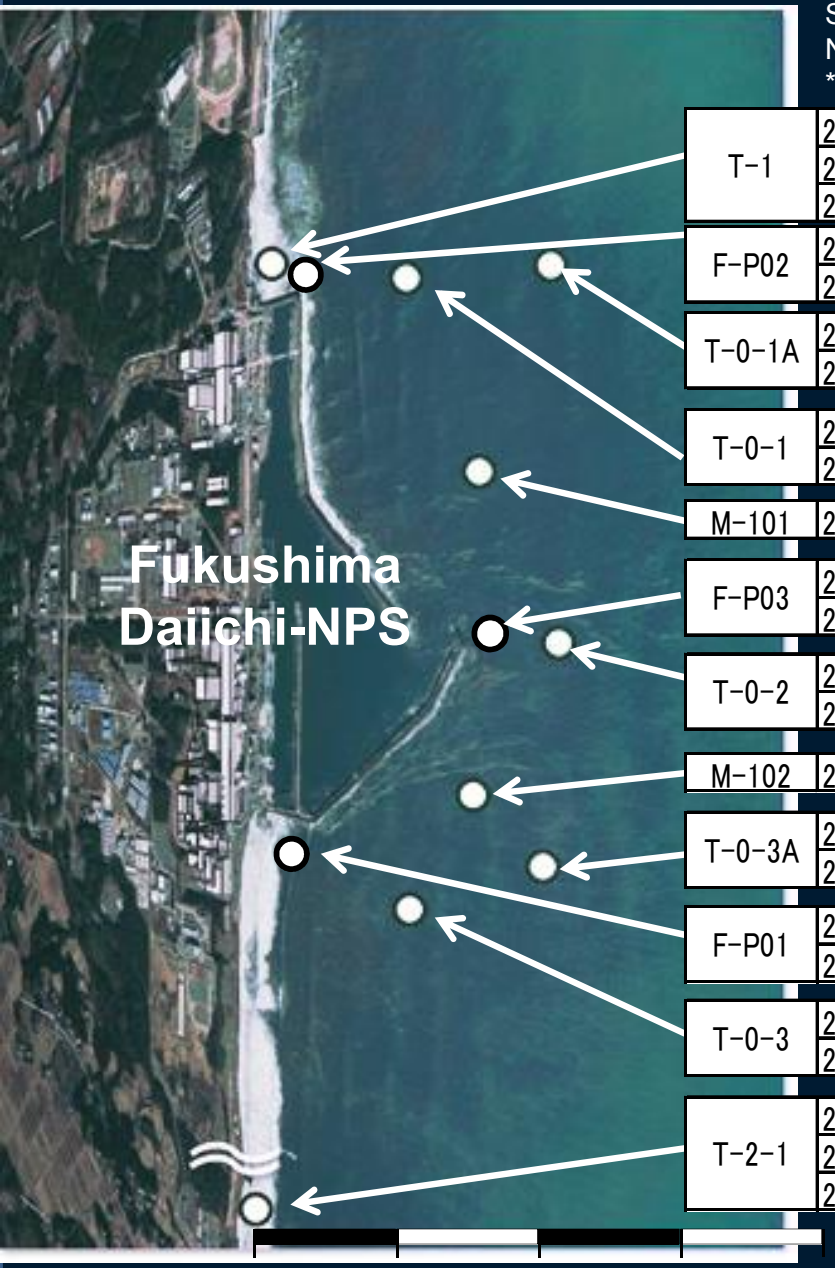
Sea Area Monitoring

April 12, 2016

Nuclear Regulation Authority (NRA), Japan

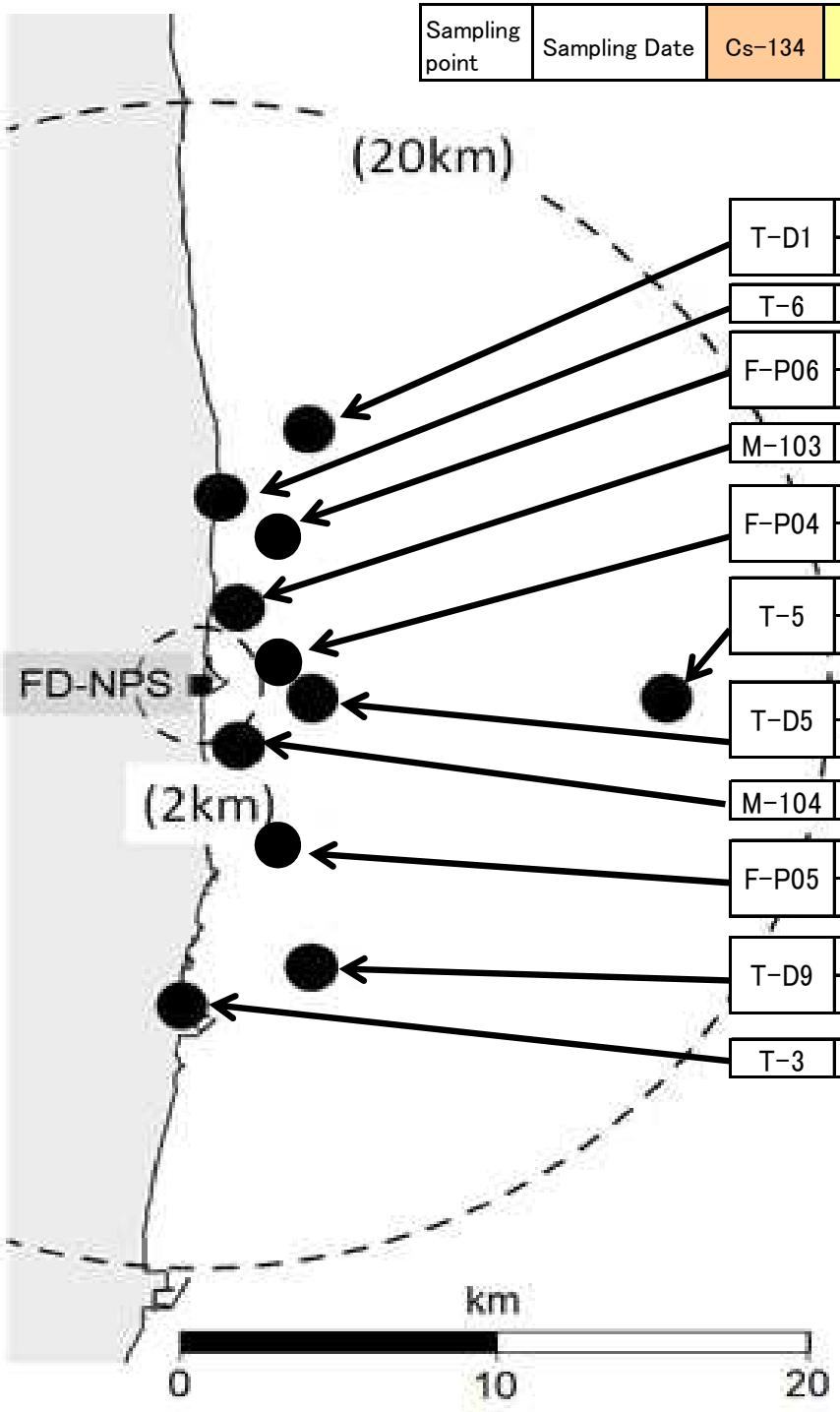
Sea area within 2km radius from the NPS



Sea water radioacitivity (Bq/L):
ND: under detection limits; Numbers in parentheses: detection limits
*1:Total β: including K-40 *2:Total β: excluding K-40

Sampling point	Sampling Date	Cs-134	Cs-137	total β	H-3	Sr-90	total α	Pu-238	Pu-239+240
T-1	2016/3/28	ND(0.72)	ND(0.59)	13*1	ND(1.6)				
	2016/2/1	ND(0.73)	ND(0.72)	14*1	ND(1.6)	0.028	ND(1.6)		
	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)×10^{-5}
F-P02	2016/1/22	ND(0.061)	0.12	0.03*2	ND(0.47)	In progress		In progress	In progress
	2015/12/14	ND(0.059)	0.059	0.08*2	ND(0.40)	0.001		ND(9.0×10^{-6})	9.0×10^{-6}
T-0-1A	2016/3/28	ND(0.76)	ND(0.64)	ND(15)*1	In progress				
	2016/3/21	ND(0.64)	ND(0.69)	ND(17)*1	ND(1.7)				
T-0-1	2016/3/28	ND(0.77)	ND(0.65)	ND(15)*1	In progress				
	2016/3/21	ND(0.65)	ND(0.60)	ND(17)*1	ND(1.7)				
M-101	2016/1/13	0.011	0.054		0.17	0.0036			
