

Nature-Based Therapeutic Service: The power of Love in Helping and Healing

Shawna Weaver, Doctoral Candidate, Prescott College

Abstract: This article is an introduction and exploration of the potential for a new approach to mental healthcare. This approach blends mental health treatment with nature and service for a therapy that is systemically beneficial for the individual, the community, and nature together. Called nature-based therapeutic service (NBTS), it is a method within the construct of ecotherapy that is both nature-based and service oriented. It involves empowering clients to serve nature, to develop relationship, build skills, connect to the community, and gain a sense of purpose and fulfillment. Foundational fields related to NBTS include ecopsychology, sustainability education, biophilia, service learning, the study of altruism, trans-species psychology, and other psychological theories. Based on research from these contributing fields, the assumption is that a mutually beneficial therapeutic approach can reconnect humans with nature for individual and community sustainability, through the power of relationship, compassion, empowerment, and love.

Keywords: ecotherapy, trans-species psychology, human-animal interactions, mutual healing, love, and mutual longevity.

Introduction

As efforts in finding answers to unprecedented environmental problems become more urgent and complicated, it seems there is a mirrored state of malady among people. Reports abound of increased mental illness, and as James Hillman and Michael Ventura asserted, “we’ve had 100 years of therapy, and the world is getting worse” (1992). It is obvious, perhaps, that more attention should be paid to the intersection of human behavior, the environment, and human mental health. At this intersection is emotional connection tied to both learning and action. It is perhaps society’s emotional disconnection from nature that impedes learning and behavioral change.

Practitioners in fields of human, animal, and environmental welfare continue to seek ways to solve the mounting problems, and to bring about healing. Sarah Anne Edwards and Linda Buzzell related this issue of detachment to a multi-phase grieving process (Edwards & Buzzell, 2009). Lester R. Brown compared this disconnect with political movements: there is a balance in finding what people care about and fear, what rhetoric causes attention and movement, and what causes people to disengage (Brown, 1995). Change is difficult, and even with all necessary knowledge to motivate change, people tend to continue in well-known behavior patterns even when it is maladaptive or self-destructive (Herman, 1997; Worthy, 2013). Roszak (1992) stated, “inertia is the strongest of all social forces, people do not change familiar, long-established ways... unless they are convinced that they are faced by indisputable necessity” (p. 27). At this juncture, there is both great need and opportunity to find approaches to mutual healing, holistic health, and sustainability. From a psychological standpoint, both mental health and sustainable behavior depend on positive emotional connections, coaching toward action, and most importantly, the powerful motivation of love and relationship.

Ecopsychology

“Once upon a time, all psychologies were ecopsychologies ... It is peculiarly the psychiatry of modern Western society that has split the “inner” life from the “outer” world- as if what was inside of us was not also inside the universe, something real, consequential, and inseparable from our study of the natural world” (Roszak, 1992, p. 14).

Ecopsychology, born out of Paul Shepard’s 1982 study and established by Roszak ten years later, is the psychological discipline that studies the interconnection between the environment and psychology (Merritt, 2012; Roszak, Gomes, & Kanner, 1995). This field increases in importance as environmental instability nears- or perhaps surpasses- a breaking point. Ecopsychology provides a critical lens through which to consider mental health: the inner world *in relation* to the outer world. Ecopsychology is an emergent field. While literature on the topic is relatively new and limited in comparison to other disciplines in psychology, the list of professionals and research is building (Brown, 1995). Contributing subjects enrich ecopsychology as a field not isolated from science, mental health, or global current events, but with accord (Merritt, 2012). The objective of ecopsychology, as described throughout Roszak’s writings, is to psychologically reunite humans with nature, to understand the interplay between brain and environment, and to honor the interdependency of sustainable behavior and mental health (Hillman, 1995).

The global problem at this time is a disconnection of humans from *Gaia*, the interactive and interconnected global ecosystem of life and matter, (Harding, 2006). This separation enables people to make egocentric or anthropocentric decisions. Most people are not involved in any process of harvesting food, building shelter, or any other direct act of dependence on the Earth

(Harding, 2006). This detachment comes with significant costs. Ecopsychology scholars insist that human egocentric misbehavior (due to lack of health, education, compassion, or opportunity) has caused an exorbitant number of serious problems (Metzner, 1999; Schoen, 2001). Part of the global solution is to reunite individuals with their innately shared identity with nature (Kahn, Ruckert, & Hasbach, 2012; Roszak, 1992). As Roszak explains, a deeply shared identity is expressed as love, and a real understanding of each other is compassion. Love and compassion for nature can return people to a healthy connection with nature. This can happen through increased awareness and more opportunities and support for changes in language and behavior (Kahn, Ruckert, & Hasbach, 2012).

