

MASSACHUSETTS WILDLIFE

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Eagle Wars

Prescription for Nature

Belle Isle Marsh Reservation

MASSACHUSETTS WILDLIFE

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FEATURES

EAGLE WARS

— Paul M. Roberts

A happy feathered couple, a young eaglet, and an intruding bald eagle from western New York set the stage for an avian soap opera that played out this spring in the skies above eastern Massachusetts, with tragic results.

PRESCRIPTION FOR NATURE

— Sara Lucia Shuff

There is nothing normal about living our daily lives in the middle of a global pandemic and we are now all too familiar with the negative impact it can have on emotional and mental health. Fortunately, time spent outdoors could be the best medicine.

BELLE ISLE MARSH: BIODIVERSITY IN BOSTON

— Sean Riley

If you are looking for a place to get outside and enjoy an impressive level of biodiversity that is only a three-minute walk from a T-stop, plan a visit to Belle Isle Marsh Reservation. It's a Bostonian birding paradise.

MASSACHUSETTS' HOMEGROWN EIDERS 26

— H W Heusmann

While common eider populations have been declining in Maine and the Canadian Maritimes, Massachusetts offers a bright spot. Here, nesting eiders have been increasing since being reintroduced to the state in the 1970s by a forward-thinking professor.

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Faces of Conservation

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On the Cover: "MK," the female eagle in our cover story, battles to protect her fish from an unbanded subadult eagle in 2018. As our eagle population soars, fighting for food, territory, and mates is on the rise. These avian wars can have surprising consequences. Photo © John Blout

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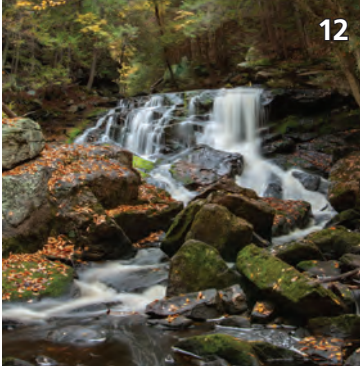
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Prescription for Nature

by Sara Lucia Shuff

I stare into my client's frozen face, locked in virtual time by a hiccup in internet speed. A restless impatience accumulates in my chair-bound limbs as I wait for the face to spring back to life. Seconds tick by. I take a long, slow breath, roll my neck to ease the seemingly permanent pinch in my left shoulder, and glance longingly out the window of my makeshift home office at the newly budding trees.

Spring has come slowly this year, with cold rain blowing across empty streets while we hibernate in separate spaces, walled off from the healing effects of social contact, and attempting to assuage our isolation and boredom with baked goods, Netflix, red wine, Zoom dates, cleaning projects, and yardwork. Gyms are closed. Kids are bored. Houses feel like mini prisons after weeks of quarantine. The days pile up with mind-numbing homogeneity, as we wait for life to restart, screens to unfreeze, stores to re-open, money to flow, to regain the freedom to move about in the world, and to once again embrace our friends and relatives.

As the risk of COVID-19 transmission hangs invisibly in the air of any shared indoor space, it is no longer safe to provide counseling services in my office so I, like many others, have been relegated to a one-dimensional world. I spend my days on a flat screen, distracted by my own image hovering in the top right corner, trying to provide some depth of human connection and emotional support through a telehealth portal that feels more like a sensory deprivation tank than a space for mental well-being.

Week after week, I witness the rates and intensity of anxiety, depression, and substance abuse rising and rapidly eroding the edges of

our individual and collective emotional health. Nothing in my 25-year career has personally or professionally prepared me for this scenario. "Pandemic Mental Health 101" was not on the list of class offerings when I attended school for social work. Telehealth did not exist yet and video-therapy was nowhere on the radar.

What I do know is that staring at a screen all day is slowly sucking the life out of me. I am restless, irritable, anxious, distractible, and emotionally depleted. And I know that the only thing that will truly refuel me is to step away from the computer, silence my smartphone, and head for the woods.

