



DFW Education Programs & Volunteer Opportunities Are Available!

The RIDEM Division of Fish and Wildlife (DFW) began the Wildlife Outreach Program in 2017. We serve students, families, hunters, and the public through a variety of unique, enjoyable programs. These programs provide participants with information about Rhode Island's wildlife species and the work being done by our dedicated staff to protect, restore, and manage our state's precious wildlife resources.

Wildlife Outreach Program COVID-19 Updates

Here at the DFW, we have temporarily adjusted our program offerings to better support safety guidelines set forth by the State of Rhode Island to reduce the spread of COVID-19. Unfortunately, this means many of our in-person events have been suspended. To learn more about the current program offerings, including expanded distance learning resources:

Classroom Programs:

To reduce the risk of spreading COVID-19, the RIDEM Division of Fish & Wildlife Outreach Program will not be visiting classrooms this year. However, we are excited to announce the release of our Rhody Critter Kits! These new

Continued on page 10

THE DIVISION OF FISH AND WILDLIFE MISSION STATEMENT

Our mission is to ensure that the freshwater, wildlife, and marine resources of the state of Rhode Island will be conserved and managed for equitable and sustainable use.



This Issue Features:

OUTREACH AND VOLUNTEER OPPORTUNITIES1
LEARN MORE ABOUT THE PROGRAMS, PROJECTS AND VOLUNTEER OPPORTUNITIES WITH DFW FOR THE 2021 YEAR.
CAROLINA MANAGEMENT AREA
including deer, upland game, turkey, and small game. WELCOME NEW DFW STAFF4
DFW IS EXPANDING AND WELCOMING ON NEW STAFF FOR OUR GROWING NEEDS, MEET THE NEW BIOLOGISTS AND STAFF.
RESOLUTIONS FOR RESIDENT CANADA GEESE6
A NEW PUBLICATION IS AVAILABLE ON HOW TO MITIGATE ISSUES WITH RESIDENT CANADA GEESE, AND PROVIDES INFORMATION ON LIFE HISTORY.
THE BLUE GREEN FROG8
A RARE GENETIC MUTATION FOUND IN SOME SPECIES OF FROG MAKES THEM BLUE RATHER THAN GREEN, AND ONE WAS FOUND IN RHODE ISLAND!
2021 SALTWATER FISHING REGULATIONS GUIDE12
PICK UP OR DOWNLOAD A COPY OF THIS YEAR'S REGS GUIDE TODAY AT SPORTING SHOPS AROUND THE STATE, OR ON YOUR COMPUTER OR SMART
PHONE. Made from 100% recycled materials
Follow us on Twitter @RhodeIslandDEM



Wild Rhode Island is a quarterly publication created by the Rhode Island Department of Environmental Management, Division of Fish and Wildlife. Printing is supported by the Aquatic Resource Education Program (Federal Aid Grant F-42-E) and the Hunter Safety Education Program.

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Terrence Gray, Acting Director

Dr. Jason McNamee, Deputy Director

RIDEM, DIVISION OF FISH & WILDLIFE

Phil Edwards, CHIEF

Sarah M. Riley, WRI Editor/Designer Implementation Aide

> Veronica Masson, WRI Editor Federal Aid Coordinator

Kimberly Sullivan, WRI Publisher Aquatic Resource Education Coordinator

> Colleen Kracik, Assistant Editor Clerical Support Aide Intern

For a free subscription to Wild Rhode Island and/or Wild Rhode Island Explorer, please email Sarah.Riley@dem.ri.gov

This program receives federal funds from the U.S. Fish and Wildlife Service. Regulations of the U.S. Department of the Interior strictly prohibit unlawful discrimination in departmental federally assisted programs on the basis of race, color, national origin or ancestry, gender, sexual orientation, age, or disability. Any person who believes he or she has been discriminated against in this program, activity, or facility operated by this recipient of federal assistance should write to: The Office for Equal Opportunity, U. S. Department of the Interior, Office of the Secretary, Washington, D. C. 20240