In 1992, James Hillman and Michael Ventura published a book of their dialogue about psychotherapy called, *We've had 100 years of psychotherapy and the world's getting worse*. Even two decades old, the book illustrates the reality that as society is modernized and removed from nature, illnesses are rising. There are countless studies about the many illnesses that are newly identified or growing in prevalence (Chalquist, 2007; Patel, 2012). This includes an increase in mental illness like autism, depression, anxiety, learning disabilities, and many others (Chalquist, 2007; Friedman, 2008; Patel, 2012). When parts- instead of the whole- are analyzed, the result is an incomplete understanding. This is unfortunate for mental health professionals and their clients, who often sense an incomplete approach to their own wellness through medications and therapies. Even with a new diagnostic statistical manual (DSM) in 2013, the American Psychological Association gives no recognition to illnesses caused by or in conjunction with environmental calamity (*DSM-IV-TR*, 2000). Therefore, ecopsychology remains outside of mainstream psychology, and few practitioners credit illnesses to an unhealthy or nonexistent relationship with nature or to an unhealthy natural environment (Bernstein, 2005; Hillman & Ventura, 1992).

Ecopsychologist Linda Buzzell stated to be happy, “we need to be embedded in and bond deeply with our human tribe, our animal and plant neighbors, and our place” (Buzzell & Chalquist, 2009, p. 51). While living without such bonds is possible, it results in feeling empty and becoming unhealthy. This is why Buzzell attributed the increase of mental illness, substance addiction, and destructive behaviors to a decrease in such bonding. It is logical then that a reconnection to nature can contribute to improved health.

There are numerous programs aimed at building healthy relationship with nature. Practices like wilderness therapy, green exercise, care farms (where clients and farming come together to benefit both) and animal assisted therapy help people enjoy the benefits of reconnection. These programs exist around the world and may involve farm animals, urban parks, agricultural land, and pet shelters. The overall impact of these programs is an improved relationship between humans and nature, improved emotional health for all species involved, and a stronger connection to sustainability (Glen, 2001; Marohn, 2012; Stevens, 2009). Programs like this offer an avenue to the paradigm shift from detachment to reconnection that is imperative at this point in history (Tobias & Morrison, 2008).

Consider the potential of going even beyond attaining health through such therapeutic connections, by combining approaches to healing and learning that already enjoy measurable success. Service learning is an area of education that could bring an important dimension to ecotherapy. Service combined with education and the emotional power of ecotherapy results in important skill development, community building, and individual and collective resiliency. With foundations in education, mental health, and sustainability, this holistic method of ecotherapy is called *nature-based therapeutic service* (NBTS). Nature-based therapeutic service is a

therapeutic approach that weaves together personal wellness, community improvement, and greater sustainability. The approach involves doing service for nature as a way to build relationships and emotional attachment, self efficacy, resilience, and sustainability. This broadened approach to therapy enables more people to experience the benefits of nature, and for nature to benefit from the increased interaction. The remainder of the essay will outline the theoretical justification as well as the early findings of incorporating this idea into practice. The goal is to offer confidence to readers that there is much opportunity and potential in the area of mutual healing through service; including much opportunity for individual innovation, creation, and discovery.

Nature-Based Therapeutic Service: An Introduction

NBTS is a project-based and goal-oriented approach to traditional mental health therapy, taking therapy out of the confines of an office and into the natural world. It combines being with nature and doing service within the context of mental health therapy. It is both service-learning and ecotherapy. Service learning engages people in an immersive experience to evoke emotional, intellectual, and physical connections. Through service learning, students are better able to remember academic lessons while helping to solve a real problem. Ecotherapy is about evoking a similarly multidimensional experience for improving mental health. In NBTS, clients spend their time in therapy being active, learning skills, and becoming acquainted with problems outside of their own. The ultimate goal is to enrich therapy, motivate service, strengthen relationships, and produce a positive environmental outcome. Such a holistic and systemic outcome will be born of the empowering influence of a real and emotional connection of love, compassion, and interdependence.

In NBTS, a therapist connects the client to a need or problem in the natural community. It could involve tasks like helping with a community garden project, volunteering at an animal shelter, or organizing stream clean-up. The therapist helps the client serve, teaching the skills needed to carry out the service (or collaborating with someone who can), and weaving the service work into therapy. A therapist conducting NBTS may incorporate models such as horticulture, wilderness, or animal assisted methods. The difference between these current approaches and NBTS is the intention of mutual welfare. Horticulture therapy in an urban food desert, wilderness therapy for re-habitation, and therapy with rescued animals are examples of how NBTS can be mutually helpful (by building on what is already considered effective therapy). NBTS does require creativity, resourcefulness, and collaboration among counselors, clients, and other community members.

