

February 18, 2026

College of New Caledonia

3330 18th Avenue, Research Forest Department

Prince George, BC, V2N 1P8

City of Prince George

1100 Patricia Boulevard, 5th Floor

Prince George, BC, V2L 3V9

Dear Mayor and Council,

On behalf of the College of New Caledonia (CNC) Research Forest Department, we respectfully request approval in principle to deploy a limited number of trail cameras on City-owned property, contingent on all required approvals, in support of a proposed research project, *Wild Neighbors: Supporting Coexistence with Wildlife in Urban Areas*.

The purpose of this request is to confirm the City's willingness, in principle, to allow trail camera deployment on City lands prior to submission of a research grant application, which is due Wednesday, February 25, 2026. The video monitoring component of the proposed research has strong potential to improve understanding of urban bear movement corridors and inform strategies to reduce human–bear conflict on City property.

We note and appreciate the letter of support previously received from the Mayor's Office on January 28, 2026, endorsing submission of the proposed grant application.

Should the project receive external funding and approval in principle from Mayor and Council, research activities would begin no earlier than April 2026. Trail cameras **would not** be deployed until all the following conditions are met:

- Approval of a finalized privacy, camera deployment, and data management protocol by relevant City staff, including those responsible for privacy and parks management
- Completion of a CNC Privacy Impact Assessment (PIA) for the finalized protocol, including identification and implementation of any additional mitigation measures
- Completion of any other review or approval processes required by the City

A draft privacy, camera deployment, and data management protocol is attached for Council's information and review.

Thank you for considering this request in support of research aimed at improving public safety, wildlife conservation, and coexistence within our community. Confirmation of approval in principle by February 25, 2026, if possible, would be greatly appreciated to support the grant submission timeline.

Questions may be directed to the project lead,
Vanessa Fetterly

Senior Researcher, CNC Research Forest

Redacted

Sincerely,

Zach Fleck, Project Planner

Redacted

College of New Caledonia Research Forest Department



Attn: Ethan Anderson, Manager of Legislative Services; City of Prince George Parks & Recreation

Re: Measures to Mitigate Public Perception of Surveillance and Protection of Identifiable Information for Proposed Urban Wildlife Monitoring Research

In collaboration with City of PG bylaw services, College of New Caledonia (CNC) researchers are preparing a submission (see attached proposal) to the [College and Community Social Innovation Fund \(CCSIF\)](#), due February 26, 2026. Our team is inquiring if City of PG Parks & Recreation or any other relevant city authority confirms proposed public privacy measures in principle before we finalize the methods section for our proposal submission. If there are concerns, we will adapt our submission accordingly.

1. Public Transparency and Communication

To reduce concerns related to surveillance and ensure transparency, the following measures will be implemented:

- On-site signage will be installed in areas where trail cameras are deployed. These signs will include a QR code linking to a publicly accessible memo outlining:
 - The wildlife-only research objectives
 - A clear statement that the project does not involve human surveillance
 - A summary of privacy protection measures and data-handling protocols
 - Contact information for the research team for questions or concerns
- Signage will incorporate wildlife imagery and plain-language explanations to emphasize that cameras are used exclusively for wildlife monitoring, reducing the perception of human-focused surveillance.
- Where appropriate, a public communications release will be issued prior to camera deployment to inform the community about:
 - The organizations conducting the research (CNC, in collaboration with the City of Prince George)
 - The purpose, methods, and duration of the study
 - The steps taken to protect public privacy



2. Camera Placement and Field Protocols

To minimize the likelihood of capturing identifiable human information:

- Cameras will be installed away from formal trails, recreational areas, and high-use corridors, and will not be easily visible or accessible unless an individual intentionally leaves established paths.
- Cameras will not be placed near identifiable human infrastructure or landmarks (buildings, roads, etc.)
- Camera locations will be selected to prioritize wildlife movement corridors while avoiding human activity areas.

