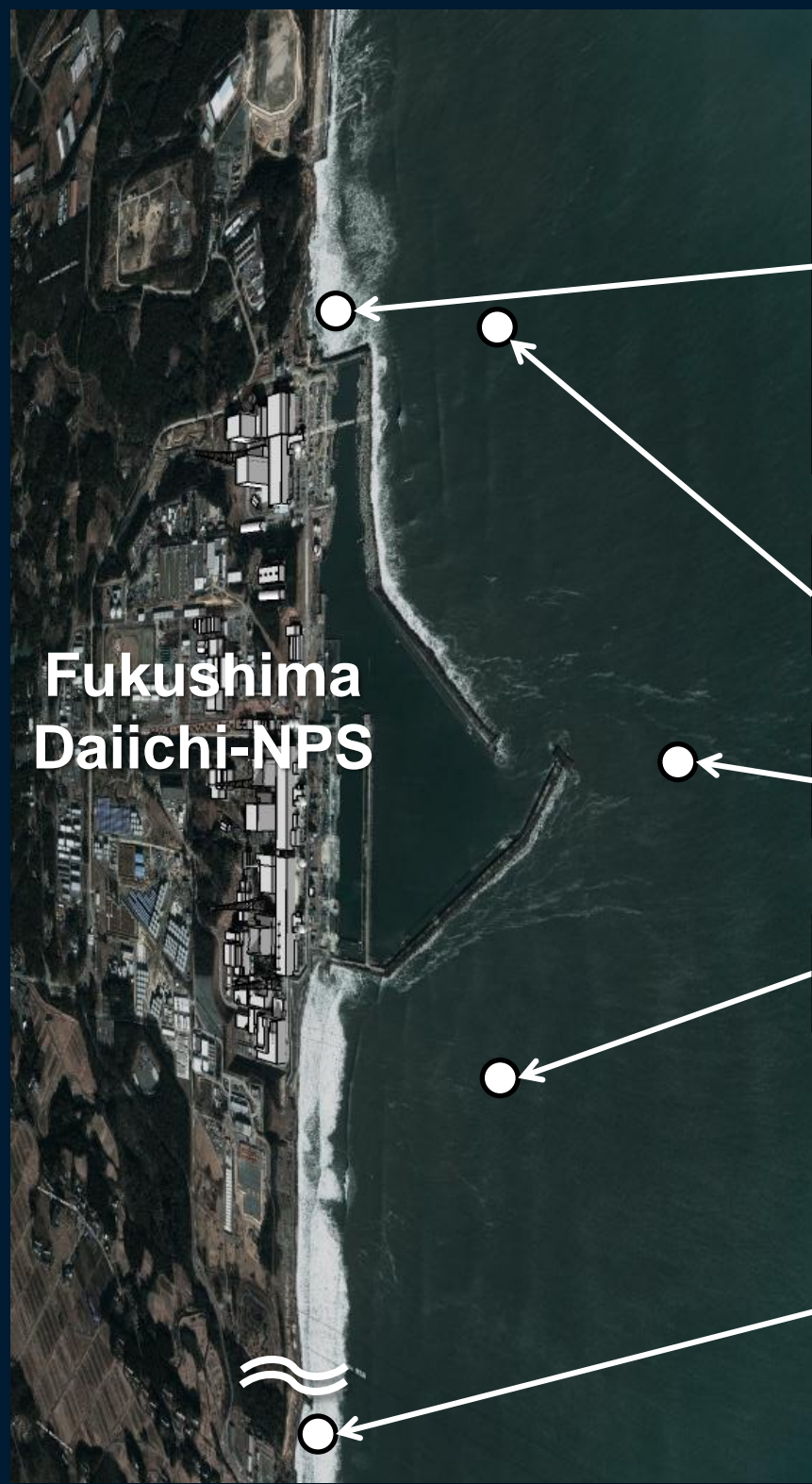


# Sea Area Monitoring

October 8, 2013

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+ Pu-240 |
|----------------|---------------|--------|--------|---------|-----|-------|---------|--------|----------------|
|----------------|---------------|--------|--------|---------|-----|-------|---------|--------|----------------|

