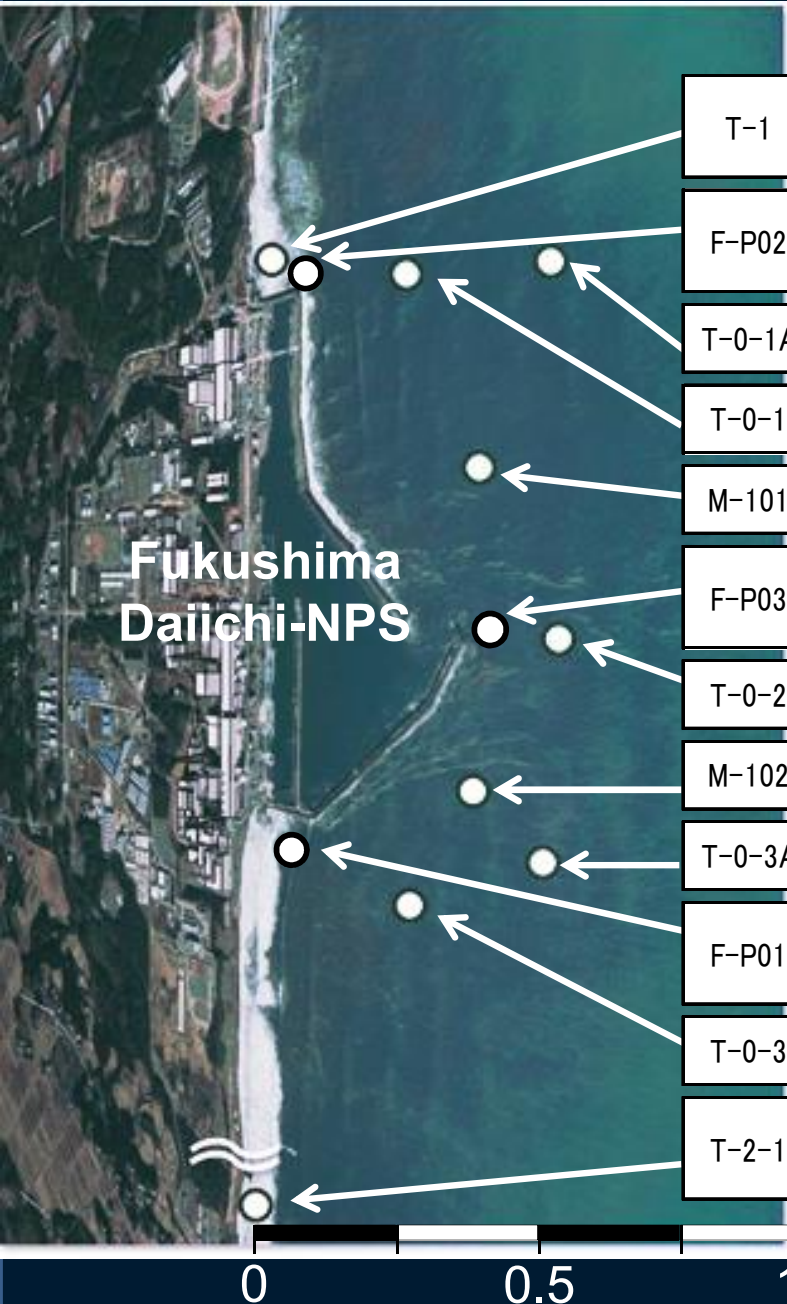


Sea Area Monitoring

August 25, 2015

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	2015/8/10	ND(0.75)	ND(0.59)	13 ^{*1}	ND(1.7)				
	2015/7/6	ND(0.71)	ND(0.80)	10 ^{*1}	ND(1.7)	0.18	ND(1.6)		
	2015/4/8	ND(0.55)	ND(0.64)					ND(5.5×10^{-6})	ND(6.1×10^{-6})
F-P02	2015/7/21	0.19	0.67	0.31 ^{*2}	1.9	In progress		In progress	In progress
	2015/6/16	ND(0.065)	ND(0.053)	0.04 ^{*2}	ND(0.45)	0.046		In progress	In progress
	2015/3/3	ND(0.072)	0.094	0.06 ^{*2}	ND(0.43)	0.041		ND(7×10^{-6})	1.1×10^{-5}
T-0-1A	2015/8/14	ND(0.68)	ND(0.55)	ND(17) ^{*1}	In progress				
	2015/8/3	ND(0.80)	ND(0.50)	ND(17) ^{*1}	ND(1.9)				
T-0-1	2015/8/14	ND(0.60)	ND(0.67)	ND(17) ^{*1}	In progress				
	2015/8/3	ND(0.51)	ND(0.49)	ND(17) ^{*1}	ND(1.9)				
M-101	2015/6/10	0.030	0.12		0.53	In progress			
	2015/4/28	0.0067	0.025		0.17	0.012			
F-P03	2015/7/21	0.22	0.83	0.37 ^{*2}	2.6	In progress		In progress	In progress
	2015/6/16	ND(0.066)	ND(0.050)	0.03 ^{*2}	ND(0.46)	0.008		In progress	In progress
	2015/3/3	0.079	0.23	0.14 ^{*2}	1.4	0.23		ND(6×10^{-6})	ND(8×10^{-6})
T-0-2	2015/8/14	ND(0.67)	ND(0.64)	ND(17) ^{*1}	In progress				
	2015/8/3	ND(0.75)	ND(0.56)	ND(17) ^{*1}	ND(1.9)				
M-102	2015/6/11	0.0030	0.013		0.11	In progress			
	2015/4/27	0.013	0.047		0.12	0.017			
T-0-3A	2015/8/14	ND(0.60)	ND(0.72)	ND(17) ^{*1}	In progress				
	2015/8/3	ND(0.73)	ND(0.78)	ND(17) ^{*1}	ND(1.9)				
F-P01	2015/7/21	ND(0.054)	0.10	0.03 ^{*2}	ND(0.46)	In progress		In progress	In progress
	2015/6/16	ND(0.055)	ND(0.052)	0.03 ^{*2}	ND(0.46)	0.004		In progress	In progress
	2015/3/3	ND(0.068)	0.075	0.04 ^{*2}	ND(0.43)	0.004		ND(6×10^{-6})	ND(6×10^{-6})
T-0-3	2015/8/14	ND(0.68)	ND(0.72)	ND(17) ^{*1}	In progress				
	2015/8/3	ND(0.75)	ND(0.56)	ND(17) ^{*1}	ND(1.9)				
T-2-1	2015/8/10	ND(0.54)	0.74	12 ^{*1}	ND(1.7)				
	2015/7/6	ND(0.74)	ND(0.63)	12 ^{*1}	ND(1.7)	0.013	ND(1.6)		
	2015/4/8	ND(0.66)	ND(0.60)	8.9 ^{*1}				ND(6.9×10^{-6})	(9.7 ± 2.4) $\times 10^{-6}$