F-P03	2016/1/22	ND(0.062)	ND(0.046)	0.04*2	ND(0.45)	In progress		In progress	In progress
	2015/12/14	ND(0.055)	0.081	0.06*2	ND(0.40)	0.003		ND(7.0×10^{-6})	1.2×10^{-5}
T-0-2	2016/3/28	ND(0.59)	ND(0.64)	ND(15)*1	In progress				
	2016/3/21	ND(0.79)	ND(0.62)	ND(17)*1	ND(1.7)				
M-102	2016/1/14	0.0050	0.026		0.10	0.0015			
T-0-3A	2016/3/28	ND(0.47)	ND(0.71)	ND(15)*1	In progress				
	2016/3/21	ND(0.64)	ND(0.76)	ND(17)*1	ND(1.7)				
F-P01	2016/1/22	ND(0.060)	ND(0.051)	0.04*2	ND(0.49)	In progress		In progress	In progress
	2015/12/14	ND(0.060)	0.099	0.05*2	ND(0.41)	0.004		ND(1.1×10^{-5})	1.3×10^{-5}
T-0-3	2016/3/28	ND(0.75)	ND(0.56)	ND(15)*1	In progress				
	2016/3/21	ND(0.43)	ND(0.57)	ND(17)*1	ND(1.7)				
T-2-1	2016/3/28	ND(0.53)	ND(0.70)	13*1	ND(1.6)				
	2016/2/1	ND(0.66)	ND(0.63)	11*1	ND(1.6)	ND(0.0062)	ND(1.5)		
	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)×10^{-5}

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



Sea water radioacitivity (Bq/L):
ND: under detection limits; Numbers in parentheses: detection limits
*1:Total β: including K-40 *2:Total β: excluding K-40

