The Wild Process: Constructing Multi-Scalar Environmental Narratives

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In *The Song of the Earth*, arguably the foundational text of 21st-century ecocriticism, Jonathan Bate writes that the ecopoet is someone who can turn the experiences of 'reverie, solitude, [and] walking' into language (Bate, 2001, p. 42). His approach to reading is based on a similar methodology: through specific close readings of carefully chosen poems, Bate demonstrates how poets such as William Wordsworth (1770–1850) (re-)wrote the British environmental narrative to prioritise individual responses to a natural world. In doing so, each poet — though in very different ways — sought to situate themselves as part of an ecosystem in which the same forces of life and joy 'rolled through all things' (Wordsworth, "Tintern Abbey", in *Major Works* (Wordsworth, 2011)).

Bate's argument tends to assume that all people have the same kind of access to green spaces, and so can share similar ecopoetic experiences which – by

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extension – can be unpacked and understood through an ecopoetic analytic. But the experiences that poets like William Wordsworth express, and that Bate explores, are almost exclusively predicated on the assumption that the ecopoet goes forth into the landscape alone, ready to enjoy a solitary communion with 'Mother Nature'. Bate sees no problem in assuming that masculine pronouns can stand in for all human experience, and that nature can be figured as female; it's a practice 'as old as Hesiod', he writes. But Bate's unwillingness to challenge this ancient power dynamic between an implicitly male ecopoet and a feminised landscape has wide-reaching consequences that, as we explore here, extend beyond the close readings of historical environmental narratives.

Scott Hess has pointed out that there are distinct problems with understanding the experiences of authors such as William Wordsworth as being representative (Hess, 2012, pp. 10–11). The problem, as Jos Smith indicates in *The New Nature Writing*, is that it is impossible to effect the distinction between nature and culture which this kind of ecopoetics assumes: 'Beyond the aesthetic production of "Nature" as a particular style of distant and enshrined object', he asks, 'how might those engaged with the world do things differently?' (Smith, 2017, p. 15). This concern is born out of a tradition Smith shares with Bate: his worry that landscape is becoming 'distant' is a direct consequence of the individualism – at worst, even close-mindedness – of Bate's Wordsworthian ecopoetics.

But none of these critics offer substantial alternatives to this model, which Kathleen Jamie has called that of the 'Lone Enraptured Male' (Jamie, 2008). For Jamie, the consequences go beyond the literary: they are at the very heart of what we mean when we talk about 'wildness' in landscapes – and, even more than that, are core to the practices we develop to manage 'wild' places. What we offer here is a challenge to the individualistic, ecopoetic approach to British environmental narratives by using Jamie's thinking as inspiration for both the texts we use and the methods we employ to analyse them. Following Jamie's guidance to incorporate and acknowledge more – and more diverse – voices into environmental narratives, and to situate community at the heart of how we interpret both text and landscape, what we describe here is an attempt to unite distance and closeness, individualism and community, and computational analysis with human reading. In short, what we want to suggest is that, by attending to alternative voices in environmental narratives, we can find new methodological perspectives, too.

In this instance, we have turned to two corpora of environmental writing by British women to investigate, first, how women's environmental narratives differ from men's and, second, what implications for multiscalar approaches to text and landscape we can uncover from these overlooked works. The first is a small corpus of writing about Rannoch Moor that extends the collection introduced earlier in this volume, and allows us to consider how masculine forms of 'wildness' differ from feminine ones at a specific location whose very geography

stimulates considerations on the ways we negotiate closeness and distance. We then situate the readings of this corpus as part of an analysis of a larger corpus of nature writing that allows us to investigate at scale the implications of gender on environmental narratives. First, though, we turn to Jamie to develop a more thorough understanding of why gender matters for the ways we read, interpret and deploy environmental narratives.

