

## Archived CMI Member Bulletins

November 2003 to April 2004

*For the sake of brevity, these archived updates have been edited. Some time-sensitive items have been omitted.*

### CMI Members' Update for November 4, 2003

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#### 1. Workshops and Courses

##### **Species At Risk Act Community Information Sessions**

These evening sessions are hosted by Environment Canada, Fisheries and Oceans Canada, and Parks Canada at various locations around the province this fall. The sessions provided information on:

- An Overview of the Species at Risk Act;
- Scientific Assessments and the Committee on the Status of Endangered Wildlife in Canada (COSEWIC);
- Legal Listings, Prohibitions and Permitting;
- Recovery Planning, Habitat Protection, Stewardship Opportunities and Compensation;
- Enforcement; and
- Regional perspectives specific to the particular venue of the Information Session.

Sessions will be in Williams Lake on November 10, Prince George on November 12, and Cranbrook on November 27. For a complete list of locations and dates please visit

[http://www-comm.pac.dfo-mpo.gc.ca/pages/consultations/sara/default\\_e.htm](http://www-comm.pac.dfo-mpo.gc.ca/pages/consultations/sara/default_e.htm)

To read the Species at Risk Act, go to: [http://www.sararegistry.gc.ca/default\\_e.cfm](http://www.sararegistry.gc.ca/default_e.cfm)

##### **Animal Tracking Techniques Class**

December 13-14, 2003  
University of Calgary

This class offers instruction for snow tracking techniques useful for biologists, wildlife managers, naturalists, and anyone interested in improving their outdoor skills. A combination of classroom lectures (8 hours) and a field excursion to the Kananaskis country (3 hours) will be used to impart the basics of snow tracking including track identification (pattern and print measurements for species, size and sex determination), track preservation (casting, photography, and plates), animal ecology (wolves, bears, lynx, wolverines, cougars, weasels, and others), and population detection surveys. The instructor is Dr. James Halfpenny, a world-renowned tracker and carnivore ecologist with over 30 years of instructional experience. For more information, visit [http://www.accru.rr.ualberta.ca/Animal\\_tracking.asp](http://www.accru.rr.ualberta.ca/Animal_tracking.asp)

##### **Species At Risk Conference**

Victoria BC  
March 2-6, 2004

Registrations are now being taken for the conference. A recent addition to the event is a Species At Risk Recovery Workshop, to aid members or potential members of recovery teams. For details on this and other aspects of the conference, visit <http://www.speciesatrisk2004.ca>

### CMI Members' Update for November 17, 2003

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## 1. New Publication

### ***Response of Vegetation to Burning in a Subalpine Forest Cutblock in Central British Columbia: Otter Creek Site***

Evelyn Hamilton and Les Peterson, BC Ministry of Forests  
MoF Research Report (RR23)

Evelyn and Les have published a paper summarizing the result of a long term monitoring study of the response of vegetation after burning in the ESSF zone. This information will be of interest to ecologists and managers concerned about maintaining biodiversity, providing habitat for wildlife, providing berries for people and animals, and ensuring reforestation success. An internet version of this report is posted at: <http://www.for.gov.bc.ca/hfd/pubs/Docs/Rr/Rr23.htm> or you can order a print copy from the Queen's Printer.

## 2. Smokey Bear Has a Web Site

After posting Michael Morris's recent article in our web site's National Park Feature Articles section, titled "A Talk with Old Smokey," I visited Smokey Bear's web site. Do you remember listening to Smokey ("Only You Can Prevent Forest Fires") while watching American television cartoons when you were a kid (I'm dating myself here....)? Smokey has become more modern in his thinking about fire prevention and you can read all about it at his web site:

[www.smokeybear.com](http://www.smokeybear.com) .

While you are there, visit Smokey's Vault and listen to him talking about preventing forest fires, with celebrities such as Roy Rogers and Art Linkletter. The site includes a "Kid's" section.

