

Sea Area Monitoring

October 25, 2017

Nuclear Regulation Authority (NRA), Japan

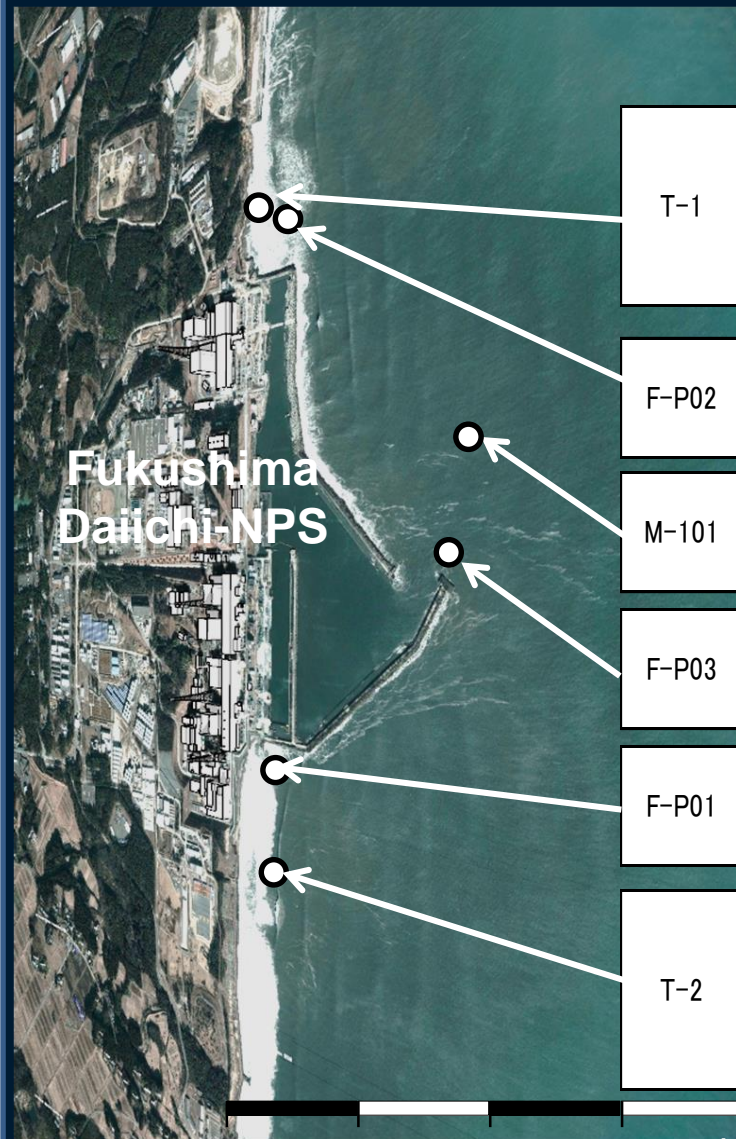
Sea area within 2km from the NPS

Sampling point	Sampling Date	Cs-134	Cs-137	Gross β	H-3	Sr-90	Gross α	Pu-238	Pu-239+Pu-240
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Sea water radioactivity (Bq/L):

