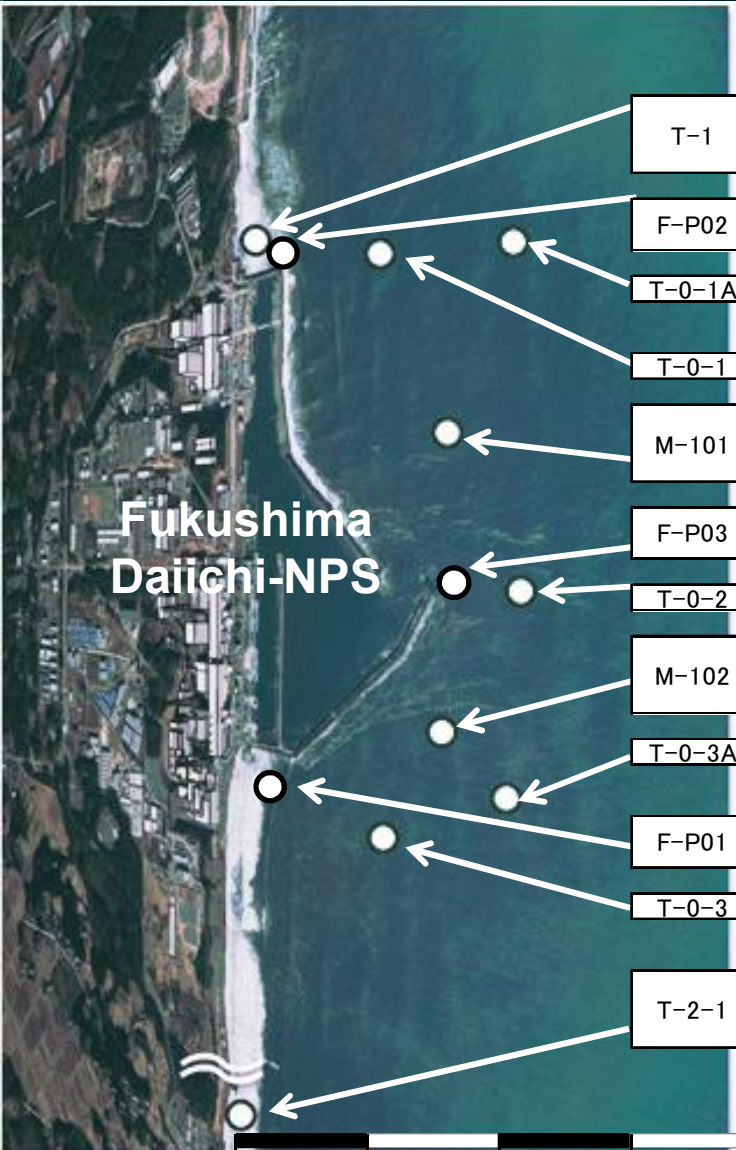


Sea Area Monitoring

November 04, 2014

Nuclear Regulation Authority (NRA), Japan

Sea area within 2km radius from the 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	2014/10/20	ND(0.66)	ND(0.62)	13 ^{*1}	ND(1.5)				
	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) $\times 10^{-6}$
F-P02	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	2014/10/17	ND(0.83)	ND(0.93)	ND(17) ^{*1}	ND(1.6)				
T-0-1	2014/10/17	ND(0.60)	ND(0.68)	ND(17) ^{*1}	ND(1.6)				
M-101	2014/9/13	0.040	0.12		In progress	In progress			
	2014/8/19	0.0028	0.0093		0.11	In progress			
	2014/7/18	0.010	0.032		0.17	0.0026			
F-P03	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	2014/10/17	ND(0.70)	ND(0.76)	ND(17) ^{*1}	ND(1.6)				
M-102	2014/9/12	0.039	0.120		In progress	In progress			
	2014/8/20	0.0093	0.028		0.15	In progress			
	2014/7/19	0.017	0.054		0.20	0.0099			
T-0-3A	2014/10/17	ND(0.72)	ND(0.73)	ND(17) ^{*1}	ND(1.6)				
F-P01	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	2014/10/17	ND(0.58)	ND(0.59)	ND(17) ^{*1}	ND(1.6)				
T-2-1	2014/10/20	ND(0.76)	ND(0.60)	14 ^{*1}	ND(1.5)				
	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) $\times 10^{-5}$