## 3. Climate Change Article and Poster

Last Thursday's *Seattle Post Intelligencer* featured a big front page feature on the science and impacts of global warming. The reporters interviewed several leading climate change researchers for this article, including Philip Mote, who spoke at our Climate Change in the Columbia Basin workshop in January 2003. Although the article has a Seattle focus, much of the information is applicable to southeastern BC. Dr. Mote's group at the University of Washington is thinking regionally, and include the Canadian portion of the Columbia River as part of the "Pacific Northwest". You can read the article at:

[http://seattlepi.nwsourc.com/local/148043\\_warming13.html](http://seattlepi.nwsourc.com/local/148043_warming13.html)

A fact-filled 205 kb PDF poster to accompany the article is available at:

<http://seattlepi.nwsourc.com/dayart/20031113/globalwarming.pdf>

## 4. Workshops and Courses

### ***Wildlife Chemical Immobilization and Necropsy Course***

Western College of Veterinary Medicine,  
Saskatoon, SK  
December 1-4 2003

*(CMI used to offer this course but due to the expense of bringing the vets in, and the difficulty of assembling enough students, we won't be offering this course in the near future. Here's where you can take the course.)*

The Canadian Cooperative Wildlife Health Centre (CCWHC) is presenting the Canadian Association of Zoo and Wildlife Veterinarians' (CAZWV) "Chemical Immobilization of Wildlife" course combined with a one-day wildlife necropsy course at the Western College of Veterinary Medicine in Saskatoon, from December 1-4, 2003. The CAZWV course is recognized as standard training in the care and capture of free-ranging wildlife across Canada, and provides basic information required by wildlife personnel to understand the principles and practice of chemical (drug) restraint and handling of wild animals. The wildlife necropsy component complements the chemical immobilization and handling portion of the course, including practical information on zoonoses and the diagnosis of injuries and deaths associated with capture and handling. For more information, visit:

<http://wildlife1.usask.ca/ccwhc2003/announcements.php?&width=1024&height=768>

Take a look around at the Canadian Cooperative Wildlife Health Centre web site, they have lots of interesting wildlife health information.

## **CMI Members' Update for December 2, 2003**

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### **1. CMI News**

Our "Applying DNA Methods to the Study of Wildlife Distribution and Abundance" course is underway this week in Nelson. I have yet to make a final confirmation with the instructors but it is looking like we will run a repeat of this course in the first week in May, also in Nelson.

We have started making plans for April's CMI Annual Researcher's Meeting and Annual General Meeting. We will probably be in Nakusp. Okanagan University College will be invited, to tell us about possibilities for research partnerships with other agencies and individuals in the Kootenays. I'll have more details in the new year.

Dr. Carl Schwarz, head of the Statistics department at Simon Fraser University, has agreed to teach our "Statistics for Biologists – A Refresher Course." I am working on setting a date and location. It will cost about \$500, plus you have to bring a laptop preloaded with the program JMP-IN, available for \$100 from the SFU Bookstore. The course includes three days of instruction and a \$50 manual. It will be a shorter version of courses Dr. Schwarz teaches at SFU – you can see his class notes, etc, at <http://www.stat.sfu.ca/~cschwarz/> and scroll down to the links for Stats 403 and Stats 650. I will send a notice out when we are ready to take registrations.

Welcome to our newest Corporate Member, which is College of the Rockies. COTR, Selkirk College and Okanagan University College all maintain a Corporate Membership in the CMI. We are glad to be connected to the biology and geography instructors at these institutions.

### **2. Reporting on the Y2Y Science Grants**

The priority research area for 1999 - 2003 Yellowstone to Yukon Conservation Science Grants has been science that addresses ecological connectivity. Funded projects have examined habitat fragmentation, reconnection or restoration; species migration, dispersal or recolonization; and the use of indicators of ecological connectivity. View descriptions of the funded projects and read the final reports at:

<http://www.y2y.net/science/grants/sciencegrants-grant-project-summaries.asp>

### **3. Publications**

#### ***New Land Management Handbook on MoF Web Site***

Estimating Historical Variability of Natural Disturbances in British Columbia.

Wong, Carmen, Brigitte Dorner and Holger Sandmann. 2003.

Part 1 of this document presents a concise review of natural disturbance dynamics for each of the 14 biogeoclimatic zones in British Columbia. Part 2 presents 11 methods described in the literature for determining intervals for stand-replacing and stand-maintaining disturbances. Part 3 demonstrates an application of the process outlined in Part 2 for selecting and using one of the methods for determining disturbance intervals in the Arrow Forest District. Part 4 presents our recommendations to address the gaps we identified in research on disturbance dynamics, data collection, and data maintenance, as well as quantitative methods for determining disturbance intervals in British Columbia.

