The Cape Bounty Project

An International Polar Year Project

by Linda Lamoureux

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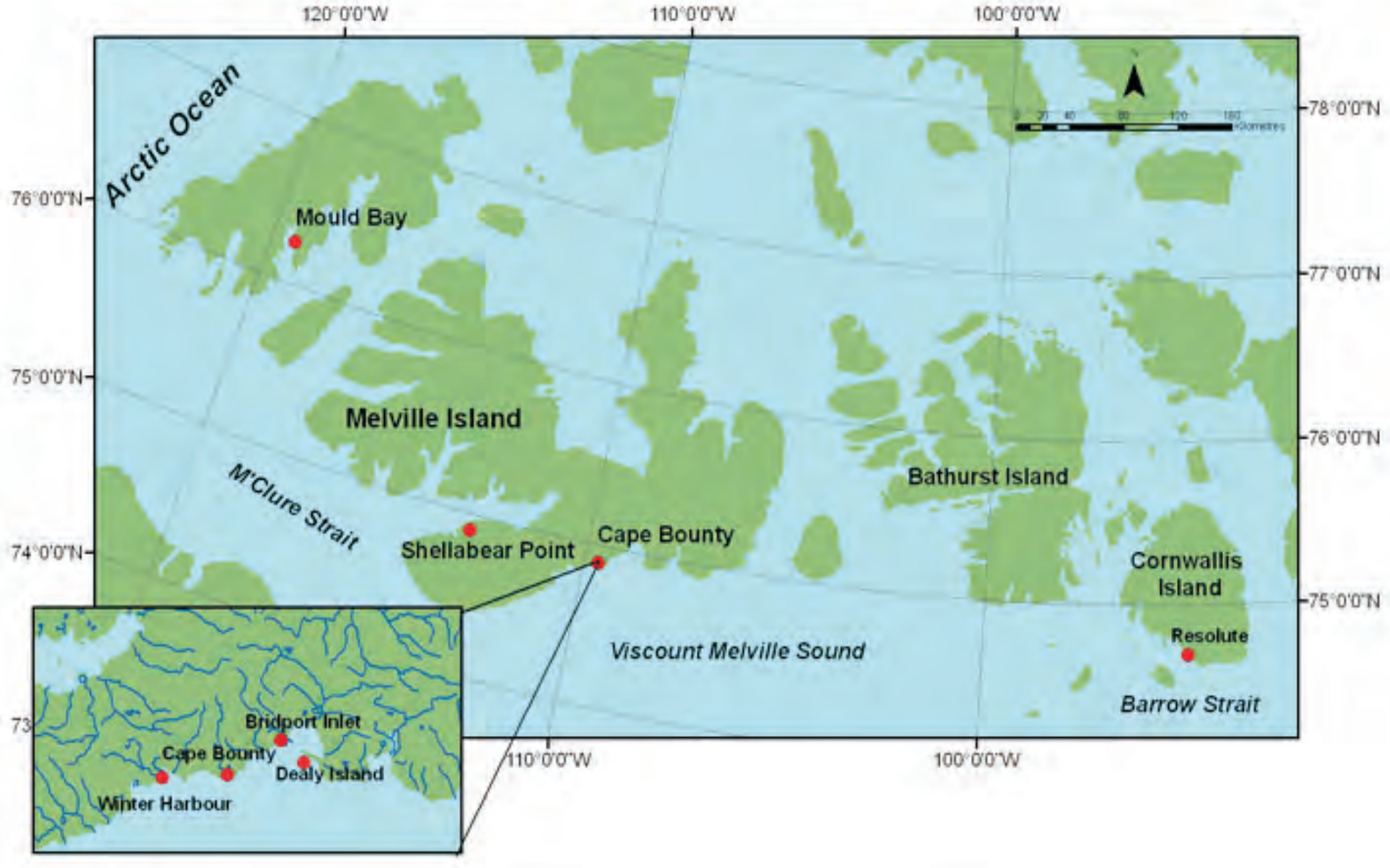
Cape Bounty scientists and researchers would like to thank all of the people and organizations that have provided funding and assistance to the Cape Bounty Project. A special thank you to the residents of Resolute Bay, Nunavut, Aziz “Ozzie” Kheraj, owner of South Camp Inn and the Principal, Brian Manning, of Qarmartalik School and his supportive teachers and students.