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)
T-D1	2016/3/2	0.0021	0.010	ND(16)*1	ND(0.36)	ND(0.0069)	ND(1.6)			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	2016/3/1	0.014	0.059	ND(17)*1	ND(0.31)					S
F-P06	2016/1/22	ND(0.060)	0.058	0.04*2	ND(0.45)	In progress		In progress	In progress	S
	2015/12/14	ND(0.069)	ND(0.066)	0.05*2	ND(0.39)	0.001		ND(8.0×10^{-6})	ND(1.0×10^{-5})	S
M-103	2016/1/13	0.0031	0.015		0.087	0.0016				0.5m
F-P04	2016/1/22	ND(0.065)	ND(0.048)	0.04*2	ND(0.44)	In progress		In progress	In progress	S
	2015/12/14	ND(0.066)	ND(0.070)	0.04*2	ND(0.39)	0.002		ND(6.0×10^{-6})	8.0×10^{-6}	S
T-5	2016/3/2	ND(0.0011)	0.0049	ND(16)*1	ND(0.36)	ND(0.0067)	ND(1.6)			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	2016/3/2	0.0017	0.011	ND(16)*1	ND(0.36)	ND(0.0069)	ND(1.6)			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	2016/1/14	0.0045	0.022		0.11	0.0017				0.5m
F-P05	2016/1/22	ND(0.062)	ND(0.042)	0.04*2	ND(0.45)	In progress		In progress	In progress	S
	2015/12/14	ND(0.064)	0.062	0.04*2	ND(0.39)	0.002		ND(7.0×10^{-6})	ND(8.0×10^{-6})	S
T-D9	2016/3/2	0.0023	0.011	ND(16)*1	ND(0.36)	ND(0.0067)	ND(1.6)			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	2016/3/1	0.0097	0.047	ND(17)*1	ND(0.31)					S

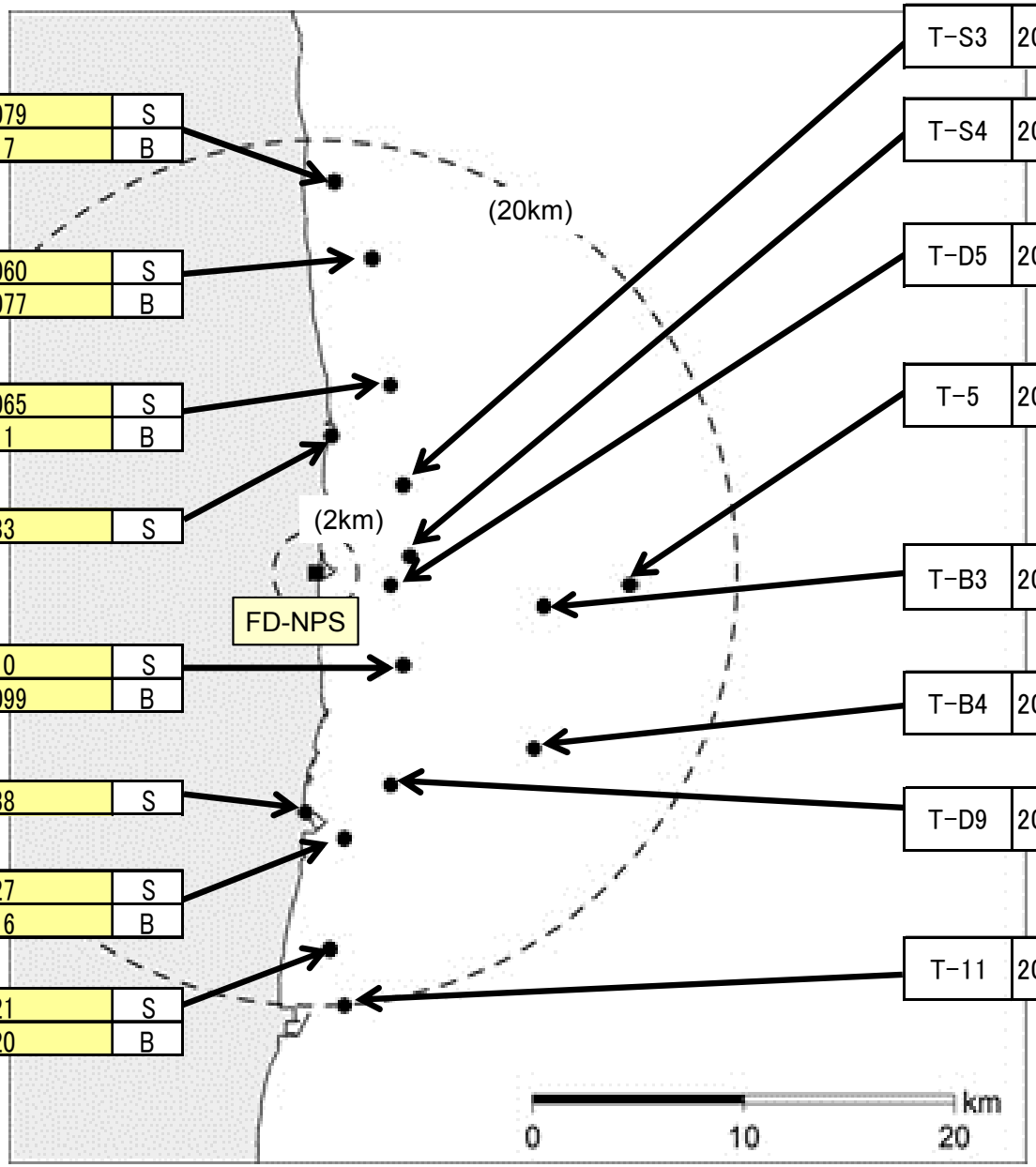
Sea area between 2-20km radius from the NPS (2)

Sampling point	Sampling Date	Cs-134	Cs-137	S/B

S:2m below sea level
B:2-3m above sea bottom

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

T-S1	2016/2/18	ND(0.0015)	0.0079	S
		0.0030	0.017	B
T-14	2016/3/7	ND(0.0013)	0.0060	S
		ND(0.0014)	0.0077	B
T-D1	2016/3/7	ND(0.0013)	0.0065	S
		0.0023	0.011	B
T-6	2016/3/8	0.0071	0.033	S
T-S8	2016/3/6	ND(0.0015)	0.010	S
		ND(0.0015)	0.0099	B
T-3	2016/3/8	0.0069	0.038	S
T-S7	2016/3/16	0.0045	0.027	S
		0.0032	0.016	B
T-S5	2016/3/16	0.0031	0.021	S
		0.0036	0.020	B