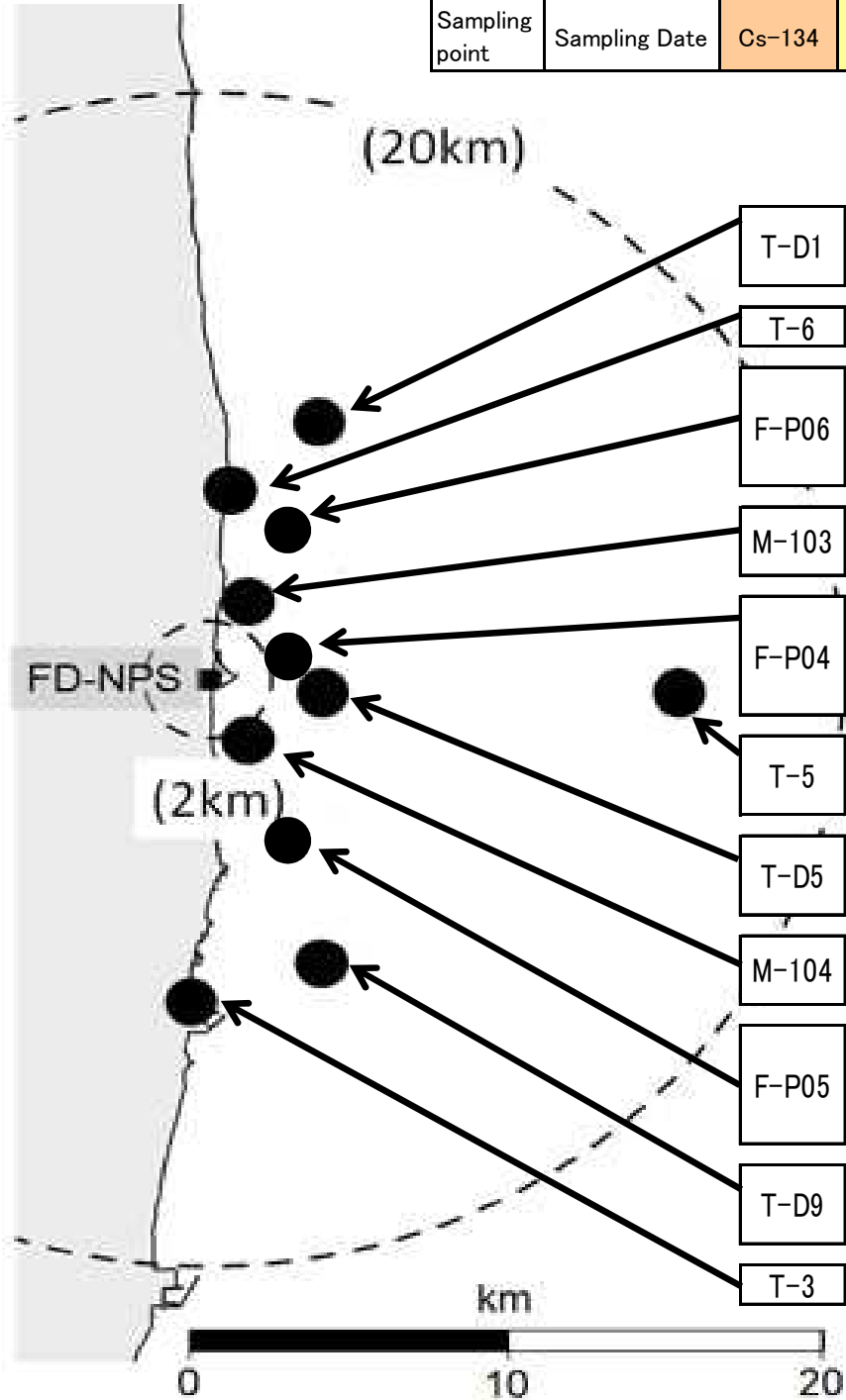
Sea area between 2-20km radius from the NPS (1)

