



Annual Report *2011*

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Columbia Mountains Institute of Applied Ecology

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1 Message from the President

Our past year has been busy! Despite the reduced travel provincial and federal travel budgets, all of our events have been successful. This is perhaps explained by the larger private sector attendance (see the graph on following pages). An important result of this activity, and the other efficiencies that we instituted this time last year, was a small financial surplus. Another important factor in our ability to maintain this positive balance was the financial contribution to our operation that Parks Canada made last spring. This enables us to reinvest in our infrastructure this coming year and keep our courses and conferences running smoothly.

In our course offerings, Dr. Carl Schwarz from Simon Fraser University was hard at work with four interesting statistical method workshops in Revelstoke over the year. Carl started in the spring with Trend Analysis and Mark-Recapture Studies courses, and followed these up in the fall with the perennial favourite: Statistics for Biologists. His last course was a specialized course on Occupancy Modelling.

Our AGM and Annual Researchers Meeting was held in Kimberley this year, and was a well-managed affair largely organized by CMI Directors Leigh Anne Isaac and Tara Szkorupa. The theme for this meeting was grassland/dry forest ecosystem restoration. We had 10 talks and several poster displays. There were also three well-attended field trips. We thank Tipi Mountain Native Plant Nursery, Keefer Ecological Services, and Interior Reforestation for their support to make the meeting a success.

In Nelson, we presented a conference on Carbon Management in British Columbia Ecosystems. This was a really interesting event that we jointly hosted with the Selkirk College's Geospatial Research Centre and Columbia Basin Trust. This event had an international flavour, and was a unique opportunity to get many of the carbon model developers, and the consultants who use those models, in the room together. There were three excellent keynote speakers, including Dr. Werner Kurz from the Canadian Forest Service, Dr. Richard Hebda from the Royal BC Museum, and Dr. Suzanne Simard from University of British Columbia. There were many more excellent speakers and interested readers should download the conference summary from our website to get more information. A big thank-you to the other organizers of this event; Dr. Rachel Holt from Veridian Ecological Consulting, Del Williams at the BC Ministry of Forests, Lands, and Natural Resource Operations, Dr. Ajit Krishnaswamy from FORREX, and Dr. Martin Carver from Aqua Environmental Associates.

I would also like give a big thank-you to our Executive Director Jackie Morris and our

other Directors who worked tirelessly the behind the scenes on these events. The success of the Columbia Mountains Institute in achieving its goals depends on the energy of these individuals. Finally, I encourage you to read further in this document, and to join us at our future events.

Dr. Brendan Wilson
President
Columbia Mountains Institute

2 Operations of the Columbia Mountains Institute

2.1 About the Columbia Mountains Institute of Applied Ecology

The purpose of the Columbia Mountains Institute of Applied Ecology (CMI) is to improve ecological management by increasing and sharing knowledge about the ecology of the Columbia Mountains and regional ecosystems.

CMI was incorporated as a society in 1996, and is based in Revelstoke, British Columbia. The society is directed by a maximum of fifteen Board members. An Executive Director supports the Board on a contractual basis. CMI retains the services of a bookkeeper.

2.2 Board of Directors for 2011

The Board of Directors met six times in 2011, in addition to the Annual General Meeting. Most Directors attend our meetings via a conference call.

Executive

Brendan Wilson, President
Mar-André Beaucher, Vice-President
Kevin Bollefer, Treasurer

Directors

Doug Adama
Marc-André Beaucher
Martin Carver
Patrick Daigle
Jenny Feick
Irene Manley
Tara Szkorupa
Natasha Thorpe
Gregg Walker
Del Williams

