

Processes Controlling the Growth and Evolution of Continental Batholiths, Coast Mountains, British Columbia Canada

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This 5-day field forum will explore the growth and evolution of continental batholiths. Although comprehensive datasets are available for many batholiths (e.g., Sierra Nevada CA, Peninsula Ranges Baja, Fiordland NZ), the processes responsible for growth of large Cordilleran batholiths are still poorly understood. The Coast Mountains Batholith, British Columbia is an ideal location for the field forum because it is the largest calc-alkaline plutonic complex on earth. New data indicates that the batholith exhibits significant along strike and cross strike variations in structure, pluton compositions, and exhumation depths.

The group will follow a transect across the Coast Mountains batholith near Prince Rupert, Canada. This transect, studied extensively by the research group led by Lincoln Hollister, provides a window into the architecture of the batholith and the country rock which preserves a record of batholith formation and emplacement during terrane accretion, crustal contraction and thickening, and extensional collapse. The Forum will introduce researchers to this spectacular geology and focus attention on areas where productive study can resolve outstanding questions, which begin with origin of the batholith.

This Thompson Field Forum will emphasize:

- The role of far field external and internal crustal mechanisms on batholith growth;
- Critical evaluation of data diagnostic of High Flux Events (HFE), using the Coast Mountains batholith as an example;
- Factors contributing to HFE in the batholith;
- Cross-disciplinary assessment of batholith structure;
- Structural controls on the growth and architecture of batholiths; and
- The nature of metamorphism and its role in magmatism.

Application deadline: 31 January 2018

More info: www.geosociety.org/fieldforums