3. Data Protection and Privacy Safeguards

The CNC research team has established the following safeguards to prevent access or release of identifiable information:

- Camera locations will not be publicly disclosed beyond general area descriptions.
- Exact coordinates will be restricted to authorized research personnel only.
- Cameras will be physically secured by locking from the outside to prevent unauthorized access or tampering.
- SD cards will be encrypted, and access will require password authentication.
- Any incidental images of people will be treated as non-target data and removed from the dataset by the lead researcher, utilizing Addix AI. Blurred human images will not be stored as part of any project dataset.
- Data storage and security protocol will be subject to conditions of an approved CNC privacy impact assessment (PIA). Cameras will not be deployed until the CNC PIA is complete.



A rough map of some of the locations identified for potential monitoring is attached. This is not an exhaustive list, as some communities (Pineview/Blackburn, Beverly, Hart) are of interest and will have trail cameras installed, pending site suitability (available public lands). A corresponding Excel spreadsheet depicting the general locations of each site corresponds with the general location map.

For questions, contact research lead Vanessa Fetterly, Senior Researcher, CNC Research Forest: **Redacted**

“Wild Neighbours: Supporting Coexistence with Wildlife In Urban Areas”



Black Bear in backyard. Photo submitted by community participant. 2025.

***As Prepared for
Mayor and Council
of The City of Prince George
December 1, 2025***

Submitted by:

Vanessa Uschenko, RPBio
Senior Researcher, Research Forest and
Dr. Laura Graham, PhD
Instructor (Biology)
College of New Caledonia
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Urban Bear Endocrinology Study Partners and Supporters

- BC Conservation Officer Service
- Northern Bear Awareness Society
- Calgary Zoo
- City of Prince George Bylaw Services

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Introduction

As human expansion continues, encroachment on natural environments is inevitable. Globally, it is estimated that over 4 billion people live in cities, with urban populations expected to more than double by 2050 (World Bank Group, 2025). With this rapid projected expansion, natural spaces for wildlife are being diminished due to habitat fragmentation, deterioration and land conversion (McDonald et al, 2018). Locally, many communities are noticing changes, especially in northern communities like Prince George, BC, where expansion of housing encroaches on natural habitats, driving wildlife into urban areas. Surrounded by vast expanses of forests and ample lakes and rivers, Prince George is home to around 76,000 people and occupies an area of 328km² (Regional District of Fraser-Fort George, 2025). As such, many citizens living in Prince George are accustomed to wildlife in their neighborhoods. Little is known, however, about the impact urban environments may have on these wildlife.

As cumulative stressors can lead to serious health consequences, understanding how wildlife respond to urban environments may help mitigate wildlife conflict and bear mortality within the city. The Northern Bear Awareness Society (2025) has estimated that approximately 40 bears are destroyed within the city annually. In 2023, Prince George was considered one of the most dangerous places for bears, with a total of 76 animals destroyed (Kurjata, 2024). With the continued population growth, and projected shift in climate conditions, more bears may enter into urban environments. Understanding bear distribution and behavior, along with overall health of these animals is essential in creating safe spaces for both wildlife and humans.

Statement of Intent

CNC recognizes the unique cultural significance and ecosystem value of wildlife thriving within northern communities, and the challenges arising from wildlife-human conflicts. As a community college serving the future viability of northern people and economies, and after years of wildlife habitat research in wilderness areas, CNC wishes to undertake non-invasive wildlife research that will provide valuable knowledge about the health and behavior of urban wildlife that can inform habitat planning and community strategies to safely coexist with wildlife. CNC is also willing to support communities in trialing and testing practical solutions to achieve safe and healthy wildlife coexistence. CNC is interested in gathering information on all urban wildlife, but given the significant, local challenge with bears in urban spaces, CNC is currently focused on informing communities about the abundance, distribution, condition and behavior of urban bears.