The basic principles that inform NBTS are as follows:

- People are empowered by understanding the interconnection of self with others.
- People are empowered by new competencies and increased resilience.
- Nature benefits when humans are educated and engaged in helping nature to heal.
- Humans and non-human animals experience similar psychological reactions including fear, joy, confidence, affection, and love.
- Individual wellbeing and global sustainability both require the motivations of love and relationship.
- Individual wellbeing and global sustainability are interdependent.

The power of NBTS lies in the human needs for relationship and connection, for community and responsibility, and for compassion and love. The human-nature bond is one that fosters such an emotional impetus. The following pages will describe the human-nature bond

through several fields and conclude that such an integrative and holistic approach can open doors for individual healing, community collaboration and even the larger sustainability movement. While NBTS is a therapeutic approach to mental health, this idea is useful beyond mental healthcare. Thinking holistically about new directions toward human, nature, and community wellbeing is valuable for educators, healthcare professionals, environmentalists, community planners, and anybody concerned about the current ecological state. Readers may consider how the ideas relate to their own community roles.

Inherently Deep Foundations

NBTS finds roots in the historical and inherited needs of people to connect with nature. The studies of deep ecology, biophilia, and the human-animal bond strengthen an ecopsychological understanding from a historical perspective. All three perspectives suggest a deep-rooted tendency for humans to feel compassion, communion, and love toward other living creatures. This love is not just for the sake of the other, or for the sake of the self, but for mutual longevity. A therapeutic approach like NBTS is valuable because of the resulting mutual longevity and wellbeing, and because of transformed behaviors and values toward the other.

Deep ecology and the ecological self. Articulated by Arne Naess, deep ecology was his response to “shallow ecology” (Bodian, 1995). “Shallow ecology” is focused on reducing environmental degradation for anthropocentric purposes (Luke, 2002). Scholars of deep ecology aim to identify the complex factors of the human-nature relationship and move toward a more holistic sustainability movement (Shepard, 1995). An ecological self-concept is one in which a person understands their direct interdependence with the planet (Devall & Sessions, 1985). NBTS can offer this deeper connection to people who may not have had a reason for one (due to modern day and urban lifestyles).

Biophilia. The biophilia hypothesis suggests that human beings experience an inherent connection with nature rooted in our evolutionary history (Kellert, 1997; Wilson, 1984). The biophilia hypothesis describes the innate ways in which humans relate to the environment for survival (Wilson, 1993). Perhaps it could be considered the study of a primitive and inherited deep ecology, long before the debate of why humans should value nature. Two commonly referenced definitions of biophilia include, “the innate tendency to focus on life and lifelike processes” and “the urge to affiliate with other forms of life” (Wilson, 1984). The biophilia hypothesis includes the consideration that human values and emotions toward nature can be maladaptive (Kellert, 1996). This further supports the assumption that unhealthy psychological conditions, beliefs, and behaviors are interrelated causes *and* effects in the global sustainability crisis. NBTS can help reverse unhealthy causes and effects.

Human-animal bond. The study of the human-animal bond is an emerging body of research mostly concerning the emotional relationship between humans and animals (Horowitz, 2009; Pacelle, 2011; Schoen, 2001; Shepard, 1996). As evidenced by the biophilia hypothesis, humans relate with animals and nature with a variety of motivations. Relationships can be for companionship or consumption, but historically these relationships have often been forged for mutual survival (Haraway, 2003).

There is mounting science suggesting physiological changes in humans and in animals when experiencing physical contact and positive relationship with each other. These changes

include an increase in oxytocin and dopamine, a decrease in blood pressure and heart rate, improved levels of fitness, fewer symptoms of depression and anxiety, and disease reduction (Beck & Katcher, 1996; Chandler, 2012; Olmert, 2009; Pacelle, 2011). These physiological changes are similar to what is seen in people with positive relationships with other people. Love and relationships are beneficial, regardless of with whom such love is shared, and NBTS gives and avenue for these connections.

