



April 2015

## The Urban Wildlife Conservation Program: Building a Broader Conservation Community

Natalie R. Sexton

*U.S. Fish and Wildlife Service, natalie\_sexton@fws.gov*

Danielle Ross-Winslow

*Managed Business Solutions, danielle\_ross-winslow@fws.gov*

Marcia Pradines

*U.S. Fish and Wildlife Service, marcia\_pradines@fws.gov*

Alia M. Dietsch

*The Ohio State University, dietsch.29@osu.edu*

Follow this and additional works at: <https://digitalcommons.lmu.edu/cate>

### Recommended Citation

Sexton, Natalie R.; Ross-Winslow, Danielle; Pradines, Marcia; and Dietsch, Alia M. (2015) "The Urban Wildlife Conservation Program: Building a Broader Conservation Community," *Cities and the Environment (CATE)*: Vol. 8: Iss. 1, Article 3.

Available at: <https://digitalcommons.lmu.edu/cate/vol8/iss1/3>

This is brought to you for free and open access by the Center for Urban Resilience at Digital Commons @ Loyola Marymount University and Loyola Law School. It has been accepted for inclusion in Cities and the Environment (CATE) by an authorized administrator of Digital Commons at Loyola Marymount University and Loyola Law School. For more information, please contact [digitalcommons@lmu.edu](mailto:digitalcommons@lmu.edu).

---

## **The Urban Wildlife Conservation Program: Building a Broader Conservation Community**

The National Wildlife Refuge System of the U.S. Fish and Wildlife Service has a long history of connecting people with nature. Increased conservation challenges coupled with societal changes pose challenging new questions for the Refuge System. The future success of conservation in America ultimately depends on the ability to inspire its citizenry to connect with the outdoors and to become stewards of the environment. With over 80% of Americans living in urban areas, spending less time outdoors, and becoming more ethnically and racially diverse, how do refuges become relevant in their daily lives? While challenging, urban areas present a strategic opportunity to reach new audiences. The goal of the Urban Wildlife Conservation Program is to engage urban communities in wildlife conservation as partners. The Urban Wildlife Conservation Program defines excellence in existing urban refuges, establishes the framework for creating new urban refuge partnerships, and is implementing a refuge presence in demographically and geographically varied cities across America. This paper outlines the Service's approach to achieve this goal, the social science that is informing these efforts, and lessons learned thus far from research findings at Rocky Mountain Arsenal National Wildlife Refuge.

### **Keywords**

urban wildlife refuge, barriers to engagement, strategies to engagement, recreation

### **Acknowledgements**

The authors would like to acknowledge Dr. Myron Floyd and Eric Thompson at North Carolina State University as partners in this research effort.

## INTRODUCTION

The National Wildlife Refuge System (Refuge System) of the U.S. Fish and Wildlife Service (Service), one of the leading networks of protected lands and waters dedicated to wildlife conservation in the world, has a long history of connecting people with nature. With over 560 refuges and 38 wetland management districts, there is at least one national wildlife refuge in every state and territory and within an hour's drive of most major metropolitan areas (USFWS 2013). Refuges host more than 47 million visitors each year who primarily observe and photograph wildlife and birds, fish, and hike (Sexton et al. 2012).

Visitors to National Wildlife Refuges (refuges) are predominantly U.S. citizens with above-average income and education and are overwhelmingly non-Hispanic and white (Sexton et al. 2012). Yet, the demographic composition of America as a whole and its citizens' connection with the outdoors is quite different. As a society, Americans are more ethnically and culturally diverse, older in age, and increasingly living in urban areas in greater numbers (Berube et al. 2010). As a nation, Americans have become more connected to technology and, at the same time, less connected to nature and the outdoors (e.g., Louv 2008; 2011). With a changing population, the conservation challenges continue to grow and become more complex.

