RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

# Division of Fish and Wildlife Wild Rhode Island Winter 2020 50 Volume 13 CA Issue 1





#### Snowy owl, Middletown, R.I. Photo courtesy of Alex Feuti

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# SHOCKING NEWS FROM THE DIVISION OF FISH & WILDLIFE BY: COREY PELLETIER, FISHERIES BIOLOGIST, DFW

Or, in other words, a little information on the Division of Fish and Wildlife's electrofishing surveys: what is electrofishing, how it works, and why it is an important tool for fisheries biologists.

Electrofishing is one of the most effective survey techniques that our fisheries biologists use to collect data. It utilizes equipment that emits an electric charge into the water in order to stun fish for collection. Although electricity in water can be injurious or deadly, this method of survey is largely non-lethal and harmless to fish. Electrofishing is commonly used in fisheries surveys due to its effectiveness and survival rates compared to other surveys, such as gill netting. Interestingly, prior to the development of electrofishing equipment in the 1960s-1970s, many fish and wildlife agencies used an organic

Electrofishing photos by Sarah Petrarca

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# THE DIVISION OF FISH AND WILDLIFE

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.



Queens River, Exeter, R.I., photo submitted by Nicole P.

## This Issue Features:

SHOCKING NEWS FROM DFW......1

LEARN ABOUT HOW FISHERIES MANAGERS USE ELECTROFISHING TO MONITOR FRESHWATER FISH POPULATIONS THROUGHOUT R.I.



LEARN ABOUT ONE OF RHODE ISLAND'S MANY WILDLIFE MANAGEMENT AREAS AND WHAT YOU'LL FIND THERE.

NEW STAFF AT THE DIVISION OF FISH & WILDLIFE......4 THE DIVISION HAS A NEW PRINCIPAL BIOLOGIST FOR THE NON-GAME PROGRAM, AND NEW HUNTER SAFETY COORDINATOR.

TAUTOG OR NOT TAUTOG?......8

TAUTOG, ALSO CALLED BLACKFISH, ARE A SALTWATER FISH FOUND OFF THE COAST OF R.I. LEARN ABOUT THE JOYS OF FISHING OUR LOCAL WATERS.

THIS HIGHLY-ANTICIPATED BOOK CATALOGS ALL OF THE SPECIES OF

AMPHBIANS IN R.I. IT IS NOW AVAILABLE FOR PURCHASE FROM RIDEM.

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THE WINTER ISSUE OF WILD RHODE ISLAND EXPLORER IS NOW AVAILABLE BY MAIL OR THROUGH EMAIL. SIGN UP TODAY.



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> Janet Coit. Director **RHODE ISLAND DEPARTMENT** OF ENVIRONMENTAL MANAGEMENT

Catherine Sparks Assistant Director of Natural Resources

RIDEM, DIVISION OF FISH & WILDLIFE

Sarah M. Riley, WRI Editor/Designer Implementation Aide

Veronica Masson, WRI Editor Federal Aid Coordinator

Kimberly Sullivan, WRI Publisher *Aquatic Resource Education Coordinator* 

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### ARCADIA WILDLIFE MANAGEMENT AREA, EXETER, R.I. Featured State Land, RIDEM Division of Fish & Wildlife By Mike DiPietro, Hunter Safety Coordinator, DFW

The Arcadia management area is the state's largest management area consisting of over 14,000 acres of mixed hardwoods, evergreens and fields. It was purchased through funds from the Federal Aid to Wildlife Restoration program made available through the Pittman-Robertson Act and along with matching funds through sales of hunting and fishing licenses and permits.

Arcadia is the state's biggest public land which offers multi-uses. It stretches across four towns, Exeter, Hopkinton, Richmond and West Greenwich. Hunting, fishing and trapping, as well as hiking, mountain biking, boating and horseback riding are very popular activities within this area. Deer, turkey, woodcock, fisher, coyotes and squirrels, as well as many song birds are abundantly found here. If you're lucky, you might even see a bald eagle.

