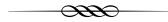


Chapter 13

Towards Extinction

Mapping the Vulnerable, Threatened and
Critically Endangered Plant in ‘Moments of Friction’

Dawn Sanders



... and the maps of Spring always have to be redrawn
again, in undared forms.

—K. McKittrick, *Sylvia Wynter*

Introduction

Deepening our relationships to plants confronts educators with challenging questions in an age of extinction. As Rose, van Dooren and Chrulew have noted, ‘there is no singular phenomenon of extinction: rather extinction is experienced, resisted, measured, enunciated, performed and narrated in a variety of ways to which we must attend’.¹ Bringing art-based approaches to these interstitial spaces of attention can mesh the biological and the cultural into plant encounters that provoke ‘human curiosity towards plant-based narratives, and give humans agentic space to experience being with, thinking through, and understanding something genuinely moving of the lives of plants’.² Critical animal studies scholars have done much to give agency to non-human animals in these encounters, and in so doing have asked vital questions of educational institutions such as: ‘what does education become when humans are not regarded as the only subjects?’³ In these contested territories of teaching and learning, how can we articulate potential spaces for what Broglio terms ‘moments of friction’⁴ in

the context of ‘what is’, ‘what is not’ and ‘what might be’, when plants are revealed through encounters with art works?

In recent years an interdisciplinary nexus has been generated around what it means to experience life as a plant. From the science of plant behaviours, plant language and meaning-making to plant-based philosophy, plant enquiries are crossing disciplinary and conceptual boundaries. The everyday life of a plant can appear to be static and silent to human perception. And yet, as modern science narratives tell their stories, we are realizing that plants live in complex and often social worlds. Removing plants from the human view makes it easier for us to exploit them, and appears accordingly to reduce our ability to see into their worlds. In our research study ‘Beyond Plant Blindness: Seeing the importance of plants for a sustainable world’, we asked how, by taking a different view through an interdisciplinary lens, we might improve our understanding and sensitivity to the lives of plants.⁵

In this chapter I draw on the installations created by the artists Snæbjörnsdóttir and Wilson in the aforementioned research project to assert the view that contemporary education needs to be spatially and temporally responsive to ‘Life as Plant’, particularly when such plants are vulnerable, threatened and endangered. Art, in this space, can reveal aspects of ‘plantness’⁶ hitherto underexposed to human view, and in so doing, provoke unsettling ‘contact zones’⁷ between plant and human subjects. In an age rampant with extinction,⁸ there is a critical need to resist ‘the temptation to simplify a relationship that has too long an abusive history to be mended easily’.⁹

Art and ‘Plantness’: Albrecht Dürer and *The Large Turf*

Albrecht Dürer produced his watercolour *The Large Turf* in 1503. A relatively small painting (41 × 32 cm), it is seen by many modern commentators as a defining moment in vibrant portraits of plant life. Lubbock, for example, notes that Dürer’s painting

doesn’t visually isolate or distinguish its various plants. It presents them in a state of natural disarray, confused, interleaved, entangled. Though each growth is clearly identifiable, the picture is far from being a biological ID parade. It is a slice of living, chaotic undergrowth.¹⁰

The contemporary British artist Mat Collishaw has wondered why, in an era filled with religious imagery, Dürer chose to focus his artistic atten-

tion on a 'seemingly insignificant clump of weeds'.¹¹ Richard Mabey in his book *Weeds* considers it to be 'painting's discovery of ecology'.¹²

In making this painting, Dürer creates a realistic window on a very ordinary group of living plants, but in taking the 'worm's eye view',¹³ he brings us, the human viewers, deep into the world of plants, and allows us to view the structural complexity of each blade and stem, and makes public a subtle palette of greens. In this realism we can identify many of the species portrayed, such as cock's-foot (*Dactylis glomerata*), dandelion (*Taraxacum officinale*), smooth meadow grass (*Poa pratensis*) and greater plantain (*Plantago major*). Thus, this is not generic greenery, but a carefully executed visual record of different types of plant. Each plant, through his painterly rendition, is accorded its singularity. Dürer's excursion into the aesthetics of commonplace plants opens a window onto a little-known world. In making this ordinary world public, Dürer creates a contact zone between human and plant, and, I believe, offers us a critical juncture in the history of artistic representations of 'Life as Plant', albeit that, perhaps, this was not his foremost intention.

