

2011 Great Blue Heron Monitoring
Cuyahoga Valley National Park
Bath Road Heronry and Wetmore/AP Road Heronry

The presence of various bird species in Cuyahoga Valley National Park has been documented for many years. In an attempt to collect detailed information about specific birds, the park began a survey of Great Blue Herons (*Ardea herodias*) in the spring of 1993. Herons are intimately linked and dependent upon the quality of their habitats, making them an important species to measure progress in water quality improvement within the Cuyahoga River watershed.

This survey was designed to monitor nesting sites of Great Blue Herons and collect information that would document numbers of nesting pairs, reproductive success, and geographic distribution. Site location, and description; dates of site visits; nest construction, occupancy, incubation and hatching; number of active nests, and number of young fledged are recorded. Heronries are visited on a weekly basis to record changes in activity. Spotting scopes and binoculars are used to view nesting behavior. Observations begin early in January when birds begin nest building, and end in June or July when young fledge the nests.

Today, several heronries are monitored annually by park citizen science volunteers. The largest heronry is located on Bath Road on the east side of the Cuyahoga River. The second heronry, located in Pinery Narrows, has recently been vacated and re-established on the east side of the Cuyahoga River in the Mudcatcher ravine. In 2009, a third heronry was observed on the east side of the river, near the intersection of Akron Peninsula (AP) and Wetmore Roads.

This report summarizes the 2011 Great Blue Heron Monitoring Program. The citizen scientists shared the work by each taking responsibility for observing specific nest trees in the Bath Road heronry and the Wetmore Road/AP Road heronry. We thank them for their dedicated work in preserving and protecting Cuyahoga Valley National Park.

Bath Road Heronry

At the Bath Road heronry, the birds began appearing in small numbers in early February, with the first ones spotted on February 5. Snow still covered the ground until a thaw on February 17, followed by another snowstorm. By February 26, thirty-three great blue herons had returned to the area and were seen choosing nest sites in four out of five of the same sycamores as were used in previous years. Herons began occupying nest sites in the fifth tree slightly later than the other trees, with two nests noted as occupied there by March 5. Most incubation began between March 5 and March 13, with later-constructed nests lagging one to two weeks behind. By the first day of spring, 106 nests at Bath Road were occupied, with new nests being added daily. The number of nests topped out at 138, although not all those occupied nests produced fledglings. This spring was unusually wet, with the river above flood stage at least twice, on February 28 and March 5. The wet spring was followed by intense, prolonged heat in July. Nonetheless weather conditions did not deter the adults from their parenting duties.

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On April 8, the first chick was noted. Most chicks were not visible until the period between April 25 and May 1. By May 21, many nests were already obscured by leaves, so monitoring became more challenging. By the end of June most fledglings had left the heronry to fend for themselves and the adults dispersed throughout the valley. By then leaves obscured all but the most obvious nests and quiet once again descended on the nest trees.

Below are summaries of nests and fledglings per tree, with comparisons to previous years.

Active Nests at Bath Road:

	2011 nests with incubation	2011 nests producing chicks	2010 nests with incubation	2010 nests w/ chicks
Tree A	20	17	17	16
Tree B	33	32	29	26
Tree C	38	38	32	32
Tree E	31	28	32	30
Tree H	16	16	14	13
Totals	138	131	124	117

Fledglings at Bath Road (Estimated)*

	2011*	2010	2009
Tree A	38 (est.)	42	39
Tree B	72 (est.)	68	73
Tree C	85 (est.)	84	96
Tree E	63 (est.)	78	87
Tree H	35 (actual)	34	20
Totals	293	306	315

* By late May many of the nests were difficult to see due to thick foliage. The number of fledglings was estimated by noting which nests were still clearly visible, counting the birds seen in those nests, and arriving at an average of 2.24 per nest. Of all the nests, about 78% were countable.

Note that not all incubating nests appeared to be successful. Although 138 nests had adults incubating eggs, chicks were noted in only 131 nests. Several factors contributed to nest failure: one very small nest, a nest that fell due to branch breaking off, very late nesting, and other unknown abandonment or failure. At least one adult heron was known to have died after colliding with a power line.

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In 2011, unlike 2010, there was no observed predation by bald eagles at the heronry, although eagles were seen occasionally flying over. On one occasion several turkey vultures were seen perched in a heron nest tree.

