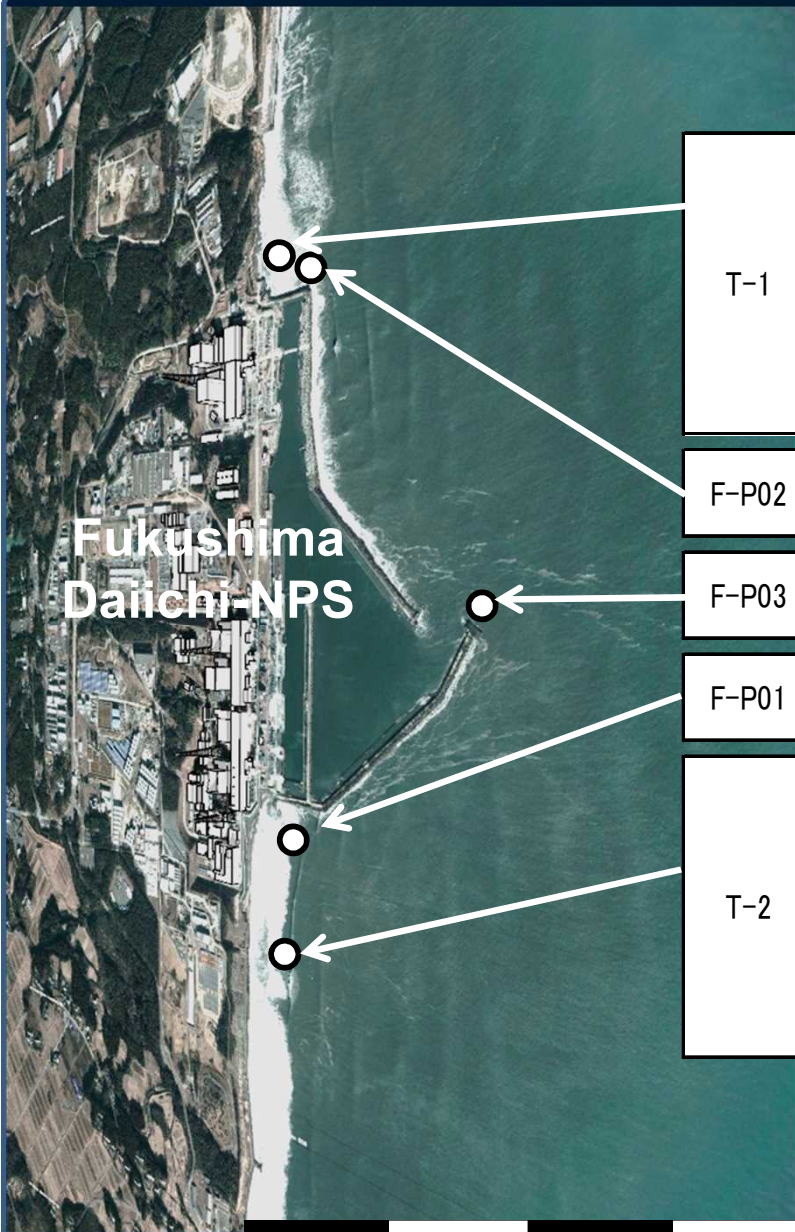


Sea Area Monitoring

December 26, 2016

Nuclear Regulation Authority (NRA), Japan

Sea area within 2km from the NPS (1)



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

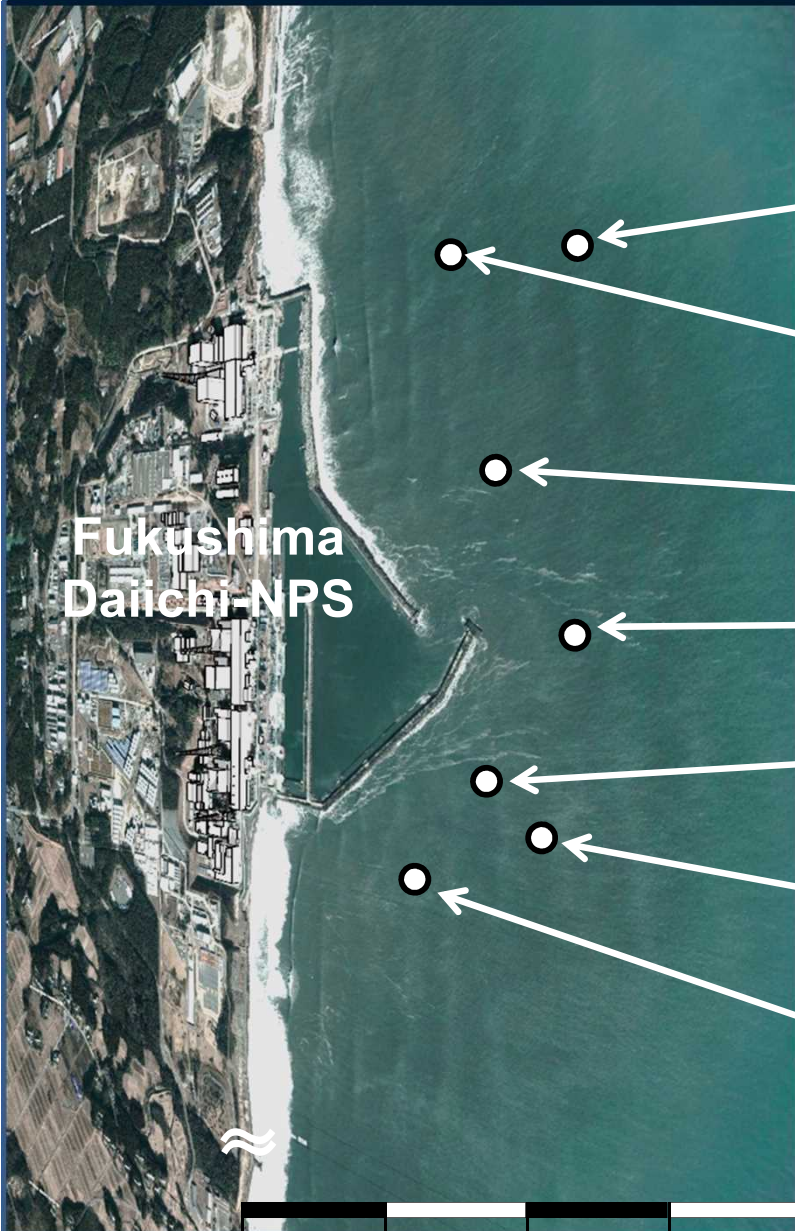
T-1	2016/11/28	ND(0.78)	ND(0.59)	11 ^{*1}	In progress				
	2016/11/21	ND(0.68)	ND(0.50)	9.4 ^{*1}	ND(1.6)				
	2016/11/14	ND(0.71)	ND(0.60)	12 ^{*1}	ND(1.6)				
	2016/11/7	ND(0.80)	ND(0.59)	12 ^{*1}	ND(1.6)				
	2016/10/31	ND(0.79)	ND(0.68)	12 ^{*1}	3.2				
	2016/10/3	ND(0.64)	ND(0.53)	13 ^{*1}	ND(1.7)	ND(0.0073)	ND(1.5)	ND(5.6×10^{-6})	(5.9 ± 1.8) $\times 10^{-6}$
	2016/9/5	ND(0.81)	ND(0.76)	8.6 ^{*1}	ND(1.5)	ND(0.0068)	ND(1.5)		
F-P02	2016/9/15	ND(0.069)	0.14	0.03 ^{*2}	ND(0.38)	In progress		ND(6×10^{-6})	ND(6×10^{-6})
	2016/8/3	ND(0.053)	ND(0.054)	0.03 ^{*2}	ND(0.50)	ND(0.0004)		ND(8×10^{-6})	ND(8×10^{-6})
F-P03	2016/9/15	0.23	0.14	0.12 ^{*2}	0.55	In progress		ND(7×10^{-6})	ND(9×10^{-6})
	2016/8/3	ND(0.066)	ND(0.062)	0.02 ^{*2}	ND(0.50)	ND(0.0005)		ND(1.1×10^{-5})	ND(8×10^{-6})
F-P01	2016/9/15	ND(0.064)	0.092	0.04 ^{*2}	ND(0.38)	In progress		ND(8×10^{-6})	ND(1.0×10^{-5})
	2016/8/3	ND(0.050)	ND(0.046)	0.02 ^{*2}	ND(0.50)	0.001		1.0×10^{-5}	9×10^{-6}
T-2	2016/11/28	ND(0.65)	ND(0.68)	16 ^{*1}	In progress				
	2016/11/21	ND(0.79)	ND(0.68)	9.9 ^{*1}	ND(1.6)				
	2016/11/14	ND(0.79)	ND(0.68)	9.4 ^{*1}	ND(1.7)				
	2016/11/7	ND(0.74)	ND(0.75)	13 ^{*1}	ND(1.7)				
	2016/10/31	ND(0.62)	ND(0.53)	11 ^{*1}	ND(1.8)				
	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})
	2016/9/21	ND(0.59)	ND(0.53)	14 ^{*1}	ND(1.8)	0.021	ND(1.5)		

