



2014 WINTER BIRD COUNT



Figure 1-Wetland Eagles

9/24/2015

Coordinated by the Gila River Indian Community
Department of Environmental Quality

The Winter Bird Count is a growing event that is inspired by the National Audubon Society's Christmas Bird Count, which is over 100 years old. The Winter Bird Count is a bird census, where hundreds of volunteers count birds, promoting cultural and environmental awareness within the Community.

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Introduction

Started in 1998, the Winter Bird Count is an annual event that promotes cultural and environmental awareness within the Community. Birds not only represent our culture, but also indicate the state of the environment around us. This special event features over 80 local and wintering bird species that call the Community's environment home. Northern harriers, bufflehead ducks, white-crowned sparrows, and gila woodpeckers are among the birds observed each year. The number of birds observed, or abundance, is influenced by several factors, which include weather, the number of field participants observing the birds, as well as the number of sites visited.

The cultural aspect of the Winter Bird Count brings together the Community, especially youth and elders, to share and celebrate cultural ties to the birds of the Community. Culturally enriching bird songs, dances, and stories at the event are shared by knowledgeable cultural leaders of the Community. Field information gathered through the event is useful in understanding bird population trends and habitat usage over time.

The GRIC DEQ coordinates the Winter Bird Count and partners with the Huhugam Heritage Center, Audubon Society, Tribal Rangers, and cultural leaders within the Community. Additionally, the Huhugam Heritage Center annually contributes a cultural perspective passage for the Winter Bird Count report.

FACT: There are around 10,000 different species of birds



Figure 2-Observations in District 6

Summary of the 2014 Winter Bird Count Activities

The 2014 Winter Bird Count was held on Saturday, February 7, 2015. Annually, the event takes place on the first Saturday of December, but due to the Community's sponsorship of the Super Bowl, the 2014 Bird Count was postponed until February 2015. The 2014 event included field and cultural activities, lunch, and environmental education activities. Community participants included youth, elders, families, Council Members, and Miss Gila River.

Field activities were conducted in the morning from 7:00 a.m. to approximately 11:00 a.m. Participants were organized into teams at two staging areas, the District 5 Shell Station and the District 6 Chevron Station. From the staging areas, teams went out to designated sites to observe birds in the area. To assist with field activities, participants were provided with binoculars and bird identification books. Participants were assisted in the field by DEQ staff, volunteer GRIC staff, and Audubon volunteers, from both the Maricopa

FACT: Birds have hollow bones which help them fly.

and Sonoran Audubon Society. The Audubon Society participation provides useful information in identifying birds and explaining the relationship of the bird and the environment. Approximately 120 people participated in the field activities.

Lunch and cultural activities were held at the Huhugam Heritage Center. Activities included bird dancing and singing, cultural history storytelling, and an Arizona Game & Fish Department educational exhibit, all that provided participants with a sense of cultural and environmental awareness. A cultural presentation was provided by Robert Johnson, of the Huhugam Heritage Center, on the significant cultural and natural history of the local and wintering birds. Approximately, 200 people participated in the lunch and cultural activities.

FACT: More than 70 different bird species have been observed drinking nectar from hummingbird feeders.



Figure 3-Cultural activities held at the Huhugam Heritage Center

Field Locations

Site 1: Sacaton

Two locations on the fringes of the Community's capital. Bring your duck calls as they are plentiful.

Site 2: Fox Butte

A holding pond quietly nestled amidst agricultural fields near the old fish hatchery.

Site 3: St. Johns / Broad Acres

Two locations on either side of St. Johns village, a good mixture of birds can be found along the canal system.

Site 4: 960 Sump

A holding pond, southwest of the internment camps within the Gila River Farms agricultural district.

Site 5: Gila Butte

Located At the base of the culturally historic Aji mountains near the Gila River.

Site 6: Pee Posh Wetlands

Just north of Pee Posh village center, this Salt River floodplain wetlands is home to many birds of prey.

FACT: At least 4,000 species of bird are regular migrants, which is about 40 percent of the total number of birds in the world. (Although this number will likely increase as we learn more about the habits of birds in tropical regions.)

