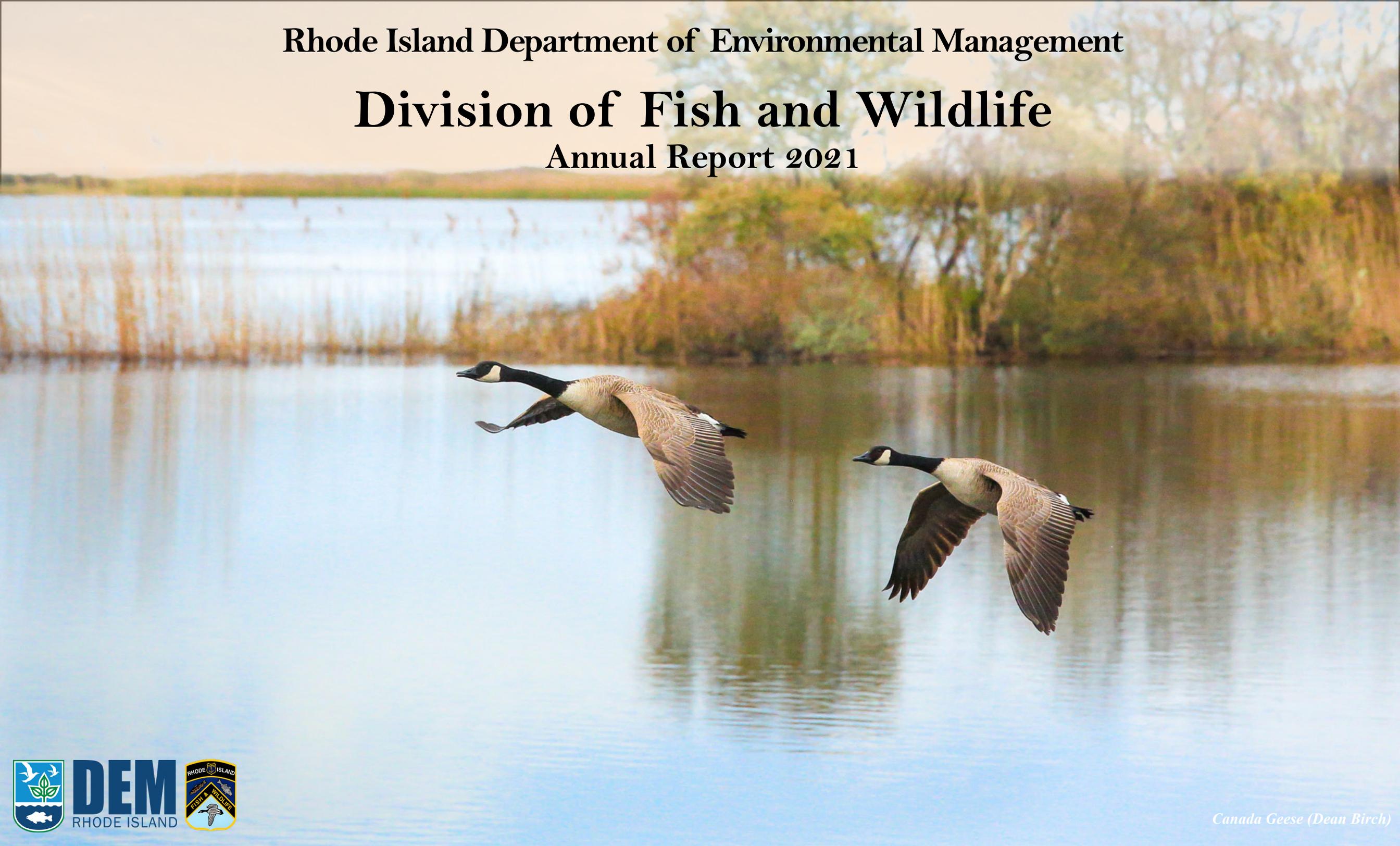


Rhode Island Department of Environmental Management

Division of Fish and Wildlife

Annual Report 2021



Canada Geese (Dean Birch)

Protect | Restore | Manage

The Division of Fish and Wildlife (DFW) serves as a resource for hunters, anglers, hikers, mountain bikers, wildlife watchers, municipalities, legislators and the public as a whole.

