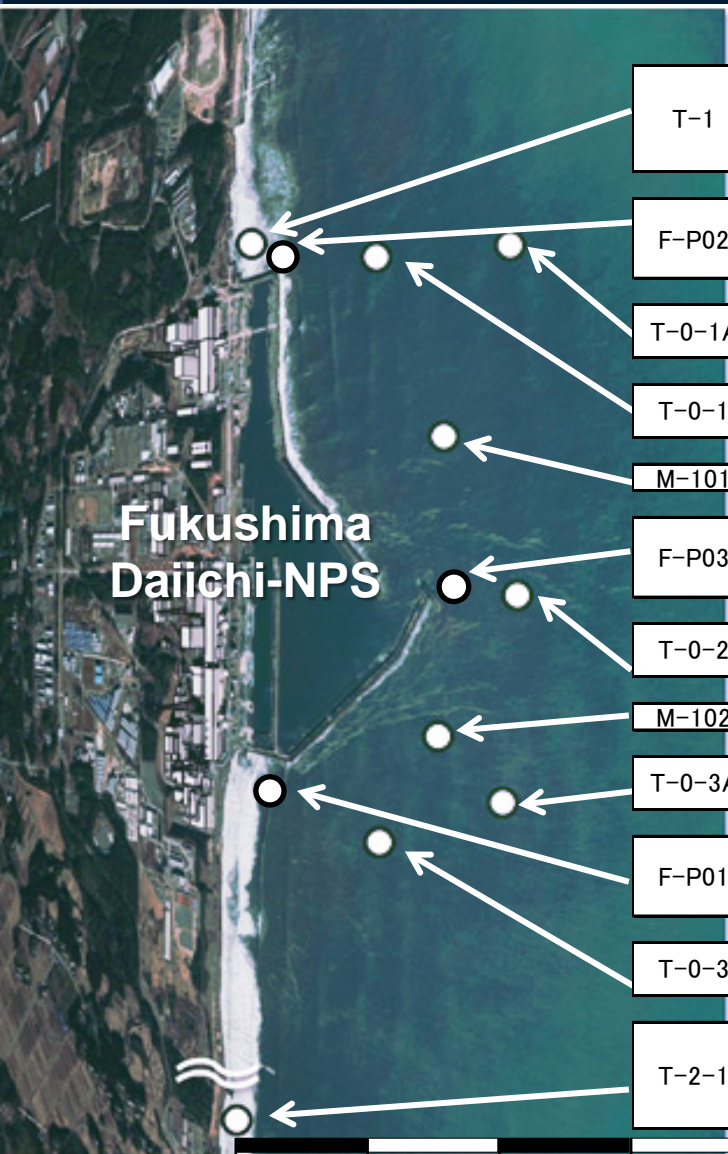


Sea Area Monitoring

December 02, 2014

Nuclear Regulation Authority (NRA), Japan

Sea area within 2km radius from the NPS



Fukushima Daiichi-NPS

Sampling point	Sampling Date	Cs-134	Cs-137	total β	H-3	Sr-90	total α	Pu-238	Pu-239+Pu-240
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Sea water radioactivity (Bq/L):
 ND: under detection limits; Numbers in parentheses: detection limits
 *1: Total β : including K-40 *2: Total β : excluding K-40

