

# directions

Journal of the Association of Nature Center Administrators

## There are “Soccer Moms,” but no “Nature Moms”: Building Identity with Nature & Nature Centers

Robert Bixler  
Associate Professor  
Clemson University  
Seneca, SC

communicate to others their  
interests and help them find, and  
further develop rewarding social  
relationships with like-minded

people – or places, or organizations.

A robust identification with a  
thing (person, place, organization,  
or idea) forms inside a person after

**S**occer moms, adults dressed up as Darth Vader at Star Wars conventions, rowdy college students painted head-to-toe in their school colors cheering at a football game, World War II veterans being photographed at the USS Wisconsin, \$275 Nikes, and a Playboy air freshener hanging off the rear-view mirror of a Hummer. What can these tell us about growing, diversifying, and retaining our nature center members? Such examples illustrate the concept of “Identity,” people publicly displaying an interest, attitude, or preference. Their choices



photo courtesy of Stokes Nature Center

*There are many possibilities for using identity theory as a strategy to increase interest in nature and develop a sense among members that nature centers provide rich, rewarding experiences.*

considerable experience, reflection about the meanings of those experiences, and feedback from others. But once formed, identities create remarkable shortcuts in decision making as these examples illustrate:

“So, I’m a birder and it’s May. Well...I’m headed out to look for warblers.”

“I’m a mushroomer and it’s three days after a heavy rain—time to grab the basket and head to the woods”

“I’m a greenie, well duuh..of course I am going to buy a Toyota Prius.”

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# Director's Notes

## Happy 2011!

Jen Levy  
Executive Director  
Association of Nature Center  
Administrators  
Logan, UT

**H**appy New Year ANCA Members! I think it is safe to say that most of us are looking forward to a better year. Better for our centers, our communities, our neighbors, and our families.

There are signs that the economy is improving but it is hard to predict what 2011 will be like, especially for our members. There is evidence to suggest that the economic downturn has hurt nature centers. ANCA Summit attendance has declined in recent years and we have seen a handful of nature centers close their doors.

Our job at ANCA is to understand what is happening with nature centers and what programs and services our members need and how best to deliver them. ANCA has a history of planning, and the board and staff understand the importance of stepping back to assess our work, the external environment, and future strategic directions.

This past fall, ANCA Board Treasurer Patty Weisse, Executive Director at Baltimore Woods Nature Center in upstate New York, worked with students and professors at Syracuse University to develop a survey to look at nature center budgets. We were most interested in whether budgets were increasing or decreasing and what was happening with centers' main sources of income. Some of the findings from the 185 respondents include:



- 1) 38% of respondents reported that their budgets had decreased in the past two years.
- 2) Respondents who said that "government funding" was the most significant source of income had the greatest overall decrease in budget over the past two years.
- 3) 41% of respondents who said that "contributions" was their most significant source of revenue, said their budget had "stayed the same" within the past two years.
- 4) 41% of respondents who said that "earned income" was their most significant source of revenue, said their budget had "stayed the same" within the past two years.
- 5) 71% of respondents said that their executive director or top management staff's training involved "experience" or "education."
- 6) 61% of respondents said they would like to see their executive director or top management staff's training include "workshops."

If you are interested in the full report, send me an email at [jen-levy@natctr.org](mailto:jen-levy@natctr.org).

How does your center compare to these findings? Will these findings cause you to look at your significant sources of income?

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# Interpretation & Color Deficiency

Rich Patterson

Director  
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I spent a long day in the late 1960's taking an Army induction physical. At one stop an orderly flipped pages with dotted circles in front of me and barked, "What number do you see?"

Often I didn't see anything, and when I told him so he snapped, "Either you're trying to snooker the Army or you're color blind." "Neither," was my emphatic reply!

He then flipped another page with number 19 clearly visible in a circle of dots. With some feel of victory I told the guy I could see 19. "You can only see that number if you're color blind. People with normal vision can't see it," he snapped back. He then informed me that color blindness doesn't disqualify anyone from being an infantryman as he pointed me to the hearing test area.