Consider the following account of emotional, educational, and relational improvements through the lenses of these deep foundations. The chronically low grades of a small group of urban middle schoolers triggered the school counselor's attention, who organized a series of NBTS sessions for the students. It was decided that the treatment would include outdoor opportunities for learning and movement along with opportunities for engaging in talk therapy. When given the opportunity to explore the woods, including learning what they can do to help make the woods healthier; they began to seek out more and more time being active outside. The connection was one that had been lost in their modern lifestyle, but when reintroduced to it, the students felt an innate inclination for being in nature. Not only did they respond to a rewards system as a motivation for improving their grades, but they seemed more engaged and interested in their coursework. One student reflected that they never knew science was real or that they could play a role in it. This transformative experience quickly and easily awakened their inherent desire to learn, and also to open up emotionally.

Psychological Foundations

Ecopsychology has developed out of older theories, ranging from psychodynamic theories to more modern approaches. Consider these brief examples of other psychological theories recognizing the strong relationship of humans with nature. The following foundational framework offers a scaffolding for understanding love and communion as psychologically essential among all animals (including humans).

A Gestalt approach. Parts together equal a greater whole. The Gestalt approach to therapy echoes Carl Jung, that the process of relating is also a rich process for learning and healing (Philippon, 2012). Gestalt therapists encourage looking at the here-and-now and reflecting on the immediate process more than analyzing details or history (Du Nann Winter & Koger, 2004). The Gestalt approach to the therapeutic process includes paying attention to relationship dynamics and helping individuals take responsibility for their actions and reactions (Zinker, 1977). Primarily, the goal is about creative problem solving, helping people develop sensitivity to their surroundings, and finding healthy ways to be involved in their community (Naess & Drengson, 2008).

The Gestalt theory blends with ecopsychology so well that there are a number of Gestalt ecopsychologists (Boston, 1996). William Calahan advocated for an ecological approach to Gestalt therapy by encouraging clients to be connected with the Earth. This happens through grounding activities like gardening, working with animals, and gathering food (Calahan, 1995). For example, one therapeutic issue that fits well with a Gestalt approach to NBTS is anxiety. Connecting with natural processes can help clients challenge anxieties and reframe worries as common and natural experiences. Clients learn about the ebb and flow of seasons and change, and that there are always uncontrollable variables. One terminally ill NBTS client planted perennials as a way to lessen her fear of death. Even if she did not return in the spring, she knew

the fruit of her efforts would, which gave her the sense that her life had lasting significance. She understood herself as a part of something greater.

Animal assisted therapy. Animal assisted therapy (AAT) is a complementary approach used by therapists across disciplines, often as an alternative medium within traditional therapies (Chandler, 2012; Fine, 2011). AAT can be complimentary within the constructs of traditional therapeutic methods, and can also serve as the primary mode of therapy. Emotional benefits of AAT include an increased sense of connection to the therapist, and an avenue for an appropriate loving connection (Ben-Dov & Barel, 2013). Clients may experience an improved quality of life, such as increased social involvement, decreased depression symptoms, and decreased mental health issues (Chandler, 2012; Hart, 2010). While learning improves among students in programs with animals, even life expectancy among elders is increased (Chandler, 2012).

The basis of this practice applies to working with rescued and untrained animals. A more symbiotic approach to the client-animal relationship is forged by commissioning the client to help the animal rather than engaging with already trained animals. In one instance, the opportunity to train a rescued dog truly empowered a young first generation immigrant. Selectively mute during the school day, the first grader learned to train his dog through hand signals. Within weeks, he was able to give an oral presentation to his classmates about how he trained a rescued dog.

Trans-species psychology. Trans-species psychology is the study of animal psyches across different species (Bradshaw, 2009). Established by G.A. Bradshaw, the field of trans-species psychology forces a critique of anthropomorphism and includes non-human animals in psychological discussion. Humans in modern society consider non-human animals to be lesser-than, resulting in less moral consideration. Abandonment of indigenous connections to nature, and subsequent belief in species privilege, has leveraged against nature and ultimately against sustainability (Balcombe, 2010; Rollin, 1990; Tacey, 2010). Trans-species psychology affirms that humans share more emotional capabilities with other species than humans tend to appreciate. It also validates the importance of rehabilitating individual animals to help them recover from their own emotional traumas and physical wounds (Bradley, 2011; Bradshaw, 2009; Gorant, 2010; Westoll, 2011). Encouraging compassion and empathy by teaching about animals' perspectives also enhances relationship between humans and animals. Such a communion through empathy is even more therapeutic than a relationship without it. In one example of healing through service, a young woman recovering from a serious injury felt an immediate draw toward a newly injured dog. The client helped the dog through an amputation and recovery, which enabled her to realize her own ability to contribute and her ability to cope with a new lifestyle.