0

0.5

1km

Sea area within 2km from the NPS (2)



Fukushima
Daiichi-NPS

Sampling point	Sampling Date	Cs-134	Cs-137	Gross β *	H-3	Sr-90
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Sea water radioactivity (Bq/L):

ND: Not detected; Numbers in parentheses: detection limits

*: Gross β including K-40

T-0-1A	2016/11/28	ND(0.60)	ND(0.81)	ND(17)	In progress	
	2016/11/21	ND(0.74)	ND(0.59)	ND(17)	ND(1.6)	
	2016/11/14	ND(0.80)	ND(0.58)	ND(18)	ND(1.8)	
	2016/11/7	ND(0.63)	ND(0.78)	ND(15)	ND(1.5)	
	2016/10/31	ND(0.67)	ND(0.67)	ND(17)	ND(2.0)	
T-0-1	2016/11/28	ND(0.64)	ND(0.59)	ND(17)	In progress	
	2016/11/21	ND(0.66)	ND(0.71)	ND(17)	ND(1.6)	
	2016/11/14	ND(0.59)	ND(0.63)	ND(18)	ND(1.8)	
	2016/11/7	ND(0.59)	ND(0.58)	ND(15)	ND(1.5)	
	2016/10/31	ND(0.68)	ND(0.58)	ND(17)	ND(2.0)	
M-101	2016/10/5	0.0020	0.014		In progress	In progress
	2016/9/7	0.011	0.070		0.11	In progress
	2016/8/4	0.0022	0.012		0.11	In progress
	2016/7/13	0.0025	0.017		0.13	In progress
T-0-2	2016/11/28	ND(0.67)	ND(0.72)	ND(17)	In progress	
	2016/11/21	ND(0.71)	ND(0.49)	ND(17)	ND(1.6)	
	2016/11/14	ND(0.83)	ND(0.68)	ND(18)	ND(1.8)	
	2016/11/7	ND(0.39)	ND(0.64)	ND(15)	ND(1.5)	
	2016/10/31	ND(0.77)	ND(0.53)	ND(17)	ND(2.0)	
M-102	2016/10/7	0.0064	0.036		In progress	In progress
	2016/9/7	0.011	0.066		0.16	In progress
	2016/8/3	0.0014	0.011		0.10	In progress
	2016/7/14	0.0012	0.067		0.11	In progress
T-0-3A	2016/11/28	ND(0.71)	ND(0.73)	ND(17)	In progress	
	2016/11/21	ND(0.81)	ND(0.90)	ND(17)	ND(1.6)	
	2016/11/14	ND(0.64)	ND(0.74)	ND(18)	ND(1.8)	
	2016/11/7	ND(0.91)	ND(0.75)	ND(15)	ND(1.5)	
	2016/10/31	ND(0.46)	ND(0.75)	ND(17)	ND(2.0)	
T-0-3	2016/11/28	ND(0.79)	ND(0.54)	ND(17)	In progress	
	2016/11/21	ND(0.84)	ND(0.58)	ND(17)	ND(1.6)	
	2016/11/14	ND(0.57)	ND(0.56)	ND(18)	ND(1.8)	
	2016/11/7	ND(0.75)	ND(0.56)	ND(15)	ND(1.5)	
	2016/10/31	ND(0.57)	ND(0.56)	ND(17)	ND(2.0)	

