

# The University of Chicago

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February 4, 2013

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### Summary of Project: Scientific Research on Ellesmere Island

We seek collaboration to perform our scientific studies on Ellesmere Island in July of 2013. We are sending this communication now to tell you more about what we want to do in Ellesmere Island in July of 2013.

We understand that the land and wildlife of Ellesmere Island are very sensitive. In our previous work on Ellesmere Island in 1999-2011 we have treated the land with great respect. We hope that we can continue to work with the Hunters and Trappers Association and Hamlet to minimize any impacts to the land or the wildlife in your region. We would also like to explore ways that our work could be of use to your community.

#### Who are we?

Our 2013 field team will include four American researchers. Two of us are university professors, two are students. We have worked in the Arctic since 1987 and have spent eight seasons studying the rocks in East Greenland (north of the Scoresbysund settlement) and eight in Nunavut (Southern Ellesmere Island, Mellville Island).

Our scientific expertise is in the discovery of fossils. We are trained as biologists and geologists and have led expeditions to Canada, Greenland, Africa, Asia, South America, and the USA.

Our work often involves working with local communities. Our previous work has led to the discovery of some of the earliest mammals, crocodiles, turtles, dinosaurs, and amphibians.

### What are our scientific goals?

Our goals in 2013 are the same as those of our previous work. We would like to study the fish and arthropod fossils of Ellesmere Island. Most of this area contains rocks that are

<u>over 360 million years old</u>. We will try to discover new animal fossils in these rocks because they are likely to tell us about what ancient fish looked like and how they lived. This is important scientifically because it tells us what the land of Nunavut looked like in these ancient times.

Finding fossils involves no power tools. We do not use ATVs or powered equipment for our work. We look for small bones preserved in the rocks. Once we find a fossil, we photograph it and can remove it for later study in the laboratory. The best areas to look for fossils are where rocks sit on the surface: the sides of cliffs and gravel beds are good, tundra is bad. We avoid tundra for both camping and working.

We would like to visit one site on the Tucker River of Grinell Peninsula in July of this

year, with about 20 days spent at the site.

This year we will also be returning to a site where we found a very important fish fossil in 2004. We will look for more fossils in this location and will film our work for a documentary about these ancient fish.

## How can we reduce our impact on the environment?

We could work with the community to plot known wildlife sites over geological maps, and choose only sites that reduce impacts on sensitive areas. We could hire a local individual who could assist us in minimizing impacts.

Our respect for the land means that our camps are small and that garbage is removed. Our camp contains nine small nylon tents. We remove all paper and plastic garbage with us when we leave. We do not camp on tundra. We do not work on tundra—fossils are found in the rocks of gravel beds and cliffs.

## How can our work be of benefit to the Resolute Bay community?

For most of the year, we are teachers. We would be happy to lead classes and give lectures on our research, geology, and the history of the earth. We could also construct a small display on our research for setup in a community center. This display could show our research and the new things that it tells us about the earth.

We have been in contact with the school and community organizations and have sent display items, samples and pictures of our discoveries, and books to the Ummimak school in Grise Fiord. We hope that you have received the books that we sent because they describe the goals of our scientific studies.

I look forward to talking with you more about us, our research, and the ways that we can work with the Resolute Bay community and Hunter Trapper Association.

Best wishes,

Neil H. Shubin

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