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	2015/7/6	0.0032	0.010	ND(15) ^{*1}	ND(0.33)	ND(0.0075)	ND(2.0)			S
	2015/4/8	0.0017	0.0048	ND(15) ^{*1}	0.49	ND(0.0099)	ND(2.0)	ND(7.0×10^{-6})	ND(6.8×10^{-6})	S
T-6	2015/7/7	0.030	0.11	ND(17) ^{*1}	ND(0.35)					S
F-P06	2015/7/21	ND(0.056)	ND(0.051)	0.02 ^{*2}	ND(0.45)	In progress		In progress	In progress	S
	2015/6/16	ND(0.067)	ND(0.069)	0.03 ^{*2}	ND(0.45)	0.003		In progress	In progress	S
	2015/3/3	ND(0.059)	ND(0.057)	0.03 ^{*2}	ND(0.43)	0.004		ND(6×10^{-6})	6×10^{-6}	S
M-103	2015/6/10	0.0050	0.020		0.13	In progress				0.5m
	2015/4/28	0.0044	0.015		0.14	0.0047				0.5m
F-P04	2015/7/21	ND(0.058)	0.054	0.02 ^{*2}	ND(0.45)	In progress		In progress	In progress	S
	2015/6/16	ND(0.062)	ND(0.053)	0.03 ^{*2}	ND(0.44)	0.002		In progress	In progress	S
	2015/3/3	ND(0.064)	ND(0.052)	0.03 ^{*2}	0.48	0.002		ND(7×10^{-6})	ND(8×10^{-6})	S
T-5	2015/7/6	ND(0.0018)	0.0039	ND(15) ^{*1}	ND(0.33)	ND(0.0094)	ND(2.0)			S
	2015/4/9	ND(0.0014)	0.0021	ND(17) ^{*1}	ND(0.32)	ND(0.011)	ND(1.6)	ND(5.7×10^{-6})	ND(5.6×10^{-6})	S
T-D5	2015/7/6	0.0041	0.018	ND(15) ^{*1}	ND(0.33)	ND(0.0091)	ND(2.0)			S
	2015/4/8	ND(0.0016)	0.0062	ND(15) ^{*1}	0.70	ND(0.011)	ND(2.0)	ND(6.3×10^{-6})	ND(6.0×10^{-6})	S
M-104	2015/6/11	0.0044	0.017		0.12	In progress				0.5m
	2015/4/27	0.0040	0.015		0.091	0.0016				0.5m
F-P05	2015/7/21	ND(0.061)	0.061	0.03 ^{*2}	ND(0.45)	In progress		In progress	In progress	S
	2015/6/16	ND(0.058)	ND(0.049)	0.02 ^{*2}	ND(0.44)	0.003		In progress	In progress	S
	2015/3/3	ND(0.096)	ND(0.053)	0.04 ^{*2}	ND(0.43)	0.004		ND(6×10^{-6})	8×10^{-6}	S
T-D9	2015/7/6	0.0024	0.0082	ND(15) ^{*1}	ND(0.33)	ND(0.0075)	ND(2.0)			S
	2015/4/9	ND(0.0017)	0.0043	ND(17) ^{*1}	ND(0.32)	ND(0.0092)	ND(1.6)	ND(6.7×10^{-6})	ND(6.5×10^{-6})	S
T-3	2015/7/7	0.014	0.065	ND(16) ^{*1}	ND(0.32)					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	2015/7/8	0.0022	0.013	S
		0.0021	0.0074	B

T-14	2015/7/13	ND(0.0015)	0.0078	S
		0.0023	0.0090	B
	2015/7/6	0.0019	0.0075	S
		0.0026	0.011	B

T-D1	2015/7/13	0.0025	0.011	S
		0.0028	0.011	B
	2015/7/6	0.0032	0.010	S
		0.0022	0.010	B

T-6	2015/7/14	0.015	0.059	S
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T-S8	2015/7/12	0.0077	0.025	S
		0.0018	0.010	B

T-3	2015/7/14	0.015	0.070	S
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T-S7	2015/7/2	0.0050	0.027	S
		0.010	0.044	B

