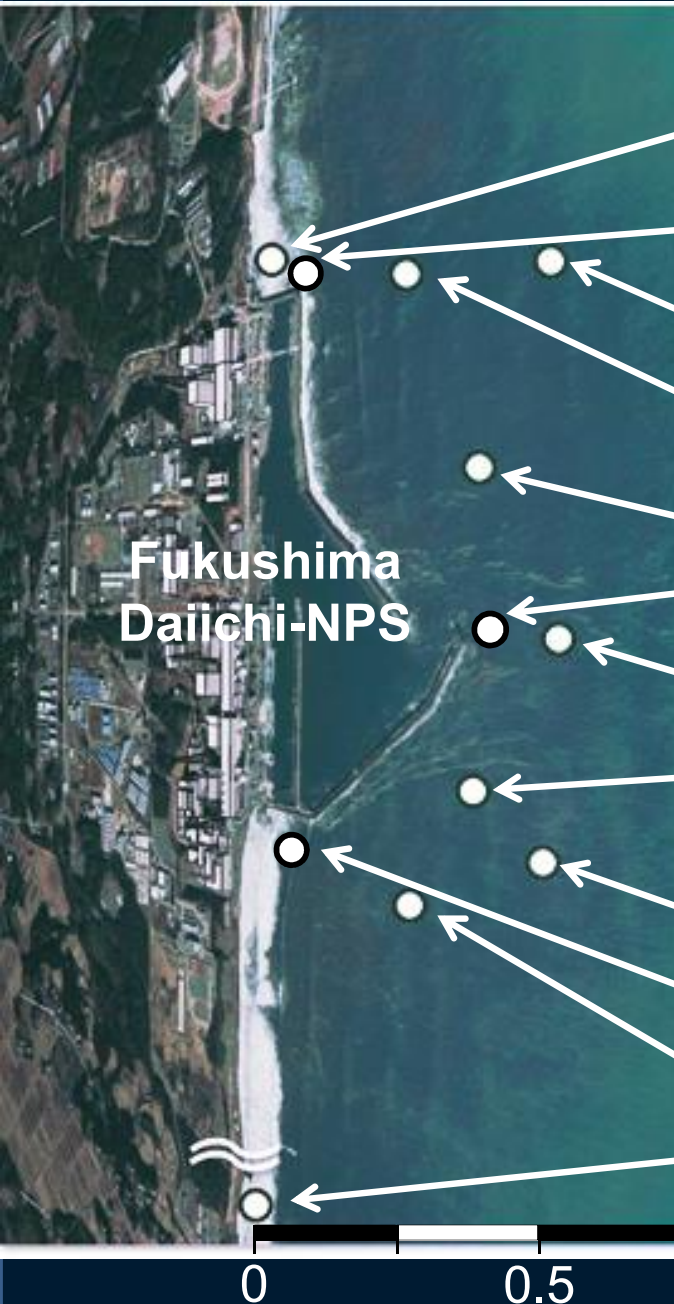


Sea Area Monitoring

July 07, 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
----------------	---------------	--------	--------	---------------	-----	-------	----------------	--------	------------

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	2015/6/22	ND(0.85)	ND(0.66)	11 ^{*1}	ND(1.6)				
	2015/5/4	ND(0.61)	ND(0.70)	12 ^{*1}	2.1	0.33	ND(2.0)		
	2015/4/8	ND(0.55)	ND(0.64)					ND(5.5×10^{-6})	ND(6.1×10^{-6})
F-P02	2015/4/22	ND(0.070)	ND(0.057)	0.02 ^{*2}	ND(0.43)	In progress		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	2015/6/22	ND(0.59)	ND(0.82)	ND(16) ^{*1}	In progress				
	2015/6/15	ND(0.80)	ND(0.73)	24 ^{*1}	ND(1.5)				
T-0-1	2015/6/22	ND(0.79)	ND(0.68)	ND(16) ^{*1}	In progress				
	2015/6/15	ND(0.76)	ND(0.65)	17 ^{*1}	1.7				
M-101	2015/4/28	0.0067	0.025		0.17	In progress			
	2015/3/5	0.072	0.26		0.92	In progress			
	2015/2/4	0.010	0.039		0.063	In progress			
	2015/1/8	0.039	0.14		0.46	0.10			
F-P03	2015/4/22	ND(0.062)	ND(0.051)	0.02 ^{*2}	ND(0.44)	In progress		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	2015/6/22	ND(0.72)	ND(0.57)	ND(16) ^{*1}	In progress				
	2015/6/15	ND(0.70)	ND(0.52)	20 ^{*1}	1.7				
M-102	2015/4/27	0.013	0.047		0.12	In progress			
	2015/3/6	0.022	0.077		0.21	In progress			
	2015/2/5	0.016	0.052		0.17	In progress			
	2015/1/9	0.033	0.11		0.52	0.11			
T-0-3A	2015/6/22	ND(0.71)	ND(0.68)	ND(16) ^{*1}	In progress				
	2015/6/15	ND(0.79)	ND(0.68)	16 ^{*1}	ND(1.5)				
F-P01	2015/4/22	ND(0.068)	ND(0.050)	0.02 ^{*2}	ND(0.44)	In progress		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	2015/6/22	ND(0.76)	ND(0.59)	17 ^{*1}	In progress				
	2015/6/15	ND(0.66)	ND(0.76)	ND(16) ^{*1}	1.7				
T-2-1	2015/6/22	ND(0.79)	ND(0.61)	12 ^{*1}	2.5				
	2015/5/4	ND(0.71)	ND(0.74)	12 ^{*1}	ND(1.5)	ND(0.011)	ND(2.0)		
	2015/4/8	ND(0.66)	ND(0.60)	8.9 ^{*1}				ND(6.9×10^{-6})	(9.7 ± 2.4) $\times 10^{-6}$

