

Summary of the NLNature focus groups and interviews

Fall 2015

Gisela Wachinger¹ and Yolanda Wiersma²



1. Centre for Interdisciplinary Risk and Innovation Studies, University of Stuttgart, Germany.
Email: gisela.wachinger@zirus.uni-stuttgart.de.

2. Department of Biology, Memorial University, St. John's, NL, A1B 3X9. Email: ywiersma@mun.ca.
Ph. 709-864-7499

In the following overview, we present the first results of the focus groups and interviews with NLNature participants. We conducted two focus groups and 8 interviews in September and October 2015. Focus groups and interviews were approved by ethics clearance ICEHR No. 20160422-SC from Memorial University's *Interdisciplinary Committee on Ethics in Human Research* granted to Drs. Wiersma and Wachinger. The summary notes here are based on transcriptions of audio interviews made by Dr. Wachinger and students under her supervision. We thank Caren Moirongo, Tobias Biehle and Robert Meldt for their hard work in transcribing the interviews and helping to prepare this summary document.

During these meetings we asked people to provide us with information about their focus when they are participating on the website and posting sightings, about their motivation and their interest in participating in research. We discovered that NLNature has a lot of experts in certain animal and plant groups and many brilliant photographers. Our partners in the interviews have given some very helpful recommendations to improve the website, too. We would like to thank the 16 participants who helped us to evaluate the NLNature website, and who took the time to talk with us and to take part in this first step of a new project. We were very gratified by the enthusiasm which members of NLNature show for the website and we are inspired to work to improve the website and build new projects with our partners in the province.

Based on what we heard from participants, we plan to start a more targeted research project, where we will ask all participants on NLNature to give us specific sightings to address a given research question. We asked our interview/focus group participants what kinds of research questions they would be interested and which environmental problems they feel should be addressed by a citizen science project. We are in the process of applying for funds and seeking out partnerships to carry out technical improvements to the website. As we start to update the website, we will come back to you with questions and requests for feedback.

We sincerely thank everyone who has taken part in posting sightings to NLNature.com. Without your contributions we could not have started this research. You give us all a clearer picture of the natural habitats of Newfoundland and Labrador and will be an important component of future targeted research projects.

Below is a short summary of some of key points we heard in the interviews and focus groups, organized by theme. In the near future, we hope to synthesize these points into a more formal paper/report, which we will also share with you.

I. Focus of the sightings the interview-participants post on NLNature.com]

- Birds
- Plants (in general)
- Amphibians
- Insects (in general)
- Bees
- Bugs
- Fishes
- Invasive species (in general)

II. Motivations that people expressed as to why they post sightings and/or what they search for on NLNature.com

i. Curiosity

- Interest in particular kinds of animals/plants (see Focus list, above)
- Getting to know local wildlife (which animals/plants are there in general? Which species are found where?)
- Interest in rare/unusual species and where they are found, following up on interesting findings
- Excitement in finding rare flowers
- Finding out what certain species people saw are called (identification)
- Finding out more about plants/animals they saw and didn't know before
- Professional interest in seeing how crowdsourcing works

ii. Social aspects of motivation

- Being proud of the valuation you get from other users
- Provide a nurturing environment for the next generation means nurturing the curiosities surrounding them
- To give biological education back its importance
- Exchanging ideas with other users (deficient, the community is too small)
- Getting to know different points of view from users from different areas
- Exchanging interesting findings with other users
- Gaining further information on animals/plants by other users
- Getting in touch with other people who care about nature from different areas of Newfoundland, gaining information about local wildlife from them
- Feeling like being part of a bigger group working toward a common purpose
- See what other people are posting
- Change of lifestyle; wanting to venture into something new

iii. Creating knowledge

- Proud to create interesting content for others
- Providing interesting information for others
- Educating others about nature
- Sharing uncommon sightings and confirming interesting sightings of other people
- Sharing interesting experiences
- Monitoring biodiversity for future comparisons
- Creating an inventory of certain animals (e.g. insects, bats)
- Tracking new species
- Collecting information that helps animal health research
- Feeling that a sighting could be useful for university research, feeling of being able to help researchers
- Being able to participate in science
- Creating a “big data”-collection to support/complement other citizen science projects
- A specific research question, asking members for sightings of certain species or sightings in a special area, would encourage people to participate
- Explanation why it is important to provide sightings would be motivating
- Feedback about how the data is used, which sightings were useful, would be motivating
- Exchange ideas on what one can do to improve the habitat

