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KRISTIN OHLSON

SWEET IN TOOTH AND CLAW

Stories of Generosity and Cooperation in the Natural World



READER'S GUIDE BY CHRIS GILBERT



I. Introduction

In *Sweet in Tooth and Claw*, Kristin Ohlson invites the reader “to reexamine our tired, unhelpful red-in-tooth-and-claw assumptions about the world around us. Of course, there is competition, but there is also cooperation and peaceful coexistence and generosity that surprises even hard-eyed scientists” (p. 381). For many readers, this idea is surely provocative, as the dominant view is that nature is largely characterized by struggle, and only the fittest species survive. Ohlson’s work reminds us that this narrative is flawed, as the natural world also consists of mutualisms, or mutually beneficial relationships. *Sweet in Tooth and Claw* offers readers invaluable learning opportunities, and beckons them to explore nature with a focus on cooperation. This guide serves as a navigational companion for readers as they embark on this enlightening journey. It was written with a variety of readers in mind, and the questions and activities within appeal to a broad audience. Importantly, this guide features three sections that both individual readers and reading groups can draw from: comprehension and discussion questions, thematic activities and research topics, and a related resources section. We hope this guide will prove useful for you during your reading of this fascinating book.

COVER: A white-winged dove, Gila woodpecker, and bees share fruit, pollen, and nectar from a saguaro cactus in the Sonoran Desert. The woodpeckers (right) peck holes in the cactus for their nests, which can later be reused by owls, wrens, and other species. BARBARA CARROLL / GETTY IMAGES

A common bonnet mushroom and a holly seedling growing in a symbiotic relationship in the New Forest National Park, United Kingdom. GUY EDWARDES / MINDEN PICTURES

II. *Comprehension and Discussion Questions*

This section features a variety of questions for each of the book's chapters. Some questions serve as comprehension questions while others inspire reflection and analysis.

Preface

- 1.) In what ways does the statement "...what we decide to focus on not only informs our view of the world, but will also guide our path through it" (pp. 6-9) resonate with you?
- 2.) "I don't think we have any alternative other than remaining optimistic. Optimism is an absolute necessity, even if it's only optimism of the will ... and pessimism of the intellect" (p. 9). How can someone have both an optimistic will and a pessimistic intellect? What do you think about this idea?
- 3.) What effect do you think the idea that "competition [serves as] biology's brutal architect" (p. 11) has had not only on our view of nature but also on our view of ourselves in relation to each other?
- 4.) What do you think about the idea that we are "missing the generosity and cooperation that exist in the natural world" (p. 14)? What are the implications of acknowledging what we are currently missing?
- 5.) What do you think about the idea that we should take an "honorable harvest" (p. 15) from nature?

An Underground Tapestry of Give-and-Take

- 1.) According to Ohlson, why did the trees have such "sad faces" (p. 21)?
- 2.) What is the Mother Tree Project, and why is it important?
- 3.) What do you know about the practice of clear-cutting? According to Ohlson, what are some of its consequences?
- 4.) Do you think it's possible to find a more honorable way of harvesting trees that would still allow foresters, such as those mentioned in this chapter, to maintain their livelihood? Why? Why not?
- 5.) According to Ohlson, what led to decreased crop diversity in the forests? Also, what did Ohlson's research reveal about the effects of this practice? Does this conclusion surprise you? Why? Why not?
- 6.) What are hyphae? What is their significance?
- 7.) One of the central concepts introduced in this chapter is mutualism. What is it? What are several examples of mutualism in the environment where you live?
- 8.) What is the "wood-wide web" (p. 33), and what does it have to do with the film *Avatar*?
- 9.) What is the "dialogue among plants" (p. 36) that Ohlson refers to? From your perspective, what are the implications of this discovery?
- 10.) In what ways do salmon benefit the forests? Relatedly, what is the "salmon shadow" (p. 42)?

- 11.) What is the physical manifestation of “forest memory” (p. 53)? What role could it play in restoring degraded landscapes?
- 12.) In the context of collaboration or competition, does this first chapter confirm or challenge your view of nature? How so?