0 0.5 1km

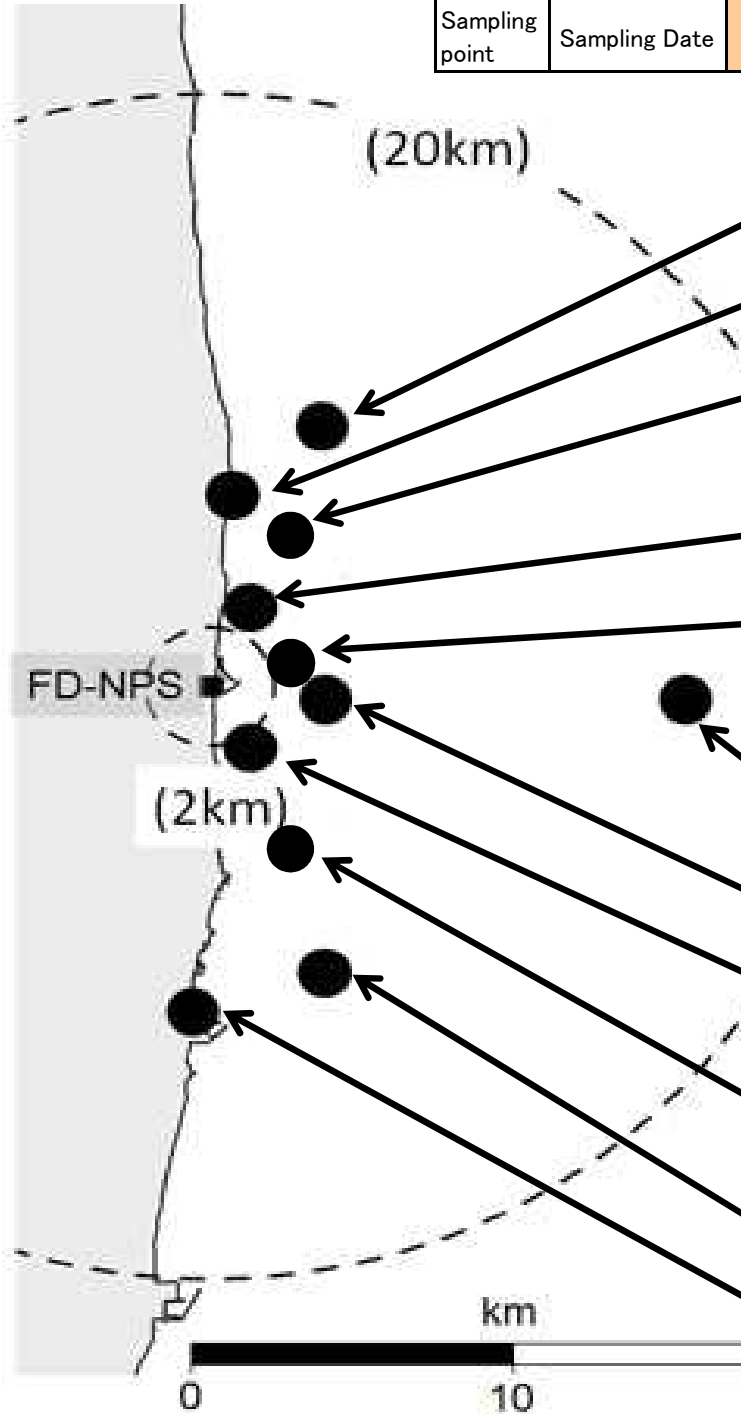
Sea area between 2-20km radius from the NPS (1)

