ECOLOGICAL VULNERABILITY AND SOCIOECOLOGICAL JUSTICE: A VULNERABILITY APPROACH TO ECOLOGICAL LAW IN CANADA

Erin Dobbelsteyn

Ecological approaches to law and governance have emerged over the past few decades in response to the failure of contemporary environmental law to prevent and respond to the global socioecological crisis. Among its main objectives, ecological law aims to restrain economic activity within Earth's ecological limits, restore and preserve the health and integrity of ecosystems, and create an ecologically just society. Given the infancy of a transition from environmental to ecological law within Canada and around the globe, debates persist regarding ecological law's key principles, concepts, and features. This article contributes to this conversation by highlighting relevant and important links between ecological law and vulnerability theory, a critical theoretical approach established by Martha Albertson Fineman that recognizes vulnerability as a universal, inescapable, constant, and yet particular aspect of the human condition and that calls for greater societal and government responsiveness to this experience. I argue that vulnerability, when extended to the more-than-human world, is a powerful tool that assists in transcending the ecocentrism/anthropocentrism binary and encourages a focus on responsibilities that are responsive to the interdependence and differentiated vulnerabilities of humans and other species, ecosystems, and life processes on Earth in service of socioecological justice. The article also emphasizes the relevance of this analysis for environmental law scholars and practitioners in Canada with reference to some proposals for law reform and legal education.

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A. Introduction

Over the last decade, ecological law has emerged as a legal paradigm designed to respond to the apparent inability of environmental law and other areas of contemporary law to avert or address the global socioecological crisis.¹ Rooted in a recognition of the interconnection and interdependence of all beings and systems on Earth, ecological law has as its main objectives: restoring and preserving the health and integrity of ecosystems; substituting the Western anthropocentric legal system with a holistic, systems-based approach to law; promoting human socioeconomic development in "harmony with nature" (i.e., within ecological limits); and fostering an ecologically just society.² Given the relative infancy of ecological law as a distinct

- * PhD Candidate, University of Ottawa Faculty of Law and graduate member of the Centre for Environmental Law and Global Sustainability at the University of Ottawa Faculty of Law. I am grateful for the financial support of the University of Ottawa Faculty of Law Graduate Scholarship in Environmental Law and Sustainability and the Ontario Graduate Scholarship Program. I also want to thank the two anonymous reviewers for their feedback, which helped to strengthen this article. All mistakes are my own.
- I use the term "socioecological crisis" throughout this article to define the range of interconnected social and ecological crises that define the current era, including, but not limited to, global warming, unprecedented biodiversity loss and ecological degradation, deepening economic inequality, rising authoritarianism and right-wing extremism, and the ongoing dispossession of and violence against Indigenous peoples. See, generally, Carmen G Gonzalez, "Racial Capitalism and the Ecological Crises of the Anthropocene" (2022) 21 *Perspectives on Global Development and Technology* 323 at 324.
- 2 Massimiliano Montini, "The Transformation of Environmental Law into Ecological Law" in Kirsten Anker et al, eds, From Environmental to Ecological Law (New York: Routledge, 2021) 11 at 14–15. See, generally, Geoffrey Garver, Ecological Law and the

framework for law and governance, discussions persist among its scholars and proponents regarding the identification and meaning of its foundational principles and key features, as well as the mechanisms for achieving its goals.

This article adds a relational feminist perspective to this conversation by examining emerging concepts of ecological law through the heuristic of vulnerability theory, a critical theoretical approach established by American feminist legal theorist Martha Albertson Fineman.³ Specifically, I explore what vulnerability theory contributes to the following two discussions: (1) whether the ecological approach to law should be grounded in ecocentrism, as an alternative to anthropocentrism; and (2) the role that responsibilities (or obligations) to care for the Earth and other beings should occupy in ecological law. To date, the burgeoning ecological law scholarship has paid relatively little attention to the role of vulnerability theory and the related concept of ecological vulnerability. I argue that when expanded to the more-than-human world, vulnerability theory has the potential to advance socioecological justice by incorporating considerations of power, hierarchies, social and political inequities, and the values, interests, and ways of knowing of marginalized individuals and communities into the development of ecological law's foundational principles and features. This article also contributes to the broader discussion about the way in which relational⁴ and feminist-inspired⁵ analysis,

Planetary Crisis: A Legal Guide for Harmony on Earth (New York: Routledge, 2021); Kirsten Anker et al, eds, *From Environmental to Ecological Law* (New York: Routledge, 2021); Klaus Bosselmann & Prue Taylor, eds, *Ecological Approaches to Environmental Law* (Northampton, MA: Edward Elgar, 2017).

- 3 See Martha Albertson Fineman, "The Vulnerable Subject: Anchoring Equality in the Human Condition" (2008) 20:1 Yale Journal of Law and Feminism 1 [Fineman, "The Vulnerable Subject]; Martha Albertson Fineman, "The Vulnerable Subject and the Responsive State" (2010) 60:2 Emory Law Journal 251; Martha Albertson Fineman and Anna Grear, eds, Vulnerability: Reflections on a New Ethical Foundation for Law and Politics (New York: Routledge, 2016) [Fineman & Grear, Vulnerability Reflections]; Martha Albertson Fineman, "Vulnerability and Inevitable Inequality" (2017) 4:3 Oslo Law Review 133; Martha Albertson Fineman, "Vulnerability and Social Justice" (2019) 53 Valparaiso University Law Review 341.
- 4 Fineman's theory of vulnerability can be considered a relational approach to legal analysis, given its emphasis on the constitutive nature of relations. See, for example, Sara L Seck, "Relational Law and the Reimagining of Tools for Environmental and Climate Justice" (2019) 31:1 *Canadian Journal of Women and the Law* 151 at 155; Angela P Harris, "Toward a Law and Political Economy Approach to Environmental Justice" in Sumudu A Atapattu, Carmen G Gonzalez & Sara L Seck, eds, *The Cambridge Handbook of Environmental Justice and Sustainable Development* (New York: Cambridge University Press, 2021) 453 at 468.
- 5 Vulnerability theory is inspired by feminism and a gendered lens, but does not focus predominantly, nor exclusively, on gender. Furthermore, the concept has been used

politics, and ethics can enrich the intellectual foundations and prescriptive proposals of the paradigm of ecological law, both globally and in Canada.

It is commonly asserted within ecological law scholarship that Western law's adoption of anthropocentrism (i.e., the view that human beings are separate from, superior to, and dominant over the rest of the non-human world) is a main driver of the ecological crisis and should be abandoned.⁶ Whether ecological law should be alternatively rooted in ecocentrism, or some modification of it, is an ongoing scholarly discussion.⁷ I argue that vulnerability theory, with its emphasis on interdependence, embodiment, and socio-material context, provides support for the move away from traditional anthropocentrism and liberal legal subjectivity, and simultaneously helps to overcome the traditional dichotomy between anthropocentric and ecocentric approaches.

Another emerging feature of ecological law is its emphasis on the responsibilities human beings owe to one another and to the more-thanhuman world.⁸ There is considerable debate, however, regarding the extent to which rights discourse (including arguments for human rights and the extension of rights to nature) should be abandoned in the name of legal and normative responsibilities in furtherance of ecological law.⁹ I argue that

and theorized in a variety of different areas of feminist inquiry and practice. As such, it can be considered a "feminist-inspired" theory. See, generally, Anne M Choike, Martha Albertson Fineman & Cheryl Wade, "The Importance of Incorporating Feminist Perspectives in Corporate Law: Analyzing the Foundations and Future Directions of Feminist and Feminist-Inspired Corporate Law Scholarship" in Anne M Choike, Usha R Rodrigues & Kelli Alces Williams, eds, *Feminist Judgments: Corporate Law Rewritten* (New York: Cambridge University Press, 2023) 419 at 420; Ariadni Polychroniou, "Towards a Radical Feminist Resignification of Vulnerability: A Critical Juxtaposition of Judith Butler's Post-Structuralist Philosophy and Martha Fineman's Legal Theory" (2022) 25:2 *Redescriptions: Political Thought, Conceptual History and Feminist Theory* 113.

- 6 See, generally, Peter D Burdon, "Ecological Law in the Anthropocene" (2020) 11:1–2 *Transnational Legal Theory* 33 at 37–38; Louis J Kotzé & Duncan French, "The Anthropocentric Ontology of International Environmental Law and the Sustainable Development Goals: Towards an Ecocentric Rule of Law in the Anthropocene" (2018) 7:1 *Global Journal of Comparative Law* 5 at 13. See Part D(1), below, for more a more detailed description of the meaning of anthropocentrism.
- 7 See, for example, Vito De Lucia, "Competing Narratives and Complex Genealogies: The Ecosystem Approach in International Environmental Law" (2015) 27:1 *Journal of Environmental Law* 91; Burdon, "Ecological Law in the Anthropocene," above note 6; Kotzé & French, "The Anthropocentric Ontology of International Environmental Law and the Sustainable Development Goals," above note 6. See also Part D(1), below.
- 8 See Montini, above note 2 at 18.
- 9 See, for example, Geoffrey Garver, "Are Rights of Nature Radical Enough for Ecological Law?" in Anker et al, above note 2 at 94 and 97; Peter D Burdon, "Obligations

ecological vulnerability exposes the limitations of rights and emphasizes the importance of specifying and prioritizing responsibilities of care for one another and the rest of the living world in confronting the innumerable injustices of the socioecological crisis.

This article proceeds in three parts. Part B contains an introduction to vulnerability theory. In this part, I discuss critical revisions and pertinent expansions of Fineman's theory of vulnerability and explain their relevance to my analysis. A summary of the development of the paradigm of ecological law and its emerging features, concepts, and principles follows in Part C. In Part D, I apply vulnerability theory to the ongoing scholarly discussions about an ecocentric approach to ecological law and the role of ecological responsibilities. I argue that vulnerability theory provides support for transcending the anthropocentrism/ecocentrism binary within ecological law and adopting an alternative form of legal subjectivity that better embraces the interdependence and complexities of ecological vulnerability. It also encourages a focus on responsibilities as a mechanism for restraining human activity within ecological limits, protecting current and future generations of life on Earth, and building an ecologically just society. In this section, I consider some ways in which Canadian environmental law currently embraces these key features of ecological law by highlighting existing scholarship, laws, policies, and movements that reflect these approaches. Furthermore, I identify some implications of vulnerability theory's contributions to ecological law for environmental law and environmental law scholars in Canada.

A. Vulnerability Theory

2. Fineman's Theory of Vulnerability

The notion of vulnerability has become an increasingly common object of inquiry in the fields of political theory, sociology, bioethics, disability studies, climate science, and disaster management, among others. Scholarship on vulnerability and the law most frequently invokes vulnerability theory, a critical legal paradigm developed by legal theorist Martha Albertson Fineman in the early 2000s.¹⁰ Initially designed as a tool to assist in uncovering and challenging the problematic aspects of equal protection law (formal equality) in the United States, vulnerability theory's reach has expanded significantly

10 See Fineman, "The Vulnerable Subject," above note 3.

in the Anthropocene" (2020) 31 *Law and Critique* 309; Louis J Kotzé, "The Anthropocene, Earth System Vulnerability and Socio-ecological Injustice in an Age of Human Rights" (2019) 10:1 *Journal of Human Rights and the Environment* 62 [Kotzé, "The Anthropocene"]. See also Part D(2), below.

since that time to diverse areas of public policy.¹¹ Fineman deployed the term "vulnerable" — which has historically been used in social and political discourse to connote (and lament) a group's or an individual's perceived fragility, passivity, incapacity, or disadvantage — to describe "a universal, inevitable, enduring aspect of the human condition."¹² In this way, all human beings are understood to be fundamentally and ineliminably vulnerable throughout their lifetime, given that they inhabit fragile, porous, material bodies from birth until death.¹³ This universality and constancy, along with complexity and particularity, make up the four characteristics of the concept of vulnerability as Fineman first articulated it.