T-S5	2015/7/2	0.0046	0.021	S
		0.0068	0.025	B

T-S3	2015/7/7	0.0058	0.025	S
		0.0022	0.010	B

T-S4	2015/7/7	0.0044	0.021	S
		ND(0.0015)	0.0084	B

T-D5	2015/7/13	0.0023	0.011	S
		0.0057	0.019	B
	2015/7/6	0.0041	0.018	S
		0.0050	0.020	B

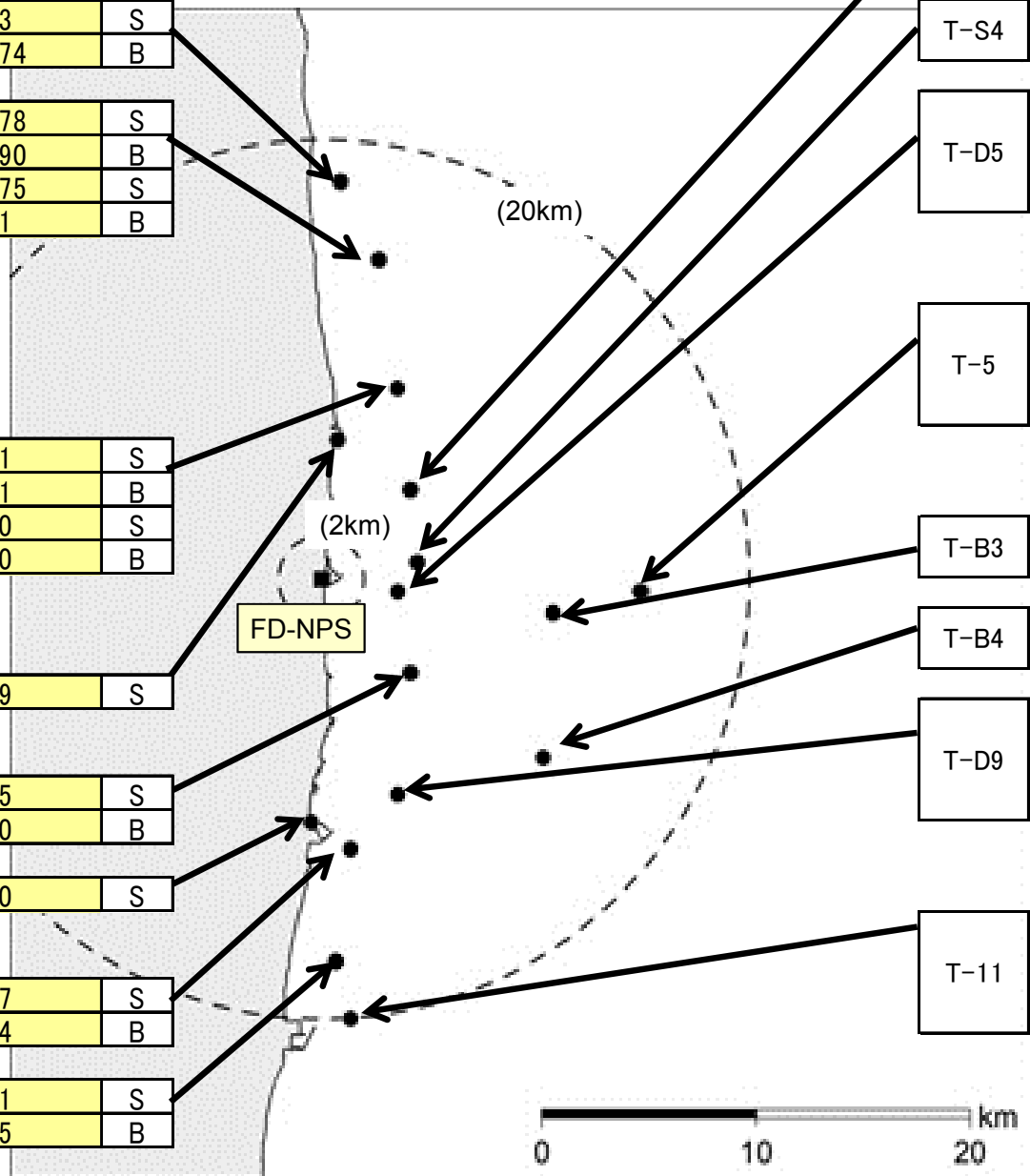
T-5	2015/7/13	ND(0.0018)	0.0073	S
		ND(0.0018)	0.0056	B
	2015/7/6	ND(0.0018)	0.0039	S
		ND(0.0018)	0.0043	B

T-B3	2015/7/14	0.0040	0.014	S
		ND(0.0015)	0.0059	B

T-B4	2015/7/14	0.0038	0.014	S
		ND(0.0015)	0.0054	B

T-D9	2015/7/13	0.0057	0.023	S
		0.0041	0.017	B
	2015/7/6	0.0024	0.0082	S
		0.0039	0.016	B

T-11	2015/7/13	0.0038	0.020	S
		0.0067	0.024	B
	2015/7/6	0.0057	0.024	S
		0.0060	0.024	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

T-MA	2015/7/15	0.0016	0.0058		S
		ND(0.0015)	0.0071		B

T-13-1	2015/7/15	0.0041	0.018		S
		ND(0.0012)	0.0070		B

T-7	2015/6/5	0.0014	0.0066		S
		ND(0.0012)	0.0028		B

T-4	2015/7/14	0.026	0.094		S
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T-12	2015/7/1	0.0033	0.011		S
		ND(0.0013)	0.0059		B

T-17-1	2015/7/1	0.0017	0.0092		S
		0.0014	0.0057		B

M-C1	2015/5/12	0.00040	0.0028		1m
		0.00038	0.0023		46m
	2015/1/22	ND(0.00072)	0.0028	0.00091	1m

T-B1	2015/7/10	ND(0.0015)	0.0048		S
		ND(0.0014)	0.0044		B

M-D1	2015/5/14	0.00067	0.0035		1m
		0.00010	0.0015		50m
	2015/2/2	ND(0.00076)	0.0024	0.00093	1m