This book is dedicated to the memory of Marty Bergmann and Cheyenne Eckalook.

The Cape Bounty Project is taking place on the southern coast of Melville Island in Nunavut.



Canadian scientists at Cape Bounty are studying how changes in our climate are affecting the land, water and plants.

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Melville Island is the 8th largest island in Canada. The coastline of Melville Island is made up of many bays and large inlets.

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Melville Island is covered by ice and snow for nine months of the year.

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Mountains, plains, small lakes and plateaus cover the landscape of Melville Island.

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Melville Island is a tundra environment. Most vegetation grows in hummocks. Mosses, lichens and grasses grow in the valley lowlands. Dwarf arctic willow form thick mats as their branches grow close to the ground.

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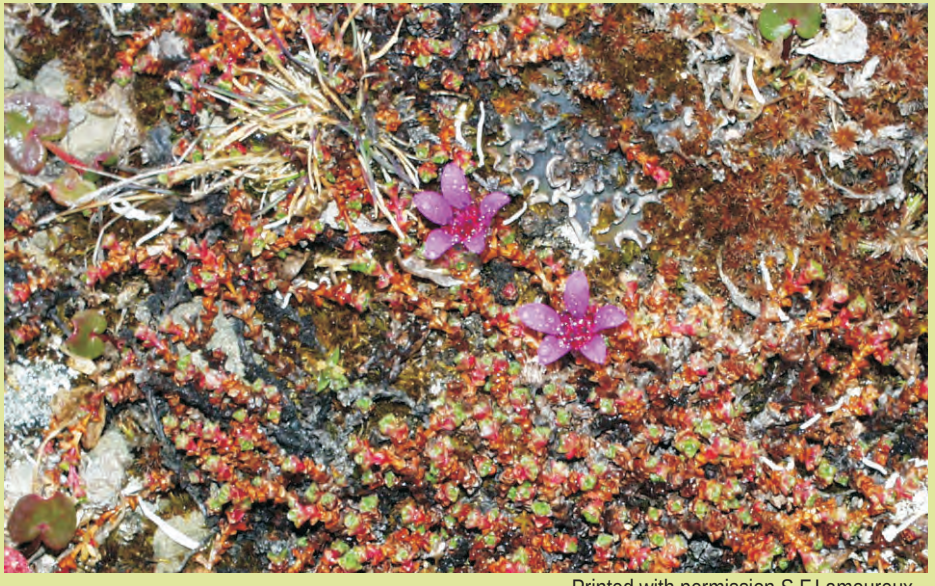

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What plants grow near your community?

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Many arctic animals inhabit Melville Island. The scientists at Cape Bounty have seen caribou, muskox, arctic wolves, arctic foxes and many different types of birds.

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What animals live near your community?

With permission Janice Lang, PCSP

Cape Bounty scientists began researching the effects of changing climate on the plants, land and water of Melville Island in 2003.

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Their research will help us understand how changes to climate will affect northern communities.

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Some Cape Bounty scientists are studying how changes in the weather affect rivers and the land.

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The water in rivers is measured to discover how much rain and melting snow is flowing into the lakes. Do you know of a river that has moved or dried up?

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Rain and melting snow transport soil and organic materials into the lake. The soil and organic matter settle on the lake bottom as sediment.

Sediment coring

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A sediment core ➡

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Scientists drill holes through the lake ice and push core tubes into the mud. These tubes collect the sediment that is at the bottom of the lake. Scientists study sediment cores to discover how rivers flowed in the past.

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Some scientists make detailed observations of the land, plants, animals and insects.

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Researchers also place large reflective objects on the land. These objects can be seen from space and help the scientists to study the land using satellite pictures.

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Scientists take samples from the lakes, rivers, soil and air. They spend time during the day studying these samples to understand what is happening to the land and water as the climate changes.

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The samples and data collected on Melville Island are also studied by scientists and students at universities in southern Canada. They spend the fall and winter months working in their labs.

Learning about Arctic climate will help us to understand what will happen to the Arctic in the future.