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YOUR Thoughts

We are looking for contributors and ideas .

If you have a topic, success story, lesson learned, or helpful suggestion—let us know.

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Stewardship News is an unofficial publication of the U.S. Army Corps of Engineers (USACE). This online publication is produced quarterly with the purpose of providing its readers information about the USACE Stewardship Program. Editorial views and opinions expressed are not necessarily those of the Department of the Army. Mention of specific vendors does not constitute endorsement by the Department of the Army or any element thereof.

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# Your Stewardship HQ Update

POC: Roseana Burick, Environmental Stewardship Business Line Manager, 202-263-9067

We are celebrating 5 years of Stewardship News! Thank you to all that have contributed articles showcasing the diversity of work conducted on our public lands and waters. All past issues can be found on the NRM Gateway!



Sharing other news: The Natural Resource Management technical support team is excited to announce that the National Initiatives Viewer Tool (NIVT) has three new modules available! The modules include information on invasive species, federal status species, and State Wildlife Action Plans (SWAPs). The NIVT can be found on the NRM Gateway under the "Stewardship Tools" section. Check back next newsletter for more details!

Sharing other news: The Illinois Department of Natural Resources unveiled "Copi," the new name for Asian carp. The new name is a play on "copious" – as that's exactly what these fish are. By one estimate, 20 million to 50 million pounds of Copi could be harvested from the Illinois River alone each year, with hundreds of millions more in waterways from the Midwest to the Gulf Coast. Changing a fish's name has been a tried-and-true strategy for other fish. Orange roughy was originally known as slimehead; Chilean sea bass was known as Patagonian toothfish (it's not even a bass); and peekytoe crab was once known as mud crab. This strategy has been used for more than fish: exporters introduced Chinese gooseberries as "kiwi," for instance.

## Silviculture Study at W. Kerr Scott Dam & Reservoir

Article provided by Park Ranger Johnny E. Jones with contribution from NRM Rangers David Bolick and Grace Trimble, W. Kerr Scott Reservoir

In March 2022, USACE personnel from W. Kerr Scott Dam and Reservoir along with personnel from The American Chestnut Foundation (TACF) and Appalachian State University (ASU) Biology Department planted nearly 300 American Chestnut, Red Oak, and White Oak trees at Ft. Hamby Wildlife Management Area (WMA) as part of a silviculture study.

According to David Bolick, the Park Ranger in charge of W. Kerr Scott's Natural Resources program, the purpose of this study is to observe differences in American Chestnut survival, blight resistance, and long-term competition with co-occurring species (Oaks). This project will include two sites. The first is located on Fort Hamby WMA at W. Kerr Scott Reservoir in Wilkesboro, NC, and the second is located at a higher elevation on a research property owned by ASU in Boone, NC. Both locations will feature three different treatments: an old field (open site), pine forest (with release planned in 2-3 years), and shelterwood (50% leaf basal area +/- 10% with release planned in 2-3 years).

Photo: TACF Personnel Jamie Van Clief (Front Left) and Tom Saielli (Front Right) along with USACE Ranger David Bolick (Rear Left) and ASU Biology Professor Michael Madritch (Rear Right) sort chestnut and oak saplings.

Continued



### Help Us Help You!

Have you recently updated a Master Plan or Shoreline Management Plan? These are popular NRM Gateway references. To see the plans currently posted, visit the "Project Master Plans and OMPs" and the "Shoreline Management Program pages. Please submit any additional approved plans for posting by emailing them to Ginny Dickerson (Dickerson, Virginia in Outlook).

# Link to Project Master Plans and OMPs page:

https://
corpslakes.erdc.dren.mil/
employees/masterplans/
masterplans.cfm

#### Link to Shoreline Management Plans link on this page:

https://
corpslakes.erdc.dren.mil/
employees/shoreline/
shoreline.cfm

Photo Top: TACF Personnel Jamie Van Clief (foreground) and USACE Ranger RJ Bussi (background) Plant Saplings and Take Measurements. At these locations is a mix of American Chestnut hybrids (BC1F2 and BC2F2), large surviving American Chestnuts, Red Oaks, and White Oaks all planted randomly throughout the treatment areas. Height and diameter will be measured at the end of each growing season along with mortality and blight resistance once natural blight infections become visible. The results of this study will be utilized to analyze the differences in establishing oak and chestnut species inside of a hardwood or pine overstory. Additionally, results will be used to develop silviculture strategies to establish self-sustaining chestnut populations while minimizing the vegetation management efforts required for open sites.