0 0.5 1km

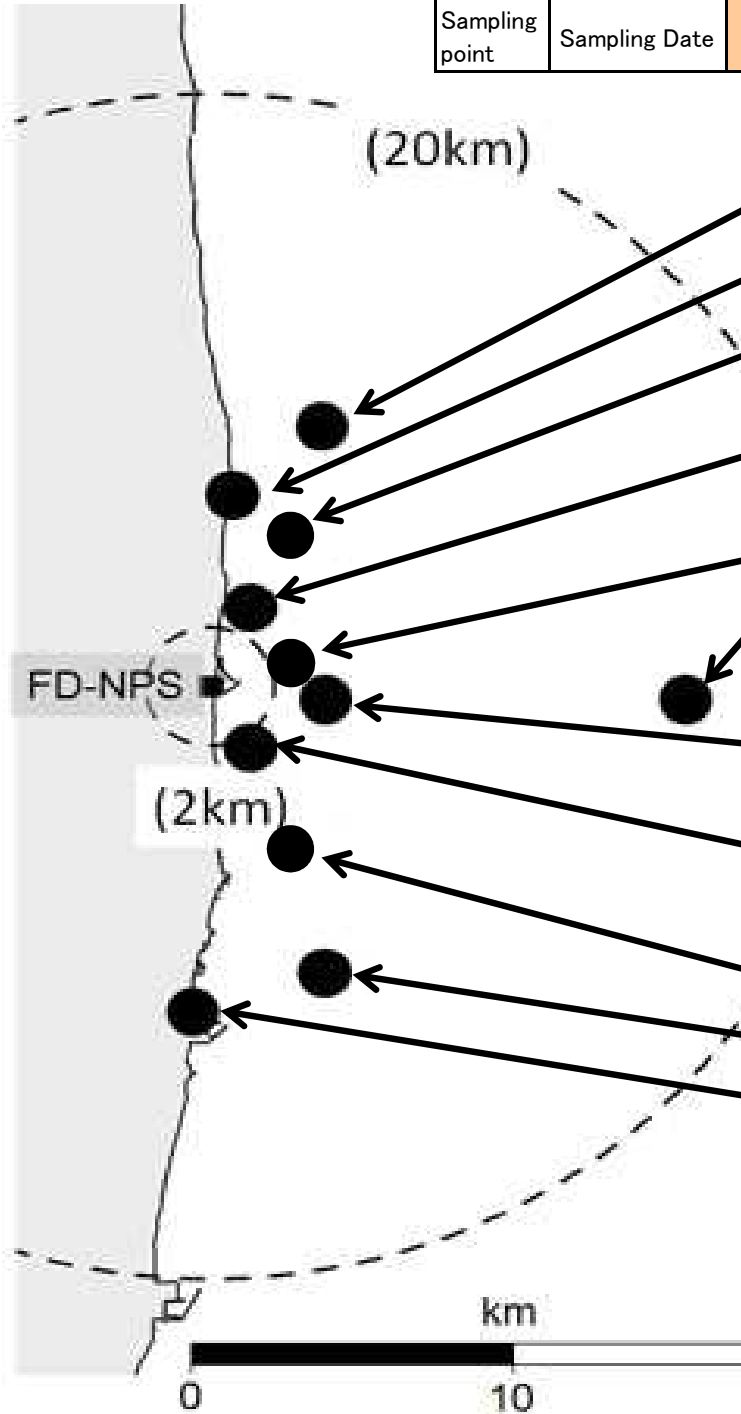
Sea area between 2-20km from the NPS (1)