The document is available at: <http://www.for.gov.bc.ca/hfd/pubs/Docs/Lmh/Lmh53.htm>

#### ***Climate, Nature, People: Indicators of Canada's Changing Climate.***

November 2003

The Canadian Council of Ministers of Environment released this publication after their November 25 meeting. The CCME

report describes changes to Canada's climate during the 20th century and reviews trends and implications for twelve climate change indicators. Temperature, precipitation, and other trends identified in the report suggest that climate in many regions of Canada is changing. Individuals, communities, businesses, and ecosystems will all be affected, although impacts will vary across the country. By producing this report, CCME is raising awareness of the impacts changes in climate may have on the things Canadians value. Climate, Nature, People: Indicators of Canada's Changing Climate is available to download at: [http://www.ccme.ca/initiatives/climate.html?category\\_id=33](http://www.ccme.ca/initiatives/climate.html?category_id=33) If you don't want to download the entire document, there is an option to look at it chapter by chapter.

#### 4. Conference

##### ***Western Canada Forest Education Conference and Educator Institute Meeting***

January 15-18 2004

Banff Centre, Banff Alberta

This conference will provide a venue for those with experience in developing and delivering forest education programs and services across western Canada to meet with government, industry and community representatives who are managing major issues related to Canada's forests. The conference will be an opportunity for classroom educators to learn with and from practitioners from other provinces. Building on a series of discussions and sharing presentations, the ultimate aim of the conference is a 'call to action' - a call to revitalize and grow forest education programming and services.

Visit their website for more details: [www.forestedwest.ca/media/html/main.html](http://www.forestedwest.ca/media/html/main.html)

## **CMI Members' Update for December 22, 2004**

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### 1. CMI News

Our new server allows us the possibility of running bulletin board discussion groups. This is a new concept for me... can someone suggest a biologist-based bulletin board that I could look at for an example? Would it be useful for us to have bulletin boards? If CMI started some bulletin boards, what could they be about? Should they be for members only, or open to everyone?

### 2. Some Holiday Reading

Okay, maybe you would rather be out playing in the snow than sitting in front of your computer. But if you want to catch up on your reading, or do some reading outside of your usual subject areas, here are some web-based materials you may like to check out.

#### ***Grasslands Conservation Council of BC:***

[www.bcgrasslands.org](http://www.bcgrasslands.org)

Look in the Programs and Events section. Lots of info about grassland management across BC.

#### ***FORREX's Link newsletter:***

<http://www.forrex.org/link/>

The current issue contains these items and more. You can look at the current and past editions on-line.

***Wildfire Risk Assessment:*** A recent Forestry Innovation Investment (FII) project was prophetic. In the summer of 2002, consulting forester Bruce Blackwell and fire ecologist Bob Gray, with co-operation from the Canadian Forest Service and the B.C. Ministry of Forests, submitted a proposal to study the forest fuel loading and fire risk conditions in wildland-urban interface communities in southern British Columbia. With funding support from FII, they put together a multi-talented team to answer two key questions:

- What is the magnitude of the fuels and fire hazard problem in British Columbia?
- What is the degree of overlap between areas of high forest fuel hazard, and the wildland-urban interface?

***“Small Streams” Symposium Papers now available***

A selection of papers that will increase our understanding of the dynamics of small streams and help develop practices to ensure conservation of headwaters is now available. More than 300 people attended a symposium about research on small streams and their riparian areas at UBC in 2002. A small number of the talks and posters presented at the meeting were submitted to peer review and published in a recent issue of Canadian Journal of Forest Research. These papers all focus on the Pacific Northwest, but many countries around the world are considering the issue of management in and around small streams. These papers are available from Volume 33, Number 8 in the Canadian Journal of Forest Research ( <http://pubs.nrc-cnrc.gc.ca/> ).

