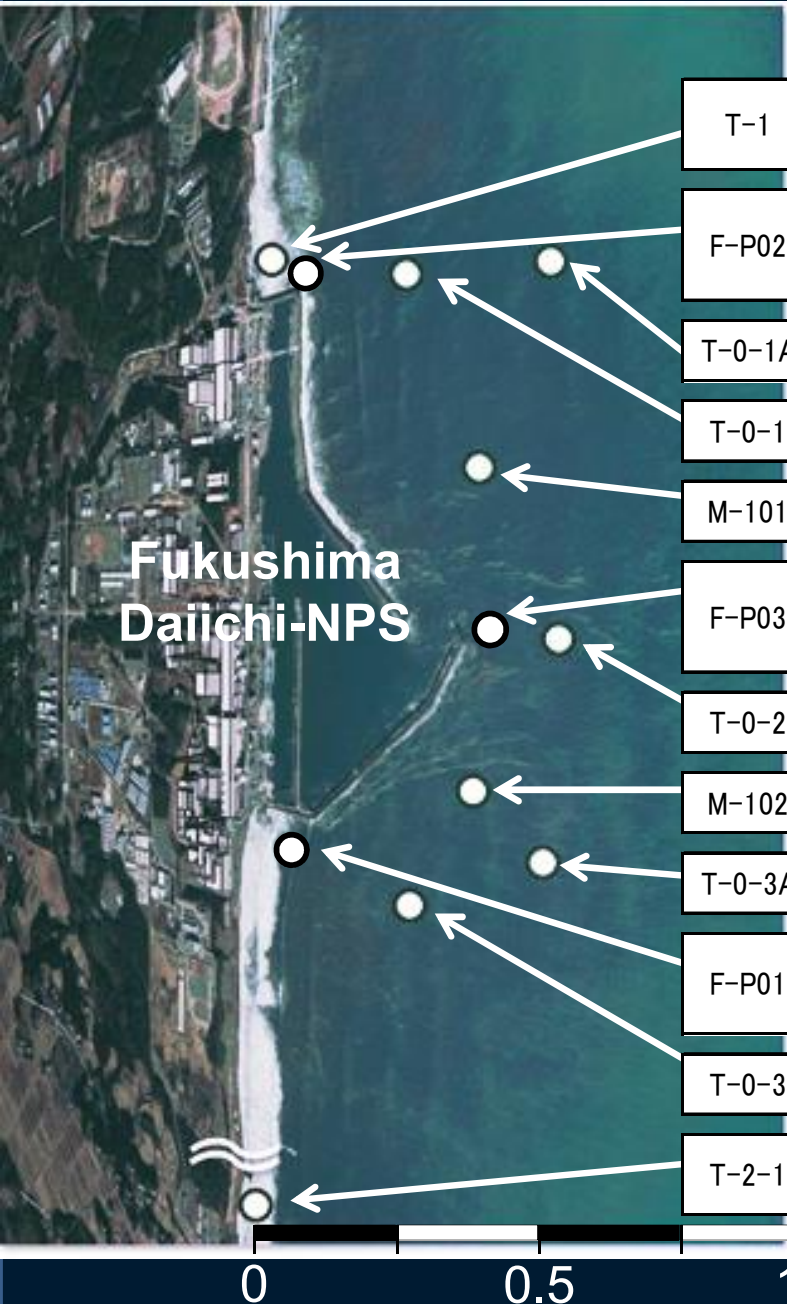


Sea Area Monitoring

February 02, 2016

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+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	2016/1/21	ND(0.70)	ND(0.80)	12 ^{*1}	ND(1.6)				
	2015/12/7	ND(0.68)	ND(0.78)	14 ^{*1}	ND(1.5)	0.021	ND(2.0)		
	2015/10/14	ND(0.69)	ND(0.65)	13 ^{*1}	ND(1.7)	0.087	ND(1.9)	ND(5.8×10^{-6})	(1.0 ± 0.24) $\times 10^{-5}$
F-P02	2015/12/14	ND(0.059)	0.059	0.08 ^{*2}	ND(0.40)	In progress		In progress	In progress
	2015/11/17	ND(0.064)	0.13	0.06 ^{*2}	ND(0.34)	In progress		In progress	In progress
	2015/10/13	ND(0.080)	0.14	0.08 ^{*2}	ND(0.45)	0.054		In progress	In progress
	2015/9/14	0.21	1.0	0.03 ^{*2}	ND(0.41)	0.003		ND(7×10^{-6})	ND(7×10^{-6})
T-0-1A	2016/1/20	ND(0.63)	ND(0.74)	ND(18) ^{*1}	In progress				
	2016/1/11	ND(0.80)	ND(0.78)	ND(17) ^{*1}	ND(1.5)				
T-0-1	2016/1/20	ND(0.62)	ND(0.50)	ND(18) ^{*1}	In progress				
	2016/1/11	ND(0.66)	ND(0.71)	ND(17) ^{*1}	ND(1.5)				
M-101	2015/11/11	0.0073	0.034		0.092	In progress			
	2015/10/5	0.018	0.085		0.44	0.077			
F-P03	2015/12/14	ND(0.055)	0.081	0.06 ^{*2}	ND(0.40)	In progress		In progress	In progress
	2015/11/17	ND(0.058)	0.070	0.02 ^{*2}	ND(0.33)	In progress		In progress	In progress
