**Table 5.** Ground and Woody Species with Positive Correlations (Tau>0.4) to Axis One. Categories: Successional/Seral dominance, Competitiveness (CSR), and Regeneration Patch Size are defined in Appendix xx.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Axis 1** | **- Positive Correlations** | | | | | |  | | |  | | |  | | |  | | |
|  |  | |  | | |  | | |  | | |  | | |  | | |  | | |
| **Ground Flora Species** | | | | **Tau** | | | **Growth Form** | | | **Seral Dominance** | | | **Competitiveness (CSR)** | | | **Regeneration niche (Patch size)** | | |
| *Desmodium glutinosum* | | | | 0.8 | | | Herb | | | Mid | | | Stress Tolerator | | | small-gap/large gap | | |
| *Aralia nudicaulis* | |  | | | 0.8 | | | Herb | | | Mid-late | | | Stress tolerator | | | small-gap/large gap | | |
| *Trientalis borealis* | |  | | | 0.8 | | | Herb | | | Late | | | Competitor | | | small-gap | | |
| *Apocynum androsaemifolium* | | | | 0.7 | | | Herb | | | Mid-late | | | Stress tolerator | | | small-gap/large gap | | |
| *Athyrium angustum* | | | | 0.7 | | | Herb | | | Mid-late | | | Stress Tolerator | | | small-gap/large gap | | |
| *Amphicarpaea bracteata* | | | | 0.7 | | | Herb | | | Mid-late | | | Stress tolerator | | | small-gap/large gap | | |
| *Uvularia sessilifolia* | |  | | | 0.6 | | | Herb | | | Late | | | Competitor | | | small-gap | | |
| *Carex pedunculata* | |  | | | 0.5 | | | Graminoid | | | Late | | | Competitor | | | small-gap | | |
| *Mitchella repens* | |  | | | 0.5 | | | Evergreen Deciduous | | | Mid-late | | | Stress Tolerator | | | small-gap/large gap | | |
| *Osmorhiza claytoni* | |  | | | 0.5 | | | Herb | | | Late | | | Competitor | | | small-gap | | |
| *Doellingeria umbellata* | | | | 0.5 | | | Herb | | | Mid-late | | | Stress tolerator | | | small-gap/large gap | | |
| *Doellingeria spp* | |  | | | 0.5 | | | Herb | | | Mid-late | | | Stress tolerator | | | small-gap/large gap | | |
| *Circaea lutetiana* | |  | | | 0.5 | | | Herb | | | Late | | | Competitor | | | small-gap | | |
| *Trillium spp* | |  | | | 0.5 | | | Herb | | | Late | | | Competitor | | | small-gap | | |
| *Anemone quinquefolia* | | | | 0.4 | | | Herb | | | Mid-late | | | Stress tolerator | | | small-gap/large gap | | |
| *Gaultheria procumbens* | | | | 0.4 | | | Evergreen Deciduous | | | Mid-late | | | Stress Tolerator | | | small-gap/large gap | | |
|  |  | |  | | |  | | |  | | |  | | |  | | |  | | |
| **Woody Mid- Overstory Species** | | | | **Tau** | | | **Growth Form** | | | **Seral Dominance** | | | **Competitiveness(CSR)** | | | **Regeneration niche (Patch size)** | | |
| *Ostrya virginiana* | |  | | | 0.9 | | | Tree | | | Mid-late | | | Stress Tolerator | | | small-gap | | |
| *Quercus rubra* | |  | | | 0.7 | | | Tree | | | Mid-late | | | Stress Tolerator | | | small-gap/large gap | | |
| *Acer saccharum* | |  | | | 0.6 | | | Tree | | | Late | | | Competitor | | | small-gap | | |
| *Picea mariana* | |  | | | 0.5 | | | Tree | | | Mid-late | | | Ruderal | | | large gap open | | |
| *Quercus macrocarpa* | | | | 0.5 | | | Tree | | | Mid-late | | | Stress Tolerator | | | small-gap/large gap | | |
| *Populus grandidentata* | | | | 0.4 | | | Tree | | | Early | | | Ruderal | | | large gap open | | |
| *Corylus cornuta* | |  | | | 0.4 | | | Shrub | | | Mid-late | | | Stress Tolerator | | | small-gap/large gap | | |