Site 7: Resort, Wastewater Treatment

These wastewater lagoons attract many kinds of birds over multiple viewing sites

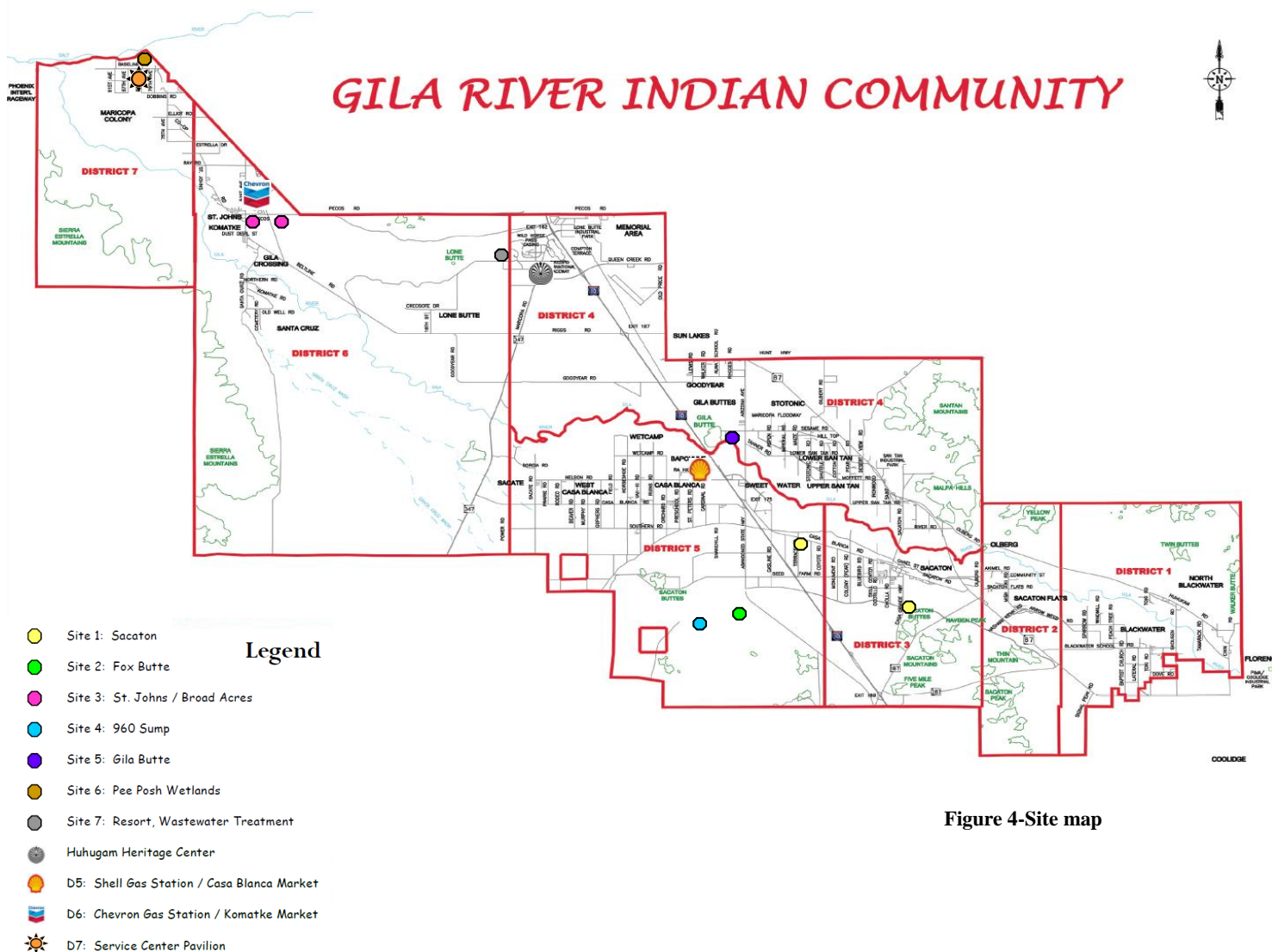


Figure 4-Site map

Field Results of the 2014 Winter Bird Count

A total of 7,592 birds comprised of 97 species were observed at 7 sites across the Community. The seven different sites indicated in the map above were all included in the 2014 count, with Sites 5 & 7 being combined due to the number of participants available to observe. The abundance of birds and richness of species for the 2014 Winter Bird Count were above average when compared to previous Count years. Field tallies for sites visited are attached to this report and discussed in the following charts.

