|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Winter** |  |  |  |  |  |  |
| Consumers | Sources | Plankton | POM | Macroalgae | MPB | SOM | Detritus |
| **S1** |  |  |  |  |  |  |
| Zooplankton | E-26(6-44) |  | 29(13-46) | 41(18-74) |  |  |
| *Scrobicularia plana* |  |  |  |  |  |  |
| *Cyathura carinata* | M-16(0-42)\* |  | 49(29-80)\* | 35(2-55)\* |  |  |
| *Hediste diversicolor* | E- 42(27-62) |  | 25(5-42) | 33(4-57) |  |  |
|  |  |  |  |  |  |  |
| **S2** |  |  |  |  |  |  |
| Zooplankton |  |  | 39(20-60) |  | 25(16-35) | 36(20-51) |
| *Cyathura carinata* | M-16(2-32)\* |  | 21(1-38)\* | 31(9-52)\* |  | 32(14-51)\* |
| *Hediste diversicolor* | E-42(25-62)\* |  | 25(5-42) | 33(4-57) |  |  |
|  |  |  |  |  |  |  |
| **S3** |  |  |  |  |  |  |
| Zooplankton |  |  |  |  |  |  |
| *Corbicula fluminea* | E- 19(4-38) | 70(59-79) | 10(3-18) |  |  |  |
| *Corophium* sp. | E- 20(3-37) |  |  | 53(32-74) | 28(3-48) |  |
| *Cyathura carinata* | M-45(23-71)\* |  |  | 38(9-61)\* | 17(0-34)\* |  |
| *Hediste diversicolor* | E- 41(11-75)\* | 36(1-63)\* |  | 22(0-44)\* |  |  |
|  |  |  |  |  |  |  |
| **TFW** |  |  |  |  |  |  |
| Zooplankton | F- 47(16-72) | 10(0-45) |  |  |  | 39(1-61) |
| *Corbicula fluminea* |  | 31(16-46) |  | 29(16-42) | 30(22-38) | 10(4-16) |
| *Corophium* sp. |  | 36(9-61) |  |  |  | 27(2-48), 38(26-51) |
| Diptera larvae |  |  |  |  |  |  |
| Oligochaeta |  |  |  |  | 40(25-55) | 42(32-53), 18(1-34) |
| Gastropoda |  |  |  |  |  |  |
| *Atyaephyra desmarestii* |  |  |  | 32(17-46) |  | 35(26-44),33(26-41) |
|  |  |  |  |  |  |  |

Table A.1 Proportion of each food source to the benthic macroinvertebrates' biomass in stations (S) 1, 2, 3, and tidal freshwater (TFW) during the winter, spring, and summer of 2011, based on the stable isotope mixing model results. The food sources included in the model were the phytoplankton (M- marine; E- estuarine; F- freshwater), particulate organic matter (POM), macroalgae, microphytobenthos (MPB), sediment OM (SOM), and plant detritus. Data presented include the most likely solution (mode) and the 95% Bayesian credibility intervals. Two mode (and 95% CI) values in the column “Detritus” correspond to the contribution of EAV and SAV. \*indicate the results from the mixing models after correcting for two trophic levels.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Spring** |  |  |  |  |  |  |
| Consumers | Sources | Plankton | POM | Macroalgae | MPB | SOM | Detritus |
| **S1** |  |  |  |  |  |  |
| Zooplankton | M-30(1-52) |  | 45(29-61) |  | 26(9-44) |  |
| *Scrobicularia plana* | M-37(0-64) | 23(0-57) |  | 40(2-72) |  |  |
| *Cyathura carinata* |  |  |  |  |  |  |
| *Hediste diversicolor* | M-34(2-62) | 37(13-60) | 29(10-48) |  |  |  |
|  |  |  |  |  |  |  |
| **S2** |  |  |  |  |  |  |
| Zooplankton | M-34(3-57) |  |  |  | 21(5-42) | 44(26-62) |
| *Cyathura carinata* | M-23(1-45)\* |  | 36(6-60)\* |  |  | 41(19-63)\* |
| *Hediste diversicolor* | M-37(1-60)\* | 48(21-77)\* | 15(0-40)\* |  |  |  |
|  |  |  |  |  |  |  |
| **S3** |  |  |  |  |  |  |
| Zooplankton |  | 42(20-71) | 22(7-37) | 37(2-59) |  |  |
| *Corbicula fluminea* | E- 26(6-45) | 27(0-45) |  | 13(0-35) |  | 34(20-46) |
| *Corophium* sp. |  |  | 27(15-41) | 46(26-69) | 25(3-46) |  |
| *Cyathura carinata* | M-38(5-67)\* |  | 25(3-46)\* | 37(13-60)\* |  |  |
| *Hediste diversicolor* |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| **TFW** |  |  |  |  |  |  |
| Zooplankton | F- 20(0-43) |  |  | 43(17-71) |  | 38(1-63) |
| *Corbicula fluminea* |  | 48(29-69) |  | 17(1-38) |  | 35(6-55) |
| *Corophium* sp. |  |  |  |  |  |  |
| Diptera larvae |  |  |  | 14(0-45) |  | 56(28-75), 29(5-44 |
| Oligochaeta |  |  |  |  | 37(16-54) | 47(32-61), 15(0-37) |
| Gastropoda |  | 36(17-47) |  | 10(0-36) |  | 54(35-67) |
| *Atyaephyra desmarestii* |  |  |  | 13(0-32) |  | 44(31-54), 43(28-54) |
|  |  |  |  |  |  |  |

