

# “I Would Rather Lose Everything Else I Possess”: Love of Nature and L.M. Montgomery’s Intuitive Wellness Strategies, 1901-11

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L.M. Montgomery’s use of “rambles” to de-escalate depressive episodes and restore her mental wellness is well documented in the entries she made in her PEI journals while living in Cavendish and Halifax from 1901 to 1911. Modern-day research on forest bathing and seasonal affective disorder provides scientific explanations for why the time Montgomery spent in nature may have boosted her mental health during a pivotal period in her career, particularly during the winter of 1905 to 1906, when she was composing *Anne of Green Gables*.

“[Nature] has always a gift of healing for us when we go humbly to her.”

— L.M. Montgomery, 1908<sup>1</sup>

“The calming, rejuvenating and restorative benefits of forest bathing have perhaps always been known intuitively, but in recent decades scientific studies have gone some way to revealing how simply being in wild areas has healing effects.”

—Sandrine Mathias et al., 2020<sup>2</sup>

In June of 1902, L.M. Montgomery recounts in her journal, “I had a ‘white night’ last night. I don’t often have them. I generally have a firm enough grip on myself to choke back all premonitory symptoms and go to sleep like a philosopher. But last night—somehow—the floods overwhelmed me. Gods, how I felt!” She goes on to

describe insomnia, uncontrollable weeping, and feelings of bitterness, loneliness, and heartsickness. "I hated [life]," she says, "and wished I were dead." Montgomery's journal accounts of turbulent moods and mental anguish are excruciatingly poignant; however, she firmly believed that nature "has always a gift of healing for us when we go humbly to her."<sup>3</sup> Her belief that immersion in natural settings would forestall or neutralize depressive episodes is a consistent theme in the journals from her Cavendish years, as in her account of the stroll she took a day after the aforementioned "white night" of passive suicidal ideation: "This evening I went for a walk in Lover's Lane to exorcise my evil spirit. It was efficacious as usual. Somewhere in me the soul of me rose up and said, 'No matter for those troubles and problems that looked so big and black in the night. They are mortal and will pass. I am immortal and will remain.'"<sup>4</sup> This significant shift from wishing she were dead to feeling immortal is typical of Montgomery's mood fluctuations,<sup>5</sup> but also suggests the powerful transformative influence she believed nature had on her psyche. The dependability of natural settings such as Lover's Lane for allowing "peace and gladness" to prevail is signalled here by the phrase "as usual." Throughout her life, Montgomery would seek time in nature to alleviate her depressive symptoms.

The phenomenological experience of nature is complex, and a single essay cannot fully address important coincident factors such as physical movement, solitude, or the effects of natural settings on attention restoration and creativity.<sup>6</sup> My focus is on the physical and mental health-boosting capacities of forest scents and sunlight, two aspects of nature that Montgomery frequently describes as key features on her walks. This is neither a retroactive attempt to diagnose Montgomery nor a suggestion that nature therapy can function as a panacea for mental illnesses resulting from trauma or genetic predisposition.<sup>7</sup> Nature alone could not fully neutralize the mood swings, isolation, abandonment, grief, poverty, structural and interpersonal sexism, and stunted ambition that Montgomery endured. Rather, I seek to highlight the role of the outdoors in her experience of mental illness, specifically her resourcefulness and intuition in seeking relief via nature.

Although the field of nature therapy would not gain momentum until decades after her death, reading Montgomery's accounts of rambles around her Cavendish environs through the lens of modern-day research permits us to move beyond the common-sense notion that she simply found being outdoors enjoyable and to identify scientific reasons that immersion in natural settings would have so reliably de-escalated depressive episodes and restored her to positive, productive affect

during a pivotal period in her early writing career. Knowledge of the likely physiological and psychological effects of nature on Montgomery's body invites new insights about the influence of nature on her writing, specifically on the composition of *Anne of Green Gables*.

## **Montgomery and Nature**

In discussions of the natural environment of Prince Edward Island, descriptors such as “wild” or even “natural” are, in most cases, inaccurate.<sup>8</sup> In the early twentieth century, Cavendish was a prosperous agrarian community where most of the landscape had already been modified by human intervention. An estimated two-thirds of the old-growth forest that greeted European settlers in 1720 had been cleared,<sup>9</sup> and the land had been shaped extensively by its settler inhabitants into farmyards, fields, lanes, and roads. Small wooded areas and streams remained present but were not intentionally preserved, as they are at the Montgomery heritage sites today. Throughout this essay, I use the terms “nature,” “natural setting,” and “natural environment” interchangeably to refer to outdoor areas where Montgomery sought solace and rejuvenation—even areas that had been shaped by human use—because these areas would have retained the natural features (including sensory aspects of trees and sunlight) that are relevant to my analysis.

Scholars have extensively studied how Montgomery presents natural settings in her novels and photography, and her nature descriptions are a hallmark of her life-writing as well.<sup>10</sup> Nature was a source of pleasure, a place to feel at home and to escape, and an antidote for feelings of despair. The loss of her mother early in life and her father's subsequent relocation to Saskatchewan left her in the care of maternal grandparents who provided for her basic needs but did not nurture her emotionally.<sup>11</sup> Reflecting on her at times “fiercely unhappy” childhood, Montgomery recalls having “two great refuges and consolations—the world of nature and the world of books.” Because her grandmother did not share her attraction to nature, Montgomery's ramble therapy, as I will be calling it, was complicated:

If I crept away for a solitary ramble in the woods or along a country lane, poor unwise grandmother, who never could understand in the slightest degree how anyone could find pleasure in what gave no pleasure to her, would conclude that I had sneaked off for some improper motive and would greet me upon my return with remarks that made me hate living.<sup>12</sup>

Despite her grandmother's objections, Montgomery's PEI journals recount numerous pleasant walks in Cavendish, including visits to a shady path on her cousin David Macneill's nearby farm that she christened Lover's Lane. She loved it "idolatrously," and its appeal ranged from aesthetic to analgesic: "I am never anything but happy there. There is charm about it that bars out all earthly pain."<sup>13</sup> She continued to seek solace in nature and books, with each informing her engagement with the other, throughout her life.

Montgomery's documentation of the healing power of nature in her journals and her signature descriptions of landscape in her novels and other creative works<sup>14</sup> were strongly influenced by the Romantic literature she read. Her accounts of walks echo Romantic tropes and quote favourite passages, providing a literary frame for her lived experiences. Linking Montgomery's "deep and vital" love of pines to her childhood reading of John Ruskin, Mary Rubio suggests that Ruskin gave her "a 'grand' way of seeing and responding to Nature," which she, in turn, would pass on to her future readers.<sup>15</sup> Elizabeth Epperly observes that the Romantic writers she read worshipped the natural world and centred the poetic interplay of reality and imagination in the artist's quest to capture the fleeting beauty of landscapes, to "isolate and fix emblematic sights and scenes."<sup>16</sup> Montgomery's reading of William Wordsworth, John Keats, Ralph Waldo Emerson, Henry David Thoreau, and others foregrounded for her the spiritual, creative, and, most relevant here, *healing* qualities of the natural world. The content and style of her ramble descriptions reflect the Romantics' linking of "landscape, emotion, and pleasure"<sup>17</sup> and convey her belief in nature as a site of transcendence and restoration.