These demographic changes have posed some challenging and complex questions for the Refuge System. How do the 80% of Americans living in cities (Haub and Kaneda 2014) connect to the wild places that refuges protect? How can refuge practitioners teach a new generation to love the land when pavement is what they usually see? How can the Refuge System help children find inspiration in nature all around them when they spend so much time indoors and "plugged in"? We know that increasingly Americans will experience nature primarily in an urban setting (DeStefano and DeGraaf 2003), shaping the nation's conservation values, ethics, and priorities in the process. The future success of conservation in America ultimately depends on the ability to inspire its citizenry to connect with the outdoors and nature and to become stewards of the environment. This paper outlines the Service's approach to growing a community that values conservation in urban areas, describes the application of social science to inform these efforts, and provides examples from Rocky Mountain Arsenal National Wildlife Refuge (RMA) in Denver, Colorado, as an illustration.

## URBAN WILDLIFE CONSERVATION PROGRAM

In order to address the issue of urban community participation in conservation efforts, the Service developed an initiative called *Conserving the Future: Wildlife Refuges and the Next Generation* (USFWS 2011), which is a visionary call to action for the Refuge System to work beyond traditional borders, reinvigorate established partnerships, increase wildlife-dependent recreation, and diversify and grow the number of conservation supporters. The Urban Wildlife Conservation Program, which stemmed from this initiative, was designed to define excellence in existing urban refuges, establish the framework for creating new urban refuge partnerships, and implement a refuge presence in demographically and geographically varied cities across America by 2015 in order to engage surrounding urban communities as partners in wildlife conservation.

With over 100 refuges within 25 miles of urban areas with at least 250,000 people (see Appendix), these protected areas are perfectly situated to serve as proving grounds for excellence in community engagement to support conservation. Strategies and projects for the Urban Wildlife Conservation Program focus on engaging the communities immediately surrounding a refuge, whose residents often have not visited or are not aware of the refuge. Because of the proximity to large population centers, staff at urban refuges have a unique opportunity to engage directly with community members and create long-term relationships that can cultivate new supporters of both the refuge and conservation. To guide these efforts, the Refuge System has established Standards of Excellence (USFWS 2014a) for urban refuges to serve as a framework for collaboration between the Service and urban communities on and off Service lands.

## **APPLYING SOCIAL SCIENCE**

While the Urban Wildlife Conservation Program lays a path forward for growing a connected conservation community, many barriers exist. To better understand these barriers and to identify strategies for the Service to overcome them, the Service partnered with U.S. Geological Survey (USGS) and North Carolina State University in a collaborative research effort. The research included: 1) a summary of the current understanding of barriers to participate in the outdoors from peer-reviewed literature; 2) an assessment of what is working on the ground for natural resource practitioners on refuges to encourage participation in conservation efforts; and 3) workshops with community leaders near seven urban refuges to understand how outdoor recreation opportunities benefit urban residents, what barriers to participation exist, and strategies to better connect and engage urban residents (full research report in press; visit the Know Your Community section of the Urban Wildlife Conservation Program website, USFWS 2014b, for detailed workshop methods and individual refuge results).

The workshops were held to better understand motivations for outdoor recreation participation and to identify potential strategies for better connecting with diverse urban audiences. Two meetings were held at each of the seven participating refuges between September 2013 and April 2014 with individuals or representatives of organizations with extensive ties to the local residents and communities. Workshops were conducted using focus group methodology (Morgan 1996) and participants were engaged in discussions around the following topics:

- 1) How do residents define outdoor recreation?
- 2) What motivates residents to participate in outdoor recreation?
- 3) What barriers prevent greater access or enjoyment of outdoor recreation opportunities by residents?
- 4) What can be done to promote greater participation in outdoor recreation and use of the refuge by residents?

## INSIGHTS FROM ROCKY MOUNTAIN ARSENAL NATIONAL WILDLIFE REFUGE

Rocky Mountain Arsenal National Wildlife Refuge (RMA) lies within the city of Denver, Colorado, amidst high-rise buildings, international airport traffic, and some of the state's fastest growing communities. Established as a national wildlife refuge in 1992 and opened to visitors in 2010, the 15,000-acre expanse is one of the largest urban refuges in the country and is home to close to 300 wildlife species including bison, bald eagles, burrowing owls, and prairie dogs.



