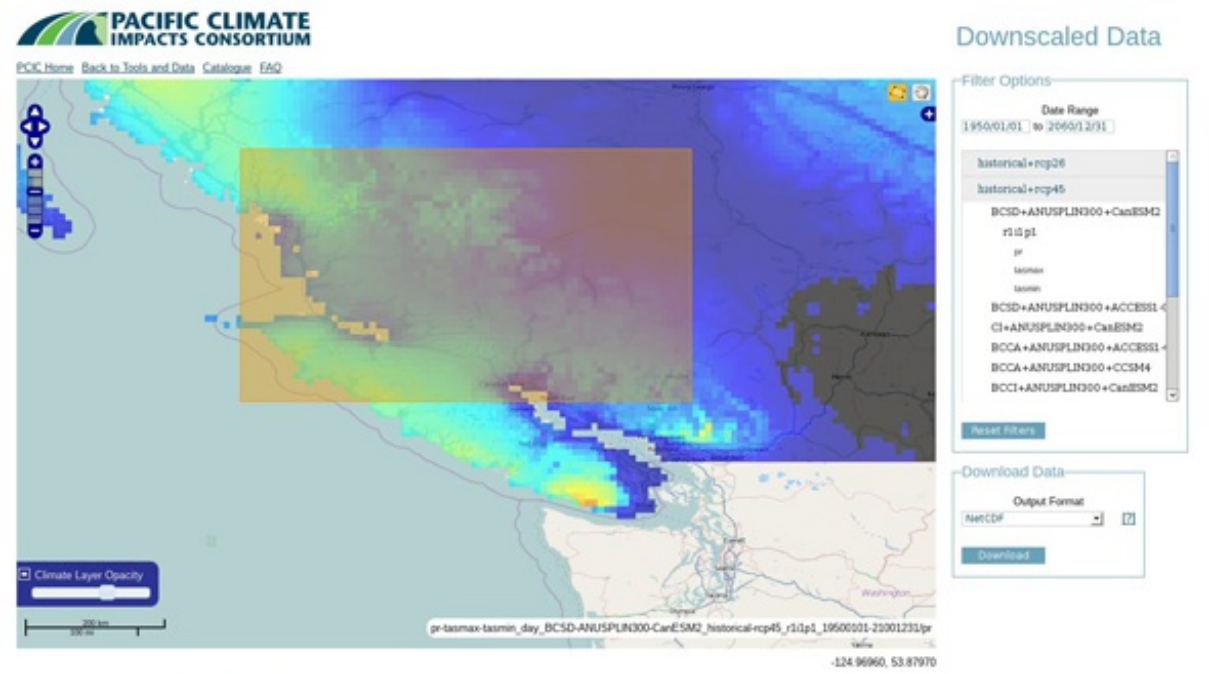
PACIFIC CLIMATE IMPACTS CONSORTIUM

PCIC UPDATE

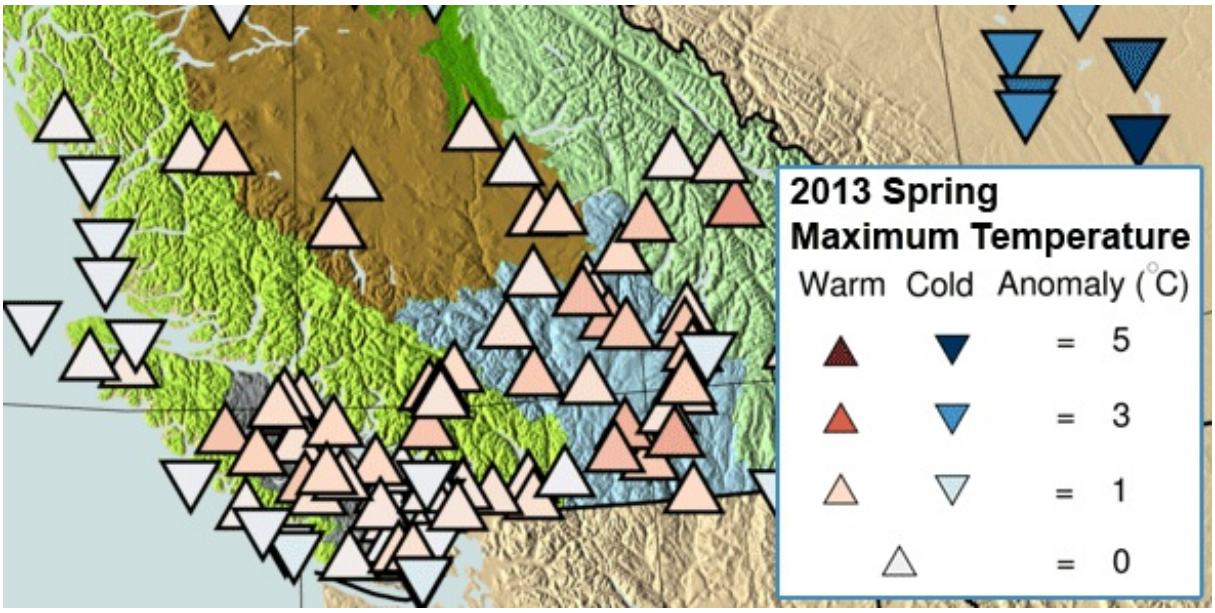
PROJECT UPDATE: DEVELOPING A WEB-BASED DATA PORTAL FOR GRIDDED DATA



PCIC's stakeholders often require high-resolution gridded climate data to inform their policy, planning and engineering decisions. We are developing tools to provide such data in a user-friendly manner. However, providing high-resolution gridded climate data to users via the web presents a number of challenges. These arise because of the sheer quantity of data, the number of climate models, downscaling methods and emissions scenarios available, and the varying shapes of map projections and climate model grids.

