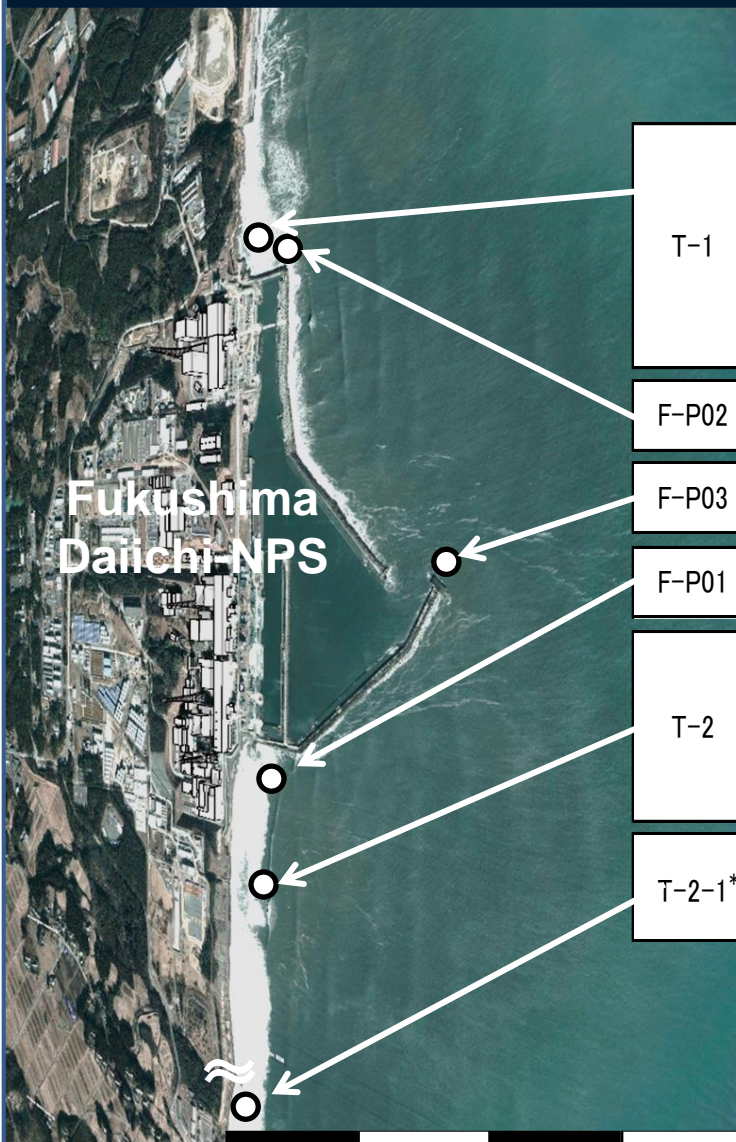


Sea Area Monitoring

November 25, 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

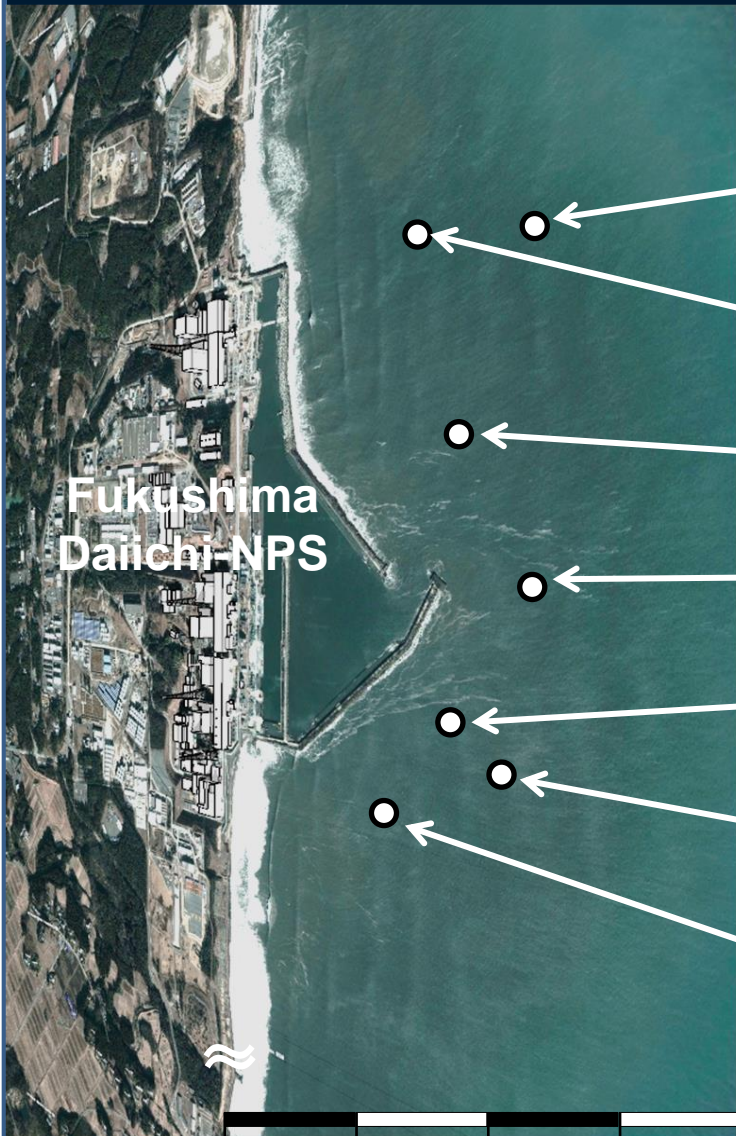
*1: Gross β including K-40 *2: Gross β excluding K-40