2.3 Membership of CMI

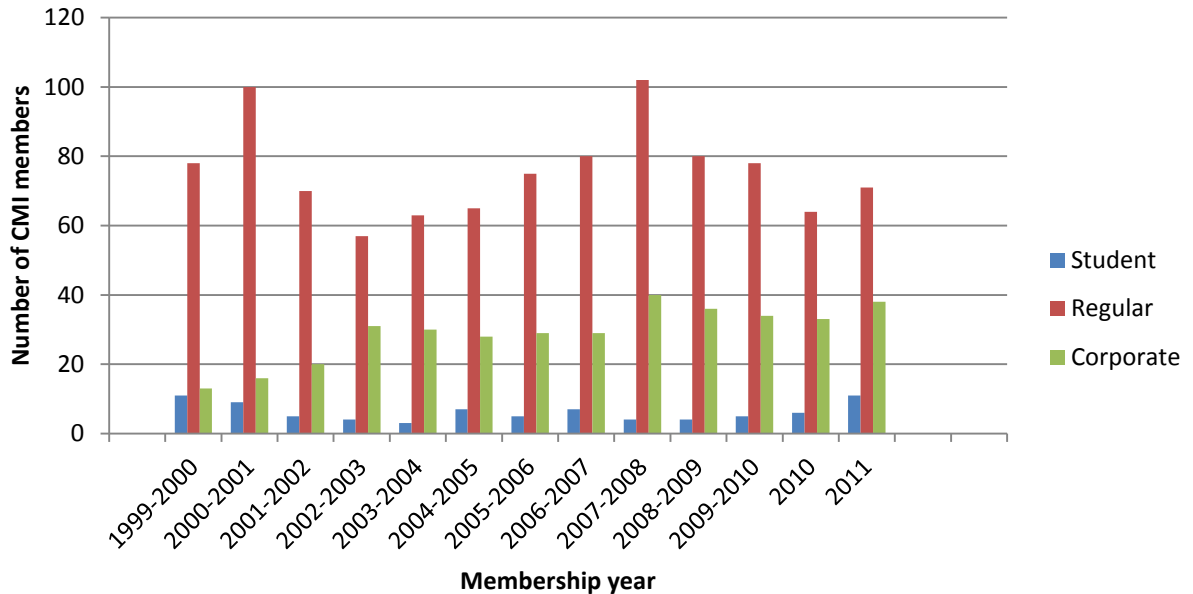
The Columbia Mountains Institute finished up the year with 82 individual members, and 37 corporate members. (This is an increase from 2010, when we had 64 individual members and 33 corporate members.) Our members' email updates go out to about 300 individual email addresses. The information is circulated further within the corporate memberships.

At the 2010 Annual General Meeting, there was discussion about the need to attract new student members. No action was taken on this in 2011.

