

***Baseline Pollinator Assessment and Crop/Climate
Analysis***

**Request for Expressions of
Interest**

Issue Date: Friday March 13, 2020

Submission Deadline: Friday March 27, 2020

Direct Enquiries and Submit Application to: BNFFG@bcagclimateaction.ca

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1. The Project

This project is identified as a priority action in the [Bulkley-Nechako and Fraser-Fort George Adaptation Strategies](#) (Strategy 4.3). This plan (completed in the spring of 2019 by the [BC Agriculture and Food Climate Action Initiative](#)) identifies the potential impacts of climate change, and suitable strategies and actions for adaptation, for the Bulkley-Nechako and Fraser-Fort George (BNFFG) agriculture sector (the “**Project**”).

Pollinators play a critical role in seed and fruit production, and influence crop yield and quality. The acreage in crops dependent on insect pollination¹ is relatively modest in the Bulkley-Nechako and Fraser-Fort George region. However, some of these production types are expanding and/or are expected to increase as the climate changes. Little is currently known about the pollinators in this region and influence of the agriculture/ forest interface on pollinator populations.

The impacts that climate change could have on both managed and native pollinator populations is unknown, but climate change may reduce critical pollination windows. Climate change will also compound and exacerbate other negative pressures on pollinators including loss of habitat, risk of disease, and impacts from pollution and pesticides. Understanding how these populations will be affected by climate change, as well as how to enhance pollinator and beneficial insect populations, will also support agricultural resilience.

This project includes a baseline analysis of local pollinator populations, the crops they pollinate and interactions with climate change. The local pollinator population analysis will be completed through a combination of a literature review, monitoring pollinator populations at a selection of representative sites across the region, and species identification.

Developing the detailed methodology for the research on crop/climate interactions, and crop/species interactions is the first step of the project, and is likely to involve an in-depth literature review combined with a review of specimen collections. The project will develop a replicable approach for assessing pollinator, crop, climate interactions which may be valuable for implementation in other parts of BC. The project also includes an initial scan of resources pertaining to pollinator habitat enhancement and agricultural best practices.

This project has been defined and will be collectively managed through a local multi-stakeholder Working Group and project Steering Committee (the “**Committee**”). Partners on this project include: the BC Agriculture and Food Climate Action Initiative, the BC Ministry of Agriculture, the Regional Districts of Bulkley-Nechako and Fraser-Fort George, University of Northern British Columbia and a number of regional Cattlemen's Associations and regional Farmers' Institutes.

The University of Northern British Columbia (“**UNBC**”) will be the Principal Investigator and the fund holder/administrator for this Project.

2. Definitions

Throughout this Request for Expression of Interest (“**RFEOI**”), the following definitions will be used:

- a) “Contract” means a written contract executed by UNBC and the Contractor as a result of the RFEOI process and subsequent processes;

¹ Crops in the region benefitting from insect pollination include: fruits, vegetables, berries, canola and forage seed

- b) “Contractor” means a Qualified Respondent who is the successful Proponent who enters into a Contract with UNBC;
- c) “Qualified Respondent” means a Respondent possessing the qualifications described in this RFEOI;
- d) “Respondent” means an individual or a company that submits, or intends to submit, a Response;
- e) “Response” means a statement of qualifications submitted in reply to this RFEOI; and
- f) “RFEOI” means the process described in this Request for Qualifications.

3. Request for Expressions of Interest

The RFEOI should not be construed as an agreement to purchase any goods or services and does not commit the Committee or UNBC in any way to award a contract or contracts.

The full budget for this project has not been confirmed and the Committee and UNBC reserve the right to a) not award any contract, b) reduce the scope of the project or c) issue contract(s) for the full project.

3.1 Purpose

- Through this RFEOI process the Committee intends to review expressions of interest, evaluate and award one or more contracts.
- Contract(s) will be awarded through UNBC, if any.

3.2 Enquiries

All enquiries related to this RFEOI are to be directed, in writing, to the contact person at the email address on the front cover of this RFEOI. Information obtained from any other source is not official and should not be relied upon.

3.3 Closing Date

One electronic copy of each response must be received before 17:00 on March 27, 2020 at the e-mail address on the front cover of this RFEOI. Responses must not be sent by facsimile. Responses should be clearly marked with the name and address of the respondent and the project title.

3.4 Late Responses

Late responses will only be accepted if an extension is provided 24 hours in advance.

3.5 Review Committee

The review committee is expected to include the following representatives:

- 1 representative from UNBC
- 1 representative from the BC Agriculture & Food Climate Action Initiative
- 1 or more professional entomologists
- 1 or more Ministry of Agriculture representatives
- 1 or more local agriculture producers
- 1 or more Regional District representatives
- 1 or more forestry professionals

3.6 Review and Selection

This RFEOI will be used for a selection process for this project. If multiple responses meet all criteria, interviews will be scheduled to complete selection.

The evaluation criteria are in Section 5.

3.7 Signed Responses

The response may be submitted electronically, please sign your EOI.

