



# The Indigenous Practice of Braiding Sweetgrass and the Expansion of Ethical Imagination



Eva M Pascal\*

Assistant Professor of Religious Studies, chair of the East Asian Studies, Saint Michael's College, USA

**Submission:** December 4, 2023; **Published:** December 15, 2023

\*Corresponding author: Eva M Pascal, Assistant Professor of Religious Studies, chair of the East Asian Studies, Saint Michael's College, One Winooski Park, Saint Michael's College Box 366, Colchester, VT 05439, USA

## Abstract

The tradition of braiding sweetgrass in indigenous cultures is the practice of picking strands of the plant sweetgrass, drying the strands, and intertwining the distinct strands into a braid of different textures. This braid is given to others as a form of goodwill and gratitude. The braids are also used and burned during ceremonies and prayers. Indigenous tradition teaches that the sweet smell and smoke are attractive to good spirits and can carry prayers to the spirit realm. The Greek origin of the botanical nomenclature for sweetgrass, *hierochloë*, derives from the words sacred (*hieros*) and grass (*chloë*). This study utilizes accounts of indigenous sweetgrass practices and myths in anthropological and religious studies fields to evaluate how indigenous approaches serve to expand Western ethical imagination around plants and ecological preservation. Indigenous harvesting practices and uses of sweetgrass are embedded in sacred myths and assumptions about the interconnection between humanity and plants. In this interconnection, plants and humans are envisioned to be in a sacred relationship of symbiotic mutuality. The indigenous understanding of the relationality between plants and humans provides a different, potentially instructive paradigm in contrast to common Western understandings of ecology and ethics around plants.

**Keywords:** Anthropology; Scientific Knowledge; Braiding Sweetgrass; Indigenous Harvesting Methods; Ecological Activism

## Braiding Sweetgrass: Weaving Different Strands of Knowledge Together

This study takes a multidisciplinary approach to shed light on how practices around sweetgrass contribute to expanding ethical frameworks. Indigenous practices involve ceremonies, mythic stories, and indigenous knowledge about plants. Anthropology and religious studies examine social practices and spiritual dimensions such as myths and ceremonies. The natural sciences, such as botany and ecology, have eschewed spiritual arenas, ignoring important dimensions of indigenous planting, harvesting, and preservation methods. However, these disciplines are increasingly turning attention to studies that take seriously the spiritual and mythic dimensions that help to understand indigenous methods of harvesting and ecology more fully. Since indigenous practices around sweetgrass, for example, are integrative and holistic, knowledge and methods of plant harvesting are embedded in a spiritual framework. For these reasons it is important to bring together a variety of disciplinary perspectives in analyzing indigenous practices. From within the

indigenous community, botanist Robin Wall Kimmerer's book *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants* [1] weaves together different sources of knowledge, using the practice of braiding distinct strands of sweetgrass as a metaphor in which each strand symbolizes a source of knowledge. Kimmerer brings together different sources of knowledge from her indigenous heritage, scientific training, and relationship with plants. Another metaphor for such multidimensionality of disciplinary approaches is weaving, evoking the indigenous practice of basket weaving. *Braiding Sweetgrass* weaves together botanical science, ecology, religion, ceremony, myth, spirituality, biography, and poetry. The small independent press that published *Braiding Sweetgrass*, Milkweed, produces non-fiction books on nature. However, the book easily crosses multiple genres. Kimmerer has even suggested this crossing of genres might be considered something new that she calls "Literary Biology [2]." Because the work purposely defies genres, it is important to take seriously how and why Kimmerer wants to hold

different sources of knowledge together in creative tension. From the perspective of the academic study of religion, this creative tension has implications for how myth, ceremony, and evaluating the place of science serve to expand our ethical imaginations.