8.1   Challenging the 'Lone Enraptured Male'

In her review for the *London Review of Books* of Robert Macfarlane's *The Wild Places* (Jamie, 2008), Jamie challenges Macfarlane's understanding of what it means to express the experience of being in a wild place. Macfarlane's celebration of the 'Lone Enraptured Male' represents a figure who imagines that he is '[h]ere to boldly go, 'discovering', then quelling our harsh and lovely and sometimes difficult land with his civilised lyrical words' (Jamie, 2008). In his writing, and in that of the authors in whose footsteps Macfarlane imagines himself to be treading (not least William Wordsworth), the landscape is made bare of people; Macfarlane deliberately seeks a place that feels like it is 'outside of human histories'. Instead, it becomes a place characterised by 'silence, an avoidance of voices other than the author's, just wind in the trees, or waves, the cry of the curlew' (Jamie, 2008), or what Jamie later calls 'theatrically empty places' in which emptiness and wildness might be performed, but is never genuine. In this tradition, Jamie argues, human histories – particular those of the peoples who have worked the landscape – are overwritten in favour of a carefully crafted version of nature which tells us much more about the individual author than the environment they describe. For Jamie, Macfarlane's 'lovely honeyed prose' lays 'an enchantment on the land': nature is thus something Other, something to be tamed by the 'enraptured' literary response of the 'bright, healthy and highly educated young man', who packages the landscape for the armchair geographer's willing consumption (Jamie, 2008).

   The issue Jamie identifies here is far higher stakes than only the literary. Accounts like Macfarlane's indicate a form of environmental management; in this case, an individual's narrative is imposed on the wild place, and that account in turn comes to influence the way the land itself is managed. This is perhaps most obvious in the English Lake District, which was designated a UNESCO World Heritage Site in 2017 on the promise that it would be managed as a 'cultural landscape' on the strength of its long-standing literary, artistic, and agricultural histories (Lake District National Park Partnership, 2016). Jamie believes that, when nature and ecopoetic culture come together in this way, ecodiversity itself is threatened:

> When the wild is protected by management, or re-created by the removal of traces of human history, you have to ask, who are these

managers? Why do conservationists favour this species over that? Whose traces are considered worth saving, whose fit only to be bull-dozed? (Jamie, 2008)

The problem with narratives that seek to elide human histories in favour of a mythic version of 'wildness' is not only that they risk stripping the landscape of its cultural diversity: they also risk promoting versions of environmental management that homogenise a wild place's flora and fauna. A lack of diversity in literary representation, in Jamie's approach, matters because it leads to a break-down of ecodiversity as a result of prioritising one kind of individualist narrative over the multitudinous alternatives.

But, Jamie argues, there is another approach to both reading and writing environmental narratives which offers new ways of understanding the nature writing genre and what we mean by 'wildness'. Rather than emphasising – as both historical and contemporary accounts of nature writing have tended to — the 'lone enraptured' response to a place, Jamie advocates for amplifying the voices of those myriads of people, 'many of them women', who study, think and write about the environment as a complex ecosystem in which nature and culture interlink. Macfarlane also recognises this problem with his intuitive approach: towards the end of *The Wild Places*, he realises that it is 'nonsensical' and 'improper' to think of anywhere as being 'outside of human histories'. Jamie notes appreciatively that Macfarlane's recognition of his 'myopia', which has caused him to look 'too much into the apparently empty distance', leads to a revelation about the multiscalar nature of wild places: 'a wild place is not necessarily landscape-sized, and not necessarily an adventure playground. A wild place can also be mouse or beetle-landscape sized, and everywhere, and near at hand' (Jamie, 2008). Reading the environment through a multiscalar lens, Jamie implies, brings the distance close and imposes a sense of enormity onto the tiny. It is only when we apply this approach to both reading and writing environmental narratives that we can uncover the diversities – eco- and human – which make up any wild place.

This argument for diversity – wherein class, race and gender are also brought to bear on the environmental narrative – encourages Jamie to reform the notion of wildness. It is not a place, she concludes, but might instead be 'better described as a process'. When wildness becomes 'a force requiring constant negotiation' (Jamie, 2008), it is able to contain a huge variety of plants, animals, cultures and voices that respond to changing cultural and climatological environments. Refusing to pin down a wild place's environmental narrative allows for more creative and more adaptable responses, whether those take the form of literary or management decisions. How this diversification operates at a literary level is our focus for the remainder of this chapter. Specifically, we want to ask what impact gender has on the narrating of environmental landscapes and experiences. To do so, we follow other contributors to this volume by starting

at a particular location that has both a literarily and environmentally diverse history: Rannoch Moor.

8.2   Processing Literary Diversity on Rannoch Moor

Our starting point was two pieces of nature writing: extracts about the Moor from W. H. Murray's account *Undiscovered Scotland* (Murray, 2003), and Robert Macfarlane's *The Wild Places* (Macfarlane, 2008). Because our interest in this case was specifically in nature writing as a literary genre, we took these extracts and added four more to them to create a small corpus of 19th-, 20th- and 21st-century nature writing about Rannoch Moor. Our adapted corpus included the extracts from Murray and Macfarlane, alongside a passage from Dorothy Wordsworth's (William's sister) *Recollections of a Tour Made in Scotland* (Wordsworth, 1997) (first written in 1803), Kathleen Jamie's poem 'The Way We Live' (Jamie, 1987), an extract from Linda Cracknell's 2014 account of her pedestrian adventures *Doubling Back* (Cracknell, 2014), and Jackie Kay's poem "Rannoch Loop" (Kay, 2017), written about a reading in Rannoch's remote train station as part of her role as Scotland's Makar.

