Table 1: synthesis of taxonomic, feeding, basal compartments, and bulk groups used to correct trophic position of higher order consumers (i.e., fish) from Kristensen et al., (2016) and the present study. The groups presented in this table are only those that met criteria 1 (i.e., sufficiently distributed). For criteria 4, the percentage was calculated by dividing the number of fish species that had TP estimates free of the environmental influence from both studies divided by the total number of fish species that were examined in both studies. Both studies examined Brown Trout, so the analysis of Brown Trout in Kristensen et al. (2016) and the present analysis of Brown Trout in the current study were treated as separate species for the percentage.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Group** | | **Study** | **Criterion 2:**  **Mean CV (± SD)** | **Criterion 3:**  **Correlated with Gradient** | **Criterion 4:**  **TP free of gradient (% Fish Spp)** |
| ***Taxonomic*** | |  |  |  |  |
|  | Elmidae-adult | Present | 0.239 (± 0.222) | Y | (4/5) 80% |
|  | Elmidae-larvae | Present | 0.223 (± 0.200) | Y | (4/5) 80% |
|  | Chironomidae | Present | 0.222 (± 0.200) | Y | (2/5) 40% |
|  | Dytiscidae | Present | 0.169 (± 0.169) | Y | (2/5) 40% |
|  | Baetidae | Present | 0.142 (± 0.124) | Y | (4/7) 57% |
|  | Kristenson et al., (2016) | 0.080 (± 0.090) | Y |
|  | Simuliidae | Present | 0.047 (± 0.027) | Y | (7/7) 100% |
|  | Kristenson et al., (2016) | 0.028 (± 0.019) | Y |
|  | Hydrosycidae | Present | 0.107 (± 0.064) | Y | (5/5) 100% |
|  | Heptaganeidae | Present | 0.063 (± 0.078) | Y | (3/5) 60% |
|  | *Gammarus pulex* | Kristenson et al., (2016) | 0.094 (± 0.061) | Y | (1/2) 50% |
| ***Feeding*** | |  |  |  |  |
|  | Filterers | Present | 0.047 (± 0.027) | Y | (6/7) 86% |
|  | Kristenson et al., (2016) | 0.030 (± 0.018) | nd |
|  | Predator | Present | 0.223 (± 0.097) | Y | (3/7) 43% |
|  | Kristenson et al., (2016) | 0.120 (± 0.063) | nd |
|  | Omnivore | Present | 0.126 (± 0.076) | Y | (4/7) 57% |
|  | Kristenson et al., (2016) | 0.063 (± 0.035) | nd |
|  | Collector | Present | 0.390 (± 0.262) | Y | (4/7) 57% |
|  | Kristenson et al., (2016) | 0.120 (± 0.087) | nd |
|  | Scraper | Kristenson et al., (2016) | 0.130 (± 0.156) | nd | (0/2) 50% |
|  | Grazer | Present | 0.162 (± 0.154) | Y | (4/5) 80% |
|  | Shredder | Kristenson et al., (2016) | 0.120 (± 0.065) | nd | (0/2) 50% |
| ***Basal*** | |  |  |  |  |
|  | filamentous | Present | nd | N | (1/5) 20% |
|  | FBOM | Present | nd | Y | (1/5) 20% |
|  | seston | Present | nd | Y | (4/5) 80% |
|  | biofilm | Present | nd | Y | (3/5) 60% |
| ***Bulk*** | |  |  |  |  |
|  | Primary Producer | Present | nd | nd | (1/5) 20% |
|  | Primary Consumer | Kristenson et al., (2016) | nd | nd | (0/2) 0% |

nd = not determined