ND: Not detected; Numbers in parentheses: detection limits

*1: Gross β including K-40 *2: Gross β excluding K-40



T-1	2016/10/3	ND(0.64)	ND(0.53)	13 ^{*1}	ND(1.7)	ND(0.0073)	ND(1.5)	ND(5.6 × 10 ⁻⁶)	(5.9 ± 1.8) × 10 ⁻⁶
	2017/8/28	ND(0.62)	ND(0.64)	12 ^{*1}	ND(1.6)				
	2017/9/4	ND(0.75)	ND(0.72)	14 ^{*1}	ND(1.6)				
	2017/9/11	ND(0.79)	ND(0.64)	12 ^{*1}	ND(1.5)				
	2017/9/19	ND(0.64)	ND(0.68)	11 ^{*1}	ND(1.5)				
F-P02	2017/5/16	0.006	0.040	0.03 ^{*2}	ND(0.34)	0.0027		12 × 10 ⁻⁶	ND(7 × 10 ⁻⁶)
	2017/6/13	0.004	0.021	0.02 ^{*2}	ND(0.33)	0.0017		ND(7 × 10 ⁻⁶)	ND(7 × 10 ⁻⁶)
	2017/7/10	0.008	0.057	0.02 ^{*2}	ND(0.34)	0.0025		ND(6 × 10 ⁻⁶)	ND(6 × 10 ⁻⁶)
M-101	2017/4/26	0.012	0.084		0.40	0.0045			
	2017/5/30	0.00078	0.0065			0.0011			
	2017/6/14	0.0030	0.022			0.0017			
F-P03	2017/5/16	0.011	0.080	0.03 ^{*2}	ND(0.34)	0.0067		9 × 10 ⁻⁶	ND(6 × 10 ⁻⁶)
	2017/6/13	ND(0.002)	0.006	0.02 ^{*2}	ND(0.33)	0.0007		ND(6 × 10 ⁻⁶)	ND(6 × 10 ⁻⁶)
	2017/7/10	0.016	0.12	0.05 ^{*2}	ND(0.34)	0.0050		ND(6 × 10 ⁻⁶)	ND(6 × 10 ⁻⁶)
F-P01	2017/5/16	0.010	0.063	0.04 ^{*2}	ND(0.34)	0.0056		7 × 10 ⁻⁶	ND(6 × 10 ⁻⁶)
	2017/6/13	ND(0.002)	0.006	0.03 ^{*2}	ND(0.33)	0.0010		ND(8 × 10 ⁻⁶)	ND(8 × 10 ⁻⁶)
	2017/7/10	0.004	0.035	0.03 ^{*2}	ND(0.33)	0.0020		ND(6 × 10 ⁻⁶)	ND(6 × 10 ⁻⁶)
T-2	2016/10/3	ND(0.77)	ND(0.58)	13 ^{*1}	ND(1.8)	0.0092	ND(1.9)	ND(6.0 × 10 ⁻⁶)	ND(5.5 × 10 ⁻⁶)
	2017/8/28	ND(0.71)	ND(0.63)	9.9 ^{*1}	ND(1.7)				
	2017/9/4	ND(0.68)	ND(0.75)	11 ^{*1}	ND(1.7)				
	2017/9/11	ND(0.56)	ND(0.53)	13 ^{*1}	ND(1.5)				
	2017/9/19	ND(0.68)	ND(0.68)	11 ^{*1}	ND(1.4)				

0

0.5

1km

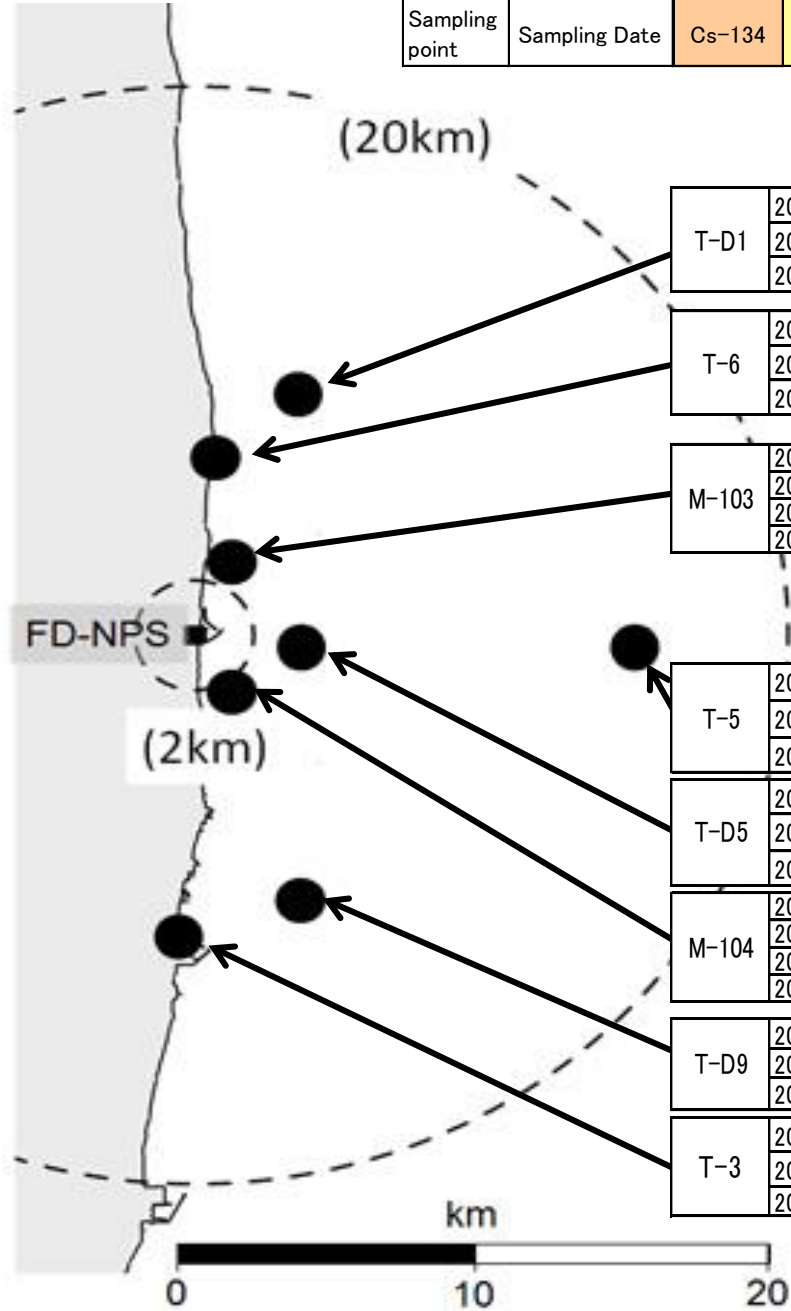
Sea area between 2-20km from the NPS (1)

