

Naming and framing ecological distress

Susan Wardell

Abstract

We are living in a time of massive anthropogenic ecological and climatic shifts. Awareness of these changes and their effects on human lives is increasing, with recognised impacts on mental health. At present, a variety of different terms exist to describe ecological change-related distress. They range from the philosophical to the clinical, and are already beginning to form part of professional practice as well as popular discourse, with prescriptive implications. In this piece, I explore some of the different names and frames for ecological distress by drawing on a sample of 30 online articles, blogs, and videos, and bringing these into dialogue with scholarly literature. My purpose is to open up a conversation about how medical anthropologists might attend to the meaning-making processes that surround ecological distress and (individual, institutional, and political) responses to it.

Keywords

Anthropocene, Mental health, Environment, Psychiatry, Distress

Introduction

We are living in a time of massive anthropogenic ecological and climatic shifts. Awareness of these shifts, and their effects on human lives, is increasing. There are urgent public warnings about ‘irreversible damage to the natural world’ (David Attenborough, quoted in McGrath 2019), ‘impending mass extinction’ (according to *National Geographic* [Drake 2015]), and ‘climate catastrophe’ (a UN report cited in *The Guardian* [McKie 2018]). A Yale survey suggests that 62 percent of Americans are ‘somewhat’ worried about the climate, and the rate of those ‘very’ worried has doubled since 2015 (Leiserowitz et al. 2018). A US federal report indicated that climate change is responsible for mental health issues ranging ‘from minimal stress and distress symptoms to clinical disorders, such as anxiety, depression, post-traumatic stress, and suicidal thoughts’ (Dodgen et al. 2016). The scale and variety of these impacts are striking, but so too is the process that is already evident, in which new, situationally specific forms of distress are described in terms of pre-existing psychological categories.

The relationship between ecological awareness and mental wellbeing is clearly already being documented by mental health professionals and discussed in the media. However, there have only been a handful of situated *ethnographic* studies of ecological distress (see Fuberg, Evengård, and Nilsson 2011; Cunsolo Willox 2012, 2013; Cunsolo Willox et al. 2015; Ellis 2016), and no substantial attempts to reflect back on emergent categories of distress through an anthropological lens.

In this article, I use the general term ‘ecological distress’ to refer to any forms of emotional, psychological, or existential distress related to present or anticipated ecological/climatic change. I aim to open a conversation about how medical anthropologists might approach this topic via critical perspectives on the discursive nature of diagnostic formation. To this end, I share some of my own emergent thoughts, based on an initial period of participant observation in an online environmental ‘doomer’ community.¹ This led me to undertake a qualitative content analysis of 30 purposively sampled online articles, blogs, and videos related to ecological distress. All texts were published within the last 12 months, with some appearing on personal blogs and others on mainstream platforms such as *The Guardian*, *Forbes*, or *Vice*. I place these popular texts in dialogue with selected scholarly literature to examine the cross-pollination of language and ideas and highlight the relationship between expert knowledges and public sense-making.

1 ‘Doomer’ is a vernacular term, designating someone who believes that global environmental problems will cause a collapse of civilisation and significant human loss of life in the near future.

In this first section on ‘categories’ of distress, I start by mapping some of the existing terms for ecological distress, which range from the clinical to the philosophical, and briefly examining their prescriptive implications—that is, how each may differently shape the possibilities for care and subjectivity among eco-aware citizens in the Anthropocene. I organise this discussion into three categories, based on more common terms, and elucidate their relationship to grief, anxiety, and trauma. In the second section on ‘technologies of diagnosis’, I consider the relationship between *individual* embodied distress and knowledge of *global* scale changes, using examples of popularly-circulated texts that re-imagine ecological distress as a diagnostic tool for the planet rather than the person. I ask what the implications of medicalising ecological distress might be for activism and agency, noting, in the final section, some of the alternative pathways for care that are already emerging, along with a caution about collectivising distress.

Categories of (ecological) distress

Only in the last 20 years has the topic of ecological distress emerged in mainstream academic literature, including psychiatry, psychology, philosophy, literary studies, and the social sciences. Each of these fields has sought to shape understandings of the relationship between ecological awareness and distress through its own paradigms. One thing that the critical tradition of medical anthropology can add to an interdisciplinary conversation about ecological distress is the recognition that *all* categories of distress are ‘invented’, emerging in specific cultural moments amid shifting social meanings, and become recognised only through a complex set of institutional relations. Torbjörn Friberg’s (2009, 538) study of the making of burnout as ‘a psychiatric object of thought’ in post-industrial Sweden is an excellent example of this, tracing the processes through which a popular conception ‘became a psychiatric diagnosis, and eventually, an object for public health policy and intervention’. Similarly, Arthur Kleinman (1982) was able to trace the ‘migration’ of neurasthenia from a category of distress with specific classed associations in Victorian England to a somatising illness related to political trauma in 1970–80s China. As cross-cultural psychiatrist Lawrence Kirmayer (2005, 192) puts it, all psychiatric categories ‘bear the traces of their cultural history’. For this reason, studying the social history of diagnostic categories (and the dynamic relationship between named categories and qualities of experience) can be revealing. In the following section, I trace the emergence of a number of common categories of ecological distress in order to show their historical, disciplinary, and discursive context.