T-1	2014/11/17	ND(0.57)	ND(0.64)	13 ^{*1}	In progress				
	2014/11/10	ND(0.73)	ND(0.72)	10 ^{*1}	ND(1.8)				
	2014/9/8	ND(0.66)	ND(0.69)	11 ^{*1}	3.7	0.23	ND(2.0)		
	2014/4/10	ND(0.85)	ND(0.82)					ND(5.6 × 10 ⁻⁶)	(9.4 ± 2.2) × 10 ⁻⁶
F-P02	2014/9/16	0.13	0.35	0.14 ^{*2}	0.84	In progress		In progress	In progress
	2014/7/7	ND(0.062)	0.17	0.09 ^{*2}	0.44	0.083		In progress	In progress
	2014/6/16	ND(0.066)	ND(0.050)	0.03 ^{*2}	ND(0.41)	0.002		ND(7 × 10 ⁻⁶)	ND(7 × 10 ⁻⁶)
T-0-1A	2014/11/17	ND(0.67)	ND(0.59)	ND(15) ^{*1}	In progress				
	2014/11/11	ND(0.66)	ND(0.63)	ND(15) ^{*1}	ND(1.7)				
T-0-1	2014/11/17	ND(0.73)	ND(0.56)	ND(15) ^{*1}	In progress				
	2014/11/11	ND(0.74)	ND(0.58)	ND(15) ^{*1}	ND(1.7)				
M-101	2014/9/13	0.040	0.12		0.17	0.019			
F-P03	2014/9/16	0.35	0.94	0.23 ^{*2}	2.5	In progress		In progress	In progress
	2014/7/7	0.24	0.72	0.38 ^{*2}	2.6	0.66		In progress	In progress
	2014/6/16	ND(0.080)	ND(0.071)	0.03 ^{*2}	ND(0.41)	0.003		ND(1.3 × 10 ⁻⁵)	ND(1.1 × 10 ⁻⁵)
T-0-2	2014/11/17	ND(0.47)	ND(0.59)	ND(15) ^{*1}	In progress				
	2014/11/11	ND(0.77)	ND(0.57)	ND(15) ^{*1}	ND(1.7)				
M-102	2014/9/12	0.039	0.12		0.13	0.010			
T-0-3A	2014/11/17	ND(0.74)	ND(0.65)	ND(15) ^{*1}	In progress				
	2014/11/11	ND(0.56)	ND(0.80)	ND(15) ^{*1}	ND(1.7)				
F-P01	2014/9/16	0.060	0.14	0.04 ^{*2}	0.51	In progress		In progress	In progress
	2014/7/7	ND(0.064)	ND(0.068)	0.04 ^{*2}	ND(0.42)	0.004		In progress	In progress
	2014/6/16	ND(0.056)	0.074	0.04 ^{*2}	ND(0.41)	0.012		ND(6 × 10 ⁻⁶)	ND(6 × 10 ⁻⁶)
T-0-3	2014/11/17	ND(0.73)	ND(0.72)	ND(15) ^{*1}	In progress				
	2014/11/11	ND(0.92)	ND(0.69)	ND(15) ^{*1}	ND(1.7)				
T-2-1	2014/11/17	ND(0.47)	ND(0.60)	12 ^{*1}	In progress				
	2014/11/10	ND(0.71)	ND(0.68)	15 ^{*1}	ND(1.8)				
	2014/9/22	ND(0.64)	ND(0.67)	12 ^{*1}	ND(1.9)	ND(0.0079)	ND(2.0)		
	2014/4/10	ND(0.70)	ND(0.58)	9.0 ^{*1}				ND(5.6 × 10 ⁻⁶)	(3.1 ± 0.41) × 10 ⁻⁵

0 0.5 1km

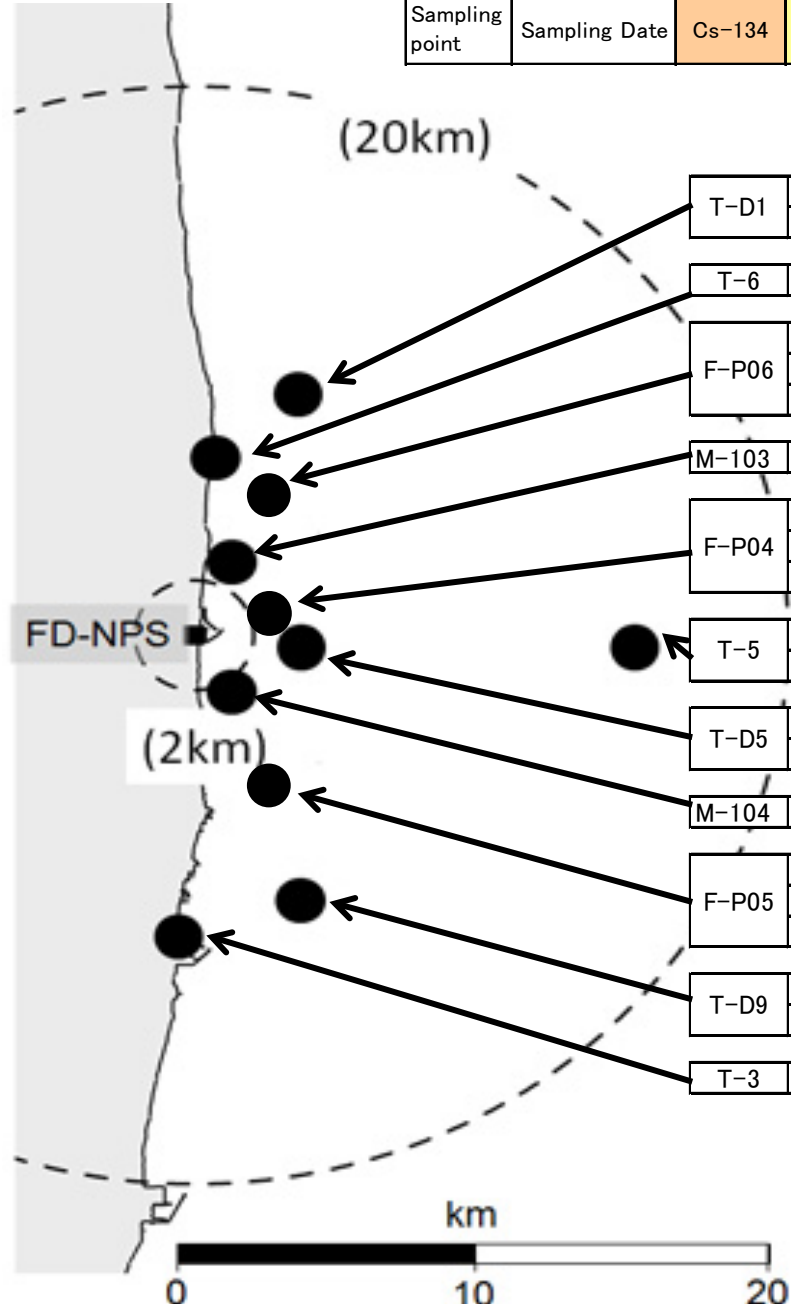
Sea area between 2-20km radius from the NPS (1)