Sampling point	Sampling Date	Cs-134	Cs-137	Gross β	H-3	Sr-90	Gross α	Pu-238	Pu-239+240	S	S:2m below sea level
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Sea water radioactivity (Bq/L):

ND: Not detected; Numbers in parentheses: detection limits

*1: Gross β including K-40 *2: Gross β excluding K-40



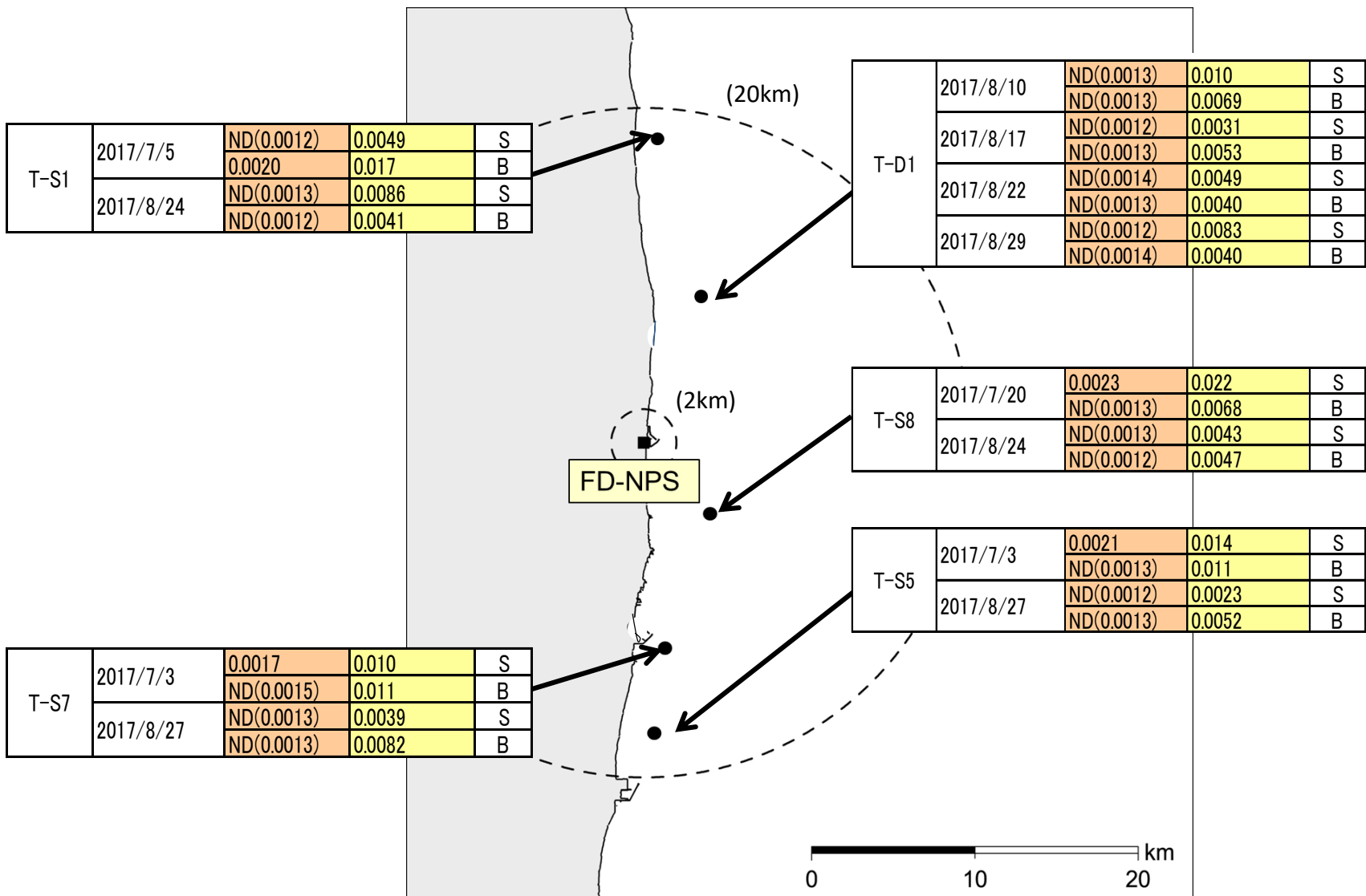
T-D1	2016/10/3	0.0018	0.012	ND(16)* ¹	ND(0.36)	ND(0.0068)	ND(1.6)	ND(5.5 × 10 ⁻⁶)	ND(5.2 × 10 ⁻⁶)	S
	2017/8/10	ND(0.0013)	0.010	ND(17)* ¹	ND(0.36)	0.0014	ND(1.9)			S
	2017/8/22	ND(0.0014)	0.0049	ND(16)* ¹	ND(0.37)					S
T-6	2017/7/4	0.0031	0.019	ND(16)* ¹	ND(0.32)					S
	2017/8/1	0.0026	0.015	ND(17)* ¹	ND(0.31)					S
	2017/8/15	ND(0.0014)	0.010	ND(17)* ¹	ND(0.36)					S
M-103	2017/3/9	0.0015	0.013		0.073	0.0010				0.5m
	2017/4/26	0.0033	0.020		0.12	0.0012				0.5m
	2017/5/30	0.00084	0.0063			0.00092				0.5m
	2017/6/14	0.0013	0.010			0.0011				0.5m
T-5	2016/10/4	ND(0.0014)	0.0058	ND(15)* ¹	ND(0.33)	ND(0.0078)	ND(1.6)	ND(5.3 × 10 ⁻⁶)	ND(5.2 × 10 ⁻⁶)	S