Many ponds, rivers and streams are stocked with thousands of trout from spring through fall. Fishing enthusiasts are afforded great opportunities with good, quality trout. Many residents, and non-residents from neighboring states, take advantage of what we have to offer. Good bass, pickerel and perch fishing also can be found here. The Wood River runs right through the middle of the management area and gets stocked with trout for the anglers.

Canoeing and kayaking are very popular in spring and summer. The hiking trails are well-marked and maintained, and offer great walks for young and old, as well as for the experienced hiker. The many scenic locations throughout the management area offer opportunities for photography, and fall foliage in Arcadia is something to be seen. There are opportunities for shelter and backpack camping within this management area by acquiring a permit from RIDEM. There is a horseman's area which allows camping and good trail riding right from the campsites. A motor cross trail riding club is allowed in a certain area which they maintain and hold competitions.

There is something here for everyone! The entire family can enjoy the management area on all different levels. There are wheelchair boardwalks to fishing areas by ponds with spectacular views. Some of the best memories don't have to cost anything. Get out and get some fresh air, exercise and enjoy yourselves.

# THE DIVISION OF FISH & WILDLIFE WELCOMES TWO NEW STAFF MEMBERS TO THE TEAM!

# SHILO FELTON, PH.D., PRINCIPAL WILDLIFE BIOLOGIST, NON-GAME, THREATENED & ENDANGERED SPECIES PROGRAM

We are excited to welcome Shilo Felton to our Division as the Principal Biologist for our Non-game, Threatened, and Endangered Species program! As our nongame biologist, she will serve as our nongame technical representative to the Atlantic Flyway Council, Atlantic Coast Joint Venture, and Association of Fish and Wildlife Agencies Wildlife Diversity Committee. Shilo succeeds Chris Raithel, who retired in February 2018 after 40 years with RIDEM.

Shilo brings more than a decade of experience in applied research and management of non-game, threatened, and endangered wildlife. She recently received her Ph.D from North Carolina State University, where she investigated the effects of management actions on American Oystercatcher populations. She completed her M.Sc. at Western Kentucky University, where she managed a project to mitigate conflict between farmers and wildlife in South Africa. Before pursuing her degrees, she worked on a variety of projects, from supervising Roseate and Common Tern monitoring at Monomoy National Wildlife Refuge, to maintaining a captive population of San Clemente Loggerhead Shrikes for the San Diego Zoo. She has most recently been developing a shorebird monitoring program for the Town of Harwich on Cape Cod , and working with Piping Plovers for MassAudubon. She currently serves on the Steering Committee for the American Oystercatcher Working Group.



Felton earned her Ph.D. working with American oystercatchers. Photo courtesy of S. Felton

# Welcome Shilo‼

"I enjoy collaborating with community stakeholders, local nonprofit groups, and government agencies to conserve native wildlife. I am thrilled to join the Division of Fish and Wildlife to contribute to the conservation of Rhode Island's natural resources." - Shilo Felton, Principal Biologist, DFW



# Inland Fishes of Rhode Island available for purchase today!

Written by Alan Libby , Illustrations by artist Robert Jon Golder \$18.75 each, includes tax. Available by mail in order, or pick up from the RIDEM and the Division of Fish & Wildlife

- RIDEM Licensing Office: 235 Promenade Street, Providence, RI : Cash, card, check or money order
- DFW Field Headquarters: 277 Great Neck Road, West Kingston, RI, Check or money order only
- Mail in form, check or money order only. For more information and to print the order form, go to: http://www.dem.ri.gov/programs/fish-wildlife/publications/

#### MICHAEL DIPIETRO, HUNTER SAFETY EDUCATION COORDINATOR



DFW Hunter Safety Office staff from left to right: Maddie Proulx, Mike DiPietro and Scott Travers at the DFW Hunter Safety Office in Exeter, R.I.