The trees were donated to W. Kerr Scott as a contribution from TACF with personnel performing volunteer services through an ASU Biology Department volunteer group agreement. This partnership is a continuing relationship which started in 2016 when W. Kerr Scott was awarded a Handshake Partnership Agreement for a chestnut research project. TACF and ASU along with Friends of W. Kerr Scott Lake, West Wilkes High School Agriculture Program, and North Carolina Department of Agriculture Forest Service partnered in the research project. "The project is designed to learn more about blight re-





Photo Left: TACF Personnel Tom Saielli Takes Notes for Planting Plots.
Photo Right: Maturing Chestnut from First Year's Planting.

sistance of trees developed through three decades of backcross breeding, help learn which forest planting techniques work best and help restore the American Chestnut within its natural range", said Tom Saielli, TACF mid-Atlantic region science coordinator. In March 2017, partners planted 650 hybrid chestnut trees in open field and overstory plots at Ft. Hamby WMA. Mortality assessments were conducted in 2017. Though there was high mortality, TACF and ASU biologists and W. Kerr Scott staff decided survival rate was sufficient enough to collect valuable data and to continue the research project. In March 2018, another 100 chestnut trees were planted. In February 2021, W. Kerr Scott staff members planted native persimmon and plum trees in the open field to increase the flora diversity of the plot. Additional plantings will take place in the coming weeks with a smaller sampling of trees planted at Smithey's Creek WMA.

For additional information on this project, please contact NRM Ranger Bolick at 336-921-3390 or visit the Visitor Assistance Center located at 499 Reservoir Road, Wilkesboro, NC 28697.

#### Article provided by Ben Williams, Supervisory Natural Resource Specialist, West Point Project 706-645-2937

West Point Lake is a USACE Civil Works Project on the Chattahoochee River in West Georgia. The reservoir sits atop the Alabama/Georgia state line and the project extent covers 4 counties. Constructed in the early 1970s and dedicated in 1975, West Point Lake has several purposes: flood control, recreation, navigation and wildlife management.

In the late 1980s, the need arose to identify shallow shoal areas around the lake. Park Rangers began planting bald cypress trees as natural markers to identify these shoals, so they would be visible to boaters. These trees would also serve as fish and wildlife habitat while maintaining the natural aesthetic of the area. It was during these days that the West Point Lake saw an increase in the population of ospreys, *Pandion haliaetus*. The osprey is a majestic bird of prey that constructs nests on or near bodies of water. Their primary diet consists of fish. With the increase in osprey populations, the planted bald cypress trees were soon being used as nesting sites.

In the late 2000s, Park Rangers noticed that the cypress trees were being stunted and damaged due to the ospreys building their nests in them. The birds would break off the apical meristem of the tree, essentially topping the tree and halting its vertical growth. It was determined that action needed to be taken to mitigate impacts to the trees while supporting osprey nesting.

Shoals with active osprey nests in the cypress trees were identified for the installation of artificial nesting structures. These structures were constructed of pressure treated pine lumber and stand approximately 20 feet tall. The platforms were installed during the winter months, outside of nesting season, and much of the original nesting material was

#### Invasive 3 Reading

**Introduction Pathways** of Economically Costly Invasive Alien Species

https:// link.springer.com/ article/10.1007/s10530-022-02796-5? utm medium=email&u tm source=govdelivery





Alligator Weed at Millwood Lake. Photo by Cherrie-Lee Phillips





Photo Left: Finished Osprey platform with West Point staff. Photo Right: Osprey nested in a cypress tree on West Point Lake. Photo Bottom Right: Osprey utilizing an installed nesting structure.

moved from the cypress trees to the newly installed nesting structures. Once spring arrived and the ospreys returned for nesting season, they immediately took to their new homes.

For the past 12 years, West Point Park Rangers have been adding these platforms every off season. There are currently 34 active platforms around the reservoir. This not only provides quality nesting sites, but also provides increased bird watching and educational opportunities. When hosting field trips from local schools, the Chattahoochee River Keepers regularly stop by the structures on their floating classroom.

These supplemental structures are stronger, more resilient than the cypress trees, can be used by multiple generations without the risk of nests falling. and can be maintained or replaced as needed to ensure reliable nesting sites into the future. West Point Project considers this program a great success, especially for the osprey.