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

|     |            |          |         |         |         |             |             |             |             |
|-----|------------|----------|---------|---------|---------|-------------|-------------|-------------|-------------|
| T-1 | 2013/09/23 | ND (1.2) | ND(1.4) | ND (17) | ND(1.8) |             |             |             |             |
|     | 2013/09/16 | ND (1.3) | 2.3     | ND (15) | 2.7     |             |             |             |             |
|     | 2013/08/12 | ND (1.2) | 1.4     | ND (19) | 4.7     | In progress | In progress |             |             |
|     | 2013/08/06 | ND (1.4) | 1.7     |         |         |             |             | In progress | In progress |

|       |            |           |           |         |          |  |  |  |  |
|-------|------------|-----------|-----------|---------|----------|--|--|--|--|
| T-0-1 | 2013/09/18 | ND (0.67) | ND (0.52) | ND (16) | ND (1.7) |  |  |  |  |
|-------|------------|-----------|-----------|---------|----------|--|--|--|--|

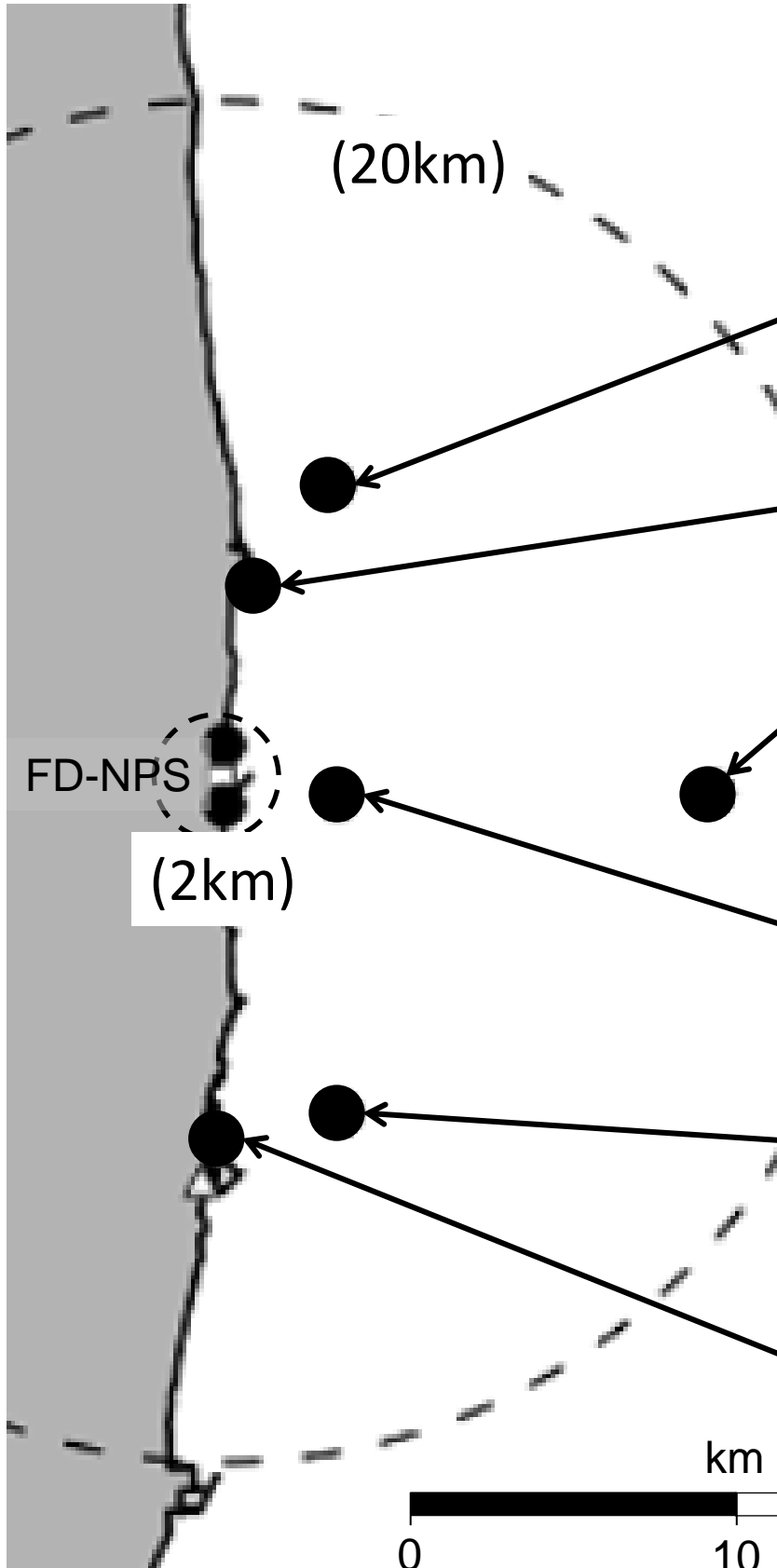
|       |            |           |           |         |     |  |  |  |  |
|-------|------------|-----------|-----------|---------|-----|--|--|--|--|
| T-0-2 | 2013/09/18 | ND (0.45) | ND (0.68) | ND (16) | 3.6 |  |  |  |  |
|-------|------------|-----------|-----------|---------|-----|--|--|--|--|