Borderland personality. Jerome Bernstein introduced a new personality profile, seen in people with an extraordinary emotional connection with nature. Bernstein, a Jungian theorist, had spent years working with clients who did not seem to fit accepted mental health profiles. He discovered many clients to be experiencing mental illness that seemed to be in direct flux with their natural environment. His term, borderland personality, describes the experience of people who are deeply moved by the state of nature (2005).

Bernstein estimated that there are a number of people around the world who experience this extraordinarily deep connection. These people may express a stricter code of ethics toward

animals, or may experience more depression or anxiety related to their concerns about nature. They may struggle to relate to people who do not have the same experience. People with borderland personality tend to feel isolated and alienated, realizing their level of sensitivity to the state of the world does not seem to be typical (Bernstein, 2005). For this cohort of people, an approach like NBTS may be not just appropriate, but the only way to address both their emotional state and their urgency to help nature. NBTS answers a need for some people to help and to express a deeper love and relationship with their environment.

Foundations in Education and Values

A psychological and emotional connection of a person to another being enables the compassion, empathy, relationship, and ultimately love required for mutual growth and development. Empowerment through education, skill development, and confidence building is the force behind NBTS to reach beyond typical therapeutic goals. NBTS has potential as a motivator for sustainable behavior through education and empowerment exercises. Developing a truly inclusive sense of self within the context of others and nature can be fostered through service and learning (Stoecker, Hidayat, & Pratsch, 2009). From there, self-efficacy is an important component to NBTS. Self-efficacy motivates people to take individual action and believe in their own power to make a difference (Bandura, 1997).

The key to sustainability education and to service learning is to understand relationships. Clients can then begin to understand interconnections and to invest emotionally, physically, and cognitively in a cause by giving time and energy to learn, relate, and act (Anderson & Guyas, 2012). If a person understands the importance of engagement and believes they can contribute to the community, they probably will. Furthermore, when they do, they give voice and control to other members of the community and the cycle of empowerment continues (Stoecker, Hidayat, & Pratsch, 2009). With a therapeutic foundation of mental health and principles of psychology, NBTS offers a sophisticated environment for growth through education.

Self-efficacy. “Whether you think you can or you think you can’t- you’re right” (Henry Ford).

Self-efficacy describes one of the most important results of good education. With the knowledge and skill development through service learning and sustainability education, clients enjoy the new found sense of self-efficacy. Believing in one’s own personal mission, purpose, and abilities actually strengthens a person’s motivation to do something good (Bandura, 1997). Self-efficacy is not about skills or knowledge; it is rather about a person’s belief in their own ability and sense of control. Perception becomes reality. This is what makes Henry Ford’s quote so true.

Self-efficacy is important in therapy, learning, and the sustainability movement because a sense that effort can be fruitful is important in motivation and follow-through. Self-efficacy is credited as a significant factor in cognitive development, skill mastery, social confidence, and healthy living choices (Bandura, 1997). Individuals with strongly developed self-efficacy, and who feel a strong connection to their community, can join together in what Bandura termed collective efficacy. Collective efficacy is a group’s shared belief in their capabilities to organize and produce a greater product as a group. Collective efficacy, along with emotional investment, may be at the heart of what is needed for any successful sustainability effort (Loeb, 2004).

Altruism and service. Understanding service as therapeutic is a key component to the multi-faceted potential of NBTS. Altruism has proven to be physically, emotionally, and cognitively beneficial, even including a longer life expectancy. Giving help to others is even more effective for inducing positive emotions and wellbeing than is receiving help from others (Post, 2005). According to Martin Nowak (2011), people are hardwired to need others and to be needed. Cooperation, not competition as commonly practiced, is necessary for survival even down to the most basic cells in the human body (Nowak, 2011). He stated, “cooperation can draw living matter upward to higher levels of organization. It generates the possibility for greater diversity by new specializations, new niches, and new divisions of labor. Cooperation makes evolution constructive and open-ended” (p. 280). It can be concluded that the human desire to help, nurture, and cooperate with others is deeply innate and intertwined with individual and community wellbeing. This tendency to cooperate however, must be taught and modeled, which is another benefit of a therapeutic method such as NBTS.

Further Consideration

An ecotherapist can develop many tools to utilize in such an interdisciplinary approach. A counselor or organization may focus on an area such as horticulture, wilderness exploration, or therapy with animals. They may consider individual, group, or family counseling; or they may consider workshops or retreats. It may require collaboration with counselors, educators, field experts, and nonprofit organizations. The key to successfully implementing an NBTS program is to incorporate therapy with opportunities to learn and serve, while being immersed in nature.