CNC Urban Bear Studies to Date

In the spring of 2025, the College of New Caledonia (CNC) Research Forest initiated a non-invasive urban bear endocrinology study examining stress, sex and metabolism hormones found within the feces of urban bears, as compared to those living in natural environments, to better understand the drivers for occupying urban environments. While this technique has been developed primarily in

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zoos to improve animal management protocols, the same principles can be applied to free-ranging animals. Outcomes from this methodology can allow inferences regarding the health of urban bears in comparison to wild bears, assess overall health, increase our understanding of anthropogenic pressures, and mitigate bear-human conflict.

This project depended on the participation of community members to find and notify CNC researchers about fresh bear scat within the city. This was made available through a CNC funded cellphone which allowed participants to call or text in their samples for collection. A drop-off location was also made available on campus for those that wished to collect and deliver samples themselves. In total, 127 samples of bear scat were collected across 63 neighbourhoods within city limits. See Figure 1, below. In addition, 9 samples were collected just outside city limits in two separate neighbourhoods. A total of 66 members participated by either texting or calling in scat locations. In addition, approximately 6 individuals either dropped off samples or contacted researchers personally. For personal privacy, please note that mapped locations within neighbourhoods are

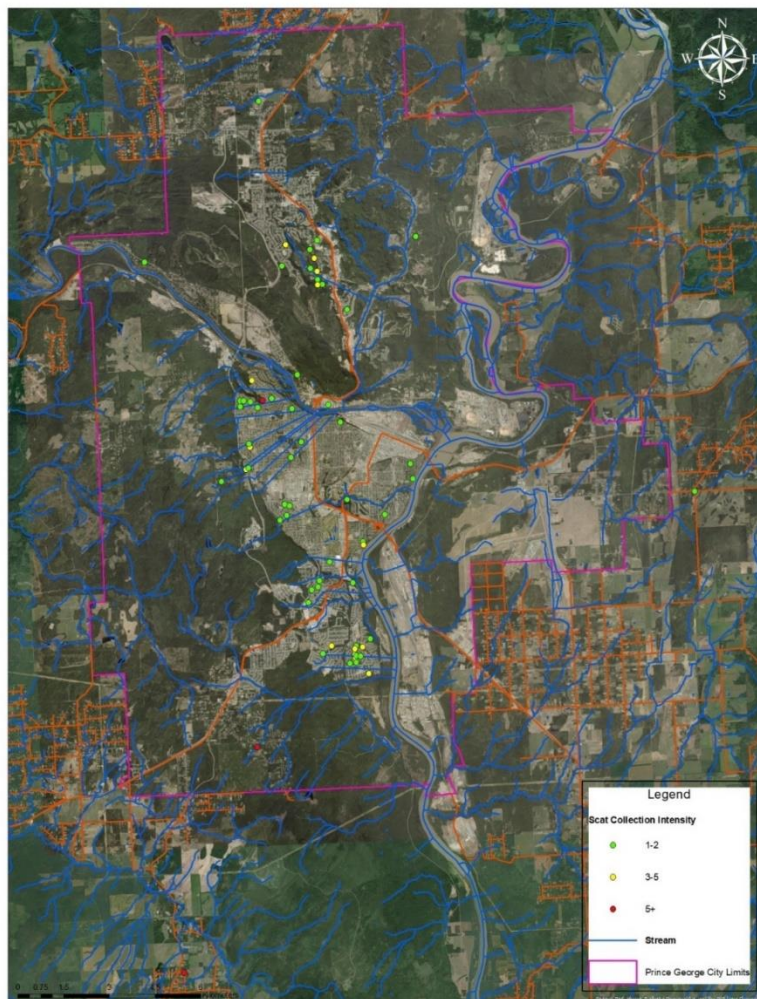


Figure 1. Map of bear scat locations as submitted by participating Prince George community members

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random, and individual dot locations are not indicative of those who participated in the project. Community interest was high throughout the entire duration of the pilot project, with numerous stories published through news outlets. Links to news articles published on the research project can be found at the end of this document.