	2017/8/7	ND(0.0012)	0.0029	ND(17)* ¹	ND(0.36)	0.0014	ND(1.9)			S
	2017/8/23	ND(0.0014)	0.0026	ND(18)* ¹	ND(0.37)					S
T-D5	2016/10/4	ND(0.0013)	0.0091	ND(16)* ¹	ND(0.36)	0.0098	ND(1.6)	ND(8.2 × 10 ⁻⁶)	ND(8.2 × 10 ⁻⁶)	S
	2017/8/10	ND(0.0012)	0.0066	ND(17)* ¹	ND(0.36)	0.0011	ND(1.9)			S
	2017/8/22	ND(0.0013)	0.0078	ND(16)* ¹	ND(0.37)					S
M-104	2017/3/8	0.0015	0.011		0.064	0.0011				0.5m
	2017/4/27	0.0015	0.011		0.092	0.00091				0.5m
	2017/5/31	0.00086	0.0075			0.00066				0.5m
	2017/6/15	0.0016	0.014			0.0015				0.5m
T-D9	2016/10/4	0.0015	0.0085	ND(15)* ¹	ND(0.33)	ND(0.0080)	ND(1.6)	ND(7.3 × 10 ⁻⁶)	ND(7.1 × 10 ⁻⁶)	S
	2017/8/7	ND(0.0012)	0.0080	ND(17)* ¹	ND(0.36)	0.0017	ND(1.9)			S
	2017/8/23	ND(0.0012)	0.0044	ND(18)* ¹	ND(0.37)					S
T-3	2017/7/4	0.0037	0.029	ND(17)* ¹	ND(0.32)					S
	2017/8/1	0.0052	0.037	ND(17)* ¹	ND(0.35)					S
	2017/8/15	0.0057	0.045	ND(17)* ¹	ND(0.32)					S

Sea area between 2-20km from the NPS (2)

Sampling point	Sampling Date	Cs-134	Cs-137	S/B	
					S: 2m below sea level
					B: 2-3m above sea bottom

Sea water radioactivity (Bq/L):

