

Supplementary Material-Tree Cover Improved the Species Diversity of Understory Spontaneous Herbs in a Small City

**Table S1 The spontaneous herbaceous plants recorded in *Julian* city**

<b>SPECIES</b>	<b>Life-form</b>	<b>Growth-form</b>	<b>Dispersal mode</b>	<b>Chinese endemic or vulnerable plants</b>
<i>Duchesnea indica</i>	Perennial	Dwarf	Animal	NO
<i>Poa annua</i>	Annual	Dwarf	Wind	NO
<i>Rorippa indica</i>	Annual	Tall	Unassisted	NO
<i>Perilla frutescens</i>	Annual	Tall	Unassisted	NO
<i>Oplismenus undulatifolius</i>	Annual	Dwarf	Animal	NO
<i>Plantago asiatica</i>	Perennial	Dwarf	Animal	NO
<i>Pilea notata</i>	Perennial	Dwarf	Unassisted	NO
<i>Polypogon fugax</i>	Annual	Dwarf	Animal	NO
<i>Mentha canadensis</i>	Perennial	Tall	Animal	NO
<i>Alternanthera sessilis</i>	Annual	Dwarf	Wind	NO
<i>Hydrocotyle sibthorpioides</i>	Perennial	Dwarf	Animal	NO
<i>Polygonum capitatum</i>	Perennial	Dwarf	Wind	NO
<i>Galinsoga parviflora</i>	Annual	Tall	Wind	NO
<i>Clinopodium chinense</i>	Perennial	Tall	Unassisted	NO
<i>Taraxacum mongolicum</i>	Perennial	Dwarf	Wind	NO
<i>Stellaria media</i>	Annual	Dwarf	Wind	NO
<i>Lolium perenne</i>	Perennial	Dwarf	Animal	NO
<i>Polygonum persicaria</i> <i>var.persicaria</i>	Annual	Dwarf	Wind	NO
<i>Rumex acetosa</i>	Perennial	Tall	Wind	NO
<i>Mazus japonicus</i>	Annual	Tall	Unassisted	NO
<i>Youngia japonica</i>	Annual	Tall	Wind	NO
<i>Portulaca oleracea</i>	Annual	Dwarf	Unassisted	NO
<i>Cryptotaenia japonica</i>	Perennial	Tall	Unassisted	NO
<i>Oxalis corniculata</i>	Perennial	Dwarf	Unassisted	NO
<i>Cerastium arvense</i>	Perennial	Tall	Wind	NO
<i>Kalimeris indica</i>	Perennial	Tall	Animal	NO
<i>Sinosenecio oldhamianus</i>	Perennial	Tall	Unassisted	NO
<i>Conyza canadensis</i>	Annual	Tall	Wind	NO
<i>Pilea microphylla</i>	Annual	Dwarf	Unassisted	NO
<i>Dichondra repens</i>	Perennial	Dwarf	Unassisted	NO
<i>Pteris cretica</i> <i>var. nervosa</i>	Perennial	Tall	Wind	NO
<i>Eclipta prostrata</i>	Annual	Tall	Wind	NO
<i>Achyranthes bidentata</i>	Perennial	Tall	Wind	NO
<i>Vicia sepium</i>	Perennial	Dwarf	Unassisted	NO