We Need Better Metaphors

- 1.) What is Yellow 54?
- 2.) In what ways do bees “cheat,” or fail to fulfill their role in their mutualistic relationship with flowers?
- 3.) Ohlson notes how “mainstream scientific thinking...has cleaved to a belief in competition and selfishness ever since the time of Darwin” (p. 63). While several theories for the persistence of this belief are discussed in this chapter, share your own hypothesis for the dominance of competition over mutualism in scientific thought.
- 4.) Do you think, as Ohlson suggests on p. 65, that our scientific focus, or lens, is influenced by biases and cultural trends? Why? Why not?
- 5.) In what ways is Darwin's theory of natural selection reflective of the larger social systems and ideologies of his time?
- 6.) What is “Social Darwinism” (p. 70)? Additionally, in what ways is this idea still alive today?
- 7.) Why was Peter Kropotkin so important? And why do you think his ideas were so dangerous to the rich and powerful?
- 8.) What do you find particularly striking and/or surprising about Kropotkin's life and ideas? Additionally, how do you react to this quote: “Who are the fittest: those who are continually at war with each other, or those who support one another?” we at once see that those animals which acquire habits of mutual aid are undoubtedly the fittest” (p. 77)?
- 9.) How do you react to the idea that Darwin actually meant: “the fittest are not
- 10.) the physically strongest, nor the cunningest, but those who learn to combine so as mutually to support each other, strong and weak alike, for the welfare of the community” (p. 83). In other words, have we misinterpreted Darwin's theory?
- 11.) Other than anarchy, are there other contemporary social and political movements you would associate Kropotkin's views with? Why? Why not?
- 12.) “...we—as the supposed apex organisms in this long churn of evolutionary history—are only fulfilling our biological destiny as we eat up the rest of the planet...life is all a zero-sum game, in which a benefit for one is a loss for another” (p. 92). Do you agree or disagree with this quote? Why?
- 13.) In your own words, explain the idea of “relaxed selection” (p. 96).

We Are Ecosystems

- 1.) What are bacteria? Who discovered them?
- 2.) “Whenever scientists probe such extreme environments— boiling geothermal vents, stinking sulfuric ponds, Antarctic ice, the bottom of the ocean with tons of water pressure bearing down—they find bacteria” (p. 107). Are you surprised by the existence of bacteria in these extreme environments? Why? Why not?
- 3.) Aside from the probiotic-related labels Ohlson mentions on p. 108, how often in your daily life are you reminded of the existence of microorganisms?
- 4.) “...but we now understand that all of us macros are like meat and vegetable floaters in an incredibly vast broth of microorganisms” (p. 109). Does this passage confirm or challenge (and perhaps even expand!) your view of the natural world? Explain.
- 5.) Conduct some brief online research and identify at least one form of bacteria that serves as an “active cooperator” (p. 113). Share your findings with others.



Dr. Suzanne Simard examines mycorrhizae—a composite structure formed by fungi and roots—in Nelson, British Columbia. BRENDAN GEORGE KO

- 6.) How do you react to David Johnson's assertion that plants represent "microbes' first experiment with artificial intelligence" (p. 114)?
- 7.) According to Ohlson, what does our normal temperature have to do with microbes?
- 8.) "We are not individuals but ecosystems, each of us hosting a whirl of organisms busily interacting with us and with each other in a complex web of connection" (p. 117). What are your thoughts on Ohlson's view of human beings as ecosystems within even larger ecosystems?
- 9.) In what ways can viruses be symbiotic? Also, do you view viruses as living things? Why? Why not?
- 10.) How does Ohlson's statement that "Everything is part of the heap. And the heap is in us" (p. 123) impact your view of human beings and the place we occupy in the natural world?
- 11.) According to Ohlson, where is the densest part of our microbiota located?
- 12.) What effect does eating sugary foods have on our microbiota?
- 13.) Given the positive effects of living closer to natural areas, what modifications can you make to your living space to break down barriers that separate you from nature?

Transforming Deserts into Wetlands

- 1.) What are your thoughts on the idea that it is possible to rehydrate the West? Relatedly, can you think of a time when the American West was *not* dry?
- 2.) "Back in the 1970s, pretty much everyone agreed that some one hundred years of cattle grazing had caused a host of environmental problems, including the degradation of these creeks" (p. 151). How exactly did cattle grazing contribute to the degradation of these creeks? You could explain this process through writing, or you might illustrate this process by drawing/diagramming.
- 3.) What is a rhizome? What does it have to do with soil stabilization?
- 4.) "Some environmental groups are eager to get rid of all grazing on public lands, and I'm sure I would have felt that way myself before I started seeing how farmers, ranchers, and other careful stewards of the land can heal landscapes" (p. 157). Do you agree with the idea of stopping all grazing on public lands? Why? Why not?
- 5.) Who was Allan Savory? Why do his ideas matter?
- 6.) In what ways is the relationship between grazing animals and rangelands an excellent example of mutualism? According to Savory, how did human intervention alter this relationship?
- 7.) What are some of the benefits and challenges associated with sustainable grazing practices?
- 8.) According to Ohlson, how did beavers accelerate the recovery of the creeks and the surrounding landscape?
- 9.) In what ways does this chapter touch on the importance of humans working together?
- 10.) What are your thoughts on the statement: "If people disrespect each other, they will disrespect the land" (p. 172)?