Ecologies of Existence

Biologically, '[f]or the vast majority of organisms, the world is the product of plant life, the product of the colonization of the planet by plants'.¹⁴ Moreover, plant biomass on Earth is substantial.¹⁵ And yet, in recent years, we see that many plant populations are struggling to survive, and individual species are increasingly exposed to the stark possibilities of extinction.¹⁶ One of the resounding echoes in contemporary society is that of a world in which plants are viewed as 'Other'.¹⁷ This 'flattening' of plant worlds into a 'thin layer'¹⁸ of otherness has implications for the contact zones between humans and plants: 'In the absence of respect and real curiosity, attentiveness falters. Complex systems become reduced to green blurs, with dangerous consequences for both us and for individual species'.¹⁹

The root of the word 'ecology' is the Greek word 'oikos', meaning 'home'. But where is 'home' to be found for plants and animals in an era dominated by ecologies of existence of ever-increasing vulnerability, both within habitats and across populations. Contemporary narratives of conservation biology appear to be dominated by extensive loss,²⁰ mirrored in titles such as: '*Extinction in Our Times*', '*Requiem for Nature*', '*Silence of the Songbirds*'. Furthermore, as Kolbert notes, it is 'not just species vanishing. Entire features of the earth are disappearing'.²¹ Critically, for this chapter, she observes: 'Hope and its doleful twin, hopelessness, might be thought of as the co-muses of the modern eco-narrative. Such is the world we've created – a

world of wounds – that loss is, almost invariably, the nature writer's subject. The question is how we relate to that loss'.²²

Working with plant education in a highly urbanized twenty-first century is to engage with Kolbert's question on multiple levels, for the species loss she speaks of is but one absent presence among many; another is the reduction of a highly complex living world into 'an amorphous set of words and a collection of fleeting images',²³ which fail to engage human attention; such perceptual redaction can result in people neither registering the importance of plants and animals, nor mourning their loss. Education can be considered a significant cultural actor in such relational processes. However, much of modern education appears to be mired in competitive measurement and performativity structures,²⁴ operating in time-constrained spaces that function as inhibitors of lingering encounters with the more-than-human world. Affording plants space and time to grow in school and university settings necessitates active participation from teachers and students, and environments conducive to plant life. In addition, these experiences require sustained human witness beyond the young emergent seedling of an annual cycle. Moreover, relationships with older, mature plants are necessary to understand that many plant lives have timescales beyond most humans, and in this longevity they offer shelter and nourishment to a broad range of living beings.²⁵

In the following section I reflect on three particular art installations developed by the artists Snæbjörnsdóttir and Wilson in the aforementioned interdisciplinary research project. They are situated in relation to mapping a vulnerable plant, *Stipa pennata*, whose existence is threatened, in a specifically Swedish context. I intend to discuss potential 'contact zones' between plant and human in order to identify a role for art in the context of making 'Life as Plant' public in an age when the threat of extinction is, for many, imminent.

Searching for Stipa

A vast and highly detailed enlargement of a *Stipa pennata* (European feather grass) plume-like awn, hangs in a barn-like building (Stolpboden) in Gothenburg Botanic Garden, Sweden, in 2017. As visitors enter a central doorway they are confronted by the horizontal, fourteen-metre-long paper print; a seamless unification of twenty-nine separate Scanning Electron Microscope (SEM) scans lit by lamps specifically installed for the work:

Often with natural objects depicted in art there is an underlying scientific narrative to tell. The artwork *Searching for Stipa* is no exception.