0 0.5 1km

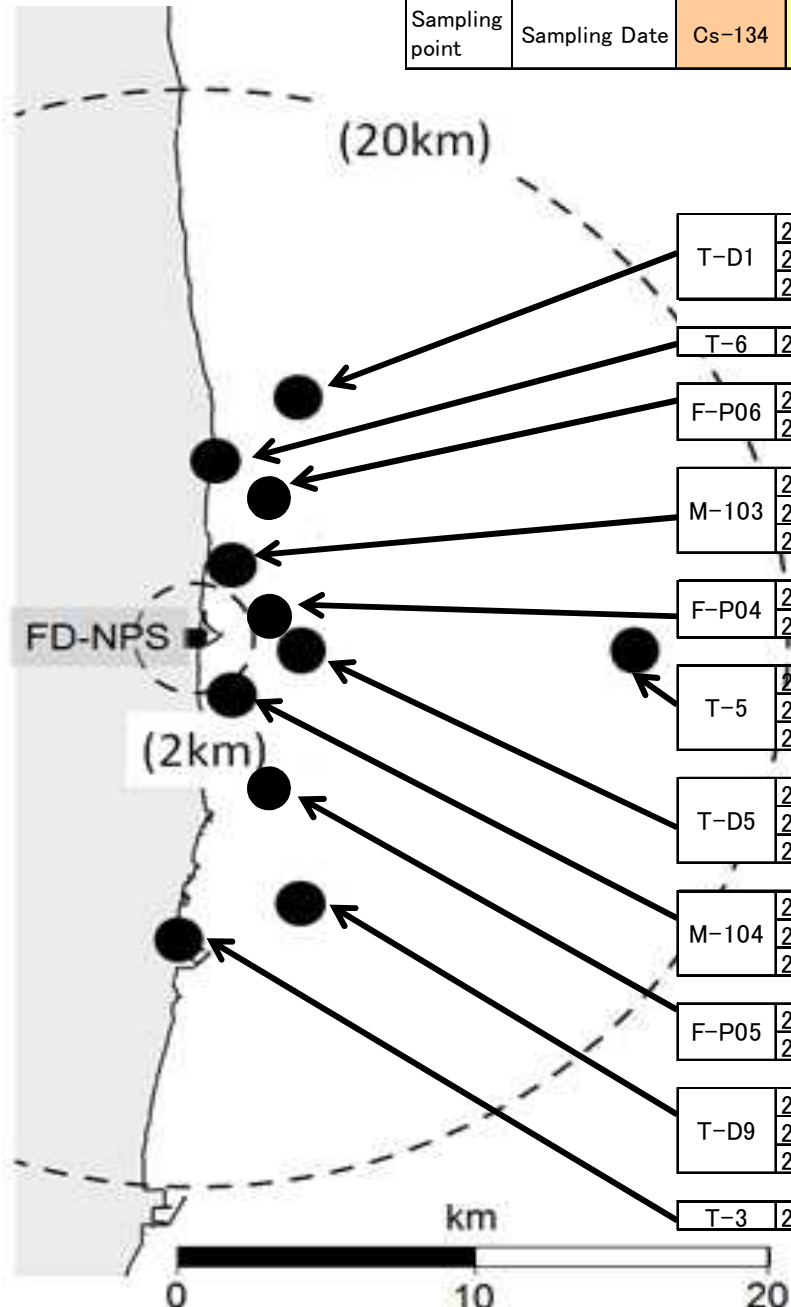
Sea area between 2-20km radius from the NPS (1)