Proposed Research Expansion

To build upon CNC's current urban bear studies and to further examine the impact of urban environments on wildlife, trail cameras are proposed for installation among the green spaces throughout the city to monitor wildlife use and behavior. This research is expected to complement the ongoing endocrine study to better identify areas of high wildlife-human interaction and conflict. This work will significantly contribute to the critical documentation necessary to obtain the Provincial Bear Smart Status, which requires intensive mapping of movement corridors, high-hazard (conflict) areas, and natural food sources (natural, artificial). Community support and citizen science will remain a top priority surrounding urban wildlife studies conducted by CNC. Community members are vital in the detection of bears within the city, and members will be encouraged to participate in the analysis of photos obtained via trail cameras. This project aims to promote awareness through volunteer participation and the production of communications shareable with the community.

CNC is currently collaborating with the Northern Bear Awareness Society (NBAS) and will continue to do so throughout the duration of this proposed project. CNC will make available important wildlife videos and information to NBAS, provide additional resources to broaden and enhance social media messaging and communicate important community actions to prevent and mitigate conflict with wildlife. CNC also plans to seek other sources of relevant information and collaborate with researchers in the region. As a primary outcome of the proposed project is to provide professional learning opportunities for students interested in wildlife research and stewardship, CNC will involve college students in all phases of the project, from camera installation/maintenance to social media knowledge exchange to sample preparation/analysis. Students will be trained in research methods and become familiar with municipal service delivery as it relates to urban wildlife management. Documentation outlining the methodology planned for this project can be found in Reference Appendix A: Project Methodology.

Project Outcomes in Support of City Objectives

This research project is designed to inform and support city planning and urban wildlife management. Project deliverables will include:

- a detailed map of high use wildlife areas within the city of Prince George, including movement corridors, high natural food areas (berries, etc) and high human/ wildlife conflict areas, incorporating current research and pre-existing distribution information collected by the Conservation Officer Service and the Northern Bear Awareness Society

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- inform bylaw officers of high-risk areas in which to allocate resources within the city, as part of scheduled meetings with the research team
- host a roundtable event each year of the project to share results and collect feedback to adapt project goals
- annual research progress reports and a final research report detailing:
 - movement corridors, natural food sources, and high conflict areas, as well as recommendations regarding mitigation techniques
 - findings on chemical stressors and health of urban bears from endocrine analysis

All data generated from this research can inform on strategies to reduce bear-human conflict and inform wildlife habitat coexistence planning within urban areas. The project team proposes to actively collaborate with Bylaw Services, Parks and Solid Waste, and/or Environmental Services to ensure project deliverables aid the work of city divisions in a complementary way. Active collaboration would entail:

- scheduled meetings (at least 4 times per year) between an identified city representative and the research team, including college student research assistants
- attendance by relevant city staff at an annual roundtable event hosted by CNC
- participation in a 1-day annual 'Fall Bear Awareness' campaign event to inform the public about the project
- meaningful consideration of research progress reports and feedback provided by city staff

This active collaboration will aid city goals, including:

- building education and awareness to reduce bear attractants, leading to safer neighborhoods and improved relationships with citizens
- reducing the number of bears destroyed each year
- informing resource allocation for testing bear-resistant waste management strategies
- making progress toward achieving Provincial Bear Smart Status
- leveraging local research expertise to enhance the capacity of municipal service delivery

By understanding the pressures of living near humans, and, through comprehensive monitoring of urban wildlife, the expanded scope of this research will greatly improve practical understanding of human-wildlife interactions within the City of Prince George.

Research Team

Dr. Laura Graham, PhD, is the research co-lead for this project, and a current professor in the biology department at CNC, has been at the forefront of endocrinology, and has helped developed many of the techniques currently used to assess wildlife health. Research focuses on developing and applying non-invasive methods of assessing physiological function of wildlife species, and has spanned a wide range of species, from the Puerto Rican Crested Toad to African Elephants.

