

## BIODIVERSITY (2023)



### Policy Statement

The American Society of Landscape Architects (ASLA) believes the biodiversity of ecosystems and all living species are essential for the health and welfare of our communities and our planet.

ASLA supports the protection, restoration, and enhancement of biodiversity through:

- Protecting threatened and endangered species and their habitats
- Establishing protected areas that reconnect critical habitats and restore natural migration corridors
- Facilitating the restoration of wetlands and other critical habitats
- Promoting the use of native plant species and eliminating invasive species
- Creating nature-based infrastructure that supports biodiverse habitat and ecosystem services
- Designing spaces to provide ecosystem services—such as clean air and water, carbon sequestration, and wildlife habitat—that improve biodiversity

### Justification

Landscape architects ensure ecosystems are healthy, resilient, and able to provide essential ecosystem services for future generations. The profession utilizes design practices that protect and restore biodiversity, contributing to the health, safety and welfare of our communities. In addition, landscape architects lead the design and planning of new green spaces—including campuses, transportation corridors, open spaces, and green infrastructure—that provide habitat for wildlife and improve the health of ecosystems.

Landscape architects play a critical role in protecting and restoring land, wetlands, coastal zones, and marine habitats that support biodiversity. Landscape architects think holistically about the functionality and aesthetics of design to prioritize and promote biodiversity. This requires a unique combination of ecological knowledge, technical skill, analytical reason, aesthetic judgment, and partnerships with ecologists, biologists and other technical experts. Landscape architects are licensed to implement these skills through planning and design and management to promote biodiversity as an outcome that serves all populations and habitats.

### Issue

Human activities have already significantly altered three-quarters of land-based environments. As a result, the majority of native populations in land-based habitats have fallen at least [20% since the 1900s](#). According to the World Wildlife Fund's [2022 Living Planet Report](#), as habitats degrade there has been a 69% average decline in the population sizes of mammals, birds, amphibians, reptiles, and fish between 1970 and 2016. The harms resulting from this human-caused biodiversity loss accumulate to ultimately harm communities.

In contrast, the benefits resulting from biodiversity conservation accumulate to serve communities and economies. [The U.S. Environmental Protection Agency states](#) that biodiversity supports food security, advancements in modern medicine, mental wellness, economic activity related to tourism and recreation, and other spiritual and cultural practices that communities rely on. Healthy ecosystems additionally provide climate regulation, a supply of clean air and water, and hazard mitigation.



Based on these and other ecosystem services, the [World Economic Forum reported](#) that \$2.1 trillion of the U.S. GDP is moderately or highly dependent on nature. Rural economies are especially tied to nature, as national wildlife refuges produce an economic impact of roughly [\\$3.2 billion](#) for local communities. In 2023, [federal agencies were issued initial guidance](#) on accounting for ecosystem services in their cost-benefit analyses. It is clear that economic prosperity depends largely on conserving biodiversity.

Major causes of biodiversity loss are fragmentation of habitat, pollution, overharvesting of resources, climate change, and invasive species, all of which negatively impact human health, safety, and welfare.

## Resources

World Economic Forum

<https://www.weforum.org/reports/new-nature-economy-report-series/>

U.N. Environment Program and Biodiversity

<https://www.unep.org/unep-and-biodiversity>

biodiverCITIES:

[https://icleicanada.org/wp-content/uploads/2019/05/BiodiverCITIES-Handbook\\_Final.p](https://icleicanada.org/wp-content/uploads/2019/05/BiodiverCITIES-Handbook_Final.p)

U.N. Convention on Biological Diversity

<https://www.cbd.int/>

White House report - Opportunities to Accelerate Nature-Based Solutions, November 2022 <https://www.whitehouse.gov/wp-content/uploads/2022/11/Nature-Based-Solutions-Roadmap.pdf>

Fire and biodiversity in the Anthropocene, 2020

<https://www.fs.usda.gov/research/treesearch/61591>

University of Michigan Biodiversity Factsheet

<https://css.umich.edu/publications/factsheets/sustainability-indicators/biodiversity-factsheet>

“The Past as a Lens for Biodiversity Conservation on a Dynamically Changing Planet,” February 6, 2023

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9963216/>

“2022 Living Planet Report,” World Wildlife Fund

<https://livingplanet.panda.org/en-US/>

Environmental Protection Agency

<https://www.epa.gov/enviroatlas/enviroatlas-benefit-category-biodiversity-conservation>

U.N. Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Global Assessment Report on Biodiversity and Ecosystem

<https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/>



**Interrelated Policies**

Invasive Species  
Transgenic Plants  
Vegetation in the Built Environment  
Wildlife and Wildlife Habitat  
Rural Landscapes  
Environmental Sustainability  
Outdoor Lighting  
Public Lands  
Climate Change