Agriculture That Nurtures Nature

- 1.) How would you define regenerative agriculture?
- 2.) What are some advantages of utilizing agricultural practices to promote biodiversity?
- 3.) “This is America’s largest crop, covering an area the size of sixty-nine million football fields, and the way farmers grow it has an oversized impact on our landscapes, air, water, and health” (p. 183). An oversized impact in what ways? You might conduct some brief online research to learn more.
- 4.) According to Ohlson, what are some of the advantages of using cover crops?
- 5.) What is agroecology?
- 6.) What are some of the environmental consequences of status-quo agriculture? Despite these consequences, why are status-quo agricultural practices still utilized (hint: Consider who profits from them)?
- 7.) “If you have a chemical view of soil, you just think of soil as a place to grow plants...With that view, the only way to make things grow is to manipulate them chemically. But if you see soil as a living, mutualistic dynamic ecosystem that’s changing all the time, that’s full of microbes, it’s a whole different view and it affects the way you do things” (p. 198). Compare and contrast these two views of soil. What are the advantages and disadvantages of each perspective? Additionally, which view most closely mirrors your own? How so?
- 8.) In what ways does landscape simplification create “bee carnage” (p. 205)?
- 9.) According to Ohlson, what impact have industrial agricultural practices had on the “craftsmanship of seed saving” (p. 225)?
- 10.) What are some of the drawbacks of using GMO seeds? How does their use interfere with biodiversity and forms of mutualism in nature?
- 11.) In what ways has modern plant breeding turned most crop plants into “idiots” (p. 233)?
- 12.) From your reading of this chapter, do you think it’s possible for farmers to have both healthy landscapes and healthy profits, or are these two things mutually exclusive? Why?

I’ll Take My Coffee with Birds

- 1.) What is the phorid fly, and how does it reproduce?
- 2.) What do you think about Edward O. Wilson’s argument that “[t]here is a misguided focus solely on protecting the physical environment” (p. 252)?
- 3.) What is the “sharing vs. sparing” (p. 253) argument in agriculture, and which side of the debate do you identify with? Why?
- 4.) Ohlson references Vandermeer’s observation that most people view “biodiversity as things that look something like us—things with eyes that we can look into” (p. 259). Does this describe your view? Or, does your view of biodiversity also include the world of microbes and insects?

- 5.) Describe the “sun coffee” (p. 262) system. What are some of its drawbacks?
- 6.) “They were working on a Bird Friendly certification for coffee growers, and they wanted her to find out if having birds on the plantations benefited the farmers” (p. 264). What did Perfecto and her students discover? Were you surprised by this? Why? Why not?
- 7.) What is the “healthy matrix” (p. 268) Ohlson refers to, and why does it matter?
- 8.) How would you summarize the complex interactions between multiple species at Azteca Crossing?
- 9.) What is coffee leaf rust? What threat does it present?
- 10.) As an intellectual exercise, pretend you are arguing against the use of “silver-bullet approaches peddled by huge corporations” (p. 278) and instead arguing for biodiversity preservation. What would you say? What forms of evidence would you use to support your argument?
- 11.) What mutualistic relationship exists inside the Heliconia flowers?

Healing from Ridgetop to Reef

- 1.) Why would clear-cutting a forest negatively affect nearby streams?
- 2.) What is the mission of the MidCoast Watersheds Council?
- 3.) Compare and contrast a naturally developed forest with a commercial plantation. From an ecological perspective, which type of forest is superior? Why?
- 4.) According to Ohlson, who references the work of Mark Kurlansky, overfishing did not decimate the salmon population. In actuality, what did?
- 5.) In what ways are old-growth trees utilized by the marbled murrelet?
- 6.) Explain how trees located along riverbanks, along with their root systems, benefit salmon.
- 7.) What sort of problems do culverts present for salmon? How would you address this issue?
- 8.) “...environmentalists also need a diverse portfolio of restoration strategies to heal the disrupted relationship between land and water” (p. 313). Why is it important for environmentalists to maintain such a diverse portfolio?
- 9.) Explain the mutualistic relationship between coral and algae. Additionally, why are corals referred to as the “rainforests of the sea” (p. 319)?
- 10.) How are island birds and coral health connected? And what role does poop play in this connection?
- 11.) In what ways does this chapter illustrate the potential of human beings to both harm and heal nature?



