

Table S3: Ecological structures and definitions.

Ecological structure	Definition
Street greenery	“...vegetation that is integrated within the built environment, such as roadside trees (“street trees”), can provide valuable ecosystem services” (Richards & Edwards, 2017). Street greenery refers to ecological components that line city roads. Typical ecological street components include trees, green strips, and green pavements, as well as flowerbeds.
Parks	Urban parks are city “feature[s that] serve many functions as providers of passive and active recreation, environmental benefits, and wildlife habitat” (Solecki & Welch, 1995, p. 95). Parks can be found at the urban fringe or at central locations and include a vast amount of different characteristics such as playgrounds and -fields, camping areas, botanical gardens, and green and blue infrastructure (Cranz, 1982).
Gardens	Urban gardens are “private [owned or rented] spaces adjacent to or surrounding dwellings, which may variously comprise lawns, ornamental and vegetable plots, ponds, paths, patios, and temporary buildings such as sheds and greenhouses”, forming a “complex and heterogeneous mosaic” in urban landscapes (Cameron et al., 2012; Loram, Tratalos, Warren, & Gaston, 2007, p. 602).
Green walls	“Vertical greenery is greenery where plants can be grown on, up or against internal or external walls of buildings or as freestanding structures” (Mansor, Zakariya, Harun, & Bakar, 2017)
Rooftops	Green or living roofs consist of a growing medium and vegetation layer, over engineered roof membranes, and can be divided into 'intensive' and 'extensive' types depending on depth of substrate, vegetation type, and primary purpose (Oberndorfer et al., 2007, p. 824).
Grassland	“Urban grasslands are ecosystems dominated by turf-forming” (Groffman, 2013) native and non-native species. Grasslands can be managed or unmanaged but mostly share characteristics of unmown, ungrazed, unirrigated, open land patches (Groffman, 2013; Hinners, Kearns, & Wessman, 2012)
Cultivated land	Urban cultivated land refers to professional farming activities in urban and peri-urban areas (Mougeot, 2000) as well as residents engaged with farming activities in allotment gardens (Sharp & Smith, 2003). (2014), Opitz et al. (2016), Specht et al. (2013) and Ayambire et al. “The Food and Agricultural Organization (2003) defines urban agriculture as any production in the home or plots in an urban area” (Azunre et al., 2019).
Urban forests	A forest is an area of land greater than 0.5 ha dominated by trees higher than 5 meters (FAO, 2000). Conceptually, we may think of the urban forest either as a forest within the city or a forest upon which a city relies. To some, urban forests are the aggregation of woody parts, a collection of isolated trees within the urban landscape (Carlisle, Pevzner, & Piana, 2014).
Coastal land	Coastal areas are “part of the land adjoining or near the sea” (Oxford Dictionaries, n.d.). Cities in coastal zones are very vulnerable socio-

	ecological systems that are pressured by increasing damages of natural disasters which also results from the insufficient placement of ecological infrastructure (Costanza & Farley, 2007).
Lakes	A lake is a “relatively large [temporary] body of slowly moving or standing water that occupies an inland basin of appreciable size” (Lane, 2013). Urban lakes can be natural (referred to as ‘indigenous blue infrastructure’ (Deak & Bucht, 2011)) but are often artificially created.
Rivers	Rivers are “natural watercourses, flowing over the surface in extended hollow formations [and are] critical components of the hydrological cycle, acting as drainage channels for surface water” (Hebert, 2013)
Wetlands	Wetlands are areas that are “inundated or saturated by surface water or groundwater with vegetation adapted for life under those soil conditions” (State of Florida, 2011). Urban wetlands include natural or artificial constructed forms and often function as a buffer for city contaminated runoff (Gilbert, Fulthorpe, & Kirkwood, 2012). Mangrove forests are included in this classification.