***FORREX's BC Journal of Ecosystems and Management***

You can view the current issue and archived issues at:

<http://www.forrex.org/publications/JEM/archiveVol1iss1.asp>

The recent Volume 3 Number 1 includes these articles and more:

- Overview of the potential effects of forest management on low flows in snowmelt-dominated hydrologic regimes
- Salamanders vs. the Simpsons: Community-based ecosystem monitoring
- Culture, worldviews, communication styles, and conflict in forest management

### **3. Workshops and Courses**

***Wildlife and Fisheries Surveys Design & Analysis***

University of Idaho - Wildlife Workshops

January 5 - 9, 2004

This five-day workshop has been designed especially for wildlife, fisheries, and conservation professionals needing an introduction or a refresher in the principals of survey design and analysis. Participants will learn how to design efficient surveys of animal populations, habitats and user groups, and how to analyze the resulting information for both research and management purposes. Later portions of the course will introduce more sophisticated designs such as adaptive and sequential sampling. We will also explore a variety of approaches for removing bias from estimates using mark-recapture, double sampling, and sightability (visibility bias) models.

For details see: [http://www.cnr.uidaho.edu/population\\_ecology/surveys.htm](http://www.cnr.uidaho.edu/population_ecology/surveys.htm)

It's a bit late to be telling you about the above workshop, but I thought you might like to know they offer this kind of event. For more information on their other workshops, go to: [http://www.cnr.uidaho.edu/population\\_ecology/](http://www.cnr.uidaho.edu/population_ecology/)

***Communities and Natural Resources in Transition:***

***Linking Social Science, Decision Makers, and Practitioners for a Sustainable Future***

February 17-19, 2004,

University of Northern British Columbia, Prince George, B.C.

This workshop is hosted by FORREX and McGregor Model Forest. The aims of this workshop are to discuss, debate, and learn how social science can link with community development and natural resource management to support natural resource-based communities in transition. Topics will range from the philosophical to the practical and will involve over 50 presentations, posters, and panelists focusing on community economics, public involvement processes, values and perceptions, socio-economic criteria and indicators, and other topics. Anticipated attendees are: community leaders and individuals involved in community development, planning, and transition; natural resource managers, decision makers, and

policy specialists; and social science researchers exploring topics related to natural resource topics. For more information, <http://www.unbc.ca/conted/socialsciences>

***Species at Risk 2004: Pathways to Recovery***

March 2-6 2004  
Victoria BC

The early registration deadline is December 31, 2003. The preliminary conference program is now posted as a 756 Kb download, on the conference website at: <http://www.speciesatrisk2004.ca/html/agenda.html>

## **CMI Members' Update for January 12, 2004**

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### **1. CMI News**

Here's a summary of our spring events – for full details and to register, go to our web site at [www.cmiae.org](http://www.cmiae.org) .

***CMI Annual Researchers' Meeting and Annual General Meeting***

April 28, 2004 Cost: \$45.00 + GST for CMI Members  
Senior's Centre, Nakusp, BC \$55.00 + GST for CMI Members

Every year CMI members get together to hear about ecological research and related new initiatives in southeastern British Columbia. Members provide updates on their projects, catch up on the news, and identify areas for collaboration. It's an informal atmosphere and non-CMI members are welcome. Call for Presenters closes April 2.

***Wildlife Chemical Immobilization and Post Mortem Session***

April 27-30, 2004 Cost: \$600.00 + GST  
University of Northern British Columbia, Prince George BC

The CMI is assisting the University of Northern British Columbia to host a three day course on Wildlife Chemical Immobilization, followed by a one day session on how to perform a post mortem on wildlife under field conditions. Details will be posted at [www.unbc.ca/conted](http://www.unbc.ca/conted) .

***Applying DNA Methods to the Study of Wildlife Distribution and Abundance***

May 3-6, 2004 Cost: \$600.00 + GST  
New Grand Hotel, Nelson BC

DNA collection and analysis has become part of many ecological and taxonomic studies of mammals, birds, reptiles, and fish. Topics covered in this course include: modern advances in DNA technology; methods to identify species, sex, individuals, and populations; and use of DNA data in animal inventory, census, and monitoring projects.

***Statistics for Biologists – A Refresher Course***

May 11-13, 2004 Cost: \$500.00 + GST, plus \$100 for software  
Coast Hillcrest Hotel, Revelstoke BC

Been a long time since your last statistics course? This refresher course is for you! Includes: a review of the basic sampling and experimental designs used by ecologists; understanding what can and cannot be extracted from a set of data; and common pitfalls in the analysis of data. Learn how to use the highly recommended JMP-IN software (software cost is \$100).