There in the forest, at the beginning or end of a screen-heavy day, the accumulation of stress in my body loosens its constricting grip. The moment my sneakers hit the soft, pine needle carpet the ever-present tightness in my chest begins to ease. I can take a full breath. The soft earthy scent of decomposing leaves and damp, newly thawed spring soil wash over me like soothing balm. My over-thinking mind slows its incessant chatter, forgets the "to do" list, and my attention sharpens effortlessly as my eyes drink in the vibrant green of delicate ferns unfurling along the trail. Stepping into nature feels like someone hung an IV bag on my soul.

For anyone who has spent time in the natural world, it is no secret that the sounds, smells, and visual variety of nature have a calming yet energizing effect on the human body and mind. In recent years, researchers have homed in on the specific positive effects of nature on mental and physical well-being and the growing body of evidence confirms what many of us intuitively know: nature heals.



Photo by Marion Larson/MassWildlife

Your Brain on Nature

As humans we have a deep, primitive, ancestral bond with the natural world, and our brains and bodies are wired to respond accordingly. Within 20 minutes of stepping into a natural setting, stress hormones in the body drop significantly, resulting in decreased anxiety and increased feelings of inner calm. Spending 20–30 minutes simply sitting or walking in nature has powerful mood-boosting effects. The sounds, smells, and sights of green spaces calm the central nervous system, lower blood pressure, sharpen mental focus, provide feelings of connection to something greater than oneself, and increase the flow of positive emotions.

A growing body of research over the past two decades has shown that spending time in natural settings has immediate positive effects on the psychological well-being of people of all ages. An increasing number of therapists who treat mental health conditions are incorporating elements of Ecotherapy into their treatment plans for people suffering from anxiety, depression, attention issues, and post-traumatic stress. Ecotherapy is the simple practice of spending time in nature and connecting with the Earth for its healing powers. Studies have shown that people suffering from mild to major depressive disorders show significant mood improvement when exposed to nature and that they also report increased motivation and energy for the recovery process.

Other studies reveal that being outdoors in green space reduces stress by lowering the stress hormone cortisol. The reduction of cortisol is an incredibly important element in the treatment of anxiety disorders, the most common emotional health issue, affecting 40 million adults in the United States. The reduction of cortisol is equally important for survivors of trauma who often struggle with feeling

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Photo by Marion Larson/MassWildlife

hypervigilant and “on edge,” and whose bodies “misfire” stress hormones due to having learned to be constantly on high alert for potential danger. For those who struggle with anxious mood, racing thoughts, and feelings of inescapable bodily tension, spending half an hour in a safe-feeling, natural setting can slow the mind, relax the body, and open the pathway to a much needed, often elusive sense of inner peace.

A physical health benefit of spending time in nature is improved cardiac function and a reduction of hypertension, two elements of physical health that are often correlated with chronic stress and anxiety. With the multiple life-disruptions caused by the current pandemic, the economic uncertainties, and recent social unrest, stress-related health conditions are on the rise, and anything we can do to improve our physical health will be worthwhile in both the short and long term. For those with bodies healthy enough for physical exertion, exercising in nature increases endorphins, adding

an additional punch of feel-good chemicals to the brain and body.

Being outdoors in natural settings helps build attention and focus and can reduce the symptoms of Attention Deficit Disorder. Research on the effects of nature on attention show strong evidence that spending time in nature leads to better cognitive processing, improved concentration, and increased memory performance. A study on the cognitive benefits of nature found that subjects who took a nature walk did better on a memory test than subjects who took a walk in an urban area. Nature also helps creativity, as the human brain is better

able to be imaginative when it is in a relaxed, “resting” state, which happens more effortlessly in natural spaces.

Spending time in green space can even help our social relationships and enhance positive communication with those around us. A growing number of urban areas around the globe are purposefully cultivating green spaces due to overwhelming evidence that there is less interpersonal conflict and violence in cities where people can access a peaceful natural environment. There is also great evidence that walking side by side, particularly in a natural setting, while talking through a relationship conflict can help lead to resolution. During a time when many families are experiencing increased stress and conflict due to being stuck at home in quarantine for months on end, getting out of the house to talk through any conflicts that have accumulated is a worthwhile strategy for more effective communication and empathy with one another.

