

Ecology and Stewardship of NH Wetlands

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A “Wetland” is a “Wetland”?



Wetlands in New Hampshire

- Dominance of wetland vegetation



- Hydric (wetland) soils



- Wetlands hydrology



Size does not matter!

Wildlife use of a wetland:



- Portion of year wetland holds standing water
- Water depth
- Types of vegetation in and around wetland
- Wetland size
- Proximity to other habitats

You can use these factors to predict what wildlife will use any wetland

How long does the wetland hold water?

Hydroperiod is how long a wetland holds water

Short
hydroperiod



<4 months

Intermediate
hydroperiod



4 months to all year

Long
hydroperiod



doesn't dry

————— how long wetland holds water —————

Hydroperiod can vary from year to year

How deep is the water?

Water depth influences water temperature and what plants will grow.

water depth

>10-12 feet



- too deep for plants
- required by trout

~3.5 to 7 feet



- floating leaved aquatics
- too deep for emergents

3 feet or less



- emergent plants
- dabbling ducks

What type of vegetation/structure is present?



Emergent vegetation



Dense shrubs



Snags and fallen logs



Open water

Does wetland size matter?

Yes, for some:



Most birds have minimum wetland size requirements for breeding:

American bittern – 10-25ac. min.

Pied-billed grebe – 12ac. minimum

Common loon – prefer >60ac. lakes

No, for others:



Success of amphibian breeding is determined by hydroperiod, not wetland size.

To maintain the greatest diversity of wetlands wildlife:



Must maintain a diversity of wetland types!

Wetland Types

- Marsh and Shrub
- Peatlands
- Forested Wetlands
- Vernal Pool



And then we'll tell you what you can do to steward them!

Marsh and Shrub Wetlands

A variety of wetlands fall into this category

emergent marshes



scrub-shrub wetlands

wet meadows



Emergent marshes

Are permanently flooded or dry only in very dry years

Areas with vegetation up to three feet deep

Deeper parts often lack emergent vegetation and appear as open water



Wildlife of Emergent Marshes



red spotted newt



green frog



Blanding's turtle
NH State Endangered



least bittern
Special Concern

Shrub Wetlands



Wildlife of Shrub Wetlands



Rusty blackbird
Special Concern



Spotted turtle
NH State Threatened



New England cottontail
NH State Endangered

Wet Meadows



Wildlife of Wet Meadows



Northern harrier
NH State Endangered



Northern leopard frog
Special Concern



Ribbon snake



Sedge wren
NH State Endangered

Peatlands

Bogs



Peat swamps



Fens





A moat around the edge of a wetland can indicate a peatland

Carnivorous Plants



pitcher plant



round-leaved sundew

horned bladderwort



Wildlife of Peatlands



Ringed boghaunter dragonfly
NH State endangered



Moose



Spruce Grouse
Special Concern



Northern bog lemming Special Concern

Forested Wetlands

Many of these are not identified in the National Wetlands Inventory (NWI) data.



Atlantic white cedar swamp



Silver maple floodplain forest

Forested Wetlands



Wildlife of Forested Wetlands



wood turtle
Special Concern

great blue
heron
nesting
colony

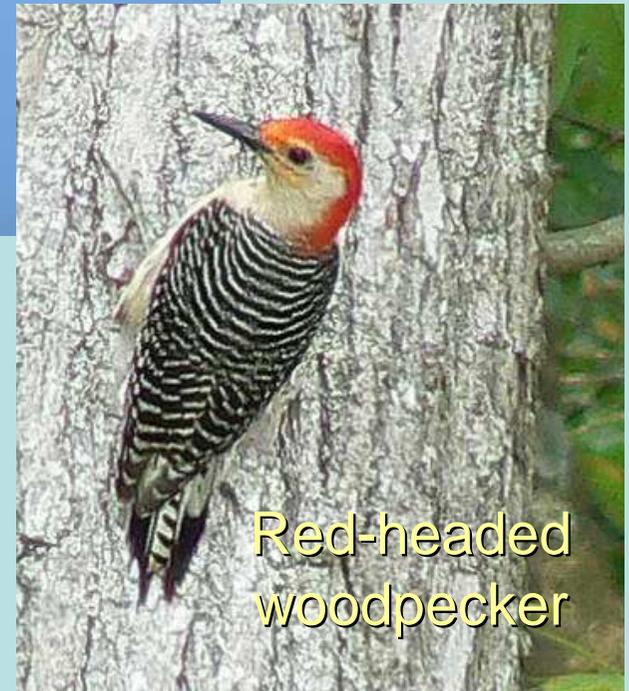


Silver-haired bat

Photo M. Tuttle



Wood duck



Red-headed
woodpecker

Vernal pools

Vernal pools are wetlands that fill with water in the spring or fall...



