Mainstreaming Diversity: From Paradigm to Practice?

Research into urban audiences and environmental education

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To obtain a full copy of the “Mainstreaming Diversity: From Paradigm to Practice” research report go to: http://www.barrfoundation.org/resources/resources_show.htm?doc_id=427989
Executive Summary

Massachusetts is changing demographically and it is changing rapidly. Indeed “nearly half of all new immigrants hail from Latin America and the Caribbean, and another 23 percent come from Asia.” (MassINC 2005 p.4). Mass Audubon and other organizations cannot ignore this message. Massachusetts is diversifying rapidly, and its new immigrants come from precisely those underserved groups Mass Audubon seeks to attract to its sanctuaries. The good news is that we have good data on the new Commonwealth residents, the bad news is that most environmental and conservation organizations are not mainstreaming diversity or changing paradigm and practice in line with their changing client populations, although many with more foresight, and perhaps an enlightened sense of self preservation such as Mass Audubon, recognize the need for such change.

In this report, we present ample evidence from the academic and practice-based literature; from ‘good practice’ drawn from an Internet search and from our own focus groups, our user, non user and staff interviews at the BNC and the BMB, and at Mass Audubon HQ, that there exists the perception, especially but not exclusively among lower income people and those of color, that diversity is not a priority for environmental organizations, including Mass Audubon, that the employees in such organizations are predominantly white and upper class, and that this effectively defines both the organizational culture, and cultural approach of such organizations.

There is however, emerging research which shows the way forward. We know something of different cultural perceptions; we know something about building cultural identity into programs (culturally important programming); we know a diverse staff is important and that the staff should be culturally competent. The problem is we’re not doing it.

In short, what organizations such as Mass Audubon need to do, if they are serious about mainstreaming diversity, is to build on this wealth of research in order to truly grow into its mission of “protecting the nature of Massachusetts for people and wildlife”.

A first step in mainstreaming diversity and moving from paradigm to practice is that Mass Audubon needs to decide on its core focus, as there are at least two paradigms operative at Mass Audubon, based on our research at the BNC and the BMB:

- The ‘People’s needs and nature’ paradigm, typical of the BNC.

Here, the emphasis is on meeting people’s needs through nature. The sanctuary has an idea of who ‘the community’ is, listens to what its needs are, and has, in the main, fashioned their programs around this.

- The ‘Nature’s needs and people’ paradigm, typical of the BMB.

Here, the emphasis is on nature conservation and land management around which programs for local people are fashioned.

We must emphasize that both paradigms are Mass Audubon mission-related. One is not better or worse than the other. However, in our opinion, they will produce very different outcomes over the longer term. Given both the changing demographics of Massachusetts, and the related need for conservation and environmental organizations to mainstream diversity, we believe that the people’s needs and nature paradigm is most appropriate. It is best suited to facilitating conversations about diversity and cultural identity that are clearly essential if Mass Audubon wants to retain the (political) support of a majority in this rapidly changing Commonwealth.

Based on our research, we present our recommendations to Mass Audubon in two groups: general and specific. In each category we have not ranked our recommendations.
General Recommendations

- **Institutionalize cultural competency.** All cultures can’t be treated the same. They are different with different perceptions, expectations, aspirations and customs. The cultural competency approach is suggested as a way for the Centers and Mass Audubon to begin to understand cultural difference and to integrate it into their programs.

- **More organizational clarity and better communication.** There needs to be more organizational clarity and better communication about the need to attend to diversity and cultural issues, especially about both the aims and goals of this.

- **Staffing must become more diverse.** It must reflect the communities served in racial, ethnic, cultural and socio-economic ways.

- **Develop systematic and systemic community outreach.** Community outreach is largely ad hoc at present. It needs to become both systematic and systemic. It needs to be based not only on educating people and communities, but more importantly, on listening to them. It needs to employ many techniques such as word of mouth, community TV (especially ethnic channels) and use many locations such as health clinics, markets, places of worship, cultural and ethnic festivals.

- **The curriculum must be ‘community relevant.’** Literature, focus group and user data suggests that the curriculum should become more related to life issues faced by local people and communities.

- **Diversity issues need to be formalized in writing.** Diversity was a word on most staff members’ lips, but was more difficult to find in written form. Diversity should not be solely related to verbal aspirations, it must permeate all levels of the sanctuary/organization, from staff recruitment and review to marketing, from curriculum to community outreach.

Specific recommendations:

- **Use ‘seasonal signage.’** Seasonal signage helps customers identify not only the site but the specific camp or program offering.

- **Develop programming for older youths.** Many users and focus group attendees asked for more to be done for older children. Given the problems, especially in the BNC neighborhoods, with youth violence funding may well be available.

- **Create a director of urban programs/diversity post.** While we do not want to see diversity ‘ghettoized’ as purely an urban issue, we feel there is merit in a senior position at Mass Audubon HQ that both fundraises to support Centers and acts in an advisory and support role. The person should be qualified in environmental education and have experience in diversity based environmental work and, preferably, a second language.

- **Create ‘diversity sabbaticals’.** Staff should be encouraged to go to another center to learn about its approaches to diversity issues. Upon their return, they can ‘cascade train’ staff at their own center.

- **Develop culturally relevant curriculum resources.** For example, many non native plants in both sanctuaries have interesting stories to tell about where they are from, how they got here, when they got here and what they might have been used for in their country of origin. This could be linked to human migration stories helping people to see that in addition to our multicultural societies we also have ‘multicultural ecosystems.’
Chapter 1 Urban Audiences and Environmental Education: Our Charge

Background

On July 21 2004, Massachusetts Audubon Society (Mass Audubon) invited evaluation research proposals for a study on urban audiences and environmental education. Specifically, this involved measuring Mass Audubon’s ability to engage a diverse audience and to identify the barriers that keep under-represented audiences from visiting the Society’s urban sanctuaries more often.

The central issue in this charge namely effectively engaging diverse audiences in environmental and conservation-based education whether sanctuary or classroom based, has been a critical agenda item for many years for organizations such as the North American Association for Environmental Education (NAAEE) and World Wildlife Fund (WWF). The same can be said for engaging diverse audiences in environmental careers, as pioneered by the Environmental Careers Organization (ECO). National and international organizations such as these, together with countless local initiatives, academics, practitioners and consultants have researched and developed ideas which represent parts of the jigsaw, but there is seemingly no ‘answer’, no magic bullet. Instead of universal solutions, it seems more likely that there are contingent and context specific approaches that may work in the case that they were designed but not in others. For this reason, we commend Mass Audubon for having the courage to investigate the circumstances at play in their two study sanctuaries, Boston Nature Center (BNC) and Broad Meadow Brook (BMB) in Worcester, instead of looking for formulaic or ‘off the shelf’ answers.

Research Approach

Given the sensitivity of this evaluation, we felt a need to reassure staff from the outset that we were not some kind of ‘thought police’. To do this, and to involve staff and others, we developed a fully participatory approach. As outlined in our research protocol, prior to our research, we met with, and briefed all employees and volunteers at each sanctuary in order to hear their ideas and concerns before finalizing our protocol. Post-research, we undertook one debriefing at HQ for the staff of both sanctuaries and for headquarters staff, detailing some of our findings and recommendations. At a later date, we were invited to speak to the Sanctuary Committee at BNC.

Our 6-phase protocol was as follows:

- Pre-research briefing
- Phase I Literature Review
- Phase II ‘Equity Audit’ of Boston Nature Center and Broad Meadow Brook
- Phase III User/Non User Interviews
- Phase IV Staff Interviews
Phase V *Data Analysis*

Phase VI *Reporting*

The research was carried out between November 2004 - August 2005.
Chapter 2 Boston Nature Center and Broad Meadow Brook: An Introduction

Boston Nature Center

General History

For more than 20 years, the former Boston State Hospital (BSH) property was perceived as a "no-man's land" that detracted from the health and stability of communities in the heart of the Boston. Mass Audubon helped change that perception with its purchase and subsequent development of 67 acres of the BSH land. The creation of the Boston Nature Center (BNC) started to transform the site into a well cared-for and valued community resource. Mass Audubon owns the sanctuary land, with the exception of the streambed of the Canterbury Brook, and the brook itself which is owned by the State and are under the jurisdiction of the Division of Capital Asset Management (DCAM). The George Robert White Fund, a public charitable trust of the City of Boston established in 1922, holds the Title to the George Robert White Environmental Conservation Center and leases it to Mass Audubon at no fee for the benefit of Boston residents in perpetuity.

Mass Audubon has established new trails throughout the property, replaced much of the dilapidated fencing that once surrounded site, and has renovated three administrative buildings. Four large parcels of partly developed land, parkland, and cemetery land border the BSH site, also contributing to the value of this urban semi-natural area. These parcels are Franklin Park, Mt. Hope Cemetery, St. Michaels Cemetery, and a plot of Department of Conservation and Recreation (DCR) land that is sometimes referred to as the Canterbury II urban wild.

The Six BNC Communities

The BNC programs aim to serve community members from the City Of Boston and more specifically from the six communities that are within two miles of the BNC:

- Dorchester,
- Hyde Park,
- Jamaica Plain,
- Mattapan,
- Roslindale,
- Roxbury.

Mattapan, where the BNC is physically located, is a 96% minority community, and the majority of residents are black. Approximately half of residents were born in Caribbean countries, particularly Haiti and Jamaica, and in Africa. Other than English, the most common languages spoken in these communities are Spanish,
Haitian Creole, Cape Verdean Creole, Chinese and Vietnamese. In 2000, according to the City's Department of Neighborhood Development, the total population of Mattapan was 37,313 (a 3.7% increase since 1990).
In recent years, as housing prices in Roslindale, Jamaica Plain, West Roxbury, and Hyde Park have increased, in many cases dramatically, but prices in Mattapan have remained relatively stable. Indeed, serving these communities was in the Land Disposition Agreement between Mass Audubon and the BSH and State. This has helped frame the BNCs programs and projects over the years.

Mass Audubon and other local organizations have recognized that the redevelopment of the BSH site will have an enormous impact on the neighborhood as a whole. By revitalizing the area, there is potential to provide more jobs for residents, leverage higher quality public transportation in the community, facilitate the building of more affordable housing, and increase property values and quality of life in the surrounding neighborhoods. The creation of the BNC is valuable not only for its open space protection, but also for the other community benefits that the center is charged with. As stated in the Land Disposition Agreement, the BNC must conduct and make affordable summer camp and after school programs for the people of the six surrounding communities.

**The Natural Environment and Trails**

There is a 20-acre wetland on the site, in addition to the Canterbury Brook on the
outskirts of the property. The site also includes the Clark-Cooper Community Gardens, Boston’s oldest and largest, providing food and a green oasis for local families. A 1995 survey revealed that at least 180 different species of plants and trees are on the BNC property. Animals observed in the sanctuary include deer, red-tailed hawks, wild turkeys, red-winged blackbirds, skunks, squirrels, muskrats, and painted turtles.

The two miles of trails are covered with soft wood-chips that provide a firm surface for wheelchair access. Wetland boardwalks are designed to cause minimal damage to soils and are built from planks made of recycled cedar chips and plastic. One wetland boardwalk leads into a cattail swamp and an open viewing area, both of which are marked with special plaques. Although the American Legion Highway remains a subtle reminder that the city surrounds, one can quickly become absorbed in the magnificent diversity of this urban semi-natural area.

The Built Environment

The sanctuary’s George Robert White Environmental Conservation Center (ECC) is a “green certifiable” building, teaching environmentally sustainable design by example. The City of Boston led the planning for the ECC, an 8,500-square-foot facility that was completed in September 2002. The conservation center houses a range of environmental and nature programs, many of which are funded through a $2 million grant to Mass Audubon from the Doris Duke Charitable Foundation.

The facility was built to demonstrate how green design can be incorporated into any commercial, civic, or residential building. Boston school children can visit the building and monitor energy savings and non-polluting technologies at use in the building. It was built at a competitive price with features such as:

- Photovoltaic roof shingles that will generate electricity,
- Solar thermal panels for water heating,
- Geo-thermal climate-control system that pumps water from thousands of
feet below ground, where the temperature is relatively stable, to heat the house in winter and cool it in the summer, Passive solar vine trellis to create summer shade, Wood harvested from sustainable forestry operations, Furniture built from recycled materials.

**Funding**

The BNC relies on a variety of funding sources, both for management of the grounds, and the continuation of their programs. Some funding sources used in the past are, but are not limited to:

- AGM Summer Fund
- Amelia Peabody Foundation
- "Anonymous"
- Annenberg Challenge
- Antioch New England (contract)
- Beacon Hill Club
- Boston Schoolyard Initiative (contract)
- Doris Duke Charitable Foundation (endowment and operations to create the BNC Education Programs)
- EdVestors/FNP
- Fleet Bank
- Fund for Nonprofit Partnerships
- Germeshausen
- Gillette
- Greeley Foundation (Education endowment)
- Halvorsen
- Hayden
- Howell Family Foundation
- ICON
- Kiwanis
- L. G. Balfour
- MRET (training and educational brochures)
- New Boston Development
- Sawyer
- Staples
- State Street Bank
- TOSA Foundation (exhibits)
- The Boston Foundation
- Zell Family Foundation
Access and Signage

Access is an issue at the BNC. There are two formal entrances; the major entrance is from Walk Hill Street, and the second entrance is via Morton Street. The nearest bus access to the site is at the intersection between Morton Street and Harvard Street (Bus #31) and at the intersection between Walk Hill Street and American Legion Highway (Bus #14). Neither of these provides direct access to the Center, and the Bus #31 access requires visitors to walk through the large wasteland area of the BSH site before accessing the core of the wildlife sanctuary.

There is a sign for Mass Audubon and the BNC on Morton Street that is small and difficult to read. The sign is at the entrance itself, which is not a natural stopping place, and some visitors complain that the site is hard to locate. There is a sign for Mass Audubon, the BNC, and the community gardens, at the entrance at to the sanctuary on Walk Hill Street, although once visitors have turned into the area, they must make their way through the maze of large site before reaching the sanctuary’s visitor center. Equally confusing, there are signs posted which are no longer relevant to the site, including a ‘no-trespassing’ sign at the main BNC entrance.

