

# BIODIVERSITY ASSESSMENT AND ACTION PLAN



## PROJECT DESCRIPTION

Evaluate the biodiversity of plants on campus and draft a plan to increase existing biodiversity. Biological diversity plays a critical role in maintaining ecosystems that provide essential services, which are critical foundations for sustainable development and human well-being. Documenting and improving biodiversity on campus will foster ecosystem health and create a beautiful, safe outside space for all.

## PROJECT UPDATES

One MS student in Sustainable Engineering has completed their Master's thesis on this topic and a current student will continue this research.

## PROJECT OUTCOMES

- Increase proportion of native plant species
- Decrease the proportion of alien or invasive plant species
- Create synergies with the biosphere to reduce pollutant concentrations

## AFFECTED METRICS



Metric	Metric Description	2021 Key Result
14.4	Average efficiency of green and best management practice (BMP) infrastructure in terms of reducing pollutant loads. This includes raingardens, constructed wetlands, and green roofs.	Assess the load of pollutants in Villanova's runoff.
15.1	Carbon sequestered per year by Villanova's campus ecosystem.	Measure the total mass of carbon captured by biomass on campus.
15.2	Portion of campus considered Green space and/or covered by trees. Includes green roofs.	Develop a comprehensive report of Villanova's campus biodiversity.
15.3	Proportion of campus biosphere considered to be an alien or invasive species.	
15.4	Percentage of campus managed under sustainable landscape management practices or an equivalent third party certification.	