

Audubon EAGLE Watch

Season Report 2015-2016



At a Glance

The EagleWatch Season 2015-2016 proved to be an interesting one, with many highlights and challenges. First we had an El Niño weather pattern that brought a lot of rain early in the season and a nesting delay for many eagle pairs. Data showed that many pairs failed to hatch eggs, abandoning all efforts early in 2016 while others re-nested very late and successfully fledged birds in July. See the 2015-2016 Productivity Overview in this issue for more information.

With Matt Smith's departure in February for a new opportunity to work with raptor conservation in Colorado, I was called in to help manage the program for the remainder of the season. My previous experience with EagleWatch at a county level helped me hit the ground running, addressing two nest disturbances and online portal glitches in the first week! Thanks to all the volunteers for your patience and dedication-- I was thrilled to review more than 150 observations some days!

By early April we had fledglings and with them came a few rescues. Some notables included one young male from AL102 in Cross Creek, FL where volunteers had rescued eaglets a few times before, and another fostered at OR053 in Windermere which was easily accepted by the foster family, but there were many more.

EagleWatch Data at Work

Ever wondered how the hard work of hundreds of EagleWatch volunteers benefits Florida's eagles? Every time a volunteer logs a visit to an eagle's nest, Audubon gains important information not only on the eagle's breeding progress, their behaviors and preferences, but on changes to the surrounding areas and possible threats.

Audubon shares data and knowledge on breeding eagles with power and communication companies to help them make their operations safer for the birds. EagleWatch also provides these companies with up-to-date information on nesting eagles that allows them to properly schedule repairs and upgrades without causing any disruption to the breeding birds. In return, many companies help by retrofitting old insulators, providing alternate nesting platforms and even relocating problematic eagle nests to ensure their breeding success in more suitable areas. Duke Energy, Florida Power & Light, Crown-Castle and American Tower are some of the companies that rely on EagleWatch data.

Law enforcement agencies, including the Florida Fish and Wildlife Conservation Commission and the U.S Fish &

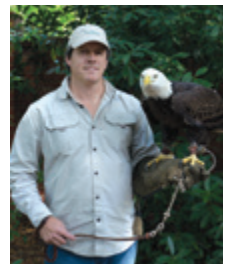
at the end of the season the Audubon Center for Birds of Prey had admitted 9 eaglets and 11 fledglings. Nearly 50% of these birds came from nests being monitored by EagleWatchers, a quick reminder of the importance of keeping an eye on these rambunctious eaglets. We also documented 19 new nests and 10 relocations this season.

While the eagle breeding season is scheduled to end on May 15th, our work is not over until all birds have fledged, and the data from observations continued to arrive until mid-July. In early June, I reviewed the USFWS proposed changes to the Comprehensive Eagle Conservation and Management Program and provided recommendations for the new rules.

Despite some losses, we had a productive season, accomplished great things, and we are ready to start the next one. Thank you for all you do!

Sincerely,

Reinier Munguía
Interim Audubon EagleWatch Coordinator



Wildlife Service, utilize EagleWatch data in cases of illegal nest removals and other eagle protection rule violations. Thanks to the carefully collected data from volunteers, many disturbances are stopped in time.

Additionally, Audubon EagleWatch provided feedback and guidance on eagle conservation during the rule-making process at both federal and state level by using EagleWatch data and knowledge on the subject.

With the help of volunteers and in conjunction with wildlife agencies, EagleWatch ensures that eagles are protected throughout their Florida range and beyond.



Law enforcement was called in on several occasions this season due to inadvertent violations of the state's Bald Eagle Management Plan. Operators are often unaware of existing rules protecting eagles.

Saving Our National Symbol

For Eaglewatchers, watching an eaglet's progress is like watching their own kid learn to walk. Their bond with their nest is a very important force that drives them to protect the birds and the site. Indirectly, volunteers are helping in the conservation of these birds. Some have taken the extra duty of documenting electrocutions, vehicular collisions and other threatening situations for eagles and have looked into ways to reduce the incidence of these accidents.