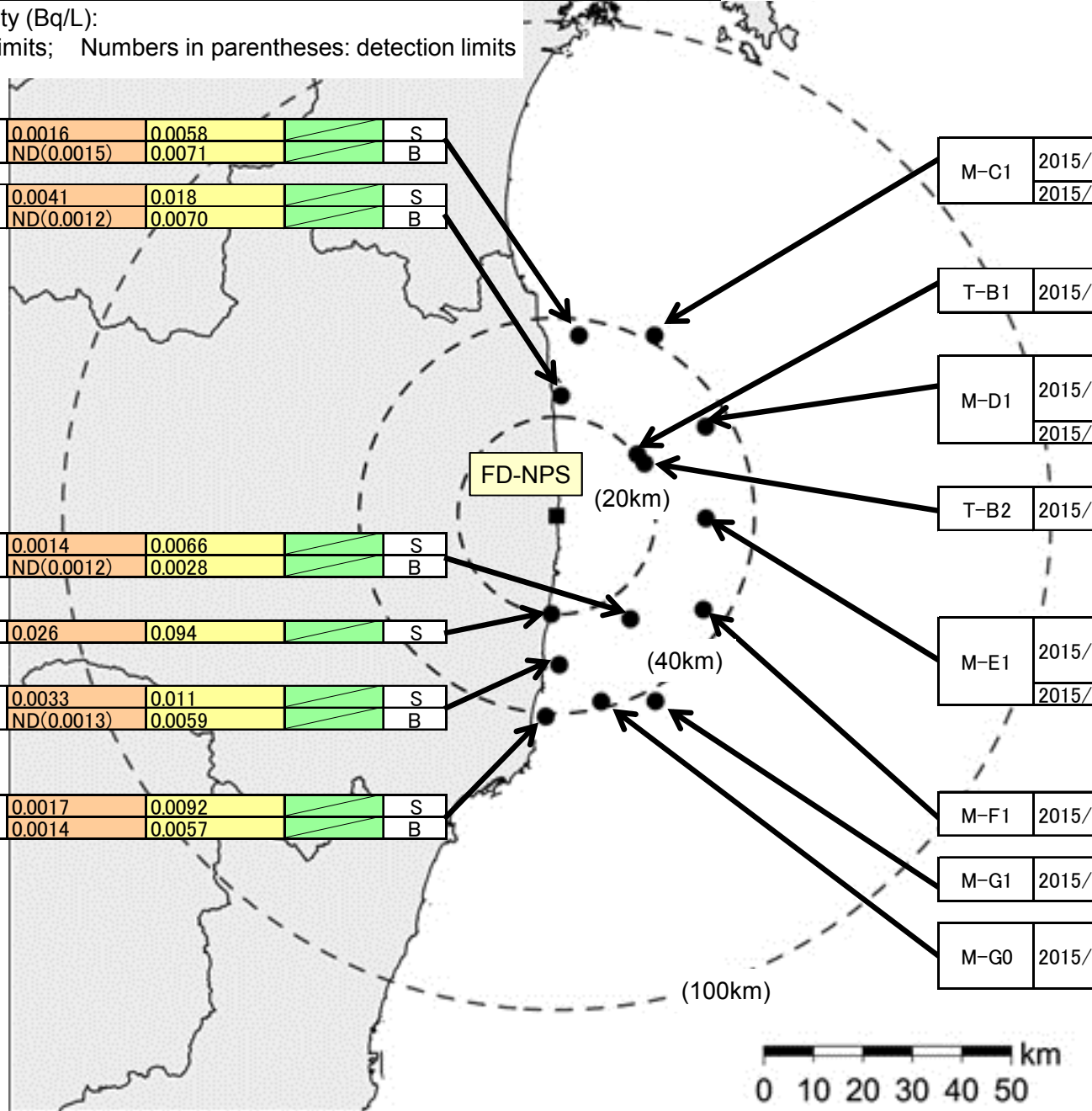
T-B2	2015/7/10	ND(0.0015)	0.0052		S
		ND(0.0015)	0.0068		B

M-E1	2015/5/14	0.00051	0.0028		1m
		0.00020	0.0018		50m
	2015/2/6	ND(0.00057)	0.0022	0.0010	1m

M-F1	2015/5/14	0.00059	0.0032		1m
		0.00025	0.0021		134m

M-G1	2015/5/21	0.00074	0.0036		1m
		0.00038	0.0023		130m

M-G0	2015/5/21	0.0013	0.0057		1m
		ND(0.00015)	0.0018		50m
	2015/5/21	0.00022	0.0021		95m



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

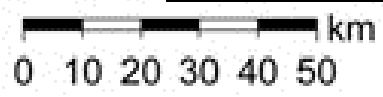
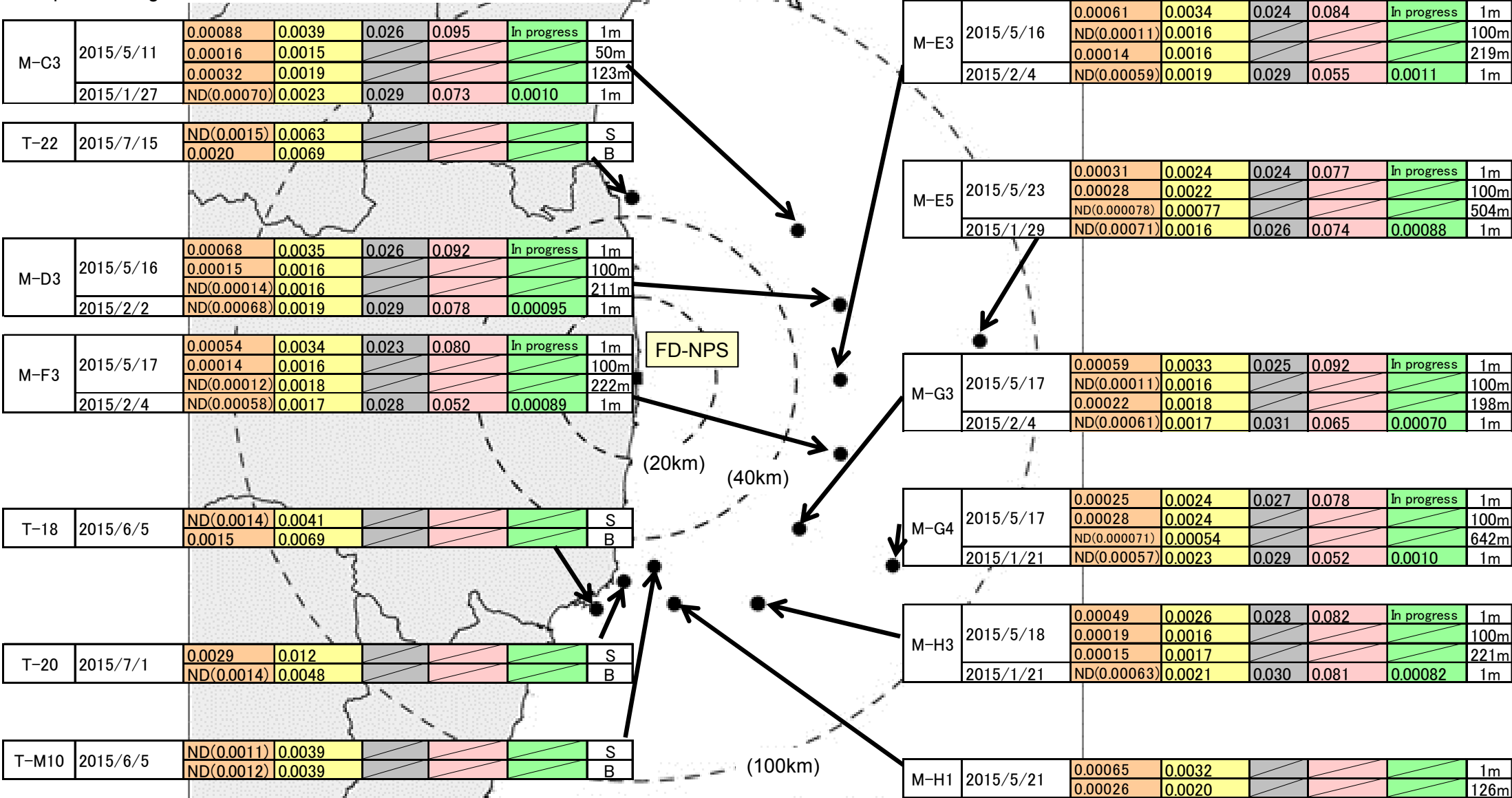
Sampling point	Sampling Date	Cs-134	Cs-137	Total β*	H-3	Sr-90	S/B	S:2m below sea level	B:2-3m above sea bottom
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Depth(m) from sea level

