

BALD EAGLE NEST MONITORING PROGRAM  
AT LAKE JAMES

2023 ANNUAL REPORT

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## INTRODUCTION

The Bald Eagle (*Haliaeetus leucocephalus*) is a national symbol and conservation icon in the United States. In the lower 48 states, Bald Eagles were particularly threatened by DDT (dichloro-diphenyl-trichloroethane) and persecution (Buehler 2020). However, this once endangered species has recovered through the protection of nesting sites, ban of DDT related pesticides, captive breeding, and reintroduction programs, among other actions (Buehler 2020). Bald Eagle populations have grown since their 1963 nadir of only 417 nesting pairs, and the U.S. Fish and Wildlife Service (2020) estimates that there are now over 71,000 nesting pairs in the lower 48 states. Consistent with national trends, Bald Eagle nesting in western North Carolina has also been increasing (personal communication 2022, Avery Clifton of North Carolina Wildlife Resources Commission [NCWRC]).

Seven Bald Eagle nests have been documented at Lake James located in Burke and McDowell Counties, North Carolina (with an additional two nests [#8 and #9] that were reported to us but not yet confirmed, Table 1, Figures 1 – 5). The first nest was found in February 1999, and its outcome for that breeding season is unknown (Blanc & Carter 2000). The same nest was used again in December 1999 – March 2000, but it failed (Blanc & Carter 2000). At the time, the area around this nest was undeveloped (Blanc & Carter 2000), but it has since been developed with residential housing. In 2002, this nest was blown out of its tree (personal communication 2022, Clifton Avery of NCWRC).

Nest #2 was active from 2002 – 2014 (Tompkins 2021). During the summer of 2008, this nest was also destroyed by high winds, but it was rebuilt in the same tree and continued to be used by the eagles (Mullin 1997). The immediate area around this tree is a protected mitigation

site as part of Habitat Conservation Plan for Bald Eagles at the lake (Mullin 1997), but the surrounding area has been increasingly developed with residential housing (personal communication 2021, Martha Whitfield). This nest was no longer present as of November 2021 at the latest (personal observations Chip Whitfield, Martha Whitfield, J. Lindley McKay, and Olya Milenkaya) and it is unclear whether the Bald Eagles abandoned this nest site due to anthropogenic disturbance or natural causes.

Nest #3 was active from 2015 onwards (personal communication 2022, Clifton Avery of NCWRC; Tompkins 2021; Mullin 1997). In November 2021, it was unknown if this nest was continuing to be used for the 2021 – 2022 breeding season. We therefore monitored this nest during the 2021 – 2022 breeding season and found it to be inactive (Milenkaya & Baron 2022). To confirm that this nest was permanently abandoned by Bald Eagles, we again monitored this nest at the start of the 2022 – 2023 breeding season.

Nest #4 was strangely found independently on two occasions: once by Daniel Baron on November 13, 2021 and then by Martha Whitfield on November 27, 2021 when an adult Bald Eagle was observed sitting in the nest. It remains unclear when this nest was first built and if anyone else knew of this nest prior to 2021. We monitored this nest during the 2021 – 2022 breeding season (Milenkaya & Baron 2022). We interpreted that this pair had laid a clutch but it failed for unknown reasons during either the late incubation or early nestling stage (Milenkaya & Baron 2022). We monitored this nest again during the subsequent, 2022 – 2023 breeding season.

Nest #5 was first reported to the NCWRC by the landowner in December 2020 (personal communication 2022, Clifton Avery of NCWRC) but we did not know about this nest until the

end of the 2021 – 2022 breeding season. Hence, we did not monitor this nest during this breeding season, but we compiled observations about this nest made by others and concluded that they had successfully fledged at least one young (Milenkaya & Baron 2022). We tried but were unsuccessful at systematically monitoring this nest during the 2022 – 2023 breeding season. However, we report here the opportunistic finding that this nest was active and resulted in at least one nestling.

Nests #6 and #7 are old Bald Eagle nests from the Black Forest neighborhood in the western part of the lake. The authors of this report were unaware of these nests until February 2023 when a community member, Wendy Oetjen, told us about them. She told us that someone (not her) had seen eagles building the nest in 2019 although it is unclear as to whether they were building the nest from scratch, or simply adding materials to an existing nest. She also said that she had seen adult Bald Eagles at the nest in March 2021, but not since then. As of March 2023, the nest was small and degrading and therefore presumed to not longer being active. Meanwhile, Wendy Oetjen told us that Nest #7 was active “maybe around 15 years ago,” but it remains unclear precisely when it was active or precisely where it was located.

Finally, Nests #8 and #9 were reported to us as active Bald Eagle nests during the 2022 – 2023 breeding season, but we have not had the opportunity to confirm their authenticity. They were not monitored during this breeding season.

Here, we report on our activities during the 2022 – 2023 breeding season. Specifically, we confirmed that Nest #3 was no longer active, monitored Nest #4, and compiled information about Nest #5.

## METHODS

**Nest Monitoring** – Daniel Baron observed Nests #3 & 4 during the 2022 – 2023 breeding season. The goal was to observe each nest twice monthly starting in November 2022, but this was not always possible. To watch Nest #3, they sat about 500 feet away from the nest, and across an inlet. They sat about 700 feet away from Nest #4, also across an inlet. Each observation lasted 1 hour and included unobtrusive and quiet observation of the nest using binoculars and a scope. They also scanned the surrounding area during each session, looking and listening for Bald Eagles. Daniel Baron recorded all Bald Eagle sightings and included behavioral observations and time stamps of each Bald Eagle sighting at the nests.

Nest #3 was observed twice: for one hour on November 21, 2022 and for just five minutes on January 21, 2023. Nest #4 was observed ten times on the following dates: January 21, 2023; January 31, 2023; February 21, 2023; February 28, 2023; March 13, 2022; April 4, 2023; April 25, 2023, May 1, 2023; May 7, 2023; May 16, 2023 (total observation time = 10 hours and 36 minutes). We stopped monitoring these nests once we were confident that they were no longer active for this breeding season. We tried to observe Nest #5 but we did not have an accessible vantage point. We tried to observe it from a boat in the lake, but the water level was too low during the majority of the breeding to get a boat into the right position. Therefore, we failed to systematically observe this nest, but we still compiled information about that nest.

**Nest Searching** – We did not conduct any nest searching during the 2022 – 2023 breeding season.

**Volunteer Training** – Future nest monitoring will be conducted with a citizen science approach, led by the Lake James Environmental Association and powered by local volunteers. To ensure a smooth transition, we trained volunteers to monitor Bald Eagle nests with a one-day training session at Nest #4 on July 25, 2023, and a virtual training session for others on August 14, 2023. At both training sessions, we provided data sheets, instructions, methodology, and guidance on how to interpret various Bald Eagle behaviors. We also provided resources and answered questions. Beginning in November 2023, the nests will be monitored by these volunteers and this effort will be coordinated by Wesley Sawyer.

