Coordinated Monitoring Programs

2011 Muskoka Stewardship Conference

April 30, 2011

Table 1 Summary of pros and cons of governance structures for CBM groups

	Consultative/functional	Collaborative	Transformative
Details	Gov. led, community run; gov. recognizes problem and uses CBM group to monitor **(Lake Partners – 121 lakes in Muskoka)**	Involves as many stakeholders, individuals, etc. as possible; often based on a non-politically demarked area (i.e. watershed)	Community led, run and funded; community recognizes problem trying to get gov. attention (**Lake Association**)
Pros	May lead to long-term data sets; often successful in short term	Often more decision making power than other structures	Can be successful with community and stakeholder support

Table 1 Summary of pros and cons of governance structures for CBM groups

	Consultative/functional	Collaborative	Transformative
Cons	Dependant on gov. funding; less diverse stakeholders	None published	May not be diverse (i.e. only activists), problems with credibility and capacity Monitoring issues that are not governed by legislation

Conrad, C.C. and Hilchey K.G A *Review of Citizen Science and Community-based Environmental Monitoring: Issues and Opportunities*

Benefits of Citizen Science

- Increasing Environmental Democracy
- Scientific Literacy
- Social Capital
- Citizen Inclusion in local issues
- Benefits to government
- Benefits to ecosystem monitoring
- Increased commitment to stewardship

Conrad, C.C. and Hilchey K.G A *Review of Citizen Science and Community-based Environmental Monitoring: Issues and Opportunities*

Challenges for Citizen Science

- Organizational Issues
  - Volunteer interest
  - Networking opportunities
  - Funding
  - Information access

Conrad, C.C. and Hilchey K.G A *Review of Citizen Science and Community-based Environmental Monitoring: Issues and Opportunities*

Challenges for Citizen Science

- Data Collection
  - Data fragmentation
  - Perceived or real data inaccuracy
  - Lack of participant objectivity
  - Lack of experimental design
  - Poor sample size

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Challenges for Citizen Science

- Use of monitoring data
  - Data not used by decision-makers
  - Data not analyzed
  - Stewardship programs not developed and implemented