	2015/10/13	0.10	0.46	0.19 ^{*2}	2.1	0.27		In progress	In progress
	2015/9/14	ND(0.051)	0.087	0.03 ^{*2}	ND(0.40)	0.002		ND(7×10^{-6})	ND(7×10^{-6})
T-0-2	2016/1/20	ND(0.92)	ND(0.67)	ND(18) ^{*1}	In progress				
	2016/1/11	ND(0.67)	ND(0.59)	ND(17) ^{*1}	ND(1.5)				
M-102	2015/11/12	0.023	0.11		0.12	In progress			
	2015/10/6	0.016	0.066		0.20	0.017			
T-0-3A	2016/1/20	ND(0.77)	ND(0.85)	ND(18) ^{*1}	In progress				
	2016/1/11	ND(0.78)	ND(0.75)	ND(17) ^{*1}	ND(1.5)				
F-P01	2015/12/14	ND(0.060)	0.099	0.05 ^{*2}	ND(0.41)	In progress		In progress	In progress
	2015/11/17	ND(0.062)	0.17	0.06 ^{*2}	ND(0.34)	In progress		In progress	In progress
	2015/10/13	ND(0.080)	0.11	0.03 ^{*2}	0.53	0.008		In progress	In progress
	2015/9/14	ND(0.053)	0.15	0.05 ^{*2}	0.55	0.031		ND(6×10^{-6})	6×10^{-6}
T-0-3	2016/1/20	ND(0.75)	ND(0.59)	ND(18) ^{*1}	In progress				
	2016/1/11	ND(0.86)	ND(0.87)	ND(17) ^{*1}	ND(1.5)				
T-2-1	2016/1/11	ND(0.76)	ND(0.49)	9.7 ^{*1}	ND(1.7)				
	2015/12/7	ND(0.63)	ND(0.67)	10 ^{*1}	ND(1.5)	ND(0.0075)	ND(2.0)		
	2015/10/14	ND(0.88)	ND(0.78)	11 ^{*1}	ND(1.7)	ND(0.0093)	ND(1.9)	ND(5.5×10^{-6})	(1.8 ± 0.30) $\times 10^{-5}$

0 0.5 1km

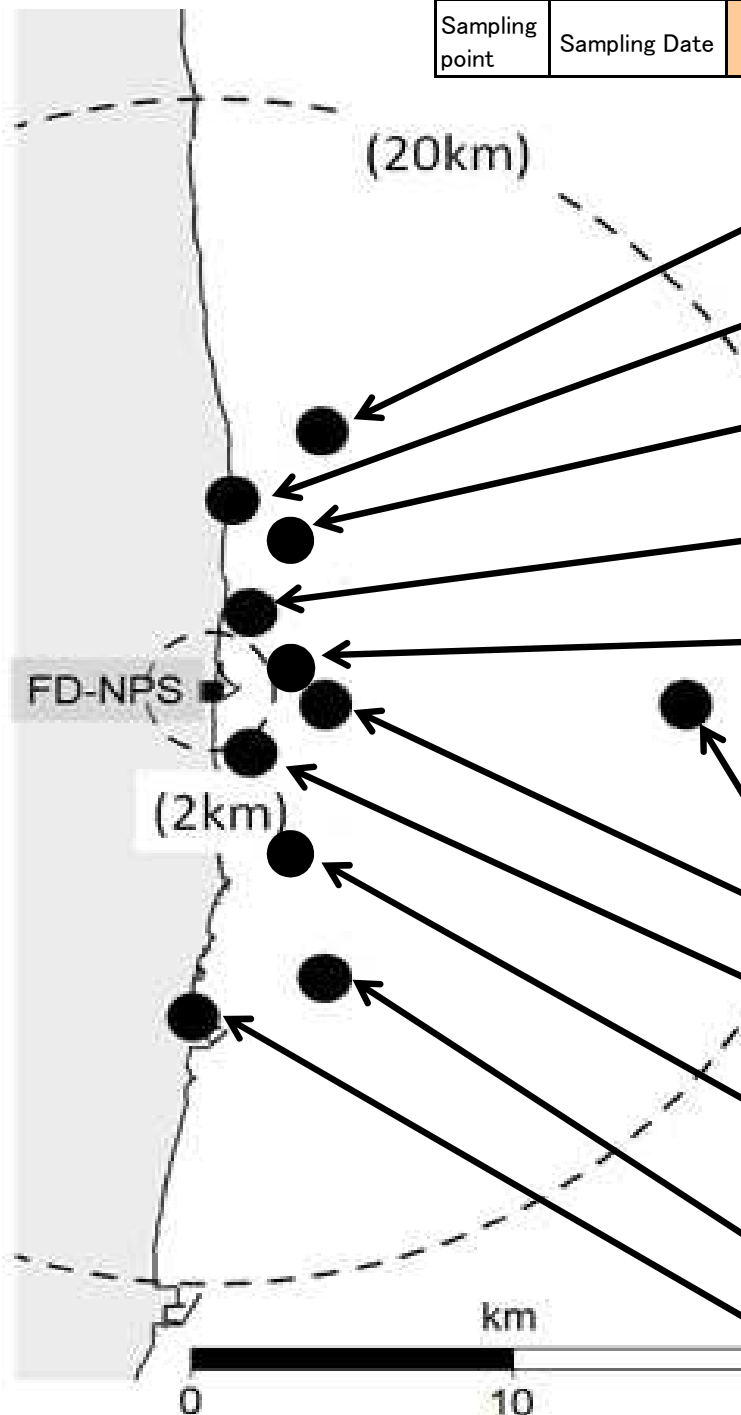
Sea area between 2-20km radius from the NPS (1)