T-1	2016/10/24	ND(0.55)	ND(0.66)	11 ^{*1}	ND(1.5)				
	2016/10/17	ND(0.54)	ND(0.72)	13 ^{*1}	3.2				
	2016/10/10	ND(0.67)	ND(0.59)	13 ^{*1}	ND(1.6)				
	2016/10/3	ND(0.64)	ND(0.53)	13 ^{*1}	ND(1.7)				
	2016/9/26	ND(0.75)	ND(0.68)	10 ^{*1}	ND(1.8)				
	2016/8/1	ND(0.70)	ND(0.59)	9.9 ^{*1}	ND(1.7)	0.0069	ND(1.9)		
	2016/7/4	ND(0.60)	ND(0.58)	7.3 ^{*1}	ND(1.5)	0.010	ND(2.0)		
	2016/4/11	ND(0.70)	ND(0.62)	11 ^{*1}	ND(1.7)			ND(4.7 × 10 ⁻⁶)	(6.1 ± 1.7) × 10 ⁻⁶
F-P02	2016/8/3	ND(0.053)	ND(0.054)	0.03 ^{*2}	ND(0.50)	In progress		In progress	In progress
	2016/7/11	ND(0.061)	ND(0.051)	0.02 ^{*2}	ND(0.50)	0.001		ND(5.0 × 10 ⁻⁶)	ND(5.0 × 10 ⁻⁶)
F-P03	2016/8/3	ND(0.066)	ND(0.062)	0.02 ^{*2}	ND(0.50)	In progress		In progress	In progress
	2016/7/11	ND(0.057)	ND(0.047)	ND(0.02) ^{*2}	ND(0.50)	ND(0.0005)		ND(9.0 × 10 ⁻⁶)	ND(6.0 × 10 ⁻⁶)
F-P01	2016/8/3	ND(0.050)	ND(0.046)	0.02 ^{*2}	ND(0.50)	In progress		In progress	In progress
	2016/7/11	ND(0.050)	ND(0.048)	0.02 ^{*2}	ND(0.50)	0.001		ND(6.0 × 10 ⁻⁶)	ND(6.0 × 10 ⁻⁶)
T-2	2016/10/24	ND(0.76)	ND(0.63)	15 ^{*1}	ND(1.4)				
	2016/10/17	ND(0.68)	ND(0.66)	15 ^{*1}	1.9				
	2016/10/10	ND(0.62)	ND(0.63)	10 ^{*1}	ND(1.8)				
	2016/10/3	ND(0.77)	ND(0.58)	13 ^{*1}	ND(1.8)				
T-2-1 ^{*3}	2016/9/26	ND(0.49)	ND(0.71)	8.9 ^{*1}	ND(1.8)				
	2016/8/1	ND(0.62)	ND(0.53)	9.9 ^{*1}	ND(1.7)	ND(0.0066)	ND(1.9)		
	2016/7/4	ND(0.75)	ND(0.70)	10 ^{*1}	ND(1.5)	ND(0.0062)	ND(1.9)		
	2016/4/11	ND(0.79)	ND(0.76)	11 ^{*1}	ND(1.7)			ND(4.9 × 10 ⁻⁶)	(5.1 ± 1.5) × 10 ⁻⁶

*3: Sampling at T-2-1 was replaced by sampling at T-2 on and after Sep.2016, because the road access to T-2-1 had been damaged by typhoon.

0 0.5 1km

Sea area within 2km from the NPS (2)



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	2016/10/24	ND(0.51)	ND(0.50)	ND(17)	In progress	
	2016/10/17	ND(0.64)	ND(0.71)	ND(17)	ND(1.9)	
	2016/10/10	ND(0.64)	ND(0.76)	ND(18)	ND(1.7)	
	2016/10/3	ND(0.74)	ND(0.76)	ND(17)	ND(2.0)	
	2016/9/26	ND(0.73)	ND(0.64)	ND(17)	ND(1.9)	
T-0-1	2016/10/24	ND(0.66)	ND(0.68)	ND(17)	In progress	
	2016/10/17	ND(0.68)	ND(0.66)	ND(17)	ND(1.9)	
	2016/10/10	ND(0.84)	ND(0.56)	ND(18)	ND(1.7)	
	2016/10/3	ND(0.70)	ND(0.68)	ND(17)	ND(2.0)	
	2016/9/26	ND(0.76)	ND(0.58)	ND(17)	ND(1.9)	
M-101	2016/9/7	0.011	0.070		In progress	In progress
	2016/8/4	0.0022	0.012		0.11	In progress
	2016/7/13	0.0025	0.017		0.13	In progress
	2016/6/15	0.0024	0.012		0.071	0.0013
	2016/5/18	0.0027	0.013		0.089	0.0016
T-0-2	2016/10/24	ND(0.70)	ND(0.73)	ND(17)	In progress	
	2016/10/17	ND(0.61)	ND(0.64)	ND(17)	ND(1.9)	
	2016/10/10	ND(0.73)	ND(0.76)	ND(18)	ND(1.7)	
	2016/10/3	ND(0.63)	ND(0.72)	ND(17)	ND(2.0)	
	2016/9/26	ND(0.63)	ND(0.64)	ND(17)	ND(1.9)	
M-102	2016/9/7	0.011	0.066		In progress	In progress
	2016/8/3	0.0014	0.011		0.10	In progress
	2016/7/14	0.0012	0.067		0.11	In progress
	2016/6/16	0.0060	0.038		0.081	0.0023
	2016/5/19	0.0050	0.029		0.12	0.0038
T-0-3A	2016/10/24	ND(0.55)	ND(0.67)	ND(17)	In progress	
	2016/10/17	ND(0.81)	ND(0.75)	ND(17)	ND(1.9)	
	2016/10/10	ND(0.84)	ND(0.85)	ND(18)	ND(1.7)	
	2016/10/3	ND(0.71)	ND(0.73)	ND(17)	ND(2.0)	
	2016/9/26	ND(0.87)	ND(0.65)	ND(17)	ND(1.9)	
T-0-3	2016/10/24	ND(0.78)	ND(0.72)	ND(17)	In progress	
	2016/10/17	ND(0.57)	ND(0.49)	ND(17)	ND(1.9)	
	2016/10/10	ND(0.76)	ND(0.71)	ND(18)	ND(1.7)	
	2016/10/3	ND(0.66)	ND(0.73)	ND(17)	ND(2.0)	
	2016/9/26	ND(0.62)	ND(0.67)	ND(17)	ND(1.9)	

