

# Teaching for Nature: Filling the Need for Natural History in Experiential Education

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Most people define themselves by staring into the looking-glass of humanity. This tends to lead to an overly narrow view of our world, and of ourselves. Educators often acknowledge the importance of the cultural, ethnic, and physical diversity of humans, but frequently ignore the rich diversity inherent in the rest of the natural world. We believe that the greatest teachers are the many animate and inanimate Beings out there whose images do not reflect in our human mirror. Current estimates of biological diversity on this planet range from five to thirty million species (Wilson 1988). We are but one of these, and there is no limit to what we can learn from the Others, whom Loren Eiseley (1964) called "hidden teachers." We encourage all educators to actively pursue ways to learn directly from nature itself.

Outdoor and adventure education often uses nature as an obstacle, a tool, for learning about our own strengths and weaknesses—as in the challenge of a rockclimb or the surge of rapids on a swift river. This is a good beginning, but it does not go nearly far enough. Discovering the ways of Others, we learn about ourselves as well. In taking nature out of the background, and placing our outdoor activities in the context of nature's ways, we learn that the world is richer and deeper than we imagined. This facilitates not only personal growth, but leads us to activism and greater commitment to global change.

Over the past decade we have been working to develop effective methods for immersing learners - and teachers in nature, and building receptivity to the lessons natural history can teach us. We offer the following principles for teaching in, about, and for nature:

1) Nurture curiosity

- 2) Encourage active observation and direct contact with nature
- 3) Be still sometimes
- 4) Feelings and facts are both important
- 5) Remember who the real teachers are

Modern natural history traces its roots back centuries—to Darwin in the Galapagos, to English parsons chasing butterflies and painting wildflowers, to Aristotle and Linnaeus attempting to make sense of the diversity of nature's larder. Naturalists unraveled the "history of nature" by examining fossils, comparing them with their living counterparts, and drawing conclusions which shook our world. The foundation of natural history across the centuries has been careful observation. Observation leads naturally to description, and then to comparison and identification. Our systems of classifying the natural world—biological taxonomy, classification of rock types—are based on the observations, descriptions, and comparisons of these early naturalists.

Natural history is one way people make sense of the world around them. It asks the most basic questions: What is this? Where am I?, and then penetrates deeper into the questions that connect us with all beings: Who are you? Who am I? How do we fit together in this world?

For a naturalist, there are three steps to reading a landscape: observing, asking questions, and interpreting. Too often, we tend to attempt to interpret without the observation and questioning upon which it is based. Learning from nature requires that we perceive more alertly and deeply. Observation is not passive; insightful seeing and listening are active pursuits. Refining these and other senses takes practice, like lead climbing or kayaking. With all senses open we bring ourselves and our students into close contact with nature.

Description and identification lead to the power of names. With its name, we can communicate about something, whether it be a lupine, a thrush, or a piece of granite. More importantly, we begin to communicate with a fellow being. Knowing one's name shows our respect. It doesn't, of course, have to be the "proper" scientific binomial; it can be a name discovered and used by a group. "Gray-breasted water singer" can be just as good a descriptor as "American dipper," "water ouzel," or "Cinclus mexicanus." Students will be interested to know,

however, how much insight and information can be accessed by knowing the "right" name. Natalie Goldberg (1986), in *Writing Down the Bones*, admonishes us to "give things the dignity of their names." In Ursula LeGuin's (1968) *The Wizard of Earthsea*, the apprentice wizard Ged spends years memorizing the "true name" of each being. For only by using a creature's name could the magician's spells call upon it to do his bidding. It is similar for the naturalist, and the outdoor learner. The key to naming is to remember that it is a means, not an end.

The following sample exercises are designed to help us teach for nature in the outdoor classroom. Infinitely adaptable, they can deepen a wide variety of experiential education' activities. Remember that the purpose of all these exercises is to tune in more closely to nature, and to have fun in the process.

