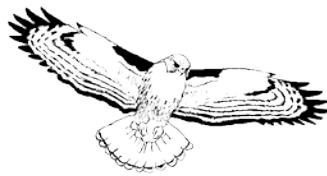


Hawks Aloft, Inc.
2015-16 Annual Education Report



2015 – 16 School Year



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Executive Summary

During the 2015–2016 school year Hawks Aloft successfully conducted 429 programs and reached 17,177 people. Partnerships with community organizations were strengthened, such as with Valle de Oro National Wildlife Refuge, Albuquerque Open Space Division, and our 2015–2016 Living with the Landscape schools: Cochiti, Matheson Park, La Mesa, Lew Wallace, and Los Padillas Elementary Schools. Silver City School District and nearby Cliff and Bayard schools received two weeklong visits from educators and Avian Ambassadors as an extension of our Living with the Landscape program, made possible through the generosity of PNM Resources. We believe that our relationships with these districts will strengthen in the future and increase the impact and depth of the Hawks Aloft Education program.

Hawks Aloft provided programs in five category areas: multi-visit Living with the Landscape, single-visit Birds of Prey, single-visit Reading with Raptors, Adult Programs, and Outreach Booths. In the 2015-2016 year, we conducted 243 Living with the Landscape classroom presentations, field trips, and conservation projects at five Title 1 elementary schools in the Albuquerque metro area and an additional six Title 1 schools in the Silver City and surrounding districts, reaching approximately 6,050 students and teachers. We also attended family conservation nights, which reached an additional audience of approximately 400-500 parents, guardians, and siblings. Hawks Aloft presented 79 single-visit Birds of Prey programs reaching 3,343 students and teachers. We presented 16 Reading with Raptors programs, reaching 395 pre-school, kindergarten, and first grade students. Adult Programs reached 617 participants across 25 programs. Outreach Booth events reached about 7,000 people and provided 100+ hours of community interaction.

This year, our valued grant funders and team of dedicated volunteers and educators were able to reach audiences across New Mexico and neighboring states such as Colorado and Arizona. This report details the programs Hawks Aloft participated in from June 2015–May 2016.

Introduction

Hawks Aloft, Inc. (HAI) is a New Mexico nonprofit 501(c)(3) organization, with 22 years of experience in the areas of avian research, conservation education, avian mitigation, raptor rehabilitation, and collaborative endeavors within New Mexico. The team is comprised of avian and wildlife biologists, environmental educators, wildlife rehabilitators, and support staff. Biologists and volunteer citizen scientists maintain a vast research network within the state that annually monitor populations of raptors and songbirds. The information gathered by our biologists was relayed to the public through our educators that taught youth and adults about ways to help protect wildlife and their habitats, assisted by our Avian Ambassadors, 25 non-releasable, permanently injured raptors that appear at outreach events and classroom presentations. School programs were offered free or at reduced cost to low-income schools when possible. Of the classrooms and students served in 2015-16, approximately 85-90% were classified as being low-income.

Our Avian Ambassadors

Hawks Aloft housed and cared for over 25 education birds, specifically trained for school programs and booth events. Each of these birds has been compromised in some way through human interaction resulting in permanent injury, making them non-releasable. Avian Ambassadors were provided with superior housing, a natural diet, and veterinary care in order to comfortably live out their lives. Avian Ambassadors live in specially constructed flight cages, called mews, which were adapted to suit their disabilities. With the support of local veterinarians, our staff and volunteers rescued and rehabilitated injured and orphaned raptors, providing non-releasable birds with a second chance at life and the opportunity to positively impact the community.

Our education team worked with native species observed throughout New Mexico during various seasons. Avian Ambassadors include: American Kestrels, Merlins, Prairie Falcons, a Ferruginous Hawk, Red-tailed Hawks, Swainson's Hawks, a Rough-legged Hawk, Western Screech-Owls, an Eastern Screech-Owl, Great Horned Owls, a Burrowing Owl, a Barn Owl, a Long-eared Owl, a Northern Saw-whet Owl, and one American Crow.