While my essay focuses on experiences of nature that Montgomery recorded in her journals, her bestowal of a love of nature and its healing, liberating, and inspiring influences on her characters speaks to its pervasiveness in her own thoughts and experiences. Emily Starr, Montgomery's most autobiographical heroine, finds comfort in natural settings, indulging in moonlit walks and often experiencing "the flash" in outdoor environs. Valancy Stirling, deprived access to open nature at the beginning of *The Blue Castle*, dwells in John Foster's nature writing<sup>18</sup> and her imaginary Blue Castle among the pines as proxies for the outdoors, but heals physically and mentally only when she moves to the wilds of Muskoka. When Hilary "Jingle" Gordon names his uncle's back field where he and Pat Gardiner would spend many pleasant times "Happiness" in *Pat of Silver Bush*, the connection between nature and positive affect is foregrounded. Jane Stuart thrives as a gardener at

Lantern Hill, symbolic, Rita Bode argues, of the garden as a grey area between nature and culture that echoes her split habitation between rural and urban settings.  
[19](#)

Montgomery's relationship with the natural world was complex—literary, affective, spiritual, and palliative—and the attention of some scholars has turned in recent years to examining the material and somatic aspects of her experience. From a phenomenological perspective, the human body acts as a sensing probe, conveying a buffet of sensations that “resonate in harmony.”[20](#) Montgomery immortalizes Lover's Lane in *Anne of Green Gables* by recording not only visual, but aural, olfactory, and haptic sensations—what Irene Gammel calls her “multi-sensuous somatic experience.” Lover's Lane becomes, according to Gammel, “a lane that Anne (and her creator) associate with a restorative power, the ability to change mental disposition and bodily well-being.” Gammel calls for greater attention to the somatic aspects of Montgomery's engagements with the natural world.[21](#) Examination of the physical and mental effects of natural settings on the human body can offer a way forward in this line of inquiry, bringing new clarity to Montgomery's written representations.





Lover's Lane at Green Gables Heritage Place. Photo by Sarah Conrad Gothie, June 2022.

### **Nature Therapy in Montgomery's Time and Today**

The potential health benefits of time spent outdoors were known in Montgomery's time, but nature as a therapy for mental illness was not widely prescribed for women. When Montgomery was diagnosed with "neurasthenia," the name given to nervous exhaustion at the time, the standard treatment for women was bedrest, at home or in a sanatorium. Men, on the other hand, were advised to go outdoors to restore their vitality and virility in natural parks and other wild spaces unsullied by modernity.<sup>22</sup> It would not be until the latter part of the twentieth century that nature therapy would come into its own as a field of scientific research.

Nature therapy research conducted in the decades since Montgomery's death has shown that natural settings improve cognitive function and restore mood for people with depression, regardless of sex. Marc G. Berman and his colleagues at the University of Michigan found that a "simple and brief" walk in a non-threatening

natural environment was, in fact, “a therapy ... known to philosophers, writers, and laypeople alike” that “had no known side effects, was readily available, and could improve [one’s] cognitive functioning at zero cost.”<sup>23</sup> More recently Sandrine Mathias and her co-authors reviewed the literature on a specific way of being in nature, forest bathing, aiming to assess its potential as a low-risk intervention for enhancing physiological, psychological, and environmental wellness for Canadians, and concluded that “simply being in wild areas” could promote healing.<sup>24</sup> Forest bathing, also known as *sylvotherapy*, or by its Japanese name, *shinrin-yoku*, is the act of strolling in an unhurried way through a forested area, pausing to contemplate natural textures, sights, scents, and sounds. It has been endorsed by the Forest Agency of Japan since 1982, but many North Americans became familiar with the practice only around the turn of the twenty-first century, when wellness practices from other cultures became a popular sub-genre of self-help literature.

Forest bathing can be undertaken anywhere with fragrant forests, and Montgomery knew well that serene, natural settings wrap the body and brain in a multi-sensory cocoon of pleasurable scents, sights, sounds, and somatic sensations. A medley of such desirable stimuli appears in her rapturous description of a stroll she took in 1901: “It is an ideal day for a woodland ramble—a dreamy, balmy spring day when a south wind is purring through the trees and the very air throbs with pulses of reawakening life—a day when it is ‘bliss to be alive’ in such a beautiful world.” In her attempt to preserve in words the ephemeral sensory pleasures of her stroll, Montgomery identifies several features of natural environments that are therapeutic for humans, including a brook that “prattles and croons to itself,” a wind that is “harping ever so softly,” and “resinous fir boughs.”<sup>25</sup>

The babbling brook may be a literary cliché, but water flowing sinuously over stones, sticks, and organic debris makes a gentle, varied soundscape unlike the monotone rush of water flowing through channelized, human-made waterways. Montgomery often described brooks on her rambles: “A brook laughed to itself down in the hollow. Brooks are always in good spirits. They are always laughing. It is infectious to hear them.”<sup>26</sup> The potential of meandering woodland brooks to “infect” humans with “good spirits” is not purely poetic license on her part. Green environments that include bodies of water have been shown to improve mood and self-esteem more than those without,<sup>27</sup> and natural water sounds may even distract from pain sensations. For example, in a Johns Hopkins University study, patients who observed a nature mural and listened to nature sounds during and after a bronchoscopy

procedure experienced significantly reduced pain when compared to patients who were not offered nature simulations.[28](#)

Montgomery personifies not only the brook as a companion with analgesic properties but also breezes “harping” through the trees. Similar to the water tumbling over the natural materials of a stream bed, air moving through plants and trees is filtered and shaped in organic, harmonious ways.[29](#) These variations in sound give the effect of music. Although Montgomery does not reference birdsong specifically in this passage, it is a likely component of the “pulses of reawakening life” in the soundscape she has experienced, along with insect and animal sounds. A study published in *Physiology and Behavior* reported that exposure to realistic bird and water sounds in a virtual reality environment reduced stress,[30](#) possibly due to humans’ evolutionary predilection to perceive birdsong as a sign of safety.

The following sections examine more closely the effects of the forest’s “evanescent aroma”[31](#) during Montgomery’s rambles and her efforts to overcome her wintertime depression from 1901 to 1911, a decade during which she composed and published *Anne of Green Gables* and other creative works while caring for her widowed grandmother at their Cavendish home.

