



A Quarterly Publication from the RI Department of Environmental Management, Division of Fish & Wildlife

10th Anniversary Edition

Celebrating 10 Years of reporting natural resource management in Rhode Island.
Thank you for your continuing support and interest in our programs!

The Division Brings Environmental Education to the Classroom

By Kimberly Sullivan, Aquatic Resource Education Coordinator

Rhode Island teachers are constantly presented with acronyms such as STEM (Science, Technology, Engineering, and Math), STEAM (Science, Technology, Engineering, Arts, and Math), and NGSS (Next Generation Science Standards), to name a few. Due to the push for technology being incorporated into school as well as the home, both teachers and students are often further removed from the natural world. However, what if they could learn about science and technology using the environment?

While most people equate RIDEM Division of Fish and Wildlife with hunting and fishing, many people do not realize that the Division also provides teacher training opportunities through the Aquatic Resource Education program. For over 25 years, the ARE program has been the State Coordinator for nationally and internationally recognized environmental curricula such as Project WET, WOW! The Wonders of Wetlands, Project WILD, Aquatic WILD and Growing Up WILD. These award-winning programs allow teachers from preschool through high school to fulfill state educational standards while teaching about the environment. Most recently,

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"These award-winning curricula allow teachers from preschool through high school to fulfill state educational standards while teaching about the environment" Photo courtesy of K. Sullivan

Species Spotlight: Virginia opossum (*Didelphis virginiana*)

By Troy Langknecht, Clerical Support Aide, DFW



The Virginia opossum (*Didelphis virginiana*) is the only marsupial native to North America. Opossums are originally native to the southeastern United States and have expanded their range North and West partly due to human introduction, as well as an increase in shelter from urban encroachment, milder winters, and more accessible, man-made fresh water sources. Opossums were first spotted in Rhode Island in the 1960's and now inhabit every part of the state except Block Island, Prudence Island, and other small islands in Narragansett Bay. They can thrive in a variety of habitats including forests, agricultural land, and urban and suburban neighborhoods. Typical of many species of opossums, Virginia opossums have prehensile (capable of grasping) tails and

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THE DIVISION OF FISH AND WILDLIFE MISSION STATEMENT

Our mission is to ensure that the Freshwater, Marine and Wildlife resources of the State of Rhode Island will be conserved and managed for equitable and sustainable use.



Janet Coit, Director
Rhode Island Department of Environmental Management

F. Dean Hoxsie Acting Associate Director

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Division of Law Enforcement (401) 222-3070

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the ARE program added 'Getting Little Feet Wet' under the Project WET preschool courses, to the list of available teacher training opportunities. These curricula are already correspond with STEM, NGSS, and Core Curricula Standards. The early childhood guides are also correlated to NAEYC (National Association for the Education of Young Children) criteria and Head Start Domains.

The ARE program is not only responsible for training teachers, but also facilitates the following environmental curricula:

Project WILD/ Aquatic WILD

Project WILD is a multi-disciplinary curricula designed to explore environmental issues and present them in a comprehensive form for grades K - 12. The goal of Project WILD is to



bring students from awareness to action by teaching students 'HOW to think not WHAT to think.' Each activity comes with background information and various ways to adapt the activity to each grade level. A revision of the program, which will

be available in 2018, will include more field investigations and updated, relevant topics.

Aquatic WILD is a supplement course that encompasses solely water related issues using the same format as Project WILD. The guide was recently revised in 2013 and includes numerous field investigations, WILD work sections to explore various career paths, and STEM connections within each activity. Both Project and Aquatic WILD correspond with NGSS, STEM, and Core standards.

Growing Up Wild

An off-shoot of Project WILD, this curriculum was designed specifically for preschool-aged children. Easy, comprehensive activities, enable young children to connect with their natural environment at an early age. The program fuses all forms of early communication such as art, music, and hands-on exploration to convey the importance of our natural resources to ages 3-6. 'Growing Up Wild' corresponds with NAEYC and Head Start Domains.



"The goal ...is to bring students from awareness to action by teaching students 'HOW to think not WHAT to think.'