FACT: Hummingbirds beat their wings as fast as 50 times per second, the fastest of any bird on the planet. This speedy wing beat, plus a rotating wrist joint, allows a hummingbird to hover in place, to fly backwards and upside down, and to catch tiny flying insects.

Number of Birds

Figure 6 presents the abundance of birds at each site in 2014. The site with the greatest abundance at 4,003 birds was Site 4, which is near the area of a holding pond southwest of the internment camps within the Gila River Farms agricultural district.

Site 4's most abundant birds were the Mourning Dove at 600 and the Lark Bunting at 710. The most abundant bird at Site 1-Sacaton and Site 2-Fox Butte, was the American Widgeon Duck. At Site 3-St. Johns/Broad Acres and Site 4-960 Sump, the Mourning Dove was the species sighted the most. For the combined group observing at both Site 5-Gila Butte and Site 7-Resort/Wastewater Pond, approximately 1000 Violet-Green Swallows were observed. Lastly, at Site 6-Pee Posh Wetlands, 42 White-Crowned Sparrows were spotted.



Figure 5-Field activities in District 6

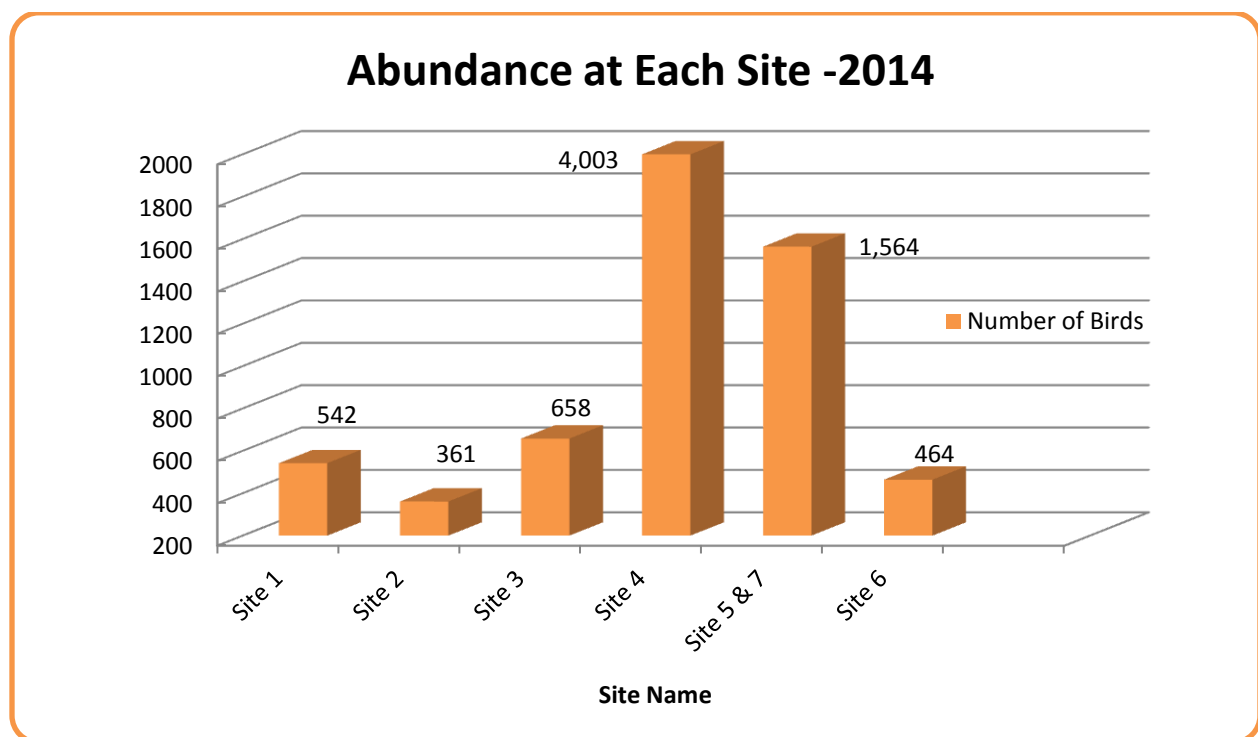


Figure 6-Abundance at Each Site

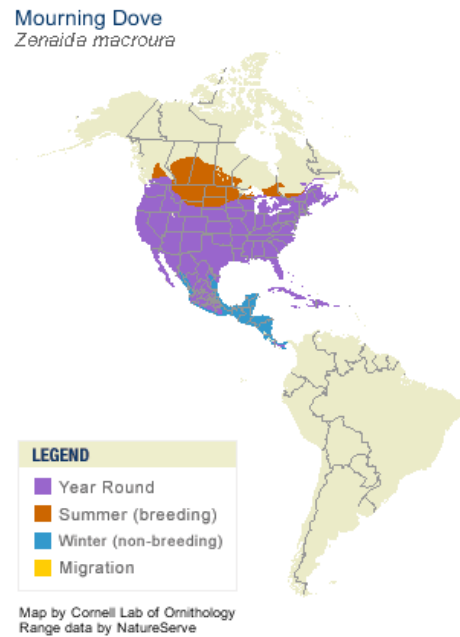