T-S3	2016/2/16	0.0028	0.0086	S
		0.0051	0.028	B
T-S4	2016/2/16	ND(0.0014)	0.010	S
		0.0027	0.013	B
T-D5	2016/3/7	0.0023	0.010	S
		0.0016	0.0084	B
T-5	2016/3/11	ND(0.0014)	0.0032	S
		ND(0.0013)	0.0034	B
T-B3	2016/2/12	0.0013	0.0047	S
		0.0017	0.0053	B
T-B4	2016/2/12	ND(0.0013)	0.0054	S
		ND(0.0014)	0.0052	B
T-D9	2016/3/8	0.0014	0.0077	S
		0.0030	0.014	B
T-11	2016/3/8	0.0042	0.020	S
		0.0072	0.033	B

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

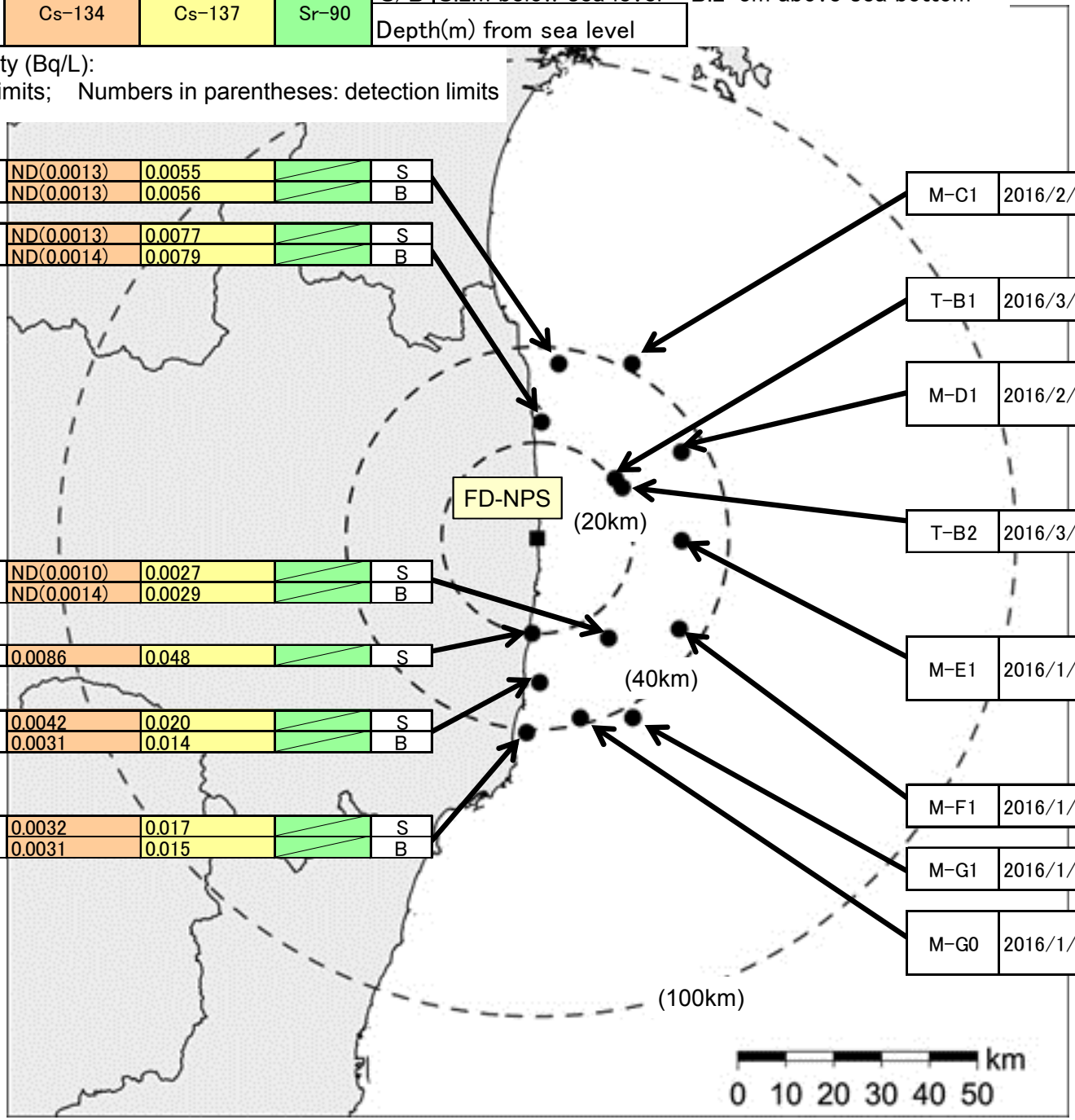
Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	S/B	Depth(m) from sea level

S:2m below sea level　B:2-3m above sea bottom

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

T-MA	2016/3/8	ND(0.0013)	0.0055		S	
		ND(0.0013)	0.0056		B	
T-13-1	2016/3/8	ND(0.0013)	0.0077		S	
		ND(0.0014)	0.0079		B	
T-7	2016/3/4	ND(0.0010)	0.0027		S	
		ND(0.0014)	0.0029		B	
T-4	2016/3/8	0.0086	0.048		S	
T-12	2016/2/4	0.0042	0.020		S	
		0.0031	0.014		B	
T-17-1	2016/2/4	0.0032	0.017		S	
		0.0031	0.015		B	