Left: Mule deer against the Denver skyline at Rocky Mountain Arsenal NWR. Credit: Mike Mauro, USFWS. Center: Fishing at Rocky Mountain Arsenal NWR. Credit: Stephanie Raine, USFWS. Right: Members of Groundwork Denver planting cottonwood trees at Rocky Mountain Arsenal NWR. Credit: Terry Wright, USFWS.

This urban wildlife refuge has some unique challenges. Many residents express concerns about personal safety associated with the site's polluted past—chemical weapons and agricultural chemicals were formerly manufactured there, leading to the designation of the land as a Superfund site (EPA n.d.) in 1987. Some of the communities adjacent to the refuge were greatly impacted by the contamination and are historically underserved. Their populations are racially and ethnically diverse and continue to grow in number. On the southern border of the refuge, the community of Montbello, Colorado, is 58% Hispanic, 32% black, and 7% white, with a median income of \$40,400 (Bloch et al. 2010). To the west, the Commerce City neighborhood is 64% Hispanic, 32% white, and 2% black, with a median income of \$37,900 (Bloch et al. 2010). In contrast, only 7% of refuge visitors indicated that they were of Hispanic ethnicity and 3% indicated that they were black (Dietsch et al. 2013). Furthermore, visitors reported a median income level of \$75,000–\$99,999 (Dietsch et al. 2013). These visitor demographics do not reflect the demographics of communities adjacent to the refuge, which suggests that there is potential to further engage local residents in wildlife-dependent recreation at the refuge.

Twelve people with strong ties to communities adjacent to the refuge were identified through an extensive Internet search of relevant organizations. Individuals or organizations were contacted by USGS researchers to participate in the workshops. The workshops consisted of a discussion facilitator and two note takers.

### Motivations to Recreating at RMA

Workshop participants indicated that residents had many broad definitions of what constitutes outdoor recreation, but voiced several commonalities in motivations for recreating at RMA. The opportunity to interact with family and friends, an escape from the hustle and bustle of city life, affordable entertainment, a unique experience, and a means to ensure general health and wellness

were all motivations described by community representatives. RMA specifically was described as a place that is unique, and as being “its own magical kingdom.”

### **Barriers to Recreating at RMA**

A general consensus from the literature is that ethnic and racial minorities encounter more constraints to outdoor recreation, including wildlife-dependent recreation, than non-minorities (Shores et al. 2007). In particular, studies have shown that non-white races and certain ethnic groups are not as comfortable in the outdoors as whites, have not had as many outdoor experiences, and do not want to be perceived as outsiders when participating in outdoor recreation (Bixler and Floyd 1997). This resonates with the RMA workshop participants’ descriptions of barriers for local communities.

Of all the barriers discussed during each workshop, participants indicated that the three most significant were:

- 1) Lack of knowledge and awareness of outdoor recreation opportunities in general and of what RMA has to offer,
- 2) Perceptions about safety at RMA due to its history, and
- 3) Feeling unwelcome in the outdoors and at RMA.

### ***Unfamiliarity and Fear***

For some community residents near RMA, there is a negative stigma associated with the outdoors that stems from fear rooted in historical context—participants shared how the woods and natural areas were historically where violent hate crimes were committed against minorities. Participants discussed how many residents fear discrimination and view the outdoors as scary or unsafe. Other fears included animal encounters, such as with bears or snakes, and fear of the unfamiliar noises of nature in comparison to the city noises they knew. Anxiety associated with engaging in activities that are uncommon for urban residents was also mentioned, and not having the “right” equipment, either because of financial constraints or lack of knowledge about what is needed (e.g., water bottles, fishing equipment, and even sunscreen), was viewed as a barrier. These sentiments were expressed by some community representatives:<sup>1</sup>

*“For many, many years white families have had a cultural confidence—they feel absolutely comfortable in many situations. This is not true for others—how do you instill this in others?”*

*“You don’t want to be the only black people out there, out in the woods by yourself. This is a huge thing, a HUGE barrier.”*

*“For a lot of urban kids, the outdoors is exotic, strange, and scary.”*

---

<sup>1</sup> Quotations are drawn from notes taken during the workshops by the research team; they are not verbatim since no recording devices were used. They adhere to the meaning and context of the speaker’s original statements.