Benefits of Nature for Children

With so many of us working from home, and children not able to attend school, there has been an inevitable increase in the amount of time spent on screens ... working, video-calling, gaming, reading news, and consuming entertainment. Recent polls indicate that most children and adolescents are spending over seven hours per day on screen entertainment. Almost every family I currently work with reports that keeping kids busy and entertained at home is a significant challenge now while normal work and school schedules have been disrupted. Parental guilt is at an all-time high because it is nearly impossible to manage work productivity while es-



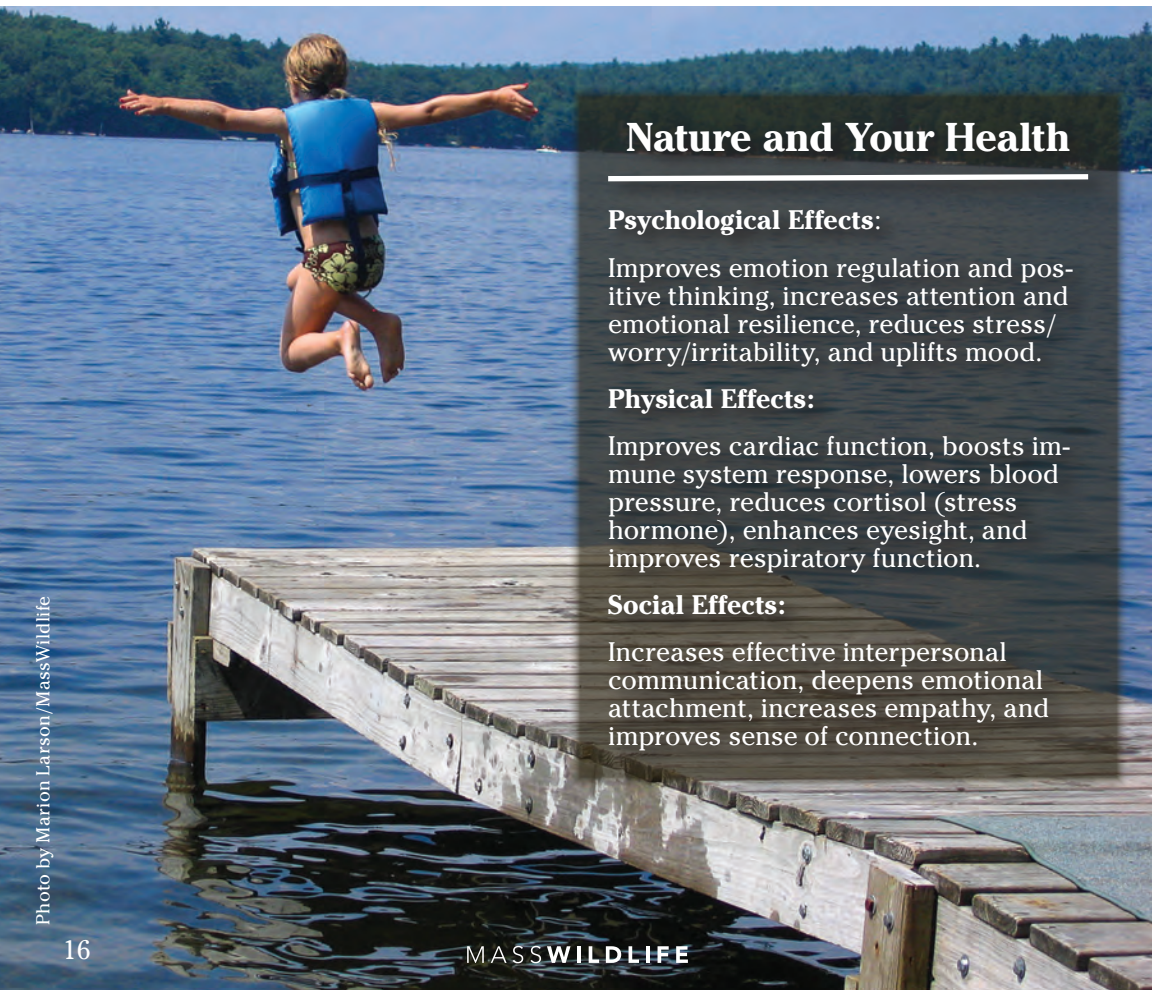
Photo © Troy Gipps

entially home-schooling children and taking care of the other daily life tasks that keep a household running.

