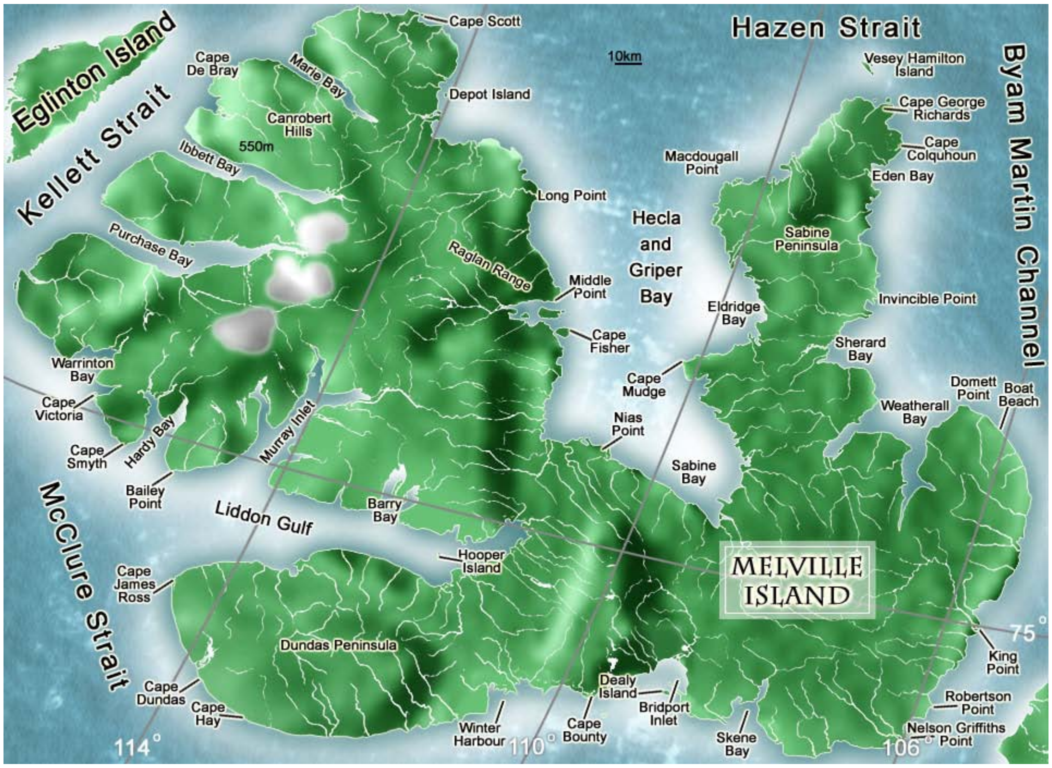
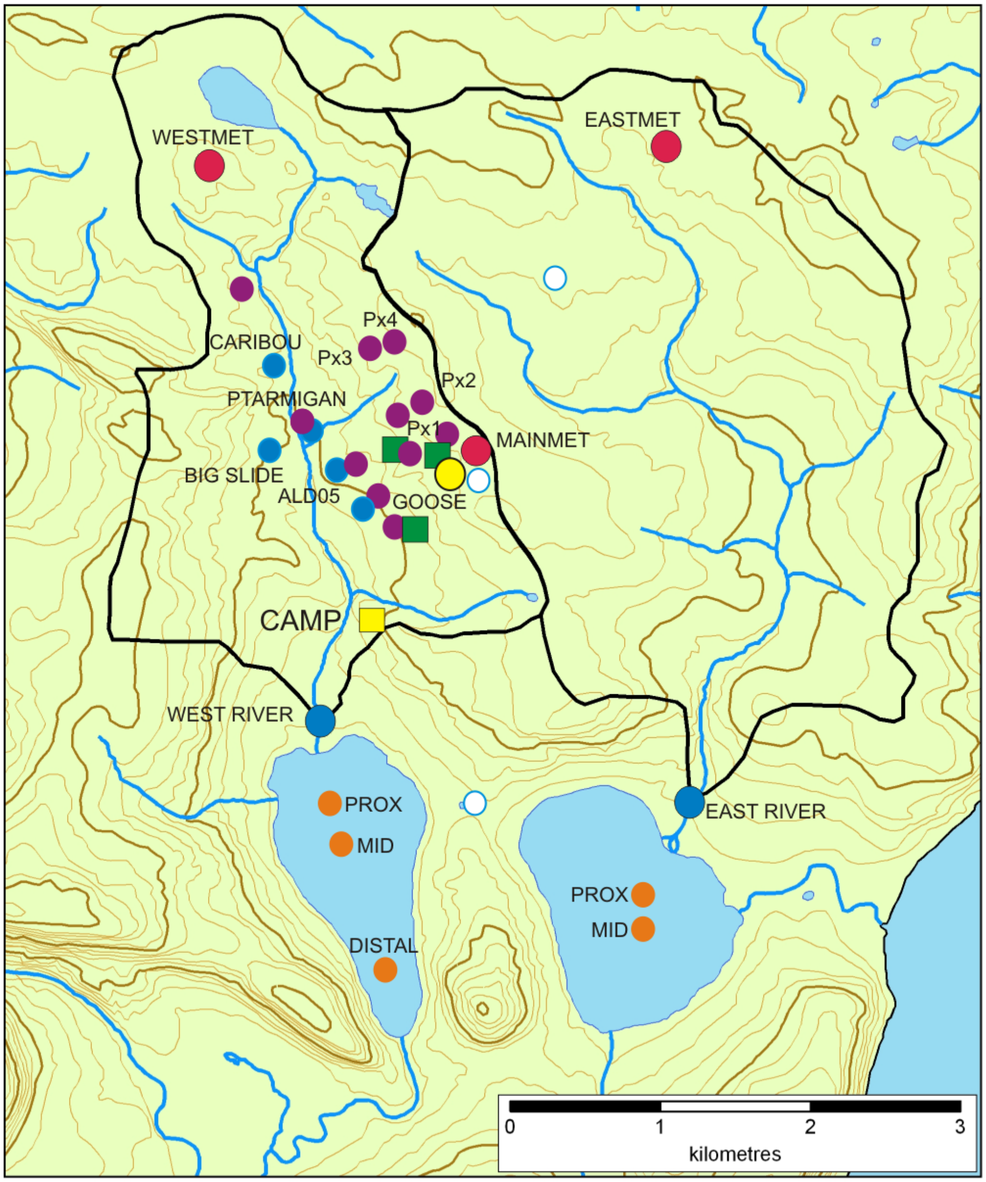
Information to support application for Nunavut Water Board (NWB) Permit

