Ecosphere

Coarse particulate organic matter dynamics in ephemeral tributaries of a Central Appalachian stream network Ken M. Fritz, Gregory J. Pond, Brent R. Johnson, and Chris D. Barton

Appendix S1
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total ephemeral channel length (L)</td>
<td>52.64 km</td>
<td>Fritz et al. 2013</td>
</tr>
<tr>
<td>Ephemeral channel width (W)</td>
<td>0.57 m</td>
<td>This study</td>
</tr>
<tr>
<td>Total ephemeral channel area = (L x W)/2</td>
<td>15002.4 m²</td>
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<tr>
<td>Annual litterfall input</td>
<td>283 g AFDM m² y⁻¹</td>
<td>Newman et al. 2006</td>
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<tr>
<td></td>
<td>419 g AFDM m² y⁻¹</td>
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<tr>
<td></td>
<td>309 g AFDM m² y⁻¹</td>
<td>Littlefield et al. 2013</td>
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<tr>
<td></td>
<td>347 g AFDM m² y⁻¹</td>
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<td></td>
<td>468 g AFDM m² y⁻¹</td>
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<tr>
<td>Lateral input = 25% of litterfall input</td>
<td>70.8 g AFDM m² y⁻¹</td>
<td>Benfield 1997</td>
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<tr>
<td></td>
<td>104.8 g AFDM m² y⁻¹</td>
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<tr>
<td></td>
<td>77.2 g AFDM m² y⁻¹</td>
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<tr>
<td></td>
<td>86.8 g AFDM m² y⁻¹</td>
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<td></td>
<td>117.0 g AFDM m² y⁻¹</td>
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<tr>
<td>Total input and assume 15% leach loss (standing crop)</td>
<td>300.7 g AFDM m² y⁻¹</td>
<td>Richardson 2000</td>
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<tr>
<td></td>
<td>445.2 g AFDM m² y⁻¹</td>
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<tr>
<td></td>
<td>328.3 g AFDM m² y⁻¹</td>
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<tr>
<td></td>
<td>368.7 g AFDM m² y⁻¹</td>
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<tr>
<td></td>
<td>497.2 g AFDM m² y⁻¹</td>
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<tr>
<td>Total ephemeral channel area leaf mass</td>
<td>4511.03 kg AFDM y⁻¹</td>
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<tr>
<td></td>
<td>6678.88 kg AFDM y⁻¹</td>
<td></td>
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<td></td>
<td>4925.48 kg AFDM y⁻¹</td>
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<td></td>
<td>5531.20 kg AFDM y⁻¹</td>
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<td></td>
<td>7459.94 kg AFDM y⁻¹</td>
<td></td>
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<tr>
<td>Mean (range) proportion of leaves exported per day from ephemeral channels</td>
<td>Nov-Dec: 0.0316 (0.0238 – 0.0358)</td>
<td>This study</td>
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<td>Dec-Jan: 0.0309 (0.0246 – 0.0357)</td>
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<td>Jan-Feb: 0.0250 (0.0177 – 0.0275)</td>
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<td>Feb-Mar: 0.0313 (0.0236 – 0.0356)</td>
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<td>Mar-Apr: 0.0359 (0.0290 – 0.0382)</td>
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<td>Apr-May: 0.0204 (0.0080 – 0.0280)</td>
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<tr>
<td>Mean (range) total annual leaf mass exported downstream</td>
<td>5821.21 kg AFDM y⁻¹ (4510.54 – 7459.94)</td>
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<tr>
<td>Mean (range) annual leaf mass exported per kilometer of ephemeral channel</td>
<td>110.58 kg AFDM km⁻¹ y⁻¹ (85.69 – 141.72)</td>
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</tbody>
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