**Table S3: Distribution of woody species in the shrub and seedling 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 occurrence of that species experience flooded conditions. For example, half of all *Cephalanthus occidentalis* individuals experience flooding more than 20.2% of all days, while the other half experience less than that. Only 10% of *C. occidentalis* individuals experience flooding less than 7.0% of all days, while 90% of individuals experience flooding less than 66.3% of all days. Only species with a number of 50 or more occurrences are listed (N).

| **Species** | **N** | **10th** | **50th** | **90th** |
| --- | --- | --- | --- | --- |
| *Cephalanthus occidentalis* L. | 430 | 7.016 | 20.211 | 66.279 |
| *Salix nigra* Marsh. | 174 | 8.186 | 19.517 | 23.610 |
| *Populus deltoides* Bartram ex Marsh. | 143 | 1.077 | 16.509 | 20.929 |
| *Salix eriocephala* Michx. | 112 | 1.158 | 14.099 | 23.455 |
| *Rosa palustris* Marsh. | 90 | 0.004 | 12.793 | 36.502 |
| *Myrica gale* L. | 70 | 6.235 | 12.356 | 26.127 |
| *Acer saccharinum* L. | 2160 | 2.170 | 9.718 | 29.793 |
| *Salix sericea* Marsh. | 82 | 0.269 | 7.491 | 23.492 |
| *Platanus occidentalis* L. | 100 | 0.702 | 7.239 | 21.370 |
| *Vitis labrusca* L. | 346 | 0.072 | 4.835 | 18.835 |
| *Catalpa speciosa* (Warder) Warder ex Engelm.  | 58 | 0.624 | 4.329 | 12.737 |
| *Fraxinus pennsylvanica* Marsh. | 2097 | 0.024 | 3.813 | 22.442 |
| *Solanum dulcamara* L. | 103 | 0.281 | 3.746 | 8.978 |
| *Ilex laevigata* (Pursh) A. Gray | 54 | 0.143 | 3.667 | 19.284 |
| *Alnus incana* (L.) Moench ssp. *rugosa* (Du Roi) R.T. Clausen | 352 | 0.016 | 3.551 | 27.910 |
| *Smilax herbacea* L. | 286 | 0.000 | 3.403 | 16.756 |
| *Cornus sericea L.* | 210 | 0.049 | 3.373 | 13.991 |
| *Quercus palustris* Münchh. | 878 | 0.027 | 2.890 | 19.837 |
| *Cornus amomum* Mill. | 993 | 0.071 | 2.874 | 18.766 |
| *Echinocystis lobata* (Michx.) Torr. & A. Gray | 171 | 0.029 | 2.567 | 7.909 |
| *Sambucus nigra* L. ssp. *canadensis* (L.) R. Bolli | 538 | 0.151 | 2.534 | 9.360 |
| *Ilex verticillata* (L.) A. Gray | 752 | 0.000 | 2.401 | 15.962 |
| *Clethra alnifolia* L. | 87 | 0.045 | 1.907 | 5.157 |
| *Toxicodendron radicans* (L.) Kuntze | 4643 | 0.014 | 1.818 | 14.459 |
| *Vitis riparia* Michx. | 768 | 0.000 | 1.601 | 15.055 |
| *Viburnum nudum* L. | 200 | 0.000 | 1.401 | 5.500 |
| *Juglans cinerea* L. | 103 | 0.000 | 1.314 | 4.201 |
| *Ulmus americana* L. | 1895 | 0.004 | 1.264 | 9.246 |
| *Viburnum dentatum* L. | 1227 | 0.007 | 1.231 | 7.709 |
| *Lindera benzoin* (L.) Blume | 1587 | 0.000 | 1.160 | 9.925 |
| *Rubus hispidus* L. | 74 | 0.061 | 1.099 | 6.327 |
| *Clematis virginiana* L. | 228 | 0.004 | 1.087 | 4.161 |
| *Vaccinium corymbosum* L. | 327 | 0.000 | 1.027 | 9.069 |
| *Viburnum lentago* L. | 655 | 0.009 | 1.016 | 6.983 |
| *Spiraea alba* Du Roi | 577 | 0.000 | 0.820 | 12.820 |
| *Celastrus orbiculatus* Thunb.\* | 3605 | 0.000 | 0.795 | 5.641 |