So, at age 18 I learned I don't see colors the way others do. I am not alone. Eight to twelve percent of boys and men have difficulty seeing certain colors and about a half of one percent of girls and women have the condition.

Interpreters often use color when they interact with groups. Questions such as, "What color do you notice on this insect" are commonly posed. Unfortunately, in a class of 30 children it's likely that one or two boys can not see that color and will be frustrated.

Hardly anyone is truly color blind and see the world as a black

and white photograph. "Color deficient" are better words to describe the condition than "color blind." For example I cannot see purple and have great difficulty distinguishing shades of red. I see other colors perfectly. Red/green color deficiency is common but nearly everyone can see yellow and blue normally.

Strange as it might seem, I can see purple even though I know I can't see it. At least it's purple to me. My purple looks different from the purple of people with normal color vision.

Color vision testing is not routinely done, and many people live their lives not knowing they

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have color deficiency. Testing is easy. Simply Google *color blind test* and a number of free self-tests come up. In just a few minutes anyone can determine if they see color normally.

Interpreters should recognize these points about color vision:

- Not everyone sees color the way you do. Some people can not distinguish between shades of color or see certain colors.
- Be cautious about questioning strategies involving color.
- In written communication, including electronic, avoid using red for emphasis. Many people can't see it. Toss out the red marker! To emphasize text on the computer use italics, bold, or underline. If you must use color for emphasis choose yellow or blue and avoid red and green.
- Color deficiency is usually genetic. It can not be cured or corrected but people with the condition often effectively compensate for a deficiency they may not realize they have.

We color deficient people often have one advantage over those with normal sight. Many men who struggle to distinguish colors have outstanding night vision. I do. While companions stumble in the dark and walk into things I can see fairly well even on very dark nights! 🌿

*Rich Patterson has been Director of Indian Creek Nature Center in Cedar Rapids, IA since 1978. He is a founder of ANCA and received ANCA's 2007 Nature Center Leadership Award.*





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Is earned income a significant source of your annual income? What type of training do you provide for your top management staff?

In response to this survey and conversations we have had with ANCA members, the ANCA board and staff will be starting a strategic planning process to further assess the current environment and how we can respond with our member services.

Please keep in touch and let us know how you are doing and be sure to save the date for the annual Summit - August 17-21, 2011 at the Great Smoky Mountains Institute at Tremont in Townsend, TN. If you have attended in the past then you know the value of the Summit, and if you have not, please consider coming to see why the vast majority of 2010 attendees rate this professional development experience as excellent! 🌿



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“I can’t imagine not renewing my nature center membership, those are my people.”

In the above illustrations, there is no careful collection and evaluation of alternative choices, deep thought or gnashing of teeth. Identities tend to be robust and hard to give up. Abandoning an identity means loss of valued social relationships, future opportunities, a sense of belonging, and the investment a person has made in material goods associated with the identity. Marketers long ago realized the power of persuading consumers to identify with their brands. I’m still amazed that people will pay premium prices for a t-shirt sporting a Coca-Cola or Nike emblem that turn the owner into a walking billboard for the company. Those of us with more “noble” motives have stuck with education and reason. Maybe we

need more “I Love Biodiversity” t-shirts as a complement.

Before jumping into environmental and place identities, let’s go through some basics. There are two broad types of identities: personal and social. In 1972, after many trips past the enticing dessert counter in the university cafeteria, Daryl Bem offered us “self-perception theory.” Only after choosing pecan pie a dozen times did he come to view himself as a pecan-pie kind of guy. He theorized that in many situations repeated behaviors and self-reflection precede forming ideas about who we are. That is, behavior comes before attitude – the exact opposite of environmental educators’ knowledge – attitude-behavior models. A sense of self is composed of “personal identities.”

