

# Notes From Nanjemoy Creek

Nanjemoy Creek Environmental Education Center



Charles County  
Public Schools

## NCEEC's Rockin' Raptors

Raptors (birds of prey) have long been a part of Nanjemoy Creek Environmental Education Center's (NCEEC) history. Nanjemoy Creek was founded in June of 1987, and soon after, *Otus*, the Eastern Screech Owl, arrived on the scene to become the first program bird. Another milestone was the 1989 arrival of NCEEC's most famous former resident, *Tayac*, the Bald Eagle. Though Tayac passed away last January, he made a lasting impact on the students that had a chance to meet him. Currently, NCEEC has a variety of captive raptors, including two Eastern Screech Owls (red and grey morphs), a Barred Owl, a Barn Owl, a Red-tailed Hawk, and a Bald Eagle. For more information on our current raptors, please check out our website at <http://www.ccboe.com/schools/nanjemoycreek/>.

Our captive raptors play an important role in our educational programming. In a given year, approximately 2,000 visitors to NCEEC learn more about raptors by visiting our birds. Not only do visitors learn about the raptors' adaptations, diets, and habitats, they also gain an understanding of conservation and stewardship as it relates to the raptors. Our 1<sup>st</sup> grade outreach program, *Bird Clues*, teaches students all about birds, and the finishing touch on the program is a visit from one of our captive raptors. For middle school students, we offer our *Raptor Ecology* outreach program. Through an interactive experience, students learn about the raptors' role in the local ecosystem and the current pressures that they are facing. We also utilize the raptors for various custom programs, whether an assembly, display, or presentation.

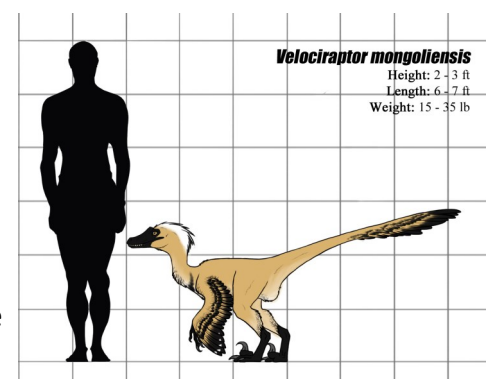


This long history of raptor education would not be possible without contributions in the form of donations and countless volunteer hours. A special thanks to those who have contributed to our raptors.

## So.....What is a raptor?

The word "raptor" comes from the Latin word *rapere*, which means "to seize or take by force." The term refers to all birds of prey. A bird of prey is a bird that hunts for its food which makes them carnivores. Most people when they hear the term raptor immediately think of the Velociraptors made popular by the movie, *Jurassic Park*. The Velociraptors were real dinosaurs called dromaeosaurs, but they share very few characteristics with the ones from the movies. Today, there are more than 560 species of raptors around the world.

Continued page 2



**So... what is a Raptor?** continued

All of these raptors share certain adaptations, but each has unique characteristics that help distinguish them one from another. All raptors have adaptations that make them excellent hunters. Those adaptations include excellent sight, sharp beaks and talons, as well as strong legs and feet.

Raptors have exceptional sight that allows them to spot prey from a great distance during flight. They are able to focus rapidly, and they have superior depth perception. Another thing that sets raptors apart from other birds is a special eyelid or nictitating membrane. This special transparent eyelid closes laterally across the eye and is used to keep the eyes moist, protect the eyes during flight, and protect the eyes when feeding themselves or their young. Raptors also have a bony shield that projects above the eye. The bony shield adds protection when raptors pursue prey into brush, protects the eyes from injury while hunting, and also gives raptors their distinctly menacing appearance.



Raptors' talons, when combined with their strong legs and feet, become formidable weapons. Their talons allow them to pick up and carry prey. All raptors have the same general beak design. Their beaks are curved at the tip with sharp cutting edges designed to tear their prey into bite-sized pieces. Most birds of prey hunt for vertebrates (animals with backbones) that can include mammals, fish, or other birds. A number of raptors, especially vultures and condors, also eat carrion (the carcasses of dead animals). Raptors are at the top of their food chain.