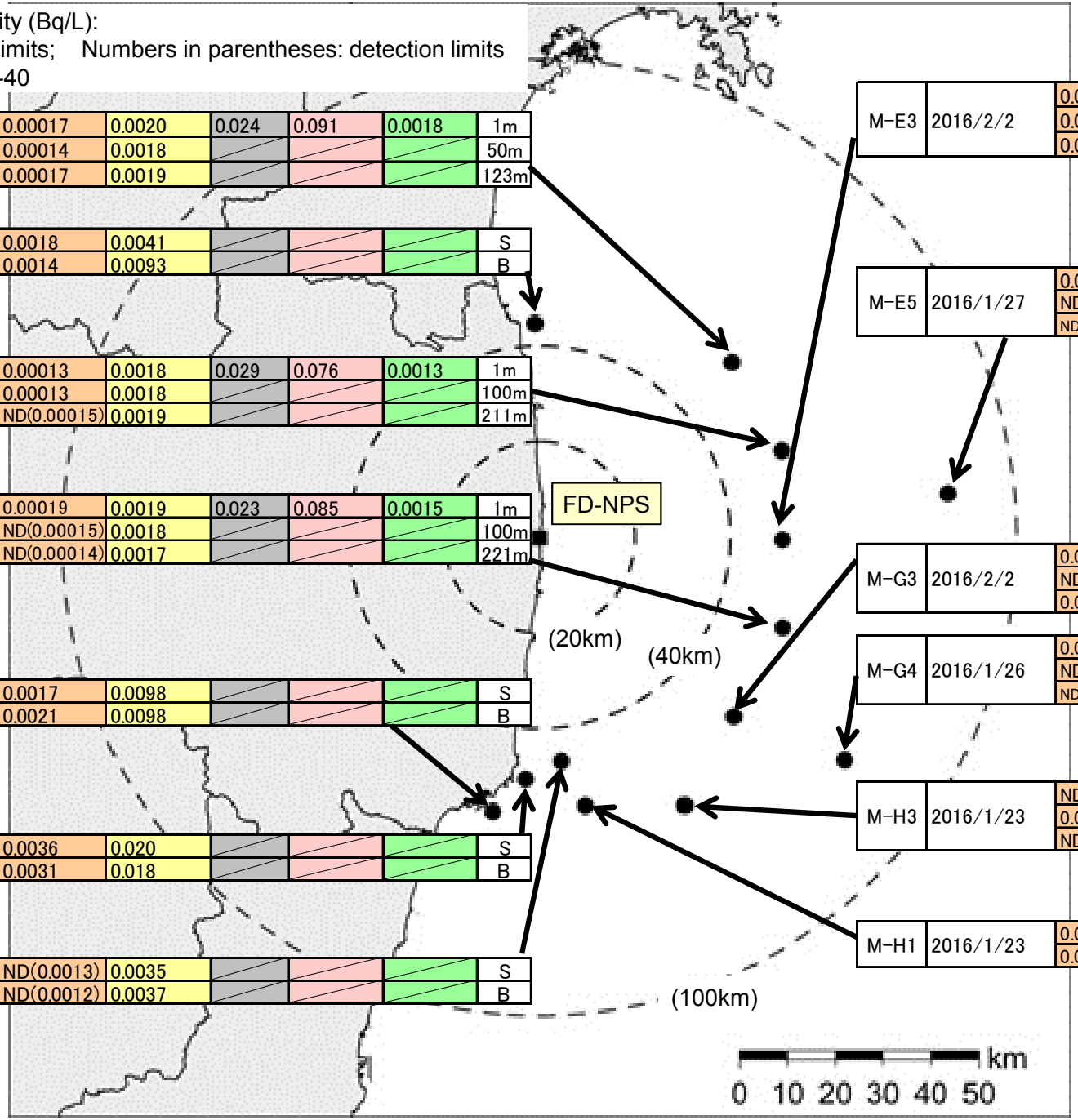
M-C1	2016/2/3	0.00096	0.0051	0.0012	1m
		0.00074	0.0051		49m
T-B1	2016/3/3	ND(0.0013)	0.0029		S
		ND(0.0014)	0.0042		B
M-D1	2016/2/1	0.00038	0.0029	0.0012	1m
		0.00029	0.0027		50m
		0.00025	0.0022		113m
T-B2	2016/3/3	ND(0.0014)	0.0034		S
		ND(0.0013)	0.0036		B
M-E1	2016/1/26	0.00024	0.0018	0.0012	1m
		0.00017	0.0021		50m
		0.00026	0.0020		129m
M-F1	2016/1/25	0.00015	0.0019		1m
		0.00022	0.0020		133m
M-G1	2016/1/24	0.00025	0.0023		1m
		0.00022	0.0022		130m
M-G0	2016/1/24	0.00018	0.0024		1m
		0.00035	0.0025		50m
		0.00028	0.0025		100m



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 radioacitivity (Bq/L):
ND: under detection limits; Numbers in parentheses: detection limits
*Total β: excluding K-40