If Visit our Facebook page @RIFishWildlife

CAROLINA MANAGEMENT AREA

FEATURED STATE LAND: DIVISION OF FISH & WILDLIFE

By: John Veale, Habitat Biologist, DFW

The young hunting dog was onto something. She zigged and zagged through the tall switchgrass, her form barely perceptible between the tufts – just an excited blur of mottled gray fur. As she cleared a thick tuft of grass into a mowed path, she skidded to a stop, her body frozen in an awkward looking "U." Still learning, she almost passed right by the bird, but she hadn't missed it. Her tail, the only white patch on her, once wagging rapidly as she searched, was now stock still and the rest of her body trembled on point. Seconds later, a cock pheasant sprung into the air, crowing as it caught the brisk wind and sailed off...but despite my dog's best efforts, I failed to hit the mark...

That scene unfolded in Carolina Management Area, located in the town of Richmond. Encompassing over 2,300 acres of land stretching between Alton Carolina Rd (Rt. 91) in the South, to Kenyon Hill Trail to the North, it offers excellent hunting and fishing opportunities, plus miles of hiking trails. Species open for hunting in this Management Area include deer (firearm and archery), turkey, small game, pheasant and waterfowl. The hunting season runs from September, with the opening of dove season, through the end of February each year when small game closes, and includes spring turkey from April through May. Pheasants are stocked in fields accessible from the parking area at the check station on Pine Hill Rd and the large fields between Rt. 112 and Kenyon Hill Trail, which are accessible from parking areas on either road. If you're looking for fishing opportunities, trout are stocked annually in the Carolina Trout Pond off Kenyon Hill Trail, as well as in Meadowbrook Pond off Rt. 91, which also holds

Hiking trails accessible from several parking areas on Switch Rd, Pine Hill Rd and Route 91 provide enjoyment of the property throughout the year, leading through varied habitats and including portions of the famed North-South Trail. Much of the property is comprised of upland forests with mixed red and white oak, beech, maple and white pine. Pitch pine communities with blueberry understory are scattered throughout as well. To the west, accessible from Switch Rd, you can walk along the edge of Diamond Bog, giving you the opportunity to view a unique habitat type dominated by cedars and leatherleaf, along with the equally unique wildlife that call it home. If you prefer to walk in more open fields, parking areas off Rt. 91 provide access to trails surrounding agricultural fields and along the banks of Meadowbrook pond. Bring a rod along during trout season and try your luck! During the summer months, the pheasant fields between 112 and Kenyon Hill Trail are an excellent place to look for grassland nesting birds and pollinators amongst the switchgrass and mullein. This is a good place to see turtles sunning themselves along the pond edges or digging a nest into the sandy banks.

Whether it's chasing turkeys in spring, trout in summer, pheasants in fall, deer in winter, or hiking year-round; there's always something to explore at Carolina Management Area. For more information about this and other Wildlife Management Areas, email DEM.DFW@dem.ri.gov, call 401-789-0281 or visit the RIDEM website at: http://www.dem.ri.gov/programs/fish-wildlife/



RIDEM DIVISION OF FISH & WILDLIFE WELCOMES NEW LEADERSHIP AND STAFF

Phil Edwards- Chief of RIDEM Division of Fish & Wildlife



We are thrilled to announce that the RI Division of Fish and Wildlife has a new Chief: Phil Edwards. Phil started his career at DFW in 1986 as a student researcher within the freshwater fisheries section and worked for five seasons while he completed his B.S. in secondary education with a major in biology. After earning this degree, Phil held positions with the U.S. EPA - Atlantic Ecology Division, Dow Chemical and Laboratory Resources. He began working full time at DFW in 1998 as a fisheries biologist and was promoted to senior, principal, and supervising fisheries biologist positions during his tenure here. During this time he completed his M.S. in Fisheries, Animal and Veterinary Science, specializing in Fisheries Science and Technology.

