Recently, according to medical and psychological research from around the world, it turns out that while an apple a day may not keep the doctor away, an apple tree might. This is because the modern human is evolutionarily prone to be rejuvenated by an immersion in nature, even if that person had never stepped foot outside of a city before. The effects are far-reaching and powerful. As it turns out, a mere five minutes spent in nature (defined as time spent viewing or being physically within a living system that includes plants and non-human animals) increased memory, mood, impulse inhibition, attention, and concentration in participants of multiple studies. In fact, spending five minutes immersed in nature showed a greater benefit than spending a half-a-day.

The Japanese call this brief trip into nature shinrin-yoku, or "forest-bathing," and the government there has been ramping up its efforts to install at least 100 forest-bathing trails within close proximity to urban areas by 2023. The art of forest bathing is rather simple. It can be direct (as with mindfulness or meditation) or indirect (hanging out), but it needs to be in nature, as defined above.

In particular, Yoshifumi Miyazaki of Chiba University in Western Carolina University Counseling Program Volume 22, Issue 2

The Natural Prescription: Research Shows That Time Outside is Quantifiably Necessary

Letter from the Editor

Anyone who knows me understands that I believe the Wilderness is a powerful place. I even capitalize it unintentionally in Facebook messages or emails, because it just feels right.

This is perhaps a holdover from my journalism days. In that style, "south" is a direction, but "the South" is a proper noun, and I think of "the Woods" or "the Wilderness," then, in much the same capacity.

This issue is dedicated to Nature with a capital "N," and our piece in it. We might experience the power of nature simply by sitting on a hill (p. 1), by taking a class about it (p. 2), or by reveling in the wonder of our own human bodies (p. 3), pushing our biological machines to become stronger and better. We might do none of these things and still passively experience nature through that act of respiration and being.

In any case, nature is staggeringly complex and beautiful in its processes, and we often take it for granted. Occasionally, we are afraid of what we might find if we look too closely.

I remember snorkeling, studying urchins and coral, floating and feeling okay, when all of a sudden, I looked straight ahead instead of straight down, and all I saw was a descending blackness where the shelf drifted off into the deep water. It was an image accompanied by a cold current that reminded me of just how far from the...
swimming pool I was. Filled in that moment with existential dread, I wanted nothing more than to get back to the beach. That unknown element was just too big.

Since then, through camping, backpacking, canoeing down rivers, and sitting under the stars of an open, desert sky, I have traveled and tested my emotional resolve in the face of things that are challenging. While I hope to do more of these things as time goes on, I no longer see them as a challenge, however.

I am not out to “conquer” nature anymore. Hike 2,000 miles, climb the highest mountain in the lower 48, or spend two years in a different land, and nothing external really changes. Life really is like floating down a river, to use the old cliché. We might be able to steer around various obstacles or smash into them, over and over, but in the end, we just float on.

If you get anything from this issue, I hope it is a new or renewed quest for the experiences and perspectives that nature is very capable of dishing out when you spend some time inside of it.

Wilderness therapists all possess a memory (or many) of students coming to this realization about nature on their own. Maybe it was caused by the rain. Maybe they were struggling to hike up a mountain. Perhaps the heat was searing, and they felt like they could not carry their backpack one more step. Whatever the trigger, the result is near-universal.

When students come to understand that the natural world is not against them or for them, and that their present experience is a choice, it can be one of the most freeing moments in their lives.

And for us, we should strive to let as much nature into our existence as we can. Research shows that it is good for us on a medical level, but on an existential level, I think it is important to go back in our lives or in our worlds and look long into “the deep,” whatever that may mean for you.

- Shawn Hudson, Editor

The Natural Prescription (cont.)

Japan discovered that in over 600 participants who went on leisurely nature walks as compared with subjects who walked in an urban area for the same amount of time, yielded a 12.4 percent decrease in cortisol, a 7 percent decrease in sympathetic nerve activity (responsible for human action), a 1.4 percent decrease in blood pressure, and a 5.8 percent decrease in heart rate.

Subjective data told the same story. The forest bathers reported better moods and lower anxiety than their urban counterparts.

According to a separate study by Qing Li, an immunologist at Nippon Medical School, the effects of nature bathing lasted for up to seven days after exposure, and they did more than alleviating stress. Nature bathing actually bolstered the immune system, as well, increasing the white blood cell and anti-cancer protein counts in participants by 15 percent.

