Citizen Science for Wildlife Protection In Gatineau Park And National Capital Greenbelt Canadian Parks and Wilderness Society

Project Summary Part I. Description

Participating organizations

- Canadian Parks and Wilderness Society Ottawa Valley Chapter
- Partner organizations the National Capital Commission,
- City of Ottawa,
- Eco-Kare International
- Ontario Road Ecology Group
- Local community members

Background or problem statement

This initiative supports our efforts to ensure that connections are maintained across the landscape in order to allow for the movement of species. Eastern Ontario is a key region for ecological connectivity, CPAWS-OV pioneered the concept of linking Algonquin Park to Adirondack State Park over 20 years ago and we continue to support this initiative now known as Algonquin to Adirondacks or A2A. Roads are a major source of fragmentation in this region. This project aims to address some of the fundamental issues associated with roads by focusing on segments of high traffic roads within protected area in proximity to a major urban centre.

To that end, the funding provided by the NAPECA program allowed us to hire an intern for the field season and also allowed us to devote some other staff resources, including our Conservation Biologist, to the project. We identified 5 priority roads that cross protected areas – these were Quebec highway 5 – a major north-south divided 4-lane highway that connects the northern part of the region to downtown Ottawa, Roger Stevens Drive, a 2-lane, high speed road connecting Ottawa with the town of Smiths Falls, the Gatineau Parkway – a roadway inside Gatineau Park used to connect various attractions in the park, and finally segments of road near Mud Lake and Britannia Conservation areas in Ottawa. This area is known for its abundance of turtles, many of which are killed on the road during the summer season

General description of the project

Our work consisted of engaging a group of volunteers, including many youth and recent university and college graduates, to collect data along these segments of road. Volunteers were asked to collect this data as often as possible, but not less than twice a week. They were to report any wildlife on or near the road, dead or alive. We provided training on basic safety, on how to identify wildlife which may have been crushed by vehicles and how to use our reporting system. We also conducted surveys of our own, using our own staff resources. Our road ecology intern conducted several surveys during the field season. We established a database into which all data was entered, once the field season over, our road ecology technician used the data to produce maps illustrating the data. We were pleased to see the emergence of several "hot spots" or areas of high mortality, thereby confirming our hypothesis. Maps were created for each site and, in some cases, of each hot spot. These maps helped us develop recommendations to address each site, as they are all different and a "one size fits all" approach would not work. We then organized meetings with decision-makers and other officials responsible for these roads, namely the City of Ottawa and the National Capital Commission. A report was drafted containing information on the numbers of animals encountered, maps of the various locations and our recommendations to each agency responsible for the areas in question.

Description of outcomes and follow-up

In addition to producing the maps and gathering the data used to create them, this project achieved much more. We engaged youth in conservation, educated the general public on road ecology issues – we estimate about 50,000 people would have seen a social media post or other material (brochure, etc) produced as a result of this project. We also secured commitments from transportation agencies to explore mitigation measures as these roadways are reconstructed in the next several years. In terms of follow up activities, we plan to conduct another season of surveys in these same areas in 2017 in order to compare one season to the next as well as establish a long term data set for the region. We received very positive feedback from the agencies responsible for the roads in question as a result of this project and we expect some mitigation measures to be put in place in the next number of years. In fact, we expect to partner with the City of Ottawa in 2017 to test exclusion fencing, signage and other temporary mitigation measures.

Project Summary Part II. Analysis

Successes

The project was highly successful; we completed all of the initiatives which we committed to in our proposal and subsequent funding agreement. As noted above, we were very pleased by the response from volunteers and the general public. Moreover, our partners were very supportive and their participation enabled us to complete this project within our budget. This project helped to solidify out road ecology program and build the required capacity within the organization to carry out similar projects in other parts of our region. Moreover, it allowed CPAWS-OV to position itself as a leader in the region in terms of roadwildlife issues.

While not a direct output of this specific project, during the last year we also completed a guide book for citizen scientists to further engage them in road ecology issues as well as launching a process to create a mobile "app" to enable the general public to safely and easily report on-road wildlife to us (to help bolster our database and help us identify other problematic roads throughout our region). We hope to have the app operational by the summer of 2017. We have been invited to share the results of this project with other organizations, universities and decision-makers.

The maps and other tools created will help communicate the impacts of roads on wildlife and on connectivity to the general public for many years. The funding provided by NAPECA and our partners was sufficient to fully execute the project.

Challenges

Notwithstanding the successful nature of this project, we did encounter some challenges, namely in our ability to recruit a large number of volunteers to assist with the project delivery. We were anticipating approximately 200 volunteers, but in fact the actual number was closer to 150 people. This can be attributed to the intensity of the project and the amount of training required in order to effectively volunteer. We also had some volunteers attend our training sessions, where we invested in preparing them to carry out project work, only to have them withdraw before commencing their surveys. We also carried out most of the project in English and there were some challenges in terms of the engagement of francophones from Quebec – some material was translated into French, but we were unable to translate all of it. The distance of the locations surveyed also had an impact on our ability to recruit volunteers. A number of those interested did not have access to a vehicle and therefore were unable to carry out regular surveys.

Lessons Learned

These challenges allowed us to learn certain lessons, namely the importance of having all of our project material available in both official languages before it is launched. We also learned that while volunteers are generally highly valuable and without whom a project like this would not be possible, we cannot rely on them for all project components and it can be expected that certain volunteers will leave the organization for work or other reasons. We discovered that there is a need to continually refresh our volunteer pool with ongoing training and engagement opportunities, which, in turn, results in a considerable amount of staff time being allocated to volunteer management.

What Next? What will you do and what should others do?

While this project is considered complete, we will continue to survey the segments of road in question, on an annual basis for the next several years in order to validate our data from 2016 and to detect any trends which may be emerging in terms of abundance of species or other indicators. We also plan to extend our surveys to other roads in the region, including certain roads within the city of Gatineau. Much like with the NAPECA funded project, we will work to identify hot spots and then map them and propose site-specific conservation and mitigation measures based on the conditions of the local environment and species encountered. We will continue to work to engage the public and decision-makers in these issues and seek to engage other environmental groups. The Canadian Wildlife Federation is launching a freshwater turtle conservation initiative in 2017 and we will be sharing some of our data with that organization as they work to better understand the threats facing turtles in Ontario. We are also launching a guide book for citizen scientists in order to further engage the general public in road ecology issues and also hope to launch an "app" that will allow the public to safely and easily submit data to CPAWS-OV to help populate our database and help us learn about other regional hotspots, both current and emerging.

For more information about the project please contact:

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