### Expanding Conceptual Frames Through Indigenous Myth

Indigenous ways of knowing are tied to spiritual and religious practices. A lack of cultural and religious awareness contributes to the lack of knowledge about indigenous practices. For example, in 2019 a major survey on knowledge of religions in the United States showed that Americans are not very literate about religions and have limited knowledge even about the most common American tradition, Christianity [3]. In the United States some higher educational institutions that have a Christian heritage require some number of courses on Christianity. Such efforts seek to familiarize students with the heritage of the college or university, and the broad Western Christian tradition in which the institution is steeped. Many students in the West come from a Western background and are raised in a Western Christian framework. Courses on Christianity, for example, help to bring this heritage to the surface. Such required courses in institutions that have a Christian background provide a starting point for students to understand the Christian framework that has shaped Western ethics and culture.

From the perspective of the academic study of religion and anthropology, a lack of religious and cultural literacy is compounded when one stays within only one cultural worldview. If you know only one cultural framework, say, a Western, Christian framework, will you be able to critically assess the possibilities and limitations of that worldview? Max Müller, widely regarded as the “father” of the scientific study of religion, and a proponent of comparing religions, once said: “He who knows one religion, knows none [4].” The implication of Müller’s statement is sobering: if you know only one worldview then you won’t know any. That is, without comparison, we cease to view our way of thinking as but one among many conceptual frameworks.

This principle of “knowing one is knowing none” applies also to other areas of knowledge, including myth. If one only knows Western mythology, the human relationship to the land is to “subdue” [5] the earth. Without exposure to other spiritual frameworks, one only sees plants as inanimate objects that can be used for human consumption, or “things” to be left alone. If someone is only familiar with a Western framework it is difficult to envision what Robin Wall Kimmerer and other indigenous thinkers call a relationship of reciprocity with plants. Indigenous moral and conceptual frameworks provide a different paradigm, one that imbues land and plants with personhood and agency. The following section examines sweetgrass practices that illuminate indigenous paradigms for understanding the relationship between humans and plants.

### Indigenous Practices Using Sweetgrass

Braiding sweetgrass is a common practice among indigenous peoples of North America and is used for a variety of reasons in religious ceremonies, gift-giving, and practical uses such as basket weaving. This study focuses on North American indigenous traditions, although it should be noted that West Africans have practices associated with sweetgrass as well, particularly in basket weaving. Many indigenous groups in North America utilize sweetgrass in spiritual practices and for practical purposes [6]. Some of the most prominent groups that use sweetgrass include but are not limited to the Cheyenne, Winnebago, Ponca, Anishnaabe, Ojibwe, Blackfeet, Omaha, Kiowa, Potawatomi, Menominee, Mohawk, Penobscot, Passamaquoddy, Abenaki, Dakota, Lakota, Pawnee, Chippewa, Algonquian, Iroquois, and Huron. Social-relational uses of sweetgrass are an important aspect of indigenous cultures that merit exploration. One aspect of the use of sweetgrass in relationship-building is exchanging sweetgrass. Braiding sweetgrass entails picking strands of the plant sweetgrass, drying the strands, and intertwining the distinct strands into a braid of different textures. This braid is given to others as a form of goodwill and gratitude. In this way, the practice of braiding is embedded in the cultural exchange between people, as a sign of hospitality towards others, and an invitation to a relationship. Gift exchange is an important dynamic in social practice, as the giver enters the relationship by gifting the sweetgrass braids, and the receiver engages in practices of thanksgiving for the gift given.

The process of braiding sweetgrass, and basket weaving can also take place within a community setting. In contemporary weaving circles, for example, a group can participate in braiding or basket weaving, while sharing spiritual teachings and passing on mythic stories. Such circles might invoke ancestors through ritual prayer and chanting. The process of braiding individual strands of three also has the symbolic meaning of the unity of mind, body, and spirit [7]. Beyond the horizontal level of building human relationships, sweetgrass is also a means to connect with the spiritual realm. Thus, sweetgrass is also used to invoke spiritual entities. Sweetgrass is often utilized in religious ceremonies by being burned during prayers and invocations. This can entail smudging techniques in ceremonies thanking spirits, calling on the wisdom of ancestors, and prayers of supplications. For example, many indigenous traditions teach that the sweet smell and smoke produced by the sweetgrass attract good spirits and invite those spirits to be present. Burning and smudging are also used for spiritual purification, cleansing, and healing capacities. This can be done with sweetgrass by itself, or in combination with other plants, such as sage. Indigenous peoples also use sweetgrass in spiritual practices of thanksgiving to the plant itself. In some indigenous cultures, mythic stories refer to sweetgrass as the original plant, and sweetgrass is associated with Mother Earth. In other mythic stories, sweetgrass is associated with the