For Fineman, vulnerability emerges from the empirical reality of embodiment, which makes humans "inevitably and constantly susceptible to changes—both positive and negative, developmental and episodic—over the course of life."¹⁴ Vulnerability manifests in profoundly complex degrees and forms, due to human embodiment as well as human embeddedness in social, political, cultural, and natural environments. Human beings are exposed to biological (e.g., illness, disease, epidemics, viruses), physical (e.g., injury, fire, flood, drought), and social (e.g., economics, politics) forces, all of which impact physical, psychological, and social well-being. While the risks that attend embodiment can be minimized and their impacts can be diminished,

This theoretical expansion is reflected in the work of Fineman herself and other legal 11 scholars and political theorists, of which only a small sampling is provided here. See, for example, Martha Albertson Fineman, "Vulnerability, Resilience, and LGBT Youth" (2014) 23:2 Temple Political and Civil Rights Law Review 307; Ani B Satz, "Disability, Vulnerability, and the Limits of Antidiscrimination" (2008) 83:4 Washington Law Review 513; Tanya Ni Mhuirthile, "Realising Gender Recognition: Rendering the Vulnerable Visible or Further Vulnerabilising the Invisible?" (2010) 41 UCD Working Papers in Law, Criminology and Socio-Legal Studies, online: https://dx.doi. org/10.2139/ssrn.1680899; Helen Carr, "Housing the Vulnerable Subject: The English Context" in Fineman & Grear, eds, Vulnerability Reflections, above note 3 at 107; Maneesha Deckha, "Vulnerability, Equality, and Animals" (2015) 27:1 Canadian Journal of Women and the Law 47; Shahrzad Fouladvand & Tony Ward, "Human Trafficking, Vulnerability and the State" (2019) 83:1 The Journal of Criminal Law 39; Melissa Mary Anderson & Dagmar Soennecken, "Locating the Concept of Vulnerability in Canada's Refugee Policies at Home and Abroad" (2022) 11:25 Laws 1.

¹² Fineman, "The Vulnerable Subject," above note 3 at 8.

¹³ See Fineman, "Vulnerability and Inevitable Inequality," above note 3 at 142: "[V] ulnerability should be recognised as the primal human condition" [emphasis in original]. See also John Barry, The Politics of Actually Existing Unsustainability: Human Flourishing in a Climate-Changed, Carbon Constrained World (New York: Oxford University Press, 2012) at 36 and 47: "[T]o be vulnerable is constitutive of what it means to be human") [emphasis in original].

¹⁴ Fineman, "Vulnerability and Social Justice," above note 3 at 358.

they cannot be entirely eradicated. Embodiment and embeddedness, therefore, makes humans vulnerable and fundamentally dependent on others (i.e., through material, social, and emotional relationships), as well as on the functions of society and its institutions,¹⁵ to varying degrees in order to survive and flourish.¹⁶ Furthermore, interaction among different forms of risk and harm, and the reality that relationships and societal institutions are themselves vulnerable, marks and shapes the experience and complexity of vulnerability.¹⁷

Finally, although everyone is vulnerable, Fineman's theory recognizes that vulnerability is also particular in that it is experienced differently by each individual at various stages throughout life.¹⁸ As Fineman explains, human beings "have different forms of embodiment and also are differently situated within webs of economic and institutional relationships."¹⁹ Individual variations in vulnerability are greatly influenced by the distribution of power and material resources in society, which is mediated through societal programs, institutions, and structures, including laws and policies.²⁰ As such, a vulnerability analysis considers both embodied (physical/psychological) and embedded (social/material/political/cultural) sources of vulnerability, including "the ways in which power and privilege are conferred through the operation of societal institutions, relationships and the creation of social identities, sometimes inequitably."²¹

The main implications of Fineman's conception of vulnerability are twofold: (1) significant reconstruction, if not complete rejection, of existing liberal theories of political and legal subjectivity; and (2) a critical assessment and reimagination of state responsibility.²² With its emphasis on human embodi-

20 See Fineman, "The Vulnerable Subject," above note 3 at 10.

¹⁵ Institutions include but are not limited to the state, government institutions, laws, policies, courts, corporations, religious bodies, educational systems, the job market, and the family. Any and all public or private institutions or structures that are supported and legitimated by the state.

¹⁶ See Fineman, "The Vulnerable Subject," above note 3 at 9; Fineman, "Vulnerability and Inevitable Inequality," above note 3 at 142.

¹⁷ See Fineman, "The Vulnerable Subject and the Responsive State," above note 3 at 273.

¹⁸ See Fineman, "The Vulnerable Subject," above note 3 at 10.

¹⁹ Fineman, "The Vulnerable Subject and the Responsive State," above note 3 at 269.

²¹ Fineman, "Vulnerability and Inevitable Inequality" above note 3 at 142.

²² Fineman's use of the term "state responsibility" is unrelated to and quite different from the complex, multifaceted public international law doctrine of state responsibility, which defines the circumstances in which a state may be found to have breached its international legal obligations, the legal consequences that flow from such a breach, and the mechanisms for enforcing those consequences. State responsibility for Fineman, and as it is used throughout this paper, is the notion of the state's responsibility for the creation and maintenance of institutions, structures, and programs that organize society.

ment, embeddedness, and dependency, vulnerability theory challenges the autonomous, independent, self-sufficient liberal legal subject and argues that it must be replaced with a "vulnerable subject" who better reflects the socio-material, relational experience of human beings.²³ According to Fineman, the dominant vision of political and legal subjectivity, rooted in an impoverished understanding of autonomy and independence, is not only incomplete and incorrect but also drives the hegemonic ideals of personal responsibility and individual liberty that have for so long structured the relationship between individuals and the state, as well as dictated public policy, jurisprudence, and legal practice.²⁴ By emphasizing the realities of vulnerability and dependency that arise due to the socio-material existence of human beings, vulnerability theory instead prioritizes the values of relationality and interdependence.²⁵ Furthermore, once shared vulnerability is recognized and accepted, "it becomes apparent that human beings need each other, and that we must structure our institutions in response to this fundamental human reality."26

In addition to critiquing and promoting a reconceptualization of human subjectivity, Fineman argues that vulnerability must be the foundation of our notion of state responsibility towards individuals and institutions.²⁷ Specifically, a vulnerability analysis grounds the normative argument that "the state must be more responsive to, and responsible for, vulnerability,"²⁸ where the state is understood broadly to include both government institutions and actors, as well as the legal and administrative systems that structure these institutions, empower government actors, and regulate their activities. Here, Fineman deploys the notion of "resilience" to vulnerability, arguing that it must, as a product of relationships and societal institutions, rather than a

- 25 See Martha Albertson Fineman, "Equality, Autonomy, and the Vulnerable Subject in Law and Politics" in Fineman & Grear, eds, *Vulnerability Reflections*, above note 3, 13 at 26: "Vulnerability's values would be more egalitarian and collective in nature, preferring connection and interdependence rather than autonomy and independence in both political and personal visions." See also Katie Woolaston, "Ecological Vulnerability and the Devolution of Individual Autonomy" (2018) 43 *Australian Journal of Legal Philosophy* 107 at 110.
- 26 Fineman, "The Vulnerable Subject," above note 3 at 12.
- 27 Ibid at 8.
- 28 Fineman, "The Vulnerable Subject," above note 3 at 12. See also Fineman, "Vulnerability and Inevitable Inequality," above note 3.

²³ See Fineman, "The Vulnerable Subject," above note 3 at 2.

²⁴ See Fineman, "Vulnerability and Social Justice," above note 3 at 356; Fineman, "The Vulnerable Subject," above note 3 at 23: "[A]utonomy is not a naturally occurring characteristic of the human condition, but a product of social policy." See, generally, Martha Albertson Fineman, *The Autonomy Myth: A Theory of Dependency* (New York: The New Press, 2004).

natural characteristic of any individual, be fostered by the state. There are at least five types of assets or resources that jointly enhance resilience to vulnerability, including "physical assets, human assets, social assets, ecological or environmental assets, and existential assets."²⁹ Given its socio-material production, resilience (like vulnerability) is asymmetrically allocated and accumulated. According to Fineman, the state has a responsibility not only to create, monitor, and ameliorate the institutions and relationships necessary for distributing resilience-conferring resources, but also to ensure that the dissolution of these assets is carried out in a just and equitable manner.³⁰ Under vulnerability theory's approach to addressing injustice and inequality, focus extends beyond identity-based discrimination of individuals and groups to include consideration of how institutions structure and respond to vulnerabilities, leading Fineman to label it as a "post-identity" analysis with potential for achieving a substantive vision of equality.³¹

2. Critiques and Refinements of Vulnerability Theory: Humility and Privilege

Fineman's theory has been exceedingly influential but also contested. Scholarly engagement with the vulnerability approach over the last decade, including criticism of its post-identity inquiry, justification for government expansion, and prescriptive value (to name a few examples), has generated valuable theoretical revisions and refinements.³² Below, I address some key critiques and their resulting modifications of vulnerability theory that are of particular relevance in the context of ecological law. All of these critiques

- 31 Ibid at 1, 17, and 21.
- 32 See, for example, Nina A Kohn, "Vulnerability Theory and the Role of Government" (2014) 26:1 Yale Journal of Law and Feminism 1; Illan rua Wall, "On Pain and the Sense of Human Rights" (2008) 29 Australian Feminist Law Review 53; Benjamin P Davis & Eric Aldieri, "Precarity and Resistance: A Critique of Martha Fineman's Vulnerability Theory" (2021) 36 Hypatia 321; Polychroniou, above note 5; Catriona Mackenzie, "The Importance of Relational Autonomy and Capabilities for an Ethics of Vulnerability" in Catriona Mackenzie, Wendy Rogers & Susan Dodds, eds, Vulnerability: New Essays in Ethics and Feminist Philosophy (New York: Oxford University Press, 2014) 33; Morgan Cloud, "More Than Utopia" in Fineman & Grear, eds, Vulnerability Reflections, above note 3, 77. Thorough engagement with every critique of vulnerability theory is beyond the scope of this article, which is limited to consideration of those critiques I argue are of greatest relevance to the theory's potential for addressing socio-ecological justice.

²⁹ Fineman, "Equality, Autonomy, and the Vulnerable Subject in Law and Politics," above note 25 at 22. See also Fineman, "The Vulnerable Subject and the Responsive State," above note 3 at 270–72.

³⁰ *Ibid* at 272.

raise concerns about the essentializing, universalizing, and paternalizing elements of Fineman's argumentation.