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

T-MG1	2015/7/6	Cs-134	0.0039	[Green bar]	S
		Cs-137	0.0026		M
		Cs-134	0.0021		B

T-MG4	2015/7/6	Cs-134	0.0051	[Green bar]	S
		Cs-137	0.0038		M
		Cs-134	0.0022		B

T-MG5	2015/7/6	Cs-134	0.0060	Sr-90	ND(0.0069)	S
		Cs-137	0.0017	[Green bar]	M	
		Cs-134	0.0029	[Green bar]	B	

T-MG6	2015/7/6	Cs-134	0.0039	[Green bar]	S
		Cs-137	0.0040		M
		Cs-134	0.0061		B

M-B1	2015/5/12	Cs-134	0.0035	[Green bar]	1m
		Cs-137	0.0041		37m

M-B3	2015/5/11	Cs-134	0.0022	[Green bar]	1m
		Cs-137	0.0013		50m
		Cs-134	0.0017		109m
	2015/2/3	Cs-134	0.0023	0.00082	1m

T-MG0	2015/7/6	Cs-134	0.0022	[Green bar]	S
		Cs-137	0.0014		M
		Cs-134	0.0021		B

M-A1	2015/5/9	Cs-134	0.0015	[Green bar]	1m
		Cs-137	0.0016		100m
		Cs-134	0.0016		185m

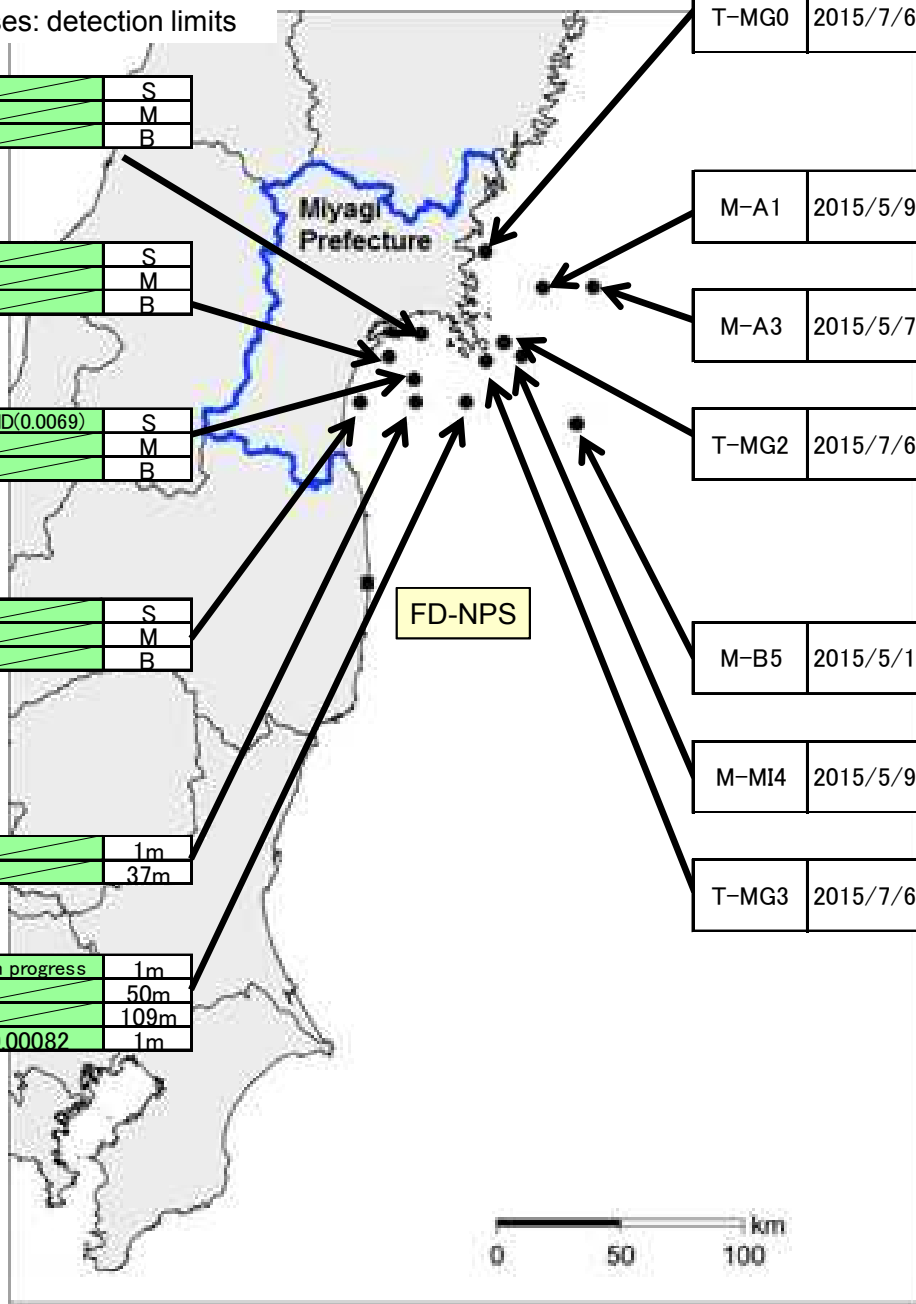
M-A3	2015/5/7	Cs-134	0.0014	[Green bar]	1m
		Cs-137	0.0017		100m
		Cs-134	0.0075		486m