Some of this information is collected by the Audubon Center for Birds of Prey from birds brought by EagleWatch volunteers who know the details about the nests where these birds belong. Twenty young eagles were admitted in the 2015-2016 season with most of them making it back to the wild thanks to the quick response of volunteers and the expertise of the staff at the Audubon Center for Birds of Prey. Additionally, several adults were admitted, most as a result of territorial fights.

EagleWatch also assists in many incidents involving rescues and release. On December 28, EagleWatch received a call from FWC to report two eagles on the ground entangled in a fight for more than 3 hours in Wahneta, Florida. It was dark and both birds were at risk of exhaustion or being depredated by coyotes in the vicinity. It took nearly 30 minutes to separate the two female birds and both were taken to the Center for Birds of Prey for close examination. One of the birds was quickly returned to the wild a few days later but the other, which had an old femur fracture, required a longer recovery.



EagleWatch volunteers monitoring an eagle's nest during a training session in Cockroach Bay.

Another incident occurred early in the season where Audubon had released a young eagle from Lake Kissimmee; a fledgling from the 2014-2015 season. Two weeks later it was recovered in South Carolina after being struck by a car. Luckily the bird received immediate attention at a local raptor rehabilitation center and was later transported back to the Center for Birds of Prey for reconditioning. This bird was again released back into the wild. These incidents highlight the fact that young Florida eaglets fly long distances usually to the north using the Atlantic flyway just a few weeks after fledging.

With EagleWatch observations and information collected in the field, volunteers provide information about eagle behaviors and preferences that are indispensable for the conservation of the species.

One For The Records, The Story Of PI952

It's not common to document breeding pairs that hatch three chicks, but the pair at PI952 have set a record. Again this year, EagleWatch volunteer Nancy Bloch documented this particular pair, not only hatching three eggs but successfully rearing the chicks until they flew the coop. Interestingly enough this eagle pair has raised three chicks at least three more times in the past four years! Birds that successfully fledge three eaglets have a higher chance of having the same productivity year after year. While eagles may hatch three eaglets, most of them lose one to sibling rivalry usually fueled by the other chicks monopolizing the food.

More impressive is the fact that Nancy documented one of the older siblings feeding the youngest chick. She recorded no sibling rivalry throughout the whole process, which can only mean the parents did an outstanding job bringing food to the hungry eaglets.



After examining some of the pictures we concluded that the last bird to fledge was probably a male and that the two other siblings must have been females based on their size and advanced development.

Photo by Nancy Bloch

2015-2016 Productivity Overview



County	Nestlings	Fledglings
Brevard	4	4
Broward	1	1
Charlotte	2	2
Clay	11	7
Collier	10	8
Duval	23	17
Flagler	4	4
Gulf	4	1
Highlands	3	2
Hillsborough	32	28
Lake	2	2
Lee	2	2
Manatee	23	12
Martin	14	10
Nassau	1	1
Orange	17	13
Osceola	4	3
Palm Beach	7	7
Pasco	14	9
Pinellas	54	51
Polk	76	72
Putnam	2	2
Saint Johns	6	5
Saint Lucie	3	0
Sarasota	17	15
Seminole	10	9
Volusia	22	15
TOTAL	368	302

Quick Facts

- ➔ 27 Counties
- ➔ 144 Volunteers
- ➔ 354 Nests Surveyed
- ➔ 4,453 Observations Logged

Average Productivity

0.85*

Fledglings/Territorial Pair

Fledging Percent

82.0%**

* Average productivity is the average fledglings per territorial pair (F/TP) for all 354 monitored nests.

** Fledging percent represents the number of nestlings that were confirmed as having fledged, or that have reached an age for successful fledging.