|       |            |           |           |         |          |  |  |  |  |
|-------|------------|-----------|-----------|---------|----------|--|--|--|--|
| T-0-3 | 2013/09/18 | ND (0.68) | ND (0.82) | ND (16) | ND (1.7) |  |  |  |  |
|-------|------------|-----------|-----------|---------|----------|--|--|--|--|

|       |            |          |          |         |          |             |             |             |             |
|-------|------------|----------|----------|---------|----------|-------------|-------------|-------------|-------------|
| T-2-1 | 2013/09/23 | ND (1.2) | ND (1.4) | ND (17) | ND(1.8)  |             |             |             |             |
|       | 2013/09/16 | ND (1.3) | ND (1.8) | ND (19) | ND (1.5) |             |             |             |             |
|       | 2013/08/12 | ND (1.2) | ND (1.4) | ND (19) | ND (2.9) | In progress | In progress |             |             |
|       | 2013/08/06 | ND (1.4) | ND (1.3) | ND (21) |          |             |             | In progress | In progress |

0 0.5 1km

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



| Sampling Point | Sampling Date | Cs-134 | Cs-137 | total $\beta$ | H-3 | Sr-90 | total $\alpha$ | Pu-238 | Pu-239+ Pu-240 |
|----------------|---------------|--------|--------|---------------|-----|-------|----------------|--------|----------------|
|----------------|---------------|--------|--------|---------------|-----|-------|----------------|--------|----------------|

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

|      |            |             |             |         |           |             |          |             |             |
|------|------------|-------------|-------------|---------|-----------|-------------|----------|-------------|-------------|
| T-D1 | 2013/08/06 | In progress | In progress | ND (17) | ND (0.37) | In progress | ND (1.7) | In progress | In progress |
|------|------------|-------------|-------------|---------|-----------|-------------|----------|-------------|-------------|

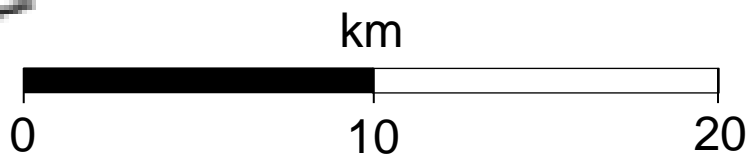
|     |            |       |       |         |           |   |   |   |   |
|-----|------------|-------|-------|---------|-----------|---|---|---|---|
| T-6 | 2013/08/06 | 0.044 | 0.081 | ND (18) | ND (0.30) | / | / | / | / |
|-----|------------|-------|-------|---------|-----------|---|---|---|---|

|     |            |             |             |         |           |             |          |             |             |
|-----|------------|-------------|-------------|---------|-----------|-------------|----------|-------------|-------------|
| T-5 | 2013/08/07 | In progress | In progress | ND (17) | ND (0.37) | In progress | ND (1.7) | In progress | In progress |
|-----|------------|-------------|-------------|---------|-----------|-------------|----------|-------------|-------------|

