**Table supplementary 2. Species list for the understory vegetation of different thinning treatments.** Treatments as in Table 1. Results were collected in 2015 July. NP measns “no presence of”. Importance value = RF + RD + RC, Relative frequency (RF) = (frequency of the specie / the sum of all species frequency) \*100%; Relative density (RD) = (the number of individual specie / the sum of all species number) \*100%; Relative coverage (RC) = (the coverage of an individual specie / the coverage of all plants) \*100%.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 　 | Family | Genus | Species | Important Value (%) |
| 　 |
| 　 | NTC | LTF | MTF | HTF |
| Herb Layer | Liliaceae | *Hemerocallis* | *Hemerocallis fulva*  | NP | 2.48 | 0.86 | NP |
| *Allium*  | *Allium chrysanthum*  | NP | NP | 1.57 | NP |
| *Gagea* |  *Gagea pauciflora*  | NP | NP | 0.84 | 1.52 |
| Labiatae  | *Rabdosia* | *Rabdosia japonica*  | NP | 1.89 | 1.86 | 0.90 |
| *Phlomis Linn.* | *Phlomis umbrosa*  | NP | 0.62 | NP | 2.40 |
| Leguminosae  | *Vicia*  | *Vicia unijuga*  | NP | 0.66 | NP | NP |
| Balsaminaceae | *Impatiens*  | *Impatiens noli-tangere.*  | NP | NP | NP | 6.30 |
| Gramineae | *Spodiopogon* | *Spodiopogon sibiricus*  | 2.79 | 6.04 | 7.71 | 6.03 |
| Saxifragaceae | *Astilbe* | *Astilbe chinensis* | NP | 4.84 | 3.88 | 4.18 |
| Compositae | *Gerbera Cass.* | *Gerbera anandria*  | NP | NP | 0.47 | 1.98 |
|  *Prenanthes* | *Prenanthes macrophylla*  | NP | NP | 0.80 | NP |
| *Adenocaulon* | *Adenocaulon himalaicum*   | 1.13 | 1.22 | 0.77 | NP |
| *Senecio*  | *Senecio nemorensis*  | 5.92 | 9.93 | 2.09 | 3.18 |
|  *Aster*  | *Aster ageratoides*  | 7.19 | 10.43 | 10.59 | 14.34 |
| *Eclipta* | *Eclipta prostrata* | 28.16 | 10.27 | 15.35 | 14.00 |
|  *Saussurea*  | *Saussurea parviflora*  | 2.33 | 7.21 | 15.34 | 15.48 |
| *Saussurea sylvatica* | NP | NP | NP | 1.61 |
| *Dendranthema*  | *Dendranthema chanetii* | 6.21 | 4.76 | 8.93 | 2.64 |
| Selaginellaceae |  *Selaginella*  |  *Selaginella sinensis*  | 1.13 | NP | NP | NP |
| Onagraceae | *Epilobium*  | *Epilobium angustifolium*  | NP | 0.62 | NP | 1.47 |
| Geraniaceae  | *Geranium* | *Geranium platyanthum* | NP | 1.55 | 1.58 | NP |
| Ranunculaceae | *Aquilegia* | *Aquilegia yabeana* | 1.28 | 1.25 | 0.86 | 1.13 |
| *Actaea* | *Actaea asiatica*  | NP | NP | NP | 0.90 |
| *Aconitum* | *Aconitum carmichaeli* . | NP | NP | NP | 1.08 |
| *Thalictrum* | *Thalictrum petaloideum*  | 17.77 | 11.33 | NP | NP |
| *Pulsatilla Adans.* | *Pulsatilla chinensis*  | NP | NP | 0.60 | NP |
| Equisetaceae  | *Equisetum*  | *Equisetum arvense*  | NP | 1.60 | 7.41 | 3.97 |
| Rubiaceae |  *Galium*  |  *Galium verum*   | NP | NP | 1.61 | NP |
| 　 |  *Galium aparine*  | 1.13 | 2.88 | 2.29 | NP |
| Rosaceae | *Sanguisorba* | *Sanguisorba officinalis*  | NP | 0.58 | 0.70 | NP |
| *Filipendula* | *Filipendula palmata*  | NP | NP | 1.20 | NP |
|  *Duchesnea* |  *Duchesnea indica*  | 4.76 | 7.03 | 4.80 | 5.34 |
| Umbelliferae  |  *Angelica L.* | *Angelica dahurica*  | NP | 1.12 | 1.09 | 2.73 |
| Cyperaceae | *Carex*  | *Carex stenophylla* | 13.80 | 7.83 | 4.52 | 5.27 |
| Cruciferae | *Arabis*  | *Arabis hirsuta.* | 6.38 | 1.64 | 1.94 | 2.58 |
| Caryophyllaceae | *Myosoton* | *Myosoton aquaticum*  | NP | 0.93 | NP | 0.94 |
| Aristolochiaceae | Asarum | *Asarum sieboldi*i | NP | 1.30 | 0.31 | NP |
| Shrub Layer | Caprifoliaceae |  *Lonicera*  |  *Lonicera japonica*  | NP | 100 | 55.56 | 46.30 |
| Leguminosae | *Cytisus*  | *Cytisus scoparius*  | NP | NP | 44.44 | NP |
| Saxifragaceae | *Ribes* |  *Ribes burejense* | NP | NP | NP | 27.78 |
| Rosaceae | *Rosa*  | *Rosa xanthina* | NP | NP | NP | 25.93 |