This small corpus totalled just over 6700 words, and there are of course problems with using a corpus of this size to extract meaningful patterns from textual data. But bringing Bate's literary ecopoetic approach into conversation with the distant readings promoted by a computational one that favour quantitative or quantifiable data allows us to generate multiscalar modes of textual analysis that offer new opportunities to create diverse environmental narratives out of a corpus of texts, of the kind for which Jamie advocates. In other words, when we use these works as part of a multiscalar process, the goal – to echo Jamie – is not to pin these works down to a particular reading, but to constitute them as part of the 'complex negotiation' of ongoing creations of meaning that slide between distance and closeness.

The starting point in this process, as with Jamie's mode of viewing wild places, is to start with a distant view that encompasses the whole landscape. In literary scholarship – as in environmental studies – gaps or rarities are often as meaningful as what is present, and in the case of distant reading that encourages an approach that emphasises key patterns, either of data that is noticeably present or noticeably absent. To begin this process, we loaded the raw text into AntConc, a free package for basic quantitative text analysis (Anthony, 2004). In this case, the opening question was simple enough: Is Jamie right that women's nature writing does something different to the masculine tradition with which we are more familiar? Jamie herself helpfully suggests an entry point for this kind of enquiry: she finds that, in the style of nature writing cultivated by Macfarlane and other in his tradition, there is 'an awful lot of "I"' (Jamie, 2008). A straightforward query, then, is whether or not Macfarlane and Murray use 'I' more often than Wordsworth, Jamie, Cracknell and Kay. What we would expect

to find, if Jamie's deliberately polemical view is right, is that the female authors use terms that indicate community more frequently than writers from the individualistic masculine tradition.

Using the collocation tool, we can ascertain which words are statistically most likely to appear in connection with each other. Since what we are interested in is the written representation of a particular place, it makes sense to use 'Rannoch' as the search term. The resultant lists (Table 8.1) indicate which words are most closely associated with Rannoch in the texts by men and those by women.

Collocate	t-score
'Rannoch' Men (Murray, Macfarlane)	
Moor	3.12
Miles	2.62
Loch	2.4
Fifteen	1.73
Out	1.72
My	1.67
I	1.53
Yards	1.4
Distance	1.4
Rannoch	1.36
'Rannoch' Women (Wordsworth, Jamie, Cracknell, Kay)	
Moor	2.23
Rest	2
Best	2
You	1.73
Refreshed	1.41
Finally	1.41
Dear	1.41
Boat	1.41
Beloved	1.41
Walking	1.4
Loch	1.4
Lake	1.4
Rannoch	1.4
Your	1

Table 8.1: Collocated words with 'Rannoch' by organised authors' genders.

Here, we have excluded prepositions from the most significant 25 collocations in order to foreground nouns that indicate the things about the Moor that these authors find significant.

These collocations indicate that Jamie's proposition – that the 'Lone Enraptured Male' is particularly enamoured of his solitary experiences – is true; the significance of personal pronouns ('I' and 'my') to both Macfarlane and Murray suggests that both authors focus on their personal responses to the landscape. In these cases, that relationship is figured as an ecopoetic subject/object split, where nature is viewed as a static thing to be traversed by the lone wanderer – and this notwithstanding the fact that neither Murray nor Macfarlane travel alone (Macfarlane is with his father, and Murray with his dog). Indeed, these authors' careful documentation of distances ('miles', 'yards') indicates how important the quantification of the landscape is in this tradition – even if, as Macfarlane explains, for the slow-going across the peaty moor, distances should be 'measured in hours, not miles'. Partly, this desire to measure indicates the profound discomfort that arises from the fact that the Moor resists this kind of quantification: Macfarlane finds that its 'vastness and self-similarity' – peat hags and boggy fissures repeating themselves for miles without much to distinguish them – makes it impossible to judge distances by any standard measurements. It seems to him that they make no progress across the landscape: 'like explorers walking against the spin of pack ice, our feet fell exactly where we had lifted them'. Only the movement of the prose registers that they are, in fact, moving forward, despite what their perception of the geography suggests.

