UIS Green Projects Application

Full Project Proposal- **Step 2**

**Project Name:**

Prairie Stars Bird Safety

**Contact Information:**

Project Team

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| *Name* | *UIS Student/Faculty/Staff & Department (or Office)* | *UIS Email* | *Phone #* |
| Sarahi Porcayo | Green Fee Committee Chair - UIS Student | sporc2@uis.edu | 3312509195 |
| Dr. Matthew Hayes | Adjunct Instructor - School of Integrated Sciences | mhaye5@uis.edu | Work Phone - 68179 |

Organization/Affiliation:

Student led, with guidance from Dr. Hayes

**Project Information:**

*Provide a brief description of the project, its goals, and the desired outcomes:*

The Prairie Stars Bird Safety Steps (PSBS) is a project aimed at helping wild birds that migrate and reside in the UIS campus area. This project aims to decrease the number of birds that are killed and injured by the university campus buildings. The main objective would be to be able to identify and then add window strike prevention decals to campus building windows for birds to be able to recognize the windows as solid and not be confused by a reflection of landscape. The goal of getting these window modifications would be to decrease the amount of bird collisions to the windows. This would then encourage biodiversity on campus by enabling a predator or prey source. PSBS would also help spread education and awareness of how humans need to consider their impact on the wildlife around them.

The long-lasting desired outcomes of PSBS would be to always encourage the future generations of UIS students, staff and faculty that state wildlife is of importance to the university. It goes out to make an effort to enable a better relationship between wildlife and education. It could possibly encourage students to seek a field in wildlife and environmental studies. It could also encourage additional research projects to see if window retrofits are effective and spread the knowledge to the community and other campuses.

*How will this project improve sustainability at UIS?*

Sustainability is all about allowing future generations to be able to survive while also being able to survive in the present. It is all about being considerate of the people who will have to inherit the world after the many current generations die off. Humans do share the world with a lot more organisms that should also be accounted for. Illinois biodiversity has been incredibly impacted by a lot of land repurposing. Illinois used to be a prairie state, filled with wetlands and tall grass prairies, now Illinois is filled with agricultural fields and urban areas. Illinois is a major migration state during the spring and during the fall. Birds that migrate to and from Mexico and Canada usually take the path that goes straight through Illinois, including a pit stop at Lake Springfield. The University of Illinois offers a lot of areas in which the birds may be able to rest and recharge but it also adds an additional obstacle to the migration path. Reflective Windows. Building windows that can cause bird strikes. Allaboutbirds cites that up to about 1 billion birds die from window strikes in the U.S. each year, according to a 2014 study. 2014 is now eight years ago, more buildings have been added to add to the strike total, so AllAboutBirds estimates that the total is much higher than what the 2014 study has concluded.

Many organism populations are now being impacted by anthropocentric activities, by encouraging retrofits to current buildings UIS would also be setting a standard that could spread to other communities and universities. Even though UIS may be small, we should be able to make a positive impact and further help prevent bird deaths. Birds have enough already to deal with battling domestic cats and global climate change. Personally, birds have always been my greatest passion. They have been able to master all physical barriers, air, water and terrestrial but not master human caused barriers. PSBS could be the first step to obtaining a university campus that also does not impact the wildlife directly and indirectly associated with it.

*Please indicate how this project will involve or impact students. What role will students play in the project?*

PSBS should be installed on west and south facing building’s windows. The most effective method to determine which windows should be targeted would be to identify certain windows with window strike prints. Most of the ones that I have been able to target include: the South-West side of HSB and Brookens. These windows would be the best place to install retrofits because they have been proven to cause the greatest amount of reflection and consequently bird strike deaths and stuns. This information has been documented by myself for the past four years as well as by my professor, Dr. Hayes, who has also been marking where and when bird strikes have occurred.

