



## **George Mason University Fairfax, Virginia Curriculum**

### **SCHOOL**

George Mason University, in Fairfax County, Virginia, is a public four-year research institution. Current enrollment is over 32,000 headcount, with over 22,000 in full-time equivalent.

### **ABSTRACT**

In Spring 2012, a small apiary was established on George Mason University's (Mason) Fairfax campus for numerous purposes--for coursework observation involving various disciplines; for community and campus outreach and education; to demonstrate best practices in sustaining managed honey bee hives; and as a resource for landscape support and human food source sustainability. Funding was provided through Mason's Patriot Green Fund, augmented by community support and faculty support which proved vital to the establishment of this project. The Beekeepers Association of Northern Virginia sponsored two current students for a nine-week basic beekeeping class and provided all the study materials. These students will not only help in the apiary but will also present workshops and foster additional student interest in the project through specific outreach activities such as website development and instructional signage. Faculty, who hold concurrent positions at Mason and Environmental Studies on the Piedmont ("ES" - a private research, education and conservation organization), are mentors and are actively involved in selecting yard location, arrangement, and in hive management. The faculty mentors will also provide instruction and develop coursework.

### **GOALS AND OUTCOMES**

#### **Goals**

- 1) The initial goals were to gain acceptance for the project from the University's administration, find a location that was agreeable to all, and then establish the physical hard-goods for the project prior to March 2012.
- 2) Academic involvement is a critical component in this project's usefulness to the University. Faculty utilization for observation and later for direct instruction is imperative.
- 3) Increasing community interaction is one of the University's stated goals. This project has the potential for specific and indirect involvement from multiple communities and organizations.
- 4) Grounds improvement through natural bee-related activities will extend beyond the University's boundaries to the surrounding community area as the bee population becomes established and expands.
- 5) Expansion in years 2 and 3 will come in the form of additional faculty and student involvement, the acquisition of extraction equipment and dedicated storage and work space, and possibly the addition of another apiary area on campus.

6) It is anticipated that one of the University units will adopt the funding and management of the apiary.

### **Accomplishments and Outcomes**

1) All of the initial targets to establish the apiary were achieved, with just a bit of a delay as the bees were installed in May 2012.

2) At least 3 instructors have incorporated hive observation into their coursework for the Fall 2012 semester. We anticipate greater numbers will follow as the project gains exposure.

3) In addition to the local beekeepers groups that interact with the on-campus beekeepers and use the hives for instruction to other community members, nearby government officials have visited the apiary as an example of how urban beekeeping can be non-threatening and successful. In the coming months, representatives from youth groups (4-H, BSA, etc.) will be given an introduction to hive management.

4) Actual measuring of grounds improvement is subjective without sophisticated equipment, and would require long periods of photographic and detailed records. Hopefully, testimonials will come forward in the course of the next 2-3 years.

5) To increase opportunities for student and faculty involvement, specific course work is currently being designed to expand the utility of the yard and hives which we hope to be implemented no later than Spring 2014. Budgets are being fine-tuned that will specify future equipment needs, and the possibility of funding through directed donations is being explored. An additional apiary sight on a rooftop of a building under construction was suggested as an expansion possibility by University officials early on in the project, dependent on the build-out timeline.

6) Adoption by one of the University units is dependent on the success of goal 5.

It was necessary to implement a new protocol and policy process to integrate all University units as this project developed to acquire all necessary approvals.

Establishing and maintaining healthy honey bee hives in this urban area strengthens the local bee population, encourages genetic strength through a management system that avoids the use of any pesticides, and encourages the natural selection of the strongest strains of local bees.



### **Challenges and Responses**

In addition to scarce monetary resources and developing a new protocol, safe space for the project was an issue of concern. Initially, interest was slow in coming to University officials. However, once they understood the vision, support was given because of the multiple goals achievable through the project.

### **Campus Climate Action: Your School's Carbon Footprint**

It is hoped that through the direct proximity of bee hives as an additional pollinator source that the foliage and trees in the area will become even more lush and decrease the watering requirements for the nearby areas.

No “hard-scape” is required for the project – no concrete, etc., but instead naturalized soft landscaping is being provided by the University for beautification of the area surrounding the apiary using drought resistant and native plantings.

### **Commentary and Reflection**

People are interested in activities and projects that they can see year-round.

Beekeeping, and the usefulness for involvement in bee management, can be presented as simply (think hobby) or with as much academic detail as one can imagine (think research – as in science, communication, and medicine - or entrepreneurial applications locally or internationally, etc.) and crosses boundaries of age, gender, class, politics, and all community barriers.

Any time an effort helps tie people in their everyday lives to the land and the cycles that currently exist, that's education in its purest form. These efforts enhance our understanding and appreciation of the world we live in.

## **ENGAGEMENT AND SUPPORT**

### **Leaders and Supporters**

Encouragement from the University Sustainability Manager, Lenna Storm and the Sustainability Projects Specialist, Danielle Wyman, was key to the project's initiation. Also key was the support of the project by the deans of the colleges involved, Nance Lucas of New Century College and Jack Censer of the College of Humanities and Social Sciences, as they permitted efforts of personnel assigned to their respective units to act as principles in the project. Members of the grant reviewing committee (Office of Sustainability) saw the potential in the project and supported not only in concept but through funding. Personnel from the University Land and Building Committee were cautiously supportive, until won over by campus engineering planner Erik Backus who traveled with principles to an off-site visit where he became convinced of the workability of the concept on our campus. Erik, project principles and members of the BANV worked together to identify the best and most suitable locations for the apiary. All of the university units involved, Legal, Environmental Health and Safety, Risk Management, Public Safety, and even Parking, willingly let their support to the project in a timely fashion.

### **Funding and Resources**

The major source of monetary funds was Mason's Patriot Green Fund. Space was granted by George Mason University. Yard management personnel and the faculty instructor are provided without charge through Mason and ES.

### **Education and Community Outreach**

Each yard-work day draws visitors and passers-by. There are expressed interested groups as noted above in the accomplishments and outcomes section.

### **National Wildlife Federation's Campus Ecology Program**

We consulted the NWF Campus Ecology online Case Study database.

## **CONTACT INFORMATION**

### **Contacts**

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## **MORE ABOUT YOUR SCHOOL**

### **Campus Sustainability History**

In 2007, George Mason University's President Merten signed the American College and University Presidents' Climate Commitment which stated its commitment to being a climate neutral university by 2050 at the latest. The Office of Sustainability at George Mason University was formed to lead that initiative. Since then Mason has experienced incredible progress in its sustainability journey including an organic vegetable garden, its all-native plant demonstration garden, a commitment to constructing buildings to the LEED Silver standard, a commitment to sustainable dining practices, and a Faculty Fellow for Sustainable Studies out of the Office of the Provost. In 2012, George Mason University was awarded a Green Innovation Award from the Virginia Sustainable Building Network for Most Sustainable Community. Find out more about Mason's programs and activities at <http://green.gmu.edu>.

Image Credit: Alexis Glenn