A significant change in the Bath Road heronry this year is the loss of Tree H. As noted above, the spring was particularly wet and by March 20 it was obvious that Tree H had taken on a significant lean towards the north (toward Bath Road). Officials became concerned that the tree would fall and bring down the power lines along Bath Road. Metro Parks, Serving Summit County, which now leases the north portion of Akron's Water Pollution Control Station's property, arranged to have the tree cabled to another tree for the rest of the heron nesting season in order to allow the herons to complete the nesting cycle. Once the birds had fledged, however, a news release noted that the City of Cuyahoga Falls planned to cut the tree down. First the larger limbs on the north side of the tree were removed, and as of this report, the entire top of the tree has been cut off. This loss will be a major impact on this heronry. Although it was always the last tree to be used by the herons (perhaps because of its proximity to the road and the power lines), it still provided 12% of the nest sites, and most nests were successful. It was also the easiest to monitor and provided very accurate data on numbers of chicks and fledglings.

Overall, the Bath Road heronry appears to be leveling off in size, having grown only by a few nests over previous recent years. This is due mostly to the lack of expansion opportunity. It will be interesting to note how the birds respond in 2012 when they find the number of suitable sites reduced by the loss of Tree H. In other years they have tried using other trees (other than the sycamores), but those attempts have not been successful, and there are no other large sycamores in the immediate vicinity.



Bath Road: Tree H at start of nesting season, March 2011

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Bath Road: Tree H on October 28, 2011



Bath Road: Tree H in relation to Trees A & B, October 28, 2011

Wetmore Heronry Summary

The Wetmore heronry presents a far greater challenge to monitors than does the Bath Road heronry, and this was especially true this year. With all the rain and flooding in February and March, the wetland beneath the Wetmore heronry was still very high in late May. While last year nests were noted in just one tree, during the winter it appeared that

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there were other nests that had been constructed farther to the south and west of the monitored tree.

In February, monitors noticed at least one more tree with nests that had been missed and therefore not counted during monitoring last year. In March monitors found a total of three trees with nests. On March 13 herons were first seen in the nest trees, and construction was confirmed on March 17. By March 20 there were twenty active nests.

On May 21 monitors were able to identify at least five nest trees. Unlike at Bath, these trees are not all sycamores, nor are they clustered and easily viewed. Instead, the trees are spread out and separated by the wetland and thick vegetation. The nests are also spread amongst these trees, with one tree holding up to thirteen nests, while another held only two. The best information available on nest trees at Wetmore is as follows:

- Tree A: a dead tree with seven nests.
- Tree B: a live sycamore with thirteen nests.
- Tree B-1: a branch in front of Tree B from a different tree, holding one nest.
- Tree C: a live cottonwood with two nests.
- Tree D: a dead tree with two nests.
- Tree E: a dead tree with four nests.

Trees A, B, B-1, and C, could all be seen from near the road. The others were seen from the interior exploration. From these observations, it was concluded there were a maximum number of thirty nests, or a minimum of twenty-eight nests.

Again, a good diversity of bird species was also noted in the spring in the vicinity around the Wetmore heronry. On May 21, from one observation point, observers noted nineteen species besides the herons: warbling vireo, red-eyed vireo, yellow-throated vireo, blue-winged warbler, common yellowthroat, yellow warbler, swamp sparrow, song sparrow, pewee, great-crested flycatcher, tree swallow, scarlet tanager, rose-breasted grosbeak, catbird, cardinal, red-winged blackbird, starling, turkey vulture, and red-tailed hawk.

Heron Nests at Wetmore Road

2011	2010	2009
Approx. 30	17	17

Chicks estimated at Wetmore Road*

2011	2010	2009
71*	47	unknown

*Estimate based on the following observation: of the thirty nests seen in May, fourteen could be seen well enough to count chicks, an average of 2.357 per nest. It is unknown how many chicks actually fledged.

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Two of the Wetmore nest trees in March 2011 before nesting began: to left, a dead tree (Tree A); on the right, a sycamore (Tree B). The sycamore held thirteen nests and the dead tree held seven nests during the 2011 nesting season.



Dead tree with nests at Wetmore, viewed from interior of area, May 2011. This is the same tree as seen in the left of the above photo.

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Same live sycamore as seen in first photo above, as viewed from the utility corridor near Akron Peninsula Road. This photo taken in May 2011 shows herons occupying nests.



Another dead tree at Wetmore, with four nests, as viewed from the interior of the site in May 2011.

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Wetmore: Cottonwood with two nests (Tree C)

As in previous years the citizen science volunteers continued to educate the visiting public on an informal basis, interacting with visitors, sharing the data, and offering views of nesting herons through the spotting scopes. Public interest in the herons, including local media coverage, continues to be very strong.

In 2010 a new heronry located on the ridge top of Mudcatcher ravine, north of State Route 82 in Sagamore Hills was active with approximately 40 nests. This heronry was occupied again in 2011 with approximately 40-60 nests. It is possible that the herons that have nested in previous years in the Pinery Narrows area on the west side of the Cuyahoga River have now relocated to the Mudcatcher area. This may be due to the success of the bald eagle nest in Pinery Narrows.