Hi everyone! I wanted to introduce myself as the newly appointed Hunter Safety Education Coordinator. My name is Michael DiPietro and I feel I have been preparing for this position most of my life. I feel blessed to be able to work for the hunters of our great state, along with the numerous volunteers that help make our programs successful. I am also dedicated to people who like to shoot at our public range at the Great Swamp Management Area. We currently have a great three-person team in our office. With Scott Travers as technical assistant and Maddie Proulx as clerical assistant. We also run the range with four Range Safety officers (RSO's) to make it run smoothly.

I was fortunate to grow up in a family of hunters; I would tag along with my father and uncles before I could even hunt myself. It was a rite of passage to be able to get my hunting

license! Today, many kids don't have the hunting tradition passed down within the family, so the DFW Hunter Education Program tries to provide that knowledge through seminars workshops, and mentorship programs.

Early on I managed to learn from every hunt and eventually became a successful deer hunter. I was fortunate to have been able to go to the public state range at Buck Hill Management Area in my teens (yes, I'm showing my age). I learned about the firearms and ammunition I was using. I learned about trajectories. It developed my confidence! I formed an understanding of ethical hunting, and developed a deep respect for the animals I hunted. I was not born a good shot- it was an acquired skill. Today, the Great Swamp Shooting Range is a state-of-the-art range that can help today's hunters learn good marksmanship.

I started with RIDEM as a seasonal Park Ranger at Goddard Park while going to college. While working there, I got to know the Environmental Police, and after talking to them it wasn't long before I changed my major from Psychology to Wildlife Management. Things fell into place in the years to come and I became an Environmental Police Officer (EPO) myself. I wanted to be the voice for the game being hunted. Later, I was able to study at the Hunter Incident Academy in Missouri. During my time as an EPO, I was a range officer for the Division of Law Enforcement for almost 30 years and the Chief Range Officer for 10 years.

I knew after years of hunting that I wanted to give back to other people who wanted to take up hunting, or to learn to be a better hunter, so I volunteered as a hunter safety instructor in both firearms and archery. I volunteered for 27 years before I was given this new assignment as Hunter Safety Coordinator. This now allows me to help young and inexperienced hunters, as well as hunters who want to expand their knowledge. I look forward to assuring that the Pitman-Robertson monies which fund these programs are secure, managed properly, and used wisely to help Rhode Island's hunters, and future generations, become safe, ethical and responsible hunters.

## WELCOME MIKE!!

For more information about the DFW Hunter Education Office, or the many programs and classes they offer, please call 401-539-0019 or email Michael.DiPietro@dem.ri.gov.

You can also visit our website at www.dem.ri.gov/programs/fish-wildlife.

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#### **ELECTROSHOCKING CONTINUED FROM PAGE 1**

chemical called Rotenone for fish surveys. Historically, this chemical was used in rivers and streams in calculated concentrations in order to lethally survey an area of water. Rotenone would be added upstream, and a net strung across the river downstream, would collect all fish species within that section of river.

Thankfully, with the advancement of technology, electrofishing equipment was developed as an alternative method to provide nonlethal surveys and collection of fish.

The size and type of water body being sampled determines which type of electrofishing equipment is used. These consist of backpack, tote barge and boat electrofishers. Although the

style and size vary drastically, they all have similar components. Each piece of equipment requires a power source, either in the form of a battery or a generator. The power is then transferred to a pulsator, which controls the output of power. This becomes important when targeting specific fish habitats, species, and life stages. From the pulsator, the power is sent to an anode, or positively charged conductor, that extends into the water. To create a circuit and form an electrical field, a cathode or negatively charged



DFW biologists, staff and volunteers conduct a backpack electrofishing survey in a small, wadable stream.

conductor, is also placed into the water.