Li’s research shows that a big component of this boost in the immune system comes from exposure to phytoncides, or volatile scents. These phytoncides could come from a pine tree, or from the forest soil to name a few places, but they’re rarely present in urban environments.

Humans need exposure to nature, literally, in order to be at their healthiest, but if you can’t make it to a forest for a walk once a week, all is not lost.

Li went on to say in an interview with Outdoor Magazine that aromatherapy oils (real, not synthetic) in a humidifier can reproduce many of the same benefits, and that people should try to escape from an urban environment at least once per month for a few days at a time.


students to sleep outside under the stars, his background in counseling, and finally, the specifics of the course.

“I grew up on a farm, and when we would sit down to a meal, there were many times where we would brag about the idea that everything, except the margarine, was from the farm,” said Brotherton. “You knew what the ground produced, when the plants needed sunlight and moisture, and you came to understand the cycles and systems. You learned to trust in nature.”

“Nature is a master teacher,” said Brotherton. He believes that all systems, whether they be family, ecological, or psychological, are resilient and can be learned from. The Nature as Metaphor course, in that light, requires a brief investigation into its creator’s evolution, as well as the changing identity of the course itself.

Brotherton earned a Biology degree straight out of high school, and later, he would teach high school biology after a term of service in the US Marine Corps. During the early 70s, he said, ecology was booming as a field of study. The systems of nature, in which he had always lived and felt an innate understanding of, called to him in work and in play.

This lead to building nature trails with his students, but also to a 2,100 mile bike trip from his home town in Missouri to Cherokee, NC soon after the Trans America Bike Trail was established in honor of the 1976 United States Bicentennial celebration. It was on that trip that he observed a personal change.

“What I discovered on this bike trip was that you heard the streams, the birds, and saw things that you would have never seen in an automobile,” said Brotherton. “I was in nature every day, and though I don’t think I was making as big a connection as I would like to believe, it might have been going on behind the scenes.”

Brotherton, disillusioned with teaching high school in, moved soon after the bike trip to North Carolina and earned a Masters in Counseling from WCU, which lead later to a PhD in Family Therapy. He worked towards his career, and spent a majority of his time working for others, but found that he had ignored his own needs in doing so.

“Entire seasons would pass. Spring would turn to Summer. Fall would come and the leaves would change, and Winter would turn to Spring, and I hardly notice it,” said Brotherton. “Part of that was just the business and craziness of this job. Here I was, living in the most beautiful place in the World, and I didn’t even notice it. I was feeling some emptiness in my own life, and I started thinking about how I could bring this together.”

“Part of that was to put students on a mountaintop or sending them “charging down a river in order to get their attention, but he didn’t have any of those technical skills. He also believed that people in those experiences didn’t have a lot of time to properly reflect on what nature had to tell them.

“Since then, I have come to believe that nature is our teacher. It can tell us how we are supposed to be in our lives and how we can run our worlds,” said Brotherton. “And also, our own nature. Take the most depressed, suicidal, or disengaged individual who is struggling with mental health issues, and their heart still pumps. Their blood still brings oxygen to the brain. It’s almost as if the human body is simply waiting for the individual to wake up. Nature has this ability to survive.”

Brotherton believes that there is a real disconnect from nature in children and adults, especially in cities.

“We live in a time where people take, take, take, but life has a responsibility to give back. Look at all the things we do to keep nature out,” said Brotherton, “but still, that blade of grass comes through the sidewalk. Our exhalation of carbon dioxide fuels the system. It’s so easy to suggest that humans aren’t nature, but in reality, we’re walking microcosms of nature.”

The way these beliefs fuel the Nature as Metaphor course is that first, students are given the time and space to pay attention. Later, the idea of nature as a metaphor is introduced, and discussions arise. New understanding occurs through a
WCU Counseling Students Share Their Favorite Physical Escapes.

I love riding because I can just think about the horse and I.

Angelica Echevarria

I've been playing golf since I was eight years old. I love to play when I get a chance – and that’s not so often these days. Lots of schoolwork and I’ve lost my Grove Park Inn privileges.

Brent Edmondson

This is me at Moore Cove Falls. Hiking is my favorite physical and outdoor activity because it makes me feel grounded and alive.

Kim Gerwitz

I've been playing golf since I was eight years old. I love to play when I get a chance – and that’s not so often these days. Lots of schoolwork and I’ve lost my Grove Park Inn privileges.

Brent Edmondson

I love anything to do with horses. I do it because I love to hang out with horses, horsey people, and it is completely absorbing - almost meditative. Plus I can do it with my daughter.