In Detail

Nests monitored by EagleWatch volunteers account for 20% of the total active nests in Florida. Basic data was collected by EagleWatch volunteers through observations and following a simple protocol. For the purpose of this report the most useful data is the number of nestlings and the number of fledglings per nest monitored.

This data was used to calculate overall productivity of all nests monitored by the EagleWatch Program this past eagle breeding season 2015-2016. Table (Fig.1) shows some of the parameters studied and the average productivity per territorial pair (nest) for counties with 10 or more monitored nests. These results are not representative of the overall state productivity and apply only to the counties monitored by the EagleWatch Program. The goal is to continue to expand our nest monitoring program to other counties with high density of nesting eagles such as Osceola and Highlands.

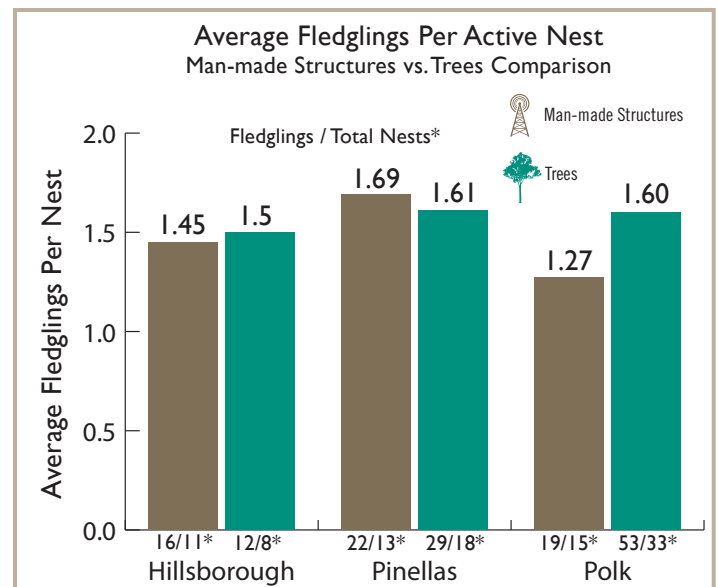
Fig. 1

County	# of Territorial Pairs (Nests) Monitored	Active (#nests with ≥ 1 nestling)	Failed (#nests with 0 fledglings)	Total # Fledglings / #Nestlings	Average Productivity F/TP
Clay	10	7	5	7 / 11	0.7
Duval	14	13	4	17 / 23	1.21
Hillsborough	34	19	16	28 / 32	0.82
Manatee	19	12	10	12 / 23	0.63
Martin	11	7	4	10 / 14	0.90
Orange	20	10	10	13 / 17	0.65
Pasco	10	8	4	9 / 14	0.90
Pinellas	43	31	10	51 / 54	1.19
Polk	79	48	32	72 / 76	0.91
Sarasota	19	11	10	15 / 17	0.79
Seminole	23	8	16	9 / 10	0.39

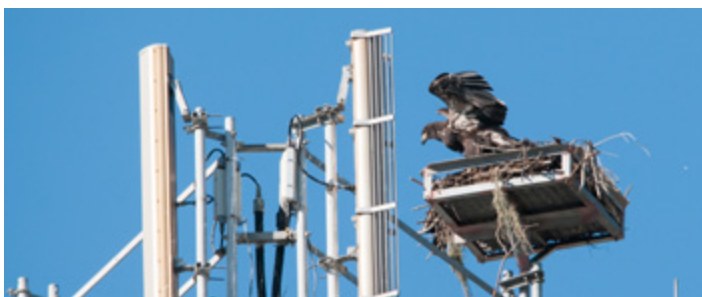
Audubon continues to investigate the productivity of eagles using man-made structures compared to natural substrate. In order to compare the success between the two substrates Audubon used nestling success as a comparison. The table at the right highlights a sample of counties with high numbers of eagles using towers or other man-made structures for nesting. (See Fig 2).