## Lake Sturgeon Spawning Below Mel Price Lock and Dam

POC: Ryan Swearingin, Ryan.M.Swearingin@usace.army.mil.

Lake sturgeon (*Acipenser fulvescens*) were once abundant in the Upper Mississippi River and the Great Lakes. This prehistoric species, first appearing in the fossil record 150 million years ago, can grow to be 8 ft long and weigh almost 300 pounds. Populations of lake sturgeon have drastically declined since the 1800s due to overharvesting for meat and caviar, pollution, habitat loss, and altered river hydrology. Another contributing factor to their decline is that although sturgeon are a long-living species (up to 150 years), they don't reach reproductive age until 25-30 years and spawn periodically every 3-5 years. Spawning is dependent on water temperature and flow, both of which have been altered in the Upper Mississippi. Lake sturgeon are now listed as threatened or endangered in 19 of the 20 states within the species range.

The Missouri Department of Conservation (MDC) and the US Fish and Wildlife Service (USFWS) began stocking the Upper Mississippi with lake sturgeon in 1984. To date, nearly 500,000 sturgeon have been stocked in Missouri waters. The sturgeon are released as fingerlings in hopes that they will survive to maturity and begin reproducing naturally.

In 2015, there was a historic sighting of lake sturgeon spawning below Mel Price Lock and Dam in West Alton, MO. This was estimated to be the first time in over a century that lake sturgeon were documented spawning in Missouri, and it is still the only confirmed lake sturgeon spawning site in Missouri. The MDC and the St. Louis District Rivers Project (RP) applied for and received a grant from the Nature Conservancy's Sustainable Rivers Program to study the conditions below the dam that contributed to this rare event. The data could be used to model a way to potentially recreate the flow and gate conditions elsewhere along the Upper Mississippi to encourage spawning conditions for lake sturgeon. As part of this study, daily water temperatures, dissolved oxygen, and water velocity data is collected below the dam during the spring, coinciding with the sturgeon spawning season. Ryan Swearingin, RP wildlife biologist, is collaborating with the St. Louis District water control and hydraulics division to create models of the river during the 2015 spawning event. There is also ongoing coordination among RP biologists, water control, and dam operators to achieve desired shoreline velocities suitable for spawning by opening the dam gates, with 1-2ft/s as the target.

In addition to studying river conditions, MDC fisheries biologist Sarah Peper is leading efforts to collect, measure, and tag lake sturgeon below Mel Price Locks and Dam. Multiple trot lines are set and baited throughout the spring to capture lake sturgeon. This past spring, 11 sturgeon were tagged, with additional sturgeon too small to tag captured and released. There are multiple tags used to track sturgeon. The first is a PIT (Passive Integrated Transponder) tag that can be used to identify individual fish and help track movement, growth, and survival. It is small (1-2 cm), quick to insert, and works passively without a battery. The fish must be captured and physically scanned with a PIT tag reader to get information from the tag. The captured fish are also checked for an existing identification tag, called Coded Wire Tags that may have been placed at a hatchery or for other research projects. Lastly, a radio tag is surgically placed in the sturgeon, which can track the fish's movement remotely through receiver devices placed in the water. The battery lasts 5-6 years. By tracking lake sturgeon, biologists hope to target specific habitats for protection.



Sarah Peper, MDC fisheries biologist, is inserting a radio tag into a captured lake sturgeon. This process requires a small surgery but does not cause harm to the fish. The tag can be read by receivers placed in the water and helps track movement of sturgeon along our waterways.

## Sturgeon Continued...

Lake sturgeons were again documented spawning below the dam on the morning of April 23<sup>rd</sup>, 2022 for the first time since the 2015 event. This provides an exciting opportunity to gain an even better insight into what conditions encourage sturgeon spawning and build more robust models that could improve management along the river and help revive this charismatic and ancient species.

Photo Top: Lake sturgeon below Mel Price Locks and Dam. Photo Middle: Five lake sturgeon were documented spawning below Mel Price Locks and Dam. Photo Bottom: Lake sturgeon eggs are sticky and attach to rocky areas by the shore. During spawning, a single female releases eggs and several males will surround her attempting to fertilize the eggs. Photo Circle: Wildlife biologist Ryan Swearingin is holding a lake sturgeon while it is being scanned for a PIT tag.