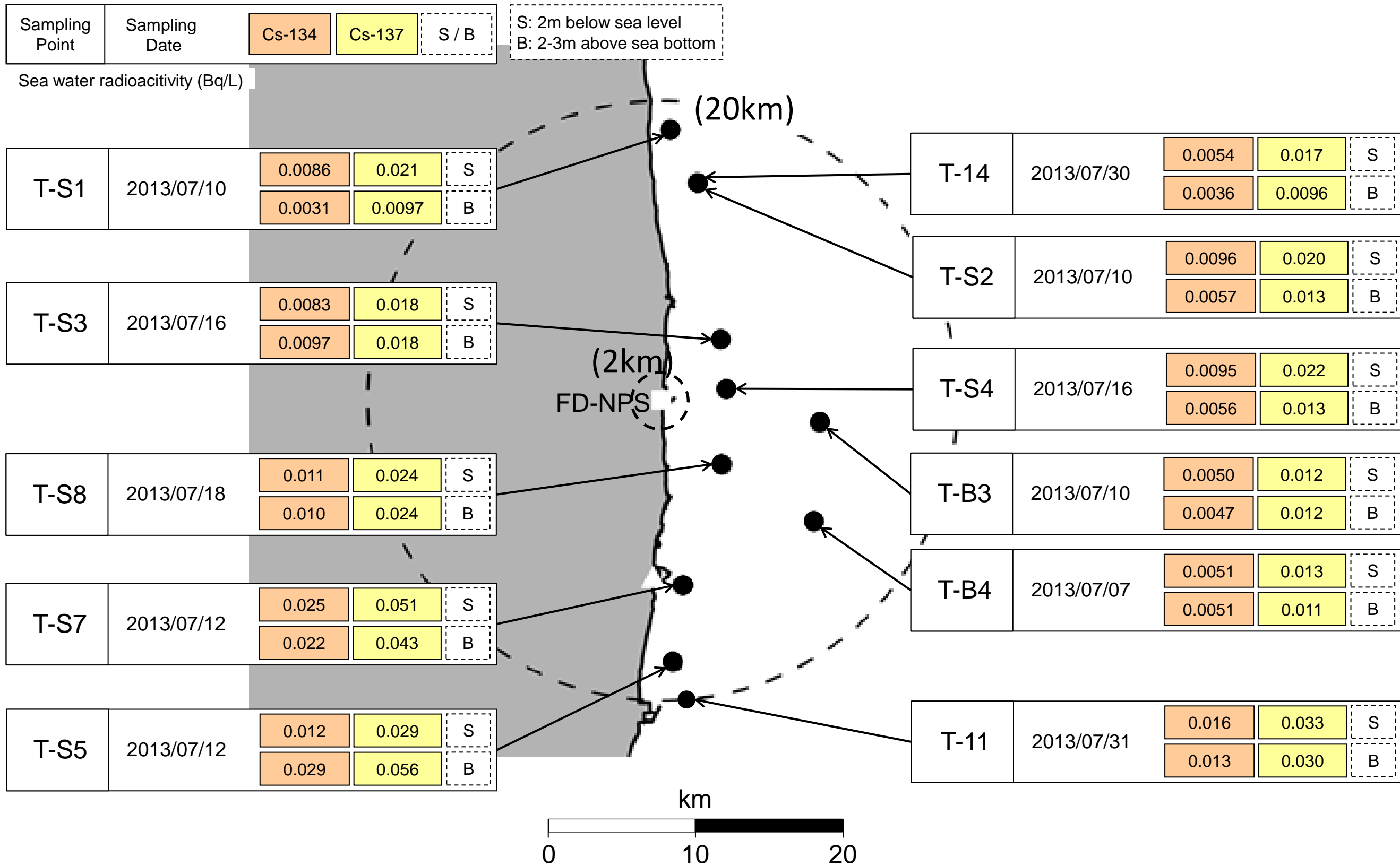
|      |            |             |             |         |           |             |          |             |             |
|------|------------|-------------|-------------|---------|-----------|-------------|----------|-------------|-------------|
| T-D5 | 2013/08/06 | In progress | In progress | ND (17) | ND (0.37) | In progress | ND (1.7) | In progress | In progress |
|------|------------|-------------|-------------|---------|-----------|-------------|----------|-------------|-------------|

|      |            |             |             |         |           |             |          |             |             |
|------|------------|-------------|-------------|---------|-----------|-------------|----------|-------------|-------------|
| T-D9 | 2013/08/07 | In progress | In progress | ND (17) | ND (0.37) | In progress | ND (1.7) | In progress | In progress |
|------|------------|-------------|-------------|---------|-----------|-------------|----------|-------------|-------------|

