

Knowledge Systems in a Nutshell

The Fisheries – Western and Indigenous Knowledge Systems (Fish-WIKS) research group is proud to debut fishwiks.ca on National Aboriginal Day, 2013!

Western and indigenous knowledge systems are key components of our fisheries governance research here at Fish-WIKS. If the concept of a knowledge system is not obvious to you, I was in the same boat. A knowledge system is, in essence, the process by which we acquire, value, control, and share knowledge. More simply it can be thought of as how we know what we know and how we use what we've learned.

The scientific method, for example, is a western knowledge system used to systematically test questions about what we think we know or want to know. It is a series of steps, or a process, beginning with observations of something you find curious, leading to a research question (or a hypothesis), followed closely by making predictions of what you expect the outcome will be, formally testing your question, then analysing and interpreting your results, and finally communicating your findings and re-evaluating the work to begin the steps again when you have something else to test.

An example of an indigenous knowledge system would be traditional ecological knowledge (TEK). TEK is experiential, adaptive, most often orally transmitted, and passed from generation to generation. This knowledge is based on traditional belief systems, relationships to the environment, and community practices, and takes place on the "land" rather than in the "lab".

When I first started asking Aboriginal partners and TEK practitioners what the essence of an indigenous knowledge system was, unanimously the reply would be, "everything is connected". As an ecologist interested in ecosystems, this explanation made me pause. I could argue that the same is true in my field of research, and yet, I had a feeling that I was missing something very important (and that perhaps my scientific "roots" were showing).

After attending a seminar series focused on [traditional knowledge](#) where Dr. Deborah McGregor, from the University of Toronto (Fish-WIKS steering committee member and Anishinabe from Whitefish River First Nation), was a speaker, I learned that when setting research objectives, Dr. McGregor not only takes the present into account but considers those who have gone before her, and those yet to come. [Mr. Henry Lickers](#) (Director of the [Mohawk Council of Akwesasne Department of the Environment](#)) helped me to understand that the scientific method does not include the knowledge of spirit(s). One of [his](#) examples was burning tobacco in the morning for a successful hunt, equating this practice with the ceremonial ribbon cuttings of highways for the safe passage of travelers. These two insights, (1) taking past and future generations into account and (2) including the spiritual element in daily life, really brought home what is meant by "everything is connected" and its influence on the process by which traditional knowledge is acquired, valued, controlled and shared, as distinct from the western scientific process.

At Fish-WIKS, our research is a collaborative effort with western and indigenous partners from across Canada (north, south, east, and west). We are seeking to understand the processes by which knowledge is gained from each of these different perspectives, so as to enhance our decision making with respect to the sustainability of our fishery resources for all Canadians, now and in the future.

To learn more about National Aboriginal Day history and events, some links are included below:

Assembly of First Nations: <http://www.afn.ca/>

What National Aboriginal Day means to some
Canadians: <http://www.youtube.com/watch?v=zMoNyBbm6GA&list>

National Aboriginal History Month: <http://www.aadnc-aandc.gc.ca/eng/1100100013778/1100100013779>

National Aboriginal Day Events: <http://www.aadnc-aandc.gc.ca/eng/1100100013322/1100100013323#ns>