Our Educational Programs

We provided a unique experience for students in New Mexico to gain an understanding of the natural world by bringing it into the classroom in the compelling form of live raptors. Our specially tailored education programs were developed for various ages, audiences, and the unique goals of each class. Educational programs were separated into five categories: Living with the Landscape (LWL), Birds of Prey (BOP), Reading with Raptors (RWR), Adult Programs, and Outreach Booths. LWL, a multi-visit program, was entirely subsidized by grant funders (see list of grant funders, Table A-1). Birds of Prey, a single-visit program, was provided to schools across New Mexico at a nominal cost, and always delivered free or at a reduced cost to Title 1 schools. Our 45-minute program for preschool to first grade students, Reading with Raptors, was developed specifically for the youngest audience. Our Adult Programs included bird identification classes, radio talk shows, and TV appearances. At Outreach Booths the public interacted with Hawks Aloft representatives and learned more about native birds of prey in an informal setting. Table A-2 in the Appendix summarizes our programs for the 2015-2016 school year.

Birds of Prey Program

The BOP program was designed for a single classroom visit, highlighting the adaptations of raptors and other species. The program was tailored to all grade levels, from kindergarten to adult learning environments, focusing on topics requested by the teacher or organizer. In this hour-long program, our educators brought two avian ambassadors into the classroom, as well as bird bones and feathers for the students to handle. Our staff also led the students in age-appropriate educational games designed to be interactive, hands-on learning experiences.

During the past school year, we presented 79 Birds of Prey programs reaching approximately 3,343 students throughout Albuquerque and the surrounding cities (see Appendix, Table A-3). The most common topics covered were biological adaptations and ecology of raptors, which were conceptualized through the presentation of two avian ambassadors. We often played the dress-a-raptor game, where students reviewed the physical adaptations of raptors as they dressed their teacher or fellow student as an imaginary hawk. Some schools requested other topics such as endangered species, habitat loss, and migration.



Reading with Raptors Program



RWR was designed for New Mexico's youngest naturalists—preschool, kindergarten, and first grade students. This 30–60 minute program consisted of reading a picture book, meeting a small raptor such as a Western Screech-Owl or an American Kestrel, and one of three enrichment activities: the opportunity to touch and feel feathers; a food chain puppet show; or the build-a-raptor activity. Our most popular book has long been *Owl Babies* by Martin Waddell. When this book was read, we also presented a small owl. Our Avian Ambassadors provided each group with an opportunity to discuss bird habitats, diet, and the similarities and differences between our live owls and the owls in the book. Another popular reading choice was *City Hawk: The Story of Pale Male* by Meghan McCarthy. Along with this book, we presented a small falcon, usually an American Kestrel or Merlin. This book and presentation were well suited for schools that, due to cultural sensitivity, requested that no owls be used in the program.

The “touch and feel a feather” activity was requested most often. Students worked in small groups to examine feathers using their senses of touch, sight, and hearing. These young learners were encouraged to gently open the feather with their “beak” (thumb and pointer finger) and then “preen” or “zip” their feather together. At the end, each student was encouraged to share descriptive words about their feather. Older students participated in a guessing game to determine which feathers were from owls and which were from hawks by utilizing their senses of hearing and touch.

The food cycle puppet show also was consistently popular. This activity began by illustrating how the sun and rain helped a corn stalk grow that, in turn, fed the chicken, who then laid eggs. The cycle reached completion when humans used the eggshells as fertilizer for the soil in order to grow more corn.

Another enrichment activity designed for this program was the build-a-raptor game. It provided students with a hands-on way to further explore bird adaptations. During this portion of the class, students helped the educator build a raptor by identifying body parts that all raptors possess and explaining why those adaptations are essential for survival.

Reading with Raptors is purposefully brief to maintain engagement with very young students, while still powerfully communicating information about raptor adaptations and food cycles. This year, we presented 16 programs that reached 395 preschool, kindergarten, and first grade students (see Appendix, Table A-4). Students were provided with a brief introduction of the Hawks Aloft Avian Ambassadors, each lasting about five to ten minutes, handled feathers and learned about the work of Hawks Aloft.