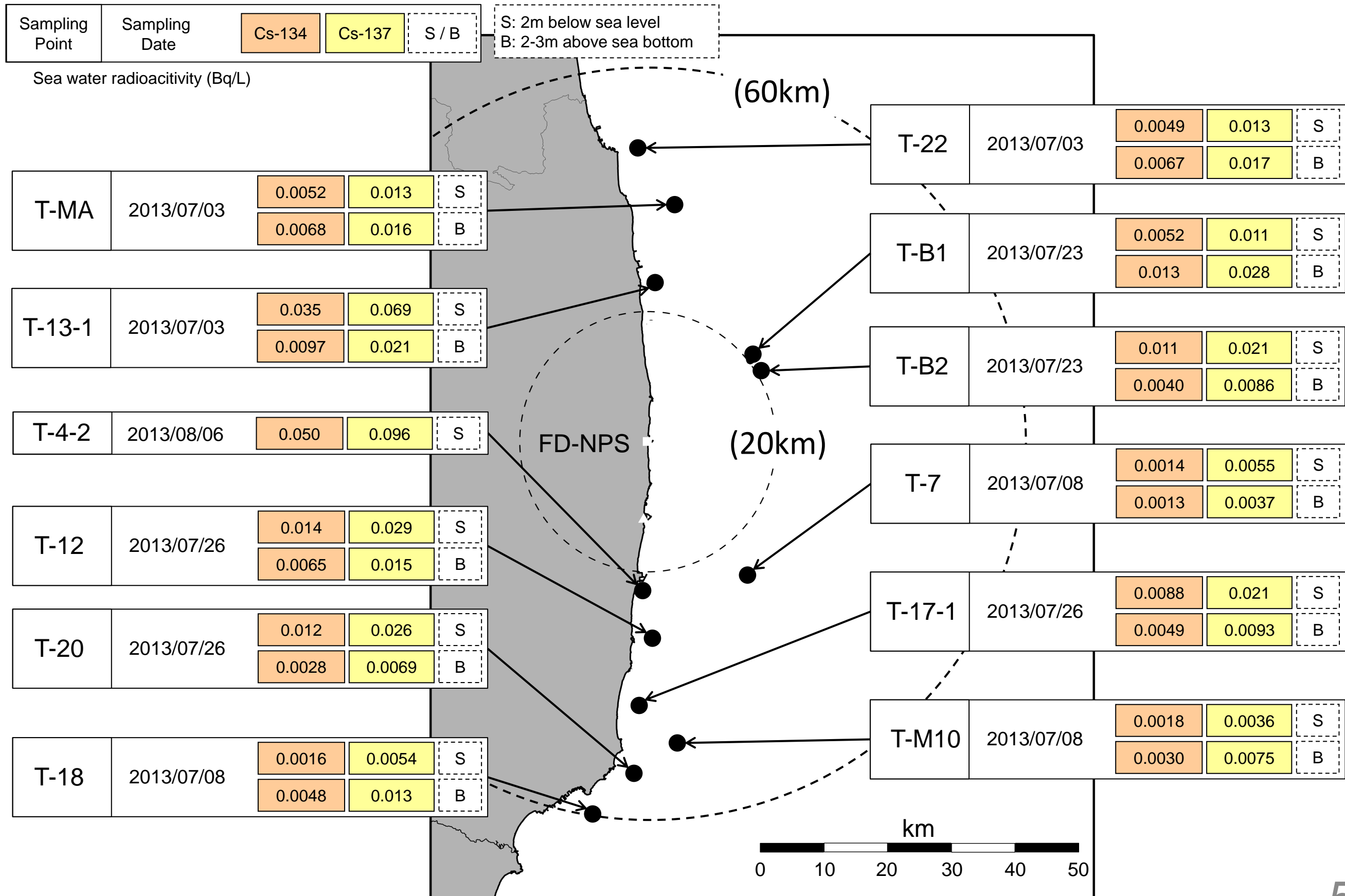
|     |            |       |      |         |      |   |   |   |   |
|-----|------------|-------|------|---------|------|---|---|---|---|
| T-3 | 2013/08/06 | 0.087 | 0.17 | ND (18) | 0.93 | / | / | / | / |
|-----|------------|-------|------|---------|------|---|---|---|---|