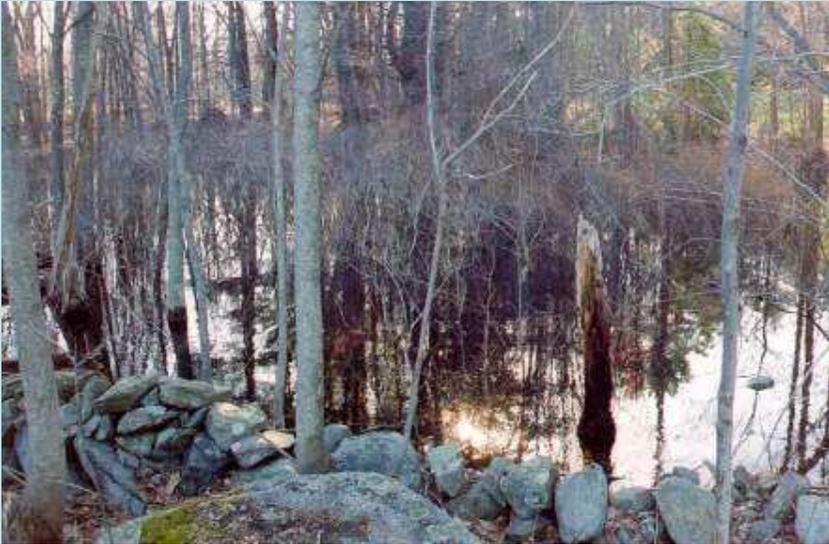
dry vernal pool in summer



vernal pool in spring with water

and *usually* dry during the summer.

Vernal pools



or can be part of larger wetland complexes

Can be small, isolated pools....



Must have no *permanently* flowing outlet to qualify as a vernal pool in New Hampshire

Amphibians of Vernal Pools



wood frog



spotted salamander



fairy shrimp



Jefferson's/blue-spotted
salamander

Wetland habitats: what you can do



Learn where the wetlands are on your property and keep track of what wildlife species use them.

Maintain shrub and ground cover around wetlands for wildlife.



Minimize fertilizer and pesticide applications to lawns.

Resources

- Taking Action for Wildlife web pages
- NH Wildlife Action Plan
- Habitat Stewardship guidelines
- Good Forestry in the Granite State
- UNH Cooperative Extension foresters and NHFG biologists
- Consulting foresters and biologists

Taking Action for Wildlife

A partnership of NH Fish and Game and UNH Cooperative Extension

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[Community Actions](#)

[Landowner Actions](#)

[Habitat](#)

[Stories](#)

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**How to guide for Community Planning:
Steps to take
Mapping and data gathering
Implementation**

**Habitat Management:
Planning
Techniques**

**Descriptions of habitat types
associated species from the WAP**

**Success stories from multiple
communities**

www.takingactionforwildlife.org

Resources

[Wildlife Action Plan](#)

[Habitat Maps](#)

[Publications](#)

[Workshops](#)

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 Sign up for our e-newsletter, "Taking Action for Wildlife"