Living with the Landscape

LWL is an application-based, multi-visit school program, provided free to Albuquerque and Silver City Title 1 schools through the generous funding of various foundations, corporations, and individuals. Students in selected schools participated in programs throughout the school year. Kindergarten, first, second, and third grade classrooms received two visits each; one explored raptor adaptations, and the other examined habitat fragmentation. Fourth and fifth grade students received three classroom programs, covering migration, fire ecology, and watersheds. In addition, Albuquerque area fifth grade learners participated in a fully grant-funded field trip to Elena Gallegos Open Space or Valle de Oro National Wildlife Refuge. Fifth grade students also implemented a conservation project that they maintained throughout the school year, enabling students to actively improve their school and community. Projects in the past have included planting native plants in the school courtyard to attract wildlife, construction and installation of birdhouses or feeders, and awareness about recycling.

We administered LWL to five schools in Albuquerque during the 2015-2016 school year. We offered an abbreviated version at Harrison Schmitt, Bayard, and Sixth Street Elementary Schools in Silver City, as well as Cliff School, and Silver High School with funds provided by PNM Resources. Among all schools receiving this program, we reached approximately 6,050 students over the course of 243 programs (see Appendix, Table A-5). A description of each school follows.

Cochiti

Cochiti Elementary School is located in northwest Albuquerque. The student population totaled 289 during the 2015-2016 school year, with two to three separate classes in each grade level. Over 10 visits, we held 35 individual programs, and spent a total of 41.5 hours with the students. For their conservation project, the fifth grade students made soda bottle and milk carton bird feeders and learned about the importance of recycling. Students participated in a trash sorting activity to understand the amount of recyclables thrown out daily. Students learned about the “life cycle” of trash and considered what happened after it was picked up at the curbside. Fourth and fifth grade students visited Valle de Oro National Wildlife Refuge for their field trip in May. There, they learned about the Middle Rio Grande Bosque and viewed avifauna, amphibians, and busy isopods. Lucky students caught a glimpse of a soaring Swainson’s Hawk and coyotes running through the farm fields as the buses pulled away from Valle de Oro and headed back to school.

Lew Wallace

Lew Wallace Elementary School is located in Downtown Albuquerque. The school had two to three classes per grade level, with a total of 298 students. Throughout the course of the school year, we visited Lew Wallace 10 times and delivered 33 programs, totaling 40 teaching hours. Fifth grade students installed a bird feeder station, built and installed a bluebird box, and constructed recycled bird feeders. The bird feeder station and bluebird box were installed in the front courtyard of the school.

For their field trip, the fourth and fifth grade students of Lew Wallace went to the Valle de Oro National Wildlife Refuge where fifth grade students enjoyed a cloudy day at the bosque spotting birds with binoculars and exploring their surroundings. The next day, fourth grade students had a different experience as it was hot and sunny at Valle de Oro NWR. They learned about the history of the bosque, its rapid change in recent years, and potential impacts to resident wildlife.

La Mesa Elementary School

La Mesa Elementary School is located in northeast Albuquerque adjacent to the state fairgrounds, the largest LWL school served during the 2015-16 school year with a total of 744 students. Each grade level consisted of four to six classes. We visited 14 times and delivered 62 programs for a total of 59.5 hours of enrichment. Fifth grade students installed a bird feeder station and built bluebird boxes and bird feeders. At this school, due to the large size of the student body, no field trips occurred, however extra time was spent in the classrooms.

Los Padillas

Los Padillas Elementary School, located in southwest Albuquerque, had 280 students with one to two classes per grade level. We visited the school nine times for 26 programs and spent about 30.5 hours with the students there. The school has an outdoor classroom, wildlife sanctuary, and pond adjacent to the school. For their conservation project, students in fifth grade used trail maintenance tools (scuffle hoes, shears, loppers, and shovels) to clear trails and maintain and improve the outdoor classroom and pond.



Since students at this school were familiar with the bosque habitat around their school, school staff requested we take students to the Sandia foothills. Students in fourth and fifth grade enjoyed Elena Gallegos Open Space where they observed the plants and wildlife of the foothills on a nature hike and viewed birds like Steller's Jays from an established bird blind.

Matheson Park

Matheson Park Elementary School, located in northeast Albuquerque, had a student population that totaled 316 during the 2015-2016 school year, with two to three separate classes in each grade level. Over the course of 11 visits, we held 35 individual programs, and spent a total of 40.5 hours with students. For their conservation project, fifth grade students made bluebird boxes and bird feeders and installed a bird feeder station. Students in fourth grade went to Elena Gallegos Open Space in the foothills and fifth grade students visited Valle de Oro Wildlife NWR. Groups learned about each of the unique habitats and the resident wildlife.

