

Wildlines

New Hampshire Fish and Game's quarterly newsletter of the Nongame and Endangered Wildlife Program

Jewels in the Sun

Looking for damselflies brings colorful rewards

Whoever gave the damselfly its name must not have had its decidedly unlady-like eating habits in mind. A damselfly flies along until it spots a tasty-looking flying bug, then folds its legs into a basket trap. It swoops over to its prey, scoops it into the trap and pops the morsel into its mouth. As a predator, this insect is no damsel in distress.

New Hampshire is home to about 40 damselfly species, which are as varied and colorful as jewels. Their diversity makes them particularly interesting to look for this time of year.

Though about half of New Hampshire's species are blue, the other half can be anything from lavender to brown to green, according to Pam Hunt, who is writing and illustrating the state's first damselfly field guide and is the biodiversity project coordinator for the AUDUBON SOCIETY OF NEW HAMPSHIRE.

Walking along a stream or near a pond, you might see any number of these spectacular creatures with names as intriguing as their lifecycle. For instance, Hunt said, you might find tiny green *Eastern Forktails*, with their

blue-tipped abdomens, perched in pond-side grasses; delicate *Variable Dancers* shining violet in the sun; or *Ebony Jewelwings*, colored metallic green and blue and topped with dark wings.

It's not just their coloration that makes damselflies interesting to find, Hunt said. It's also the fact that unlike birds, not much is known about the state's populations of damselflies. They are also very habitat specific.

"Certain species are only found in certain habitats," Hunt said.

One species may only be found in areas where waterlilies grow, for instance, while another may only be found where there's an abundance of cattails or sphagnum moss. Some only use fast-moving streams,

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Nongame Program Works to Protect Coastal Watershed



The NONGAME AND ENDANGERED WILDLIFE PROGRAM is working with other conservation interests to take stock of two coastal watersheds in an effort to identify and protect areas of greatest importance to wildlife and the ecological health of the region.

Under a grant from the OFFICE OF STATE PLANNING'S NEW HAMPSHIRE ESTUARIES PROJECT, the Nongame program is taking part in a massive survey of the Lamprey River and Piscassic River watersheds. This is an area of some 85 square miles that directly impacts the water quality of New Hampshire's estuaries.

Major partners include the NATURE CONSERVANCY OF NEW HAMPSHIRE, the SOCIETY FOR THE PROTECTION OF NEW HAMPSHIRE FORESTS and the AUDUBON SOCIETY OF NEW HAMPSHIRE.

One aspect of the effort has been to pull together all existing natural resource data on these watersheds and use the computerized geographic information system (GIS) to create maps of potentially significant areas, as outlined in *Identifying and Protecting New Hampshire's Significant Wildlife Habitat*, the manual published by

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The damselfly (left) differs from the dragonfly (right) in several ways. Perhaps the most notable difference is that the damselfly folds its wings when resting. Also when in flight the dragonfly is fast and powerful, and able to hover while the damselfly is a weak flier with a stroke similar to a butterfly.

Is it a Damselfly or a Dragonfly?

Dragonflies and damselflies are sub-orders of the insect order *Odonata*. As such, they're similar, but you can tell whether you're looking at one or the other by noting the insect's size, color, wings and the way its eyes are spaced.

Damselflies are much smaller than dragonflies and their abdomens are more slender. When seen together, it's easy to see why one is named dragon and the

other damsel. In fact, dragonflies are only too happy to eat damselflies.

If the insect you're looking at is very colorful, chances are it's a damselfly, a male one in particular because males sport the most eye-catching hues. Some dragonflies are colorful as well, but many more come in basic black or brown.

Another way to tell the difference is to take a look at the insect's wings and eyes.

A damselfly's fore and aft wings are similar in shape, while a dragonfly's fore and aft wings are of different shapes. A damselfly holds its wings folded or partially folded on its back when it's at rest, while a dragonfly tends to hold its wings out at its sides. Damselfly eyes are widely separated, while dragonfly eyes meet or nearly meet on the top of the head. 🐛

DAMSELFLY *continued from page 1*

while others use ponds exclusively, Hunt said.