**Bald Eagle Sightings** – Daniel Baron always documented their Bald Eagle sightings while they were at the lake. To gather additional Bald Eagle sightings and to engage the local community in Bald Eagle awareness and conservation, we continued to use a citizen science approach by inviting the public to submit their Bald Eagle observations through an online survey tool (<https://forms.gle/NDuSmLQtnwZ2JXmu7>).

To be clear, we did not systematically survey the entire lake for Bald Eagle activity. Instead, the Bald Eagle sightings reported through the citizen science survey, as well as those by Daniel Baron, were opportunistic and do not reflect true abundance or location preferences of Bald Eagles at the lake. Therefore, areas with no sightings cannot be interpreted as having no Bald Eagles, but areas with sightings serve as documentation of Bald Eagles utilizing at least those areas of the lake.

**Mapping** – Daniel Baron mapped Bald Eagle nests and sightings (Figures 1 – 5). Mapping was performed using QGIS version 3.10.13 with GRASS version 7.8.4. Hydrology vector layers were acquired from the NC OneMap database. Google satellite raster layers were acquired from

Google's Tile Maps Service (TMS) and added as a New Connection in XYZ Tiles. Bald Eagle sightings and nest locations were loaded into QGIS as .csv files and then converted to vector shape files. These vector point locations were determined using longitude and latitude values. The CRS used for these vector layers was EPSG:4326 - WGS 84.

## OUTCOMES

**Summary** – Lake James had two known active Bald Eagle nests (Nests #4 & #5) during the 2022 – 2023 breeding season, Nests #4 and #5.

**Nest #3** – We observed no Bald Eagles at this nest which seemed degraded and too small to support Bald Eagles. We conclude that this nest was not being used by Bald Eagles during the 2022 – 2023 breeding season.

**Nest #4** – Two adult Bald Eagles used this nest during the 2022 – 2023 breeding season successfully fledged two young. During the January 2023 observations, they seemed to be incubating eggs (one of the eagles sitting in the nest for the duration of the 1-hour observation). On February 21, it seemed that the eggs had hatched. Even though the nestlings were too small to be seen above the rim of the large nest, the adult was not incubating but instead looking down into the bowl of the nest and occasionally tore food and seemed to be feeding it to the nestlings. By mid-March and throughout April, the nestlings were visible and growing. During the April 28 observation, the nestlings were out of the nest but had not yet fledged from the nest tree. After this observation, Daniel began to visit the nest more frequently to not miss their fledging. And on May 16, Daniel found the two youngsters fledged from the nest tree and then flying back into the nest to be fed by the adults.



Daniel had also observed a size difference between the two nestlings, and later as fledglings, suggesting that the siblings are a male and female.

**Nest #5** – Bald Eagles used this nest during the 2022 – 2023 breeding season. A juvenile Bald Eagle was seen falling out of a tree around 8:55 AM on May 13, 2023 by local residents. They contacted Jack Raker, who in turn contacted Daniel Baron. They arrived on the scene, and after consulting with the Carolina Raptor Center over the phone, they captured the eagle and drove it to their facility in Huntersville, North Carolina where it was admitted around 8 PM (patient ID 25400). The bird did not have any broken bones or lead poisoning, but it was emaciated and had feather mites (see Supplementary Materials for full medical record from the Carolina Raptor Center). After 40 days at this facility, it was transferred to Wild at Heart Wildlife Sanctuary in Richlands, North Carolina. At the time of writing (July 20, 2023), the Sanctuary expects for this bird to be released into the wild during fall 2023.

**Bald Eagle Sightings & Mapping** – Opportunistic Bald Eagle sightings were concentrated in just three areas (Figure 1): around Nests #4, #5, and #8 (Figures 1 – 4). The latter suggests that Nest #8 could indeed be an authentic and active Bald Eagle nest. Unfortunately, we did not have an opportunity to confirm that during the breeding season.

## RECOMMENDATIONS

1. Systematically monitor Nests #4 & 5 during the upcoming 2023 – 2024 breeding season.

They should be observed at least twice monthly beginning in November 2023 until the nesting attempt is completed. More frequent observations are certainly informative but not necessary. Each observation session should be 1-hour. As the nestlings approach fledging,

the nests should be monitored more frequently (e.g., once a week) to confirm fledging before they leave the nest area all together which would make it impossible to determine whether the nestlings had fully fledged or instead died. Meanwhile, it appears that a generous neighbor near Nest #5 has a line of sight to that nest and has volunteered to monitor that nest for the upcoming breeding season.

2. Conduct outreach to the private landowners of Nests #4 & 5. These landowners should be encouraged and supported in using best practices to ensure the safety and well-being of nesting eagles during the upcoming breeding season. The abandonment of earlier nests coincided with increased housing development near the nest sites. We do not know the precise reason for those nests being abandoned, but anthropogenic disturbance may have contributed. This possibility should serve as a cautionary tale for the two currently active nests which are both located on private property. Their landowners should be encouraged and supported to protect those nests from anthropogenic disturbances.
3. Observe Nests #8 and #9 at the onset of the next breeding season to determine whether they are indeed Bald Eagle nests, and if so, determine whether they are active. And if they are indeed being used by Bald Eagles, then proceed to monitor them throughout the breeding season. Thankfully, the Lake James Environmental Association currently has a lot of interested volunteers with a well-organized new project coordinator suggesting that they will have the capacity for this monitoring if the nests are indeed active. The greater challenge will be finding a nest-viewing location that is accessible to volunteers, sufficiently far away from the nest to protect the eagles while still maintaining a clear view of the nest.

4. Search for additional Bald Eagle nests along the Lake James shoreline. We searched for additional nests during the previous (2021 – 2022) breeding season but did not find any (Milenkaya & Baron 2022), and we did not conduct any new searches this year. Much of the lake remains unsearched and worth exploring.
5. Given the lack of emergent pines that Daniel Baron notes along some of the shoreline (Milenkaya & Baron 2022), managers should consider the option of constructing nesting platforms for Bald Eagles in otherwise suitable habitat.
6. Continue to solicit Bald Eagle sightings from the local community. Although these are opportunistic and imperfect observations, they can inform us as to where we should focus our nest searching efforts. Furthermore, sightings of young birds may indicate dispersal of immature Bald Eagles to the lake or successful fledging at the lake. Such citizen science also has additional benefits, such as engaging and educating the public about wildlife conservation.

