

What small earth science institutions can do for education: an example from the Quartermain Earth Science Centre

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Critical decisions that rely on our understanding of science are made on a regular basis; how we manage our energy and mineral resources, handle climate change, invest in alternative fuels, sustain access to clean water, and repair our decaying infrastructure. To preserve our way of life and survival, Earth Science literacy is an urgent and important issue. To accomplish this involves tough challenges for (1) motivated educators and the public searching for information, as well as (2) many time-strapped Earth Scientists seeking a way to provide quality, meaningful broader information to schools (K-12) and general public. Who will clearly explain these issues to the public and to policy-makers?

Since its doors opened in June 2011, the Quartermain Earth Science Centre, (QESC) has recognized this vital responsibility with initiatives that include inquiry-based hands-on geological activities, public lectures, geo-hikes, and collaborative efforts with other science educators and institutions. Joining social media with its website (QuartermainEarthScienceCentre.com), Facebook, and Twitter accounts has proven essential to awareness on programs and events. The QESC offers tours as well as educational activities at the museum or remotely.

For a small institution with one curator, the museum benefits from public and private funding, donations and community support. Graduate students, volunteers, co-op and work-study programs allow the QESC to function with minimum staff while providing quality outreach programs. The curator manages administration and scheduling, allowing the professionals and graduate students to focus on connecting with the public.

Collaboration with other science educators, events and institutions, and individual professionals has been vital to increasing outreach while keeping expenses low. For example, the QESC provides programs for travelling science fairs, camps and other groups. Science East invited QESC to their popular events such as Illuminate (a program to promote STEM career opportunities). Education and outreach groups such as Let's Talk Science and Worlds Unbound by developing and implementing Earth Science activities. Teacher workshops and collaboration with UNB's Faculty of Education has resulted in developing Teacher Science Kits on Minerals and Rocks in support of the grade-4 curriculum.

QESC recognizes that small museums are a valued community resource, providing opportunities for students and the public at large. If people and institutions have the will and accept their responsibilities, then we can turn the tide for scientific literacy. Time is not our ally, and action is needed now.