The collocates for the four texts by women are very different; in fact, the only overlaps are 'moor', 'loch' and 'Rannoch'. The remainder of the collocates indicate an alternative mode of constructing an environmental narrative. The most significant collocates in the women's works can be roughly divided into two main categories: connection and embodiment. In these texts, Rannoch Moor is not the site of 'perfect solitude' that Murray describes; rather, it is an isolated spot that inspires profound feelings of interaction between the author and peoples both past and present, as well as with the Moor itself. The significance of 'you' and 'your' (and absence of the 'I' and 'my' which characterises the men's collocates) indicates the extent to which these authors find at the Moor a site for conversation: Jamie addresses an unnamed 'you'; Cracknell begins her walk with friends, and then turns her attention to the absent peoples whose traces are everywhere evident on the Moor; and Kay addresses the memory of her father, who walked here in his own hiking days. Wordsworth's use of 'your' is more complicated; she refers to her brother and walking companion, as well as the local cottagers with whom they stay. But she also directly addresses her reader, Mary Wordsworth, to whom she was writing along the tour: 'you will not wonder that we longed to rest', Wordsworth tells her after a particularly long day. Wordsworth's personal 'you' contrasts with Macfarlane's generic reader: 'while you sleep', he advises, the sleeper train 'conjur[es] you to a different land'. Other collocates ('dear', 'beloved') further

indicate the sense of this landscape as a relational place. Meanwhile, the prevalence of terms associated with the body, including 'rest', 'refreshed' and 'walking', suggest that these author's responses are knowingly filtered through their own deeply personal movements. And these connections and motions are not restricted to the author's present; they are transhistorical. Macfarlane imagines himself to be following in Murray's footsteps, but Kay goes even further: she imagines her father – 'years and years after he's gone' – to still be present on the Moor. She imagines him arriving at a crofter's hut:

> And rest, rest, till finally refreshed.
> Rannoch Moor, Rannoch dear.
> Beloved best, the best: back here.

In these lines, the repetition of 'rest' moves between the necessary pause in a long walk, and the more permanent rest into which we are told Kay's father has passed. Nevertheless, the moor is 'dear' because it still contains traces of his – and countless others' – lives and loves. The poem's final phrase – 'back here' – is neatly oxymoronic: read temporally as well as spatially, it marks the moor as a site of absent presence, one where even the long gone might still be 'here'.

The communal feelings that these texts describe, then, is far from straightforward. Like the wild place itself, these texts offer a warning against accepting these distant readings in isolation. If we turn to a list of the most common words overall in these texts – and once again remove the prepositions – we find that 'I' (125 instances) and 'we' (87 instances) are the most commonly used words in this corpus. A concordance plot can help us to ascertain which texts are using
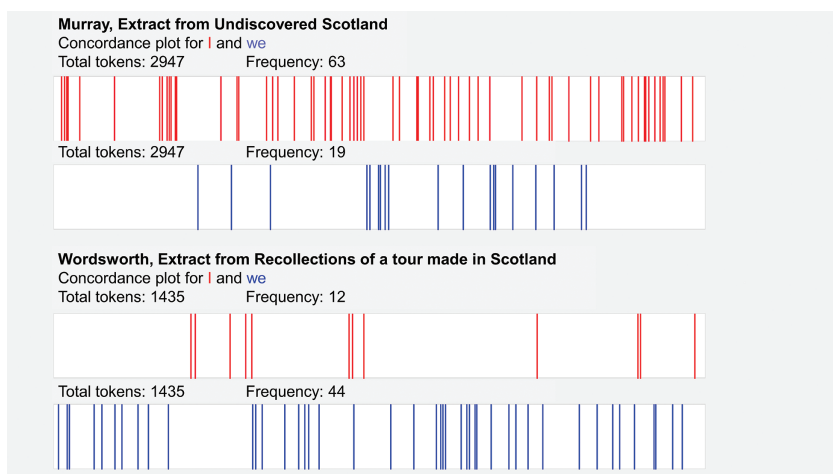
Figure 8.1: Concordance plots created in AntConc for 'I' and 'we' in two of our texts.

these terms most frequently. Neither Kay's nor Jamie's poems feature in these lists at all (a fact which should indicate something about the different aims of poetry to prose). Wordsworth and Murray, meanwhile, fit the pattern that the collocates, and Jamie's reading, would have us expect: Murray rarely uses 'we', but refers to 'I' regularly; Wordsworth is the opposite (Figure 8.1). But the picture is more complicated in the cases of Macfarlane and Cracknell. Macfarlane seems to refer to a joint venture ('we') slightly more often than he does to a solo mission: he uses 'we' in 19 instances, and 'I' in 17. Cracknell, on the other hand, uses 'we' on just five occasions, and 'I' on 33. But we should be wary of throwing out our thesis based only on these quantifications. To uncover the wild place that these texts narrate, we need to subject them to a more nuanced process of reading.

