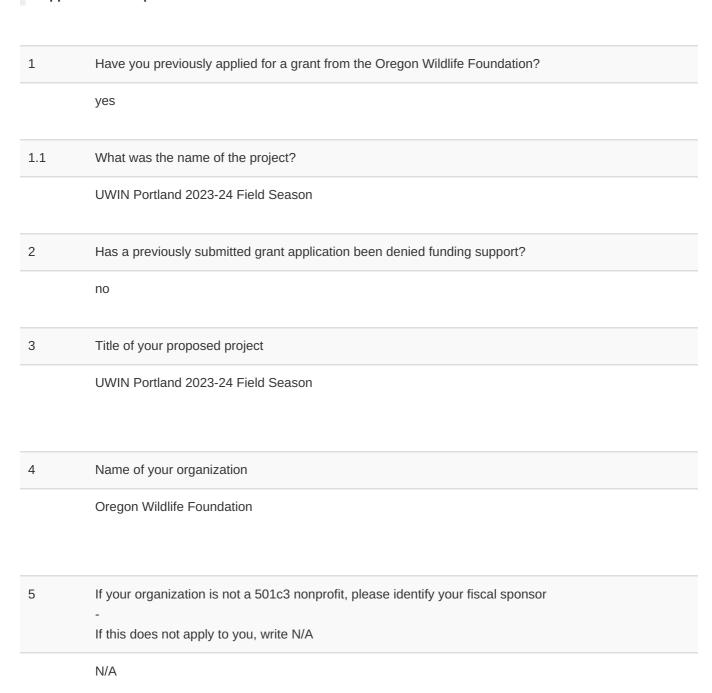# Grant Application

—

## Tim Greseth

**Email :** tim@myowf.org
**Application ID :** A49GT104
**Custom Ref. -**

**Application Start Date:** 2023-02-05 19:29:38
**Application Completed Date:** 2023-02-13 01:00:47

| 1 | Have you previously applied for a grant from the Oregon Wildlife Foundation? |
|---|---|
| | yes |

| 1.1 | What was the name of the project? |
|---|---|
| | UWIN Portland 2023-24 Field Season |

| 2 | Has a previously submitted grant application been denied funding support? |
|---|---|
| | no |

| 3 | Title of your proposed project |
|---|---|
| | UWIN Portland 2023-24 Field Season |

| 4 | Name of your organization |
|---|---|
| | Oregon Wildlife Foundation |

| 5 | If your organization is not a 501c3 nonprofit, please identify your fiscal sponsor<br>-<br>If this does not apply to you, write N/A |
|---|---|
| | N/A |

| 6 | Your name or the name of the Project Manager |
|---|---|
| | Hunter Storm |

| 7 | organization mailing address<br>-<br>Please enter full address with city, state & zip |
|---|---|
| | 2337 NW York Street, Suite 201C, Portland, Oregon 97210 |

| 8 | your phone number or that of the Project Manager |
|---|---|
| | 503-255-6059 |

| 9 | your email address or that of the Project Manager |
|---|---|
| | stormhun@pdx.edu |

| 10 | a brief biographical statement about yourself or that of the Project Manager |
|---|---|
| | Hunter Storm has coordinated the UWIN PDX program for two years while finishing their bachelor's degree in biology at Portland State University. They began as a volunteer and worked closely with the previous coordinator, Erica Patterson, for two seasons before taking on the coordinator position. They have since gained experience coordinating camera placement with 6 municipal parks departments, as well as training and supervising 11 volunteers. Hunter is currently using data collected through the UWIN PDX program to complete their undergraduate thesis, focused on predicting the distributions of mesopredators like the coyote (Canis latrans), common raccoon (Procyon lotor), and the Virginia opossum (Didelphis virginiana) in the Portland Metropolitan area. |

| 11 | social media handles that your organization uses<br>-<br>Enter social handles or URLs such as instagram, facebook, twitter, youtube, etc. so that we can use to cross promote on our channels - if you do not have any, please place N/A |
|---|---|
| | N/A |

| 12 | are you are currently following Oregon Wildlife Foundation on its social media channels? |
|---|---|
| | - None of these channels |