ND: Not detected; Numbers in parentheses: detection limits



Sea area between 20-100km from the NPS

Sampling point	Sampling Date	Cs-134	Cs-137	Grossβ *	H-3	Sr-90	S/B	S: 2m below sea level B: 2-3m above sea bottom
							Depth(m) from sea level	

Sea water radioactivity (Bq/L):

ND: Not detected; Numbers in parentheses: detection limits

*Gross β excluding K-40

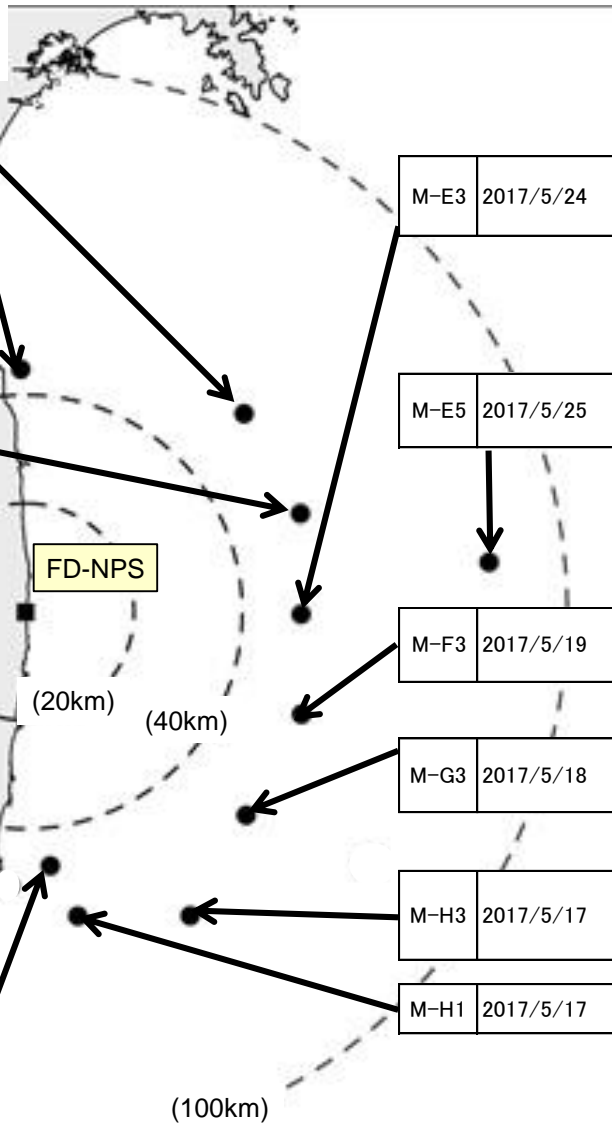
M-C3	2017/5/24	0.00011	0.0018	0.027	0.027	0.00089	1m
		ND(0.000073)	0.0016				52m
		ND(0.000071)	0.0016				126m

T-22	2017/6/7	ND(0.0013)	0.0057				S
		ND(0.0013)	0.0064				B
	2017/7/26	ND(0.0013)	0.0048				S
		ND(0.0013)	0.0046				B
	2017/8/1	ND(0.0013)	0.0051				S
		ND(0.0013)	0.0037				B

M-D3	2017/5/24	ND(0.0013)	0.0020	0.029	0.074	0.00069	1m
		ND(0.000073)	0.0016				100m
		ND(0.000073)	0.0014				220m

T-18	2017/6/13	ND(0.0013)	0.0032				S
		ND(0.0013)	0.0030				B
	2017/7/6	ND(0.0012)	0.0031				S
		ND(0.0012)	0.0043				B
	2017/8/18	ND(0.0013)	0.0058				S
		ND(0.0012)	0.0048				B

T-M10	2017/6/13	ND(0.0011)	0.0034				S
		ND(0.0013)	0.0020				B
	2017/7/6	ND(0.0013)	0.0017				S
		ND(0.0011)	0.0021				B
	2017/8/18	ND(0.0013)	0.0038				S
		ND(0.0013)	0.0023				B



M-E3	2017/5/24	0.00022	0.0025	0.025	0.067	0.00098	1m
		0.000085	0.0016				100m
		0.000093	0.0016				224m

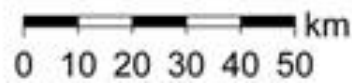
M-E5	2017/5/25	ND(0.000097)	0.0017	0.029	0.060	0.00089	1m
		0.000068	0.0016				100m
		ND(0.000047)	0.000065				523m