| *Celtis occidentalis* L. | 226 | 0.000 | 0.741 | 3.657 |
| *Abies balsamea* (L.) Mill. | 81 | 0.000 | 0.717 | 2.553 |
| *Acer negundo* L. | 596 | 0.000 | 0.676 | 7.038 |
| *Frangula alnus* Mill.\* | 846 | 0.000 | 0.590 | 6.838 |
| *Rosa multiflora* Thunb.\* | 2550 | 0.000 | 0.487 | 4.032 |
| *Carya ovata* (Mill.) K. Koch | 358 | 0.000 | 0.364 | 5.712 |
| *Carya cordiformis* (Wangenh.) K. Koch | 1550 | 0.000 | 0.362 | 5.677 |
| *Fraxinus nigra* Marsh. | 233 | 0.011 | 0.327 | 5.961 |
| *Rubus pubescens* Raf. | 337 | 0.000 | 0.321 | 4.886 |
| *Parthenocissus quinquefolia* (L.) Planch. | 3423 | 0.000 | 0.270 | 4.588 |
| *Rubus occidentalis* L. | 66 | 0.000 | 0.253 | 2.245 |
| *Corylus americana* Walter | 301 | 0.000 | 0.198 | 3.786 |
| *Rubus allegheniensis* Porter | 343 | 0.000 | 0.183 | 4.025 |
| *Crataegus* L. | 155 | 0.000 | 0.170 | 2.304 |
| *Prunus virginiana* L. | 1673 | 0.000 | 0.132 | 2.454 |
| *Euonymus alatus* (Thunb.) Siebold\* | 617 | 0.000 | 0.131 | 1.937 |
| *Elaeagnus umbellata* Thunb.\* | 52 | 0.000 | 0.109 | 2.377 |
| *Corylus cornuta* Marsh. | 162 | 0.000 | 0.104 | 3.133 |
| *Rubus idaeus* L. | 379 | 0.000 | 0.090 | 4.074 |
| *Lonicera canadensis* Bartram ex Marsh. | 98 | 0.005 | 0.071 | 2.292 |
| *Acer nigrum* Michx. f. x *Acer saccharum* Marsh. | 199 | 0.000 | 0.069 | 1.247 |
| *Berberis thunbergii* DC.\* | 1358 | 0.000 | 0.046 | 1.729 |
| *Quercus alba* L. | 179 | 0.000 | 0.045 | 2.105 |
| *Carpinus caroliniana* Walter | 1123 | 0.000 | 0.045 | 1.951 |
| *Lonicera morrowii* A. Gray\* | 1551 | 0.000 | 0.038 | 2.392 |
| *Acer rubrum* L. | 813 | 0.000 | 0.036 | 4.566 |
| *Quercus rubra* L. | 941 | 0.000 | 0.036 | 1.888 |
| *Acer platanoides* L.\* | 139 | 0.000 | 0.036 | 0.840 |
| *Rhus typhina* L. | 77 | 0.000 | 0.032 | 2.091 |
| *Pinus strobus* L. | 314 | 0.000 | 0.027 | 1.948 |
| *Fraxinus americana* L. | 1363 | 0.000 | 0.025 | 2.367 |
| *Prunus serotina* Ehrh. | 810 | 0.000 | 0.025 | 1.194 |
| *Amelanchier* Medik. | 261 | 0.000 | 0.022 | 4.682 |
| *Cornus alternifolia* L. f. | 490 | 0.000 | 0.022 | 1.177 |
| *Ulmus rubra* Muhl. | 145 | 0.000 | 0.021 | 1.075 |
| *Rhamnus cathartica* L.\* | 322 | 0.000 | 0.020 | 2.249 |
| *Acer spicatum* Lam. | 66 | 0.000 | 0.019 | 0.237 |
| *Hamamelis virginiana* L. | 277 | 0.000 | 0.014 | 1.032 |
| *Acer saccharum* Marsh. | 956 | 0.000 | 0.014 | 0.922 |
| *Fagus grandifolia* Ehrh. | 515 | 0.000 | 0.014 | 0.415 |
| *Acer pensylvanicum* L. | 257 | 0.000 | 0.014 | 0.035 |
| *Ribes* L. | 58 | 0.000 | 0.007 | 1.255 |
| *Tilia americana* L. | 258 | 0.000 | 0.007 | 1.086 |
| *Viburnum acerifolium* L. | 178 | 0.000 | 0.007 | 0.594 |
| *Ostrya virginiana* (Mill.) K. Koch | 74 | 0.000 | 0.000 | 0.474 |
| *Tsuga canadensis* (L.) Carrière | 139 | 0.000 | 0.000 | 0.376 |
| *Rubus phoenicolasius* Maxim.\* | 53 | 0.000 | 0.000 | 0.050 |
| *Kalmia angustifolia* L. | 50 | 0.000 | 0.000 | 0.000 |

\*Non-native invasive species in Northeastern North America