| 13 | what is the total estimated cost of your project? |
|---|---|
| | 14010 |

| 14 | Funding that you are requesting from OWF - <br> If you're request is for more than $5,000, please contact Tim Greseth - tim@myowf.org before submitting your application. |
|---|---|
| | 4010 |

| 15 | what type of project are your proposing? |
|---|---|
| | fish or wildlife research |

| 16 | will your project address an Oregon Conservation Strategy habitat or species? |
|---|---|
| | no |

| 17 | what is the location of your proposed project? |
|---|---|
| | Portland Metropolitan Area, USA |

| 18 | what ecoregion and Conservation Opportunity Area (COA) is your proposed project located in? <br> - <br> See https://www.compass.dfw.state.or.us/ for the information you need to answer this question |
|---|---|
| | Lower Willamette River Floodplain |

| 19 | what is the anticipated start date of your project? - <br> Day/Month/Year |
|---|---|
| | 01-03-2023 |

| 20 | what is the anticipated end date of your project? |
|---|---|
| | 29-02-2024 |

| 21 | has a local, state or federal biologist reviewed this project? |
|---|---|
| | yes |

| 22 | have you already or will you obtain necessary permits from all requisite agencies as applicable to proposed project? |
|---|---|
| | yes |

| 23 | what will the funds you are requesting be used for?<br>-<br>this would be a good time to review, if you haven't already done so, our grantmaking guidelines at www.myowf.org/grants |
|---|---|
| | UWIN Coordinator stipend, equipment, supplies, and materials |

| 24 | provide us a brief summary of your proposed project |
|---|---|
| | UWIN PDX is a wildlife monitoring project designed to collect wildlife occupancy data along an urban-to-rural gradient spanning 50 km throughout the Portland Metropolitan Area. The study area consists of 29 camera trap sites which are aligned on a 2-km wide transect following national UWIN protocol. An extension transect of 4 sites was added in the winter of 2022 with the hope of expanding to two complete transects each with a minimum of 25 active sites in the near future. The established sites leverage Portland's connected green space, including Tualatin Hills Nature Park, Hoyt Arboretum, Marquam Nature Park, and Springwater Corridor. One camera trap is placed at each study site for 30 days quarterly. During this time the camera trap is active 24 hours a day, taking a photo every time that its motion sensor is triggered. After each data collection season, the batch of photos from each camera is uploaded to the national UWIN database where volunteers 'tag' the species of wildlife present. The result is a dataset showing the number of detections of each tagged species at each camera site as well as the time and date that the species was detected. At present, 39 species have been detected through the UWIN PDX project, a total of 46,553 photos have been taken with 16,435 of those photos being wildlife detections. |

| 25 | upload pre-project pictures or a video<br>-<br>By submitting these photos or video I warrant that I am the legal owner of this media and grant the Foundation permission to reproduce, exhibit, or publish them for all general purposes in relation to Oregon Wildlife Foundation's work. If you have questions about photo or video submissions please refer to myowf.org/grants for guidance. |
|---|---|
| | 3 Documents Uploaded |

| 26 | fill out our budget form |
|---|---|

| Project Revenue | Cash | In-Kind | Committed / Pending |
|---|---|---|---|
| Oregon Wildlife Foundation Request | 4010 | | Pending |

| | | | |
|---|---|---|---|
| Portland State University | 5000 | 5000 | Committed |
| | | | |
| | | | |
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| | | | |
| | | | |
| | | | |
| **REVENUE** | **9010.00** | **5000.00** | |
| | | **TOTAL PROJECT SUPPORT** | **14010.00** |
| **Project Expenses** | **Cash** | **In-Kind** | **Total** |
| Project Coordinator; sets up sites, manages volunteers, manages equipment inventory | 5775 | | **5775.00** |
| cameras, lockboxes, locks, and cables; 13 sites x $200 | 2600 | | **2600.00** |
| SD Cards; 2 pack x $50 | 100 | | **100.00** |
| Batteries $20(8)/camera x 13 sites | 160 | | **160.00** |
| Gas purchases to support site setup and monitoring visits | 375 | | **375.00** |
| Portland State University, Urban Ecologist, consulting and technical support | | 5000 | **5000.00** |
| | | | **0.00** |
| | | | **0.00** |
| | | | **0.00** |
| | | | **0.00** |
| | | | **0.00** |
| | | | **0.00** |
| | | | **0.00** |
| | | | **0.00** |
| | | **TOTAL PROJECT EXPENSES** | **14010.00** |
| | | | |
| **Balanced budget? This cell should read "0" ---->** | | **NET** | **0.00** |

| 27 | upload a narrative of your proposed project |
| --- | --- |
| | - |
| | Please make sure your narrative is no more than 7 pages long, single spaced, 12 pt. font (Calibri preferred). |