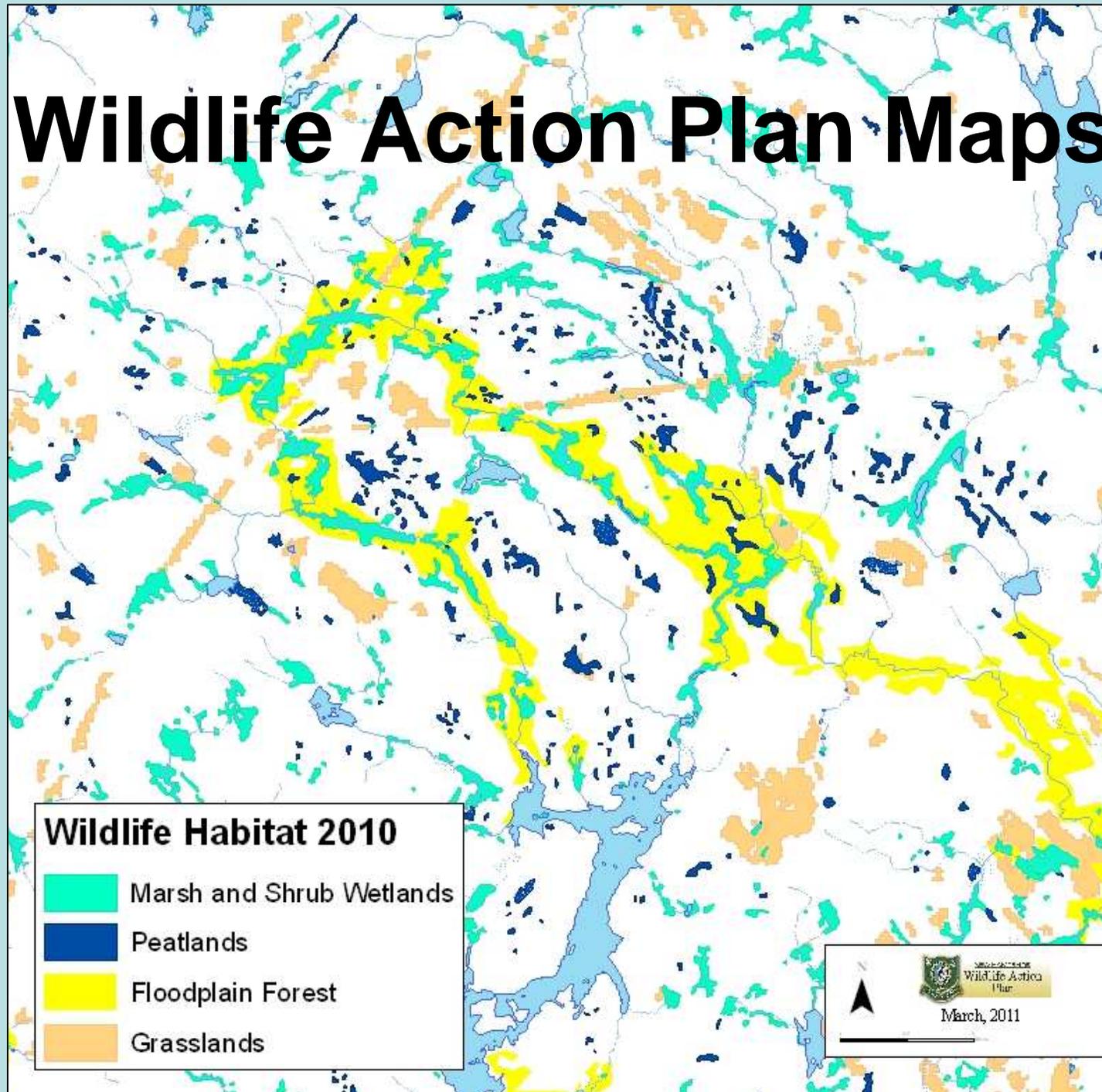
Fish and Game
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Nongame &
Endangered Wildlife
Program