CMI corporate members for 2011

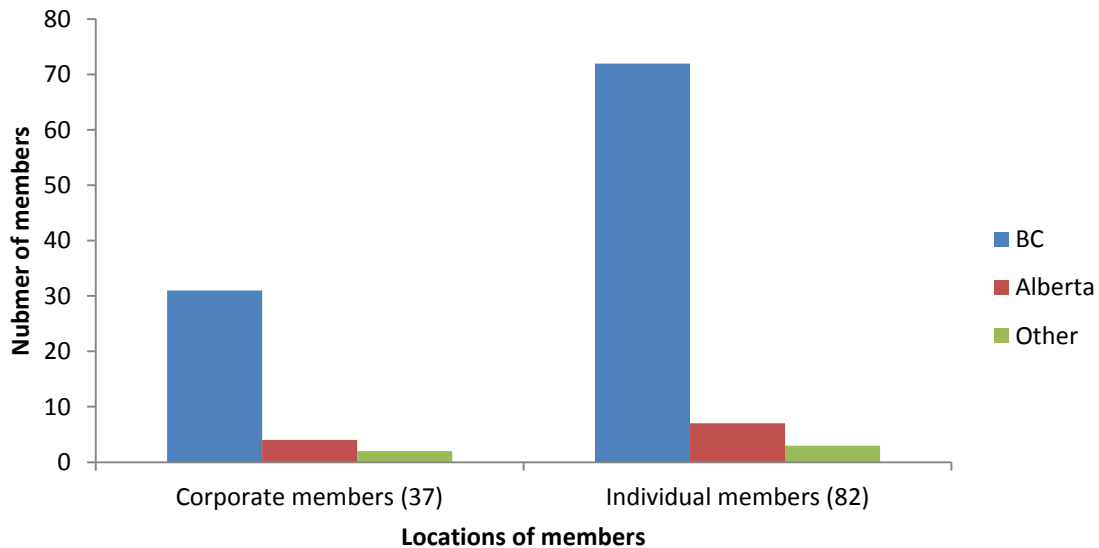
BC Hydro, Columbia Generation (<http://www.bchydro.com> and <http://www.fwcp.ca>)
BC Hydro, Generation Environment, Burnaby office (<http://www.bchydro.com>)
BC Ministry of Forests, Lands, and Natural Resource Operations, Kootenay Fish and Wildlife Branch (<http://www.env.gov.bc.ca/fw>)
BC Ministry of Environment, Ecosystems Protection and Sustainability Branch, Victoria (<http://www.gov.bc.ca/env>)
Canadian Columbia River Inter-Tribal Fisheries Commission (<http://www.ckfrp.com>)
City of Revelstoke (<http://www.cityofrevelestoke.com>)
College of the Rockies (<http://www.cotr.bc.ca>)
Conservation Northwest, Washington (<http://www.conservationnw.org>)
Cooper, Beauchesne and Associates Ltd. (<http://cooperbeauchesne.com>)
Creston Valley Wildlife Management Authority (<http://www.crestonwildlife.ca>)
Dillon Consulting Limited (<http://www.dillon.ca>)
Downie Timber (<http://www.downietimber.com>)
DWB Forestry Services Ltd. (<http://www.dwbforestry.com>)
FORREX, Forum for Research and Extension in Natural Resources (<http://www.forrex.org>)
Golder Associates: Calgary, Edmonton, and BC Interior offices (<http://www.golder.com>)
Interior Reforestation Co. Ltd (<http://www.intref.bc.ca>)
Kootenay Association for Science and Tecnology (<http://www.kast.com>)
Keefe Ecological Services (<http://www.keefereco.com>)
Lotic Environmental (<http://lotic.co>)
Minto Manor Bed and Breakfast (<http://www.mintomanor.com>)
Monticola Forest Ltd. (<http://www.monticola.ca>)
Okanagan College (<http://www.okanagan.bc.ca>)
Parks Canada, Ecosystem Services, Calgary office (<http://www.pc.gc.ca>)
Parks Canada, Mount Revelstoke and Glacier National Parks (<http://www.pc.gc.ca>)
Parks Canada, Yukon Field Unit (<http://www.pc.gc.ca>)
Parks Canada, Waterton Lakes National Park (<http://www.pc.gc.ca>)
Polster Environmental Services Ltd., Duncan
Revelstoke Community Forest Corporation (<http://www.rcfc.bc.ca>)
Selkirk College, School of Environment and Geomatics (<http://selkirk.ca/programs/rr>)
Silvatech Consulting Ltd. (<http://www.silvatech.ca>)
Summit Environmental Consultants Ltd. (<http://www.summit-environmental.com>)
Tipi Mountain Native Plants (<http://www.tipimountain.com>)
Taara Environmental (<http://www.taara.ca>)
University of British Columbia (Okanagan) (<http://www.ubc.ca/okanagan>)
Wildsight (<http://www.wildsight.ca>)

Comparison of CMI membership categories



- In 2006, CMI hosted two large conferences (caribou and bears). In the following year, the numbers of memberships increased.
- 2010 was a nine-month “fiscal year” so there was not the usual amount of time to accrue new members.

Where do CMI members live?



2.4 Supporters of CMI for 2010

CMI benefits from the large number of volunteer hours contributed to CMI by our Board of Directors, and by the members of the organizing committees for our various events. These people keep us connected to ecological issues in southeastern BC. CMI continues to be effective because of their willingness to contribute time and expertise.



Parks
Canada

Parcs
Canada

This year we negotiated a Contribution Agreement with Mount Revelstoke and Glacier National Parks. We received \$5,000.00 in support of our work to

maintain a network of ecologists working to improve ecological integrity in this region. CMI is grateful for Parks Canada's ongoing financial and in-kind assistance.