T-MG2	2015/7/6	Cs-134	0.0021	[Green bar]	S
		Cs-137	0.0024		M
		Cs-134	0.0027		B

M-B5	2015/5/10	Cs-134	0.0023	[Green bar]	1m
		Cs-137	0.0019		100m
		Cs-134	0.0012		351m

M-MI4	2015/5/9	Cs-134	0.0015	[Green bar]	1m
		Cs-137	0.0016		100m
		Cs-134	0.0016		145m

T-MG3	2015/7/6	Cs-134	0.0032	[Green bar]	S
		Cs-137	0.0021		M
		Cs-134	0.0021		B



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	2015/7/6	ND(0.72)	ND(1.1)	/	S
		ND(0.82)	ND(1.2)		B

T-A	2015/7/6	ND(1.2)	ND(1.2)	/	S
		ND(0.86)	ND(1.2)		B

T-B	2015/7/8	ND(1.0)	ND(1.3)	/	S
		ND(1.1)	ND(1.2)		B

M-J1	2015/5/19	0.00060	0.0034	In progress	1m
		0.00067	0.0035	/	43m
	2015/1/19	ND(0.00060)	0.0028	0.0012	1m

T-C	2015/7/7	ND(1.1)	ND(1.2)	ND(0.0065)	S
		ND(0.87)	ND(1.2)	/	B

M-K1	2015/5/19	0.00059	0.0036	/	1m
		0.00063	0.0030		22m

T-D	2015/7/8	ND(0.95)	ND(1.2)	/	S
		ND(0.93)	ND(1.2)		B

M-M1	2015/5/22	0.00022	0.0019	/	1m
		0.00040	0.0027		107m

M-I0	2015/5/18	0.00044	0.0028	In progress	1m
		0.00073	0.0035	/	65m
	2015/1/20	ND(0.00070)	0.0027	0.00096	1m