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	2015/5/7	0.0032	0.0097	ND(17) ^{*1}	0.36	ND(0.0079)	ND(1.9)			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	2015/5/12	0.013	0.055	ND(18) ^{*1}	ND(0.36)					S
F-P06	2015/4/22	ND(0.056)	ND(0.050)	0.02 ^{*2}	ND(0.44)	In progress		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	2015/4/28	0.0044	0.015		0.14	In progress				0.5m
	2015/3/5	0.0061	0.027		0.11	In progress				0.5m
	2015/2/4	0.0087	0.032		0.083	In progress				0.5m
	2015/1/8	0.0044	0.015		0.083	0.0039				0.5m
F-P04	2015/4/22	ND(0.066)	ND(0.053)	0.02 ^{*2}	ND(0.43)	In progress		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	2015/5/7	ND(0.0018)	0.0048	ND(17) ^{*1}	ND(0.36)	ND(0.0089)	ND(1.6)			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	2015/5/7	0.0042	0.012	17 ^{*1}	ND(0.36)	ND(0.0082)	ND(1.9)			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	2015/4/27	0.0040	0.015		0.091	In progress				0.5m
	2015/3/6	0.0056	0.020		0.10	In progress				0.5m
	2015/2/5	0.0040	0.017		0.082	In progress				0.5m
	2015/1/9	0.019	0.070		0.24	0.042				0.5m
F-P05	2015/4/22	ND(0.075)	ND(0.066)	0.02 ^{*2}	ND(0.44)	In progress		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	2015/5/7	0.0035	0.014	ND(17) ^{*1}	ND(0.36)	ND(0.0090)	ND(1.6)			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	2015/5/12	0.0080	0.031	ND(20) ^{*1}	ND(0.33)					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

T-S1	2015/5/21	0.0022	0.0065	S
		0.0035	0.014	B

T-14	2015/5/25	0.036	0.14	S
		0.0019	0.0087	B
	2015/5/18	0.0015	0.0075	S
		ND(0.0014)	0.0095	B

T-D1	2015/5/25	0.0031	0.013	S
		0.0054	0.021	B
	2015/5/18	ND(0.0019)	0.0074	S
		0.0029	0.0090	B

T-6	2015/5/26	0.028	0.081	S
	2015/5/19	0.018	0.050	S

T-S8	2015/5/10	0.0020	0.0084	S
		0.0015	0.0073	B

T-3	2015/5/26	0.0083	0.034	S
	2015/5/19	0.016	0.068	S

T-S7	2015/5/14	0.0034	0.013	S
		0.0028	0.012	B

T-S5	2015/5/14	ND(0.0014)	0.0088	S
		0.0025	0.013	B

T-S3	2015/5/19	0.0053	0.025	S
		0.0021	0.011	B

T-S4	2015/5/19	ND(0.0014)	0.0065	S
		ND(0.0015)	0.0075	B

T-D5	2015/5/25	0.0069	0.022	S
		0.0017	0.0074	B
	2015/5/18	ND(0.0019)	0.0064	S
		0.0042	0.013	B

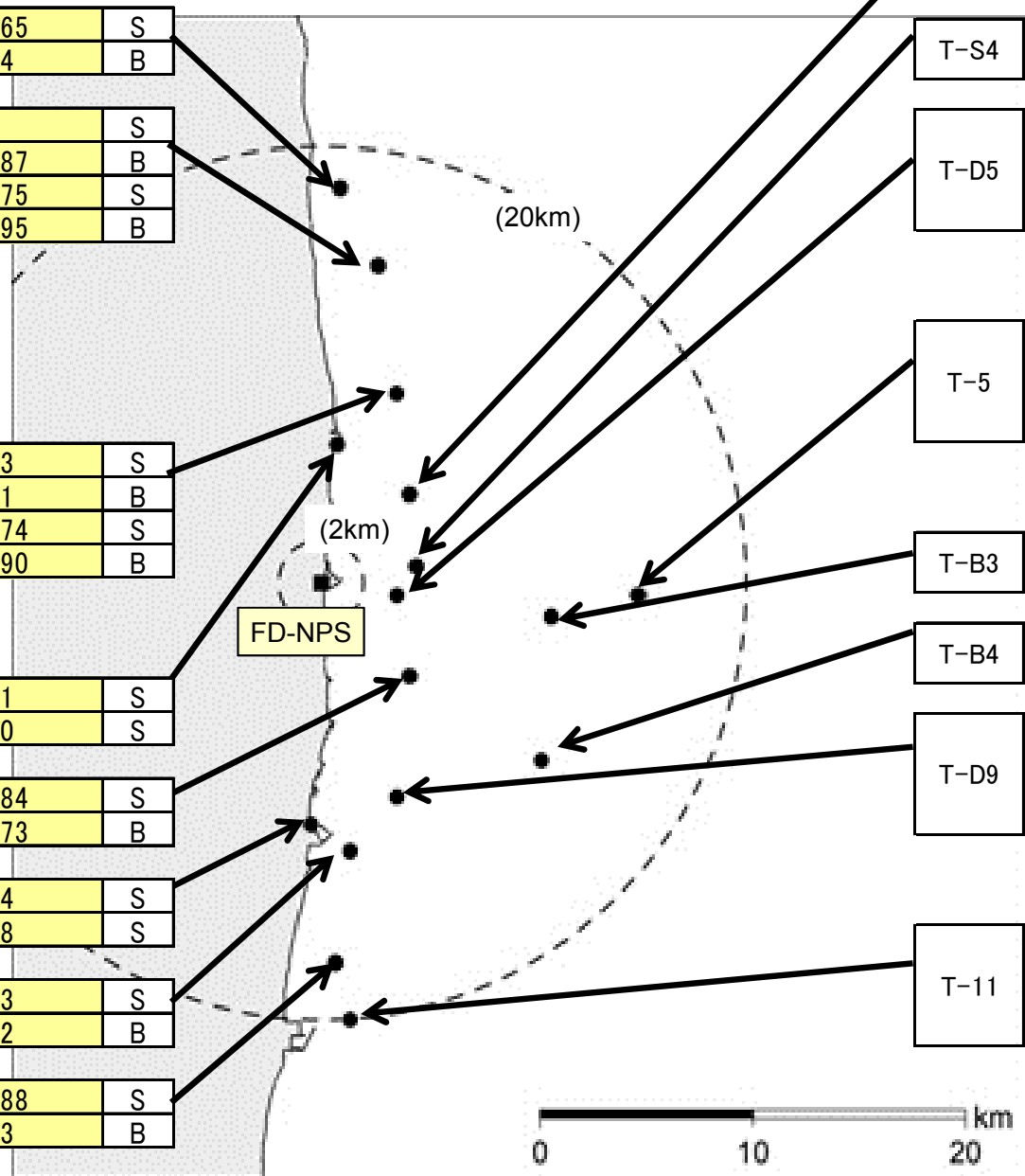
T-5	2015/5/25	ND(0.0019)	0.0037	S
		ND(0.0019)	0.0041	B
	2015/5/18	ND(0.0018)	0.0038	S
		ND(0.0019)	0.0049	B