8.3   Walking Rannoch Moor with Robert Macfarlane and Linda Cracknell

Robert Macfarlane traverses Rannoch Moor with his father, and *The Wild Places* figures them as a united pair against the landscape's isolation. Before setting off, Macfarlane entertains romantic notions of the trip, where he imagines they will ice-skate it 'following its frozen waterways from one side to the other'. The problems with this plan, as he wryly notes, are that it is too warm, and that neither he nor his father could ice-skate. They resign themselves to walking, but not to a prosaic account of the moorland. The sleeper train transports them into a 'romance' composed of 'chilly air, white mist and a stag disappearing into the drizzle'. This is the Moor as the archetypal wilderness: isolated and silent.

On arrival, they discover that the environment itself seems to be pitted against them: 'That morning', Macfarlane writes, 'we began to learn the habits and the obligations of the Moor'. The most disruptive of these is its 'resistance to straight lines of progress'. The walkers find that they must adapt their understandings of geography – of distance, movement and narrative – to suit the landscape's. Instead of maintaining a normal rhythm, they must turn almost stag-like in their gait: they 'leapt from hag to hag, jumped peat crevasses, and picked [their] way through the maze-work of stream and tussock.' Coming across evidence of 'the big swooping roots of ancient pine trees, thousands of years old', Macfarlane daydreams about what it would have been like to climb these megaflora. In each of these instances, what Macfarlane describes is a process of working out how to get over the moor, and to evade the barriers it puts in his way. Later, when he finds that the 'vast space we were in resolved the land around us into bacon-like bands', his consumption of the moorland seems confirmed.

Cracknell, by contrast, finds herself assuming environmental attributes. She follows pathways trodden by deer, and the moorland mist seeps into her hair. Her rucksack and the uneven ground 'gnawed an ache deep into my hip joints', communicating the Moor's rugged terrain into Cracknell's physiology. When

she arrives on the moor in the late afternoon, she finds a densely populated landscape: 'pylons stalking the Fort William railway line; an occasional Scots Pine isolating itself as a dark silhouette, flattened by dull light. I followed a quad bike trail to find the "creep", a low gap under the embanked railway'. In Cracknell's reading, the railway line is not romantic, but evidence of the Moor's modern technological entwinement with the rest of the country. By contrast, the contemporary trees – unlike Macfarlane's ancient forests – are alone, anomalies in the flat light of the expansive moorland. The quad bike trails, meanwhile, are evidence of communities nearby, and of the fact that the Moor – for all its apparent isolation – is a worked landscape. Each of these details confirms that Rannoch Moor is core to the interlinking of complicated communities, of which it is, by implication, a part.

As she carries on walking, Cracknell also finds that the peat bogs force her into a different mode of movement. But Cracknell, unlike Macfarlane, does not try and overcome the terrain: she moves with it:

> Alone, the meshing of rhythm, thought and observation had me inventing songs and rhymes. Lyrics were delivered in my head to the tune of Walking on the Moon by The Police.
> 'I hope your legs don't break
> Walking Rannoch Moor.
> A boat's what you should take
> Walking Rannoch Moor'.

The scenery inspires her towards very specific forms of writing: lyrics which 'mesh' the rhythms of her walking with those of the landscape and her language, and which collaborate with both the environment and songs she knows. This is not a poem designed to rest silently on the page – it is designed to be sung, tested out, in a way that creates a kind of vicarious collaboration between moorland, reader and writer (and, by extension, even The Police). Even as she walks alone across Rannoch Moor, Cracknell discovers a communal experience that generates a collaborative environmental narrative.

There is, then, a striking difference between the wildness of Macfarlane's Rannoch, and the wildness of Cracknell's. Cracknell's narrative falls into line with how Jamie thinks wildness should be understood: somewhere 'theatrically empty [...] peopled by ghosts' and, crucially, somewhere – or something – that requires 'constant negotiation'. Macfarlane, meanwhile, exaggerates the Moor's isolation, even as he crosses it in company. These individuals are representative of this small corpus, then, in displaying a distinctively gendered approach to interpreting this landscape.

