



Wildlife Species of Special Concern

NH Fish & Game Department
Nongame & Endangered Species Program



Definitions:

'Special Concern': Species of wildlife that are either 'Near-threatened species' (Category A) or 'Responsibility Species' (Category B).

Category A: 'Near-threatened Species': Species that could become Threatened in the foreseeable future if action is not taken.

Sub-category 1) Existing threats are such that the species could decline to threatened status if conservation actions are not taken. In some cases, further survey work may support removing a species from the 'special concern' list but existing information must indicate a sufficient level of threat or concern.

Sub-category 2) Species which were recently down-listed (i.e. recovered) from the state endangered and threatened species list and where conservation action is desired to ensure the species continues towards full recovery.

Category B: 'Responsibility Species': Species for which a large portion of their global or regional range (or population) occurs in New Hampshire and where actions to protect these species habitat will benefit the species' global population. Species were candidates for being included as Category B if they scored as 'Very High' (>8% of species Northeast range occurs in New Hampshire) in the Species Responsibility vs. Threat Matrix (Hunt 2007) or in subsequent analyses using similar methodologies.

Purpose/Uses of Special Concern List:

The NH wildlife 'Special Concern' list is intended to help prioritize, in addition to other tools such as the Endangered & Threatened wildlife list, conservation actions for wildlife. A few uses of the list include:

- The list is a tool for prioritizing research needs and conservation actions of wildlife species.
- The presence of 'Special Concern' species in a particular area may enhance grant application competitiveness for land acquisition.
- The presence of 'Special Concern' species should be considered when making habitat management decisions, especially on conservation parcels.
- The list is a tool for identifying species that need additional data collected in order to evaluate whether species should be listed as endangered or threatened in future or removed from the Special Concern list.
- List identifies species that need tracking because they have recently been delisted from the NH Endangered & Threatened species (NHFG FIS 1000) list due to recovery.

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- Species listed on the Special Concern list are candidates for consideration in environmental review through the DES Wetlands Bureau Dredge & Fill Rules (Env-Wt 302.04 (7a) which require applicants to address impacts to Special Concern Wildlife. (Note: Including a species as ‘Special Concern’ does not automatically result in the species being included in Environmental Review at NHFG).

Special Concern Revision Process (2009 Revision):

Special Concern species were proposed during the 2008 Endangered & Threatened Species (NHFG FIS 1000) revision process which included a technical review by taxonomic experts. Once the Endangered & Threatened species list was finalized during September 2008, the Wildlife Action Plan Implementation Team (WAPIT) discussed the Special Concern list, made a few modifications based on expert review, and voted on the final list. Members of WAPIT included: John Kanter (NHFG-Wildlife Division), Charlie Bridges (NHFG-Wildlife Division), Mike Marchand (NHFG-Wildlife Division), Steve Fuller (NHFG-Wildlife Division), Emily Brunkhurst (NHFG-Wildlife Division), Matt Carpenter (NHFG-Fisheries Division), Ben Nugent (NHFG- Fisheries Division), Pam Hunt (NH Audubon), Jeff Tash (NH Natural Heritage Bureau), and Matt Tarr (UNH Cooperative Extension Wildlife Specialist).

Process to Update List:

The Special Concern list will be evaluated and updated no longer than 5 years between revisions. Species of wildlife may be proposed for listing or delisting at any time but a strong justification must be provided and an analysis must be conducted similar to what was completed for other species in Hunt 2007. New proposals for listing or delisting should be submitted to the NH Nongame & Endangered Species Coordinator. The Nongame & Endangered Species Coordinator, in consultation with biological staff at NH Fish & Game and the Wildlife Action Plan Implementation Team (WAPIT) will decide whether a revision is warranted. Revisions to the list will be documented by date.

Hunt, P. 2007. Endangered & Threatened Species List Revision Summaries including Species Threat x Responsibility Table. New Hampshire Audubon. Prepared under contract for the NH Fish & Game Department.



NH Wildlife - Special Concern List



Mussels

| Common Name | Scientific Name | Category | Overview of Rationale |
|--------------------|-----------------------|----------|---------------------------------------------------------------------------------------------------------------------------------|
| Eastern Pondmussel | <i>Ligumia nasuta</i> | A1 | Limited distribution in NH where lake management and shoreline development is intense. Northeast Regional Conservation Concern. |