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Project WET

The Project WET curriculum explores everything water-related, from a water molecule to water resource management. The guide itself is designed for ages K-12 but many of the activities focus on the upper-elementary, middle and high school classroom. The Project WET 2.0 guide comes with a code that accesses the Project Wet Portal, an excellent supplementary resource for teachers. 'Project WET' is correlated with NGSS, STEM and Core standards.

Getting Little Feet Wet

In the spring of 2017, The Project Wet Foundation introduced its preschool supplement for younger learners: Getting Little Feet Wet. The guide features 11 activities, many of them from the Project WET curricula with a focus on preschool education. The program coincides with NAEYC, NAAEE, K-2 NGSS, and K-12 Core Standards. The ARE program will be offering training to both its facilitators and preschool teachers in the Spring of 2018.

WOW! The Wonders of Wetlands

WOW! The Wonders of Wetlands was developed in 1995 by Environmental Concern, Inc. and The Watercourse. It is a unique curriculum because it combines classroom activities and outdoor field work. Designed for K-12, each activity begins with background information, and the extensions to each activity literally bring the children out into nature, creating stewards to their natural resources. Training consists of 3 hours of classroom time and 3 hours in the field, learning how to take samples and identify different organisms using simple tools. The curriculum is presented to everyone once both sections of the teacher training have been completed.



Project Wild teachers learning to fish with new Aquatic Wild Field Investigation. Photo Courtesy of K. Sullivan

GET YOUR GUIDE

In Rhode Island, all the above-mentioned programs are provided free of charge courtesy of the RIDEM Division of Fish and Wildlife Aquatic Resource Education program. A 6-hour training is required to obtain each of the following curricula: Project WILD/Aquatic WILD (often offered together in one workshop), Project WET, and WOW! The Wonders of Wetlands. The preschool guides, Growing Up WILD and Getting Little Feet Wet, each require a 3 ½ hour workshop.

Workshops are offered through the ARE program and other approved non-profit facilitators such as the Roger Williams Park Zoo, the Audubon Society of Rhode Island, Westerly Land Trust, Providence Parks, Narragansett Bay National Estuary Research Reserve, and many others. Please note that a minimal fee may be required when taking a teacher workshop from one of our facilitator groups due to material and venue costs.

2018 SCHEDULED WORKSHOPS

If you are interested in these teacher trainings, please contact Kimberly Sullivan at kimberly.sullivan@dem.ri.gov or 401-539-0019. Check our website for upcoming workshops, www.dem.ri.gov, or like our Facebook page: Rhode Island Division of Fish and Wildlife Outdoor Education.

2017 Division of Fish & Wildlife Photo Submission Contest Winners



Christopher L.



Mike W.



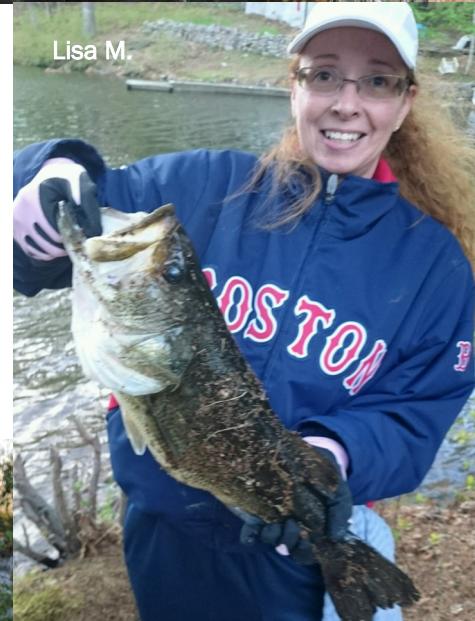
Jody P.



Stephany M.

