

○ Results of Radioactive Material Monitoring of Aquatic Organisms (Location C along the Uda River)

< Location C along the Uda River: Samples collected >

| Items | General items | | Radioactive materials | | | |
|-------|---------------|----------|-----------------------|------------|---------------|---------------|
| | Water | Sediment | Water (Cs) | Water (Sr) | Sediment (Cs) | Sediment (Sr) |
| C-1 | ○ | ○ | ○ | — | ○ | — |
| C-2 | ○ | ○ | ○ | — | ○ | — |
| C-3 | ○ | — | ○ | — | — | — |
| C-4 | ○ | ○ | ○ | ○ | ○ | ○ |
| C-5 | ○ | ○ | ○ | — | ○ | — |
| C-6 | ○ | ○ | ○ | — | ○ | — |

< Location C along the Uda River: Site measurement item >

| Items | Latitude and longitude of the location | | Survey date and time | | Water | | Sediment | | | | | Other | |
|-------|--|-------------|----------------------|--------------|-----------------|-------------------------------|----------------------------------|-------------|---------|----------------|--------------|-----------------|-------------------|
| | Latitude | Longitude | Date | Time (water) | Time (sediment) | Water temperature (degrees C) | Sediment temperature (degrees C) | Property | Color | Odor | Contaminants | Water depth (m) | Transparency (cm) |
| C-1 | 37.795533° | 140.745617° | 2013/8/21 | 12:48 | 13:00 | 22.6 | 23.2 | Sand gravel | 2.5Y3/4 | None | pebble | 0.48 | >50 |
| C-2 | 37.771033° | 140.727750° | | 13:45 | 13:55 | 23.6 | 22.9 | Sediment | 2.5Y3/1 | Sediment smell | None | 0.37 | >50 |
| C-3 | 37.779000° | 140.803833° | | 14:45 | — | 23.3 | — | — | — | — | — | 0.45 | >50 |
| C-4 | 37.769133° | 140.844283° | 2013/8/22 | 7:26 | 7:45 | 23.0 | 22.8 | Sand gravel | 2.5Y4/4 | None | Root | 0.35 | >50 |
| C-5 | 37.764450° | 140.860267° | | 9:00 | 9:14 | 23.8 | 23.9 | Sand | 10YR4/3 | None | None | 0.78 | >50 |
| C-6 | 37.776433° | 140.887550° | | 10:16 | 10:21 | 23.5 | 23.5 | Sand | 2.5Y4/3 | None | None | 0.42 | >50 |

< Location C along the Uda River: General survey items/Analysis of radioactive materials Water >

| Items | Latitude and longitude of the location | | Survey date and time | | pH | BOD (mg/L) | COD (mg/L) | DO (mg/L) | Electrical conductivity (mS/m) | Salinity | TOC (mg/L) | SS (mg/L) | Turbidity (FNU) | Cs-134 (Bq/L) | Cs-137 (Bq/L) | Sr-90 (Bq/L) |
|-------|--|-------------|----------------------|-------|-----|------------|------------|-----------|--------------------------------|----------|------------|-----------|-----------------|---------------|---------------|--------------|
| | Latitude | Longitude | Date | Time | | | | | | | | | | | | |
| C-1 | 37.795533° | 140.745617° | 2013/8/21 | 12:48 | 7.3 | <0.5 | 2.7 | 9.3 | 10.2 | 0.06 | 1.0 | 2 | 0.8 | 0.032 | 0.071 | — |
| C-2 | 37.771033° | 140.727750° | | 13:45 | 7.1 | 0.8 | 6.2 | 8.1 | 9.7 | 0.05 | 2.8 | 8 | 3.1 | 0.089 | 0.18 | — |
| C-3 | 37.779000° | 140.803833° | | 14:45 | 7.6 | 0.7 | 4.4 | 8.2 | 8.6 | 0.05 | 2.3 | 3 | 1.8 | 0.069 | 0.15 | — |
| C-4 | 37.769133° | 140.844283° | 2013/8/22 | 7:26 | 7.5 | 0.6 | 4.0 | 9.1 | 8.8 | 0.05 | 1.9 | 4 | 1.8 | 0.040 | 0.082 | 0.0011 |
| C-5 | 37.764450° | 140.860267° | | 9:00 | 7.6 | 0.7 | 3.9 | 8.9 | 9.0 | 0.05 | 2.0 | 4 | 2.0 | 0.039 | 0.087 | — |
| C-6 | 37.776433° | 140.887550° | | 10:16 | 7.6 | <0.5 | 3.3 | 8.8 | 11.4 | 0.06 | 1.6 | 2 | 1.4 | 0.019 | 0.037 | — |