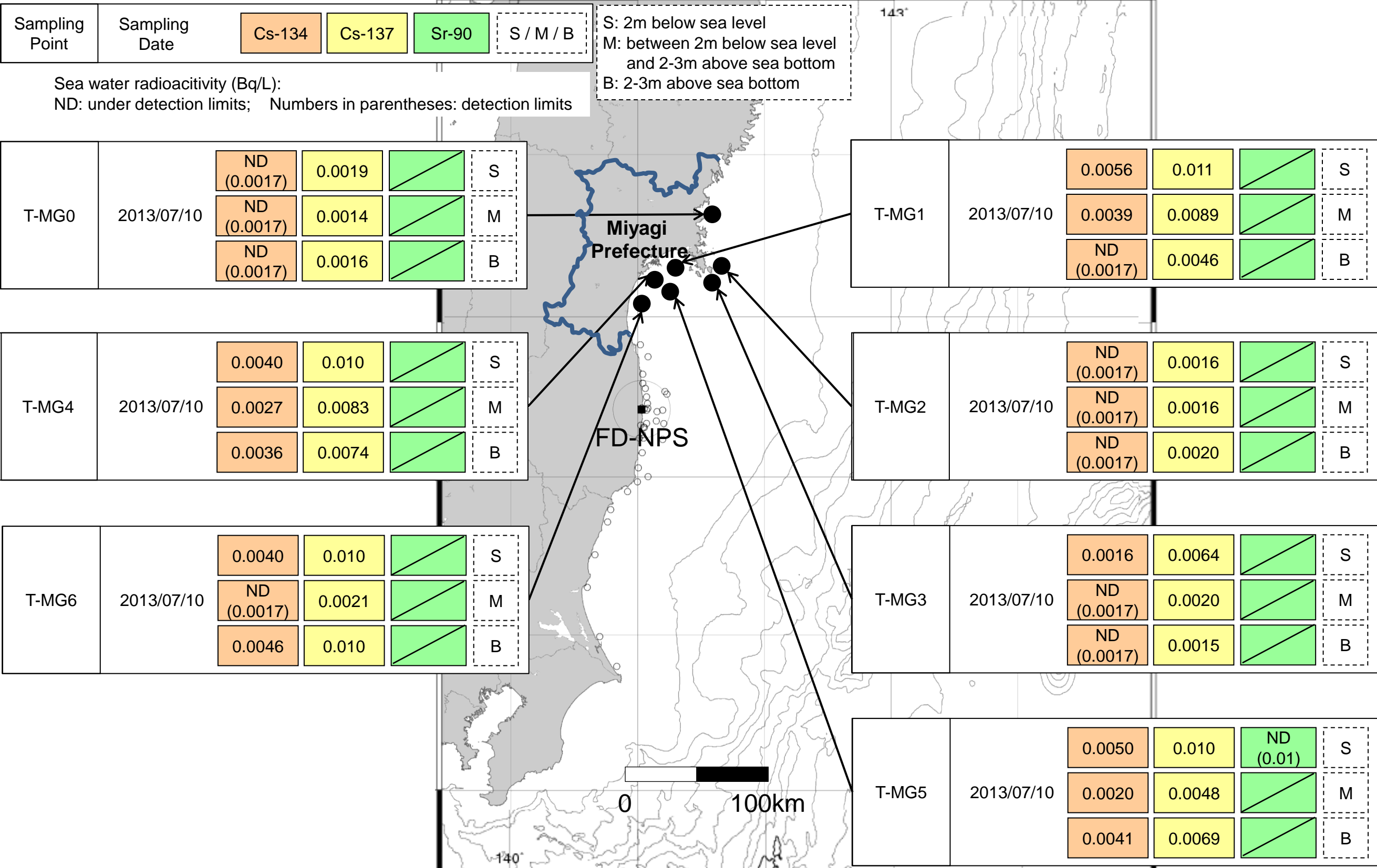
# Sea area between 2-20km radius from the NPS (2)



