**Supplementary Material**

Table S1. Number of sampling observations across all years by study area and aquatic habitat type. BWC = contiguous backwater area, IMP = impounded area, MCB = main channel border, SCB = side channel border.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Overall** | **Aquatic Habitat Type** | | | | |
|  | BWC | IMP | MCB | SCB |
| All locations | 9951 | 3189 | 908 | 2736 | 3118 |
| Pool 4 | 1663 | 618 | 0 | 520 | 525 |
| Pool 8 | 1702 | 585 | 281 | 289 | 547 |
| Pool 13 | 1450 | 680 | 331 | 295 | 144 |
| Pool 26 | 1721 | 464 | 296 | 542 | 419 |
| La Grange | 2403 | 842 | 0 | 711 | 850 |
| Open River | 1012 | 0 | 0 | 379 | 633 |

Table S2. Pairwise comparisons of LW proportions by aquatic habitat stratum with Bonferroni correction. Analysis includes data from all study pools and all years (n=10,996). Bolded values indicate a significant difference at the 0.05 level. BWC = contiguous backwater area, IMP = impounded area, MCB = unstructured main channel border, SCB = side channel border.

|  |  |  |  |
| --- | --- | --- | --- |
|  | BWC | IMP | MCB |
| IMP | 0.636 | - | - |
| MCB | **0.003** | **<0.001** | - |
| SCB | **<0.001** | **<0.001** | **<0.001** |

Table S3. Pairwise comparisons of LW proportions by study pool with Bonferroni correction. Bolded values indicate a significant difference at the 0.05 level.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Pool 4 | Pool 8 | Pool 13 | Pool 26 | La Grange |
| Pool 8 | **<0.001** | - | - | **-** | **-** |
| Pool 13 | 0.772 | **<0.001** | - | - | - |
| Pool 26 | **<0.001** | 0.104 | **<0.001** | **-** | **-** |
| La Grange | **<0.001** | 1.000 | **<0.001** | **<0.001** | **-** |
| Open River | **<0.001** | **<0.001** | **<0.001** | **<0.001** | **0.009** |

Table S4. Segment means and significant linear regression model fits for the proportion of sampling locations with large wood detections across four aquatic habitat types (BWC = contiguous backwater areas, MCB = main channel border, SCB = side channel border, IMP = impounded areas). Results are shown for time periods defined by statistically significant break points; no break points were observed in Pool 13, Pool 26, or Open River.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Aquatic Habitat | Time Period | Mean | Slope | Intercept | F | r2 adj | p |
| Pool 4 | BWC | 1993 - 1999 | 0.381 |  |  |  |  |  |
|  | BWC | 1999 - 2017 | 0.551 | -0.010 | 20.686 | 4.905 | 0.178 | 0.047 |
|  | MCB | 1993 - 1999 | 0.549 |  |  |  |  |  |
|  | MCB | 1999 - 2017 | 0.825 |  |  |  |  |  |
|  | SCB | 1993 - 2001 | 0.549 |  |  |  |  |  |
|  | SCB | 2002 - 2017 | 0.855 |  |  |  |  |  |
| Pool 8 | BWC | 1993 - 2002 | 0.552 | -0.058 | 115.444 | 11.410 | 0.565 | 0.012 |
|  | BWC | 2003 - 2017 | 0.265 | -0.007 | 14.513 | 6.443 | 0.266 | 0.024 |
|  | SCB | 1993 - 2003 | 0.768 |  |  |  |  |  |
|  | SCB | 2004 - 2017 | 0.576 |  |  |  |  |  |
|  | IMP | 1993 - 2001 | 0.631 | -0.050 | 101.032 | 8.407 | 0.514 | 0.027 |
|  | IMP | 2002 - 2017 | 0.315 |  |  |  |  |  |
| La Grange | BWC | 1993 - 2004 | 0.531 |  |  |  |  |  |
|  | BWC | 2005 - 2017 | 0.352 |  |  |  |  |  |
|  | MCB | 1993 - 2011 | 0.485 |  |  |  |  |  |
|  | MCB | 2012 - 2017 | 0.290 |  |  |  |  |  |
|  | SCB | 1993 - 2007 | 0.740 |  |  |  |  |  |
|  | SCB | 2008 - 2017 | 0.534 |  |  |  |  |  |

Table S5. Means and linear regression model fits for the proportion of sampling locations with large wood detections across four aquatic habitat types (BWC = contiguous backwater areas, MCB = main channel border, SCB = side channel border, IMP = impounded areas). Results are shown for only statistically significant relationships; no such relationships were observed in Pool 13, Pool 26, or Open River.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Aquatic Habitat | Slope | Intercept | F | r2adj | p |
| Pool 4 | MCB | 0.011 | -21.836 | 11.010 | 0.294 | 0.003 |
|  | SCB | 0.016 | -30.574 | 18.870 | 0.427 | <0.001 |
| Pool 8 | BWC | -0.020 | 41.277 | 40.440 | 0.622 | <0.001 |
|  | SCB | -0.011 | 22.307 | 9.524 | 0.262 | 0.005 |
|  | IMP | -0.020 | 40.772 | 25.350 | 0.504 | <0.001 |
| La Grange | BWC | -0.013 | 27.032 | 23.050 | 0.479 | <0.001 |
|  | MCB | -0.013 | 26.490 | 11.560 | 0.306 | 0.002 |
|  | SCB | -0.014 | 29.036 | 18.930 | 0.428 | <0.001 |