It is hopefully evident that even a small corpus of eight documents can lead us towards new interpretations of environmental narratives. However, such a small corpus does mean that the results are not generalisable, and we might come to very different conclusions if we replaced these documents with an alternative

set. A central question remains: Are environmental narratives distinguishable by gender at scale? By expanding the type of a multiscalar approach we have described so far, we can begin to ascertain whether these patterns repeat at a larger scale across other kinds of environmental writing.

8.4   The Country Diary

In order to compile a larger corpus of historical nature writing, we turned to the 'Country Diary' column in the *Guardian newspaper*, a liberal British publication that has been in circulation since 1821. Originally a regional newspaper titled the *Manchester Guardian*, in 1959 it changed its name to reflect its growing reputation as a national broadsheet. 'The Country Diary' column began in 1906, when the paper was still predominantly regional, and has remained a feature throughout the newspaper's evolution. Combining natural history, environmental reporting and reflections on the natural world at local and national scales, the column represents a genre that differs markedly in both aims and form from the creative non-fiction on which we focused in the smaller corpus. Whilst the texts we have looked at so far are interested in imaginative, social and cultural interpretations of the environment, 'The Country Diary' is explicitly interested in natural history and rural issues; it is a good example of the *Guardian*'s mission to acknowledge that 'comment is free, but facts are sacred'[1]. Unlike the texts we have looked at so far, then, its aim is not necessarily to unpack individuals' private responses to a particular place. Nevertheless, taken together the entries in this column offer cogent examples through which to explore patterns in how male and female authors have written environmental narratives.

Digital raw text copies of over 6000 Country Diary articles are available for download on the Guardian Open Platform[2], along with associated metadata (including the author's name, and the byline for each article). We used the application programming interface (API) for the Open Platform to download these articles, and then we utilised the Genderize API to assign a gender to each article. The Genderize API provided a likely gender based on the forename in the byline, along with an associated probability value. The gender of the vast majority of authors could be identified with a high probability. In the small number of cases where a gender could not be identified, it was because either 1) the forename was only an initial, 2) the forename was one that is used as both a male and female name (e.g., Carey), 3) there were multiple authors, including both men and women, or 4) it was an anonymous author (e.g., editor or letters). We removed these unidentifiable authors from our dataset, leaving us with a set

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[1] C. P. Scott, 'A Hundred Years', (May 1921)
    https://www.theguardian.com/sustainability/cp-scott-centenary-essay
[2] https://open-platform.theguardian.com

Category	Count
All articles	6600
Articles with gender identified	6174
Articles by female authors	1385
Articles by male authors	4789
Unique female authors	66
Unique male authors	80

Table 8.2: Counts of articles in the Country Diary corpus by category.

of 6174 (out of the original 6600) articles. Overall, the column has historically been written by a reasonably small group (80) of men. Despite the fact that, in terms of unique authors, 45.2% are women versus 54.8% men (Table 8.2), the Genderize API suggested that 22.4% were authored by a woman and 77.6% were authored by men. The metadata provided by the open access dataset does not allow us to assess change over time, but that could of course be a factor.

Having identified the authors' genders, the first test we attempted was to see if it is possible to train a general classifier on this corpus based on the two author-ship categories (male and female). The goal in doing this was to determine if a simple model can differentiate between male and female authorship, based on an author's choice of diction. We used a Naïve Bayes classifier implemented in the Mallet toolkit[3] because it is a relatively simple model that is quick to train. First, we created a balanced dataset containing all 1365 articles by women and a random selection of an equal number of articles by men. The summary results for the Naïve Bayes classifier, using a held-out set of 10% of the data for test-ing and 10-fold cross validation, are shown in Table 8.3. The high values for accuracy, precision, recall and f1 all indicate that the classifier can identify two categories of documents which each use distinctive terms. In other words, this sample seems to support our readings of the Rannoch Moor corpus to suggest that men and women do construct environmental narratives differently.

What is less clear, however, is whether these differences are always attributable entirely to gender or whether they represent the practices of indi-vidual authors. Because so many articles are written by the same authors, it is possible that the classifier is capturing something specific about the language used by the small number of authors who have written several Country Diary articles, about the particular practices of the column's editors (the last four of whom have been women), or about the specific genre of writing that the col-umn represents. Specific answers to these queries are beyond our scope here,

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[3] http://mallet.cs.umass.edu/classification.php

Balanced set of 2770 articles	*Mean*	*Std. dev.*
Train accuracy	0.995	0.001
Test accuracy	0.866	0.030
Test precision (female)	0.892	0.032
Test precision (male)	0.845	0.040
Test recall (female)	0.833	0.049
Test recall (male)	0.899	0.034
Test f1 (female)	0.861	0.032
Test f1 (male)	0.871	0.029

Table 8.3: Naïve Bayes results on a balanced set of 2770 articles.