**Table 1.** Bald Eagle nests at Lake James in North Carolina, USA.

Nests	Lat (North)	Long (West)	Nest Active Dates	Notes	Was this nest monitored during 2022-23 breeding season?	Outcome from 2022-23 Breeding Season
Bald Eagle Nest #1	35.760352	-81.83601	1999 - 2001 <sup>1,2</sup>	Nest found in February 1999 and its outcome for that breeding season is unknown <sup>1</sup> . This nest was used again in December 1999 - March 2000, but it failed (likely due to cold weather) <sup>1</sup> . NCWRC reports this nest being active through 2001 <sup>2</sup> . Nest was active before the area was developed with housing <sup>1</sup> . Nest blew out of tree in 2002 <sup>2</sup> .	No, N/A	N/A

(Table continued on next page)

Nests	Lat (North)	Long (West)	Nest Active Dates	Notes	Was this nest monitored during 2022-23 breeding season?	Outcome from 2022-23 Breeding Season
Bald Eagle Nest #2	35.764897	-81.848951	2002 - 2014 <sup>3,4</sup> or 2015 <sup>2</sup>	Nest was used from 2002 - 2003 and again from 2005 - 2007, before being destroyed by high winds in summer 2008 <sup>4</sup> . However, Bald Eagles built a new nest in the same tree and nested there from 2009 - 2014 <sup>4</sup> . (For the purposes of this table, both nests are summarized as "Bald Eagle Nest #2" since they are at the same location.) Martha Whitfield reported this nest was actively being used by Bald Eagles and fledged young from at least 2006 (when she purchased a home nearby) onwards <sup>5</sup> . She also reported that while the immediate area around the nest is protected from development by HOA rules (presumably because it is a HCP mitigation site <sup>4</sup> ), the broader area has been increasingly developed since 2006 <sup>5</sup> . Nest is missing as of November 2021 at the latest <sup>5,6</sup> . Unclear if the Bald Eagles abandoned this nest site due to anthropogenic disturbance or natural causes.	No, N/A	N/A

(Table continued on next page)

Nests	Lat (North)	Long (West)	Nest Active Dates	Notes	Was this nest monitored during 2022-23 breeding season?	Outcome from 2022-23 Breeding Season
Bald Eagle Nest #3	35.771987	-81.846991	2015 - 2020 <sup>2,3</sup>	Nest was actively used from 2015 onward <sup>2,3,4</sup> . Martha Whitfield reported often seeing Bald Eagles in this area since at least 2017, and also reported that several new homes were built near this nest site since then <sup>5</sup> . Monitoring during 2021 - 2022 breeding season concluded that it was no longer being used by then <sup>7</sup> . A home was being constructed nearby during the 2021 - 2022 breeding season <sup>7</sup> . Unclear if Bald Eagles abandoned this nest site due to anthropogenic disturbance or natural reasons.	Yes, Daniel Baron observed this nest once in November 2022 for one hour and again for just five minutes in January 2023.	Nest present but it was degraded and too small to support Bald Eagles - abandoned <sup>7</sup> .
Bald Eagle Nest #4	35.782283	-81.856209	2021 - Present (maybe earlier)	Nest found in November 2021 on two different occasions, independently. First, by Olya Milenkaya, Martha & Chip Whitfield, and J. Lindley McKay. And also, independently, by Daniel Baron. Unclear if anyone else knew of this nest prior to 2021.	Yes, Daniel Baron observed this nest about twice monthly between January to May.	Successfully fledged two young which differ in size and may therefore be a male and a female <sup>7</sup> .

(Table continued on next page)

Nests	Lat (North)	Long (West)	Nest Active Dates	Notes	Was this nest monitored during 2022-23 breeding season?	Outcome from 2022-23 Breeding Season
Bald Eagle Nest #5	35.710706	-81.997745	2020 - Present <sup>2</sup> (maybe earlier)	Nest was first reported to NCWRC by landowner in December 2020 and confirmed by NCWRC on January 26, 2022 <sup>2</sup> . Nest is located inland, on private property <sup>2</sup> . Nest may have been active earlier because Jack Raker reported that he has seen Bald Eagles in this area "for several years" <sup>8</sup> .	No (at least not systematically)	A juvenile Bald Eagle was seen falling out of the nest tree around 8:55 AM on May 13, 2023 by local residents. The eagle was captured by Jack Raker and Daniel Baron and admitted to the Caroline Raptor Center (patient ID 25400). After 40 days at this facility, it was transferred to Wild at Heart Wildlife Sanctuary. At the time of writing (July 20, 2023), the Sanctuary expects to release this bird into the wild during fall 2023.

(Table continued on next page)

Nests	Lat (North)	Long (West)	Nest Active Dates	Notes	Was this nest monitored during 2022-23 breeding season?	Outcome from 2022-23 Breeding Season
Bald Eagle Nest #6	35.7323731	-81.9756386	2019 – March 2021 <sup>9</sup> (maybe earlier)	Wendy Oetjen told Olya Milenkaya about this nest in February 2023. She said that it was located in an emergent pine, on private property, in the Black Forest neighborhood and is visible from Black Forest Drive. She said that someone (not her) saw eagles building the nest in 2019 (unclear if they were building it from scratch or just adding nesting material). Wendy also saw a pair of adult Bald Eagles at the nest in March 2021, and that was the last time she saw it being active. However, it has never been systematically monitored. As of March 2023, it was small and degrading.	No	N/A
Bald Eagle Nest #7	35.726603	-81.972371	Unknown	Wendy Oetjen told Olya Milenkaya about this nest in February 2023. She said that this nest was active in the Black Forest neighborhood "maybe around 15 years ago" but she doesn't know exactly where it was or precisely when it was active. (Precise location is unknown, coordinates are approximate)	No	N/A

(Table continued on next page)



Nests	Lat (North)	Long (West)	Nest Active Dates	Notes	Was this nest monitored during 2022-23 breeding season?	Outcome from 2022-23 Breeding Season
Bald Eagle Nest #8	35.74748489	-81.91183179	Unknown	Reported to us in June 2023 by a private landowner (debi4@me.com) at 2620 Old Nebo Bridge Road, who said that there was a nest with two eaglets on her property. Unfortunately, we did not have a chance to confirm this as a Bald Eagle nest before the season concluded.	No	Unconfirmed nest, but if true then they had at least two nestlings.
Bald Eagle Nest #9	35.82687954	-81.82215657	Unknown	Reported to us in May 2023 by an unknown person who said there is a Bald Eagle nest at 2701 Kayga Avenue, Morganton, NC. Unfortunately, we did not have a chance to confirm this as a Bald Eagle nest before the season concluded.	No	Unconfirmed nest
Old Raptor Nest	35.76406	-81.85993	Unknown	Nest found by Daniel Baron on March 5, 2022. Potentially an old Bald Eagle nest, but the nest is too degraded to know for certain. The nest tree was leaning over the lake and looked likely to fall soon.	No	N/A