In 1902, Charles Horton Cooley argued that we view ourselves as being what our friends, communities and society tell us to be.



photo courtesy of Roger Tory Peterson Institute  
*Special interest clubs such as butterfly watching, astronomy, and geocaching are great ways to get people involved and invested in your nature center.*

He termed this process the “Looking Glass Self” as if society holds a mirror up to us and we come to see ourselves as others see us. Being told by others that we are

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white, male, tall, geeky, a tree hugger, a skilled ukulele player, and so on results in the formation of these “social identities.”

We can develop an identity with anything we can imagine and experience – with a little help from our friends. We can also be “The Friend” that encourages others to better understand themselves from a perspective involving nature. Given all this, what are the implications of identity theory for nature center operations?

Junior ranger programs are an obvious example of an identity strategy in programming. But many other programs can include an identity building strategy. Program titles can be changed from “Bugs for Kids” to “Becoming a Bugologist.” An entomology program could include providing patches or certifications patches (Joey James is a Certified Jr. Entomologist), bumper stickers for the parents’ car, or posters (Bugs don’t bother me!) for the bedroom that announce to the world an interest and competency with a topic.

One indicator of identities is what marketers call “side bets.” Side bets include the material goods owned by a person associated with an identity. Clothing and equipment are typical examples. They are functional but also have display value. Children who return home from a program with their own insect net have the opportunity to continue a newfound interest.

Repeated and extended experiences are important parts of identity formation. But the presence of the net (and poster) in the child’s bedroom is also a display of that interest to her friends. Some of her friends may join her with her interest, creating an additional social reward.

Social relationships are an

important part of identity formation and maintenance. The use of social media in particular has possibilities for keeping participants in a program interacting after its end and becoming “bug friends.” Reunions of previous Bugologist classmates with opportunities to interact with each other and nature center staff, go back out in the field, or acquire more equipment from the nature center gift shop are also possibilities. A field trip to a natural history museum to view a large study collection and meet (senior) entomologists might also be well received.

Diversifying the membership of nature centers can capitalize on existing identities that can be enhanced through engaging with nature.



photo courtesy of the National Wildlife Federation

Many programs can include an identity building strategy such as giving junior naturalists a Bugologist patch or certificate.

Historic textile enthusiasts might become involved in a nature cen-

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ter to learn about plants and plant propagation so they can do natural dyeing. Nature photographers might be willing to attend weekend workshops on the taxonomy, behavior and ecology of mammals, birds, or insects so they can be more effective photographers. Ancient (primitive) skills enthusiasts are another market. Going through lists of hobbies should produce many other ideas for making natural history part of people's lives.

Finding ways to get members to publicly display their affiliation with their nature center is important. My impression of the constituents of nature centers is that they tend not to be boisterous people, and are prone to being private.

Some members refuse "gifts" given as part of membership benefits for reasons related to reducing consumption of natural resources. One response to this is providing branded "gifts" to members such as cloth grocery bags that they will associate with reducing consumption. Bumper stickers about your nature center may never go on a member's car, but offered along with a suggestion to put them on recycling bins that go to the curb once a week might be accepted. Clever bumper stickers such as "My kid got dirtier than yours at Finch Nature Preschool" might be so well received that concerns about reducing consumption may be temporarily set aside.

Since rewarding social relationships are an important part of identity formation, nature centers should find every way possible to encourage interactions between members. In the social sciences, identity is associated with other variables such as "commitment," "involvement," and "belongingness." Don't those sound like desirable mindsets for our members? An


early morning bird walk followed by a pancake breakfasts, refreshments after programs, book clubs, casual hikes, special events, and a reading area in the nature center are all possibilities.

Social media will become increasingly important in connecting and reconnecting members within a nature center's milieu. Nature centers must be places where nature-oriented people will find each other – and value the nature center as the means to that end.

There are many other possibilities for using identity theory as a strategy to increase interest in nature and develop a sense among members that nature centers provide rich, rewarding experiences with nature in a socially comfortable situation. Marketers have long exploited identity theory – just look around!

