

From Bowl to Being:

Rice, Manoomin, Relational Climate Literacy, and Responsibility Across Cultures

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Abstract

Climate literacy education faces the challenge of translating abstract climate knowledge into everyday practice. This article approaches rice, a material and cultural entity, as a relational entry point for climate literacy through a cross-cultural dialogue between two picturebooks: *Rice*, which portrays seasonal labor in the Hani terraces of Yunnan, China, and *The Gift of Mnoomin*, which narrates wild rice/Manoomin as a sacred relative in Anishinaabe tradition. Through close readings of these picturebooks, this article explores how (wild)rice is framed as a subject with dignity, history, and agency through the analysis towards two complementary modes of responsibility: responsibility cultivated through labor and responsibility grounded in recognizing kinship. Bringing these perspectives into conversation, the article argues that relational climate literacy emerges where knowledge, practice, and ethical acknowledgment intersect, cultivating habits of care rooted in everyday encounters with food.

Keywords

Rice, picturebooks, manoomin, relationality, multispecies justice

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Context

Every meal begins with a choice that connects the human body to the beings of the living world. For billions of people, a bowl of rice serves as both a staple of survival and a vessel for cultural memory. Yet as global heating intensifies, these ancient relationships face unprecedented disruption through the length of extreme climate events, unpredictable rainfall and rising sea levels, and loss of agricultural land across major rice-producing regions in East and Southeast Asia (Hussain et al., 2020; IPCC, 2023). In North America, rising temperatures and industrial pollution threaten indigenous plant life (Whyte, 2017), including the shallow lake ecosystems where wild rice grows in Minnesota (Milgroom, 2020). These ecological emergencies affect harvests while also disrupting long-standing forms of the human-plant cooperation.

Many approaches to climate literacy education emphasize scientific knowledge while also exposing learners to emotionally charged narratives of the climate crisis (Olsen et al., 2024). Research shows that eco/climate anxiety can involve feelings such as worry, despair, and powerlessness, which may intensify when learners are confronted with crisis-focused representations of environmental change (Pihkala, 2020). These tendencies highlight an imbalance between knowledge and lived engagement, pointing to the importance of integrating cognitive, emotional, and action-based dimensions in climate education. To bridge this gap, climate literacy must move toward a more relational model that recognizes our metabolic intimacy with the more-than-human world. When we consume rice, the nutrients from the soil and the energy from the sun transform into our own biology. Food marks an intimate exchange between human bodies and more-than-human world. Recognizing this metabolic intimacy is essential for moving climate education toward a more relational model.

As Robin Wall Kimmerer (2013, p. 5) suggests, recognizing the agency of our “plant relatives” offers a profound path toward ecological justice. This acknowledgment directly challenges the dominant industrial paradigm that reduces the living world to a collection of resources for human extraction. Val Plumwood (2002, p. 11) identifies this reduction as “instrumentalism,” that backgrounds the vital contributions of non-human entities and denies their moral standing. When we reposition rice, including wild rice, as a rights-bearing subject, the destruction of its habitat ceases to be an issue of environmental management. Rather, such degradation represents a direct violation of the inherent rights of a non-human entity. This shift marks a critical transition from conventional environmental frameworks toward a model of ecological multispecies justice. In this

framework, the defense of the shared ecosystem becomes an act of protecting the sovereignty and survival of our biological kin.

Picturebooks function as a powerful ecocritical medium through the interplay of image and text, enabling readers to visualize and inhabit multispecies relationships. This article explores rice through two picturebooks that emerge from distinct cultural traditions. *Rice* presents cultivation in the Hani terraces of Yunnan through the rhythms of the twenty-four solar terms and collective labor. *The Gift of Mnoomin* narrates wild rice as a sacred gift embedded in water, kinship, and prophecy within Anishinaabe storytelling. By examining these two distinct picturebooks, the discussion highlights how different cultures frame rice as a subject with its own history and dignity. This comparison proposes that climate literacy can be grounded in a sense of mutual belonging and active care. In doing so, we may find the seeds of a more resilient future in the intimate space between the field and the dinner table.

Rice: Labor, Cycles, and the Ethics of Food

Offering a recognizable example of how rice is taught as part of everyday moral and ecological education, Hongcheng Yu (于虹星)'s picturebook *Rice* (2016, China; English trans. 2020, USA) portrays a vivid image of the Hani rice terraces of Yunnan Province, China. The landscape reflects an intricate relationship between human labor and mountainous ecology. The narrative follows the twenty-four solar terms, an ancient Chinese phenological system that synchronizes agricultural activities with the rhythms of the earth. From the beginning of "Rain Water" in February to the "Frost's Descent" in Late October, the story documents a year of waiting and working with the environment. This temporal structure teaches young readers that rice is a product of deep time and seasonal patience, and presents a world where human success depends on honoring the predictable patterns of the weather and the soil.

The multimodal form of the picturebook further strengthens this human-nature connection. Detailed illustrations of hoes, rakes, and sickles populate the preface and postface, emphasizing that agriculture is a physical dialogue with the land. The footprints of chickens mingle with seeds and human steps in the mud (p. 11), illustrating a multispecies workplace where animals, plants, and tools function together. Scenes of seedling transplantation highlight the importance of community bonds (p. 16). Neighbors move from one field to another until every family finishes their planting, demonstrating that survival in a changing climate crisis requires solidarity and collective efforts.

Seasonal time further shapes the ethical framework of the picturebook. Each solar term introduces a specific stage of growth alongside brief explanations of expected conditions and plant responses, which links human labor to phenological change. Farmers wait, adjust, and act in relation to weather patterns. Scientific information about crops enters the narrative through seasonal observation, connecting agricultural knowledge with patience and attentiveness.

