15 November 2021

Ms. Crystal Boyd

Manager, Pollinator Programs

National Fish and Wildlife Foundation

1133 15th St., N.W., Ste. 1100

Washington, D.C., 20005

RE: Find Your Wings: in Support of the Charlie Miller Butterfly House at Lost River Cave

Dear Ms. Boyd:

Lost River Cave is requesting a sum of $4,933.12 to fund the Find Your Wings project on behalf of the park’s Charlie Miller Butterfly House. This project aims to fulfill all the maintenance, restoration, and administrative duties involved with opening the butterfly habitat for the 2022 season.

Butterflies are both a source of beauty and an important part of our ecosystem. Our habitat is a testament to that, as we install over a dozen species of native flora and host 4,200 pollinators of different local varieties each year. We carefully monitor each caterpillar and butterfly, ensuring a healthy metamorphosis and an enriching maturation period before we safely release them into the wild. In the meantime, park guests are welcome to visit the butterflies in the habitat, read our informational literature, and attend our educational programs.

Lost River Cave has remained a pillar of the Bowling Green community for centuries, with its rich history and various recreational opportunities. The Charlie Miller Butterfly House has added to that legacy since its establishment in 1997 by a group of individuals with a deep passion for conservation, preservation, and education. The park has been able to host this butterfly habitat every summer for nearly 25 years, opening its doors to thousands of tourists each season to marvel in the beauty and learn about the natural world, and the Find Your Wings project aims to continue this tradition.

We appreciate your consideration of our request and look forward to hearing back from you. If you have any questions while reviewing this proposal, I can be reached at (270) 393-0077. We at the Lost River Cave hope that you will consider partnering with us to make this opportunity possible for our Charlie Miller House to open its doors for another season and find its wings.

Cordially yours,

Mara Lowhorn

on behalf of Lost River Cave

2818 Nashville Rd.

Bowling Green, KY 42101

**Find Your Wings:**

*In Support of Lost River Cave’s Charlie Miller Butterfly House*

Submitted to: Monarch Butterfly and Pollinators Conservation Fund

Date: November 11, 2021

Amount Requested: $4,933.12

Submitted by: Mara Lowhorn

Lost River Cave

(270) 393-0077

mhlowhorn@gmail.com

2818 Nashville Rd.

Bowling Green, KY 42101

**Executive Summary**

The Charlie Miller Butterfly House at Lost River Cave has stood as a pillar of the Bowling Green community since its establishment in 1997. Having attracted thousands of visitors, it has effectively signified the founders’ mission of connecting people with nature through continual conservation, preservation, and education efforts. The attraction’s popularity has led to natural wear and tear on the habitat’s building that must be addressed before Lost River Cave begins preparing for the next butterfly season in 2022.

In order to get the habitat ready for visitors, general maintenance and restoration duties must be completed, such as cleaning the grounds, pruning the previous year’s leftover flora, and inspecting the structure for any possible safety concerns. Only after the habitat is deemed suitable and secure can we begin the annual task of stocking the exhibit with the projected number of plant varieties and caterpillar larvae.

Park maintenance employees will be responsible for the safety inspection and keeping everything regarding the stocking of plants and insects to the standards of the USDA Conservation Stewardship Program guidelines. Lost River Cave staff will be joined by enthusiasts from our various volunteer organizations; specifically, we will enlist members of the Volunteer Invasive Plant Initiative and the Pollen-Aiders Club, which help clear brush and replant pollen-rich plant varieties all across the park grounds.

Once the habitat is ready for opening day, our resident Nature Center Docent and Event Assistants will begin printing informational literature to share with park guests. They will also be responsible for the planning and promotion of butterfly season events and educational programming.

In order to reopen the habitat for its 25th season, Lost River Cave requests a sum of $4,933.12 to purchase materials for maintenance, stocking, and informational programming. This sum would help the habitat find its wings for the upcoming season.

**Organizational History**

The Find Your Wings project proposal is written on behalf of the Friends of Lost River non-profit organization. This group has been at the heart of Lost River Cave’s restoration, preservation, and conservation efforts over the last 30 years.

With a rich historical timeline that dates back to the prehistoric era, Lost River Valley has had strong ties with Native American tribes, early industrialism, and both Confederate and Union soldiers during the Civil War. The park was a popular venue for jazz artists during the mid-20th century, as countless musicians enjoyed the acoustics and naturally cool air within the cave. However, as time went on, and the development of highways led to less traffic and tourism to the Southern Kentucky area, and access to air conditioning became more common in buildings, the Historic Cavern Nightclub fell into disuse, and the Lost River Valley largely became a dumping ground.

In 1990, a group of Bowling Green locals with a passion for environmental conservation and historic preservation made it their mission to restore and revitalize Lost River Cave. They formed the Friends of Lost River organization and spent the better part of a decade cleaning the grounds and establishing their vision for the future of the park. It has always been their goal to promote conservation, “low-cost, nature-centered” education efforts, and the historic preservation of the land.