---

## Raptor Renovations

Raptor mews are what we call an area that houses birds of prey. Here at Nanjemoy Creek, we have what are called freeloft mews. This means that our birds of prey live in cages, but are free to move around in their cage as they please. They can get exercise by flying, they can move to and from different perching areas, or simply sit in the sun and warm up. We find that this freedom allows them to stay comfortable in their enclosures, which is ultimately our goal.

Time has not been kind to our mews. Our raptor mews were built in 2005 by volunteer Boy Scouts. The construction is primarily wood and wire, and as you can imagine, they have seen a lot of wear and tear and natural aging. As such, it is time for an update. We have already completed a new, individual cage for our Bald Eagle. This cage is much larger than the Eagle's old cage, providing it with plenty of room to fly around, as well as allowing it to be easily admired by all of our visitors.

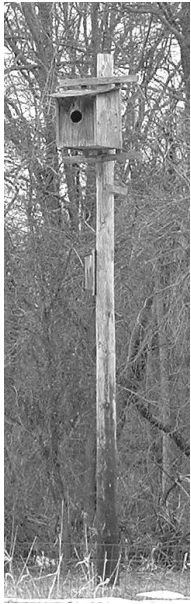


Our plan with the main raptor mews is to rebuild them from the ground up. We would like to update the design with new information and insights that we have gained over time. One thing that we would like to consider in the redesign is the ease of maintenance. While there is always a lot of work involved in caring for these animals, we have found that we can take certain steps to streamline the maintenance process, and at the end of the day, that equates to more comfortable living conditions for our birds. We would also like to design our new raptor mews to be adjustable, allowing us to easily change the sizes of the cages without too much effort. As time goes on, we see birds come and go here at Nanjemoy Creek, and not every bird has the same cage requirements. So, instead of building a permanent cage for one type of bird, we would like to see a cage system that we can adjust based on the birds that we are caring for at the moment. Finally, we would like to keep our new design as natural looking as possible. We are not fans of concrete and chain-link here at Nanjemoy Creek. When you visit us, we want you to feel as close to nature as possible, so you do not feel as if you are standing in a zoo.

We plan to start the redesign process in the coming months. If you have any suggestions or would like to volunteer any of your time or knowledge in raptor care, construction, or anything that may help us, please feel free to get in touch with us at 301-743-3526 or [nceec@ccboe.com](mailto:nceec@ccboe.com).

## NCEEC's Role in Raptor Conservation

NCEEC has a long standing history of raptor conservation going back to our founding in 1987. NCEEC founders, Cal Posey, Sr. and Steve Cardano, enjoyed sharing their love of nature and wildlife conservation with both Charles County Public Schools (CCPS) students and teachers and often spoke of raptor conservation.



Steve helped bring back the osprey population to Nanjemoy Creek with the construction and monitoring of nesting platforms on the Creek. Cal put barred owl nest boxes in the woods on the property. During the month of March, they would hold “Welcome Back Osprey” celebrations with visiting 5<sup>th</sup> grade students at the Center. During summers, Chesapeake Bay Teacher Workshops and student summer camps helped monitor and collect nesting data while banding the osprey nestlings.

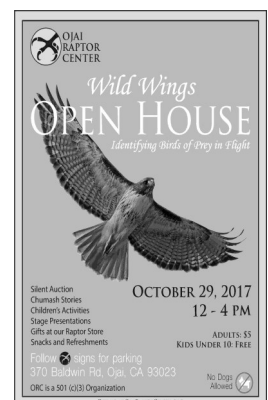
In the late 1990's, we added screech owl nest boxes to our conservation efforts. Over the years, they have been used for both nesting and winter roosting. Since 1998, our 7<sup>th</sup> grade Raptor Conservation has visited middle schools with a live raptor. In recent years, in order to help with the conservation of the American kestrel, we have erected a kestrel nest box on site.

In about 2005, thanks to a partnership with SMECO and the Southern Maryland Audubon Society, a barn owl nest box was put on a pole here. Although the barn owl is listed as an endangered species with the Maryland Department of Natural Resources, they now nest on site. There is only one other confirmed nesting location in Charles County. Each spring, when the owlets are old enough to band, we hold a Barn Owls and Burgers event.