The Columbia Mountains Institute of Applied Ecology gratefully acknowledges the financial and in-kind support of agencies that partnered with us to make this year's events and our projects a success. The generosity of these agencies is recognized in the information about each past conference at CMI's website (<http://www.cmiae.org/Events/past-events.php>)

These agencies kindly provided financial support for an event:

- Interior Reforestation
- Keefer Ecological Services
- Tipi Mountain Native Plant Nursery
- Columbia Basin Trust
- Selkirk College

We also acknowledge the contribution of the presenters and volunteers associated with each of our events.

2.5 Administration of CMI

The society continues to contract to Jackie Morris for the purposes of running the affairs of the society and coordinating all aspects of our events. Jackie is supported by Kathryn Tompkins, bookkeeper, and the services of other businesses as required.

In January of 2011 CMI began using PayPal as a method to accept fees for memberships, courses, and conferences. Over 75% of payments are now received through PayPal, indicating that this service is appreciated by our members and event participants. Fees for our memberships and event registrations were increased in 2011 to accommodate credit card fees and the ever-increasing costs of doing business in our region.

3 Activities of the Columbia Mountains Institute

3.1 Continuing education

Conferences and courses

A major goal of CMI is to identify current ecological issues and knowledge gaps, then host workshops or courses to address these issues. The following six events were held in 2011. More details about each event, a list of event partners and supporters, and event summaries are available on CMI website in the [“Events”](#) section. Conference and course evaluation forms were collected and, for the conference, summarized in the conference summary document.

Our event announcements are distributed in a very targeted way. We promote almost entirely by email to: members (sent to over 300 individuals), our event announcement distribution list (about 550 people), professional associations, various other organizations and individuals as suggested by the topic of each event, and Facebook.. Other agencies regularly include our information in their own notices.

Trend Analysis and Environmental Impact Assessment April 12-14, 2011 in Revelstoke BC

This course was taught by Dr. Carl Schwarz from Simon Fraser University, to a maximum class size of 16 people. *Course description:* Environmental monitoring often looks at trends over time. Environmental impact assessments want to know if trends over time differ between control and impact sites. Statistical methods for the analysis of trends over time use many of the same methods as the analysis of experimental data (e.g. ANOVA, regression) but must now deal with problems such as autocorrelation and process error.

Design and Analysis of Mark-Recapture Studies April 18-20, 2011 in Revelstoke BC

Our instructor for this course was Dr Carl Schwarz, Department of Statistics and Actuarial Science, Simon Fraser University. The course examined common mark-recapture methods. While the focus was on methods commonly used in fisheries management, the methodology presented is suitable for many other situations as well. Aspects of study design (e.g. sample size) and the analysis of the final results will be presented. The course consisted of theory and worked examples, using mostly MARK. An overview of methods coming in the future was also presented. There was an opportunity for participants to work through their own projects. Class size was limited to 16 people.

**CMI Annual Researchers' Meeting and AGM
May 12, 2011, in Kimberley BC**

Every year CMI members get together to provide updates on their projects (research, field trials, new initiatives in southeastern British Columbia), network, and catch up on each other's news. The meeting was attended by 41 members and non-CMI members. This 2011 meeting definitely had an East Kootenays theme with presentations and field trips related to grasslands and East Kootenay projects. CMI's short Annual General Meeting was held immediately after lunch.

**Carbon Management in British Columbia Ecosystems
June 15-16, 2011 in Nelson BC**

Climate change is one of the most important environmental challenges facing civilization. Managing how carbon is taken in, stored, and released from natural systems has the potential to mitigate the rate and extent of future climate change. This conference focused on how moving towards a low carbon economy may alter management strategies, economics, plans, and on-the-ground practices of natural resource managers. The event include two days of presentations, a poster session, an evening speaker open to the public, a field trip, and opportunities for informal dialogue among participants and presenters. About 85 people attended the conference.