### **“Magic in the Breath of the Firs”: The Therapeutic Effects of Phytoncides**

While working for the Halifax *Echo* in 1902, Montgomery found herself in “the grimmest city in Canada,” far removed from the wholesome, open spaces of rural Prince Edward Island with its brooks, breezes, and birdsong. When walking in a park amid crowds of strangers left her feeling alienated, she sought the companionship of trees: “I ... fled up into a wilderness of pines and along the Serpentine ... It was delicious there. The fresh, chill spring air was faintly charged with the aroma of pine balsam and the sky over me was clear and blue.”[32](#) Montgomery’s therapeutic indulgence among the pines of Halifax is a classic example of forest bathing. The mature pines of this secluded area of Halifax would have been absorbing carbon dioxide and scrubbing toxins and pollutants from the air, including particulate matter released by burning fossil fuels.[33](#) Each pine could have produced 1,350 to 1,800 litres of oxygen annually, and clean, oxygenated air is not just more pleasant to inhale, but easier for the lungs to utilize.[34](#) Montgomery’s attention to the aromas of pine, spruce, and other evergreen trees aligns with the primary healing mechanism in forest bathing: inhalation.



The air of forests is rich in phytoncides, a term coined by Russian biochemist Boris P. Tokin in 1928<sup>35</sup> for the volatile organic compounds emitted by plants. These vapours are produced as essential oils by trees and plants and act as a deterrent to predators and pests that may harm the tree. That airborne fragrances meant to protect trees may be incidentally inhaled by a passing human is a fortunate coincidence that Montgomery relished: “There is magic in the breath of the firs. It gets into my blood like wine and thrills me with unutterable sweetness.”<sup>36</sup> Montgomery’s blissful inhalation of balsam scents would have created more than a favourable aesthetic response: The phytoncides she inhaled on such occasions are likely to have had significant positive effects on her physical and mental well-being.

Research on forest bathing suggests that the inhalation of phytoncides, such as Montgomery experienced on her woodland rambles, would have measurably decreased her mental stress. Extensive studies on the effects of phytoncides on the human body outdoors and in indoor simulations (via vapourized plant oils) have shown outcomes such as lowered blood pressure and serum cortisol levels (both indicators of stress)<sup>37</sup> and decreased concentration of adrenaline and noradrenaline in urine (also indicators of stress).<sup>38</sup> In studies conducted by Qing Li, the premier researcher on *shinrin-yoku*, participants on a three-day forest-bathing vacation among hinoki cypress and Japanese varieties of cedar, beech, and oak produced increased lymphocytes, the white blood cells that promote healing and may prevent cancer.<sup>39</sup> Forest bathing has been shown to inhibit inflammation and reduce hypertension,<sup>40</sup> and ameliorate lung conditions such as asthma, bronchitis, and tuberculosis.<sup>41</sup> Phytoncides increase the quantity of sleep without degrading the quality, acting as a natural soporific without the side effects and potential for abuse that accompany drugs commonly prescribed for sleep problems,<sup>42</sup> such as the barbiturates that Montgomery would become addicted to later in life.<sup>43</sup>

Montgomery’s penchant for picking spruce gum makes research on ingested phytoncides relevant as well. In her account of visiting Horncliffe Glen on her honeymoon in Scotland, she delights to find “a clump of spruce trees literally loaded with gum” that she and Ewan eagerly enjoy with fond memories of home.<sup>44</sup> Working dried spruce resin that had oozed from a rift in the tree bark into a stiff, elastic gum would have strengthened Montgomery’s jaw muscles, increased circulation, and may have warded off dental maladies, since phytoncides demonstrate a strong antibacterial effect on *P. gingivalis*, a bacterium that causes periodontitis and halitosis.<sup>45</sup> Ingested phytoncides, an incidental benefit of chewing spruce resin,

would have reduced the risk of gastritis caused by *H. pylori*.<sup>46</sup> Montgomery suffered from toothaches and facial neuralgia but may have been spared other health issues due to her attraction to nature.

Forest bathing is best done in areas rich with fragrant pine, fir, and spruce on warm, sunny days, the days Montgomery was most likely to be walking outdoors. Her ability to go outside was severely limited in harsher weather, however, and she approached the winter months with apprehension. In fall 1905, she laments, “The summer is over! ... I look forward to the winter with inexpressible dread!”<sup>47</sup> Her apprehension represents more than an aesthetic preference for the vibrant green world of summer; her journals document an uptick of depressive episodes during the winter months, enough to suggest that she may have suffered from what is now known as seasonal affective disorder (SAD).

### **“I Think the Weather Is Largely Responsible for My Blues”: Coping with Seasonal Depression**

Montgomery’s moods grew more turbulent in the late 1890s as she crept toward spinsterhood, grieved the death of her father in faraway Saskatchewan, and faced an uncertain future.<sup>48</sup> Her episodes of depression and mania occurred in all seasons, but she attributes lows in the colder months to seasonal factors: “I think the weather is largely responsible for my blues. When the sunshine comes again, I will find life quite tolerable—yea even pleasant. ... In sunlight, the soul of me shines out and conquers the flesh.”<sup>49</sup> Low mood resulting from inadequate sunlight is a classic symptom of what is now called seasonal affective disorder (SAD), a condition not systematically researched until the 1980s. In their book about self-help for SAD, Fiona Marshall and Peter Cheevers note records of patients suffering from seasonal symptoms dating back to 1845, but the awareness of “light hunger,” “gray-sky syndrome,” or “cabin fever” has an even longer history: the physician Hippocrates documented the effects of season on the human body as early as the fifth century BCE. Marshall and Cheevers describe seasonal depression as “starting and ending ... usually in autumn and spring, respectively, and characterized by feelings of hopelessness, guilt, misery, anxiety, and sometimes by suicidal thoughts.” SAD is most commonly diagnosed in women aged twenty to forty years.<sup>50</sup> Montgomery was between the ages of twenty-six and thirty-six years when writing the second volume of the PEI journals.

Montgomery's journal entries from 1901 to 1911 document her belief that time outdoors was necessary to maintain her mental wellness. On a rainy mid-November day in 1903, she expresses apprehension about the coming winter and predicts her days will be "stale and flat": "It was raining heavily when I woke. I was loth [sic] to get up to another dull lifeless day. ... I feel gray and nerveless to the very core of my soul."<sup>51</sup> She shows keen self-awareness in entries such as this one; she knows from experience that winters are difficult for her. In clinical cases of SAD (worse than the winter blues), as with clinical depression generally, oversleeping and extreme lethargy are common, as well as "negative thinking that is hard to shake off, difficulty completing tasks you previously found quite manageable, and persistent thoughts of death."<sup>52</sup> Excerpts from Montgomery's winter journals are evidence that her mood and behaviour met these criteria.