Staff

The BNC has 12 full-time staff, as well as several seasonal employees and a variety of regular volunteers. The Center also employs teens from the surrounding communities, as part of their ‘Teen Ambassadors Program’, which is described more thoroughly in the programs section below. The smooth functioning of the BNC relies heavily upon the positive working relationships between various staff members. The Center’s Director and Education Coordinator provide for a highly functional office, and the naturalists/educators are responsible for most of the curriculum planning.
BNC Users

Per capita, most use of the BNC is through planned events rather than spontaneous visits. The Center/ Mass Audubon offers a range of one-day and on-going programs including service-learning projects for older teens such as removing invasive species and building gardens; livable environment seminars; habitat explorations; and a series of multi-day gardening classes. Youth also have an opportunity to assist in research initiatives that are currently underway at the Boston Nature Center. The Center also has various meeting rooms that are used for events, and community gatherings, exposing a variety of different people to the place.

The Clark Cooper Community Garden

"Those people (at the Clark-Cooper Community Garden) think they own the place. For years, though, they kept at it. While people were using the land as a dump, they were busy finding places to grow flowers and vegetables. Back then it was every man for himself out there. Now, there's a sense of cooperation - it's like a real community" (Charlotte Thompson, long-term resident of Mattapan and member of the board of the Boston Nature Center, Fletcher, 2003.)

The Clark-Cooper Community Garden was founded in the 1960s on the grounds of the former BSH. Now the largest community garden is Boston, the four-acre site services roughly 250 - 280 people. Residents from surrounding communities, in particular Mattapan, have plots in the garden. The gardens are accessed from Walk Hill Street by paved roads with parking areas. Informal footpaths from American Legion Highway that run through gaps in the fencing provide additional pedestrian access. The community gardens reflect the city’s diverse ethnic make-up with significant representation of Asian, Caribbean, Eastern-European, African-American, and Hispanic populations and related cultural foodstuffs.

Programming
Within two miles of the BNC there are an estimated 48 schools serving more than 23,000 children, or about 40% of the total number of children in schools in Boston. This puts the BNC in an ideal position to reach out to the children of Boston and bring them to the Nature Center and Wildlife Sanctuary. The educational philosophy of the BNC and Mass Audubon generally, is to encourage people to observe, learn about, and value wildlife in their own environments.

Programs

The BNC Teen Ambassador Program is an internship program supported by Mellon City Access, designed to introduce Boston youth to urban nature, to encourage interest in environment and science concepts, and to introduce them to science and environmental careers. The program emphasizes hands-on and minds-on learning experiences, work opportunities in education, administration and site development and strict observance of work ethic with warmth and personal attention.

BNC provides teachers and environmental educators with an Internship for Educators/Day Camp Educator for Teaching and Learning to work in their summer day camp setting. Educator Interns teach and learn along with BNC Teacher/Naturalist in their 10 week day camp focused on scientific skills and ecological learning. The Educator Interns conduct outdoor explorations, develop inquiry-based curriculum that engage urban children with science and nature and work very closely as part of the Education Team at the Boston Nature Center.

The Boston Nature Center Summer Camp and Vacation Week Programs are all-inclusive, full day programs accredited by the Office of Child Care Services (OCCS) and the Massachusetts Department of Public Health (DPH). The BNC camp has organized ten themed weeks of hands-on and educational adventures. It provides an environment where the diversity of the participants is encouraged and celebrated; a safe environment where campers can learn firsthand about the natural world, meet new friends and have fun; trained, qualified teacher/naturalists and staff that provide campers with an enjoyable, educational and noncompetitive camp experience; age appropriate activities for small group nature studies, gardening, nature arts, and cooperative games.

The BNC camp provides scholarships to qualified participants and offers tuition on a sliding scale. The sliding scale is based on State figures for poverty and standards used by the OCCS for vouchers. The minimum cost of camp is $50 for member and non-members families with domestic incomes less than $30,000 per year.

Through its Boston Schools Initiative, the BNC provides General Education Programs and Outreach to Boston elementary schools weekly.
**BNC Marketing**

All of the program descriptions and prices are listed online at the Mass Audubon website, as well as in program catalogs that can be found at the Center. The catalogs are also distributed throughout the Boston area. Program catalogs are placed in community areas such as public libraries, city halls, and religious meeting places. Program catalogs are not sent to the public schools, however, flyers were created that emphasize programs specifically for school-aged children.

**Broad Meadow Brook**

*General History*

Broad Meadow Brook Nature Center (BMB), one of Mass Audubon’s 42 wildlife sanctuaries, is located in the City of Worcester in central Massachusetts, approximately 45 miles west of Boston. It was established in 1990 through collaboration between public, private, and non-profit organizations. All of the lands are managed cooperatively through agreements with the City of Worcester, Massachusetts Electric (a National Grid Company), and The Greater Worcester Land Trust. Today there are slightly over 400 acres of protected land with several marked trails for hiking and wildlife viewing. Since the establishment of the BMB, hundreds of acres of land have been added, making it the largest urban sanctuary in New England.

The addition of hundreds of acres of protected land has aided in the establishment of a wildlife corridor. Land acquisition has been and continues to be one of the major goals for the BMB, with the hope that, through acquiring several adjacent parcels, Mass Audubon and the BMB will be able to complete the Blackstone Corridor, a protected wildlife area that will traverse the Commonwealth of Massachusetts. This corridor will enable wildlife to migrate from northern to southern New England without human threats such as vehicles and deforestation. The completion of the Blackstone Corridor will also be an asset to the BMB through the extension of their trails, as well as allowing visitors to view several different wildlife species.

In addition to completing the Blackstone Corridor, the BMB strives to connect urban communities to nature through its visitor center, which is filled with exhibits, and information regarding the local communities. The visitor center also houses a large function room where nature programs are conducted for all ages. A variety of ages and interests are represented.
within several different educational programs at the BMB. After school programs, vacation week programs, and nature conferences and other events all aim to engage the Worcester community in nature topics.

The BMB, along with Mass Audubon, also advocate for open space and clean water resources. The organization protects parkland from development, educates civic leaders and citizens to the importance of open space protection, and assesses water quality to promote clean waterways. A goal of the BMB is to make the Blackstone River fishable and swimmable by 2015. Educational programs and community outreach help the organization reach this goal.

Vision 2010: Broad Meadow Brook for Everyone is another long-term goal at the sanctuary. This goal is different than making the Blackstone River fishable and swimmable. While the River goal speaks directly to Worcester’s natural resources, Vision 2010 is aimed at increasing community participation at the BMB. Staff at the BMB aim to increase public access to the sanctuary, successfully engage and educate visitors, connect the sanctuary to the Blackstone Riverway (land that stretches from Worcester to Providence), and preserve and expand the sanctuary. Current programs at the center are aimed at accomplishing this goal by the year 2010, using full-time staff, seasonal employees, and community volunteers.

Implementation of this goal will help to increase community access to the center. Racial and socioeconomic diversity will be expanded, as will community participation in the programs of the BMB. Vision 2010 represents a new ideology for the center because, historically, Mass Audubon and the BMB have focused on conserving and preserving natural resources. This new mission for the center, it is argued, has shifted the focus from natural resources to community and participation. It represents the BMB’s commitment to citizen engagement, while acknowledging the importance of including all people, regardless of race, gender, age, and socioeconomic status. It is the development and implementation of these long-term goals to better the community that help to make the BMB an integral part of the Worcester community (Personal Communication, Deborah Cary).

City of Worcester

Worcester is the third largest city in New England. Its population of almost 200,000 people, is approximately 77% white. The remaining 23% of the population is largely comprised of Latino, African American, and a smaller Asian population. Several other ethnicities are represented in Worcester although do not make up a large percentage: American Indian, Alaskan, native Hawaiian, and Pacific Islander (City of Worcester 2005). Historically, Worcester was one of the pre-eminent manufacturing cities in the nation. Today, the city has transformed itself into a leader in advanced manufacturing, information technology, biotechnology, health care and medical research. The city is using innovative
municipal support systems for business development and is setting the pace for cooperative growth in New England. Millions of municipal dollars are being spent to revitalize the downtown area to encourage business growth and community participation by making the streets of Worcester safer for pedestrians.

In addition to being a center for information technology, the city of Worcester is an academically diverse area. There are several colleges located in the urban area, as well as Tufts Veterinary School and UMass Medical School. The several colleges and universities bring in a diverse student population to the community and help to shape the city’s arts, entertainment, business, and recreation sectors. Museums, concert halls, galleries, and ethnic festivals contribute to the cultural diversity of the community (City of Worcester, 2005).

Access and Signage

Mass Audubon directional signs posted around the city advertise the BMB and point visitors toward the center.

Staff

The BMB has a full-time staff of three, as well as several “seasonal” employees. These seasonal employees work all year, part-time. There is one person that is considered full time, but only works 32 hours each week. There are fifteen seasonal employees that typically work fewer than 30 hours a week. While the full-time staff direct the center and dictate its programs and mission, it is the seasonal employees that enable the everyday functioning of the center. Included in this seasonal employee category are the naturalists. The naturalists serve as educators and run the majority of the programs at the BMB as well as visiting the schools to conduct other Mass Audubon programs.

The smooth functioning of the BMB relies upon several individuals. The director and regional education coordinator help develop programs that are engaging and exciting. A teaching fellow travels to local schools, bringing Mass Audubon ideals and projects to schoolchildren. There are advocacy coordinators, home school coordinators, administrative assistants, and office managers that all work cooperatively to complete goals and carry out the missions of both Mass Audubon and the BMB.

BMB Users

The people that most often frequent BMB are residents of Worcester. The center is not located in the midst of the inner city, but in a less densely populated area. The trails are bordered by suburban-type homes. Many of the hikers come from these areas and are able to get to a trail off of a side street or out of their back doors. These users reflect the ethnic and socioeconomic diversity that is represented by the suburban community that surrounds the center.
Another significant portion of BMB users is represented by Worcester school children. Because several BMB programs are brought to the local schools, these students are exposed to nature lessons in their classrooms. In addition to the Worcester community, surrounding towns and their schools also benefit from the BMB programming.

Programming

Many of the BMB programs are connected to the "threats to biodiversity" Mass Audubon has identified, such as habitat loss, or disruption of ecological processes. The programs are strongly based in science and ecology and use an inquiry-based approach. Programs are constructed so that while being educational, and of interest to the intended audience the children are fully engaged. The BMB staff lead interpretive walks, classroom lessons, narrated slide presentations, professional development for teachers and youth leaders, van tours, and canoe-based programming. The majority of programs focus on local habitats and the natural resources in Worcester. Although, the exhibits in the visitor center incorporate the local community, they also focus on the greater environmental issues around the world, such as energy use and water conservation.

The BMB is devoted to tailoring programs to meet the needs to each teacher and the needs of the curriculum. Their mantra is, “If you don’t see what you were looking for, ask us!” All of the programs developed by the BMB are “pre-packaged,” meaning that they are already developed so that teachers can incorporate them into their lessons without making significant changes, which results in an easier transition from the BMB to the classroom. However, the programs can be tailored to meet the individual needs of the school district, teacher, or students. The director and educational coordinator, as well as the teaching fellow and naturalists, can work to make programs transferable to any audience, regardless of age, gender, or socioeconomic status (Mass Audubon, 2005).

Programs

The Citizen School program brings children in from local Worcester schools to work at the center. The students work at the center one afternoon a week on a specific project. Currently, the students are working on creating multi-language signs that will be displayed throughout the visitor center and along all trails. The goal of the project is to attract a more diverse audience by displaying signs in the several different languages found in Worcester. The students work with a Teaching Fellow to translate the current signage at the BMB into several different languages, including Spanish, Polish, and Vietnamese (Personal Communication, Deborah Cary).
Neighborhood Nature is a series of programs that take place in the parks of Worcester. The BMB staff travel to the parks, bringing programs and activities that bring nature education and appreciation to all residents and people that are not able to or are not confident about going to the BMB sanctuary. Pre-registration is not required and there is no fee to participate; membership in Mass Audubon is also not required for participation. The programs are designed for people to “drop in” and participate. These free programs, located in the neighborhoods of the city, encourage participation from a wide diversity of people, both ethnically and socio-economically. The program is funded through grant money, which allows the BMB to continue running Neighborhood Nature program with no fee.

Children at the BMB spend their summer days exploring the trails, small ponds, and meadows. The Summer Day Camp and Vacation Week Programs run in two week sessions so that children have time to explore their own topics of interest including wildlife, aquatic ecosystems, and forests. The camp runs during weekdays from 9:00am until 3:30pm. There is a fee to register for the summer day camp, but there are options available for financial aid. There are a limited number of “camperships” available to those who would not otherwise be able to send their children to camp. The BMB fees for the 2005 summer camp programs (which run for one week) are as follows:

- Age 5 (Bear Cubs): $85 members $100 non-members (9am-noon)
- Age 6,7 (Discoverers), Age 8,9 (Adventurers), Age 10,11 (Explorers): $360 members $435 non-members (9am-3:30pm)

The BMB offers a variety of Family and Adult Programs. The goal of these programs is to educate visitors on the biodiversity of the center and to engage them in wildlife study. Programs range from canoeing and snowshoeing to birding and organized hiking (Mass Audubon, 2005).

BMB Marketing

All of the program descriptions and prices are listed online at the Mass Audubon website, as well as being listed in program catalogs that can be found at the center. The catalogs are also distributed throughout Worcester as well as twenty-one other cities and towns that comprise the Blackstone Valley. Program catalogs are placed in community areas like the public libraries, city halls, senior centers, religious centers, pre-schools, museums, and dentist and doctors’ offices. They are also brought to the local colleges and private businesses, like auto repair shops and garden centers. The BMB marketing motto is “anywhere where people wait.”

Program catalogs are not sent to the public schools, however, flyers were created that emphasize programs specifically for school-aged children. These flyers advertise the day camp programs as well as the free summer program at
the Parks Department. Special flyers were also created and distributed to fitness centers. These flyers stressed the benefits of five miles of hiking trails at the BMB rather than getting exercise in a gym. Specific informational flyers are created for different types of programming while the catalog describes all of the available options at the center.