Under normal circumstances, the general guideline for optimal physical and emotional health for children is no more than two hours per day of screen entertainment. We have all read about the detrimental physical health effects of too much screen time for young people, but what we hear less about is the impact on emotional health. Recent studies indicate that youth who are high users of screens are significantly more likely to struggle with regulating their emotions, often have difficulty staying calm, argue more frequently, and can be difficult to get along with. They also exhibit difficulty completing basic life tasks, have lower curiosity, and more difficulty making friends. Moderate to high users of screens

in the 14-17-year-old age range are more likely to be diagnosed with depression or anxiety, and to be struggling with school performance.

Given that nothing in life is currently happening in the way we are accustomed to, it seems reasonable to shoot for “good enough” and not necessarily hold ourselves to a parenting standard which is difficult to achieve during normal times. The arguments and emotional outbursts that often result when parents remove electronics and ask kids to find other ways to entertain themselves can be exhausting for everyone, so instead of having a daily battle over screen time, perhaps simply seek ways to get outside and connect with the Earth and each other for a little while every day. A walk before or after dinner, a drive to the shoreline of a pond or lake where kids



Nature and Your Health

Psychological Effects:

Improves emotion regulation and positive thinking, increases attention and emotional resilience, reduces stress/worry/irritability, and uplifts mood.

Physical Effects:

Improves cardiac function, boosts immune system response, lowers blood pressure, reduces cortisol (stress hormone), enhances eyesight, and improves respiratory function.

Social Effects:

Increases effective interpersonal communication, deepens emotional attachment, increases empathy, and improves sense of connection.



can play and adults can sit and breathe, or even half an hour hanging out in the yard as the warm summer sun begins its lazy descent towards the treetops.

In the backyard, at a park, at a lake or on a local hiking trail, kids can interact meaningfully with their surroundings and their innate inquisitiveness emerges. The research indicates that kids who play outside are happier; more curious, confident, attentive, and imaginative; and less anxious than kids who spend most of their time inside. As little as half an hour a day of outside play can help mitigate the negative impact of excessive screen time. As parents managing multiple life demands we may not always be able to muster the resolve to limit our kids' screen time as much as would be optimal, but if we can get outside with them for a little while every day, everyone's physical, mental, and emotional health will benefit.

The Prescription

There is nothing easy or normal about the structure of life during a global pandemic. Everything is different, and we are mired in the uncertainty of the time ahead. Life has become exponentially more stressful for most since March and mental health challenges are greater than ever. But one thing that remains unchanged is the healing power of nature. We are hard-wired to feel calm, alert, and alive when we step off the pavement into the grass, out of the house into the forest, and out of the car into the lake. The prescription is simple: 30 minutes, every day, in any accessible natural setting where you feel safe. Try it for one month and see what changes in your inner world as a result.



About the Author

Sara Shuff, LICSW, is a psychotherapist in private practice who lives, works, and runs the trails in western Massachusetts.

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Did you know white-tailed deer grow and shed their antlers each year? During the summer, antlers rapidly grow as much as a 1/4 inch per day for adult bucks and have a velvet-like coating. That's as much as 1-1/2 inches per week. In late summer, the velvet dries up and the antlers mineralize and harden. In the winter, antlers are shed, and the growth process begins again in spring. The upper coat of a deer in summer is reddish-brown with short, thin, straight, wiry hairs. In winter, the coat changes to a grayish-brown, with long, thick, hollow outer guard hairs and soft, dense inner hairs that provide excellent insulation against the cold. (Photo © Dean Cerrati)