Sampling point	Sampling Date	Cs-134	Cs-137	total β	H-3	Sr-90	total α	Pu-238	Pu-239+240	S	S:2m below sea level
											Depth(m) from sea level

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

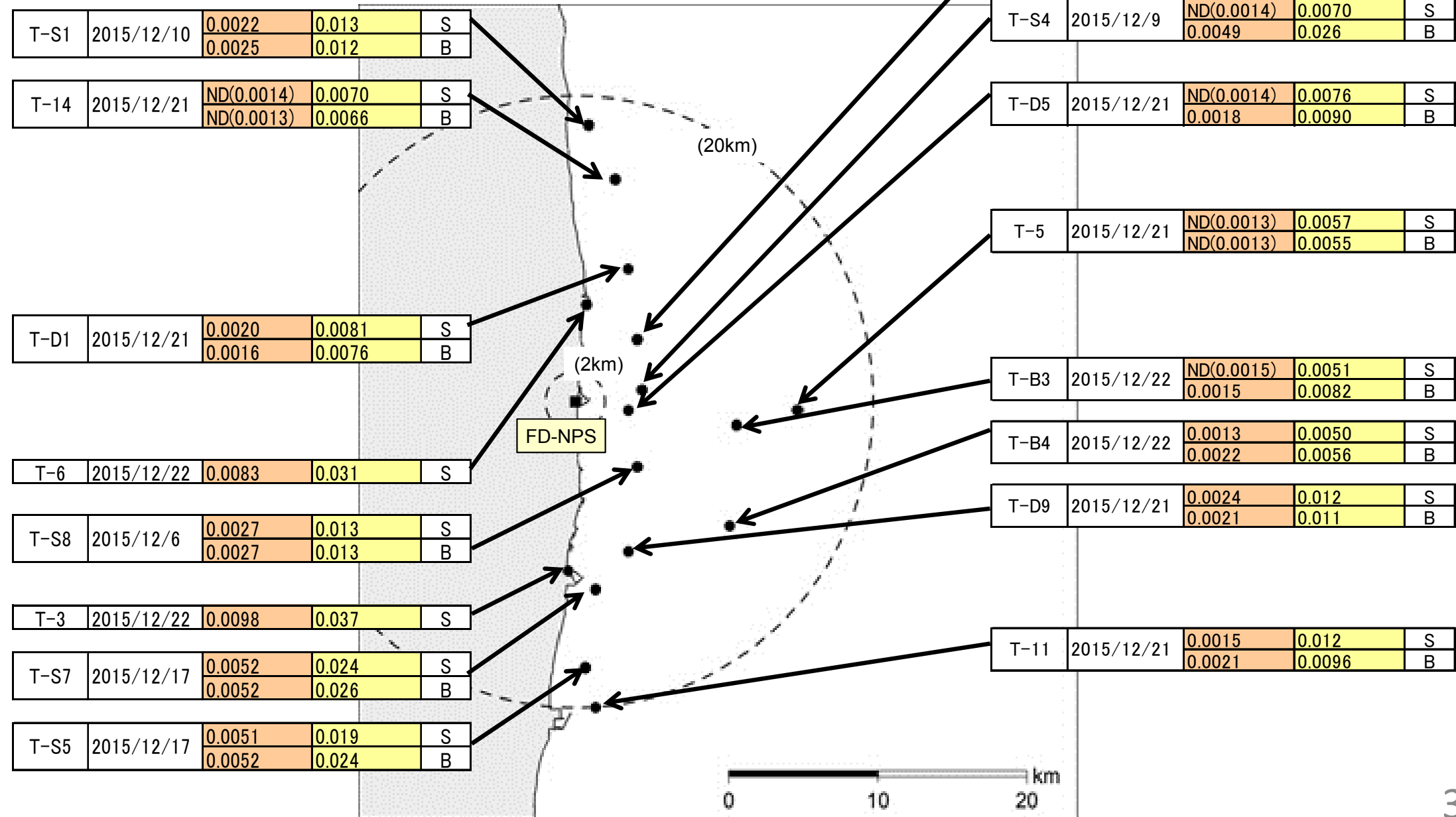


T-D1	2015/12/14	0.0019	0.0096	ND(17) ^{*1}	ND(0.32)						S
	2015/12/2	0.0055	0.024	ND(17) ^{*1}	ND(0.32)	ND(0.0072)	ND(1.9)				S
	2015/10/5	0.0029	0.010	ND(16) ^{*1}	ND(0.36)	ND(0.0066)	ND(1.6)	ND(5.1 × 10 ⁻⁶)	ND(5.1 × 10 ⁻⁶)		S
T-6	2015/12/15	0.011	0.058	ND(17) ^{*1}	ND(0.37)						S
F-P06	2015/12/14	ND(0.069)	ND(0.066)	0.05 ^{*2}	ND(0.39)	In progress		In progress	In progress		S
	2015/11/17	ND(0.051)	ND(0.044)	0.04 ^{*2}	ND(0.34)	In progress		In progress	In progress		S
	2015/10/13	ND(0.087)	ND(0.070)	0.03 ^{*2}	ND(0.45)	0.010		In progress	In progress		S
	2015/9/14	ND(0.050)	0.082	0.02 ^{*2}	0.47	0.001		ND(8 × 10 ⁻⁶)	ND(8 × 10 ⁻⁶)		S
M-103	2015/11/11	0.0042	0.022		0.085	In progress					0.5m
	2015/10/5	0.0046	0.020		0.10	0.0017					0.5m
F-P04	2015/12/14	ND(0.066)	ND(0.070)	0.04 ^{*2}	ND(0.39)	In progress		In progress	In progress		S
	2015/11/17	ND(0.066)	ND(0.048)	0.04 ^{*2}	ND(0.34)	In progress		In progress	In progress		S
	2015/10/13	ND(0.074)	ND(0.071)	0.02 ^{*2}	ND(0.46)	0.001		In progress	In progress		S
	2015/9/14	ND(0.054)	0.052	0.02 ^{*2}	ND(0.40)	0.002		ND(7 × 10 ⁻⁶)	ND(7 × 10 ⁻⁶)		S