The Charlie Miller Butterfly House, established in 1997 and named after a local Junior Chamber Senate member who helped found the Friends of Lost River, represents the organization’s values and stands as the backbone of a nature-centered community. Additionally, by creating nature trails, paving a greenway, and building visitor sites such as the gift shop, and event venue/conference center, the Friends of Lost River effectively restored the land as well as its reputation as a tourist destination in Bowling Green.

Tourism to the area has been a steady source of funding for the park, but also, “preservation of the cave and conservation of the land provides long-term safety” for the park as a historic site, effectively saving it from becoming a shopping center, according to the park’s Executive Director Rho Lansden. An estimated 80,000 people visit Lost River Cave each year, partaking in the various amenities, activities, and events the park provides, including the Charlie Miller Butterfly House.

This includes approximately 4,000 children who visit on school field trips from all over the Kentucky commonwealth or surrounding states. According to Lansden, Lost River Cave is “the only organization within a 26-county area from Louisville over to Land Between the Lakes that provides nature-centered education for teachers and their students.” In addition to free educational programming, Lost River Cave also provides numerous walking trails, venue rentals, ziplining, underground cave and boat tours, and an indoor visitor center.

Lost River’s butterfly habitat has remained a popular and significant fixture of the park since its establishment over 20 years ago. The Charlie Miller Butterfly House is at the center of the Friends’ efforts toward tourism, conservation, and educational programming. The habitat consistently attracts people of all ages and draws thousands of visitors to educational programs and events like the Annual Butterfly Celebration each summer, and it has helped cement Lost River Cave as a popular ecotourist destination.

The Charlie Miller Butterfly House adds to the rich history of Lost River Cave, and it honors the hard work the Friends of Lost River put into revitalizing it. Through the years the habitat has helped to establish the park, and subsequently Bowling Green itself, as a community that prioritizes history, education, and nature.

**Statement of Need**

Since its establishment in 1997, Lost River Cave’s Charlie Miller Butterfly House has opened its doors to guests each summer from Memorial Day to Labor Day weekend, attracting butterfly enthusiasts and nature lovers from the Southern Kentucky region and beyond. Each year, Lost River Cave stocks the butterfly house with dozens of species of native, nutrient-rich flora and 4,200 caterpillars of various species and stages of germination. This ensures that the caterpillars will metamorphosize and find their wings at various times throughout the season -- approximately 300 every two weeks!

Over the years, Lost River Cave and the Bowling Green Parks Department have maintained the butterfly house each year with the intention of sparking and/or further developing the community’s interest in nature and the world around them. Butterflies are commonly seen as “beautiful, gentle, and generally are not feared,” and they often act as a sort of gateway bug for visitors interested in learning the value of insects to nature and to us as humans.

This eye-catching and colorful habitat provides an educational experience to all visitors with the display of informational literature and regular hands-on programming, opportunities through which guests of all ages can learn about butterflies’ life cycles, conservation efforts, and how to grow their own butterfly-attractant garden. Program founders consider every experience in the habitat “one that serves their mission to educate and enrich lives through connections with nature.”

The Charlie Miller House sees thousands of visitors, both butterfly and human, each year. The vast reach of this project has spelled success for the foundation’s mission statement; however, it has led to a fair amount of wear and tear to the building that houses the habitat. Before the beginning of the 2022 season, the habitat needs to be properly inspected and restored in order to prepare for the incoming wildlife. This includes cleaning the habitat and inspecting footpaths, the building’s mesh ceiling, and the weather-stripping around the doors for spots that may create safety issues for butterflies or guests.

Maintenance on the building must be completed in the spring to provide caterpillars, butterflies, and park visitors with a safe and enjoyable environment before the exhibit opens on Friday, May 27, 2022. We are striving to secure funding of $4,933.12 in order to make arrangements for the planning, restoration, stocking, and programming needed to maintain the habitat before the coming season and continue strengthening the relationship between nature and our community.

**Project Description**

The Find Your Wings project will restore and restock the Charlie Miller Butterfly House for the upcoming 2022 butterfly season in order to maintain the deep connection between Southern Kentuckians and the natural world. The habitat first opened in 1997 and has welcomed thousands of visitors through its doors in the years since.

Similar to past seasons, the bulk of our resources will go towards the purchasing of flora and fauna to fill the butterfly house. The procuring of such supplies will adhere to the USDA guidelines for establishing butterfly habitats under the Conservation Stewardship Program.

We will be purchasing 4,200 eggs and larvae from the Idlewild Butterfly Farm and Insectarium, a Louisville-based company that we have consistently done business with in the past. Regional species include the American Painted Lady, Black Swallowtail, Monarch, and the Viceroy, among others. We will also be purchasing over 100 seedlings and plant varieties from Wilson Nurseries and Plant Company, which operates out of Frankfort. All the plants will be nutrient-rich attractants in order to provide an enriching, healthy environment for our pollinators, and an aesthetically and olfactorily-pleasing one for visitors. Buying local insects and plants ensures that they all have the means to thrive in the climate conditions within the habitat.

