**○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 | | | |
|---|---|---|---|---|---|---|
| Locations | 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Locations | Latitude | Longitude | Date | Time (water) | Time (sediment) | Water temperature (degrees C) | Sediment temperature (degrees C) | Property | Color | Contaminants | Water depth (m) | Transparency (cm) |
| C-1 | 37.795333° | 140.745917° | 2014/6/25 | 8:57 | 9:10 | 16.9 | 17.3 | Sand | 2.5Y4/3 | Pebbles, plant | 0.45 | >50.0 |
| C-2 | 37.771750° | 140.729033° | | 9:56 | 10:06 | 18.9 | 19.1 | Sediment | 2.5Y3/1 | A few plant | 0.25 | >50.0 |
| C-3 | 37.779183° | 140.803967° | | 11:02 | — | 19.4 | — | — | — | — | 0.38 | >50.0 |
| C-4 | 37.768667° | 140.844283° | | 12:54 | 13:08 | 20.6 | 20.2 | Sand | 2.5Y4/4 | None | 0.32 | >50.0 |
| C-5 | 37.764600° | 140.860300° | | 15:00 | 15:08 | 21.2 | 21.2 | Sand | 2.5Y3/3 | Plant | 0.82 | >50.0 |
| C-6 | 37.776383° | 140.887717° | | 14:05 | 14:13 | 20.8 | 20.1 | Sand | 2.5Y4/1 | Pebbles | 0.28 | >50.0 |

＜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 | COD | DO | Electrical conductivity | Salinity | TOC | SS | Turbidity | Cs-134 | Cs-137 | Sr-90 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Locations | Latitude | Longitude | Date | Time | | (mg/L) | (mg/L) | (mg/L) | (mS/m) | | (mg/L) | (mg/L) | (FNU) | (Bq/L) | (Bq/L) | (Bq/L) |
| C-1 | 37.795333° | 140.745917° | 2014/6/25 | 8:57 | 7.3 | 0.8 | 2.7 | 9.8 | 11.6 | 0.06 | 1.1 | 6 | 2.9 | 0.014 | 0.035 | — |
| C-2 | 37.771750° | 140.729033° | | 9:56 | 7.2 | 1.2 | 5.4 | 9.2 | 9.9 | 0.05 | 2.6 | 11 | 8.2 | 0.031 | 0.082 | — |
| C-3 | 37.779183° | 140.803967° | | 11:02 | 7.5 | 0.9 | 4.2 | 9.3 | 8.5 | 0.05 | 2.2 | 10 | 6.7 | 0.10 | 0.26 | — |
| C-4 | 37.768667° | 140.844283° | | 12:54 | 7.5 | 0.6 | 3.0 | 9.6 | 8.1 | 0.04 | 1.5 | 2 | 3.1 | 0.033 | 0.086 | 0.00089 |
| C-5 | 37.764600° | 140.860300° | | 15:00 | 7.6 | 0.9 | 3.5 | 9.2 | 8.2 | 0.05 | 1.7 | 6 | 3.7 | 0.024 | 0.060 | — |
| C-6 | 37.776383° | 140.887717° | | 14:05 | 7.7 | <0.5 | 3.0 | 9.8 | 10.0 | 0.06 | 1.4 | 2 | 2.2 | 0.0095 | 0.028 | — |

＜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 $E_{N.H.E}$ | Water content | IL | TOC | Soil particle density | Grain size distribution | | | | | | | | Cs-134 | Cs-137 | Sr-90 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | 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) | Median grain diameter | Maximum grain diameter | | | |
| Locations | Latitude | Longitude | Date | Time | | (mV) | (%) | (%) | (mg/g-dry) | (g/cm3) | (%) | (%) | (%) | (%) | (%) | (%) | (mm) | (mm) | (Bq/kg-dry) | (Bq/kg-dry) | (Bq/kg-dry) |
| C-1 | 37.795333° | 140.745917° | 2014/6/25 | 9:10 | 6.7 | 61 | 21.8 | 2.9 | 5.3 | 2.750 | 63.9 | 21.0 | 8.7 | 3.0 | 1.4 | 2.0 | 2.7 | 19 | 270 | 770 | — |
| C-2 | 37.771750° | 140.729033° | | 10:06 | 6.4 | 35 | 41.7 | 8.1 | 16.4 | 2.685 | 17.5 | 9.4 | 19.6 | 11.3 | 14.7 | 27.5 | 0.19 | 26.5 | 240 | 630 | — |
| C-4 | 37.768667° | 140.844283° | | 13:08 | 7.4 | 78 | 24.1 | 1.6 | 1.1 | 2.720 | 38.6 | 37.0 | 22.9 | 0.6 | 0.9 | | 1.5 | 9.5 | 170 | 520 | 0.45 |
| C-5 | 37.764600° | 140.860300° | | 15:08 | 7.1 | 161 | 35.3 | 5.5 | 5.0 | 2.698 | 5.5 | 10.8 | 37.2 | 19.0 | 10.0 | 17.5 | 0.28 | 9.5 | 430 | 1,200 | — |
| C-6 | 37.776383° | 140.887717° | | 14:13 | 7.4 | 123 | 23.2 | 1.6 | 1.1 | 2.729 | 16.8 | 17.1 | 45.8 | 9.4 | 3.4 | 7.5 | 0.60 | 26.5 | 180 | 480 | — |