T-B3	2015/5/22	ND(0.0013)	0.0039	S
		ND(0.0014)	0.0050	B

T-B4	2015/5/22	ND(0.0013)	0.0035	S
		ND(0.0014)	0.0055	B

T-D9	2015/5/25	0.0028	0.0085	S
		ND(0.0018)	0.0063	B
	2015/5/18	ND(0.0019)	0.0036	S
		0.0018	0.0084	B

T-11	2015/5/25	ND(0.0013)	0.0077	S
		0.0020	0.0075	B
	2015/5/18	ND(0.0012)	0.0028	S
		0.0019	0.011	B

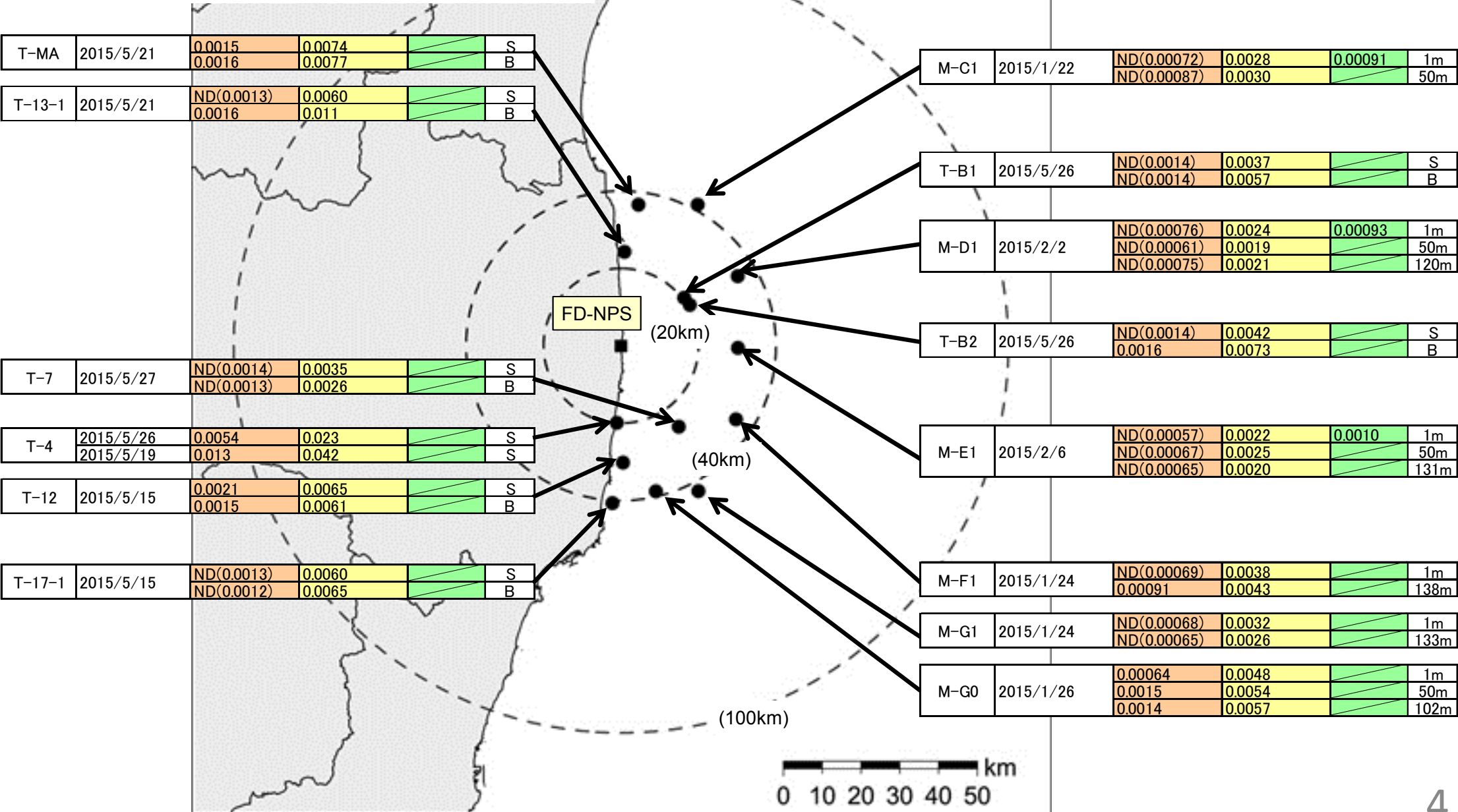


Sea area between 20-100km radius from the NPS(1)