Phil has been the project leader for many USFWS Sportfish Restoration freshwater and diadromous fish programs and the Division's coordinator for fish passage habitat restoration. This work has allowed him the opportunity to collaborate with many of our major partners across the state including NGOs, federal partners and watershed

groups, as well as across the Department with many different Natural Resources and Environmental Protection programs.

Phil has been a member of many regional and national scientific committees since 1998, including the Atlantic States Marine Fisheries Commission board, technical, and stock assessment committees, and he has been a member of the Rhode Island Coastal and Estuarine Habitat Trust Fund Technical Advisory Committee since its inception, so he has represented the state and the Department in many different capacities over the years. In his free time, Phil enjoys spending time outdoors, hunting and fishing. Congratulations to you Phil, and to the whole Division of Fish and Wildlife!

Emily George, Supervising Biologist - Outreach Program



As Supervising Wildlife Biologist, Emily manages the Division's Hunter Education, Wildlife Outreach, and Volunteer initiatives. Emily brings 10 years of experience planning, organizing, and implementing environmental education programming in Rhode Island, Massachusetts and most recently, Louisiana.

Prior to joining the Division of Fish & Wildlife, Emily worked in leadership roles at institutions such as the Audubon Nature Institute and Providence After School Alliance. There, she cultivated and grew relationships with a variety of community partners and stakeholders to scaffold and strengthen high quality educational programming for a diverse background of learners. "I'm thrilled to be joining the team and eager to bolster the already strong foundation of programming offered through the Division," Emily said. "Through educational programs, we can create future generations of

environmental stewards and engage more Rhode Islanders in traditional outdoor activities, like fishing and hunting. This is crucial to the longevity of the Division, as none of the work we do to protect, conserve, and learn about Rhode Island's

wildlife and wild places would be possible without the support of hunters, target shooters and anglers."

With Emily's leadership, the Division of Fish & Wildlife will continue to grow its outreach and education programming and resources to include a wealth of teacher and educator resources, hands-on volunteer opportunities, wildlife programs focused on local species conservation projects, hunter safety classes, and workshops and events to develop and strengthen skills in traditional outdoor activities like fishing, archery and hunting.

David Kalb, Ph.D., CWB®, Supervising Biologist - Wildlife



In August of 2020, David Kalb joined Rhode Island DEM Division of Fish and Wildlife as a Supervising Wildlife Biologist, managing biological staff and research projects funded through State Wildlife funds. David has been an outdoor enthusiast since early childhood hunting, fishing, and camping in the Finger Lakes Region of Upstate New York.

Graduate school took David to the Eastern Shore of Maryland and Delaware where he received a Doctorate from the University of Delaware in Wildlife Ecology and Conservation. While at U.D., David's Ph.D. research focused on competition between whitetail deer and sika deer, an introduced game animal popular with hunters and tourists. Previous positions and experiences during and after graduate school provided ample working knowledge with a multitude of different wildlife species

including furbearers, song and game birds, waterfowl, and big game species.

As a biologist and supervisor with DFW, David hopes to bring and emphasize transparency and science-based decision making to all aspects of wildlife management in order to balance ecological and social desire for the public's resources. "My hope is to have clear, science-based messaging come from DFW regarding all wildlife and their habitats. I want the public to be well informed in their appreciation and interest in all that Rhode Island has to offer outdoors." Most importantly, David wants everyone to have a safe and enjoyable experience with wildlife in Rhode Island.

JOHN HERBERT, PH.D., NON-GAME BIOLOGIST



John Herbert is the Division of Fish & Wildlife's new Nongame and Endangered Species Biologist. John brings over 10-years of experience conducting research on nongame and game birds throughout the Western Hemisphere to include Arkansas, Delaware, Louisiana, Maryland, New Jersey, North Carolina, and Virginia, and the countries of Brazil, French Guiana, and Suriname. Prior to joining the Division of Fish & Wildlife, John received a M.Sc. from the University of Arkansas by studying the winter ecology of waterfowl in Arkansas. He just recently completed his PhD at Tulane University, where he studied the ecology of migratory shorebirds. With John's expertise, the Division of Fish & Wildlife will continue to manage and conduct research on Rhode Island's 300 species of birds, including 180 breeding bird species.