< Location C along the Uda River: General survey items/Analysis of radioactive materials Sediment >

| Items | Latitude and longitude of the location | | Survey date and time | | pH | Redox potential E _{NHLE} (mV) | Water content (%) | IL (%) | TOC (mg/g-dry) | Soil particle density (g/cm ³) | Grain size distribution | | | | | | Median grain diameter (mm) | Maximum grain diameter (mm) | Cs-134 (Bq/kg-dry) | Cs-137 (Bq/kg-dry) | Sr-90 (Bq/kg-dry) |
|-------|--|-------------|----------------------|-------|-----|--|-------------------|--------|----------------|--|-------------------------|----------------------------|-------------------------------|------------------------------|--------------------------|------------------------------|----------------------------|-----------------------------|--------------------|--------------------|-------------------|
| | Latitude | Longitude | Date | Time | | | | | | | Gravel (2-75mm) (%) | Coarse sand (0.85-2mm) (%) | Medium sand (0.25-0.85mm) (%) | Fine sand (0.075-0.25mm) (%) | Silt (0.005-0.075mm) (%) | Clay (Less than 0.005mm) (%) | | | | | |
| C-1 | 37.795533° | 140.745617° | 2013/8/21 | 13:00 | 7.3 | 214 | 21.0 | 2.7 | <1 | 2.808 | 43.8 | 31.4 | 19.5 | 3.6 | 0.1 | 1.6 | 1.7 | 9.5 | 240 | 540 | — |
| C-2 | 37.771033° | 140.727750° | | 13:55 | 7.0 | 165 | 35.6 | 5.7 | 4 | 2.756 | 30.2 | 13.3 | 19.9 | 12.1 | 10.8 | 13.7 | 0.57 | 19 | 630 | 1,400 | — |
| C-4 | 37.769133° | 140.844283° | | 7:45 | 7.1 | 212 | 19.8 | 2.0 | <1 | 2.749 | 49.4 | 23.4 | 23.3 | 3.0 | 0.9 | 2.0 | 26.5 | 2.0 | 350 | 730 | 0.71 |
| C-5 | 37.764450° | 140.860267° | 2013/8/22 | 9:14 | 7.1 | 230 | 32.8 | 4.3 | 3 | 2.753 | 14.6 | 10.2 | 28.0 | 25.3 | 8.9 | 13.0 | 0.27 | 19 | 390 | 870 | — |
| C-6 | 37.776433° | 140.887550° | | 10:21 | 7.4 | 264 | 27.0 | 1.6 | <1 | 2.745 | 0.3 | 21.4 | 69.2 | 6.7 | 0.2 | 2.2 | 0.57 | 9.5 | 31 | 76 | — |

Note) N.D. means to be below the detection limit.