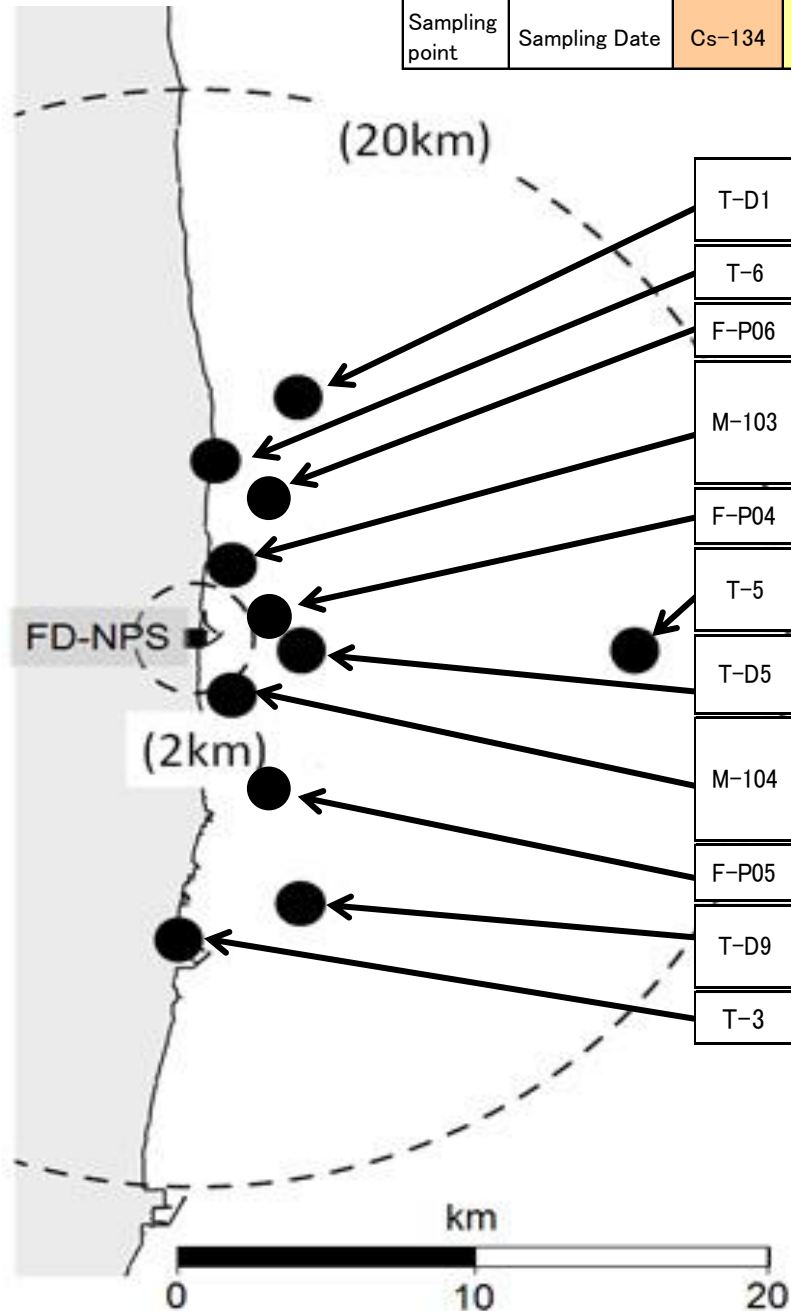
Sea area between 2-20km from the NPS (1)

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
										Depth(m) from sea level	

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	2016/9/23	0.0030	0.017	ND(17) ^{*1}	ND(0.31)					S
	2016/9/6	0.0083	0.046	ND(16) ^{*1}	ND(0.35)	ND(0.0083)	ND(1.5)			S
	2016/4/5	0.0027	0.014	ND(18) ^{*1}	ND(0.35)	ND(0.0078)	ND(1.9)	ND(5.5 × 10 ⁻⁶)	(7.2 ± 2.0) × 10 ⁻⁶	S
T-6	2016/9/20	0.014	0.068	ND(17) ^{*1}	ND(0.32)					S
	2016/9/6	0.0087	0.053	ND(17) ^{*1}	ND(0.31)					S
F-P06	2016/8/3	ND(0.061)	ND(0.050)	0.03 ^{*2}	ND(0.49)	In progress		In progress	In progress	S
	2016/7/11	ND(0.068)	ND(0.049)	0.02 ^{*2}	ND(0.50)	0.001		ND(8.0 × 10 ⁻⁶)	ND(9.0 × 10 ⁻⁶)	S
M-103	2016/9/8	0.0026	0.020		In progress	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
	2016/6/15	0.0032	0.017		0.090	0.0011				0.5m
	2016/5/18	0.0013	0.0082		0.065	0.0012				0.5m
F-P04	2016/8/3	ND(0.055)	ND(0.052)	0.02 ^{*2}	ND(0.50)	In progress		In progress	In progress	S
	2016/7/11	ND(0.054)	ND(0.051)	0.02 ^{*2}	ND(0.50)	0.001		ND(9.0 × 10 ⁻⁶)	ND(9.0 × 10 ⁻⁶)	S
T-5	2016/9/23	ND(0.0012)	0.0028	ND(17) ^{*1}	ND(0.31)					S
	2016/9/7	ND(0.0013)	0.0064	ND(16) ^{*1}	ND(0.29)	ND(0.0071)	ND(1.6)			S
	2016/4/5	ND(0.0011)	0.0055	ND(18) ^{*1}	ND(0.35)	ND(0.0064)	ND(1.6)	ND(5.2 × 10 ⁻⁶)	ND(5.2 × 10 ⁻⁶)	S
T-D5	2016/9/23	0.0022	0.015	ND(17) ^{*1}	ND(0.31)					S
	2016/9/6	0.0067	0.036	ND(16) ^{*1}	ND(0.35)	ND(0.0085)	ND(1.6)			S
	2016/4/5	0.0018	0.012	ND(18) ^{*1}	ND(0.35)	ND(0.0075)	ND(1.9)	ND(5.4 × 10 ⁻⁶)	ND(5.7 × 10 ⁻⁶)	S
	2016/9/7	0.0047	0.031		In progress	In progress				0.5m
	2016/8/3	0.0010	0.0063		0.12	In progress				0.5m
M-104	2016/7/14	0.0014	0.0096		0.11	In progress				0.5m
	2016/6/16	0.0021	0.011		0.069	0.0012				0.5m
	2016/5/19	0.0012	0.0066		0.074	0.0010				0.5m
	2016/8/3	ND(0.055)	ND(0.050)	0.02 ^{*2}	ND(0.49)	In progress		In progress	In progress	S
F-P05	2016/7/11	ND(0.064)	ND(0.063)	0.03 ^{*2}	ND(0.50)	ND(0.0004)		ND(8.0 × 10 ⁻⁶)	ND(9.0 × 10 ⁻⁶)	S
	2016/9/23	0.0018	0.0094	ND(17) ^{*1}	ND(0.31)					S
T-D9	2016/9/6	0.0034	0.018	ND(16) ^{*1}	ND(0.35)	ND(0.0082)	ND(1.6)			S
	2016/4/5	0.0015	0.010	ND(18) ^{*1}	ND(0.35)	ND(0.0076)	ND(1.6)	ND(4.9 × 10 ⁻⁶)	ND(4.9 × 10 ⁻⁶)	S
	2016/9/20	0.017	0.082	ND(17) ^{*1}	ND(0.37)					S
T-3	2016/9/6	0.011	0.069	ND(17) ^{*1}	ND(0.30)					S