M-F3	2017/5/19	0.00013	0.0023	0.028	0.049	0.0011	1m
		ND(0.000087)	0.0018				100m
		0.000072	0.0017				221m

M-G3	2017/5/18	0.00028	0.0025	0.026	0.056	0.0010	1m
		0.00010	0.0019				100m
		0.000072	0.0017				213m

M-H3	2017/5/17	0.00019	0.0028	0.030	0.068	0.0010	1m
		0.00011	0.0017				100m
		0.000072	0.0017				218m

M-H1	2017/5/17	0.00015	0.0024				1m
		0.00015	0.0021				218m



Sea area along and off the coast of Miyagi Prefecture

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	S/B
					S:2m below sea level B:2-3m above sea bottom
					Depth(m) from sea level

Sea water radioactivity (Bq/L):

ND: Not detected; Numbers in parentheses: detection limits

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	Depth
T-MG1	2017/7/4	ND(0.0014)	0.0031		S
		ND(0.0015)	0.0022		B
	2017/8/1	ND(0.0013)	0.0023		S
		ND(0.0017)	0.0023		B

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	Depth
T-MG4	2017/7/5	ND(0.0014)	0.0030		S
		ND(0.0015)	0.0023		B
	2017/8/3	ND(0.0013)	0.0024		S
		ND(0.0013)	0.0022		B

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	Depth
T-MG5	2017/7/5	ND(0.0014)	0.0023		S
		ND(0.0015)	0.0031		B
	2017/8/3	ND(0.0014)	0.0017		S
		ND(0.0015)	0.0019		B

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	Depth
T-MG6	2017/7/5	ND(0.0014)	0.0035		S
		ND(0.0011)	0.0020		B
	2017/8/3	ND(0.0015)	0.0033		S
		ND(0.0013)	0.0018		B

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	Depth
M-B3	2017/5/27	0.00018	0.0023	0.00086	1m
		ND(0.000067)	0.0016		50m
		0.00015	0.0020		109m

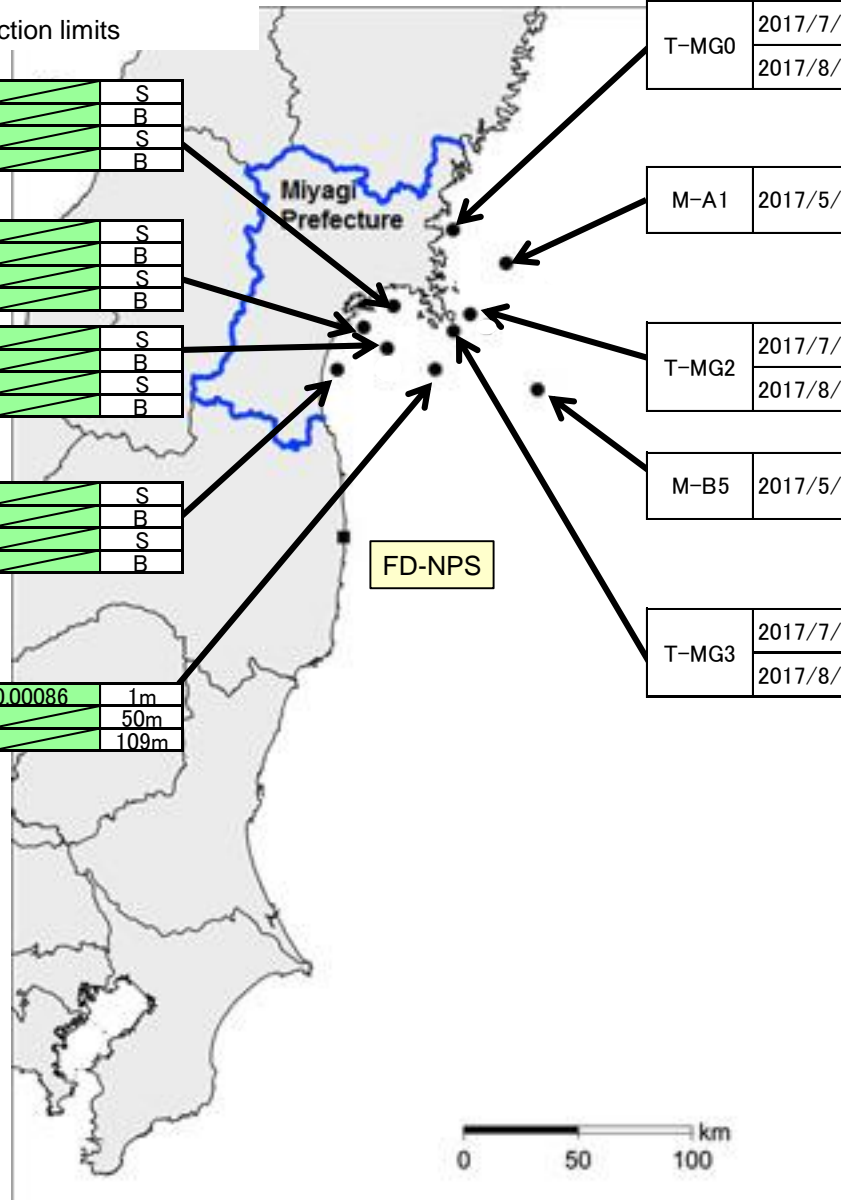
Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	Depth
T-MG0	2017/7/5	ND(0.0015)	0.0020		S
		ND(0.0014)	0.0019		B
	2017/8/1	ND(0.0015)	0.0017		S
		ND(0.0013)	0.0019		B