Balanced set of 120 unique authors	*Mean*	*Std. dev.*
Train accuracy	0.995	0.005
Test accuracy	0.525	0.112
Test precision (female)	0.514	0.129
Test precision (male)	0.541	0.179
Test recall (female)	0.527	0.201
Test recall (male)	0.527	0.111
Test f1 (female)	0.505	0.146
Test f1 (male)	0.518	0.130

Table 8.4: Naïve Bayes results on a balanced set of 120 unique authors.

but what we can do is to examine the individual biases that the column's authors bring to the dataset. To explore that, we created a much smaller and more balanced corpus of 120 articles, 60 by unique female authors and 60 by unique male authors. As we noted with regards to the Rannoch Moor corpus, computational approaches like this text classifier do a poorer job of differentiating the gender categories with less information. The results, as shown in Table 8.4, indicate that it is essentially random whether an article is classified as being written by a male or female author. The high *train accuracy* versus the low *test accuracy* also indicates that the method is perhaps *overfitting* the data. This is not to say that there is not a difference in the language that these authors use, but in this case our method does not provide any further insight into that.

By combining this approach with the attention to individual authors' language, as we did with the Rannoch Moor corpus, however, we can explore in more detail the nuances behind these general trends. We again used the

Author category	'I' per article	'we' per article
Female (2770 articles)	2.61	1.23
Male (2770 articles)	2.83	1.38
Female (unique authors)	4.83	1.54
Male (unique authors)	3.73	1.56

Table 8.5: Counts of personal pronouns per article.

AntConc software to look at the use and context of the personal pronouns 'I' and 'we' in the two balanced corpora. The data for counts 'I' and 'we' are shown in Table 8.5. The first corpus (balanced set of 2770 articles) shows that female authors use fewer personal pronouns (both 'I' and 'we') than male authors, but the difference is rather slight. In the smaller corpus of 160 unique authors, female authors actually use 'I' at a higher rate than male authors (4.83 vs. 3.73). In addition, for both categories of authors the rate is much higher than in the larger corpus. Partly, this consistent high rate is thanks to the nature of the genre; the newspaper column is dependent on personal accounts that lean towards the factual.

However, as we saw in the Rannoch Moor texts, the contexts in which these pronouns are deployed indicate a complexity behind their use for which numbers alone do not account. These hidden nuances are indicated in the terms with which 'we' clusters most commonly across the two corpora. For male authors, 'we' clusters most frequently with 'were', 'had', 'could', 'have', and 'are'. For female authors, the top four terms are similar: 'have', 'are', 'were' and 'had' (the fifth, 'walked', anticipates the further differences which we turn to below). A subtle yet important distinction begins to emerge in this comparison, because across the corpus present-tense prepositions are more likely to indicate general stances (e.g., 'we are a nation of wildlife lovers'; 'we know dolphins eat fish and we are comfortable with it') as well as specific experiences (e.g., 'we are almost stunned with our good luck'; 'soon we are driving past the first houses in Llandegfan'). The order in which these prepositions cluster with 'we' matters, then, because it indicates that women are more likely to merge their specific experiences (described by the writing 'I') with their readers' imagined feelings. To put it another way, in the male authors' articles, 'we' describes a circumscribed set of people to whom the action described in the article has happened. For the female authors, on the other hand, 'we' is more likely to indicate an imagined community that includes the reader alongside the writer.

Comparably subtle, but nevertheless important, differences emerge when we perform a collocate analysis of the two terms (Table 8.6). Similarly to what we did in the earlier study, prepositions are excluded. In addition, we have not included different tenses and plurals for terms more than once. For the unique author corpus the minimum collocate frequency was set at four, and for the