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	S/B	S:2m below sea level	B:2-3m above sea bottom
----------------	---------------	--------	--------	-------	-----	----------------------	-------------------------

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

M-C3	2015/5/11	In progress	In progress	0.026	In progress	In progress	1m
	2015/1/27	ND(0.00070)	0.0023	0.029	0.073	0.0010	1m
		ND(0.00066)	0.0022				50m
		ND(0.00061)	0.0018				128m

T-22	2015/5/21	0.0020	0.0099				S
		0.0027	0.012				B

M-D3	2015/5/16	In progress	In progress	0.026	In progress	In progress	1m
	2015/2/2	ND(0.00068)	0.0019	0.029	0.078	0.00095	1m
		ND(0.00063)	0.0018				101m
ND(0.00071)	0.0015				217m		

M-F3	2015/5/17	In progress	In progress	0.023	In progress	In progress	1m
	2015/2/4	ND(0.00058)	0.0017	0.028	0.052	0.00089	1m
		ND(0.00064)	0.0019				99m
ND(0.00061)	0.0017				230m		

T-18	2015/5/12	ND(0.0013)	0.0056				S
		0.0017	0.0087				B

T-20	2015/5/15	0.0015	0.0085				S
		0.0019	0.0070				B

T-M10	2015/5/12	ND(0.0013)	0.0042				S
		ND(0.0014)	0.0043				B

M-E3	2015/5/16	In progress	In progress	0.024	In progress	In progress	1m
	2015/2/4	ND(0.00059)	0.0019	0.029	0.055	0.0011	1m
		ND(0.00066)	0.0017				100m
		ND(0.00070)	0.0018				228m

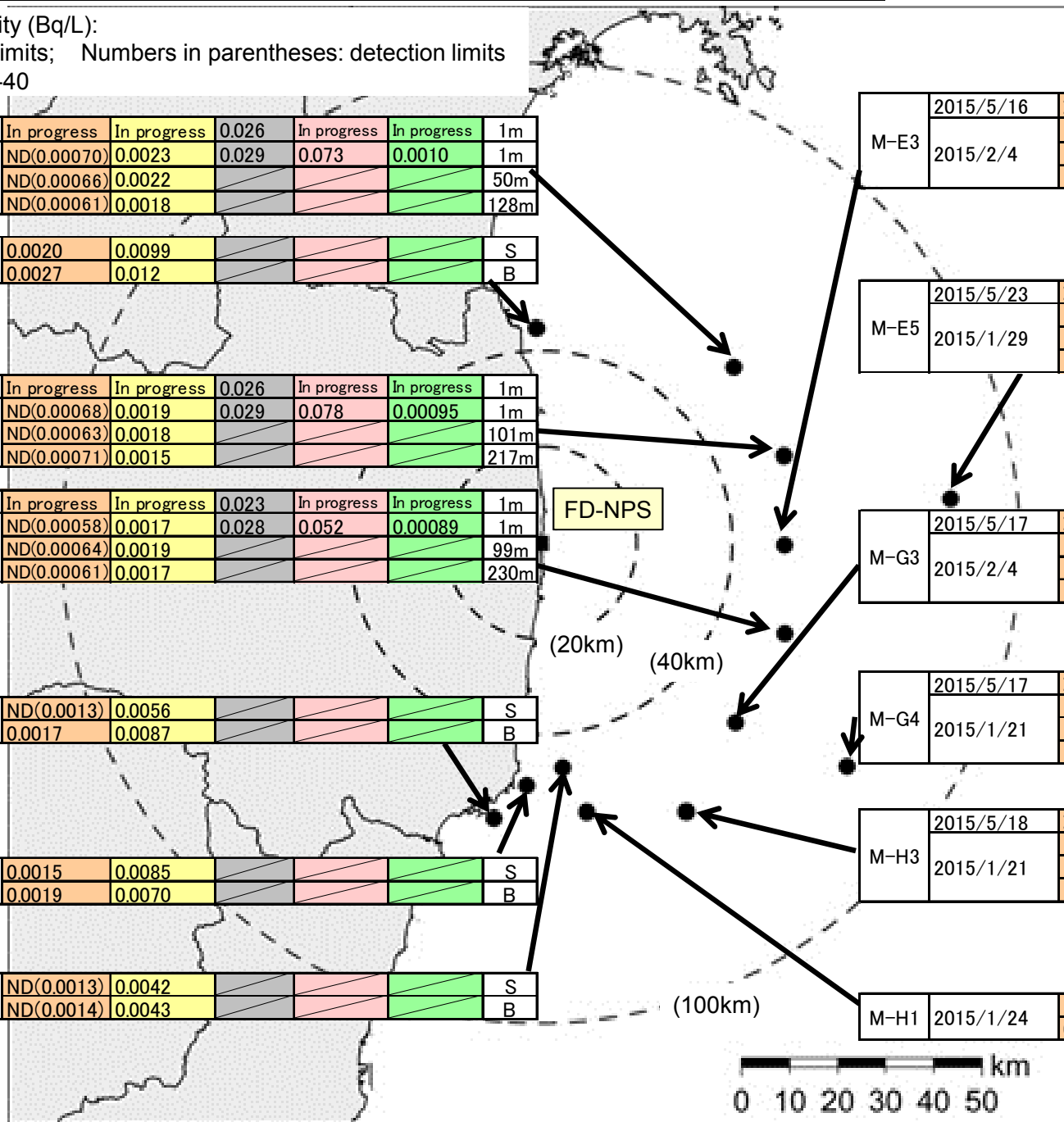
M-E5	2015/5/23	In progress	In progress	0.024	In progress	In progress	1m
	2015/1/29	ND(0.00071)	0.0016	0.026	0.074	0.00088	1m
		ND(0.00071)	0.0012				100m
ND(0.00060)	ND(0.00048)				525m		