Silver City Programs

We offered an abbreviated version of LWL at Harrison Schmitt, Bayard, and Sixth Street Elementary Schools, as well as Cliff School, and Silver High School. Harrison Schmitt, Sixth Street, and Cliff schools each received two visits with educators and Avian Ambassadors focusing on biology, ecology, literacy, and a general sense of appreciation for raptors, watersheds, and concerns regarding habitat fragmentation. Bayard Elementary School received one visit, where we presented the easily adaptable Birds of Prey lesson. Silver High School invited us to meet with special education classes, where we focused on the touch and feel bird parts and feathers activity. Across eight visits to Silver City, we presented 52 programs during more than 52 classroom hours and reached 1,223 participants.

Adult Programs

Adult Programs were customized and designed to meet the needs of each distinct group. This year, they reached 617 participants and included birding tours, lectures, and specialized training classes that covered a wide range of topics including basic bird biology, identification, and natural history. Tours were often conducted in conjunction with a larger event, such as the Festival of the Cranes at Bosque del Apache National Wildlife Refuge in New Mexico and the Monte Vista Crane Festival in Monte Vista, Colorado (see Appendix, Table A-6). The tours taught participants the basics of raptor identification in the field. Lectures took place in a variety of settings and explored a multitude of topics appropriate for adult learners. We also provided specialized training classes for our members and volunteers, covering topics such as raptor handling, raptor monitoring methods, raptor rescues, and general outreach. These programs, along with our more typical adult lectures and tours, helped us gain diverse audiences throughout New Mexico.

Outreach Events

In the past year, we reached approximately 6,712 people at outreach events. Volunteers and staff fielded questions about the habits and injuries of the raptors on display and used these events as a platform to engage in a community dialogue on conservation issues (see Appendix, Table A-7). We traveled to events throughout New Mexico and the neighboring states of Colorado and Arizona. We typically brought four to five educational ambassadors to these events, although as many as 10 avian ambassadors were present at some events. Some of our largest events of the past year were the weeklong Festival of the Cranes at Bosque del Apache National Wildlife Refuge, Monte Vista Crane Festival in Monte Vista, Colorado, and the Navajo Nation ZooFest in Window Rock, Arizona.



Funding Information

Our school programs were delivered at a reduced cost or entirely free of charge to Title 1 schools as a direct result of contributions from our generous funders. During the 2015-2016 school year Albuquerque Community Foundation (ACF), PNM Resources Corporate Giving, Larry and Anna Harris Family Foundation, and Chevron funded the majority of the LWL programs. The single-visit Birds of Prey programs were funded by Monster Energy and private donations, which provided free or reduced cost programs for 31 individual events, reaching over 1,363 students. Table A-1 in the Appendix details the number of programs and individuals reached by each donor.

Discussion

Living with the Landscape is the centerpiece of our education programs, offered to low-income schools in Albuquerque and Silver City. The program's effect is measured through pre- and post-testing, administered to fourth and fifth grade students. Students completed pre- and post-surveys to measure retention of basic facts about raptors and students' understanding of conservation issues in New Mexico, such as watersheds and fire in the bosque. Across all schools that received the program, students scored significantly higher on post-tests than on pre-tests ($t(464) = 8.49, p < 0.0001$) for four basic raptor facts. La Mesa, Los Padillas, and Matheson Park school staff and administrators successfully administered and delivered pre- and post-tests to Hawks Aloft staff. Each school showed an increase in knowledge retention of basic raptor facts and a better understanding of watersheds and fire in the bosque. (see Appendix, Graph 1.)

During the 2015-16 school year, we introduced the fire ecology unit to the LWL program. In part, the fire ecology lesson was developed in response to recent fires that have occurred across New Mexico and the greater Southwest region. In the Albuquerque area, especially in the bosque, fire is of great concern, due to multiple conservation issues, in combination with extensive development adjacent to the riparian corridor. Students that participated in the program discussed the causes of wildfires, compared healthy and unhealthy forests through a role-playing game, and discussed positive and negative impacts they observed throughout the activity. By the end of the lesson, students had a greater understanding of fire ecology. In general, more students answered "no" to the test question "Is fire ALWAYS bad for the environment?" on post-tests as compared to pre-tests (In the pre-test 103 students answered "no," in the post-survey 163 answered "no.") Overall, results showed an increase in knowledge about basic bird biology and a better understanding of fire ecology.