Several scholars have criticized vulnerability theory's post-identity approach and its failure to account for the role that identity and intersectionality play in both the creation and imposition of structural and systemic injustices.³³ For Angela Harris, one of vulnerability theory's main flaws is its "susceptibility to universalizing language and policies that ignore social injustice and thereby perpetuate it."34 Harris argues that even though Fineman asserts that vulnerability theory necessitates attention to the institutional drivers of vulnerability, there remains a significant risk that vulnerability will continue to be understood in a manner that pathologizes the identities and/ or circumstances of the population or individual in question, and that such an understanding will continue to be used in policy-making.³⁵ To correct for this weakness, Harris recommends the incorporation of an anti-subordination principle (which she says could simply be called "humility"), a lens developed and used frequently by critical legal scholars, into the vulnerability analysis, in order to minimize vulnerability's potential to mask power relations and the social and political roots of injustice.³⁶

Frank Rudy Cooper has similarly argued that "vulnerability theory is wrong when it implicitly suggests that the constructedness of identities makes them unimportant in relation to our shared human condition of being vulnerable."³⁷ While he agrees with vulnerability theory's embrace of interdependence, critique of autonomy, and demand for a state that is responsive to substantive inequality, Cooper argues that vulnerability theory's potential will be undermined if it fails to account for the effects of identities.³⁸ He suggests that the incorporation of an analysis of privilege, which is aligned with Harris' anti-subordination principle, into vulnerability theory will "explain how systems of power both benefit some identities and make others more

³³ See Frank Rudy Cooper, "Always Already Suspect: Revising Vulnerability Theory" (2015) 93:5 North Carolina Law Review 1339 at 1368; Polychroniou, above note 5.

³⁴ Angela P Harris, "Vulnerability and Power in the Age of the Anthropocene" (2014) 6:1 *Washington and Lee Journal of Energy, Climate, and the Environment* 98 at 129 and 139–42.

³⁵ Harris, "Vulnerability and Power in the Age of the Anthropocene," above note 34 at 128.

³⁶ See *ibid* at 139. Note that Anna Grear labels Harris's argument of the need for a subordination critique "potentially strawman": Anna Grear, "Embracing Vulnerability: Notes Towards Human Rights for a More-than-Human World" in Daniel Bedford & Jonathan Herring, eds, *Embracing Vulnerability: The Challenges and Implications for Law* (London: Routledge, 2020) 153 at 169.

³⁷ Cooper, above note 33 at 1370.

³⁸ Ibid at 1363.

vulnerable."³⁹ Although Fineman includes the concept of privilege in her work on vulnerability, her focus is on the way that privilege is mediated through societal institutions. Cooper instead advocates for a notion of relative privilege that is constructed based on intersecting identities, such as race and gender, that inform both social norms and institutional practices.⁴⁰ In turn, he argues that vulnerability theory should include an analysis of the context-dependent nature of how identities are privileged in different ways.

Anna Grear does not raise explicit concerns with Fineman's post-identity approach, though she infuses Fineman's analysis with a new materialist ontology before arguing that vulnerability theory's inclusion of biophysical and social-material context allows it to "be extremely sensitive to the power relations intrinsic to the discursive construction of socio-materiality"⁴¹ and necessitates continuous attention to systemic injustices and other forces that shape individual vulnerability.⁴² In my view, Grear's work best captures the fact that vulnerability theory's main ambition, once the full implications of embodied vulnerability are fleshed out, is to emphasize, account for, and respond to the lived experiences of vulnerability in its varying forms and degrees. This includes the way vulnerability is constructed by power relations, socioeconomic injustices, historical and ongoing systemic oppressions and colonial violence, social marginalization, political disenfranchisement, and intersecting identities, as has been thoroughly demonstrated by queer theorists, women of colour feminists, Indigenous scholars, critical race theorists, environmental justice scholars, and others.⁴³

41 Anna Grear, "The Vulnerable Living Order: Human Rights and the Environment in a Critical and Philosophical Perspective" (2011) 2:1 Journal of Human Rights and the Environment 23 at 44. See also Anna Grear, "Foregrounding Vulnerability: Materiality's Porous Affectability as a Methodological Platform" in Andreas Philippopoulos-Mihalopoulos and Victoria Brooks, eds, Research Methods in Environmental Law (Northampton, MA: Edward Elgar, 2017) 3 at 26: "[V]ulnerability (as a common but uneven condition of corporeality and materiality) fully suggests that dynamics of encounter, relativities of position and the co-symptomatic production of privilege and oppression should overtly inform environmental legal methodologies — and include overt attention to macro- and micro-politics."

42 Anna Grear, "Towards New Legal Futures? In Search of Renewing Foundations" in Anna Grear & Evadne Grant, eds, *Thought, Law, Rights and Action in the Age of Environmental Crisis* (Northampton, MA: Edward Elgar, 2015) 283 at 297.

43 See, for example, Gonzalez, above note 1 at 329 (noting that those most susceptible to the harms of global warming "have also been rendered vulnerable through colonialism, neo-colonialism, and decades of neoliberal economic reforms imposed

³⁹ *Ibid* at 1373 (privilege is defined as "an unearned asset automatically conferred by the operation of social norms that favor your identity").

⁴⁰ *Ibid* at 1372 (explaining how "identities have themselves been a means of distributing resources that cut across social institutions").

With that said, folding in Cooper and Harris' refinements to include humility and privilege explicitly in the vulnerability analysis, though not absolutely necessary, can help to focus attention on these existing elements, particularly once vulnerability theory is extended to the more-than-human (as will be explained below). On this account, Fineman's vulnerability theory has particular relevance for ecological law, given that patterned distributions of inequity and injustice among human beings are endemic and constitutive characteristics of the socioecological crisis.⁴⁴ Colonialism and racial capitalism have rendered countries in the Global South and marginalized populations, such as Indigenous peoples, particularly vulnerable to the impacts of a socioecological crisis they did not create, while enriching and empowering the Global North, multinational corporations, and a small number of privileged humans who bear the greatest responsibility for ecological destruction and continue to engage in violent practices of extraction, exploitation, and dispossession.⁴⁵

3. Extensions of Vulnerability Theory to the More-Than-Human: Ecological Vulnerability

Fineman's vulnerability theory does not explicitly recognize the ecological embeddedness of human beings and their interdependence with the morethan-human world, nor discuss the vulnerability of non-human entities and its implications for the concept of human vulnerability. Despite this deficiency, several scholars have applied and extended the vulnerability analysis in the context of environmental issues and the complex array of non-human

through the lending policies of the International Monetary Fund and the World Bank and subsequently through trade and investment agreements"); Wendy S Hesford & Rachel A Lewis, "Mobilizing Vulnerability: New Directions in Transnational Feminist Studies and Human Rights" (2016) 28:2 *Feminist Formations* vii; Katie E Oliviero, "Vulnerability's Ambivalent Political Life: Trayvon Martin and the Racialized and Gendered Politics of Protection" (2016) 28:2 *Feminist Formations* 1.

- 44 See, for example, S Harris Ali, "The Political Economy of Environmental Inequality: The Social Distribution of Risk as an Environmental Injustice" in Julian Agyeman et al, eds, Speaking for Ourselves: Environmental Justice in Canada (Vancouver: University of British Columbia Press, 2010) 97; Carmen G Gonzalez & Sumudu Atapattu, "International Environmental Law, Environmental Justice, and the Global South" (2017) 26 Transnational Law and Contemporary Problems 329.
- See, for example, Gonzalez, above note 1; Farhana Sultana, "Whose Growth in Whose Planetary Boundaries? Decolonising Planetary Justice in the Anthropocene" (2023)
 10:2 Geo: Geography and Environment e00128.

and trans-human beings, systems, and processes.⁴⁶ Under what I call an "ecological vulnerability frame," there is a focus on the material embodiment of human beings and the interconnectedness of humans in a web of complex, interdependent relationships. These considerations are critically important for exploring what valuable theoretical insights vulnerability theory may contribute to the development and refinement of the foundational concepts and principles of ecological law. Below, I explore a few key expansions of vulnerability theory, all of which embrace more-than-human vulnerability and human embeddedness in the Earth's living systems.

The first extension of Fineman's vulnerability theory that is particularly relevant in the context of ecological law is Anna Grear's "vulnerability of the living order."⁴⁷ Grear argues that vulnerability, as an incident of physical embodiment and materiality, is shared not only with other humans but also with the rest of the more-than-human world (i.e., the living order).⁴⁸ This intertwinement of humanity and the rest of the more-than-human world demands reformulation of Western laws and ethics to respond to this universal condition of vulnerability.⁴⁹

There are two scholars whose work on vulnerability theory share a great deal with Grear's vulnerability of the living order. Katie Woolaston proposes a concept of "ecological vulnerability" to account for both human vulnerability to ecological degradation, as well as the shared vulnerability of all living

49 See Grear, "Vulnerability, Advanced Global Capitalism and Co-symptomatic Injustice," above note 47 at 41.

⁴⁶ See, for example, Jessica Eisen, "Animals in the Constitutional State" (2017) 15 *Icon* 909; Rimona Afana, "Ecocide, Specieism, Vulnerability: Revisiting Positive Peace in the Anthropocene" in Katerina Standish et al, eds, *The Palgrave Handbook of Positive Peace* (Singapore: Springer Verlag, 2022) 625; Seck, "Relational Law and the Reimagining of Tools for Environmental and Climate Justice," above note 4; Aiteno Mboya, "Vulnerability and the Climate Change Regime" (2018) 36:1 *UCLA Journal of Environmental Law and Policy* 79; Deckha, above note 11; Ani B Satz, "Animals as Vulnerable Subjects: Beyond Interest-Convergence, Hierarchy, and Property" (2009) 16:1 *Animal Law* 65; Sheila R Foster, "Vulnerability, Equality and Environmental Justice: The Potential and Limits of Law" in Ryan Holifield, Jayajit Chakraborty & Gordon Walker, *The Routledge Handbook of Environmental Justice* (London: Routledge, 2017) 136.

⁴⁷ See Grear, "The Vulnerable Living Order," above note 41; Anna Grear, "Vulnerability, Advanced Global Capitalism and Co-symptomatic Injustice: Locating the Vulnerable Subject" in Martha Albertson Fineman & Grear, eds, *Vulnerability Reflections*, above note 3; Grear, "Foregrounding Vulnerability," above note 41.