At the weekly staff meeting at the center, staff members evaluate how many participants are signed up for each program in the coming weeks. The staff take note of any programs with low sign-up rates and target these for increased marketing. Phone calls are made to newspapers and new brochures and flyers are created and posted in community areas listed in an attempt to draw more participants into the program. The staff of BMB is also currently trying to evaluate the effectiveness of the print catalog. Whenever someone signs up to participate in a program, they are asked how they heard about the program. Upon quick review, most people learn about the BMB offerings through the local newspaper (Personal Communication, Sheryl Farnam).

**Funding**

The BMB has a large variety of programming. There is a fee to participate in these programs; the fee for members is less than the fee for non-members, but everyone needs to pay regardless of membership status. The revenue from these fees helps to fund the various programs offered at BMB. However, program and membership dues do not raise enough money to fund all of the programs at the center. Money from Mass Audubon headquarters as well as money earned through the BMB fundraising helps to subsidize the cost of the programs.

Fees to participate in the day camp and summer and vacation week programs are also dependent on membership status. Once again, members pay less to send their children to these programs than non-members do. Unlike the typical daily programs, these children’s camp programs can be subsidized through “camperships.” These camperships are scholarships awarded as financial aid to families that cannot afford the full fee. The money that is awarded to families in need came from one grant donated by a private donor. No family is turned away if they can demonstrate the need for financial aid. This grant covers approximately 95% of all camperships awarded. Other, smaller donations, ranging from $5 to $15, are given by members to help subsidize the campership program as well (Personal Communication, Doug Kimball).

The large grant that funds the campership program is invaluable to the children and families of Worcester that want to attend the BMB school vacation programs. There is no sliding scale to determine a manageable amount of the fee a family in need can pay and there is no sibling discount. The campership program is the only way a family with limited financial means is able to send its children to BMB day camp.
Chapter 3 Literature Review and Internet Project Search

In this chapter, we look to current best practice in urban audiences and environmental education in two ways. First, we detail relevant academic research and then we look at projects found through an Internet based search.

Relevant Academic Research

There is a large and growing body of both theoretical and empirical research related to urban audiences and environmental education. This research spans many fields including environmental education, interpretation, outdoor education, experiential education, leisure and environmental psychology. We have been selective and only included research that directly addresses our charge or relates very strongly to some aspect of it.

Henderson (1998) looks into four critical issues that can influence a researcher undertaking research on diverse populations:

- being a member of the researched group,
- choosing research methods/strategies,
- involving diverse groups in research,
- how reaching diverse groups might change the researcher.

The goal of Henderson’s article is to help researchers avoid being exclusionary in both research and practice. She argues that without acknowledging diversity, ethnicity, and culture, the researcher is supporting exclusionism and notions of inequity. Researchers must be aware that methods may need to be adapted to fit a specific research population. Also, if some members of the research group are from diverse populations, the analysis of results and data may be of better quality. Henderson concludes her article by saying there is no "right way" to research diverse populations; methods and viewpoints may change throughout the study. The researcher needs to be sensitive to change and approach projects with as few preconceived notions as possible.

Matthews (1994) also discusses the challenges inherent in studying people of various cultures. His article focuses specifically on environmental education and multi-cultural research. He discusses how environmental educators are increasingly viewing people and diversity among cultures as a critical part of understanding the ecosystem and encouraging preservation. The term "global village" is more often used to describe and understand that all ‘people’ factors and biophysical factors must be considered in environmental education. The article also discusses the ‘three circles for multi-cultural environmental education’ - ecology, community, and culture. Like sustainable development’s three circles - economy, environment and society, the overlap between these circles is the area that needs to be fully understood and explored. Matthews also notes that
environmental education must relate to life issues. In order to gain interest in environmental issues, they must be related to issues that directly affect the people of a community i.e. they must be relevant to the culture of the community. The overlap between the three circles and relating environmental issues to community culture is the critical challenge for environmental educators looking to develop programs that are culturally appropriate.

James (1996) presents an overview of several studies that examine the barriers that work against diversity in environmental education. Barriers to participation included:

- the perception that it is a traditionally white field,
- differences in cultural norms and the perception that most environmental organizations do not incorporate cultural differences,
- lack of exposure to nature,
- perception that diversity is not an organization's priority,
- racial stereotypes.

Some solutions she offers include experiential education, building cultural identity into programs and culturally important programming. Lewis and James (1995) felt that environmental education should include many voices to create an agenda of programs to meet the needs of many different populations. There are they argue, seven major misconceptions that impede people of color participation in environmental education in its widest sense:

- people of color aren't interested in environmental issues,
- historically, people of color have not been involved in environmental issues, resulting in a dearth of people of color who can serve as role models in environmental education,
- the issues receiving primary attention in the environmental education curriculum have universal appeal,
- people of color aren't interested in pursuing careers in environmental education,
- the needs of people of color are recognized and addressed by those setting the environmental education agenda,
- environmental education programs are presented in ways that appeal to all audiences,
- environmental educators should initiate and facilitate a discussion of the environmental education agenda by people of color.

If curriculum developers can move beyond these seven misconceptions, they argue, the environmental education agenda and curriculum would be more inclusive. As it stands now however, these misconceptions have led to a gap between traditional environmental education and groups doing environmental justice (EJ) work and grassroots organizing.
Agyeman (2003:83) summarizes and extends much of this work in calling for what Tillman (2002) calls ‘culturally sensitive research approaches’, to be applied in environmental education research. He notes that “there is a growing body of research, educational and otherwise, which focuses on people of color and rather than problematizing ‘under-representation’ as the focus of research, privileges culture as being central to the research process. African American (Stanfield, 1994), Chicana and Chicano (Gonzalez, 2001), Maori (Bishop, 1998; Tuhiwai Smith, 1999) and Native American researchers (Cajete, 1994; Lomawaima, 2000) have all argued for approaches and methodologies that consciously recognize and utilize indigenous cultural knowledge(s) and experiences”.

Kahn and Friedman (1998) conducted a study of urban Black parents, soliciting their views, including their thoughts on barriers to environmental education and participation. The study was conducted by interviewing 24 black parents and their 72 children from a Houston, Texas community. All interviewees were from the same socio-economically impoverished urban area. Parents were asked questions that included: whether and why animals were important to the family, what environmental problems they were aware of, whether parents spoke to children about environmental problems, and to establish a ranking of environmental education in regards to drug education. It was found that black parents in Houston have two main reasons for not experiencing local nature - pollution and social violence. The parents felt that parks, animals, and plants play an important role in their children’s lives. They also felt that conservation measures should be used to remedy environmental problems rather than technological methods. However, because of high levels of air pollution and associated health problems, encouraging children to play outside was difficult. Also, because of local violence, parents did not feel as though their children were safe playing in the parks. Kahn and Friedman’s research is backed up by Mohai (2004), who showed that African Americans are as concerned about global environmental and nature preservation issues as whites, but are more concerned about pollution issues especially in local neighborhoods than are whites. This heightened concern is attributed by Mohai and Bryant (1998) to the ‘environmental deprivation’ effect: the result of African Americans living in more polluted neighborhoods.

While they examined solely Black parents, Kahn and Friedman (1998) also present two significant barriers that can affect an urban population regardless of ethnicity or culture namely access to environmental careers and transportation - physically getting to nature-based centers and programs. Several researchers have studied these two barriers and others and have attempted to find ways to eliminate them so that urban populations can meaningfully experience nature and environmental education. In our research too, we found both to be significant.
Environmental careers

Padgett (1994), among others, has also examined opportunities for people of color to enter into environmental careers. There is the idea that more diverse populations will be willing to participate more fully in environmental and conservation issues if programs, parks, and nature centers are operated by people of similar racial, ethnic, and cultural backgrounds. Padgett discusses the Environmental Careers Organization's (ECO) 10th Annual National Environmental Career Conference and Career Fair. The conference was focused on diversifying the environmental sciences and giving people of color the opportunity to network with environmental organizations and businesses. Padgett (1994) concluded that the lack of African American participation in environmental issues is disturbing due to continual evidence that it is often this population that is most negatively effected by environmental pollutants (c.f. Mohai 2004, Mohai and Bryant 1998). Padgett is however talking about participation in the ‘traditional’ or mainstream environmental movement and careers, not about the many African Americans who participate in the EJ movement and related careers.

Transportation and access

Besides the low numbers of people of color in environmental careers, another significant barrier for urban populations is transportation and physically getting to nature-based centers and programs. One way to overcome this barrier is to bring the nature-based programming to urban areas and into specific communities like the BMB does through its Neighborhood Nature program. Volbrecht and Hereford (1996) examined how effective this technique is by looking at the NatureTracks program in Cleveland.

NatureTracks is a mobile unit that travels with staff to elementary schools, parks, and city events to communicate natural and cultural history conservation. The unit is 38-feet long and consists of three areas: a carpeted classroom that can seat up to 30 children on bench seats around the perimeter, a built-in storage area and television monitor for video instruction, and a “tree house”- a small area above the classroom that students can climb into and observe animal mounts. Cleveland Metroparks recognized the need to bring nature to the people by taking surveys of urban communities. One of the most significant barriers to visiting the parks in the Cleveland area was distance, transportation, and costs. The NatureTracks program eliminates these barriers. The program is successful because the staff continually self-evaluates, formal teacher evaluations are conducted, and program demand is considered. The NatureTracks program is booked for each school day in the entire year-substantiating the need for environmental education outreach in urban areas as well as the importance of bringing nature to the people rather than expecting them to come to nature (Volbrecht and Hereford 1996).
Other significant, related barriers to participation in environmental education include:

- **Cultural perceptions of environmentalism.** Baas, Ewert, and Chavez (1993) conducted a study to determine the role of ethnicity in shaping recreation use patterns and site perceptions at a wildland-urban recreation site in southern California. All of the data was collected over two weekends during peak visitor periods through interviewing. The major ethnic groups were US-born whites, US-born Hispanics, and Mexico-born Hispanics. The groups differed considerably in their perceptions of the importance of the recreation facility. Both Hispanic groups tended to value a more developed recreation area, for example, ones that included picnic tables, toilets, and running water. The results of the study illustrate that there are differences in perceptions between ethnicities. A way to overcome these differences is to develop different management strategies for the recreation area so that all needs are met and all ethnicities feel welcome (Baas et al. 1993).

Another study that examined the differences in perception of environmental issues among varying ethnic groups was conducted by Johnson, Bowker, and Cordell (2004). This study looked at ethnic variation in environmental beliefs and ethnic variation as it relates to: environmental reading, household recycling, environmental group joining, and participation in nature-based outdoor recreation. The researchers looked at five specific ethnic groups: African American, foreign-born Latino, US-born Latino, Asian American, and European American. All of the results showed varying degrees of differences between ethnic groups in regards to environmental issues and beliefs, with Whites having the most pro-environmental stance; Asians and Whites were most similar in their environmental beliefs, while Blacks and foreign-born Latinos were the least similar to Whites. There were also differences between US-born and foreign-born Latinos. The US-born were more likely to have similar environmental values and beliefs to Whites than the foreign-born Latinos. These results lead to the conclusion that different ethnicities and cultures have different attitudes toward environmentalism. Again, it speaks to the same notion that Baas, et al (2004) recommended: several different management strategies must be developed to effectively reach several different ethnic and cultural groups.

- **Socio-economic status.** Morvay, Kuo, Williams, and Wiley (1996) looked at race and socioeconomic status in terms of barriers to environmental participation. They examined the differences between responses to environmental issues among different races versus different socioeconomic statuses. It was found that both race and socio-economic status affect attitudes toward environmental issues. Also, it is not safe to assume that all people of the same race will have the same environmental values,
as well as all people of the same economic status. Again this backs up both Baas et al (1993) and Johnson et al (2004), that all people can not be treated the same way in regards to environmental participation. Not only should race, ethnicity and culture be considered when developing management strategies, but socio-economic status must also be recognized in order to effectively engage all populations in environmental education.

- **Level of acculturation.** Caro and Ewert (1995) examined how acculturation in the US affects people’s attitudes toward environmental issues. They examined whether or not the level of acculturation (as measured by the amount of time in the US) could be of greater influence on environmental concerns than race and ethnicity. The results of the study suggest that educators need to look beyond ethnicity to determine individual levels of environmental concern. The amount of time spent in the country also shapes environmental attitudes. The longer a person lives in the US the higher their level of environmental concern.

- **Staffing of different programs and nature centers.** If a nature center is staffed with a racially and culturally homogenous group, then the visitors to the center will be of the same homogenous background. There are several programs around the country that stake part of their success on the fact that their staff reflects the diversity of the community. Cohan (2004) wrote about San Francisco’s ‘Kids for the Bay’ program and its staff diversity. The program encompasses an array of programs aimed at involving children of multiple races in environmental education in the San Francisco Bay area. The programs work primarily with children of color (80-100 percent) with a staff of similar diversity. The directors of the program feel that a key to meeting the needs of a diverse population is to have a diverse employee base. Cohan provides descriptions of three of their newer programs - Watershed Action Program, Aquatic Science Adventure Camp, and the Four R’s Program. Kids for the Bay works with schools and provides curriculum guides, support for student-centered environmental action projects, and an equipment package for each school. All of the programs have successfully reached children of multiple races. Agyeman (2005) reports that Boston’s Alternatives for Community and Environment’s success in the city’s diverse Roxbury section is in large part due to its staffing which reflects the local community.

- **Financial and location limitations.** The Seattle Aquarium has increased the diversity of its visitors by offering paid positions as well as free transportation to the center. The Seattle Aquarium has the ‘Key Opportunity Summer Internship’ program, which is a hands-on experience open to high school students entering their junior year. The impetus for the program was the goal of director Cindy Shiota to expand the visitor and the staff diversity. She realized that minorities do not typically look for
unpaid positions, so she established this program, which would pay the interns. She also managed to partner with Seattle Engineering Department of Drainage and Waste Water Utility's environmental education efforts to underwrite the costs of transportation that many schools were unable to pay for. Shiota’s ability to offer paid internships and also to offer free transportation to the aquarium has increased the diversity of visiting students (Balise 1994).

The majority of the literature on the subject of visitor and participant diversity in environmental programs and nature centers focuses on the perceived barriers and misconceptions as well as ways to overcome some of those barriers. It seems that to be a successful organization or center promoting nature and environmental education, the following are critical (in no particular order).