Licence named individual: Scott Lamoureux, Queen’s University

Project name: Cape Bounty Arctic Watershed Observatory (CBAWO)

Project location: Cape Bounty, Melville Island, Nunavut, 74°55’N, 109°30’W





Contour interval 10 m

Source: NTS 78 F/15 1:50 000
Prepared by: S. Lamoureux 11/2008

Legend:

- 🔴 Meteorological station
- 🔵 River stream station
- ○ Pond study sites
- 🟣 Soil moisture and active layer temperature station
- 🟠 Limnology station (CTD, traps, frequent servicing)
- 🟡 Atmospheric flux tower
- 🟩 ITEX/CiCAT vegetation plot sites

Summary (English):

We study how changes to the climate will affect things like river flow, vegetation, snow cover, permafrost, lake temperature and ice thickness, and the health of charr. We record streamflow, weather conditions, plant communities, and lake temperature. We also obtain sediment cores from the lakes to see how the landscape has changed in the past.

Our principal investigator and several graduate students visited Qarmartalik school in Resolute in May. They described our research and its importance to Inuit communities, answered questions, and did science-related activities with the students.

We hired one person from the hamlet of Resolute to help measure snow thickness and density. Another person was hired to catch charr in the Cape Bounty lakes, which will help determine whether mercury accumulates within the fish.

We plan on continuing to study the lakes and rivers of Cape Bounty in the summer of 2010. There will be four to ten people in the camp, and we will be there from late May to late August. Like all previous years, all activities will be conducted on foot. We will be brought to and from the site by twin otter and helicopter. No permanent structures exist at the site, and none will be constructed. We expect to hire a community member to work with the charr again and plan more trips to the school to share our research with the children.