⁴⁸ See Grear, "Vulnerability, Advanced Global Capitalism and Co-symptomatic Injustice," above note 47 at 49; Grear, "The Vulnerable Living Order," above note 41 at 43.

beings and of the life systems on Earth.⁵⁰ With his concept of "earth system vulnerability," Louis J Kotzé similarly captures the ontological entanglement of human and more-than-human vulnerability.⁵¹ One of the strengths of Kotzé's approach is the emphasis on the inequitable allocation and experience of human vulnerability and resilience and its ethical and legal implications.⁵² Furthermore, the concept of earth system vulnerability extends these profound patterns of differently distributed vulnerability to more-than-human beings and systems.⁵³ These systems include nation states, which may themselves be considered ecologically vulnerable systems, but differentially so, given the historical and ongoing influence and violence of forces such as colonialism, racial capitalism, and globalization.⁵⁴

Another relevant extension of Fineman's theory for ecological law is Angela Harris's concept of ecological vulnerability.⁵⁵ Harris argues that Fineman's theory of vulnerability can assist in bridging a gap between critical legal theory and environmental law scholarship, with some slight modifications.⁵⁶ Similar to Grear, Harris extends Fineman's concept of vulnerability to include both the relationship between, and the indivisibility of, humans and the non-human world — in other words, she conceives of the embodied vulnerable subject as inseparable from nature and nature itself as equally vulnerable.⁵⁷ Vulnerability, therefore, is "produced not only by human interdependency, but also the interdependency of the human body with a complex array of nonhuman and trans-human systems."⁵⁸ Harris labels this extension of Fineman's theory "ecological vulnerability" and argues that it requires a corresponding extension of state responsibility to the natural world (including both non-human entities and processes) upon which human survival and flourishing depend.⁵⁹

- 50 See Woolaston, "Ecological Vulnerability and the Devolution of Individual Autonomy," above note 25 at 110; Katie Woolaston, *Ecological Vulnerability: The Law and Governance of Human-Wildlife Relationships* (Port Melbourne: Cambridge University Press, 2022).
- 51 Louis J Kotzé, "Human Rights and Socioecological Justice through a Vulnerability Lens" in Atapattu, Gonzalez & Seck, eds, *The Cambridge Handbook of Environmental Justice and Sustainable Development*, above note 4, 86 at 88–89.
- 52 *Ibid* at 88.
- 53 See ibid.
- 54 See, generally, Gonzalez & Atapattu, "International Environmental Law," above note 44.
- 55 See Harris, "Vulnerability and Power in the Age of the Anthropocene," above note 34.
- 56 *Ibid* at 105.
- 57 *Ibid* at 114.
- 58 Ibid.
- 59 *Ibid* at 126–27: "[T]he fully responsive state should recognize that soil degradation, water scarcity, warming oceans, and depleted fishing stocks structure our options and create opportunities just as market and family relations do."

I propose gathering these related extensions of Fineman's vulnerability theory to all the more-than-human species, ecosystems, and organisms on Earth under the heading of "ecological vulnerability." As a distinct frame, ecological vulnerability highlights ecological embeddedness and human-nature interdependencies. In Section D, I will apply the ecological vulnerability lens to ecological law and discuss some of its implications for legal reform, practice, and pedagogy in Canada. Before engaging in that analysis, however, Section C summarizes the emerging framework of ecological law and its key features, concepts, and principles, including its commitment to socioecological justice.

C. The Emerging Paradigm of Ecological Law

Ecological law is an alternative legal paradigm that aims to better protect the foundations of life on Earth in the face of the global socioecological crisis. As studies demonstrating the catastrophic impacts and future risks of runaway climate change, biodiversity loss, and environmental pollution continue to mount, it has become clear that contemporary environmental law has failed to prevent or respond to some of the most consequential challenges facing humanity.⁶⁰ As this awareness grows, scholars around the world have responded with new approaches to law that recognize the need for an Earth-centered legal paradigm and the importance of respecting the ecological limits of the planet.⁶¹ As a term to describe a distinct framework for law and governance, ecological law began to appear within the past decade, driven in large part by the work of the Ecological Law and Governance Association (ELGA).⁶² Ecological law resonates with, and can be understood as

⁶⁰ See, for example, Carla Sbert, *The Lens of Ecological Law: A Look at Mining* (Northampton, MA: Edward Elgar, 2020) at 4 and 13–17; Geoffrey Garver, "The Rule of Ecological Law: The Legal Complement to Degrowth Economics" (2013) 5 *Sustainability* 316; Mary Christina Wood, "Advancing the Sovereign Trust of Government to Safeguard the Environment for Present and Future Generations (Part I): Ecological Realism and the Need for a Paradigm Shift" (2009) 39 *Environmental Law* 43; David R Boyd, "Sustainability Law: (R)Evolutionary Directions for the Future of Environmental Law" (2004) 14 *Journal of Environmental Law and Practice* 357; Klaus Bosselmann, "Losing the Forest for the Trees: Environmental Reductionism in the Law" (2010) 2 *Sustainability* 2424.

⁶¹ See Sbert, above note 60 at 4–5. See, generally, Anker et al, above note 2.

⁶² See Kathryn Gwiazdon, "Launch of the Ecological Law and Governance Association (ELGA): From Environmental Law to Ecological Law" *International Union for Conservation of Nature* (13 January 2018), online: www.iucn.org/news/world-commissionenvironmental-law/201801/launch-ecological-law-and-governance-associationelga-environmental-law.ecological-law.

an umbrella term capturing, a number of different ecological approaches to law, including Earth jurisprudence/Wild Law,⁶³ Earth System law,⁶⁴ the rights of nature movement,⁶⁵ ecological constitutionalism,⁶⁶ critical environmental law,⁶⁷ Klaus Bosselmann's "principle of sustainability,"⁶⁸ and David Boyd's concept of "sustainability law."⁶⁹

In 2016, the Ethics Specialist Group of the World Commission on Environmental Law of the International Union for the Conservation of Nature created the *Oslo Manifesto for Ecological Law and Governance* (the "Oslo Manifesto") to "harness the ideas to date on ecological approaches to law, give ecological law a higher profile among legal scholars and practitioners and establish a process for ongoing refinement of ecological law."⁷⁰ The Oslo Manifesto is the founding document for ELGA, which was launched a year later by a

- See, for example, Louis J Kotzé, "Earth System Law for the Anthropocene" (2019)
 11:23 Sustainability 6796; Louis J Kotzé & Rakhyun E Kim, "Earth System Law: The Juridical Dimensions of Earth System Governance" (2019) 1 Earth System Governance
 100003.
- 65 See, for example, Mumta Ito and Massimiliano Montini, "Nature's Rights and Earth Jurisprudence: A New Ecologically-Based Paradigm for Environmental Law" in Elia Apostolopoulou and Jose A Cortes-Vazquez, eds, *The Right to Nature: Social Movements, Environmental Justice and Neoliberal Natures* (New York: Routledge, 2019) 221; Kathryn Gwiazdon, "Defending the Tree of Life: The Ethical Justification for the Rights of Nature in a Theory of Justice" in Cameron La Follette & Chris Maser, eds, *Sustainability and the Rights of Nature in Practice* (Boca Raton: CRC Press, 2019); Peter Burdon & Claire Williams, "Rights of Nature: A Constructive Analysis" in Douglas Fisher, ed, *Research Handbook on Fundamental Concepts of Environmental Law* (Northampton, MA: Edward Elgar, 2016).
- 66 See, for example, Lynda Collins, The Ecological Constitution: Reframing Environmental Law (London: Routledge, 2021); Louis J Kotzé, Global Environmental Constitutionalism in the Anthropocene (Oxford: Hart Publishing, 2016); James R May & Erin Daly, Global Environmental Constitutionalism (Cambridge: Cambridge University Press, 2014).
- 67 See, for example, Andreas Philippopoulos-Mihalopoulos, Law and Ecology: New Environmental Foundations, (London: Routledge, 2011); Andreas Philippopoulos-Mihalopoulos, "Critical environmental law as method in the Anthropocene" in Andreas Philippopoulos-Mihalopoulos & Victoria Brooks, eds, Research Methods in Environmental Law: A Handbook (Northampton, MA: Edward Elgar, 2017) 131.
- 68 See Klaus Bosselmann, *The Principle of Sustainability*, 2nd ed (New York: Routledge, 2017).
- 69 See Boyd, "Sustainability Law," above note 60.
- 70 Garver, *Ecological Law and the Planetary Crisis*, above note 2 at 95.

⁶³ See, for example, Cormac Cullinan, Wild Law: A Manifesto for Earth Justice (White River Junction, CT: Chelsea Green Publishing, 2011); Peter Burdon, ed, Exploring Wild Law: The Philosophy of Earth Jurisprudence (South Australia: Wakefield Press, 2011); Jamie Murray, "Earth Jurisprudence, Wild Law, Emergent Law: The Emerging Field of Ecology and Law—Part 2" (2015) 36 Liverpool Law Review 105; Peter D Burdon, "A Theory of Earth Jurisprudence" (2012) 37 Australian Journal of Legal Philosophy 28.

multi-disciplinary group of practitioners, scholars, and advocates convening in Siena, Italy. In addition to acknowledging the inability of existing legal systems to prevent degradation of the ecological conditions necessary for sustaining life, the Oslo Manifesto provides the following definition of ecological law:

The ecological approach to law is based on ecocentrism, holism, and intra-/intergenerational and interspecies justice. From this perspective, or worldview, the law will recognise ecological interdependencies and no longer favour humans over nature and individual rights over collective responsibilities. Essentially, ecological law internalizes the natural living conditions of human existence and makes them the basis of all law, including constitutions, human rights, property rights, corporate rights and state sovereignty.⁷¹

Ecological law is seen, therefore, not as a new specialty area or field of law, but rather as a novel paradigm that permeates all other areas of law, as well as social and economic infrastructure.⁷²

One of the core functions of ecological law is to challenge traditional Western liberal ontoepistemologies upon which contemporary environmental law is based, including unlimited economic growth, philosophical individualism, utilitarianism, human-nature dualism, and anthropocentrism.⁷³ In place of these concepts, ecological law favours "ecocentrism, holism, systems-thinking, human-nature interdependencies and human-inclusive ecological integrity."⁷⁴ Among its main objectives, ecological law aims to restrain economic activity within the ecological limits of the planet, restore and preserve the health and integrity of ecosystems, and create an ecologically just society.⁷⁵ The philosophical and theoretical foundations of ecological law are complex, wide-ranging, and subject to ongoing debate. Although I review a few of these key underpinnings in this section, I will not attempt to engage in a comprehensive exploration in the limited scope of this article. It is important

⁷¹ Ecological Law and Governance Association, "'Oslo Manifesto' for Ecological Law and Governance" (June 2016), online: https://elgaworld.org/oslo-manifesto [Oslo Manifesto]. Note, however, that there is not yet a universally accepted definition of ecological law; see Sbert, above note 60 at 41–42.

⁷² See Garver, *Ecological Law and the Planetary Crisis,* above note 2 at 130; Klaus Bosselmann, "Foreword" in Anker et al, above note 2, xiv at xv.

⁷³ See Bosselmann, "Foreword," above note 72 at xv.

⁷⁴ Anker et al, above note 2 at 1.

⁷⁵ See Garver, *Ecological Law and the Planetary Crisis*, above note 2 at 93; Montini, above note 2 at 14; Sbert, above note 60 at 42.

to note, however, that ethics, and ethical engagement, are considered critical components of ecological law and governance.⁷⁶

A leading scholar and advocate of ecological law in Canada, Geoffrey Garver, recently articulated a vision of ecological law that is premised on a primary goal of fostering "a mutually enhancing human-Earth relationship."⁷⁷ Garver defines this as a relationship "in which humans collectively see themselves as members, not masters, of the entire community of life on Earth and interact with Earth and the life it supports respectfully and 'for the benefit of the larger community as well as ourselves."⁷⁸ In order to foster a mutually enhancing human-Earth relationship, primacy is granted to global ecological limits over economic considerations, and human activity is required to operate within these boundaries.⁷⁹ This is labelled a "limits-insistent narrative" and is one of the eleven key features of ecological law articulated by Garver as the necessary minimum requirements for facilitating the transition from environmental to ecological law.⁸⁰

As the concept of ecological limits suggests, ecological law has been significantly influenced by the science of ecology.⁸¹ Ecological law is "grounded in the science of how the Earth works and of complex systemic thresholds in the global ecosystem, and therefore combines legal principles with scientific laws of ecology as expressed, for example, in planetary boundaries."⁸² In 2009, a group of international researchers led by Johan Rockström published a report outlining nine planetary boundaries that define a "safe operating space for humanity" and beyond which there is a risk of abrupt changes to the Earth System that could be "catastrophic to human well-being."⁸³ Ecological law aims to align human behaviour and activity such that these biophysical

- 79 See Garver, Ecological Law and the Planetary Crisis, above note 2 at 114.
- 80 *Ibid* at 127–28.
- 81 See Burdon, "Ecological Law in the Anthropocene," above note 6 at 34.
- 82 Garver, Ecological Law and the Planetary Crisis, above note 2 at 95.
- 83 Johan Rockström et al, "Planetary Boundaries: Exploring the Safe Operating Space for Humanity" (2009) 14(2):32 *Ecology and Society*, online: www.ecologyandsociety. org/vol14/iss2/art32/:

The Earth System is defined as the integrated biophysical and socioeconomic processes and interactions (cycles) among the atmosphere, hydrosphere, cryosphere, biosphere, geosphere, and anthroposphere (human enterprise) in both spatial—from local to global—and temporal scales, which determine the environmental state of the planet within its current position in the universe.