#### Did You Know About...

## **Invasive Carp Regional Coordinating Committee** (ICRCC)

The Invasive Carp Regional Coordinating Committee (ICRCC) released its 2022 Invasive Carp Action Plan, which details a series of projects focused on protecting the Great Lakes from invasive carp. The Action Plan, which the ICRCC releases annually, serves as a strategic plan outlining efforts by 28 U.S. and Canadian federal, state, provincial, tribal, regional, and local agencies, to keep invasive carp out of the Great Lakes. According to the Environmental Protection Agency (EPA), highlights of the 2022 Action Plan include:

- The U.S. Army Corps of Engineers-led Brandon Road Lock and Dam Aquatic Nuisance Species Barrier Project in Will County, Illinois which incorporates structural and non-structural control measures to prevent invasive carp from moving upstream in the Great Lakes.
- Continued operation of the electric dispersal barriers in the Chicago Area Waterway System.
- Large-scale field testing and development of new technologies to block invasive carp migration.
- Illinois Department of Natural Resources efforts to increase focused commercial fishing to remove adult invasive carp in the upper Illinois River.
- Continued efforts led by Ohio and Michigan Departments of Natural Resources to remove grass carp in Lake Erie.
- Continued support for state-led efforts in basin-wide early detection monitoring and contingency response actions.

The 2022 Action Plan is funded through the Great Lake Restoration Initiative (GLRI), annual agency appropriations, and the Bipartisan Infrastructure Law (BIL). Read more at https://invasivecarp.us/News/2022-Action-Plan.html







## Benbrook Lake: Rocky Creek Park Prairie Remnants

Appr

# Belton Lake - Oak Wilt Training

On February 2, 2022, the Belton Lake office held an Oak Wilt Training organized by the Lake Manager, Josh Brown. Rangers from Belton Lake, Stillhouse Hollow Lake, Sommerville Lake and Georgetown Lake were in attendance. The training was led by Texas A&M Forest Service (TFS) to educate rangers about oak wilt and what treatment options are available.

For example, the rangers were taught how to identify oak wilt based on the trees' leaves and canopy. TFS highly recommends not pruning oak trees between the months of February and June to help prevent the spread of oak wilt. TFS also showed the rangers how to inject a tree with Propizol, a fungicide which lowers the odds of trees dying due to the fugus.

Photo Top: Oak Wilt training at Belton Lake.

The Fort Worth Chapter of the Native Prairie Association of Texas (NPAT) joined forces with the USACE Benbrook Lake Office staff, Trinity Regional staff, and the Regional Planning and Environmental Center staff to organize a Fort Worth Prairie field trip to visit some of the native remnant prairies located at Rocky Creek Park. These 100–200 acre remnants are now classified as Environmentally Sensitive Are as (ESAs) as part of the Benbrook Lake Master Plan Revision that was completed in 2021. A total of 1,100 acres are now designated as ESA at Benbrook Lake.

Approximately 40 people participated in the field session to walk through some of the remnant prairies, identify native plants, use I-Naturalist to catalog plants, and discuss the future of these rare prairies in North Central Texas. The Fort Worth Prairie ecotype is a subset of the Grand Prairie as described in the Flora of North Central Texas, the tome of the Texas plant community. Grand Prairie habitat type distribution starts in Texas and spreads north through Oklahoma, Kansas and beyond.



Photo Top: Participants getting ready to head out to one of the Fort Worth prairie remnants at Benbrook Lake. Photo Bottom: Participants discuss some of the native remnant Fort Worth prairie located at Benbrook Lake, which is designated as an environmentally sensitive area, via the Revised Master Plan.



The Fort Worth Prairie is unique and supports numerous prairie species not seen elsewhere in the state. However, it is now one of the rarest ecosystems due to its proximity to and within the Dallas Fort Worth area. Of the seven lakes in the Trinity Region, Benbrook supports some of the highest quality remnant prairie left in North Central Texas, with less than one percent of the original range still in existence from a size of over ten million acres in the past.

# Turtle Nesting Mound Success at Raystown Lake

## Article provided by Alicia Palmer, Natural Resources Specialist Raystown Lake

Through a collaboration with Juniata College professors, students, and volunteers at the Raystown Lake Project, the creation and monitoring of turtle mounds was a huge success during the 2021 turtle nesting season.

Environmental Stewardship staff created two mounds comprised of shale and sand at a prevalent turtle nesting area for Northern Map turtles. Nesting females often encounter vehicles at this location; therefore, a temporary fence was created to prevent turtles from accessing the parking area and reaching the road. A total of 60 reproductive female map turtles were marked and 27 nests were protected at the mounds. The mounds were monitored five times a day from June to mid-July primarily by an SCA intern. Once a turtle was found, a GPS point was taken and the turtle was processed by measuring the carapace and plastron lengths. Additionally, each turtle was weighed using an electronic balance. A unique code was given to each turtle using a file on the edge of their scutes so they could be identified if recaptured in the future.