Montgomery astutely recognized the weather as an external factor that affected her mental state, but there was little she could do about it. At the 46th parallel, short, eight-hour days<sup>53</sup> spent indoors could not provide adequate light levels to regulate her mood and sleep: "I am ashamed of myself for all this grumbling," she writes on that dreary day in 1903. "It is the outcome of this weather ... I am never morbid in the sunshine."<sup>54</sup> Seasonal depression is caused, as Montgomery understood, by the reduction in exposure to natural sunlight during the winter months. Light that is absorbed through the eyes stimulates the pineal gland, a tiny pinecone-shaped structure at the centre of the brain. Full-spectrum daylight signals the release of serotonin, which causes feelings of energy and alertness. Serotonin levels fluctuate throughout the year, landing at their lowest in winter, and that is why people such as Montgomery may be more susceptible to emotional stress in the darker months.<sup>55</sup>

Montgomery's suffering from inadequate daylight was compounded by physical confinement behind heavy snowdrifts. "Buried alive!" she records in 1902. "Last Friday afternoon it began to snow and likewise to blow. ... I am ready to tear my hair out by handfuls." The sensation of interment is a recurrent theme in her winter journal entries. In February 1905, she exclaims, "Abominably dismal! ... The windows are all snowed up and the house is as dark as a tomb." A few months later, in April, she writes, "When I can get out for a walk these dark moods don't control me so; but, cooped up like this, they get the better of me in spite of myself." The lack of sunlight due to short days and obstructed windows, combined with the physical stress of extreme cold and the psychological stress of imprisonment, exacerbated Montgomery's symptoms and triggered catastrophizing as she recalled her past

struggles:

All day a storm has been raging as bad as any we had during that dreadful winter two years ago. We are drifted completely up. ... Oh, are we going to have another awful winter? My soul cringes at the thought. ... I don't experience one placid care-free moment from waking to sleeping. I am "cabined, cribbed, confined," mentally and emotionally as well as physically.[56](#)

Winter weather shut down Montgomery's social visits and correspondence and curtailed the sense of freedom and comforting solitude that nature afforded. The salubrious effects of phytoncide aromatherapy and sunshine were cut off during the winter months, and she had to develop other coping strategies.

In February 1905, with six feet of snow covering the orchard, Montgomery records in her journal that she dreads the shovelling she will need to do the next morning, but resolves to "escape" her present circumstances in a book, concluding the entry with, "What a blessing that the soul can always be free if it chooses!" Of course, the soul cannot always choose freedom. In an entry on a "cold, gray, dreary" day two months later, she describes herself as "depressed and discouraged without any special reason—which is the hardest of all depressions to fight against." As dark as entries such as this are, others show Montgomery devising ways to remind herself that relief was imminent by engaging productively in strategies that anticipated springtime: perusing seed catalogues, forcing bulbs in January, and escaping to the outdoors when there was a thaw.[57](#) Seed catalogues offer optimistic fantasies of springtime abundance during the darkest months of the year, and studies indicate that imagining a "brighter future"—literally brighter, in the case of increased sunlight—brings the existential reward of perceiving life as more meaningful, which can stave off depression and suicidal ideation.[58](#)

Because Montgomery was widely read, her intuitive strategies from childhood, such as the impulse to seek comfort in nature and books, would have been supplemented by knowledge and understanding of newly emerging and established wellness techniques. For example, bulb forcing was believed to have psychological benefits and was widely practised in her time.[59](#) According to a September 1906 article in the *Massachusetts Ploughman and New England Journal of Agriculture*, forcing bulbs was an easy and inexpensive way to brighten the home during a long winter, when

“a small investment ... may prove a source of great pleasure. Then a thrifty pot of plants is a suggestion that there are brighter days coming.”<sup>60</sup> Montgomery mentions hyacinths, white narcissi, and crocuses in her “window garden” but notes her preference for sunny daffodils, which reliably took her mind off her “carking worry.” Suffering from a cold in January 1907, she writes, “When I can once more get out to my dear fields and woods and hills nothing will seem unbearable. Just now everything seems so—except my darling daffodils that look as if they were compounded of the sunshine of a hundred summers.” Montgomery identifies her saviours as Van Zion, a centuries-old variety whose shaggy, flame-like petals would have given the effect of “each looking like a veritable sunburst” in the window, even if they could not alleviate the dearth of ultraviolet sunlight on winter days.<sup>61</sup>

In addition to providing splashes of colour and symbolizing the green of springtime in winter, indoor plants can oxygenate and cleanse stale indoor air, although on a smaller scale than mature trees. It is possible Montgomery was aware of this benefit of houseplants; a publication of her time, *Ballou's Dollar Monthly Magazine* (based in Boston), reported on research findings of Dr. Joseph Priestly in 1857: “the leaves of plants absorb carbonic acid gas by their upper surfaces and give out oxygen by their under ones, thereby tending to purify the air in as far as animal life is concerned, because carbonic acid gas is pernicious to animals, and oxygen is what that life requires.”<sup>62</sup> While it takes many houseplants to detoxify stale indoor air thoroughly, more than Montgomery, or most people, could reasonably fit in a home, just seeing green plants can have positive effects on emotions.<sup>63</sup>

On warmer winter days when a brief stroll was possible, Montgomery sought a temporary escape from her domestic interment, and her inhalation of beneficial plant aromas provided a much-needed boost. A fortnight after being “buried alive,” she writes, “suffering from the effects of being cooped up all day in the house, I went for a walk at sunset. It did me good, even if underfoot was all slush and mud.” She describes air “pungent with the aroma exhaled from broken-hearted firs” and reports that she “drank the pungent balsam in avidly.”<sup>64</sup> Even on a cloudy winter day, the sky will be about 2,500 lux, many times brighter than an indoor room, enough for the eyes to absorb adequate natural light for an immediate lift in mood.<sup>65</sup> Montgomery describes such a lift following “a really, truly thaw” in March 1905: “Oh, the joy of it! ... I feel like a prisoner released. ... I could clap my hands for joy—I did clap them tonight up on the hill and laughed out loud for sheer [*sic*] gladness of heart.” As spring unfolds in 1903, she reflects on her cyclical depression and

professes a conservative optimism for a brighter future, exclaiming, “Oh, dear sunshine, what a potent medicine you are!”[66](#)

### **“Like a Very Fine April”: The Mild Winter of 1905-06 and *Anne of Green Gables***

While it is not uncommon for people to experience low energy and depressed mood in the darker winter months, more intense manifestations of SAD, by definition a disorder, will negatively affect their ability to conduct daily life. Remarkably, Montgomery was able to produce significant creative work while suffering from seasonal depression. She anticipates the winter with trepidation after a heavy snowfall in mid-December 1905, writing, “A big snowstorm! Dear me, I suppose this is the beginning of sorrows. How I hate the winter!” January 1906, however, was mild; she would describe it as “like a very fine April.” A few weeks later, she compared the present winter favourably to the previous year:

This is different from last winter with a vengeance. I was glancing today over the part of my journal written last winter and it seemed nothing but a record of storms and blues. Well, it was not exaggerated. February has been another perfect month—no cold, no snow,—excellent walking—this last item being an important one for me.