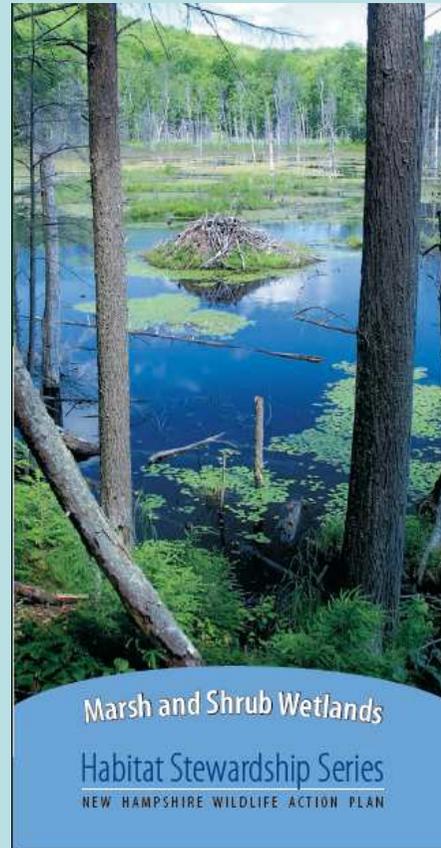
Wildlife Factsheets

 UNIVERSITY
of NEW HAMPSHIRE
Cooperative Extension

Wildlife Action Plan Maps



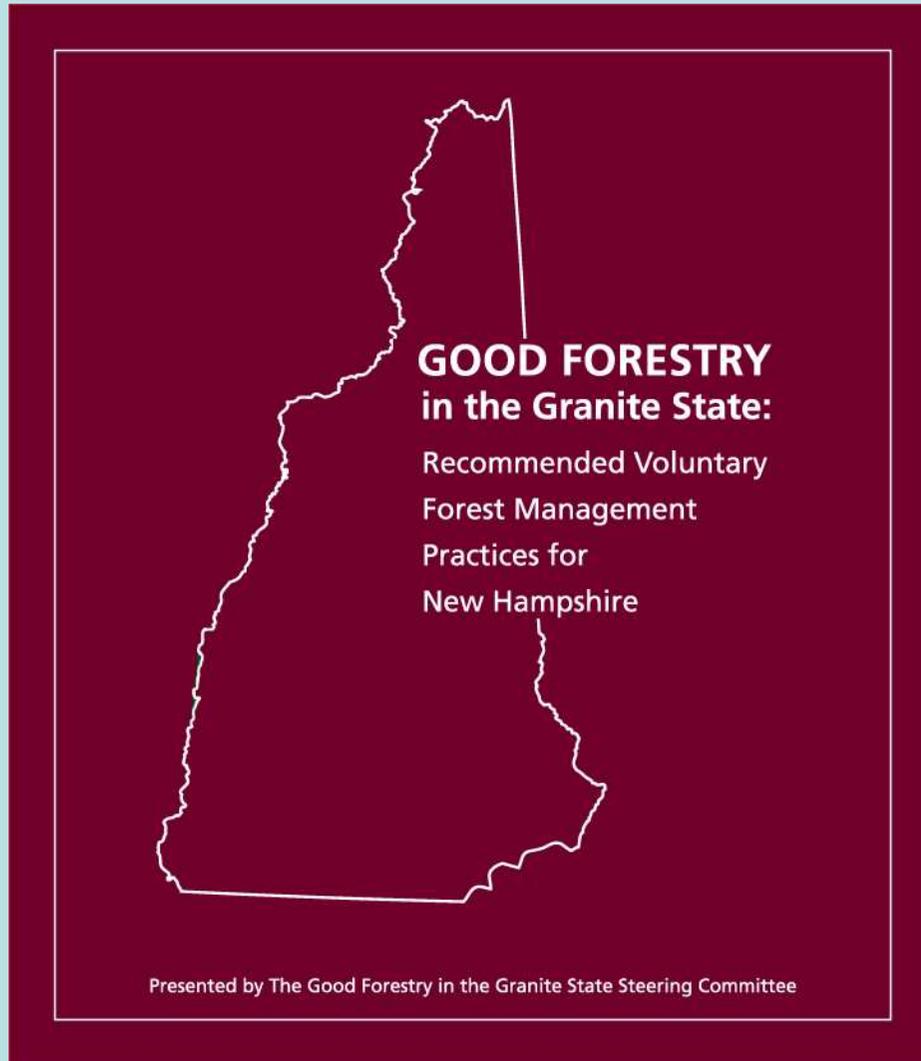
Habitat Stewardship Series



Available in PDF
format
www.WildNH.com



More to come!



- Newly revised, updated and expanded! Available through UNH Cooperative Extension.
- Chapters on forestry techniques and considerations for wildlife and habitats.
- Balances multiple resources

www.goodforestry.org

How can we help you?

University of New Hampshire Cooperative Extension

New Hampshire Fish and Game Department

Natural Resources Conservation Service

County Conservation Districts

Consulting foresters and biologists



Cost-share programs

NH Fish & Game Small Grants Program

US Fish and Wildlife Service Partners program

NRCS Wildlife Habitat Incentives Program (WHIP)

NRCS Conservation Reserve Program (CRP)



Confused?



Any Questions?