The DFW protects, restores and manages the wildlife resources of the state. Sharing management responsibility of more than 60,000 acres of land with the Division of Forest Environment, we are responsible for thousands of wildlife species. In addition to our other duties (e.g., research and management), we are responsible for the State's public hunter education programs and overseeing all hunting and trapping, which is an integral component to our revenue stream.

The DFW is primarily funded through the Federal Wildlife and Sport Fish Restoration Program, which is administered through the U.S. Fish & Wildlife Service. This program uses taxes placed on firearms, ammunition, and archery equipment to help fund fish and wildlife research and conservation programs, habitat acquisition, and outreach and education programs.



*Cedar Waxwing
(Dean Birch)*



RI DFW FIELD HEADQUARTERS
277 Great Neck Road, West Kingston, RI 02892
401-789-0281 | DEM.DFW@dem.ri.gov

RI DFW EDUCATION CENTER
1B Camp E-Hun-Tee, Exeter, RI 02822
401-539-0019



A Message from the Deputy Chief

Over the past year, the Rhode Island DEM Division of Fish and Wildlife has continued to evolve and grow, not just in size, but in scope. With the help of partners, the Division has adapted new technologies and found modern ways to engage the public, allowing us to expand our conservation efforts to all corners of the state to ensure enhanced opportunities for engagement.

New partnerships have allowed us to expand our capacity, research, and understanding about several of our natural resources. Our Fisher Study, which is a collaborative project with the University of Rhode Island (URI), is entering its second field season to explore how fisher are using Rhode Island's landscapes. Furthermore, our stellar fisheries staff are working with URI to identify critical habitats to preserve native cold water dependent species, such as brook trout. These partnerships increase the Division's capacity to study and manage our wildlife populations, while also providing students an opportunity to gain a meaningful experience working with skilled fish and wildlife biologists.

A consistent vein of public involvement ran through all the conservation work in 2021. From an independent turtle monitoring project to a week-long marsh restoration effort, the public provided much needed support to Division staff throughout the year. In turn, the Division offered engaging opportunities for Rhode Island residents to learn about our local wildlife and gain outdoor skills, such as the Vamos A Pescar events, and a variety of new accessible virtual programs.

Looking back on the past year, Rhode Island has made amazing strides in conservation thanks to the generous help of the community and the dedication of Division staff. Thanks to the funding we have received from our constituents, we were able to acquire several more sizeable parcels for conservation. After a long pandemic filled with constant reminders to distance ourselves, 2021 was the year that initiated coming together again to forge new paths forward. I look forward to continuing this trend of unity and togetherness in 2022, to protect, conserve and restore Rhode Island's natural resources for all.



Sincerely,
Jay Osenkowski
Deputy Chief, Wildlife Section

Buck Hill Management Area (Amanda Cugno)



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.

RI DEM - URI Collaborative

Fisher Study

The Rhode Island Fisher Study is a collaborative research project between the RIDEM Division of Fish and Wildlife and the University of Rhode Island, the goal of which is to investigate which anthropogenic and ecological factors affect the fisher population in the state and guide management decisions with respect to harvest and land-use planning.

The project will utilize data collected from fishers equipped with satellite GPS collars that record fisher movements across the landscape, as well as camera trap data systematically collected from three Rhode Island counties. During the first field season of winter/spring 2020 - 21, Laken Ganoë, PhD student and Principal Investigator, and her team captured 22 fishers during a period of two months, with nineteen fishers fitted with satellite GPS collars.

Camera trapping efforts occurred across 200 camera stations between November 2020 and March 2021. Over 400,000 photos were collected of various species during that period. Fishers were detected at 77% of camera sites during the first half of the winter season (Nov-Dec). The team is processing all the images collected, which is going to provide valuable occurrence data on other species ranging from weasels to coyotes.