- **First, all cultures cannot be treated the same.** This may seem counterintuitive and counterproductive but accepting difference is of paramount importance. Staff of programs and all other aspects of nature centers must first of all become culturally competent (Agyeman 2001), and create several different programs and management plans that will incorporate as wide a variety of cultures as possible and overcome some of the perceptions and financial and transportation limitations that may exist. Research, upon which programs and centers should be based, must also be culturally sensitive.

- **Second, organization and nature center staff must reflect communities in racial, ethnic, cultural, and socio-economic ways.** This will have the effect of drawing in a diverse array of visitors. In order to make changes to increase the diversity of the visitors a collaborative approach must be made between all of the organizations staff as well as members of the community.

- **Third, environmental education must relate to life issues.** In order to gain interest in environmental issues, they must be related to issues that directly affect the people of a community i.e. they must be relevant to the culture of the community.

These issues will be further developed in our recommendations.

**Projects found through an Internet based search**

The following projects represent a range of best practices in engaging diverse audiences in environmental and conservation-based education.

- **Ma’at Youth Academy, Richmond, CA. A Project of Earth Island Institute**

The Ma’at Youth Academy, founded and directed by lifelong Richmond resident, Sharon Fuller, is a multicultural environmental organization dedicated to a safer,
cleaner healthier environment. MYA seeks to improve all ecological relationships, including those between humanity and nature, as well as between people. Cultural differences are embraced and honored as they promote the preservation and conservation of vital natural resources.

Through research, education, and community organizing, MYA's goal is to create a system of community monitors that can minimize human exposure to environmental hazards, while preserving the health and well being of individuals in low-income communities and communities of color.

The mission of Ma'at Youth Academy's *Community and Global Ecology (CGE) Program* is to use environmental education to improve public health in communities of color; the mission of their *Environmental Coalition for Community Health (ECCH)* is to nurture a new generation of environmentalists more reflective of the world's population in order to increase community involvement in environmental protection and the *mission of their Youth Environmental Ambassadors of Health (YEAH!)* is to create a system of community monitors to reduce pollution and industrial accidents in low-income areas and communities of color.

*Website:*

https://www.earthisland.org/project/viewProject.cfm?pageID=114&subSiteID=21&CFID=4641457&CFTOKEN=40570669

∞ **Three Circles Center, Sausalito, CA**

The Three Circles Center is a nonprofit organization whose purpose is to introduce, encourage and cultivate multicultural and environmental justice perspectives and values in environmental and outdoor education, recreation, and interpretation. They are dedicated to assisting environmental educators and their programs in making a successful transition to a multicultural society based on social justice and sustainability.

Within the environmental justice movement, the Three Circles Center assists grassroots organizations in utilizing environmental education to further the conditions of environmental justice. To these ends, they are involved in numerous multicultural and environmental justice curriculum projects and consult with programs, schools, and community groups on intercultural communication, staff development, program design, evaluation, and community outreach and liaison. The Three Circles Center conducts workshops nationally for environmental educators and teachers and publishes the *Journal of Culture, Ecology and Community, An Environmental Education Review.*

*Website:*
∞ **Eagle Eye Institute, Somerville, MA**

The Eagle Eye Institute is a nonprofit organization dedicated to developing and disseminating innovative environmental education programs that transform the lives of urban youth. Eagle Eye provides proven hands-on exploratory learning programs that take place in nature. Their programs (for example the *Trees Are My Friends* campaign), build awareness, develop responsibility, and cultivate leadership in urban youth.

As part of its career-bridging focus, EEI also strives to strengthen the composition of the natural resource professions by recruiting more people of color into those professions. Eagle Eye is committed to diversity so that more people are involved in the conservation of our natural resources.

*Website:*

http://www.eagleeyeinstitute.org/

∞ **Audubon California, Debs Park, Los Angeles, CA**

Since 1998, Audubon California has been working with the City of Los Angeles and the communities of Northeast and East Los Angeles to develop the Audubon Center at Debs Park. Over 25,000 children, mostly Latino, live within 2 miles of the Audubon Center at Debs Park.

The result is a cutting-edge environmental education center and ecological monitoring program within the nearly 300-acre city park, located on the border of Highland Park and Montecito Heights between the Dodger Stadium and South Pasadena. With family-oriented, culturally appropriate educational programming, the Audubon Center at Debs Park will address environmental issues related to urban audiences and will serve as a model for urban nature centers across the country. An online calendar of events in English and Spanish will be developed.

*Website:*

http://www.audubon-ca.org/debs_park.htm

See also feature in Audubon Magazine: March 2004
http://magazine.audubon.org/features0403/urban_oasis.html
D.C. Greenworks, Washington, DC

D.C. Greenworks (DCG) sees a vital connection between ecology and economy, between employment potential and environmental sustainability. They actively seek to discover, promote, and deliver cutting-edge solutions that are cost-effective, eco-friendly, and socially beneficial.

The disconnection that has long existed between financial prosperity and environmental activism is being challenged by cities all across the country. These urban communities have come to see that economic viability—in the form of energy savings, new jobs and preventative healthcare—is incontrovertibly linked to how we treat and utilize the environment.

DCG offers three unique community programs that serve and benefit the D.C. community in a number of ways. By directing their efforts to several distinct demographics, DCG has created an inclusive, multidimensional system that taps into the rich resources, potential, and needs of the D.C. community—and the neighborhoods they serve.

They view diversity as an opportunity not a threat:

“One of the greatest strengths of both of our communities is their diversity. East of the River have a great deal of economic and land use diversity. We have a wonderful mix of residential, commercial, office, and open space areas, which are often overlooked. In Shaw, African-Americans, Hispanics, Caucasians, and Asians live side-by-side. We have a mix of row-homes, apartments, businesses, restaurants, and offices. Embracing this diversity makes all our efforts more challenging, but also stronger.”

Website:

http://www.dcgreenworks.org

Kids For the Bay, San Francisco, CA. A Project of Earth Island Institute

Kids for the Bay (KftB) collaborates with teachers to inspire environmental consciousness in children and cultivate a love of learning. They are committed to education through action and to restoring a healthy environment for all communities.

KftB is an environmental education project which partners with school communities in the San Francisco Bay Area to cleanup and restore creek and bay habitats, reduce pollution and make safe choices about consuming bay food to reduce health risks. KftB provides professional development for teachers and academic enrichment for students in exciting and innovative programs, which address local environmental issues in science-based, integrated curricula at the
elementary school level. Students recruit their families, friends and neighbors to participate in community environmental action projects, which they design.

KftB take diversity seriously:

“Kids for the Bay is a multicultural environmental education organization. We collaborate with teachers to inspire environmental consciousness in children and cultivate a love of learning. We partner with low income, urban schools and use the local environment as a living laboratory for learning. We address environmental justice issues and teach our children that everyone has the right to live in a clean and healthy environment.”

Website:

http://kidsforthebay.org/

In addition to these projects and programs, many Associations are thinking about diversity issues, for example:

∞ The Association for Outdoor and Environmental Education (AOEE)

Website:

http://aeoe.org/resources/diversity/

This is an extensive website, with a multitude of diversity resources, including current news articles and list of programs.

∞ North American Association for Environmental Education (NAAEE)

Website:

http://eelink.net/pages/Capacity+Building+-+Diversity

This is a page on capacity building and diversity which also includes a page with relevant programs. In addition, EETAP (Environmental Education and Training Partnership), NAAEE and WestEd have recently published “What’s fair got to do with it? Diversity cases from environmental educators” (WestEd 2004)
Chapter 4 Equity Audits of Boston Nature Center and Broad Meadow Brook

The purpose of an Equity Audit is to give a snapshot of equity issues at a site, museum or any visitor resource. Its usefulness is its simplicity, like a Focus Group, allowing researchers to become quickly familiar with any issues that they might want to understand more deeply. We carried out two Equity Audits, one at BNC and one at BMB,

Boston Nature Center Equity Audit

On Site:

Physical Access

There are 2 miles of handicap accessible trails and boardwalks. The main building/rest rooms handicap accessible.

Signing/Orientation

All exterior signs are currently in English and Spanish. There are large signs at the main building, signs at the kiosks and along trails, all of which are currently in English and Spanish. All signage has been translated into the 6 most common languages in the six BNC communities. BNC is looking for funding to complete the project.

Customer Care

The front desk is staffed sporadically (mostly by Teen Ambassadors) and the main offices/staff are separate from main visitor center area. The visitor Center is filled with information, pamphlets, and displays on the local environment, BNC and the surrounding communities.

Site Type

Boston Nature Center is a 67-acre wildlife sanctuary on the BSH site. There are two miles of walking trails, 20-acres of wetlands, a wide range of plant and animal life, community gardens, and a new environmental conservation center. Diverse members of the community have used the adjacent Clark-Cooper community gardens for 30 years.
**Off Site:**

*Publicity/PR*

Major pamphlets and information materials are in English and Spanish. Marketing materials are distributed to community buildings, senior centers, religious centers, schools (public and private), etc.

*Transport*

Public transportation directly to the center is limited. There are bus stops near the Morton Street and Walk Hill entrances. The closest T stop (Forest Hills) is 1¼ miles away. Construction within the BSH site makes access difficult and/or confusing. Few directional signs are posted in area to guide visitors to the center. Once at the BSH site, it is difficult to find the main building due to historical signage from when the property was BSH.

*Perception, image, and hearsay*

“It is a hidden gem in the city”
“It is a no-man’s land, due to prior reputation of the BSH”

**Organizational:**

*Policy*

Mass Audubon has a non-discrimination policy. Diversity is embedded at BNC at many levels from the annual plan, the strategic plan, to staff review.

*Training*

Staff is encouraged to attend professional trainings including issues such as Cultural Competency.

*Management*

The majority of the staff is Caucasian and female. The sanctuary director is aware of diversity issues, and encourages training and development. The education coordinator actively recruits diverse families to attend day camps and other programs.
Broad Meadow Brook Equity Audit

On Site:

Physical Access

There is handicap parking. There is no automated door to center. The trails are not handicap accessible

Signing/Orientation

There is little-to-no signage in languages other than English. Large signs at the main building, the signs at the kiosks and along the trails are all currently in English. There is a current project to translate the signs into the four or five major languages represented in Worcester

Customer Care

Customers are always greeted with “hello” and “how may I help you?” The visitor/gift shop is filled with information and maps of Worcester. All the staff is Caucasian.

Site Type

This is a nature center with one main building and several trails leading through the hundreds of preserved acres

Off Site:

Publicity/PR

The majority (all) pamphlets and information materials are in English. Marketing materials are distributed to community buildings, senior centers, religious centers, markets, schools (public and private), etc.

Transport

There is no public transportation directly to the center. Several directional signs are posted in Worcester to guide visitors to the center. To get there however, customers must have their own vehicle (or be in walking distance) to visit center.

Perception, image, and hearsay

The common image is that Mass Audubon = birds. It is a place for upper middle class white people. It represents leisure time, which requires people to have enough money to be able to take leisure time rather than work.
Organizational:

Policy

Mass Audubon has a non-discrimination policy. No *written* BMB commitment to diversity was seen.

Training

Universal Access training for all staff has been delivered plus they held a public open house for folks with limited hearing and sight.

Management

All the center management is Caucasian. The director is aware of diversity issues and is currently overseeing a project to translate all BMB signs into several non-English languages.

The Regional Education Coordinator oversees scholarships for youth camp projects. The scholarship form is short and understandable, although only in English.
Chapter 5 Staff Views

In this chapter, we present staff interview data from BNC and BMB, including the HQ based BNC and BMB Regional Directors. We also present data from the Vice President for Programs (who was at the time covering for the vacant Head of Education position).

Boston Nature Center

Staff interviews were conducted at the BNC, at HQ, as well as over the phone if a face-to-face meeting was not possible. In order to ensure a wide variety of opinions and responses, we interviewed several different individuals who each fulfilled specific roles at the center including; Laurie Bennett, Regional Director, Julie Brandlen, BNC Director, Gloria Villegas-Cardoza, Education Director, and Rachel Lawler, Teacher Naturalist. We also conducted a focus group with all of the Teen Ambassadors. Each person was asked the same questions, which generally looked at Mass Audubon and BNC policies and practices, and then they were probed a bit deeper into how to effectively engage diverse audiences in environmental conservation-based education (Appendices 2 and 4).

There were lots of opinions on where the drive or impetus for this research came from, and all mentioned that there is a constant need to evaluate how well Mass Audubon reaches urban audiences. Villegas-Cardoza believed in the beginning that the project was a marketing strategy, but also stated that there was funding the funder has a strong interest in education and evaluation, and the BNC seemed like a good fit for such a project. Interviewees had difficulty discerning both the aims (short term) and the goals (longer term) of the project. Brandlen believes that the project will help the BNC know what it can do more of, what works/does not work, and what it is blind to. Villegas-Cardoza said it is important to have a 3rd party to facilitate more objective, systemic thinking, and note how things are going. Both agreed that the project should also recognize how the BNC is different from other parts of the Mass Audubon. Lawler noted that if the BNC is trying to increase activity at the site, they need to “reach everyone.” This research should help BNC and Mass Audubon identify who they are not currently reaching, and what needs to be done to change that.

At the BNC, diversity is addressed in writing, in much of their literature and policies. Interviewees noted that diversity is mentioned in all of their governing documents, including the Land Disposition Agreement, the annual plan, the strategic plan, and staff review. The strategic plan states that the BNC will model cultural competency, and because of this a variety of trainings were being held throughout the year. One, conducted by Sanctuary Committee member Jennifer Charles was attended by the Research Team, and Team members also met with Judy Tso and Curdina Hill, who are undertaking a separate but complementary effort. Their ‘Cultural Competency Assessment’ of the Boston Nature Center is
currently being completed and the final report is due to come out in February 2006. This work is being done in conjunction with BNC’s participation in the Experiential Environmental Education Learning Cluster (E3) convened by an anonymous foundation.

Diversity-based initiatives are strongly considered in staff review, as employees are reviewed on diversity, including their ‘ability to respect difference in others and foster inclusion’ and use of ‘bias-free gender neutral languages’. In addition, there is the statement ‘management staff must consult with HR in order to insure a diverse applicant pool’. Villegas-Cardoza also noted that in all job postings diversity is mentioned, and that it is important that staff at the BNC are multi-lingual.