I would encourage nature center staff to spend some time playing with these ideas at programming

and marketing meetings. Some identity-formation strategies require very simple no-cost changes, others require a significant investment in memorabilia, increased programming fees and prep time.

Finally, because of the lack of funds for formal evaluation, sharing experiences with each other through the ANCA Summit and listserv is essential to wise and diverse use of identity formation strategies. 

*Before becoming an associate professor at Clemson University, Rob Bixler was the Assistant and Acting Director of Piedmont Environmental Education Center in High Point (NC) and Manager of Research and Program Evaluation at Cleveland Metroparks (OH). His current work is on identifying the "Critical Peripherals" subtle socialization phenomena that can make a big difference in the work of local and regional parks and nature centers.*

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# From The Field:

## Nature Play at Imagination Grove: Excellence without Expense - Sugar Grove Nature Center

Ken Finch  
President  
Green Hearts Institute for Nature  
in Childhood  
Omaha, NE

Just south of the twin cities of Bloomington-Normal, IL, Sugar Grove Nature Center is a small, nonprofit facility set amidst over 1,000 acres of prairies and deciduous woods. School classes, public programs, special events, exhibits, concerts, and walking trails are all among their standard offerings. Increasingly, though, the Center's visitors are zeroing in on "Imagination Grove," where kids find the kind of natural play area that so many American adults fondly remember from childhoods past.

Just a few years ago the power and potential of nature play was a new concept for most nature centers. But it has struck such a strong and familiar cord with conservationists that at many environmental education centers, nature play has now become an equal methodological partner with the more traditional, cognitive-focused programming. But although the "why" behind the need to restore nature play is now well-established, the "how" remains a

work in progress. Across the country, efforts to bring back nature play are blossoming, evolving, soaring, and occasionally sinking. There are short interludes of unstructured play added to structured EE lessons. There are multi-million-dollar nature playgrounds designed and built from scratch,



photo courtesy of Sugar Grove Nature Center

*Tucked away in the heart of Illinois is an exemplary example of how community nature centers can embrace play as a central and affordable part of their repertoire.*

and lesser playspaces where landscape designers try to augment and improve on existing natural areas. A new genre of "family nature clubs" has sprung up, scheduling regular "nature play dates" that embrace what one club leader cleverly calls "planned spontaneity." And parents everywhere are redoubling their efforts to get their kids out in nature, wherever and whenever they can – from their own backyards to the most remote

wilderness areas.

Angela (Smith) Funk is one of those who have deep and fond memories of playing outside as a child, in left-over patches of vacant land in the south suburbs of Chicago. She spent day after day collecting grass seed heads, watching toad tadpoles metamorphose, and digging to China – experiencing nature in a slow, playful, first-hand way that no digital world is ever likely to reproduce. Long before Richard Louv's *Last Child in the Woods* took the conservation world by storm, Angela dreamed of creating an area where today's kids could enjoy those same sorts of outdoor adventures, infused with discovery and imagination. When she became the Director at Sugar Grove, she found the perfect opportunity for her dream to take shape.

In a semi-open, two-acre enclave a couple hundred yards from the visitor center are scattered walnut trees, a small and shallow stream with a little foot bridge, and a roofless "pioneer cabin" that offers enduring kid appeal despite its deteriorated condition. A natural tree line defines the northern boundary of the area, with the year-round stream enclosing the

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rest. Upon taking the Sugar Grove job, Angela had a six-month goal to get the main nature center building up and running. But she simultaneously took on the task of converting the stream-side glen into a place dedicated to play in nature – and named it “Imagination Grove.” She had no budget for this project, no landscape designer to reveal every flaw in the site and every expensive solution, and no master plan for how “IG” would meet the many and diverse developmental needs of children. Instead, she had memories, dreams, and passion. “Having no money actually made it simple,” she says. “Free boundaries, a free creek, the perfect climbing tree, a foot bridge already in place . . . just add shovels, a pile of sticks, and Imagination Grove was born.”