To promote public interest and education, a website dedicated to the project offers information about the project: lakenganoë.com



RI DEM-URI Collaborative *Brant Migration Study*

During the winter of 2021, field work began on an Atlantic brant banding project in partnership with the University of Rhode Island. To better understand how this small species of goose uses the Rhode Island landscape and is influenced by increased anthropogenic disturbances, crews affixed back-pack style transmitters to the birds that send location data through cell phone towers. By exposing a patch of grass on a snow covered landscape and luring in the gregarious geese using decoys, the biologists, students, and volunteers were able to successfully capture 30 brant with the use of rocket propelled nets.

Of the 30 brant captured, 20 completed an entire spring and fall migration in 2021. On average, spring migration was initiated on May 10th and completed on June 20th. Five brant took a maritime spring migration route, moving up the east coast of North America before moving northwest over land to Hudson Bay, while 15 migrated northwest over land directly to James and Hudson Bays. Brant spent an average of 74 days on the breeding grounds. Summer locales were all in the Foxe Basin. On average, brant initiated fall migration on September 2nd and completed fall migration on November 4th, with fall migration lasting an average of 63 days. Fifteen brant returned to winter in Rhode Island. Of those 15 brant, 3 initially migrated to the coast of Connecticut before returning to Rhode Island. Three brant are currently wintering in Long Island, New York.

Rocket net post-deployment, brant sporting a transmitter (Latham)



Turtle Spotters

A Citizen Science Survey

After the successful completion of a pilot diamondback terrapin head count survey in 2020, a new community science element was added in the spring of 2021 with close to 30 volunteers covering 50 points across Rhode Island. Each location was selected based on habitat conditions that could potentially support these estuarine turtles.

Due to their cryptic nature, diamondback terrapin populations can be difficult to identify, but as a state endangered species, this is crucial to their conservation. Volunteers were trained during a virtual Zoom meeting to recognize key characteristics of diamondback terrapin heads at a glance. Once assigned a site, they made weekly visits to scan the water and take note of any evidence of turtles in the area, most notably their heads peeking above the water. This method was adopted from a similar survey performed by University of Massachusetts-Amherst and Monmouth University.

Thanks to the dedicated work of volunteers, terrapins were observed at 10 sites in 2021, most of which were previously unknown! In appreciation of their efforts, volunteers were invited to visit a diamondback terrapin nesting site to help move newly hatched turtles to safety. In future years, volunteers will continue to assist with more directed efforts aimed at monitoring the newly identified populations in the state.

Diamondback Terrapin Monitors in Barrington (Gerald Krausse)



Diamondback Terrapin (Peter Muir)

Sapowet Marsh Restoration

This fall, DEM biologists partnered with Save the Bay to restore a portion of the 100 acres of saltmarsh habitat in Sapowet Marsh Management Area in Tiverton.

This marsh, similar to others throughout the state, is falling victim to degradation due to a history of mosquito ditching and agricultural manipulation, which has led to trapped water within, and ponding on top of the marsh surface. Under normal circumstances, the marsh would flood and drain twice daily by normal tidal activity. When water remains on the marsh, however, even the most flood-resistant plants can die. As the soil compacts, it creates a situation where artificial ponds continue to expand and claim more marsh area, referred to as “pool creep.”

To improve the high marsh, staff and volunteers hand dug small channels, called “runnels,” to slowly drain the water. Slow drainage helps to retain sediment, and limit erosion. To further enhance the habitat, DEM development staff used an excavator to allow tidal flow to reach the barrier of salt-intolerant *Phragmites australis*, which was inhibiting marsh expansion.