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

ND: under detection limits; Numbers in parentheses: detection limits

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



T-D1	2014/10/1	0.0033	0.0087	ND(17)*1	ND(0.32)	ND(0.009)	ND(1.9)			S
	2014/4/1	0.0027	0.0086	ND(17)*1	ND(0.30)	ND(0.009)	ND(1.9)	ND(5.3×10^{-6})	(5.7 ± 1.7) $\times 10^{-6}$	S
T-6	2014/10/16	0.077	0.23	ND(17)*1	ND(0.30)					S
F-P06	2014/9/16	ND(0.053)	ND(0.046)	0.04*2	ND(0.42)	In progress		In progress	In progress	S
	2014/7/7	ND(0.056)	ND(0.051)	0.02*2	ND(0.42)	0.003		In progress	In progress	S
	2014/6/16	ND(0.055)	ND(0.055)	0.03*2	ND(0.40)	0.001		ND(1.4×10^{-5})	ND(1.3×10^{-5})	S
M-103	2014/9/13	0.016	0.052		0.10	0.0011				0.5m
F-P04	2014/9/16	ND(0.061)	0.058	0.03*2	ND(0.43)	In progress		In progress	In progress	S
	2014/7/7	ND(0.065)	ND(0.065)	0.04*2	ND(0.42)	0.004		In progress	In progress	S
	2014/6/16	ND(0.074)	ND(0.053)	0.03*2	ND(0.41)	0.004		ND(6×10^{-6})	6×10^{-6}	S
T-5	2014/10/2	ND(0.0017)	0.0030	ND(17)*1	ND(0.32)	ND(0.009)	ND(1.9)			S
	2014/4/2	ND(0.0014)	0.0044	ND(17)*1	ND(0.30)	ND(0.009)	ND(1.9)	ND(5.5×10^{-6})	(8.3 ± 2.1) $\times 10^{-6}$	S
T-D5	2014/10/1	ND(0.0017)	0.0057	ND(17)*1	ND(0.32)	ND(0.009)	ND(1.9)			S
	2014/4/1	0.0058	0.012	ND(17)*1	ND(0.30)	ND(0.009)	ND(1.9)	ND(5.2×10^{-6})	ND(4.5×10^{-6})	S
M-104	2014/9/12	0.030	0.094		0.15	0.0069				0.5m
F-P05	2014/9/16	ND(0.058)	ND(0.061)	0.04*2	ND(0.42)	In progress		In progress	In progress	S
	2014/7/7	ND(0.056)	ND(0.059)	0.04*2	ND(0.41)	0.006		In progress	In progress	S
	2014/6/16	ND(0.060)	ND(0.076)	0.03*2	ND(0.41)	0.001		ND(6×10^{-6})	6×10^{-6}	S
T-D9	2014/10/2	0.0081	0.023	ND(17)*1	ND(0.32)	ND(0.008)	ND(1.9)			S
	2014/4/2	0.0041	0.01	ND(16)*1	ND(0.30)	ND(0.008)	ND(1.9)	ND(4.7×10^{-6})	ND(4.5×10^{-6})	S
T-3	2014/10/16	0.093	0.26	ND(17)*1	ND(0.30)					S

Sea area between 2-20km radius 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
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Sea water radioactivity (Bq/L):

ND: under detection limits; Numbers in parentheses: detection limits

T-S1	2014/9/26	0.0032	0.012	S
		0.0028	0.013	B

T-14	2014/10/8	0.0082	0.022	S
		0.0049	0.012	B

T-S2	2014/9/26	0.0023	0.011	S
		0.0084	0.022	B

T-D1	2014/10/17	0.019	0.056	S
		0.0044	0.014	B

T-6	2014/10/16	0.077	0.23	S
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T-S8	2014/9/21	0.0055	0.019	S
		0.0028	0.014	B

T-3	2014/10/16	0.093	0.26	S
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T-S7	2014/9/4	0.018	0.059	S
		0.014	0.043	B

