Table: Bioaccumulation factor (BAF) value in the body and head of eight fish species

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Species | Sample type | Cr | Mn | Fe | Cu | Zn | As | Cd | Pb |
| *Clupisoma garua* | Body | 7.10 | 38.6 | 2221 | 324 | 1094.23 | 40.5 | 7.10 | 13.69 |
|  | Head | 6.27 | 32.6 | 1757.83 | 246.22 | 685.47 | 7.17 | 5.89 | 6.0 |
| *Anabas testudineus* | Body | 9.54 | 15.8 | 1915.71 | 298 | 1619 | 41.16 | 10.77 | 16.77 |
|  | Head | 8.63 | 9.8 | 1399.83 | 220.22 | 1245.58 | 7.83 | 9.67 | 9.07 |
| *Cirrhinus reba* | Body | 13.45 | 14.4 | 1826.42 | 268.33 | 1502.61 | 42.67 | 25.25 | 12.54 |
|  | Head | 12.36 | 8.4 | 1297.50 | 190.56 | 1127.83 | 9.33 | 24.11 | 4.84 |
| *Mystus vittatus* | Body | 19.18 | 20.8 | 2001.71 | 317.66 | 1086.69 | 43.51 | 37.28 | 15.16 |
|  | Head | 21.54 | 14.8 | 1502.10 | 239.89 | 677.25 | 10.16 | 35 | 7.46 |
| *Neotropius atherinoides* | Body | 3.36 | 13.8 | 2050.28 | 246.55 | 1454.71 | 40.33 | 9.33 | 12.15 |
|  | Head | 2.45 | 7.0 | 725.33 | 168.78 | 1075.97 | 7.10 | 8 | 4.46 |
| *Tenualosa ilisha* | Body | 10.27 | 24.6 | 1779.71 | 432.22 | 1788.78 | 41.84 | 21.72 | 11.23 |
|  | Head | 11.18 | 18.6 | 1576.33 | 321.14 | 1437.75 | 8.53 | 19.56 | 3.53 |
| *Botia dario* | Body | 10.46 | 39.0 | 2347.28 | 216.43 | 1553.10 | 25.39 | 24.44 | 12.38 |
|  | Head | 9.27 | 33.0 | 1905.17 | 127.56 | 1349.08 | 8.67 | 23.44 | 4.69 |
| *Pseudambassis ranga* | Body | 19.55 | 41.6 | 2617.86 | 343.89 | 1679.32 | 42.82 | 32.18 | 21.34 |
|  | Head | 18.00 | 35.6 | 2220.85 | 266.11 | 1319.25 | 9.51 | 31.0 | 6.10 |

Table: Studied heavy metals concentration and their permissible limit in water sample

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Heavy metals | Cr | Mn | Fe | Co | Cu | Zn | As | Se | Cd | Hg | Pb |
| Mean concentration (mg/l) | 0.11 ±0.03 | 0.05 ±0.01 | 0.07 ±0.02 | <0.10 | 0.09 ±0.03 | 0.13 ±0.02 | 0.06 ±0.01 | <0.05 | 0.09 ±0.02 | <0.05 | 0.13 ±0.03 |
| Permissible limit (mg/l)  (**USEPA 2005, 2012**) | 0.05 | 0.05 | 0.2 | 0.05 | 1.3 | 0.12 | 0.01 | 0.05 | 0.005 | 0.002 | 0.015 |