Particularly for small, wadable streams and rivers, a backpack electrofisher is the tool of the trade. Although the idea of wading through electrified water may sound dangerous, with proper training and safety equipment this survey method is very safe. Rubber insulated waders and gloves are required for all surveyors in and around the water, protecting them from electrical shock. A backpack



The DFW electrofishing boat is used to survey lakes and ponds, such as night surveys conducted during the fall. Photo from DFW.

electrofisher is carried and controlled by an operator wearing the unit on their back. The operator holds a probe that acts as an anode, and typically has a metal cable- the cathode- trailing behind, forming an electrical field around the operator. Netters surround the operator, collecting fish stunned by the electric current, placing them in a bucket of water or a livewell. Once the survey is complete, the collected fish are measured, recorded and released back into the water alive.

In rivers that are too large for the efficiency of a backpack electrofisher, a tote barge electrofisher is used because of its higher power output, and longer probes for a greater reach.

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These units generally consist of a floating "barge" or bin that holds a generator, pulsator box and a livewell. These surveys require a crew of at least five or six people. Two probes, acting as anodes, are connected to a pulsator box. Each probe is controlled individually and are equipped with safety switches. An operator pushes the tote barge from behind, monitoring the power output and ensuring safety by controlling a second set of safety switches. The cathode is affixed to the tote barge in the form of metal "skid plates" wired through the hull of the unit, forming an electrical field between the probes and barge. This equipment is used in rivers that are still wadable yet have wider channel widths and deeper pools in which the power output of a backpack electrofisher becomes less effective. Surveys are always performed working upstream, using the current of the water to effectively net stunned fish.

Lakes and ponds require much different equipment, as they are often not wadable and lack flow. The Division of Fish and Wildlife operates an electrofishing boat, which is designed specifically for this use. This boat is a Smith Root designed, 17-foot, flat bottom hull equipped with a livewell and generator. Two booms are extended from the bow, fitted with cables that drop into the water and act as the positively-charged cathodes, emitting a current. The hull is fitted with a series of cables hanging from the bow which collectively, with the aluminum hull, act as the negatively charged anode. Boat electrofishing surveys are conducted along shorelines and shallows of lakes and ponds as the field of current and power output are limited by depth. These surveys are generally conducted at night using lights fitted to the bow, illuminating the water for visibility. Boat electrofishing is most commonly performed at night for better visibility into the water as daytime glare can make netting fish more difficult as well as more stationary movement of fish after dark.

Fisheries biologists are able to use the data from electrofishing surveys for different analyses including species presence, distribution, population size, and growth. It is an important method of survey for understanding species distributions and monitoring waterbodies for change. The best part about electrofishing is that a wealth of data can be collected while ensuring fish are returned to the water unharmed. These surveys are important for ensuring healthy populations of fish for recreational fishing and overall healthy aquatic ecosystems.

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Photo by M. Stultz at Durfee Hill Wildlife Management Area, Glocester, RI

Not only can you visit our website, **www.dem.ri.gov/fishwildlife**, to find out about local wildlife, conservation initiatives, management research, and more, but you can now connect with us on social media to stay updated on events and what's new!

# Tautog or Not Tautog? Species spotlight on the Infamous Blackfish (Tautoga onitis)

By Nathan Andrews, Fisheries Specialist, RIDEM Division of Marine Fisheries

# The Thrill:

Tap, pause, tap-tap and you set the hook. And that my friends is the toughest part of tautog fishing... pausing, waiting for the fish to come back and hit the bait again. Then once it takes the bait, you quickly set the hook hard, lifting the fish's head up and out of the rocks. The feel of the the dead weight and strength of a bulldog blackfish on the end of your rod is thrilling and addicting.