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Vanessa Uschenko, BSc, RPBio, is the research co-lead on this project, and is a Senior Researcher with 8+ years experience in applied research project design, implementation, data collection, analysis, and reporting. Research focuses on studying post-harvest plant biodiversity, riparian areas, fish habitat, wildlife, and wildlife habitat, with a strong interest in wildlife- human conflict mitigation. Vanessa has extensive experience using cameras for wildlife monitoring.

Timeline

Year 1

- Identification of potential camera sites, and installation of up to 50 trail cameras and signs
- Publication release to the public announcing the commencement of the project, re-activation of communication line (CNC cell phone)
- Set-up of community drop off site at CNC Campus
- Hiring of student (s) researchers
- Collection of scat samples city-wide until bears enter hibernation
- Regular download of trail cameras and upload of filtered photos onto Zooniverse platform
- Processing/analysis of samples collected during spring/summer/fall
- Regular correspondence and meetings with city personnel including bylaw officers (Quarterly)
- Regular social media content provided to both city personnel and project partners
- Fall bear awareness campaign (Deadline: Aug 31, 2026)

Year 2

- Generation of annual report summarizing findings from the 2026 scat and trail camera footage, including detailed map of current results/findings (Deadline: March 31, 2027)
- Spring roundtable event to share results and collect feedback (Deadline: May 31 2027)
- Publication release to the public announcing the commencement of the project, re-activation of communication line (CNC cell phone)
- Set-up of community drop off site at CNC Campus
- Hiring of student (s) researchers
- Collection of scat samples city-wide until bears enter hibernation.
- Regular download of trail cameras and upload of filtered photos onto Zooniverse platform.
- Processing/analysis of samples collected during spring/summer/fall
- Regular correspondence and meetings with city personnel including bylaw officers (Quarterly)
- Regular social media content provided to both city personnel and project partners
- Fall bear awareness campaign (Deadline: Aug 31, 2027)

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Year 3

- Generation of annual report summarizing findings from the 2027 scat and trail camera footage, including detailed map of current results/findings (Deadline: March 31, 2028)
- Spring roundtable event to share results and collect feedback (Deadline: May 31, 2028)
- Publication release to the public announcing the commencement of the project, re-activation of communication line (CNC cell phone)
- Set-up of community drop off site at CNC Campus
- Hiring of student (s) researchers
- Collection of scat samples city-wide until bears enter hibernation.
- Regular download of trail cameras and upload of filtered photos onto Zooniverse platform.
- Processing/analysis of samples collected during spring/summer/fall
- Regular correspondence and meetings with city personnel including bylaw officers (Quarterly)
- Regular social media content provided to both city personnel and project partners
- Fall bear awareness campaign (Deadline: Aug 31, 2028)
- A final report documenting findings of the research project (Deadline: March 31, 2029)

Confidentiality Statement

The following privacy statement has been provided by CNC regarding community participation for the urban bear endocrinology project.

“The researchers collecting information during this research project are not intending to collect any information about human subjects or to have human subjects directly participate in the study. When community members are disclosing photos and other information to us, we intend to make every effort to anonymize your photos and information when we store them. We ask that you aim to provide us with photos of bear droppings and/or bears that do not capture unique features of where you live or specific locations that you frequently travel. If your picture contains any other identifiable content besides a bear or its droppings, we will crop out the other features of the photo that are not relevant to our study to protect your privacy. Please do not use any watermarks or other identifying information that would suggest you as an identifiable person has sent us the photo. We will take every reasonable precaution during the study to limit the personal information collected during the process of collecting photos and samples. Please do not provide any personal information to any of the researchers that would identify you as an individual.”