**Statistics for Biologists: A Refresher Course
October 18-20, 2011 in Revelstoke BC.**

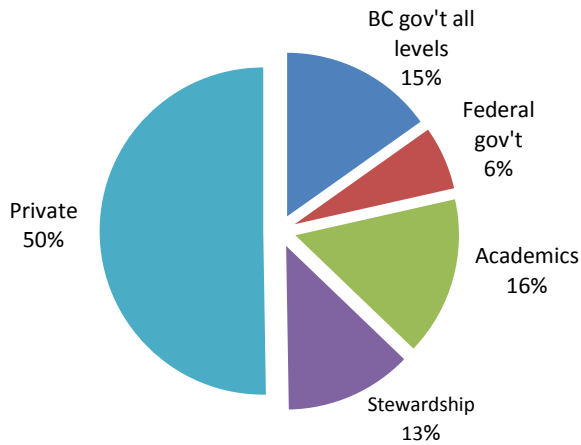
This was the seventh time Dr. Carl Schwarz from Simon Fraser University has taught this course for CMI. Sixteen people attended this course. *Course description:* Many scientific studies are full of statistical jargon, tables of averages and other statistics, and results of statistical tests which purport to prove a certain hypothesis. The purpose of this course was to review some of the basic sampling and experiment designs used by ecologists and to understand exactly what can and cannot be extracted from a set of data. With the advent of modern statistical packages, the analysis of data is fairly easy, but it is far too easy to get nonsense results. This course also reviewed common pitfalls in the analysis of data.

**Occupancy Modelling
November 1-3, 2011 in Revelstoke BC**

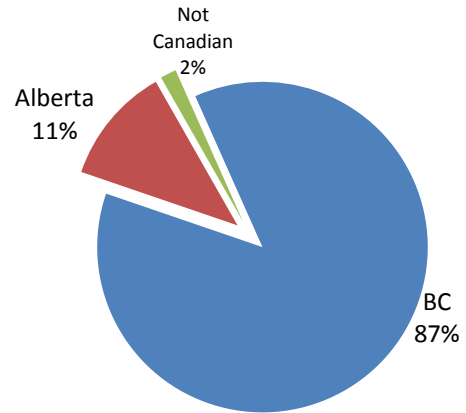
Taught by Dr. Carl Schwarz from Simon Fraser University, this course was fully subscribed with 16 people. *Course description:* The presence or absence of a species in a set of units (polygons, landscape units, territories, etc.) is a fundamental concept in many ecological studies (e.g. resource selection modelling, biodiversity, range). Visits to sampled units can results in a positive detection of a species or a non-detection of the species in that unit. However, a species may not always be detected if present which results in "false negatives". If the issue of detectability is not accounted for, estimates that rely on the level of occupancy can be misleading. This workshop addresses

methods for modelling species occurrence while accounting for potential false negatives.

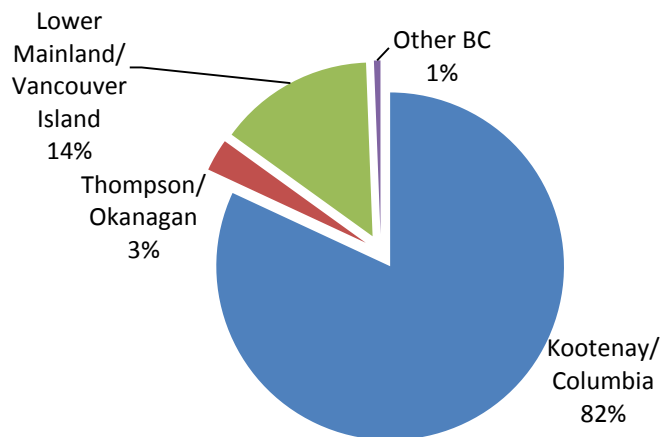
191 people attended a CMI event in 2011.



