

Something wild is going on

at the New Hampshire Fish and Game Department's Education Centers!



GREAT BAY DISCOVERY CENTER



Grounds open sunrise to sunset Year-round
Building open 10 a.m.- 4:00 p.m., Wednesday-Sunday, May-September.
Weekends only in October • (603) 778-0015 • greatbay.org

Located in Greenland/Stratham, off Route 33 at 89 Depot Road, this center provides opportunities to learn about coastal environments and estuarine life. Part of the Great Bay National Estuarine Research Reserve.

DISCOVERY ROOM AT FISH AND GAME HEADQUARTERS



Open 8 a.m.- 4 p.m., Monday through Friday Year-round
(603) 271-3211

Located at 11 Hazen Drive in Concord, this facility invites you to Discover Wild New Hampshire. Hands-on exhibits explore New Hampshire's wildlife communities.

TWIN MOUNTAIN FISH HATCHERY



Hatchery grounds open 8 a.m.-4 p.m. Call ahead for visitor center availability. Stop by anytime to feed the fish! • (603) 846-5429

Located at the Twin Mountain Fish Hatchery on Route 3 in the town of Carroll, this facility teaches people about watersheds.

WARREN FISH HATCHERY



Hatchery grounds open 8 a.m.- 4 p.m. Call ahead for visitor center availability. Stop by anytime to feed the fish! • (603) 764-8593

Located along Route 25 on Fish Hatchery Road in Warren, this educational center looks at wildlife habitat and the life cycle of Atlantic salmon.

MILFORD FISH HATCHERY EDUCATIONAL EXHIBITS



Open 9 a.m.- 4 p.m. Year-round • (603) 673-1416

Located on North River Road in Milford, this center explores river habitat and fisheries management.

OWL BROOK HUNTER EDUCATION CENTER



Open 8 a.m.-4 p.m. Monday through Friday Year-round;
Saturday and Sunday, call ahead for availability • (603) 536-1290

Located in Holderness at 387 Perch Pond Rd., this facility features walking trails and a watchable wildlife area.

Let's Go Fishing!

Fishing is fun for everyone. If you haven't been fishing before, learn how by taking a Let's Go Fishing class from New Hampshire Fish and Game's Aquatic Resources Education Program. Your whole family can come! Learn about casting techniques, basic equipment, fish ecology, responsible outdoor behavior, knot tying, fish identification, care of the catch, safety, and more. Courses are offered in basic freshwater fishing, ice fishing, fly fishing, and saltwater fishing.

Find out when and where Let's Go Fishing classes are offered by visiting the Fish and Game website at FishNH.com