Photos (Left to Right, Top to Bottom): SCA Intern Laney Reasner marking a map turtle. Northern Map turtle eggs uncovered at mounds. A Northern Map turtle females released at turtle mounds. SCA Intern Laney Reasner holding a male (left) and female (right) Northern Map Turtle. Northern Map Turtle exhibit designed by Juniata College student Jackie Eberle, showcasing the turtle mounds. Northern map turtle hatchlings within the nest cavity. Northern Map Turtle female utilizing the turtle mounds to lay eggs.

Nests were protected with cages to prevent predation. While eggs hatch in late summer, hatchlings often delay emergence until the following spring. Therefore, in the fall and spring, hatchlings were carefully excavated from their protected nests, cleaned, and given a small and harmless notch on the edge of their shell scutes before being released back into the Raystown Branch of the Juniata River.

A total of 166 northern map turtle hatchlings and 17 wood turtle hatchlings were produced at the mounds, meaning 183 turtles total were successfully hatched from the mounds! The wood turtle is considered an at-risk species that has been petitioned for federal listing under the Endangered Species Act (ESA). It is currently listed as 'Under Review' by the U.S. Fish and Wildlife Service (USFWS) with a determination expected in 2023. It was a pleasant surprise to have two successful wood turtle nests!

All work conducted with the turtles was conducted through a permit with the Pennsylvania Fish and Boat commission.









# Growing Season Prescribed Fire at

Kanopolis Lake -

POC Ryan Williams, Natural Resource Manager, 806-389-3099

The Kanopolis Project lands lie within the mixed grass prairie region of Kansas and require land management techniques such as prescribed fire to maintain the prairie ecosystem. Project staff, on average, treat between 500-1,000 acres annually. In 2021, the Kanopolis Lake project NRM staff successfully applied 1,106 acres of prescribed fire treatments with the majority of those treatments taking place during the growing season (July- early August). Areas containing historically difficult to treat invasive woody species were the primary targets of 2021 burn plan. Certain climatic conditions were selected for these treatments in order to achieve the maximum benefit from the fire application as well as

increase efficient operation.
Results were highly satisfactory
from an invasive species control,
adjacent landowner reliations, and habitat/

land management perspective.

**Recorded Webinars** 

USACE's Invasive Species
Leadership Team (ISLT) has
recorded six webinars held
from March through May
which focused on aquatic invasive species. Recording
can be viewed from the following link: https://
corpslakes.erdc.dren.mil/

corpslakes.erdc.dren.mil/ employees/invasive/ exchange.cfm?

Option=ArchiveSchedule&CoP= invasive

## **Upcoming Webinars**

NAISMA (North American Invasive Species Management Association) Monthly Webinars

Jun. 15, 2022 @ 1:00pm CDT Spotted Lanternfly Ecology and Biocontrol Efforts https://naisma.org/event/ webinar-spotted-lanternflyecology-and-biocontrol-efforts/

Jul. 20, 2022 @ 1:00pm CDT Jumping Worms: What We Know Now

https://naisma.org/event/ webinar-jumping-worms-what -we-know-now/

Aug. 17, 2022 @ 1:00pm CDT How to Get Your Project Funded

https://naisma.org/event/webinar-w-samantha-yuan/

Photo Above: View of hillside from the growing season prescribed fire treatment.

The high moisture content of growing vegetation provides a lower intensity fire. When the low intensity fire is combined with elevated vascular tissue temperatures, due to summer air temperatures, the result is a highly effective kill treatment on invasive species such as Eastern red cedar. Prescribed fire is one of the most efficient land and invasive species management tools that Kanopolis NRM staff use. Implementing growing season fire increases management efficiency even further due to the amount of natural fire breaks that are available which reduce manpower requirements. Prescribed fire treatments are often "pennies on the dollar" when compared to mechanized invasive species removal treatments. Fire provides additional benefits such as woody debris removal, increased warm season grass and forb growth, reduced

Photo: Ignition phase of a summer burn; low intensity fire igniting the volatile fuel of the eastern red cedar.

wildfire fuel load, and impromptu native vegetation food plots.