Montgomery’s accounts of the mild winter of 1905 to 1906 show the effects of the weather on her mental health and her awareness of the importance of her walks. But this gentle winter, and the ebbing of her seasonal depression that it afforded, coincides with the completion in January 1906 of a manuscript she had begun drafting the previous May and had worked on through the summer and fall.[67](#)

The manuscript for *Anne of Green Gables* was a labour of love for Montgomery, a book she was, by her later accounts, intrinsically motivated to write. In her comprehensive biography of Montgomery, Rubio argues that this surge of creative productivity during “the most positive and forward-looking part of Maud’s life” was due to optimism and self-confidence brought on by her growing financial success as a writer and Ewan Macdonald’s courtship.[68](#) It is possible that Montgomery’s elevated mood made those winter months feel more bearable, or that this optimistic period simply coincided with a year of fine weather. If, however, forest bathing and sunshine affect the human body in the ways researchers suggest they do, the



weather itself may very well have been a crucial contributor to her productivity that winter.

Weather records for Cavendish do not exist for the period in question, but those for Charlottetown do. While weather can vary on different parts of the island, a comparison of Charlottetown's monthly aggregate data from the December and January of Montgomery's trying 1904 to 1905 winter compared to the "fine" winter a year later shows a marked difference. December 1904 and January 1905 brought an average mean temperature of  $-10.05^{\circ}\text{C}$  ( $13.91^{\circ}\text{F}$ ), whereas December 1905 and January 1906 were noticeably warmer, with an average mean of  $-4.15^{\circ}\text{C}$  ( $24.53^{\circ}\text{F}$ ). Snowfall was slightly higher in December 1905,<sup>69</sup> but on average, December and January of that difficult previous winter brought 64.77 cm (25.5 in) of snow, compared to 40.36 cm (15.89 in) of snow in the same months of the following year. This trend continued into the "perfect" February of 1906, which brought an average mean temperature  $5.3^{\circ}\text{C}$  warmer ( $9.54^{\circ}\text{F}$  warmer) with less than half the snowfall of the previous February: 40.4 cm (15.9 in) versus 91.9 cm (36.18 in).<sup>70</sup> Cavendish weather may have varied somewhat from what was recorded twenty-four miles away in Charlottetown, but if the weather patterns in the two areas were similar, Montgomery experienced a triple dose of lift—from her financial success, romantic prospects, *and* the weather—in that crucial winter. It is impossible to calculate to what extent her winter walks influenced the rapid completion of *Anne of Green Gables* or their role in the outstanding quality of the finished product. By her own account, however, she experienced the winter of 1905 to 1906 very differently than she had experienced previous winters, and she completed her most commercially successful work during this exceptional period.



The brook flowing along the Balsam Hollow Trail at Green Gables Heritage Place. Photo by Sarah Conrad Gothie, June 2022.

### **“I Would Rather Lose Everything Else I Possess” : Love of Nature as Legacy**

It is late summer at Green Gables Heritage Place, a National Historic Site of Canada where the former farm of Montgomery’s cousins David and Margaret Macneill is interpreted for an audience of domestic and international visitors as the inspiration for the setting of *Anne of Green Gables*. On Balsam Hollow Trail, a few steps from Lover’s Lane, sunbeams dance through an ethereal canopy of birch leaves. The air is cool and humid, alive with ambient birdsong. A thirty-something tourist strolling along the gently murmuring brook observes, “Nice creek! How peaceful to sit here to read ... to write.”<sup>71</sup> She trails off, imagining Montgomery—or perhaps herself—engaged in literary pursuits *en plein air*. If, like this visitor has done, we imagine Montgomery not as an abstract historical figure, but as an individual experiencing her environment with embodied, mindful awareness, we can assume that the effects nature had on her were consistent with the effects nature has on

most other humans, including ourselves.

Much has been written about Montgomery's love of nature and how it is ever present in her journals and integral to the characters her readers cherish. Romantic poets and other writers provided the lenses through which she would come to view the natural world, but her attraction to the outdoors was also vital to the functioning of her body and brain and to her ability to compose works that would withstand the test of time. When she writes of her love of nature, "I would rather lose everything else I possess,"<sup>72</sup> the depth of that sentiment goes beyond the aesthetic to the existential. By disregarding the advice of her day that prescribed time outdoors preferentially to men and intuitively seeking the healing power of nature well in advance of most empirical research on nature therapy, Montgomery showed remarkable self-awareness and self-advocacy. Nature enhanced her productivity and, concurrent with factors of increasing financial security and romantic prospects with Ewan Macdonald, may have supported the composition of the book that launched her to international fame.

We may rightly consider a writer's legacy to be her books, but ideas in books spur thoughts and actions. Montgomery's writing has led "countless readers, especially women, to an appreciation of the world outdoors," writes Nancy Holmes,<sup>73</sup> and through that appreciation, many have emulated her embodied practices. In her analysis of Montgomery's alignment with proponents of the nature-study movement, Tara Parmiter posits that Montgomery professed an ethos that nature is a place of wonder as well as learning and that "Montgomery models a relationship between humans and nonhuman nature that can be transported around the globe."<sup>74</sup> A vital driver of that relationship is her advocacy for the healing power of the outdoors. In her journals and novels, Montgomery presents a robust toolkit of techniques for resilience and self-preservation in the face of debilitating depression, and modern-day readers who are inspired by her to take up those tools are part of her living legacy.<sup>75</sup>

While her accounts of her Cavendish rambles may have been gilded by nostalgia during later revision of her journals in faraway Ontario,<sup>76</sup> she unequivocally conveys to her readers that "the gift of healing"<sup>77</sup> can be found outdoors. Visitors to the forests of Prince Edward Island today can soak up the sun and inhale anti-fungal, anti-inflammatory, anti-microbial, anti-cancer, analgesic phytoncides from a robust selection of native evergreen trees that includes Black Spruce, Red Spruce, White Spruce, Eastern White Pine, Red Pine, Jack Pine, Eastern Hemlock, Balsam Fir,

Eastern Larch/Tamarack, and Eastern White Cedar.<sup>78</sup> If someone lives too far away to follow in Montgomery's footsteps through the PEI landscape, the same "gift" can be derived from natural environments closer to home. Montgomery's ramble therapy is international in its accessibility and universal in its beneficial effects.

Mary Rubio recalls a conversation with Montgomery's son Stuart, during which he insisted his mother's biographer be "truthful as possible," to afford readers the opportunity to learn from her mistakes.<sup>79</sup> As I have shown, Montgomery's followers can learn from her successes as well and emulate her ramble therapy to bolster mental health and immune function, mitigate stress, and rejuvenate the spirit. For those who spend daily labour and leisure time sedentary and gazing at screens, immersion in the sunlight and aromas of non-threatening natural settings is more crucial than ever for physical and mental health.<sup>80</sup> Whether a person is coping with seasonal depression or composing a literary masterpiece—or perhaps both—Montgomery's wellness practices offer a compelling enticement to go outside.