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



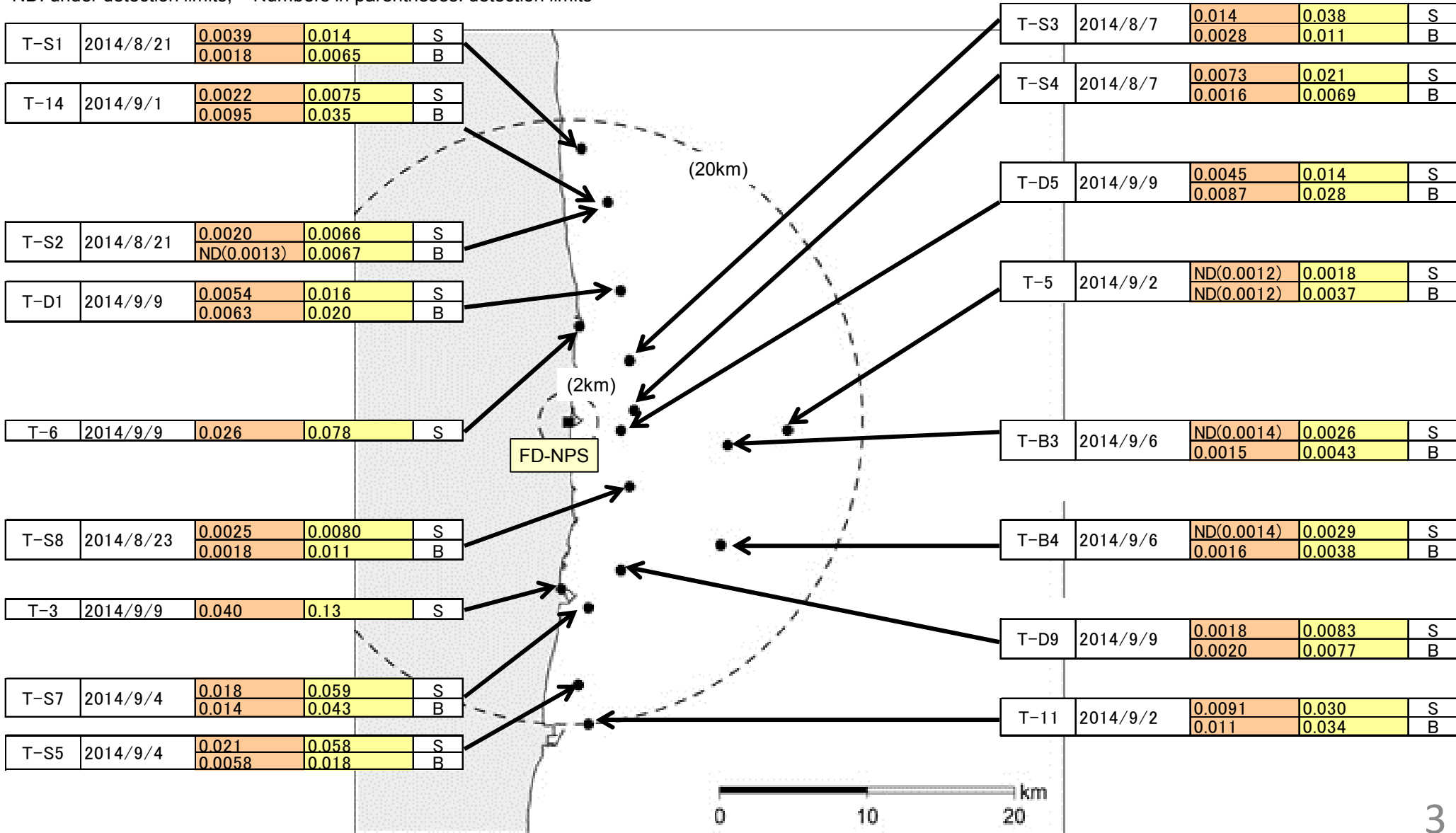
T-D1	2014/9/1	0.0031	0.0099	ND(16) ^{*1}	0.56	ND(0.01)	ND(2.0)			S
	2014/8/18	0.0022	0.0069	ND(17) ^{*1}	0.89					S
	2014/4/1	0.0027	0.0086	ND(17) ^{*1}	ND(0.30)	ND(0.009)	ND(1.9)	ND(5.3 × 10 ⁻⁶)	(5.7 ± 1.7) × 10 ⁻⁶	S
T-6	2014/9/2	0.020	0.055	ND(17) ^{*1}	ND(0.31)					S
F-P06	2014/7/7	ND(0.056)	ND(0.051)	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		In progress	In progress				0.5m
	2014/8/19	0.0025	0.0090		0.11	In progress				0.5m
	2014/7/18	0.0038	0.012		0.12	0.00087				0.5m
F-P04	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	2014/9/2	ND(0.0012)	0.0018	ND(16) ^{*1}	ND(0.34)	ND(0.01)	ND(2.0)			S
	2014/8/18	ND(0.0017)	0.0034	ND(17) ^{*1}	0.59					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) × 10 ⁻⁶	S
T-D5	2014/9/1	0.010	0.030	ND(16) ^{*1}	0.38	ND(0.01)	ND(2.0)			S
	2014/8/18	0.0025	0.0066	ND(17) ^{*1}	0.60					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		In progress	In progress				0.5m
	2014/8/20	0.0059	0.019		0.13	In progress				0.5m
	2014/7/19	0.0048	0.017		0.18	0.0011				0.5m
F-P05	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	2014/9/2	0.0017	0.0059	ND(16) ^{*1}	ND(0.34)	ND(0.009)	ND(1.9)			S
	2014/8/18	ND(0.0017)	0.0039	ND(17) ^{*1}	0.49					S
	2014/4/2	0.0041	0.010	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	2014/9/2	0.027	0.11	ND(17) ^{*1}	ND(0.31)					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				