Bird Spotlight

Mourning Dove

Mourning Doves are common across the North American continent and considered a species frequently hunted. Mourning Doves can be spotted feeding in a busy manner, in which they are swallowing and storing a large amount of seeds in their esophagus. They then fly off to perch on a branch to consume their meal.



Figure 7-Mourning Dove with range map

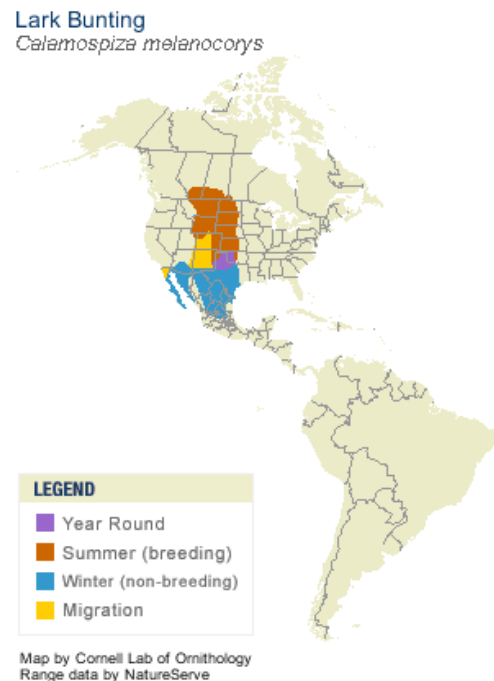


Lark Bunting

The Lark Bunting is a common sparrow. The male Lark Bunting, pictured below, is unique for having the ability to change from a bright, vibrant black and white color during breeding season, to a grayish-brown during non-breeding season.



Figure 8-Lark Bunting with range map



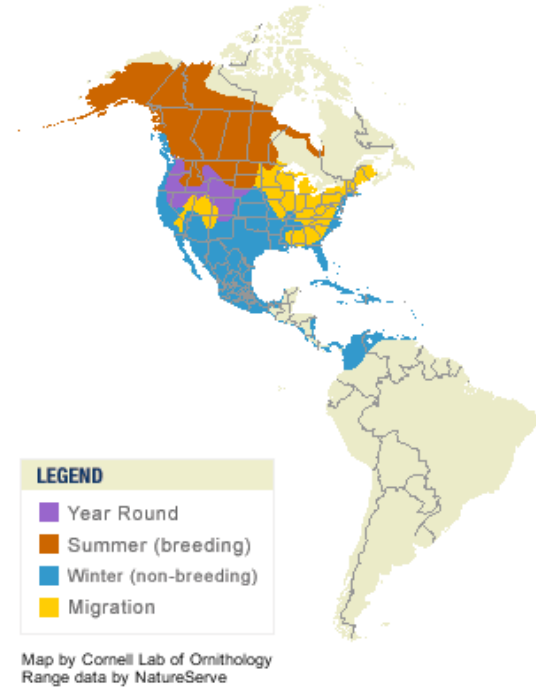
American Widgeon Duck

The American Widgeon Duck spends its breeding season in the northwestern parts of North America and can be found throughout the entire continent during the migration and winter season.



Figure 9-American Widgeon Duck with range map

American Widgeon
Anas americana



Violet-green Swallow

The Violet-green Swallow is unique to the fact that it can only be found in the American West. It is a small songbird with a small bill and long wings.