In order to prepare for the upcoming season, maintenance and restoration must be completed. General cleaning duties and clearing out detritus from past seasons must be performed. Careful inspections of footpaths must be carried out to make sure that guests can freely move about the habitat without injuring themselves, others, or the butterflies. The building’s mesh ceiling and the weather-stripping around doors and windows must also be properly examined for any holes or tears that could result in butterflies escaping or harming themselves.

Informational material such as “Butterfly Bio” signage displayed throughout the habitat as well as care and conservation brochures will be published, printed, and made available to park guests in person. Promotional stickers of the “Spread Your Wings” mural, painted by Bowling Green artists Hadleigh Evans and Novelty V. Habit on the side wall of the Lost River Cave visitor center building, will also be printed and distributed to visitors. Additionally, informative lessons, links, and guides will be posted to the Lost River Cave website throughout the season for virtual explorers.

Programming in the butterfly habitat will include multiple lectures and hands-on educational experiences presented by the Lost River Cave staff members. Topics will include butterflies’ wings, their life cycles, and how to care for them, as well as how to create your own butterfly-attracting garden. Our annual Butterfly Celebration, in which enthusiasts of all ages can physically handle and release a butterfly of their own, will take place at the end of June.

The proposed $4,933.12 will help us manage the cost of inspection labor and restoration supplies, the purchase of plants and insects for the exhibit, as well as the operation of producing informational materials and hosting educational programming, all in time for what will be the habitat’s 25th season.

**Goal and Objectives**

The goal of the Find Your Wings project is to help the Southern Kentucky community establish a connection with nature through the maintenance and promotion of the Charlie Miller Butterfly House at Lost River Cave in Bowling Green.

The main objectives include:

1.      Performing general upkeep and maintenance of the butterfly habitat before opening weekend, Memorial Day 2022.

2.      Purchasing 4,200 caterpillars of varying native species and germination stages in order to meet our goal of releasing 300 butterflies every two weeks.

3.    Procuring more than 100 seedlings of regional wildflower varieties in order to create an enriching habitat for our pollinators.

4.      Providing educational opportunities for visitors and community members by hosting bi-weekly programming for guests of all ages and publishing informational literature for online distribution.

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**Find Your Wings Project Budget**

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| --- | --- | --- | --- |
| **Item** | **Price** | **Quantity** | **Total** |
| Insect Larvae |
|  *Monarch Species* | $110.00 per 100 | 2,400 | $2,640.00 |
|  *Swallowtail Species* | $64.00 per 100 | 1,800 | $1,152.00 |
| Plants |
|  *Butterfly Bush* | $24.04 per plant | 4 | $96.16 |
|  *Fennel* | $1.99 per pack | 1 | $1.99 |
|  *Milkweed* | $12.50 per plant | 4 | $50.00 |
|  *Sage* | $4.99 per plant | 2 | $9.98 |
|  *Verbena* | $5.48 per plant | 2 | $10.96 |
|  *Wildflower Variety* | $11.67 per plant | 2 | $23.34 |
|  *Zinnias* | $13.46 per plant | 1 | $13.46 |
| Shepherd’s hook      | $12.58 each | 3 | $37.74 |
| Hanging pots | $10.48 each | 6 | $62.88 |
| Mulch | $5.96 per bag | 45 | $268.20 |
| Printing materials |
|  *Brochures* | $.24 each | 1,000 | $247.66 |
|  *Posters* | $29.99 each | 3 | $89.97 |
|  *Promo stickers* | $.35 each | 500 | $174.73 |
| Maintenance costs |
|  *Weather stripping* | $2.44 per yard | 6 | $14.64 |
|  *Mesh fabric* | $8.78 per yard | 2 | $17.56 |
|  *Fabric staples* | $13.29 per pack | 1 | $13.29 |
|  *Adhesive caulk* | $4.28 each | 2 | $8.56 |
|  |  |  | **$4,933.12** |

**Project Timeline**

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| --- | --- | --- |
| **Action Steps** | **Who’s Responsible** | **When (2022)** |
| Clear detritus from the habitat | Volunteer Clubs: Invasive Plant Initiative and Pollen-aiders Club | January |
| Safety inspection | Park maintenance employees | January  |
| Building maintenance | Park maintenance employees | February – March  |
| Order caterpillars/butterfly larvae | Park operations manager | February  |
| Order flowers | Park operations manager | February  |
| Plant flowers | Park maintenance employees | April  |
| Establish insects in the habitat | Park maintenance employees | April  |
| Write/edit informational literature | Communications/Marketing manager | April |
| Social media advertisement campaign | Communications/Marketing manager | April – September  |
| Print informational literature and Spread Your Wings mural stickers | Event assistants | May |
| Monitor insects/larvae | Park maintenance employees | May – September  |
| General upkeep of flora | Park maintenance employees | May – September  |
| Opening Day of Butterfly Season | – | Friday, May 27 |
| Weekly Programming | Nature center docents | May – September  |
| Distribute informational literature | Nature center docents | May – September  |
| Annual Butterfly Celebration | Nature center docents/event assistants | Sunday, June 5 |
| Release 300 butterflies bi-weekly | Park maintenance employees | May – September  |
| Last Day of Butterfly Season | – | Monday, September 5 |