New publication available from the RIDEM Division of Fish & Wildlife



RESOLUTIONS FOR RESIDENT CANADA GEESE

A MANAGEMENT & RESPONSE GUIDE

Read it today by clicking on this link: <u>Resolutions for Resident Canada Geese</u>

Or by emailing <u>DEM.DFW@dem.ri.gov</u>

Or copy and paste the link to go directly to the webpage: http://www.dem.ri.gov/programs/fish-wildlife/wildlifehuntered/wildlifemanagement/

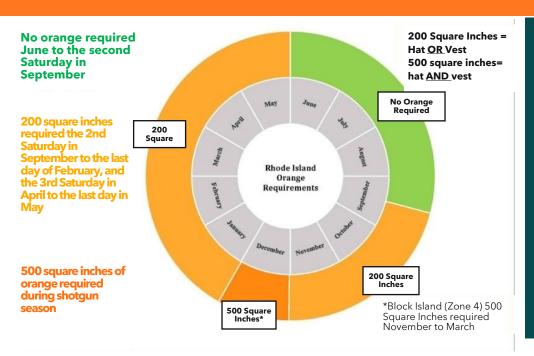


This new guiding document provides information and suggestions on how to prevent and resolve issues with resident Canada geese in your yards or neighborhoods.

It includes information about their life history, rules and regulations associated with removing or deterring protected waterfowl, tips for successfully deterring geese, and much more.

HUNTING SEASON IS STARTING IN SEPTEMBER FLUORESCENT ORANGE REQUIRED

IN STATE WILDLIFE MANAGEMENT AREAS DURING HUNTING SEASON



- All users of state wildlife management areas and undeveloped state parks are required to wear at least 200 square inches of solid fluorescent orange during the hunting season.
- It MUST be: solid, fluorescent (safety) orange, worn above the waist. This is to make you visible to others using the management area and to keep everyone safe.

For more detailed information visit:

http://www.eregulations.com

*Exceptions apply to some hunters, for more information, see the link above, or email DEM.DFW@dem.ri.gov

Send DFW Your Summer Wildlife Sightings and Observations!



Herp Observer (Year-round) Report your sightings of frogs, toads, salamanders, snakes and turtles to the RIDEM's secure database. All observations go directly to our State Herpetologist to provide information on distribution and abundance of reptiles and amphibians in Rhode Island.

http://www.dem.ri.gov/programs/bnatres/fishwild/pdf/herp-observer-fs.pdf

Wild Turkey Brood Survey (July 1st-Aug 31st) Report your summer sightings of wild turkey hens, toms and poults (chicks) to RIDEM biologists. Turkey brood observations help provide information on the fecundity and health of turkeys in our state. http://www.dem.ri.gov/programs/bnatres/fishwild/pdf/wild-turkey-brood-packet.pdf





Summer Deer Survey (Aug 1st-Sept 30th)

Report your sightings of white-tail deer seen during the late summer to help state biologists calculate the distribution, density and reproductive success of deer in Rhode Island. https://survey123.arcgis.com/share/9b5b29b86b1e4544a644b78d7d383906?open=menu

General Wildlife Observations (Year-round)

The Division of Fish and Wildlife also collects observations of: Bobcat, Bear and Coyote. Please include the town, date, address or nearest road, and observed behavior (crossing road, in yard, etc.).

Send to DEM.DFW@dem.ri.gov



The Blue Green Frog (Lithobates clamitans)

By Liam Corcoran, Wildlife Technician, Division of Fish & Wildlife

On their nightly walks to a neighborhood wetland in Cumberland this summer, David Braz and his three-year-old daughter Allyson would observe the frogs they came across at the edge of the water. One evening, Allyson saw a frog that did not look quite right. With net in hand, David and Allyson caught the unique looking frog, only to find that instead of the ordinary green frogs they usually see, this one was blue.