Living in Verdant Cities

- 1.) “It’s easy to forget that I’m downtown, standing on top of a roof, two stories up” (p. 332). Were you surprised by Ohlson’s location? Why? Why not?
- 2.) What does it mean to “green” a city? Are there opportunities to do this where you live?
- 3.) According to Ohlson, how many acres are we losing each day to development?
- 4.) Do you agree or disagree with “the notion that humans have an innate desire to live in proximity to the rest of nature” (p. 340)? Why?
- 5.) What is the “poster child of the Biophilic Cities group” (p. 341)? What makes this location stand out?
- 6.) What is daylighting?
- 7.) In what ways does this chapter illustrate how experiencing nature can provide powerful educational opportunities?
- 8.) What is Naturehood? Can you take inspiration from this program to create change in your location? If so, in what ways?

A Singapore high-rise apartment building with a lush vertical garden. NAOMI RAHIM / GETTY IMAGES

- 9.) Which of the policy changes (pp. 363–364) recommended by the NWF (National Wildlife Federation) do you think would be most impactful? Why?
- 10.) “Who knows how many other animals have adapted to city life and are living among us without our notice?” (p. 376). If you live in an urban environment, take note of the animals around you. Which forms of wildlife have successfully adapted to city life?
- 11.) What will you take with you from this fascinating book?
- 12.) If you could ask Kristin Ohlson one question about this book, what would you ask? Why?

III. Thematic Activities and Research Topics

This section features a number of activities and research topics related to two of the book's central themes. Research topics provide opportunities for extended investigation and analysis.

Theme: Cooperation, Generosity, and Connectedness in the Natural World

- **Explore Mutualisms Around You**

“Beneficial partnerships like this between different species are called mutualisms, and they occur in all ecosystems and probably involve every species on Earth. And they are hugely important, influencing everything from nutrient cycles throughout the biosphere to individual cells” (p. 31).

In *Sweet in Tooth and Claw*, Ohlson describes a number of her excursions into nature. These trips offer Ohlson an opportunity to observe many of the mutualistic relationships that exist in the natural world. Initiate your own mutualism-focused research through this activity.

To begin, locate a safe, natural setting that is ideally unscathed by human activity. Next, plan for a long walk through this setting by referencing a map of the location and gathering some basic supplies (water, a notepad, snacks, a cell phone, etc.); you might also let family and/or friends know where you will be going and when you should return. During your walk, focus on being present and observing the natural world around you; also, address the questions below in writing during your journey.

-Where is your walk taking you? Sketch a map of your journey.

-What do you notice about your surroundings? What do your senses reveal?

-Adopt both micro and macro views of your surroundings, and look for mutualistic relationships around you. What do you observe in the dirt under your feet? What do you see in the trees above you? Jot down a few species you notice that could be involved in mutualisms.

Next, reference your notes and conduct some brief online research to learn more about the potential mutualisms you observed. For instance, if you noticed insects on plants or tree leaves, research these species to learn more about the nature of their relationship. If you would like to share your findings with a larger audience, post your thoughts on a social media platform or turn your writing into a blog. Free resources for this include <http://blogger.google.com> or <http://www.wordpress.com>.

- **Illustrate Connectedness through Concept Mapping**

“Not only will the salmon benefit from their newly extended spawning grounds, but the forest alongside North Creek will benefit from the renewed flow of marine nitrogen provided by the dying salmon. ‘Minks, dippers, coyotes, river otters, and so many others will be pulling those salmon carcasses out of the stream and into the woods,’ Engelmeyer said. ‘Things want to heal so much’” (p. 311).

Through her writing, Ohlson takes the reader into various environments to highlight the many relationships that exist among species. The passage above, for example, underscores the connectedness between streams, salmon, predators, and the forest. In this example, we can consider how root systems slow riverbank erosion; the resulting clear, flowing streams provide a thriving habitat for salmon; predators that feed on salmon deposit nutrients into the soil, thus benefiting the forests, and so forth. This not only illustrates a number of mutualistic relationships, but also underscores the connectedness of all living things. Learn more about natural connectedness by exploring relationships in the environment around you.