Sea water radioactivity (Bq/L):

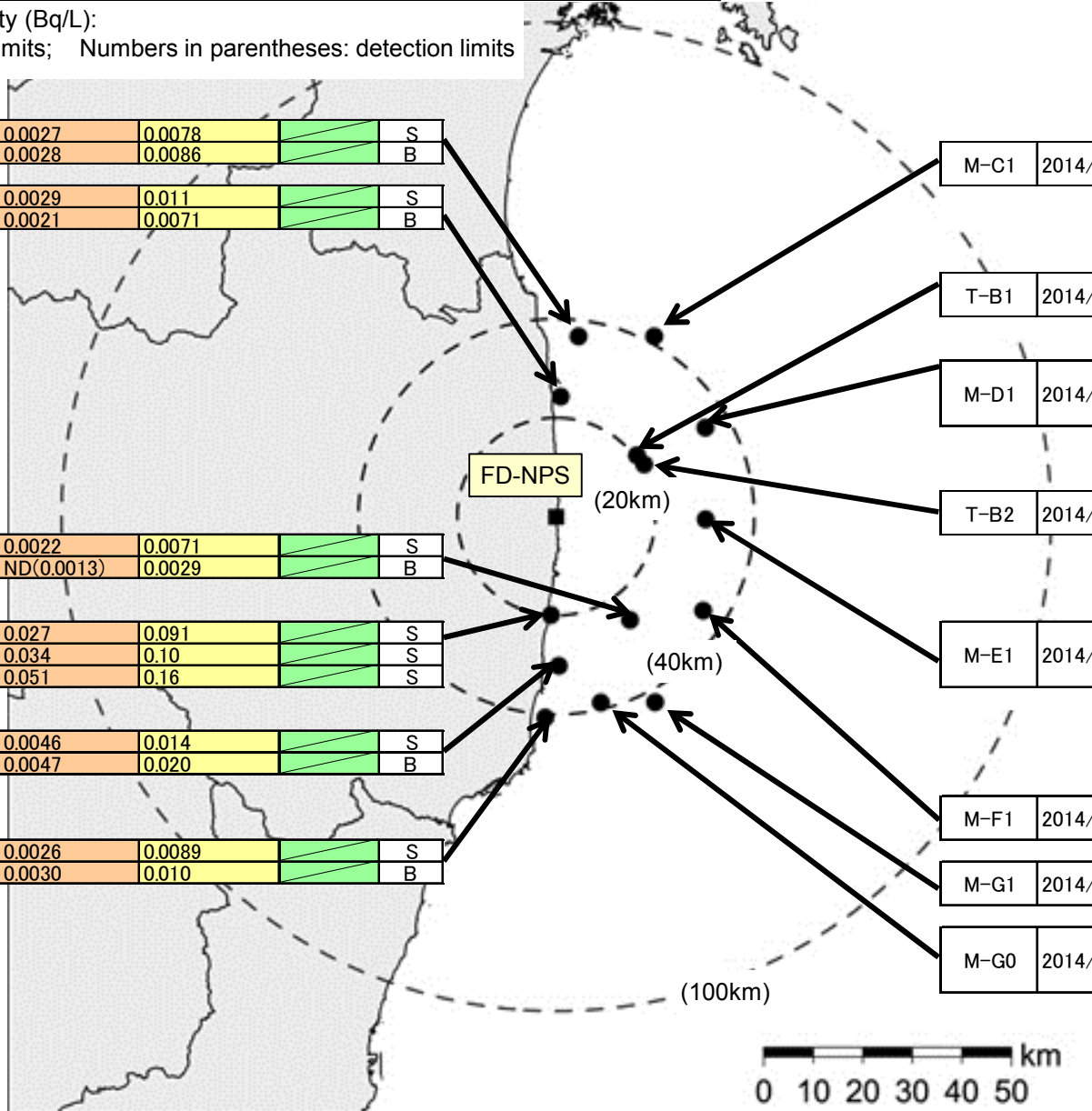
ND: under detection limits; Numbers in parentheses: detection limits