strands of hair of Mother Earth. In yet other stories sweetgrass is sometimes likened to an ancestor coming before human beings, and thus generating and sustaining humankind. In each of these mythic stories, there is an ethic of thanksgiving to sweetgrass that is necessitated. The success of humans is intricately tied to the gifts given by sweetgrass and the gratitude humans show for those gifts. Preservation practices are a significant part of indigenous approaches to sweetgrass. For instance, sweetgrass is the primary material for basket weaving among indigenous communities in the Northeast. These can be gifted, but woven baskets have been incorporated into trade and for some communities are an important source of income generation. As such there is an economic element to the skill and practice of handling and braiding sweetgrass. Indigenous people have a stake in the preservation of sweetgrass and maintaining a healthy crop population of sweetgrass.

One way to understand indigenous preservation practices is by looking at harvesting methods. Indigenous harvesting methods, and the spiritual practices that accompany the harvest, merit attention as these methods shed light on how indigenous people enact human-plant relationships. Often neglected indigenous teachings about the relationship between humans and plants are illustrated through sweetgrass harvesting practices. The harvest is set within a spiritual context in which the harvester has a relation with the plant. Prayers, particularly of thanksgiving, are chanted before harvest. The plants are sometimes addressed directly and engaged in the process of harvesting. The physicality of harvesting the plant also includes a technique of pinching the plant in the harvest. Ethical principles undergird the harvest, and these principles are sometimes referred to collectively as the Honorable Harvest. Some of these principles include never picking the first plants; always leaving something for others to harvest; only harvesting about half of an area; and braiding or tying plants after harvesting to indicate to others the area has already been harvested.

Harvesting itself in the context of spirituality is also part of the human-plant relationship. Indigenous myths indicate it is a teaching of sweetgrass as to how the harvest should be conducted. Further, the harvest is part of a reciprocal relationship: the plant gifts to humans, and humans in return honor and care for the plant. Incorporating spirituality in the harvest is a way to stay engaged in the reciprocal relationship. If people neglect to harvest honorably, then the plant will not reciprocate by flourishing. If people ignore the plants and do not honor them in the harvest respectfully, the plants will go away. Traditional teachings known as *mishkos kenomagwen* hold that this lesson comes from the plants themselves [8].

### Human-Plant Relationships: Expanding the Grammar of Referring to Plants

In the West, and indeed many cultures besides, it is difficult to

envision humans in a positive relationship with the plant world. Robin Wall Kimmerer, a professor of Environmental Biology, sometimes surveyed her students on their thoughts on the relationships of plants and humans. The results were telling: the median response of students, when asked about any knowledge of positive relationships between plants and humans, was “none.” This suggests many students envisioned the relationship between plants and humans as one of conflict. Humans can relate to plants as objects to be used sustainably or objects to be used unsustainably. For Kimmerer’s students, humans were viewed in a negative, unsustainable relationship with plants. It is a bit of a one-sided relationship at best. If plants are simply natural resources, the plants are not living in the same way- indeed in English and many Western languages, plants are “its” – objects - not “she” “him” and “they” - subjects. It is difficult to have a relationship with an object, an “it.”