⁷⁶ See Kathryn Gwiazdon, "We Cannot Fail: The Promise and Principles of Ecological Law and Governance" (2018) 11:2 *Minding Nature* 36 at 37.

⁷⁷ Garver, Ecological Law and the Planetary Crisis, above note 2 at 97.

⁷⁸ *Ibid* at 97, citing Thomas Berry, *The Great Work: Our Way Into the Future* (New York: Three Rivers Press, 1999) at 5.

limits are respected by establishing rules rooted in scientific knowledge of ecological sustainability, as well as normative choices about how to structure human society in order to best foster flourishing of the entire Earth community.⁸⁴

Ecological law scholars acknowledge that its concepts, values, and principles are not entirely new. Rather, many ecological values and principles have been around and practised within other legal systems and cultures, notably many Indigenous legal traditions, for centuries.⁸⁵ There are synergies and rich connections between ecological law and the features of some Indigenous legal traditions, where the land is a source of both law and reciprocal relationships of responsibility.⁸⁶ The underlying principles, values, and concepts of ecological law as its own distinct legal framework, however, are still in their infancy and in need of further debate, analysis, and improvement.⁸⁷ In the section that follows, I apply an ecological vulnerability frame to analyze two key debates within the emerging scholarship on ecological law in the hopes of contributing a valuable perspective to this discussion and providing guidance for ecological approaches to law in Canada.

D. Intersubjectivity and Responsibilities: Application of Vulnerability Theory to Ecological Law

Ecological vulnerability is a powerful tool for critically exploring key concepts of ecological law and their ability to contribute to ecological law's goals of

⁸⁴ See Sbert, above note 60 at 47; Garver, *Ecological Law and the Planetary Crisis*, above note 2 *at 95*.

⁸⁵ See Bosselmann, "Foreword," above note 72 at xv; Sbert, above note 60 at 53; Oslo Manifesto, above note 71.

See, for example, John Borrows, "Earth-Bound: Indigenous Law and Environmental 86 Reconciliation" in Michael Asch, John Borrows & James Tully, eds, Resurgence and Reconciliation: Indigenous-Settler Relations and Earth Teachings (Toronto: University of Toronto Press, 2018) 49; Deborah McGregor, "Mino-Mnaamodzawin: Achieving Indigenous Environmental Justice in Canada" (2018) 9:1 Environment and Society 7; Gina Starblanket & Heidi Kiiwetinepinesiik Stark, "Towards a Relational Paradigm - Four Points for Consideration: Knowledge, Gender, Land, and Modernity" in Michael Asch, John Borrows & James Tully, eds, *Resurgence and Reconciliation:* Indigenous-Settler Relations and Earth Teachings (Toronto: University of Toronto Press, 2018) 175; John Borrows, Recovering Canada: The Resurgence of Indigenous Law (Toronto: University of Toronto Press, 2002); John Borrows, "Living Law on a Living Earth: Religion, Law and the Constitution," in John Borrows, Canada's Indigenous Constitution (Toronto: University of Toronto Press, 2010) 239; Clifford Atleo & Jonathan Boron, "Land Is Life: Indigenous Relationships to Territory and Navigating Settler Colonial Property Regimes in Canada" (2022) 11:5 Land 609.

⁸⁷ See, for example, Garver, *Ecological Law and the Planetary Crisis*, above note 2 at 97.

restoring and preserving the health and integrity of Earth's life-sustaining systems and securing an ecologically just society. Given that the foundational principles, values, and features of ecological law are still in the process of being co-developed and co-defined, the time is ripe for raising new questions and exploring complex issues of power and injustice through the lens of ecological vulnerability. At the heart of ecological law is a concern for socioecological justice, including both inter-species and intra-species justice (comprising intergenerational justice, climate justice, environmental justice, and others), an objective that vulnerability theory can assist in critically exploring and addressing.⁸⁸

In this section, I apply ecological vulnerability to ongoing discussions within ecological law regarding two key concepts: (1) the adoption of an ecocentric approach to law; and (2) the role of responsibilities to care for the Earth. This analysis involves both ethical and practical considerations. In many ways, the ontological stance and approach to legal subjectivity adopted by ecological law influences the way in which the question about responsibilities is addressed. I will highlight this relationship between subjectivity and responsibilities below.

2. Legal Subjectivity and the Human-Earth Relationship

Many ecological law scholars argue that Western law's adoption of anthropocentrism is a main cause of the socioecological crisis and that it should be abandoned.⁸⁹ Anthropocentrism is understood by this dominant strand of ecological law as a human-centered perspective that perceives humans as separate from, superior to, and in control of nature. This conception of the relationship between human beings and the natural world is one of exploitation and domination, which serves to:

justify and promote ecological ravaging; aggravate the enclosure of the commons; justify and increase the dispossession of indigenous peoples and other marginalised groups; perpetuate corporate neo-colonialism; and intensify the asymmetrically distributed patterns of advantage

⁸⁸ Grear, "Vulnerability, Advanced Global Capitalism and Co-symptomatic Injustice," above note 47 at 50.

⁸⁹ See, for example, Kotzé and French, above note 6; Burdon, "Ecological Law in the Anthropocene," above note 6 at 37–38; Vito De Lucia, "Beyond Anthropocentrism and Ecocentrism: A Biopolitical Reading of Environmental Law" (2017) 8:2 Journal of Human Rights and the Environment 181 at 183–86.

and disadvantage that prevail in society, while deepening inter- and intra-species hierarchies.⁹⁰

In other words, as the philosophical foundation of the relationship between human beings and the rest of the non-human world, anthropocentrism creates social and political inequities, power imbalances, unjust hierarchies, and harmful othering.⁹¹ Consequently, it is argued that legal anthropocentrism is "a radical failure of justice for human beings as well as for animals and the environment," and it must be critically examined and replaced.⁹²

Ecological law scholars appear to be united in their criticism of contemporary law's anthropocentrism, but the perspectives on what narrative or onto-epistemology should replace it are less cohesive. One of the most commonly proposed alternatives is that ecological law should embrace ecocentrism.⁹³ As explained by De Lucia:

This narrative, which operates in accordance with a binary and linear logic, is sometimes expressed in normative terms (ecocentrism *ought to replace anthropocentrism*) and sometimes in descriptive terms (ecocentrism is replacing anthropocentrism) — albeit in most cases the two perspectives overlap.⁹⁴

This mirrors the shift from anthropocentrism to ecocentrism that has been advocated by many environmental philosophers.⁹⁵ In this context, ecocentrism is generally understood to reflect a recognition of nature as having intrinsic value and as a holistic and relational system that includes humans as only one element.⁹⁶

⁹⁰ Kotzé & French, above note 6 at 13; see also Peter Burdon, "Earth jurisprudence and the project of earth democracy" in Michelle Maloney & Peter Burdon, eds, *Wild Law* — *In Practice* (London: Routledge, 2014) 19 at 20. It is important to note that the term "anthropocentrism" can have different meanings in different contexts; see Burdon, "Ecological Law in the Anthropocene," above note 6 at 38–39.

⁹¹ See Kotzé & French, above note 6 at 13.

⁹² Grear, "The Vulnerable Living Order," above note 41 at 24–25.

⁹³ See, for example, Oslo Manifesto, above note 71; Sbert, above note 60 at 42. See, generally, De Lucia, "Beyond Anthropocentrism and Ecocentrism," above note 89 at 185–86.

⁹⁴ Ibid at 183.

⁹⁵ See, for example, Peter Burdon, "Rethinking global ethics in the Anthropocene" in Peter Burdon, Klaus Bosselmann & Kirsten Engel, eds, *The Crisis in Global Ethics and the Future of Global Governance: Fulfilling the Promise of the Earth Charter* (Northampton, MA: Edward Elgar Publishing Limited, 2019) 92 at 96.

⁹⁶ De Lucia, "Beyond Anthropocentrism and Ecocentrism," above note 89 at 186.

Other scholars, however, argue for a "blended anthropocentric/ecocentric approach" or a "human-inclusive ecocentric approach" within ecological law.⁹⁷ These approaches recognize humans as an integral part of ecosystems, but also as having a unique responsibility for protecting the ecosystems.⁹⁸ Garver, for example, proposes an ecocentric orientation to law and governance that explicitly recognizes the inclusion of concern for human life and human-nature integration.⁹⁹ Ecocentric by name, but more of a blended approach in theory, this ontological stance "is not indifferent to human survival and flourishing but is based on the search of a dynamic equilibrium between the various interests at stake in the context of the functioning of each single ecosystem."¹⁰⁰

There are also scholars who caution against abandonment of an anthropocentric approach to law, given the reality of the current era — often termed the Anthropocene — in which humans have become a geological force.¹⁰¹ Burdon has pointed out that ecological law scholars appear to be primarily concerned about the harms of normative anthropocentrism, which he describes as a paradigm that both privileges human beings in its inquiries and develops normative prescriptions on the basis of assumptions of the superiority of human beings, their capacities, and their values.¹⁰² In his view, descriptive anthropocentrism – paradigms that emerge from, centre upon, or are ordered around human beings — has become an objective fact of the Anthropocene.¹⁰³ Burdon argues that instead of expending energy arguing for a blanket rejection of anthropocentrism, "we need to come to terms with descriptive anthropocentrism so that we can grapple with its normative implications."104 He calls for ecological law to embrace an environmental ethics and law based on descriptive anthropocentrism.¹⁰⁵ One of the most significant normative implications that appears to stem from this proposal is the corresponding human responsibilities towards the Earth that come along with the immense power humans have amassed in the Anthropocene.

So, what can vulnerability theory contribute to this ongoing debate? First, it opens new avenues for critically and creatively engaging with the concept

⁹⁷ See Montini, above note 2 at 15.

⁹⁸ Ibid at 17-18.

⁹⁹ See Garver, *Ecological Law and the Planetary Crisis*, above note 2 at 99 and 104.

¹⁰⁰ Montini, above note 2 at 15.

¹⁰¹ For an in depth discussion about the Anthropocene and its relevance to environmental governance and ecological law scholarship, see, for example, Sbert, above note 60 at 5–8; Burdon, "Ecological Law in the Anthropocene," above note 6.

¹⁰² See *ibid* at 39.

¹⁰³ See ibid.

¹⁰⁴ Ibid.