PCIC is developing a data portal that meets these challenges. These allow PCIC's basemaps to be expanded. Previously they were restricted to BC, but they will soon be able to display high-resolution gridded datasets anywhere in the world, in their native projection. We are also developing a "metadata" database of all model and downscaling output available at PCIC, which will ensure that all data, sources and methods can be traced by our end users.

PCIC RELEASES NEW SEASONAL CLIMATE MAPS



PCIC scientists have recently generated a series of monthly maps that show temperature and precipitation departures from the normal, or expected weather conditions, for weather stations throughout BC, for the period of 1972 to the present. These show the spatial patterns and extent of warm, cold, wet and dry regions and can be used to put anomalous weather and impacts that users have observed into context. Above is a section of one such map in which the triangles show the magnitude and direction of the temperature anomalies. For more information on these maps, click here.

BC SEES REFLECTION IN ALBERTA FLOOD

The rainy season in the southern Rocky Mountains of Alberta and British Columbia typically occurs during the months of May through early July and this year has been no exception. From the 19th of June through the 21st, a slow moving low pressure system tapped into tropical moisture from the Gulf of Mexico and delivered extreme rainfall to the foothills and front ranges of the Rocky Mountains. Heavy rainfall was centred just east of Canmore, AB and extended roughly 100 km to the north and south. As a result of this precipitation event, discharge records were broken for the Bow and Elbow rivers, Calgary and many smaller communities experienced extensive flooding, more than a hundred thousand people were displaced, and major highway infrastructure was damaged throughout the mountains and foothills. Continue reading the article on our website.

THE 4TH ANNUAL PACIFIC NORTHWEST CLIMATE SCIENCE CONFERENCE, SEPT. 5TH AND 6TH, 2013

PCIC Scientists will join experts in a variety of disciplines this fall, in Portland Oregon, for the 4th Annual Pacific Northwest Climate Science Conference. Scientists, resource managers, policy- and decision-makers and science communicators will meet on September 5th and 6th at the Governor Hotel for two days of presentations on climate science in the Pacific Northwest. See our website for more information on the event.

ATMOSPHERIC RIVERS WORKSHOP SUMMARY REPORT RELEASED

Atmospheric rivers are thin streams of high-water vapour concentration that move moisture from the tropics to the poles, crossing the midlatitudes. Atmospheric rivers can cause extreme precipitation events and consequently, flooding and landslides.

In March, PCIC held the BC Atmospheric River Events: State of the Knowledge Workshop, which brought together experts in a variety of disciplines to assess our understanding of atmospheric rivers our ability to observe and forecast the phenomenon, our ability to respond to them and how they might change in the future. The proceedings from this workshop have now been published on the PCIC website. Go to our website to learn more.

PCIC ANNOUNCES SERIES OF THEME-BASED MEETINGS

PCIC is hosting a three-part series of user engagement meetings structured around PCIC's three applied research themes: Climate Analysis and Monitoring, Regional Climate Impacts and Hydrologic Impacts.

The series is intended to serve as a two-way exchange between users of PCIC services and PCIC scientists and product developers. Each meeting will be held separately. In October, we will host the first centred on the Climate Analysis and Monitoring theme followed in November by the Regional Climate Impact theme and then in February 2014 by the Hydrologic Impacts theme.

PCIC is looking to engage present and potential users of our climate information – data, analysis and interpretation products. In many cases we are aware of our users and

work closely with them to provide climate information specific to their needs. Nevertheless, there are many others we have yet to work with who may benefit from knowing more about PCIC and its products.

If you or someone at your organization is interested in these events, please join our mailing list for the PCIC user engagement meeting series by contacting Cassbreea Dewis at cdewis@uvic.ca. The meetings will be small to encourage discussion, thus preregistration will be required.

NEWSWORTHY SCIENCE: PCIC RELEASES NEW SCIENCE BRIEF

The next PCIC Science Brief has been released. It discusses recent research on a method of geoengineering that utilizes biomass combustion and carbon capture and storage.

Recent work on biomass combustion combined with carbon capture and storage, published in *Climatic Change* by Kriegler (2013) et al., finds that these methods can both improve the feasibility and reduce the costs of achieving climate change goals. Access this Science Brief on our website.

RECENT PAPERS AUTHORED BY PCIC STAFF

Min, S., X. Zhang, F. Zwiers (PCIC), S. Shiogama, Y. Tung, and M. Wehner, 2013: Multimodel Detection and Attribution of Extreme Temperature Changes. *Journal of Climate*. doi:10.1175/JCLI-D-12-00551.1, in press.

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