Sapowet Marsh is an important area for recreational activities, like fishing and waterfowl hunting. It supports a variety of waterfowl species, wading birds, and fish, and is a breeding site for saltmarsh sparrows. The partnership between RIDEM and Save the Bay, as well as the hard work of volunteers are incredible assets in the future conservation of saltmarsh habitats in Rhode Island

A volunteer creates runnels at Sapowet Marsh Management Area (J. Veale)



Mentored Youth Turkey Hunt

with The Light Foundation

A soon-to-be annual event, the Mentored Youth Turkey Hunt kicked off in 2021! Partnering with The Light Foundation and other sponsors, the event started with a welcome dinner. Youth hunters met and spent time with their mentors and participated in an orientation that covered topics like firearm safety and hunting rules and regulations. Participants practiced sighting in their firearms. The next day, youth hunters paired with their experienced mentors for the hunt, which was followed by lunch and tutorials on proper field dressing and harvesting techniques.

The Light Foundation is a nonprofit organization dedicated to helping young people develop the skills, values, and mindset they need to create a meaningful and productive future.

Hunting has a long tradition in Rhode Island, supporting family customs, connecting people with nature, and attracting tourism to the state. Hunters and anglers purchase around 70,000 licenses, permits, stamps, and tags each year and contribute more than \$235 million to Rhode Island's economy. Revenue generated from license and permit sales support Rhode Island fish and wildlife conservation programs. A critical source of funding, these monies are leveraged to match federal Wildlife and Sport Fish Restoration Program dollars that support programs like this and outdoor recreational opportunities for fishing, hunting, and boating in Rhode Island.



Former NFL New England Patriots player Matt Light with RIDEM Deputy Chief of Wildlife Jay Osenkowski and one of this year's successful youth hunters.

Zooming into Action!

Wildlife Solutions

In 2021, the RIDEM Wildlife Outreach Program implemented a new virtual “Wildlife Solutions” series to address the growing concerns around human-wildlife interactions. Through Zoom, they connected with close to 200 Rhode Islanders about how to resolve common conflicts with coyotes, fisher, foxes, bears, deer, woodchucks, rabbits, and bats.

Focusing on the results of local DEM-led projects and including guest panelists brought relevance to the topics and increased public engagement with on the ground conservation work in the state. The Wildlife Outreach Program reached about 800 participants in total thanks to the continuation of virtual programs in 2021.

Wilderness First-Aid

In its second year, the Virtual Wilderness First-Aid class focused on informing participants about state land management areas and beyond. One-hundred and thirty-six attendees from at least seven states have participated over the past seven classes.

This two-hour, family-friendly class focused on common medical and trauma emergencies, rescuer safety, and situational awareness. Taught by a staff member of the Hunter Education Team with 20 years’ experience as a 911 Emergency Medical Technician, depth of knowledge is a crucial component, giving participants the confidence to take action in any situation.



¡Vamos a Pescar!

The DFW Aquatic Resource Education (ARE) program partnered with the Providence Parks Partnership to apply for the Recreational Boating and Fishing Foundation's (RBFF) George H.W. Bush Vamos a Pescar Education Grant. The purpose of the grant was to create a series of events to introduce Spanish-speaking families to the sport of fishing as a fun and safe family activity.

Providence Parks and the ARE program scheduled three fishing programs designed for Spanish-speaking Rhode Islanders. The first event was a Cops and Bobbers event, where officers from Providence and the US Fish and Wildlife Service joined alongside the families to learn about fish and other wildlife through a series of table activities provided by community partners. The officers and the families then joined ARE staff to learn how to bait, cast and fish.

The second event was held at Rocky Point State Park where families were introduced to saltwater fishing and clamming. Finally, the third event was funded primarily by the DEM and invited the same families and partners who attended the previous events, as well as the bilingual youth leaders who assisted in promoting communication between Spanish-speaking families and staff, to come aboard the Lady Frances, an off-shore fishing charter that departed from Galilee. Overall, approximately 30 people, both youth and adults, participated in each event with over 85% of the families attending every event.



New Publication:

Dragonflies and Damselflies of Rhode Island

In 2021, DEM Fish & Wildlife released our newest publication, *Dragonflies and Damselflies of Rhode Island*, by Virginia Brown, illustrated by Nina Briggs. The project was funded by the US Fish & Wildlife Service State Wildlife Grants Program.