This detailed portrayal grounds the dignity of the rice in the sweat of the farmer and the precision of the solar terms, revealing food as a convergence of solar energy, water cycles, human labor, and even cultural heritage. However, if the value of rice is closely tied to human labor, how might we perceive the agency of the plant beyond the cultivated field? This question opens space for considering whether rice can be understood as a being with its own forms of presence, value, and claim.

The Gift of Mnoomin: Mnoomin as a Living Relative and Legal Subject

In Minnesota and the wider Great Lakes region, wild rice holds a position that differs fundamentally from that of an agricultural crop. Known as Manoomin/Mnoomin in the Ojibwe language, this “good berry” is a rare native cereal grain in North America. Manoomin grows wild in shallow waters, fulfilling a sacred prophecy to find the place “where food grows on the water” (Hansen, 2008, p. 5). For the Anishinaabe people, Manoomin is viewed as a sacred relative as is embedded in the Ojibwe language itself, where the word for Manoomin is grammatically animate. Referring to the plant as “him” or “her” instead of “it” establishes a social and spiritual bond between people and plant (ibid).

The Gift of Mnoomin (Mnoomin maan’gowing, Luby, 2023, Canada / Anishinaabe) presents Manoomin through a relational form. The picturebook is bilingual, pairing Anishinaabemowin with English, and opens with the claim that “A seed is a story you can hold in your hand” (Luby, 2023, p. 1). Through the interplay of image and text, the grain is presented as a portable archive of water, season, and memory, inviting young readers to encounter wild rice as a living presence that carries histories and Indigenous legacy.

Throughout the picturebook, animals such as moose, fish, heron, duck appear with designs evoking Indigenous iconography, framing the ecosystem as a community of patterned persons. The text follows the seed as it “speaks of” other lives and the limits

that sustain them. Eagle is described as watchful, stopping Muskrat from eating “more than the field could bear” (p. 5). Moose, through its movement, “made space for new-life to grow” (p. 7). These scenes frame ecological balance as an ethic of restraint and reciprocity in a shared world.

Midway through the narrative, the story shifts from multispecies relations to harvest practice while maintaining Manoomin’s agency. Before gathering, people offer semaa and tobacco to the waters and fields, asking for safe passage and Manoomin filling the canoe. Harvest unfolds through humble bodily gestures, bending stalks and knocking seeds into the boat. The story then makes a crucial move for climate literacy: some seeds “tumble willingly” into the canoe, while others remain, and the harvesters paddle on (p. 20). Manoomin appears as a participant who consents in some moments and withholds in others. Grain collectors’ responsibility is measured through embodied limits as well, turning back when seeds cover toes and ankles (p. 21), for harvest is presented as an agreement between Manoomin and people. The closing pages extend this agreement into future care. People give thanks to Manoomin for “allowing” the feast, then save seeds to plant after the meal (pp. 28–30). In this cycle of gift and return, each seed sown becomes “a story for the future” (p. 30). The picturebook thus presents Manoomin as a living relative whose life entails obligation, reciprocity, and ongoing care.

This story-centered understanding helps clarify why many Anishinaabe communities seek forms of protection of manoomin that reach beyond resource management. For more than 75 years, Minnesota regulations largely focused on harvest seasons, licensing, and management practices (Hansen, 2008). These policies acknowledged Manoomin’s importance while often treating it as an object to be used and regulated within human-centered conservation. In 2018, the White Earth Band of Ojibwe passed the “Rights of Manoomin,” marking a legal shift. The ordinance recognizes Manoomin as a rights-bearing being, including the rights to exist, flourish, regenerate, and evolve. Within this approach, threats to habitat from industrial pollution or climate stress can be taken as violations of those rights, reframing protection as responsibility toward a living being. The ordinance enacts in legal language precisely what the picturebook enacts in narrative: Manoomin is a participant in shared life. Read alongside *The Gift of Mnoomin*, the “Rights of Manoomin” can be understood as a real-world extension of a relational ethic already taught through story, ceremony, and everyday practice.

Critical Dialogue and Conclusion: Why Rice Matters

Rice carries meanings that extend far beyond sustenance in both East Asian and Anishinaabe storytelling traditions. The two picturebooks articulate complementary and interconnected understandings of responsibility. In *Rice* (Yu, 2020), the dignity of the grain emerges through labor. Children encounter food as the outcome of collective effort and attentiveness to seasonal rhythms. Responsibility towards rice is practiced through work aligned with seasonal change. In *The Gift of Mnoomin* (Luby, 2023), the dignity of wild rice precedes human labor. Mnoomin is received as a gift whose existence carries inherent value. Responsibility towards Manoomin begins with the recognition of relationship before action takes place. The legal subjectivity of Manoomin extends the Indigenous narrative into institutional form, affirming that relational accountability can shape governance as well as story.

For climate literacy, rice matters because it holds action and climate consciousness in dynamic balance. Through these stories, readers learn that ethical climate responsibility involves both work and respect. Such learning begins in ordinary practices, at the scale of planting, harvesting, eating, and protecting. This integration of knowledge (Head), responsible practice (Hands), and ethical recognition (Heart) (Nolan et al., 2024) provides a vital antidote to the paralyzing weight of ecological anxiety. Instead of feeling overwhelmed by the abstract scale of the climate crisis, learners develop durable habits of care rooted in their daily metabolism.

The ultimate goal of teaching about rice within climate literacy lies in transforming daily perceptions of the world. When a reader holds a bowl of rice, they are bearing the weight of a living being, a deep cultural history, and a shared future. Rice contains the potential to seed a new era of ecological responsibility and mutual care. Through the intimate space of the dinner table, the courage to confront global heating can be found by honoring the relationships that sustain us.

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