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



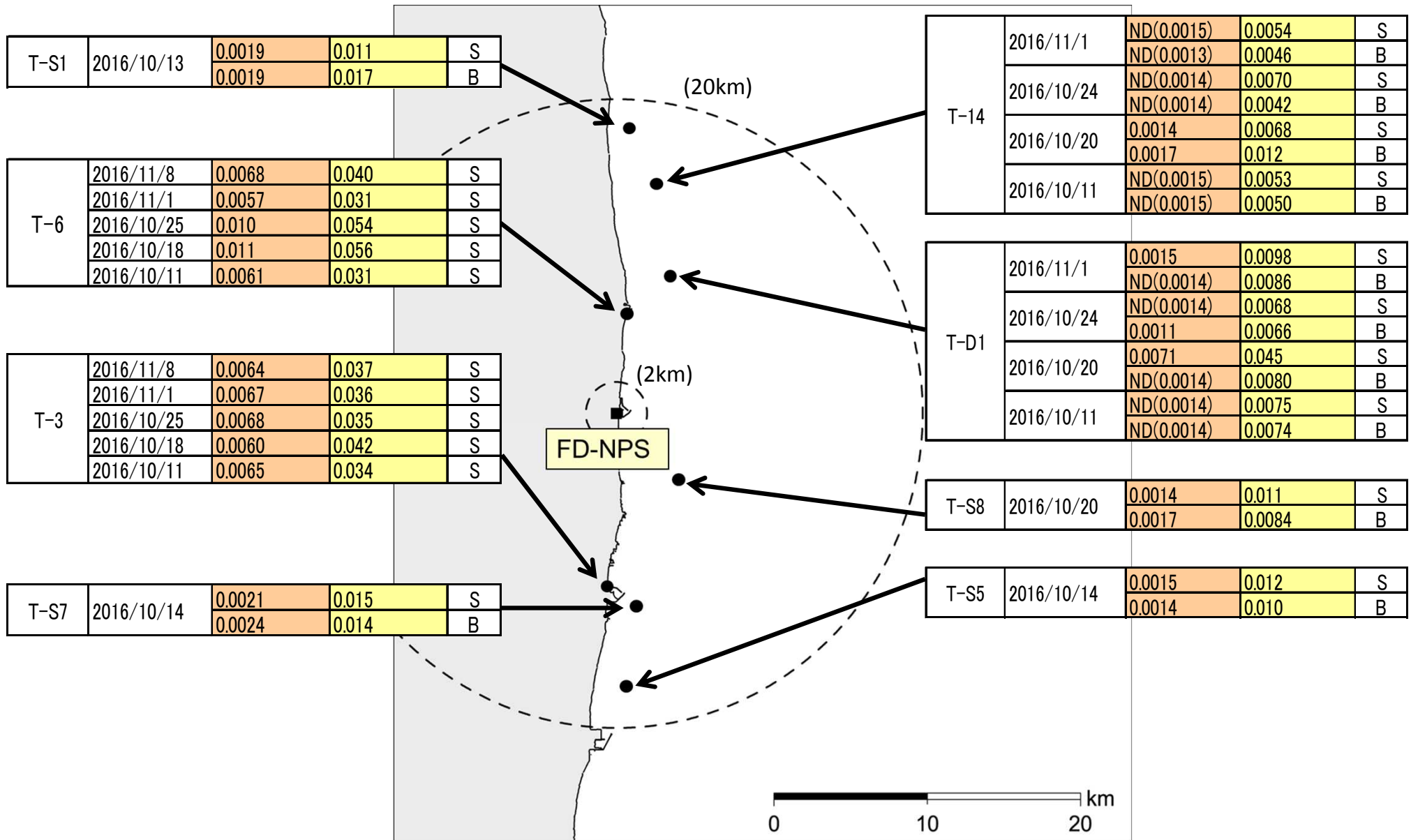
T-D1	2016/10/20	0.0071	0.045	ND(17) ^{*1}	ND(0.31)					S	
	2016/10/3	0.0016	0.012	ND(16) ^{*1}	ND(0.36)	ND(0.0068)	ND(1.6)	ND(5.5 × 10 ⁻⁶)	ND(5.2 × 10 ⁻⁶)	S	
T-6	2016/10/18	0.011	0.056	ND(15) ^{*1}	ND(0.36)					S	
	2016/10/4	0.010	0.055	ND(16) ^{*1}	ND(0.30)					S	
F-P06	2016/9/15	ND(0.071)	ND(0.048)	0.03 ^{*2}	ND(0.40)	In progress		ND(7 × 10 ⁻⁶)	ND(8 × 10 ⁻⁶)	S	
	2016/8/3	ND(0.061)	ND(0.050)	0.03 ^{*2}	ND(0.49)	ND(0.0004)		ND(1.1 × 10 ⁻⁵)	ND(9 × 10 ⁻⁶)	S	
M-103	2016/10/5	0.0016	0.011			In progress	In progress				0.5m
	2016/9/8	0.0026	0.020		0.088	In progress					0.5m
	2016/8/4	0.00085	0.0074		0.11	In progress					0.5m
	2016/7/13	0.0017	0.0077		0.12	In progress					0.5m
F-P04	2016/9/15	ND(0.054)	ND(0.047)	0.02 ^{*2}	ND(0.39)	In progress		ND(5 × 10 ⁻⁶)	ND(7 × 10 ⁻⁶)	S	
	2016/8/3	ND(0.055)	ND(0.052)	0.02 ^{*2}	ND(0.50)	0.001		ND(8 × 10 ⁻⁶)	ND(8 × 10 ⁻⁶)	S	
T-5	2016/10/18	ND(0.0012)	0.0054	ND(15) ^{*1}	ND(0.36)					S	
	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	
T-D5	2016/10/20	0.0024	0.016	ND(17) ^{*1}	ND(0.31)					S	
	2016/10/3	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	
M-104	2016/10/7	0.0021	0.012			In progress	In progress				0.5m
	2016/9/7	0.0047	0.031		0.11	In progress					0.5m
	2016/8/3	0.0010	0.0063		0.12	In progress					0.5m
	2016/7/14	0.0014	0.0096		0.11	In progress					0.5m
F-P05	2016/9/15	ND(0.050)	0.054	0.03 ^{*2}	ND(0.39)	In progress		ND(8 × 10 ⁻⁶)	ND(7 × 10 ⁻⁶)	S	
	2016/8/3	ND(0.055)	ND(0.050)	0.02 ^{*2}	ND(0.49)	0.001		ND(1.2 × 10 ⁻⁵)	ND(1.0 × 10 ⁻⁵)	S	
T-D9	2016/10/18	0.0012	0.0064	ND(15) ^{*1}	ND(0.36)					S	
	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	
T-3	2016/10/18	0.0060	0.042	ND(16) ^{*1}	ND(0.31)					S	
	2016/10/4	0.0076	0.046	ND(16) ^{*1}	ND(0.29)					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



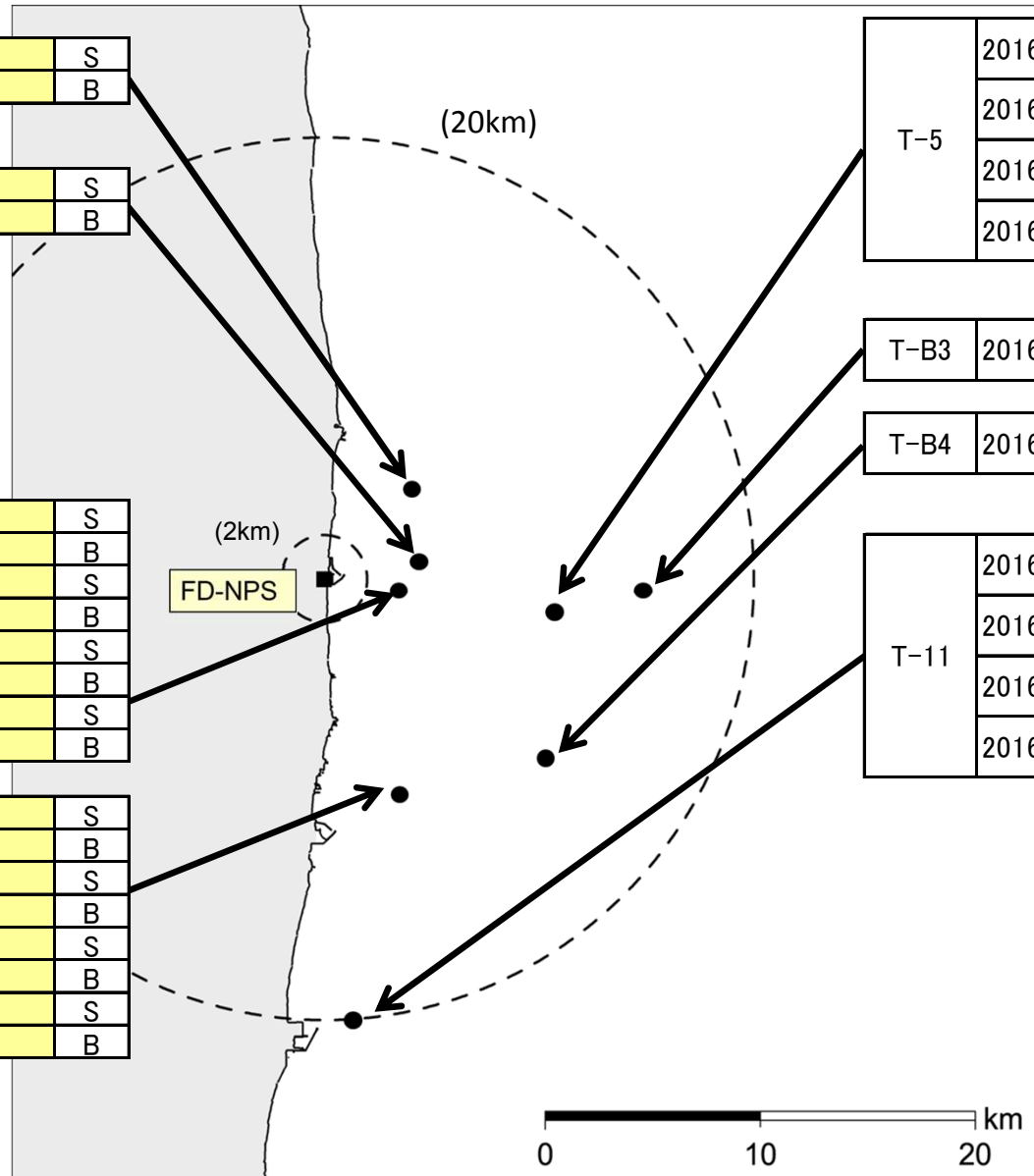
Sea area between 2-20km from the NPS (3)