Nicole Leclair-Kelley

My favorite outdoor activity ever since I was a kid is to go play in the woods. Within its ever-changing landscape, I find inner and outer tranquility, solitude, celebration of life, perspective, playfulness, challenge, mystery, humility, gratitude, groundedness, connectedness, and the sense of something greater than myself.

Steve Wollentin

I love weight lifting because it reminds me that with hard work, dedication, and a positive attitude anything is possible. I especially enjoy lifting at Asheville Strength because its all about growth mindset, having fun, and even when you fail (miss a lift) it’s seen as a positive thing because like in life “if you aren’t failing you aren’t trying!”

Laura Holst

Nature is a dichotomy. It is challenging and peaceful, an escape from yourself and an escape into yourself. I can’t find that anywhere else.

Gentry Hamrick

I love weight lifting because it reminds me that with hard work, dedication, and a positive attitude anything is possible. I especially enjoy lifting at Asheville Strength because its all about growth mindset, having fun, and even when you fail (miss a lift) it’s seen as a positive thing because like in life “if you aren’t failing you aren’t trying!”

Laura Holst

Nature is a dichotomy. It is challenging and peaceful, an escape from yourself and an escape into yourself. I can’t find that anywhere else.

Gentry Hamrick

I love weight lifting because it reminds me that with hard work, dedication, and a positive attitude anything is possible. I especially enjoy lifting at Asheville Strength because its all about growth mindset, having fun, and even when you fail (miss a lift) it’s seen as a positive thing because like in life “if you aren’t failing you aren’t trying!”

Laura Holst

Nature is a dichotomy. It is challenging and peaceful, an escape from yourself and an escape into yourself. I can’t find that anywhere else.

Gentry Hamrick

I love weight lifting because it reminds me that with hard work, dedication, and a positive attitude anything is possible. I especially enjoy lifting at Asheville Strength because its all about growth mindset, having fun, and even when you fail (miss a lift) it’s seen as a positive thing because like in life “if you aren’t failing you aren’t trying!”

Laura Holst

Nature is a dichotomy. It is challenging and peaceful, an escape from yourself and an escape into yourself. I can’t find that anywhere else.

Gentry Hamrick
Brotherton Believes Metaphor Course ... (cont.)

knowledge of natural and biological processes, but also through mindfulness and processing.

"I’m willing to bet that you can take any typical day in your life, and you could see everything that happened in that day also happening in a stream, if you’re aware of it," said Brotherton. "Understanding the wonders of nature allows students to also understand the wonders of themselves."

As far as specifics about the class go, Brotherton said that he does not expect students to purchase anything: “Most people can borrow a tent or a sleeping bag, or if need be, we can rent the equipment through the University." The three-night, four-day final excursion is tentatively planned for Oct. 2015, and it will most likely happen in Panthertown Valley, near Lake Toxaway, NC.

The group will travel about a mile from the road, set up a base camp complete with shelter, food, and water purification, and there will be a series of activities and events that are all aimed at improving the student’s connection with nature, some within camp, some without.

There are no dangerous activities, and as an instructor who is solely focused keeping students safe, he welcomes the expertise and skill sets of those with Wilderness First Responder (WFR) certification, stating that it allows him a few more possibilities of what he can or cannot do.

Brotherton said that it is difficult to quantify the camping experience, but he believes that all students, even ones with experience in Wilderness Therapy or with lots of backpacking and outdoor experience, come away from the course with practical knowledge that they can apply with themselves or others.

Outside of the camping trip finale (which receives most of the attention), there is an online component to the course filled with readings, discussions, and experiential assignments beforehand.

For more information, please contact: brotherton@email.wcu.edu

---

March/April 2015: Counseling Calendar

<table>
<thead>
<tr>
<th>Sun</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
<th>Sat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>Final Day to Withdraw with a “W”</td>
<td>St. Patrick’s Day</td>
<td>13th Annual Gender Conf.</td>
<td></td>
<td></td>
<td>March Equinox</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>23</td>
<td>24</td>
<td>24</td>
<td>26</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>30</td>
<td>31</td>
<td>April 1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Palm Sunday</td>
<td></td>
<td></td>
<td>Spring Break - No Classes</td>
<td></td>
<td></td>
<td>Beginning of Jewish Passover</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Easter Sunday</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Last Day of Jewish Passover</td>
</tr>
</tbody>
</table>