T-S5	2014/9/4	0.021	0.058	S
		0.0058	0.018	B

T-S3	2014/9/24	0.0069	0.022	S
		0.0053	0.020	B

T-S4	2014/9/24	0.0063	0.020	S
		0.0072	0.022	B

T-D5	2014/10/17	0.014	0.045	S
		0.0063	0.016	B

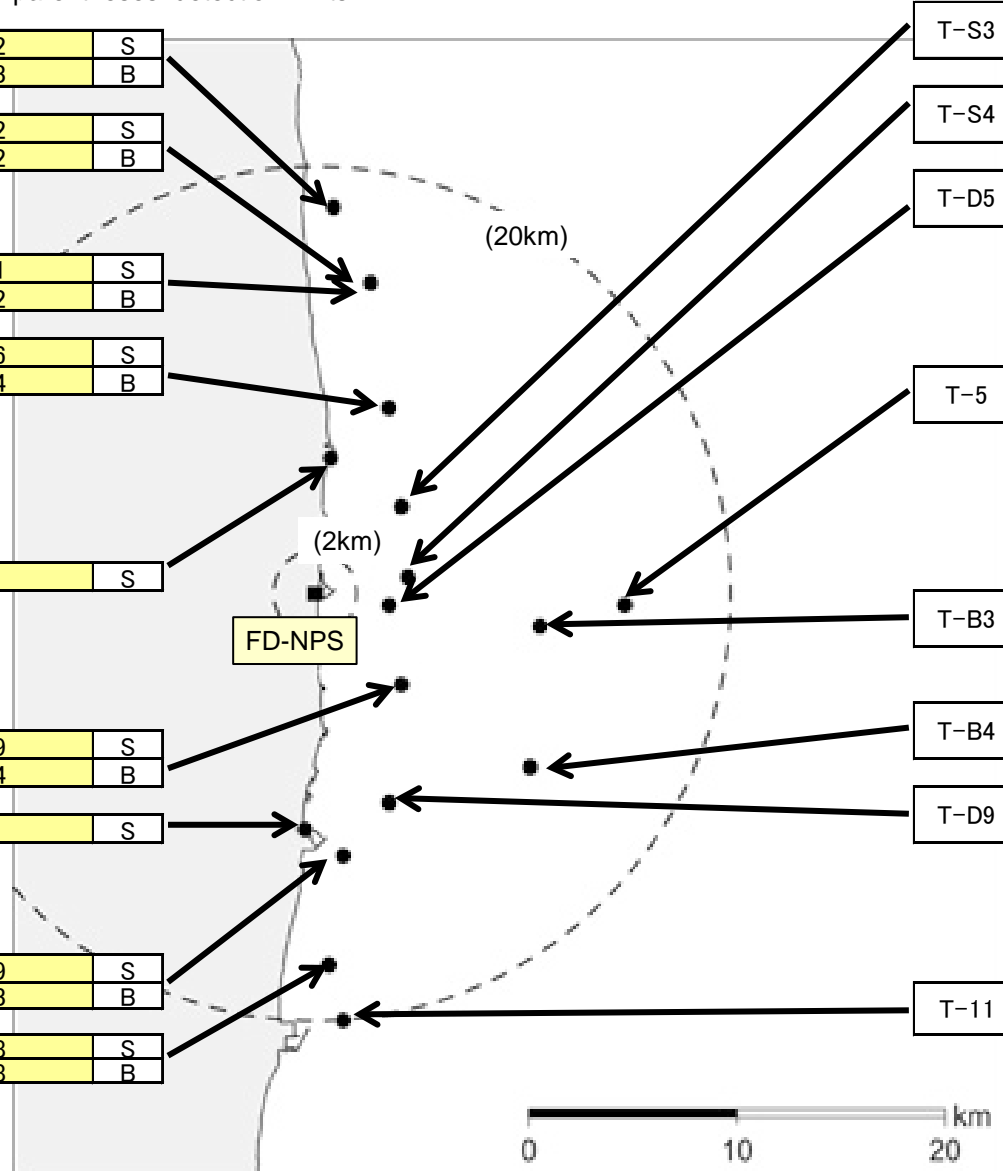
T-5	2014/10/8	0.0018	0.0065	S
		ND(0.0014)	0.0028	B

