From Traplines to Pipelines: Oil Sands and the Pollution of Berries and Sacred Lands from Northern Alberta to North Dakota

Linda Black Elk and Janelle Marie Baker

I stand on this sacred ground
Where oil flows beneath my feet
beneath this soil
beneath this place

On this sacred ground
Where buffaloberries¹ once grew
medicine once grew
beauty once grew

On this sacred ground
Where this pipeline now lay
and the people pray
and the people stand

And I stand, too
on this sacred ground
Where oil flows beneath my feet.

– Linda Black Elk, 2017

INTRODUCTION: “RESIST LIKE A BERRY”

As close friends since our first encounter at the 2005 Society of Ethnobiology meeting in Alaska, we were surprised to realize that now, over ten years later, we have gone from studying and celebrating people’s relationship with plants to trying to protect – through research, teaching, and protesting – that very

¹buffaloberries
relationship from the expansion of extreme extraction, or extractivism (Willow 2016), of oil and gas in Indigenous peoples’ traditional territories. It is now rare that anyone doing ethnobiological or ethnoecological work is free from concerns related to political ecology (Nabhan et al. 2011; see also chapter 15, this volume), as we are in a time of social and ecological crises (Nabhan, Wyndham, and Lepofsky 2011). In fact, community-based endeavours in ethnobiology have great potential to help us all cope with crises resulting from climate change and biodiversity loss (Wyndham, Lepofsky, and Tiffany 2011). Inspired by our love and appreciation of ethnoecology, we could say that we are practising resistance as a form of caring for, and tending to, our relationships with people and other species. For us, wild berries, as enduring sources of a delicious, healthy food, symbolize these relationships.

Anthropologist Deborah Bird Rose (2017, 658) states that care is “an ethical response involving tenderness, generosity, and compassion, and care is an ongoing assumption of responsibility in the face of continuing violence and peril. Pulses of harm and care offer a peculiarly telling story of the Anthropocene, highlighting multispecies entanglements, conflicting ways of being human, mass death, and, through it all ... a great and joyful desire for life.” When we say that we are caring for, and tending to, our relationships with berries and berry plants, we are speaking of the berries as fellow nations, allies, relations, and kin. When proper protocols are followed and berries are shown proper respect, they willingly offer themselves as food and medicine (see Turner 2005). One should always speak kindly to and of berries and never waste them. In this sense, our chapter is a story of protecting our relations. We realize that, in tending to our relationships with berries and other plants, we have to say something about the impacts that oil and gas developments have on them. In reflecting on the animacy of the landscape in northern Alberta, otipemisiwak (Métis) scholar Zoe Todd (2017, 107) remarks, “It is the machinations of human political-ideological entanglements that deem it appropriate to carry ... oil through pipelines running along vital waterways, that make this oily progeny a weapon against fish, humans, water and more-than-human worlds.”

In his article “Resist Like a Plant! On the Vegetal Life of Political Movements,” Michael Marder (2012) describes how the politics of space, enacted in the ways that we protest peacefully (as described by Linda Black Elk below), are learned from plants. During peaceful protests, we are rooted and sedentary, exposed to the elements, and have an increased visibility. “Standing for non-violence par excellence, the plant has been ... a living icon of peace, a non-oppositional being, wholly included in the place wherein it grows, to the point of merging with the milieu” (ibid., 26). Like plants, peaceful protestors signify their discontent by being present in a place. “To resist like plants, on a common front ... we would need to learn from them, to be and to live with them, to let something of them flourish in us” (ibid., 31). Below, we take turns telling our stories of
how ethnoecology and caring for the berries have put us each in the position of resisting oil and gas development. In doing so, we follow the path of the oil by beginning with the extractive zone of Alberta’s oil sands and ending with the unwanted transportation of oil through the Dakota Access Pipeline under Standing Rock sacred grounds (see figure 10.1).

10.1 | Large swaths of prairie filled with edible and medicinal plants destroyed by the Dakota Access Pipeline.