When looking at the 14 m long print in Stolpboden, one is impressed by its sheer size and beauty, but what is it that is shown? Why does the plant possess such a structure? In the rain shelter we look at the remnants of a Swedish *Stipa* population, and are moved by the fact that a species is disappearing from our flora; but why, in Sweden, is the plant so rare?²⁶

The following year, in House B, Pedagogen, University of Gothenburg, the same image, this time conceived as a woven wool tapestry, is hung vertically outside the stairwell (Fig. 13.1). In conversation with the artists, provoked by questions from the editors of this collection, we have reflected on both the material of the tapestry and significance of the tapestry form. Tapestries have traditionally been made of cotton or wool, and have utilized symbols of heraldry and pageantry to convey both power and community. Therefore, their cultural role is not only to commemorate military prowess, ancestors and strength or to elicit religious respect, but also to join particular communities together – for example, trades unions – and to symbolize that communal bond in celebratory parades. Students and teachers entering House B are confronted by a specific aspect of ‘plantness’ (the awn of a seed) made statuesque in a union of animal (domesticated sheep) and plant (*Stipa pennata*). Thus, the artists suggest this amalgamation of accommodating animal and plant, the cultural history of tapestries, and the technological work in constructing the work can be considered as an entanglement of political ecology.

A symposium event planned to coincide with the public opening of the artwork asked: ‘*Where can a single plant take you?*’, mirroring the provocation of the artwork, hanging in the foyer, of the building in which the seminar took place. In its scale, Snæbjörnsdóttir and Wilson’s tapestry renders the miniature awn monumental and confronts with its enormity, whereas Dürer’s watercolour is relatively small and quietly invites the viewer to wander into a small clump of common plants. Thus, the tapestry, as a representation of ‘plantness’, offers artistic contrast to the Dürer representation as contact zones between plant and human.

The artworks that make up *Seaching for Stipa #1*, *Searching for Stipa #2* and *Searching for Stipa Tapestry* intimately engage with one species (*Stipa pennata*) and its competitive struggles to reproduce. These plants are living in two ‘moments of friction’; one biological, as a wind-pollinated and wind-dispersed plant, the other cultural, as a plant whose Swedish habitats have been altered and diminished, leaving them with few places to survive. In their biological world:

Stipa pennata is wind-pollinated. In order for seeds to develop, pollen must be carried through the air by the wind to reach the stigma of another plant. When populations are small, the mere chance to reach the



Illustration 13.1 Snæbjörnsdóttir and Wilson, *Searching for Stipa*, 2018, Tapestry, 14 m × 1.5 m, installed in Hus B, Pedagogen, University of Gothenburg.

right partner is low. Wind will also be saturated by pollen from other grass species, soon clogging stigmas, and leaving no room for pollen of the right kind to interact. Consequently, the seed set is lowered. The seeds are also distributed by wind. As a means [of] dispersal it has a 20 cm long plume-like awn attached to its fruit. This structure is what we see clearly

in the Stolpboden print and later in the artist's tapestry [Fig. 13.1]. The awn not only allows the fruit to become airborne, but once it lands, helps drill the fruit, with the seed inside, into the ground. Repeated changes in humidity between night and day cause the awn to twist and untwist, and in the process, the pointed fruit is pushed into the soil.²⁷

Problems arise when this biological seed structure joins the cultural habitat context. 'This self-burial mechanism is interesting biologically, but requires patches of open soil to work. In dense vegetation it is not the most reliable system . . . In the absence of cattle to break up the ground, the European feathergrass is at risk of being overrun by more competitive plants in the area',²⁸ and so a cultural strategy of fencing off an area causes stress to the plant, as the cows – and their hooves – no longer have access to the site, and so vegetation, and thus biological competition, increases in density.

Searching for Stipa #2 (Fig. 13.2) shows an entangled meadow of competition within which the remaining populations of *Stipa pennata* in Sweden strive to survive. Hence, in the narrative of the art installations, one specific



Illustration 13.2 Snæbjörnsdóttir and Wilson, *Searching for Stipa #2*, 2017, installation in the rain shelter, Botaniska (installation detail).

seed, *Stipa pennata*, is made large in *Searching for Stipa #1* only to vanish amongst a throng of competing plants in *Searching for Stipa #2*. As Bente Eriksen asks: ‘The long, silver-white plumes of the *Stipa* make an impressive spectacle when they move in the wind; the question remains whether we will see this sight in Sweden for much longer’.²⁹

In our study of viewers’ impressions, these artworks provoked complex responses. Of particular interest was the impact of the ‘scaling-up’ of microscopic seed parts in *Searching for Stipa #1*.