All damselflies spend part of their lifecycle in the water. Eggs hatch into gilled nymphs, which wriggle around under water hunting other aquatic larva, tadpoles and tiny fish fry. When the nymphs grow big enough, they crawl out of the water, split their exoskeletons and emerge as damselflies.

After their unfurled wings dry, they fly off in search of a mate. Depending on the species, they emerge anywhere from June to the fall months and may live anywhere from a few days to several weeks.

Fortunately for wildlife enthusiasts,

damselflies are easy to find if you know where to look – along the edges of ponds and streams. But you have to be actively looking or you'll miss them, Hunt said.

"Just walk around in the vegetation... You have to redirect your eyes so you're looking down as you're walking. They'll be resting on cattails, lily pads, grasses, overhanging shrubs..." They tend to sit still more than dragonflies," Hunt said.

For a closer look, you can quite easily lower a net down on a resting damselfly, then very gently hold its wings together to lift it out of the net to show a youngster or study its colors and patterns in detail.

"Then you just let go," Hunt said. 🐛

Thought for the day

Imagine how much fuel and oil would be saved over the course of a year if everyone did not drive one day a week. What if that was two days a week?

the NONGAME AND ENDANGERED WILDLIFE PROGRAM.

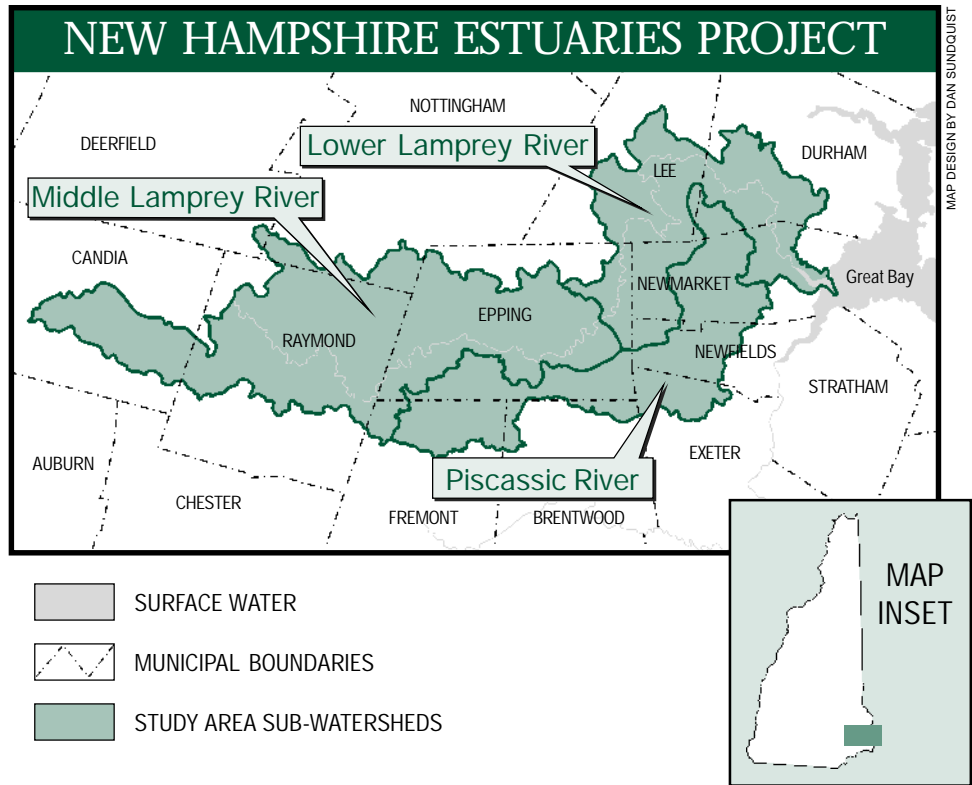
Some maps are being created for 26 target species of special concern in New Hampshire, such as the brook floater mollusk (state-endangered), marbled salamander (state-endangered), Blanding's turtle, sedge wren, whip-poor-will, New England cottontail and bobcat. Computer technology enables map makers to combine the habitat preferences of wildlife species with information, gathered through satellite imagery and on-the-ground surveys, about land cover, soils and topography in particular areas and come up with an overall picture that shows those areas where many species' needs may be met – areas that may be most in need of protection.