T-B3	2014/9/6	ND(0.0014)	0.0026	S
		0.0015	0.0043	B

T-B4	2014/9/6	ND(0.0014)	0.0029	S
		0.0016	0.0038	B

T-D9	2014/10/18	0.012	0.036	S
		0.0079	0.027	B

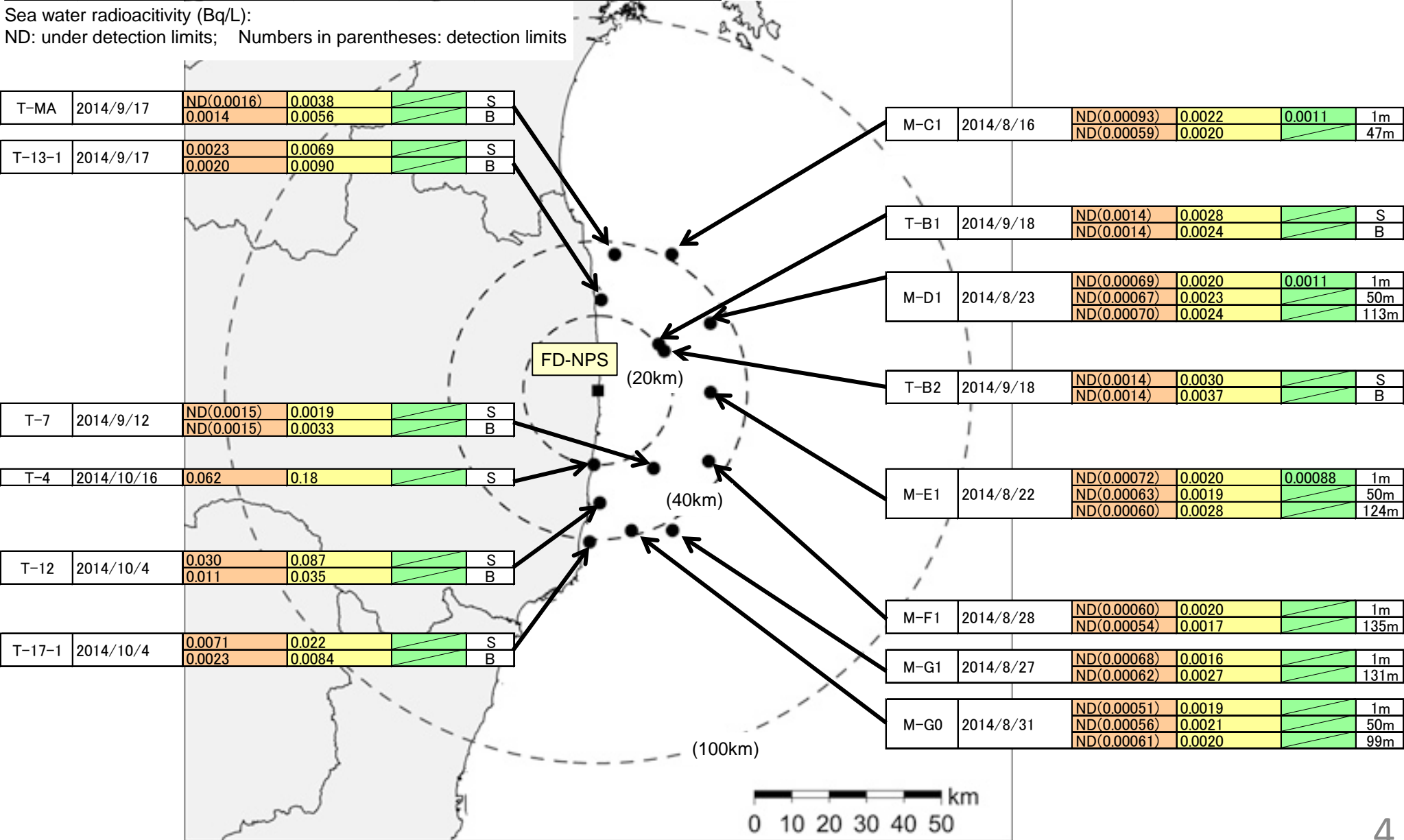
T-11	2014/10/8	0.031	0.10	S
		0.011	0.036	B



Sea area between 20-100km radius 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						

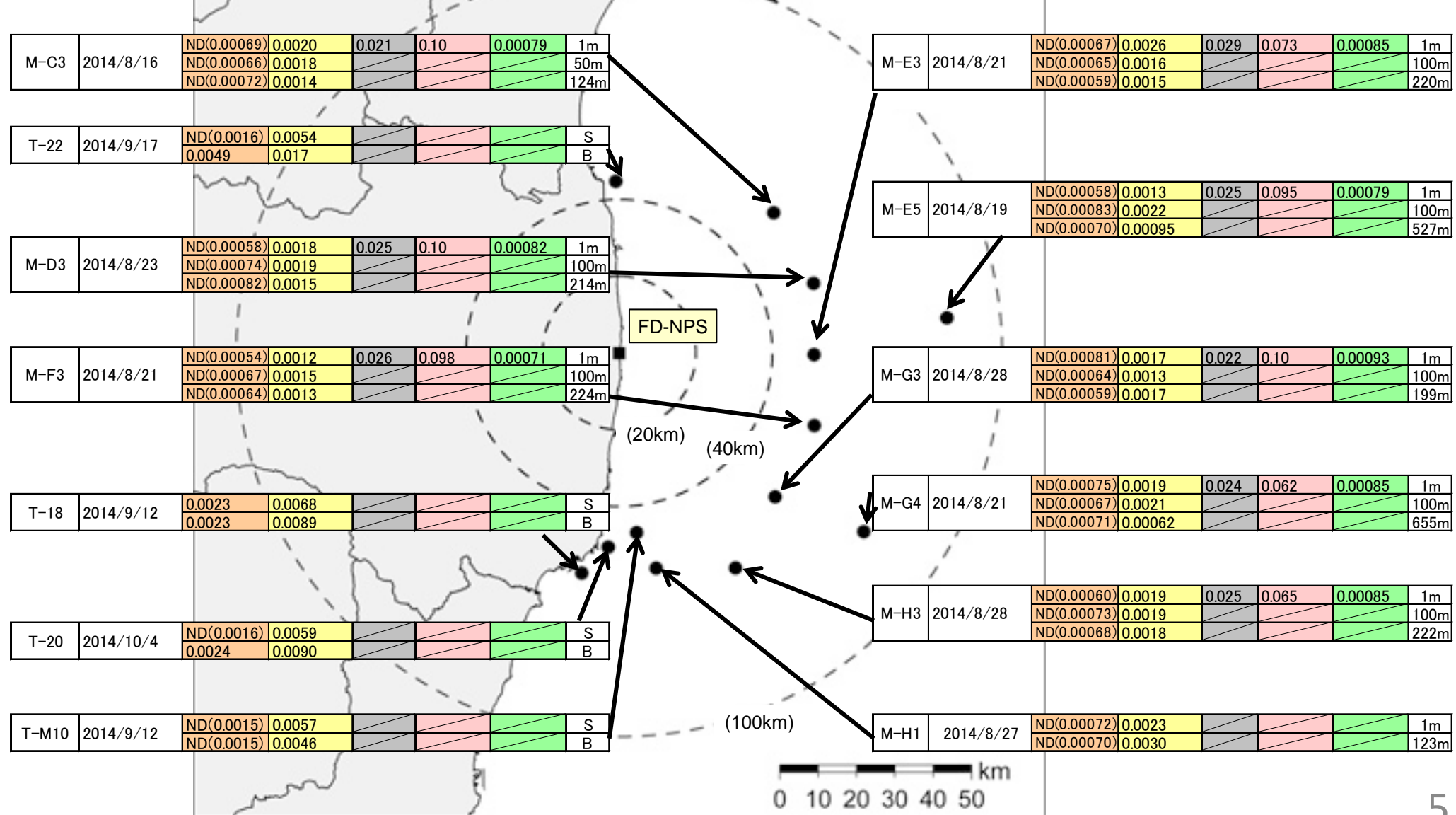
Sea water radioactivity (Bq/L):
 ND: under detection limits; Numbers in parentheses: detection limits