M-C3	2016/2/1	0.00017	0.0020	0.024	0.091	0.0018	1m
		0.00014	0.0018				50m
		0.00017	0.0019				123m
T-22	2016/3/8	0.0018	0.0041				S
		0.0014	0.0093				B
M-D3	2016/2/1	0.00013	0.0018	0.029	0.076	0.0013	1m
		0.00013	0.0018				100m
		ND(0.00015)	0.0019				211m
M-F3	2016/2/2	0.00019	0.0019	0.023	0.085	0.0015	1m
		ND(0.00015)	0.0018				100m
		ND(0.00014)	0.0017				221m
T-18	2016/3/4	0.0017	0.0098				S
		0.0021	0.0098				B
T-20	2016/2/4	0.0036	0.020				S
		0.0031	0.018				B
T-M10	2016/3/4	ND(0.0013)	0.0035				S
		ND(0.0012)	0.0037				B
M-E3	2016/2/2	0.00018	0.0020	0.029	0.097	0.0012	1m
		0.00018	0.0019				100m
		0.00021	0.0019				221m
M-E5	2016/1/27	0.00017	0.0021	0.032	0.065	0.0020	1m
		ND(0.00017)	0.0021				100m
		ND(0.000079)	0.00072				520m
M-G3	2016/2/2	0.00018	0.0019	0.025	0.076	0.0015	1m
		ND(0.00015)	0.0020				100m
		0.00017	0.0019				200m
M-G4	2016/1/26	0.00018	0.0019	0.029	0.058	0.0017	1m
		ND(0.00017)	0.0020				100m
		ND(0.000090)	0.00050				645m
M-H3	2016/1/23	ND(0.00016)	0.0020	0.027	0.065	ND(0.00062)	1m
		0.00018	0.0020				100m
		ND(0.00015)	0.0019				224m
M-H1	2016/1/23	0.00039	0.0029				1m
		0.00079	0.0040				125m

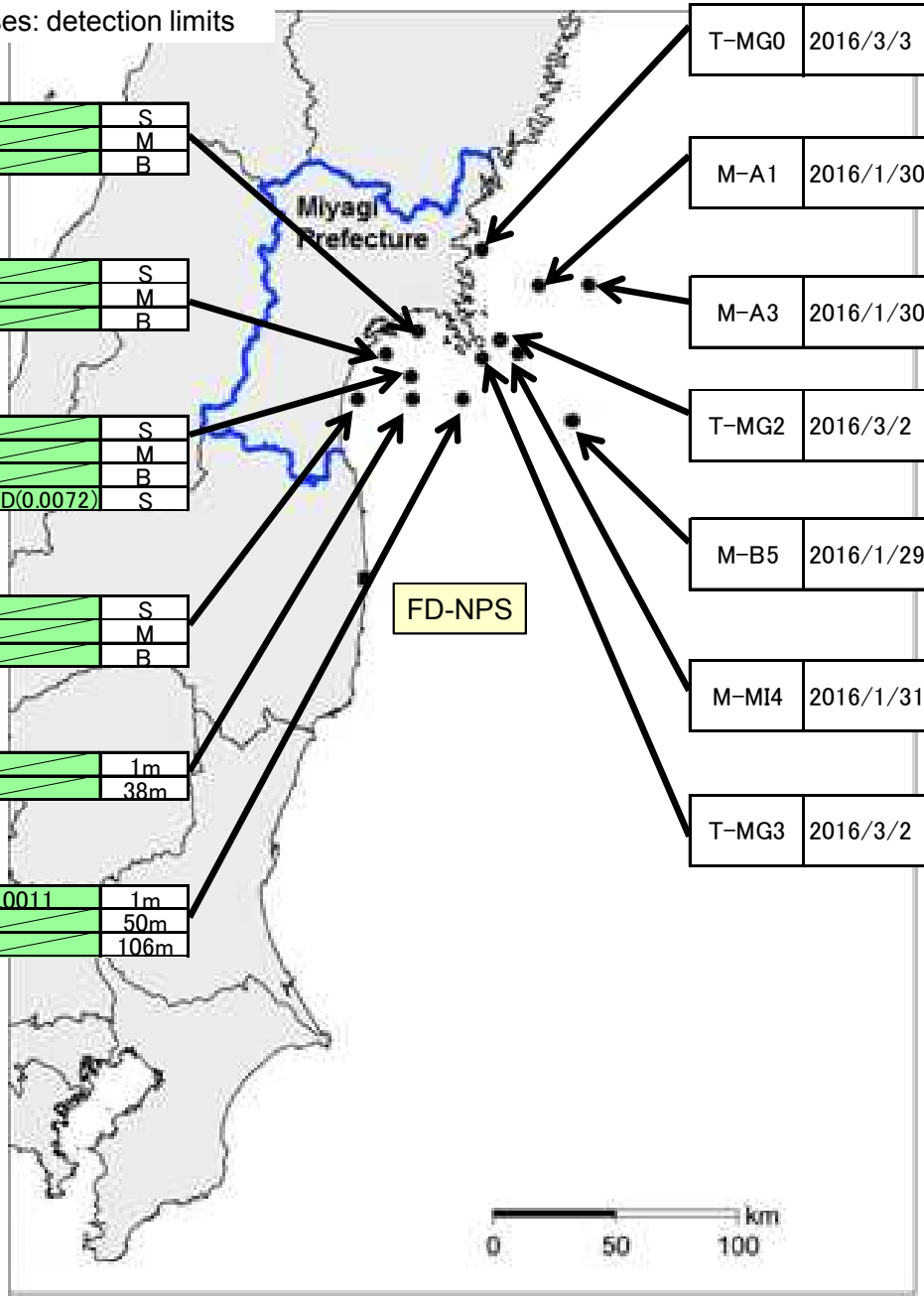
Sea area along and off the coast of Miyagi Prefecture

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	S/M/B Depth(m) from sea level

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 radioacitivity (Bq/L):
ND: under detection limits; Numbers in parentheses: detection limits