T-5	2015/12/16	ND(0.0012)	0.0031	ND(17) ^{*1}	ND(0.31)						S
	2015/12/2	ND(0.0014)	0.0041	ND(17) ^{*1}	ND(0.32)	ND(0.0070)	ND(1.9)				S
	2015/10/6	ND(0.0015)	0.0042	ND(16) ^{*1}	ND(0.36)	ND(0.0067)	ND(1.9)	ND(5.1 × 10 ⁻⁶)	(7.2 ± 1.9) × 10 ⁻⁶		S
T-D5	2015/12/14	0.0021	0.011	ND(17) ^{*1}	ND(0.32)						S
	2015/12/2	0.0022	0.011	ND(17) ^{*1}	ND(0.32)	ND(0.0069)	ND(1.9)				S
	2015/10/5	ND(0.0016)	0.0085	ND(16) ^{*1}	ND(0.36)	ND(0.0062)	ND(1.6)	ND(5.1 × 10 ⁻⁶)	ND(5.3 × 10 ⁻⁶)		S
M-104	2015/11/12	0.0066	0.029		0.11	In progress					0.5m
	2015/10/6	0.0041	0.016		0.080	0.0015					0.5m
F-P05	2015/12/14	ND(0.064)	0.062	0.04 ^{*2}	ND(0.39)	In progress		In progress	In progress		S
	2015/11/17	ND(0.060)	0.055	0.03 ^{*2}	ND(0.33)	In progress		In progress	In progress		S
	2015/10/13	ND(0.075)	ND(0.069)	0.03 ^{*2}	ND(0.44)	0.001		In progress	In progress		S
	2015/9/14	0.067	0.31	0.03 ^{*2}	ND(0.39)	0.009		ND(5 × 10 ⁻⁶)	ND(5 × 10 ⁻⁶)		S
T-D9	2015/12/14	0.0034	0.016	ND(17) ^{*1}	ND(0.32)						S
	2015/12/2	ND(0.0013)	0.0049	ND(17) ^{*1}	ND(0.32)	ND(0.0073)	ND(1.9)				S
	2015/10/6	0.0026	0.013	ND(16) ^{*1}	ND(0.36)	ND(0.0068)	ND(1.9)	ND(5.2 × 10 ⁻⁶)	ND(5.0 × 10 ⁻⁶)		S
T-3	2015/12/15	0.013	0.049	ND(16) ^{*1}	ND(0.37)						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