To begin, conduct online research to learn more about an ecosystem in your local community or region. While researching in the field, take note of the organisms you encounter and document the connections these species have with others in the area; as Ohlson does in *Sweet in Tooth and Claw*, you should consider species both large and small. Next, create a concept map to present a visual web of connectivity. The free resources below could be used for this purpose:

- Canva: <https://www.canva.com/graphs/concept-maps>
- Lucidchart: <https://www.lucidchart.com/pages/examples/concept-map-maker>

To deepen your thinking, you might consider how removing one species from your concept map would affect others in the ecosystem. You might also compare and contrast the connectedness of your ecosystem with one described in Ohlson's text. If you are participating in a reading group, share your work with others.

- **Let the Microbes In!**

“The average human in industrial societies spends around 90 percent of their time indoors, which further impoverishes their microbial community. We may fill up rooms with plumes of our own microbiota, but modern buildings have been designed and engineered to keep the rest of nature out” (p. 136).

Like most humans in industrial societies, you likely spend the majority of your time indoors, cut off from nature and its beneficial microbes. To address this problem, consider ways to break down barriers between the indoor and outdoor worlds.

To begin, select a space to transform; some possibilities include your home, an office, or even a community setting cut off from nature. Next, plan a few ways to transform the space into a more natural setting. Some ideas for this transformation include installing a window garden box, planting a rooftop garden (with a focus on mutualism through companion planting), or bringing in a range of indoor plants. More substantial transformations include increasing natural airflow within an indoor space. If you live in an urban environment, implementing these changes might be more challenging. You might re-read chapters three and eight to generate ideas.

After you implement these changes, reflect on how these changes impact your relationship with the living world. If you are in a reading group, share your thoughts with others.

Theme-Related Research Topics

- 1.) “Cities swathed in greenery also keep citizens healthier. Research keeps showing what most of us instinctively know: that proximity to nature bolsters and heals us” (p. 345). As Ohlson mentions in Chapter Eight, researchers have identified the many benefits that proximity to nature offers human beings. Conduct your own research to learn more about this phenomenon. What are these specific benefits? How long do humans have to be in contact with nature to experience them? What are the emotional and psychological effects of establishing a connection with nature? Address these questions and others that interest you through your research.
- 2.) “We are not individuals but ecosystems, each of us hosting a whirl of organisms busily interacting with us and with each other in a complex web of connection” (p. 117). Perhaps one of the most powerful illustrations of natural connectedness, there are numerous smaller species that call the human body home. Conduct research to learn more about these species. To begin, choose three-five microorganisms to focus on. Where are they located in the human body? What are their functions? In what ways do they occupy a symbiotic relationship with the human organism? Are there even smaller organisms within these microscopic organisms? Explore these questions to learn more about the many forms of life that cooperate within the human body.
- 3.) Deepen your knowledge of mutualisms by identifying and exploring a symbiotic relationship other than those mentioned in *Sweet in Tooth and Claw*. Choose a region and identify two species within that area that have a mutualistic relationship (one starting point for your research might be <https://www.nhm.ac.uk/discover/mutualism-examples-of-species-that-work-together.htm>). What are these species? In what ways do they benefit each other? After you locate some basic information to address these questions, choose one of the mutualisms mentioned in Ohlson’s book and compare and contrast it with the symbiotic relationship you researched.

Theme: The Human Potential to Both Disrupt and Restore Nature

- **Raise Awareness through an Online Campaign**

“When we help them do their job—and often, that just means stopping our damage and getting out of their way—nature rebounds more quickly and bountifully than we imagine. We can trust nature to do this work” (p. 381).

One of the central themes in *Sweet in Tooth and Claw* is the idea that human behavior has disrupted mutualistic relationships that exist in nature, yet human action is also required to restore them. Given this idea, initiate an online campaign to raise awareness about a local environmental issue caused by human involvement. To forge a deeper connection to *Sweet in Tooth and Claw*, you should also consider the associated mutualisms that have been disrupted.

- To begin, decide if you want to work individually or with other members of your reading group. Next, identify a local environmental issue you would like to make others aware of. You also need to select an audience to focus on. Will you target young people? The general public? Policymakers? Your audience will dictate your communication style.