**Table Abbreviations:**

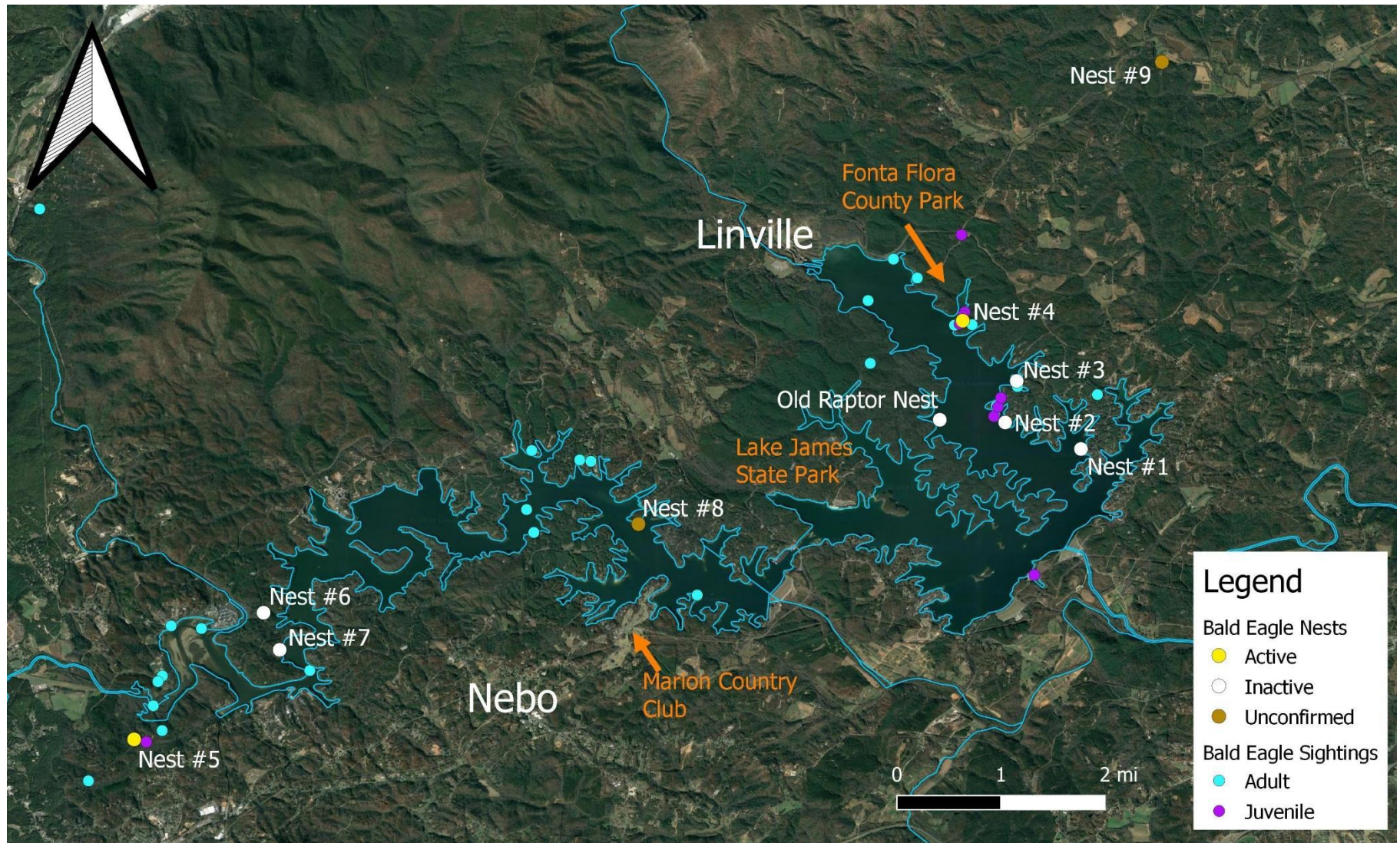
NCWRC - North Carolina Wildlife Resources Commission  
USFWS - United States Fish & Wildlife Service  
LJEA - Lake James Environmental Association  
N/A - Not Applicable  
WWC - Warren Wilson College  
HCP - Habitat Conservation Plan

**Affiliations of People Included in Table:**

Clifton Avery - NCWRC  
Bryan Tompkins - USFWS  
Martha Whitfield - LJEA  
Chip Whitfield - LJEA  
Olya Milenkaya - WWC  
Daniel Baron - WWC  
Jack Raker - LJEA  
James Lindley McKay - Unaffiliated