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	2015/12/8	0.0019 0.0016	0.0085 0.0071		S B
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T-13-1	2015/12/8	0.0037 0.0062	0.014 0.033		S B
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T-7	2015/12/8	ND(0.0012) ND(0.0013)	0.0022 0.0033		S B
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T-4	2015/12/22	0.0070	0.030		S
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T-12	2015/12/6	ND(0.0015) 0.0017	0.0074 0.0076		S B
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T-17-1	2015/12/6	ND(0.0016) ND(0.0016)	0.0078 0.0059		S B
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M-C1	2015/8/9	0.00031 0.00050	0.0028 0.0026	0.0016 	1m 44m
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T-B1	2015/12/15	ND(0.0014) ND(0.0014)	0.0043 0.0042		S B
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M-D1	2015/8/9	0.00028 0.00016 0.00033	0.0024 0.0018 0.0028	0.0016 	1m 50m 113m
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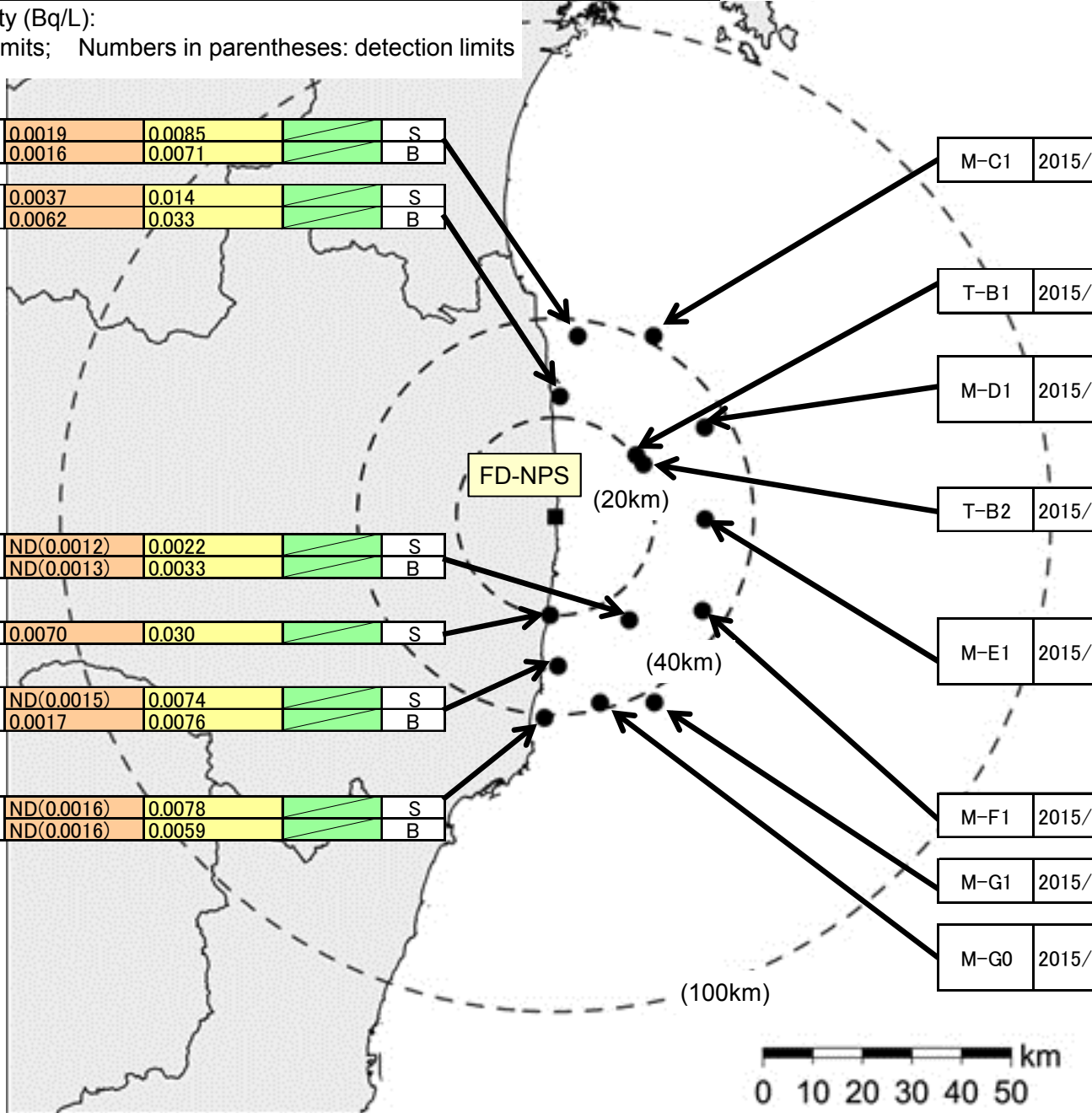
T-B2	2015/12/15	ND(0.0015) ND(0.0014)	0.0041 0.0043		S B
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M-E1	2015/8/9	0.00035 0.00018 0.00049	0.0023 0.0021 0.0030	0.0014 	1m 50m 123m
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M-F1	2015/8/6	0.00022 0.00029	0.0020 0.0024		1m 130m
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M-G1	2015/8/6	0.00019 0.00029	0.0020 0.0024		1m 128m
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M-G0	2015/8/6	0.00021 0.00015 0.00040	0.0020 0.0018 0.0028		1m 50m 95m
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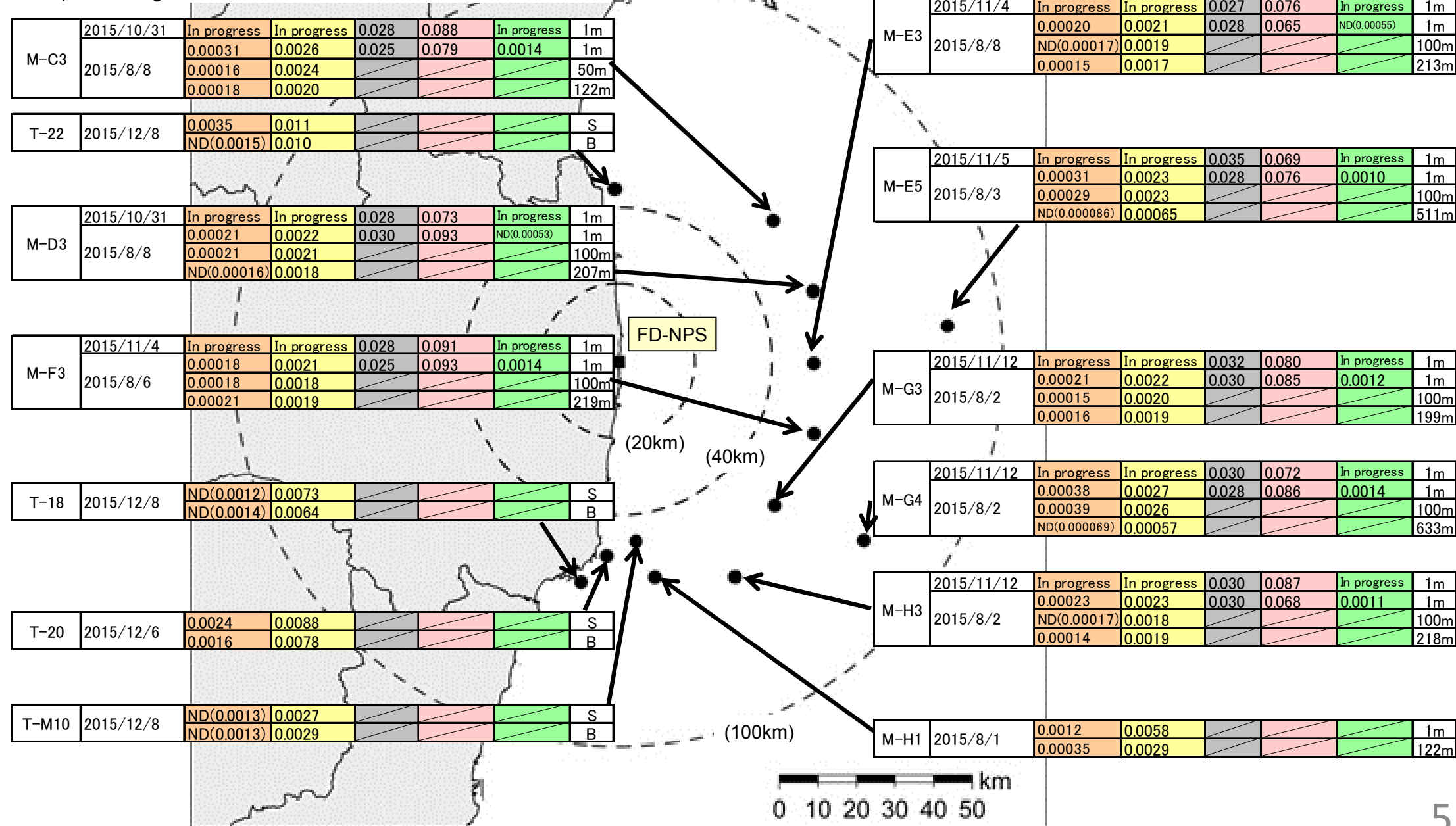
Sea area between 20-100km radius from the NPS(2)