**Table 6.** Ground and Woody Species with Negative Correlations (Tau>0.4) to Axis One. Categories: Successional/Seral dominance, Competitiveness (CSR), and Regeneration Patch Size are defined in Appendix xx.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Axis 1 - Negative Correlations** | |  |  |  |  |
|  |  |  |  |  |  |
| **Ground Flora Species** | **Tau** | **Growth Form** | **Seral Dominance** | **Competitiveness (CSR)** | **Regeneration niche (Patch size)** |
| *Solidago canadensis* | -0.8 | Herb | Early | Ruderal | large gap |
| *Taraxacum officinale* ***\**** | -0.8 | Herb | Early | Ruderal | large gap |
| *Vicia americana* | -0.8 | Herb | Early | Ruderal | large gap |
| *Bromus ciliatus* | -0.7 | Graminoid | Early | Ruderal | large-gap open |
| *Carex spp* | -0.7 | Graminoid | Mid-late | Stress Tolerator | small-gap/large gap |
| *Moss spp* | -0.7 | Moss | Late | Competitor | small-gap |
| *Calamagrostis canadensis* | -0.7 | Graminoid | Early | Ruderal | large gap open |
| *Drypoteris carthusiana* | -0.6 | Fern | Late | Competitor | small-gap |
| *Gallium triflorum* | -0.6 | Herb | Mid-late | Stress Tolerator | small-gap/large gap |
| *Geum macrophyllum var. perincisum* | -0.6 | Herb | Early | Ruderal | large gap |
| *Agrostis scabra* | -0.6 | Graminoid | Early | Ruderal | large gap open |
| *Brachyelytrum erectum* | -0.6 | Graminoid | Early | Ruderal | small-gap/large gap |
| *Lycopodium spp* | -0.6 | Fern ally | Mid-late | Stress Tolerator | small-gap/large gap |
| *Carex arctata* | -0.6 | Graminoid | Late | Competitor | small-gap |
| *Eupatorium perfoliatum* | -0.6 | Herb | Early | Ruderal | large gap open |
| *Symphyotrichum urophyllum* | -0.6 | Herb | Early | Ruderal | large gap |
| *Canadanthus spp* | -0.5 | Herb | Early | Ruderal | large gap open |
| *Scirpus cyperinus* | -0.5 | Graminoid | Early | Ruderal | large gap |
| *Fragaria virginiana* | -0.5 | Herb | Mid-late | Stress Tolerator | small-gap/large gap |
| *Viola spp* | -0.5 | Herb | Mid-late | Stress tolerator | small-gap/large gap |
| *Pteridium aquilinum var. latiusculum* | -0.5 | Fern | Mid-late | Stress Tolerator | small-gap/large gap |
| *Euthamia graminifolia* | -0.4 | Herb | Early | ruderal | large gap open |
| *Petasites frigidus* | -0.4 | Herb | Mid-late | Stress Tolerator | small-gap/large gap |
| **Woody Mid-Overstory Species** | **Tau** | **Growth Form** | **Seral Dominance** | **Competitiveness (CSR)** | **Regeneration niche (Patch size)** |
| Tilia americana | -0.436 | Tree | Mid-late | Stress Tolerator | small-gap/large gap |