**About the Author:** Sarah Conrad Gothie studies literary tourism, culinary heritage, and trends in twenty-first-century domesticity. She is the author of *Damsons: An Ancient Fruit in the Modern Kitchen* (Prospect Books, 2018) and is currently drafting a book-length work about literary pilgrimages inspired by the writings of L.M. Montgomery. She was named Research Associate at the L.M. Montgomery Institute for 2020 to 2022. She teaches academic and creative writing at Moore College of Art and Design in Philadelphia, PA. Follow @pages2pilgrimages on Instagram for her posts about Montgomery and literary tourism.

- <sup>1</sup> The quotation in the title is from Montgomery, *CJ* 2 (20 Dec. 1908): 208. The first epigraph is a comment on a restorative springtime walk and follows her quotation of a passage from William Wordsworth's "Lines Composed a Few Miles above Tintern Abbey" (1798): "nature never did betray the heart that loved her." *CJ* 2 (19 May 1908): 190.
- <sup>2</sup> Mathias et al., "Forest Bathing" 310.
- <sup>3</sup> Montgomery, *CJ* 2 (30 June 1902): 57; *CJ* 2 (19 May 1908): 190.
- <sup>4</sup> Montgomery, *CJ* 2 (30 June 1902): 57.
- <sup>5</sup> As discussed by Rubio, *Lucy Maud Montgomery* 117.
- <sup>6</sup> For a discussion of attention restoration and creativity, see Kaplan, "The Restorative Benefits"; Kaplan and Kaplan, *Experience of Nature*; and Williams et al., "Conceptualising Creativity."

- [7](#) Rubio indicates that intermarriage of Island families resulted in psychological disorders and may have contributed to Montgomery's depression (92).
- [8](#) MacDonald, MacFadyen, and Novaczek make this observation in their introduction to *Time and a Place* (7).
- [9](#) Sobey, "The Forests" 82.
- [10](#) See, for examples, Epperly's *The Fragrance of Sweet-Grass* and *Through Lover's Lane* and the various contributors to Bode and Mitchell's *L.M. Montgomery and the Matter of Nature(s)*.
- [11](#) See Epperly, *Through* 19–20, and Rubio 28–32.
- [12](#) Montgomery, *CJ* 2 (2 Jan. 1905): 119. Rubio suggests that Lucy Woolner Macneill's objections to rambles were rooted in concerns about propriety and keeping her "boy-crazy" granddaughter marriageable (55).
- [13](#) Montgomery, *CJ* 2 (6 June 1903): 73.
- [14](#) Montgomery's signature landscape descriptions are discussed by the various contributors in Bode and Mitchell; Fiamengo, "Towards a Theory," Epperly, "The Visual Imagination," and Pike, "Mass Marketing," in Gammel's *Making Avonlea*; and Johnston, "Landscape as Palimpsest."
- [15](#) Rubio 364–65.
- [16](#) Epperly, *Through* 16–17.
- [17](#) Jasen, *Wild Things* 8.
- [18](#) Pike, in "Propriety and Proprietary," shows the influence of the writings of Wordsworth and Emerson, as well as Bliss Carman, on the prose Montgomery attributes to "John Foster" in the novel.
- [19](#) Bode, "Mediating Landscapes" 174–75.
- [20](#) Csikszentmihalyi, *Flow* 115–16.
- [21](#) Gammel, "Embodied" 239, 241. See also Bode and Mitchell's introduction to *L.M. Montgomery and the Matter of Nature(s)*, 11–14.
- [22](#) Mitchell, "L.M. Montgomery's Neurasthenia" 121–26.
- [23](#) Berman, Jonides, and Kaplan, "Cognitive Benefits" 1207.
- [24](#) Mathias et al. 310.
- [25](#) Montgomery, *CJ* 2 (12 May 1901): 16. "Bliss to be alive," an abridged quotation from Wordsworth's *The Prelude*, Book XI, is typical of Montgomery's Romantic optic; with this phrase, she links the coming of spring as a new beginning to Wordsworth's dawn of a new era following the Reign of Terror in France.
- [26](#) Montgomery, *CJ* 2 (31 Oct. 1904): 110.
- [27](#) Barton and Pretty, "What Is the Best Dose" 3949–50.



- [28](#) Diette et al., “Distraction Therapy” 941–42.
- [29](#) As discussed by Posey, “Ethereal Etchings” 105.
- [30](#) Annerstedt et al., “Inducing Physiological Stress Recovery” 249.
- [31](#) Montgomery, *CJ* 2 (12 May 1901): 16.
- [32](#) Montgomery, *CJ* 2 (16 Mar. 1902): 50.
- [33](#) Szponar, “Reconvalescent” 113.
- [34](#) As established in the article “Clean Air,” from the American Lung Association, <https://www.lung.org/clean-air>.
- [35](#) Woo and Lee, “Sleep-Enhancing Effects” 121.
- [36](#) Montgomery, *CJ* 2 (27 Dec. 1902): 63.
- [37](#) Nam and Uhm, “Effects of Phytoncides.”
- [38](#) Qing Li et al. draw these conclusions in two papers on the “Effect of Phytoncides” in 2009 (957) and 2012 (15) publications.
- [39](#) Li, “Effect of Forest Bathing” 16.
- [40](#) Mao et al., “Therapeutic Effect” 501.
- [41](#) Szponar 115. Tuberculosis was the leading cause of death in Montgomery’s time, and had claimed her own mother’s life. Melissa Prycer has examined how Montgomery fulfilled and challenged Romantic and Victorian literary tropes in her portrayal of consumptive characters (Cecily King, Ruby Gillis, Douglas Starr, and Cissy Gay) in the context of emerging medical advances. Based on the common belief that “good air” could counteract the “bad air” that caused the illness, Douglas Starr’s doctor offers a more favourable prognosis if his patient stops working in order to spend his time outdoors in the fresh air, a course of action that helps him live long enough for his daughter to remember him. Montgomery thus furnishes her autobiographical Emily with the parental memories that she herself always longed for, by virtue of fresh air. See Prycer, “Hectic Flush” 268.
- [42](#) Specifically  $\alpha$ -pinene, one of the most abundant terpenes within pine essential oil. Woo and Lee 125–26.
- [43](#) As discussed by Rubio 507–11.
- [44](#) Montgomery, *CJ* 3 (20 Aug. 1911): 24.
- [45](#) Sun-Q Kim et al., “Effect of Phytoncide.”
- [46](#) Se-eun Kim et al., “Gastroprotective Effect.”
- [47](#) Montgomery, *CJ* 2 (1 Oct. 1905): 137.
- [48](#) Rubio 115.
- [49](#) Montgomery, *CJ* 2 (12 Apr. 1903): 69.
- [50](#) Marshall and Cheevers, *Positive Options* 2, 5–6, 10, 27.