< Location C along the Uda River: Analysis items Aquatic organisms >

| Location | Latitude and longitude of the location | | Sampling Date | Division | Class | Order | Family | Species name | English name | Population | Sample weight (kg-wet) | Note | | Cs-134 (Bq/kg-wet) | Cs-137 (Bq/kg-wet) | Sr-90 (Bq/kg-wet) | | |
|--|--|-------------|---------------|--------------------------------|--------------------|---------------|----------------|-------------------------------------|------------------------------|------------|------------------------|-----------------|------------------------|--------------------|--------------------|-------------------|----|---|
| | Latitude | Longitude | | | | | | | | | | Growth stage | Stomach contents | | | | | |
| C-6 | 37.776433° | 140.887550° | 2013/8/25 | Algae/plant | — | — | — | — | Attached algae | — | 0.019 | — | — | 160 | 360 | — | | |
| | | | | Chlorophyta | Chlorophyceae | Oedogoniales | Oedogoniaceae | <i>Oedogonium sp.</i> | Oedogonium | — | 0.020 | — | — | — | — | 18 | 36 | — |
| | | | | Arthropod | Insecta | Trichoptera | Stenopsychidae | <i>Stenopsyche marmorata</i> | <u>Stenopsyche marmorata</u> | 93 | 0.016 | Larva | — | — | 60 | 120 | — | — |
| | | | | Arthropod | Insecta | Trichoptera | Stenopsychidae | <i>Stenopsyche sauteri</i> | Parastenopsyche sauteri | — | — | — | — | — | — | — | — | — |
| | | | | Arthropod | Insecta | Megaloptera | Corydalidae | <i>Protohermes grandis</i> | Protohermes grandis | 17 | 0.0073 | Larva | — | — | 17 | 37 | — | — |
| | | | | Arthropod | Insecta | Odonata | Cordulidae | <i>Macromia amphigena amphigena</i> | Macromia amphigena | — | — | — | — | — | — | — | — | — |
| | | | | Arthropod | Insecta | Odonata | Gomphidae | <i>Asiagomphus melaenops</i> | Asiagomphus melaenops | — | — | — | — | — | — | — | — | — |
| | | | | Arthropod | Insecta | Odonata | Gomphidae | <i>Davidius nanus</i> | Davidius nanus | — | — | — | — | — | — | — | — | — |
| | | | | Arthropod | Insecta | Odonata | Gomphidae | <i>Davidius sp.</i> | Davidius | — | — | — | — | — | — | — | — | — |
| | | | | Arthropod | Insecta | Odonata | Gomphidae | <i>Onychogomphus viridicostus</i> | Onychogomphus viridicostus | 70 | 0.016 | Larva | — | — | 7.1 | 13 | — | — |
| | | | | Arthropod | Insecta | Odonata | Gomphidae | <i>Sieboldius albardae</i> | <u>Sieboldius albardae</u> | — | — | — | — | — | — | — | — | — |
| | | | | Arthropod | Insecta | Odonata | Gomphidae | <i>Stylogomphus suzukii</i> | Stylogomphus suzukii | — | — | — | — | — | — | — | — | — |
| | | | | Arthropod | Insecta | Odonata | Libellulidae | <i>Epiophlebia superstes</i> | Epiophlebia superstes | — | — | — | — | — | — | — | — | — |
| | | | | Arthropod | Insecta | Odonata | Aeshnidae | <i>Boyeria maclachlani</i> | Boyeria maclachlani | — | — | — | — | — | — | — | — | — |
| | | | | Arthropod | Malacostraca | Decapoda | Procambarus | <i>Procambarus clarkii</i> | Red swamp crawfish | 2 | 0.041 | Imago | — | — | 11 | 18 | — | — |
| | | | | Arthropod | Malacostraca | Decapoda | Atyidae | <i>Atyidae</i> | Freshwater shrimp | 307 | 0.029 | Imago | — | — | 11 | 27 | — | — |
| | | | | Arthropod | Malacostraca | Decapoda | Grapsidae | <i>Eriocheir japonica</i> | Japanese mitten crab | 7 | 0.13 | Imago | — | — | 15 | 29 | — | — |
| | | | | Vertebrata | Osteichthyes | Cypriniformes | Cyprinidae | <i>Nipponocypris temminckii</i> | Dark chub | 15 | 0.16 | 2-year-old fish | Some (details unknown) | — | 8.3 | 18 | — | — |
| | | | | Vertebrata | Osteichthyes | Cypriniformes | Cyprinidae | <i>Pseudogobio esocinus</i> | Pseudogobio esocinus | 10 | 0.052 | 2-year-old fish | Some (details unknown) | — | 5.6 | 13 | — | — |
| | | | | Vertebrata | Osteichthyes | Cypriniformes | Cyprinidae | <i>Zacco platypus</i> | Zacco platypus | 20 | 0.10 | 2-year-old fish | Some (details unknown) | — | 7.2 | 15 | — | — |
| Vertebrata | Osteichthyes | Perciformes | Gobiidae | <i>Rhinogobius fluviatilis</i> | R. fluviatilis | 19 | 0.11 | Mature fish | Some (details unknown) | — | 43 | 97 | — | — | | | | |
| Vertebrata | Osteichthyes | Perciformes | Gobiidae | <i>Rhinogobius sp.</i> | R. sp. CB | 32 | 0.059 | More than 1 year old | Some (details unknown) | — | 23 | 45 | — | — | | | | |
| Vertebrata | Amphibia | Anura | Ranidae | <i>Rana ornativentris</i> | Montane brown frog | 16 | 0.055 | Imago | — | — | 11 | 22 | — | — | | | | |
| Coarse particulate organic matters (CPOMs) | | | | — | — | — | — | — | CPOMs(fallen leaves) | — | 0.20 | — | — | 47 | 100 | — | | |

Note 1) When multiple types of aquatic organisms were collected, a sample was prepared by mixing them.

Note 2) For species with stomach contents as indicated in the note column, all stomach contents were removed for conducting the analysis.

Note 3) Underlined names in the English name column indicate species largest in number in the respective samples.

Note 4) A statement in red in the "Growth stage" column shows the age assessed based on squama or otolith.

Note 5) N.D. means to be below the detection limit.