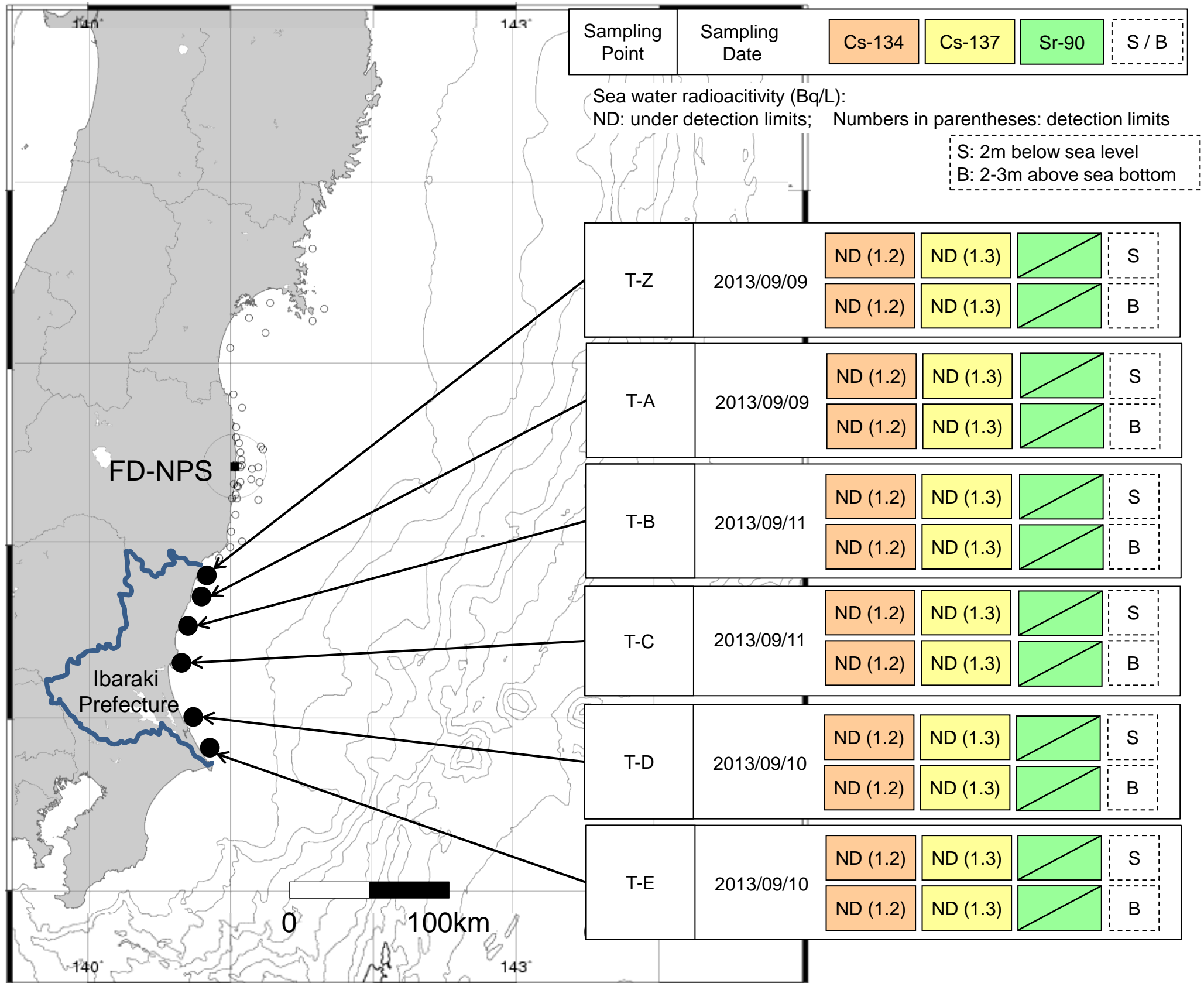
# Sea area between 20-60km radius from the NPS



# Sea area along the coast of Miyagi Prefecture



# Sea area along the coast of Ibaraki Prefecture



# 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

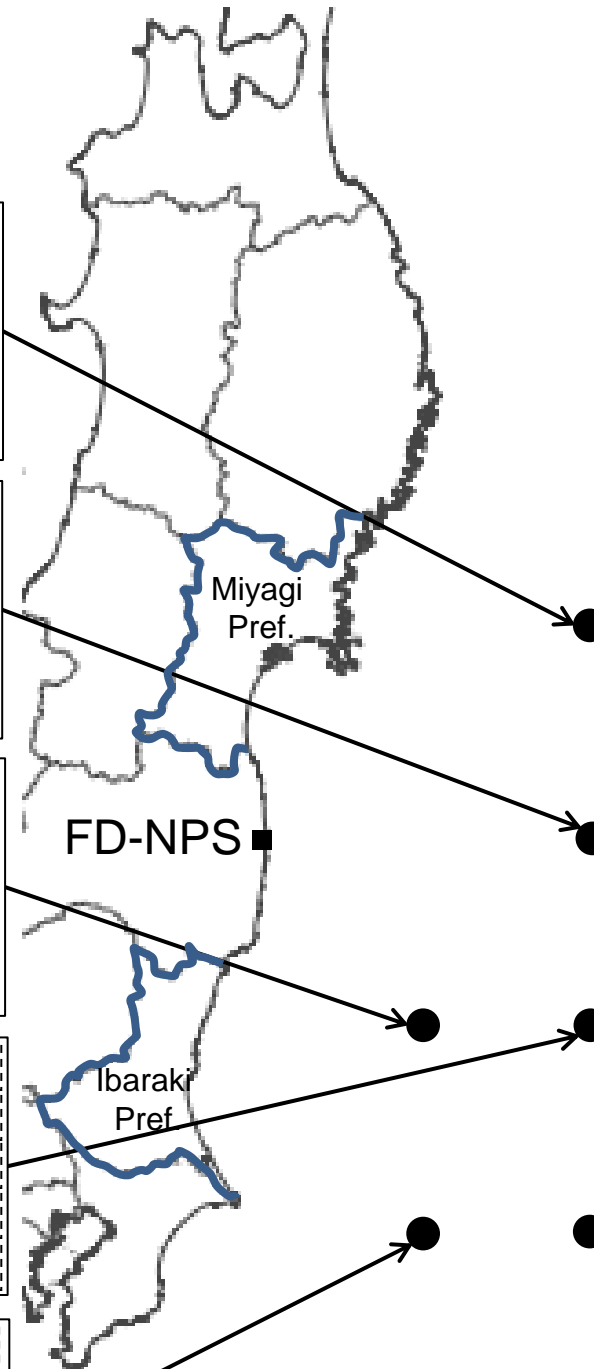
|      |            |              |         |      |
|------|------------|--------------|---------|------|
| M-10 | 2013/05/19 | 0.0011       | 0.0029  | 1m   |
|      |            | ND (0.00068) | 0.0021  | 100m |
|      |            | ND (0.00064) | 0.0022  | 200m |
|      |            | ND (0.00065) | 0.0019  | 300m |
|      |            | ND (0.00061) | 0.00091 | 500m |