A general lack of response by some school staff and administrators added difficulty to the data collection process at the beginning and end of the school year. Post-tests were not successfully administered and returned from Cochiti and Lew Wallace Elementary Schools. Testing expectations were discussed at the start of each school year and reminders were sent throughout the year. In the future, Hawks Aloft staff will administer pre- and post-tests. This will improve data collection and analysis.

Conclusion & Future Directions

We reached more participants during the 2015–16 school year than previous years due to the addition of visits to Silver City and Ruidoso school districts, as well as invitations to new events and programs throughout the year. The Hawks Aloft education team has been working on a virtual education program, which would use Skype to deliver lessons to remote schools. We anticipate launching the pilot phase of this program, including satellite kits and digital teaching tools, in the spring of 2017. We anticipate this new education tool will enable us to reach additional populations that do not have the financial means to support itinerant hosting an education programs like ours.

Another new development will be Quick Lesson Tools, developed for 15-20 minute rotations in a large assembly situation. These visual props would introduce small lessons graphically, covering topics such as pesticides, watersheds, and food chains quickly and effectively.

During the 2016-2017 school year, we plan to deliver our Living with the Landscape program to three Title 1 elementary schools in the Albuquerque area, visit Silver City schools twice, and possibly conduct programs in Truth or Consequences, New Mexico. We also hope to offer the Birds of Prey program free of cost to all Title 1 schools that request it.

Acknowledgements

We thank the Albuquerque Community Foundation, Chevron Corporation, PNM Corporate Giving, Monster Energy, the Harris Family Foundation, and private donors, as well as the dozens of individual organizations whose donations allowed us to deliver programming.

This report was written by Julia Davis. It was reviewed by Maggie Grimason, Trevor Fetz, and Gail Garber. Educational programs were conducted by Julia Davis, Elizabeth Roberts, Gail Garber, Lisa Morgan, Laurie Marnell, Taylor Tvede, Maggie Grimason, Amanda Schluter, and our many dedicated volunteers. The cover image was taken by Steve Elkins.

Appendix

Table A-1: Number of Programs Provided by Each Funder 2015-2016

The impact of each donor is described in the table below including information on the type of program and its reach

Funder	Program Type	# Programs	# People
ACF	LWL	68	1,753
PNM Corporate Giving	LWL	175	4,297
Harris Family Foundation	LWL	18	260
Monster Energy Drink	BOP	25	1,123
Private Donations	BOP	6	120
	Total	292	7,553

Table A-2: Summary of Programs 2015-2016

Table A-2 outlines the programs delivered by Hawks Aloft, their frequency, and the volume of people reached

Program Type	Audience Type	Number of Programs	Number of People
Living with the Landscape: Multi-visit program	Elementary Students	243	6,050
Birds of Prey: Single visit program	Elementary, Middle and High school Students	79	3,343
Reading with Raptors: Single visit program	Preschool and Kindergarten Students	16	395
Adult Programs: Single visit program	Adults	25	617
Outreach: Booth events	All Ages	66 (100 hours total)	6,772
	Total	429	17,177

Table A- 3: 2015-2016 Bird of Prey Programs

Information, including the location of events, number of hours spent at each event, the content delivered, the approximate age of participants, and the total reach, was carefully tracked throughout the year and is summarized in Table A-3