M-G3	2015/5/17	In progress	In progress	0.025	In progress	In progress	1m
	2015/2/4	ND(0.00061)	0.0017	0.031	0.065	0.00070	1m
		ND(0.00061)	0.0019				99m
ND(0.00060)	0.0013				208m		

M-G4	2015/5/17	In progress	In progress	0.027	In progress	In progress	1m
	2015/1/21	ND(0.00057)	0.0023	0.029	0.052	0.0010	1m
		ND(0.00067)	0.0022				100m
ND(0.00066)	0.0011				641m		

M-H3	2015/5/18	In progress	In progress	0.028	In progress	In progress	1m
	2015/1/21	ND(0.00063)	0.0021	0.030	0.081	0.00082	1m
		ND(0.00067)	0.0020				100m
ND(0.00066)	0.0017				220m		

M-H1	2015/1/24	ND(0.00063)	0.0022				1m
		0.0021	0.0080				129m

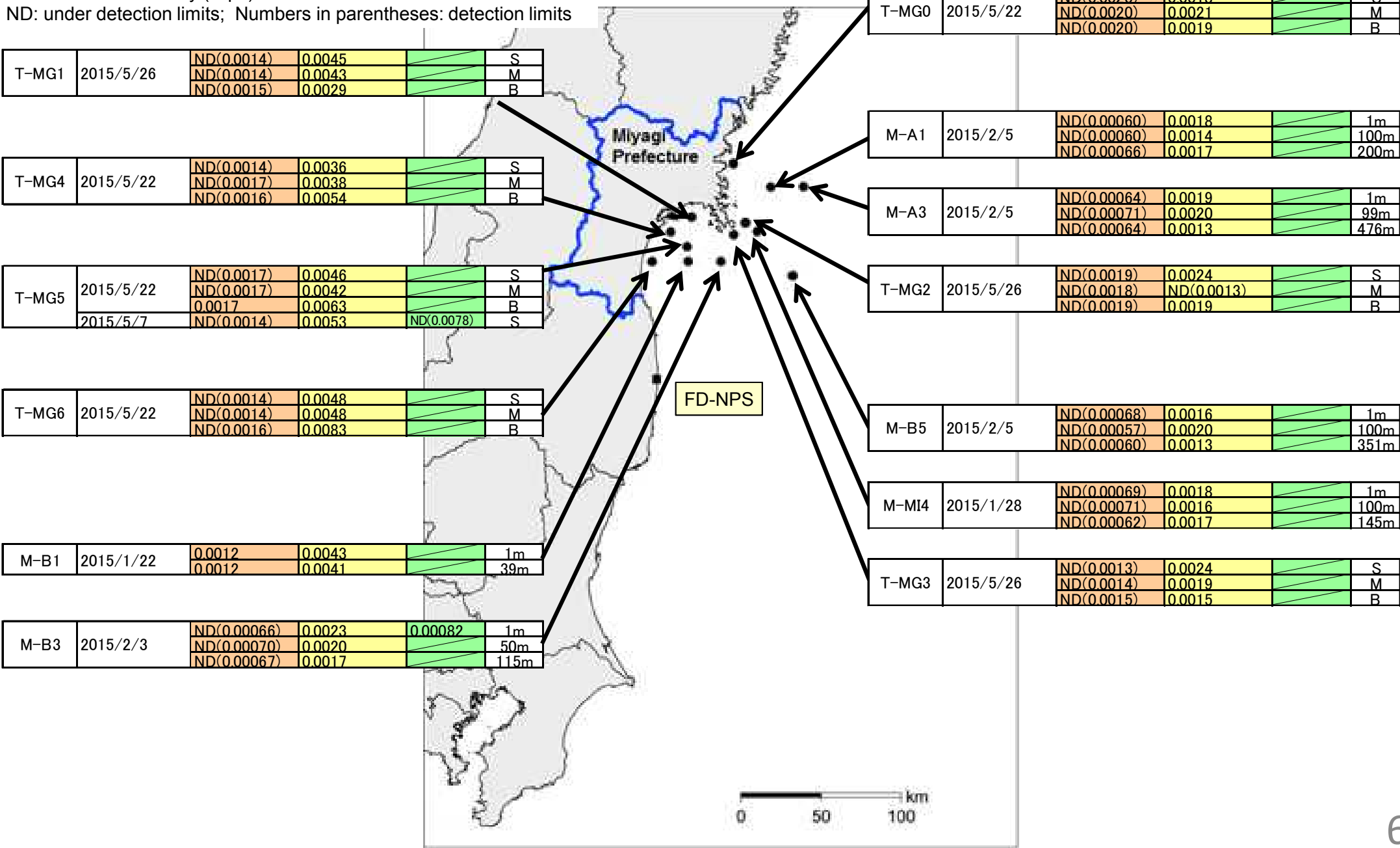


Sea area along and off the coast of Miyagi Prefecture

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	S/M/B
----------------	---------------	--------	--------	-------	-------

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	2015/6/8	ND(1.1)	ND(1.1)	/	S
		ND(1.0)	ND(1.2)		B

