

Spontaneous Urban Vegetation

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1. The Taxonomy of Urban Landscapes

Native (Natural) Landscapes

Remnant patches of natural woodlands and wetlands persisting from the times of early settlement; they are dominated by native plants on relatively undisturbed soils with low to moderate maintenance requirements.

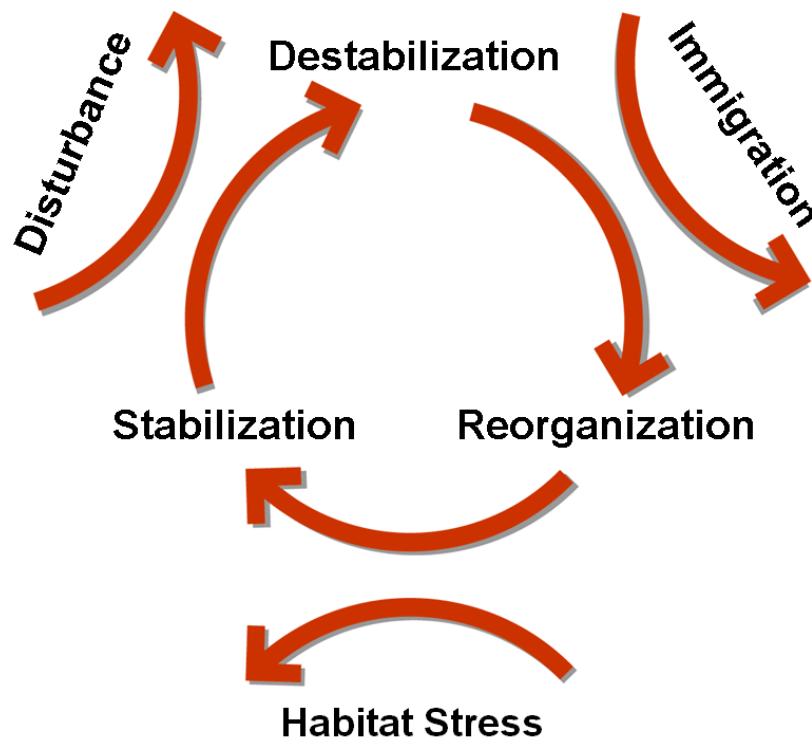
Managed (Functional) Urban Landscapes

Parks, estates, lawns, ball fields, street trees, residential and commercial landscapes; they are dominated by cultivated (horticultural) plants on relatively rich (often manufactured) soils with moderate to intensive maintenance requirements.

Ruderal (Adaptive) Urban Landscapes

Post-industrial land, vacant lots, infrastructure and roadway edges, degraded wetlands and woodlands; they are dominated by spontaneous (weedy) plants on compacted or fill soils with zero maintenance requirements.

2. The drivers of the succession cycle in the urban environment



3. Urban Habitats

The following is a list of the different types of habitats in the urban environment. Most of them are associated with sites where buildings or infrastructure are currently located, or where they were formerly located but are now empty.

- **trampled lawns** in public parks (mowed periodically)
- **neglected ornamental landscapes** (residential, commercial and public)
- **vacant lots and waste dumps**
- **urban meadows** (abandoned lawns)
- **emergent woodlands and thickets** that develop on bare ground
- **freshwater wetlands, ponds and streams**
- **riverbanks**
- **brackish marshes**
- **small pavement openings and sidewalk cracks**
- **chain-link fences** lines
- **rock outcrops and stone walls**
- compacted soil along **walkways and roadways**
- **unmowed highway banks**
- **railroad tracks** with ballast substrate
- **alleyways** in perpetual shade

4. Ecological Functions of Spontaneous Urban Vegetation

The following is a list of the ways in which plants contribute to making the urban environment more livable for its human inhabitants. In terms of such “ecosystem services,” woody plants and long-lived perennials make the most significant contributions to human welfare, while annuals and biennials typically contribute less.

- **nutrient absorption** in wetlands
- **heat reduction** in paved areas
- **tolerance of inhospitable soils** (e.g. road salt & compaction)
- **food and/or habitat** for wildlife
- **erosion control** on slopes
- stream and river **bank stabilization**
- **soil building** on degraded land
- **phytoremediation** of contaminated soils
- **disturbance-adapted** colonizer of bare ground
- **carbon fixation** and sequestration (all plants do this)
- **oxygen production** (all plants do this too)