All trail camera footage will be filtered through an AI software, and quality checked by CNC Researchers prior to the upload onto the Zooniverse platform for public access. No images of personal property (vehicles), faces, or any other identifiable material will be uploaded. Devices used will not record audio. Still images will be obtained only. Signs will be installed in obvious, unhindered areas to allow proper notification to the public the presence of the trail cameras.

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Budget

Description		Year 1	Year 2	Year 3	Total
Salaries					
College student research assistants	1-2 College student research assistants will be hired and trained each year to conduct field set-up and monitoring, as well as conduct in-lab work	\$ 40,035.00	\$ 40,835.70	\$ 41,652.41	\$ 122,523.11
Faculty release for faculty research lead	College faculty workload is 100% teaching. Faculty release covers the costs of re-allocating or hiring to make-up for time spent conducting research.	\$ 16,000.00	\$ 16,320.00	\$ 16,646.40	\$ 48,966.40
Lead researcher, CNC Research Forest Department (in-kind)	Full-time research staff in CNC's research forest department are fully supported by the CNC Research Forest Society. In-kind totals for this project are calculated at 33% FTE.	\$ 21,500.00	\$ 21,930.00	\$ 22,368.00	\$ 65,798.00
Operating & Equipment					
Equipment and materials	Including trail cameras, camera set-up materials, laboratory freezers, lab consumables, and cell phone costs	\$ 33,750.00	\$ 5,000.00	\$ 5,000.00	\$ 43,750.00
	Replacement supplies	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	\$ 3,000.00
Supplies (in-kind)	Supplies provided from CNC	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	\$ 3,000.00
Communications and travel					
Knowledge sharing and networking	In-person roundtable event at CNC, to present results to community representatives and interest groups	\$ 1,500.00	\$ 1,500.00	\$ 1,500.00	\$ 4,500.00
	Fall bear awareness campaign event	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	\$ 3,000.00
	Publication submission fees (0-1 per year)	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	\$ 3,000.00
Travel	Conference travel expenses	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	\$ 3,000.00
Travel and communications (in-kind)	CNC vehicle usage and promotion support from CNC communications	\$ 2,000.00	\$ 2,000.00	\$ 2,000.00	\$ 6,000.00
Total funds requested (Partners + NSERC CCSIF grant)		\$ 95,285.00	\$67,655.70	\$ 68,798.81	\$ 231,739.51
Total in-kind, CNC Research Forest		\$ 24,500.00	\$24,930.00	\$ 25,368.00	\$ 74,798.00
Total project costs		\$ 119,785.00	\$92,585.70	\$ 94,166.81	\$ 306,537.51

The above represents a reasonable, cost-effective estimate of the proposed expansion in research activities that aligns with College and Community Social Innovation Fund (CCSIF) criteria. CCSIF grants are part of the College and Community Innovation (CCI) program, which seeks to support innovative collaborative research between Canadian colleges and regional partners. Specifically, CCSIF grants are focused on realizing positive social, environmental and/or health outcomes for local communities. Partnership commitments are a crucial element of any CCI grant application. A letter of support and cash commitment to cover between 10 and 20 percent of the total external



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funds requested would be integral to our application and chances of success. Without CCSIF funds, the project team will not be able to expand the scope of current urban wildlife monitoring efforts.

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Reference Information

Kurjata, A. 2024. Calls for change as record 76 black bears killed in one B.C city. CBC News. <https://www.cbc.ca/news/canada/british-columbia/deadliest-city-bears-prince-george-1.7265548>

Leishman, E.M., Franke, M., Marvin, J., McCart, D., Bradford, C., Gyimesi, Z.S., Nichols, A., Lessard, M., Page, D., Brieter, C.J., and L. Graham. The Adrenal Cortisol Response to Increasing Ambient Temperature in Polar Bears (*Ursus maritimus*). <https://pmc.ncbi.nlm.nih.gov/articles/PMC8944560/>