- [51](#) Montgomery, *CJ 2* (19 Nov. 1903): 87–88.
- [52](#) Marshall and Cheevers 28.
- [53](#) Estimated hours of December daylight from [www.timeanddate.com](http://www.timeanddate.com).
- [54](#) Montgomery, *CJ 2* (19 Nov. 1903): 88.
- [55](#) Marshall and Cheevers 20–21, 3. The ultraviolet light of the sun also allows the skin to synthesize vitamin D, which aids absorption of calcium and prevents osteoporosis and rickets. Vitamin D fortification of fluid milk was not mandatory until 1965 in Canada, so Montgomery would have gotten hers primarily from sunlight and oily fish and egg yolks in her diet.
- [56](#) Montgomery, *CJ 2* (10 Dec. 1902): 63; *CJ 2* (7 Feb. 1905): 122; *CJ 2* (14 Apr. 1905): 128; *CJ 2* (4 Dec. 1906): 164 (reference here to Shakespeare’s *Macbeth*, Act 3, scene 4).
- [57](#) Montgomery, *CJ 2* (7 Feb. 1905): 122; *CJ 2* (14 Apr. 1905): 128.
- [58](#) van Tilburg and Igou, “Brighter Future” 553, 555.
- [59](#) Bulbs deprived of light and warmth for several weeks (eight to eighteen weeks, depending on the variety) will begin growing on a sunny winter windowsill long before the outside temperatures are hospitable. Tulips, crocuses, dwarf irises, hyacinths, snowdrops, and narcissi are among the bulbs that can be forced.
- [60](#) “House Plants Healthy.”
- [61](#) Montgomery, *CJ 2* (10 Dec. 1905): 141–42; *CJ 2* (14 Jan. 1906): 146; *CJ 2* (25 Feb. 1906): 148; *CJ 2* (27 Jan. 1907): 168. The narcissus known as *Telamonius plenus* appears as Van Sion, Van Zion, and Van Scion in various sources. For more information, see the entry for “Double Daffodil (*Narcissus* ‘Telamonius Plenus’)” on the (US) National Gardening Association Plants Database, [www.garden.org](http://www.garden.org).
- [62](#) “The Florist” 290.
- [63](#) Han, “Influence” 687. This Taiwanese study found that visible plants in a school classroom, occupying a mere six per cent of the floor plan, improved students’ emotional and behavioural outcomes.
- [64](#) Montgomery, *CJ 2* (27 Dec. 1902): 63.
- [65](#) Marshall and Cheevers 4.
- [66](#) Montgomery, *CJ 2* (23 Mar. 1905): 126; *CJ 2* (30 Apr. 1903): 70–71.
- [67](#) Montgomery, *CJ 2* (10 Dec. 1905): 141; *CJ 2* (1 Feb. 1906): 147; *CJ 2* (25 Feb. 1906): 148; *CJ 2* (16 Aug. 1907): 172.
- [68](#) Rubio 118–19.

- [69](#) The “big snowstorm” of 10 December 1905 brought 13.2 cm to Charlottetown, the largest amount of snow measured in a single day that month.
- [70](#) Historical weather data from <https://climate.weather.gc.ca/>.
- [71](#) On-site observation by the author during dissertation field work, 24 Sept. 2011.
- [72](#) Montgomery, *CJ* 2 (20 Dec. 1908): 208.
- [73](#) Holmes, “Romantic Novelist” 59.
- [74](#) Parmiter, “The Spirit of Inquiry” 150.
- [75](#) For examples of readers interpreting their personal experiences through Montgomery’s works in therapeutic and creative ways, see contributions to the Mental Health collection of the *Journal of L.M. Montgomery Studies* by Jessica Brown and Lori Klein.
- [76](#) Efforts of scholars to interpret Montgomery’s life experiences from her journals have been complicated by her extensive revisions and omissions. See Rubio 8.
- [77](#) Montgomery, *CJ* 2 (19 May 1908): 190.
- [78](#) For the variety of trees found on PEI, see “Trees,” Macphail Woods Ecological Forestry Project, <https://macphailwoods.org/nature-guides/trees/>.
- [79](#) Rubio 7.
- [80](#) Burns, “Naturally Happy” 406. Burns reviews the literature on the paradoxes of modern life in western cultures, showing that biological evolution has been outpaced by rapid advances in technology. Humans have not had time to adjust, evolutionarily, from movement work to seated work, and from faces to screens.

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## Works Cited

- Annerstedt, Matilda, et al. "Inducing Physiological Stress Recovery with Sounds of Nature in a Virtual Reality Forest – Results from a Pilot Study." *Physiology and Behavior*, vol. 118, 2013, pp. 240–50.
- Barton, Jo, and Jules Pretty. "What Is the Best Dose of Nature and Green Exercise for Improving Mental Health? A Multi-Study Analysis." *Environmental Science and Technology*, vol. 44, no. 10, 2010, pp. 3947–55.
- Berman, Marc G., John Jonides, and Stephen Kaplan. "The Cognitive Benefits of Interacting with Nature." *Psychological Science*, vol. 19, 2008, pp. 1207–12.
- Bode, Rita. "Mediating Landscapes: *Jane of Lantern Hill*." *CREArTA*, vol. 5, 2005, pp. 167–76.
- , and Jean Mitchell, editors. *L.M. Montgomery and the Matter of Nature(s)*. McGill-Queen's UP, 2018.
- Brown, Jessica. "The Wound of Beauty Operates in Otherwise Ways: But for Maud, 18 Ways." *Journal of L.M. Montgomery Studies*, 23 Aug. 2022.  
<https://journaloflmmontgomerystudies.ca/mental-health/Brown/The-Wound-of-Beauty>.
- Burns, George W. "Naturally Happy, Naturally Healthy: The Role of the Natural Environment in Well-Being." *The Science of Well-Being*, edited by Felicia A. Huppert, Nick Baylis, and Barry Keverne, Oxford UP, 2005, pp. 405–31.
- Csikszentmihalyi, Mihaly. *Flow: The Psychology of Optimal Experience*. Harper Perennial, 1991.
- Diette, Gregory B., et al. "Distraction Therapy with Nature Sights and Sounds Reduces Pain During Flexible Bronchoscopy." *Chest*, vol. 123, no. 3, 2003, pp. 941–48.
- Epperly, Elizabeth R. *The Fragrance of Sweet-Grass: L.M. Montgomery's Heroines and the Pursuit of Romance*. U of Toronto P, 1992.