**\*** Weedy species

**Table 7.** Ground and Woody Species with Positive Correlations (Tau>0.4) to Axis Two. Categories: Successional/Seral dominance, Competitiveness (CSR), and Regeneration Patch Size are defined in Appendix xx.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Axis 2 - Positive Correlations** | | |  | |  |  |  |  |
|  |  |  | |  |  |  |  |  |
| **Ground Flora Species** | | | **Tau** | | **Growth Form** | **Seral Dominance** | **Competitiveness (CSR)** | **Regeneration niche (Patch size)** |
| *Doellingeria spp* | |  | | 0.7 | Herb | Mid-late | Stress tolerator | small-gap/large gap |
| *Circaea lutetiana* | |  | | 0.7 | Herb | Late | Competitor | small-gap |
| *Trillium spp* | |  | | 0.7 | Herb | Late | Competitor | small-gap |
| *Carex pedunculata* | |  | | 0.7 | Graminoid | Late | Competitor | small-gap |
| *Mitchella repens* | |  | | 0.7 | Evergreen Deciduous | Mid-late | Stress Tolerator | small-gap/large gap |
| *Osmorhiza claytoni* | |  | | 0.7 | Herb | Late | Competitor | small-gap |
| *Hypericum majus* | |  | | 0.6 | Herb | Early | Ruderal | large gap open |
| *Matteuccia struthiopteris var. pensylvanica* | | | 0.5 | | Fern | Mid-late | Stress Tolerator | small-gap/large gap |
| *Petasites frigidus* | |  | | 0.5 | Herb | Mid-late | Stress Tolerator | small-gap/large gap |
| *Equisetum pratense* | |  | | 0.5 | Herb | Early | Ruderal | large gap open |
| *Sanicula spp* | |  | | 0.4 | Herb | Mid-late | Stress Tolerator | small-gap/large gap |
| *Urtica dioica subsp. Gracilis* ***\**** | | | 0.4 | | Herb | Early | Ruderal | large gap |
| *Aralia nudicaulis* | |  | | 0.4 | Herb | Mid-late | Stress tolerator | small-gap/large gap |
| *Trientalis borealis* | |  | | 0.4 | Herb | Late | Competitor | small-gap |
| *Eurybia macrophylla* | | | 0.4 | | Herb | Mid-late | Stress tolerator | small-gap/large gap |
| *Viola spp* |  |  | | 0.4 | Herb | Mid-late | Stress tolerator | small-gap/large gap |
| *Dryopteris carthusiana* | | | 0.4 | | Fern | Late | Competitor | small-gap |
| *Galium triflorum* | |  | | 0.4 | Herb | Mid-late | Stress Tolerator | small-gap/large gap |
| *Geum macrophyllum var. perincisum* | | | 0.4 | | Herb | Early | Ruderal | large gap |
|  |  |  | |  |  |  |  |  |
|  |  |  | |  |  |  |  |  |
| **Woody Mid-Overstory Species (>11meters)** | | | **Tau** | | **Growth Form** | **Seral Dominance** | **Competitiveness (CSR)** | **Regeneration niche (Patch size)** |
| *Prunus serotina* | |  | | 0.6 | Tree | Early | Ruderal | large gap open |
| *Fraxinus americana* | |  | | 0.5 | Tree | Early | Ruderal | large-gap open |
| *Ilex verticillata var. verticillata* | | | 0.5 | | Shrub | Mid-late | Stress Tolerator | small-gap/large gap |
| *Corylus cornuta* | |  | | 0.5 | Shrub | Mid-late | Stress Tolerator | small-gap/large gap |
| *Fraxinus pennsylvanica* | | | 0.4 | | Tree | Early | Ruderal | large-gap open |
| *Picea mariana* | |  | | 0.4 | Tree | Early | Ruderal | large gap open |
| *Quercus macrocarpa* | | | 0.4 | | Tree | Mid-late | Stress Tolerator | small-gap/large gap |

**\*** Weedy species

**Table 8.** Ground and Woody Species with Negative Correlations (Tau>0.4) to Axis Two. Categories: Successional/Seral dominance, Competitiveness (CSR), and Regeneration Patch Size are defined in Appendix xx.

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| --- | --- | --- | --- | --- |
| **Axis 2 - Negative Correlations** |  |  |  |  |

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| --- | --- | --- | --- | --- | --- |
| **Ground Flora Species** | **Tau** | **Growth Form** | **Seral Dominance** | **Competitiveness (CSR)** | **Regeneration niche (Patch size)** |
| *Lathyrus ochroleucus* | -0.7 | Herb | Mid-late | Stress Tolerator | small-gap/large gap |
| *Pyrola elliptica* | -0.7 | Herb | Late | Competitor | small-gap |
| *Pteridium aquilinum var. latiusculum* | -0.7 | Fern | Mid-late | Stress Tolerator | small-gap/large gap |
| *Oryzopsis asperifolia* | -0.6 | Graminoid | Mid-late | Stress Tolerator | small-gap/large gap |
| *Pseudognaphalium obtusifolium* | -0.6 | Herb | Early | Ruderal | large gap open |
| *Gaultheria procumbens* | -0.5 | Evergreen Deciduous | Mid-late | Stress Tolerator | small-gap/large gap |
| *Galium aparine* | -0.4 | Herb | Mid-late | Stress Tolerator | small-gap/large gap |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Carex pensylvanica* | -0.4 | Graminoid | Mid-late | Stress Tolerator | small-gap/large gap |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Taraxacum officinale* ***\**** | -0.4 | Herb | Early | Ruderal | large gap |
| *Vicia americana* | -0.4 | Herb | Early | Ruderal | large gap |
|  |  |  |  |  |  |
| --No woody species with significant ***Tau*** for Axis 2  **\*** Weedy species | | |  |  |  |