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	Depth
M-A1	2017/5/26	0.000077	0.0016		1m
		ND(0.000068)	0.0016		100m
		0.000064	0.0016		201m

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	Depth
T-MG2	2017/7/4	ND(0.0015)	0.0019		S
		ND(0.0014)	0.0024		B
	2017/8/1	ND(0.0013)	0.0019		S
		ND(0.0015)	0.0022		B

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	Depth
M-B5	2017/5/25	ND(0.000082)	0.0015		1m
		ND(0.000068)	0.0013		100m
		ND(0.000057)	0.00092		356m

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	Depth
T-MG3	2017/7/4	ND(0.0014)	0.0020		S
		ND(0.0012)	0.0017		B
	2017/8/1	ND(0.0013)	0.0019		S
		ND(0.0013)	0.0013		B

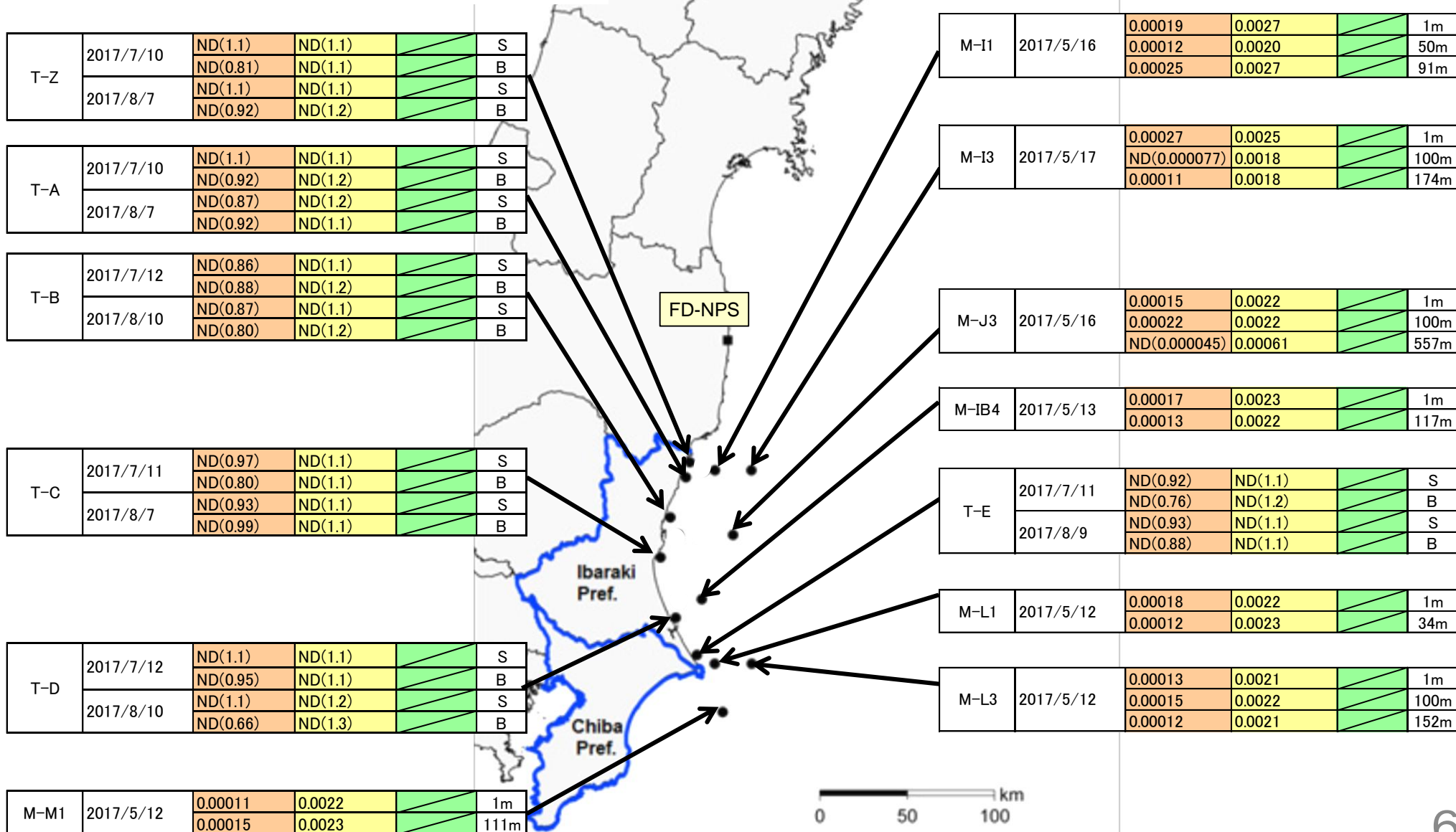


Sea area along and off the coast of Ibaraki Pref. and Chiba Pref.

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	S/B	
					S:2m below sea level	B:2-3m above sea bottom
Depth(m) from sea level						

Sea water radioactivity (Bq/L):

ND: Not detected; Numbers in parentheses: detection limits



Open sea off the coast of Eastern Japan

Sampling point	Sampling Date	Cs-134	Cs-137	Depth(m) from sea level
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Sea water radioactivity (Bq/L):

ND: Not detected; Numbers in parentheses: detection limits

M-10	2017/5/27	ND(0.00059)	0.0011	1m
		ND(0.00058)	0.0011	100m
		ND(0.00062)	0.00097	200m