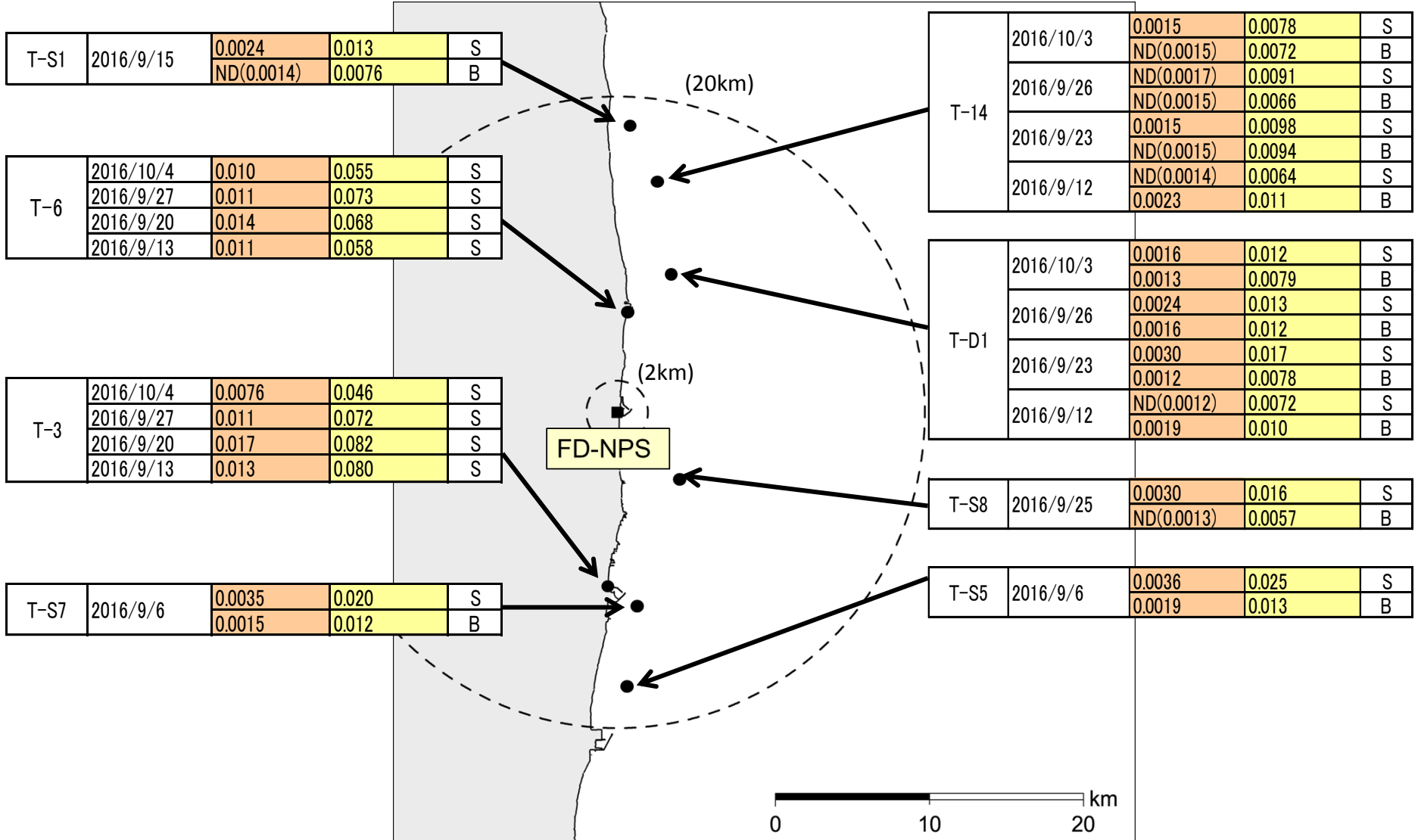
Sea area between 2-20km from the NPS (2)

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



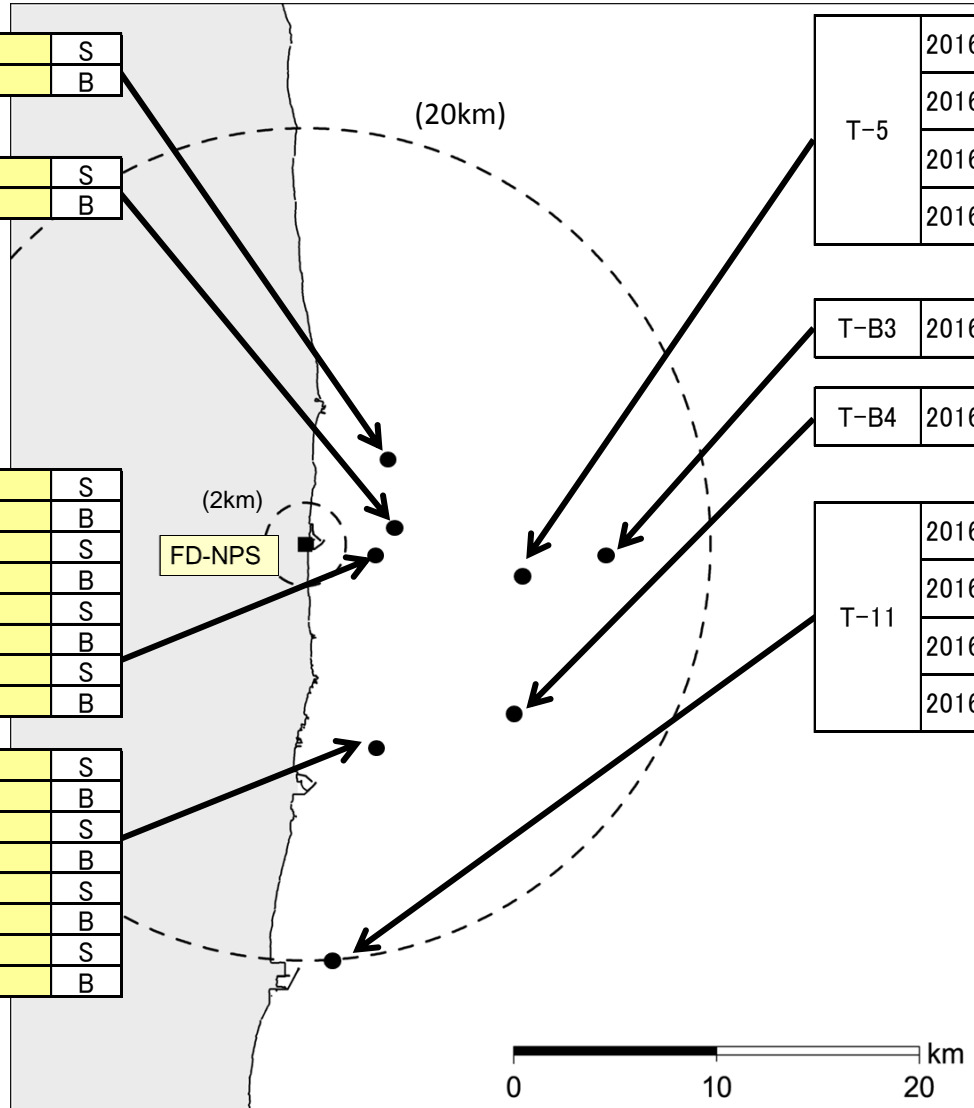
Sea area between 2-20km from the NPS (3)

