**Urban Plant Diversity in Relation to Land Use Types in the Built-up Areas of Beijing**

GUO Peipei1, SU Yuebo1, WAN Wuxing2, LIU Weiwei1, ZHANG Hongxing3, SUN Xu3, OUYANG Zhiyun1, WANG Xiaoke1, 3

(1.*State Key Laboratory of Urban and Regional Ecology*, *Research Center for Eco-Environmental Sciences*, *Chinese Academy of Sciences*, *Beijing* 100085, *China*; 2.*College of Life Science*, *Hebei Normal University*, *Shijiazhuang* 050016, *China*; 3. *Beijing Urban Ecosystem Research Station*, *Research Center for Eco-Environmental Sciences*, *Chinese Academy of Sciences*, *Beijing* 100085, *China*)

**Appendix** List of woody plant taxa in Beijing built-up areas

|  |  |  |  |
| --- | --- | --- | --- |
| Family | Latin name | Origin | Life form |
| Aceraceae | *Acer mono* Maxim | N | DBT |
|  | *Acer truncatum* Bunge | N | DBT |
|  | *Acer palmatum* | N | DBT |
| Anacardiaceae | *Cotinus coggygria* var.*pubescens* | N | DBS |
|  | *Rhus typhina* Nutt | E | DBT |
| Apocynaceae | *Nerium indicum*  Mill. | E | EBS |
| Araliaceae | *Schefflera octophylla*(Lour.) Harms | EN | ECT |
| Berberidaceae | *Berberis thunbergii*var.*atropurpurea* Chenault | E | DBS |
| Bignoniaceae | *Campsis grandiflora* (Thunb.) Schum. | N | DLL |
|  | *Catalpa speciosa* | E | DBT |
| Bombacaceae | *Pachira glabra*Pasq. | E | ECT |
| Buxaceae | *Buxus bodinieri* Levl. | EN | EBS |
|  | *Buxus sinica* (Rehd. et Wils.) Cheng  | EN | EBS |
|  | *Buxus megistophylla* H. Lév. | EN | EBS |
| Caprifoliaceae | *Lonicera maackii*(Rupr.)Maxim. | N | DBS |
|  | *Sambucus williamsii* | N | DBS |
|  | *Viburnum dilatatum* Thunb. | N | DBS |
|  | *Viburnum opulus* Linn. var. *calvescens* | N | DBS |
|  | *Weigela florida* (Bunge) A. DC. | N | DBS |
| Celastraceae | *Buxus megistophylla* Levl. | E | EBS |
|  | *Euonymus alatus* (Thunb.) Sieb | EN | DBT |
|  | *Euonymus bungeanus* Maxim. | N | DBT |
|  | *Euonymus japonicus* Thunb. | E | EBS |
|  | *Euonymus japanicus* var. *aureomarginata* Regel. | EN | EBS |
|  | *Euonymus kiautschovicus* | EN | DBS |
| Cornaceae | *Cornus officinalis* Sieb. et Zucc. | EN | DBS |
|  | *Swida alba*Opiz | N | DBS |
|  | *Swida walteri* (Wanger.) Sojak | EN | DBT |
| Cupressaceae | *Juniperus formosana* Hayata | EN | ECT |
|  | *Platycladus orientalis* (L.) Franco | N | ECT |
|  | *Platycladus orientalis* (L.) Franco 'Sieboldii' | N | ECT |
|  | *Sabina chinensis* (L.) Ant. | EN | ECT |
|  | *Sabina chinensis* (L.) Ant. cv. Kaizuca | N | ECT |
|  | *Sabina procumbens* (Endl.) Iwata et Kusaka | E | ECS |
|  | *Sabina vulgaris* | E | ECS |
| Ebenaceae | *Diospyros kaki* Thunb. | N | DBT |
|  | *Diospyros lotus* L. | N | DBT |
| Eucommiaceae | *Eucommia ulmoides* Oliver | EN | DBT |
|  | *Leptopus chinensis* (Bunge) Pojark. | N | DBS |
| Fagaceae | *Castanea mollissima* BL. | N | DBT |
|  | *Quercus variabilis* Bl. | N | DBT |