# Habitat and Features:

Tautog are bottom fish, they live and feed in the benthic zone of inshore and costal structures, such as rock piles, ledges, pilings, jetties, reefs, and shipwrecks, etc. 'Tog are found from Nova Scotia to South Carolina, but are most common in the waters between Cape Cod and the Chesapeake Bay. Blackfish are members of the Wrasse family and share many of their characteristics. They are slightly ventrally compressed and have a bullet like shape with a thick, muscular caudal peduncle, and broad fan-like caudal fin. Tautog have 2 pelvic fins, two anal fins, and a

Image 1 - Nate Andrews with a Tautog caught near Hog Island in Narragansett Bay on a single circle hook rig. Notice that beautiful rust color on this 21 inch female, she was safely released.



long connected dorsal fin, all of which are tipped with spines. Tautog also have 2 pectoral fins which are very broad and paddle-like. One of the best identifying traits of the tautog are its teeth. Square and conical in shape, they vaguely resemble a set of human teeth in need of some serious dental work. They have thick rubbery lips and powerful jaws to back up those chompers. Their throat is lined with crushers (resembling molars) which help the blackfish to crush crabs and other crustaceans that they prey on. Tautog are sexuallydimorphic, the male and female 'tog are able to be identified based on physical characteristics. Juveniles are tannish-green and speckled with non-solid black-brown bars and speckles. This pattern is excellent camouflage for juveniles and females. Females maintain those bars and coloration into adulthood, often getting darker or grayer with age and habitat (see image 1). Male blackfish lose their bars after reaching sexual maturity and take on a look that resembles their name sake more closely, a dark brown-black or grey body with a white chin and underside (see image 3). As males grow larger, they will develop a larger square chin. A trademark of a decent fish, typically a fisherman will announce "Whitechinner!" following a daring swing of the rod and the iconic "thud" of a tautog landing on the deck.

## Strategy:

Ask a hundred anglers the best way to catch a tautog, and you will get a hundred different answers. Recreational anglers boast different methods and tricks, knots and techniques, secret spots, rigs, and baits... but it all boils down to having the right timing and *feel* for "toggin"." That *feel*, only comes with practice. Some of the common rigs that anglers like to use with rod and reel from a boat are singlehook rigs, high/low rigs, double-hook (bottom) rigs or "Snafu" rigs, and slider rigs. From shore and boat anglers will also use a single-hook rig or a tautog jig with some crab for bait – with the idea here being that you will get into less trouble when fishing structure if you only have one hook, that is one less hook that can snag. Many anglers prefer to use circle hooks, which often need very little effort to set and help to ensure a clean catch and hook set in the lip, avoiding

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a fish getting gut-hooked. Tautog are visual predators, so bait is the standard method of rod and reel fishing. That also means that if the water is muckedup from a storm and the visibility is low, it is going to be a slow day on the water. Many charter boats and headboat captains recite a short rhyme to remind anglers that tautog are notorious bait stealers, "No bait, long wait." Some Spear fishermen like to spear their tautog, many of which will speak of it like an artform. Some Spearfishermen say it is a much more intimate hunt and allows them to be much more selective. Tautog fishing has two seasons in RI: spring and fall. Again, there is much variety in angling technique and both seasons are diverse in their compilation of angler modes



Image 2 - Photo of Dyer and his World Record Tautog, speared cleanly through the meat just behind the top of its head (Photo published in *On the Water* magazine)

and methods. Shore fishing is the preferred method of catching tautog in the spring. The fish are typically in the upper regions of Narragansett Bay and are (relatively) accessible from shore. During this season the preferred bait is clamworms, clams, and small Asian shore crabs. During the fall season, there is more effort from people in boats, anchoring on rock piles in deeper waters (not accessible from many regions in RI). Cut crabs is the preferred bait in the fall. And of course, spearing tautog is much easier when you are not shivering, so most spearfishermen prefer the fall season as well.

# Age and Growth:

On August 18, 2019 spearfisherman Brendan Dyer set a world-record for tautog (see image 2). This fish was speared in New London, Connecticut, in about 20 feet of water .This massive female tautog weighed in at 25.1 pounds and 31.75 inches (80.6 cm) long. This catch has been accepted as the current world record for tautog by the IUSA for free dive spearfishing using a speargun. In a statement, Dyer said that he had tracked the fish for over an hour before spearing the fish. Dyer showed respect to the fish by having a fish-print made, eating the meat to ensure it did not go to waste, mounting the jaws, and donating the rack to the RI DEM Division of Marine Fisheries for age and growth studies. The remaining rack was donated to Roger Williams University for mercury content analysis. Gut content analysis performed by RIDMF Principal Biologist, Tom Angell determined out of 106.6g of total content, the tautog had 67.2g of *Callinectes sapidus* (blue crab), and 39.4g unidentifiable digested materials.