Insects

| Common Name | Scientific Name | Category | Overview of Rationale |
|------------------------|----------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sleepy Duskywing | <i>Erynnis brizo brizo</i> | A1 | This species is widespread across much of the U.S, although appears to be in decline in eastern portions of range. As an indicator species of pine barrens habitat it warrants conservation status. Identified as species of conservation concern in a review of rare shrubland Lepidoptera of New England (Wagner et al. 2003). Warrants SC status as an indicator species of pine barrens, larvae feed on scrub oak and black oak. |
| Barrens itame | <i>Itame sp. 1</i> | A1 | Identified as species of conservation concern in a review of rare shrubland Lepidoptera of New England (Wagner et al. 2003). Warrants SC status as an indicator of high quality pitch pine barrens, believed to feed on scrub oak or lowbush blueberry. Although trends are largely unknown, this species is likely less common than historically due to loss and alteration of preferred habitats. As a northeastern endemic with absence and scarcity across its range, it warrants conservation. Has been identified at four locations in recent surveys. |
| Barrens xylotype | <i>Xylotype capax</i> | A1 | Identified as species of conservation concern in a review of rare shrubland Lepidoptera of New England (Wagner et al. 2003). Although trends are largely unknown, this species is likely less common than historically due to loss and alteration of preferred habitats. Warrants SC status as an indicator species of pine barrens, larvae feed on either scrub oak or blueberry. Has been identified at four locations in recent surveys. |
| Broad-lined catopyrrha | <i>Erastria coloraria</i> | A1 | Identified as species of conservation concern in a review of rare shrubland Lepidoptera of New England (Wagner et al. 2003). Warrants SC status as an indicator species of pine barrens. The host plant of this species is New Jersey tea, a shrub associated with pine barrens which has suffered substantial decline. Most recent record for this species is from 1994. Available data suggest this species may no longer occur in the state, but in the absence of regular surveys it should remain a conservation priority until its status is better known. |

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| Cora moth (bird dropping moth) | <i>Cerma cora</i> | A1 | Identified as species of conservation concern in a review of rare shrubland Lepidoptera of New England (Wagner et al. 2003). Warrants SC status as an indicator of high quality pitch pine barrens, rare throughout most of its range. Has been identified at two locations in recent surveys. |
| Phyllira tiger moth | <i>Grammia phyllira</i> | A1 | Sandy grassland specialist found within pine barren habitat. Lepidoptera require habitat conditions that result from fire or similar natural disturbance. In the absence of disturbance - and with increasing fragmentation - their populations may not be self-sustaining. Documented food source includes lupine, although may not be the only native food source. Has been identified at two locations in recent surveys |
| Pine barrens zanclognatha moth | <i>Zanclognatha martha</i> | A1 | Identified as species of conservation concern in a review of rare shrubland Lepidoptera of New England (Wagner et al. 2003). Recent surveys have found this species to be present in appropriate habitat in New Hampshire, but still endemic to pine barrens warranting SC status as an indicator species. Has been identified at 10-15 locations statewide during recent surveys. |
| Scarlet Bluet | <i>Enallagma pictum</i> | B | Regional endemic. NH has relatively high responsibility with at least 22 sites. |
| Pine Barrens Bluet | <i>Enallagma recurvatum</i> | A1 | Regional endemic. Only one known site in NH (but likely overlooked). If other sites exist, they are likely in the rapidly developing southeastern portion of the state. |
| Rapids Clubtail | <i>Gomphus quadricolor</i> | A1 | Only known from 3-4 sites in NH, where it appears rare. Species of regional concern. Recently listed as Endangered in Canada (at northern edge of range). |
| Skillet Clubtail | <i>Gomphus ventricosus</i> | A1 | Only known from 3-4 sites in NH, where it appears rare. As a species of large rivers (Connecticut and Merrimack), it is at risk from river-related threats. |
| Riverine Clubtail | <i>Stylurus amnicola</i> | A1 | Restricted to lower stretches of Connecticut and Merrimack rivers, where uncommon. |
| Coppery Emerald | <i>Somatochlora georgiana</i> | A1B | Endemic subpopulation in southeastern New England. Single known site in NH is protected, but if others occur they would likely be in rapidly developing area of state. |
| Ebony Boghaunter | <i>Williamsonia fletcheri</i> | B | High responsibility but found at increasing number of sites. |

Fishes

| Common Name | Scientific Name | Category | Overview of Rationale |
|------------------------------|-----------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Alewife (sea run only) | <i>Alosa pseudoharengus</i> | A1 | Declines in most populations, limited access to historical spawning habitat. |
| American Eel | <i>Anguilla rostrata</i> | A1 | Declines in most populations, limited access to historical spawning habitat. |
| American Shad | <i>Alosa sapidissima</i> | A1 | Declines in most populations, limited access to historical spawning habitat. |
| Blueback Herring | <i>Alosa aestivalis</i> | A1 | Declines in most populations, limited access to historical spawning habitat. |
| Rainbow Smelt (sea run only) | <i>Osmerus mordax</i> | A1 | Access to historical spawning habitat restricted by undersized culverts and dams. Spawning habitat vulnerable to sedimentation and pollution. |