The results in two of the three counties analyzed show a lower productivity on man-made structures. Because of the large number of nests on man-made structures in urban counties, EagleWatch is working with utility companies to reduce mortality on man-made structures.

Fig. 2



This chart illustrates the average fledglings per nest in selected counties with high incidence of nests in man-made structures and compares these results with those nesting on trees. Productivity is slightly lower on man-made structures for Hillsborough and Polk, but higher for Pinellas where 43% of all productivity came from birds on man-made structures.



Eagles in a Changing Environment



Images like this remind us of the opportunistic nature of eagles, a quality that allows them to survive even in urban environment.

It comes as no surprise that eagles are taking over the urban landscapes. This may be the result of a lack of nesting trees, development pressure or food availability. Nobody seems to agree on the main cause, however, more eagles are being found in heavily populated counties. In fact, in counties like Hillsborough and Pinellas, the nests in urban settings account for nearly half of all the productivity. Amazingly, they are thriving despite the inherent dangers of the city lifestyle, which includes power lines, vehicles and even poisoning. How is all of this possible?

The answer may be quite simple. Urban sprawl has opened new food resources in the form of man-made lakes, retention ponds, landfills and roadkill. Eagles are extremely opportunistic feeders and will take any chance to snatch a meal. American Coots and invasive tilapias seem to do well in urban lakes, an invitation for

a hungry eagle. Eagles have also learned to time their breeding with that of the ospreys, which they often chase to steal their catch to ensure plenty of food to feed their fast-growing eaglets.

Finally, an increase in the use of man-made structures for nesting seemed odd at first, but at this point can only speculate on possible advantages for the eagles. Perhaps they offer a higher vantage point from which eagles can scan their home range or stronger nesting platforms that will sustain heavy winds without breaking, platforms that are immune to attack from pine beetles. Beginning with the 2016-2017 breeding season, the EagleWatch Program and the Audubon Center for Birds of Prey will start an auxiliary banding project for young eagles that may shed some light on their nest site selection. This information will be essential to make changes in management practices to protect our eagles despite the constant changes in their environment.



Urban man-made ponds and lakes provide foraging habitat for the eagles that have become habituated to human activities.

Portal Unlocks Power of EagleWatch Data

Remember the old days of submitting observation forms by mail? Those days are now nearly over. With the new auduboncitizenscience.org online database, the job of logging observations has become an easy and quick process. The number of paper forms received has declined to less than 2% of the 4,431 entries logged this season. This, in turn, makes the process of analyzing data a lot easier and allows Audubon to quickly respond to inquiries.

Having the data readily accessible helps Audubon make quick decisions in alerting law enforcement of possible violations, warn developers and utility companies of eagle activities near their proposed project sites, and even determine the best location for releases or relocations of rehabilitated eagles. The activity data

combined with mapping allows the staff at the Audubon Center for Birds of Prey to determine the feasibility of a release site and even determine if an eagle involved in a territorial fight belonged to an active nest. Having the data easily accessible enables Audubon to more readily respond to emergencies involving eagles. Thanks to all the volunteers for making the transition to online forms and for all involved in the development of this tool.



Thank You, EagleWatchers!!!

The driving force behind a citizen science program like EagleWatch is the many volunteers that devote their time and knowledge to record data. These volunteers know their birds and sometimes treat them like family by giving them names, celebrating the new addition to the family when the babies are born, and throwing a party when they finally leave the nest. Though the season seems to last beyond its time with many birds fledging later; each year the volunteers begin to look forward to the birds arriving again in the fall.

Thank you to the many EagleWatch volunteers for being involved with Audubon and taking the time to submit nest observations. Some reports received from volunteers could fill a book; however, much can be learned from observations from the field. This season EagleWatch reports were submitted from 144 volunteers located in 27 counties. That equates to more than 4,450 nest observations. This large scale data helps us understand the threats and identify solutions to eagle conservation.