- The next step is to research the issue and create media related to it. For example, you might record a video and/or take pictures of an affected location for the purpose of documenting it. The primary goal here is to educate a larger audience about the environmental damage, the mutualisms disrupted, and the problem's central contributors.
- Lastly, utilize social media to initiate an awareness and action campaign. You should disseminate your images, videos, texts, etc., by sharing them widely and using hashtags and other online tools to circulate content. You, or your reading group, could also include an action item in the campaign using resources such as <https://resist.bot> or https://www.change.org/start-a-petition?started_flow=true.
- For additional, useful tips on social media campaigns, consult https://edtechbooks.org/mediaandciviclearning/environmental_campaign and <https://www.yesmagazine.org/people-power/yes-social-media-can-be-used-for-positive-change-20180423>



Beekeeping at Blue Dasher Farm, South Dakota. JULIA STUEVEN

- **Become a Partner with the Living World**

“But for me, the most thrilling parts of the book look at how people are acting on new understandings of what the rest of nature needs from us. They are deciding to be partners with the living world, partners with each other in this mission, and showing that bleakness does not have to be our shared fate” (p. 17).

By working to restore the living world, we become its partner. You can engage in this partnership by volunteering with an organization dedicated to restoring nature. You might begin your search by accessing <https://www.patagonia.com/actionworks/home/choose-location>. The following organizations also offer a variety of opportunities that might interest you and other members of your reading group:

- <https://www.volunteermatch.org/search/orgs.jsp?l=United+States&submitsearch=Search&cats=13&o=relevance>
- <https://www.volunteerworld.com/en/volunteer-abroad/environment>
- <https://rebellion.global/groups/#countries>
- <https://www.nature.org/en-us/get-involved/how-to-help/volunteer>

You might maintain a journal during your time volunteering so you can share your reflections with others after your work concludes.

Theme-Related Research Topics

- 1.) “And it’s just one example of how human actions can unwittingly rupture one of the most essential relationships on our planet—that between the land and the water—with tragic repercussions for the living things inhabiting both” (p. 293). Unfortunately, our species has established a pattern of severing essential, natural relationships. Conduct research to learn more about a specific example of destructive human behavior in the natural world. During your research, you should identify the central players, the environmental impacts, and the motivations behind these actions. In other words, who benefits, or profits from these actions at nature’s expense?
- 2.) Despite the many negative impacts of human behavior on the natural world, there have been some positive results of human intervention; Ohlson, for example, highlights forms of regenerative agriculture, the greening of urban spaces, the work of the MidCoast Watersheds Council, and other efforts. Conduct research to learn more about environmental victories. To begin, identify and research an environmental victory in your state. This could be a form of legislation, a habitat that was restored, a species that was successfully protected, or something else entirely. Identify the principal actors and/or groups involved in the effort and explain the outcomes of the positive intervention. Consider ways this victory could be emulated elsewhere.

IV. Resources

These resources relate to themes and subjects from *Sweet in Tooth and Claw*.

Books

- *Mutual Aid: A Factor of Evolution*
Peter Kropotkin
- *Four-Fifths a Grizzly: A New Perspective on Nature that Just Might Save Us All*
Douglas Chadwick
- *The Mermaid's Tale: Four Billion Years of Cooperation in the Making of Living Things*
Kenneth M. Weiss and Anne V. Buchanan
- *Nature's Matrix: Linking Agriculture, Biodiversity Conservation and Food Sovereignty*
Ivette Perfecto, John Vandermeer, and Angus Wright
- *Mutualism*
- Edited by Judith Bronstein

Online Resources

- Kristin Ohlson's official website
<https://www.kristinohlson.com>
- Patagonia Stories Podcast: Collaborative Knowledge, featuring Kristin Ohlson
<https://tinyurl.com/53dypphh>
- "Survival of the Friendliest," by Kelly Clancy
<https://nautil.us/survival-of-the-friendliest-236515>
- The official website of the Mother Tree Project
<https://mothertreeproject.org>
- The official website of the Nature of Cities
<https://www.thenatureofcities.com>
- The official website of Movement Generation Justice & Ecology Project
<https://movementgeneration.org>

ABOUT THE AUTHOR OF THIS GUIDE

Chris Gilbert, EdD, is a former high school English teacher and college instructor who lives in the mountains of North Carolina. He is also an avid writer. His work has appeared in *The Washington Post's* education blog, "The Answer Sheet," NCTE's (National Council of Teachers of English) *English Journal*, Kappa Delta Pi's *The Educational Forum*, *Critical Studies in Education*, and *Educational Action Research*. He has also written a number of educational guides for Penguin Random House and Patagonia.