*Where will the project be located? Do you need special permissions to enact the project at this site? If so, please explain and attach a letter of support to your application. If you are not sure, let us know! We can help.*

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*Other than the project team, who will hold stake in the project? Please list other individuals, groups, or departments indirectly or directly affected by this project. This includes any funding entities (immediate, future, ongoing, etc.) and any entities that will be benefiting from this project. Communication with affected departments is encouraged ahead of time. List the names of who you spoke with and their comments.*

Students, staff and faculty could all benefit from the decrease in the amount of bird carcasses that they have to witness. Once window retrofits are installed, students or faculty could lead research to see if there are other problem areas or if we targeted the wrong windows. Additional signage can also be added next to the windows retrofitted and help educate more people on how the windows are enabling more biodiversity and showing the university’s commitment to sustainability and wildlife conservation. Students could be encouraged to create a biodiversity walking group through the biology department or TRAC department to encourage peers to be active as well as collecting data that could then be used in a personal or collective research project. Many faculty members already have their research labs running with graduate students, why not encourage more undergraduate students to be involved in academia with local data collections. Research experience is very important for anyone, it would be very beneficial to allow more students to be given the opportunity to get that experience so that they could use it in their future careers.

*Have you applied for funding from the Student Green Fee previously? If so, for what project?*

Previously, my first project was a very similar project to PSBS. Last year, I was the main lead along with Rexanne at the Women’s Center for the Menstrual Cup Project.

**Scope, Schedule, and Budget verification**

*Do you have a plan for project implementation? Describe the key steps of the project.*

Birds of North America have two main migration times. Spring migration, from mid-March until mid-May and Fall migration, which is a lot more prolonged, from August until November. I think that the best time for installation of window retrofits would be during the summer or after the Spring Migration as it would also not disturb any of the students or faculty. The items should then be purchased in February or March to add a buffer time in which we would expect the retrofits to arrive at UIS.

During the wait time, we would be able to determine which exact windows we would like to target and contact the people who have access to the widows as well as share as much information to the people who would be able to see the decals so that they would be able to understand why it is important for environmental conservation.

Additional data can be collected during the spring migration of 2023 and the following spring 2024 to show the first comparison of the amount of bird strike deaths documented and to see the impacts of retrofits. Future data and additional retrofitted windows may also be identified and installed using a similar product and this same proposal. as a guide

*List all budget items for which funding will be required. Include the cost for each item requested. Please be as detailed as possible, to the best of your ability. If you know where you would like to purchase materials from, please list the contact information of the retailer(s) below, along with the URL addresses to each item you will be requiring. If you need suggestions for how and where to purchase materials, please contact the Student Sustainability Projects Coordinators by email.*

Previously, similar projects have asked for $300-500. If we ask for up to $500 and then return what we do not use. I believe that the product that could be installed from the inside is the most affordable product but not the most long lasting. The website recommends replacing every 1-2 years which would further increase cost to the University or Green Fee. I do believe that the decorative one is one of the most affordable, effective and long lasting. Once the final measurements of the windows come in then a proper comparison could be made and a final answer would also be selected. I do believe that those two options are the best for a University such as ours as well as taking into consideration the budget of the Green Fee.

For our school and team of green fee members, I recommend that we purchase the Clear 6" Bird Deflector by Artscape product. Not only would this be able to be applied to the inside of higher windows but we could more deliberately figure out if this product would be worth investing in as more and more people become aware of what our school is trying to do for the birds. Since it is relatively inexpensive, should cost no more than $300 and then whatever extra we could return to the Green Fee.

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| **Product** | **Price** | **Appeal** | **Total Cost if Chosen for covering 10 windows (40sq ft) (estimating a 2ft by 2ft window coverage)** | **Total Cost if Chosen for covering 15 windows (60sq ft)** |
| **Clear 6" Bird Deflector by Artscape**  <https://artscape-inc.com/collections/birds/products/6-bird-deflector> | $12.99 for 4 6in by 6in squares | Applied from the inside of the building. The decals are stick on and use UV reflective coating in order to reflect the sun through the window making it visible to birds. Website also has research provided to show effectiveness.  Comes in 3 different designs and free shipping on $50+ | $130 | $195 |

*Will this project require ongoing funding? Do you have a plan for supporting the project in order to cover replacement, operation, or renewal costs?*

Based on how successful this project is, I would suggest that if there is demand for more decals to be purchased, then the parties wanting more should submit a letter of intent to the UIS Green Fee Committee, if that does not work, then the parties should look elsewhere for funding. If they are students, then perhaps the research fund would be able to help cover costs as well as be used as a capstone project or paper.

*Every project must be publicized! Where would you like to see information about this project reported?* I would love to see this publicized to the Lincoln Land Bird Banders Facebook, as well as the UIS environmental studies webpage and lastly the sustainability green fee webpage to show off to people interested in seeing what the university is doing in the name of the environment.