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	2016/9/15	0.0017	0.013	S
		ND(0.0012)	0.0059	B

T-S4	2016/9/15	ND(0.0015)	0.0099	S
		0.0019	0.0058	B

T-D5	2016/10/3	ND(0.0013)	0.0091	S
		ND(0.0012)	0.0087	B
	2016/9/26	0.0023	0.014	S
		0.0013	0.0074	B
	2016/9/23	0.0022	0.015	S
		ND(0.0014)	0.0054	B
	2016/9/12	0.0019	0.012	S
		0.0030	0.016	B

T-D9	2016/10/4	0.0015	0.0085	S
		ND(0.0014)	0.0047	B
	2016/9/26	0.0052	0.035	S
		ND(0.0014)	0.0079	B
	2016/9/23	0.0018	0.0094	S
		ND(0.0011)	0.0047	B
	2016/9/12	0.0018	0.011	S
		0.0015	0.011	B

T-5	2016/10/4	ND(0.0014)	0.0058	S
		ND(0.0014)	0.0030	B
	2016/9/26	ND(0.0014)	0.0029	S
		ND(0.0013)	0.0033	B
	2016/9/23	ND(0.0012)	0.028	S
		ND(0.0013)	0.027	B
	2016/9/16	ND(0.0013)	0.0058	S
		ND(0.0014)	0.0055	B

T-B3	2016/9/24	ND(0.0013)	0.0048	S
		ND(0.0013)	0.0033	B

T-B4	2016/9/24	ND(0.0012)	0.0043	S
		ND(0.0013)	0.0027	B

T-11	2016/10/4	0.0013	0.011	S
		ND(0.0013)	0.0054	B
	2016/9/26	0.0030	0.021	S
		0.0016	0.0097	B
	2016/9/23	0.0054	0.031	S
		ND(0.0013)	0.0049	B
	2016/9/12	0.0017	0.011	S
		0.0017	0.012	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
					Depth(m) from sea level		

Sea water radioactivity (Bq/L):