The success of this program is the result of the hard work of volunteers and the program's effort to share findings and data with the wildlife management agencies and organizations that work to protect our national symbol. Thank you for the hard work, dedication and commitment that make the EagleWatch Program a success.



Volunteers from Duval, Clay, Flagler, St Johns, Nassau and Putnam counties during the EagleWatch end-of-season gathering in Jacksonville.



Volunteers from Hillsborough, Pinellas, Lake, Manatee, Pasco, Polk, Orange, Sarasota and Seminole counties came to share their experiences at the EagleWatch gathering held in Winter Haven.

Volunteer Profile



EagleWatch succeeds because our volunteers' dedication knows no bounds. Polk County's Paul and Carol Sarames are one such example.

Paul and Carol are originally from New Jersey and Long Island, respectively, where they never witnessed a Bald Eagle. Neither knew of the eagles in Florida until Carol spotted one perched on a pole behind their

house. Led by curiosity they researched Bald Eagle nests in Florida and eventually joined the EagleWatch Program in Polk County. A few weeks later they went to an eagle release and they were hooked.

Today they monitor 20 nests, some of which were not previously described. Their record keeping is exceptional and we attribute that to Carol's experience as a school district business manager and treasurer. The Sarames have participated in several rescues, including an early fledgling from one of their nests which they were honored to release after rehabilitation at the Audubon Center for Birds of Prey.

Special Thanks

Ann Harwood-Nuss is an eagle conserving machine. Not only does she coordinate the efforts of 46 EagleWatchers in Northeast Florida, she took the initiative to revise the volunteer handbook to train new volunteers! A member of Audubon Florida's state board, Ann also participates in the Center for Birds of Prey advisory board, helping to ensure injured birds get the care they need so they can one day fly free again.



Special Thanks to EagleWatch Program 2015-2016 Donors

The Batchelor Foundation
American Eagle Foundation
Stanley and Mildred Zamo Charitable Trust

Our donors and supporters are key to Audubon's success. Thank you for the generous support from our foundations, corporations and individuals who support our work. Your financial investment helps to protect eagles, important habitats and create a future for conservation. As threats to our waterways and special places continue to increase, your gifts are needed more than ever. To support Audubon EagleWatch and Bald Eagle conservation visit <http://www.GivetoAudubonFlorida.org/eaglewatch.html> or contact kwarnar@audubon.org.

EagleWatch Updates



Audubon is revising the EagleWatch Training Manual for the 2016-2017 training season! In addition, a website is being created to host training content and to serve as an educational tool for volunteers and the general public. The site will have videos and photos to illustrate eagle behaviors, management resources and EagleWatch etiquette rules for nest monitors.

In 2017, Audubon will begin to analyze resighting data on eaglets banded before release from the Center for Birds of Prey to better understand juvenile dispersal, success of rehabilitated eaglets, and nest site preferences of birds hatched on artificial structures.

Celebrating 25 years of EagleWatch

Since 1992, EagleWatch volunteer citizen scientists have collected the data necessary to make sound management decisions to protect this American icon. Stay tuned for information on how you can invest in the continuation of this legacy by becoming a Friends of Eagles donor in celebration of a quarter century of EagleWatch. Visit: <http://fl.audubon.org/get-involved/audubon-eaglewatch>.

How to Participate in EagleWatch

Find a training session

EagleWatch nest monitoring runs from October through May with volunteer trainings held from September-October. For training information or to sign up to become an EagleWatch volunteer please contact: eaglewatch@audubon.org

For more information

Audubon Florida Eaglewatch
<http://fl.audubon.org/get-involved/audubon-eaglewatch>

Eaglewatch Resource Website

<http://www.eaglewatchflorida.org>

Visit Audubon Center for Birds of Prey. Located in Maitland, Florida, the Center offers up close views and visits with Bald Eagles and other birds of Prey. Visit www.auduboncenterforbirdsofprey.org for more information.



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Audubon Center for Birds of Prey
1101 Audubon Way, Maitland, FL 32751

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