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

Sea water radioactivity (Bq/L):

ND: Not detected; Numbers in parentheses: detection limits



T-S3	2016/10/12	0.0016	0.0073	S
		ND(0.0014)	0.0064	B

T-S4	2016/10/12	ND(0.0013)	0.0038	S
		ND(0.0015)	0.0051	B

T-D5	2016/11/1	0.0018	0.0099	S
		ND(0.0014)	0.0098	B
	2016/10/24	ND(0.0011)	0.0044	S
		ND(0.0013)	0.0064	B
	2016/10/20	0.0024	0.016	S
		0.0017	0.0096	B
	2016/10/11	ND(0.0013)	0.0068	S
		ND(0.0014)	0.0071	B

T-D9	2016/11/1	ND(0.0012)	0.0080	S
		ND(0.0014)	0.0089	B
	2016/10/24	ND(0.0014)	0.0043	S
		ND(0.0014)	0.0048	B
	2016/10/18	ND(0.0012)	0.0064	S
		ND(0.0013)	0.0044	B
	2016/10/11	ND(0.0014)	0.0068	S
		0.0025	0.016	B

T-5	2016/11/1	ND(0.0014)	0.0031	S
		ND(0.0014)	0.0036	B
	2016/10/25	ND(0.0010)	0.0025	S
		ND(0.0014)	0.0020	B
	2016/10/18	ND(0.0012)	0.0054	S
		ND(0.0014)	0.0028	B
	2016/10/14	ND(0.0014)	0.0039	S
		ND(0.0013)	0.0034	B

T-B3	2016/10/17	ND(0.0012)	0.0030	S
		ND(0.0013)	0.0026	B

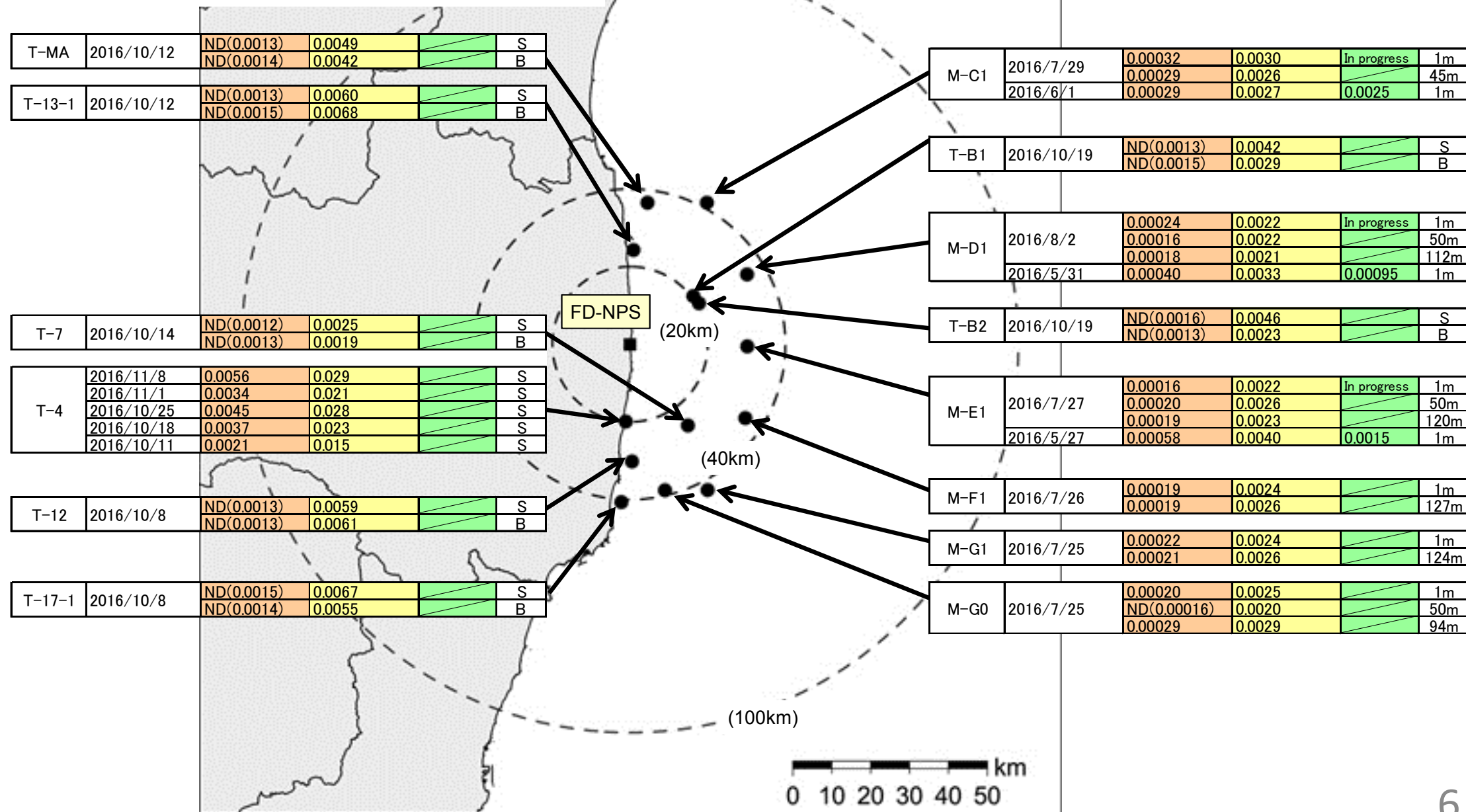
T-B4	2016/10/17	ND(0.0013)	0.0028	S
		ND(0.0013)	0.0033	B