¹⁰⁵ See Burdon, "Obligations in the Anthropocene," above note 9 at 319.

of anthropocentrism, especially the relationship between human beings and the more-than-human world that is at its heart. In particular, vulnerability theory, by advocating for replacement of the liberal subject with a vulnerable subject based on social and material realities, opens the space for critical discussions about legal subjectivity and the law's role in both causing and addressing vulnerabilities and the socioecological crisis, including through responsibilities.

Although normative anthropocentrism has been a cause of significant injustice for human beings, animals, and the environment, vulnerability theory reveals that it is not human centrality per se that is the biggest concern. It is, rather, the fact that the "human" at the core of anthropocentrism is white, male, disembodied, and separate from his surrounding context, both social and natural.¹⁰⁶ This results in an othering and marginalization of all who don't fit this mold, including the vast majority of human beings and all of nature. To put it differently, the exclusions and closures of this conception of the human unite "innumerable human beings, non-human animals and the entire living order in a set of linked oppressions."107 The gendered aspect of the nature/culture, objects/subjects, and mind/body binaries that define anthropocentrism have been identified and critiqued by feminists for decades.¹⁰⁸ As explained by Grear, the view of nature and the body as external and separate from the rational mind of "man" underpins the Western worldview of nature as "an exploitable object to be consumed, used and turned into profit."109

The second important insight revealed through the lens of vulnerability is that a pure ecocentric approach is not a valid alternative to anthropocentrism. In particular, it does not account for the implications of ecological vulnerability, including the relational and interdependent connection between human beings and non-human entities and processes. Ecocentrism still places something in the centre (i.e., ecosystems/nature) and thus maintains a form of othering, hierarchical relationships, and binaries between humans and nature. This can mask and hinder adequate responses to intra-species injustices (i.e., social justice issues among humans), which have not only been linked to ecological destruction¹¹⁰ but are also one of the key objectives of a transition from environmental to ecological law and essential to socioecological justice. This

¹⁰⁶ See Grear, "The Vulnerable Living Order," above note 41 at 32–33.

¹⁰⁷ Ibid at 26.

¹⁰⁸ See, generally, Margaret Davies, Law Unlimited: Materialism, Pluralism, and Legal Theory (New York: Routledge, 2017) at 65.

¹⁰⁹ Grear, "The Vulnerable Living Order," above note 41 at 26 [footnote omitted].

¹¹⁰ See Anna Grear, "Deconstructing Anthropos: A Critical Legal Reflection on 'Anthropocentric' Law and Anthropocene 'Humanity'" (2015) 26 Law and Critique 225 at 231 and 233.

is largely because such an ontological stance presupposes anthropocentrism as unequivocally negative, thereby precluding critical engagement with the "human" or "Anthropos" at the centre of anthropocentrism and situated in opposition to nature in ecocentrism.¹¹¹

Vulnerability theory, with its emphasis on embodiment, embeddedness, and interdependence, invites recognition of a new form of legal subjectivity that is aligned with the complexities of a highly interconnected world and that can transcend the dualisms of liberal philosophy that underpin contemporary environmental law. The expansions of vulnerability theory to include a conceptualization of the relational connection between human beings and the more-than-human have significant onto-epistemological implications that directly challenge anthropocentrism, as well as the potential to transcend the ecocentric/anthropocentric binary and debate.

Grounded in the extension of vulnerability theory that highlights the interrelatedness and embeddedness of humans with and within the rest of the living world, Grear proposes a new form of legal subjectivity: intersubjectivity. Under intersubjectivity, all life on Earth, including humans, is seen as one interrelational, interdependent vulnerable subject:

If we were to replace the bifurcated, disembodied Cartesian construct of "humanity" with a philosophical account expressing the nature of being itself as a form of inter-being (the interrelational coupling of self/world// world/self) and to adopt this as the *most real*, (as ontologically and epistemologically prior,) then perhaps there is a genuine chance that human subjectivity, and the legal subjectivity of "humans" and "non-humans" alike, can be reimagined as a form of *inter*subjectivity.¹¹²

In this way, vulnerability theory can assist in overcoming the anthropocentrism/ecocentrism divide in ecological law scholarship. A vulnerability analysis opens up the myriad complexities inherent in the ecological law discourse and emphasizes power relations and socio-material realities that are hidden by both anthropocentric and ecocentric frameworks. In terms of epistemology, Grear's concept of the vulnerable living order

invites us to reflect upon the incompleteness of our knowing, and the related necessity of moving away from a hegemonic or "monocultural" epistemology towards an epistemology that has more in common with

¹¹¹ See *ibid at 231*.

¹¹² Grear, "The Vulnerable Living Order," above note 41 at 42 [footnote omitted]. See also Andreas Philippopoulos-Mihalopoulos, "Actors or Spectators? Vulnerability and Critical Environmental Law" in Grear & Grant, eds, *Thought, Law, Rights and Action in the Age of Environmental Crisis*, above note 42 at 46–49 and 51 (arguing that the acknowledgement of vulnerability gives rise to an "ontology of being in the middle").

a diverse ecology of insights, is able to embrace systemic complexity and celebrates a methodology of ongoing, active, reflective and reflexive self-critical engagement.¹¹³

Ecological vulnerability has profound implications for ecological law's conceptualization of the relationship between human beings and the rest of the living world, as well as for legal subjectivity more broadly. It opens up ecological law to respond more consciously to the vulnerability of the interconnected beings and systems of Earth and to more fully embrace the complexity of diverse ways of knowing, broader questions about inter- and intra-species justice, and the current era's socioecological challenges. This has implications for legal personhood in Canada, including as it relates to more-than-human constitutionalism and the recognition of the rights of non-human animals¹¹⁴ and of nature/ecosystems.¹¹⁵ One example of the rights of nature movement in Canada is the declaration of the legal personhood of the Muteshekau Shipu (Magpie River) in Québec by the Innu Council of Ekuanitshit and the Minganie Regional County Municipality.¹¹⁶ In addition to reframing legal subjectivity, ecological vulnerability's novel paradigm for the human-nature relationship has implications for how to conceptualize responsibilities and the legal and normative mechanisms for enforcing them in ecological law, which will be discussed in greater detail in the following section.

2. Ecological Responsibilities: Care for One Another and the Earth

Another important conversation taking place within emerging ecological law scholarship involves the role that human responsibility to care for one another and the Earth should occupy and whether responsibilities for collective well-being should take priority over individual rights. In this section, I

¹¹³ Grear, "The Vulnerable Living Order," above note 41 at 40 [footnote omitted].

¹¹⁴ See Eisen, above note 46.

¹¹⁵ See Lynda Collins, "Rights of Nature in the Ecological Constitution" in Collins, The Ecological Constitution, above note 66, 64–92; David R Boyd, The Rights of Nature: A Legal Revolution that Could Save the World (Toronto: ECW, 2017).

¹¹⁶ See Justine Townsend et al, "Why the First River in Canada to Become a Legal Person Signals a Boon for Indigenous Rights" *The Narwhal* (11 June 2021), online: https:// thenarwhal.ca/opinion-muteshekau-shipu-magpie-river-personhood/; Yenny Vega Cárdenas & Uapukun Mestokosho, "Recognizing the Legal Personhood of the Magpie Rvier/Mutehekau Shipu in Canada" in Yenny Vega Cárdenas & Daniel Turp, eds, *A Legal Personality for the St. Lawrence River and other Rivers of the World* (Montréal: Les Éditions JFD inc., 2023) 113.

explore some of the theoretical insights ecological vulnerability contributes to this discussion.

Before jumping into the analysis, I briefly clarify how the concepts of rights and responsibilities will be used in this section. The concept of rights will incorporate the two main types of rights that are included in the environmental law context: the rights of nature and environmental human rights.¹¹⁷ In one sense, responsibilities can refer to the reciprocal obligations of a legal right. The concept of responsibility referred to in this article, however, extends beyond this purely correlative function to include those obligations that emerge from an alternative form of legal subjectivity and recognition of the interdependency of relationships among and between people and the more-than-human world.¹¹⁸ Often these are ethical, moral, or normative obligations to take action to meet particular needs, but they may also be inscribed in positive law.¹¹⁹

There are several different approaches to rights that can be gleaned from the scholarship on ecological law. Certain ecological approaches to law, including the rights of nature movement and Earth jurisprudence, fully embrace the language of rights and advocate for their use in tackling environmental challenges. Earth jurisprudence stresses that all beings, not only humans, have rights and that recognition of these rights is essential to aligning human laws with the laws of nature.¹²⁰ Within the strands of ecological law that embrace rights as a positive mechanism for fostering ecological justice, scholars have proposed a "pairing" or a "balancing" of rights and responsibilities.¹²¹ For example, both care and relational responsibility of humans towards Earth have been identified as principles of Earth

¹¹⁷ See, for example, Burdon, "Obligations in the Anthropocene," above note 9 at 311.

¹¹⁸ Ibid at 320.

¹¹⁹ See, for example, Pierre Cloutier de Repentigny's work on responsibility in the Anthropocene, arguing that laws can and should be reformed to implement a differentiated framework of responsibility for anthropogenic environmental harm: Pierre Cloutier de Repentigny, "Responsibility in End Time: Environmental Harm and the Role of Law in the Anthropocene" in James Gacek & Richard Jochelson, eds, *Green Criminology and the Law* (Cham, Switzerland: Palgrave Macmillan, 2022) 235; Pierre Cloutier de Repentigny, "To the Anthropocene and Beyond: The Responsibility of Law in Decimating and Protecting Marine Life" (2020) 11:1/2 *Transnational Legal Theory* 180.

¹²⁰ See Cullinan, above note 63 at 97–98 (the term "rights" is used to mean "the freedom of humans to fulfill their duties, responsibilities and essential nature and by analogy, the principle that other natural entities are entitled to fulfill their role within the Earth Community").

¹²¹ See Montini, above note 2 at 11.

jurisprudence, along with rights.¹²² Other scholars disregard the potential of rights altogether, taking the position that (as they are currently understood) "human rights are unlikely to offer socioecological justice."¹²³ Criticisms of rights discourse include allegations that human rights and environmental rights are not radical enough to actually disrupt the hegemonic geopolitical and economic power structures driving the socioecological crisis.¹²⁴ Natarajan's critique includes an argument that the language of rights "understates the obligations and responsibilities that come from living in complex integrated communities and ecosystems."¹²⁵ In addition to finding environmental human rights a woefully inadequate response to socioecological injustice, she dismisses the transformative potential of affording rights to nature, noting that "[a]dding more entitled subjects into a crowded legal space is at best mere symbolism, and at worst increases the conflict and contradiction within an already adversarial, contingent and ineffective rights framework."¹²⁶

As a heuristic device, ecological vulnerability assists in exposing the limitations of rights and critically interrogating their suitability for achieving justice in the face of the socioecological crisis. Furthermore, it reveals the obligations of care that correspond with a recognition of vulnerability as a universal condition of humans and all other life on Earth. An essential implication of the ecological vulnerability frame is that once it is recognized that the human subject is interdependent and ecologically embedded within the more-than-human world, there are corresponding obligations of ecological care, which must be embraced and vigorously fulfilled.¹²⁷ Furthermore, a

¹²² See Judith E Koons, "Key Principles to Transform Law for the Health of the Planet" in Burdon, ed, *Exploring Wild Law*, above note 63; Ian Mason, "One in All: Principles and Characteristics of Earth Jurisprudence" in Burdon, ed, *Exploring Wild Law*, above note 63.