Affiliation of event participants in 2011 (191 people)



Where event participants came from in 2011 (191 people)



Where the 2011 event participants live in BC (166 people)

3.2 Supporting applied ecological research

CMI Members' Updates

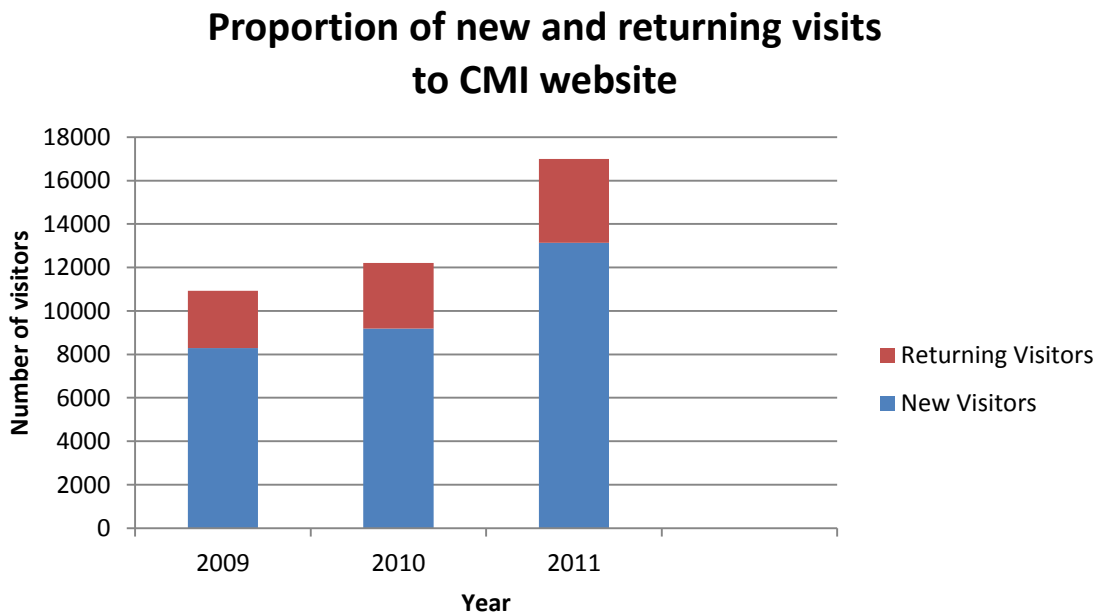
Twelve CMI Members' Updates were sent in 2011, plus assorted announcements for events and a few interim messages with information that did not make it into the Updates. CMI's email bulletins include CMI news and information about funding sources, resources in print and on other websites, job postings, workshops, and assorted other information of interest to ecologists working in southeastern British Columbia. Updates went to over 300 individual email addresses, and were circulated further within the corporate memberships.

CMI web site (www.cmiae.org)

Our Google Analytics program tells us that in 2011 our web site received 17,059 visits.

- 77% of the people visiting our site come for one-time only.
- 23% were returning visitors.

The following chart shows that over the last three years our website visitation has been growing, and that the proportion returning to new visitors is consistent.



The most popular pages on the site were the Home page, followed by the Events page, the Past Events page, and then articles in the National Park Feature Articles section, which cover a variety of topics related to ecological issues Mount Revelstoke and Glacier National Parks. The two most popular of these pages, about grizzlies and pikas, are referenced to Wikipedia.

The most popular PDF downloads in 2011 were:

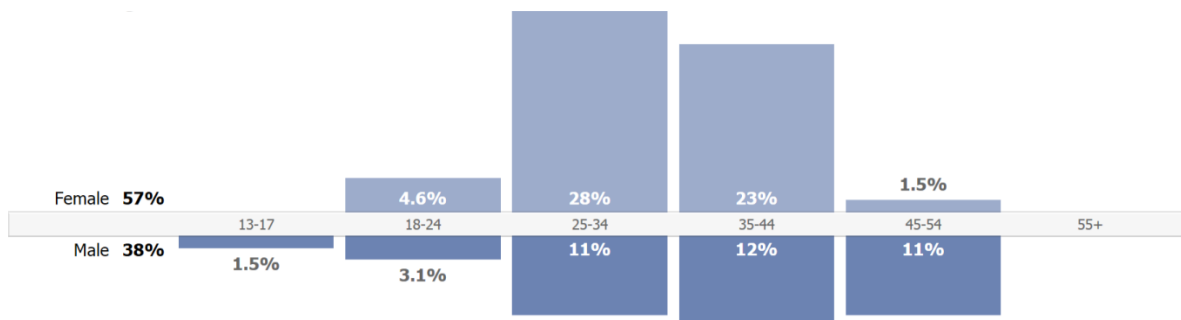
- the conference summary from the *Carbon Management in British Columbia Ecosystems* conference held in 2011 (144 downloads);
- the conference summary from the *Human Dimensions of Natural Resource Management* conference held in 2010 (108 downloads in 2011); and
- the summary of the *CMI Annual Researchers' Meeting* held in 2011 (45 downloads).