ND: Not detected; Numbers in parentheses: detection limits

T-MA	2016/9/27	ND(0.0015)	0.0067		S
		ND(0.0014)	0.0053		B

T-13-1	2016/9/27	0.0016	0.0077		S
		0.0018	0.0081		B

T-7	2016/9/16	ND(0.0011)	0.0037		S
		ND(0.0011)	0.0055		B

T-4	2016/10/4	0.0035	0.020		S
	2016/9/27	0.0052	0.027		S
	2016/9/20	0.0074	0.042		S
	2016/9/13	0.011	0.072		S

T-12	2016/9/23	0.0017	0.017		S
		0.0021	0.0078		B

T-17-1	2016/9/23	0.0028	0.019		S
		ND(0.0013)	0.0056		B

M-C1	2016/7/29	0.00032	0.0030		1m
		0.00029	0.0026		45m

T-B1	2016/9/28	ND(0.0014)	0.0041		S
		ND(0.0016)	0.0025		B

M-D1	2016/8/2	0.00024	0.0022		1m
		0.00016	0.0022		50m
		0.00018	0.0021		112m

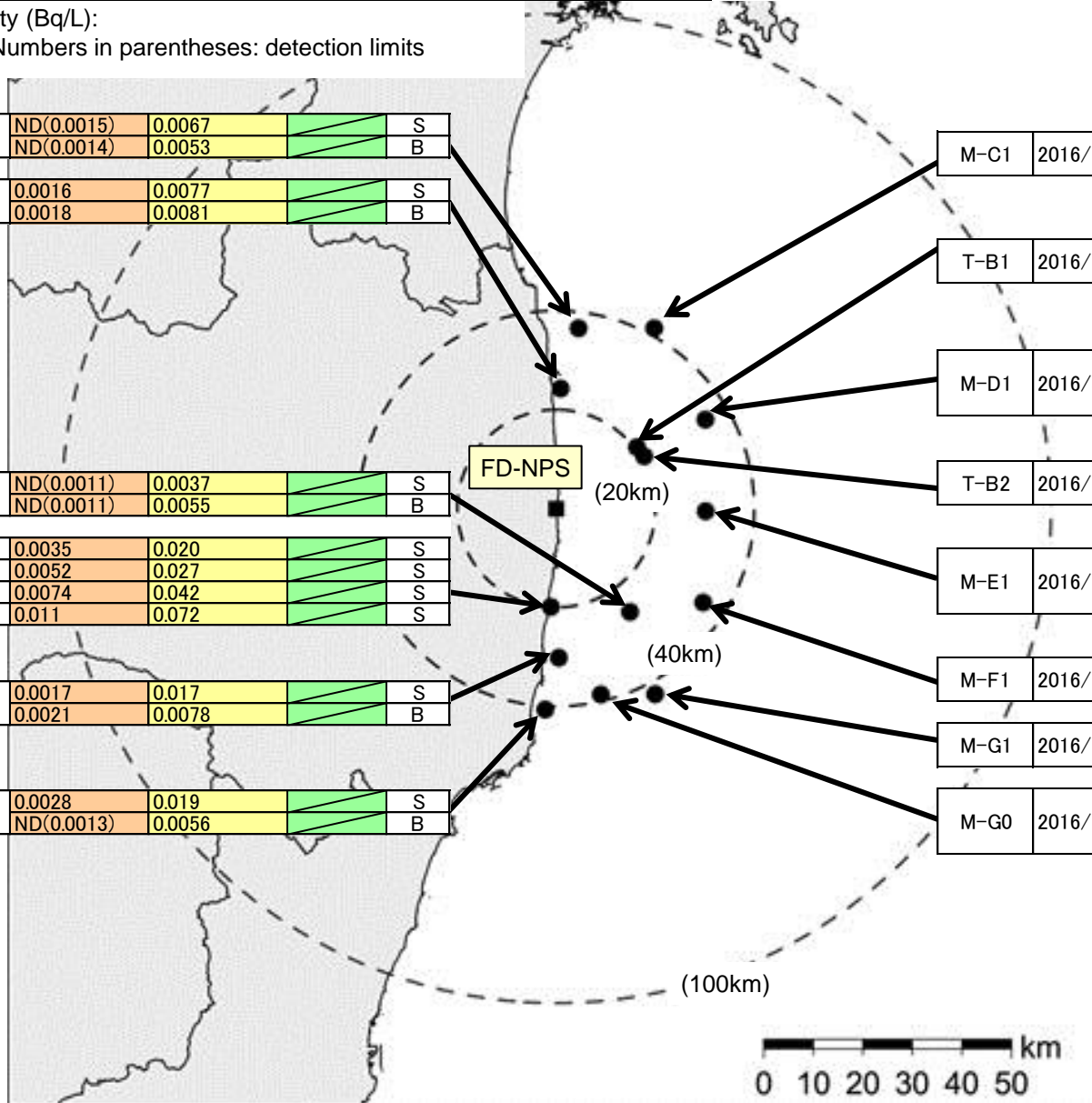
T-B2	2016/9/28	ND(0.0015)	0.0017		S
		ND(0.0014)	0.0031		B

M-E1	2016/7/27	0.00016	0.0022		1m
		0.00020	0.0026		50m
		0.00019	0.0023		120m

M-F1	2016/7/26	0.00019	0.0024		1m
		0.00019	0.0026		127m

M-G1	2016/7/25	0.00022	0.0024		1m
		0.00021	0.0026		124m

M-G0	2016/7/25	0.00020	0.0025		1m
		ND(0.00016)	0.0020		50m
		0.00029	0.0029		94m



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

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

Sampling point	Sampling Date	Cs-134	Cs-137	Grossβ *	H-3	Sr-90	Depth(m)
		M-C3	2016/8/1				
		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	Grossβ *	H-3	Sr-90	Depth(m)
		T-22	2016/9/27				
		ND(0.00014)	0.0067				B

Sampling point	Sampling Date	Cs-134	Cs-137	Grossβ *	H-3	Sr-90	Depth(m)
		M-D3	2016/8/2				
		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	Grossβ *	H-3	Sr-90	Depth(m)
		M-F3	2016/7/27				
		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	Grossβ *	H-3	Sr-90	Depth(m)
		T-18	2016/9/16				
		ND(0.0013)	0.0083				B

Sampling point	Sampling Date	Cs-134	Cs-137	Grossβ *	H-3	Sr-90	Depth(m)
		T-20	2016/9/23				
		ND(0.0013)	0.0070				B

Sampling point	Sampling Date	Cs-134	Cs-137	Grossβ *	H-3	Sr-90	Depth(m)
		T-M10	2016/9/23				
		ND(0.0013)	0.0040				B

Sampling point	Sampling Date	Cs-134	Cs-137	Grossβ *	H-3	Sr-90	Depth(m)
		M-E3	2016/7/27				
		0.00019	0.0024				100m
		0.00021	0.0021				214m
	2016/5/28	0.00019	0.0025	0.027	0.0069	0.0015	1m

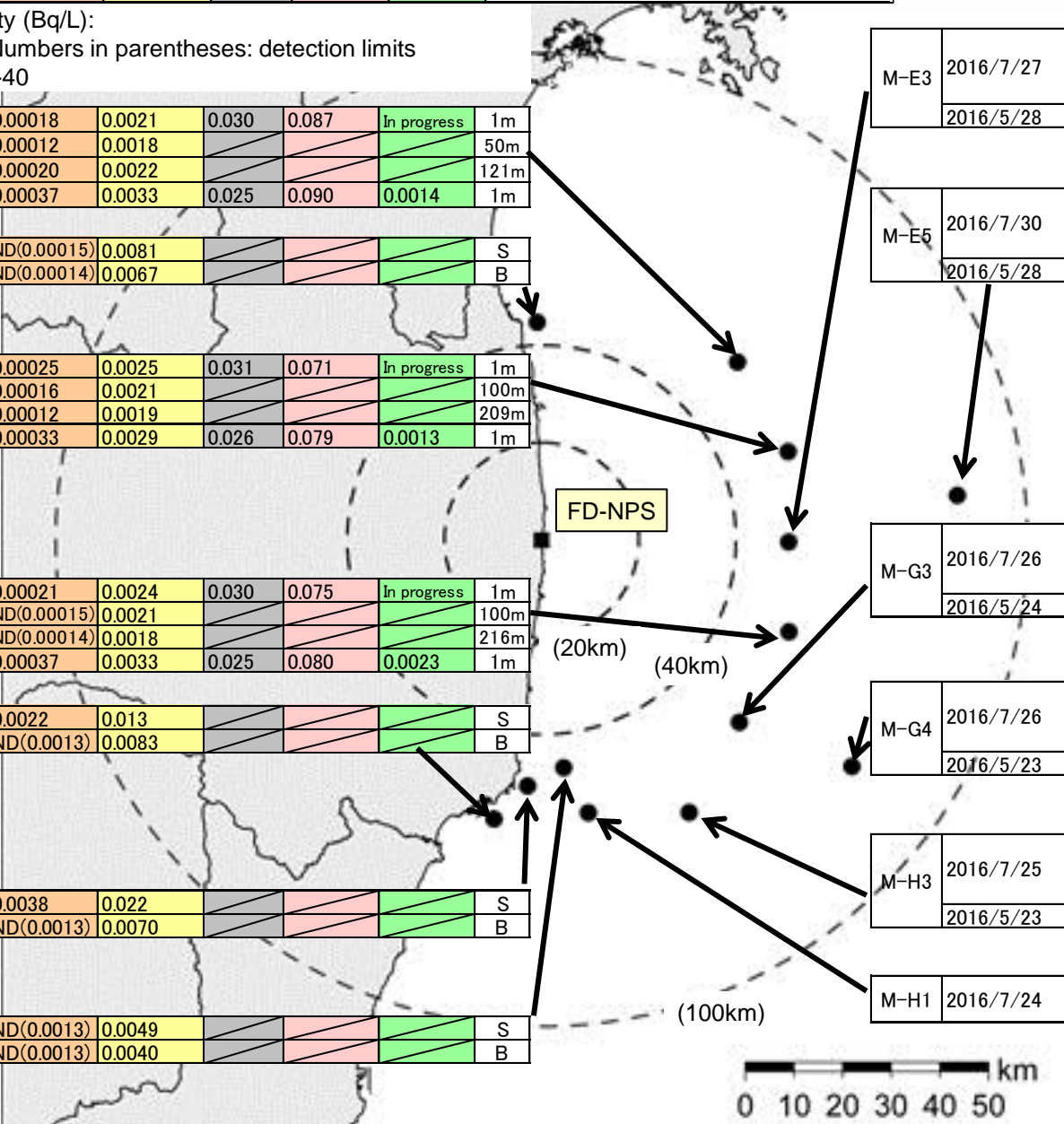
Sampling point	Sampling Date	Cs-134	Cs-137	Grossβ *	H-3	Sr-90	Depth(m)
		M-E5	2016/7/30				
		0.00022	0.0025				100m
		ND(0.000072)	0.00066				519m
	2016/5/28	0.00018	0.0023	0.024	0.053	0.0011	1m

