**Table S4: Distribution of dominant species in the herb layer with respect to amount of flooding.**

Species are sorted in order from the one experiencing the most flooding to the one experiencing the least flooding. The distribution of a species is described by the percent of the year that the 10th percentile, median and 90th percentile location where that species is dominant is flooded. For example, half of the studied locations where *Cephalanthus occidentalis* is dominant experience flooding more than 25% of all days, while the other half experience less than that. Only 10% of *C. occidentalis* dominated locations experience flooding less than 9.3% of all days, while 90% of *C. occidentalis* dominated locations experience flooding less than 99.7% of all days. Only species that were dominant in the herb layer in at least 50 locations are listed (N).

| **Species** | **N** | **10th** | **50th** | **90th** |
| --- | --- | --- | --- | --- |
| *Cephalanthus occidentalis* L. | 94 | 9.289 | 24.973 | 99.687 |
| *Polygonum* L. (Smartweed species) | 181 | 6.931 | 20.868 | 65.298 |
| *Acer saccharinum* L. | 185 | 6.758 | 15.182 | 34.157 |
| *Boehmeria cylindrica* (L.) Sw. | 340 | 1.105 | 9.775 | 20.583 |
| *Osmunda regalis* L. | 302 | 0.746 | 8.702 | 25.045 |
| *Ilex verticillata* (L.) A. Gray | 77 | 0.912 | 8.030 | 17.708 |
| *Leersia virginica* Willd. | 637 | 1.535 | 7.924 | 20.635 |
| *Cornus amomum* Mill. | 64 | 0.136 | 6.019 | 23.796 |
| *Pilea pumila* (L.) A. Gray | 255 | 1.239 | 5.891 | 15.339 |
| *Onoclea sensibilis* L. | 2674 | 0.460 | 5.443 | 20.871 |
| *Laportea canadensis* (L.) Weddell | 1686 | 0.610 | 3.981 | 10.137 |
| *Helianthus* L. | 69 | 0.064 | 3.481 | 6.937 |
| *Eutrochium maculatum* (L.) E.E. Lamont | 65 | 0.000 | 3.321 | 10.190 |
| *Lysimachia nummularia* L.\* | 264 | 0.157 | 2.347 | 9.468 |
| *Arisaema triphyllum* (L.) Schott | 117 | 0.000 | 1.847 | 7.435 |
| *Toxicodendron radicans* (L.) Kuntze | 1277 | 0.014 | 1.732 | 10.273 |
| *Solidago canadensis* L. | 165 | 0.007 | 1.530 | 4.606 |
| *Matteuccia struthiopteris* (L.) Todaro | 2073 | 0.005 | 1.223 | 6.524 |
| *Impatiens capensis* Meerb. | 609 | 0.005 | 0.972 | 5.582 |
| *Osmunda cinnamomea* L. | 240 | 0.004 | 0.966 | 9.025 |
| *Celastrus orbiculatus* Thunb.\* | 333 | 0.005 | 0.891 | 4.261 |
| *Fallopia japonica* (Houtt.) Ronse Decr. & *F. x bohemica*\* | 585 | 0.036 | 0.875 | 5.760 |
| *Lindera benzoin* (L.) Blume | 266 | 0.007 | 0.857 | 8.315 |
| *Rosa multiflora* Thunb.\* | 768 | 0.007 | 0.572 | 3.266 |
| *Cynanchum louiseae* Kartesz & Gandhi\* | 88 | 0.025 | 0.513 | 2.581 |
| *Athyrium filix-femina* (L.) Roth | 630 | 0.000 | 0.270 | 3.957 |
| *Aegopodium podagraria* L.\* | 185 | 0.000 | 0.268 | 2.583 |
| *Thelypteris noveboracensis* (L.) Nieuwl. | 100 | 0.000 | 0.251 | 1.419 |
| *Uvularia sessilifolia* L. | 95 | 0.000 | 0.193 | 5.462 |
| *Parthenocissus quinquefolia* (L.) Planch. | 469 | 0.000 | 0.168 | 2.724 |
| *Prunus virginiana* L. | 64 | 0.000 | 0.126 | 2.360 |
| *Alliaria petiolata* (M. Bieb.) Cavara & Grande\* | 339 | 0.000 | 0.023 | 2.550 |
| *Berberis thunbergii* DC.\* | 387 | 0.000 | 0.023 | 0.586 |
| *Rubus idaeus* L. | 66 | 0.000 | 0.016 | 5.221 |
| *Maianthemum canadense* Desf. | 329 | 0.000 | 0.014 | 2.090 |
| *Maianthemum racemosum* (L.) Link | 161 | 0.000 | 0.006 | 0.407 |
| *Microstegium vimineum* (Trin.) A. Camus\* | 172 | 0.000 | 0.000 | 11.300 |
| *Lonicera morrowii* A. Gray\* | 194 | 0.000 | 0.000 | 1.193 |
| *Polystichum acrostichoides* (Michx.) Schott | 144 | 0.000 | 0.000 | 0.222 |

\*Non-native invasive species in Northeastern North America