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



T-MA	2014/8/29	0.0027	0.0078		S
		0.0028	0.0086		B
T-13-1	2014/8/29	0.0029	0.011		S
		0.0021	0.0071		B

M-C1	2014/5/13	0.0013	0.0039		1m
		0.0015	0.0050		46m

T-B1	2014/8/20	ND(0.0013)	0.0031		S
		ND(0.0013)	0.0048		B

M-D1	2014/5/20	0.0017	0.0048		1m
		0.0016	0.0051		50m
		ND(0.00056)	0.0023		116m

T-B2	2014/8/20	ND(0.0013)	0.0024		S
		ND(0.0013)	0.0043		B

T-7	2014/8/6	0.0022	0.0071		S
		ND(0.0013)	0.0029		B

M-E1	2014/5/17	0.0012	0.0046		1m
		0.00096	0.0036		50m
		ND(0.00059)	0.0020		125m

T-4	2014/9/9	0.027	0.091		S	
		2014/9/2	0.034		0.10	S
		2014/8/26	0.051		0.16	S

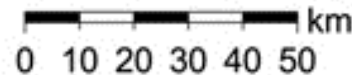
T-12	2014/8/2	0.0046	0.014		S
		0.0047	0.020		B

M-F1	2014/5/17	0.0016	0.0049		1m
		ND(0.00068)	0.0020		133m

T-17-1	2014/8/2	0.0026	0.0089		S
		0.0030	0.010		B

M-G1	2014/5/24	ND(0.00055)	0.0015		1m
		ND(0.00065)	0.0019		129m

M-G0	2014/5/24	ND(0.00055)	0.0017		1m
		ND(0.00064)	0.0028		50m
		0.00068	0.0036		93m



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

M-C3	2014/8/16	In progress	In progress	0.021	0.10	In progress	1m
		0.0017	0.0063	0.024	0.11	0.0011	1m
	2014/5/13	0.00071	0.0023				50m
		ND(0.00061)	0.0015				124m

T-22	2014/8/29	0.0028	0.010				S
		0.0032	0.012				B

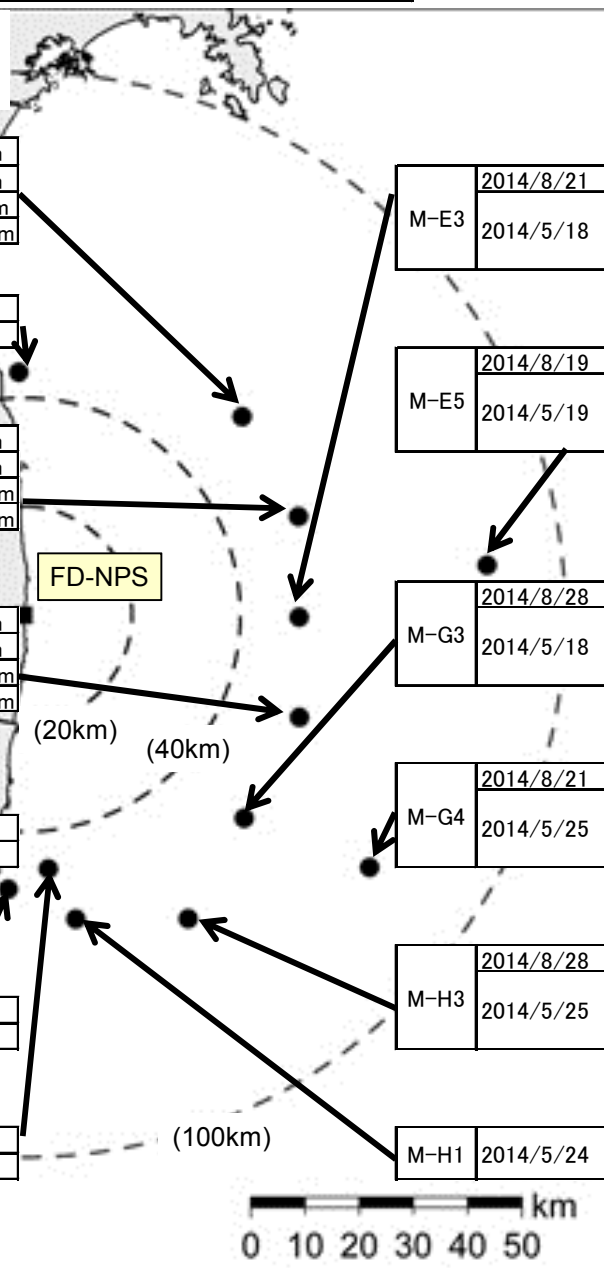
M-D3	2014/8/23	In progress	In progress	0.025	0.10	In progress	1m
		0.0017	0.0061	0.018	0.080	0.0012	1m
	2014/5/16	ND(0.00061)	0.0020				100m
		ND(0.00061)	0.0014				210m