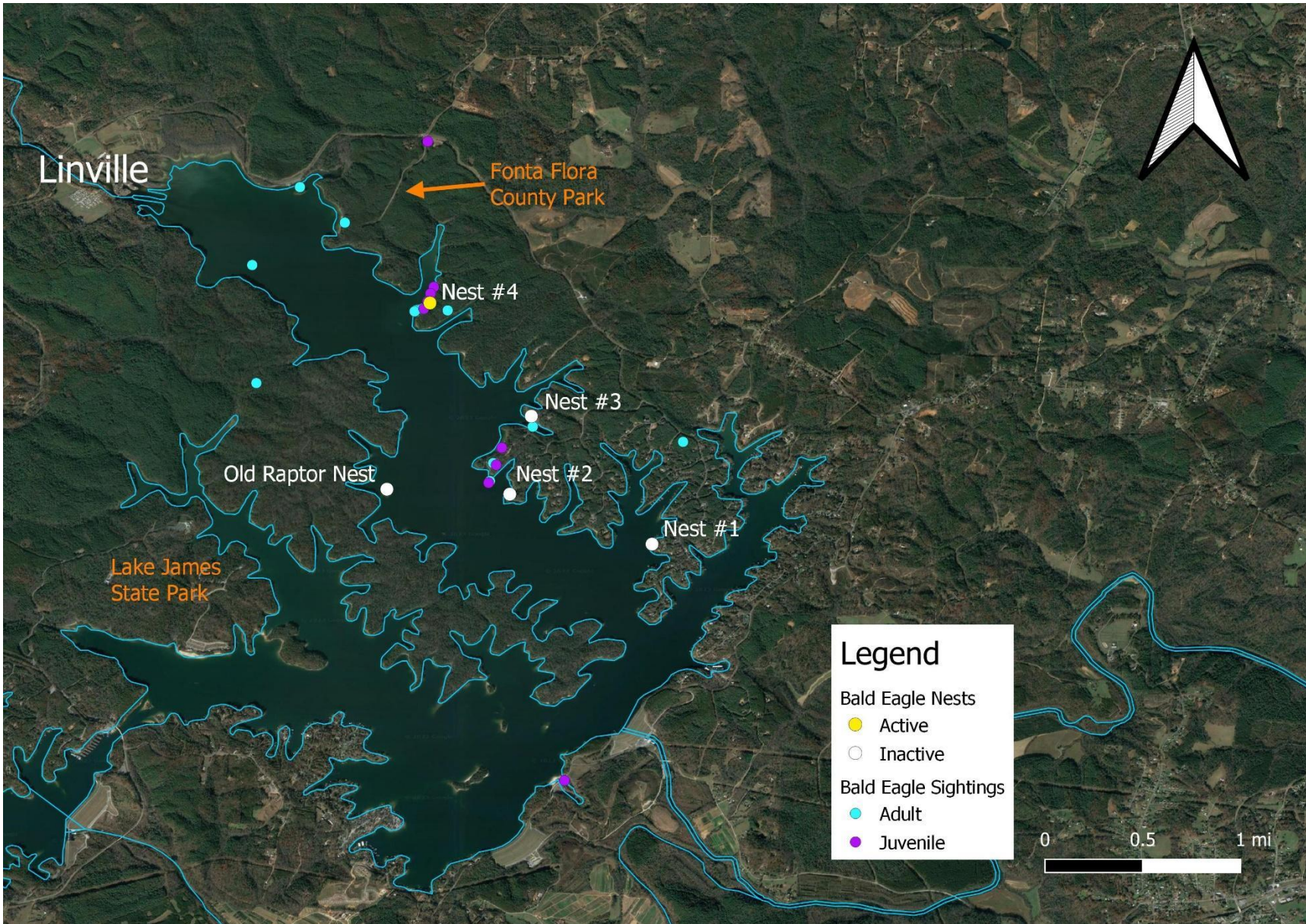
**Table References:**

- <sup>1</sup> Blanc L & JH Carter. 2000. "American Bald Eagle Habitat Conservation Plan for the Lake James Project Burke and McDowell Counties, North Carolina." Dr. J.H. Carter III and Associates, Inc. Environmental Consultants.
- <sup>2</sup> Clifton Avery (personal communication 2022)
- <sup>3</sup> Tompkins B. 2021. "Bald Eagle: Recovering a National Symbol." Oral presentation to the Lake James Environmental Association.
- <sup>4</sup> Mullin W. 1997. "Lake James Bald Eagle Mitigation Program 2017 Annual Report Burke & McDowell Counties, North Carolina." Dr. J.H. Carter III and Associates, Inc. Environmental Consultants.
- <sup>5</sup> Martha Whitfield (personal communication 2021)
- <sup>6</sup> Martha Whitfield, Chip Whitfield and Olya Milenkaya looked for this nest but couldn't find it in November 2021
- <sup>7</sup> Daniel Baron (personal observations)
- <sup>8</sup> Jack Racker (personal communication 2022)
- <sup>9</sup> Wendy Oetjen (personal communication 2023)



**Figure 1.** Lake James including known Bald Eagle nests (#1 – 7). Confirmed Bald Eagle nests that were active during the 2022 – 2023 breeding season are in yellow (#4 and #5) while historic, but no longer active nests are in white (#1 – 3, 6, and 7). Additionally, Nests #8 and 9 were reported to us in 2023 but we did not have a chance to confirm them (color coded in brown). Map also includes an additional old raptor nest that may have been an old Bald Eagle nest (unknown) and Bald Eagle sightings during the 2022 – 2023 breeding season. Map made by Daniel Baron, August 2023.





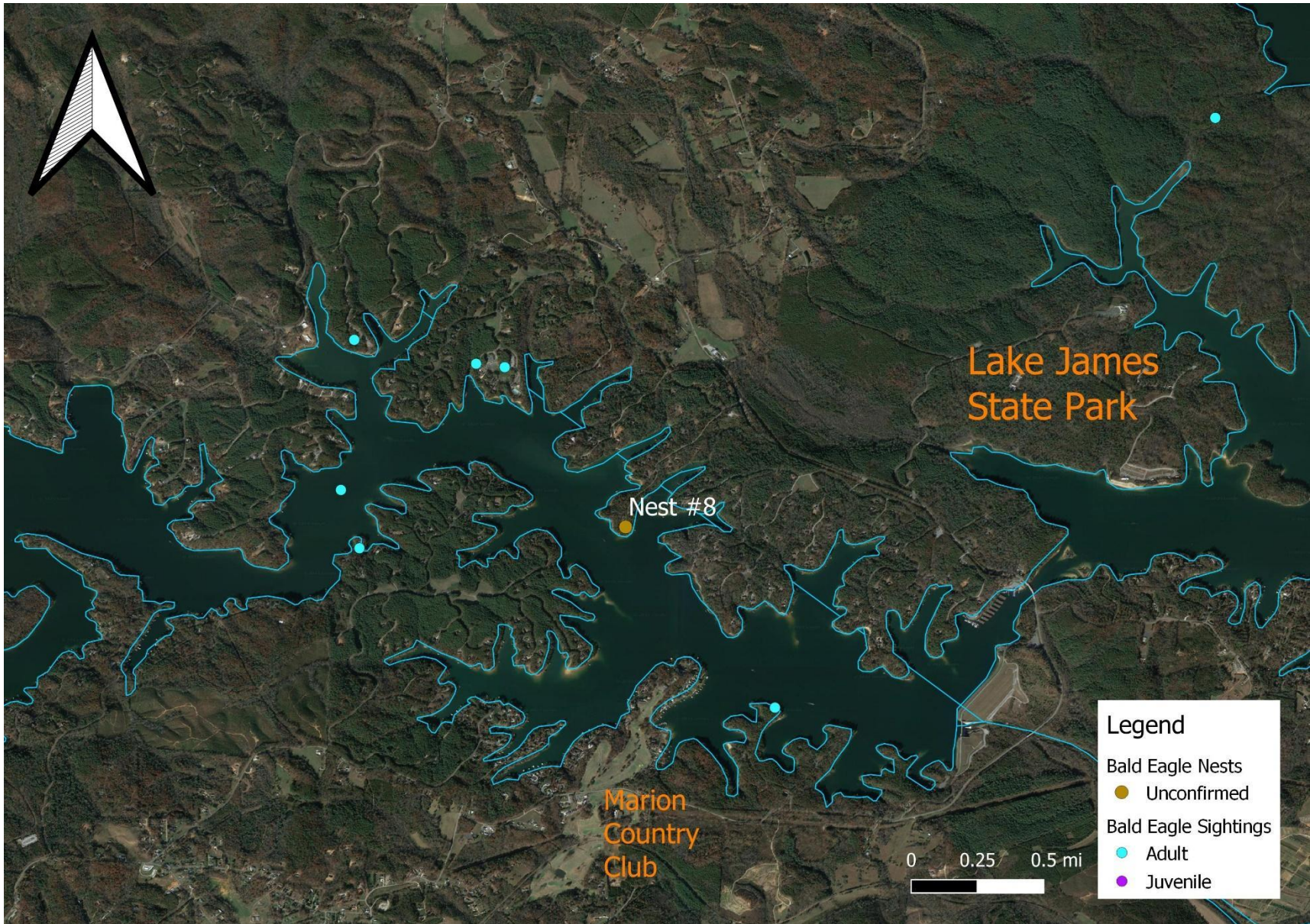
**Figure 2.** Part of Lake James showing locations of Nests #1 – 4, an additional old raptor nest, and Bald Eagle sightings during 2022 - 2023. Map made by Daniel Baron, August 2023.