As sophisticated as it is, the mapping gives us only a prediction as to the most critical habitats in a large region.

“The science behind various species' habitat preferences is still being explored, and the data we can map are limited, but it gives us a good starting point to look at things in a more detailed way,” said Dan Sundquist, the science director for the SOCIETY OF THE PROTECTION OF NEW HAMPSHIRE FORESTS who is creating the maps.

Nongame program biologists will be out in the field this summer to verify the accuracy of the computer-generated maps and fill in the details with on-the-ground surveys where permitted by individual landowners.

“If sedge wren habitat is predicted, for example, we'll go out and see if sedge wrens are really there,” said John Kanter,



coordinator of the NONGAME AND ENDANGERED WILDLIFE PROGRAM. The field work will also give biologists a look at the condition of the habitats, he said – whether a field is regularly mowed, for instance, or left to stand long enough for birds such as bobolinks to use as nesting areas.

The NEW HAMPSHIRE ESTUARIES PROJECT, which administered the grant for the watershed surveys, is one of 28 such programs nationwide established by the ENVIRONMENTAL PROTECTION AGENCY to

protect the nation's estuaries.

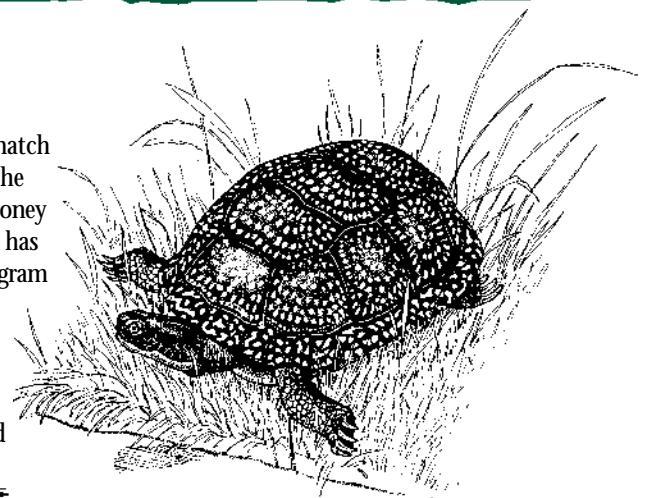
New Hampshire's project began in 1995 and has recently begun implementing its management plan, which includes five priority concerns: water quality; land use, development and habitat protection; shell fish restoration; education and outreach; and habitat restoration, including shell fish habitat, freshwater and saltwater wetlands and significant upland habitat. 🐦

Hundreds of Donors "Stick Their Necks Out"

2002 Annual Fund Campaign a Great Success

Hundreds of generous donors made contributions this spring in support of the NONGAME AND ENDANGERED WILDLIFE PROGRAM'S 2002 Annual Fund Campaign. The generous response will help the Nongame Program continue its efforts to protect the Blanding's turtle. Because of your support, we remain optimistic that we can keep these turtles off the endangered list. The Nongame Program looks forward to sharing our progress with you in future issues of *Wildlines*.

Your donations also help us match the \$50,000 challenge grant from the State again this year. The matching money provides the operating support that has helped us build a highly effective program to protect New Hampshire's nongame wildlife. The entire staff of the NONGAME AND ENDANGERED WILDLIFE PROGRAM extends its deep appreciation for your loyal and generous support for our Annual Fund Campaign again this year. 🐦





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The Nongame Program thanks Elinor Kehas and Pat Martin for their help to complete enclosures for our captive-reared Karner blue butterflies. Elinor paid for materials and labor and Pat installed the zippers on very short notice.

We also thank Edi McGillen for growing New Jersey tea plants to support our Karner blue butterfly restoration project.

SUMMER Wildlife Calendar

JULY

- Pickerel and leopard frogs are found in pastures and fields.
- Common terns lay 2-3 eggs on the rocky ground of the Isles of Shoals from May to July.
- American toads lay eggs from March to July, attaching their egg strips to vegetation.

AUGUST

- Early migration begins, with species like yellow warblers leaving for warmer climes.

SEPTEMBER

- Bats begin migrating.
- Shorebird migration is in full swing.
- Osprey migrate south; watch for them over lakes, ponds and rivers.

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