| Ginkgoaceae | *Ginkgo biloba* L. | EN | DBT |
| Hippocastanaceae | *Aesculus chinensis* Bunge | EN | DBT |
| Juglandaceae | *Juglans regia* L. | EN | DBT |
|  | *Pterocarya stenoptera* C. DC. | EN | DBT |
| Leguminosae | *Albizia julibrissin* Durazz. | EN | DBT |
|  | *Amorpha fruticosa* L. | E | DBS |
|  | *Cercis chinensis* Bunge | EN | DBS |
|  | *Gleditsia sinensis* | N | DBT |
|  | *Lespedeza bicolor* Turcz | N | DBS |
|  | *Robinia pseudoacacia* Linn.  | E | DBT |
|  | *Sophora japonica* f.oligophylla | N | DBT |
|  | *Sophora japonica* Linn. var. *japonica* f. pendula Hort. | N | DBT |
|  | *Sophora japonica*Linn. | N | DBT |
|  | *Wisteria sinensis* (Sims)Sweet | EN | DLL |
| Lythraceae | *Lagerstroemia indica* L. | EN | DBS |
| Magnoliaceae | *Liriodendron chinense* (Hemsl.) Sarg. | EN | DBT |
|  | *Magnolia biondii* Pamp. | EN | DBT |
|  | *Magnolia denudata* Desr. | EN | DBT |
|  | *Magnolia Grandiflora* Linn. | E | ECT |
|  | *Magnolia liliflora* Desr. | EN | DBT |
| Moraceae | *Broussonetia papyrifera* (Linn.) L'Hér. ex Vent. | N | DBT |
|  | *Ficus elastica* Roxb. ex Hornem. | E | ECT |
|  | *Morus alba* L. | N | DBT |
| Malvaceae | *Hibiscus mutabilis* Linn | EN | DBS |
|  | *Hibiscus syriacus*  Linn. | EN | DBS |
| Meliaceae | *Toona sinensis* (A. Juss.) Roem. | EN | DBT |
| Oleaceae | *Chionanthus retusus* Lindl. & Paxton | N | DBS |
|  | *Forsythia suspensa* | N | DBS |
|  | *Forsythia viridissima* Lindl. | EN | DBS |
|  | *Fraxinus chinensis* Roxb. | N | DBT |
|  | *Fraxinus rhynchophylla* | N | DBT |
|  | *Fraxinus bungeana* DC. | N | DBT |
|  | *Jasminum nudiflorum*Lindl. | E | DBS |
|  | *Ligustrum vicaryi* | E | DBS |
|  | *Syringa reticulata* (Bl.)Hara var. *Mandshurica* (Maxim.) Hara (S. Amurensis Rupr.) | N | DBT |
|  | *Syringa oblata* Lindl. | N | DBT |
| Paeoniaceae | *Paeonia lactiflora* Pall. | N | DBS |
|  | *Paeonia suffruticosa*Andrews | EN | DBS |
| Pinaceae | *Cedrus deodara* (Roxb.) G. Don | E | ECT |
|  | *Picea asperata* Mast. | EN | ECT |
|  | *Picea meyeri*Rehd. et Wils.  | N | ECT |
|  | *Picea wilsonii* Mast. | N | ECT |
|  | *Pinus armandii*Franch | EN | ECT |
|  | *Pinus bungeana* Zucc. | EN | ECT |
|  | *Pinus koraiensis* Sieb. et Zucc. | EN | ECT |
|  | *Pinus parviflora* Siebold et Zuccarini | E | ECT |
|  | *Pinus tabulaeformis* Carr. | N | ECT |
| Platanaceae | *Platanus occidentalis* L. | E | DBT |
|  | *Platanus orientalis*Linn. | E | DBT |
|  | *Platanus acerifolia* Willd. | E | DBT |
| Punicaceae | *Punica granatum* L. | E | DBT |
| Rhamnaceae | *Ziziphus jujuba* Mill. | N | DBT |
| Rosaceae | *Amygdalus persica* L. var. *persica* f. duplex Rehd. | N | DBT |
|  | *Amygdalus triloba* | N | DBS |
|  | *Amygdalus davidiana*(Carrière) de Vos ex Henry | N | DBT |
|  | *Armeniaca vulgaris* Lam. | N | DBT |
|  | *Cerasus pseudocerasus* G. Don | N | DBT |