### **2. Courses and Workshops**

### **Intermediate-Level Program MARK Workshop**

June 13-18, 2004,

Colorado State University, Fort Collins, CO

This intermediate-level workshop will provide quantitative biologists and statisticians with the statistical background to understand the main-stream analyses performed by Program MARK, and the familiarity with the program to perform these analyses. A mixture of lectures and laboratory exercises will be provided. Participants will learn the basics of parameter estimation with likelihood theory, model selection with Akaike's Information Criterion (AIC), and the binomial and multinomial distributions. The Cormack-Jolly-Seber (CJS) mark-recapture, band (tag or ring) recovery, known fate, and closed captures models will be covered in detail. More advanced models will be described so that participants will understand the benefits of these models, but those models would not be covered extensively. Use of covariates, including individual covariates, will be covered with the CJS and band recovery models.

The clientele for this workshop are biologists with past experience in the analysis of data from marked animals. The content is aimed at providing the participants with a solid background in the philosophy, theory, and analysis of data from marked animals. This is not a workshop for beginners to this subject. Cost is \$1200 US for one week.

More information at: <http://www.cnr.colostate.edu/~gwhite/mark/workshops.htm>

## **CMI Members' Update for February 2, 2004**

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### **1. CMI News**

Registrations are starting to come in for CMI's upcoming events:

- CMI Annual Researchers' Meeting and AGM, April 28 in Nakusp.
- Applying DNA Methods to the Study of Wildlife Distribution and Abundance, May 3-6 in Nelson.
- Statistics for Biologists- A Refresher Course, May 11-13 in Revelstoke.

If you are looking for a course on Wildlife Chemical Immobilization and How to do a Wildlife Post-Mortem in the Field, please go to the UNBC Continuing Education Web site at [www.unbc.ca/conted](http://www.unbc.ca/conted) . I've been helping Rob Bryce set this up, it's the same as the courses we have run in the past.

We have issued a Call for Papers for people who would like to present at the CMI Annual Researchers Meeting. We have ten spots available and we'll be keeping the Call for Papers open until April 2. If you have talked casually to me or Garth Mowat (Garth will be the meeting coordinator) please firm up your offer of presenting by sending an abstract to the CMI office ([office@cmiae.org](mailto:office@cmiae.org) ).

Other things CMI is involved in at the moment –

- Assisting with the set up of a Mountain Caribou Predator/Prey/Habitat Expert Review Panel. If we can pull together funding, we are bringing in recognized scientific expertise (Dr. Francois Messier, Dr. Stan Boutin, and Doug Heard will work with local researchers) to look at the complex predator/prey/habitat inter-relationships for the Mountain Caribou herd north of Revelstoke. This three day think tank will support the work of the Mountain Caribou North Kootenay Recovery Action Plan, as findings from current predator/prey/habitat studies will not be available in the time frame of the NKRAG process. Results will be aired at an evening presentation to the public in Revelstoke, and a written report will follow.
- I have been working with the Columbia Basin Environmental Education Network as they prepare to become formally organized and take on their first projects. With start-up funding from the Columbia Basin Trust, this group will support the on-going need for high quality environmental education in our school system.
- CMI is in the process of setting up a Memorandum of Understanding with Kris Rothley at SFU's Centre for Scientific Computing, School of Resource and Environmental Management. Kris would like to become a CMI Research

- Associate. Our first project is to apply for funding under a Y2Y Science grant, for a computer mapping project.
- Our Board of Directors will see some people leaving as of our AGM. If you would like to nominate a current member to the CMI Board, please contact me at the CMI office.

## **2. Columbia Valley Nominated to Ramsar Status**

Congratulations to Ellen Zimmerman, the East Kootenay Environmental Society, and others that have worked hard to gain international recognition for the wetlands of the upper Columbia River Valley. February 2 is World Wetlands Day, established to mark the date of the signing of the Convention on Wetlands, February 2, 1971, in Ramsar, Iran. This year's theme, "From the Mountains to the Sea, Wetlands at Work for Us", provides an especially fitting occasion to announce that the Columbia Wetlands will soon be nominated to be Canada's newest addition to the Ramsar list.