Grief and solastalgia

In 2004, US-based thanatologist Kriss Kevorkian coined the term ‘environmental grief’, defining this as ‘the grief reaction stemming from the environmental loss of ecosystems caused

by natural or man-made events'. The phrase came to public attention in 2016 via an article in *Scientific American* (Rosenfeld 2016). Just two years later, the parallel term 'ecological grief' appeared in a *Nature* article by social scientists Ashlee Cunsolo and Neville Ellis (2018). This article, drawing on the authors' ethnographic studies of Inuit communities in Northern Canada and farmers in Australia's Wheatbelt, described a sense of loss across three planes: physical ecological losses, disruptions to environmental knowledge and identity, and anticipated future losses. As the popular articles I reviewed often stressed, grief can be caused not only by the death of a person, but also by world events and the loss of possible futures (Blumenfeld 2019).

One consequence of framing ecological distress as 'grief' is that many of the normative discourses of modernist grief are also brought into the field. Indeed, the articles in my dataset frequently drew on ideas and models from bereavement and palliative care literature, both to describe experiences and prescribe responses to them—referencing, for example, Elizabeth Kübler-Ross's 'five stages of grief', with a heavy emphasis on individual 'grief work' and the goal of acceptance, as well as the idea of anticipatory grief (Fulton, Madden, and Minichiello 1996).

Other terms referencing sadness and loss are also in circulation. The neologism 'solastalgia' was first proposed by Australian philosopher Glenn Albrecht in a conference paper in 2003 (Albrecht et al. 2007). It refers to pain associated with the loss of precious places, especially with environmental change and degradation, including climate-related extreme weather events. Terms like solastalgia seem to reference a package of emotional experiences similar to those glossed by Anglo-European notions of 'grief', yet may have less prescriptive baggage insofar as they do not emphasise the individual goal of detachment or 'moving on'. However, based on their relative frequencies within my dataset, they also seem to have less popular uptake than the more familiar referent of 'grief'.

Anxiety and dread

'Eco-anxiety' was pegged as a 'national ailment' in the USA as early as 1990, in a *Washington Post* article that explored public responses to the growing problem of pollution (Leff 1990). It was 18 years later that the term re-emerged in a *New York Times Magazine* article with a focus on climate change (Dickinson 2008). In Sweden, psychiatrists recognised *klimatångest*—also translated as 'climate anxiety'—as a 'new phenomenon' in 2010 (Lagerblad 2010), and the English-language term has been included in two American Psychological Association reports since (Clayton, Manning, and Hodge, 2014; Clayton et al. 2017). By 2019, the term was quickly becoming mainstream, with the BBC publishing a video asking 'Are you suffering from eco-anxiety?' (BBC 2019), while *New Scientist* suggested 'eight tips for managing eco-anxiety'

(Sarchet 2019) and *Vogue* offered advice on ‘how to talk to your kids about eco-anxiety’ (Noble 2019).

The term ‘anxiety’ makes clear reference to the established psychiatric category of ‘anxiety disorders’ in the Diagnostic and Statistical Manual of Mental Disorders (DSM), and thus has the potential to pathologise. Yet, arguably, the term ‘anxiety’ is already used by the public to reference more everyday registers of emotional experience. In the context of these articles, the suggestion of ‘self-management’ (rather than professional referral) also suggest a less serious framing, though still one that hints at individual maladjustment.

The DSM distinguishes ‘anxiety’ from ‘fear’ by its future focus. With a similar emphasis, Albrecht (2019, 80) writes about a ‘serious existential condition’ he calls ‘global dread’—distress focused on the image of an apocalyptic future. Despite the phenomenological parallels between ‘anxiety’ and ‘dread’, this term is less about clinical disorder than it is about subjective experience, and I turn now to other similar terms.