[This] appeared to create an intersectional zone between plant and animal identities . . . As a result, these participants appeared to question, examine and recalibrate the taxonomies of their impressions. For example, several participants moved between thinking they were looking at an earthworm, or even a one-celled animal, to deciding it might be part of a plant . . . [T]he installation provoked reflections on what it is to be an animal or plant at all, in terms of visible characteristics.³⁰

Indeed, the ‘scale-jumping’ from microscopic awn to seed-dispersal mechanism made large seemed to provoke fascination, curiosity and confusion. Several participants agreed the work gave them a ‘new perspective’ on plants. For some viewers, *Searching for Stipa #2* evoked emotions mainly related to aesthetic qualities of beauty and colour. Beauty was seen, in this context, as associated both to ‘the beauty of nature’ and to the beauty of the artwork itself. Furthermore, it appeared to provoke a deep engagement with the act of looking at plants.

Art and Botanical Attention

Finding the narratives that make public the ‘Life as Plant’ story without negating the attributes that make plants and their lives ‘other’ in the eyes of human audiences is a challenge for science communicators and educators. In our interdisciplinary research project ‘Beyond Plant Blindness’, we found that integrating art, science and education as a shared praxis generated new possibilities for humans to see into the world of plants; art in such contexts did not merely represent plants, but placed them in ‘contact zones’ in which humans were provoked to think about, and reflect on, what they were seeing – and to consider if, indeed, it even was a plant, or part of a plant, that they were witnessing. In this setting, Snæbjörnsdóttir and Wilson, through changes of scale (*Searching for Stipa #1*, *Searching for Stipa Tapestry*), and immersions of place (*Searching for Stipa #2*), render the familiar strange and encourage elements of perceptual disorientation in order to bring a specific grass narrative to our attention. In this way the

biography of *Stipa pennata*, and its specific seed physiology and habitat, is foregrounded and cannot be redacted from human view.

In drawing our attention to vulnerable and threatened plants through the lens of one single species, the artworks of Snæbjörnsdóttir and Wilson focus our botanical gaze and do appear to provoke the question: ‘where can a single plant take you’? If we choose to follow their subject, we might then question what it means to live ‘Life as Plant’ at this point in time. Perhaps, in these encounters with *Stipa*, we can begin to comprehend the enormity of the notion that ‘extinction is an absolute term, meaning that no individual of a species remains alive’.³¹ *Stipa pennata* is *not* going extinct in its wider European range, but the possibility is very real in the Swedish context. Thereby, by taking one plant from Sweden, living such a precarious existence, the artworks *Searching for Stipa #1*, the *Tapestry* and *Searching for Stipa #2* map the contemporary challenges of ‘Being Plant’ in one singular biocultural context.

There is another perspective to this encounter; by representing the plant on different scales (i.e. a close-up of a specifically adapted seed distribution mechanism and the remaining plants lost in an entangled clamour of competitors), Snæbjörnsdóttir and Wilson make public the unique story of ‘what is’, ‘what is not’ and ‘what might be’ for *Stipa pennata* in Sweden. In so doing, they mirror the vibrancy of Dürer’s intensely present turf portrait, and affirm Fortey’s assertion that ‘[e]very species has a narrative of its own, a biography. The loss of a species is not just one lower point on a graph of biodiversity, it is also the loss of a unique story’.³²

In an era dominated by ecologies of existence that perch on the edge of life, represented by science as specific categories of vulnerability, art that utilizes individual plant narratives can make public what it means to *be* ‘plant’, both structurally and contextually, in a modern world where extinction proliferates. Perhaps, by installing art-based research in educational contexts, such as botanic gardens and universities, such works might provoke contemporary spectators to view plants as individual subjects that draw their attention. For, as noted by the artists, ‘In *Searching for Stipa*, through scale, medium *and* genre, the form of one part of the plant, an airborne seed awn, is made the subject of celebration and wonder – exactly and strategically made strange and de-familiarised, in order to provoke new readings and respect’ (Snæbjörnsdóttir and Wilson, personal communication, 22 October 2020).