T-11	2016/11/1	0.0014	0.0093	S
		ND(0.0012)	0.0060	B
	2016/10/24	0.0023	0.012	S
		0.0014	0.0095	B
	2016/10/18	ND(0.0012)	0.0083	S
		ND(0.0013)	0.011	B
	2016/10/11	0.0015	0.0077	S
		0.0021	0.013	B

Sea area between 20-100km from the NPS(1)

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	S/B	S:2m below sea level	B:2-3m above sea bottom
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Sea water radioactivity (Bq/L):
 ND: Not detected; Numbers in parentheses: detection limits



Sea area between 20-100km from the NPS(2)

Sampling point	Sampling Date	Cs-134	Cs-137	Gross β *	H-3	Sr-90	S/B	S: 2m below sea level B: 2-3m above sea bottom
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Sea water radioactivity (Bq/L):

ND: Not detected; Numbers in parentheses: detection limits

*Gross β excluding K-40

Sampling point	Sampling Date	Cs-134	Cs-137	Gross β *	H-3	Sr-90	Depth(m)
M-C3	2016/8/1	0.00018	0.0021	0.030	0.087	In progress	1m
		0.00012	0.0018				50m
		0.00020	0.0022				121m
	2016/5/31	0.00037	0.0033	0.025	0.090	0.0014	1m

Sampling point	Sampling Date	Cs-134	Cs-137	Gross β *	H-3	Sr-90	Depth(m)
T-22	2016/10/12	ND(0.0014)	0.0050				S
		ND(0.0014)	0.0047				B

Sampling point	Sampling Date	Cs-134	Cs-137	Gross β *	H-3	Sr-90	Depth(m)
M-D3	2016/8/2	0.00025	0.0025	0.031	0.071	In progress	1m
		0.00016	0.0021				100m
		0.00012	0.0019				209m
	2016/5/31	0.00033	0.0029	0.026	0.079	0.0013	1m

Sampling point	Sampling Date	Cs-134	Cs-137	Gross β *	H-3	Sr-90	Depth(m)
M-F3	2016/7/27	0.00021	0.0024	0.030	0.075	In progress	1m
		ND(0.00015)	0.0021				100m
		ND(0.00014)	0.0018				216m
	2016/5/27	0.00037	0.0033	0.025	0.080	0.0023	1m

Sampling point	Sampling Date	Cs-134	Cs-137	Gross β *	H-3	Sr-90	Depth(m)
T-18	2016/10/7	ND(0.0012)	0.0040				S
		ND(0.0012)	0.0051				B

Sampling point	Sampling Date	Cs-134	Cs-137	Gross β *	H-3	Sr-90	Depth(m)
T-20	2016/10/8	ND(0.0013)	0.0060				S
		ND(0.0014)	0.0050				B

Sampling point	Sampling Date	Cs-134	Cs-137	Gross β *	H-3	Sr-90	Depth(m)
T-M10	2016/10/7	ND(0.0013)	0.0041				S
		ND(0.0012)	0.0024				B

Sampling point	Sampling Date	Cs-134	Cs-137	Gross β *	H-3	Sr-90	Depth(m)
M-E3	2016/7/27	0.00025	0.0027	0.034	0.076	In progress	1m
		0.00019	0.0024				100m
		0.00021	0.0021				214m
	2016/5/28	0.00019	0.0025	0.027	0.0069	0.0015	1m

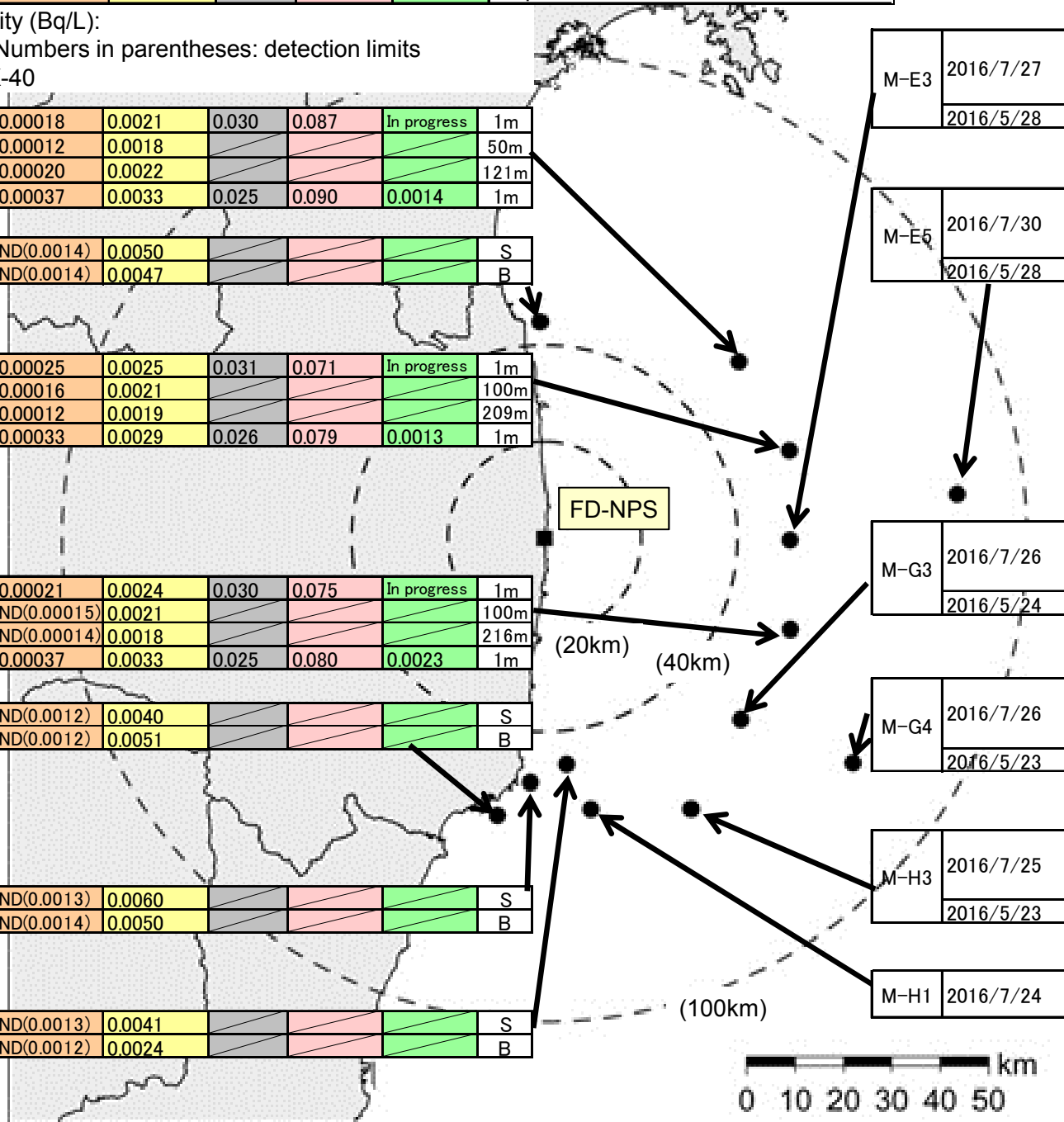
Sampling point	Sampling Date	Cs-134	Cs-137	Gross β *	H-3	Sr-90	Depth(m)
M-E5	2016/7/30	0.00024	0.0025	0.030	0.061	In progress	1m
		0.00022	0.0025				100m
		ND(0.000072)	0.00066				519m
	2016/5/28	0.00018	0.0023	0.024	0.053	0.0011	1m