We had a great 2017 fishing season and cannot wait for 2018! Thank you to all who submitted their photos to the Division of Fish & Wildlife's photo contest. If you would like us to use your picture in future DFW publications, please send your best 2018 Rhode Island freshwater fishing photos to:
jessica.pena@dem.ri.gov

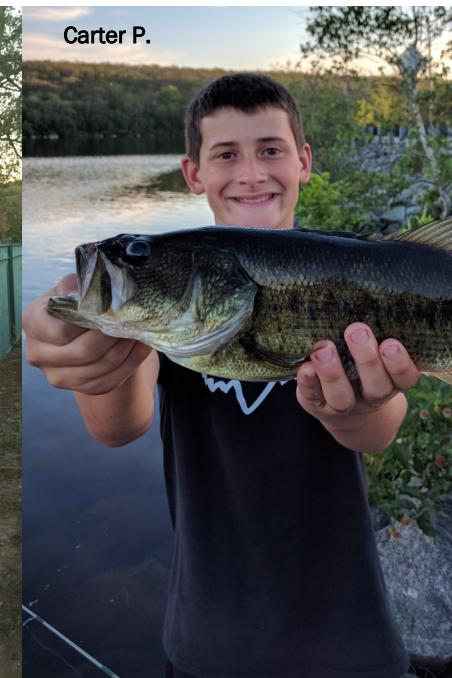
*Photos submitted must be printable quality:
1MB or higher



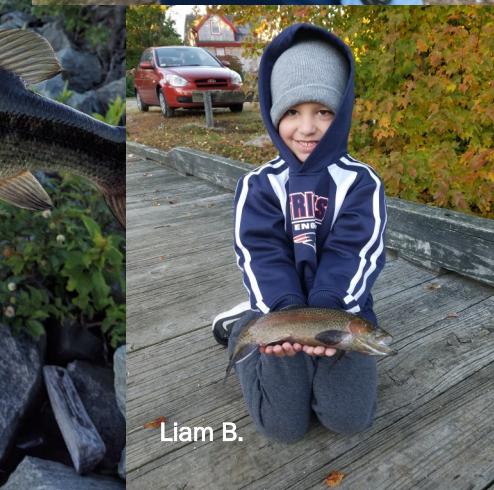
Lisa M.



Linh Z.



Carter P.



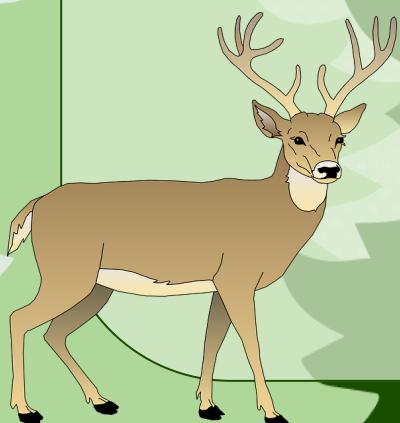
Liam B.

RIDEM Division of Fish & Wildlife Hunter Education Program: Expanding the Hunting Experience

Our Division of Fish and Wildlife Hunter Education office located in Arcadia Management Area offers a variety of exciting hunting courses that are geared towards all skill levels. Available courses cover everything from hunting tips, to cooking classes, to wilderness training. Keep your eyes out for these courses, as well as others being offered in 2018! For more information about classes and dates, check our website at www.dem.ri.gov or follow us on Facebook at

Rhode Island Division of Fish and Wildlife Outdoor Education.

- Wild Game cooking
- Trapping
- Turkey Hunting 101
- Ladies Day at the Range
- Youth Day at the Range
- Becoming a Successful Deer Hunter
- Ground Blind Construction
- Ladies Archery Day
- Land Navigation
- Tree Stand Workshop
- Wilderness First Aid
- Practical Field Training
- Firearm Familiarization
- Marksmanship Training (offered seasonally)
- Youth Archery Day
- Deer Processing



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opposable thumbs on their hind feet, which allow them to be both terrestrial (land dwelling) and arboreal (tree dwelling).

Opossums are most active at night, although it is not uncommon to see them during the day. They are typically solitary animals, except for a mother and her young. Opossums' home ranges can vary from about 12-270 acres, with males having larger home ranges; they are not typically territorial of their range. They often den in fallen logs, hollow trees, brush piles, and other animals' burrows. They never stay at the same den for very long, using each site temporarily before moving to the next. Being native to the southern United States and not well adapted to cold temperatures, while opossums do not hibernate, they are less active in winter. It is not uncommon to see an opossum shortened ears or a tail, as they are commonly damaged by frostbite.

