Invasive Species Council of BC

Observations from BC

Lessons from BC's citizen science programs

Gail Wallin

Executive Director, Invasive Species Council of BC

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Outline

1. **Citizen Science**
   - i. CCCIS Approach
   - ii. BC Overview
   - iii. Common Trends
2. **Recommendations**
   - i. Key participants
   - ii. Tools and Technology
   - iii. Tracking and reporting
   - iv. Partnerships and funding
   - v. General Principles

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Overview

Challenge- is it science?

citizen scientists may not be as accurate and reliable as that done by specialist

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Why Citizen 'Science' ?

Engage citizens

Increase awareness

Increase 'data' and information

Connect with expert oversight

Citizen science data can be valid…

…. and comparable professionals

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Current Approaches

Over 70 programs reviewed

Identified common approaches and needs

Review and build on successes

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Citizen Science in Action

ocean wise®

- **BC Cetacean Sightings Network**
- Citizen reporting
- Data compiled for research

- **Shoreline Cleanups**
  - Engage community, workplace, schools, youth
  - Level of scale- debris removal, influence policy
  - Collect data to identify marine hot spots

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Citizen Science in Action

Regional District of Central Okanagan

Butterfly Bioblitz

- Involved student interpreters
- Engaged young children to collect observations

BC Parks Bioblitz

University of Victoria

- Teams travel to BC parks to inventory species
- UVic student observations detected a species not previously known to be in Canada

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Citizen Science in Action

Includes: Annual bat counts

Winter surveillance

Guano sampling

Needs: standard protocols

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Citizen Science Across North America

Washington Invasive Species Council

- Invasive species first detector program

OISEAUX CANADA BIRDS CANADA

- Christmas bird count
- NatureCounts

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Citizen Science Across North America

SFU

+

COSEWIC

Committee on the Status of Endangered Wildlife in Canada

- Links between citizen science and political process
- Using citizen science data to understand migration routes

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COMMON COMPONENTS

1) Require volunteer commitment- ½ to 12 days

2) Ability to follow a data collection protocol.

3) in-depth learning experience for volunteers

4) provide data to detect trends.

5) most are fairly self-sufficient,

Key Participants

- Connect researchers and citizen scientists to guide development of new technicians and researchers
- Engage youth through new media
- Promote opportunities through volunteer ‘trade show’

Tools and Technology

- Create ‘citizen science portal’ where you can connect with projects and reporting tools
- Attractive user interfaces will increase app use
- Technical advisory network to improve available technology

Tracking and Reporting

- Identified need for a centralized database that contains records from all reporting apps
- Centralized database that could be updated directly from apps

Partnerships

- Seniors and retired people
- Garden clubs, gardeners
- Youth including high school
- Ecotourism- an opportunity
- Service Groups

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Recommendations

Summary

1. Ongoing financial support- initial and ongoing; can be leveraged by volunteers
2. Institutional support: salaried staff time to provide continuity.

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Recommendations

Summary

1. Volunteer recognition and management
2. Program “champions” and promoters
3. Pilot program- strong methodology to collects quality data and is sensitive enough to detect changes

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Recommendations

5. Must have **meaning**: data is useful; being used
6. **Community**: works on common goals and social connection
7. **Recognition:** volunteer efforts are appreciated,, ideas and opinions of volunteers are heard.
8. **Time:** must fit within the constraints of what volunteers can commit on an ongoing

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Recommendations

9. Communication and Trust: requires ongoing communication; establish a positive social climate
10. Learning: learning and gaining understanding and an inside perspective on science can be motivating

Engage people first

-then focus on science needs!

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Recommendations

Increasing public reporting is the goal

Analyzing data is next step

Recognizing contributions is vital

Thank you!