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Author: Menges, Eric

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Valuing Indigenous Knowledge in Managing Natural Areas

Eric Menges, Editor

Long before European colonizers began having major impacts on the landscape of North America, Indigenous peoples were managing these lands. The effects of this management varied widely from place to place and over time. In recent decades, there has been an increasing appreciation for the success of this management, much of which has been imbedded in cultural beliefs on human relations with the natural world. Now, many recognize that an integration of Western and Indigenous approaches to land management is beneficial.

This integration may not be as difficult as you might think. For example, Mary Huffman (Director of the Indigenous Peoples Burning Network and Fire Science for The Nature Conservancy) has parsed Indigenous peoples' descriptions of the use of fire, showing that many of the components of prescribed burning practiced by agency fire managers are found in Indigenous peoples' descriptions of their traditional fire management.

In a recent article in *Frontiers in Ecology and Environment* (2022, Volume 20, issue 1, article 3), James Rattling Leaf Sr. describes Traditional Ecological Knowledge (TEK) as "a body of observations, oral and written knowledge, practices, and beliefs that promotes environmental sustainability and the responsible stewardship of natural resources through relationships between humans and environmental systems. It is applied to phenomena across biological, physical, cultural, and spiritual systems." TEK has been considered to be an important part of federal decision making in a Memorandum of Understanding (MOU) produced in December by the Biden administration.

One basic principle of the MOU is that no single knowledge system has more weight or legitimacy than another. Both Western science and TEK can help us understand fruitful approaches to land management and environmental sustainability. Part of the integration of these approaches is to have Western science-trained individuals willing to learn from indigenous peoples. Another is to value the contributions of Indigenous people who have also been trained in the Western scientific tradition.

Robin Wall Kimmerer has been at the forefront of the efforts to meld Indigenous and Western scientific approaches. Robin is currently a Teaching Professor of Environmental and Forest Biology and Director, Center for Native Peoples and the Environment at the State University of New York College of Environmental Science and Forestry. Her initial forays into science as an undergraduate were met with skepticism by her professors. But she persevered in her research, earning a PhD from the University of Wisconsin. I was a fellow graduate student with Robin, and we assisted with each other's fieldwork at sites where no one else really wanted to spend time: her sites were hot and steep mine tailings, mine were mosquito-heavy floodplain forests.

As Robin developed as a scientist, she was able to draw on her own story as a member of the Potawatomi Nation. She began speaking and writing about broader topics than ecology and botany. Her interests in restoration grew to include not only restoration of ecological communities, but restoration of human relationships to land. Approaches from Indigenous cultures have much to teach us, and Robin has helped to bridge the divide between cultures.

Many of you will know about Robin from her best-selling and award-winning book *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants*. Readers have cherished this gentle, simple, tactile, beautiful, even sacred series of essays integrating Western scientific knowledge, Indigenous wisdom, and the teachings of plants. In the words of Elizabeth Gilbert, she brings these two lenses of knowledge together to take us on "a journey that is every bit as mythic as it is scientific, as sacred as it is historical, as clever as it is wise."

This September's Natural Areas Conference, to be held in Duluth, will provide a chance to delve into these areas with Robin, as she delivers the keynote speech of the conference. Her talks are both personal and broadly thoughtful, as well as being grounded in science and culture. She is a dynamic and insightful speaker that you don't want to miss!