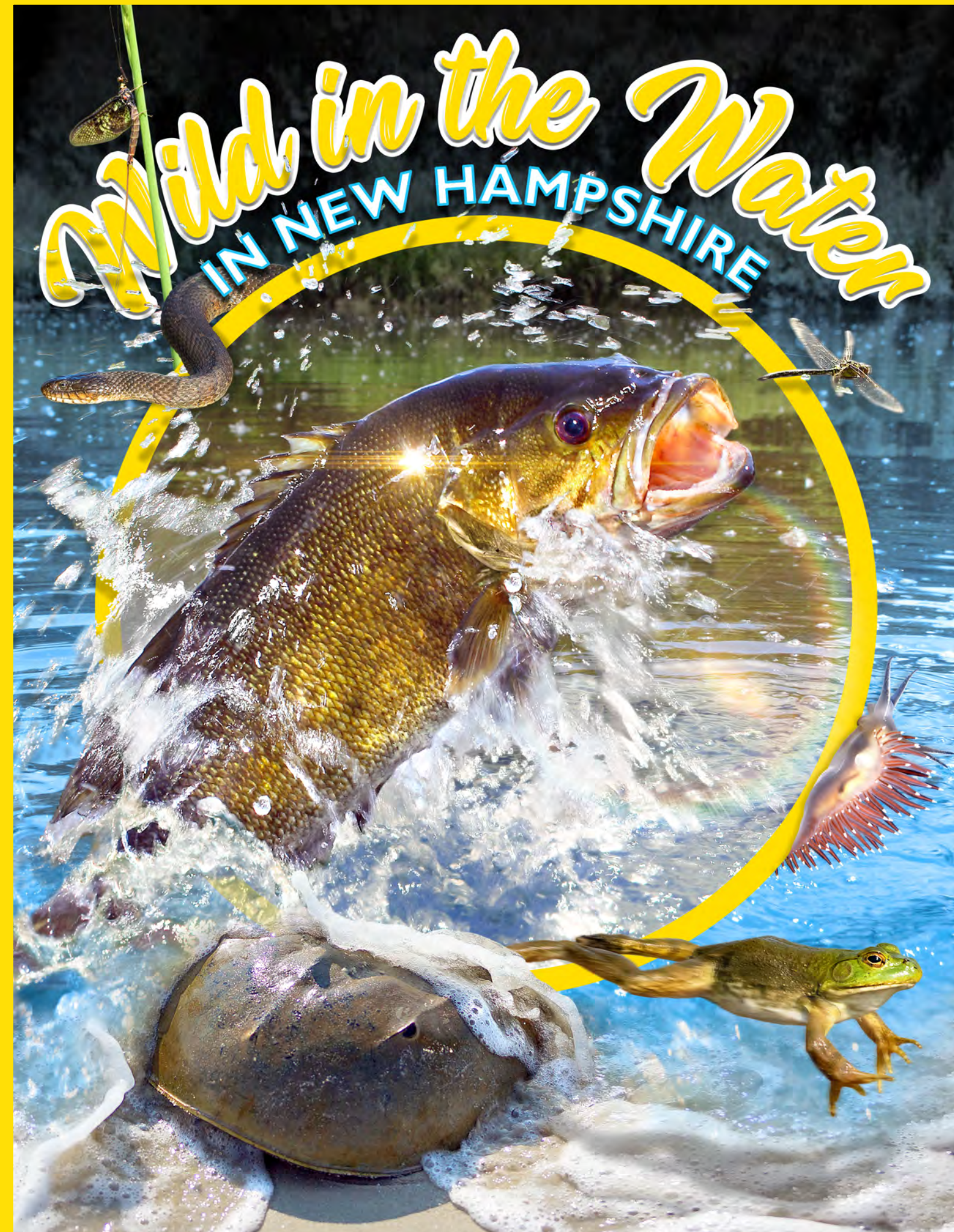


This program receives Federal financial assistance from the US Fish and Wildlife Service. Under Title VI of the Civil Rights Act of 1964 Section 504 of the Rehabilitation Act of 1973, title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972. The U.S. Department of the Interior and its bureaus prohibit discrimination on the basis of race, color, national origin, age, disability, religion or sex (in educational programs). If you believe that you have been discriminated against in any program, activity or facility, or if you desire additional information, please write to:

The U.S. Fish and Wildlife Service/Office of Diversity and Civil Rights Programs- External Affairs
4040 N. Fairfax Drive, Suite 130, Arlington, VA 22203



Wild in the Water in New Hampshire is published by the New Hampshire Fish and Game Department, Public Affairs Division, 11 Hazen Drive, Concord, NH 03301 Multiple copies are available for New Hampshire schools and youth groups upon request: info@wildlife.nh.gov



Streams and Rivers



© INVS 572517 / ISTOCKPHOTO.COM

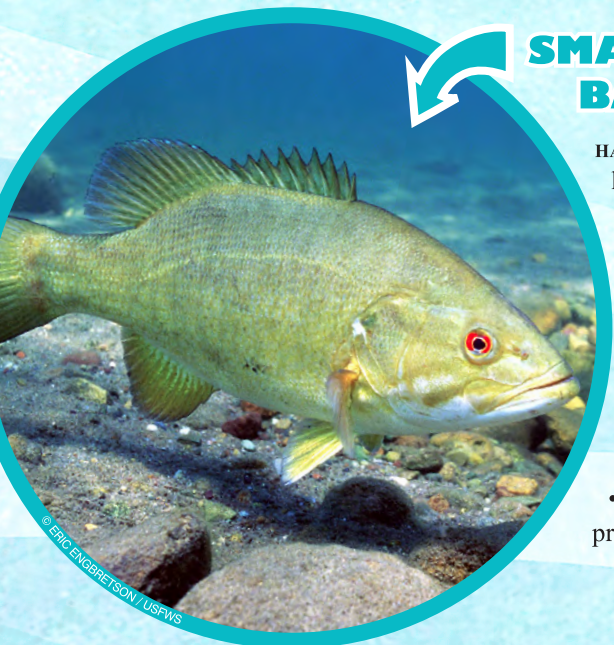
BROOK TROUT

HABITAT: swift mountain streams, lakes, beaver ponds, or slow-water brooks; requires cold, well-oxygenated water and gravel bottom for spawning

