



# The Art of Climate Change

## Fire & Ice: The Art of Climate Change

We are looking for active seniors to participate in a creative learning experience. Are you interested in photography? Want to learn more about the effects of climate change on wildfires and glaciers? Most importantly do you want to share your learning with the community through your photographs?

The Rockies Institute has developed this initiative which involves participation of seniors in:

- a workshop on photographic techniques,
- presentations by experts in the field of wildfire management and glaciology,
- field visits to the Columbia Icefields and a wildfire site accompanied by a professional photographer, and topic expert.
- the project will culminate in an event to share photographs and learnings with the larger community, the event to be designed and led by the participants.

### Project dates:

Date	Time	Event	Info	Location
Aug 7	4 pm	Project Info Session	Karen Barkley, project volunteers	Canmore Seniors Centre, Activity Room
Aug 8	7pm	Presentation: <i>Difficult times to be a glacier in western Canada</i>	Dr. Shawn Marshall	Canmore Seniors Centre, Creekside Hall
Aug 28	2-5pm	Photography Workshop – <i>see below for details</i>	Mark Unrau	Canmore Seniors Centre, Activity Room
Sept 5	7pm	Presentation: <i>Fire, Weather, Smoke and Mirrors: Wildland Fires and People in the Rockies (details below)</i>	Cliff White	Canmore Seniors Centre, Creekside Hall
Sept 13	10am - 7pm	Columbia Icefields – Field trip	Peter Lemieux - IceWalks	Meeting site - tba
Sept 21	9am-2pm	Wildfire Field trip - Floe Lake trail and Carrot Creek	Ian Pengelly, Dr. Toddi Steelman	Meeting site - tba
Sept 21	6pm	Presentation:	Dr. Toddi Steelman & Indigenous Fire expert (TBA)	Silver Tip Resort (volunteer opportunity to help with event and have photographs displayed)
TBA		Final Wrap Event		

## **Photography Workshop Aug 28**

**Bring your own camera or smart phone, the project has a Canon Rebel for participants to use as well.**

A great photograph always tells a story, but often our images are overshadowed by distracting elements. In this three-hour seminar, we will learn how to use themes, colour and light to convey your story through simple compositional and technical tips. Working with the theme of the project; Fire & Ice, the effects of climate change on glaciers and wildfires, Mark will share some examples of photographs that he has taken with those subjects along with his broader body of work.

### **Some things we will go over:**

- The essential elements of a great photograph.
- How to discover a theme in nature and find an image that portrays it.
- Techniques on how to discover a great story in nature.
- Refining your composition to create clean and beautiful images.
- How to interpret light and its effects on your subject matter.
- Take control of your camera's exposure.

### **Presentation Sept 5:**

#### ***Fire, Weather, Smoke and Mirrors: Wildland Fires and People in the Rockies***

Historically, fire burned forests and meadows in the Canadian Rockies from almost annually, to every 10-30 years on low elevation grasslands to over every 500 years in narrow, cool moist forests near treeline. Since the early 1900's, prevention of human ignitions, and suppression of fires has resulted in massive growth of forests in parks, and significant degradation in the ecological integrity. Because forest fire risk is generally low (e.g., currently less than a 1 in 100 chance per year) citizens and politicians often think that "it can't happen here", and fail to fully prepare. When a community does burn, interesting explanations may be invoked to deflect personal or organizational responsibility.

The simple question for managing fire in the mountain parks is, and always has been: How do you like your smoke? Many small puffs from early or late season prescribed fires, or the massive black cloud from a mid-summer, catastrophic fire storm? The future warming climate trend is extending the fire season globally, and is exasperating periods of drought. Combined with modern dense forest cover in the Canadian Rockies, this will have serious outcomes.

**We have only 20 spots available for the project – 10 for each of the field visits. To be considered for one of these spots the participant must attend the photographic workshop and the relevant presentation on the topic.**

**Participation will be determined on a first come basis so please indicate your interest:**

**Mandatory attendance:**

- 1. Fire – Photo Workshop Aug 28, Fire Presentation- Sept 5, field visit Sept 21**
- 2. Glacier – Photo Workshop Aug 28, Glacier Presentation - Aug 8, field visit Sept 13**
- 3. Both - all dates above**

**Deadline for applications is July 27, 2018**

**Please email [Karen@rockiesinstitute.ca](mailto:Karen@rockiesinstitute.ca) or call 403.762.0960 to apply or for more information.**

**Application – Send your name, contact information and indicate your interest in one or both of the thematic sessions (Fire/Glacier)**

### **Biographies of Presenters:**

#### **Dr. Shawn Marshall**

Shawn is the Canada Research Chair in Climate Change. He is a glaciologist and climatologist with broad interests in Earth system science. His background includes Engineering Science (Physics) at the University of Toronto and a Ph.D in Geophysics from the University of British Columbia (UBC). He has explored numerous aspects of ice-age climate dynamics, including the climatic and glaciological patterns of ice sheet nucleation, reconstruction of the Last Glacial Maximum ice sheets in North America, processes of deglaciation at the end of the glacial periods and the role of ice sheets in millennial climate variability. Shawn was a member of the U.S. National Academy of Sciences Committee on 'Advancing Climate Modeling' (2010-2012). The subject closest to his heart is regional-scales icefield dynamics and their sensitivity to climate change. His new field projects include the Haig Glacier and the Prince of Wales Icefield, Ellesmere Island in Canada's high arctic.

#### **Dr. Toddi Steelman**

Dr. Toddi Steelman is a Professor on sabbatical at the School of Environment and Sustainability, University of Saskatchewan, currently living in North Carolina. She has a 15+ year history working on the human dimensions of wildfire research and has conducted research on community aspects of wildfire management in Canada and the United States. Dr. Steelman will contribute to our community's understanding of how communities and agencies interact for more effective wildfire management. Steelman is also co-director on the Fire Chasers project at North Carolina State University which focuses on advancing the science of adaptive capacity toward more disaster resilient communities.

#### **Ian Pengelly -TBA**

**Cliff White**

Cliff was born and raised in Banff. He worked with Parks Canada's Natural Resources Branch team in Ottawa during the 1980's to establish a system-wide fire management and prescribed burning program for national parks. After moving on from overall fire program responsibilities, Cliff returned to Banff in 1990 to manage the park's ecological restoration and research program for the next two decades. He continued to serve for 16 years (until 2006) as an incident commander on teams managing large, complex fire events that had national Parks Canada priority. In 2014, he was recognized with the National Resources Canada "Beall Award" for excellence in implementing an innovative, national fire management program. Cliff retired from Parks Canada in 2009 and then established CW and Associates, doing consulting for ski area development, park ecological management, bison restoration, and wildland fire risk reduction.

**Mark Unrau**

Mark is an award-winning photographer, sound designer, filmmaker and Director of Rocky Mountain Photo Adventures in Banff Canada. Mark's extensive experience of over 20 years and all over Canada and around the globe has earned him international acclaim with accolades such as the Grand Prize from National Geographic Travelers' 'World in Focus' competition and awards from the 'Prix de Paris International Photo competition. His work has appeared in prestigious magazines and International Film festivals including Canadian Geographic and the Banff Mountain Book and Film Festival.

**Peter Lemieux**

Peter Lemieux, the lead guide of Glacier Icewalks has been travelling the glacier daily throughout the summers since 1980. Talk about glacial... Peter worked with Parks Canada as a park interpreter prior to founding Athabasca Glacier Icewalks in 1985.

This project is funded by the Government of  
Canada's New Horizons for Seniors Program.

Canada 