The idea of NBTS is broad, offering interpretation and ideas based on individual interests, specific community needs, therapists’ abilities, resources, and other considerations. Issues like liability, insurance, client interest, curriculum building, and community investment would require further consideration. There is opportunity for interested practitioners to build their own model and curriculum, and to begin building a network of professionals.

In the author’s experience, NBTS strengthens the therapeutic milieu by making sessions more dynamic and engaging. Because of the wide variety of options, NBTS offers individuals the benefit of choice. The approach also engages and benefits the community through opportunities to participate. Most of all, the power of relationship, compassion, and love can be directed toward a need, a species, or another being.

When people are hurting, isolation is perhaps the worst enemy; while helping, learning, and talking reinvigorate the healing process. In his 2003 publication about altruism, Samuel P. Oliner summarized a sentiment that is cornerstone to this method:

I have seen and experienced a world of cruelty and uncaring. I also know that helping... is psychologically and physically beneficial to the helper. One can feel well by doing good... Perhaps my own personal losses have turned me in the direction of studying the nature of goodness, for that dark beginning made me yearn for light, and goodness is indeed the light of the world (p. 213).

Conclusion

Nature-based therapeutic service can be a catalyst for the synthesis of sustainability, mental health, and education. NBTS is therapy conducted to instill new skills, new connections, and a new sense of responsibility and belonging. With responsibility comes the need for a belief in the self, the cause, and the potential for making a change. It is important for people to feel their efforts are not futile and not inept (Bandura, 1997). They must also understand the issues

and feel emotionally motivated to fully engage in a cause (Vining, 2003; Loeb, 2010; Oliner, 2003).

The intent behind NBTS is three-fold: individual healing, healing for the animal or nature the individual serves, and healing for the greater community in which they live. Despite the broadly sweeping reference throughout this piece to overall sustainability, of course such a grand achievement is out of reach for small scale efforts alone. It is one of many pieces to the greater puzzle of sustainability. It is an important starting point to focus on an individual's immediate surroundings. This focus enables them to achieve their own growth and wellbeing.

Environmental changes will influence the human psyche, which as evidence suggests is increasingly occurring. An unhealthy environment requires more strength from people to face the problems and to create solutions. It is a task that is stressful and emotionally taxing. While so many people are affected, feeling less helpless by being a part of the solution is an emotional salve. As clients develop better health through NBTS, so too can the environment be helped. The overall state of the planet is psychologically overwhelming. This therapeutic approach affirms that clients are worthy of giving and receiving love, that their relationship to nature can be healthy and sustainable, and that they can be a part of something greater.

References

- American Psychiatric Association (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.
- Anderson, T., & Guyas, A. S. (2012). Earth education, interbeing, and deep ecology. *Studies in Art Education*, 53(3), 223-245. Retrieved from <http://ezproxy.prescott.edu/login?url=http://search.proquest.com/docview/1018566787?accountid=28426>
- Balcombe, J. (2010). *Second nature: The inner lives of animals*. New York, NY: Palgrave Macmillan.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: W.H. Freeman and Company.
- Beck, A., & Katcher, A. (1996). *Between pets and people: The importance of animal companionship*. Lafayette, IN: Purdue University Press.
- Ben-Dov, S. L., & Barel, I. (2013). "Take me under your wing-" love in animal assisted psychotherapy: A clinical perspective on the unique therapeutic bond between animals and humans. In N. Parish-Plass (Ed.), *Animal-assisted psychotherapy: Theory, issues, and practice* (pp. 399-412). West Lafayette, IN: Purdue University Press.
- Bernstein, J. (2005). *Living in the borderland: the evolution of consciousness and the challenge of healing trauma*. New York, NY: Routledge.
- Bodian, S. (1995). Simple in means, rich in ends: An interview with Arne Naess. In G. Sessions (Ed.), *Deep ecology for the 21st century: Readings on the philosophy and practice of the new environmentalism* (pp. 26-36). Boston, MA: Shambhala.
- Boston, T. (1996). Ecopsychology: An Earth-psyche bond. *Trumpeter Journal of Ecosophy*, 13(2), retrieved from <http://trumpeter.athabasca.ca/index.php/trumpet/article/view/269/402>
- Bradley, C. (2011). *Saving Gracie: How one dog escaped the shadowy world of American puppy mills*. Hoboken, NJ: Wiley Publishing, Inc.
- Bradshaw, G. A. (2009). *Elephants on the edge: What animals teach us about humanity*. New Haven, CT: Yale University Press.
- Brown, L. (1995). Ecopsychology and the environmental revolution: An environmental