<i>Erigeron annuus</i>	Annual	Tall	Wind	NO
<i>Cyrtomium fortunei</i>	Perennial	Tall	Wind	NO
<i>Hydrocotyle nepalensis</i>	Perennial	Dwarf	Animal	NO
<i>Juncus prismatocarpus</i>	Perennial	Dwarf	Unassisted	NO
<i>Myosoton aquaticum</i>	Annual	Tall	Wind	NO
<i>Artemisia argyi</i>	Perennial	Tall	Wind	NO
<i>Centella asiatica</i>	Perennial	Dwarf	Unassisted	NO
<i>Sonchus arvensis</i>	Perennial	Tall	Unassisted	NO
<i>Pseudognaphalium affine</i>	Perennial	Dwarf	Wind	NO
<i>Anredera cordifolia</i>	Perennial	Linana	Animal	NO
<i>Sagina japonica</i>	Annual	Dwarf	Unassisted	NO
<i>Veronica didyma</i>	Annual	Dwarf	Wind	NO
<i>Carpesium abrotanoides</i>	Perennial	Tall	Animal	NO
<i>Arthraxon hispidus</i>	Annual	Dwarf	Unassisted	NO
<i>Kyllinga polyphylla</i>	Perennial	Dwarf	Animal	NO
<i>Pratia nummularia</i>	Perennial	Dwarf	Unassisted	NO
<i>Ranunculus japonicus</i>	Perennial	Tall	Animal	NO
<i>Rotala rotundifolia</i>	Annual	Dwarf	Animal	NO
<i>Blumea balsamifera</i>	Perennial	Tall	Animal	NO
<i>Hypericum japonicum</i>	Perennial	Tall	Wind	NO
<i>Houttuynia cordata</i>	Perennial	Tall	Unassisted	NO
<i>Lindernia crustacea</i>	Annual	Dwarf	Other	NO
<i>Geranium wilfordii</i>	Annual	Dwarf	Unassisted	NO
<i>Lobelia chinensis</i>	Perennial	Tall	Unassisted	NO
<i>Potentilla kleiniana</i>	Perennial	Tall	Unassisted	NO
<i>Equisetum arvense</i>	Perennial	Tall	Animal	NO
<i>Cyperus rotundus</i>	Perennial	Dwarf	Other	NO
<i>Eleusine indica</i>	Annual	Dwarf	Other	NO
<i>Lysimachia christinae</i>	Perennial	Dwarf	Unassisted	NO
<i>Acalypha australis</i>	Annual	Tall	Unassisted	NO
<i>Gonostegia hirta</i>	Perennial	Dwarf	Unassisted	NO
<i>Dichrocephala auriculata</i>	Annual	Tall	Animal	NO
<i>Iris tectorum</i>	Perennial	Tall	Unassisted	NO
<i>Setaria viridis</i>	Annual	Dwarf	Animal	NO
<i>Boehmeria spicata</i>	Perennial	Tall	Animal	NO
<i>Pterocypsela indica</i>	Annual	Tall	Wind	NO
<i>Aster subulatus</i>	Annual	Tall	Wind	NO
<i>Anemone vitifolia</i>	Perennial	Tall	Animal	NO
<i>Microlepidia hancei</i>	Perennial	Tall	Wind	NO
<i>Senecio scandens</i>	Perennial	Tall	Wind	NO
<i>Digitaria sanguinalis</i>	Annual	Dwarf	Wind	NO

<i>Conyza bonariensis</i>	Annual	Tall	Animal	NO
<i>Amphicarpaea edgeworthii</i>	Annual	Linana	Animal	NO
<i>Torilis scabra</i>	Annual	Tall	Animal	NO
<i>Bidens pilosa</i>	Annual	Tall	Animal	NO
<i>Equisetum hyemale</i>	Perennial	Tall	Animal	NO
<i>Commelina communis</i>	Annual	Dwarf	Unassisted	NO
<i>Prunella vulgaris</i>	Perennial	Tall	Unassisted	NO
<i>Polygonum perfoliatum</i>	Annual	Linana	Animal	NO
<i>Coriandrum sativum</i>	Perennial	Dwarf	Unassisted	NO
<i>Oenanthë javanica</i>	Perennial	Tall	Unassisted	NO
<i>Adiantum capillusveneris</i>	Perennial	Dwarf	Wind	NO
<i>Dioscorea opposita</i>	Perennial	Linana	Wind	NO
<i>Polygonum runcinatum</i> var. <i>sinense</i>	Perennial	Tall	Animal	Endemic
<i>Glechoma longituba</i>	Perennial	Dwarf	Unassisted	NO
<i>Gynura japonica</i>	Perennial	Tall	Wind	NO
<i>Sedum emarginatum</i>	Perennial	Dwarf	Other	NO
<i>Viola philippica</i>	Perennial	Dwarf	Animal	NO
<i>Calystegia hederacea</i>	Perennial	Linana	Unassisted	NO
<i>Selaginella uncinata</i>	Perennial	Dwarf	Animal	Endemic
<i>Viola verecunda</i>	Perennial	Dwarf	Animal	NO
<i>Drosera peltata</i>	Perennial	Tall	Unassisted	NO
<i>Capsella bursapastoris</i>	Annual	Tall	Animal	NO
<i>Cyclosorus interruptus</i>	Perennial	Tall	Wind	NO
<i>Cardamine hirsuta</i>	Annual	Tall	Wind	NO
<i>Cyrtomium caryotideum</i>	Perennial	Tall	Wind	Endemic
<i>Ixeris polycephala</i>	Annual	Tall	Wind	NO
<i>Lygodium japonicum</i>	Annual	Linana	Wind+Hydro	NO
<i>Trigonotis peduncularis</i>	Annual	Tall	Animal	NO
<i>Zoysia japonica</i>	Perennial	Dwarf	Animal	NO
<i>Spodiopogon sibiricus</i>	Perennial	Tall	Wind	NO
<i>Amaranthus tricolor</i>	Annual	Tall	Animal	NO
<i>Alocasia macrorrhiza</i>	Perennial	Tall	Animal	NO
<i>Typhonium blumei</i>	Perennial	Dwarf	Animal	NO
<i>Tropaeolum majus</i>	Annual	Linana	Animal	NO
<i>Celosia argentea</i> var. <i>cristata</i>	Perennial	Tall	Wind	NO
<i>Mirabilis jalapa</i>	Annual	Tall	Animal	NO
<i>Dianthus chinensis</i>	Perennial	Tall	Unassisted	NO
<i>Sedum hispanicum</i>	Perennial	Dwarf	Unassisted	NO
<i>Cyperus alternifolius</i>	Perennial	Dwarf	Wind	NO
<i>Dendranthema morifolium</i>	Annual	Tall	Wind	NO
<i>Verbena officinalis</i>	Perennial	Tall	Unassisted	NO