Canada has 36 existing Ramsar wetlands. "The contiguous size and ecological importance, especially to migratory birds, make the Columbia Wetlands a primary candidate to join sites like Creston Valley and Delta marsh," comments Zimmerman.

"Ramsar status is just one more acknowledgement of the international status of the important ecological treasure right here in the Columbia Valley." she says.

## **3. Conferences**

### ***Communities and Natural Resources in Transition: A Forum on Linking Social Science, Decision Makers, and Practitioners for a Sustainable Future***

Feb. 17 – 19, 2004

University of Northern British Columbia  
Prince George, BC

Learn how social science can link with community development and natural resource management to support natural resource-based communities in transition. Topics will range from the philosophical to the practical and will involve over 50 presentations, posters, and panellists focusing on community economics, public involvement processes, values and perceptions, socio-economic criteria and indicators and other topics. More information at [www.unbc.ca/conted](http://www.unbc.ca/conted)

### ***What's Happening Beneath the Trees?***

February 17, 2004

UNBC, Prince George

This is a pre-forum event associated with the UNBC event described above. On the afternoon of February 17, 2004 (3:00 - 5:00 p.m.) the Centre for Non-Timber Resources, Royal Roads University, invites you to a pre-forum workshop for networking and news in the Non-Timber Forest Products Community.

### ***Species at Risk - Pathways to Recovery***

March 2-6, 2004

Victoria BC

For more information visit: <http://www.speciesatrisk2004.ca/index.html>

## **CMI Members' Update for February 19, 2004**

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### **1. Mountain Caribou Predator/Prey/Habitat Expert Panel.**

The Revelstoke Caribou Recovery Group and the CMI are convening an "Expert Panel" to bring in recognized scientific

expertise (Dr. Francois Messier, Dr. Stan Boutin, and Doug Heard will work with local researchers) to look at the complex predator/prey/habitat inter-relationships for the Mountain Caribou herd north of Revelstoke. This three day think tank will support the work of the Mountain Caribou North Kootenay Recovery Action Plan, as findings from current predator/prey/habitat studies will not be available in the time frame of the NKRAG (North Kootenay Recovery Action Group) process. Preliminary findings of the panel will be presented at an afternoon session for "technical" people and the NKRAG; and again at an evening presentation to the public in Revelstoke; and a written report will follow. If you'd like to attend the Tuesday afternoon session, you are welcome but please let me know so we can keep track of numbers of people. The NKRAG and some of the SKRAG people will be present.

Tuesday, February 25, 2004

United Church Hall (3rd and Mackenzie Avenue) Revelstoke

2:00 pm.

Evening presentation in the same place, 7:30 pm.

## 2. Conferences

### ***B.C. Wildfire Conference 2004: Wildland Urban Interface Fire in the New Era***

May 11, 12, 13, 2004

Whistler, British Columbia,

This conference addresses a host of critical issues emerging from BC's catastrophic 2003 wildfire season. The event brings together key speakers from across British Columbia, North America and Australia. No longer just for the specialized few, wildland-urban interface fire now touches the interests-and livelihoods-of urban planners, municipal and regional district officials, insurers, conservationists, developers and landowners, as well as the traditional sectors of fire protection and forestry. For more information: <http://www.bablackwell.com/conference/>

## **CMI Members' Update for March 8, 2004**

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### 1. CMI News

Your opinions, please! We've had the following course ideas suggested and I'd like to have a sense of whether there would be any interest in them.

- Would you be interested in a 1-2 day course on the use of isotopes in wildlife studies? It could include an overview of the technology, when to use it in wildlife studies, how to collect samples, etc.
- Would you be interested in a 1-2 day course on "Basic GIS for Resource Managers" ? This course would give you an overview of what GIS can do for you; the basics of how it works (not program specific); you would learn the jargon so you can speak intelligently to your GIS technical people; maybe it would include a bit of hands-on data manipulation. Would be for biologists, foresters, anyone that wants to use GIS.

