



**BC Institute of Agrologists – Victoria and Islands Branch
2019 Annual General Meeting**


**October 26, 2019
Tigh-Na-Mara Resort & Conference Centre
1155 Resort Drive, Parksville, BC V9P 2E3**

| Professional Development Seminar: Climate Change and the Practice of Agrology | | |
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| Time | Speaker | Title |
| 1:15 | Myron Roth, Ph.D., P.Ag. Team Lead, Aquaculture & Marine Fisheries, BC Ministry of Agriculture | Master of Ceremonies Introduction to the seminar |
| 1:25 | Trevor Murdock, M.Sc. Climate Scientist Pacific Climate Impacts Consortium | “Using Climate Change Projections” |
| 1:50 | David Spittlehouse, Ph.D., P.Ag. Research Climatologist BC Ministry of Forests, Lands, Natural Resource Operations & Rural Development | “Impacts of Climate Change on Forestry in British Columbia, Adaptation Practices and Implications for Agrologists” |
| 2:15 | Wiley Evans, Ph.D. Chemical Oceanographer Hakai Institute | “Ocean Acidification: What It Is and What Is Going on Along the BC Coast” |
| 2:40 | Coffee Break | |
| 3:05 | Anna Stemberger, P.Ag. Agriculture Climate Change Analyst BC Ministry of Agriculture | “Climate Change Adaptation in the Field of Agrology” |
| 3:30 | Robin Cox, Ph.D. Director, Professor ResiliencebyDesign (RbD) Research Innovation Lab, Royal Roads University | “Arguing for Adaptation: Seeding resilience and adaptive capacity” |
| 4:00 | Daniel Lamhonwah, Ph.D. candidate, A.Ag Environmental Scientist, Hydrology and Soils Madrone Environmental Services Ltd. | Panel discussion moderator |
| 4:30 | Session Ends | |

Climate Change and the Practice of Agrology

Climate Change is a complex, coast-wide multi-factorial issue being driven by the rapid accumulation of man-made green-house gasses. Changes to ecosystems, forestry, agriculture, aquaculture and urban centres are far-reaching, pervasive and readily apparent affecting natural resource use and stewardship, the economy and the health of communities. While detrimental effects are now routinely documented, the magnitude and quantification of long-term impacts are still being determined along with efforts to mitigate and adapt to climate change. This session brings together local researchers and agrologists to learn about and discuss the state of climate change impacts and how these will affect the practice of agrology in British Columbia.

Presentation Summaries and Speaker Bios

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|  | <p>Our Master of Ceremonies and introductory speaker, Dr. Myron Roth, holds a B.Sc. from UBC (zoology) and a Ph.D. from the Institute of Aquaculture, University of Scotland (fish pathology). He has over 25 years' experience with the aquaculture industries on both coasts of Canada, Scotland, Norway, Ireland and Chile. He currently works with BC finfish and shellfish farmers to develop capacity through innovation development and technology transfer. He is the Ministry of Agriculture lead for the OASISS (Ocean Acidification Shellfish Industry Seed Supply) and BaSEIC (Baynes Sound Environmental Intelligence Collaboration) projects developed to address climate change adaptation for BC's shellfish aquaculture sector.</p> |
|  | <p>Trevor Murdock is a climate scientist with the Pacific Climate Impacts Consortium in Victoria, BC where he leads the Regional Climate Impacts theme. Following an MSc in Earth and Ocean Sciences in 1997 from the University of Victoria in paleoclimate modelling, Trevor has spent over 20 years working on applied climate science to assist decision-making and planning. His work has focused on climate scenarios, online mapping tools, and downscaling to regional and local scales</p> <p>His presentation will look at regional climate projections around the province and look at how that information can be used by agrologists and other professionals to adapt to a changing climate.</p> |
|  | <p>Dr. Dave Spittlehouse has over 30 years of experience in forest climatology / meteorology, forest hydrology, climate science and climate change adaptation for the Provincial government. He has assembled publicly available, long-term datasets, tools and research that improve our understanding of forest water and carbon cycling. In 2017 Dave received a BC Public Service Hall of Excellence Award for making a lasting contribution to the field of climate change research and adaptation in the forest sector of British Columbia. He has been a member of BCIA since 1983.</p> <p>For his talk, Dr. Spittlehouse will provide an overview of climate change impacts to the forest sector and outline the future projections for the west coast region of BC. Adaptation actions and forest sector responses to climate change will be highlighted. Recent developments in tools and data that can help agrologists in adapting to a changing climate will be discussed.</p> |



Dr. Wiley Evans received a PhD in Oceanography from Oregon State University before conducting postdoctoral work at the University of Alaska Fairbanks. In 2013, Wiley relocated to the U.S. National Oceanic and Atmospheric Administration's Pacific Marine Environmental Laboratory in Seattle Washington as a Research Scientist conducting ocean acidification work in the coastal zone of the Gulf of Alaska. Then in 2016 Wiley joined the Hakai Institute in British Columbia. Wiley manages the Hakai Institute's Ocean Acidification Program that focuses on observing the marine CO₂ system in British Columbian and Alaskan coastal waters, with the aim of understanding baseline patterns and long-term change.

In his talk, Wiley will briefly review the state of ocean acidification (OA) observing science, the link to the shellfish aquaculture industry, and some of the current efforts underway in British Columbian coastal waters



Since joining the Ministry of Agriculture in 2015, **Anna Stemberger** has worked on several climate policy initiatives including CleanBC, the Pan-Canadian Framework on Clean Growth and Climate Change and is currently working on the development of a provincial adaptation strategy. She provided agricultural contributions to the Preliminary Strategic Climate Risk Assessment for British Columbia. Anna also works on the Ministry of Agriculture's Climate Change Adaptation Program and is involved in increasing climate change integration into the Environmental Farm Plan Program. Anna has a B.Sc. in Natural Resources Conservation from the University of British Columbia.

Anna's presentation will provide an overview of climate change impact areas and adaptation resources available to Professional Agrologists, which can help inform climate change preparedness, reduce vulnerabilities, and increase agricultural climate resilience. With the agriculture sector facing increasing climate change risks, Professional Agrologists are now presented with an increased professional responsibility to consider climate change impacts and consequences in their work.



Dr. Robin Cox is the Director of the ResilienceBy Design Research Innovation Lab (RbD) and a professor in the Disaster and Emergency Management Program at Royal Roads University. Working collaboratively with professionals, youth, and their communities, Robin and the RbD build resilience and adaptation capacity through education, innovation, and action.

Most of us understand that climate change is a priority but can get stuck trying to move from understanding into action. Join Dr. Cox as she outlines the results of a recent survey of professional agrologists and explores these questions and others related to the next steps we can all take. She will engage the audience in identifying some practical strategies for connecting personally and professionally with climate change.



Our panel discussion moderator, **Daniel Lamhonwah**, currently works for Madrone Environmental Services in Duncan and is one of the Professional Development Event Coordinators for the Victoria and Islands Branch. He is completing his doctoral degree from Queen's University with a research focus on freshwater impacts as a result from permafrost thaw in Canada's High Arctic. As an Articling Agrologist, Daniel specializes in agricultural land capability, rainwater and surface drainage managing planning, land reclamation and terrain hazard assessment.