

Types of biodiversity: **Genetic** diversity indicates differences within a species.

Humans are not clones and our diversity allows our species as a whole to be stronger and to survive diseases and other challenges.

Species biodiversity reflects the different kinds of species in a habitat or region, from bacteria and fungi to plants and animals.

An **ecosystem** is a community of living organisms linked together through nutrient cycles and energy flows, also known as the food chain. The third type of biodiversity is **Ecosystem** diversity, which is the measure of all of the different habitats, biological communities, and ecological processes, as well as the variation within individual ecosystems, and how these interact with one another to provide the vital components to their survival.

Top threats to biodiversity: Pollution, deforestation, habitat loss, non-native species, and climate change.

Best ways Somerville can help: wetland restoration along the Mystic; replant the GLX corridor with native trees and plants; remove invasive plants like Japanese knotweed, Black swallow wort, and Norway maples that are taking over our landscapes from plants that are part of a healthy ecosystem; build intentional habitat for top predators, like owls and raptors, to keep rats in check; plant genetically biodiverse native plants.

Native plants have evolved in concert with soils, climate, fauna, and other members of the plant community. This process of adaptation and evolution is ongoing and helps to perpetuate species even as conditions change. Both native and non-native trees and plants share qualities that benefit their environment and humans: cool the air, sequester carbon, process stormwater, and are beautiful. But non-natives do not do their part to maintain a balanced environment.

Local groups to reach out to for help:

Earthwise Aware

Grow Native

Garden in the Woods

Somerville Conservation Commission (City Nature Challenge)

Green & Open Somerville

Native Plants of New England facebook group

Somerville Community Growing Center