Rhode Island has the highest diversity of amphibians in the United States with 18 species in just 1200 square miles, but one of the most common species in the state is the green frog (*Lithobates clamitans*). Green frogs are widely distributed throughout Rhode Island, spending the majority of their lives in freshwater wetlands such as marshes, ponds, streams, and vernal pools. At first glance, green frogs are superficially similar to another common species, the bullfrog (*Lithobates catesbeianus*), but they do have one distinct difference. Green frogs have two ridges that span the length of their back, called dorsal lateral ridges, while bullfrogs have a completely smooth back. Green frogs get their name from the green coloration that stretches from their head to their legs, but they also have a white underside. In females, this white coloration covers the whole underside, while males have a yellow throat. In late spring, the male green frogs wait in the water body while they make their distinct "gunk" call to attract females. When a female chooses a male to breed with, the pair will go into amplexus. During amplexus, the male grips the body of the female and fertilizes her eggs as she deposits them. Females can lay between 1,000 and 7,000 eggs in a gelatinous mass that floats on the surface of the water or is attached to vegetation. The eggs can take up to seven days to hatch, and the tadpoles will not metamorphose into frogs until the following spring. The average lifespan of green frogs is 6 years. Green frog adults are active in and around water bodies from spring to fall, and they overwinter in the mud of these wetlands through late fall and winter until they emerge again in the spring.

Most of the time, seeing this common species would not be anything out of the ordinary, but this was only one of two observations of blue green frogs reported to the Rhode Island Department of Environmental Management (RIDEM) since 2019. These citizen amphibian enthusiasts reported their findings to RIDEM's Division of Fish and Wildlife, and as far as we know currently, these are the only two observed blue green frogs ever reported in the state. Blue frogs have been reported throughout New England, including in our neighboring states of Massachusetts and Connecticut. Blue frogs are incredibly rare, and it is not known exactly how the blue coloration is inherited genetically. However, the blue coloration has been observed in many species in the same family (Ranidae) including green frogs, leopard frogs (Lithobates pipiens), and bullfrogs, but research suggests that green frogs are the most common species to exhibit this trait.



Two researchers from Cornell University, Michael Berns and Lowell Uhler, conducted a study in 1966 on how common blue coloration was in frogs. They censused frog suppliers in the Midwest and had them record the number of blue frogs they found in their stock; they reported finding 69 blue frogs out of two million individuals (0.003%). The suppliers gave additional information, stating that at one location they found 2 out of every 1,000 green frogs were blue, and at another location 22 out of every 7,000 green frogs were blue. Berns and Uhler also sampled different wetlands in Barre, Massachusetts and Rochester, New York where they found 15 and 4 blue green frogs, respectively. Based on these findings, blue green frogs are incredibly rare, and they also seem to exhibit different regional occurrence rates.

Green skin in frogs is caused by three types of cells in the skin working together. Melanophores that contain melanin make the skin darker or lighter, just like in humans, iridophores are cells that reflect light, and xanthophores that contain carotenoids produce a yellow pigment. After Berns and Uhler's study was published, several other researchers postulated that the blue coloration was the result of lacking one of the three pigment cells located in the skin of the frogs. In 1970, Michael Berns and Shankar Narayan took these hypotheses and performed experiments on tissue samples from green skin and blue skin. Berns and Narayan found that the reduction or absence of the carotenoids was the cause of the blue pigment. In an attempt to investigate the genetic component of blue coloration, the researchers tried to facilitate the breeding of more blue pigmented frogs, but found that breeding two blue individuals did not result in blue offspring. This finding did not rule out the role of genetics in blue pigmentation as a heritable trait, but it did allude to more complex genetics or possibly environmental influences that cause it.

