

West Virginia University The Student Assembly - Student Government Association Assembly Resolution: AR-2022-08-02 AN ASSEMBLY RESOLUTION TO SUPPORT POLLINATOR AND BIODIVERSITY ENHANCING LANDSCAPING ON CAMPUS

Short Title:	Pollinator/Biodiverse/Functional Landscaping
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Committee Endorsement:	Sustainability Committee
First Reading Date:	10/19/2022
Second Reading Date:	10/26/2022
Date of Approval:	10/26/2022
Presidential Signature:	the D. Hernandy

Whereas, the West Virginia University Student Government Association mission statement reads, "We, the students of West Virginia University, desire to preserve within our University an atmosphere of open exchange of ideas with discussion"; and,

Whereas, current university-wide landscaping practices favor conformity rather than biodiversity, containing species considered invasive, and lack the wide scale use of native plant species within campus plantings, which are needed to provide sufficient



habitat for our native species; and,

Whereas, invasive species such as Japanese Barberry (Berberis *thunbergii*) pose a threat not only to local and regional environments, but also pose a health risk to students by providing an ideal habitat for deer tick populations to shelter from changing environmental conditions. These plants are not favored by campus maintenance with the Campus Roads and Grounds Director James Mirage saying "we don't like taking care of the invasive plants on campus...they have sharp spines that make it difficult to maintain," in reference to barberry specifically; and,

Whereas, many insect species are highly specific when it comes to the plants they need in order breed; requiring native "host plants" in order for them to develop and survive, which range from herbaceous plants to large trees; and,

Whereas, changing traditional landscaping to native plants will require less maintenance, fertilizer, and general care, where "the combined costs of installation and maintenance for natural landscapes over a ten year period may be one fifth of the costs for conventional landscape maintenance" (EPA)¹, saving the university money; and,

Whereas, the incorporation of native plant species on areas that are more difficult to maintain for grounds personnel will significantly reduce the work needed to maintain these areas, increase erosion control on steep slopes, and help to cut the university's costs when it comes to the time and materials needed to maintain these spaces, with James Mirage saying, "they have considered putting in pollinator gardens in these hard to reach spaces" for these exact reasons; and,

Whereas, there are many certification programs such as Monarch Watch, Bee Campus USA, Certified Wildlife Habitat Program, Certified NABA Butterfly Garden Program, and the Campus Pollinator Pledge that this university could qualify for it if there was a change to the plants used in existing and new landscaping projects going forward; and,

Whereas, many colleges and universities across the country and locally have started the process of changing their current landscaping to plants that are native to their regions. These colleges and universities include Marshall University, Goshen College, University of Southern California, University of Texas, Grinnell College, Cornell

¹ <u>https://archive.epa.gov/greenacres/web/html/chap2.html</u>



University, University of Delaware, Clemson University, Virginia Tech, University of Pittsburgh, Chatham University, Junita College, University of Virginia, Georgetown University, and many others ; and,

Whereas, if we change and certify our landscapes, West Virginia University will be the first college in the state of West Virginia to do so, showing that as Mountaineers we always "go first".

Therefore, be it resolved by the Student Assembly of West Virginia University:

Section 1: The Department of Roads and Grounds and The Department of Facilities Maintenance and Planning should consider removing invasive species from the university's landscapes, replacing them with plants that are native to this region and helpful for local biodiversity to thrive.

Section 2: The Department of Roads and Grounds and The Department of Facilities Maintenance and Planning should consider adopting a policy which requires that native species are preferred over the use of non-native plants when designing and constructing new landscaping projects on campus, preferably host plants for different lepidoptera species².

Section 3: The Department of Roads and Grounds and The Department of Facilities Maintenance and Planning should consider, when practical, consulting with multiple departments such as entomology, horticulture, biology, etc. when considering new landscaping projects so that campus landscaping can become a functional outdoor classroom that benefits student's learning experience.

Section 4: The Department of Roads and Grounds and The Department of Facilities Maintenance and Planning should consider, when practical, collaborating with relevant student organizations when planning new landscaping projects on campus so that the campus landscapes have direct input from students.