Facebook

In May 2011 CMI opened a Facebook page with the aim of reaching more people with our announcements, and enabling discussion about ecological issues. In addition to event announcements, one item from each CMI Members' Update was chosen for posting.

- 26 items were posted in 2011
- People that "like" the page grew to 75 people by the end of 2011.

Gender and age of our 75 CMI Facebook followers in December 2011



There were less than ten comments posted on the site over the year. Making this page more relevant to the region's ecologists is a goal for the future. Possibly many people think of Facebook as a social / personal site only, not one for discussion of issues related to their profession and not something they would do during working hours. How to achieve the goal of stimulating meaningful discussion needs further thought.

Facebook's "Insights" program provides many ways to access the way our site is used. However because of the newness of the sight and the slow growth of its use,

the visitor use numbers are difficult to interpret this year.

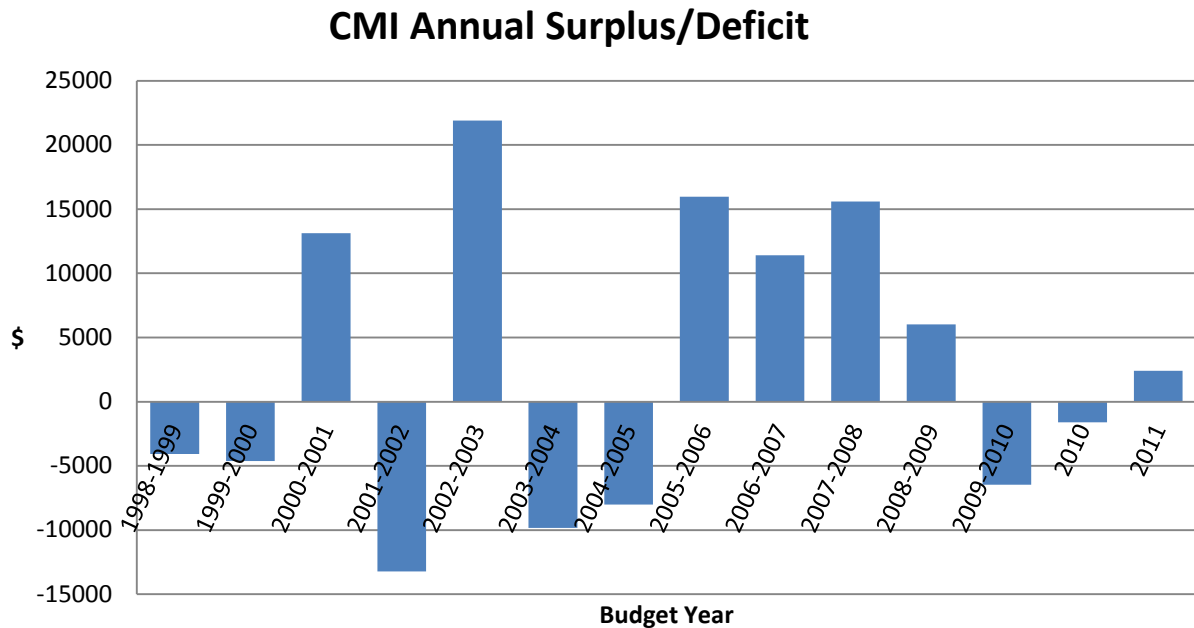
3.3 Collaboration

This year Parks Canada and CMI developed a one year Contribution Agreement. Funds from this agreement were used to support CMI's general operating costs. The two agencies share a common goal of improving environmental management in this region.