Some representatives also indicated that many residents did not know the refuge existed or, if they did know of its existence, were unaware of opportunities available to visitors:

*“Community members don’t know what’s on the other side of the fence. They hear that there are deer and coyotes, but they don’t know.”*

### ***Perceptions of Site History and Related Safety Issues***

While some described RMA as being its own “magical kingdom,” others expressed reservations. Since the early 1980s RMA has undergone environmental cleanup. Although cleanup was completed in 2010, concerns over safety of the area are still prevalent in neighboring communities. As one participant stated,

*“When we were growing up, we heard elected officials say, ‘Don’t go to the refuge, the deer glow.’ It was chemical pollution, not radioactive or nuclear. It’s important from an environmental justice standpoint; historically, it was not a safe place to be. Even up until recently, they were still monitoring pollution levels in nearby communities.”*

### ***Unwelcoming Presence***

Participants discussed the fact that some members of local communities did not feel welcome at RMA. Reasons for this included the presence and look of an 8-foot heavy-gauge wire fence around the perimeter, closed gates that bar access to only one entrance, and staff members who may be well-meaning, but unaware of how people from different cultures want to be treated.

*“The gates, the people. Both can be unwelcoming. You can judge in half a second if people are welcoming.”*

*“The fence says, ‘you’re not welcome, stay in your neighborhood.’ ... Why would you want to become a wildlife biologist when that’s the message?”*

*“RMA is not a welcoming neighbor necessarily. It has a big chain link fence—all you have to do is put razor wire over it and it looks like you’re trying to keep us out, or something in.”*

Physically accessing the refuge is also a major barrier for some. Since before RMA was established as a national wildlife refuge, there have been disparities of race, ethnicity, and income among the communities surrounding the refuge. Montbello (south of the refuge) and Commerce City (west of the refuge) are more racially and ethnically diverse and lower income communities as compared to Stapleton (southwest of the refuge). Currently, the one refuge entrance that is open to the public is located closest to Stapleton, and some participants indicated that this may be perceived by local residents as “catering” to particular demographics. Families with limited transportation options or low income see access as a barrier which contributes to the feeling of being unwelcome:

*“Having only one entrance on the west side is really discouraging to people on the other side.”*

*“The youth of Montbello have the most amazing place, right here, and they can’t access it [due to the fence].”*

### **Strategies to Increase Participation in Recreation at RMA**

Participants identified several strategies to address barriers that exist and to engage community residents more actively to participate in outdoor recreation and visit RMA. The three strategies for engagement that were most heavily emphasized were:

- 1) Increase access to RMA,
- 2) Strengthen marketing and outreach efforts, and
- 3) Improve cultural diversity and sensitivity of staff and volunteers.

#### ***Increase Access***

Participants indicated that opening additional points to access RMA was an important strategy for encouraging greater recreation participation. This could be achieved in multiple ways, including opening walk-in gates, removing the fence where possible, and even providing transportation options to local community members. The workshops and other meetings with the public brought this issue of access to the attention of refuge staff, and RMA is engaged in continued dialogue with community representatives about how to better welcome neighboring communities and facilitate access to the refuge.

One ongoing effort to improve refuge access is the Rocky Mountain Greenway project, which was started in 2012 as a federal, state, local, and stakeholder-led project to create trails to link all three refuges in the RMA Complex to Rocky Mountain National Park. This project will connect trails, parks, and open spaces in the surrounding communities. This is especially encouraging as workshop participants from Montbello indicated that bike riding and walking in parks were the main outdoor activities in the community. There are currently no bike-friendly or pedestrian-friendly routes to the refuge, so the Rocky Mountain Greenway trails would meet this need and serve the interests of the community. Opportunities to work with local community groups on securing other sources of funding for transportation to the refuge are also developing out of this project.