Human behavior and the environment can have positive and negative consequences on raptor populations. Threats to raptors come from a list of sources including the following: oil spills that either poison the raptor or the food it is eating, pesticide build up in their bodies, non-target poisons intended to kill other animals that, in turn, get eaten by the raptor, illegal shooting and pole trapping, poisoning from lead shot or fishing weights eaten by waterfowl, collisions with vehicles, high tension cables, power poles and lines, wind turbines, towers and windows, attraction to bright city lights, sediment and road salt runoff, as well as habitat loss and climate change.

However, we have the ability to act in ways that can also have positive outcomes for raptor conservation. Here are some examples:

- Educate ourselves and others on the importance of raptors.
- Choose to minimize pesticide use and use eco-friendly or natural forms of pesticides.
- Make a concerted effort not to use lead shot or lead fishing weights.
- Stop using non-target poisons to kill animals.
- Minimize litter so that prey are not attracted to the roadside.
- Ask power providers to put new power lines underground and install perches above wires and cross poles. Use new paint colors that don't attract insects and birds.
- Campaign for companies and municipalities to turn off the bright lights on buildings that attract birds at night and use building designs that minimize glass window strikes.
- Minimize sediment and road salt runoff.
- Make choices that minimize climate change.
- And, of course, help protect raptors by creating good habitat and erecting raptor nesting structures.





## Nanjemoy Creek Environmental Education Center

5300 Turkey Tayac Place  
Nanjemoy, Maryland 20662

Phone: 301-743-3526  
Fax: 301-246-9623  
Email: nceec@ccboe.com

### We're on the Web

<http://www.ccboe.com/schools/nanjemoycreek>

*The mission of Charles County Public Schools is to provide an opportunity for all school-aged children to receive an academically challenging, quality education that builds character, equips for leadership, and prepares for life in an environment that is safe and conducive to learning.*

Printed on Recycled Paper.  
Please recycle or  
pass it on to a  
friend when you're  
done.



The Charles County public school system does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation, gender identity, age or disability in its programs, activities or employment practices. For inquiries, please contact Patricia Vaira, Title IX/ADA/Section 504 Coordinator (students) or Nikial M. Majors, Title IX/ADA/Section 504 coordinator (employees/ adults), at Charles County Public Schools, Jesse L. Starkey Administration Building, P.O. Box 2770, La Plata, MD 20646; 301-932-6610/301-870-3814. For special accommodations call 301-934-7230 or TDD 1-800-735-2258 two weeks prior to the event.

### NCEEC's Newest Resident Raptor

Our newest raptor is a grey female Eastern Screech Owl (*Megascops asio*). The Eastern screech owl is the smallest owl found in Charles County. They come in two colors: grey and rufous (red). The reason for these two colors is camouflage. Grey morphs are better camouflaged with the bark of the hardwood trees, while red morphs camouflage better against certain pine trees and the colorful changing leaves of deciduous trees. Contrary to their name, these birds do not screech, but instead, they make a call that has two parts. The first part sounds roughly like a horse whinnying, followed by a trill. Their typical habitat includes deciduous woodlands. They prefer areas with large, dead trees that they use for nesting. This bird came to us because she was raised in captivity, and she never learned how to fend for herself out in the wild from her parents.



### Nanjemoy Creek Fan Club

Would you like to help support the programs and projects that take place throughout the year at Nanjemoy Creek Environmental Education Center? Become a member of Nanjemoy Creek's Fan Club by completing the attached form and including a small, tax deductible donation to our center. Your donation helps us keep our program up to date with the latest advances in environmental education and supports care for our raptors and bees. In return for your support, you will receive our newsletter to keep you informed about what's happening at the center.

### I have included a donation of

\_\_\_\$25, \_\_\_ \$50, \_\_\_ \$100, \_\_\_ other

to support NCEEC's environmental education programs for  
Charles County Public School students.

Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Newsletter: (circle one)    email notification    paper copy

email: \_\_\_\_\_

### Make checks payable to "Charles County Public Schools"

Mail to: Nanjemoy Creek Environmental Education Center  
5300 Turkey Tayac Place, Nanjemoy, MD 20662