M-F3	2014/8/21	In progress	In progress	0.026	0.098	In progress	1m
		0.0016	0.0048	0.027	0.089	0.0011	1m
	2014/5/18	ND(0.00057)	0.0015				100m
		ND(0.00066)	0.0015				222m

T-18	2014/8/6	0.0027	0.0074				S
		0.0026	0.0073				B

T-20	2014/8/2	0.0015	0.0068				S
		0.0019	0.0077				B

T-M10	2014/8/6	ND(0.0013)	0.0023				S
		ND(0.0013)	0.0038				B



M-E3	2014/8/21	In progress	In progress	0.029	0.073	In progress	1m
		0.0015	0.0038	0.024	0.10	0.00091	1m
	2014/5/18	ND(0.00064)	0.0019				100m
		ND(0.00064)	0.0014				218m

M-E5	2014/8/19	In progress	In progress	0.025	0.095	In progress	1m
		ND(0.00059)	0.0015	0.021	0.076	0.00084	1m
	2014/5/19	ND(0.00056)	0.0018				100m
		ND(0.00075)	0.00062				522m

M-G3	2014/8/28	In progress	In progress	0.022	0.10	In progress	1m
		0.0011	0.0029	0.027	0.076	0.00084	1m
	2014/5/18	ND(0.00056)	0.0016				100m
		ND(0.00064)	0.0016				196m

M-G4	2014/8/21	In progress	In progress	0.024	0.062	In progress	1m
		ND(0.00063)	0.0028	0.024	0.059	0.0011	1m
	2014/5/25	ND(0.00059)	0.0016				100m
		ND(0.00080)	0.00057				645m

M-H3	2014/8/28	In progress	In progress	0.025	0.065	In progress	1m
		ND(0.00060)	0.0021	0.020	0.084	0.0010	1m
	2014/5/25	ND(0.00056)	0.0017				100m
		ND(0.00053)	0.0017				214m