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

Sampling point	Sampling Date	Cs-134	Cs-137	Total β *	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: under detection limits; Numbers in parentheses: detection limits
 *Total β : excluding K-40



Sea area along and off the coast of Miyagi Prefecture

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	S/M/B
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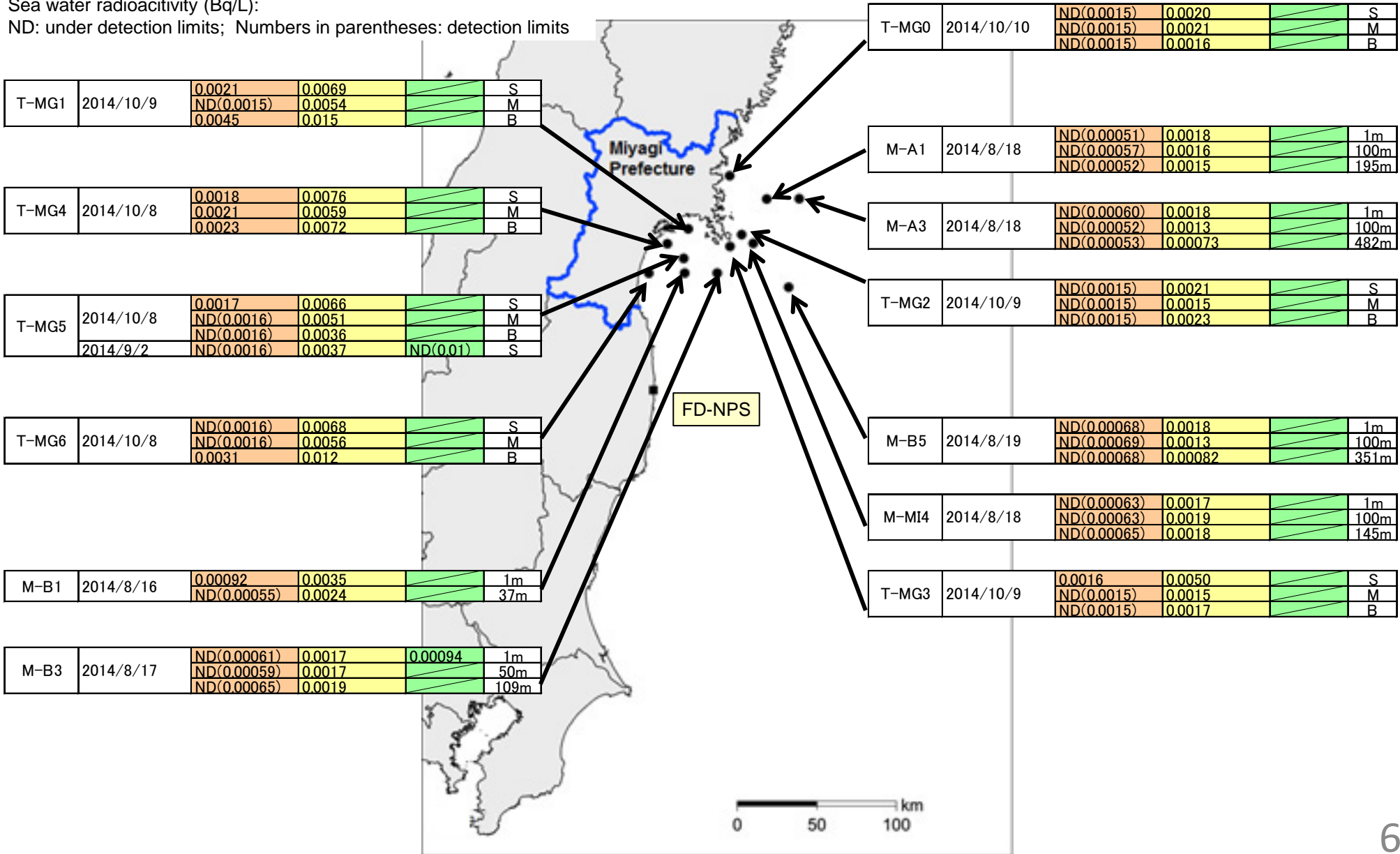
S:2m below sea level