#### ***Strengthen Marketing and Outreach Efforts***

Participants discussed ways that RMA could engage diverse audiences through a variety of communication means. A different perimeter fence design, with strategically placed signs that encouraged visitors to come explore what RMA has to offer, was a suggested marketing strategy. Social media (particularly to engage youth), placing articles in community newsletters and brochures to new homeowners, getting local community members to help spread the word, and connecting with local sporting or community events (e.g., speaking at the end of church services) were some of the other suggestions.



Participants also indicated a need to engage community members in RMA planning activities much earlier in the process, which would help with outreach and ensure enough time for refuge staff to adequately incorporate the input of local community members.

Community representatives indicated that sensitivity to the site's contaminated past and the impact on surrounding communities should be acknowledged and addressed and could actually serve as an important tool for education and enticement to visit:

*"It's a really important point that even if you're not interested in critters, maybe you are interested in the story of this site. There's a lot of history here."*

*"It's a story of hope and reclamation after so much happened here."*

*"This is a different kind of refuge... It's a great experiment. 'Come and share the excitement' should be the message."*

Refuge staff members continue to share the story of RMA, weaving it into their wildlife-viewing tours, bird walks, and other programs to relay the story of restoration and to ensure the public of human and wildlife safety.

In addition to these efforts, RMA recognizes that more is needed to get the word out in a broader way and has been experimenting with nontraditional outlets. Neighboring Dick's Sporting Goods Park has provided a unique opportunity to reach a broad and diverse market through advertising. The park is the home of the Colorado Rapids, a Major League Soccer team, and also hosts several camps, clinics, national tournaments, and international events throughout the year. Promotional messages about RMA in this venue could increase awareness and interest in the refuge and wildlife in general.

### ***Improve Cultural Competency and Diversity***

Improved cultural competency and increasing staff and volunteer diversity were mentioned as important strategies to engage communities. Suggestions included cultural sensitivity training for staff, designing marketing materials that represent a broad range of people, and hiring volunteers and staff that represent the diverse backgrounds of the communities the refuge serves.

Participants discussed how familiar faces, whether that is people of the same race, ethnicity, or age, make it more comfortable to participate in unfamiliar activities. As one participant shared:

*"Diversity of staff and volunteers is important. You want to see people who look like you and be educated by a peer."*

### **APPLYING LESSONS LEARNED**

The approach to excellence for urban national wildlife refuges should be as flexible and unique as the communities that the refuges serve. The Service must strive to provide programs and outdoor recreation opportunities that are relevant to their communities. In a broader context, not only the Service but the wider community of conservation organizations in general could benefit by encouraging staff, volunteers, and partners to engage with urban communities to develop meaningful connections to wildlife that last a lifetime.

There are several lessons that the Service has learned from RMA and the other workshops that can inform efforts throughout the agency and the larger conservation community. First, most new audiences are not aware of the Refuge System and what is offered on these lands. It is important to *raise awareness* by developing outreach that targets specific audiences with tailored messages that address this lack of awareness. Communication that resonates with the audience's cultural and historical background is vital because it forges personal connections (Nisbet et al. 2012). The Refuge System and the National Wildlife Refuge Association, a nonprofit partner, have made efforts to communicate in new and innovative ways, working with award-winning conservation photographer and film producer Ian Shive to tell the story of urban refuges and the Urban Wildlife Conservation Program. Shive and his team spent the fall of 2014 documenting urban refuges and partnerships across the country, and the photos, videos, and digital content will be used in creative ways to help reach and engage new audiences in conservation.

Second, agencies and organizations must *understand the barriers* that exist for some people to engage in outdoor recreation. Wildlife practitioners who spend large amounts of time outdoors may be surprised to know that some people feel unsafe or uncomfortable at refuges, or that people feel they do not have the skills needed to spend time outdoors. Understanding and recognizing these barriers, such as those identified in the RMA workshops, is a crucial step to finding solutions.