M-I1	2015/5/18	0.00048	0.0030	/	1m
		0.00037	0.0029		50m
		0.00051	0.0030		91m

M-I3	2015/5/18	0.00026	0.0022	/	1m
		0.00023	0.0019		100m
		0.00025	0.0023		176m

M-IB2	2015/5/19	0.00092	0.0044	/	1m
		0.00032	0.0025		107m

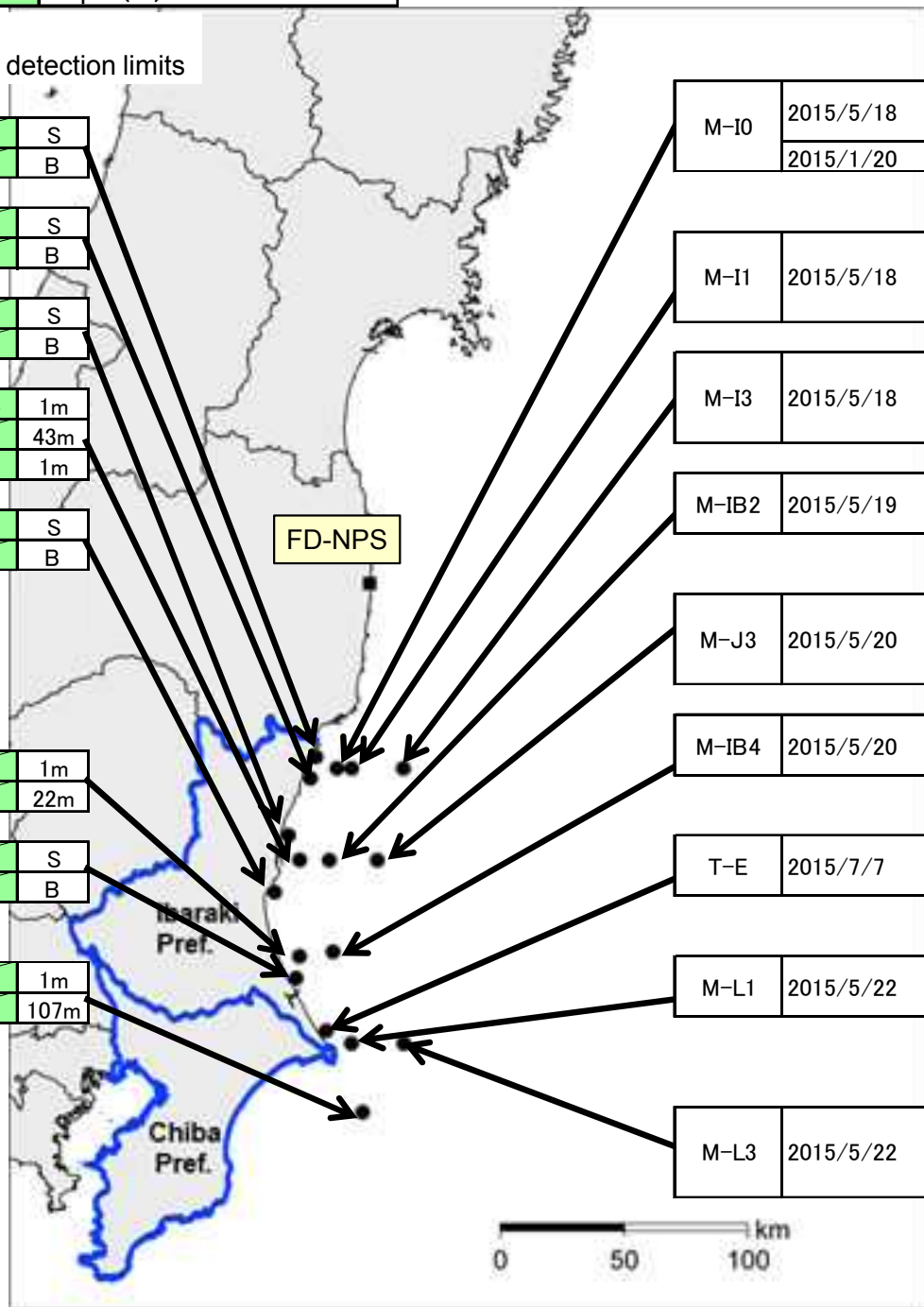
M-J3	2015/5/20	0.00033	0.0024	/	1m
		0.00028	0.0023		100m
		ND(0.000080)	0.00072		557m

M-IB4	2015/5/20	0.00040	0.0027	/	1m
		0.00052	0.0031		117m

T-E	2015/7/7	ND(0.90)	ND(1.0)	/	S
		ND(0.97)	ND(1.2)		B

M-L1	2015/5/22	0.00039	0.0027	/	1m
		0.00052	0.0026		37m

M-L3	2015/5/22	0.00044	0.0027	/	1m
		0.00041	0.0027		100m
		0.00050	0.0028		156m



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	2015/5/26	ND(0.00082)	0.0024	1m
		ND(0.00075)	0.0031	101m
		ND(0.00068)	0.0018	201m
		ND(0.00078)	0.0017	301m
		ND(0.00078)	0.00089	500m

M-11	2015/5/26	ND(0.00069)	0.0030	1m
		ND(0.00063)	0.0029	101m
		ND(0.00062)	0.0024	201m
		ND(0.00070)	0.0018	301m
		ND(0.00068)	0.0015	502m

M-14	2015/5/27	ND(0.00064)	0.0028	1m
		ND(0.00054)	0.0018	102m
		ND(0.00060)	0.0015	200m
		ND(0.00053)	0.0011	303m
		ND(0.00060)	0.00086	502m

M-15	2015/5/27	ND(0.00068)	0.0026	1m
		ND(0.00061)	0.0022	100m
		ND(0.00061)	0.0016	201m
		ND(0.00062)	0.0016	300m
		ND(0.00059)	0.00073	501m

M-19	2015/5/29	ND(0.00058)	0.0026	1m
		ND(0.00057)	0.0022	102m
		ND(0.00056)	0.0015	201m
		ND(0.00055)	0.0016	300m
		ND(0.00056)	0.00071	502m

M-21	2015/5/31	ND(0.00057)	0.0016	1m
		ND(0.00061)	0.0023	102m
		0.00061	0.0039	200m
		ND(0.00052)	0.0023	300m
		ND(0.00062)	0.00087	500m

M-20	2015/5/31	ND(0.00065)	0.0017	1m
		0.00065	0.0031	100m
		ND(0.00068)	0.0031	200m
		ND(0.00059)	0.0018	305m
		ND(0.00061)	0.0013	499m

M-26	2015/5/28	ND(0.00060)	0.0024	1m
		ND(0.00056)	0.0029	100m
		ND(0.00066)	0.0034	202m
		ND(0.00066)	0.0040	301m
		ND(0.00061)	0.0027	500m

M-25	2015/6/1	ND(0.00073)	0.0015	1m
		ND(0.00077)	0.0031	100m
		ND(0.00069)	0.0030	201m
		0.00081	0.0056	301m
		0.00067	0.0024	500m

M-27	2015/5/28	ND(0.00060)	0.0026	1m
		ND(0.00060)	0.0030	100m
		0.00082	0.0042	200m
		0.0011	0.0049	301m
		ND(0.00065)	0.0034	501m

