This passage, penned by Western Australian botanist Georgiana Molloy to her correspondent and fellow botanist, Englishman James Mangles, points to the intersection of several naming systems for plants in south-west Western Australia in the 19th Century: the Western Linnean system; the system used by Noongars, the indigenous people of the south-west; and Molloy’s own method of describing plants. It also reveals the networks created by exchanging seeds and words between England and Australia, and between white and Aboriginal people. Molloy sent Australian seeds and specimens to Mangles, who in turn distributed them to botanical authorities in England and Europe. Such networks were responsible for the colonisation of Aboriginal people through naming, for English botanists such as John Lindley replaced the Noongar names for plants with scientific names. This contributed to the wider loss of Noongar language, a loss that is now being redressed through the Wirlomin Noongar Language and Stories Project. By unpicking this web of connections and tracing a lineage of names, it becomes clear that botany is a means of conceptualising what Wai Chi Dimock refers to as deep time, the ‘sedimented imprint’ (6) of each species and their individual, but interconnected, histories.

Molloy was born in Carlisle in England in 1805. Her father was an ambitious man who built a manse to reflect his stature, and in its gardens of Molloy learned her first lessons about plants and gardening. When her father fell from his horse and died in 1819, he left behind debts of £11,000, five children and a widow with no means of supporting them (Barry 44). Molloy, then fourteen, was being educated as a lady, but as she grew older her family situation became increasingly unstable. This was one of her motivations for marrying Captain John Molloy and emigrating with him to Augusta in south-west Western Australia.

A few weeks after they landed in 1830, Molloy gave birth to her first child, a girl. Over the course of thirteen days, the baby became progressively unwell, then died. Molloy’s initial encounter with the Australian bush was thus deeply distressing. She was in a tent with driving rain, beyond which was a landscape of

**Fig. 1** Georgiana Molloy. Source: cpbr.gov.au
towering trees that she described to her sister on 7th November 1832 as ‘the unbounded limits of thickly clothed dark green forests where nothing can be described to feast the imagination’ (ACC 3278A). Seven years after her arrival, during which time she bore another three children, Molloy’s son fell into a well and drowned. Just prior to this event, she received from Mangles, as she wrote on 21st March 1837, ‘a particularly choice box of seeds, and your polite note, requesting a return of the Native seeds of Augusta’ (ACC 479A).

James Mangles had entered the Royal Navy in 1800 at age fourteen and became a captain fifteen years later. Shortly thereafter, he left the navy to travel in the Middle East, and he also mounted an expedition for John Franklin, the one-time governor of Tasmania, who went missing in the Arctic and whose ship was found in 2014. In 1831 he sailed to Perth to stay with his cousin Ellen Stirling. Through her, he made the acquaintance of several people in the colony, including Molloy, and asked them to collect specimens and seeds for him. Mangles owned a two-storeyed terrace in Regent’s Park in London and had connections with the Loddiges nurserymen of Hackney; Joseph Paxton, who was gardener at Chatsworth and designer of the Crystal Palace for the 1851 Great Exhibition; and John Lindley who was the first professor of botany at University College London. All of these men were caught up in the excitement of what was, to them, exotic Australian flora. Soon, Molloy would be as well.

On 25th January 1838, she began her second letter to Mangles. In her first, she had complained of a lack of time to collect seeds due to ‘domestic drudgery’ and child rearing. However, in this second missive, she wrote ‘Since my dear Boy’s death I have, up to the present time, daily employed myself in your service.’ Mangles’ request had encouraged her to go into the bush to take her mind from her grief.

Like plants such as the south-western Franklandia (lanolin bushes) that need fire to regenerate, Molloy had been razed, but as her collecting efforts ripened into an obsession, she flourished. She was not afraid to recruit anyone or anything that could help, as she wrote to Mangles in June 1840, to ‘promote your cause’ (ACC 479A, extracts). When she ran out of paper for mounting specimens, she ‘asked every probable person’ if they could supply any and ‘at last obtained an old Log Book from the Captn of the Palestine an American Whaler’ (31st January 1840, ACC 479A). She glibly appropriated a hortus siccus, a book into which specimens were fastened, which Mangles had addressed to Molloy’s neighbour and fellow collector. ‘I know one was addressed to “Mrs Bull”,’ she pleaded to Mangles in the same letter,

but I thought it was a mistake, and as coolly as possible appropriated it, untill [sic] Mr Preiss, pointed out to me my error; at all events they will be returned to you with the Tributes of the Spring, and I shall be exonerated from an selfish desire: in the mean time I shall apologize to poor Mrs Bull (ACC 479A).