**RIDMF** Principal Biologist Nicole Lengyel Costa, who operates the Age and Growth Lab at DEM, and Fisheries Specialist Christine Denisevich, processed and analyzed three structures to ensure an accurate age was obtained: a sectioned spine, a sectioned otolith, and an operculum. The age of the fish was confirmed as 16 years old from all three structures. A champion of nature, this Tautog is much larger than the average recreational tautog. It is possible that it lived in a warm area of Long Island Sound, where it could feed year round, rather than become dormant in the winter as most tautog do in the New England region. This fish is rivaled by a rod and reel Tautog world record holder, Kenneth Westerfeld who, on January 2<sup>nd</sup> 2015, landed a 28lb 8oz fish while wreck fishing out of Ocean City, Maryland. There is still much to discover about the life history and growth rates of these fish.

#### **TAUTOG FISHING CONTINUED FROM PAGE 9**

# Good Eats And Good Data:

Tautog is a mild flavored white-meat fish, like most bottom-fish. Blackfish love crustaceans, clams and other benthic invertebrates. Because of the juicy white meat and their diet of crustaceans (ie blue crabs, lobster chicks, green crabs, etc...) Tautog and monkfish taste similar to lobster – some refer to it facetiously as "poor-man's lobster." There are lots of ways to prepare it, including (but not limited to) frying, pan searing, and grilling. Some anglers prefer blackfish chowder, while others say that it is best as sashimi (thinly sliced raw fish) served plain or with chili sauce. Supposedly, a 17 inch tautog is the best eating sashimi size. Tautog is firm when raw, and buttery and flaky when cooked. Did I mention 'Tog is delicious?

The Access-Point Angler Intercept Survey (APAIS) monitors recreational fishing from Maine to Georgia. This program is coordinated in Rhode Island by RIDEM Division of Marine Fisheries under the guise of the Atlantic Costal Cooperative Statistics Program (ACCSP) and NOAA. Surveys performed by RI APAIS Fisheries Technicians provide data for the NOAA Harvest Estimates of recreationally caught finfish. In 2018, according to the National Marine Fisheries Service, Fisheries Statistics Division (as of December 12, 2019) final estimates state that just in Rhode Island during the 2018 fishing season, recreational anglers harvested approximately 329,707 Tautog. That is an incredible amount of fish. It demonstrates how fortunate we are to have such a productive and healthy fishery in our own back yard. This data is very important for stock assessment and provides fisheries managers with better data, so that better informed regulatory decisions will be made. This helps to preserve fisheries for generations, which is crucial, especially with a slow-growing fish such as tautog. If you encounter an APAIS Field Interviewer after a fishing trip, the RI Division of Marine Fisheries kindly encourages you to take a moment and answer a few questions describing your catch and effort! Better Data = Better Fishing.

<sup>1</sup>Kells, V. A., & Carpenter, K. E. (2011). *A Field Guide to Coastal Fishes*. Baltimore, MD: The Johns Hopkins University Press. p.310. <sup>2</sup>OTW STAFF (Ed.). (2019, August 21). "Fisherman Spears World Record Size Tautog." *On The Water* Magazine. <u>https://www.onthewater.com/</u>

fisherman-spears-world-record-size-tautog <sup>3</sup>Personal communication from the National Marine Fisheries Service, Fisheries Statistics Division December 12, 2019. If you wish to run a query on a fishery that interests you please visit: <u>https://www.fisheries.noaa.gov/</u> recreational-fishing-data/recreational-fishing-data-and-statistics-queries

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Image 3 - Tom O'Brien with a perfect male specimen caught in Narragansett Bay by the shores of Jamestown on a tautog jig with some green crab. This one measured 23 inches in length and was safely released.