All of the interviewees agreed on several benefits that would accrue if the center were able to effectively reach a more diverse population. Villegas-Cardoza notes that the BNC would be more relevant for more community members. Brandlen adds to this by stating that kids become more comfortable when they “see themselves.” She also states that the BNC is fundamentally a better place if diversity is addressed, and when people are willing to share and learn from each other.

After discussing the benefits of reaching a more diverse audience, the interviewees were asked their opinions on what more could be done to increase diversity at the BNC. One of the most prominent answers regarding this question was more outreach to the community. Lawler stated that the BNC should have a greater presence, with free materials at community events. Villegas-Cardoza had similar comments, stating the BNC should be out in the community not only to educate, but also to listen. By doing this, they can better serve their audiences needs. She also noted that there is a need for more diverse staff. Brandlen agreed by saying that the staff should reflect the community, and that the BNC should stay vigilant, for diverse environments create opportunity.

All of the people interviewed at the BNC wanted to see one common accomplishment within the next five years; they all wanted to see more people at the center. Lawler hopes that multi-generational families will use the center, and that the BNC will become a tradition to people in the area. Brandlen wants the BNC to be the hub of educational activities for the community. She wants the sanctuary to be used as a research facility used for urban ecology, and a model for green building. Villegas-Cardoza wants the BNC to be rooted in the new communities of Boston. She wants to extend their services and reach more people. She wants to connect directly with universities and think-tanks. And most importantly, she wants the BNC to be used as a model on how to engage diverse urban audiences.

Laurie Bennett, Regional Director (BNC)
When Bennet was asked where the drive for this research came from, she replied that all of the drive came from board members. She noted that the former education director had an interest in seeing how the two urban centers were doing and the president of the organization wanted to see how effective diversity initiatives were. Bennett, much like the other interviewees, agreed that the ultimate goal of the project was to learn how the two centers were doing in reaching diverse populations and how to improve upon the current practices. Bennett believes that several benefits will accrue from increased diversity at BNC. The center would be embracing a much wider audience and engaging as many communities and cultures as possible to increase their understanding of nature and the environment. She also recognized the political importance of increasing diversity. Bennett wants to draw in citizens who vote so they will become involved in the civic community. When Bennett was asked about the word “diversity” in the BNC’s Annual Plan, she thought that the specific term may not be mentioned. However, “the idea permeates the entire plan”, even if it is not mentioned in word.

Bennett was asked to respond to whether she thought that the center would function as it does now if some of the key staff members were to leave. She stated that the relationships developed between the community members that visit the BNC and the staff happens at all of the centers. However, because some key staff members at BNC are able to “see the bigger picture and overall vision while still able to have human relationships” helps the success at the center. The staff at the center she said was hired for its proven abilities to work in diverse communities. Each staff member has a “great respect for working cross-culturally.” However, if any of the key staff members were to leave the BNC, “there would be big shoes to fill.” The same standards that were applied to the first hiring process would be applied again. “The same qualities would be sought out for these positions to ensure the same type of dynamic.” She concluded by stating that a lot of the programs at the BNC have become institutionalized, so they would survive even if some of the staff were to leave.

**Teen Ambassadors Focus Group**

The Teen Ambassadors (TA) recognized many benefits to being associated with the BNC. Academic recognition was important to all, and many saw their involvement as a learning experience and a good resume builder. One TA enjoyed learning about the environment, and then being able to teach it to others in the neighborhood. Just learning about the BNC was a benefit. As one TA said, “before I didn’t even know it existed.” Some of the skills gained by their involvement included better public speaking, confidence, presentation of self, and office skills and job training.

The TAs heard about BNC mostly through word of mouth from ADCD (a job training group in Boston), friends from school, other TAs, and their parents. One TA had spent some of his childhood going to Mass Audubon sanctuaries. When
asked if Mass Audubon/BNC is serious about diversity initially the TAs said yes. But they noted many problems too. One TA said the BNC is serious, but they don’t know how to promote themselves in the community. Another said that the BNC needs to get out more into the community, because right now it does not represent all groups. One TA talked about the inequities in staffing, and pointed out that there are levels of diversity within the staff, and that people of color are at the lower levels, i.e. Teen Ambassadors. Another TA said “the management is not very diverse” and “the teen ambassadors are diverse, but the new hires are not”. When asked if diversity should matter, there was a resounding ‘yes’. One TA noted the difficulty of getting funding, and believed if there was no big grant from Mellon, the TA program might not even exist. Later the group was asked if things would be different if the staff better represented the demographics of the community? One TA said if the BNC had a more diverse staff, then different people would feel more comfortable and more interested in the center. Another TA said that the center would seem less “imperialistic”. Visualizing what this would look like he said, “it would be people from the community, teaching people in the community about the community… It would be a lot more inclusive for everyone”.

When asked about their main role at the center, the TA’s mentioned help, promotion, outreach, and personal enrichment. When asked how the TA program could be improved there was a clear desire for more money and hours, the creation of a promotional structure, and more trust. When asked how the BNC could better publicize itself, it was stated again that there is a need to get out more in the community. The TAs thought this could be a job for them, in other words “have the ambassadors really be ambassadors.”

**Broad Meadow Brook**

Staff interviews were conducted at the BMB as well as at Mass Audubon headquarters in Lincoln. In order to ensure a wide variety of opinions and responses, we interviewed several different individuals that each fulfilled specific roles in both the BMB and Mass Audubon. These people were Gail Yeo, Regional Director, responsible for overseeing the BMB, Deborah Cary, Director of BMB, Doug Kimball, Education Coordinator, Patricia Kirkpatrick, Teaching Fellow for the Citizen Schools, and two Teacher-Naturalists, Tammy Flemming-Maus and Christy Barnes. Each person was asked the same questions, which generally looked at Mass Audubon and BMB policies and practices, and then they were probed a bit deeper into how to effectively engage diverse audiences in environmental conservation-based education (Appendices 2 and 4).

Like our interviewees at the BNC, none of the interviewees at the BMB knew exactly where the drive or impetus for this Research came from. However, all agreed that there has long been an understanding that Mass Audubon has not been reaching all of the populations in the state. It was also recognized, among those interviewed, that the demographics of the state are continually changing
and in order to reach as many people as possible, new strategies would need to be developed. Kimball stated that the teacher-naturalists, those on the front lines of interaction and education, have been noticing the changing state demographics and recognizing the need to address the arising gaps in outreach approaches.

Viewpoints among the interviewees differed when asked what the aims and goals of this Research were. Yeo believed that the project was created to learn how to better serve a population, how to bridge the cultural divide, and how to determine the roadblocks to reaching diverse populations and how to best remove them. Cary’s view was slightly different; she believed that the project was created to review what the BMB was currently doing to reach diverse populations and to suggest recommendations on how to enhance its current practices. Kimball’s opinions on the subject were slightly different still. He believed that the goal of the project was to discover how to get people to “buy in” to Mass Audubon ideals, such as clean air, clean water, and habitat preservation. While all of these opinions differ slightly, there is a common underlying theme: reaching out to people and how to do this.

There was a certain amount of lack of clarity when interviewees were asked about the center’s Annual Plan. Each interviewee believed that the word “diversity” was mentioned in the plan, but in fact, the actual word was not mentioned. However, code words that represent the word diversity were present. Cary addressed this issue by saying, “even if it’s not mentioned, it’s in everyone’s head.” There seems to be an understanding within Mass Audubon and the BMB that outreach to diverse populations must be more effective. However, even in Vision 2010: Broad Meadow Brook for Everyone the aim is general: ‘to increase public access’ not specific: to prioritize diversity. One explanation as to why diversity was not explicitly mentioned in the Annual Plan nor Vision 2010 is money. Both the BMB and Mass Audubon rely heavily on grant funding to operate. Often, there are other priorities that must be addressed in the Annual Plan, which moves diversity lower down the priority list, or often off of the list completely. Yeo also stated that the head of the center is influential in deciding how large a role diversity plays at each center.

All of the interviewees agreed on several benefits that would accrue if the center were able to effectively reach a more diverse population. Two of the most mentioned benefits were, accomplishing the mission of the organization and gaining political strength. Yeo, Kimball, and Cary all agreed that by reaching out to diverse populations, the BMB and Mass Audubon would accomplish its mission to reach, engage, and educate the people of Massachusetts on nature and the environment. They also stated that by reaching all of the people of the Commonwealth then the organization would gain political strength. The potential for political action is multiplied when these traditionally underserved populations are engaged and interested in Mass Audubon ideals. There is a large,
untouched base that can be mobilized to vote for environmentally friendly political initiatives.

After discussing the benefits of reaching a more diverse audience, the interviewees were asked their opinions on what more could be done to increase diversity at the BMB. One of the most prominent answers regarding this question was to diversify the staff at the center. Cary stated that there had never been a person of color on the BMB staff. Kimball agreed with this by saying that no one at the center speaks a language other than English. The teacher-naturalists felt that if there was a more diverse staff, then traditionally underserved people may be more likely to visit the center, noting that people feel more comfortable entering a new place when there are others there that are like them.

Since so much of what goes on diversity-wise at the BMB occurs off-site, through the Neighborhood Nature program, all interviewees felt that another way to increase diversity would be to increase the financial funding opportunities, which would do several things: increase the number of full-time staff, increase the opportunities to go out into community parks and schools to reach more residents, and increase the number of partnerships with community groups. If the BMB were able to secure permanent funding, more diversity initiatives could happen simply because staff time could be transferred from searching for grants and more money to going out into Worcester communities and reaching a more diverse population.

Interviewees noted that forming partnerships with other community groups is a key way to increase the diversity at the BMB. While it was stated that there are currently partnerships with ethnic groups around Worcester (some of which were said to be listed in the Vision 2010 document which highlights collaborators since 1985), the BMB staff would like to increase this number and try to reach even more people in the urban areas. Partnerships, interviewees argued can benefit all involved by bringing people together and creating networks of communities and leaders that are all working toward similar goals.

All of the people interviewed at the BMB, like those at BNC, wanted to see one common accomplishment within the next five years; they all wanted to see more people at the center. This includes people of color and of different socio-economic statuses. Diversity seems to be on the minds of all of the interviewees, even though it may not be explicitly written in the Annual Plan or Vision 2010. There is a stated common goal to bring diversity to the BMB and to the whole of Mass Audubon, although finding this in writing proved to be more difficult. People within the organization are aware of these same issues this Research is aimed at exploring. There is a commitment to make the BMB a more diverse center. However, the problem seems to lie in finding (or funding?) the best and most effective way to engage the traditionally underserved populations in Worcester.
Gary Clayton, Vice President for Programs

When asked where the drive came from for this research, Clayton said that there has always been an interest in exploring issues around diversity in the organization. He stated that it was “internally driven by the need to build a presence in a community that Mass Audubon does not typically deal with.” He did not want this research to create a tension and a sense of competition between the two urban centers, but would like the goal of the research to be gaining a better understanding from an objective researcher to see what and how well Mass Audubon is doing, to identify what is and isn’t working at the two centers, and to find the best practices at each and share them among all of the centers in the Commonwealth.

Clayton, like many others interviewed, recognized several potential benefits from increasing diversity at each of the centers. He would like both to become citywide resources for the residents of Boston and Worcester, to become financially self-sustainable, and for the BMB, to have a “greater sense of identity.” When asked whether there are any conflicts between this research and the Mass Audubon mission, Clayton stated that there were no conflicts, but a “healthy tension.” This tension arises from the theory that as a conservation organization, there are several key priorities: education, conservation, and advocacy. However, he stated that in reality, staff at each center work to incorporate all three of these priorities and have to move resources around from one priority to another, which creates tension.

Clayton was also asked whether or not diversity was mentioned in the organization’s Education Master Plan. He stated that, in fact, it was mentioned. However, because the budget is tight, the organization is “currently unable to do it comprehensively.” He would like to see diversity initiatives change how the centers function over the next five years. He wants the BMB and the BNC to be stronger, more vibrant sites. He wants them to be financially sustainable within the next five years, as well as to expand to serve other underrepresented communities and learn how to “use the Internet to cost-effectively connect with people across the state.”

Chapter 6 User Views

Boston Nature Center
Focus Group

A focus group was held in the BNC visitor center on April 28th, 2005 (Appendix 1). The purpose of this group was to gather several parents of children that were participants in the center’s day and summer camp programs to hear their opinions of how to effectively engage diverse audiences in environmental and conservation-based education. The focus group was comprised of seven mothers of children who used the BNC for after school programs and vacation programming (Appendix 8). Their professions were varied: a youth activist, director of a local non-profit, a gardener, and a daycare worker. The mothers represented several different races and ages, although most appeared to be between 30 and 50 years old.

All of the mothers felt that they benefited from the programs and ideals of the BNC and Mass Audubon. They appreciated the Center’s proximity to school, work, and home. They felt that the prices for programs were affordable, which allowed them to send multiple children, and they strongly appreciated the sliding scale. They felt that the BNC really catered to “workers hours,” which was helpful to many parents, so they would not have to seek additional help to watch their children in the afternoons. One women described the BNC as “isolated and a small jewel in the urban area.” The participants appreciated the Center’s green building, saying that the Center just “feels good” and that is was a nice atmosphere due to the natural materials and lighting. They also welcomed safety as a priority, saying that the Center provided their children with a safe environment to play in. When talking about the children’s interaction with the staff and other children the mothers agreed that all of the children get along. They noted that the staff provides a lot of individual attention while creating a positive environment that not only expands knowledge, but also creates connections between schoolwork and the real world.

Word of mouth was one of the principal ways that the mothers had heard about the BNC and its programs. They received information from the public schools as well as heard other parents and members talk about the benefits of the BNC. Some of the parents heard about the center thought their children. The BNC was listed in a pamphlet printed yearly and sent out by Boston Public Schools, and some children were introduced the programs of the BNC through naturalists that had attended their schools directly. One of the parents was drawn to the BNC because she had visited other Mass Audubon centers in the area.