3.8 Acceptance of Responses

The RFEOI is not a binding agreement to purchase goods or services. Responses to an RFEOI are assessed in light of the qualification review criteria and, if chosen for the shortlist, will be contacted for further discussion.

3.9 Changes to Response Wording

The Respondent will not change the wording of its Response after the closing date and time specified on the front cover of this RFEOI and no words or comments will be added to the Response unless requested by the Review Committee for purposes of clarification.

3.10 Respondent Expenses

Respondents are solely responsible for their own expenses in preparing a Response and for subsequent negotiations with the Review Committee, if any. The Committee nor UNBC will be liable to any Respondent for any claims, whether for costs or damages incurred by the Respondent in preparing the Response, loss of anticipated profit in connection with any final Contract, or any other matter whatsoever.

3.11 Acceptance of Responses

This RFEOI is not an agreement to purchase goods or services. UNBC is not bound to enter into a Contract with any Qualified Respondent. Responses will be assessed in light of the qualification review criteria.

3.12 Modification of Terms

The Committee reserves the right to modify the terms of this RFEOI at any time in its sole discretion. This includes the right to cancel this RFEOI at any time for any reason.

4. Services

The qualified respondents will be required to perform, and be responsible for, the following services if they are selected following the RFEOI process.

Project management

- Initial consultation with Project Oversight Committee (POC) to develop a detailed workplan.
- Inclusion of POC input into project deliverables.
- Meetings/consultation with key project partners.
- Frequent and brief e-mail and/or telephone progress updates to client (or client's representative).

1) Methodology, workplan development and partner engagement

- Consult with producers and other experts to determine which crops are of key interest.
- Secure producer cooperators for data collection sites.
- Integrate considerations related to forestry (e.g. availability of nectar and pollen in nearby forest landscapes).
- Review [United Nations FAO](#) methodology and other potential approaches.
- Develop research methodology including: DNA bar coding, trapping methods (sticky traps, or collection off of the flowers) etc. Other options for possible inclusion are:
 - Log temperatures during collection, organize and analyze data.
 - Collect extra samples for different types of testing (i.e. molecular tests and PCR tests).
 - Qualitative check re: insect health during sorting of the specimens.
- Determine a framework for data evaluation.

2) *Literature review and review of specimens*

- Complete literature review on pollinators, crops, and climate change linkages (i.e. temperature and variability thresholds for crop and insect health).
- Review (remotely) specimen collections across Canada.

3) *Field work and impacts analysis*

- Conduct field work to trap and identify pollinators at targeted sites located across the region.
- Compile and analyze field work data and interpret in context of literature review findings.

4) *Best practices review*

- Identify and summarize existing resources and programs related to pollinator habitat enhancement and agricultural best practices that are relevant to central and northern BC.

5) *Project communications and final report*

- Complete a report and presentation on preliminary findings.
- Complete a fact sheet summarizing key report findings.
- Coordinate and facilitate discussion about assessment between entomologists, researchers and farmers as part of sharing assessment outcomes.
- Support development of a detailed budget and project scope for future work.

Deliverables

- Literature review
- Baseline data set
- Best practices review
- Final report on results (including replicable methodology)
- Communications materials (fact sheet, one-pager, PowerPoint presentation)
- Workshop, webinar or multi-stakeholder conference call

5. Evaluation Criteria

The criteria below will be used by the review committee to produce a shortlist or to directly select a successful candidate.

Skills and Abilities

- Strong research skills including ability to: complete literature/specimen review, conduct consultations, review and clearly summarize input, explore methodological options and develop methodology.
- Strong interpersonal skills that enable positive and productive interaction with stakeholders, particularly agricultural producers.
- Ability to coordinate and execute field work.
- Skills in entomology data collection and analysis and knowledge related to crop pollination.
- Ability to synthesize information from a variety of sources/disciplines.
- Ability to summarize and share research outcomes findings in accessible communications materials and presentations.
- Ability to coordinate and facilitate multi-stakeholder discussions.

Experience and Education

- Formal education in entomology or a related field (Masters level or higher).
- Experience gathering, utilizing and interpreting weather and/or climate data.
- Experience collecting, analyzing and interpreting raw data.

- Experience working with agriculture with preference for working with the agriculture sector in the BNFFG region.
- Project management experience leading research projects within a set timeline and budget.

6. Submission Requirements

All submissions are required to include the following:

- A. Cover letter or a statement of interest
- B. A resume outlining the respondent's experience, and clearly responding to the evaluation criteria
- C. Three professional references

7. Conflict of Interest

A conflict of interest exists wherever an individual could benefit directly or indirectly from access to information or from a decision over which they may have influence and also includes a perceived conflict where someone might reasonably perceive there to be such benefit and influence. A conflict of interest occurs when a staff member or consultant attempts to promote a private or personal interest that results in an interference with the objective exercise of their job responsibilities, or gains any advantage by virtue of his/her position of employment. Conflicts of interest may be real, potential or perceived.

The respondent should disclose conflicts of interest, in writing, to the review committee who will consider the nature of the respondent's responsibilities and the degree of potential or apparent conflict in deciding the course of action that the respondent needs to take to remedy the conflict of interest.