would have otherwise sunk if traveling a long distance.

While having erosion does not mean a plastic has traveled a long distance (since there is high abrasive energy on shorelines and it could have been abraded in its creation, when there is no erosion it indicates a short amount of time in the environment, and thus likely a local source.

Legend for A13, previous page

* These figures do not always add up to the total number of plastics if a plastic was lost before it could be measured or were subsampled for FTIR (polymer) analysis. Percentages are based on the total subcategory count.