M-H1	2014/5/24	0.0016	0.0049				1m
		ND(0.00059)	0.0020				122m

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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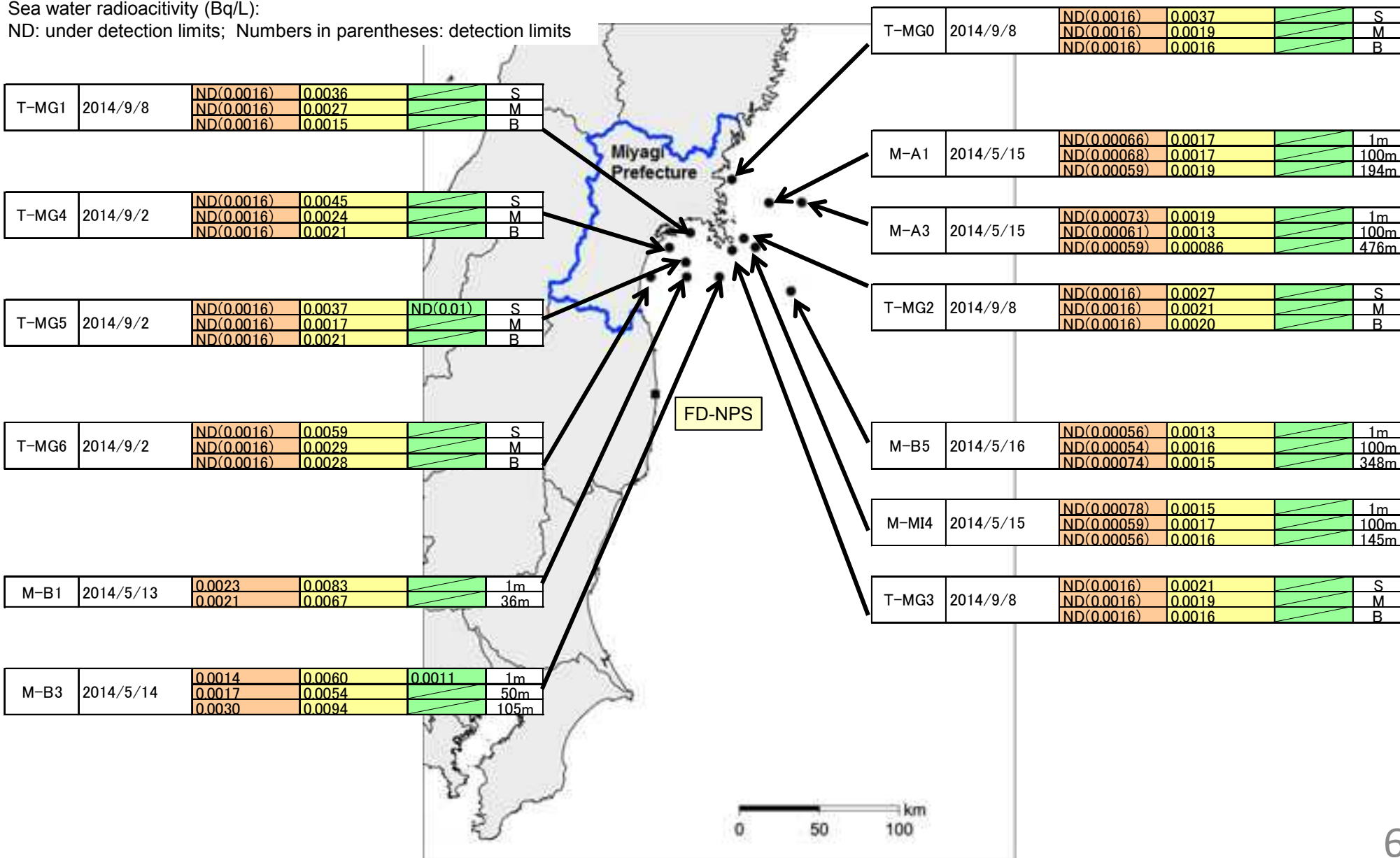
S:2m below sea level