Figure 10-Violet-green Swallow with range map

Violet-green Swallow
Tachycineta thalassina

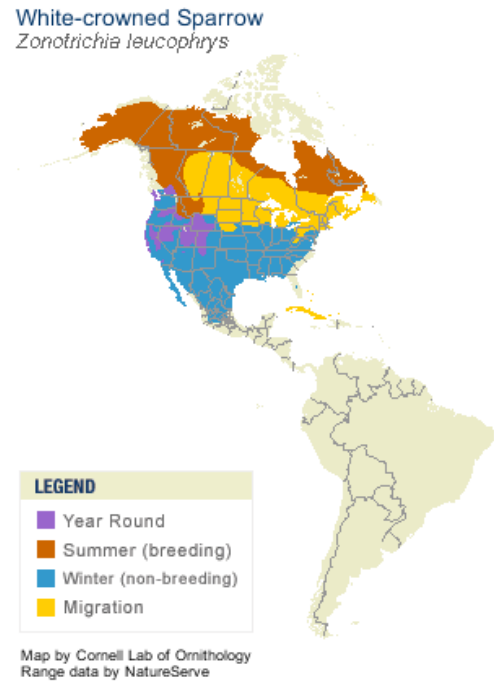


White-crowned Sparrow

White-crowned Sparrows spend their winters in North America and remain in parts of the West year-round. This sparrow is smart and one of the easiest to identify. Keep an eye out for flocks of White-crowned Sparrows in bushy areas and overgrown fields. If you have a bird feeder in your yard, they can be spotted there as well.



Figure 11-White-crowned Sparrow with range map



Number of Species

Figure 13 presents the Species Abundance at each site in 2014. Site 3 led in this category with 51 species identified. This site includes two locations on either side of St. Johns village and has a good mixture of birds that can be found along the canal system. This site covers a diverse habitat range which contributes to bird species richness. The abundance of birds at this site included the Mourning Dove, Ruddy Duck, House Finch, and Western Meadowlark.



Figure 12-Young bird counter

Site 4-960 Sump and Site 5 & 7-Gila Butte/Resort/Wastewater treatment ponds are primarily aquatic habitats where the majority of water birds were observed this year. The abundance of water birds at these sites included the Bufflehead Duck, Mallard Duck, and Northern Shoveler Duck. A noteworthy species, the Northern Harrier, was sighted at Sites 1-4. The Northern Harrier is one of the first wintering birds to arrive on the Community each fall.

Species Abundance at Each Site - 2014

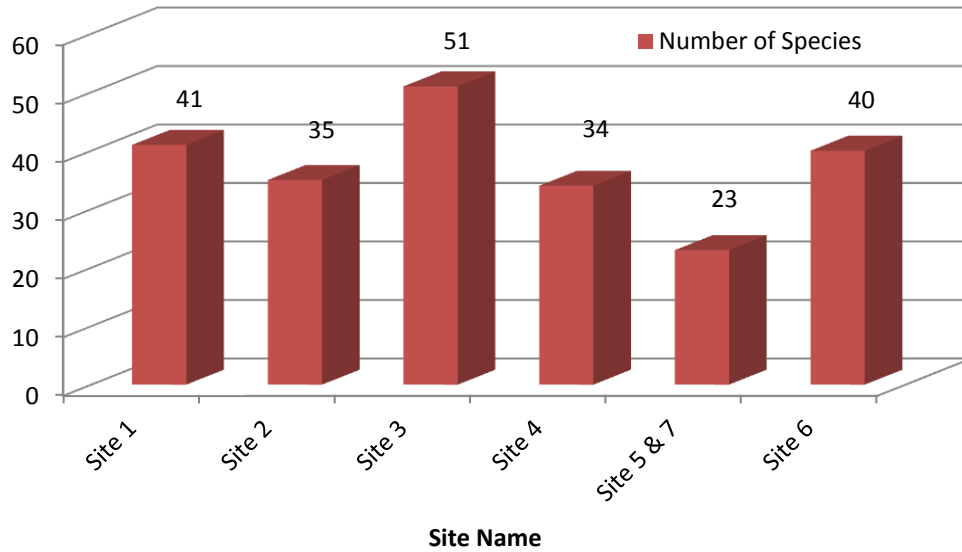


Figure 13-Species Abundance at Each Site

Yearly Trends in Total Birds

Figure 14 represents the abundance for all years of the Winter Bird Count. The abundance for 2014 was 7,592, which is above the average of 4,947 for all years. A high number of birds observed at Site 4 contributed considerably to the overall abundance in 2013.

