PLACE-BASED CITIZEN SCIENCE IN ALBERTA

Miistakis Institute Alberta

BILL ABERCROMBIE ROBERT ANDERSON

Lessons
- be prepared to listen
- success not defined by publishing in
- relationships take time · provide feedback
- citizen science is not a threat

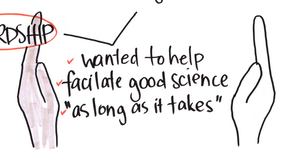
Citizen Initiated : Trappers interest in Wolverines
Active involvement in design

Trapping Records → Survey → WAYS to ACTIVELY INVOLVE TRAPPERS > camera traps → Grad Student

TRAPPERS
- long history
- traditional bush culture
  LIFE'S BLOOD
- integrated into Land + Ecosystem

the VALUE
- data on data deficient species
- could do MORE than with own staff
- bridge building → trust
- habitat protection

SOUND SCIENCE : STEWARDSHIP
Wildlife management



- wanted to help
- facilate good science
- "as long as it takes"

Alberta Conservation Website

?

CHALLENGES OF PUBLISHING CITIZEN SCIENCE DATA?
resistance from papers, variety of sources (ie: local knowledge · biased?)

??

DATA EXPLOITATION?
restrictions (geo-references), rare species - shared with Parks + with tribe
Bill: trappers' unfounded paranoia · time to overcome suspicions

?

BALANCE QUALITY CONTROL + DATA COLLECTION NEEDS + EXCITING VOLUNTEER EXPERIENCE?
attract + SUSTAIN involvement, volunteers take it seriously, harder with randomization - provide alternatives

LESSONS LEARNED:

1. addressing inherent tensions
   true value is in the marriage + compromise
2. ensuring diversity of skillsets
   full complement of expertise
3. get the technology right
   an "app" is not a program
   driven by the goals + objectives

4. Establish data quality + validation components
5. Ensure the data need is appropriate?
   interesting, engaging, technical, onerous
6. Invest adequate resources
   citizen science costs money
   would have been cheaper to hire someone to achieve science goals

MIISTAKIS INSTITUTE

DANAH DUKE

- frameworks + tools to support citizen science initiatives

EARTHWATCH VOLUNTEERS?
interested in conservation
sharp + eager to learn
language issues, 1st time in area

ELLIOT FOX

EARTHWATCH.org

2012: Narcisse Blood + Christina Eisenberg
Friendship + Partnership

OBJECTIVES from BISON TREATY
- Contributions to the Kainai First Nation
- Kainai Contributions

EXPEDITION
Restoring Fire, Wolves + Bison to the Canadian Rockies

Part of the CROWN of the CONTINENT and YELLOWSTONE — YUKON RANGE

Colonialism = DeWilding

2017-2018 100+ Earthwatch participants

BLACKFOOT SCIENCE
- learn from elders
- engaging the next generation
- found archeological sites
- tracking wolves + fire

4 to Volunteers

WHY? Contribution friendships learning

DEMOGRAPHICS
30-74, retired, physically active
self recruiting

TRAINING + SAFETY
every measure

PRACTICUM STUDENTS
primarily from Canada but global (24 diff countries)

COMMUNICATION
Dropbox · emails
self regulating

JOHN PACZKOWSKI

ECOLOGY PROJECTS
Crossings, snow trackings, wolverine research
bobcat inventory, wildlife corridors + human use, grizzlies

DATA is INFORMING DECISIONS

CHALLENGES
safety, traffic "better impact"

APPS
ArcGIS
Park Ecology

streamlines the process

Lots of work in the background

BRADLEY PETER

Requests come from community concerns

LAKEWATCH [no boats] → work with volunteers on the water
@600 volunteer hours

How to calculate in-kind contributions?
budgets, time + energy

Robust: Parameter Collection
Data housed by Alberta Environment + Parks
↳ every lake recorded receives a report

DATA to POLICY?
address in program design (stakeholders as partners)
data should be property of people
- transparency

let govt + private sector do what they want

SUCCESSES:
- data housed
- learning from local knowledge

CHALLENGES:
- don't get recognition of Citizen Science programs contributes to bias against CitSci data
- logistics driving distances
- multi year funding · apply every year
- safety
- hold times
- instructions + procedures

NEW PROGRAM:
Lakekeepers · all equipment + materials
"it's a PILOT project"
Aquatic Plant Field Guide

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