Third, conservation programs must *work with partners* to achieve their goals. The Urban Wildlife Conservation Program provides a framework for increasing community engagement, but the challenges of building a broader conservation constituency are far too big for any one agency to tackle alone. Various organizations that are involved in conservation, education, human health, or other disciplines can ultimately help to achieve conservation of wildlife, plants, and habitats that are essential to maintaining a healthy planet. As an example of promising partnerships, RMA is working with Groundwork Denver, Mile High Youth Corps, and Environmental Learning for Kids to provide underserved youth with wildlife conservation work experience. The Refuge System has also created Urban Wildlife Refuge Partnerships (USFWS 2014c) that identify and empower local community organizations to inspire new audiences to participate in conservation in local parks, backyards, schoolyards, and other natural areas. To date, the Service has designated 14 Urban Wildlife Refuge Partnerships, including Masonville Cove (Baltimore, Maryland), a restored nature area and living classroom that was once an abandoned contaminated area near Baltimore Harbor, and Lake Sammamish (Seattle, Washington), a hatchery for Kokanee salmon that partners with local tribes, communities, and local, state, and federal governments on habitat restoration, citizen science, and educational programming. These partnerships recognize that conservation messages can be delivered to new audiences by community leaders or ambassadors that have a long history of investment with the target community. The Service, in return, offers natural resource expertise, resources, and credibility. These partnerships can serve as examples for the conservation community of creating strong networks to achieve common outreach and conservation goals.

Lastly, *evaluation* is key to the success of initiatives such as the Urban Wildlife Conservation Program. It is imperative to determine which actions are working and which are not and to assess the impact an organization is having on broadening the prevalence of a conservation ethic in various communities. This will require systematic short-, mid-, and long-

term evaluations that measure outcomes. The Service has begun formalizing its approach to evaluation and will establish an overarching evaluation plan as well as guidance and best practices for multiple phases of evaluation. The Service's efforts draw from ongoing evaluation work in the conservation community and can serve as a model in the future.

To be successful, the Service must work adaptively with partners toward the goals of the Urban Wildlife Conservation Program. Likewise, other conservation organizations can learn from the Program, and specifically the RMA case study, to increase participation, diversity, and engagement from a wide range of communities. Efforts will involve learning along the way, and, in some cases, doing business differently in order to provide more meaningful opportunities for urban residents to find, appreciate, and care for nature in their cities and beyond.

## APPENDIX

U.S. Fish and Wildlife Service Urban National Wildlife Refuges map. PDF available for download at [http://www.fws.gov/urban/refugePDFs/NWRS\\_urbanMap.pdf](http://www.fws.gov/urban/refugePDFs/NWRS_urbanMap.pdf).

## LITERATURE CITED

- Berube, A., Frey, W. H., Friedhoff, A., Garr, E., Istrate, E., Kneebone, E., and Wilson, J. H. (2010). *State of metropolitan America: On the front lines of demographic transformation*. Retrieved from Brookings Institution Metropolitan Policy Program website: [http://www.brookings.edu/~media/research/files/reports/2010/5/09%20metro%20america/metro\\_america\\_report.pdf](http://www.brookings.edu/~media/research/files/reports/2010/5/09%20metro%20america/metro_america_report.pdf). Accessed March 4, 2015.
- Bixler, R. D. and Floyd, M. F. (1997). Nature is scary, disgusting, and uncomfortable. *Environment and Behavior* 29(4), 443–467.
- Bloch, M., Carter, S., and McLean, A. (2010). Mapping America: Every city, every block [Interactive demographic map]. Retrieved from *The New York Times* website: <http://projects.nytimes.com/census/2010/explorer>. Accessed March 4, 2015.
- DeStefano, S. and DeGraaf, R. M. (2003). Exploring the ecology of suburban wildlife. *Frontiers in Ecology and the Environment*, 1(2), 95–101.
- Dietsch, A. M., Sexton, N. R., Koontz, L. M., and Conk, S. J. (2013). *National Wildlife Refuge visitor survey 2012: Individual refuge results for Rocky Mountain Arsenal National Wildlife Refuge* (U.S. Geological Survey Data Series 754). Retrieved from USGS website: <http://pubs.usgs.gov/ds/754/>. Accessed March 4, 2015.
- Elmendorf, W. F., Willits, F. K., and Sasidharan, V. (2005). Urban park and forest participation and landscape preference: A review of the relevant literature. *Journal of Arboriculture*, 31(6), 311–317.
- Haub, C. and Kaneda, T. (2014). *World population data sheet*. Retrieved from Population Reference Bureau website: [http://www.prb.org/pdf14/2014-world-population-data-sheet\\_eng.pdf](http://www.prb.org/pdf14/2014-world-population-data-sheet_eng.pdf). Accessed March 4, 2015.