Abundance for Each Year

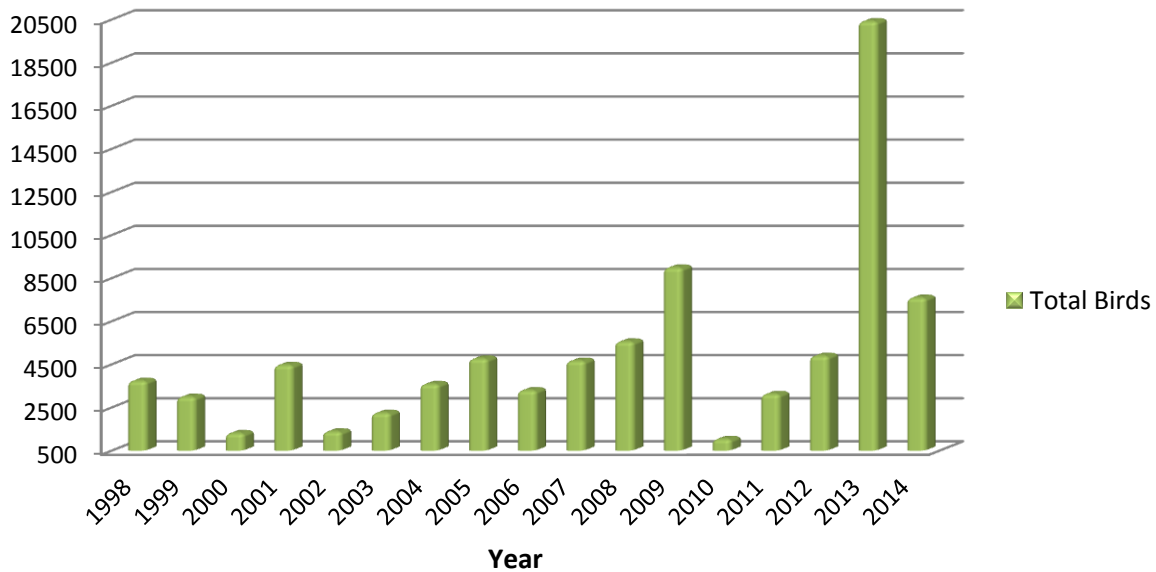


Figure 14-Abundance for Each Year

Yearly Trends in Bird Species

Figure 15 presents yearly species richness results for all years of the Winter Bird Count. Species richness is the number of different bird species that use a given environment. High species richness generally indicates a diverse and productive environment. Species Richness for 2014 was at 97 species, which is above the average of 78 for all years. Species richness is well represented across all sites for the 2014 Winter Bird Count.