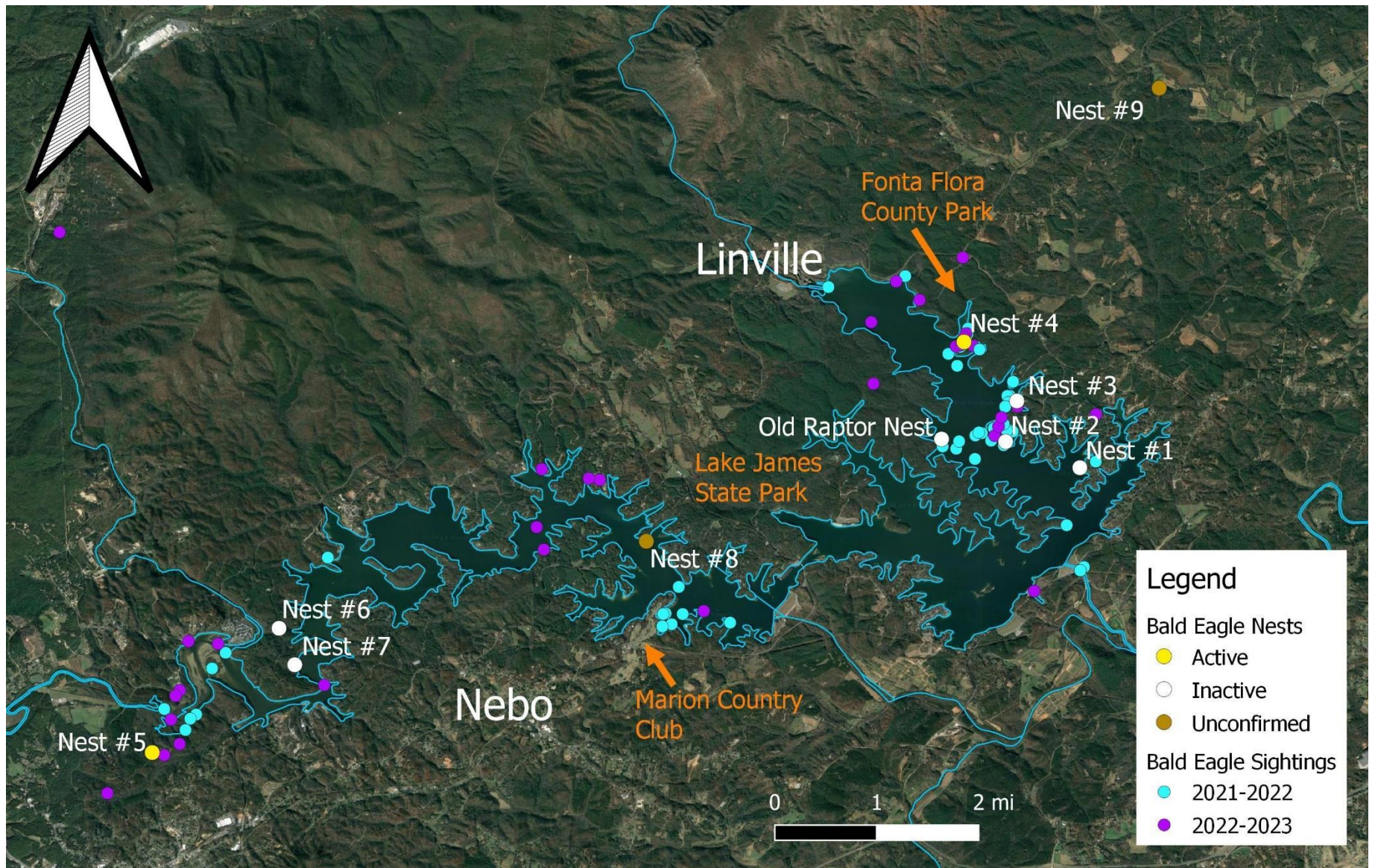
**Figure 3.** Part of Lake James showing location of Nests #5 – 7, and Bald Eagle sightings from 2022 - 2023. Map made by Daniel Baron, August 2023.





**Figure 4.** Part of Lake James showing location of Nest #8, an unconfirmed nest, and Bald Eagle sightings from 2022 - 2023. Map made by Daniel Baron, August 2023.





**Figure 5.** Lake James showing locations of Nests #1 – 9 and a comparison of Bald Eagle sightings between the 201 – 2022 breeding season (turquoise) and the 2022 – 2023 breeding season (purple). Map made by Daniel Baron, August 2023.

## REFERENCES

- Buehler DA. 2020. "Bald Eagle (*Haliaeetus leucocephalus*)", version 1.0. In Birds of the World (A. F. Poole and F. B. Gill, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA.  
<https://doi.org/10.2173/bow.baleag.01>; ACCESSED 15 February 2022.
- U.S. Fish and Wildlife Service [USFWS]. 2020. "Final report: bald eagle population size: 2020 update." U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Washington, D.C., USA.
- Blanc L & JH Carter. 2000. "American Bald Eagle Habitat Conservation Plan for the Lake James Project Burke and McDowell Counties, North Carolina." Dr. J.H. Carter III and Associates, Inc. Environmental Consultants.
- Tompkins B. 2021. "Bald Eagle: Recovering a National Symbol." Oral presentation to the Lake James Environmental Association.
- Milenkaya O & D Baron. 2022. "Bald Eagle Nest Monitoring Program at Lake James – 2022 Annual Report".
- Mullin W. 1997. "Lake James Bald Eagle Mitigation Program 2017 Annual Report Burke & McDowell Counties, North Carolina." Dr. J.H. Carter III and Associates, Inc. Environmental Consultants.



## SUPPLEMENTARY MATERIALS

Full record of the juvenile from Nest #5 which was treated at the Carolina Raptor Center (see attached).



25400	Problems	Notes	Costs																																
<b>Admission date</b> 2023-05-13 <b>Final date</b> 2023-06-22 <b>Days in captivity</b> 40 <b>Species</b> BAEA - Bald eagle <b>Age</b> L <b>Sex</b> UNK <b>Status</b> T <b>Band</b>	✓ Ectoparasite - lice ✗ Emaciation Cause of injury: Unknown	Food aggressive Finder present at release Found in Marion,NC Mcdowell county	Here is a summary of this patient's treatments and expenses: <table border="1"> <thead> <tr> <th>Desc</th> <th>Qty</th> <th>Cost</th> <th>Subtotal</th> </tr> </thead> <tbody> <tr> <td>Examination</td> <td>1</td> <td>50.00</td> <td>50.00</td> </tr> <tr> <td>Daily rate</td> <td>40</td> <td>13.00</td> <td>520.00</td> </tr> <tr> <td>Complete blood count</td> <td>1</td> <td>60.00</td> <td>60.00</td> </tr> <tr> <td>Packed cell volume</td> <td>1</td> <td>25.00</td> <td>25.00</td> </tr> <tr> <td>Blood lead</td> <td>1</td> <td>80.00</td> <td>80.00</td> </tr> <tr> <td>Fecal exam</td> <td>2</td> <td>20.00</td> <td>40.00</td> </tr> <tr> <td><b>Total</b></td> <td></td> <td></td> <td><b>775.00</b></td> </tr> </tbody> </table> <p style="text-align: center;"><a href="#">Donate</a></p> Costs are estimates based on fees charged at a local avian specialist.	Desc	Qty	Cost	Subtotal	Examination	1	50.00	50.00	Daily rate	40	13.00	520.00	Complete blood count	1	60.00	60.00	Packed cell volume	1	25.00	25.00	Blood lead	1	80.00	80.00	Fecal exam	2	20.00	40.00	<b>Total</b>			<b>775.00</b>
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Fecal exam	2	20.00	40.00																																
<b>Total</b>			<b>775.00</b>																																