As well as begging and stealing to further her collecting, Molloy harassed white and black alike to gather specimens. In the same letter, she continued:
The Soldiers who used to pass between this, and Augusta unmolested and unencumbered with any thing but their knapsacks, are now seen to bring from thence Specimens of all sorts of Plants under their Arms. The Native Herdsmen are also employed bringing in some desired “Plant” or “Fruit”. (ACC 479A)

The physical tracks across the south-west made by Molloy, soldiers, and Noongars informed the literary and botanical tracks which Molloy created when she posted her letters and specimens to Mangles. They were akin to the Nambikwara’s *picada*, that track which is almost indistinguishable from the bush, to which Jacques Derrida refers in *Of Grammatology*. Molloy’s writing became associated with ‘the possibility of the road and of difference . . . of the rupture, of the *via rupta*, of the path that is broken, beaten, *fracta*’ (Derrida 107)—for Mangles lent Molloy’s words and seeds to acquaintances in his networks, which reinforced this rupture through naming.

In a note to Mangles (14th June 1839) Joseph Paxton wrote that he appreciated the dried plants and the five letters by Molloy that accompanied them. He added, ‘they have been written by one who is devoted to the promotion of Botanical interest in this Country and zealously able to fulfil the task of collecting Seeds.’ John Lindley, who was also loaned the collection, was less responsive. In a note of 1840 (the day is not listed), he wrote:

> Lord Orkney’s Gardener did leave at my House the *Hortus Siccus*, and a plant which I do not know; for all which I ought to have thanked you before, but the stupid people here were many I suppose in honor [sic] of Her Majesty’s Birthday, and the Messenger who was to have come to you neglected it—I don’t think there is much novelty in the Swan Specimens, but I have been so much occupied, that it has been impossible to examine them with attention. (ACC 479A)

Lindley’s lacklustre response was probably on account of his busyness, but it may also have been because he assumed familiarity with specimens of the region. He had recently published *A Sketch of the Vegetation of Swan River*, which was based largely upon the first collection Molloy had sent to Mangles (Ryan 11). This text was first issued as an appendix to Edwards’s *Botanical Register* from November 1839 to January 1840, and was then published as a stand-alone text on its completion (Ryan 9). In his preface to this work, Lindley discusses his efforts to create a new index for the *Botanical Register* and to introduce ‘such changes and corrections as the rapid progress of Systematical Botany has rendered necessary’ (iii). He also announced his publication of the ‘detailed account of the vegetation of one of the most interesting of the British Colonial possession, from which multitudes of seeds are now arriving’ (iv). The reference to systematisation and possession in almost the same breath is not accidental, for classifying plants through a system, then allocating new names to them, was a means of asserting power over an environment and its people.

Carl Linnaeus’s groundbreaking system for classifying plants, outlined in *Systema Naturae* (1735), was commonly used by botanists for classifying Australian plants. This system ordered plants into ‘classes’ according to how many stamens (male parts) they had, and then into ‘orders’ according to the number of pistils (female parts). However,
when botanists came to Australia, they found the system difficult to apply to Australian species. James Edward Smith, founder of the Linnean Society in England and author of the first published book of Australian flora _A Specimen of the Botany of New Holland_ (1793), wrote that a botanist in Australia

> can scarcely meet with any certain fixed points from which to draw his analogies; and even those that appear most promising are frequently in danger of misleading him. Whole tribes of plants, which at first sight seem familiar to his acquaintance, as occupying links in Nature’s chain . . . prove, on a nearer examination, total strangers. (9)

Neither Smith nor Lindley travelled to Australia, so could not view the flowers in their habitat. Their frustration was compounded by attempts to apply a system designed for the flora of Europe to the flora of a continent formed under very different climactic conditions. Furthermore, while the Linnaean system brought order to ‘a chaotic discipline marked by miscommunication and misunderstanding’ (Ereshevksy 3), its emphasis on essentialism made comparisons difficult. Linnaeus believed that each species was created by God and therefore inviolable, rather than, as Darwinism was later to show, the result of evolving lineages (Ereshevksy 3).