T-MG1	2016/3/2	ND(0.0014)	0.0052		S
		ND(0.0014)	0.0052		M
		ND(0.0015)	0.0051		B
T-MG4	2016/2/16	ND(0.0016)	0.0056		S
		ND(0.0018)	0.0045		M
		ND(0.0016)	0.0054		B
T-MG5	2016/2/16	ND(0.0013)	0.0059		S
		ND(0.0014)	0.0047		M
		ND(0.0014)	0.0055		B
	2016/1/5	ND(0.0014)	0.0051	ND(0.0072)	S
T-MG6	2016/2/16	ND(0.0018)	0.0065		S
		ND(0.0017)	0.0054		M
		0.0037	0.020		B
M-B1	2016/2/3	0.00047	0.0033		1m
		0.00051	0.0032		38m
M-B3	2016/1/31	0.00020	0.0021	0.0011	1m
		0.00021	0.0021		50m
		0.00013	0.0020		106m
T-MG0	2016/3/3	ND(0.0014)	0.0020		S
		ND(0.0014)	0.0015		M
		ND(0.0013)	0.0019		B
M-A1	2016/1/30	0.00017	0.0020		1m
		ND(0.00016)	0.0018		100m
		0.00016	0.0017		198m
M-A3	2016/1/30	ND(0.00016)	0.0019		1m
		ND(0.00018)	0.0019		100m
		ND(0.00011)	0.0011		475m
T-MG2	2016/3/2	ND(0.0013)	0.0017		S
		ND(0.0015)	0.0025		M
		ND(0.0015)	0.0018		B
M-B5	2016/1/29	0.00015	0.0021		1m
		ND(0.00018)	0.0019		100m
		ND(0.00011)	0.0012		350m
M-MI4	2016/1/31	ND(0.00015)	0.0019		1m
		0.00015	0.0018		100m
		ND(0.00014)	0.0018		142m
T-MG3	2016/3/2	ND(0.0014)	0.0015		S
		ND(0.0014)	0.0017		M
		ND(0.0013)	0.0017		B



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

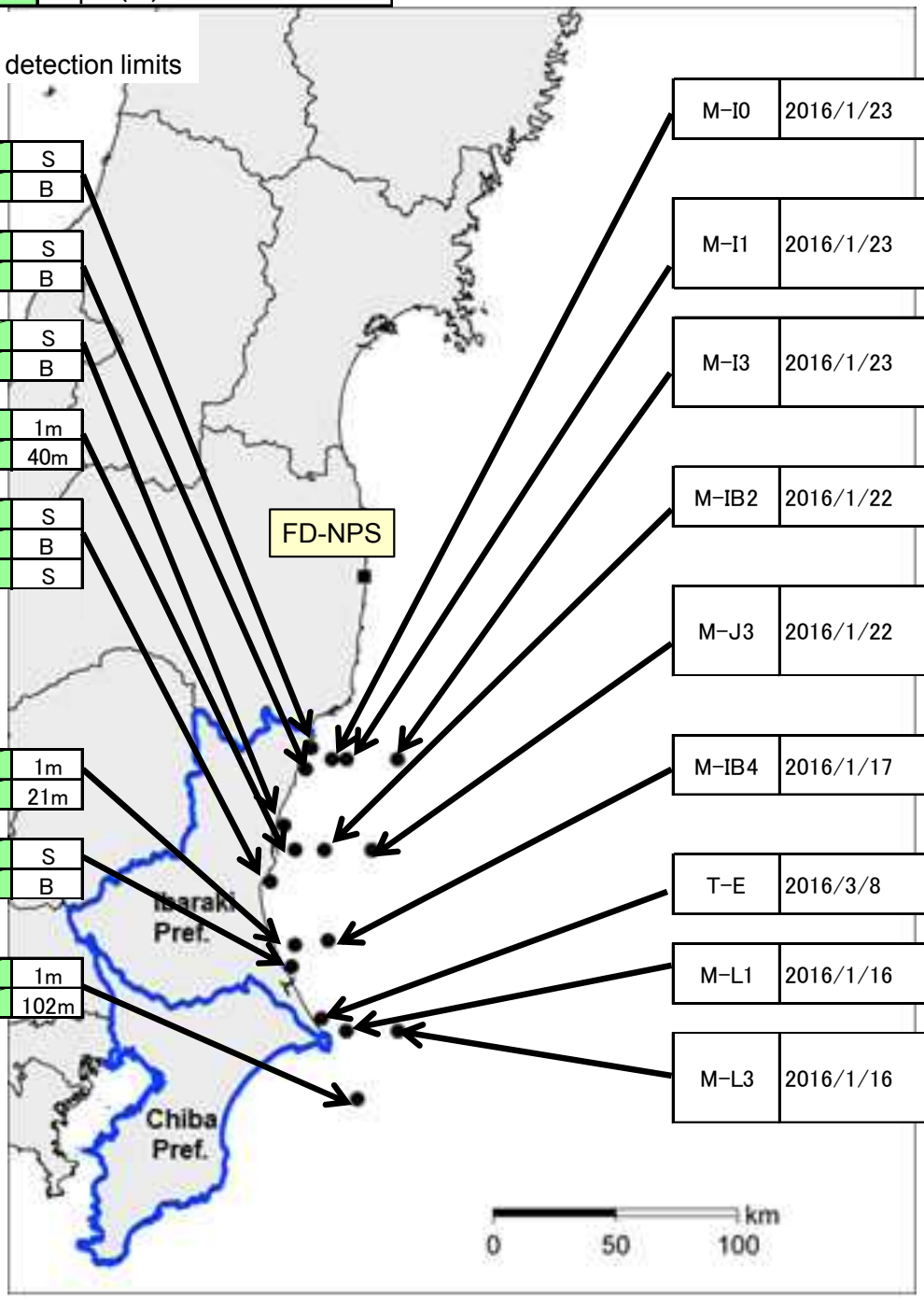
Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	S/B