Despair, existential crisis, and trauma

In a *New York Times* column in 2009, Pulitzer Prize-winning behavioural science reporter Daniel Goleman coined the term ‘eco-angst’ to describe his own sudden plunge into despair when exposed to ‘a new bit of unpleasant ecological information’. The similar term ‘climate despair’ appeared shortly after, in a book about climate politics in the USA (Pooley 2010), but reached wider circulation only recently in a *Vice* article (Pearl 2019). Both of these terms, featured in high-profile publications, extend beyond a ‘mental health’ frame to recognise the existential and moral components of ecological distress. From the psy-sciences, psychoanalyst Renee Lertzman’s (2015) work seems to reach towards this same direction, coining the term ‘environmental melancholia’ to describe a pervasive state of feeling conflicted and overwhelmed among those she studied in Wisconsin, USA. Popular texts poignantly describe a reality in which people ‘don’t know how to be human any more’ (Kriss and O’Hagan 2017)—using terms such as ‘human futilitarianism’ (ibid.), ‘eco-nihilism’ (Lee 2017), and ‘climate nihilism’ (Parker, cited in Smith 2018) to evoke a radical philosophical and cosmological shift in individual worldview. Considering these terms together, I see potential for frames that go beyond the idea of individual pathology to acknowledge the impact of climate change on (individual and collective) ways of seeing the world and the task of being human within it.

The language of ‘trauma’ also evokes a deep change in the relationships between the self and the world. Eco-psychologist Zhiwa Woodbury (2019a) advocates a paradigmatic shift towards ‘climate trauma’ as the best overarching framework for understanding lived experiences in the Anthropocene. Iterations of this are already present in scholarship; for example, references to

dystopian fiction as ‘pre-trauma’ (Kaplan 2016) or the term ‘tierratrauma’ as a neologism to refer to pain specific to moments of dramatic change, such as bushfires or earthquakes (Albrecht 2019, 85). While ‘trauma’ is often critiqued as a Eurocentric psychoanalytic category, the use of this term in relation to climate change, as I discuss below, eschews the individualising tendency of some other categories by highlighting intersubjective and contextual aspects of distress. From an anthropological perspective, this is an important way of situating experiences in order to both understand their meaningfulness to the subjects experiencing them and to acknowledge their diversity.

Technologies of diagnosis

The process of imposing language and order onto human suffering is laden with power. Although the terminology I have discussed above is not yet cemented in diagnostic manuals, the ‘illness narratives’ presented in many of the writings I analysed indicate that many people experiencing ecological distress are already seeking help, and being treated, within biomedical healthcare systems (Dockett 2019; Clayton et al. 2017). What are the epistemological assumptions of these sorts of clinical encounters? Critical theorists have highlighted the tendency of biomedicine to pathologise mental distress. As a system of healing, Western biomedicine is argued to have eroded the moral core of experience (Biehl, Good, and Kleinman 2007, 11). Does this mean that if people accept a sick role status and/or begin to desire a ‘cure’ for their pain, the experience of ecological distress will no longer be an impetus for action and activism? Is it grief work or political work that is needed in the face of ecological suffering?

However, those experiencing ecological distress do not engage only with professionals. For example, there is a high volume of information circulated in online support groups, such as those associated with ‘Near Term Human Extinction’ communities or the ‘Positive Deep Adaptation’ movement. Additionally, some places have seen the development of ‘climate cafés’ (paralleling and drawing from the ‘death café’ movement) which seek to validate and normalise these emotions (Arciga 2019). People within such movements show awareness of, and resistance to, the possibility of their experience being pathologised.



“Here’s your problem—it looks like you’re paying attention to what’s going on.”

1. Cartoon representing clinical encounters in the Anthropocene. Source: The New Yorker. (<https://www.newyorker.com/cartoons/daily-cartoon/friday-june-29th-heres-your-problem>).