Lindley disliked the artificiality inherent in the Linnean system. He preferred the Natural System devised by French botanist Antoine Laurent de Jussieu, which was founded upon the principle that

> the affinities of plants may be determined by a consideration of all the points of resemblance between their various parts, properties, and qualities; and that thence an arrangement may be deduced in which those species will be placed next to each other which have the greatest degree of relationship; and that consequently the quality or structure of an imperfectly known plant may be determined by those of another which is well known. (An Introduction xvi)

As with the Linnean system, there was a significant downside to this approach when it came to naming Australian flora: Lindley’s observations were made from mostly dried specimens and he did not have an extensive understanding of the diverse range of plants of the south-west to enable an accurate understanding of plants’ resemblances to one another. In _A Sketch of the Vegetation of Swan River_, as Ryan notes, he sometimes made associations with familiar European plants (12). For example, he writes, ‘_A. Aquifolium_ might be mistaken for a Holly, when not in flower’ (xxxi). Lindley frowned upon the Linnean system for being ‘mere collections of isolated facts, not having any distinct relation to each other’ (An Introduction xvi), but the method he used also bundled together unrelated specimens.

In spite of these drawbacks, the botanists blundered on, often also naming their specimens after noteworthy figures. James Edward Smith named _Billardiera_ after Jacques Labillardière, a French naturalist who was appointed to Bruni d'Entrecasteaux’s search for Jean-François de La Pérouse who had disappeared after he set sail from Botany
Bay in 1788. Smith wrote that Labillardière’s ‘Icones plantarum Syrie rariorum, the fruits of a journey to the Levant in 1789, justly entitled him to such a distinction’ (3). John Lindley’s name is associated with over four hundred specimens of Western Australian flora (FloraBase). _Anigozanthos manglesii_ was named for Mangles by David Don, Professor of Botany at King's College London from 1836 to 1841, and librarian at the Linnaean Society of London from 1822 to 1841. These men were associated with plants because naming conferred power. As Muller-Wille has noted, ‘tributes’ and ‘briberies’ were paid in the forms of seeds and specimens; rewards were given by coining names; revenues were counted in terms of ‘new’ specimens’ (47-48). Yet while naming maintained and solidified relationships between European botanists, it also abraded Aboriginal authority.

As with the tracks that carved a European presence in the bush, so too did naming create divisions. As Derrida writes, the ‘originary violence of language . . . consists in inscribing within a difference, in classifying’ (112). By giving something a name, it ranks that thing within a system and accords it an hierarchical value. It also elides the original name. The struggle for a name then becomes ‘a struggle for power . . . [it] underlines the point that successful colonisation depends not only on the physical exclusion of a former people, but on the suppression of their sounds’ (Carter 124).

Noongar culture is an oral and aural culture, and Noongar language is bound up in place. Of his Miles Franklin-winning novel, _Benang_, Noongar author Kim Scott, writes:

> The narrator’s utterances are the sounds of the place in which they are made: bird calls, footfalls, the sound of waves on the beach, of the wind and rustling vegetation. To my mind they are metaphors for Indigenous language: characteristically onomatopoeic and, unlike the amalgamation of languages that constitutes English, directly related to a specific place in manifold ways. (123)

This language, as well as being intertwined with place, is also unmistakably corporeal. Scott has suggested that:

> there is something really deep and conceptual in these Noongar terms. As there is in _boodjar_ for earth; and _boodjari_ also means ‘pregnant’. Ngangk is ‘sun’ as well as ‘mother’. _Bily_ (or _bilya_ in some dialects) is river and it’s also navel or umbilical chord . . . there’s the human form and other life forms latent in the landscape’ (Brewster 244).