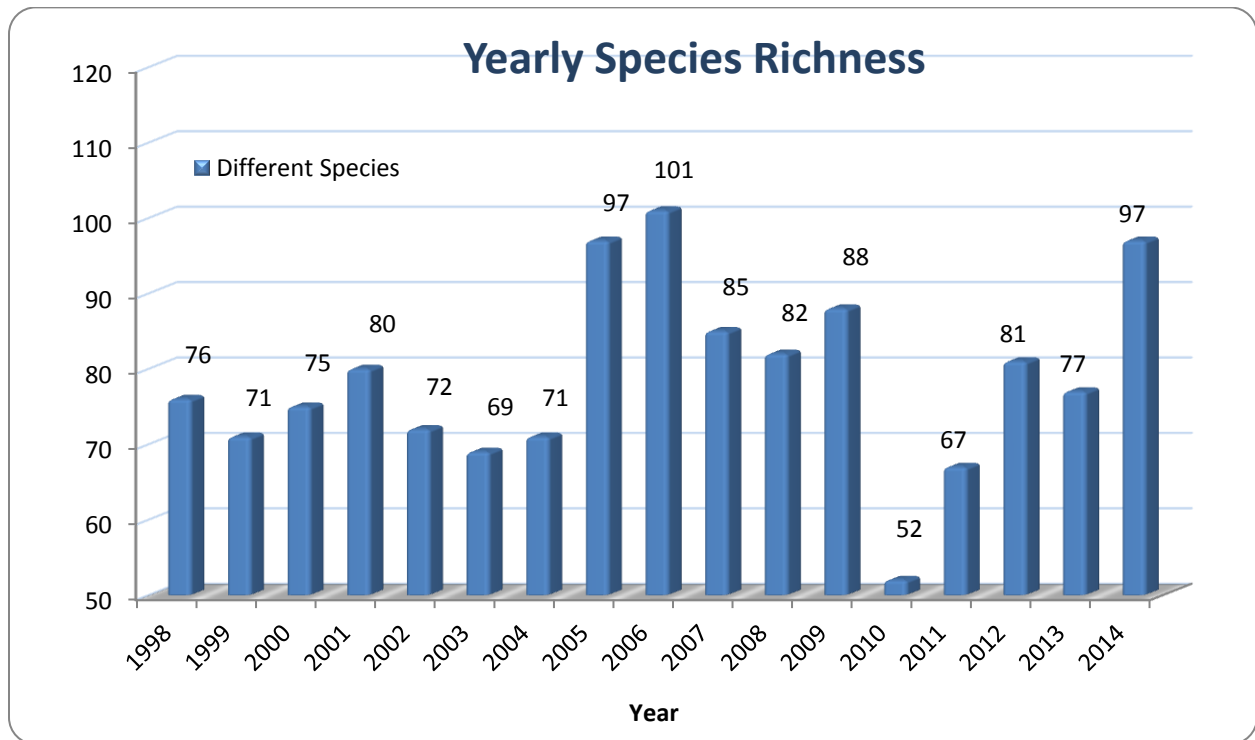


Figure 15-Yearly Species Richness

Closing

The Winter Bird Count provides a rewarding outdoor and cultural experience for participants. Through field activities, participants see a variety of beautiful birds in a number of habitat settings within the Community. This experience provides insight into bird-life on the Community and puts an emphasis on the importance of preserving the environment and the habitat for these culturally and environmentally important species. Field activities also provide participants the opportunity to enjoy the outdoors with family and friends. The event's cultural activities include enriching songs, dances, and stories shared by Community cultural leaders and groups. The Winter Bird Count continues to be a rewarding experience for all who participate.

FACT: Roadrunners eat almost anything they can catch: lizards and snakes, small rodents, scorpions and tarantulas, and large insects. They'll even leap up to catch hummingbirds at nectar feeders.



Figure 16-2014 Winter Bird Count Collage

Cultural Perspective

Shu:gaj Ñeok (Mockingbird Speech) “how a Mockingbird talks”

By Robert Johnson
Huhugam Heritage Center Museum Aide

Shu:g (Northern Mockingbird) is a year-round resident bird that has co-existed with our community since time immemorial. His behavior has been observed by our *Hekiu O’otham* and has become part of our sacred ceremonies. *Shu:g* can memorize and mimic other birdsongs and can sing up to twenty-one different songs in one singing. His songs can be heard early in the morning and late at night sometimes almost non-stop. During mating season in early spring would-be suitors sing from the tops of trees and put on several types of courtship displays. One type of display from high perches is the “Watch me do this” display in which *Shu:g* flies up a short distance with a purposeful flapping of wings and then returns to his perch displaying his white patches in the process. When several males are together and are attempting to gain the attention of a potential mate, they will tumble out of a tree to the ground displaying their white patches in the process. On ground displays several males will dance for a potential mate by raising their wings displaying their white patches and walking with a purpose. If these courtship displays work and the female accepts they will build a nest together and in a few weeks the female *Shu:g* will lay about three to four light-blue eggs with brown splotches on them. During the process of the chicks hatching and feeding until they fledge, *Shu:g* will become very territorial and will protect the nesting site. Any type of intruder deemed dangerous is attacked with wing slaps or beak and claws, this includes dogs, cats, people and especially other birds. When a male *Shu:g* defends his territory to another *Shu:g* they will have a “standoff” and perform a territorial hopping dance for several minutes until the intruder gets the message and leaves. *Shu:g* possesses a special call that can bring other “defenders” into the dispute from nearby nesting sites and together they will attack the intruder until it leaves the area. *Shu:g* has also been known to attack large birds of prey such as hawks and falcons.