## Radiographs and images

No images for this patient

### 2023-06-22 12:03 RMB/MS

Weight: 4308 grams  
 Weight change: +121 g (3 %)

### 2023-06-21 12:11 RTS

413gR  
 +Vit&Ca  
 BAR  
 NoLo

### 2023-06-20 13:21 LH

Leftovers: 25  
 Food: 419 g R  
 BARP, very attentive, flared wings a little bit  
 Cleaned food bricks  
 25 g LO

### 2023-06-19 13:41 arc

Leftovers: 0  
 Food:357 g R only (+ vit + Ca)

BARP

### 2023-06-18 14:23 cd/jn

Food: 387g r  
 nolo  
 BAR,on perch

### 2023-06-17 18:45 ARC

Leftovers: 0  
 Food: 273g R + 110g F

BARP nolo

**2023-06-16 12:45 KD/ME**

**Leftovers: 0**

Food: 405g R only (+ vit + Ca)  
NOLO, flew p to p BAR

**2023-06-15 12:20 nen**

Food: 397 g R  
74 g lo(r)  
BAR, perched

**2023-06-14 11:58 RTS**

410gR+Vit&Ca  
(LO=183gR)  
BAR  
On Perch

**2023-06-13 16:16 ME**

----- ORDER CHANGE -----  
reduce food - lots of LO's and wt is up

**2023-06-13 10:30 SJ/BH/ME**

**Leftovers: 384**

Food in cage: 551g R, 384 g LO  
BARP, perched on perch straight in front of door, watched me the whole time but never moved, looks bright

**2023-06-12 12:42 sec**

**Leftovers: 516**

Food: 584 R only (+ vit + Ca)  
LO 518 R  
Was BAR-P perched away from door, but turned to look at me and his gaze followed me as I fed and gave him water  
NEEDS NEW PERCH

**2023-06-11 12:46 bw**

**Leftovers: 0**

Food: 589g brown R

perched QAR sitting on corner perched turned away from door but did turn to look at me  
nolo

**2023-06-10 18:55 AC/MS**

**Leftovers: 160**

Food: 550-600g R only (+ vit + Ca)

BARP, one of perches is broken. 160 R guts LO.

**2023-06-09 12:59 kjd**

**Leftovers: 53**

Food: 566g R  
BAR, perched

**2023-06-08 14:17 LH/ME**

**Leftovers: 228**

Food: 612 g R only  
228 g LO  
Food bricks cleaned of debris and excess scraps  
BARP, Visually aware, active on perch and looking around

**2023-06-07 11:58 me/bw/sj**

652gR+Vit&Ca  
NoLo  
BAR  
On Perch

**2023-06-06 10:15 LH**

**Leftovers: 236**  
Food: 607 g R  
236 g LO R  
BARP, Attentive

**2023-06-05 15:37 me**

----- ORDER CHANGE -----  
Switch to Rats only - leaving fish

**2023-06-05 13:36 sec**

**Leftovers: 270**  
Food: 568g R only (+ vit + Ca) Watch food intake carefully PUT MEDS IN FOOD  
BAR-Perched  
270g LO Fish

**2023-06-04 14:30 SJ**

**Leftovers: 394**  
537g 1/2 f/r, 394g LO (only fish was LO)  
BARP, perched to the right of the door, did not move the entire time I was in there

**2023-06-03 12:41 MS**

**Weight: 4187 grams, Leftovers: 0**  
Weight change: +30 g (1 %)  
Food: 593 g F/R  
Terbinafine: 2.36 cc (25 mg/ml susp) PO  
Weighed  
Move to - R10 big, if enclosure disgusting

BAR, flaring defensively. Very resistant in hand. R10 small disgusting with mutes and fish guts, moved to R10 big and she walked around a bit. NOLO.

MOVED TO: R10 - big

**2023-06-02 14:26 kjd**

**Leftovers: 0**  
Food: 609g R (+ vit + Ca) Watch food intake carefully PUT MEDS IN FOOD  
Terbinafine: 2.36 cc (25 mg/ml susp) PO

Sitting on ground

**2023-06-01 11:59 ST/MGS**

**Leftovers: 285**  
Food in cage: 580g fish

QAR and standing on ground. Watchful but not moving.

**2023-05-31 12:07 RTS**

630gF  
+Vit&Ca  
(LO=244gR)  
+2.36ccTerbinafine

**2023-05-30 12:00 SJ/LH**

**Leftovers: 32**  
608g R, 32g LO  
BAR, defensive, and flaring

**2023-05-29 13:00 sec**

**Leftovers: 204**  
445g r/f +vit/ca + Terbinafine 2.36cc; 204g F LO(R)

**2023-05-28 13:02 bw/sj**

**Leftovers: 330**  
Food: 528g R/fish  
Terbinafine: 2.36 cc (25 mg/ml susp) PO

QAR standing behind door in corner not really moving.  
330g LO fish

#### 2023-05-27 16:25 LH/CD/MS/

Weight: 4157 grams, Leftovers: 260  
Weight change: +218 g (6 %)  
Food: 603g R/fish (+ vit + Ca) Watch food intake carefully PUT MEDS IN FOOD  
Terbinafine: 2.36 cc (25 mg/ml susp) PO  
Weigh

#### 2023-05-26 12:37 AC/LH

Leftovers: 252  
Food: 565g fish (+ vit + Ca) Watch food intake carefully PUT MEDS IN FOOD  
Terbinafine: 2.36 cc (25 mg/ml susp) PO  
252 g LO  
Bird stood behind door

#### 2023-05-25 18:05 LH/MS

Leftovers: 0  
Food: 566g F  
Terbinafine: 2.36 cc (25 mg/ml susp) PO

#### 2023-05-24 11:52 RTS

Leftovers: 0  
613gR+Vit&Ca  
=2.36CCTerbinafine  
NoLo

#### 2023-05-23 16:00 Sc/BW

Food: 579g R/fish (+ vit + Ca)  
Terbinafine: 2.27 cc (25 mg/ml susp) PO  
  
Standing behind door

#### 2023-05-22 18:20 RMB/RN/ME/SC

Weight: 3939 grams  
Weight change: -41 g (1 %)  
Food: 267g fish (+ vit + Ca) Watch food intake carefully PUT MEDS IN FOOD  
  
Terbinafine: 2.27 cc (25 mg/ml susp) PO  
Weigh

#### 2023-05-21 18:10 KG

Leftovers: 0  
Food: 247g 1/2 R / 1 fish (+ vit + Ca)  
Terbinafine: 2.27 cc (25 mg/ml susp) PO  
QAR, on floor behind door  
NOLO

#### 2023-05-21 10:51 RMB/RH/FLM

Leftovers: 0  
Food: 249g fish (+ vit + Ca) Watch food intake carefully PUT MEDS IN FOOD  
  
Terbinafine: 2.27 cc (25 mg/ml susp) PO  
  
Laying behind door, Became BAR when fish was seen.

