The Human Footprint in the Pacific Northwest: From the Deep Past to the Present

Presented by
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Thursday, February 20, 2014, 7:00 pm, Room 1900, SFU Harbour Centre, 515 West Hastings

Abstract:
Environmental changes in the past and present have always played an important role in human affairs and cultural development. I will explore links between past environments and the “peopling” of the new world along the coast of western North America near the end of the last ice age, and then look into the evidence of how environmental changes during postglacial time have affected first nations cultural development, and also been affected by early human activities. Paleocological techniques such as pollen analysis, paleontology, charcoal analysis and archaeology provide a powerful toolset for reconstructing past environmental changes. Specific examples that illustrate the power of such approaches focus on studies of Haida Gwaii (former Queen Charlotte Islands) and forests of southern British Columbia, with an excursion into drought history of southern Alberta. The human footprint has of course grown dramatically in size and impact in recent technologic history, but similar approaches can help to monitor present impacts and assess possible future changes.

Bio:
Rolf Mathewes is currently a full professor of Biological Sciences, and served as Associate Dean of Science at Simon Fraser University between 2000 and 2011. He received a BSc in Biology from SFU in 1969 and a PhD in Botany from the University of British Columbia in 1973. After a year's postdoctoral research in Cambridge, England, working on the history of pine forests in Scotland, he returned to British Columbia and took up a faculty position at Simon Fraser in 1975. His research focuses mainly on postglacial vegetation history and climate change in western Canada (especially on the Queen Charlotte Islands), using pollen and plant macrofossil analysis. As an associate member of the department of Archaeology, his paleoenvironmental research has often been applied to research on human migration and cultural development. He has also worked in Europe, and has twice been to Germany as an Alexander von Humboldt Foundation research fellow. In his academic career, he has been president of both the Canadian Association of Palynologists and the American Association of Stratigraphic Palynologists, and associate editor of the Canadian Journal of Botany and currently the journal Ecoscience. In recent years, his interests have broadened to include the paleoecology of Eocene fossil deposits in British Columbia in relation to long-term climate change and biogeography. He has published more than a hundred refereed scientific articles and co-edited a book on the environmental history and archaeology of Haida Gwaii in 2005. Spinoffs from paleoecological research include involvement in criminal investigations as a forensic botanist, identifying and interpreting plant remains in homicides and other forensic cases. He recently received the 2011 Simon Fraser University Alumni Association award for academic achievement.