Sampling point	Sampling Date	Cs-134	Cs-137	Gross β *	H-3	Sr-90	Depth(m)
M-G3	2016/7/26	0.00026	0.0028	0.035	0.066	In progress	1m
		0.00022	0.0021				100m
		0.00019	0.0022				195m
	2016/5/24	0.00019	0.0022	0.027	0.072	0.0011	1m

Sampling point	Sampling Date	Cs-134	Cs-137	Gross β *	H-3	Sr-90	Depth(m)
M-G4	2016/7/26	0.00015	0.0018	0.032	0.054	In progress	1m
		0.00016	0.0023				100m
		ND(0.000067)	0.00047				636m
	2016/5/23	0.00016	0.0022	0.029	0.057	0.0013	1m

Sampling point	Sampling Date	Cs-134	Cs-137	Gross β *	H-3	Sr-90	Depth(m)
M-H3	2016/7/25	0.00019	0.0021	0.031	0.062	In progress	1m
		0.00023	0.0023				100m
		0.00012	0.0019				211m
	2016/5/23	0.00015	0.0020	0.029	0.057	0.0013	1m

Sampling point	Sampling Date	Cs-134	Cs-137	Gross β *	H-3	Sr-90	Depth(m)
M-H1	2016/7/24	0.00023	0.0024				1m
		0.00027	0.0025				121m