CMI exchanges information with FORREX, East Kootenay Conservation Program, Columbia Basin Trust, Kootenay Association for Science and Technology, the Y2Y Network, and many other agencies. Information from these groups is often passed on to CMI members in our monthly Members' Updates.

4 Preface to Financial Statement

The un-audited financial statements for the fiscal year ending December 31, 2011 reported a net gain of \$2,735.41. It is good to see CMI back in the black given the last few years of losing money. All in all, CMI remains in a good financial position to continue with what we do.



The PayPal credit card system is functioning well and we are glad the members and attendees are choosing to use it. Looking ahead we will be transitioning back to the PST and GST this year. For those individuals who pay for these courses out of their pocket, this will reduce the costs of our events by 7% but for those that are GST registered, there will be no change.

CMI would like to thank all of our financial sponsors for this year's events. This includes: Mount Revelstoke and Glacier National Parks; Columbia Basin Trust, Environmental Initiatives Program; Interior Reforestation; Keefer Ecological Services; Tipi Mountain Native Plant Nursery; and Selkirk College. With the financial and in-kind support of these organizations, the cost of courses and conferences are kept as low as possible.

Our members and our volunteer Board of Directors continue to keep us in touch with current ecological issues and skill development needs. This is what keeps our events relevant and well attended. If there are any ideas out there for additional courses or conferences please let Jackie or our board members know.

Kevin Bollefer
Treasurer
Columbia Mountains Institute

**Columbia Mountains Institute of Applied Ecology
Balance Sheet
2011**

Assets

Current assets

Bank - Revelstoke Credit Union - Chequing	16,493.54
Bank - Revelstoke Credit Union - Term Deposit	22,000.00
Bank - Revelstoke Credit Union - Term Deposit	10,660.50
Bank - Revelstoke Credit Union - Member Rewards	
Bank - Revelstoke Credit Union - Shares	49.16
Accounts Receivable	1,032.00
Prepaid Expenses	-
Work In Progress	7,338.98
Total current assets	\$57,574.18

Capital assets

Computer Equipment	2,218.00
Accumulated Amortization - Computer Equipment	(261.16)
Data Projector	1,915.82
Accumulated Amortization - Data Projector	(702.45)
Total capital assets	\$3,170.21

TOTAL ASSETS \$60,744.39

Liabilities and surplus

Current liabilities

Visa Payable	-
Accounts Payable	181.67
Prepaid Memberships	50.00
Deferred Revenue	1,450.00
Total current liabilities	\$1,681.67

Surplus

Surplus - Beginning of the Year	56,327.31
Surplus (Deficit) - For the Current Year	2,735.41
Total surplus	\$59,062.72

TOTAL LIABILITIES AND SURPLUS \$60,744.39

**Columbia Mountains Institute of Applied Ecology
Statement of Operations
2011**

Revenues

Completed workshops, courses and projects	21,899.04
Grants and contributions	5,000.00
Membership fees	4,737.70
Miscellaneous income and bank interest	1,419.24
Gain or (loss) on sale of assets	100.00
Total revenues	\$33,155.98

Expenses

Accounting and bookkeeping	1,050.00
Amortization	779.46
Contract fees for admin	18,560.04
Donations	-
Insurance (moved to prepayment)	3,265.00
Licenses and dues	30.00
Miscellaneous	(25.15)
Office equipment, furnishings and software	574.73
Office supplies	609.36
PayPal charges on memberships	104.28
Printing and photocopying	2.16
Postage and courier	43.22
Rent	2,602.80
Services	-
Staff training	-
Telecommunications (phone, fax and internet)	1,336.80
Travel	-
Website	1,441.82
Workers' compensation	46.05
Total expenses	\$30,420.57

EXCESS OF REVENUE OVER EXPENSES **\$2,735.41**