Our *Hekiu O’otham*, observant of their natural environment, related the behavior of the *Shu:g* to the ritual orators who delivered speeches during the annual “Sing Down the Rain” ceremony. The complex oratory that were spoken by designated individuals were called *Shu:gaj Ñeok* or “Mockingbird Speech”. As to why these speeches were called Mockingbird Speeches there are several revelations that explain why our *Hekiu O’otham* chose to invoke *Shu:g* as the namesake of the speeches as well as why he was chosen to speak to the Rain Gods on their behalf. For one, it’s the male that constantly sings for hours during the early morning and late into the night and the duties he performs during courtship and defense of the nesting site. Also, as stated above with *Shu:g* his songs are not his own, he only imitates other birds in multiple voices, and repeats what others have already said. In our culture we do not speak of important and sacred items directly, to do so is to offend and insult them. Our people to this day use “indirect talk” when referring to sacred animals, plants and other sacred objects. In our prayers and ceremonies for rain supplication our *Hekiu O’otham* chose *Shu:g* to carry our request up into the heavens using his “indirect talk” to summon the wind, clouds and rain to renew our earth and start the annual cycle of life. To this day the *O’otham Ju:k Makai* (Rain Medicine-man) makes his annual speech during the “Sing Down the Rain Ceremony” which is delivered with a loud voice in a public gathering. Our ancient speeches and songs are memorized by certain individuals and are recited and sung during special ceremonies and events. A portion of them can be heard during the *Ho’ok A:ga*, which are our stories of Creation that can be recited after the winter solstice has occurred. When we hear *Shu:g* singing in the distance we are reminded of how important our Heritage Languages are to Akimel O’otham and Pee Posh and how we must sustain them for future generations.

Our Present Day Ecosystem

On August 31, 2015 the newly developed Managed Aquifer Recharge Project released water from the Central Arizona Project into the streambed of *Keli Akimel* near Olberg. The release of this water will serve several purposes. First, the extra moisture will enhance the numerous plants already existing along the Gila River streambed. I have observed that the water made it as far as Sacaton Bridge at Agency Road, but didn't observe how much further west the release water made it. At any rate, the existing plants will show signs of more vigorous growth that will provide excellent cover for wildlife in transit throughout the release area. Secondly, the seeds of ephemeral plants that react quickly to any type of short-term moisture will germinate and produce seed bearing flowers. Other grasses will provide herbaceous feed for herbivores that might establish burros and dens throughout the release area. This is especially beneficial to migrating birds during their seasonal migrations. The wild seeds will provide feed while the fresh stems and other plant material will provide construction materials for winter nesting sites. Lastly, this water will filter down into the aquifer adding its supply to the underground storage capacity of our current aquifer. This water can be pumped out at a later date and utilized for irrigation or other purposes. More large-scale release of Central Arizona Project water are being planned for future dates that will aid in sustaining excellent wildlife habitats in the planned release areas. At the time of this writing in mid-September late monsoonal occurrence has provided enough rainfall to cause the Maricopa Floodway Channel to run in District 4. The plants already established along the course of this channel have responded to the moisture and new plant growth has sprouted causing the channel to turn vibrant green with plant life. When we add this to the water features already in existence throughout our community we can be assured that migrating avifauna and other wildlife will benefit from these excellent sources of feed and cover.

Winter Bird Count Stats 2014 (February 7, 2015)

Miligan	O'otham	Kuinthag'ab	Pi:pikchul
1. House Finch	Baithaj U'uvig	200	
2. Blue-gray gnatcatcher	S-chuk Mo'okam Gi:sob	133	
3. Killdeer	Sivi-chu:ch/Chivi-chu:ch	351	
4. American Pipit		221	
5. Least Sandpiper	Shu:thag Ma:mad	134	
6. White-crowned Sparrow	Thamthol	261	
7. European Starling		316	
8. Violet-green Swallow		1000	
9. Abert's Towhee	Bi:chpod	118	
10. Mourning Dove	Ho:hi	819	
11. Lark Bunting	S-ba:bañmakam	710	
12. Red-winged Blackbird	Shashañ	566	

13. American Coot	Vachpik	162		
14. American Widgeon	Vapka'ik	394		
15. Rock Dove		127		
16. Bufflehead	Vapka'ik	316		
17. Mallard	Vapka'ik	126		
18. Northern Shoveler	Vapka'ik	225		
19. Snowy Egret	S-thoa Vakoañ	30		
20. Western Flycatcher	Hevel Mo:s	42		
21. Western Grebe		37		
22. Western Meadowlark	Thosiv	95		
23. Verdin	Gi:sob	39	