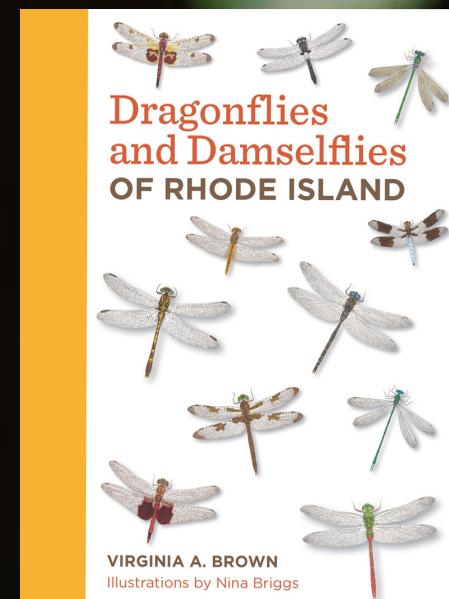
This publication was heralded as the definitive work for our state as these species had never been comprehensively surveyed and identified in any publication for Rhode Island. It is designed for experienced naturalists, as well as beginners.

A compilation of three decades of statewide field surveys and monitoring encompassing 138 species, it includes identification, range, distribution, abundance, and habitat needs. In addition, the species natural history, flight season graphs, and local distribution maps are included.

This 384 page book contains colorful scientific illustrations of each species to assist with identification. Perhaps one of the most engaging elements of the publication are the personal notes by author Virginia Brown on encounters with these fascinating insects. Over 70 volunteers and professionals donated their time to make this publication possible.

To purchase *Dragonflies and Damselflies of Rhode Island*, visit: <http://www.dem.ri.gov/bookorder>.

Spangled Skimmer (G. De Meillon)



Make Way for Wild Trout!

In July of 2021 the RIDEM Division of Fish and Wildlife amended its stocking regulations to remove the Beaver River from the list of Trout Stocked Waters. Along with the removal from this list, the Beaver River was also designated as catch and release only with the use of a single, barbless hook and artificial bait. This is only the second stream in Rhode Island to be designated as a catch and release area.

Through previous data collection by Division biologists, in addition to a recent study through the Town of Richmond, priority habitats were identified for fish species including wild brook trout. Due to its unique groundwater influence, the Beaver River contains critical habitat which supports cold water dependent species such as the brook trout, and was deemed as the ideal location for this change in regulation.

Habitat competition between stocked and wild trout has been well documented. By removing introduced hatchery raised trout, the wild population of brook trout will benefit through an increase in available habitat, which may otherwise be occupied by stocked trout. In addition, competition for food resources between stocked and wild trout will be eliminated. Wild brook trout are listed as a Species of Greatest Conservation Need in Rhode Island. The Division and our partners aim to protect our wild trout populations by improving the quantity and quality of wild brook trout in the Beaver River, while still allowing anglers to sustainably target these beautiful fish.

Brook Trout (Corey Pelletier)



On the Horizon

Kicking off in the spring of 2022, DEM Fish & Wildlife is undertaking an all new Pollinator Atlas that will assess our local bumblebee populations with the help of volunteers.

The DEM-URI partnerships are continuing to thrive as we enter 2022. Already underway in 2021, data from the semi-aquatic mammal project focusing on the distribution and land use of beavers, muskrats and otters will be revealed after the second survey season this upcoming winter.

On the waterfowl front, biologists will be capturing and tracking goldeneye to study the impacts of aquaculture on waterfowl. These nocturnal capture and release surveys will look at the interactions between goldeneye and aquaculture to identify potential benefits or conflicts as the industry grows.

Throughout the summer of 2021, DEM Freshwater Fisheries biologists implanted transmitters in 75 eastern brook trout to track their movements. The results of this ongoing project will be revealed in 2022 and will help biologists understand the impact of dams on fish movement and the availability of suitable habitat in Rhode Island's waterways.



Solitary Bee on a flower (G. De Meillon)

Our Partners