¹²³ Kotzé, "Human Rights and Socioecological Justice through a Vulnerability Lens," above note 51 at 89–93.

¹²⁴ See, for example, Usha Natarajan, "Who Do We Think We Are? Human Rights in a Time of Ecological Change" in Usha Natarajan & Julia Dehm, eds, *Locating Nature: Making and Unmaking International Law* (New York: Cambridge University Press, 2022) 200; Burdon, "Rethinking global ethics in the Anthropocene," above note 95 at 101–2; Burdon, "Obligations in the Anthropocene," above note 9 at 316 and 325: "[R] ights are a minimalist tool that perpetuate individualism and can be accommodated within the bounds of industrial capitalism."

¹²⁵ Natarajan, "Who Do We Think We Are?" above note 124 at 214.

¹²⁶ Ibid at 217.

¹²⁷ See Harris, "Vulnerability and Power in the Age of the Anthropocene," above note 34 at 126–27, 137; Burdon, "Ecological Law in the Anthropocene," above note 6 at 40–41 (arguing that morality is rooted in humans' embeddedness within the Earth system and entails a responsibility to care for the Earth); Bruce Jennings, "Governing Ecological Governance in the Anthropocene: A New Covenant of Eco-communitarianism" in Burdon, Bosselmann & Engel, eds, *The Crisis in Global Ethics and the Future of Global*

focus on ecological vulnerability moves us away from questions about the prescriptive value of rights and into consideration of the systems and practices driving environmental degradation and injustice and the ways of radically upending this state of affairs.¹²⁸

Vulnerability theory's emphasis on uncovering and challenging distributions of power and privilege has particular relevance to the conversation about the allocation and substance of ecological responsibilities. Specifically, vulnerability theory fosters critical engagement with, and helps to answer, the following questions: who is responsible, to whom are these obligations owed, and what do these obligations entail?¹²⁹ Vulnerability theory emphasizes state responsibility,¹³⁰ but existing scholarship highlights that states are not the only actors with obligations. Corporations,¹³¹ communities/collectives,¹³²

Governance, above note 95, 126 at 128. See also Didier Zúñiga, *Pluralist Politics*, *Relational Worlds: Vulnerability and Care of the Earth* (Toronto: University of Toronto Press, 2023).

- 128 See, for example, Eisen, above note 46 at 951, discussing the impact of a focus on animals' radical vulnerability.
- 129 See, for example, Mboya, "Vulnerability and the Climate Change Regime," above note 46 at 81–82 (positing that vulnerability theory "provides a basis for questioning and critiquing current allocations of responsibility for individual and societal well-being across the individual, the state, and societal institutions") [footnote omitted].
- 130 See, for example, Fineman, "The Vulnerable Subject and the Responsive State," above note 3; Grear, "Vulnerability, Advanced Global Capitalism and Co-symptomatic Injustice," above note 47 at 52:

Fineman's call for the responsive state, when placed within the neoliberal globalised context, implies that states need now to become fully responsive, not to the current imperatives of voracious and apparently illimitable forms of consumer and corporate capitalism, but to the implications of multiple forms of vulnerability located within the substantive, material conditions of globalisation.

See also Woolaston, *Ecological Vulnerability*, above note 50 at 49; Dayna Nadine Scott, Jennie Haw & Robyn Lee, "Wannabe Toxic-Free?' From Precautionary Consumption to Corporeal Citizenship" (2017) 26:2 Environmental Politics 322 at 334: "If people are inextricably entwined with the environment as corporeal citizenship suggests, the state's responsibility to manage and protect the health of its population is inseparable from its responsibility to care for the health of the environment."

- 131 See, for example, Seck, "A Relational Analysis of Enterprise Obligations and Carbon Majors for Climate Justice," above note 4; Grear, "Vulnerability, Advanced Global Capitalism and Co-symptomatic Injustice," above note 47 at 58.
- 132 See, for example, Scott, Haw & Lee, above note 130 at 336; Sean Coyle, "Vulnerability and the Liberal Order" in Fineman & Grear, eds, *Vulnerability Reflections*, above note 3, at 61–74.

individuals,¹³³ and even non-humans have responsibilities, too.¹³⁴ Furthermore, vulnerability theory is attentive to the particular, inequitable distribution of vulnerability and the corresponding greater responsibility of those individuals who are most privileged or advantaged by the dominant systems to respond to the vulnerability of other humans and the Earth.¹³⁵ In other words, it calls for a differentiated understanding of ecological responsibilities.

In terms of considering to whom responsibility is owed, ecological vulnerability entails obligations to respond to those beings, systems, places, and communities with the greatest vulnerability — that is, those that are currently and/or have historically been disproportionately harmed by the systems driving the socioecological crisis.¹³⁶ These responsibilities extend beyond care for other humans to care for the Earth, land, and other species.¹³⁷ With respect to state responsibility to protect and support non-human animals, Jessica Eisen has argued that a constitutional imperative stems from two features of the radical vulnerability of animals: complete political exclusion and the "pervasive infliction of institutionalized, legalized, routinized, commercialized harm" that is maintained by the legal system.¹³⁸ The emphasis on interand intra-species justice that emerges from a vulnerability framework also extends beyond the inequitable distribution of vulnerabilities and resilience in the present generation to responsibility for future generations and the

136 Grear, "Vulnerability, Advanced Global Capitalism and Co-symptomatic Injustice," above note 47 at 58.

¹³³ See, for example, Grear, "Vulnerability, Advanced Global Capitalism and Co-symptomatic Injustice," above note 47 at 58 (noting the responsibility of privileged individuals).

¹³⁴ See, for example, Kyle Powys Whyte & Chris J Cuomo, "Ethics of Caring in Environmental Ethics: Indigenous and Feminist Philosophies" in Stephen M Gardiner & Allen Thompson, eds, *The Oxford Handbook of Environmental Ethics* (New York: Oxford University Press, 2017) 235; Deborah McGregor, "Indigenous Women, Water Justice and Zaagidowin (Love)" (2015) 20:2-3 *Canadian Women Studies* 71.

¹³⁵ See Grear, "Vulnerability, Advanced Global Capitalism and Co-symptomatic Injustice," above note 47 at 58–59. See also Sultana, above note 45. Overconsumption by the super-affluent and Global North nations is essential to conversations about responsibilities and socioecological justice.

¹³⁷ See, for example, McGregor, "Indigenous Women, Water Justice and Zaagidowin (Love)," above note 134 (discussing responsibility towards water from the perspective of Anishnaabek law); Robert YELKÁTTE Clifford, "WSÁNEĆ Legal Theory and the Fuel Spill at SELEK-TEL-(Goldstream River)" (2016) 61:4 *McGill Law Journal* 755 (exploring obligations under WSÁNEĆ law to care for the land, including care for the islands within WSÁNEĆ territory that were once ancestors).

¹³⁸ Eisen, above note 46 at 941–44: "[T]he state has a responsibility to care for its most vulnerable members, including and perhaps especially those who are not capable of traditional forms of constitutional self-assertion."

intergenerational needs of society.¹³⁹ In this way, a vulnerability framework encourages exploration of how responsibilities might help achieve ecological law's goal of building an ecologically just society.

In addition to highlighting the necessity of responding to ecological vulnerability through responsibilities, vulnerability theory provides a starting point for imagining what these responsibilities might entail. As the analysis above highlights, there is a deep connection between responsibility and justice. Indeed, ecological responsibilities serve to advance socioecological justice. This includes interspecies justice, intergenerational justice, and intragenerational justice, which itself includes environmental justice, climate justice, and racial justice. In terms of states' obligations, Harris has proposed that the responsibility to respond to ecological vulnerability could be reflected in strong constitutional or statutory norms.¹⁴⁰ Lynda Collins' recent book on the ecological constitution contains numerous compelling proposals for incorporating into constitutional law the following principles, all of which relate to ecological responsibility: ecological sustainability, intergenerational equity and the public trust doctrine, environmental human rights, the rights of nature, the precautionary principle and non-regression, and the recognition of planetary boundaries to secure the ecological foundations of society.¹⁴¹ In Canada, embedding state ecological responsibilities in the Constitution could occur through amendment, judicial interpretation, or enactment. Vulnerability theory can also be used to breakdown the public/ private divide as it relates to international and local/domestic laws and public and private actors and to highlight Canada's responsibility to cooperate internationally with other states to address transnational and global environmental problems.¹⁴² This would include Canada's responsibility to take action to reduce its fair share of global greenhouse gas emissions and to contribute

- 140 See Harris, "Vulnerability and Power in the Age of the Anthropocene," above note 34 at 138 [footnotes omitted].
- 141 See Collins, *The Ecological Constitution*, above note 66.
- 142 See Seck, "Relational Law and the Reimagining of Tools for Environmental and Climate Justice," above note 4 (using vulnerability theory and the insights from other feminist and relational theorists, including the writings of Indigenous women, to persuasively advance these arguments).

¹³⁹ See Fineman, "Vulnerability and Social Justice," above note 3 at 359. See also Deborah McGregor, "Indigenous Environmental Justice and Sustainability" in Atapattu, Gonzalez & Seck, eds, *The Cambridge Handbook of Environmental Justice and Sustainable Development*, above note 4, 58 at 74; Jessica Eisen, Roxanne Mykitiuk & Dayna Nadine Scott, "Constituting Bodies into the Future: Toward a Relational Theory of Intergenerational Justice" (2018) 51:1 UBC Law Review 1; Dayna Scott & Garance Malivel, "Intergenerational Environmental Justice and the Climate Crisis: Thinking With and Beyond the Charter" (2021) 17:1 Journal of Law and Equality 165; Kotzé, "The Anthropocene," above note 9 at 80–81.

to the development and implementation of mechanisms to compensate poorer nations for loss and damage from climate-driven disasters in accordance with its commitments under the Paris Agreement.¹⁴³

While a comprehensive exploration of the way in which ecological vulnerability shapes the content of individual responsibilities is beyond the scope of this article, I propose here to reflect on a few implications of ecological responsibilities for environmental lawyers and scholars in Canada as they relate to teaching, learning, and practising law.¹⁴⁴ First, ecological responsibilities should include a requirement of environmental law scholarship and pedagogy to be more attentive to the drivers of socioecological injustices, including colonialism, liberal legal subjectivity (i.e., anthropocentrism), and other Western worldviews underpinning Canadian laws and policies.¹⁴⁵ As Estair Van Wagner has explained,

[I]earning and teaching about land law, environmental law, or natural resource law is always necessarily learning and teaching about Indigenous law and relations with the earth — either as a form of continued erasure in their absence from the curriculum, or as an uncomfortable and complicated attempt to engage with the original laws of the land, confront our history, and think about how we can do things differently.¹⁴⁶

Along the same line, ecological responsibilities could also include the expansion of Indigenous and non-Indigenous land-based¹⁴⁷ and placebased¹⁴⁸ learning in Canadian law schools, teaching about the fact that all law,

¹⁴³ Paris Agreement, being an Annex to the Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015 — Addendum Part two: Action taken by the Conference of the Parties at its twenty-first session, 29 January 2016, Dec 1/CP.21,CP, 21st Sess, UN Doc FCCC/CP/2015/10/Add.1, online: https://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf.

¹⁴⁴ In providing these recommendations, I am speaking from my position as a settler lawyer and legal scholar.

¹⁴⁵ See, for example, Jason MacLean, "Curriculum Design for the Anthropocene: Review of Meinhard Doelle & Chris Tollefson, Environmental Law: Cases and Materials, Third Edition" (2020) 16:1 *McGill Journal of Sustainable Development Law* 1.