One cannot help but contrast the rootedness of this language with the names created using a foreign system and dead specimens on the other side of the world. Nor can one ignore the associations cradled within such names. Colonists’ application of the European word ‘plum’ to Australian species such as ‘damson plum’, ‘plum pine’, or ‘sour plum’ erases the cultural specificity of stories such as those housed in _miya-vuthi_, the woolly cloak fern. It is said to mean ‘sleep dust’ in reference to the custom of the Adnyamathanha people of the Flinders Ranges who brushed the fern leaves over a child’s eyelids to encourage them to sleep (Clark 46).
And while renaming contributed to the literal erosion of an Aboriginal language, women were being denied the opportunity to exert power through naming. Molloy, although she had enough training in botany to know how to collect, dry and mount specimens and their seeds, did not have a scientific understanding of botany because it was impossible for women to participate in institutions that taught botanical science. As Ann Shteir notes in *Cultivating Women, Cultivating Science*, women were not permitted to join the Royal Society or Linnean Society, or to attend their meetings, or to be published in their journals (37). Women were also rarely educated in Latin, which was needed to read the names by which plants were classified using the Linnaean system (56). Molloy’s lack of education and scientific authority prompted her to write to Mangles on 8th July 1840, ‘I send two flowers of the . . . I dare not say what, Dr Lindley must determine.’ When laid against Lindley’s disconnection from Australia, the irony of this statement cannot be mistaken.

While Molloy waited for the names to arrive, she developed her own system, whereby she gave each flower and its seed a number. She then asked Mangles, in a letter of 25th January 1838, to ‘oblige me by sending me the names of the different flowers according to their numbers; I have kept the numbers of each, and the duplicates of most of the Specimens that I might have the satisfaction of hearing some name attached to them’ (ACC 479A). With only numbers to guide her, Molloy attended more carefully to the features of the plants themselves. For example:

No 56 is a pink specimen of 109 and a tall species of 111. The rose pink petals which in its unprepared state are opaque, look lovely when contrasted with the dark brown mossy leaves, this year for the first time I saw a sulphur coloured specimen which from its uncommon hue was yet more pleasing. (21st November 1838, ACC 479A)

Here, she relies predominantly upon colour to distinguish between types of flowers, and she cannot avoid responding aesthetically by describing the contrast of these colours, or by referring to the rarity of a hue. These responses are a long way from her complaints of the ‘thickly clothed dark green forests’ in her 1832 letter to her sister.

Molloy’s perception of her environment was not moulded by a preordained system of naming and classifying (although she was aware of and sensitive to her lack of education in the Linnaean system), and this created a space for a relationship with her environment that was attentive and engaged. Although she was implicated in the dispossession of Noongars through her botanical project, her receptiveness to Noongars facilitated her awareness, however limited, of their language. Bernice Barry notes that on an unused page in Molloy’s diary there are four English words with their corresponding Aboriginal word (177). In this sense Molloy was aware, as Wai Chee Dimock writes, of the many sounds and impressions that alert us to our long sojourn on this planet, a sojourn marked by layers of relations, weaving our history into our dwelling place, and making us what we are, a species with a sedimented imprint. Honoring that imprint, and honoring also the imprints of
other creatures evolving as we do, we take our place as one species among others inhabiting a shared ecology, a shared continuum (6).

This continuum is what Dimock, in her approach to re-envisioning American literature in Through Other Continents (2009) refers to as ‘deep time’. It is constituted by a ‘criss-crossing set of pathways, open-ended and ever-multiplying, weaving in and out of other geographies, other languages and cultures. These are input channels, kinship networks, routes of transit, and forms of attachment—connective tissues binding America to the rest of the world.’ (3)

These tissues indicate that a nation’s literature has a ‘much longer history than one might think’ and that it is not necessarily coterminous with the history of a nation, nor bound by definitive dates such as 1776, the year in which the Declaration of Independence was issued or, as in the context of Australia 1788, when Arthur Phillip stuck a pole in the sand.

If time is conceptualised in a way that diverges from the linear progression that has customarily been used, then new interpretative frameworks are also necessary to understanding the developments that have occurred over this span of time. Capitalism is one, world religions another, as is the morphology of language, ‘especially a language as diverse and dispersed as English’, which ‘presents us with an array of vernaculars, creolised forms developed through centuries and spread across continents’ (5). As exemplified in the naming, taxonomy and trade of plants, botany can also represent an example of what Dimock describes as the ‘tangle of relations’ which, layer upon layer, create deep time.