While there are several benefits of bringing children to the Center and its programs, there are some major issues in regards to proper access to the BNC. Interviewees noted that transportation to the Center can prove difficult, as public transport directly to the site is almost non-existent. Also, many parents noted when driving, the site is difficult to find, due to improper or inadequate signage. Once at the former BSH site they said, it is confusing to find the main building.
Some mothers noted that even though they lived in the community, for a long time they did not even know that the BNC was there.

When asked if they think the BNC and Mass Audubon is serious about diversity, one participant said that at first glance, the staff and the children are diverse, and that the people found at the Center reflect the greater community. Some participants noted that the surrounding communities are diverse, and that the BNC visitor make-up is due to the location and the community racial, ethnic and socio-economic composition. One mother noted that if the center were in a less diverse location, that most likely the user population would be less diverse.

When asked about Mass Audubon’s commitment to diversity, the participants were less satisfied. They noted that ‘general’ brochures (i.e. for more rural sanctuaries) rarely represented people of color, and that most marketing tools did not reflect diversity. Also, it was noted that fees at other centers were less supportive for people of different socio-economic statuses. They felt that most Mass Audubon programs (excluding those at the BNC) catered to the affluent, due to the high program costs. Also, other sanctuary programs did not cater to the working parent, as only half-day programs were offered during school vacation weeks.

The focus group participants believed that the BNC and Mass Audubon could better publicize the facility to diverse audiences through a variety of means including; word of mouth, increased community school outreach and programming, and with increased postage at local areas of public congregation, health clinics, markets, places of worship and community centers. In addition, the idea of better and increased signage was brought up. They thought that seasonal signs could be helpful, as they could be more specific; like ones that announce specific programs or camp offerings. Also, it was agreed among all participant that more directional signs were needed once inside BSH site.

In conclusion, one participant believed that there needed to be more outreach into communities of color, especially in Mattapan, where the Center is technically located. Another person mentioned the need to reach out to high school students. There is little or no programming for older youths and the BNC programs could assist in getting such populations off of the streets, while helping them learn about being responsible. One mother encouraged the BNC to increase their programs like the Teen Ambassadors, as it helps make “well-rounded, normal kids.”

User Survey

A survey was left at the reception at the BNC for visitors to complete. Fourteen surveys were returned. Due to the small numbers responding, we caution that
these figures be taken as *indicative*, rather than *statistically significant*. The survey was set up in two parts. The first part contained personal questions that ranged from why visitors came to the BNC, to average household income to ethnicity. The second set of questions were graded on a Likert Scale and ranged from visitor opinions of the BNC to the diversity of visitors to the BNC to the sanctuary’s advertising and promotional literature.

A majority of the respondents, approximately 57%, visit the BNC at least once a month. The next highest percentage, 21%, visited the Center two times a month. The remaining respondents visited the BNC greater than two times, with one respondent visiting, on average, eight times each month. Most of the respondents visited the BNC for nature walks and organized activities. A few took part in field trips, teachers visited the Center to plan lessons, and some went to garden or bird watch.

The average household incomes ranged among the respondents that chose to answer the question. The average among them is $48,000. However, the lowest household income was under $10,000 and the highest was $140,000. There seems to be high economic diversity represented by the visitors to the BNC.

Two of the respondents take their children to programs at the BNC. The majority of the respondents do not have children therefore do not participate in the children’s programming. About 36% of the survey respondents with children do not bring them to the BNC’s programs. There were no comments as to why some chose to participate and others did not. This could be an area to explore further.

Approximately 46% of the respondents were white, 23% were African American, 15% Latino, and the remaining 14% was divided equally between Asians and Serbians. These percentages can be misleading, there were only 14 respondents and one chose not to answer.

The last five questions were about the BNC, its role in Boston, the diversity of its visitors, and the outreach materials distributed by the sanctuary. Each participant was asked to respond to each statement using a scale:

- 0 = strongly disagree,
- 1 = disagree,
- 2 = neither disagree or agree,
- 3 = agree,
- 4 = strongly agree.

Again, not all of the respondents answered each question, but averages were compiled and are displayed in the table below.

<table>
<thead>
<tr>
<th>Question</th>
<th>Average Response</th>
</tr>
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</table>

44
What is really going on?

The respondents felt strongly that the BNC is a valued resource and also a resource for the whole community. They also felt that the visitors to the sanctuary accurately reflected the diversity of the neighborhood. The respondents agreed that the BNC promotional literature reflected the neighborhood diversity. Most agreed with the statement that the BNC should do more to promote the sanctuary in all sections of Boston.

Broad Meadow Brook

Focus Group

A focus group was held in the BMB visitor center on May 25, 2005 (Appendix 1). The purpose of this group was to gather several parents of children that were participants in the Center’s day and summer camp programs to hear their opinions of how to effectively engage diverse audiences in environmental and conservation-based education.

The focus group was comprised of four mothers of children who used the BMB for after school programs and vacation programming as well as hiking and personal use of the trails (Appendix 9). Their professions were varied: a stay-at-home mom, a professional musician, a non-traditional student, and a professional in the software industry. The mothers were all Caucasian and represented several different ages, although most appeared to be between 30 and 50 years old and had children ranging from under one year to ten years old.

All of the mothers felt that they benefited from the programs and ideals that the BMB and Mass Audubon represent. One mother stated that it “feels good” to know that her financial contributions to the center go to something worthwhile, like programming for the children and preserving open space. Several of the other mothers agreed with this sentiment and also appreciated the knowledge that the BMB land will be forever preserved and that the open space in an urban area that is continually threatened by sprawl will always be accessible. The mothers also appreciated the quiet solitude along the Center’s trails. The feeling
was that the BMB is an opportune place to bird watch and spend quality time with your family while experiencing nature.

Another benefit that the mothers enthusiastically agreed with was the summer camp programs at the Center. The camps and children’s programs occupy children for six hours a day, in a safe, fun, and educational place. The BMB and its programs represent an effective way to introduce children to nature in a safe way. All of the mothers took full advantage of the children’s programs and recognized the benefits associated with sending their children to the Center for nature education.

The mothers discussed why the camp programs were beneficial to both their children and to themselves. The camps are good for the children to learn social interaction with each other and with adults. The nature topics presented in the camp programs are exciting and engaging, so the kids are able to learn a lot about the environment while enjoying their time at the Center. They also liked the fact that the programs are related to public school curriculums and that the day and summer camps enhance traditional classroom education.

Word of mouth was one of the principal ways that the mothers had heard about the BMB and its programs. They received information from the public schools as well as heard other parents talk about the benefits of the BMB. One mother enjoyed visiting other Mass Audubon Centers in the region and discovered the BMB when she moved into the Worcester area. There are a variety of ways people can hear about the BMB and Mass Audubon, but word of mouth and knowledge of other Centers are two of the most popular methods of hearing about the center.

While there are several benefits of bringing children to the Center and its programs, there are some issues that can arise when a child wants to visit the BMB. First, there is limited bathroom access. Parents of young children may be wary of taking them out on the trails due to the lack of restrooms. The mothers also thought that there was a lack of information about the trails. They felt that a barrier to visiting the Center might be a lack of knowledge regarding how the trails are marked and a fear of getting lost while hiking.

Another barrier to visiting the Center that also has to do with the trails is accessibility. Mothers with young children are less apt to go walking the trails if there are no stroller-accessible trails. There are many mothers who want to bring their young children to the Center to experience nature, but do not feel that they are able to manage children on the trails. Not only are mothers discouraged from visiting the BMB by the lack of trail accessibility, but the Worcester residents may also be discouraged from visiting due to the relative “isolation” of the center. Since the Center is located in a more suburban area of the city, the inner urban residents have limited ability to actually get to the Center. In addition to the relative isolation of the BMB from some of the city’s most diverse neighborhoods,
traveling in the city can also be a barrier to visiting. It is easy to get lost while traversing Worcester, so newcomers to the city and residents of the surrounding communities are less likely to seek the BMB out.

Another factor that may be affecting low visitor diversity is the lack of outreach materials in languages other than English. Currently, all marketing materials and informational brochures are only published in English (although the Vision 2010 strategy is said to address this). This can ostracize non-English speaking people and prevent them from visiting the Center. Another factor that could be affecting visitor diversity at the BMB may be the lack of staff diversity. Staffing is not diverse at the BMB. The mothers believed that if it were more diverse, other racial groups would be more apt to visit. They felt that this could help communication with non-English speaking people. Also, ethnic diversity can lead to informational materials being translated into other languages, which will also increase visitor diversity.

After discussing the barriers to increasing diversity, the women brainstormed ways the staff of the BMB could increase visitor diversity. All of the women felt that if the BMB employed a more diverse staff, then the visitor diversity would increase. They also agreed that the marketing materials should be translated into other languages as well as a wider distribution of these materials to bring in more people. Informational material should specifically be brought to ethnic, religious, and community centers to reach traditionally underserved people. Materials should also be distributed at local ethnic festivals and be advertised on local television and radio stations, with particular attention being paid to non-English speaking channels.

The mothers also felt that more could be done at the local schools. Since over 50% of Worcester school children are non-white, advertising the programs of the BMB in the schools would reach a more diverse audience. Along with this type of advertising, students and parents should be made more aware of the scholarship opportunities available to children that want to attend the BMB programs. By stressing these opportunities, the focus group participants believed that socio-economic diversity can be increased.

After discussing ways to increase diversity, the mothers were asked to state what they thought were the best and worst things about the BMB. Open space in an urban area, financially contributing to a worthy cause, and exposing children to nature values were among the best attributes of the Center. The mothers felt that the worst things included the lack of sufficient parking at the Center and no baby-friendly trails and stroller loops for walking with young children.

The focus group provided some valuable insights as to how attendees believed visitor diversity could be increased at the BMB. They thought that one of the most effective ways to increase diversity at the Center would be to increase the diversity of the staff. This would also be an efficient way to translate any
informational materials into languages other than English, which would also help to bring in traditionally underserved populations.

*User Survey*

A survey was sent out to members of Mass Audubon and the BMB through a list serve compiled by the BMB staff (Appendix 9). The survey went to approximately 150 BMB visitors of which 24 visitors responded. Due to the small numbers responding, we caution that these figures be taken as *indicative*, rather than *statistically significant*. The survey was set up in two parts. The first part contained personal questions that ranged from why you visited the BMB, to average household income to ethnicity. The second set of questions were graded on a Likert Scale and ranged from their opinion of the BMB to the diversity of the BMB to the sanctuary’s advertising and promotional literature.

A majority of the respondents, approximately 50%, visit the BMB at least once a month. A smaller majority visit more than one time each month and greater than three times. Most of the respondents visited the BMB for nature walks and bird watching. A few took part in organized activities and children’s programs. Three of the respondents visited the BMB for meetings, work-related obligations, and to take water samples.

The average household incomes varied among the respondents. The average was $77,062.50. However, the lowest average household income was under $30,000 and the highest was $200,000, a wide range. There seemed to be some economic diversity represented by the visitors to BMB, at least among those that chose to respond to this survey.

90% of the respondents do not take their children to programs at the BMB. The remaining 10% enjoy bringing their children to the organized activities and programs run by the staff at the sanctuary. One respondent commented on the hours of the children’s programs at the sanctuary. This person was a single parent and was unable, but would like to, bring his/her children to the programs because of the hours. The programs run at such times as to make it difficult to bring children to them if the parent needs to work typical workday hours.

Approximately 90% of the respondents were white, with the remaining 10% split evenly between Hispanic and African American ethnicities. These percentages can be misleading. Since there were only 24 respondents and three that chose not to answer, 5% Hispanic was only one person out of the 21 possible answers. This is the same with the African American respondent. One of the three non-responses did not identify with an ethnicity, but instead wrote “democrat” as his/her ethnicity.
The last five questions were about the BMB, its role in Worcester, the diversity of its visitors, and the outreach materials distributed by the sanctuary. Each participant was asked to respond to each statement using a Likert scale:

0 = strongly disagree,
1 = disagree,
2 = neither disagree or agree,
3 = agree,
4 = strongly agree.

Again, not all of the respondents answered each question, but averages were compiled and are displayed in the table below.

<table>
<thead>
<tr>
<th>Question</th>
<th>Average Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMB is a valued local resource</td>
<td>3.67</td>
</tr>
<tr>
<td>BMB is a resource for the whole community</td>
<td>3.39</td>
</tr>
<tr>
<td>BMB visitors reflect the diversity of the neighborhood</td>
<td>1.79</td>
</tr>
<tr>
<td>BMB’s promotional literature reflects the diversity of the neighborhood</td>
<td>2.1</td>
</tr>
<tr>
<td>BMB should do more to promote the resource to all sections of the local community</td>
<td>2.68</td>
</tr>
</tbody>
</table>

*What is really going on?*

The respondents felt strongly that BMB is a valued resource and also a resource for the whole community. They were more torn on whether or not the BMB visitors reflected the diversity of the neighborhood with the average being 1.79, the lowest scaling of all our questions. The respondents did not agree or disagree when asked to comment on diversity in the sanctuary’s promotional literature. Most agreed with the statement that the BMB should do more to promote the sanctuary in all sections of Worcester.

**Chapter 7 Non User Views**

Assessing the views of non-users is a conundrum. How do we get reliable data from someone who doesn’t use a resource? What methods are best suited to
getting such information? These are questions the Research Team grappled with and in the end decided, warts and all, on the online vehicle – Survey Monkey.

A list of contacts, primarily community groups, was compiled through our contacts in both Worcester and Boston. To develop this list of groups further, we used a ‘snowball technique’. Once we had a list of around 75 groups and individuals we sent an email inviting the groups to disperse our email among their members. This invitational email contained the dedicated URL for our survey. During the three-week test period in June 2005, a total of 29 people in both the Worcester and Boston areas responded to the survey. Due to the small numbers responding, we caution that these figures be taken as indicative, rather than statistically significant.

The majority of respondents, 82.8%, identified themselves as white when asked about ethnicity. The next highest listed ethnicity was African-American at 10.3%, followed by Hispanic at 6.9%. There were no respondents that identified as Alaskan Native, Asian, or Hawaiian or Pacific Islander.

Most of the respondents were between the ages of 51 and 65. The next highest percentage of respondents at 31%, were between the ages of 18 and 30. Approximately one quarter of the survey participants were between the ages of 31 and 40. The lowest percentage represented the age category of ages 41 to 50, with only 6.9% of the respondents falling in this category. There were no respondents over the age of 65.