S:2m below sea level B:2-3m above sea bottom

Depth(m) from sea level

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

T-Z	2016/3/7	ND(0.82)	ND(1.1)		S
		ND(1.0)	ND(1.2)		B
T-A	2016/3/7	ND(0.82)	ND(1.1)		S
		ND(0.86)	ND(1.3)		B
T-B	2016/3/24	ND(1.1)	ND(1.1)		S
		ND(0.86)	ND(1.2)		B
M-J1	2016/1/22	0.00046	0.0041	0.0014	1m
		0.00056	0.004		40m
T-C	2016/3/8	ND(1.0)	ND(0.95)		S
		ND(0.78)	ND(1.2)		B
	2016/1/21	ND(0.79)	ND(1.3)	ND(0.0089)	S
M-K1	2016/1/17	0.00067	0.0045		1m
		0.00080	0.0049		21m
T-D	2016/3/23	ND(0.98)	ND(1.1)		S
		ND(0.93)	ND(1.3)		B
M-M1	2016/1/16	ND(0.00018)	0.0020		1m
		0.00031	0.003		102m



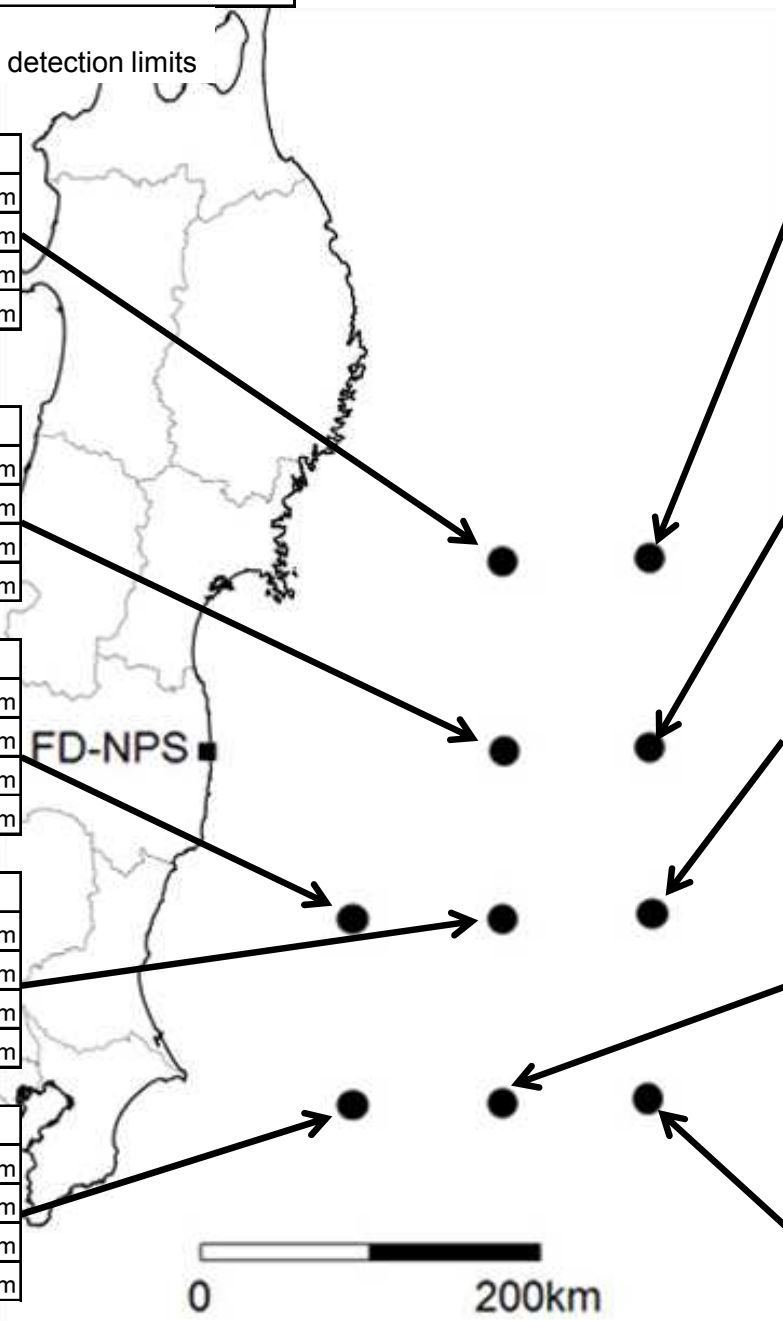
M-I0	2016/1/23	0.00074	0.0045	0.0011	1m
		0.00079	0.005		64m
M-I1	2016/1/23	0.0016	0.0080		1m
		0.00096	0.0066		50m
		0.00029	0.0031		91m
M-I3	2016/1/23	0.00026	0.0024		1m
		0.00019	0.0021		100m
		0.00026	0.0021		173m
M-IB2	2016/1/22	0.00033	0.0028		1m
		0.00050	0.0035		110m
M-J3	2016/1/22	0.00048	0.0032		1m
		0.00023	0.0023		100m
		ND(0.000079)	0.00059		558m
M-IB4	2016/1/17	0.00025	0.0023		1m
		0.00022	0.0023		110m
T-E	2016/3/8	ND(0.97)	ND(1.2)		S
		ND(0.86)	ND(1.2)		B
M-L1	2016/1/16	0.00029	0.0023		1m
		0.00031	0.0024		35m
M-L3	2016/1/16	0.00019	0.0024		1m
		0.0002	0.0021		100m
		0.0003	0.0026		156m

Open sea off the coast of Eastern Japan

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

Sea water radioacitivity (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-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-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-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-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-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-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-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-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-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