What might it look like to speak to plants as subjects? To use a personal example, my wife speaks to our houseplants and tells me about their conversations. “The lavender is sad in that corner, it doesn’t like that spot,” and she moved the lavender to somewhere more suitable. “The lavender is so much happier now,” days after she had moved the plant. “The cactus was lonely, but is now happy to have new friends,” she said after she replanted a few cacti in one pot. I’ll admit, my first inclination was to be amused (to put it kindly), and I can’t say I was very understanding at first. “How do you know that plants are lonely? sad? happy?” “The lavender was drooping forward, so it was telling me to move it.” The plants had a way to let her know and she figured out how to make the plants thrive. I’ve come to enjoy the conversations with plants that take place in my house. I feel sad if a plant dies, and joy when a plant thrives. This is perhaps one small, individual step in seeing plants as more than objects. From religious studies and anthropological perspectives, early scholars categorized many indigenous cultures under the term “animism.” This nineteenth-century category was created by scholars of religion and anthropologists to make sense of indigenous traditions that attributed nonhumans, like plants, with spiritual qualities [9]. The word itself comes from the Latin *anima* - spirit, soul, breath, or life. For early anthropologists especially, animism was seen as primitive, the very first stage of religious evolution that culminated in organized religions, a view that persisted well into the twentieth century [10]. Scholars of religion today use the concept of animism sparingly and have shifted to the umbrella category of “Indigenous Religions” to refer to indigenous religiosity and spirituality, of which there are many different varieties [11].

Indigenous people did not have a word equivalent to “animism,” as the world in many indigenous perspectives is infused with spiritual qualities [12]. Yet today, indigenous thinkers such as Kimmerer see the term as useful and repurpose it to embrace viewing plants as having personhood. In one of her essays, Kimmerer calls this the “Grammar of Animacy.” Indigenous

wisdom says plants are older ancestors with lessons for human beings. In terms of grammar, plants are persons, subjects with will and life—never an “it.” In some indigenous stories, humans are described as younger brothers of creation. Plants were here first and have much to teach humans about how to live. Westerners can expand their worldview by learning a new grammar that sees plants as people, or at the very least as living agents, not resources. Kimmerer observes that in English, the only way to honor, respect, and be worthy of concern is to be associated with humanity. In indigenous culture, plants have personhood, not in the same way as humans, but they are capable of being in a reciprocal relationship with humans. Learning another “grammar” could mean, too, talking and listening to plants.

### Ceremony: Embodying Relationships with Plants

The “Grammar of Animacy” provides a different way of thinking about plants. But how does this thinking play out in practice? Indigenous religious ceremonies and rituals embody human relationships with plants. Kimmerer refers to several ceremonies that illustrate how viewing plants as persons is lived out in everyday life. For example, during trips to the Adirondacks with her family, her father poured out an offering of coffee to the highest peak in the mountains: “Here’s to the gods of Tahawus” [13]. In Potawatomi *powwows*, generosity is embodied during the traditional giveaway or *minidewak*. In this ceremony foods and goods are given freely to the community. Harvesting is also ritualized and shaped by the Honorable Harvest. The Honorable Harvest provides guidelines for the harvest, such as asking permission from a plant before the harvest and giving a gift in reciprocity for what was taken (such as offerings and prayers).

In the case of basket-weaving communities that use ash trees, indigenous people ask the ash tree for permission to be cut down. If the answer from the tree is yes, then words of gratitude and prayer are given, accompanied by a tobacco offering. Indeed, in scientific studies ash trees, like sweetgrass, thrive more in proximity to indigenous communities than when there is no indigenous community nearby [14]. These communities adhere to the principles and ceremonies of the Honorable Harvest to care for the ash trees. These are just a few among many examples of ceremonies and rituals among indigenous people that showcase the fruitful relationship between humans and plants. Rituals embodied acts that train humans in what sociologist Robert Bellah calls “habits of the heart” [15, 16]. Ceremonies cultivate habits of the heart. The examples cited here embody the ethics of gratitude to the earth and address the earth in thanksgiving. Reflecting on the function of ceremonies, Kimmerer writes: “That, I think, is the power of ceremony: it marries the mundane to the sacred. The water turns to wine, the coffee to prayer. The material and spiritual mingle like grounds mingled with humus, transformed like steam rising from a mug into the morning mist” [17]. Ceremony brings together different dimensions of human experience and brings people into a sacred relationship with the land.