The projects and research relationships I tend to with sakâwiyiniwak2 (Northern Bush Cree), Dene, and Métis research collaborators, friends, and their communities in northern Alberta were not conceived of with clear and intentional acts of resistance like those needed at Standing Rock, as described by Linda Black Elk,
but rather are forms of “slow resistance” that grew out of my applied ethnoecological work. Like many ethnoecologists, I am motivated by my love of being in the bush and learning from elders and other land users who read, respond to, and care for the landscape in wise, poetic, and humorous ways. After several years of applied ethnoecological research in traditional land-use consultation, which involved predicting the impacts of proposed oil and gas projects (Westman 2013), I decided to respond to people’s largely unaddressed concerns about their homelands as a form of research reciprocity by pursuing doctoral research on wild food contamination in traditional territories of the sakâwiyiniwak (Baker 2017).

At the same time, I became involved in a couple of applied projects, described in more detail elsewhere (Baker 2017), that entailed the use of ethnoecological knowledge to monitor and test bush food for contaminants. The first is an ongoing project to monitor berry patches in Fort McKay in northern Alberta, and the other is a completed project with the Bigstone Cree Nation to collect samples of culturally important plants and animals that are consumed and used as medicine in order to test them for potential contaminants resulting from industrial oil and gas activities. Although the scientific components of these projects are valuable in themselves, the truth and wisdom guiding the project designs are derived from their ethnoecological aspects. We work with an “ethnographic loop” (Fortun 2012, 453), always checking with project members and participants and adjusting our methods according to community knowledge and concerns. We then use the scientific findings to support and elucidate the ethnoecological observations recorded each year.

I see these community-designed projects as acts of slow resistance that are intended to grow and exist for at least as long as the “life” of the oil sands that are impacting the plants, animals, and peoples of the region. The projects are undertaken in response to slow violence – the “pervasive but elusive violence of delayed effects” due to pollution (Nixon 2011, 3) resulting from oil sands extraction. The pollution in Alberta’s oil sands region is especially insidious and subtle. The elders detect and observe the contamination before the scientific results, measured in parts per million and parts per billion, are deemed to surpass official thresholds of concern. In scientific studies that do not take ethnoecological knowledge into account, laboratories test for single chemical exposures in controlled conditions rather than analyzing the wide range of lived human experiences on the land, which testify to multiple and diverse exposures to different contaminants (Wylie, Shapiro, and Liboiron 2017). The resulting “regimes of imperceptibility” (Murphy 2006, 129) further alienate people with anxiety and “toxic uncertainty” (Auyero and Swistun 2009, 6; Little 2012, 432) rather than providing clear answers about the safety and security of a food supply – synonymous with tradition, identity, and reciprocity for those dwelling in these places.
Industrial pollution is now the largest environmental cause of disease and premature death in the world (Landrigan et al. 2017). The slow violence of pollution is a historical agent of colonial dispossession that alienates Fort McKay and Bigstone Cree members from their traditional territories (see Sandlos and Keeling 2016). With good reason, people do not trust foods and medicines obtained near roads and industrial developments.

In northern Alberta, as elsewhere in Indigenous peoples’ homelands, it is often the case that traditional territories, berry patches, and other resource-harvesting areas such as traplines are associated with familial ownership (Thornton 1999). Such existing familial territories are recognized in the colonial designation of traplines (McCormack 2010) but seldom for berries or other types of resources. As a result, traplines also serve as a family’s hunting, fishing, and plant collection areas. People respect each other’s traplines and often gain permission before entering another’s trapline or “bothering” anything within it. In northern Alberta, trapline owners are financially compensated when their traplines are infringed upon by oil and gas activities, but when a trapline is mined or significantly disturbed, oil companies claim that the owners can simply use other habitats, without recognizing that they are dislocating an entire extended family from its territory and impacting multiple different harvesting activities (see chapter 8, this volume). Most of the ethnoecological research in relationship to contaminants from oil sands development is in partnership with trapline holders.