FOOD: insects

FACTS:

- New Hampshire state fish
- a native trout in New Hampshire
- spawns in the fall
- a 4-inch fish produces fewer than 100 eggs
- not typically found living in water warmer than 68°F



SMALLMOUTH BASS

HABITAT: flowing streams and lakes with cool, clear water, rocky bottoms, and sparse vegetation

FOOD: crayfish, fish, insects

FACTS:

- can grow up to 23 inches, typical size is 12 to 15 inches
- spawns in late April to early June
- an 18-inch female can produce 10,000 eggs



BROOK FLOATER MUSSEL

HABITAT: shallow water; prefers rivers and streams less than three feet deep, with bottom of firmly packed sand, gravel, or cobble

FOOD: small microscopic plants and animals

FACTS:

- its filter feeding helps to purify water
- the young, released into the water, attach to the gills of host fish
- mussels are one of the most endangered animal groups in the country



CADDISFLY

HABITAT: different species live in different habitats; can be found in streams, ponds, lakes, and vernal pools

FOOD: some species eat algae and vegetation; others are ambush predators; others spin webs to catch detritus

FACTS:

- largest order of insects that are aquatic
- 14,000 species of caddisflies in North America
- larva build cases out of surrounding materials
- second only to mayflies as an important food for trout



NORTHERN LEOPARD FROG

HABITAT: found in slow streams, marshes, bogs, or ponds. During summer most often found in wet meadows or fields associated with river floodplains

FOOD: eats a wide variety of insects as well as worms and crayfish

FACTS:

- voice is a deep gutural snore followed by several clucking notes
- will eat smaller frogs including their own species
- leaps in a quick zig-zag pattern to avoid capture



© ONDRZEJKA / DREAMSTIME.COM

WOOD TURTLE

HABITAT: rivers or streams with sand or gravel bottom

FOOD: feeds on young vegetation, moss, berries, insects, frogs, fish, snails, and worms

FACTS:

- stomps the ground in an effort to trick earth worms into emerging
- lays 4 to 12 eggs in a sandy bank or gravel bar
- some hibernate in the same location every year



MAYFLY

HABITAT: variety of aquatic habitats

FOOD: nymphs feed on algae and detritus; adults do not feed

FACTS:

- adult mayflies live from 24 hours to one week
- highly important food source for fish, bats, songbirds, other insects, and frogs
- New Hampshire has over 120 mayfly species



BLACKNOSE DACE

HABITAT: clear coldwater streams with gravel bottoms

FOOD: aquatic insects and algae

FACTS:

- frequently associated with trout
- grows to about 2½ inches in length
- spawns in riffles of streams in late spring and early summer

New Hampshire has many species, or kinds, of wildlife that live in its waters.



FISH: (animals that live in water and breathe with gills) Three classes of fish are found in New Hampshire waters: jawless fish, like lamprey and hagfish; cartilaginous fish, like sharks, rays, and skates; and bony fish, like trout, bass, and mackerel.



REPTILES: (cold-blooded animals with dry, scaly skin) There are 18 different kinds of reptiles in New Hampshire, including snakes and turtles.



INSECTS: (small animals that have six legs, three body parts, and no spine) More than 10,700 types of insects have been identified living here, but at least 16,000 species occur in the state.



MOLLUSKS: (named for their soft bodies, although many are encased in hard shells) New Hampshire has 127 kinds of mollusks that live on land and in fresh and salt water. These include snails, mussels, and clams.