#### 2023-05-20 17:49 aks

Food: 223g R  
Terbinafine: 2.27 cc (25 mg/ml susp) PO

quiet, visual, sitting/laying in corner

#### 2023-05-20 09:30 mlm

Leftovers: 0  
Food: 227g fish ( Watch food intake carefully PUT MEDS IN FOOD

Terbinafine: 2.27 cc (25 mg/ml susp) PO  
On ground

#### 2023-05-19 16:26 kjd

Leftovers: 0

Food: 110g Fish and 55g Rat (+ vit + Ca) Watch food intake carefully PUT MEDS IN FOOD

Terbinafine: 2.27 cc (25 mg/ml susp) PO

NOLO

alert to presence but seemed lethargic, was laying down behind the door and did not move when entering or when door touched him

#### 2023-05-19 10:59 mkf

Leftovers: 0

Food: 151 g 1/2 fl and 1/2 R

Terbinafine: 2.27 cc (25 mg/ml susp) PO

BAR. In back right corner of enclosure. Watched closely while placing food. NOLO

#### 2023-05-18 16:37 ah/jb

Leftovers: 0

Food: fed 160 g 1/2 fl/1/2 Fish; NOLO. Found hunched over with head hanging low in corner by door upon arrival

SQ fluids: 60 when weighing

Terbinafine: 2.27 cc (25 mg/ml susp) PO

#### 2023-05-18 11:00 bw/eg

Weight: 3980 grams

Weight change: +164 g (4 %)

Food: 176 g 1/2 FL + 1/2 R (+ vit + Ca) Watch food intake carefully PUT MEDS IN FOOD

SQ fluids: 60 when weighing

Terbinafine: 2.27 cc (25 mg/ml susp) PO

NOLO?

#### 2023-05-17 16:00 lmv/eg

Food: 152 g total - 1/2 FL + 1/2 fish (88g) (+ vit + Ca) Watch food intake carefully PUT MEDS IN FOOD

Terbinafine: 2.27 cc (25 mg/ml susp) PO

Quiet, in corner

#### 2023-05-17 09:00 sc

Leftovers: 0

Food: 173 g 1/2 FL + 1/2 R (+ vit + Ca) Watch food intake carefully PUT MEDS IN FOOD

Terbinafine: 2.27 cc (25 mg/ml susp) PO

NOLO?

#### 2023-05-16 16:55 HA

Leftovers: 0

Food: 176g 1/2 FL and 1/2 R

Terbinafine: 2.27 cc (25 mg/ml susp) PO

BARP. Watched me place food. Very calm. Fluffed up when I entered.

#### 2023-05-16 13:20 MS

US FWS notified via email: species of interest admitted.

#### 2023-05-16 10:42 MS

Weight: 3816 grams, Leftovers: 0

Weight change: -4 g (0 %)

Food: 127 g FL

SQ fluids: 60

Terbinafine: 2.27 cc (25 mg/ml susp) PO

BAR, standing at front of kennel. Stressy breathing in hand. Set up in R10 small with water. NOLO.

MOVED TO: R10 - small

----- ORDER CHANGE -----  
switch to 1/2 and 1/2

**2023-05-15 15:50 rw/eg**

**Leftovers: 0**

Food: 156 FL cut in half (+ vit + Ca) Force feed if LO's Watch food intake carefully PUT MEDS IN FOOD

Terbinafine: 2.27 cc (25 mg/ml susp) PO

BARP  
NOLO

**2023-05-15 13:32 sec/rmb**

**Leftovers: 0**

Food: 132g FL cut in half (+ vit + Ca) Force feed if LO's Watch food intake carefully PUT MEDS IN FOOD

**2023-05-15 10:00 me/kj/eb**

**Weight: 3820 grams, Leftovers: 0**

Weight change: +38 g (1 %)

Food: 138g FL ck cut in half (+ vit + Ca)

MEDS IN FOOD

SQ fluids: 60 cc

Terbinafine: 2.27 cc (25 mg/ml susp) PO

Weight: 3820

Added low perch

Bird will need larger enclosure very soon

**2023-05-14 16:22 cd/eg**

**Leftovers: 0**

Food: 140g Q FL cut in half (+ vit + Ca) Force feed if LO's Watch food intake carefully PUT MEDS IN FOOD

SQ fluids: 30cc

Terbinafine: 2.27 cc (25 mg/ml susp) PO

BAR, standing in condo. NOLO! Had already grabbed so opted to admin half of fluids while in hand.

**2023-05-14 13:20 RMB**

Food: 140g FL cut in half (+ vit + Ca) Force feed if LO's Watch food intake carefully

FF - LO

Fecal - yes

Fecal	
Collection date	2023-05-14
Results	POS for fluke

Fecal	
Collection date	2023-05-14
Results	NEG

**2023-05-14 10:04 RMB/NEN/MGB**

**Leftovers: 0**

Food: 131g FL cut in half (+ vit + Ca) Watch food intake carefully

SQ fluids: 60

Terbinafine: 2.27 cc (25 mg/ml susp) PO

Changed to TID

BAR, NOLO, Moved R16d

**2023-05-13 21:00 cd**

PCV/TP	
Collection date	2023-05-13 16:36:00
PCV	35 %
TS	4.3 g\dl
Serum	pale yellow

CBC	
Collection date	2023-05-13
WBC count	20000
Corrected count	15555
Hets/Neut	33% - 5133
Bands	0+
Toxics	0+
Lymphs	50% - 7777
Eos	13% - 2022

<b>Mono</b>	2% - 311
<b>Baso</b>	2% - 311
<b>Thrombocytes</b>	
<b>PI</b>	1
<b>Hemoproteus</b>	NEG
<b>Leukocytozoon</b>	NEG
<b>Plasmodium</b>	NEG
<b>Read by</b>	cd
large group of reactive lymphs	

2023-05-13 20:34 MS

Weight: 3782 grams, Keel score: 1.5

----- PHYSICAL EXAM FINDINGS -----

Head  
 Behavior and Neuro: QAR  
 Mouth: clear  
 Nares: clear  
 Ears: clear  
 Body  
 Body condition score: 1.5  
 Wings  
 Left wing: NSF, full ext  
 Right wing: NSF, full ext  
 Legs  
 Left leg: NSF, full ext  
 Right leg: NSF, full ext  
 Left remiges: IB  
 Right remiges: IB  
 Retrices: tipped  
 Ectoparasites: feather lice

Young eagle brought in after being seen sternal under some brush. Bird can walk away, but would stay crouched down. Vocal. Lead is low, PCV normal, awaiting CBC results, but seems like a failure to thrive case. Collected fecal. Set up in kennel in Iso. Standing tall.

TREATMENTS GIVEN

60 cc LRS SQ L leg  
 2.2 cc terb (bird immediately spit out)  
 Sprayed with Bronco  
 Nutrical

<b>Blood lead</b>	
<b>Collection date</b>	2023-05-13
<b>Level</b>	0.00 ug/dL