- forward. In T. Roszak, M. E. Gomes, & A. D. Kanner (Eds.), *Ecopsychology: Restoring the earth, healing the mind*. (pp. xiv-xvi). New York, NY: Sierra Club Books.
- Buzzell, L. (2009). Asking different questions: Therapy for the human animal. In L. Buzzell, & C. Chalquist, (Eds.), *Ecotherapy: Healing with nature in mind* (pp. 46-54). San Francisco, CA: Sierra Club Books.
- Calahan, W. (1995) Ecological groundedness in gestalt therapy. In T. Roszak, M. E. Gomes; A. Kanner (Eds.), *Ecopsychology* (pp. 216-223). San Francisco: Sierra Club Books.
- Chalquist, C. (2007). *Terrapsychology: Reengaging the soul of place*. New Orleans, LA: Spring Journal Books.
- Chalquist, C. (2009). Ecotherapy research and a psychology of coming home. In L. Buzzell & C. Chalquist (Eds.), *Ecotherapy: Healing with nature in mind*. (pp. 69-82). San Francisco, CA: Sierra Club Books.
- Chandler, C. K. (2012). *Animal assisted therapy in counseling* (2nd ed.). New York, NY: Routledge.
- Devall, B., & Sessions, G. (1985). *Deep ecology: Living as if nature mattered*. Salt Lake City, UT: Peregrine Smith.
- Du Nann Winter, D., & Koger, S. M. (2004). *The psychology of environmental problems*. (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- Edwards, S. A., & Buzzell, L. (2009). The waking-up syndrome. In L. Buzzell & C. Chalquist (Eds.), *Ecotherapy: Healing with nature in mind* (pp. 123-130). San Francisco, CA: Sierra Club Books.
- Fine, A. H. (2011). Understanding the AAT RX: Applications of AAI in clinical practice. In C. Blazina, G. Boyraz, & D. Shen-Miller. (Eds.), *The psychology of the human-animal bond: A resource for clinicians and researchers* (pp. 125-136). New York, NY: Springer.
- Friedman, T. L. (2008). *Hot, flat, and crowded: Why we need a green revolution- and how it can renew America*. New York, NY: Farrar, Straus, and Giroux.
- Glen, S. (2001). *Best friends: The true story of the world's most beloved animal sanctuary*. New York, NY: Kensington Publishing Corp.
- Gorant, J. (2010). *The lost dogs: Michael Vick's dogs and their tale of rescue and redemption*. New York, NY: Gotham Books.
- Haraway, D. (2003). *When species Meet. Posthumanities, Volume 3*. Minneapolis, MN: University of Minnesota Press.
- Harding, S. (2006). *Animate Earth: Science, intuition, and Gaia*. White River Junction, VT: Chelsea Green Publishing Company.
- Hart, L. A. (2010). *Positive effects of animals for psychosocially vulnerable people: A turning point for delivery*. In A. H. Fine (Ed.), *Handbook on animal-assisted therapy: Theoretical foundations and guidelines for practice* (3rd ed.), (pp. 59-84). San Diego, CA: Elsevier Inc.
- Herman, J. (1997). *Trauma and recovery: The aftermath of violence- from domestic abuse to political terror*. New York, NY: Basic Books.
- Hillman, J. (1995). *A psyche the size of the Earth: A psychological forward*. In T. Roszak, M.E. Gomes, A.D. Kanner, (Eds.), *Ecopsychology: Restoring the earth, healing the mind*. New York, NY: Sierra Club Books.
- Hillman, J., & Ventura, M. (1992). *We've had 100 years of psychotherapy and the world's getting worse*. San Francisco, CA: Harper San Francisco.