Location	# Programs	# Hours	# People	Grade Level	Program Content
Hawthorne Elementary School	1	1.5	55	K - 5	Title One Homeless Project
Bishop's Ridge Camp Stoney	1	1	50	4th - 8th	Birds of Prey
Jemez Valley Middle School	1	1	29	7th	Birds of Prey
MacArthur Elementary School	2	1.5	77	4th - 5th	Watersheds and Fragmentation
Colinas del Norte Elementary School	4	4	105	2,3,4,5	Birds of Prey
Twin Buttes High School	1	1	40	11,12	Birds of Prey
Sandia Mountain Natural History Center	1	1	55	All	All About Owls
Wilson Middle School	1	1	30	6,7,8	Birds of Prey
La Promesa After School Program	2	2	16	K,1,2,3	Birds of Prey
Silver City Library	1	1	68	All	Birds of Prey
Harrison Schmitt Elementary School	8	8	192	4th, 5th	Birds of Prey
Sierra Vista Primary School	4	4	160	1st, 2nd	Birds of Prey
White Mountain Elementary School	5	5	240	3,4,5	Birds of Prey
Sierra Vista Primary School	4	4	160	1st, 2nd	Birds of Prey
White Mountain Elementary School	5	5	228	3,4,5	Birds of Prey
Vista Grande Elementary School	2	2	100	1,5	Bird Bits and Dress-a-Raptor
Heights Cumberland Presbyterian Church	1	1	18	1 - 5	Bird bits and feathers
Vista Grande Elementary School	2	2	140	2, 4	Bird bits and Dress-a-Raptor
Vista Grande Elementary School	2	2	200	K, 3	Bird Bits and Dress-a-Raptor
Mitchell Elementary School	1	1.5	100	All	Science Night Booth
Manzano Day School	2	2	60	3	Bird Bits and Dress-a-Raptor
Wilson Middle School	6	6	120	6th	Bird bits and feathers
Lake Valley Navajo School	2	2	40	1 - 8	Bird Bits and Dress-a-Raptor
Los Rancho Elementary School	2	2	50	3	Bird Bits and Dress-a-Raptor
North Valley Academy	3	3	250	K- 5	Bird Bits and Dress-a-Raptor
DLD Sycamore	2	2	40	K - 5	Bird Bits and Dress-a-Raptor
Alvarado Elementary School	1	2	30	K - 5	Birds of Prey and Migration Madness
MacArthur Elementary School	3	3	300	K - 5	Birds of Prey
Wherry Elementary School	3	3	120	K - 5	Bird Bits and Dress-a-Raptor
Wherry Elementary School	3	3	120	K - 5	Bird Bits and Dress-a-Raptor
Sierra Vista Elementary School	3	3	150	3rd	Bird Bits and Dress-a-Raptor
Total:	79	80.5	3343		

Table A- 4: 2015-2016 Reading with Raptors Programs

RWR, our program for students in preschool through first grade, reached more than 800 students during the 2014-2015 2015-2016 school year. Table A-4 indicates the location, number of programs, and total students we worked with for each participating school

Location	# Programs	# Hours	# People	Program Content
Los Ninos Elementary School	1	1	35	Reading with Raptors
Nob Hill Early Childhood Center	14	4	350	Feathers and Storybook
Lake Valley Navajo School	1	1	10	Feathers and Storybook
Total:	16	6	395	

Table A- 5: 2015-2016 Living with the Landscape

Table A-5 highlights the various schools reached during the 2015-2016 LWL program and summarizes the programs, grade levels, content, and number of students reached at each.