Sampling point	Sampling Date	Cs-134	Cs-137	Grossβ *	H-3	Sr-90	Depth(m)
		M-G3	2016/7/26				
		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	Grossβ *	H-3	Sr-90	Depth(m)
		M-G4	2016/7/26				
		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	Grossβ *	H-3	Sr-90	Depth(m)
		M-H3	2016/7/25				
		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	Grossβ *	H-3	Sr-90	Depth(m)
		M-H1	2016/7/24				
		0.00027	0.0025				121m

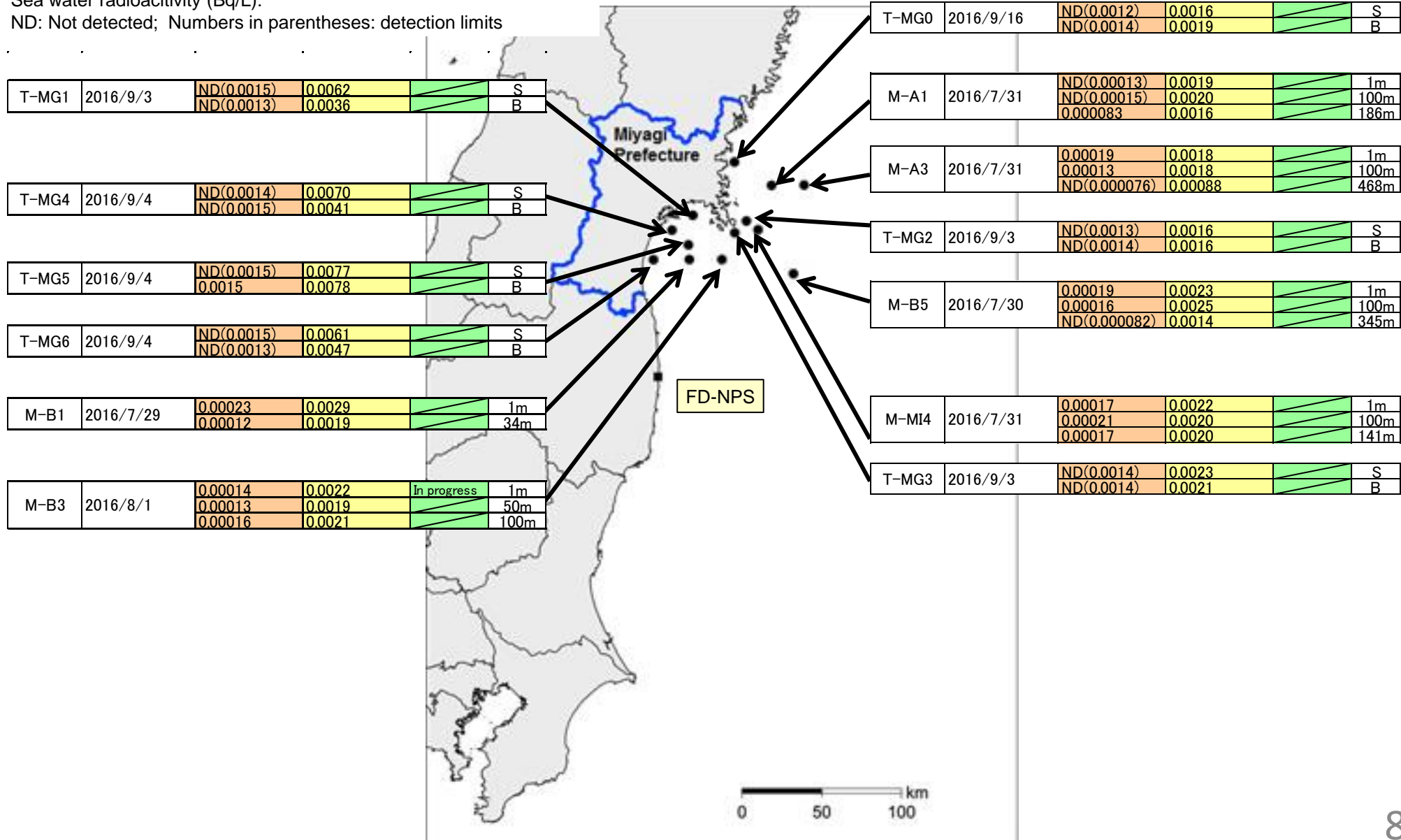