T-A	2015/6/8	ND(1.0)	ND(1.1)	/	S
		ND(0.82)	ND(1.1)		B

T-B	2015/6/10	ND(1.1)	ND(1.1)	/	S
		ND(0.99)	ND(1.1)		B

M-J1	2015/1/19	ND(0.00060)	0.0028	0.0012	1m
		ND(0.00071)	0.0036	/	37m

T-C	2015/6/8	ND(0.91)	ND(0.97)	/	S
		ND(0.92)	ND(1.1)		B
	2015/5/19	ND(0.94)	ND(1.2)	ND(0.0069)	S

M-K1	2015/1/18	ND(0.00074)	0.0029	/	1m
		0.00089	0.0029		29m

T-D	2015/6/10	ND(1.0)	ND(1.1)	/	S
		ND(0.89)	ND(1.2)		B

M-M1	2015/1/25	ND(0.00080)	0.0027	/	1m
		0.00078	0.0033		106m

M-I0	2015/1/20	ND(0.00070)	0.0027	0.00096	1m
		0.0012	0.0043	/	67m

M-I1	2015/1/20	ND(0.00074)	0.0028	/	1m
		ND(0.00084)	0.0030		50m
		ND(0.00082)	0.0038		93m

M-I3	2015/1/21	ND(0.00061)	0.0025	/	1m
		ND(0.00069)	0.0022		100m
		ND(0.00061)	0.0019		175m

M-IB2	2015/1/20	ND(0.00061)	0.0025	/	1m
		ND(0.00063)	0.0026		111m

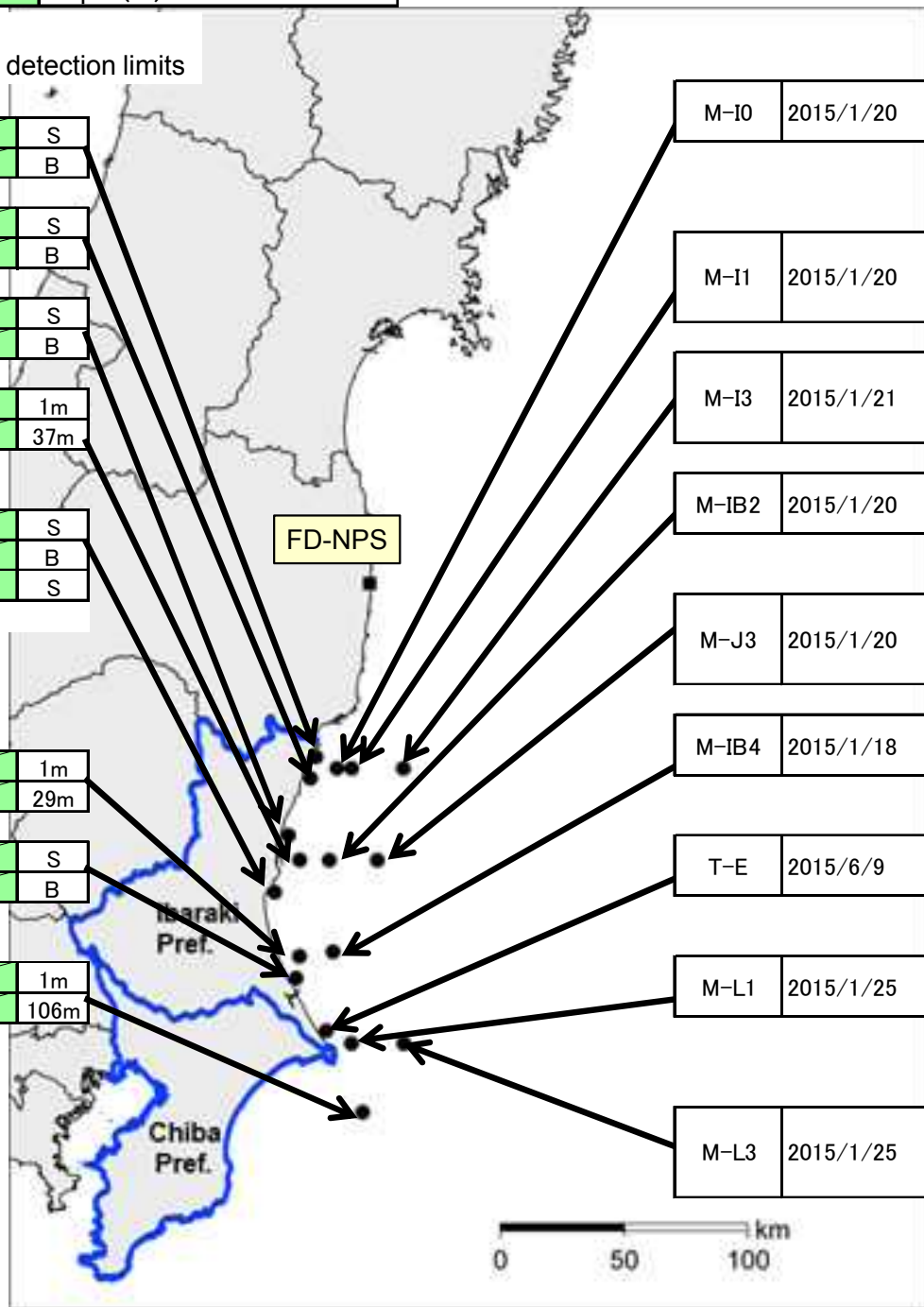
M-J3	2015/1/20	ND(0.00061)	0.0030	/	1m
		ND(0.00061)	0.0028		100m
		ND(0.00060)	0.00081		550m