McDonald, R.I., Colbert, M., Hamann, M., Simkin, R., and B. Walsh. 2018. Nature in the Urban Century. The Nature Conservancy. https://www.nature.org/content/dam/tnc/nature/en/documents/TNC_NatureintheUrbanCentury_FullReport.pdf

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The Fur-Bearers. 2025. Picking up Poop Helps Black Bears: Prince George, BC. Retrieved from: <https://thefurbearers.com/blog/picking-up-poop-helps-black-bears-prince-george-bc/>

Wilder Insights. 2025. Becoming Bear Smart: Safety, Science and Co-existence with Urban Bears- Part 2 | Ep 06. Retrieved from: <https://open.spotify.com/episode/4WuY5Senn9rL9Fsf0LV1j3?si=8dPVAJ0ZTK23-ntRouEbkQ>

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Appendix A: Project Methodology

Endocrinology

Sample Collection

The success of this project is highly dependent on the collection of sufficient biological samples (scat) from bears living in both urban and natural environments. All scat samples need to be fresh (<24hours), with date and general location (street name) recorded upon collection. Where possible, the entire scat pile will be collected. A photo of the scat pile is required prior to collection of the sample. CNC does **not** require, nor want to collect, any personal information associated with samples, including full names, and addresses of personal residences. Samples will be collected from April-November, during the period bears are active. All samples will be stored in the freezer until analysis can be completed.

Fecal Analyses

Fecal samples will be stored at -20C until processing. Samples will be weighed and then dried in drying ovens in the biology lab at CNC. Once dried, samples are re-weighed to determine water content (%) in the original sample as part of establishing sample age. An aliquot (0.2g) of each dried sample is placed in 80% MeOH (2 mls) and shaken overnight to extract lipid-soluble hormone metabolites following established protocols outlined by Leishman et al (2022). In house enzyme-immunoassays (EIAs) will be used to quantify fecal hormone metabolites reflecting adrenal function (cortisol), metabolism (thyroid hormones) and reproductive status (reproductive steroids).

Because hormone metabolism are species-specific, all assays will be validated in animals of known sex, age and condition housed at the Calgary Zoo to determine which anti-hormone metabolite antibodies will be most suitable in EIAs for use in black bears. Statistical analyses will be used to identify patterns in physiological variables related to environmental variables based on the location of sample collection. These environmental variables will include, but are not limited to, time of year, urban density, air quality indices, proximity of forested areas and wildlife corridors and proximity of potential obstacles to wildlife movement such as large, divided highways.

Camera Monitoring

Wildlife monitoring across the city is proposed to utilize a game camera network consistent with the protocols established by the Urban Wildlife Information Network (UWIN), which is a global organization set to improve city habitat for both wildlife and humans, and promote the development to improve information and knowledge sharing around the world. Membership within this global organization allows researchers to connect, compare and share findings on urban wildlife and their interactions with people in urban environments (Urban Wildlife Information Network, 2025). The wildlife imagery captured will not only be used for local research, but will contribute to the continually expanding global collection of urban wildlife monitoring imagery and data through this network.

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To ensure suitable distribution of cameras within the city, a 1 km grid was overlaid on the City of PG. As a result, a total of 326 potential camera locations were obtained. All cameras will be at sites established along an urban gradient (low-high density) and across a diverse range of habitats. Cameras will only be installed in green spaces and urban parks to avoid the unintended recording of people. Signs will be posted at each camera warning the general public of camera presence. All camera footage will be run through an AI program to remove members of the public that may be captured on cameras. A target of 50 cameras is planned, with a minimum of 30 cameras required to meet the protocol requirements. All camera locations will follow the protocol developed by UWIN, which has specific guidelines on camera placement, camera identification, download, image storage, privacy, and camera specifications. To encourage public involvement, camera footage will be uploaded to a platform (Zooniverse) which allows members of the community to participate in community science by sorting and identifying wildlife captured on the trail cameras within the city.