M:between 2m below sea level and 2-3m above sea bottom

B:2-3m above sea bottom

Sea water radioactivity (Bq/L):

ND: under detection limits; Numbers in parentheses: detection limits

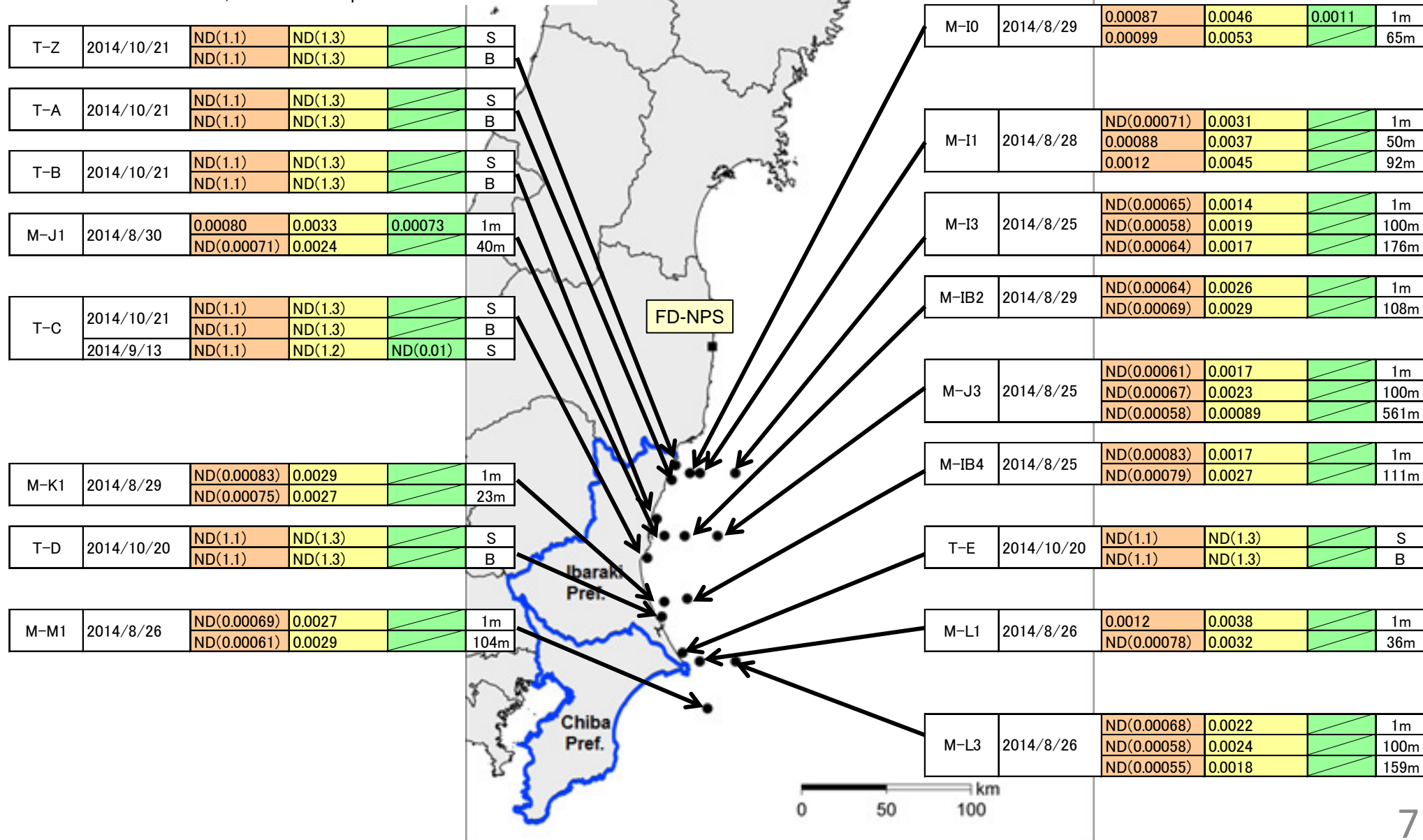


Sea area along and off the coast of Ibaraki Pref. and Chiba Pref.