They are opportunistic eaters, which is partly why they thrive in urban areas. Opossums will eat compost, carrion (dead animals), snails, mice, rats, cockroaches, and ticks. Despite their negative reputation, opossums can help keep neighborhoods clean of pests, rodents, and roadkill, all of which may cause disease. They are well known for playing dead when threatened, which is a temporary behavior caused by shock and is similar to fainting. If you find an opossum that looks dead or injured, it may just be playing dead and the best thing to do is leave it be. Opossums are not aggressive animals, though they may be seen hissing and baring their teeth to fake boldness to scare off a predator. Opossums are a very unlikely host for the rabies virus. In fact, between 2004 and 2014 only 25 cases of opossums contracting rabies were reported in the United States, and only one of those cases was in New England.

To attract females, male opossums will click their teeth and mark their scent on nearby trees or objects. Females may give birth to one or two litters a year, which may be anytime between late winter and late spring. They typically have an average of 7 young per litter after only 13 days of gestation. Newborn opossums are highly undeveloped and are smaller than a honey bee. Like many marsupials, the young live in their mother's fur-lined pouch to drink her nutritious milk and develop completely. The young will stay in the pouch for about 2 months, after which the mother will carry them on her back until they are old enough to go out on their own. After only 3 1/2 months, young opossums are ready to leave their mothers and hunt on their own. Opossums typically only live about 1 to 2 years in the wild due to predators and vehicle strikes. Their predators include dogs, great horned owls, coyotes, raccoons, foxes, bobcats, snakes, and raptors. For more information about opossums, visit <http://www.dem.ri.gov/programs/fish-wildlife>.



Marsupial Fun Facts

- There are 270 extant (still existing) species of marsupials on Earth
- Only 50% of marsupials have a permanent pouch
- Litters weigh no more than 1% of the mother's body weight at birth, whereas rodents' litters are up to 50% of the mother's body weight
- There are 63 species of opossums, all in North and South America
- The Virginia opossum is the only opossum, and only marsupial, in North America
- They have a lower relative brain size than eutherians (placental mammals)
- 70% of marsupial species are native to Australia
- They have metabolic rates up to 70% slower than eutherians



Kid's Corner! Presented by the Aquatic Resource Education Program

Animal Tracks

Every species of animal, whether a bird or a mammal, has its own unique footprint. When they leave their footprints on the ground, the prints are called "tracks." You can then use tracks to identify the animal who left them!

Track Match

Can you match the animal to its track? Draw a line from the animal to its track.



Wild Turkey



White-Tailed Deer



Raccoon



Coyote



River Otter



Animal Tracks Sudoku

This sudoku puzzle uses four different footprints:



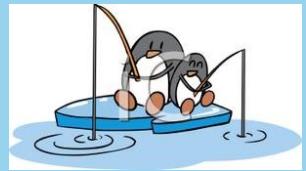
There can only be one of each footprint in each row (across) as well as in each column (up and down) AND in each block of four. Can you solve the puzzle?

ICE FISHING TIPS

When venturing out on the ice, safety should be your number one priority!

- ✿ Be cautious! There is no such thing as safe ice. Make sure the ice is at least six inches thick. Test the ice as you go with an ice auger. If there is a path, stick to it.
- ✿ Ice thickness varies throughout a pond and is usually thinnest around shore and protruding objects such as rocks, trees and docks. Beware of areas where there are springs or inlets to a pond—the ice may also be thinner in these areas.
- ✿ Stay dry and dress warmly. Wear many layers with “long johns” and a wind-breaking over-layer. Wear appropriate footwear such as insulated boots and wool socks that will keep your feet warm and dry. Sunglasses or ski goggles are helpful for glare and wind. Rubber gloves are good for bait and fish handling and mittens are good for warmth. Bring a change of clothes and don't forget to wear a hat.
- ✿ Remember to bring safety equipment including ice spikes, 50 feet of safety rope, and a flotation device such as a boat seat cushion.

Interested in learning how to ice fish? Please contact Kimberly Sullivan at kimberly.sullivan@dem.ri.gov or 401-539-0019 for more information.



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