In the face of exponential levels of extinction, there is a pressing need for all of us to engage, both conceptually and responsibly, with other organisms possessing entirely different physiologies and behaviours. In our engagement with such difference, it is vital that we are not diverted into human registers and ‘terms of resemblance’,³³ but rather to participate in

the particular subjectivities of ‘plantness’. In this context we have found that:

Art not only offers visual beauty, but can unsettle and disrupt human perspectives on ‘plantness’. It may connect to one’s emotions through the interpretation of what one sees, and it can also challenge the long-held view . . . Our research participants saw beauty, but also stopped to think about biological diversity and how different plants are to humans.³⁴

In providing intimate contact with those we consider to be ‘other’ in art, our project appears to provoke curiosity, confusion and emotion in the presence of plants. In viewing *Stipa pennata* as a single species struggling to persist in a changing Swedish landscape, Snæbjörnsdóttir and Wilson’s works engage with an individual narrative; an approach that might foster greater understanding and recognition of ‘Life as Plant’. In the looming presence of extinction, such singular spaces of encounter are vital contact zones between plant and human.

Slowly every kind of one comes into ordered recognition. More and more, then, it is wonderful in living the subtle variations coming clear into ordered recognition, coming to make everyone a part of some kind of them.³⁵

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Notes

1. Rose, van Dooren and Chrulw, *Extinction Studies*.
2. Sanders, ‘On Trying to Understand’, 48.
3. Dinker and Pedersen, ‘Critical Animal Pedagogies’.
4. Broglio, *Surface Encounters*.

5. Snæbjörnsdóttir, Wilson and Sanders, *Beyond Plant Blindness*.
6. Darley, 'The Essence of "Plantness"'.
7. Broglio, *Surface Encounters*.
8. Willis, 'State of the World's Plants 2017'.
9. Nitzke, 'Listening to What Trees Have to Say'.
10. Tom Lubbock's article 'Dürer, Albrecht: *The Large Turf* (1503)', *The Independent*, 18 January 2008. Retrieved 28 January 2021 from: <https://www.independent.co.uk/arts-entertainment/art/great-works/durer-albrecht-the-large-turf-1503-770976.html>.
11. Collishaw, 'Burning Flowers'.
12. Mabey, *Weeds*.
13. Pavord, *The Naming of Names*.
14. Coccia, *The Life of Plants*.
15. Bar-On, Phillips and Milo, 'The Biomass Distribution on Earth'.
16. See, for example, Willis, 'State of the World's Plants 2017'.
17. Eriksen and Sanders, 'Seeing Significance in Plants'.
18. Broglio, *Surface Encounters*.
19. Mabey, *The Cabaret of Plants*, 5.
20. Elizabeth Kolbert, 'How to Write about a Vanishing World'. *The New Yorker*, 15 October 2018. Retrieved 1 October 2020 from: <https://www.newyorker.com/magazine/2018/10/15/how-to-write-about-a-vanishing-world>.
21. Ibid.
22. Ibid.
23. Hatley, 'Walking with Ōkami', 32.
24. Biesta, *Educational Research*.
25. Afffi, 'Plant Blindness Leads to Extinction Blindness'.
26. Eriksen, 'The European Feathergrass', 92.
27. Ibid.
28. Ibid.
29. Ibid.
30. Sanders, 'On Trying to Understand', 47.
31. Willis, 'State of the World's Plants 2017'.
32. Fortey, 'Island Life'.
33. Houle, 'Animal, Vegetable, Mineral'.
34. Eriksen and Sanders, 'Seeing Significance in Plants', 18.
35. Stein, *The Making of Americans*.

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