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: under detection limits; 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: under detection limits; Numbers in parentheses: detection limits

M-10	2014/6/18	ND(0.00054)	0.0020	1m
		ND(0.00073)	0.0017	100m
		ND(0.00052)	0.0013	200m
		ND(0.00058)	0.0011	300m
		ND(0.00051)	0.00059	500m

M-14	2014/6/19	ND(0.00056)	0.0022	1m
		ND(0.00057)	0.0018	100m
		ND(0.00053)	0.0016	200m
		ND(0.00058)	0.00093	300m
		ND(0.00059)	0.00054	500m

M-19	2014/6/20	0.00095	0.0033	1m
		ND(0.00057)	0.0020	100m
		ND(0.00063)	0.0014	200m
		ND(0.00053)	0.0012	300m
		ND(0.00057)	0.00086	500m

M-20	2014/6/21	0.00067	0.0026	1m
		ND(0.00059)	0.0028	100m
		ND(0.00073)	0.0024	200m
		ND(0.00057)	0.0015	300m
		ND(0.00055)	0.00070	500m

M-25	2014/6/24	ND(0.00057)	0.0016	1m
		ND(0.00055)	0.0019	100m
		0.00069	0.0033	200m
		0.00097	0.0043	300m
		ND(0.00060)	0.0023	500m

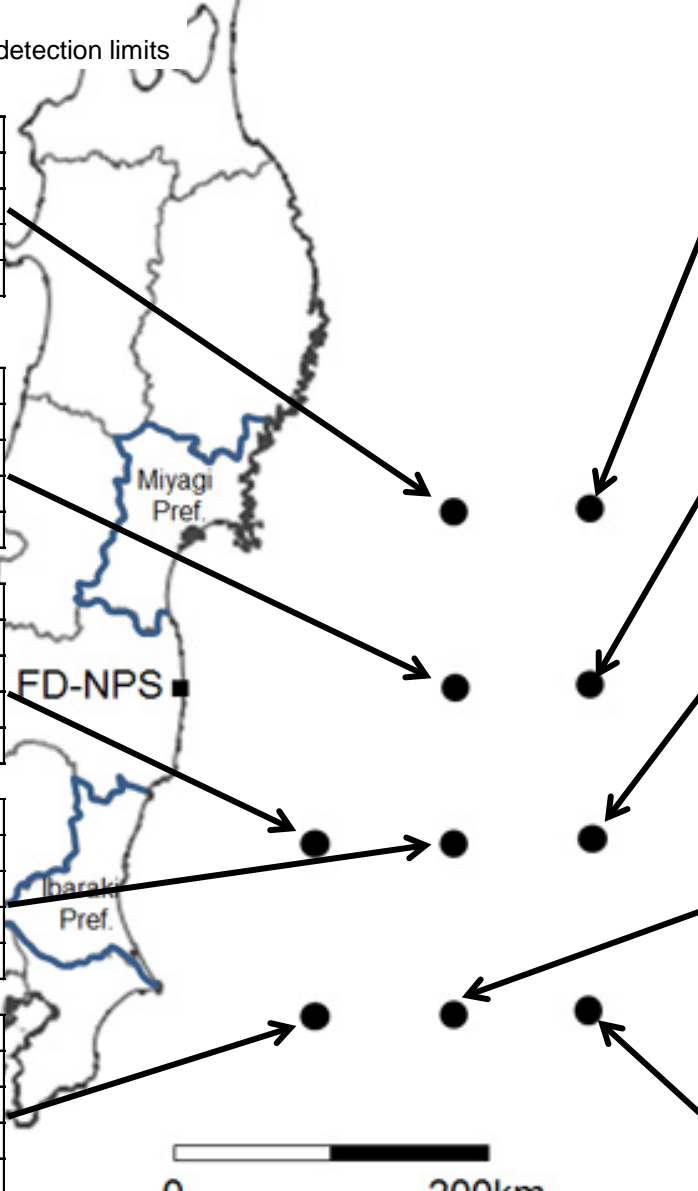
M-11	2014/6/18	0.00062	0.0030	1m
		0.00078	0.0028	100m
		ND(0.00052)	0.0020	200m
		ND(0.00054)	0.0014	300m
		ND(0.00059)	0.0012	500m

M-15	2014/6/19	ND(0.00056)	0.0025	1m
		ND(0.00055)	0.0021	100m
		ND(0.00060)	0.0017	200m
		ND(0.00052)	0.0012	300m
		ND(0.00061)	0.00080	500m

M-21	2014/6/21	ND(0.00057)	0.0020	1m
		ND(0.00056)	0.0029	100m
		0.00063	0.0032	200m
		ND(0.00065)	0.0021	300m
		ND(0.00053)	0.0015	500m

M-26	2014/6/23	ND(0.00056)	0.0022	1m
		ND(0.00069)	0.0031	100m
		0.00099	0.0038	200m
		0.0013	0.0047	300m
		0.00066	0.0032	500m

M-27	2014/6/22	ND(0.00057)	0.0028	1m
		ND(0.00070)	0.0027	100m
		0.0010	0.0033	200m
		ND(0.00056)	0.0035	300m
		0.0011	0.0051	500m



0 200km