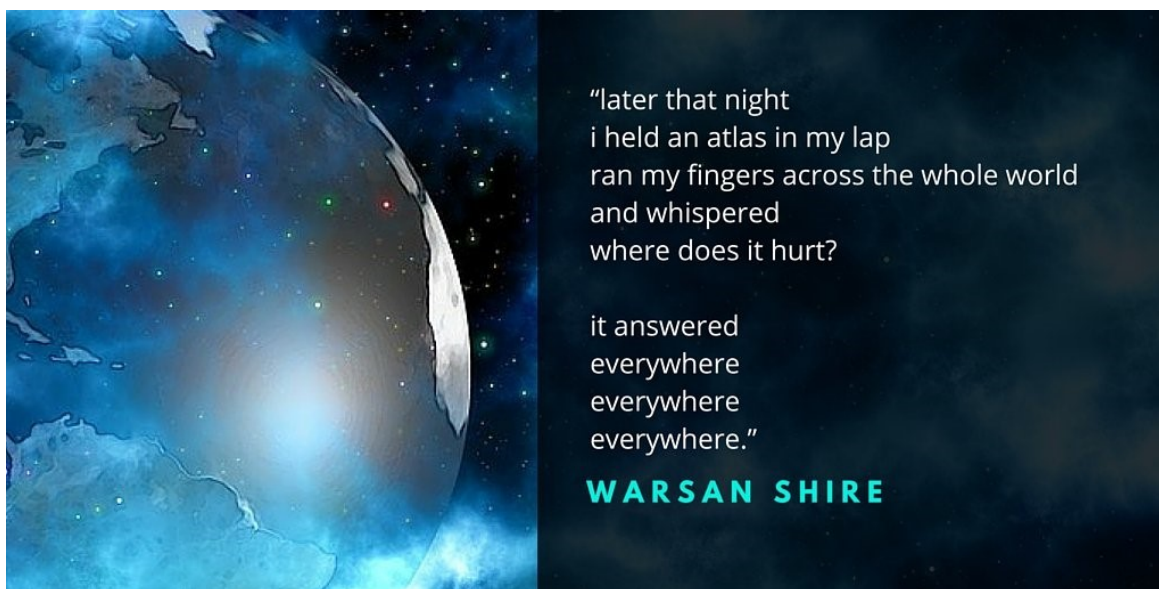
The *New Yorker* cartoon shown in figure 1 was shared on one of the ‘Near Term Human Extinction’ Facebook pages. Presented in this context, the image implicitly addresses ontological questions about what sort of problem ecological distress is, with hints therefore at how it might be addressed. Specifically, the cartoon pushes back against the medicalising, individualising norms of the clinical encounter by having the doctor locate the problem as external to the body or mind of the patient—in the world itself. This subverts the typically inward clinical gaze. However, seeming to contest this, Woodbury (2019a, 6) asserts that understanding climate trauma as a problem ‘out there’ is not helpful or accurate because, like personal trauma, it can have strong embodied and affective qualities—as I turn to discussing now.

Embodying the global

From grief to anxiety to despair, most of the terms circulating around ecological distress reference categories that describe individual (or at least, individualised) forms of distress. What happens when trauma is conceived of at the ‘impossible’ scale of climate change (Richardson 2018, 2)? How does language designed to describe experiences at the individual level translate to suffering related to the loss of a whole species or a whole planet? And how do these mass-scale changes become embodied or ‘felt’ by the individual? Michael Richardson (2018, 1) explains that climate catastrophe has both micro and macro manifestations, working ‘on ecologies and bodies alike as a kind of wounding’. In the articles I reviewed, knowledge of both global and regional ecological changes were ‘increasingly embedded within everyday

experiences' (Cunsolo and Ellis 2018, 275): from a scientist finding himself crying when a platypus appears in the creek near his house (Law 2019), to the cancellation of an ice-skating trip (Norgaard 2011), to the smell of smoke from a wildfire (Albrecht 2019), to a parent on a bike ride who realises he is no longer 'eating bugs' as he did in his childhood and relates this directly to a global insect decline (Jarvis 2018). In this way, 'ordinary moments' (Ingram 2019) can be experienced as embodied symptoms of ecological change, and thus can be triggers for emotional distress.

However, while some of the 'evidence' of change and loss comes directly through the senses, other forms of knowledge are more mediated—for example, via stories and news of 'somewhere else' accessed through personal screens. Images of crises, catastrophe, and threat constitute 'highly mobile phenomena' that can 'engender anxiety on larger scales' (Kleist and Jansen 2016, 375). What is at stake (Kleinman 2006) is no longer just the local. Rather, a very personal sense of ecological grief can be felt by many people for whom the melting Arctic and the burning Amazon can come to *feel* local. A poem by British writer Warsan Shire (2015), sampled frequently (as per figure 2) in digital forums discussing ecological distress, exemplifies the intimate level of this experience.



2. An example of the memetic sampling of a section from 'What They Did Yesterday Afternoon', by British-Somali poet Warsan Shire. Creator unknown (<https://twitter.com/bookgeek/status/666307769000177666>)

This poem (Figure 2) is a poignant expression of the idea that pain can be held not only in an individual body, but in the world as a whole. This is also expressed in a passage by mid-century American naturalist Aldo Leopold, which was often quoted in the popular texts I studied. In the passage, Leopold described the cost of an ecological education as 'living alone in a world

of wounds' (Leopold 1942, cited in Cunsolo and Ellis 2018). Both the poem and this quote connect to the cartoon (figure 1), in that they invoke pain without making the speaker the *subject* of a clinical gaze. Rather, the speaker becomes a sensitive instrument, attuned to the painful external realities embodied in the gentle movement of a finger across an atlas, or a focused scientific eye. In this way, ecological distress becomes not a pathology in itself, but a technology of diagnosis—for the planet, not the person—and a way in which the body and mind 'bear witness' to external realities (Cunsolo and Ellis 2018, 279).