We also maintain a web site about Cape Bounty (http://geog.queensu.ca/cbawo/).

Summary (Inuktitut, Nunacom font):

ᐃᓕᑦᑎᓇᓱᓚᐅᖅᑐᒍᑦ ᖃᓄᖅ ᐊᓯᑦᔨᕐᐸᓪᓕᐊᔪᓂᒃ ᑕᒪᑐᒪᖓᑦ ᓯᓚᐅᑉ ᖃᓄᐃᓐᓂᖓᓂᑦ ᐊᒃᑐᐃᓂᖓᓄᑦ ᑕᒪᓃᑦᑐᓂᒃ ᑰᖕᓂ ᑰᒃᑐᓂ, ᐱᕈᖅᑐᑦ, ᐊᐳᑦ ᖄᖓᓂᒃ, ᑯᐊᖑᐃᓐᓇᖅᑐᒥᒃ ᐊᒻᒪᓗ ᓯᑯ ᐃᔾᔪᓂᖓᓂᒃ, ᐊᒻᒪᓗ ᐃᖃᓗᖕᓂᒃ. ᑎᑎᕋᑦᑎᐊᖅᓗᒋᑦ ᑰᒐᓛᑦ, ᓯᓚᐅᑉ ᖃᓄᐃᓐᓂᖓ, ᐱᕈᖅᑐᑦ ᑭᓲᓂᖏᑦ, ᐊᒻᒪᓗ ᑕᓯᖅ ᓂᒡᓚᔪᖕᓂᖓ. ᐱᓚᐅᕐᒥᔪᒍᑦ ᐃᖃᖓᓂᑦ ᑕᓲᑦ ᑕᑯᔪᒪᓪᓗᑕ ᖃᓄᖅ ᓄᓇ ᐊᓯᑦᔨᕐᑎᒋᓯᒪᖕᒫᖓᖅ ᐃᒻᒪᑲᓪᓚᖕᓂᑦ.

ᑐᙵᕕᒋᓚᐅᖅᑕᕗᑦ ᖃᐅᔨᓴᖅᓯᓂᑦᑕ ᐊᒻᒪᓗ ᐊᒥᓱᑦ ᐃᓱᓕᑦᑎᓯᒪᔪᑦ ᐃᓕᓐᓂᐊᖅᑕᒥᖕᓂᒃ ᐃᓕᓐᓂᐊᖅᑎᑦ ᐳᓛᓚᐅᖅᑐᑦ ᖃᕐᒫᑕᓕᒃ ᐃᓕᓐᓂᐊᕐᕕᖓᓄᑦ ᖃᐅᓯᐃᑦᑐᒥ ᒪᐃᖑᑎᓪᓗᒍ. ᓇᓗᓇᐃᔭᑦᑎᐊᖅᓗᒍ ᖃᐅᔨᓴᖅᓯᓂᕆᔭᕗᑦ ᐊᒻᒪᓗ ᐱᒻᒪᕆᐅᓂᖓ ᐃᓄᐃᑦ ᓄᓇᖕᒥᒃ, ᑭᐅᓯᓪᓗᑎᒃ ᐊᐱᖅᑯᑎᓂᒃ, ᐊᒻᒪᓗ ᖃᐅᔨᓴᖅᑐᓕᕆᓂᕐᒧᑦ ᐱᓯᒪᔪᑦ ᖃᓄᐃᓕᐅᕈᑕᐅᓯᒪᔪᑦ ᐱᓕᕆᖃᑎᒋᓪᓗᒋᑦ ᐃᓕᓐᓂᐊᕐᑎᑦ.