CRUSTACEANS: (animals with jointed legs and a supportive exoskeleton, or outer shell) Crustaceans include shrimp, crabs, lobsters, barnacles, and countless smaller creatures, most of which live in the water.



ECHINODERMS: (animals with a five pattern radial plan, meaning they have parts that branch out from the center in five directions) These include 20 different kinds of sea stars, urchins, sea cucumbers, and nudibranchs that live in New Hampshire's waters.



AMPHIBIANS: (animals that live part of their lives in water and part on land) There are 22 different kinds of amphibians in New Hampshire, including frogs and toads.

Ponds and Lakes



LAKE TROUT

HABITAT: large, deep lakes with cold, well-oxygenated water
FOOD: other fish, such as suckers, smelt, yellow perch, and minnows
FACTS:

- spawns on shallow rocky reefs/shoals
- a prized game fish that can grow to an average weight of 3 to 6 pounds in New Hampshire
- second largest member of the trout family



GREEN DARNER DRAGONFLY

HABITAT: lakes, coves, and backwaters; nymphs are aquatic and live in shallow water among vegetation
FOOD: nymphs eat aquatic insects; adults eat mosquitoes, black flies, winged ants, midges, and flies
FACTS:

- one of the largest and most powerful dragonflies
- nymph has a shovel-like mouthpart with pincers tucked under the head that shoot out to grab prey
- lives up to two years as a nymph before emerging as an adult
- can grow up to 3 inches in length



SPOTTED SALAMANDER

HABITAT: breeds in vernal pools and small ponds. Adults live in mixed woods and spend their time underground or under logs, boards, or stones.
FOOD: worms, slugs, and forest bugs including spiders, millipedes, and insects.
FACTS:

- adults can grow to 7½ inches long
- can live 20 to 30 years
- hibernate in the ground or under rotting stumps
- lay 100-200 eggs in jelly masses attached to submerged sticks and vegetation

CRAYFISH

HABITAT: found in shallow waters of lakes, ponds, rivers, and streams
FOOD: dead plants (detritus), some live plants; snails, aquatic insects, scuds, small fish, fish eggs, and dead fish
FACTS:

- breathes with gills located on the underside of the carapace, or middle shell
- can live 6 to 8 years
- can regenerate legs that break off
- extremely important to pond and lake ecosystems

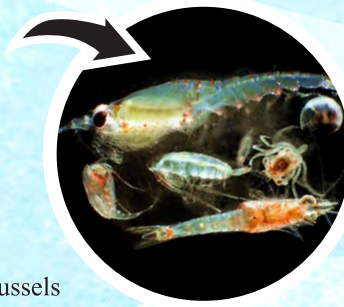


ZOOPLANKTON

(three main microscopic groups: cladocerans, rotifers, and copepods)

HABITAT: usually migrates upwards at night and downwards during the day in the water of lakes, ponds, and some wetlands
FOOD: small microscopic plants called phytoplankton
FACTS:

- zooplankton are the base of the food chain in water habitats
- important food source for small fish, crayfish, clams, and mussels
- cannot be seen with the naked eye



NORTHERN WATER SNAKE

HABITAT: ponds, streams, swamps, marshy backwaters
FOOD: fish, frogs, salamanders, crayfish, and occasionally shrews and voles
FACTS:

- gives birth to live young
- non-poisonous
- can grow to 4 feet in length

BULLFROG

HABITAT: lakes, ponds, bogs, and backwaters of streams; marshes along water's edge
FOOD: will eat anything that moves and that it can swallow
FACTS:

- voice is a series of deep bass notes that sounds like "jug of rum, jug of rum"
- hibernates in mud at bottom of ponds, marshes, and lakes during the winter
- can eat small snakes



From the Mountains to the Sea

If you were a drop of water, no matter where you started in New Hampshire, you would end up in the ocean. The journey to the Atlantic Ocean may take you through many different types of waterbodies — streams, rivers, ponds, lakes, and estuaries — each place providing the habitat needs for a wide variety of animals. Habitats are places that have everything wildlife need to live — including food, water, shelter, and the necessary space.

Streams, lakes, and ponds collect water drained from the surrounding land area, called a watershed. Changing how the land is used — like building houses and roads where a field or forest once was — can have significant impact on an area's water resources. That, in turn, affects how much of the right habitat there is for wildlife.