Photo: Aerial view a few days after a 160 acre summer burn on a hillside formerly infested with Eastern Red Cedar.

## Some Interesting Reading & Viewing

The National Pest Management Association (NPMA) is educating Americans about the spread of invasive pests throughout the U.S. with the launch of its latest animated video project, Invasive Species. This new video series, featuring six episodes of custom-animated illustrations, shines a spotlight on the various invasive species that have traveled far and wide to the United States, where they continue to spread at increasingly alarming rates. <a href="https://www.pestworld.org/news-hub/press-releases/npma-launches-new-video-series-on-the-threat-of-invasive-pests-to-the-us/">https://www.pestworld.org/news-hub/press-releases/npma-launches-new-video-series-on-the-threat-of-invasive-pests-to-the-us/</a>

Wildlife Forever shared the 2021 Clean Drain Dry Initiative® annual accomplishment report. Through media outreach, communications marketing, and community engagement, the public awareness campaign has generated a record-breaking 117 million impressions in 2021. Implementing a partner-led and consistent best practices campaign empowers users to prevent the spread of AIS. <a href="https://www.theoutdoorwire.com/releases/f2ff6e1a-d213-45dd-b55f-8e8a4b1ef195?utm-medium=email&utm-source=govdelivery">https://www.theoutdoorwire.com/releases/f2ff6e1a-d213-45dd-b55f-8e8a4b1ef195?utm-medium=email&utm-source=govdelivery</a>

# Listen Now: Podcast Episode #16 -- Invasive & Endangered Species Research

Invasive carp species pose a significant threat to native fisheries, disrupting ecological balances, inflicting economic harm and hampering recreational activities. One effort to mitigate this threat is focused on blocking these fish from entering the Great Lakes, where they could significantly disrupt a \$7 billion fishing industry.

Guided by ERDC research, a series of electric barriers was placed along a key navigable link between the Great Lakes and the Mississippi River. ERDC continues to study additional methods to prevent carp passage, including the use of sound or carbon dioxide bubbles. ERDC's research on this topic is part of a greater effort to protect endangered species in our nation's waterways and manage invasive species in our fisheries.

The latest episode on the Power of ERDC podcast, talks with Alan Katzenmeyer, chief of the Aquatic Ecology and Invasive Species branch.

Discussion includes why USACE is involved in managing invasive and endangered species, why there is so much focus on invasive carp, and some of the research ERDC is doing in that area. Additionally, they talk about other ERDC projects to manage invasive and endangered species in our fisheries, what the future holds for this research, and more.

Listen now in Apple Podcasts, Google Podcasts, Spotify and all major podcast players, or stream the episode at <a href="https://poweroferdcpodcast.org/invasive-fisheries">https://poweroferdcpodcast.org/invasive-fisheries</a>.

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   feed=aHR0cHM6Ly9wb3dlcm9mZXJkY3BvZGNhc3Qub3JnL2ZIZW
   QvcG9kY2FzdC8=
- Spotify: https://open.spotify.com/show/4ixkn7GcM9c5KUoYNNtszt
- Stitcher: https://www.stitcher.com/podcast/power-of-erdc
- Pandora: <a href="https://www.pandora.com/podcast/power-of-erdc/">https://www.pandora.com/podcast/power-of-erdc/</a>
   PC:64264
- Sound Cloud: https://soundcloud.com/user-486168594-902104483
- LEARN more: https://www.powerofERDCpodcast.org

## In Case You Missed It...

Blanding's Turtle Best Management Practices (BMPs) document. This DoD Mission Sensitive Species is considered at-risk and is currently under review for Endangered Species Act-listing by the U.S. Fish and Wildlife Service. The BMPs are intended to be guidelines for resource managers to plan, prioritize, and implement management for the conservation benefit of this species.

As a reminder, BMPs for the Spotted Turtle, Gopher Frog, Eastern Diamond-backed Rattlesnake, Western Pond Turtle, Alligator Snapping Turtle, Wood Turtle, Northern Red-bellied Cooter, Florida Pinesnake and Gopher Tortoise are all available for download on Denix: <a href="https://www.denix.osd.mil/dodparc/parc-resources/index.html">https://www.denix.osd.mil/dodparc/parc-resources/index.html</a>





Department of Defense Legacy Resource Management Program

Recommended Best Management Practices
for the Blanding's Turtle (Emydoidea blandingii)
on Department of Defense Installations

Department of Defense Partners in Amphibian and Reptile Conservation



March 2022