<i>Sagittaria sagittifolia</i> subsp. <i>leucopetala</i>	Perennial	Tall	Unassisted	NO
<i>Ranunculus sceleratus</i>	Perennial	Tall	Unassisted	NO
<i>Oxalis corymbosa</i>	Perennial	Dwarf	Unassisted	NO
<i>Gamochaeta pensylvanica</i>	Annual	Dwarf	Unassisted	NO
<i>Imperata cylindrica</i>	Perennial	Tall	Wind	NO
<i>Elymus dahuricus</i>	Perennial	Tall	Wind	NO
<i>Solanum nigrum</i>	Annual	Dwarf	Animal	NO
<i>Phytolacca acinosa</i>	Perennial	Tall	Animal	NO
<i>Zehneria japonica</i>	Perennial	Linana	Animal	NO
<i>Pouzolzia zeylanica</i> var. <i>zeylanica</i>	Perennial	Tall	Unassisted	NO
<i>Solanum khasianum</i>	Perennial	Tall	Animal	NO
<i>Chenopodium album</i>	Annual	Tall	Unassisted	NO
<i>Phyllanthus urinaria</i>	Annual	Tall	Unassisted	NO
<i>Talinum paniculatum</i>	Perennial	Tall	Unassisted	NO
<i>Asarum sieboldii</i>	Perennial	Dwarf	Animal+Wind	vulnerable
<i>Agastache rugosa</i>	Perennial	Tall	Unassisted	NO
<i>Corydalis edulis</i>	Annual	Dwarf	Animal	NO
<i>Solanum lyratum</i>	Perennial	Linana	Animal	NO
<i>Fagopyrum esculentum</i>	Annual	Tall	Animal	NO
<i>Setaria palmifolia</i>	Annual	Tall	Animal	NO
<i>Apium graveolens</i>	Perennial	Tall	Unassisted	NO
<i>Crassocephalum crepidioides</i>	Annual	Tall	Unassisted	NO
<i>Origanum vulgare</i>	Perennial	Tall	Unassisted	NO
<i>Paspalum thunbergii</i>	Perennial	Dwarf	Animal	NO
<i>Justicia procumbens</i>	Annual	Dwarf	Unassisted	NO
<i>Polygonum chinense</i>	Perennial	Dwarf	Animal	NO
<i>Elsholtzia ciliata</i>	Perennial	Tall	Animal	NO
<i>Smallanthus sonchifolius</i>	Perennial	Tall	Unassisted	NO
<i>Amaranthus blitum</i>	Annual	Tall	Animal	NO
<i>Pteris multifida</i>	Perennial	Dwarf	Wind	NO
<i>Polygonum cuspidatum</i>	Perennial	Tall	Unassisted	NO
<i>Sedum lineare</i>	Perennial	Dwarf	Animal	NO
<i>Pteris ensiformis</i>	Perennial	Tall	Wind	NO
<i>Aristolochia debilis</i>	Perennial	Linana	Animal+Wind	NO
<i>Impatiens davidi</i>	Annual	Tall	Unassisted	Endemic
<i>Datura stramonium</i>	Perennial	Tall	Wind	NO
<i>Ophiopogon bodinieri</i>	Perennial	Dwarf	Animal	NO
<i>Sonchus asper</i>	Annual	Tall	Wind	NO
<i>Ageratum conyzoides</i>	Annual	Tall	Animal+Wind	NO
<i>Mosla scabra</i>	Annual	Dwarf	Animal	NO
<i>Cyperus iria</i>	Perennial	Dwarf	Other	NO