Today Imagination Grove is full of simple child delights – most nature-focused; all outdoors in a quiet setting that is joyfully animated by its young visitors. Among the features:

- A natural climbing tree with a thick horizontal branch about six feet off the ground. Kids can climb up via the two-by-fours nailed into the trunk, or use a rope ladder at the other end. Beneath the branch, a swing further beckons.
- On the wilder side of the creek is a short loop trail through trees and tall underbrush, where a small stick fort has materialized without any adult planning.
- The rundown pioneer cabin remains popular – a nondescript play space that children’s imagination can turn into a primitive shelter, a wilderness fort, or any other pretend setting that they can conjure. Joining it is a newer,

volunteer-built clubhouse that kids use differently – typically for playing house.

- Adjacent to the clubhouse is a simple clothesline and a big

old wash-tub with a supply of sacrificial clothes that get washed, re-washed, and hung up repeatedly.

- Nearby is the Grove’s third structure, an elevated “lookout fort” with a vertical ladder that accesses an unroofed deck – also constructed by volunteers.

- A large, hollow log can be climbed on or through, and a bunch of large stumps – set both vertically and horizontally – serve as “hoppers” and as places to peek under for kid-scale critters. Around them, open grassy spaces allow the simple joy of running.

- A big, plain-dirt digging pit is embellished with four small shovels and a rack to hang them on – when they’re not in use for the pit’s signed purpose: “Dig to China!”

A sandbox adds a different version of digging, and yet another spin on the theme is a fossil dig site that is seeded with dinosaur bones (which, to adult eyes, look remarkably like deer bones).

- A “quiet area” has paths through tall grass that lead to a low-slung hammock, and the over-

all ambiance is embellished with wind chimes, bird houses, and a creek-side sign proclaiming “Raccoon Crossing.”

- The stream itself is crossed by



photo courtesy of Green Hearts

*Ladders and swings beckon children to play and explore in, on, and around “The Big Tree.”*

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the lumber foot bridge, but most kids prefer to balance across the large rocks and concrete blocks that have been placed in the shallow water – and subsequently moved around many times by budding engineers.

- One other prominent and cherished feature is a low zip line that lets children glide across the grassy center of Imagination Grove – but is strong enough to also hold the moms and dads who just can't resist....

None of Imagination Grove's attractions can match the glitzy and

expensive features found in the elaborate nature playspaces that are springing up in botanical gardens, parks, and even some larger nature centers. But what IG lacks in "gee whiz" impact, it makes up for with an indefinable feel of magic: taken as a whole, the Grove is a charming and inviting child's delight that engages kids for hours at a time.

To get Imagination Grove started, Angela initially spent the not-so-grand total of about \$50 on supplies. Later, a \$2,400 grant provided the zip line, supplies for the new clubhouse, and improve-

ments to the footbridge. Volunteers invested roughly 70 hours on these construction projects, and a dedicated individual helper continues to round up things like pie tins, clothes, shovels, and buckets from her friends, garage sales, and resale shops – all donated to the nature center. Woodchips are also

scout groups, day care centers, etc. Each summer the Nature Center hosts a special Imagination Grove Fun Day with lemonade, snacks, and a volunteer-staffed trading post that invites visitors to bring nature items to trade. There has even been a small, informal marriage in IG – and since everyone

involved had small children, after the ceremony they played!

Inevitably, there are places in Imagination Grove where children can fall, slip, or – for those with over-active worry hormones – drown in a few inches of water. Just as inevitably, kids manage to keep themselves pretty safe. There have been the



photo courtesy of Sugar Grove Nature Center


*The Pioneer Cabin is a popular destination for kids visiting Imagination Grove. Here they make primitive shelters, wilderness forts, or just about anything their minds can imagine.*

donated, and the larger logs and stumps have come from the nature center's own property, friends, and roadsides.