Acknowledging ecological distress can make visible the otherwise diffuse, imaginal landscape of climate change and its myriad losses. Cunsolo and Ellis (2018) indicate that the recognition and measurement of ecological grief by 'experts' could even have juridical ramifications—for example, for the new Warsaw International Mechanism, established by the United Nations Framework Convention on Climate Change, as it tries to establish ways to understand 'non-market' loss and damage. In a similar way, psychologists and psychotherapists in Sweden have used their observations of climate distress as 'evidence' for the urgency of the issue in an open letter to their government in 2019. In this way, institutional recognition, including via psychological categories used to describe ecological distress, is not always antithetical to political action.

Care and distress at the end of history

In a book review focussed on hope and 'repair', New Zealand anthropologist Lorena Gibson (2019) writes that capitalism and neoliberalism have created a sense of being 'at the end of history'. The public communication of climate science adds to this from a different (but not separate) angle. Woodbury (2019b) presents an almost hauntological sense of climate change as a collective trauma, where anyone reasonably educated and aware will be 'haunted by the perpetual spectre of climate trauma when considering fundamental life and identity choices—like whether to bring children into the world, what to choose as a career, whether to even attend school, or when and where to settle and raise a family'. There is scope to argue for this kind of distress as an embodiment of cultural memory, or specifically as an 'embodied memory of the future' (Kaplan 2016, cited in Richardson 2018, 2). Thus, it forces thought about the shape of that collective future and what can be done about it, illuminating not only our ecological interdependency but also 'our ethical and political responsibilities' in the present (Cunsolo and Ellis 2018, 276).

Can care for distressed individuals be framed in a way that acknowledges the structural and ecological context of these times? Does the locating of ecological distress under labels that reference established psychological categories always work in antithesis to this? There are strong voices from *within* the mental health sector that both recognise the risk of pathologising

ecological distress and speak against it. For example, Sarah Niblock of the UK Council for Psychotherapy warns that eco-anxiety should be viewed as ‘not an illness or disorder’ but rather ‘a perfectly normal and healthy reaction’ in the context of climate change (quoted in Sarchet 2019). This echoes a common thread I observed in popular articles and social media discussion around them: the idea that eco-anxiety discloses not the disorder of the individual, but a dis-order of ecological systems; not the madness of the individual, but the madness of the political, social, and economic systems that have brought us to this point (Lawton 2019).

What might care look like when eschewing biomedical frameworks for a more social framing of ecological distress? Climate activist Bill McKibben (of the 350.org movement) has publicly advocated a network called ‘Good Grief’, which exists ‘to help combat despair, inaction, eco-anxiety, and other heavy emotions in the face of daunting systemic predicaments’. Their ten-step programme combines personal *and* collective elements (Good Grief Network 2019). The field of eco-psychology—promoted by *The Guardian* as providing ‘useful frameworks for facing up to disturbing realities and finding capacity for action’ (Law 2019)—also continues to blossom. Practices of ‘honouring pain’ in this field suggest that a certain degree of distress is a useful place from which to develop a meaningful response to these times.

How ‘we’ suffer: A caution against collectivising climate distress

Psychiatrist Lisa Van Susterne declares that ‘everyone is feeling climate anxiety, whether they know it or not, whether they like it or not, whether they admit it or not’ (quoted in The Years Project 2019). Woodbury (2019a, 4) notes that, while cultural trauma theory has typically focussed on the shared experiences of a particular social group, climate trauma applies to ‘the entire human race’. Descriptions of suffering at this scale may strike social and medical anthropologists as flattening and overly simplified. The effects of climate change vary greatly from region to region, as do its impacts on human livelihoods. So too do the people–place or people–nature relationships that are threatened by climate change. In their *Nature* article, Cunsolo and Ellis (2018, 278) observed it as ‘surprising’ and ‘remarkable’ how similar the experiences of ecological grief observed among some Canadian Inuit groups and Australian farmers seemed to be. They seem to take a very light social constructionist approach to grief as a ‘natural’ and ‘fundamentally shared’ response to loss (*ibid.*, 275). However, as medical anthropologists, we need to remain wary of attributing the same experience of ecological grief, trauma, or anxiety to ‘the entire human race’. The culturally grounded aspects of these experiences of suffering and ‘dis-ease’ must be interrogated, and the likelihood maintained that the nature and experience of the ‘wound’ will be mediated by myriad cultural and social, as well as geographic, factors. In other words, the world may hurt ‘everywhere’, as Shire (2015) says, but it will not hurt everywhere the same. So too must we be wary of over-applying an ethnocentric English-language lexicon. Instead we can look to the ethnographic record for

alternative and localised ways of understanding the emotional, social, and existential ramifications of ecological change.