<i>Lindernia antipoda</i>	Perennial	Dwarf	Unassisted	NO
<i>Torenia fournieri</i>	Annual	Tall	Unassisted	NO
<i>Pogonatherum crinitum</i>	Perennial	Dwarf	Wind	NO
<i>Macleaya cordata</i>	Perennial	Tall	Animal	NO
<i>Gnaphalium affine</i>	Annual	Dwarf	Wind	NO
<i>Ludwigia prostrata</i>	Annual	Tall	Wind	NO
<i>Murdannia triquetra</i>	Perennial	Dwarf	Unassisted	NO
<i>Helianthus tuberosus</i>	Perennial	Tall	Wind	NO
<i>Cassia tora</i>	Annual	Tall	Animal	NO
<i>Sonchus oleraceus</i>	Annual	Tall	Wind	NO
<i>Cayratia japonica</i>	Perennial	Linana	Animal	NO
<i>Thyrocarpus sampsonii</i>	Annual	Tall	Animal	NO
<i>Cyperus glomeratus</i>	Annual	Dwarf	Animal	NO
<i>Leonurus artemisia</i>	Annual	Tall	Unassisted	NO
<i>Celosia argentea</i>	Annual	Tall	Wind	NO
<i>Emilia sonchifolia</i>	Annual	Tall	Wind	NO
<i>Viola hamiltoniana</i>	Perennial	Dwarf	Animal	NO
<i>Parthenocissus tricuspidata</i>	Annual	Dwarf	Unassisted	NO
<i>Viola diffusa</i>	Annual	Dwarf	Animal	NO
<i>Tradescantia pallida</i> (Rose) D.R.Hunt	Perennial	Tall	Animal	NO
<i>tradescantia fluminensis</i>	Annual	Dwarf	Unassisted	NO
<i>Cirsium setosum</i>	Perennial	Tall	Wind	NO
<i>Dendranthema indicum</i>	Perennial	Tall	Wind	NO
<i>Humulus japonica</i>	Annual	Linana	Wind	NO
<i>Polygonum bistorta</i>	Perennial	Dwarf	Unassisted	NO
<i>Galium odoratum</i>	Annual	Dwarf	Unassisted	NO
<i>Euphorbia humifusa</i>	Annual	Tall	Animal	NO
<i>Galium aparine</i> var. <i>tenerum</i>	Annual	Linana	Animal	NO
<i>Sedum sarmentosum</i>	Perennial	Dwarf	Unassisted	NO
<i>Pharbitis nil</i>	Annual	Linana	Unassisted	NO
<i>Macrothelypteris oligophlebia</i>	Perennial	Tall	Wind	NO
<i>Petasites japonicus</i>	Perennial	Dwarf	Unassisted	NO
<i>Hemerocallis fulva</i>	Perennial	Dwarf	Unassisted	NO
<i>Stachys japonica</i>	Perennial	Tall	Unassisted	NO
<i>Cibotium barometz</i>	Perennial	Tall	Animal	NO
<i>Urena lobata</i>	Perennial	Tall	Unassisted	NO
<i>Diplazium donianum</i>	Perennial	Tall	Wind	NO
<i>Panicum bisulcatum</i>	Annual	Dwarf	Unassisted	NO
<i>Pinellia ternata</i>	Perennial	Tall	Animal	NO
<i>Paraprenanthes sororia</i>	Annual	Tall	Wind	NO
<i>Solanum xanthocarpum</i>	Perennial	Tall	Animal	NO

<i>Galium bungei</i> var. <i>bungei</i>	Perennial	Linana	Animal	NO
<i>Alopecurus aequalis</i>	Annual	Dwarf	Wind	NO
<i>Ophioglossum vulgatum</i>	Perennial	Dwarf	Unassisted	NO
<i>Cynodon dactylon</i>	Perennial	Dwarf	Wind	NO
<i>Astragalus melilotoides</i>	Perennial	Tall	Unassisted	NO
<i>Artemisia carvifolia</i>	Annual	Tall	Wind	NO
<i>Pellionia radicans</i>	Perennial	Dwarf	Unassisted	NO
<i>Carex schneideri</i>	Perennial	Dwarf	Animal	Endemic
<i>Siegesbeckia orientalis</i>	Annual	Tall	Animal	NO
<i>Bidens tripartita</i>	Annual	Tall	Animal	NO
<i>Hedyotis diffusa</i>	Annual	Dwarf	Unassisted	NO
<i>Saxifraga stolonifera</i>	Perennial	Dwarf	Animal	NO
<i>Lepisorus thunbergianus</i>	Perennial	Dwarf	Wind	NO
<i>Onychium japonicum</i>	Perennial	Tall	Wind	NO
<i>Polygonum senticosum</i>	Annual	Linana	Unassisted	NO
<i>Adoxa moschatellina</i>	Perennial	Dwarf	Unassisted	NO
<i>Aristolochia tubiflora</i>	Perennial	Linana	Unassisted	Endemic
<i>Sambucus chinensis</i>	Perennial	Tall	Animal	NO
<i>Abelmoschus manihot</i>	Perennial	Tall	Unassisted	NO
<i>Davallia mariesii</i>	Perennial	Tall	Wind	NO
<i>Bothriospermum chinense</i>	Annual	Tall	Unassisted	NO
<i>Polygonum multiflorum</i>	Perennial	Linana	Animal+Wind	NO
<i>Coix lacrymajobi</i>	Annual	Dwarf	Unassisted	NO
<i>Epipremnum aureum</i>	Perennial	Linana	Unassisted	NO