Imagination Grove is open daily, dawn to dusk, year-round; it is free, like the rest of the Nature Center. In addition to drop-in visitors, most of the Center's visiting school classes spend at least some time there, and there is a home-school group that visits IG every week. The play space is also one of the Center's birthday party options, is a regular (and very popular!) part of their summer day camps, and is used by

usual scratches and bruises along with one broken arm – just like childhood has always been. No issues or difficult situations have arisen from those injuries. Wood chips are used to soften potential fall zones, and keeping those chips replenished is the biggest maintenance challenge of the play space. The Nature Center has no grounds or maintenance staff, so volunteers donate their time to tend the woodchips and to do a weekly check for safety issues and maintenance needs.

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Imagination Grove is a unique highlight amidst the beautiful land and trails of Sugar Grove. Not only does it draw and retain children and families, it has come to define the playful, relaxed, yet passionate character of the entire organization. Professionals from other natural areas have visited to see IG for themselves – a pilgrimage that is well worth the time, since words and photos do not adequately convey the delightful essence of the Grove. But thousands of children are capturing that essence in their own spirits, and will be carrying it forward into their adult values and memories – a perfect reflection of the enduring mission of a community nature center! 

*Ken Finch is the founder and President of Green Hearts Institute for Nature in Childhood (www.greenheartsinc.org), an Omaha-based conservation organization that speaks, teaches, writes, and consults about nature play and how it can be restored to childhood. He has worked for over 36 years as a professional environmental educator, and is a past President of ANCA.*

*Ken can be reached at [kfinch@greenheartsinc.org](mailto:kfinch@greenheartsinc.org).*

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# Profile: Cincinnati Nature Center

## Making Nature Personal: Part 2

how & why CNC changed its program focus

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*This article is the second of a two-part series. Part one in the fall newsletter discussed adult audiences at Cincinnati Nature Center. Here, part two focuses on children and their mentors.*

### Children: Nurturing Future Members

Special interest groups seek to influence children to encourage future generations to share the values and interests of the group, recognizing that their hobby requires future supporters and advocates. In the case of nature centers, the stakes are high. As Richard Louv (2005) states, "The protection of nature depends on more than the organizational strength of stewardship organizations; it also depends on the quality of the relationship between the young and nature – on how or if the young attach to nature."

Some people feel that a child must develop a sense of respect and caring for the natural world when he or she is three to five years old or be at risk of never having such attitudes (Wilson, 1996; Sobel, 1996). Emotion plays a key role in determining

where people focus their attention (Webb, 2000). Educational efforts for children six to ten years of age might best focus on the affective realm, emphasizing emotional concern and sympathy for animals (Kellert, 1985).

In an age where most information is accessible through the Internet, people seeking facts can easily find them. Ken Finch from Green Hearts Inc. wrote in an ANCA listserv discussion, "there is no lack of readily available knowledge, and never will



photo courtesy of Cincinnati Nature Center

*Giving children frequent positive experiences in nature will help them grow into adults with environmental values.*

be again. The key is to want that knowledge. And how do children come to want a deep knowledge of nature? The same way it has always happened, by making nature a cherished part of their personal lives."

Studies show that frequent positive experiences in nature at a

young age will indeed help children grow into adults with environmental values (Tanner, 1980; Bixler, Floyd, & Hammitt, 2002). These adults may then join nature centers or advocacy organizations, contributing to social capital and sharing their experiences, knowledge, and values with others. Research suggests that while one-day environmental sessions for children are not effective, programs that offer at least ten hours of contact can create lasting influence on knowledge and values (Zelezny, 1999).

Residential environmental education centers are one of the best places to accomplish extended contact with, and profound influence on, both children and adults (Shepard, 1986; Bogner, 1998). Because schools have limited time and money to attend overnight programs and because there are several successful residential centers in the region, Cincinnati Nature

Center (CNC) has chosen not to enter this market. CNC's summer day camps and weekly or monthly program series offer extended experiences in nature.