### Science, Myth, and Ethical Imagination

Myths and sacred stories provide archetypes of human relationships to the sacred. These stories are often mined for meaning and are thought to contain ethical prescriptions. Myths also provide fodder for human cultural imaginations and are the inspiration for art, architecture, literature, plays, music, and movies. Many indigenous myths about plants and humans serve to expand Western imagination as to how people think about plants. In the South and Southwest of the United States, there is a story of the Corn Spirit leaving the community because she was not appreciated properly by her people. The people became lazy and neglected the land after a few bountiful harvests, and they did not do their part to thank the Corn Spirit. After the Corn Spirit left, the people had nothing but weeds the next year. A hungry child found the Corn Spirit and begged her to return. The Corn Spirit returned after a hungry winter to teach her people about respect. This myth has been interpreted throughout generations and given meaning. For Kimmerer this sacred story is about gratitude: “When they abandoned gratitude, the gifts abandoned them” [18].

Perhaps the most compelling myth for stimulating the ethical imagination in how to relate differently to the land is the myth of the Windigo. The Windigo is a legendary monster of the Anishinaabe people. This monster comes out on winter nights. For hunter-gatherer people, winter is often a season of hunger, and the Windigo myth tells of a starving and insatiable humanlike monster. With chewed-off lips and a heart made of ice, the Windigo, once banished from the community, resorts to cannibalism and makes cannibals of its victims. The myth is interpreted as a cautionary tale of succumbing to hunger, and to warn against limitless consumption. In the myth, overconsumption is likened to cannibalism-consuming all including the ancestor plants. For Kimmerer, Windigo myth speaks to the current situation and ecological degradation. Perhaps, she suggests, we all have some Windigo in us, and she speaks of defeating the Windigo within. Why take myths and sacred stories seriously? Kimmerer cautions against an exclusivist “scientific worldview.” Such a view employs science as a totalizing framework that is not only limiting but presents false and dichotomous choices. This framework says science is the only worldview, and everything else is fantasy or foolishness (a “myth” in common parlance - as in *not the truth*). Science does have its place, but not to the exclusion of, or the replacement of, the sacred. For Kimmerer, science is a useful tool to learn about how the world functions, particularly the physical world. If science is viewed as a tool, then it is not ethical, and it is limited in its scope of inquiry into physical matters. Thus, the process of science must be distinguished from “the scientific worldview.” If science is viewed only as a tool, then it must be guided by a set of values. It cannot become the value itself: “Science can give us knowledge, but caring comes from somewhere else.... While science could be a source of and repository for knowledge, the scientific worldview is all too often an enemy of ecological compassion” [19].

### Expanding Common Western Paradigms of Ecological Preservation

The most common consensus in the scientific community holds that the best way to increase a plant population is not to harvest, but to leave the plant alone to reproduce and replenish. By that logic, harvesting a plant population would lead to a decrease in the plant population. This view is the primary model of preservation in the West and is assumed to be the most effective approach to plant conservation. The Western model is based on a view of the human-plant relationship as characterized by human consumption and plant utility. From a strictly scientific point of view, there is a suspension of ethics. If we use less of the plant and leave it be, there will be more for us to use later as needed. In Judeo-Christian tradition, there are scriptures that illustrate the view that preservation is best achieved by not harvesting and leaving the land alone. Biblical scripture places this sentiment in the context of God's creation. God created the world, including plants, animals, and human beings in six days, and rested on the seventh day, the Sabbath. Human approach to the land is situated within an ethic of jubilee that shares in the creativity and rest of God. In the jubilee, every seventh cycle of seven years (every 49 years) in the land of Israel, among other things such as the release of prisoners and debt, the soil and plants were to be left to rest for a year: "The fiftieth year shall be a jubilee for you; do not sow and do not reap what grows of itself or harvest the untended vines. For it is a jubilee and is to be holy for you; eat only what is taken directly from the fields" [20]. In Judeo-Christian tradition, the earth too needs to rest, just as God rested. This is represented in a cycle of years of seven paralleling the rest of the seventh day after creation. The human plant relationship is one of leaving plants and crops to rest and replenish as embedded in the structure and story of the Genesis 1 creation story. This narrative context provides the ethical framework that science suspends in an attempt at objectivity.

