

INTERVIEW WITH DR. DAVID SCHINDLER

Eureka Team

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Dr. David Schindler's career as an environmental scientist has been extraordinary. He has been recognized with premier scientific awards in Canada and around the world, and is well known for his work with the Experimental Lakes Project. In a dimly lit room near the top of the zoology wing I met with Dr. Schindler to discuss all things science: from what he looks for in a young scientist to how he trains them to carry the torch of competent environmental decision making.

Fire & Curiosity

Young scientists drive research at any academic university. Ask any successful scientist and they will tell you that first and foremost, recruiting the best people makes for the best research. If that is indeed true, Dr. Schindler has certainly had some great students. "Fire and curiosity. Of course grades are always important, but I want to see a real knowledge of the subject area – for example why a student wants to work with me". He takes this further to point out that shy students have trouble. "My students are my colleagues, and I do not pamper them. I expect them to think for themselves." "Creativity is incredibly important in science. I want my students to accomplish the job with limited instruction - somebody that can think on their feet. If a piece of equipment stops working in the middle of nowhere I expect them to rig it back together". This may be attributed to Schindler's upbringing on a farm. His grandfather's tractor broke down once, and he took a wheel off his model T and ran it anyways. Schindler got his academic career started with a bang; his first paper was accepted by Science while he was an undergraduate. From there, he was convinced by his supervisor to apply for the Rhodes Scholarship, which brought him to Oxford. He attributes the faculty and culture there as instrumental to his success. "I found out [in Oxford] what intelligence is all about. The idea in the UK was that the best scientific instrument was the one between your ears, so you had better learn to use it. I would engage in conversation with some of the best academic minds. When I said something wrong, the next day they would come to me with a dusty paper or book chapter to set me straight". In fact, it was his graduate experience in the UK that he uses in his own approach to training scientists. "Things I copied are things I liked in Oxford. They left me my independence but were always available".

Government, Science and Water

Our current governments are reluctant to accept environmental science and put that into public policy. "The USA has had a huge turnaround with Obama, as he has a stellar group of academic advisors". It was for these same reasons that Schindler left the department of Fisheries and Oceans two decades ago, because "the advisory system was a long line of whispers". "The government is squashing good science. It is the worst I have ever seen it". Global warming is careening out of control, and Canada is seen worldwide as a pariah on the climate change front. Indeed, Dr. Schindler's latest paper in the *Proceedings of the National Academy of Sciences USA* blew the whistle on oil sands pollution in Alberta. When asked about climate change and water he shakes his head, "Yes, we should be worried. Canada is in trouble. People do not realize how dependent we are on glacier and snow water from the Rockies. Water is tremendously slowly renewed, and our use is exceeding renewal rates". Environmental decision making should depend on good science, yet this does not seem to be the case. When asked to contrast environmental governmental policy in the USA and Canada, he laughs. "Harper does not welcome science. The people at the top of government are not even aware of their own scientists in their administration. We must figure out a way to inject more science into Canadian decision making. Young scientists need to do this, and the good students try. Above all we should back policy with good science".