**1 Document Uploaded**

| 28 | upload letters of support |
| --- | --- |
| | - |
| | letters of support are strongly encouraged. in particular a letter from a supervising biologist |

**1 Document Uploaded**

| 29 | I understand that I am required to submit a Project Completion Report, copies of any publications or social media posts crediting the Foundation's support, and post-project pictures at the completion of my project |
| --- | --- |
| | yes |

The [Urban Wildlife Information Network (UWIN) Portland](#) is a wildlife monitoring project spanning 40 miles of the Portland metropolitan area. This project is a branch of the [National UWIN Network](#), an umbrella organization collecting data on wildlife in 35 different cities in the US and Canada. UWIN partner cities use similar data collection methods and a shared database to encourage the study of regional differences between major cities.

UWIN Portland monitors wildlife activity, across a current total of 33 camera sites,  along a narrow transect beginning in North Plains, spanning Portland and extending out to Gresham.

Cameras are placed in green corridors and municipal parks, encouraging the study of habitats in various stages of urban development. All species recorded at each site during the monitoring seasons (January, April, July, October) are reported to the UWIN national database and distributed to landowners and municipal parks departments within the study area.

This data provides a breakdown of medium to large-sized wildlife detected throughout the sampled parks and an estimate of the level of activity of each species. A recently-completed study using UWIN Portland data explored the distribution of mesopredators (medium-sized predators) along the urban to rural transect. Target species included coyote, raccoon, and Virginia opossum — all ubiquitous species that live closely with humans. The study combined spatial land characteristics with mesopredator detections from UWIN Portland cameras to create a predictive model.

This model supports parks departments and landowners in identifying landscape features closely associated with target species activity, helping inform their acquisition of property and maintenance of wildlife corridors and natural areas within the Portland metro area. U

WIN Portland encourages community scientist participation through volunteer-led camera maintenance and species identification.

UWIN Portland has a three-part mission:

1. Contribute data to the national UWIN database and participate in regional and continent-wide research projects as they pertain to urban wildlife.

2. Identify wildlife, their activity and distribution across the Portland metro area; this supports research questions and partnership opportunities with high school and college-level students. Project findings are also shared with public organizations concerned with the health and protection of wildlife.

3. Engage community members in scientific data collection and exposure to urban wildlife.

To achieve this mission, UWIN Portland counts on support from the Oregon Wildlife Foundation, Portland State University, Portland Audubon, and the Samara Group. These partners came together

with a small amount of seed funding provided by the Oregon Wildlife Foundation and have brought UWIN Portland to fruition.

**Camera Management**

Since beginning in 2019, UWIN Portland has established 33 camera sites. Camera locations span the Portland city center from Hillsboro to Gresham and south to Tigard. These monitoring sites leverage Portland's connected green space, including Tualatin Hills Nature Park, Hoyt Arboretum, Marquam Nature Park, and the Springwater Corridor.

Cameras are placed in narrow transects, at least 1 km from each other and within 2 km of the transect line. This study design is standard UWIN protocol and encourages the study of wildlife along an urban to rural gradient of human development. One transect of 25 cameras was completed in October 2020 and recently expanded to include an additional spur transect of 4 cameras reaching into the City of Tigard, 2 additional sites in Gresham, and 2 sites in North Plains.

Volunteers are assigned one or multiple camera sites and deploy cameras for one month seasonally (January, April, July, and October). After the cameras are retrieved each monitoring season, volunteers "tag" photos by wildlife species present. Volunteers who cannot participate in camera maintenance in the field may still contribute to the project by tagging photographs uploaded to the UWIN database. This alleviates many obstacles for volunteer participation (lack of transportation, inflexible schedule, mobility constraints).