Conclusion

Trauma can ‘spawn creation’ (Richardson 2018, 6), and we are arguably living at a traumatic point in human history. As medical anthropologists, we should be alert to the creation of new forms of distress, new diagnoses, and new modes of subjectivity related to the increasingly dramatic effects of climatic and ecological change on human lives. In rapidly popularising terms like ‘ecological grief’, ‘eco-anxiety’, or ‘climate trauma’, a much longer history of social and technological change, along with specific moral apparatuses linked to expert knowledges, coalesce (Biehl, Good, and Kleinman 2007, 3). We owe close attention to the meaning-making processes that surround ecological distress as part of the nexus of human experiences in the Anthropocene.

Acknowledgements

Thank you sincerely to Martha Lincoln for her detailed and insightful editorial feedback on this article. Thank you also to Sophie Zych-Watson for valuable research assistance in earlier parts of this project.

About the author

Susan Wardell is a lecturer at the University of Otago (New Zealand), with training in social anthropology and communication studies. Her past research has focussed on mental health and wellbeing, and especially burnout, among care workers, with research in East Africa and New Zealand. Her current research includes several projects around care, emotion, and affect in digital worlds, especially in relation to illness, collective tragedy, or grief.

References

- Albrecht, Glenn, Gina-Maree Sartore, Linda Connor, Nick Higginbotham, Sonia Freeman, Brian Kelly, Helen Stain, Anne Tonna, and Georgia Pollard. 2007. ‘Solastalgia: The Distress Caused by Environmental Change’. *Australasian Psychiatry* 15 (Supplement): 95–98. <https://doi.org/10.1080/10398560701701288>.
- Albrecht, Glenn A. 2019. *Earth Emotions: New Worlds for a New World*. Ithaca: Cornell University Press.

- Arciga, Julia. 2019. 'Climate Anxiety Groups Are the New Self-Care'. *The Daily Beast*, 18 September. <https://www.thedailybeast.com/climate-anxiety-groups-are-the-new-self-care>.
- BBC. 2019. 'Are You Suffering from Eco-Anxiety?'. 19 March. <https://www.bbc.co.uk/ideas/videos/are-you-suffering-from-eco-anxiety/p073zggd>.
- Biehl, João, Byron J. Good, and Arthur Kleinman. 2007. 'Introduction: Rethinking Subjectivity'. In *Subjectivity: Ethnographic Investigations*, edited by João Biehl, Byron J. Good, and Arthur Kleinman, 1–23. Berkeley: University of California Press.
- Blumenfeld, Remy. 2019. 'Angry? Depressed? You Could Be Grieving Over World Events'. *Forbes*, 28 April. <https://www.forbes.com/sites/remyblumenfeld/2019/04/28/angry-depressed-you-could-be-grieving-over-world-events>.
- Clayton, Susan, Christie Manning, and Caroline Hodge. 2014. *Beyond Storms & Droughts: The Psychological Impacts of Climate Change*. Washington, D.C.: American Psychological Association and ecoAmerica. [https://ecoamerica.org/wp-content/uploads/2014/06/eA_Beyond Storms and Droughts Psych Impacts of Climate Change.pdf](https://ecoamerica.org/wp-content/uploads/2014/06/eA_Beyond_Storms_and_Droughts_Psych_Impacts_of_Climate_Change.pdf).
- Clayton, Susan, Christie Manning, Kirra Krygsman, and Meighen Speiser. 2017. *Mental Health and Our Changing Climate: Impacts, Implications, and Guidance*. Washington, D.C.: American Psychological Association and ecoAmerica. <https://www.apa.org/news/press/releases/2017/03/mental-health-climate.pdf>.
- Cunsolo Willox, Ashlee. 2012. "'From This Place and of This Place": Climate Change, Sense of Place, and Health in Nunatsiavut, Canada'. *Social Science & Medicine* 75: 538–547.
- Cunsolo Willox, Ashlee. 2013. 'Climate Change and Mental Health: An Exploratory Case Study from Rigolet, Nunatsiavut, Canada'. *Climatic Change* 121: 255–270.
- Cunsolo, Ashlee, and Neville R. Ellis. 2018. 'Ecological Grief as a Mental Health Response to Climate Change-Related Loss'. *Nature Climate Change* 8: 275–281. <https://doi.org/10.1038/s41558-018-0092-2>.
- Cunsolo Willox, Ashlee, Eleanor Stephenson, Jim Allen, François Bourque, Alexander Drossos, Sigmund Elgarøy, Michael J. Kral, et al. 2015. 'Examining Relationships between Climate Change and Mental Health in the Circumpolar North'. *Regional Environmental Change* 15: 169–182.
- Dickinson, Elizabeth Evitts. 2008. 'Eco Anxiety'. *New York Times Magazine*, 20 April.
- Dockett, Lauren. 2019. 'Clinician's Digest: The Rise of Eco-Anxiety'. *Psychotherapy Networker* 43 (10): 11–14.
- Dodgen, Daniel, Darrin Donato, Nancy Kelly, Annette La Greca, Joshua Marganstein, Joseph Reser, Josef Ruzek, et al. 2016. 'Chapter 8: Mental Health and Wellbeing'. In *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*,