		ND(0.00057)	0.00099	300m
		ND(0.00055)	0.00071	500m

M-14	2017/5/28	ND(0.00059)	0.0027	1m
		ND(0.00062)	0.0023	100m
		ND(0.00051)	0.0018	200m
		ND(0.00055)	0.0012	300m
		ND(0.00054)	0.00081	500m

M-19	2017/5/31	ND(0.00055)	0.0025	1m
		ND(0.00062)	0.0025	100m
		ND(0.00061)	0.0026	200m
		ND(0.00064)	0.0018	300m
		ND(0.00063)	0.00096	500m

M-20	2017/5/29	ND(0.00063)	0.0018	1m
		ND(0.00059)	0.0027	100m
		ND(0.00059)	0.0028	200m
		ND(0.00062)	0.0027	300m
		ND(0.00062)	0.0024	500m

M-25	2017/5/31	ND(0.00063)	0.0016	1m
		ND(0.00062)	0.0023	100m
		ND(0.00062)	0.0027	200m
		ND(0.00062)	0.0032	300m
		ND(0.00061)	0.0032	500m

M-11	2017/5/27	ND(0.00059)	0.0024	1m
		ND(0.00052)	0.0023	100m
		ND(0.00060)	0.0019	200m
		ND(0.00059)	0.0014	300m
		ND(0.00061)	0.00075	500m

M-15	2017/5/28	ND(0.00067)	0.0018	1m
		ND(0.00061)	0.0017	100m
		ND(0.00070)	0.0016	200m
		ND(0.00061)	0.0011	300m
		ND(0.00063)	0.0010	500m

M-21	2017/5/29	ND(0.00057)	0.0016	1m
		ND(0.00064)	0.0025	100m
		ND(0.00058)	0.0031	200m
		ND(0.00057)	0.0031	300m
		ND(0.00060)	0.0021	500m

M-26	2017/5/30	ND(0.00056)	0.0018	1m
		ND(0.00054)	0.0021	100m
		ND(0.00057)	0.0030	200m
		ND(0.00056)	0.0029	300m
		ND(0.00057)	0.0020	500m

M-27	2017/5/30	ND(0.00059)	0.0016	1m
		ND(0.00064)	0.0029	100m
		ND(0.00061)	0.0031	200m
		ND(0.00061)	0.0028	300m
		ND(0.00062)	0.0026	500m