Location	# Programs	# Hours	# People	Grade Level	Program Content
Cochiti Elementary School	2	1.5	55	5	Conservation Project
Cochiti Elementary School	6	6	120	2, 3, 4	Migration, Birds of Prey
Cochiti Elementary School	6	6	158	3, 4, 5	Fire Ecology and Fragmentation
Cochiti Elementary School	7	7	110	Pre-K, K, 1	Reading with Raptors
Cochiti Elementary School	6	6	120	1, 2, 5	Reading with Raptors, Birds of Prey, Fragmentation
Cochiti Elementary School	3	3	65	K, 4	Reading with Raptors and Watersheds
Cochiti Elementary School	2	2	40	K, 4	Reading with Raptors and Watersheds
Cochiti Elementary School	1	2	100	All	Family Conservation Night
Valle del Oro National Wildlife Refugee	1	4	60	5th	Cochiti 4th Grade Field Trip
Valle del Oro National Wildlife Refugee	1	4	60	4th	Cochiti 5th Grade Field Trip
Lew Wallace Elementary School	2	1.5	50	5	Conservation Project
Lew Wallace Elementary School	3	3.5	68	2,3,4	Birds of Prey and Fire Ecology
Lew Wallace Elementary School	4	4	82	K,2,3,4	Birds of Prey and Fire Ecology
Lew Wallace Elementary School	6	6	120	K, 1, 5	Reading with Raptors and Watersheds
Lew Wallace Elementary School	6	6	120	2, 3, 4	Watersheds, Fragmentation
Lew Wallace Elementary School	6	6	140	K, 1, 5	Reading with Raptors, Birds of Prey, and Fire Ecology
Lew Wallace Elementary School	3	3	65	K, 4	Reading with Raptors, Migration, Fire Ecology
Lew Wallace Elementary School	1	2	100	All	Family Conservation Night
Valle del Oro National Wildlife Refugee	1	4	60	4	Lew Wallace 4th Grade Field Trip
Valle del Oro National Wildlife Refugee	1	4	60	5	Lew Wallace 5th Grade Field Trip
La Mesa Elementary School	6	3	150	5th	Conservation Project
La Mesa Elementary School	4	4	120	K, 4th	Birds of Prey and Reading with Raptors
La Mesa Elementary School	4	4	117	K, 3	Birds of Prey and Reading with Raptors
La Mesa Elementary School	3	3.5	112	1,2,3	Birds of Prey
La Mesa Elementary School	6	6	160	K, 4, 5	Reading with Raptors and Watersheds
La Mesa Elementary School	7	7	120	1, 2, 4, 5	Watersheds, Birds of Prey
La Mesa Elementary School	5	5	100	3, 5	Fragmentation, Watersheds, Fire Ecology
La Mesa Elementary School	5	5	102	2, 3, 5	Fire Ecology, Fragmentation
La Mesa Elementary School	6	6	140	1, 2	Reading with Raptors and Birds of Prey
La Mesa Elementary School	5	5	105	2, 4, 5	Fragmentation, Fire Ecology
La Mesa Elementary School	6	6	100	1	Bird Bits and Dress-a-Raptor
La Mesa Elementary School	4	4	100	4	Reading with Raptors and Fire Ecology
La Mesa Elementary School	1	1	100	All	Family Conservation Night
Los Padillas Elementary School	3	3	56	K - 1	Reading with Raptors
Los Padillas Elementary School	3	3	80	4th, 5th	Watersheds
Los Padillas Elementary School	3	3	56	K, 1st	Birds of Prey
Los Padillas Elementary School	4	4	64	1,2,3	Birds of Prey and Reading with Raptors
Los Padillas Elementary School	3	3	80	4, 5	Fire Ecology
Los Padillas Elementary School	3	3.5	50	Pre-K, 4th	Reading with Raptors and Migration
Los Padillas Elementary School	4	4	64	2,3,4	Fragmentation and Reading with Raptors
Los Padillas Elementary School	2	3	47	5th	Conservation Project
Elena Gallegos Open Space	1	4	80	4th and 5th	Los Padillas 4/5 Field Trip
Matheson Park Elementary School	2	3	55	5th	Conservation Project
Matheson Park Elementary School	4	3.5	105	1st, 3rd, 4th	Migration, Birds of Prey, and Reading with Raptors
Matheson Park Elementary School	3	3	63	2,3	Birds of Prey
Matheson Park Elementary School	3	3	76	K, 1st	Reading with Raptors
Matheson Park Elementary School	6	4	134	K,1,2,5	Reading with Raptors, Birds of Prey, and Watersheds
Matheson Park Elementary School	4	4	71	1,3,4	Reading with Raptors, Fire Ecology, and Fragmentation
Matheson Park Elementary School	6	6	100	2, 3, 5, K	Reading with Raptors, Fire Ecology, Watersheds
Matheson Park Elementary School	4	4	77	1, 2, 3, 4	Birds of Prey, Fragmentation, Watersheds
Matheson Park Elementary School	1	2	200	All	Family Conservation Night
Elena Gallegos Open Space	1	4	40	4	Matheson Park 4th Grade Field Trip
Valle de Oro National Wildlife Refuge	1	4	50	5	Matheson Park 5th Grade Field Trip
Harrison Schmitt Elementary School	8	8	192	4th, 5th	Birds of Prey
Sixth Street Elementary School	6	6	125	K - 5	Birds of Prey
Cliff Schools	7	7	176	K - 6th	Birds of Prey
Sixth Street Elementary School	4	4	150	K,1,2,3,4,5	Watersheds, Birds of Prey, Reading with Raptors
Harrison Schmitt	8	8	160	4,5	Watersheds, Fragmentation
Bayard	9	9	200	1,2,3,4,5	Birds of Prey, Reading with Raptors
Silver High School	1	1	20	9,10,11,12	Bird Bits and Feathers
Cliff School	9	9	200	K - 12	Reading with Raptors, Birds of Prey, Watersheds, Fragmentation
Total:	243	264	6050		