The species data is designated "research-grade" after review by at least two volunteers and is then available to be accessed by various wildlife research projects. One such research project is being conducted by the Lincoln Park Zoo in Chicago, comparing biodiversity in US cities to levels of gentrification. UWIN Portland has chosen to participate in this study, providing camera site information and species detections.

Most of our volunteer outreach has been in partnership with Portland Audubon. When the volunteer program began in 2021, we held a virtual information meeting and field training available to all Portland Audubon volunteers culminating in the recruitment of 6 people who have continued to assist the project.

In the fall of 2021, a UWIN Portland page was added to the Portland Audubon website, further increasing volunteer interest to 10 volunteers.

**Wildlife Research in Portland**

Camera traps are ideal for monitoring the distribution and activity level of urban mesopredators or 'medium-sized predators' such as coyote, raccoon, and Virginia opossum.
Mesopredators are common in urban spaces and live closely with humans. To date, few studies have described the populations of these species within the Portland metropolitan area. There is also little

published information about the specific parks and wildlife corridors frequented by these species. Portland UWIN provides a long-term data collection method that measures the activity level of these target species and their presence or absence along an established urban to rural gradient.

A recently completed mesopredator activity study using UWIN Portland data began in the fall of 2021 and was completed in Fall 2022. The aforementioned study compared the mesopredator data collected from our UWIN sites to the compiled spatial characteristics from the National Land Cover Database and 2020 US Census. These spatial characteristics include development level, habitat quality, vegetation type, and social factors like income and household density. Data collection results included 642 detections of coyote, 328 raccoon detections, and 452 detections of Virginia opossum. By comparing mesopredator and spatial data, we can identify factors predictive of mesopredator occupancy in the Portland metro area.

Results are being shared with the various landowners and municipalities hosting UWIN cameras, including the parks and recreation departments of Portland, Tualatin Hills, Gresham, North Plains, and Tigard.

As previously mentioned, a predictive occupancy model can inform the acquisition and maintenance of wildlife corridors and increase our understanding of the behavior of the target species.

Our plans for UWIN Portland include development of a third transect that would extend from an area of dense development in the Portland city center west along the Highway 26 corridor. The new transect will also allow for the examination of wildlife movement from rural areas into urban ones and vice versa, expanding on existing habitat connectivity work headed by Portland Metro.

Establishing the new transect of 5 new camera sites will increase the need for volunteer camera hosts and photo tagging. Additional work to be performed by the UWIN Project Coordinator.

The project coordinator is responsible for assisting volunteers to ensure that camera deployment and photo tagging processes run smoothly. They are also responsible for directing the outreach and research goals outlined in this proposal. We are also requesting funding to replace stolen and malfunctioning camera equipment.

Partners * Identify partner organizations that will be actively involved in the project and describe their roles.

The Oregon Wildlife Foundation is the fiscal sponsor of the project and is responsible for funding administration. Joe Liebezeit, Staff Scientist & Avian Conservation Manager of Portland Audubon continues to aid in volunteer recruitment and coordination while providing wildlife monitoring expertise. Leslie Bliss-Ketchum, Ph.D., and Olyssa Starry, Ph.D., continue to offer wildlife monitoring experience are the technical advisors to the project. Leslie Bliss-Ketchum assists in study design and advising data analysis using methods developed by her environmental consulting company, the Samara Group. Olyssa Starry is an assistant professor at the PSU Honors College and coordinates

student participation in the project. She also provides physical space for storing equipment, as well as organizing additional funding through PSU. Hunter Storm is the UWIN Portland project coordinator and has worked with the project for the last two years. They manage data collection and spatial analysis, leading the current mesopredator study.

Please visit our website featured on the Portland Audubon Community Science page:
https://audubonportland.org/get-involved/community-science/uwin-portland/
and the national UWIN website:
https://urbanwildlifeinfo.org/

Our project is closely aligned with the conservation toolbox section of the Oregon Conservation Strategy. We are gathering valuable information about urban wildlife that not only informs our understanding of urban ecology but also provides many opportunities to engage citizen scientists in monitoring efforts.

This is an OWF-sponsored Project

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