Common scientific consensus, and Judeo-Christian ethical frameworks both approach plant preservation by leaving the plant population alone and not harvesting the plant for some time to allow for plants to replenish. This approach means humans must conserve plants by leaving them alone. This Western approach is very different from indigenous approaches. Indigenous paradigms encourage an active relationship with plants. To harvest sweetgrass, for example, is to engage in a respectful relationship with a living animate subject. The plant, sometimes associated with the Earth Goddess/Mother, or an ancestor, and living gift, provides for humans. This gift is conditional on a respectful, sacred harvest. Harvest approaches that honor the plant through prayers, chants, only harvesting half an area, never taking the first plant, pinching off stems, are all ways of relating to the plant in a sacred context. This approach is perpetuated in indigenous mythic stories, and indeed are thought to be teachings of the plants themselves.

From the point of view of scientific evaluation, which suspends the ethical discussion, some researchers have begun the process of studying the effectiveness of these approaches in promoting plant replenishing. Namely: which approach can be shown to be more effective in promoting plant replenishing, the Western approach of not harvesting a plant for a time, or indigenous harvesting? Initial studies asking this question regarding sweetgrass conclude that traditional indigenous approaches have indeed proved more effective than not harvesting in promoting plant replenishment [21, 22].

Scientific studies tend not to account for the sacred dimension of the relationship between humans and plants through interactions such as speaking to plants, chanting, and praying. In Laurie Reeds study, dissertation readers ridiculed the notion that plants might have any capacity for feeling or interaction, for example. But indigenous practices and their accompanying myths do give an indication that indigenous methods of interacting with plants are a significant consideration in human plant preservation efforts as well as the development of ethical frameworks around ecological activism [22]. Within the academic community, more attention has been shed on indigenous myths and practices around ecological preservation. Some first steps in this direction are recognizing different approaches to Western paradigms and attempting to listen and bridge the gap in approaches [23-28]. Indigenous approaches help to envision a different path to environmental ethics. Sacred myths start the work of envisioning something radically different. These stories stretch Western ethical imaginations beyond the dominant framework of sustainability to one of reciprocity with plants.

### References

1. Robin Wall Kimmerer (2013) *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants*. First Paperback edition, Minneapolis, MN: Milkweed Editions, United States.
2. University of Oregon Humanities Center (2018) *UO Today with Robin Wall Kimmerer*.
3. Pew Research Center (2019) *What Americans Know About Religion*. Pew Research Center's Religion & Public Life Project.
4. Max Müller (1873) *Introduction to the Science of Religion. Four Lectures Delivered at the Royal Institution with Two Essays on False Analogies, and the Philosophy of Mythology*, London: Longmans, Green.
5. Genesis 1:28 (Bible, New International Version).
6. *Plant Guide: Sweetgrass* (2002) National Plant Data Center.
7. For examples of such circles see (2023) *Indigenous Family Literacy Circle* – YouTube.
8. Robin Wall Kimmerer (2018) *Mishkos Kenomagwen, the Lessons of Grass: Restoring Reciprocity with the Good Green Earth*. In: Daniel Shilling and Melissa K Nelson (eds.), *Traditional Ecological Knowledge: Learning from Indigenous Practices for Environmental Sustainability*. *New Directions in Sustainability and Society* Cambridge: Cambridge University Press, p. 27-56.