|      |            |              |         |      |
|------|------------|--------------|---------|------|
| M-14 | 2013/05/18 | ND (0.00079) | 0.0026  | 1m   |
|      |            | ND (0.00074) | 0.0021  | 100m |
|      |            | ND (0.00074) | 0.0015  | 200m |
|      |            | ND (0.00066) | 0.0015  | 300m |
|      |            | ND (0.00068) | 0.00090 | 500m |

|      |            |              |        |      |
|------|------------|--------------|--------|------|
| M-19 | 2013/05/17 | 0.0010       | 0.0028 | 1m   |
|      |            | ND (0.00061) | 0.0014 | 100m |
|      |            | ND (0.00059) | 0.0017 | 200m |
|      |            | ND (0.00069) | 0.0014 | 300m |
|      |            | ND (0.00059) | 0.0010 | 500m |

|      |            |              |         |      |
|------|------------|--------------|---------|------|
| M-20 | 2013/05/18 | ND (0.00082) | 0.0025  | 1m   |
|      |            | ND (0.00095) | 0.0019  | 100m |
|      |            | ND (0.00092) | 0.0018  | 200m |
|      |            | ND (0.00096) | 0.0014  | 300m |
|      |            | ND (0.00084) | 0.00080 | 500m |

|      |            |              |        |      |
|------|------------|--------------|--------|------|
| M-25 | 2013/05/14 | ND (0.0010)  | 0.0016 | 1m   |
|      |            | ND (0.00092) | 0.0022 | 100m |
|      |            | 0.0020       | 0.0044 | 200m |
|      |            | ND (0.00094) | 0.0031 | 300m |
|      |            | ND (0.00087) | 0.0012 | 500m |



|      |            |              |         |      |
|------|------------|--------------|---------|------|
| M-11 | 2013/05/16 | ND (0.00096) | 0.0025  | 1m   |
|      |            | ND (0.00095) | 0.0023  | 100m |
|      |            | 0.0010       | 0.0018  | 200m |
|      |            | ND (0.00092) | 0.00095 | 300m |
|      |            | ND (0.00097) | 0.00068 | 500m |

|      |            |              |         |      |
|------|------------|--------------|---------|------|
| M-15 | 2013/05/16 | ND (0.00095) | 0.0023  | 1m   |
|      |            | ND (0.00088) | 0.0018  | 100m |
|      |            | ND (0.00097) | 0.0020  | 200m |
|      |            | ND (0.00096) | 0.0016  | 300m |
|      |            | ND (0.00085) | 0.00084 | 500m |

|      |            |              |        |      |
|------|------------|--------------|--------|------|
| M-21 | 2013/05/15 | ND (0.00068) | 0.0019 | 1m   |
|      |            | ND (0.00069) | 0.0026 | 100m |
|      |            | 0.0026       | 0.0056 | 200m |
|      |            | 0.0013       | 0.0043 | 300m |
|      |            | ND (0.00064) | 0.0015 | 500m |

|      |            |              |        |      |
|------|------------|--------------|--------|------|
| M-26 | 2013/05/14 | ND (0.00069) | 0.0020 | 1m   |
|      |            | ND (0.00065) | 0.0025 | 100m |
|      |            | 0.0011       | 0.0036 | 200m |
|      |            | 0.0011       | 0.0034 | 300m |
|      |            | ND (0.00085) | 0.0015 | 500m |

|      |            |              |        |      |
|------|------------|--------------|--------|------|
| M-27 | 2013/05/15 | ND (0.00094) | 0.0022 | 1m   |
|      |            | ND (0.00096) | 0.0030 | 100m |
|      |            | 0.0012       | 0.0044 | 200m |
|      |            | ND (0.0010)  | 0.0027 | 300m |
|      |            | ND (0.00089) | 0.0021 | 500m |