Proposal for CISC 498

On-Line Booking Software for the Queen’s University Biological Station

**Background:** The Queen’s University Biological Station (QUBS), Canada’s largest university-based, inland field station, for 70 years has welcomed researchers and students from universities across Canada, the United States and around the world. The station has grown from its modest beginnings in 1945, on a small peninsula on Lake Opinicon, to encompass over 34 square kilometres, including 20 kms of shoreline, 9 entire lakes, and over 20 kms of trails. It is unique among field Canadian stations in being part of both a UNESCO Biosphere Reserve (‘Frontenac Arch’) and a UNESCO World Heritage Site (‘Rideau Canal Waterway’) reflecting its rich cultural history and natural diversity. QUBS houses over 30 species of conservation concern, and the properties are managed to ensure their persistence.

The core mandate of QUBS is to facilitate excellence in research and teaching spanning themes in biology, the environmental sciences, and related disciplines. QUBS hosts between 8 and 10 field courses each year, providing intensive, hands-on, learning opportunities for small groups of between 12 and 14 students. The Station also serves as the base for field laboratories for large, classroom-based courses (> 200 students) taught at Queen’s University main campus. Research conducted at QUBS has thus far resulted in over 275 graduate and undergraduate theses and over 1000 peer-reviewed articles. Our usage now well exceeds 10,000 ‘user days’ per year. Our new Elbow Lake Environmental Education Centre is the focus of QUBS’ expanding public outreach with programs seeking to engage public and high school students, and workshops and small conferences. The Eco-Adventure Camp, now in its fourth year, employs Queen’s undergraduates who develop activities to engage young people aged 10 to 14 years of age in outdoor activities that expand their knowledge of ecology and environmental issues. Workshops, open houses, and retreats afford opportunities for the public to learn about nature, biodiversity conservation, and environmental issues, as well as expose them the leading edge research being done at QUBS and Queen’s University.

**Challenge:** We have two ‘campuses,’ the original station at Lake Opinicon with accommodation for approx. 90 people (and a full service kitchen with cooking staff and breakfast, lunch & dinner typically served from May 1st to Sept. 30th), and Elbow Lake with 10 2-bedroom cabins with accommodation for approximately 30-40 (but only a self-service kitchen). Thus, we have a range of accommodation options at our two ‘campuses’ with total accommodation available for approximately 120 people. Managing and coordinating these bookings is one of the biggest challenges that we face, currently done either through a paper calendar (Opinicon) or Google calendar (Elbow). We would like to have an **on-line booking system** that allows us to track when people will arrive and depart, which cabin, cottage or bunkhouse they will be assigned, billing contact (e.g. they might be part of a group or undergraduate class, an independent researcher, or part of a research group with a principal investigator), contact information for billing, and whether they need access to specific laboratory or classroom facilities.

For a summary of our accommodations at our Opinicon site see: [http://www.queensu.ca/qubs/facilities/accommodations](http://www.queensu.ca/qubs/facilities/accommodations)

For a summary of accommodations and facilities at our Elbow Lake site see: [http://elbowlakecentre.ca/facility/#cb](http://elbowlakecentre.ca/facility/#cb)

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