## **Exercise #1: Observing Our Ground.**

*This simple exercise helps focus the students' attentions, and begins to help them realize how much there is to see once they begin to observe. Students pair up and sit cross-legged about one meter apart. Both take a minute to observe the ground between them. One partner then closes their eyes: the other changes one thing in the meter wide world between them. (Remove a small leaf, change the position of a twig, add a pebble.) The other partner then opens their eyes and attempts to discover the change. Partners continue to switch roles back and forth. We have found the following rules to be helpful: a) start with fairly obvious changes, and get increasingly subtle—remember that the objective is not to fool your partner, but to help them develop keen observational skills! b) try to point to the changed spot as soon as you open your eyes—feel the gestalt of the change rather than being analytical about it. We often begin workshops or even semester-long courses with this exercise. Students always seem to enjoy it so much that they must be forced to stop! Generally, five or ten minutes get the point across. After practicing observation skills in this meter-wide world, try to get students to use the newly learned skills to see patterns on a larger, landscape scale. Where do the clusters of conifers dwell on that hillside? Where do the rocks outcrop? Is there a relationship between the two?*

## **Exercise #2: Passing the Stone:**

*Pass an object, such as a stone, around a circle of five to ten people. Whomever is holding the "stone" must speak about it nonstop. One person is timekeeper, and tells the group to pass on the "stone" after one*

minute. A few simple rules: When someone else is talking, listen, don't plan what you are going to say. You must start talking about the "stone"; but where your monologue goes from there is up to you. You must keep talking the entire time you hold the stone. In addition to being a wonderful group dynamics exercise; this always provides delightful insight into the diversity of ways people perceive the natural world. It is interesting to try this with both "natural" and "unnatural" objects, and to compare the pathways of the group mind in each situation.

### **Exercise #3: Field Guide to Friends**

When observing animals, naturalists search for "field marks"—distinguishing visual characteristics of the species, such as the white and black stripes on the crown of a white-crowned sparrow, or the white head of an adult bald eagle. This concept can be extended to plants, to landscapes, and even to ourselves. Have pairs of students sit and observe each other for about five minutes, writing a list, of their partner's important field marks. Once they have done this with such a familiar species, it is easier to begin looking more closely at others. This exercise can help build human friendships; the skill it develops helps us befriend new species.

### **Exercise #4: Hide the Guide**

Once students are familiar with field marks, and are beginning to observe more closely, they often tend to become glued to written field guides. This is great, but with one caveat: they often end up spending more time looking at the book than at the real thing. It often works well to forbid the use of field guides for a certain number of days. Tell your group to observe closely, notice field marks, and make up their own names for organisms. When the book prohibition is over, get everyone together to compare notes on field marks and names. They will have been looking at the same critters, so will enjoy sharing their personalized field observations. We have found that the species which students originally learn in this manner are never forgotten. Because of the experiential approach, identification becomes immensely more meaningful.

These are but a few examples of ways we can integrate natural history more fully into outdoor education, while we integrate experiential methods into the study of nature. They are but a beginning—see how many exercises you can invent.

It is important to weave a sense of place into our outdoor teaching. When we learn in context we learn more deeply. Let the power of place play a major role in your teaching. An activity as simple and quick as a minute of silent group focus on the scent of a ponderosa

pine forest can change the entire feeling of an afternoon. In the midst of a rappelling exercise take time to listen to a canyon wren's song bouncing down the rock; listen to the rock itself. We all know there is a difference between teaching climbing in a shaded river canyon in Georgia and the same lesson in the high desert of Joshua Tree. By slowing down, by paying attention, we begin to read the stories of different landscapes. They are as powerful as the stories of individual people. Let us celebrate these "different pathways," the miraculous diversity inherent in all life.

The wandering Japanese poet Nanao Sakakf (1987) has said:

*To stay young,  
to save the world,  
Break the mirror.*

Humanity's looking-glass can only take us so far. Break the mirror and get outside—outside of walls, outside yourself, and outside the worldview of your species. The thirteenth century Sufi poet Rumi put it another way:

*Let the beauty we love be what we do.  
Not what we listen to, what we do!  
There are hundreds of ways to kneel  
and kiss the ground.*

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