¹⁴⁶ Estair Van Wagner, "Placing Natural Resources Law: Preliminary Thoughts on Decolonizing Teaching and Learning About People, Places, and Law" in Amanda Kennedy et al, eds, *Teaching and Learning in Environmental Law: Pedagogy, Methodology and Best Practice* (Cheltenham: Edward Elgar, 2021) 49 (noting at 50 that she hopes to contribute to "difficult but necessary conversations about our responsibilities as legal educators in the context of both colonization and environmental crises").

¹⁴⁷ See John Borrows, "Outsider Education: Indigenous Law and Land-based Learning" (2016) 33:1 *Windsor Yearbook on Access to Justice* 1.

¹⁴⁸ Deborah Curran, "Putting Law in Its Place: Field School Explorations of Indigenous and Colonial Legal Geographies" in Deborah Curran et al, eds, *Out There Learning:*

including Canadian constitutional law, reflects particular choices, narratives, and worldviews,¹⁴⁹ and encouraging non-Indigenous lawyers, legal scholars, and students to listen to and learn from Indigenous peoples.¹⁵⁰ While these responsibilities can be understood as flowing from the ecological vulnerability framework and ecological law, they also stem from the Truth and Reconciliation Commission's calls to action, requiring Canadian law schools to rethink what they are teaching and how they go about delivering their curriculum.¹⁵¹

Another key aspect of responsibility can be drawn from Grear's scholarship on the vulnerable living order: specifically, the concept of "epistemic humility." As embodied, vulnerable subjects, humans are always positioned, and their view of the world is always limited or incomplete. Consequently, Grear argues that vulnerability requires that humans embrace a "radical epistemological openness" to the insight and ways of knowing of others and an epistemological responsibility towards those most disadvantaged and harmed by the distribution of power inherent in the dominant systems.¹⁵² This epistemic humility that stems from vulnerability, of which subject-positionality is a central feature, "offers potentially transformative forms of inclusion, responsibilization and openness to multiplicity and to complexity."¹⁵³ In this way, ecological vulnerability is aligned with ecological law's openness to legal pluralism,¹⁵⁴ including the adoption of non-Western understandings of law and ecology that might align better with the principles of ecological law.¹⁵⁵ In practice, embracing a plurality of perspectives would require, at a

Critical Reflections on Off-Campus Study Programs (Toronto: University of Toronto Press, 2019) 135; Van Wagner, "Placing Natural Resources Law," above note 145.

- 149 See Aaron Mills, "The Lifeworlds of Law: On Revitalizing Indigenous Legal Orders Today" (2016) 61:4 *McGill Law Journal* at 847.
- 150 See James Tully, "Sustainable Democratic Constitutionalism and Climate Crisis" (2020) 65:3 *McGill Law Journal* 545 at 564.
- 151 Truth and Reconciliation Commission of Canada, "Truth and Reconciliation Commission of Canada: Calls to Action" (2015), online: https://ehprnh2mwo3. exactdn.com/wp-content/uploads/2021/01/Calls_to_Action_English2.pdf at 3 (see calls to action #27 and #28).
- 152 See Grear, "Vulnerability, Advanced Global Capitalism and Co-symptomatic Injustice," above note 47 at 58–59.
- 153 Grear, "Foregrounding Vulnerability," above note 41 at 14.
- 154 See Garver, Ecological Law and the Planetary Crisis, above note 2 at 95.
- 155 It has been argued, for example, that civic republicanism is particularly responsive to issues of vulnerability and dependence. See Barry, *The Politics of Actually Existing Unsustainability,* above note 13 at 35, fn 4 and chapters 7 & 8 on greening civic republicanism. For a discussion of how ecological law has been influenced by and attracted to Indigenous worldviews, legal orders, laws, and traditions, see Anker et al, above note 2 (chapters 6, 7, and 15, in particular).

minimum, the transformation of existing institutions of public participation.¹⁵⁶ One way to increase access to procedural environmental justice in Canada would be to adopt new or amend existing procedural environmental rights legislation. Guidance could be taken from the *Escazú Agreement*, a regional instrument that sets out legally binding international standards on access to information, public participation in decision-making, and access to justice in environmental matters.¹⁵⁷ Signed by two dozen Latin American and Caribbean UN member states, the agreement is also the first legally binding instrument to contain specific provisions regarding the protection of environmental rights and land defenders.¹⁵⁸

An application of vulnerability theory would extend ecological law's embrace of legal pluralism to a broader, more radical epistemological responsibility to pay attention to patterns of injustice and to stay open to multiplicities and different forms of knowledge, including the agency and knowledge of non-human beings and systems.¹⁵⁹ Indigenous environmental justice scholar Deborah McGregor has argued that "the knowledge we need to survive as humanity may not derive strictly from the 'human realm'; we need to revitalize and relearn the traditions that will ensure all knowledge is respected, including that from our various nonhuman relatives.^{"160} Epistemic

- 157 United Nations Economic Commission for Latin America and the Caribbean, Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (2018), online: https://repositorio.cepal. org/bitstream/handle/11362/43583/1/S1800428_en.pdf [Escazú].
- 158 See *ibid* at art 9. See also Stephen Stec & Jerzy Jendrośka, "The Escazú Agreement and the Regional Approach to Rio Principle 10: Process, Innovation, and Shortcomings" (2019) 31:3 *Journal of Environmental Law* 533 at 541 (noting that the *Escazú Agreement* extends protection to persons or groups in vulnerable situations and "provides for the introduction of vulnerability theory into [international environmental law]").
- 159 See Grear, "Towards new legal futures?" above note 42 at 303; Grear, "Foregrounding vulnerability," above note 41 at 28 (arguing that vulnerability mandates environmental law to allow "non-human intelligences and agencies their place in the formation of law itself"). See also Kyle Powys Whyte, "Justice Forward: Tribes, Climate Adaptation, and Responsibility" (2013) 120 *Climatic Change Journal* 117 on the need for emerging systems of responsibilities to be flexible and responsive to the evolving nature of the injustice being addressed.
- 160 McGregor, "Indigenous Environmental Justice and Sustainability," above note 139 at 70. The agency of non-human animals has long been emphasized in Indigenous scholarship and recognized, along with human to more-than-human relationships, as a fundamental characteristic of Indigenous legal orders; see, for example, McGregor, "Indigenous Women, Water Justice and *Zaagidowin* (Love)," above note 134; Zoe Todd, "Refracting the State Through Human-Fish Relations: Fishing,

¹⁵⁶ Grear, "Vulnerability, Advanced Global Capitalism and Co-symptomatic Injustice," above note 47 at 58.

humility requires thinking not only about ways in which Western and colonial law can be transformed to address socioecological injustices, but also to be open to multiple and alternative forms of governance. In Canada, this would include providing Indigenous peoples with the space and support to exercise their own legal orders and governing authority over their lands and resources as well as restoring Indigenous jurisdiction over existing environmental regulatory processes, "such as environmental assessment, permitting, and climate monitoring."¹⁶¹

There will be immense challenges with respect to the widespread adoption of ecological responsibilities. Speaking about the mechanism for implementing ecological responsibilities, Burden has commented that: "while obligations can be rationally advanced, their acceptance and enactment ultimately depends on cultivating feelings of care and concern for the plurality in which we are immersed."¹⁶² He also believes, however, not only in ethics, but also that law can and must be oriented around human beings and the obligations they owe to one another and the Earth in order to effectively respond to the complexity and vulnerability of life on this planet. With the application of a vulnerability framework, ecological law has the potential to meet this challenge and to foster the discharge of responsibilities to care for one another and the Earth in a manner that is conscious of, and responsive to, the differential distribution of vulnerability.

E. Conclusion

In this article, I have argued that ecological vulnerability is a powerful heuristic for exploring key features of the emerging paradigm of ecological law and assisting in the transition from contemporary environmental law to ecological law in Canada. In addition to contributing relational ontological and epistemological considerations, vulnerability theory helps to raise important questions about power, inequities, and injustices, to deconstruct

Indigenous Legal Orders and Colonialism in North/Western Canada" (2018) 7:1 *Decolonization: Indigeneity, Education & Society* 60. See also above note 86.

161 See, for example, Yellowhead Institute, "Land Back: A Yellowhead Institute Red Paper" (October 2019), online: https://redpaper.yellowheadinstitute.org/; Dayna Nadine Scott, "The Ecological Constitution: Reframing Environmental Law by Lynda Collins" (2022) 53:2 Ottawa Law Review 293 at 298–99; Suzanne von der Porten, Yoshi Ota, Andrés Cisneros-Montemayor & Sherry Pictou, "The Role of Indigenous Resurgence in Marine Conservation" (2019) 47:6 Coastal Management 527; Jessica Clogg, Hannah Askew, Eugene Kung & Gavin Smith, "Indigenous Legal Traditions and the Future of Environmental Governance in Canada" (2016) 29 Journal of Environmental Law and Practice 227.

162 Burdon, "Obligations in the Anthropocene," above note 9 at 324.

taken-for-granted assumptions about the liberal legal subject, and to encourage a form of self-reflective criticism within emerging scholarship on ecological law. Furthermore, it invites ecological law to more consciously respond to the vulnerability of the entire, interconnected living order and to more fully embrace the complexity of current socioecological challenges, diverse ways of knowing, and broader questions about inter- and intra-species justice. These insights from vulnerability theory have a valuable role to play in developing and refining the principles and concepts of ecological law in order to advance its goals of constraining economic activity within ecological limits, restoring and preserving the health of ecosystems, and securing an ecologically just society.

Recognition of vulnerability as a universal trait of humans and the morethan-human world necessitates significant changes to, if not complete rejection of, existing liberal theories of legal subjectivity and a critical assessment and reimagination of individual, collective, and state ecological responsibilities. This has profound implications for ecological law's conceptualization of the relationship between human beings and the rest of the living world and for its rejection of anthropocentrism in favour of an ecocentric approach to law. Engagement with vulnerability theory inspires the adoption of intersubjectivity, an alternative form of legal subjectivity that is better aligned with the myriad complexities of Earth's highly interconnected worlds and that transcends the dualism of anthropocentrism and ecocentrism, both of which reinforce problematic categories and hierarchies that serve to oppress marginalized groups of humans and nature.

A vulnerability framework emphasizes the importance of responsibilities to care for one another and the other species and systems of the more-thanhuman world in the paradigm shift from environmental to ecological law. With its main objective of arguing for responsiveness to and responsibility for vulnerability, vulnerability theory reveals the need for a full and inclusive account of responsibility that includes not only a responsive state but responsibility of the most privileged in society to address the vulnerabilities constituted and exacerbated by the socioecological crisis. Although legal and normative obligations will not be a panacea to the challenges ahead, they are one mechanism among many possibilities that might help ecological law achieve its intended aims and contribute to socioecological justice.

I hope that the reflections offered in this article stimulate future research and scholarly engagement with ecological vulnerability as a valuable tool in the ongoing process of defining, refining, and practising ecological law, particularly in Canada. Notably, further exploration is particularly warranted regarding the mechanisms for enforcing responsibilities to care for the Earth at various scales from the local to the global. The vulnerability framework, with its emphasis on complexity, materiality, distributions of power, epistemic openness, and critical interrogation, has the potential to positively influence development in these areas and beyond.