Sea area along and off the coast of Miyagi Prefecture

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

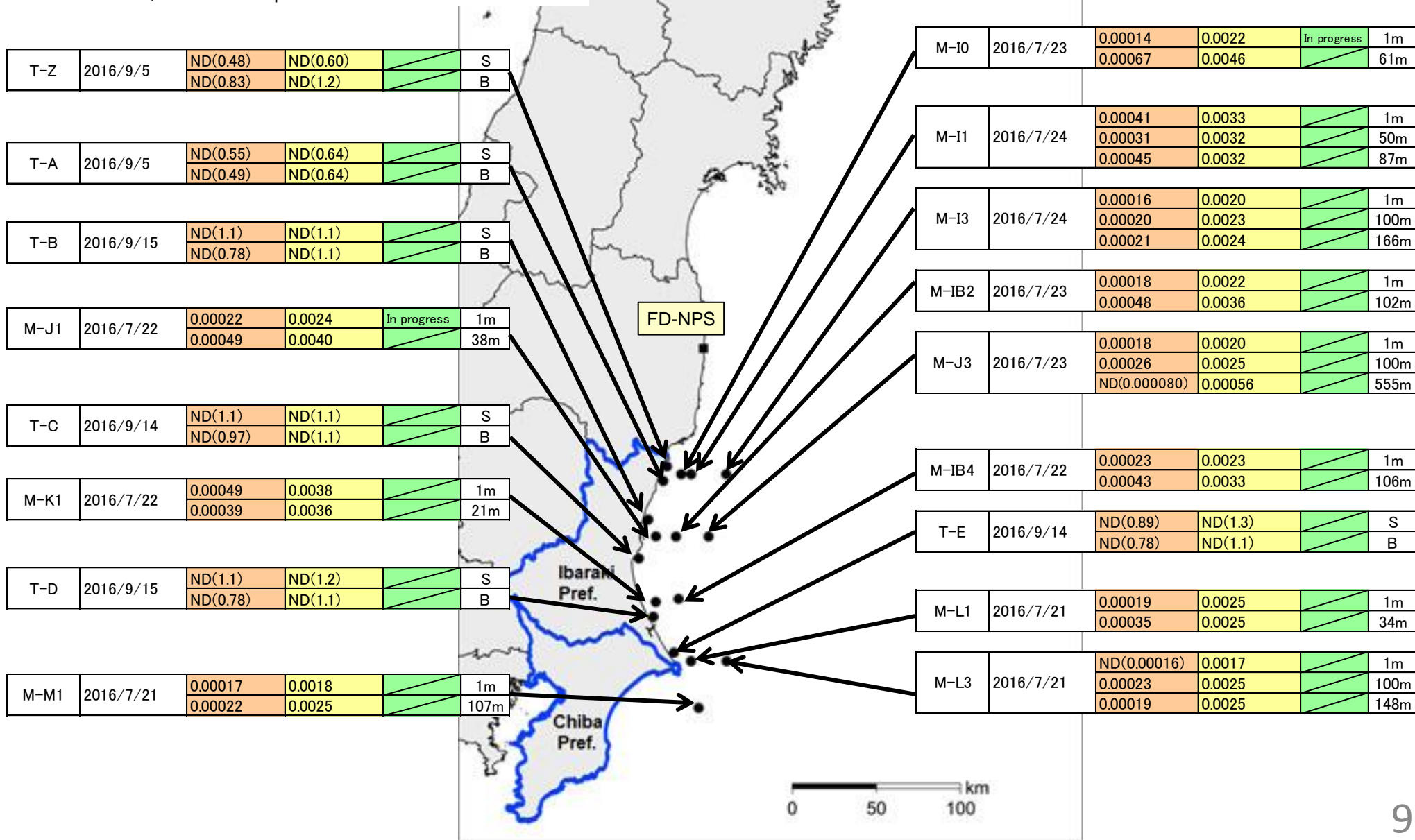


Sea area along and off the coast of Ibaraki Pref. and Chiba Pref.

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

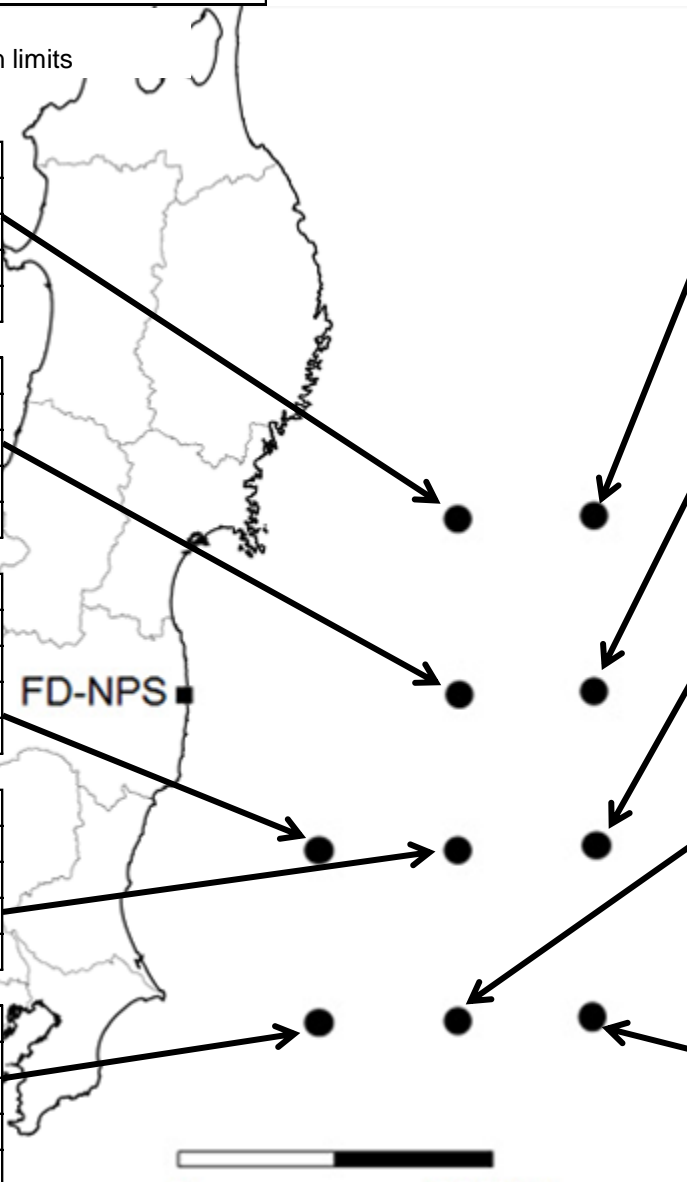
M-11	2016/6/8	ND(0.00064)	0.0026	1m
		ND(0.00072)	0.0027	100m
		ND(0.00065)	0.0020	200m
		ND(0.00064)	0.0014	300m
		ND(0.00072)	0.00092	500m

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



0 200km