Table A.1 continuation

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Summer** |  |  |  |  |  |  |
| Consumers | Sources | Plankton | POM | Macroalgae | MPB | SOM | Detritus |
| **S1** |  |  |  |  |  |  |
| Zooplankton | M-22(3-38) |  | 38(21-55) | 41(17-64) |  |  |
| *Scrobicularia plana* | M-12(0-27) |  | 55(46-66) | 33(12-49) |  |  |
| *Cyathura carinata* | M-12(0-42)\* |  | 44(23-73)\* | 40(8-63)\* |  |  |
| *Hediste diversicolor* | M-46(28-64) |  | 16(3-31) | 38(12-61) |  |  |
|  |  |  |  |  |  |  |
| **S2** |  |  |  |  |  |  |
| Zooplankton | M-19(1-36) |  |  |  | 6(0-19) | 73(58-86) |
| *Cyathura carinata* |  |  |  | 20(0-40)\* | 1(0-14)\* | 75(52-94)\* |
| *Hediste diversicolor* | M-35(6-59)\* |  | 39(21-63)\* |  | 27(4-43)\* |  |
|  |  |  |  |  |  |  |
| **S3** |  |  |  |  |  |  |
| Zooplankton | E-20(0-42) |  | 42(29-53) |  | 37(19-55) |  |
| *Corbicula fluminea* | F-73(63-78) |  | 25(19-31) |  | 1(0-13) |  |
| *Corophium* sp. | M-38(1-62) | 18(0-47) |  | 44(11-75) |  |  |
| *Cyathura carinata* | M-37(7-60)\* |  |  | 45(26-65)\* | 20(4-36)\* |  |
| *Hediste diversicolor* | M-35(2-59)\* |  |  | 43(20-68)\* | 24(2-42)\* |  |
|  |  |  |  |  |  |  |
| **TFW** |  |  |  |  |  |  |
| Zooplankton | F- 37(22-54) |  |  | 36(7-62) |  | 27(11-42) |
| *Corbicula fluminea* | F- 37(14-60) | 39(8-66) |  |  |  | 25(15-36) |
| *Corophium* sp. |  | 30(11-49) |  |  | 29(15-44) | 40(31-50) |
| Diptera larvae |  |  |  |  |  |  |
| Oligochaeta |  |  |  | 20(0-50) |  | 48(23-71), 32(6-49) |
| Gastropoda |  | 40(1-60) |  | 34(0-60) |  | 26(2-75) |
| *Atyaephyra desmarestii* |  |  |  | 26(5-42) |  | 37(26-51),37(28-47) |
|  |  |  |  |  |  |  |

Table A.1 continuation



Fig. A.1 Spearman correlation between size and trophic position for *Crangon crangon* (A), *Carcinus maenas* (B), *Platichthys flesus* (C), and *Pomatoschistus microps* (D). Note that axis vary between plots.