Molloy’s letters were part of this layering, as were Australian seeds grown in gardens and hothouses across Europe. Lindley mentions a ‘Corchrostylis bracteata, Endl. [Lasiopetalum bracteatum] a downy shrub with heart-shaped leaves’ that was ‘cultivated in Baron Hugel’s garden at Vienna’ (A Sketch, xix). These seeds were the product of millions of years of unique development, for the poor and sandy soil of the south-west has encouraged the evolution of a wide range of species adapted to specific ecological niches. It is not surprising that George Hailes, one of Mangles’ friends, ruined his acacias and kennedias by taking them from their seed boxes in the cold English November in his ‘eager desire to oblige a friend’ (25th March 1841, ACC 479A). The precariousness of their life in a foreign habitat behooves one to remember the original soil and culture, tens of thousands of years old, in which they nestled.

Deep time is traditionally represented as geologic time, which spans millions of years. Humans thinking of time in terms of two or three generations can find geologic time difficult to comprehend, as Darwin observed in On the Origin of the Species: ‘It is hardly possible for me to recall to the reader who is not a practical geologist the facts leading the mind feebly to comprehend a lapse of time’ (203). By shifting the concept from the sciences to the humanities, it renders new ways of conceptualising and absorbing this vast scale of time.

Aboriginal stories and history, and the language that carries them, are another means by which we might conceptualise deep time. Research by Reid, Nunn and Sharp reveals a
substantial body of Australian Aboriginal stories that seem to represent genuine and unique observations of post-glacial increases in sea level, at time depths that range from about 13,400–7,500 years ago, geographic changes which have been observed by marine geographers. Endangered Aboriginal languages can be repositories for factual knowledge across time depths far greater than previously imagined by Western scholars. They represent another, important way of investigating and conceptualising the earth’s long history.

Ten years ago, author Kim Scott, together with Hazel Brown, Audrey Brown, Lomas Roberts and others, created an initiative to gather language and stories through The Wirlomin Noongar Language and Stories Project. While the group always shared an interest in their language, their project gained momentum on the discovery of the archives of Gerhardt Laves, an American linguist who collected the stories of Noongars in the 1930s. Scott then helped to coordinate workshops to hand back the stories to the descendants of Laves’ contributors. ‘Within ten minutes of starting that process,’ he said in an interview, ‘I think everyone was in tears . . . I guess the sense of it was, here we are gathering to get the stories of old people who’ve passed away a long, long time now.’ The emotional response to this process indicates how important language and stories are for establishing presence, continuity and history. It also shows how, when contemplating the history of botany, the story of a plant that soothes a child to sleep must be woven in with a man’s attempt to encourage acacias to shoot on the opposite side of the world.

An awareness of a shared ecology and its continuous history is vital at a time in which environmental degradation and global climate change are impacting violently upon the botanical species of the south-west. In 2003, the Busselton-Augusta area in which Molloy and her husband lived was designated one of Australia’s fifteen national diversity hotspots by the Australian Government’s Threatened Species Committee, established to increase public awareness of the necessity for its conservation. By examining the histories of the inhabitants of south-west Western Australia, we can understand how quickly the degradation of this area has occurred, and how it might be restored. The key to this understanding lies in words.

Molloy was almost obliterated by her early experiences of the environment but, like the Franklandia, she rebuilt herself into a woman in whom a Western naming system, Noongar language, and poetry cohabited. Even as she was unwittingly embedded in the destruction of a language, her openness to other modes of perceiving the world might still constitute a worthwhile response in a country haunted by extinction.

NOTES

1 Nevertheless, fellow botanisers such as Louisa Meredith (1812-1895) who lends her name to the second part of the Ewartia meredithae (cushion edelweiss), and Louisa Atkinson (1834-1872), wrote for nature columns, and had plants named for them, such as Atkinsonia ligustrina (mistletoe).
2 This was not the case in institutions such as the Roman Catholic Church, which produced the genius of Hildegard von Bingen (1098-1179) and, closer to home, Veronica Brady (1929-2015).
WORKS CITED