Another powerful opportunity would be a nature-based preschool. The CNC Education

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Committee is currently developing a business plan for a single-classroom pilot preschool using existing facilities. A licensed preschool would attract parents interested in a more comprehensive program and willing to register children for multiple days per week for an entire school year. Schlitz, New Canaan, Kalamazoo, and Dodge Nature Centers all indicate that a nature-based preschool deepens families' commitment to the nature center community (Eldridge, 2004).

Researchers say parents play a strong indirect role in preparing their children to benefit from structured environmental education in school by providing them with unstructured, self-directed experiences in nature (Vadala, Bixler, & James, 2007). CNC can foster an ethic of mentorship in parents/grandparents, teachers, and CNC volunteers. We can help parents/grandparents facilitate positive experiences for their children in nature by loaning out nature study tools and materials for families to collect and observe wildlife at approved locations at CNC; advising them on the use and purchase of microscopes and research equipment; and helping them develop knowledge of written resources and general natural history so they feel confident in nature with their children. In addition, CNC's new 1½ acre Nature Playscape will be a place where parents/grandparents can bring children to play in nature while gleaning ideas to create child-friendly natural backyards at home.

### Teachers and Community Mentors: Training Role Models

The goal of environmental education is to develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations, and commitment to work individually and



photo courtesy of Cincinnati Nature Center

*It takes thoughtful planning to present environmental education in a way that promotes scientific inquiry.*

collectively toward solutions of current problems and the prevention of new ones (Belgrade Charter, 1976).

While nature centers have relatively short contact time with their audiences, schools have long-term influence over learning. That's why the National Environmental Education Act was aimed at schools, where complex environmental problems and solutions could be explored while integrating knowledge in social studies,

math, science, and other disciplines. Nature centers traditionally have been seen as a resource for teachers of environmental education, but they should not be expected to lead this process (Larsen, 2002).

Some educators fail to see how a trip to a nature center addresses science standards, perhaps because a dichotomy exists within nature study: scientific research, with its emphasis on quantifiable results, seeks to eliminate emotion and focus on objective observation, whereas nature appreciation encourages emotional connection to the land (Armitage, 2009). It takes thoughtful planning to present environmental education in a way that promotes scientific inquiry. When teachers and administrators no longer see the value in environmental education, nature centers attempt to fill the void, an effort that is probably futile.

Today as in the past, the main purpose of outdoor education is to provide meaningful contextual experiences that complement and expand classroom instruction (Woodhouse & Knapp, 2000). The value of a field trip depends on how well the teacher integrates it into the curriculum back at school. Students require more than an appreciation for the complexity and urgency of environmental problems. They must learn to recognize obstacles to high-quality decision-making and acquire skills, such as critical thinking, to overcome them (Arvai, Campbell, Baird, & Rivers, 2004). This

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process requires time. Numerous studies indicate that a three-hour field trip experience has little long-term impact on values or knowledge, unless reinforced with pre- and post-trip experiences by the classroom teacher (Clayton & Myers, 2009), who has the opportunity for nine months of mentorship in the classroom.

Research tells us that teachers are more likely to incorporate environmental education into their curriculum if they have had positive informal experiences in nature themselves (Plevyak, Bendixen-Noe, Henderson, Roth, & Wilke, 2001). Thus CNC is now aiming to provide relaxing, enriching, empowering experiences in nature for teachers. While still serving school children in single-day field trips, CNC is beginning to shift its efforts to deepen our relationships with teachers and to extend the services we provide to them.

Teachers may create a demand for real-life learning in nature that their administrators might not otherwise have supported. Studies of a teacher training program in Pennsylvania indicate that success was partially due to the fact that adoption of the program was teacher-driven. This program was introduced to teachers whose subsequent interest and enthusiasm for it led to eventual administrative support, which is critical to program growth and maintenance (Kenny, Militana, & Donohue, 2003). Social marketing research

gives us hope that teachers inspired by a deeper relationship with CNC may influence their colleagues to visit the nature center as well.