In such collaborative projects, following Woodlands Cree (sakāwithiniwak) scholar Herman J. Michell’s (2009) metaphor of berry picking as “community-based research,” we act with and as plant communities. Our research is “vegetalized” (Myers 2015, 42). We spread our roots and grow slowly, sensing air, soil, rain, the quality of berries, and other land-based details. Rather than simply harvesting and analyzing plants, we tend to them as kin. We learn from the berry plant communities about respect and care as well as neglect and harm. From my grandparents and from the elders of the many sakāwiyiniwak and Dene communities where I have had the privilege to work, I have learned over the years that berries, like all components of an ecosystem, are animate; they are living beings who deserve respectful treatment and care (see Thornton 1999; Kimmerer 2013; see also chapters 2 and 3, this volume).

In Fort McKay, we focus on low-bush cranberries (Vaccinium vitis-idaea) and velvet-leaf blueberries (Vaccinium myrtilloides). These are both “cultural keystone species” (Garibaldi and Turner 2004) that the Fort McKay berry-monitoring group, made up mostly of elders, identified as berries of high value and concern. There are many other types of berries that the elders involved in both aforementioned projects value highly: “mooseberries” (squashberries or pimbina berries, Viburnum edule), “summer berries” (highbush cranberries, Viburnum opulus), chokecherries (Prunus virginiana), saskatoon berries (Amelanchier...
alnifolia), currants (Ribes spp.), bog cranberries (Vaccinium oxycoccos, syn. Oxycoccus microcarpus), gooseberries (Ribes oxyacanthoides), raspberries (Rubus idaeus), cloudberries or bakeapples (Rubus chamaemorus), dwarf raspberries (Rubus acaulis), strawberries (Fragaria spp.), and pin cherries (Prunus pensylvanica). A different species of the buffaloberry, mentioned by Linda Black Elk in her poem at the beginning, also grows in the area: soapberry (Shepherdia canadensis) (see figure 10.2).

Beyond the value of applied ethnoecology as a study, celebration, preservation, and practice of traditional ecological knowledge, ethnoecological research creates space for monitoring lands and species impacted by industrial development. The literal and metaphorical act of “checking the berries” is an act of tending to one another and to the landscape. I often get the sense that, when we go out to pick berries as a part of ethnoecological research and monitoring in Alberta’s oil sands region, our projects are relegated by oil company staff, consultants, and scientists to a recreational category, separate from and not as relevant as the often biased, but privileged, scientific monitoring occurring in the region. “Berry picking” becomes trivialized, in the same way as “basket
Table 10.1 | Berry patch activities as important aspects of cultural knowledge and practice