Section 5: Upon passage and approval, this legislation shall be forwarded to the following:

² https://wvdnr.gov/wp-content/uploads/2021/05/WYbutter.pdf



Mandates:

James Mirage, Director for Roads and Grounds Traci Knabenshue, Director, The Office of Sustainability James Kosik, Associate VP, Facilities Management Rob Alsop, Vice President, Strategic Initiatives Ted Svehlik, Associate Vice President, Auxiliary and Business Services Sven Verlinden, Director, Plant and Soil Sciences G. Corey Farris, Dean of Students Sabrina Cave, Executive Director, Student Enrichment Dr. Thanh Le, Director, Student Engagement and Leadership (Advisor) Chloe Hernandez, Student Body President Morgan Donate, Executive Secretary Daily Athenaeum



West Virginia University The Student Assembly - Student Government Association Assembly Resolution: AR-2022-08-02 APPENDIX

Invasive Species

The purpose of this section is to provide information about the aforementioned species within the legislation and provide more general information about invasive species.

- Invasive Species | National Wildlife Federation
- https://academic.oup.com/ee/article/38/4/977/491284
- West Virginia Invasive Plants.pdf
- a. Native vs. Non-Native vs. Invasive Species
- <u>What is the Difference Between Native, Non-native, and Invasive Plants?</u> <u>Audubon</u>
- Native, Invasive, and Other Plant-Related Definitions | NRCS Connecticut

Plant Selection

The purpose of this section is to provide information regarding the importance of careful consideration when choosing the plant species that are used in a landscape. If the landscapes are going to benefit biodiversity just including native plants will help, but if you choose a type of plant that is the host of certain species there will be a greater impact.

- a. Host Plants
- Coevolution of Lepidoptera and their host plants: The Salient Aroma Hypothesis
- Butterfly Gardening
- Host Plants for Butterflies and Moths
- Dogbane Leaf Beetle Revisited (Family Chrysomelidae) Field Station.
- b. Monarch Butterfly
- Monarch-Butterflies-Eastern-US-brochure.pdf
- FINAL AppalachianPlantGuide Web (1).pdf
- FNN-Summer2014-PollinatorGardens.pdf
- c. West Virginia White
- <u>Garlic Mustard New River Gorge National Park and Preserve (U.S. National</u> <u>Park Service)</u>
- <u>https://www.leapbio.org/content/6-resources/7-west-virginia-white-butterfly/garl</u> <u>ic-mustard.pdf</u>
- Invasive Species Garlic Mustard | Western Pennsylvania Conservancy



Benefits of Native Landscapes

The purpose of this section is to show the benefits that come both ecologically and financially when pollinator landscapes are installed.

- a. General
- Roots of Native Plants Dyck Arboretum
- Greenacres: Landscaping with Native Plants | Great Lakes | US EPA
- b. Water Efficiency
- https://www.ernstseed.com/cost-effective-native-vegetation/
- Landscaping for Water Conservation | Department of Energy

Certifications/Programs

The purpose of this section is to show the different certifications that the university should consider applying for if landscapes are changed.

- Monarch Waystation Program
- Bee Campus USA Commitments
- <u>https://www.nwf.org/garden-for-wildlife/certify</u>
- Butterfly Garden Certification Program
- Campus Pollinator Pledge

Similar Programs Elsewhere

The purpose of this section is to show other programs at other universities and colleges across the nation. The programs range from simple gardens to wide scale changes. This shows that other universities across the country see this as an important issue.

- Butterfly Oasis Sustainability Department
- Native Prairie Project | Goshen College
- Native plants are growing again on USC's campus, thanks to students
- Campus saves water with native plants, landscaping design The Daily Texan
- Native Landscaping | Grinnell College
- Botanic Gardens Native Lawn | Sustainable Campus
- Native Garden UDBG
- <u>Sustainable Landscape Demonstration | College of Agriculture, Forestry and Life</u> <u>Sciences | Clemson University, South Carolina</u>
- Current Bee City USA Affiliates

General Information

The purpose of this section is to provide general information regarding pollinator



gardening, and designing landscapes for pollinator species.

- PollinatorBookletFinalrevWeb.pdf
- Gardening and Landscaping Practices for Nesting Native Bees.pdf
- AttractingPollinatorsEasternUS_V1.pdf
- NRCS West Virginia Pollinator Handbook
- <u>https://www.ernstseed.com/wp-content/uploads/2022/03/Ernst-Seeds 2022-20</u> 23-Catalog Reduced-Size.pdf