- produced by US Global Change Research Program, 217–246. Washington, D.C.: US Global Change Research Program. <http://dx.doi.org/10.7930/J0TX3C9H>.*
- Drake, Nadia. 2015. 'Will Humans Survive the Sixth Great Extinction?'. *National Geographic*, 23 June. <https://www.nationalgeographic.com/news/2015/06/150623-sixth-extinction-kolbert-animals-conservation-science-world>.
- Ellis, Neville. 2016. 'Farmers' Sense of Place and Mental Wellbeing in an Era of Climate Change: A Case Study in the Western Australian Wheatbelt'. PhD thesis, Murdoch University.
- Friberg, Torbjörn, 2009. 'Burnout: From Popular Culture to Psychiatric Diagnosis in Sweden'. *Culture, Medicine & Psychiatry* 33: 538–558. <https://doi.org/10.1007/s11013-009-9149-z>.
- Fulton, Graham, Chris Madden, and Victor Minichiello. 1996. 'The Social Construction of Anticipatory Grief'. *Social Science & Medicine* 43 (9): 1349–1358. [https://doi.org/10.1016/0277-9536\(95\)00447-5](https://doi.org/10.1016/0277-9536(95)00447-5).
- Fuberg, Maria, Birgitta Evengård, and Maria Nilsson. 2011. 'Facing the Limit of Resilience: Perceptions of Climate Change Among Reindeer Herding Sami in Sweden'. *Global Health Action* 4 (1): 8417. <https://doi.org/10.3402/gha.v4i0.8417>.
- Gibson, Lorena. 2019. 'Anthropology as Repair: Anthropological Engagement with Hope and its Others'. *Anthropology Quarterly* 92 (2): 575–585. <https://doi.org/10.1353/anq.2019.0026>.
- Goleman, Daniel. 2009. 'The Age of Eco-Angst'. *New York Times*, 27 September. <https://opinionator.blogs.nytimes.com/2009/09/27/the-age-of-eco-angst/>.
- Good Grief Network. 2019. '10-Steps to Personal Resilience & Empowerment in a Chaotic Climate'. <https://www.goodgriefnetwork.org/10-steps/>.
- Ingram, Catherine. 2019. 'Facing Extinction'. <https://www.catherineingram.com/facingextinction>.
- Jarvis, Brooke. 2018. 'The Insect Apocalypse is Here'. *New York Times Magazine*, 27 November. <https://www.nytimes.com/2018/11/27/magazine/insect-apocalypse.html>.
- Kaplan, E. Ann. 2016. *Climate Trauma: Foreseeing the Future in Dystopian Film and Fiction*. New Brunswick: Rutgers University Press.
- Kirmayer, Lawrence J. 2005. 'Culture, Context and Experience in Psychiatric Diagnosis'. *Psychopathology* 38 (4): 192–196. <https://doi.org/10.1159/000086090>.
- Kleinman, Arthur. 1982. 'Neurasthenia and Depression: A Study of Somatization and Culture in China'. *Culture, Medicine & Psychiatry* 6: 117–190. <https://doi.org/10.1007/BF00051427>.
- Kleinman, Arthur. 2006. *What Really Matters: Living a Moral Life amidst Uncertainty and Danger*. New York: Oxford University Press.
- Kleist, Nauja, and Stef Jansen. 2016. 'Introduction: Hope over Time—Crisis, Immobility, and Future-Making'. *History and Anthropology* 4: 373–392.