### 2. May 2003 Y2Y Science Symposium Proceedings Now Available

The proceedings from the Y2Y science symposium are now available on the Y2Y website. In May 2003, the Yellowstone to Yukon Conservation Initiative (Y2Y) and the Wilburforce Foundation celebrated a shared milestone: five successful years of supporting scientific research and science-based conservation through the Yellowstone to Yukon Conservation Science Grants Program. Program grantees and colleagues from the region's academic, non-governmental and governmental communities gathered together at the University of Calgary to learn about and acknowledge one another's work. This compendium, entitled "Making Science, Making Change," brings together summaries and key lessons from the symposium and, accordingly, insights arising from the past five years of the Yellowstone to Yukon Conservation Science Grants program. Y2Y and Wilburforce have harvested these lessons both to inform and strengthen our future grant and to provide a resource for our colleagues in science and conservation. To download the proceedings (4.5 MB) visit:

<http://www.y2y.net/science/grants/sciencesymposium.asp>

### 3. Federal Policy Discussion Paper on Critical Habitat Now Available

This is the latest federal document on critical habitat.

“This document is intended as a discussion paper, in order to give a single source document for review and input from interested parties on a broad sweep of policy issues within the sections of SARA that deal specifically with Critical Habitat.”  
Download the 47 page document at:

[http://www.sararegistry.gc.ca/policies/showDocument\\_e.cfm?id=271](http://www.sararegistry.gc.ca/policies/showDocument_e.cfm?id=271)

### 4. CBFWCP 2003-04 Fish & Wildlife Project Handbook Available for Download

The Columbia Basin Fish & Wildlife Compensation Program (CBFWCP) is delivering 47 fish and wildlife projects with over 150 partners in 2003-04 in the Canadian portion of the Columbia Basin. These include 26 projects involving species at risk and five recovery projects for endangered species. Download the 2003-04 Fish & Wildlife Project Handbook at [www.cbfishwildlife.org](http://www.cbfishwildlife.org) for an overview of these fish and wildlife projects by geographic area. The handbook is also a guide to the nearly 400 project reports posted to the website and includes applications for project funding. Contact CBFWCP at [info@cbfishwildlife.org](mailto:info@cbfishwildlife.org) to be added to the subscription list for future publications.

### 5. Conference

#### ***Interdisciplinary Research and Management in Mountain Areas***

Banff Alberta

September 23-27, 2004

This is the fourth conference in the Banff Centre's Mountain Communities series, and it will be sponsored by Parks Canada. The IRMMA conference will include presentations from interdisciplinary research and management initiatives that integrate disciplines such as climatology, geomorphology, archaeology, history, anthropology, sociology, and ecology -- initiatives from mountain areas around the world. The presentations will emphasise the process, outcomes, and uses of interdisciplinary research at least as much as the scientific results. Working sessions and interactive case studies will be an important part of the conference program. For more information visit: <http://www.banffcentre.ca/mountainculture/mtnconferences/irmma/>

## CMI Members' Update for March 8, 2004

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### 1. CMI News

#### ***CMI Annual Researcher's Meeting and CMI Annual General Meeting***

April 28, 2004

Senior's Centre, Nakusp BC

(A list of speakers and abstracts is available on the CMI web site in the "Past Workshops" section.)

	<b>Time</b>	<b>Presenter</b>	<b>Title</b>
1	0900-0930	Steve Arndt, Columbia Basin Fish and Wildlife Compensation Program	West Kootenay Fish Habitat Restoration: Progress Reports on Sproule and Blueberry Creeks
2	0930-1000	Jesse Dykstra, OUC undergraduate student	A Survey of the Status of the Western Toad ( <i>Bufo boreas</i> ) in Mount Revelstoke and Glacier National Parks

3	1000-1030	David Scott, Dept of Earth and Environmental Sciences, OUC	Understanding & Predicting the Hydrological Effects Of Fire In Watersheds
	1030-1100	Coffee break	
4	1100-1130	Marlene Machmer, Pandion Ecological Research	Inventory and Habitat Assessment of Great Blue Herons in the Columbia River Basin
5	1130-1200	Ian Parfitt, Selkirk College	The Selkirk Geospatial Resource Centre: Putting the Kootenays on the Map
	1200-1300	Lunch, provided	
	1300-1330	CMI's AGM	
6	1330-1400	Dan Durall, Dept of Biology, OUC	An introduction to OUC's New Species at Risk and Habitat Studies Centre (SARAHS)
7	1400-1430	Ian Walker, Dept of Biology and Earth and Env. Studies, OUC	Midge Fossils as Indicators of Past Climate Change in Southern British Columbia
8	1430-1500	Mindy Brugman, Mountain Weather Centre, Environment Canada	Mechanisms for Producing High Precipitation and Runoff Events in Southern BC
	1500-1515	Coffee break	
9	1515-1545	Kim Poole, Aurora Wildlife Research	Deer and Elk Habitat Use in the Temperate Interior Mountains of North America
10	1545-1615	Robert Serrouya	A Framework for Monitoring Biological Diversity Using Three Scales of Indicators
	1615	Closure	