When the respondents were asked what their jobs were, there were several that were involved in the education field: teachers, educational administrators, director of non-profit educational services, environmental educator, college professors, college administrators, and an educational consultant. There were also a lot of respondents involved in the non-profit sector: an employee at Boston’s Children’s Museum, a community historian, and a minority-based non-profit community director. There were also staff administrators, IT analysts, and a range of other fields represented.

Close to half of the respondents, 41.7%, make between $30,000 and $50,000. The next highest percentage, 33.3%, of the respondents make between $50,000 and $75,000. Almost 20% of the respondents fall into the next household income category, between $75,000 and $100,000. The two lowest percentages, at 3.7% each, were those who made greater than $100,000 or less than $30,000.

All of the respondents graduated from high school or received their GED. Almost 30% went on from high school to receive an undergraduate degree, and close to half of the respondents pursued graduate and professional degrees.

When the respondents were asked whether they had heard of Mass Audubon, close to 90% replied yes, they had heard of the organization. The remaining
10% had never heard of Mass Audubon. The percentages changed when the respondents were asked if they had heard of the BMB or the BNC. Only 70% responded that they had heard of the sanctuaries, with the remaining 30% having not heard of them. The percentages started to even out further when they were asked if they had actually visited the sanctuaries. Even though the survey instrument asked that only non-users fill out the survey, apparently many had not read this as approximately 54% of respondents said they had visited either the BMB or the BNC but the remaining 46% had not visited the sanctuaries.

A series of nine questions was asked using a Likert Scale. Respondents were asked to state their opinions of the questions where:

0 = strongly disagree,
1 = disagree,
2 = neither agree or disagree,
3 = agree,
4 = strongly agree.

The results to each question were averaged and are presented in the table below.

<table>
<thead>
<tr>
<th>Question</th>
<th>Average Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>I enjoy being in natural environments</td>
<td>4.50</td>
</tr>
<tr>
<td>I enjoy nature-related activities more when I am out of the city</td>
<td>3.89</td>
</tr>
<tr>
<td>Natural areas in the city are hard to find/difficult to access</td>
<td>3.00</td>
</tr>
<tr>
<td>Natural areas in the city are hard to find due to poor signage</td>
<td>3.07</td>
</tr>
<tr>
<td>Better signage for Mass Audubon sanctuaries is needed</td>
<td>3.54</td>
</tr>
<tr>
<td>I have seen Mass Audubon’s pamphlets and flyers in my community</td>
<td>2.63</td>
</tr>
<tr>
<td>Mass Audubon should do more outreach to promote Broad Meadow Brook/Boston Nature Center</td>
<td>4.11</td>
</tr>
<tr>
<td>Signage and outreach materials should be translated into different languages</td>
<td>4.04</td>
</tr>
<tr>
<td>Greater visitor diversity at Mass Audubon’s Broad Meadow Brook/Boston Nature Center would make visiting more attractive to me</td>
<td>3.43</td>
</tr>
<tr>
<td>Greater staff diversity at Mass Audubon’s Broad Meadow Brook/Boston Nature Center would make visiting more attractive to me</td>
<td>3.25</td>
</tr>
</tbody>
</table>
What is really going on?

The *average* respondent to this survey was a white person, between the ages of 51 and 65 years old. This person is employed in the educational or non-profit fields and earns a household income of between $30,000 and $50,000 each year. The average respondent has pursued higher education and has at least a bachelor’s degree and most likely has a masters or professional degree. This person is aware of Mass Audubon, but less aware of the urban wildlife sanctuaries, and even less likely to have visited them.

This average respondent enjoys spending time in nature and traveling outside of the city to be in nature. This person would appreciate more signage and outreach materials within the urban areas that advertise the urban wildlife sanctuaries. These materials should also be translated into several other languages besides English. Staff diversity would also help to bring in more urban populations to the sanctuaries.

**Chapter 8 Conclusions and Recommendations**

**Introduction**

According to MassINC (2005 p4) “the demographics of Massachusetts are changing, and they are changing rapidly. As of 2004, 1 in 7 Massachusetts'
residents was born in another country. Today, 17 percent of our workforce is immigrant—up from roughly 9 percent in 1980. Moreover, over the last few years, it appears that the rate of increase is accelerating”. Developing this, they note “there has also been a major shift in the countries of origin among immigrants arriving in Massachusetts. Nearly half of all new immigrants hail from Latin America and the Caribbean, and another 23 percent come from Asia.” (MassINC 2005 p4).

While the focus of MassINC is not primarily on the environment or nature conservation, Mass Audubon and other organizations cannot ignore the message behind these figures, namely that Massachusetts is diversifying rapidly, and its new immigrants come from precisely those underserved groups Mass Audubon seeks to attract to its sanctuaries. The good news is that we have good data on the new Commonwealth residents, the bad news is that most environmental and conservation organizations are not changing paradigm or practice in line with their changing populations, although many, such as Mass Audubon recognize the need for change.

In this report, we have presented ample evidence from the literature, from ‘good practice’ drawn from an Internet search and from our own empirical work at the BNC and the BMB that there exists the perception, especially but not exclusively among lower income people and those of color, that diversity is not a priority for environmental organizations, that the employees in such organizations are predominantly white and upper class, and that this effectively defines both the organizational culture, and cultural approach of such organizations.

There is however, emerging research which shows the way forward. African Americans, for example are more interested that whites in local pollution issues (Mohai 2004). This could be built upon by both Centers by looking at, for instance, the effects of local pollution on vegetation in the sanctuary; the role of vegetation in attenuating pollution and the role of pollution in childhood asthma which is five times higher in Roxbury that the state as a whole. Similarly, Lewis and James (1995) have called for the building of cultural identity into programs and culturally important programming. Again, each Center has different experiences in this area, but both could build on and share their experiences. In terms of environmental education research, Agyeman (2003) has argued for the prioritization of culturally sensitive research approaches as opposed to ‘under representation’ approaches. How much more ‘under-representation’ research do we need? Is it not now time to look at integrating cultural approaches into environmental education?

In short, what organizations such as Mass Audubon need to do, if they are serious about mainstreaming diversity, is to build on this wealth of research in order to truly grow into its mission of “protecting the nature of Massachusetts for people and wildlife”.

53
Mainstreaming Diversity: From Paradigm to Practice?

A first step in mainstreaming diversity and moving from paradigm to practice is that Mass Audubon needs to decide on its core focus, as there are at least two paradigms operative at Mass Audubon, based on our research at the BNC and the BMB:

- The ‘People’s needs and nature’ paradigm, typical of the BNC.

Here, the emphasis is on meeting people’s needs through nature. The sanctuary has an idea of who ‘the community’ is, listens to what its needs are, and has, in the main, fashioned their programs around this.

- The ‘Nature’s needs and people’ paradigm, typical of the BMB.

Here, the emphasis is on nature conservation and land management around which programs for local people are fashioned.

This is not new to Mass Audubon. The two paradigms are indicative of a major issue identified by the Mass Audubon Strategic Plan ‘Shaping the Future: A Strategic Plan for 2000-2010’, namely the:

‘lack of a clear, broadly shared vision and focus guiding our activities. While many staff agree that the Society’s mission is to protect the nature of Massachusetts, interpretations of what that means vary, and decisions on how to implement the mission are made on an individual rather than an institutional basis’ (Mass Audubon 1999 p3).

We must emphasize that both paradigms are Mass Audubon mission-related. One is not better or worse than the other. However, in our opinion, they will produce very different outcomes over the longer term. Given both the changing demographics of Massachusetts, and the related need for conservation and environmental organizations to mainstream diversity, we believe that the people’s needs and nature paradigm is most appropriate. It is best suited to facilitating conversations about diversity and cultural identity which are clearly essential if Mass Audubon wants to retain the (political) support of a majority in this rapidly changing Commonwealth.

Current levels of engagement of diverse audiences

Clearly, there are, as we show below, examples of good practice in diversity terms that are a credit to both Centers and to Mass Audubon generally. However, outside this, the picture is not so rosy. Given the Land Disposition Agreement, the location, the staffing, the written policies, the Teen Ambassadors and the
‘People’s needs and nature’ paradigm, the BNC has more racially diverse audience engagement at the Center (54% non-white) than does the BMB (10% non-white) whose main engagement with diverse audiences is through their Neighborhood Nature program. The BNC data shows that users agree that fellow visitors reflect the diversity of the neighborhood whereas in the BMB data, users neither agreed nor disagreed with the statement that “BMB visitors reflect the diversity of the neighborhood”. Both Centers however showed some socio-economic diversity. Due to the small numbers responding however, we caution that these statements be taken as indicative, rather than statistically significant.

Practices at the BNC and the BMB contributing to the engagement of diverse audiences

Both Centers have examples of good practices that contribute to the engagement of diverse audiences. These include the BNC Teen Ambassador program, the BNC Summer Camp and the Neighborhood Nature program at the BMB. In terms of other practices we commend the universal focus group message that parents felt their children to be safe at both Centers. This is especially important in these days of heightened (perceived?) problems of youth and gang violence. Translation of signage and informational materials was mentioned by focus groups and sanctuary users as being important. Each Center was engaging in this although the BNC seemed to be further along the line, as it was in more diverse staffing which, again was seen as crucial by focus groups and users.

Barriers that keep under represented audiences away

As our literature review highlighted, both transportation/access and staffing/careers were mentioned as barriers. Transportation to the BNC and the BMB, both public (limited) and private (difficult to find in the case of BNC, difficult to park in the case of the BMB), was seen as a major issue. Staffing, and the (im) possibility of a career for people of color and low income was also seen as a barrier, as was a feeling that Mass Audubon is not about diversity in anything other than its urban sanctuaries. The BNC focus group added that general brochures, i.e. for more rural sanctuaries rarely, if ever showed people of color. The BNC focus group noted also that socio-economic diversity was problematical too, because fees for other sanctuary programs were not supportive of and did not cater to the needs of the ‘working parent’ as they only offered half day programs during school vacation. The BMB focus group argued that lack of knowledge especially about the trails and lack of outreach materials in community languages were problems.

Recommendations regarding the most effective strategies to engage diverse audiences in an inclusive manner
Based on our research, we present our recommendations to Mass Audubon in two groups: general and specific. In each category we have not ranked our recommendations.

**General recommendations:**

- **Institutionalize cultural competency.** All cultures can’t be treated the same. They are different with different perceptions, expectations, aspirations and customs. The cultural competency approach is suggested as a way for the Centers and Mass Audubon to begin to understand cultural difference and to integrate it into their programs.

- **More organizational clarity and better communication.** There needs to be more organizational clarity and better communication about the need to attend to diversity and cultural issues, especially about both the aims and goals of this.

- **Staffing must become more diverse.** It must reflect the communities served in racial, ethnic, cultural and socio-economic ways.

- **Develop systematic and systemic community outreach.** Community outreach is largely ad hoc at present. It needs to become both systematic and systemic. It needs to be based not only on educating people and communities, but more importantly, listen to them. It needs to employ many techniques such as word of mouth, community TV (especially ethnic channels) and use many locations such as health clinics, markets, places of worship, cultural and ethnic festivals.

- **The curriculum must be ‘community relevant’.** Literature, focus group and user data suggests that the curriculum becomes more related to life issues faced by local people and communities.

- **Diversity issues need to be formalized in writing.** Diversity was a word on most staff members’ lips, but was more difficult to find in written form. Diversity should not be solely related to verbal aspirations, it must permeate all levels of the sanctuary/organization, from staff recruitment and review to marketing, from curriculum to community outreach.

**Specific recommendations:**

- **Use ‘seasonal signage’.** Seasonal signage helps customers identify not only the site, but the specific camp or program offering.

- **Develop programming for older youths.** Many users and focus group attendees asked for more to be done for older children. Given the problems, especially in the BNC neighborhoods, with youth violence, funding may well be available.

- **Create a director of urban programs/diversity post.** While we do not want to see diversity ‘ghettoized’ as purely an urban issue, we feel there is merit in a senior position at Mass Audubon HQ which both fundraises to support Centers and acts in an advisory and support role. The person should be
qualified in environmental education and have experience in diversity based environmental work and, preferably, a second language.

- Create ‘diversity sabbaticals’. Staff should be encouraged to go to another center to learn about its approaches to diversity issues. Upon their return, they ‘cascade train’ staff at their own center.

- Develop culturally relevant curriculum resources. For example, many non-native plants in both Sanctuaries have interesting stories to tell about where they are from, how they got here, when they got here and what they might have been used for in their country of origin. This could be linked to human migration stories helping people to see that in addition to our multicultural societies, we also have ‘multicultural ecosystems’.
References

Agyeman, J (2001) 'Steps to becoming culturally competent communicators'

Agyeman, J (2003) 'Under-participation' and ethnocentrism in environmental
   education research: Developing “culturally sensitive research approaches”
   *Canadian Journal of Environmental Education* Vol 8 pp 80-94.

   and Sustainability Meet'. *Environment: Science and Policy for Sustainable
   Development* Vol 47 No 6 pp 11-23.

   on recreation and natural environment use patterns: Managing recreation
   sites for ethnic and racial diversity." *Environmental Management* 17, (4):
   523-529.

Balise, Laurie A. May 28, 1994. "Seattle aquarium exposes minority kids to

Bishop, R. (1998). Freeing ourselves from neo-colonial domination in research: A
   Maori approach to creating knowledge. *International Journal of Qualitative

Cajete, G (1994) Look to the Mountain: An Ecology of Indigenous Education
   Skyland: NC. Kivaki Press.

   environmental concerns: An exploratory study." *Journal of Environmental


Mass Audubon. *Broad Meadow Brook Conservation Center and Wildlife Sanctuary.*


Appendices

1 MassAudubon Focus Group Discussion Guide

Boston Nature Center April 28 2005
Broad Meadow Brook May 25 2005

I. Introduction (10 Minutes)

Objectives:

∞ Put participants at ease
∞ Explain the purpose of the study
∞ Explain how focus groups work

A. Moderator welcomes participants:

Moderator will introduce himself, welcome participants, [invite them to enjoy refreshments if not served prior to group] and note that he is an investigator on the research team for this project.