#### RECIPE: TAUGOS **Ingredients**: Filets of one Tautog 1 bag tortilla chip 2 cups fresh Pico de Gallo **Directions**: 1. Rub tautog filets with olive oil and season with salt and pepper. 2. Bake at 400 degrees for 10-12 minutes. 3. Remove tautog filets from oven and break meat into small pieces using a fork. Remove any remaining small bones. 4. Lay out fish on cutting board or parchment paper to drain and prevent soggy chips.

- 5. Place a generous spoonful of fish into each Scoop chip.
- 6. Place Pico de Gallo on top of fish.
- 7. Finish with a dab of sour cream to taste Enjoy!

Pro tip: For extra meat, remove the head and bake the remainder of the fish. Use a fork to remove all the meat from in between the bones.

Recipe courtesy of Scott Buchanan, DFW

# AMPHIBIANS OF RHODE ISLAND Now Available for purchase



Just published, an authoritative book about the 18 species of amphibians that are native to Rhode Island makes a great gift for nature enthusiasts. Its author is Chris Raithel, a longtime biologist with DEM's Division of Fish and Wildlife.

The Department of Environmental Management (DEM) is proud to announce the publication of Amphibians of Rhode Island, an authoritative book spotlighting the 18 species of amphibians that are native to Rhode Island. Written by longtime DEM natural heritage biologist Christopher Raithel, the book provides meticulous accounts of the state's native frogs, toads, and salamanders and their respective habitats, and includes crisp, vivid photography depicting the amphibians' multiple life stages.

More than just a field guide, it combines an exhaustive search of

the historical record and four decades of Raithel's intense personal study to present complete information on the statewide distribution, demography, seasonal movement, reproduction and development, research needs, and conservation status of each species. One chapter is devoted entirely to conservation, detailing the threats faced by amphibians and the actions needed to safeguard them.

"Amphibians of Rhode Island is an impressive and comprehensive account of our state's native amphibians that sets the stage for conservation for decades into the future," said DEM Director Janet Coit. "Chris Raithel is an expert across many species and his new book will be an enormous asset in Rhode Island and regionally."

Raithel enjoyed a distinguished, 40-year career in DEM's Division of Fish and Wildlife before retiring in 2018. He began his work by finding and cataloging plant and animal diversity across Rhode Island and assessing the conservation status of less common species. While at DEM, he served as the state endangered species biologist, herpetologist, and non-game bird biologist. A major contributor to the state's first-ever RI Wildlife Action Plan and its 2015 update, Raithel prepared numerous species accounts for the more than 450 Species of Greatest Conservation Need. He has personally documented individual turtles and their movements and life history for over 30 years. He is a nationally recognized expert in the management and monitoring of the American burying beetle.

An outstanding resource for scientists, students, and nature lovers alike, the book would make an excellent addition to a school or home library. Published by DEM's Division of Fish and Wildlife, Amphibians of Rhode Island is being sold for \$20 including tax. It may be purchased in person at the DEM Office of Boat Registration and Licensing in Providence by cash, check, money order, or credit card (credit card requires an extra fee) and at the Division of Fish and Wildlife Field Headquarters in West Kingston, by check or money order only. The book also may be purchased by mail using the order form found at: http://www.dem.ri.gov/bookorder.

The US Fish and Wildlife Service and State Wildlife Grants Program provided funding for the book. All revenue generated by its sale will be directed toward wildlife conservation via the Rhode Island Division of Fish and Wildlife.

For more information on DEM programs and services, visit www.dem.ri.gov. Follow DEM on Twitter (@RhodeIslandDEM) or Facebook at www.facebook.com/RhodeIslandDEM 80 Page 12 08

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RI Department of Environmental Management **GREAT SWAMP FIELD HEADQUARTERS** 277 GREAT NECK ROAD West Kingston, RI 02892

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