

## OCGC Seminar

# ***Unlocking Seasonal and Climatic Signals of the Mazama Ash: Insights from Laminated Marine Sediments in the Northeast Pacific***

**Dr. Helen Roe, Queen's University Belfast, UK**

Carleton University  
Herzberg Laboratories Room 3120  
Thursday, October 3, 2024  
Talk begins at 11:30 AM  
Coffee, snacks and mingling at 11 AM

*Carleton University  
Herzberg Laboratories Local 3120  
Jeudi, 3 octobre 2024  
Présentation à 11h30  
Café et collations légère à 11h00*

*Virtual Option: (Zoom): <https://carleton-ca.zoom.us/j/96904902196?pwd=qWfCTciU90gyZOeCMunLcHpFAnoR1w.1>*

Paul Rockwood - Image courtesy of National Park Service, Crater Lake National Park Museum and Archive Collections



**Summary:** Tephra deposits from the cataclysmic eruption of Mount Mazama, Oregon at ~6,730 <sup>14</sup>C yrs BP occur widely in the western United States and Canada, and the ash layer represents one of the most important stratigraphic markers for the mid-Holocene in North America. Despite substantial research on the ash, there remain uncertainties about the character and distribution of the tephra fall-out and the associated climate impacts. This talk will present the results of an ultra-high resolution study of laminated marine sediments spanning the ash layer from the NE Pacific which provides new insights into the season of deposition and regional climatic responses. The broader implications of this work on the

**About the Speaker:** Professor Helen Roe holds a Chair in Physical Geography in the School of Natural and Built Environment, Queen's University Belfast, UK and is Co-Director of the Queen's Centre of Canadian Studies. She has broad interests in Holocene environmental change, particularly the response of coastal and wetland ecosystems to climate and land use change and altered disturbance regimes over a range of timescales, past, present and future. She has been an Adjunct at Carleton in the Department of Earth Sciences since 2003.