B. Moderator explains purpose of discussion:

Moderator: Thank you for coming today/night. My name is Julian Agyeman and our researchers are Tufts’ students Kate Newhall and Jenna Ringelheim. You’ve all heard a little bit about what our research project involves from Gloria. Our research is intended to support Mass Audubon in looking at how to effectively engage diverse audiences in environmental and conservation-based education. As parents whose children have enjoyed the benefits of this, we feel you can help us greatly in this research.

C. Moderator explains procedures:

Moderator: Before I ask you to tell me about who you are, I'll tell you a little about how a focus group like this works.

∞ I'm going to ask questions to launch our discussion. But please don't feel that you have to wait for me to call on you: you are welcome to speak up anytime.

∞ There are no right or wrong answers. I’m interested in your candid opinions and ideas. If the person sitting next to you agrees with you that is fine and if they or someone else disagrees that is fine too. I want to make sure everyone here feels comfortable expressing their own opinions and that you understand those opinions are important to us and to Mass Audubon
As you can see from the equipment here, I am recording our discussion. The recording will be used for our research and as you read in the consent form, access to the tapes and transcripts is restricted. For purposes of my being able to lead the discussion today/night, I have taken the liberty of using your first names only. In writing our report, we will not be using any names.

You will also notice two of my colleagues [Kate and Jenna] working on this project will be observing and listening to our discussion tonight and taking notes. They will not be part of the discussion.

Because we are taping, I need you to speak up at least as loudly as I do. I will give you this hand signal (motions upwards) to indicate if you personally need to speak up. I will also give you this signal (motions a "T" signal with hands) if I must interrupt you to move on to someone else or to another topic.

D. Self-introductions of participants:

**Moderator:** I'd like to find out a little bit about you now. Tell me where you live, and a little bit about how you came across BMB/BNC and Mass Audubon.

Note: It is important to provide participants with an opportunity to "hear" themselves talking about something that does not particularly put them on the spot or make them feel that they are being tested.

II. General Awareness (10 minutes per topic)

**Moderator:** As you may recall, our research is intended to support Mass Audubon in looking at how to effectively engage diverse audiences in environmental and conservation-based education. Let’s spend the next 60 minutes looking at:

**Topic 1: What are the benefits of your association with BMB/BNC/Mass Audubon?**

- Are there benefits to you, personally? What are they?
- Are there benefits to your child? What are they?

**Topic 2: Is there any one particular benefit that stands out?**
∞ Is there a particular benefit you can think of?

∞ Is there a benefit that you think or have heard your child talking about?

∞ Is it more a social thing for the children, or an educational thing, or both?

**Topic 3: How did you hear about BMB/BNC/Mass Audubon?**

∞ Literature?

∞ Word of mouth?

∞ Your child?

**Topic 4: What if any problems might a parent encounter if their child wanted to come to BMB/BNC?**

∞ Finding it?

∞ Travel?

∞ Expense?

**Topic 5: Do you think BMB/BNC/Mass Audubon are serious about diversity?**

**Topic 6: How do you think BMB/BNC/Mass Audubon could better publicize this facility to the diverse audiences in your community?**

∞ Language issues

∞ Community centers

∞ Religious centers

∞ etc

**III. Close – (5 min)**

**Moderator:** We’re just about out of time and I want to thank you all for participating. As I said at the start of our discussion tonight, our project is
intended to support Mass Audubon in looking at how to effectively engage diverse audiences in environmental and conservation-based education.

Thank you again for participating. The information you’ve shared tonight has been really helpful.
MassAudubon BNC Staff Interviews

May 31 2005

Introduction

Thank you for agreeing to be interviewed. My name is Julian Agyeman and our researchers are Tufts' students Kate Newhall and Jenna Ringelheim. You've probably heard a little bit about what our research project involves from Louise. Our research is intended to support Mass Audubon in looking at how to effectively engage diverse audiences in environmental and conservation-based education.

I'm going to ask you a series of questions over the next 30 minutes. We would like to tape your responses for transcription purposes. Is that OK?

Question

1 Where did the drive or impetus for this research on looking at how to effectively engage diverse audiences in environmental and conservation-based education come from?

2 What do you understand as i) the aim and ii) the goal of this research?

3 Is diversity mentioned in your center's Annual Plan? If so in what ways?

4 What benefits might accrue from increased diversity at BNC/BMB?

5 Are diversity based initiatives currently a consideration in annual staff reviews?

6 What more do you think could be done to increase diversity at BNC?

7 In regard to diversity, where do you personally want to see BNC in 5 years time?
3 MassAudubon BNC/BMB Non-User Interviews via Survey Monkey

May 31 2005

Introduction

Thank you for agreeing to complete this short survey. We need your responses by 5.00pm Friday June 10th. If you complete the survey, your email address will be entered into a draw where the prize is a $50 check. The draw will take place on Friday June 17th. You will be notified by email by 5.00pm that day if you are successful.

The survey is for Massachusetts Audubon Society, the largest conservation organization in New England, concentrating its efforts on protecting the nature of Massachusetts for people and wildlife. The Society wants your opinions on (BNC/BMB) your local nature reserve. It wants to find out how to increase the diversity of visitors it attracts.

We’d like to ask you a series of questions. The questions are in 2 groups. First, some information about yourself, then, the second group are statements which have a score from 0 Strongly Disagree, to 4 Strongly Agree. The information you give will not identify you and will only be used by Mass Audubon

Group 1

1 In which neighborhood do you live?
2 What is your ethnic group?
3 If you are working, what is your job?
4 What is your approximate household income?

Group 2

1 I have no interest in nature conservation
0 Strongly Disagree, 1 Disagree, 2 Neither agree nor disagree, 3 Agree, 4 Strongly Agree

2 I have visited BNC/BMB
0 Strongly Disagree, 1 Disagree, 2 Neither agree nor disagree, 3 Agree, 4 Strongly Agree
3 BNC/BMB is a resource for the whole community
0 Strongly Disagree, 1 Disagree, 2 Neither agree nor disagree, 3 Agree, 4 Strongly Agree

4 BNC/BMB visitors reflect the diversity of the neighborhood
0 Strongly Disagree, 1 Disagree, 2 Neither agree nor disagree, 3 Agree, 4 Strongly Agree.

5 BNC/BMB’s promotional literature reflects the diversity of the neighborhood
0 Strongly Disagree, 1 Disagree, 2 Neither agree nor disagree, 3 Agree, 4 Strongly Agree.

6 BNC/BMB should do more outreach to promote the resource to all sections of the local community
0 Strongly Disagree, 1 Disagree, 2 Neither agree nor disagree, 3 Agree, 4 Strongly Agree.

7 More staff of color would make BNC/BMB more attractive to me
0 Strongly Disagree, 1 Disagree, 2 Neither agree nor disagree, 3 Agree, 4 Strongly Agree.

8 Signs and information in my language would make BNC/BMB more attractive to me
0 Strongly Disagree, 1 Disagree, 2 Neither agree nor disagree, 3 Agree, 4 Strongly Agree.

9 If transport for groups from my community was arranged, I’d go to BNC/BMB
0 Strongly Disagree, 1 Disagree, 2 Neither agree nor disagree, 3 Agree, 4 Strongly Agree.

Do you have any other thoughts on BNC/BMB?
Please write them briefly below.

Thank you for your time
4 MassAudubon VP Programs/Regional Director Interviews

May 31 2005

Introduction

Thank you for agreeing to be interviewed. My name is Julian Agyeman and our researchers are Tufts’ students Kate Newhall and Jenna Ringelheim. You’ve probably heard a little bit about what our research project involves from Louise. Our research is intended to support Mass Audubon in looking at how to effectively engage diverse audiences in environmental and conservation-based education.

I’m going to ask you a series of questions over the next 30 minutes. We would like to tape your responses for transcription purposes. Is that OK?

Question

1 Where did the drive or impetus for this research on looking at how to effectively engage diverse audiences in environmental and conservation-based education come from?

2 What do you understand as i) the aim and ii) the goal of this research?

3 What benefits might accrue from increased diversity at BNC/BMB?

4 Are you aware of any conflict between the aims/goals of the research and Mass Audubon’s mission?

5 Is diversity mentioned in your Education Master Plan/center’s Annual Plan? If so in what ways?

6 How do you typically support your staff in what might be perceived by them as an add-on, not a fundamental part of their job?

7 Are diversity based initiatives currently a consideration in annual staff reviews?

8 In regard to diversity, where do you personally want to see Mass Audubon/BNC/BMB in 5 years time?
5 MassAudubon BNC/BMB User Interviews

May 31 2005

Introduction

Thank you for agreeing to be interviewed. My name is Kate Newhall/Jenna Ringelheim. I’m a Tufts student researching how to effectively engage diverse audiences in environmental and conservation-based education under contract with Mass Audubon

I’d like to ask you a series of questions over the next 5 minutes. Is that OK? The questions are in 2 groups. First, some information about yourself, then, the second group are statements which have a score from 0 Strongly Disagree, to 4 Strongly Agree. The information you give will not identify you and will only be used by Mass Audubon

Group 1

1 How many times do you visit BNC/BMB each month?
2 What is your major reason for visiting? (organized activity, stroll, nature walk etc)
3 What is your approximate household income?
4 If you have children, do they attend any programs at BNC/BMB?
5 What is your ethnic group?

Group 2

1 BNC/BMB is a valued local resource
   0 Strongly Disagree, 1 Disagree, 2 Neither agree nor disagree, 3 Agree, 4 Strongly Agree

2 BNC/BMB is a resource for the whole community
   0 Strongly Disagree, 1 Disagree, 2 Neither agree nor disagree, 3 Agree, 4 Strongly Agree

3 BNC/BMB visitors reflect the diversity of the neighborhood
   0 Strongly Disagree, 1 Disagree, 2 Neither agree nor disagree, 3 Agree, 4 Strongly Agree.

4 BNC/BMB’s promotional literature reflects the diversity of the neighborhood?
0 Strongly Disagree, 1 Disagree, 2 Neither agree nor disagree, 3 Agree, 4 Strongly Agree.

5 BNC/BMB should do more to promote the resource to all sections of the local community
0 Strongly Disagree, 1 Disagree, 2 Neither agree nor disagree, 3 Agree, 4 Strongly Agree.
6 MassAudubon Focus Group Discussion Guide Teen Ambassadors.

Boston Nature Center May 26 2005

I. Introduction (10 Minutes)

Objectives:
- Put participants at ease
- Explain the purpose of the study
- Explain how focus groups work

A. Moderator welcomes participants:

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C. Moderator explains procedures:

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- I'm going to ask questions to launch our discussion. But please don't feel that you have to wait for me to call on you: you are welcome to speak up anytime.

- There are no right or wrong answers. I'm interested in your candid opinions and ideas. If the person sitting next to you agrees with you that is fine and if they or someone else disagrees that is fine too. I want to make sure everyone here feels comfortable expressing their own opinions and that you understand those opinions are important to us and to Mass Audubon
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D. Self-introductions of participants:

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II. General awareness  (10 minutes per topic)

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Topic 1: What are the benefits of your association with BNC/Mass Audubon?

∞ Are there benefits to you, personally? What are they?

Topic 2: Is there any one particular benefit that stands out?

∞ Is there a particular benefit you can think of?
Topic 3: How did you hear about BNC/Mass Audubon?

- Literature?
- Word of mouth?

Topic 4: Do you think BMB/BNC/Mass Audubon are serious about diversity?

Topic 5: How do you think BMB/BNC/Mass Audubon could better publicize this facility to the diverse audiences in your community?

- Language issues
- Community centers
- Religious centers
- etc

III. Close – (5 min)

Moderator: We’re just about out of time and I want to thank you all for participating. As I said at the start of our discussion tonight, our project is intended to support Mass Audubon in looking at how to effectively engage diverse audiences in environmental and conservation-based education.

Thank you again for participating. The information you’ve shared tonight has been really helpful.
7 Broad Meadow Brook Collaborators List

(4/02) Massachusetts Audubon Society has operated in Worcester since 1985. Collaboration with local organizations and agencies has been a consistent priority.

Worcester Art Museum
Worcester Cultural Coalition
Worcester Regional Chamber of Commerce- Leadership Worcester Program
Work for Worcester’s Youth Program
Worcester Cultural Commission
Regional Environmental Council
Greater Worcester Land Trust Trust
Worcester County Horticultural Society
Preservation Worcester
Park Spirit
Greater Worcester Land Trust
Worcester Historical Museum
Worcester Business Journal
Worcester Urban Tree Task Force
Ecotarium- Biodiversity Days
Blair House
Worcester Institute for Senior Education
Blackstone Headwaters Coalition
John H Chafee Blackstone River Valley National Heritage Corridor
Massachusetts Executive Office of Environmental Affairs
City of Worcester- DPW, Parks and Recreation Department, School Department
Worcester Arts and Humanities Council
Worcester Vocational H. S. Environmental Technology Curriculum Development Committee
Blackstone Visitor Center Task Force
Elm Park Early Childhood Center
Environthon
Montachusett Girl Scout Council
Mohegan Boy Scouts
YMCA
Friends of Newton Hill
Central Mass Land Trusts
UMASS Extension Service
Trust for Public Lands
Mass Land Trust Coalition
National Heritage Rivers Institute
Massachusetts Butterfly Association
Forbush Bird Club
Central New England Flower Show Committee
Indian Lake Watershed Association
Leesville Pond Watershed Association
Tatnuck Brook Watershed Association
Grafton Hill Neighborhood Association
Mass Waterwatch Partnership
Clark University
Assumption College and the University Center for Transportation and the Environment
WPI
College of the Holy Cross
Becker College
Park Spirit
Worcester Institute for Senior Education
Elm Park Center for Early Childhood Education
Worcester Public Schools
8 Focus Group Attendees, BNC

Simone Charpentier, Jocelyn Heywood, Sharon Miller, Rebecca Riley, Jennifer Rugg, Lillie Searcy, Gloria Valentín-Denson, Gail Bos, Adán Colón-Carmona.
9 Focus Group Attendees, BMB

Melisa Hollenback, Allison Uccello, Dara O'Connor, and Lucia Clemente-Falco.