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

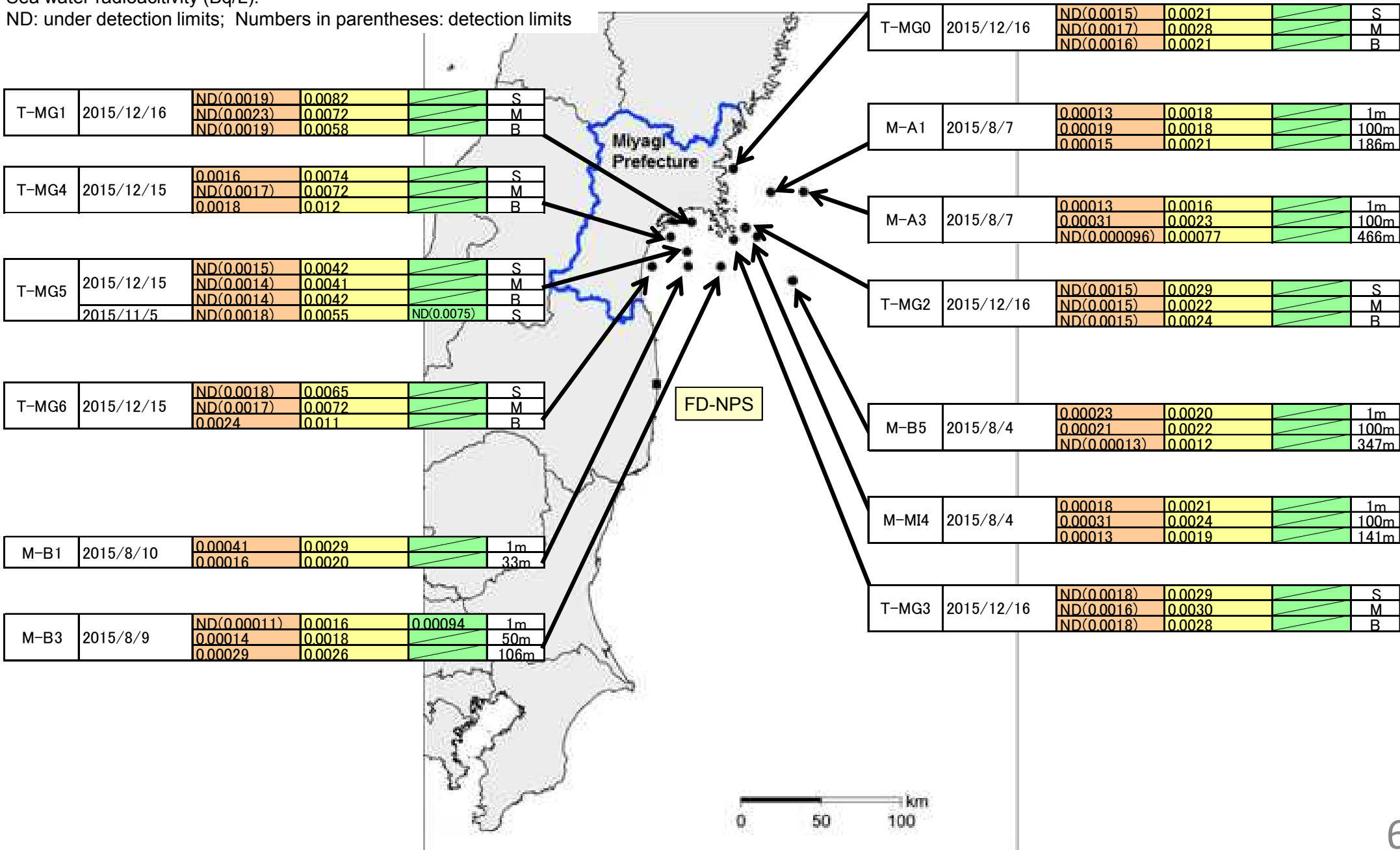


Sea area along and off the coast of Miyagi Prefecture

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

T-Z	2015/12/8	ND(1.3)	ND(1.1)	/	S
		ND(1.0)	ND(1.3)		B

T-A	2015/12/8	ND(0.94)	ND(1.0)	/	S
		ND(0.89)	ND(1.2)		B

T-B	2015/12/9	ND(0.93)	ND(1.2)	/	S
		ND(0.89)	ND(1.2)		B

M-J1	2015/7/30	0.00058	0.0035	0.0011	1m
		0.0010	0.0051	/	37m

T-C	2015/12/8	ND(0.76)	ND(1.1)	/	S
		ND(0.99)	ND(1.3)		B
	2015/11/10	ND(0.86)	ND(1.1)	ND(0.0067)	S

M-K1	2015/7/30	0.00035	0.0028	/	1m
		0.00028	0.0022		20m

T-D	2015/12/9	ND(0.88)	ND(1.2)	/	S
		ND(0.87)	ND(1.1)		B

M-M1	2015/7/29	0.00023	0.0020	/	1m
		0.00039	0.0026		103m

M-I0	2015/7/31	0.00037	0.0025	0.0011	1m
		0.00040	0.0031	/	61m

M-I1	2015/8/1	0.00046	0.0031	/	1m
		ND(0.00013)	0.0018		50m
		0.00033	0.0025		88m