Table A- 6: 2015-2016 Adult Programs*Table A-6 lists adult program that took place*

Location	# Programs	# Hours	# People	Program Content
Albuquerque Community Foundation	1	1	15	Grant Presentation
Gail's House	1	1	6	Personal Tour
Albuquerque Community Foundation	1	0.5	4	Grant Check Pick up
Hawks Aloft Office	1	2	15	Raptor Handling Class
Bosque Del Apache NWR	1	1.5	33	All About Owls
Bosque Del Apache NWR	1	1.5	35	Life and Times of New Mexico Raptors
Bosque Del Apache NWR	1	1.5	35	Raptor Identification
Oasis - Albuquerque	1	1.5	60	All About Owls
Gila Library Program	1	1	43	Birds
Raptor Handling Class	1	2	11	Raptor Handling
Monte Vista Crane Festival	2	4	30	Raptor Tours
Monte Vista Crane Festival	2	4	30	Raptor Tours
OASIS	1	2	70	Life and Times of N. American Raptors
HAI Docent Training	1	3	15	Introduction to HAI
HAI Office	1	2	12	Raptor Handling Class
HAI Office	1	2	12	Raptor Handling Class
Meadowlark Senior Center	1	2	50	All About Owls
HAI Office	1	2	10	Raptor Handling Class
Bosque Del Apache NWR	1	2	30	Festival of the Cranes - Raptor Tours
Bosque Del Apache NWR	2	3	31	Festival of the Cranes - Raptor Tours
Bosque Del Apache NWR	1	2	20	Photo Shoot
Silver City Service Center	1	1.5	50	All About Owls
Total:	25	43	617	

Table A- 7: 2015-2016 Outreach Events

Table A-7 describes each individual outreach events undertaken by Hawks Aloft staff and volunteers. The table indicates total hours, number of programs, and individuals reached.

Location	# Programs	# Hours	# People	Grade Level	Program Content
Albuquerque Marriot	1	1	125	Adult	Beta Sigma Phi State Convention
Albuquerque BioPark Tingley Beach	2	4	150	All	National Get Outdoors Day
Pueblo of Isleta	2	4	200	Adult	Isleta Environmental Fair
McKee Wallwork + Co	3	5	100	Adult	Mariposa Grand Opening Booth
National Fish & Wildlife Building	2	3	14	Adult	Hawks Aloft Docent Orientation
Valle del Oro NWR	2	2	100	All	Environmental Justice Booth
Wild Birds Unlimited	3	5	250	Adult	Anniversary Event
Valle del Oro NWR	3	5	300	All	3rd Birthday Celebration
Bosque Education Day	1	1	20	All	Birds of the Bosque
Bark for Life	3	3	150	All	Bark for Life
Open Space Visitor Center	4	7	200	All	Return of the Cranes Festival
Bosque Del Apache NWR	3	6	500	All	Festival of the Cranes - Booth
Bosque Del Apache NWR	3	5	100	All	Festival of the Cranes
Monte Vista Crane Festival	1	2	100	All	Outreach Booth
Monte Vista Crane Festival	4	7	600	All	Outreach Booth
Monte Vista Crane Festival	2	2	200	All	Outreach Booth
Jewish Community Center	1	1	150	All	Outreach Booth
Grants Agricultural Day	3	6	700	2nd & 6th	Grants Agricultural Day
Valle del Oro National Wildlife Refugee	7	5	200	K - 4	Mountain View Field Day
Navajo Nation Zoo	3	5	1,853	All	Booth
Gallup Water Festival	10	8	300	4 - 8	Bird Bits and Dress-a-Raptor
Eubank Elementary School	1	1	100	All	Book Fair Booth
Valle de Oro National Wildlife Refuge	2	4	300	All	Booth
Total:	66	92	6712		

Graph 1: Living with the Landscape Pre-Test and Post-Test Comparison

Graph 1 shows knowledge retention of basic raptor facts and students understanding of conservation issues in New Mexico (watersheds and fire in the bosque) as a result of participation in the Living with the Landscape program.