- Kriss, Sam, and Ellie Mae O'Hagan. 2017. 'Tropical Depression: On Climate Change and Human Futilitarianism'. *The Baffler* 36: 30–38. <https://thebaffler.com/salvos/tropical-depressions-kriss-ohagan>.
- Lagerblad, A. 2010. 'Climate Anxiety: New Phenomenon in Psychiatry.' *Svenska Dagbladet*, 7 December.
- Law, Rob. 2019. 'I Have Felt Hopeless Over Climate Change. Here is How we Move Past the Immense Grief.' *The Guardian*, 9 May. <https://www.theguardian.com/commentisfree/2019/may/09/i-have-felt-hopelessness-over-climate-change-here-is-how-we-move-past-the-immense-grief>.
- Lawton, Graham. 2019. 'If We Label Eco-Anxiety as an Illness, Climate Denialists have Won'. *New Scientist*, 9 October. <https://www.newscientist.com/article/mg24432512-900-if-we-label-eco-anxiety-as-an-illness-climate-denialists-have-won>.
- Lee, Wendy Lynne. 2017. *Eco-Nihilism: The Philosophical Geopolitics of the Climate Change Apocalypse*. Lanham: Lexington Books
- Leff, Lisa. 1990. 'Ecology Carries Clout in Anne Arundel'. *The Washington Post*, 5 August. <https://www.washingtonpost.com/archive/local/1990/08/05/ecology-carries-clout-in-anne-arundel/a01f0325-e1bf-4f25-b180-65bc4540ef0c>.
- Leiserowitz, Anthony, Edward Maibach, Connie Roser-Renouf, Seth Rosenthal, Matthew Cutler, and John Kotcher. 2018. *Climate Change in the American Mind*. New Haven: Yale Program on Climate Change Communication. <https://climatecommunication.yale.edu/wp-content/uploads/2018/04/Climate-Change-American-Mind-March-2018-1.pdf>.
- Lertzman, Renee. 2015. *Environmental Melancholia: Psychoanalytic Dimensions of Engagement*. London: Routledge.
- McGrath, Matt. 2019. 'Climate Change: Sir David Attenborough Warns of "Catastrophe"'. *BBC*, 18 April. <https://www.bbc.com/news/science-environment-47976184>.
- McKie, Robin. 2018. 'Portrait of a Planet on the Verge of Collapse', *The Guardian*, 2 December. <https://www.theguardian.com/environment/2018/dec/02/world-verge-climate-catastrophe>.
- Noble, Audrey. 2019. 'How to Talk to Your Kids About Eco-Anxiety'. *Vogue*, 26 July. <https://www.vogue.com/article/how-to-talk-to-your-kids-about-eco-anxiety>.
- Norgaard, Kari Marie. 2011. *Living in Denial: Climate Change, Emotion, and Everyday Life*. Cambridge: MIT Press.
- Pearl, Mike. 2019. "'Climate Despair' Is Making People Give Up on Life'. *Vice*, 11 July. https://www.vice.com/en_us/article/j5w374/climate-despair-is-making-people-give-up-on-life.
- Pooley, Eric. 2010. *The Climate War: True Believers, Power Brokers, and the Fight to Save the Earth*. New York: Hyperion.
- Richardson, Michael. 2018. 'Climate Trauma, or the Affects of the Catastrophe to Come'. *Environmental Humanities* 10 (1): 1-19. <https://doi.org/10.1215/22011919-4385444>.

- Rosenfeld, Jordan. 2016. 'Facing Down "Environmental Grief"'. *Scientific American*, 21 July. <https://www.scientificamerican.com/article/facing-down-environmental-grief/>.
- Sarchet, Penny. 2019. 'Stressed About Climate Change? Eight Tips for Managing Eco-Anxiety'. *New Scientist*, 21 October. <https://www.newscientist.com/article/2220561-stressed-about-climate-change-eight-tips-for-managing-eco-anxiety/>.
- Shire, Warsan. 2015. 'What They Did Yesterday Afternoon'. *Verse*. <https://verse.press/poem/what-they-did-yesterday-afternoon-6524900794187889060>.
- Smith, Charlie. 2018. 'Canadian Politicians Aren't the Only Folks Embracing Climate Nihilism'. *The Georgia Straight*, 12 May. <https://www.straight.com/news/1074736/canadian-politicians-arent-only-folks-embracing-climate-nihilism>.
- The Years Project. 2019. 'The Storm Inside'. *Climate Facts*, 4 February. <https://www.facebook.com/watch/?v=516441678845550>.
- Woodbury, Zhiwa. 2019a. 'Climate Trauma: Toward a New Taxonomy of Trauma'. *EcoPsychology* 11 (1): 1–8. <https://doi.org/10.1089/eco.2018.0021>.
- Woodbury, Zhiwa. 2019b. 'Climate Trauma & Recovery: The Healing Path of Cultural Truth and Reconciliation.' *EcoPsychology NOW!*, 13 February. <https://ecopsychologynow.blog/2019/02/13/climate-trauma-recovery-the-healing-path-of-cultural-truth-reconciliation>.