YELLOW PERCH

HABITAT: in or around weedy areas of ponds, lakes, and backwaters of rivers
FOOD: aquatic insects, crustaceans, and small fish
FACTS:

- spawns in April and early May
- a single 10-inch-long female perch can produce 61,000 eggs
- a 12-inch perch is considered large
- a tasty panfish that makes good table fare

Estuary and Ocean



STRIPED BASS

HABITAT: open ocean, estuaries, and tidal rivers
FOOD: mackerel, pollack, river herring, lobsters, and crabs

- FACTS:**
- can weigh up to 100 pounds and reach nearly 5 feet in length
 - the Chesapeake Bay is the primary spawning and nursery ground for stocks of bass that migrate to the Gulf of Maine
 - most sought-after coastal sport fish species in New Hampshire



SOFT SHELL CLAM

HABITAT: buried in mud flats
FOOD: plankton

- FACTS:**
- can be found when walking on mud flats by the squirt of water shot from its siphon
 - can grow to 5 inches with a siphon as long as 2 feet
 - well known to New Englanders as “steamer clams”



NORTHERN LOBSTER

HABITAT: subtidal areas, from shallow water to edge of continental shelf, also in slightly brackish water

- FOOD:** crabs, mussels, clams, sea stars, dead fish, and other lobster
- FACTS:**
- usually olive green and brown mottled with black; occasionally albino, blue, or red
 - females carry fertilized eggs under their abdomen for 10 months
 - lost claws grow back in successive molts



RED-GILLED NUDIBRANCH

HABITAT: hydroid and seaweed beds, from lower intertidal zones to deeper subtidal waters
FOOD: hydroids and sea anemones

- FACTS:**
- eats its prey’s stinging cells and concentrates them at the tips of its cerata, or projections, for its own defense
 - red cerata, or horns, warn predators that it is poisonous
 - most numerous in winter and early spring

ATLANTIC HORSESHOE CRAB

HABITAT: tidewater areas — shallow saltwater bays and inlets along the ocean shore and the continental shelf
FOOD: small or soft-shelled clams, sea worms

- FACTS:**
- not a true crab; related to spiders, ticks, and scorpions
 - females lay eggs in late May or early June during high tides
 - their eggs are a critical food source for migrating shorebirds
 - its blue blood is important in medical research



ACADIAN HERMIT CRAB

HABITAT: tidepools and sheltered shores at low tide
FOOD: scavenge and catch prey with front claws; also eats algae

- FACTS:**
- has only two pairs of walking legs; is not a true crab
 - carries a snail or whelk shell in which its soft abdomen is hidden
 - can withdraw safely inside shell with front claws blocking opening
 - switches to a new shell as it grows



MUMMICHOG

HABITAT: saltwater marshes and tidal rivers
FOOD: mosquito larvae, decaying plant/animal matter, and insects

- FACTS:**
- important in the marsh food chain
 - eggs are deposited high in the marsh and incubate in the air
 - mouth is curved upward to allow it to feed off the water’s surface



NORTHERN SEA STAR

HABITAT: at low tide, clings under lower-level rocks and rockweed mats, in crevices and tide pools
FOOD: mussels, bivalves, barnacles, periwinkles, and dead animals

- FACTS:**
- moves slowly on rubbery tube feet tipped with sticky suckers
 - can grow new arms if eaten by fish or lobsters
 - special scissor-like spines constantly clear skin of settling barnacles and algae



WINTER FLOUNDER

HABITAT: offshore waters in fall and winter; estuaries and bays in late winter, spring, and summer
FOOD: clamworms, bloodworms, and clams

- FACTS:**
- eyes and color pattern appear on the right side of its body
 - color can change to mimic the bottom habitat
 - most commonly caught flounder species in New Hampshire

GREEN CRAB

HABITAT: intertidal to subtidal waters at shallow depths
FOOD: mussels, snails, sea stars, sea urchins, and barnacles

- FACTS:**
- walks forward and runs sideways
 - most common New England shore crab
 - introduced from Europe in late 1700s
 - now is one of the ocean’s most abundant predators