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>GREATER PURPOSE</th>
<th>BENEFIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make offerings (tobacco)</td>
<td>Thanking berries and other foods, medicines, and smudges for offering themselves; thanking ancestors</td>
<td>Caring for cycles of respect and reciprocity; ensuring future abundance</td>
</tr>
<tr>
<td>Collect smudges</td>
<td>While walking to and in berry patches, people gather ceremonial smudging plants and fungi. These are used to cleanse oneself and to communicate with the Creator.</td>
<td>Caring for cycles of respect and reciprocity; ensuring future abundance</td>
</tr>
<tr>
<td>Collect medicines</td>
<td>While walking to and in berry patches, people gather medicinal plants if they show themselves and are ready to be collected.</td>
<td>Health and well-being of community members; continued cultural survival</td>
</tr>
<tr>
<td>Check ecosystem health</td>
<td>While walking to and in berry patches, people note various indicators of ecosystem health that tell them when and where to collect plants or to hunt.</td>
<td>Being on the land enables people to check the health and availability of foods and medicines and their habitats.</td>
</tr>
<tr>
<td>Clear trails</td>
<td>Trails are often maintained by trapline holders and are a sign of active care and use. They are tended to with a sense of pride and indicate who is tending to and managing an area.</td>
<td>Trails enable access to collective traditional use areas. People benefit from walking to and visiting traditional places.</td>
</tr>
<tr>
<td>Net fish</td>
<td>While picking berries, people often set nets and smoke fish. Drying large numbers of fish is important for sharing and winter storage.</td>
<td>Essential source of protein and fats; continued cultural survival</td>
</tr>
<tr>
<td>Check wildlife signs</td>
<td>While walking to and in berry patches, people watch for and observe signs of wildlife presence and behaviour.</td>
<td>People observe current animal behaviours that tell them about population health, spiritual observances, hunting possibilities, and seasonal fluctuations.</td>
</tr>
<tr>
<td>Share personal life stories</td>
<td>While walking to and in berry patches, people tell stories about their experiences in these places and in general.</td>
<td>Sharing stories about life experiences and histories imparts life skills and knowledge to friends, family, and especially children and youth.</td>
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<thead>
<tr>
<th>ACTIVITY</th>
<th>GREATER PURPOSE</th>
<th>BENEFIT</th>
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<tbody>
<tr>
<td>Share current landscape observations</td>
<td>While walking to and in berry patches, people watch for and observe signs from the landscape components.</td>
<td>Being on the land enables people to check the health and availability of foods and medicines. People share observations from other places so that they have a larger picture of what is happening on the land in different locales.</td>
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<tr>
<td>Tell oral traditions</td>
<td>People often tell creation and <em>wisahkeähk</em> (Trickster) stories while in the berry patch. These stories are entertaining and educational.</td>
<td>These stories transmit ancient teachings, life skills, and language. Cultural and environmental knowledge is transmitted to friends, family, and youth.</td>
</tr>
<tr>
<td>Language use</td>
<td>People often use their language when in the berry patch.</td>
<td>Transmission of environmental knowledge and cultural survival embedded in language and vocabulary</td>
</tr>
<tr>
<td>Snare rabbits</td>
<td>While picking berries, people often set snares and catch rabbits (hares). They are an abundant and appreciated source of protein.</td>
<td>Acquiring essential protein, fats, and hides; cultural survival, health, and well-being</td>
</tr>
<tr>
<td>Hunt moose</td>
<td>While picking berries, people watch for moose and hunt for them if possible. Drying large amounts of moose meat is important for sharing and winter storage.</td>
<td>Acquiring essential protein, fats, and hides; cultural keystone animal; spiritually significant</td>
</tr>
<tr>
<td>Hunt chickens (grouse)</td>
<td>While picking berries, people often shoot grouse. They are an abundant and appreciated source of protein.</td>
<td>Acquiring essential protein and fats; cultural survival</td>
</tr>
<tr>
<td>Make fire</td>
<td>While in the berry patch, people make a fire to brew tea and have lunch.</td>
<td>Having a fire provides comfort, protection, and a place to share language, stories, and observations. It teaches youth survival skills. People are able to enjoy their preferred bush foods.</td>
</tr>
<tr>
<td>Observe industrial disruptions</td>
<td>While travelling to berry patches, people witness new industrial developments and changes that they have not been informed of.</td>
<td>Consultation requirements can be requested. Communities can have a better catalogue of project footprints in their traditional territories.</td>
</tr>
</tbody>
</table>
weaving” (also an important land-based cultural activity), rather than being properly recognized as a vital and essential act of food procurement and production. In response to the misconception that berry picking and the accompanying ethnoecological research are merely recreational activities, table 10.1 describes many of the land-based ethnoecological activities intertwined with checking and picking berries that I have observed through ethnographic research in the region.

In short, berry picking and its associated activities provide people with the necessary cultural and environmental knowledge to maintain their cultural identity, health, and well-being. They also connect people with the plant world in important, reciprocal ways and provide opportunities both to determine when environmental integrity is being breached and to inform others who are not so closely tied to the land about issues of contamination and pollution.

**PIPPINES: STANDING WITH THE PLANT NATIONS — LINDA BLACK ELK³**

I first became involved in the fight against the Dakota Access Pipeline because of my role as an ethnobotanist at Standing Rock, where I have taught for almost two decades. On 3 September 2016, I was living in one of the Standing Rock camps in North Dakota near Lake Oahe, adjacent to the Standing Rock Lakota Reservation, and fighting the construction of the Dakota Access Pipeline (see figure 10.3). That day, we were called to the frontline to protect sacred burial sites from impending destruction by bulldozers. Moments after arriving there,
I was showered with pepper spray, which lit my eyes on fire and made breathing nearly impossible. It was a shock to my system, further exacerbated when, suddenly, my eyes burning and my breathing short, I was attacked by huge dogs on long leashes held by armed guards. One canine came so close to biting my face that I could actually feel its breath and saliva on my cheek. Elders were crying and wailing at the sight of their relatives’ graves being destroyed. We desperately pushed forward, walking into the path of weaponized security guards and sometimes into the mouths of attack dogs so that we could stand in the path of the bulldozers in an effort to stop the destruction taking place. My mind raced and the world around me moved in slow motion as I thought, “Are they really using attack dogs on us in 2016?”