References:

- Azunre, G. A., Amponsah, O., Peprah, C., Takyi, S. A., & Braimah, I. (2019). A review of the role of urban agriculture in the sustainable city discourse. *Cities*, 93, 104–119. <https://doi.org/10.1016/j.cities.2019.04.006>
- Cameron, R. W. F., Blanuša, T., Taylor, J. E., Salisbury, A., Halstead, A. J., Henricot, B., & Thompson, K. (2012). The domestic garden – Its contribution to urban green infrastructure. *Urban Forestry & Urban Greening*, 11(2), 129–137. <https://doi.org/10.1016/j.ufug.2012.01.002>
- Carlisle, S., Pevzner, N., & Piana, M. (2014). Introduction: Building the Urban Forest. *SCENARIO*. Retrieved from <https://scenariojournal.com/article/building-the-urban-forest/>
- Costanza, R., & Farley, J. (2007). Ecological economics of coastal disasters: Introduction to the special issue. *Ecological Economics*, 63(2–3), 249–253. <https://doi.org/10.1016/j.ecolecon.2007.03.002>
- Cranz, G. (1982). *The Politics of Park Design*. Cambridge: The MIT Press.
- Deak, J., & Bucht, E. (2011). Planning for climate change: the role of indigenous blue infrastructure, with a case study in Sweden. *Town Planning Review*, 82(6), 669–685. <https://doi.org/10.3828/tpr.2011.38>
- FAO. (2000). *FRA 2000 Main Report*.
- Gilbert, N., Fulthorpe, R., & Kirkwood, A. E. (2012). Microbial diversity, tolerance, and biodegradation potential of urban wetlands with different input regimes. *Canadian Journal of Microbiology*, 58(7), 887–897.
- Groffman, P. (2013). Urban grasslands.
- Hebert, P. D. N. (2013). River.
- Hinners, S. J., Kearns, C. a, & Wessman, C. a. (2012). Roles of scale, matrix, and native habitat in supporting a diverse suburban pollinator assemblage. *Ecological Applications : A Publication of the Ecological Society of America*, 22(7), 1923–1935.
- Lane, R. K. (2013). Lake.
- Loram, A., Tratalos, J., Warren, P. H., & Gaston, K. J. (2007). Urban domestic gardens (X): The extent & structure of the resource in five major cities. *Landscape Ecology*, 22(4), 601–615.
- Luederitz, C., Brink, E., Gralla, F., Hermelingmeier, V., Meyer, M., Niven, L., ... Von Wehrden, H. (2015). A review of urban ecosystem services: six key challenges for future research. *Ecosystem*

- Services*, 14, 98–112. <https://doi.org/10.1016/j.ecoser.2015.05.001>
- Mansor, M., Zakariya, K., Harun, N. Z., & Bakar, N. I. A. (2017). Appreciation of vertical greenery in a city as public art. *Planning Malaysia*, 15(1), 117–128. <https://doi.org/10.21837/pmjournal.v15.i6.227>
- Mougeot, L. J. A. (2000). Urban agriculture: Definition, presence, potentials and risks. In N. Bakker, M. Dubbeling, S. Guendel, U. Sabel-Koschella, & H. de Zeeuw (Eds.), *Growing Cities, Growing Food: Urban Agriculture on the Policy Agenda* (pp. 1–42). Feldafing, Germany: German Foundation for International Development.
- Oberndorfer, E., Lundholm, J., Bass, B., Coffman, R. R., Doshi, H., Dunnett, N., ... Rowe, B. (2007). Green roofs as urban ecosystems: Ecological structures, functions, and services. *BioScience*, 57(10), 823–833.
- Oxford Dictionaries. (n.d.). Coast.
- Richards, D. R., & Edwards, P. J. (2017). Quantifying street tree regulating ecosystem services using Google Street View. *Ecological Indicators*, 77, 31–40. <https://doi.org/10.1016/j.ecolind.2017.01.028>
- Sharp, J. ., & Smith, M. . (2003). Social capital and farming at the rural–urban interface: the importance of nonfarmer and farmer relations. *Agricultural Systems*, 76(3), 913–927. [https://doi.org/10.1016/S0883-2927\(02\)00083-5](https://doi.org/10.1016/S0883-2927(02)00083-5)
- Solecki, W., & Welch, J. (1995). Urban parks: green spaces or green walls? *Landscape and Urban Planning*, 32, 93–106.
- State of Florida. (2011). Department of Environmental Protection State of Florida Glossary.