## 2. Recommended Web Site on Forestry and Climate Change

### ***Visualization of Climate Change Scenarios***

[http://www.pfc.forestry.ca/climate/change/index\\_e.html](http://www.pfc.forestry.ca/climate/change/index_e.html)

This description is clipped from the web site: Many of our studies in forestry involve the examination of long term weather records, in a search for patterns that can be related to observations such as changes in the populations of forest pests, or changes in the dynamics of forest processes. This requirement led to development of the first part of the system, which provides graphical access to historical weather data from all weather stations in British Columbia. Other forestry studies address the consequences of climate change for populations and dynamics of forest processes. We have therefore provided graphical access to predictions from the global change model of the Canadian Centre for Climate Modeling and Analysis (CCCma). Predictions are provided for a coarse grid of points covering the province, for key years between 1900 and 2100,

and with a range of model assumptions. Linkages between the model predictions and actual weather data are also provided, to enable evaluation of the appropriateness of using the predicted climates in particular scenarios.

### **3. Workshops and Courses**

#### ***Western Forest Carnivore Committee Meeting (USA)***

April 20-22, 2004

Mirabeau Park Hotel, Spokane WA

The WFCC meeting can be described as a meeting of about 100-200 US managers, researchers, and NGO representatives, held every two years. The idea is for the research people to present their latest findings (or a summary of their long-term findings) and for the policy people to present their view of the future, so that the managers will be better informed about US forest carnivores and their management. The papers are usually evenly divided among policy discussions, wolverines, fishers, and lynx, with a smattering of martens, badgers, and snowshoe hares. For more information contact: John Malloy, Watershed, Wildlife, Fisheries, and Rare Plants, USDA Forest Service, Missoula. phone: 406-329-3566 [jmalloy@fs.fed.us](mailto:jmalloy@fs.fed.us)

#### ***Managing for Tomorrow: Resource-Based Communities & the Environment Conference***

May 6 - 8, 2004

University of Northern British Columbia

Prince George, British Columbia, Canada

The focus of the conference is developing innovation solutions in environmental stewardship and sustainability. The conference will: foster industry and community leadership in collective stewardship; promote the sustainability of resource-based communities; highlight cutting edge environmental management tools, and governance and decision making processes. This is an interactive conference. Keynote speakers will introduce topics that delegates and experts will examine in depth through panel discussions and workshops. For details visit:

<http://resweb.res.unbc.ca/managingfortomorrow/>

#### ***Natural Hazard Mapping Using GIS***

Selkirk Geospatial Research Centre

May 17 to 21, 2004

Castlegar, BC

Course Fee \$ 875

This course integrates the principles of natural hazards mapping with ArcGIS. The course focuses on how hazardous terrain is mapped and discusses techniques for capturing, analyzing and displaying terrain hazards using ArcGIS software. The fundamental concepts and applications of GIS will be introduced in a series of four integrated segments on avalanche, terrain, fire and flood hazards. Participants will learn how to effectively query spatial and attribute data, build models and display and report the results in map layouts. Concepts of 3D visualization and incorporating 3D perspectives into maps will be covered. Contemporary terrain mapping data will be examined, and GPS data captured in the field during this course will be modelled in GIS.

Instructors Laura Adams, Ian Parfitt and industry resource specialists.

For information & registration contact Selkirk Continuing Education at 250 365 1208 or [www.selkirk.ca/sgrc](http://www.selkirk.ca/sgrc)

#### ***Wildlife Chemical Immobilization and Post Mortem Course***

Contact Rob Bryce at the University of Northern BC (Continuing Education) to be put on a notification list for the next course ([brycer@unbc.ca](mailto:brycer@unbc.ca)). They will run the course as soon as they have enough names.