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

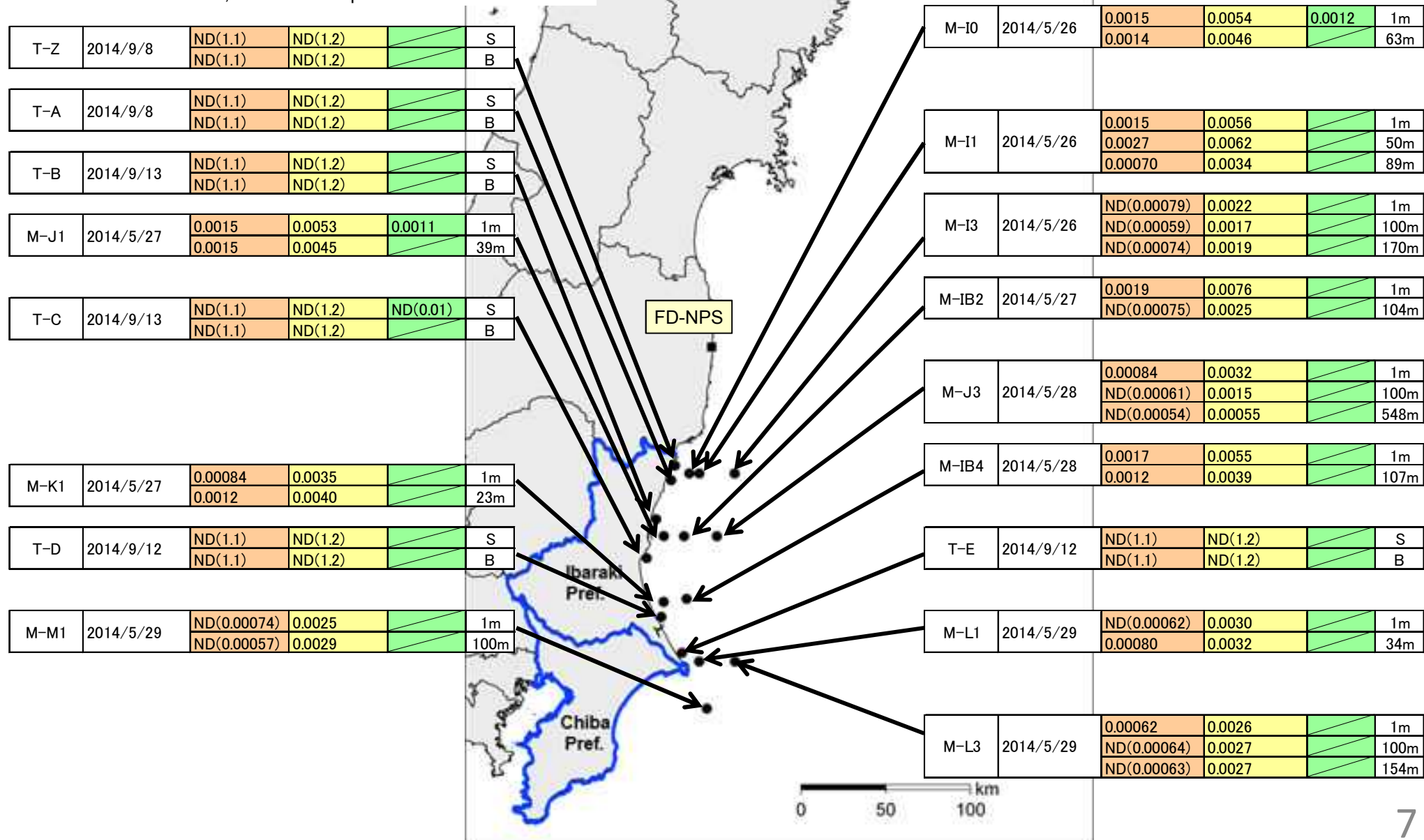


Sea area along and off the coast of Ibaraki Pref. and Chiba Pref.

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

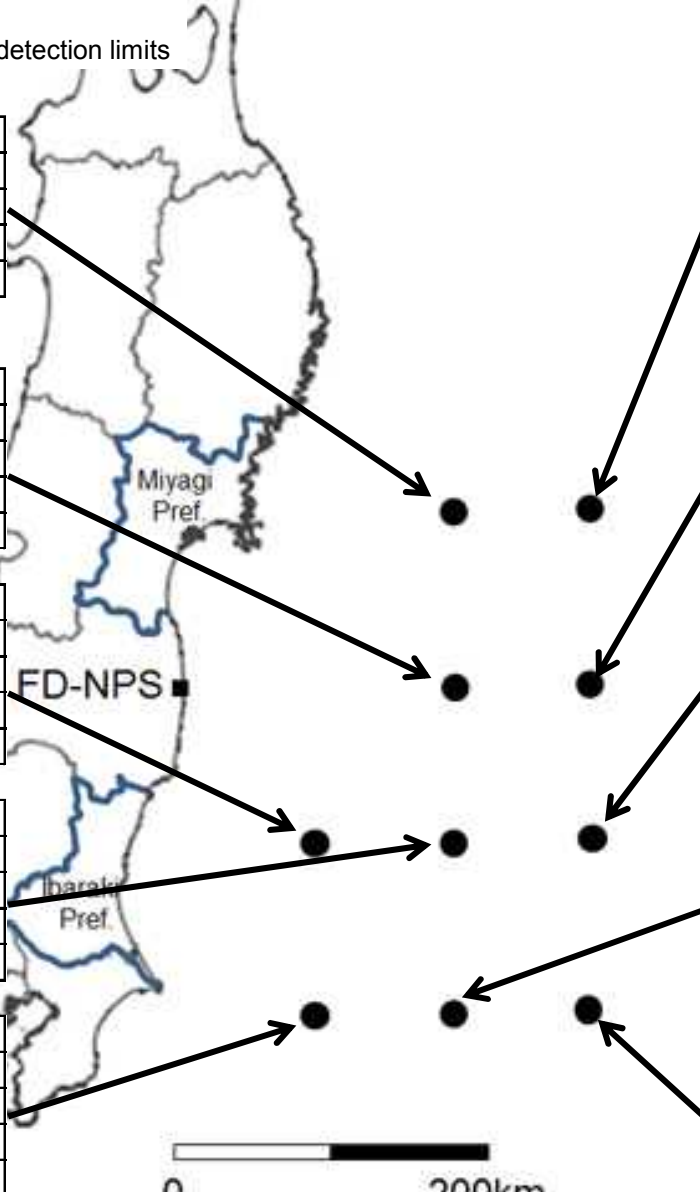
M-11	2014/6/18	0.00062	0.0030	1m
		0.00078	0.0028	100m
		ND(0.00052)	0.0020	200m
		ND(0.00054)	0.0014	300m
		ND(0.00059)	0.0012	500m

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