- . *Through Lover's Lane: L.M. Montgomery's Photography and Visual Imagination*. U of Toronto P, 2007.
- . "The Visual Imagination of L.M. Montgomery." Gammel, *Making Avonlea*, pp. 84-98.
- Fiamengo, Janice. "Towards a Theory of the Popular Landscape in *Anne of Green Gables*." Gammel, *Making Avonlea*, pp. 225-37.
- "The Florist." *Ballou's Dollar Monthly Magazine (1855-1862)*. Mar. 1857, p. 290.
- Gammel, Irene. "Embodied Landscape Aesthetics in *Anne of Green Gables*." *The Lion and the Unicorn*, vol. 34, no. 2, 2010, pp. 228-47.
- , editor. *Making Avonlea: L.M. Montgomery and Popular Culture*. U of Toronto P, 2002.
- Han, Ke-Tsung. "Influence of Limitedly Visible Leafy Indoor Plants on the Psychology, Behavior, and Health of Students at a Junior High School in Taiwan." *Environment and Behavior*, vol. 41, no. 5, 2009, pp. 658-92.
- Holmes, Nancy. "Romantic Novelist as Naturalist." Bode and Mitchell, pp. 58-73.
- "House Plants Healthy." *Massachusetts Ploughman and New England Journal of Agriculture (1842-1906)*, 29 Sept. 1906.
- Jasen, Patricia. *Wild Things: Nature, Culture, and Tourism in Ontario, 1790-1914*. U of Toronto P, 1995.
- Johnston, Rosemary Ross. "Landscape as Palimpsest, Pentimento, Epiphany: Lucy Maud Montgomery's Interiorisation of the Exterior, Exteriorisation of the Interior." *CREArTA*, vol. 5, 2005, pp. 13-31.
- Kaplan, Stephen. "The Restorative Benefits of Nature: Toward an Integrative Framework." *Journal of Environmental Psychology*, vol. 15, no. 3, 1995, pp. 169-82.
- Kaplan, Rachel, and Stephen Kaplan. *The Experience of Nature: A Psychological Perspective*. Cambridge UP, 1989.
- Kim, Se-eun, et al. "Gastroprotective Effect of Phytoncide Extract from *Pinus Koraiensis* Pinecone in *Helicobacter Pylori* Infection." *Scientific Reports*, vol. 10,

2020.

Kim, Sun-Q, et al. "Effect of Phytoncide on *Porphyromonas Gingivalis*." *Journal of Oral Medicine and Pain*, vol. 32, no. 2, 2007, pp. 137-50.

Klein, Lori. "What Anne Taught Me About Living with Tragedy and Grief." *Journal of L.M. Montgomery Studies*, 26 Aug. 2022.

<https://journaloflmmontgomerystudies.ca/mental-health/Klein/What-Anne-T...>

Li, Qing. "Effect of Forest Bathing Trips on Human Immune Function." *Environmental Health and Preventive Medicine*, vol. 15, 2010, pp. 9-17.

---, et al. "Effect of Phytoncides from Forest Environments on Immune Function." *Forest Medicine*, edited by Qing Li, Nova Science Publishers, 2012, pp. 159-69.

---, et al. "Effect of Phytoncide from Trees on Human Natural Killer Cell Function." *International Journal of Immunopathology and Pharmacology*, vol. 22, no. 4, 2009, pp. 951-59.

MacDonald, Edward, Joshua MacFadyen, and Irene Novaczek, editors. *Time and a Place: An Environmental History of Prince Edward Island*. McGill-Queen's UP, 2016.

Mao, Gen-Xiang, et al. "Therapeutic Effect of Forest Bathing on Human Hypertension in the Elderly." *Journal of Cardiology*, vol. 60, 2012, pp. 495-502.

Marshall, Fiona, and Peter Cheevers. *Positive Options for Seasonal Affective Disorder (SAD): Self-Help and Treatment*. Hunter House Publishers, 2003.

Mathias, Sandrine, et al. "Forest Bathing: A Narrative Review of the Effects on Health for Outdoor and Environmental Education Use in Canada." *Journal of Outdoor and Environmental Education*, vol. 23, 2020, pp. 309-21.

Mitchell, Jean. "L.M. Montgomery's Neurasthenia: Embodied Nature and the Matter of Nerves." Bode and Mitchell, pp. 112-27.

Montgomery, L.M. *Anne of Green Gables*. 1908. Bantam Books, 1998.

---. *Blue Castle*. 1926. Bantam Books, 1989.

---. *The Complete Journals of L.M. Montgomery: The PEI Years, 1901-1911*. [CJ 2]. Edited by Mary Rubio and Elizabeth Waterston, Oxford UP, 2013.

---. *Emily Climbs*. 1925. Tundra, 2014.

---. *Emily of New Moon*. 1923. Tundra, 2014.

---. *Emily's Quest*. 1927. Tundra, 2014.

---. *Jane of Lantern Hill*. 1937. Tundra, 2018.

---. *L.M. Montgomery's Complete Journals: The Ontario Years, 1911-1917*. [CJ 3]. Edited by Jen Rubio, Rock's Mills Press, 2016.

---. *Pat of Silver Bush*. 1933. Bantam, 1993.

Nam, Eun-Sook, and Dong-Choon Uhm. "Effects of Phytoncides Inhalation on Serum Cortisol Level and Life Stress of College Students." *Korean Journal of Adult Nursing*, vol. 20, no. 5, 2008, pp. 697-706.

Parmiter, Tara K. "The Spirit of Inquiry: Nature Study and the Sense of Wonder in L.M. Montgomery's Anne Books." Bode and Mitchell, pp. 141-54.

Pike, E. Holly. "Mass Marketing, Popular Culture, and the Canadian Celebrity Author." Gammel, *Making Avonlea*, pp. 238-51.

---. "Propriety and the Proprietary: The Commodification of Health and Nature in *The Blue Castle*." Bode and Mitchell, pp. 187-202.

Posey, Catherine. "Ethereal Etchings: Connecting with the Natural World in L.M. Montgomery's *Anne of Green Gables* (1908), *Emily of New Moon* (1923), and *Magic for Marigold* (1929)." *Knowing Their Place? Identity and Space in Children's Literature*, edited by Terri Doughty and Dawn Thompson, Cambridge Scholars Publishing, 2011, pp. 95-108.

Prycer, Melissa. "The Hectic Flush: The Fiction and Reality of Consumption in L.M. Montgomery's Life." *The Intimate Life of L.M. Montgomery*, edited by Irene Gammel, U of Toronto P, 2005, pp. 258-72.

Rubio, Mary Henley. *Lucy Maud Montgomery: The Gift of Wings*. Anchor Canada, 2008.

Sobey, Douglas. "The Forests of Prince Edward Island, 1720-1900." MacDonald, MacFadyen, and Novaczek, pp. 82-108.



Szponar, Adolf. "Reconvalescent and Recreational Value of the Forest Environment." *Tourism Role in the Regional Economy*, vol. 5, 2014, pp. 112-20.

van Tilburg, Wijnand A.P., and Eric R. Igou. "Dreaming of a Brighter Future: Anticipating Happiness Instills Meaning in Life." *Journal of Happiness Studies*, vol. 20, 2019, pp. 541-59.

Williams, Kathryn J.H., et al. "Conceptualising Creativity Benefits of Nature Experience: Attention Restoration and Mind Wandering as Complementary Processes." *Journal of Environmental Psychology*, vol. 59, 2018, pp. 36-45.

Woo, Junsung, and C. Justin Lee. "Sleep-Enhancing Effects of Phytoncide Via Behavioral, Electrophysiological, and Molecular Modeling Approaches." *Experimental Neurobiology*, vol. 29, 2020, pp. 120-29.