M-IB4	2015/1/18	ND(0.00059)	0.0028	/	1m
		ND(0.00062)	0.0026		115m

T-E	2015/6/9	ND(0.91)	ND(1.0)	/	S
		ND(0.89)	ND(1.1)		B

M-L1	2015/1/25	ND(0.00060)	0.0027	/	1m
		0.00081	0.0029		36m

M-L3	2015/1/25	0.00089	0.0029	/	1m
		0.0010	0.0027		100m
		ND(0.00078)	0.0025		162m



Open sea off the coast of Eastern Japan

Sampling point	Sampling Date	Cs-134	Cs-137	Depth(m) from sea level
----------------	---------------	--------	--------	-------------------------

Sea water radioactivity (Bq/L):

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

M-10	2014/10/22	ND(0.00073)	0.0018	1m
		ND(0.00061)	0.0017	103m
		ND(0.00065)	0.0013	200m
		ND(0.00066)	0.0010	301m
		ND(0.00061)	0.00060	498m

M-11	2014/10/25	ND(0.00065)	0.0018	1m
		ND(0.00060)	0.0031	100m
		ND(0.00059)	0.0020	200m
		ND(0.00057)	0.0014	300m
		ND(0.00059)	0.0011	500m

M-14	2014/10/24	ND(0.00065)	0.0023	1m
		0.00064	0.0028	100m
		ND(0.00061)	0.0017	200m
		ND(0.00071)	0.0012	300m
		ND(0.00067)	0.00073	500m

M-15	2014/10/25	ND(0.00057)	0.0020	1m
		ND(0.00064)	0.0026	100m
		ND(0.00061)	0.0015	200m
		ND(0.00059)	0.0013	300m
		ND(0.00058)	0.00066	500m

M-19	2014/10/28	ND(0.00058)	0.0018	1m
		ND(0.00052)	0.0027	100m
		0.0013	0.0045	200m
		ND(0.00063)	0.0034	300m
		ND(0.00055)	0.0017	500m

M-21	2014/10/26	ND(0.00058)	0.0015	1m
		ND(0.00065)	0.0026	100m
		0.0010	0.0041	200m
		0.00080	0.0042	300m
		0.00068	0.0029	500m

M-20	2014/10/29	ND(0.00066)	0.0016	1m
		ND(0.00062)	0.0027	100m
		0.0016	0.0046	200m
		ND(0.00078)	0.0045	300m
		ND(0.00069)	0.0014	500m

M-26	2014/10/27	ND(0.00070)	0.0016	1m
		0.00095	0.0030	100m
		0.00074	0.0027	200m
		ND(0.00062)	0.0026	300m
		ND(0.00065)	0.00093	500m

M-25	2014/10/27	ND(0.00061)	0.0016	1m
		ND(0.00056)	0.0029	100m
		ND(0.00058)	0.0029	200m
		ND(0.00071)	0.0021	300m
		ND(0.00056)	0.00083	500m

M-27	2014/10/26	ND(0.00063)	0.0016	1m
		ND(0.00062)	0.0025	100m
		0.00070	0.0030	200m
		ND(0.00063)	0.0024	300m
		ND(0.00056)	0.0014	500m