ᐃᖅᑲᓇᐃᔭᓕᖅᑎᑦᑎᓚᐅᖅᑐᒍᑦ ᐊᑕᐅᓯᕐᒥᒃ ᐃᓄᖕᒥᒃ Hᐋᓪᓚᒃᑯᖓᓂᑦ ᖃᐅᓯᐃᑦᑐᖅ ᐃᑲᔪᕐᓂᐊᖅᑐᒥᒃ ᐆᒃᑐᕋᐃᑎᓪᓗᑕ ᐊᐱᑎᑦ ᐃᔾᔪᓂᖕᒥᓐᓂᒃ ᐊᒻᒪᓗ ᑎᓯᓂᖓᓂᒃ. ᐊᓯᐊᑦᑕᐅᓯ ᐃᖅᑲᓇᐃᔭᕐᑎᑕᐅᒥᓪᓗᓂ ᐃᖃᓗᒐᓱᓪᓗᑕ ᑕᓯᖕᒥᓐᓂ, ᐅᑯᐊᓗ ᐃᑲᔪᓚᐅᖅᑐᖅ ᖃᐅᔨᓇᓱᒻᑎᓪᓗᑕ ᐊᑭᕐᕌᔭᒃᓴᖃᕐᒫᖓᑦ ᐃᖃᓗᖕᓂ.

ᐱᓕᕆᑦᑎᐊᖏᓐᓇᖅᑐᒍᑦ ᖃᕆᑕᐅᔭᑎᒍᑦ ᐃᓂᖃᖅᑐᖅ ᐱᔾᔪᑎᓕᒃ ᑕᐃᑲᓂ

(ᓱᑎᑎᔨ:ᔭᔭᑐᕿᓕᑐ.ᖏᒥᕿᕿᓴᒥ.ᖃᖑᔭᖃᑕᖑᐃᓕᔭ).

ᐸᕐᓇᐃᓯᒪᕗᒍᑦ ᑲᔪᓯᔪᒪᓪᓗᒍ ᐃᓕᑦᑎᓇᓱᖕᓂᕆᔭᕗᑦ ᑕᓯᕐᓂᒃ ᐊᒻᒪᓗ ᑰᖕᓂᒃ ᑕᐃᑲᓂ ᐊᐅᔭᖓᓂ 2010. ᑎᓴᒪᓂᑦ ᖁᓕᓄᑦ ᐃᓄᖃᕐᓂᐊᖅᑐᖅ ᑕᖕᒫᖅᓯᒪᕝᕕᒋᔭᕗᑦ, ᑕᐃᑲᓃᑦᑐᑕᓗ ᓄᖅᒍᐊᓂ ᒪᐃ ᑎᑭᑦᑐᒍ ᓄᖅᒍᐊᓄᑦ ᐋᒍᓯ. ᑕᐃᔅᓱᒪᖓᓂᑦ ᐊᕐᕌᒍᓂᑦ, ᑕᒪᕐᒥᒃ ᖃᓄᐃᓕᐅᖅᑕᐅᖃᑦᑕᖅᓯᒪᔪᑦ ᐱᓕᕆᔭᐅᓂᐊᕐᒥᔪᑦ ᐱᓱᓪᓗᑎᒃ. ᑕᐃᑯᙵᐅᑎᔭᐅᓂᐊᖅᑐᒍᑦ ᐊᐅᓪᓚᕐᕕᒋᓗᒍᓗ ᖁᓕᒥᒎᓕᒃᑯᑦ ᐊᒻᒪᓗ ᑎᖕᒥᓲᖃᓛᒃᑯᑦ. ᓇᑉᐸᖅᓯᔮᓐᖏᑦᑐᒍᑦ ᑕᖕᒫᖅᓯᒪᕝᕕᒋᔭᑦᑎᓂ, ᐊᒻᒪᓗ ᐃᒡᓗᓕᐅᖅᑐᖅᓯᐊᓐᖏᑦᑐᖅ. ᓂᕆᐅᒃᑐᒍᑦ ᐃᖅᑲᓇᐃᔭᓕᖅᑎᑦᑎᔪᒪᓪᓗᑕ ᓄᓇᓕᖕᓂᑦ ᐃᖃᓗᓕᕆᓂᐊᖅᑐᓂᒃ ᐊᒻᒪᓗ ᐸᕐᓇᐃᓗᑕ ᐳᓛᕐᓗᒋᑦ ᐃᓕᓐᓂᐊᕐᕕᑦ ᑐᓴᖅᑎᑦᓗᒋᑦ ᖃᐅᔨᓴᖅᑕᑦᑎᓂᒃ ᓱᕈᓰᑦ.

Questionnaire: attached