|  | *Cerasus tomentosa*(Thunb.) Wall. | N | DBS |
|  | *Chaenomeles speciosa* (Sweet) Nakai | EN | DBS |
|  | *Cotoneaster horizontalis* | EN | DBS |
|  | *Crataegus pinnatifida* var. *major* N. E. Brown | N | DBT |
|  | *Kerria japonica* | EN | DBS |
|  | *Malus baccata* (Linn.) Borkh. | EN | DBT |
|  | *Malus micromalus* Makino | EN | DBT |
|  | *Malus spectabilis* | EN | DBT |
|  | *Malus domestica* | E | DBT |
|  | *Prunus cerasifera* Ehrhar f. atropurpurea (Jacq.) Rehd. | EN | DBT |
|  | *Prunus salicina* Lindl. | EN | DBT |
|  | *Prunus serrulata* var. *lannesiana* | E | DBT |
|  | *Pyrus spp* | N | DBT |
|  | *Rosa chinensis* Jacq. | N | DBS |
|  | *Rosa hybrida* | N | DBS |
|  | *Rosa xanthina* Lindl. | N | DBS |
|  | *Sorbaria sorbifolia* (L.) A. Br. | EN | DBS |
|  | *Spiraea fritschiana* Schneid. var. *fritschiana* | EN | DBS |
|  | *Spiraea trilobata* L. var. *trilobata* | EN | DBS |
| Rutaceae | *Phellodendron amurense* Rupr. | N | DBT |
|  | *Poncirus trifoliata* (L.) Raf | EN | DBT |
|  | *Zanthoxylum bungeanum* Maxim. | EN | DBS |
| Salicaceae | *Populus* × *canadensis* Moench | E | DBT |
|  | *Populus alba* L. var. *pyramidalis* Bunge | EN | DBT |
|  | *Populus davidiana* | N | DBT |
|  | *Populus nigra* var. *italica* (Moench) Koehne | E | DBT |
|  | *Populus tomentosa* Carrière | N | DBT |
|  | *Salix babylonica* | N | DBT |
|  | *Salix matsudana* Koidz. f. | EN | DBT |
|  | *Salix matsudana* Koidz.  | N | DBT |
| Sapindaceae | *Koelreuteria integrifoliola* | N | DBT |
|  | *Koelreuteria paniculata* Laxm. | N | DBT |
|  | *Sapindus mukorossi* Gaertn. | EN | DBT |
| Saxifragaceae | *Deutzia crenata* Siebold & Zucc. | N | DBS |
|  | *Philadelphus incanus* Koehne | EN | DBS |
|  | *Philadelphus pekinensis* Rupr. | N | DBS |
|  | *Ribes nigrum*  L. | E | DBS |
| Scrophulariaceae | *Paulownia tomentosa* (Thunb.) Steud. | EN | DBT |
| Simaroubaceae | *Ailanthus altissima* (Mill.) Swingle | N | DBT |
| Solanaceae | *Lycium barbarum* L. | N | DBS |
| Sterculiaceae | *Firmiana platanifolia* (L. f.) Marsili | EN | DBT |
| Taxaceae | *Taxus*  Linn. | EN | ECT |
| Taxodiaceae | *Metasequoia glyptostroboides* Hu et Cheng | EN | DCT |
| Tiliaceae | *Grewia biloba* G. Don | EN | DBS |
|  | *Tilia mongolica* | EN | DBT |
|  | *Tilia tuan* Szyszyl. | EN | DBT |
| Ulmaceae  | *Ulmus pumila* L. | N | DBT |
| Verbenaceae | *Caryopteris mongholica*Bunge | EN | DBS |
|  | *Clerodendrum trichotomum* Thunb. var.*trichotomum* | EN | DBS |
| 　 | *Vitex negundo* L. var. *heterophylla*(Franch.) Rehd. | N | DBS |

Notes: N: Native; EN: Extralimital native; E: Exotic; DBT: Deciduous broadleaf tree; DBS: Deciduous broadleaf shrub; ECT: Evergreen coniferous tree; EBS: Evergreen broadleaf shrub; ECS: Evergreen coniferous shrub; DLL: Deciduous ligneous liana; DCT: Deciduous coniferous tree