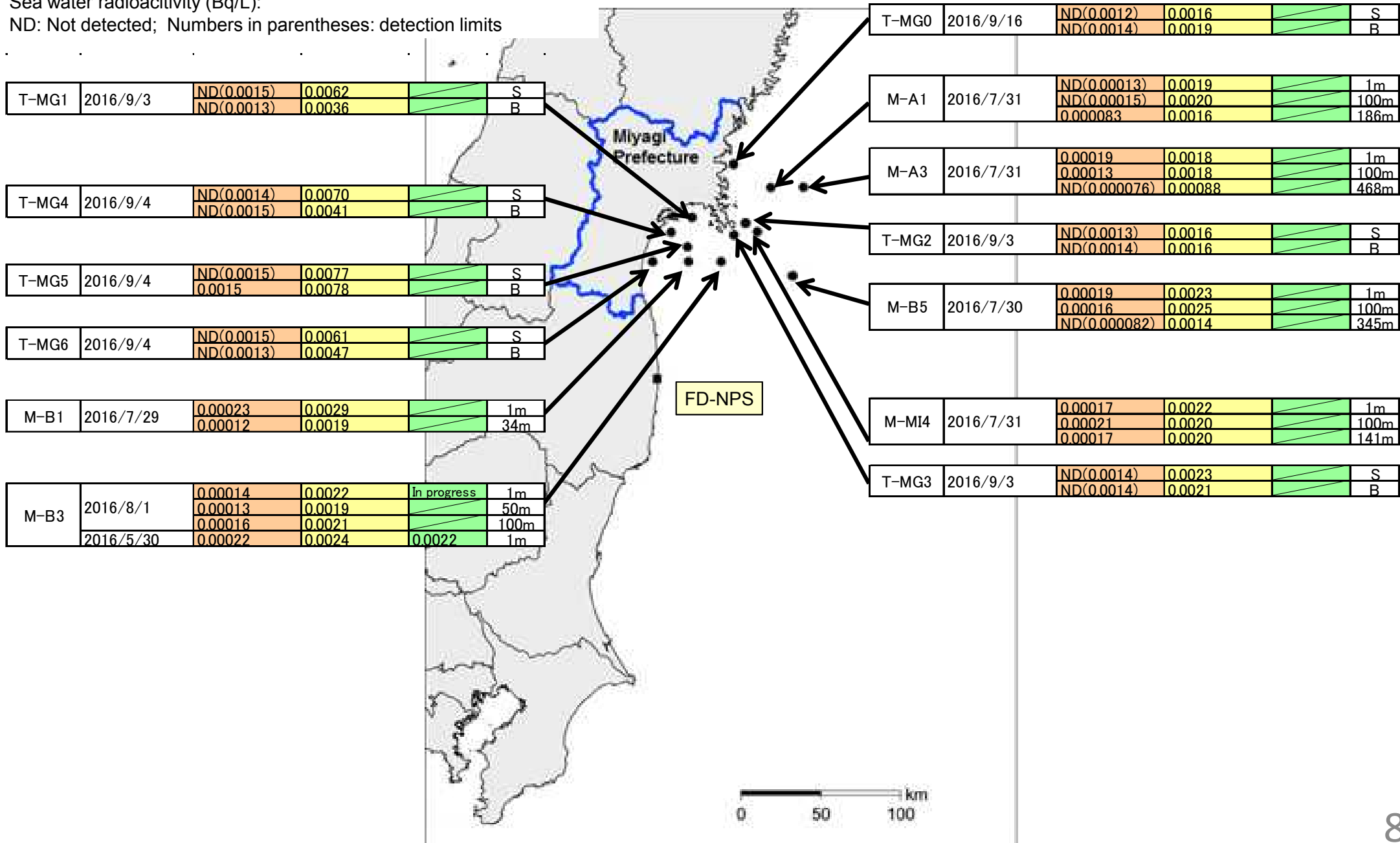


Sea area along and off the coast of Miyagi Prefecture

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

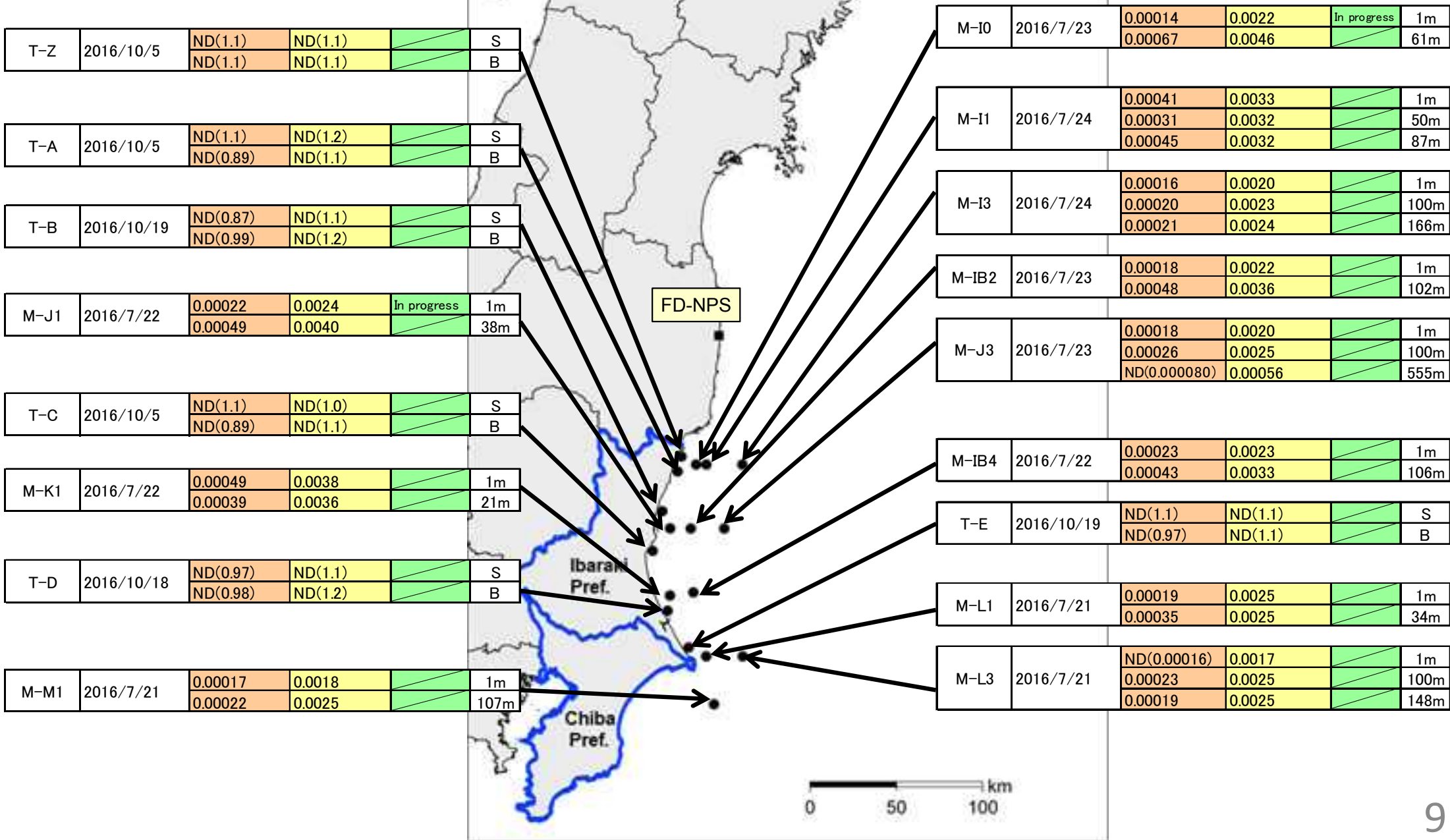


Sea area along and off the coast of Ibaraki Pref. and Chiba Pref.

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	2016/6/9	ND(0.00064)	0.0022	1m
		ND(0.00069)	0.0026	100m
		ND(0.00063)	0.0020	200m
		ND(0.00062)	0.0018	300m
		ND(0.00064)	0.0011	500m

M-14	2016/6/7	ND(0.00058)	0.0022	1m
		ND(0.00060)	0.0028	100m
		ND(0.00056)	0.0024	200m
		ND(0.00060)	0.0020	300m
		ND(0.00062)	0.00084	500m

M-19	2016/6/4	ND(0.00068)	0.0026	1m
		ND(0.00068)	0.0028	100m
		ND(0.00067)	0.0025	200m
		ND(0.00070)	0.0019	300m
		ND(0.00072)	0.00084	500m

M-20	2016/6/7	ND(0.00065)	0.0023	1m
		ND(0.00064)	0.0026	100m
		ND(0.00068)	0.0021	199m
		ND(0.00060)	0.0019	301m
		ND(0.00063)	0.0010	500m

M-25	2015/6/5	ND(0.00060)	0.0016	1m
		ND(0.00056)	0.0023	100m
		ND(0.00069)	0.0034	200m
		ND(0.00063)	0.0034	300m
		ND(0.00062)	0.0021	500m

M-11	2016/6/8	ND(0.00064)	0.0026	1m
		ND(0.00072)	0.0027	100m
		ND(0.00065)	0.0020	200m
		ND(0.00064)	0.0014	300m
		ND(0.00072)	0.00092	500m

M-15	2016/6/8	ND(0.00058)	0.0020	1m
		ND(0.00062)	0.0027	100m
		ND(0.00070)	0.0035	200m
		ND(0.00063)	0.0031	300m
		ND(0.00059)	0.0012	500m

M-21	2016/6/6	ND(0.00059)	0.0022	1m
		ND(0.00060)	0.0025	100m
		ND(0.00062)	0.0023	200m
		ND(0.00064)	0.0015	300m
		ND(0.00063)	0.00090	501m

M-26	2016/6/5	ND(0.00060)	0.0017	1m
		ND(0.00058)	0.0025	99m
		ND(0.00066)	0.0028	200m
		ND(0.00056)	0.0037	301m
		ND(0.00064)	0.0021	500m

M-27	2016/6/6	ND(0.00056)	0.0026	1m
		ND(0.00056)	0.0032	100m
		ND(0.00055)	0.0022	200m
		ND(0.00055)	0.0022	300m
		ND(0.00057)	0.0011	500m