M-I3	2015/8/1	0.00033	0.0025	/	1m
		0.00028	0.0023		100m
		0.00031	0.0023		173m

M-IB2	2015/7/31	0.00089	0.0045	/	1m
		0.00052	0.0030		105m

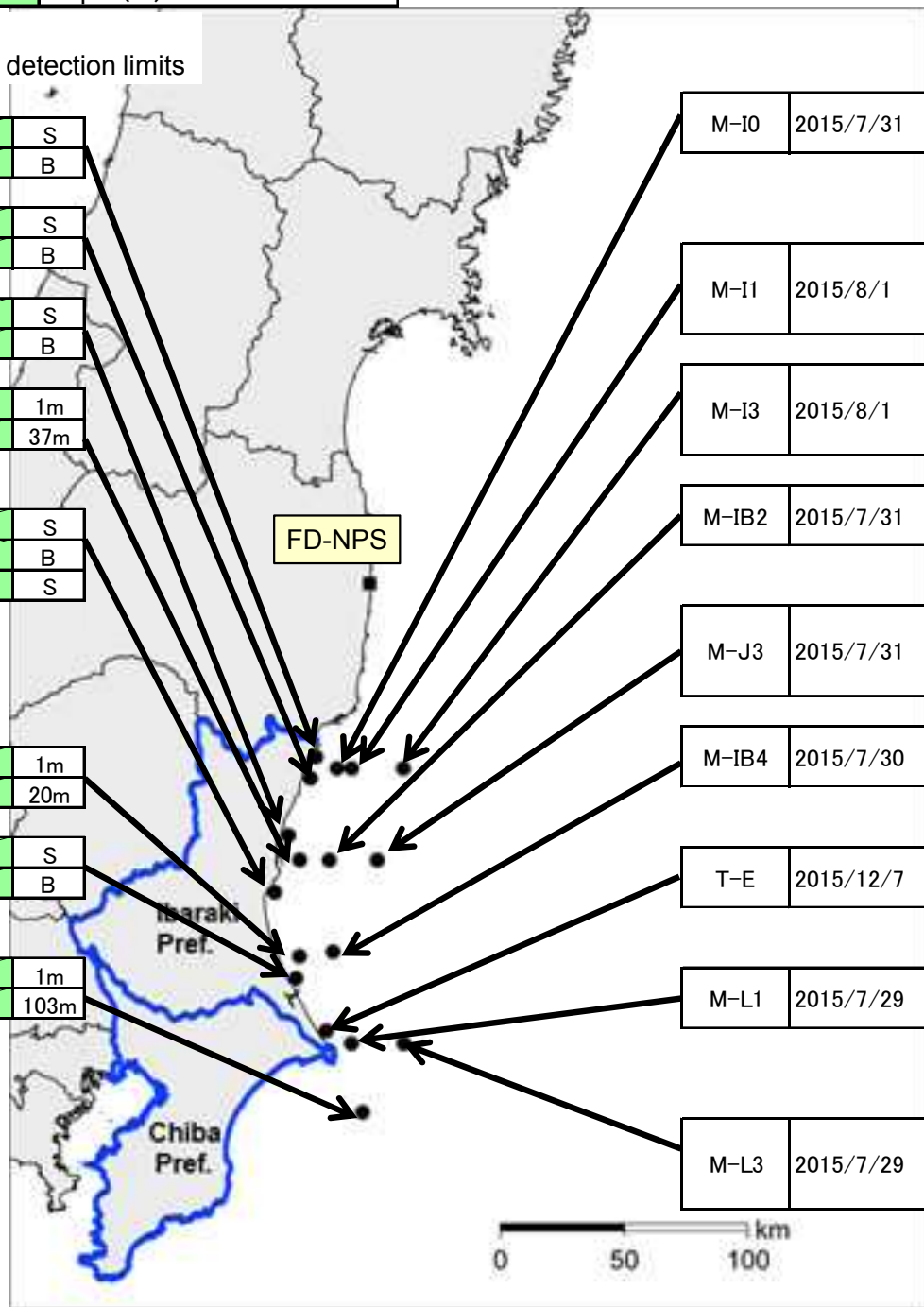
M-J3	2015/7/31	0.00040	0.0030	/	1m
		0.00029	0.0024		100m
		ND(0.000067)	0.00061		550m

M-IB4	2015/7/30	0.00034	0.0028	/	1m
		0.00026	0.0024		110m

T-E	2015/12/7	ND(1.1)	ND(1.1)	/	S
		ND(0.95)	ND(1.1)		B

M-L1	2015/7/29	0.00042	0.0031	/	1m
		0.00061	0.0032		33m

M-L3	2015/7/29	0.00041	0.0030	/	1m
		0.00028	0.0025		100m
		0.00018	0.0022		159m



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	2015/10/21	ND(0.00077)	0.0020	1m
		ND(0.00071)	0.0023	100m
		ND(0.00084)	0.0023	200m
		ND(0.00080)	0.0023	300m
		ND(0.00072)	0.0011	500m

M-11	2015/10/20	ND(0.00064)	0.0023	1m
		ND(0.00063)	0.0025	100m
		ND(0.00061)	0.0022	200m
		ND(0.00059)	0.0018	300m
		ND(0.00061)	0.0012	500m

M-14	2015/10/27	ND(0.00068)	0.0026	1m
		ND(0.00065)	0.0028	100m
		ND(0.00064)	0.0021	200m
		ND(0.00066)	0.0017	300m
		ND(0.00075)	0.00097	500m

M-15	2015/10/20	ND(0.00061)	0.0015	1m
		ND(0.00067)	0.0019	100m
		ND(0.00064)	0.0022	200m
		ND(0.00064)	0.0015	300m
		ND(0.00065)	0.00090	500m

M-19	2015/10/23	ND(0.00061)	0.0019	1m
		ND(0.00066)	0.0028	100m
		ND(0.00063)	0.0023	200m
		ND(0.00056)	0.0018	300m
		ND(0.00070)	0.00096	500m

M-21	2015/10/22	ND(0.00058)	0.0017	1m
		ND(0.00061)	0.0021	100m
		0.00071	0.0033	200m
		ND(0.00063)	0.0027	300m
		ND(0.00061)	0.0012	500m

M-20	2015/10/22	ND(0.00060)	0.0022	1m
		ND(0.00067)	0.0024	100m
		ND(0.00075)	0.0030	200m
		ND(0.00074)	0.0036	300m
		ND(0.00070)	0.0017	500m

M-26	2015/10/24	ND(0.00078)	0.0021	1m
		ND(0.00063)	0.0021	100m
		ND(0.00073)	0.0032	200m
		ND(0.00065)	0.0037	300m
		ND(0.00069)	0.0030	500m

M-25	2015/10/23	ND(0.00067)	0.0019	1m
		ND(0.00066)	0.0022	100m
		ND(0.00070)	0.0032	200m
		ND(0.00064)	0.0020	300m
		ND(0.00062)	0.00093	500m

M-27	2015/10/24	ND(0.00075)	0.0019	1m
		ND(0.00077)	0.0024	100m
		ND(0.00083)	0.0033	200m
		ND(0.00078)	0.0037	300m
		ND(0.00083)	0.0033	500m