Pronoun	Author category	Collocates
I	Female (2770 articles)	realise, remember, suspect, crouch, surprised, myself, shall, think, noticed, read, aware, notice, know, hear, pleased, feel, lucky, discover
	Female (unique authors)	ashamed, realised, wouldn't, suspect, surprised, speak, hadn't, faires, anything, remember, feel, pause, hear, wanted, finding, wish, reached
	Male (2770 articles)	confess, realised, wish, wondered, suspect, suppose, remember, myself, recall, think, knew, noticed, peer, hear, listen, counted, love
	Male (unique authors)	suspect, remember, wondered, realised, waited, believe, think, wish, walked, alarm, watched, myself, bike, spot, aware, saw, wanted
we	Female (2770 articles)	descend, shall, walked, watched, met, know, pass, visited, saw, went, heard, hope, looked, returned, leave, cross, later
	Female (unique authors)	damage, pass, reach, knew, hope, need, making, stone, follow, thought, school, come, walk, always, know, said
	Male (2770 articles)	ourselves, approached, went, climbed, crossed, walked, passed, reached, met, saw, watched, found, got, know, stood, our, upon
	Male (unique authors)	decide, eat, hope, went, review, reached, hear, know, sure, do, want, walked, should, saw, anything

Table 8.6: Collocated words for the pronouns 'I' and 'we' in the different corpora.

larger corpus it was set at 10. This allows us to focus on terms that show up in a number of different articles. The window size for collocation in both cases was set at five words to the left and right. The t-scores are not shown for brevity but all range from around five to seven.

We can see here that female authors tend to employ an affective, and affecting, vocabulary that more vividly captures their emotional responses to the land-scape: they are ashamed or pleased, feel lucky or surprised and express longing ('want' and 'wish') for absent things. Male authors, meanwhile, are more likely to focus on the head than the heart: they remember or realise, wonder and think. And these differences are echoed in the way men and women seem to look at the environments about which they write: male authors are more likely to observe a place from a distance (they peer, spot, watch and notice), whilst female authors are more likely to focus on hearing, a sense that both relies on a more circumscribed geography and which tends to be a more serendipitous

experience rather than something sought out. That might be because women move more slowly; they are more likely to 'crouch' and 'pause', allowing more time for discoveries and, crucially, for building relationships with the flora and fauna that make up the local environment. One author neatly compares the effects of pausing and speed on a grey wagtail she encounters at the edge of the A27:

> During the past few weeks this individual has become increasingly confiding. When I pause just a few feet away from where it is feeding, it continues trotting down the path towards me, its long black and white tail pumping furiously, and head flicking from side to side as it sets its sights on a swarm of midges that is rising up to wreath my head. A cyclist swooshes into the tunnel, ringing his bell. The wagtail takes flight, uttering a single metallic 'tchik' call as it flits between the paddles of the replica water wheel that sits in the preserved remains of the old mill race.

Her slowness, both in this moment and in her patience over the 'past few weeks', is rewarded by the wagtail's trust; its happy 'trotting down the path' indicates a sense of bonhomie between author and bird. The moment is disrupted by a male cyclist (it is notable that 'bike' is one of the key collocates for solitary male authors), who rushes past in a way that disrupts both the calm and the quiet shared by the wagtail and the column's writer – and the wagtail's 'tchik' implies that it feels a similar irritation to the author at this disruption. Passages like this might make us wonder what the male authors – at least, those intent on walking, cycling, climbing, crossing or passing – are missing when they do not take the time to develop this kind of slow connection with their environment. And it pays off: these encounters, facilitated by patience, are reiterated by the sense of 'luck' and 'discovery' that women are also more likely to experience throughout this corpus.

There is, undeniably, significant overlap between the genders in this dataset, and in how they narrate environmental narratives. These similarities are an inevitable result of the close rules of this genre – a very specific newspaper column with a particular, quasi-scientific agenda – but they perhaps make the subtle differences even more telling. This corpus reiterates the divergences between male and female authors that we saw in the Rannoch Moor corpus in ways that, at first glance, might seem incidental. Taking the time to close read particular texts, though, has a similar effect to pausing in the pursuit of a 'Country Diary': pausing allows us to notice how meaningful small differences can be.

8.5   Conclusion

The multiscalar combination of close and distant reading techniques we have outlined here emphasises the extent to which human experiences of the natural

world are always heterogeneous. Nevertheless, we can generalise about some of these differences based on an author's gender. The fall-out of this gendered approach to both environment and the narratives it inspires has, as Jamie believes, serious consequences for how we narrate – both in the sense of writing about and managing – the green spaces with which we live today. These differences might be taken as opportunities: in the outliers, we might uncover new directions for environmental narrative and, from there, action. As we have tried to show here, the same process is necessary for both reading texts and managing environments. Both practical and literary narratives depend upon multiscalar negotiations between distance and closeness, and the willingness of the reader and policy-maker to unpack the connections and interactions that operate between them.

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