Finding this blue green frog was the result of wildlife enthusiasts exploring natural habitats right in their neighborhood. Every year the Division of Fish and Wildlife receives many reports from people just like David Braz and his daughter Allyson about the wildlife that they come across in our state. We wanted to make it easier for people to submit these observations so that we can gather as much data as possible about the different species occurring throughout Rhode Island. With this in mind, the Division of Fish and Wildlife developed and launched a free app called Herp Observer in 2019. Herp Observer is available through ArcGIS Survey 123, which can be downloaded from your phone's app store for free. Herp Observer allows anyone to submit observations of the amphibians and reptiles that they see right through their phone. If you would like to learn more about Herp





Above: A green frog, found in Cumberland R.I., with a rare genetic mutation which makes its skin blue, rather than the typical green color of its namesake.

Observer and how to participate, follow this <u>link</u> to our instructions on how to download and use the app. If you do not have access to a smartphone, the Division of Fish and Wildlife still accepts observation reports directly.

Fore more information, call 401-789-0281, email DEM.DFW@dem.ri.gov, or visit www.dem.ri.gov/programs/fish-wildlife/

DFW Outreach Program - continued from Page 1

FREE educational resources are intended for formal and informal environmental education. In light of the current health crisis, we will only be releasing the online portion of these kits which includes Rhode Island specific background information, lesson plans, activities, and videos. Check back in September for details on our Critter Kits!

Virtual Programs:

As a temporary substitute for our in-person public programming, the Wildlife Outreach Program is offering virtual events through libraries and other institutions. If your organization would like to host a virtual program, please contact the Wildlife Outreach Coordinator at mary.gannon@dem.ri.gov.

Field Trips:

We have suspended our field trip program. We will be using this time to refocus our school involvement into a concrete, collaborative and improved field trip program. Stay tuned for updates next year!

In-Person Public Programs (Libraries, Scouts, etc.)

At this time, the RI Division of Fish & Wildlife Outreach Program will not be hosting any in-person programming to reduce the risk of spreading COVID-19. We encourage you to participate in our Virtual Program offerings.

Want more wildlife in your life? Follow us on <u>Facebook</u> and <u>Instagram!</u>

Visit the RIDEM website at: http://www.dem.ri.gov/programs/fish-wildlife/wildlifehuntered/outreach/



RHODE ISLAND DIVISION OF FISH & WILDLIFE Outreach & Education Resources

The Division of Fish & Wildlife offers free resources and programs for outdoor enthusiasts and learners of all ages. From fishing days and archery lessons to hunter safety classes to volunteer opportunities to virtual wildlife conservation programs, there's something for everyone. Learn more below and to view a complete list of up to date programs, visit http://www.dem.ri.gov/programs/fishwildlife/. For more information email Madison.Proulx@dem.ri.gov









www.dem.ri.gov/programs/fish-wildlife



/RIFishwildlife



Teacher & Educator Resources

A variety of trainings and materials are available for all educators, from classroom teachers to troop leaders. Trainings are offered on nationally acclaimed curricula like Project Wild and Project Wet (Water Education) and, new this Fall, Rhody Critter Kits are available to borrow. Each kit contains a suite of resources such as lesson. plans, activities, videos, hands-on learning materials, and other resources curated by our staff.

Family & Adult Programs

A menu of in-person and virtual programs are curated monthly for a variety of audiences including families, community groups, classrooms, and adults. Programs vary in topic and range from learning about local wildlife, hearing from our biologists on unique conservation projects they are working on and workshops to develop and strengthen your skill sets in traditional outdoor activities like fishing, archery, and hunting.

Hunting & Archery Safety Classes

If you are new to hunting, the place to start is with a safety class. Taking a safety course and passing a test are both requirements to obtain a hunting or bowhunting license. These courses are offered monthly and are offered both in-person and online. The inperson courses occur at different locations throughout the state and are supported through a strong network of certified instructors.

Volunteer Opportunities

Fish & Wildlife offers a wide range of volunteer opportunities throughout the year, connecting the community with meaningful, wildlife-related projects. Volunteers assist state biologists with wildlife surveys, habitat maintenance, disease monitoring and much, much more!

To join our volunteer email list & receive information on upcoming opportunities, email: DEM.DFWvolunteer@dem.ri.gov