CNC sees classroom teachers as powerful mentors with far greater impact on students than our field trip program can provide on its own. Other important mentors include staff and volunteers at YMCAs, Boys and Girls Clubs, Big Brothers/Big Sisters, libraries,



photo courtesy of Cincinnati Nature Center

*Developing mentors can result in far greater impacts on students than field trip programs can provide on their own.*

and after-school programs. Time spent in nature and with an adult role model are both important influences for the young environmentalist (Sivek, 2002). If people are influenced most by those they know and trust, we believe the best way to serve children outside of our membership is by providing training and positive experiences in nature to their adult mentors.

CNC can more effectively serve a greater number of low-income and under-served children by encouraging their adult mentors to get them outside regularly for enrichment, inspiration, and education, both at CNC and at

other natural areas throughout the region. In most cases, our marketing efforts will be focused on bringing these potential mentors to CNC for training and inspiration, rather than on serving the children directly.

Not long ago, our staff believed that measuring cognitive change on pre-and post-tests was the only way to determine if our field trips were effective. Returning now to the roots of nature study, we realize that it is inspiration and attitudes we should be measuring, of both students and their teachers.

### Summary

There is a direct connection between enriching people's lives through nature and saving the world. Our nature center provides its members with a variety of outdoor experiences enjoyable enough to share, information interesting and useful enough to

discuss, and social support strong enough to buffer them from discouragement and engender hope when times are bleak. This allows them to continue "fighting the good fight" for the environment. By developing a CNC community where people influence one other, we magnify our ability to make the world a better place! 🌿

*Connie O'Connor oversees CNC's Education Team, facilitates nature education programs for all ages, and is liaison for school partners.*

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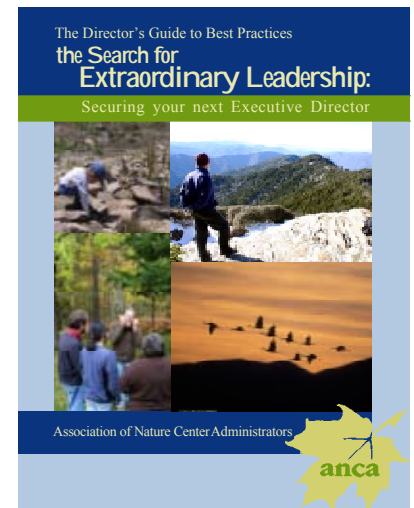
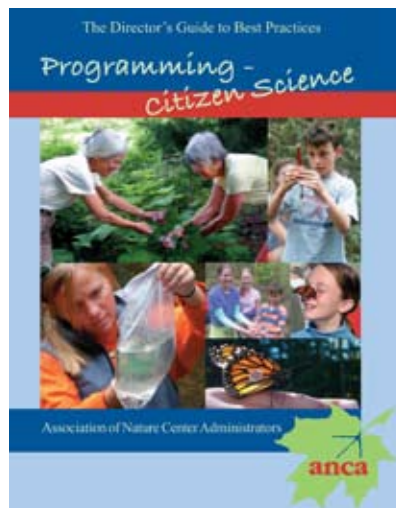
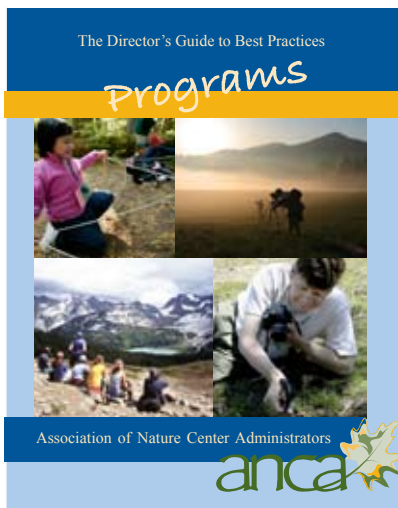
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