- Horowitz, A. (2009). *Inside of a dog: What dogs see, smell, and know*. New York, NY: Scribner.
- Kahn P. H., Ruckert, J.H., & Hasbach, P. H. (2012). Introduction. In P. H. Kahn, J. H. Ruckert, & P. H. Hasbach, (Eds.), *Ecopsychology: Science, Totems, and the Technological Species* (pp. 55-78). Cambridge, MA: MIT Press.
- Kellert, S. R. (1996). *The value of life: Biological diversity and human society*. Washington, DC: Island Press.
- Kellert, S. R. (1997). *Kinship to mastery: Biophilia in human evolution and development*. Washington, DC: Island Press.
- Loeb, P. R. (2004). *The impossible will take a little while: A citizen's guide to hope in a time of fear*. New York, NY: Basic Books.
- Loeb, P. R. (2010). *Soul of a citizen: Living with conviction in challenging times*. New York, NY: St. Martin's Griffin.
- Luke, T. W. (2002). "Deep ecology: Living as if nature mattered: Devall and Sessions on defending the Earth." *Organization & Environment June 2002* (15), (pp. 178-186). doi:10.1177/10826602015002005
- Marohn, S. (2012). *What the animals taught me*. Charlottesville, VA: Hampton Roads Publishing.
- Merritt, D. L. (2012). *The dairy farmer's guide to the universe: Jung, Hermes, and ecopsychology Volume I: Jung and ecopsychology*. Carmel, CA: Fisher King Press.
- Metzner, R. (1999). *Green psychology: Transforming our relationship to the Earth*. Rochester, VT: Park Street Press.
- Naess, A., & Drengson, A. R. (2008). *Ecology of wisdom: Writings by Arne Naess*. Berkeley, CA: Counterpoint Press.
- Nowak, M. A. (2011). *Supercooperators: Altruism, evolution, and why we need each other to succeed*. New York, NY: Simon & Schuster, Inc.
- Oliner, S. P. (2003). *Do unto others: Extraordinary acts of ordinary people*. Boulder, CO: Westview Press.
- Olmert, M. D. (2009). *Made for each other: The biology of the human animal bond*. Philadelphia, PA: Da Capo Press.
- Pacelle, W. (2011). *The bond: Our kinship with animals, our call to defend them*. New York, NY: HarperCollins.
- Patel, R. (2012). *Stuffed and starved: The hidden battle for the world food system, 2nd ed.* Brooklyn, NY: Melville House Publishing.
- Philippson, P. (2012). *Gestalt therapy: Roots and branches: Collected papers*. London, GBR: Karnac Books.
- Post, S. G. (2005). Altruism, Happiness, and Health: It's Good to Be Good. *International Journal Of Behavioral Medicine*, 12(2), 66-77. doi:10.1207/s15327558ijbm1202_4
- Rollin, B. E. (1990). *The unheeded cry: Animal consciousness, animal pain, and science*. New York, NY: Oxford University Press.
- Roszak, T. (1992). *The voice of the earth: An exploration of ecopsychology*. New York, NY: Simon & Schuster.
- Roszak, T., Gomes, M.E., & Kanner, A.D. (Eds.), *Ecopsychology: Restoring*

- the earth, healing the mind.* (pp. xiiv-xvi). New York, NY: Sierra Club Books.
- Schoen, A. M. (2001). *Kindred spirits*. New York, NY: Broadway Books.
- Shepard, P. (1995). *Ecology and man: A viewpoint*. In G. Sessions (Ed.), *Deep ecology for the 21st century: Readings on the philosophy and practice of the new environmentalism* (pp. 131-140). Boston, MA: Shambhala.
- Shepard, P. (1996). *The others: How animals make us human*. Washington DC: Island Press.
- Stevens, K. (2009). *Where the blind horse sings: Love and healing at an animal sanctuary*. New York, NY: Skyhorse Publishing.
- Stoecker, R., Hidayat, D., & Pratsch, S. (2009). *Unheard voices: Community organizations and service learning*. Philadelphia, PA: Temple University Press.
- Tacey, D. (2010). Ecopsychology and the sacred: The psychological basis of the environmental crisis. In N. Cater, & G. A. Bradshaw (Eds.), *Spring, a journal of archetype and culture: Minding the animal psyche*, 83.
- Tobias, M., & Morrison, J. G. (2008). *Sanctuary: Global Oasis of innocence*. Tulsa, OK: Council Oak Books.
- Vining, J. (2003). "The connection to other animals and caring for nature." *Human Ecology Review*, 10 (2), 87-99.
- Waterman, A. (1997). *Service learning: Applications from the research*. Mahwah, NJ: Erlbaum.
- Westoll, A. (2011). *The chimps of Fauna Sanctuary: A true story of resilience and recovery*. New York, NY: Houghton Mifflin Harcourt.
- Wilson, E. O. (1984). *Biophilia*. Cambridge, MA: Harvard University Press.
- Wilson, E. O. (1993). *Biophilia and the conservation ethic*. In S. R. Kellert & E. O. Wilson, (Eds.), *The biophilia hypothesis*. Washington, DC: Island Press.
- Worthy, K. (2013). *Invisible nature: healing the destructive divide between people and the environment*. Amherst, New York: Prometheus Books.
- Zinker, J. (1977). *Creative process in gestalt therapy*. New York, NY: Vintage Books.



Nature Based Therapeutic Service. Photo by the author.



Author, Shawna Weaver. Photo by: Philip Peterson