Yet, amid all that chaos, I had a moment of perfect clarity. In that moment, I knew what freedom felt like. It sounds ridiculous and dramatic, but it is the truth. I suddenly knew that I will never again back down in the face of injustice. I knew that I will never be able to stay silent when I enter a museum that uses only verbs in the past tense to describe Indigenous peoples and their cultures. I knew that my voice will never be silenced by any institution’s need to acquire grant funding or to maintain peaceful relationships with corporations that exploit our planet. This is what freedom looks like.

Dakota Access, LLC is a subsidiary company of Energy Transfer Partners, LP. In June 2016, together with Phillips 66, Enbridge, and Marathon Petroleum,
Dakota Access started constructing a pipeline buried beneath the earth that would stretch 1,886 kilometres (1,172 miles) from the Bakken shale oilfields of northwest North Dakota through South Dakota and Iowa to an oil tank farm near Patoka, Illinois. This pipeline crosses less than a mile north of the Standing Rock Lakota Reservation and is adjacent to the location of the Sacred Stone Camp, where in 2016 upward of 10,000 Native American grassroots activists and their allies camped for ten months in opposition to the pipeline’s construction.

Over the years, I had taken my students to this prairie that now sits within the path of the pipeline. It was once resplendent with sacred food and medicinal plants – some used to make delicious soups and filling stews, others to treat and prevent illness. I had visited this site many times and knew these plants well. I considered them friends, allies, and relatives, and I loved to share their beauty with my students. Now, this place no longer exists. It was decimated by an oil corporation in pursuit of monetary profit. Two of the largest patches of silver buffaloberries (Shepherdia argentea) were completely obliterated by Dakota Access, and if you have ever eaten a buffaloberry, you know what a massive loss that is, nutritionally, emotionally, and spiritually. These precious foods and medicines have been stolen from the people of Standing Rock. Their seeds, their genes, and the precious diversity offered by this prairie have been destroyed forever. The loss to me as an Indigenous woman and as an ethnobotanist is palpable and profound.

Our fight against the Dakota Access Pipeline has made me realize that being an Indigenous ethnobiologist sometimes requires a skill set different from that of my non-Indigenous colleagues. While a lot of my friends are conducting exciting fieldwork in distant places, I might be planting tribal gardens, harvesting food and medicine for elders, or standing on the frontline of a pipeline fight in defence of our water and our sacred plants. These undertakings might seem academically tenuous, but I feel that my place is on the frontline next to my people – rebuilding connections with both people and plants and protecting what is important.

What does this stand mean for my work as an academic ethnobiologist and for the field of ethnobiology? I think it means that, collectively, we need to push forward the ideas of social and environmental justice and respect for Indigenous ways of knowing and understanding the world as valid academic accomplishments. We need to ask permission to show up in these communities and offer ourselves, our knowledge, or our services to people who need them. We need to make sure that, as we are conducting our fieldwork, writing papers, and attending conferences, we are also willing to stand right next to our Indigenous brothers and sisters on the frontlines when their lands, culture, languages, or sovereignty are threatened. As ethnobiologists, we can be objective observers and researchers, but we can also be allies for the benefit of the communities in which we work.
I remember my father – a blue-collar factory worker but also a lifetime learner – telling me stories of how college campuses and professors were once at the heart of activism in the United States. But somewhere along the way, academics started staying in the classrooms and watering down their fervour. Objectivity has become an excuse for many, as though somehow the world will benefit if we pull back and become less involved. That must change. Again, we can find strategies for remaining objective without abandoning our Indigenous allies during times of struggle.