iv. Other

- NLNature.com as a place to store pictures
- Enjoying nature, being outside
- Enjoying photography
- Being motivated by a relative (or an entrusted friend) who has been active on the website, a way to foster personal bonds
- Seeing NLNature getting important in future

III. Environmental problems in Newfoundland and Labrador: What could/should be addressed by research?

- Extinction of house sparrow
- Eagle population
- Disappearing bats, white nose syndrome
- Climate change in general
- Extreme weather
- Changes brought about by climate change → new species
- Problems that new species create – invasive species (e.g. birds, bees, flowers)

- Recent drastic increase of mint in a certain area
- Oil leak of ship Manolis L
- Possible radiation out of an old mine in St. Lawrence
- Too much development
- Offshore oil
- Gill nets
- Waste mismanagement
- Too much consumption, waste of natural resources
- Power line that is set up near the residence of one of the interviewees
- Unregulated development, government failure in that regard
- Expansion of major cities like St. Johns
- Lack of green spaces in urban areas
- Population growth
- Animals affecting the fish population
- Water treatment
- Bee health, colony collapse disorder
- Health of moose and caribou

IV. Which research questions are important in the context of climate change? Which questions should/could be addressed by citizen science projects within NLNature?

i. General ideas

- Behaviour of species
- Are certain species in decline?
- Migration patterns of species, e.g. invasive species
- How does biodiversity change over time?
- Factors influencing the emergence of new species/disappearance of old species
- Which range do certain species have?
- Do certain species show up recurrently?
- Animal health
- Pressing environmental issues i.e. climate change and conservation
- Updating range maps for migrating birds

ii. Examples, specific ideas

- Robin population
- How can more bees be attracted?
- Archeological sites
- Coyote population
- History of the forest
- Is there a connection between storms and the occurrence of exotic tropical

- birds/invasive species?
- Do numbers of birds decline because certain insects they eat are not available?
- Occurrence of plants/animals that reflect water quality, e.g. in a river at Torbay
- Bee health, colony collapse disorder
- Health of moose and caribou
- Comparing the degrees of management/naturalness of different forests

iii. Meta-questions

- How can you get people involved with NLNature?
- Interest in how to break in into different demographics, how to get more people involved

One participant doubts that NLNature can be used to answer scientific research questions; the data are not scientific enough and you don't find enough dedicated people.

V. Suggestions for improvements to the website

- Improve the overview of sightings to help people navigate and find what they are looking for, e.g. flora - fauna and then differentiate further
- Provide better options to move back and forth between sites
- Modernize the design
- Mobile phone app to submit pictures easily, directly from the phone
- Localisation feature, where you took the picture is unhandy at the moment, maybe add a tool to click on the map and get the GPS data
- The size of pictures you can upload is just not big enough, the resolution has to be good enough to see details.
- Use metadata from the picture
- Add a feature "how far away were you when you took the photo"
- Add a category of unidentified species, because for some people it might be fun to identify them
- Improve the search engine (by tagging photos)
- Uploading little video clips, sounds on the website
- Position of the finish button irritates.
- Back-button
- Bring the newsletter more often
- Update the drop down list of towns; many towns are missing on the list
- The website should be more detailed and with qualitative information
- Organising the website i.e., creating sub groups for mushrooms, birds, etc.
- Web design (Refreshing the website)

VI. Recommendations for future projects

- Don't go for complete new web design. Too much change is not always good.
- Don't change too much. Internet access and costs for that are limiting
- Request people to provide as much data they can (where you saw it, what did it do, does it have a special mark?)
- The website is very good for people not being that familiar with computer, doesn't think it could be a lot better, very efficient
- Assemble a panel professionally trained biologists and use their expertise
- Back and forth communication might increase the use of the site