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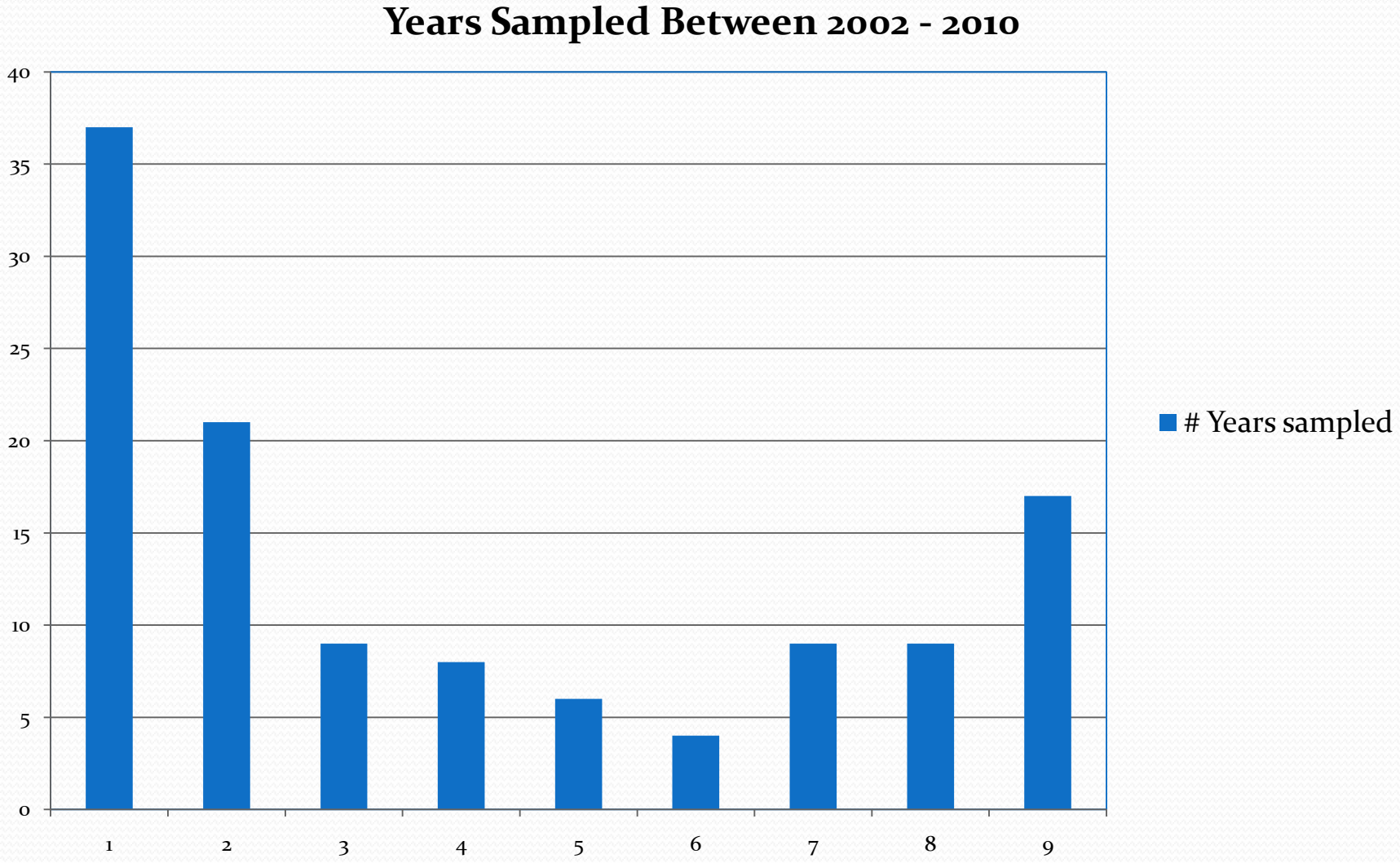
Lake Partner Summary



Association Data Summary

- Georgian Bay Coastline
  - 11 years of data
  - About 140 sites along the Coast
- Georgian Bay Inland Lakes
  - 5 years of data
  - > 6 lakes

Association Data Summary

- Muskoka Lakes Association
  - 9 years
  - 2002 – 17 sampling areas, 70 sites (3 large lakes only)
  - 2010 – 45 sampling areas, 189 sites (11 small lakes & 3 large)
- Lake of Bays Association
  - 9 years
  - 30 sites across the lake

District of Muskoka Data

- 193 site on 164 lakes
- Lakes monitored every 2 or 3 years
- Over 30 years of data
- Data used to develop municipal land use policy
- Full suite of chemical analysis performed

Challenges for Citizen Science

- Organizational Issues
  - Volunteer interest — Association
  - Networking opportunities — MWC/DMM/ASS
  - Funding — Lake Partners/DMM staff
  - Information access — DMM/MWC

Challenges for Citizen Science

- Data Collection
  - Data fragmentation — Collaborative
  - Date inaccuracy — Training
  - Lack of participant objectivity — Training
  - Lack of experimental design — MOE/DMM/ASS
  - Poor sample size — MOE/DMM/ASS

Challenges for Citizen Science

- Use of monitoring data
  - Data not used by decision-makers
  - Data not analyzed
  - Stewardship programs not developed and implemented

end result

collaborative program

DMM/MWC/ASS.

Considerations

- Use existing programs – like lake partner, Association programs, District program
- Verify that monitoring process is comparable
- How do we facilitate the comparison of data?
- How do we develop stewardship and other implementation programs?

Next Steps

- Move toward a collaborative model – MOE/Muskoka/Lake Associations
- Consolidate existing monitoring into a watershed-wide program
- Develop annual training programs
- Hold networking sessions across the watershed

QUESTIONS?