9. The term is commonly first associated with cultural anthropologist Sir Edward Tylor. For a history of the category "animism" see: Nurit Bird-David (1999) "'Animism' Revisited: Personhood, Environment, and Relational Epistemology. *Current Anthropology* 40: 67-91.
10. George William Gilmore (1919) *Animism Or, Thought Currents of Primitive Peoples*. Library of Alexandria.
11. For a comprehensive and thoughtful analysis of this shift in the academic study of indigenous religions, see James L. Cox, *From Primitive to Indigenous: The Academic Study of Indigenous Religions* (Ashgate Publishing: 2013); see also an excellent collection of academic essays on the subject: Greg Johnson and Siv Ellen Kraft, *Handbook of Indigenous Religion(s)* (Leiden: BRILL, 2017).
12. Diana Eck (2005) *Native American Religious and Cultural Freedom: An Introductory Essay*. The Pluralism Project online.
13. Kimmerer, *Braiding Sweetgrass*, p. 35.
14. Jessica Kershner *Restoration and Conservation of Black Ash Trees in the Northern Appalachian/Acadian Eco-Region of Canada* | CAKE: Climate Adaptation Knowledge Exchange.
15. Michelle Baumflek, Karim-Aly Kassamb, Clare Ginger, Marla R Emery (2021) *Incorporating Biocultural Approaches in Forest Management: Insights from a Case Study of Indigenous Plant Stewardship in Maine, USA and New Brunswick, Canada*. *Society & Natural Resources* 34(9): 1155-1173.
16. Robert N Bellah et al. (1985) *Habits of the Heart: Individualism and Commitment in American Life*. Berkeley: University of California Press, United States.
17. Kimmerer, *Braiding Sweetgrass*, pp. 36-37.
18. Kimmerer, pp. 188.
19. Kimmerer, pp. 345.
20. *Leviticus* (Bible, New International Version), 25: 11-12.
21. Laurie Aileen Reid (2005) *The Effects of Traditional Harvesting Practices on Restored Sweetgrass Populations*. ProQuest Dissertations Publishing, United States.
22. Daniela Joy Shebitz (2001) *Trends in Northeastern Sweetgrass Populations: An Ecological and Ethnobotanical Analysis*. ProQuest Dissertations Publishing. This study includes evaluation of traditional practices such as burning and removing weeds. As told by Kimmerer, *Braiding Sweetgrass*, pp. 163.
23. Drake AK, Dunmall KM, Nguyen VM, Provencher JF, Henri DA, et al. (2023) *Bridging Indigenous and Western Sciences: Decision Points Guiding Aquatic Research and Monitoring in Inuit Nunangat*. *Conservation Science and Practice* 5(8): 1-22.
24. Lúiseach Nic Eoin (2022) *Healthy Indigenous Harvests*. *Nature Ecology & Evolution* 6(7): 842.
25. Priscilla M Wehi, Janice M Lord (2017) *Importance of Including Cultural Practices in Ecological Restoration*. *Conservation Biology* 31(5): 1109-1118.
26. Paul Sillitoe (2017) *Indigenous Knowledge: Enhancing Its Contribution to Natural Resources Management*. Wallingford, Oxfordshire; Boston, MA: CABI.
27. Robert McGowan Papatuanuku (2021) *Earth Mother: Indigenous Knowledge in 21<sup>st</sup> Century Soil Management*. *Soil Research* 59(6): 525-528.
28. Rebecca Dobkins, Susan Stevens Hummel, Ceara Lewis, Grace Pochis, Emily Dickey, et al. (2017) *Tribes of the Oregon Country: Cultural Plant Harvests and Indigenous Relationships with Ancestral Lands in the Twenty-First Century*. *Oregon Historical Quarterly* 118(4): 488-517.



This work is licensed under Creative Commons Attribution 4.0 License  
DOI: [10.19080/GJAA.2023.13.555865](https://doi.org/10.19080/GJAA.2023.13.555865)

### Your next submission with Juniper Publishers will reach you the below assets

- Quality Editorial service
- Swift Peer Review
- Reprints availability
- E-prints Service
- Manuscript Podcast for convenient understanding
- Global attainment for your research
- Manuscript accessibility in different formats  
( Pdf, E-pub, Full Text, Audio)
- Unceasing customer service

### Track the below URL for one-step submission

<https://juniperpublishers.com/online-submission.php>