- Lee, K. J. and Scott, D. (2011). Participation in wildlife watching: A multiple hierarchy stratification perspective. *Human Dimensions of Wildlife*, 16(5), 330–344.
- Louv, R. (2008). *Last child in the woods: Saving our children from nature-deficit disorder* (2<sup>nd</sup> ed.). Chapel Hill, North Carolina: Algonquin Books.
- Louv, R. (2011). *The nature principle: Reconnecting with life in a virtual age*. Chapel Hill, North Carolina: Algonquin Books.
- Morgan, D. L. (1996). Focus groups. *Annual Review of Sociology*, 22, 129–152.
- Nisbet, M. C., Markowitz, E. M., and Kotcher, J. (2012). Winning the conversation: Framing and moral messaging in environmental campaigns. In L. Ahern & D. Bortree (Eds.), *Talking green: Exploring current issues in environmental communication* (pp. 9–36). New York: Peter Lang.
- Sexton, N. R., Dietsch, A. M., Don Carlos, A. W., Miller, H. M., Koontz, L. M., and Solomon, A. N. (2012). *National Wildlife Refuge visitor survey results: 2010/2011* (U.S. Geological Survey Data Series 685). Retrieved from USGS website: <http://pubs.usgs.gov/ds/685/>. Accessed March 4, 2015.
- Shores, K. A., Scott, D., and Floyd, M. F. (2007). Constraints to outdoor recreation: A multiple hierarchy stratification perspective. *Leisure Sciences*, 29(3), 227–246.
- Snipp, C. M. (1996). Understanding race and ethnicity in rural America. *Rural Sociology*, 61(1), 125–142.
- U.S. Environmental Protection Agency (EPA). (n.d.). *Rocky Mountain Arsenal: From weapons to wildlife*. Retrieved from EPA website: <http://www.epa.gov/superfund/accomp/success/pdf/rma.pdf>. Accessed March 4, 2015.
- U.S. Fish and Wildlife Service (USFWS). (2011). *Conserving the future: Wildlife refuges and the next generation*. Retrieved from USFWS website: <https://www.fws.gov/refuges/pdfs/FinalDocumentConservingTheFuture.pdf>. Accessed March 4, 2015.
- U.S. Fish and Wildlife Service (USFWS). (2013). *National Wildlife Refuge System overview*. Retrieved from USFWS website: <https://www.fws.gov/refuges/about/pdfs/OverviewFactSheetApril2013.pdf>. Accessed March 4, 2015.
- U.S. Fish and Wildlife Service (USFWS). (2014). *Standards of Excellence*. <https://www.fws.gov/urban/soe.php>. Accessed March 4, 2015.
- U.S. Fish and Wildlife Service (USFWS). (2014). *Urban Wildlife Conservation Program: Know Your Community*. <http://www.fws.gov/urban/community.php>. Accessed March 4, 2015.
- U.S. Fish and Wildlife Service (USFWS). (2014). *Urban Wildlife Conservation Program: Urban Wildlife Refuge Partnerships*. <http://www.fws.gov/urban/partnerships.php>. Accessed March 4, 2015.