We must ask ourselves as ethnobotanists and ethnoecologists if we are okay with the status quo. Are we okay with being seen as a perpetuation of old school “helicopter ethnography,” where we simply “fly in and fly out” of Native communities? Or are we willing to push forward and walk the line between academia and activism? Are we ready to see Indigenous communities both as colleagues and as the primary investigators of our research? Are we willing to put our racial or academic privilege on the line to defend the First Peoples of these lands? Are ethnobotanists and ethnoecologists prepared to stand beside Indigenous people as we face police batons and as we stare down the barrels of guns? If you think it couldn’t possibly ever come to that, then you haven’t been paying attention.

In spite of the shock and horror of getting attacked in ways reminiscent of the 1950s civil rights movement, we know as Indigenous activists that together we are powerful. Standing Rock and the fight against Dakota Access was a turning point. We have rediscovered our power, and we need staunch allies at all levels.

I still think about my rediscovery every day. I thought about it in October 2016 at Standing Rock when camp medics treated 127 people who had been attacked and arrested by their own local law enforcement agency. I thought about it again in November 2016 when Donald Trump was elected president of the United States and I was personally transporting hundreds of hypothermia victims who had been sprayed by water cannons in subfreezing temperatures, all for the crime of standing up to an oil company. My faith in my people and culture did not falter even when the permit for the pipeline, after being denied by the administration of President Barack Obama, was subsequently granted by Trump, and it did not falter even when the federal government joined forces with local law enforcement to “bring in the cavalry” and remove us, once more, from Indigenous lands so that they could rape our Mother Earth, uninterrupted, and drill under the sacred Missouri River. Through all of these events, my heart, like the hearts of the warrior women I stood next to, has never been on the ground. It is because of our hearts that we can still stand.

We stand with the Plant Nations, even those that were destroyed by Dakota Access and the other oil companies. We still fight for the plants because they are not merely “vegetation” but are also our relatives and our allies. In the spring of 2017, there were more gardens planted at Standing Rock than at any time in the past seventy-five years. Native people are gardening and saving sacred seeds,
but they are also getting back out on the land and harvesting their berries: buffaloberries, juneberries (saskatoon berries, Amelanchier alnifolia), sand cherries (Prunus besseyi), wild plums (Prunus americana), and chokecherries (Prunus virginiana). People are rediscovering their ancestors’ foods and medicines by renewing their relationships with breadroot (prairie turnip, Pediomelum esculentum), sumac (Rhus typhina), purple coneflower (Echinacea angustifolia), and gumweed (Grindelia squarrosa). Our people are motivated, strong, resilient, and ready to thrive – just like the Plant Nations.

SPEAKING UP FOR THE BERRIES

In her article “In Defence of the Wastelands: A Survival Guide,” nēhiyaw (Cree) writer Erica Violet Lee (2016) explains, “To provide care in the wastelands is about gathering enough love to turn devastation into mourning and then, maybe, turn that mourning into hope.” We have told stories here of how being ethnobotanists and ethnoecologists has brought us to different forms of slow and peaceful resistance in response to unfettered industrial oil projects in Indigenous peoples’ traditional territories. These so-called development projects commit many acts of violence: the slow but relentless violence of pollution and contamination, the often-ignored violence of killing plants without following protocols, and the shocking violence that met peaceful protestors and protectors of the land at Standing Rock. In the ethnoecological context, paying attention to and caring for the berries are instances of the human care – a type of tending to all our relations – that has been practised for endless generations. What are our responsibilities in this care? How can ethnoecologists best support the plants and the people we tend to in a time of extreme extraction and destruction? Deborah Bird Rose (2017, G61) reminds us that, “[i]n this time of extinctions, we are going to be asked again and again to take a stand for life, and this means taking a stand for faith in life’s meaningfulness.” Let us take an ethnoecological stand and, like the berries, resist, take root, and spread into large, shiny-leaved, generous communities.

NOTES

1 Silver buffaloberry (Shepherdia argentea).
2 “Sakâwiyiniwak” literally means “Bush Cree,” and is how Crees in northern Alberta refer to themselves in their own language, which they call sakaw nehiyawewin. Capitalization is not used in this language.
3 This section represents transcriptions of Linda Black Elk’s oral presentation to the symposium on which this book is based and her keynote talk at the Society of Ethnobiology meeting in Montreal in May 2017, shortly after the symposium.
4 Despite great opposition from so many, the pipeline was completed in 2017.