Note)N.D. means to be below the detection limit and figures in parentheses show 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 | Cs-137 | Sr-90 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Latitude | Longitude | | | | | | | | | | Growth stage | Stomach contents | Measurement site | (Bq/kg-wet) | (Bq/kg-wet) | (Bq/kg-wet) |
| C-5<br>C-6 | – | 37.764600°<br>37.776383° | 140.860300°<br>140.887717° | 2014/6/28 | Algae/plant | – | – | – | – | River bottom materials (incl. algae) | Considerable number | 0.090 | – | – | – | 73 | 240 | – |
| | | | | | Arthropod | Insecta | Trichoptera | Stenopsychidae | *Stenopsyche marmorata* | Stenopsyche marmorata | 95 | 0.0071 | Larva | – | – | 37 | 110 | – |
| | | | | | Arthropod | Insecta | Odonata | Corduliidae | *Macromia amphigena amphigena* | Macromia amphigena | 192 | 0.045 | Larva (dragonfly) | – | – | 3.9 | 12 | – |
| | | | | | Arthropod | Insecta | Odonata | Gomphidae | *Davidius nanus* | Davidius nanus | | | | | | | | |
| | | | | | Arthropod | Insecta | Odonata | Gomphidae | *Onychogomphus viridicostus* | Onychogomphus viridicostus | | | | | | | | |
| | | | | | Arthropod | Insecta | Odonata | Gomphidae | *Sieboldius albardae* | Albardae | | | | | | | | |
| | | | | | Arthropod | Insecta | Megaloptera | Corydalidae | *Protohermes grandis* | Protohermes grandis | 59 | 0.027 | Larva | – | – | 4.8 | 11 | – |
| | | | | | Arthropod | Malacostraca | Decapoda | Procambarus | *Procambarus clarkii* | Red swamp crawfish | 6 | 0.033 | Imago | – | – | 5.4 | 14 | – |
| | | | | | Arthropod | Malacostraca | Decapoda | Atyidae | *Atyidae* | Freshwater shrimp | 303 | 0.054 | Imago | – | – | 11 | 29 | – |
| | | | | | Arthropod | Malacostraca | Decapoda | Grapsidae | *Eriocheir japonica* | Japanese mitten crab | 17 | 0.36 | Imago | – | – | 9.9 | 26 | – |
| | | | | | Mollusca | Gastropoda | Sorbeoconcha | Pleuroceridae | *Semisulcospira libertina* | Semisulcospira libertina | 26 | 0.044 | Imago | – | Molluscan body | 4.1 | 9.5 | – |
| | | | | | Vertebrata | Osteichthyes | Cypriniformes | Cyprinidae | *Nipponocypris temminckii* | Dark chub | 38 | 0.34 | Mature fish (1,2,3-year-old) | Some (details unknown) | Viscera removed | 5.7 | 17 | – |
| | | | | | Vertebrata | Osteichthyes | Cypriniformes | Cyprinidae | *Phoxinus lagowskii steindachneri* | Amur Minnow | 8 | 0.043 | Mature fish (1,2-year-old) | – | – | 14 | 40 | – |
| | | | | | Vertebrata | Osteichthyes | Cypriniformes | Cyprinidae | *Pseudogobio esocinus* | Pseudogobio esocinus | 4 | 0.042 | Mature fish (1-year-old) | Some (details unknown) | Viscera removed | 6.9 | 18 | – |
| | | | | | Vertebrata | Osteichthyes | Cypriniformes | Cyprinidae | *Tribolodon hakonensis* | Japanese dace | 6 | 0.038 | Mature fish (1-year-old) | Some (details unknown) | Viscera removed | 9.3 | 26 | – |
| | | | | | Vertebrata | Osteichthyes | Cypriniformes | Cyprinidae | *Zacco platypus* | Pale chub | 7 | 0.038 | Mature fish (1,2-year-old) | Some (details unknown) | Viscera removed | 8.2 | 22 | – |
| | | | | | Vertebrata | Osteichthyes | Perciformes | Gobiidae | *Rhinogobius fluviatilis* | R. fluviatilis | 16 | 0.095 | Mature fish (1,3-year-old) | Ephemeroptera | Viscera removed | 19 | 50 | – |
| | | | | | Vertebrata | Osteichthyes | Perciformes | Gobiidae | *Rhinogobius sp.* | R. sp. CB | 30 | 0.074 | Mature fish | – | – | 12 | 35 | – |
| | | | | | Vertebrata | Osteichthyes | Cypriniformes | Cobitidae | *Misgurnus anguillicaudatus* | Oriental weatherfish | 2 | 0.026 | Mature fish | – | – | 4.1 | 11 | – |
| | | | | | Vertebrata | Amphibia | Anura | – | – | Frogs | 13 | 0.055 | Imago | – | – | 44 | 130 | – |
| | | | | | Coarse particulate organic matters (CPOMs) | – | – | – | – | Fallen leaves | Considerable number | 0.66 | – | – | – | 56 | 150 | – |

*1: Organisms were collected in or around the targeted water areas.
*2: When multiple types of aquatic organisms were collected, a sample was prepared by mixing them.
*3: For a sample made of multiple types of aquatic organisms, the name of the dominant one largest in number is underlined.
*4: Basically, measurement was conducted for all organism samples. Viscera (stomach and bowels) were removed for the measurement when possible so that undigested food and sediments, etc. in the digestive system would be excluded.
*5: A statement in red in the "Growth stage" column shows the age assessed based on squama or otolith
*6: Plankton (suspended algae) is the residue remaining after the filtration of lake water or seawater with a plankton net (40μm-mesh).
*7: River bottom materials (incl. algae) are algae, etc. that were scratched off stones with a brush, etc. and may include very fine particles such as inorganic silt and clay.
*8: N.D. means to be below the detection limit and figures in parentheses show the detection limit.
*9: Activity concentrations include counting errors, but the details are omitted here.