

## Guest Editorial: Share Your Knowledge

It is the duty and responsibility of a scientist to make his discoveries widely known and as soon as possible. Scientists know that they must publish for the good of their own careers. But there are also many other good reasons to inform the general public. To me, there are at least three very important and concerned audiences — schools, the “public” and northern peoples — with whom as scientists we must share our knowledge.

First, if we do not bring science to the high schools, we shall lose many of our most capable young scientists to other countries or to more trivial pursuits. Fortunately, there are a few programs across Canada that have been initiated to spread the “good word” of science. I will mention only a few and apologize if I have not included your favourite one. The Atlantic Geoscience Centre of the Geological Survey of Canada in Dartmouth, Nova Scotia, has started a program in the elementary and secondary schools to provide scientists to talk about ocean sciences. This program has become known as “rent a scientist” and operates at no cost to the school board. The local scientific community supports the project enthusiastically as a means of increasing public awareness of science. A similar program has been set up in Ottawa with Glebe Collegiate and the Geological Survey of Canada; at least one teacher in the Geography Department of the school has praised the project to this writer. Also, there is an individual in British Columbia, retired UBC professor Douglas Hayward, who has visited more than 400 classrooms throughout the province to bring his chemical magic show to local schools. The whole idea is to arouse the students’ curiosity and maybe teach them something about science. In Alberta, the high school science program is under close scrutiny in that a reduction of time devoted to science has been recommended. This may be fertile ground for volunteers.

There is no greater joy than to help someone to have a wonderful new idea, but science studies must be linked to the real world — which is exactly what a field scientist can do very well. However, you cannot just go into the classroom and yatter about your job; you have to be a bit of a performer, a bit of an actor. But don’t we all have a bit of the ham in us? We want to talk to the students about the sort of science that is going to hook the kids so that they become interested in becoming scientists and engineers. Science has to appear as “fun.” Scientists need not always be people who use big words. Who got you and me interested in science? Somebody whet our appetite.

Second, we should share our knowledge with the general public. Some of you will remember the public lectures of Dr. John Satterly at the University of Toronto in the ’40s. He gave an annual lecture about liquid air that was straight showbiz! He must have inspired many young students to study science if for only the reason that it was fun. Today, the Royal Canadian Geographic Society presents public lectures across the country to full houses; the public wants to hear about science in all aspects. The Canadian Council of Professional Engineers predicts a shortage of scientists and engineers in the future and recommends to its members that they go to the schools and talk to enlighten and encourage. You may well ask why is it necessary for the layperson to understand science? If for no other reason than that in a democracy his or her opinion will ultimately determine the course of a future increasingly based on science and technology. It is our responsibility to get out there and tell our story.

Third, we must share our knowledge with northerners. To my knowledge there are no programs in the North such as those mentioned above in Dartmouth or Ottawa or B.C. The school kids are still learning from books written and printed in southern Ontario. Why should they learn to dissect a frog in a biology class when there are no frogs in their part of the world? Why can they not study something more pertinent to their lives?

Most bright young northerners simply cannot conceive of a life in the North as a scientist because there are few models to observe, few pathfinders to follow and little inspiration from home or afar. This deficiency must be corrected. There is the perennial complaint that people in the North tend to be treated as objects of study but never hear about the results of that study. In the very near future, I believe that we will see the research priorities established by native boards, who will make the decisions about natural resource management, who will control the resources to develop native researchers and conduct studies on their own.

We must remember that human beings are part of the ecosystem. We have to involve people in our studies. We have to involve people in the collection and analysis of the data. These people want to be involved, and you and I in the new era are going to have to take this into consideration. When the last land claim is settled, the native people will own the lands in principle the same as you own the

land on which your house is built. For too long we have undertaken our research in their backyards without consulting them as to what should be done. Now we will be obliged to recognize that they own the land, that they want to participate in northern science and be a part of it.

Each scientist should be an ambassador to the public, explaining his work. In the Arctic we must acknowledge that the work is being carried out in the historical homelands of northern native peoples and hence must be conducted with respect for native customs, culture and expectations. Part of that culture is sharing, and that is what a scientist must do: share knowledge.

Northerners are now developing an awareness of what Western science is all about. They are trying to build a new life, a synthesis of the old and the new, of the North and the South. The northern values and traditions will be supplemented and enhanced by southern knowledge and technology. Randy Pokiak, mayor of Tuktoyaktuk, has stated that he would like to see scientists speaking in the northern schools, that native people want to be involved in science and that they are now encouraging their children to become involved. The native people should be good students and listeners and teachers, for they have studied, observed and understood the wildlife and the environment for centuries. It was a matter of life and death for them. They are concerned that a lot of research that you and I undertake does not address local problems.

Northerners, particularly, and southerners too, should and must be involved in northern science. Talk to them, preferably face to face. Share your knowledge!

*George Hobson  
Advisor, Polar Continental Shelf Project  
Energy, Mines and Resources Canada  
Ottawa, Ontario, Canada*

RECENTLY INDUCTED  
ARCTIC INSTITUTE FELLOW

Frank L. Miller  
Canadian Wildlife Service  
Edmonton, Alberta, Canada