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| Sea Lamprey | <i>Petromyzon marinus</i> | A1 | Declines in most populations, limited access to historical spawning habitat. |
| Banded Sunfish | <i>Enneacanthus obesus</i> | A1B | Northeast Regional Conservation Concern. NH distribution overlaps the rapidly developing southern part of the state. Highly dependent on intact, vegetated shoreline habitat, which is impacted by shorefront development. |
| Finescale Dace | <i>Phoxinus neogaeus</i> | A1 | Lentic populations vulnerable to introduced littoral predators and artificial water level fluctuations. |
| Lake Whitefish | <i>Coregonus clupeaformis</i> | A1 | Spawning habitat vulnerable to artificial water level fluctuation and sedimentation. |
| Northern Redbelly Dace | <i>Phoxinus eos</i> | A1 | Lentic populations vulnerable to introduced littoral predators and artificial water level fluctuations. |
| Redfin Pickerel | <i>Esox americanus americanus</i> | A1 | NH distribution overlaps the rapidly developing southern part of the state. Highly dependent on intact, vegetated shoreline habitat, which is impacted by shorefront development |
| Round Whitefish | | A1B | Considered for Endangered during 2008 revision. Northeast Regional Conservation Concern. Spawning habitat vulnerable to artificial water level fluctuation and sedimentation. Documented extirpations in water bodies with introduced littoral predators. |
| Swamp Darter | <i>Etheostoma fusiforme</i> | A1 | NH distribution overlaps the rapidly developing southern part of the state. Vulnerable to habitat fragmentation. |

Amphibians

| Common Name | Scientific Name | Category | Overview of Rationale |
|-------------------------|------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Jefferson Salamander | <i>Ambystoma jeffersonianum</i> | A1 | Extremely limited range in state and habitat at risk. Difficulty in distinguishing this species from Blue-spotted Salamander argues for SC status for the complex rather than different categories for the two species. Northeast Regional Conservation Concern. |
| Blue-spotted Salamander | <i>Ambystoma laterale</i> | A1 | Widely distributed in New Hampshire but available data indicates much less common than spotted salamanders and habitat vulnerable to conversion. Difficulty in distinguishing this species from Jefferson salamander argues for SC status for the complex rather than different categories for the two species. Northeast Regional Conservation Concern. |
| Fowler's Toad | <i>Anaxyrus fowleri</i> (formerly <i>Bufo</i>) | A1 | Only several known sites in NH. Associated with sandy soils in southern NH which are most vulnerable to development. |
| Northern Leopard Frog | <i>Lithobates pipiens</i> (formerly <i>Rana</i>) | A1 | Limited occurrences currently known. Populations in vulnerable habitats. Northeast Regional Conservation Concern. |

Reptiles

| Common Name | Scientific Name | Category | Overview of Rationale |
|--------------------|----------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wood Turtle | <i>Glyptemys insculpta</i> (formerly <i>Clemmys</i>) | A1 | High risk in much of southern NH. Vulnerable to development, collection, roads, stream alterations and life history traits. Northeast Regional Conservation Concern. |
| Eastern Box Turtle | <i>Terrapene carolina</i> | A1 | Only a few records of individual turtles in southern NH. Habitat extremely vulnerable to conversion. Northeast Regional Conservation Concern. |

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| Smooth Green Snake | <i>Opheodrys vernalis</i> | A1 | Anecdotal long-term declines in species. Declines in primary habitat used and sensitive to pesticides. |
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Birds

| Common Name | Scientific Name | Category | Overview of Rationale |
|------------------------|-------------------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Spruce Grouse | <i>Falcipennis canadensis</i> | A1 | Species was removed from SC list in the previous revision, but retained on list of SGCN for WAP. Although NH populations appear stable, potential habitat shifts resulting from climate change are an important threat, and the Spruce Grouse should be considered SC in light of this risk. |
| Least Bittern | <i>Ixobrychus exilis</i> | A1 | Only reliable location in NH is the extensive marshes along the Connecticut River in Hinsdale. Listed as endangered in Massachusetts and Maine, where it is similarly rare and local in distribution. |
| Osprey | <i>Pandion haliaetus</i> | A2 | Osprey was removed from "threatened" status because of significant population recovery and ranger expansion in the state. It is retained as SC to facilitate continued recovery. |
| American Kestrel | <i>Falco sparverius</i> | A1 | Consistent population declines and range retraction throughout the region |
| Sora | <i>Porzana carolina</i> | A1 | Available data suggest that Soras are much rarer in NH than during the first Breeding Bird Atlas. Also suspected to be declining regionally. |
| Common Moorhen | <i>Gallinula chloropus</i> | A1 | Remains the rarest of the regularly occurring marsh birds in NH, with no breeding noted since the Breeding Bird Atlas in the early 1980s. Sites occupied at that time are have not been used in recent years, and there are very few breeding season records of any kind. |
| Willet | <i>Tringa semipalmata</i> | A1 | Limited habitat at risk from climate change and development. |
| Arctic Tern | <i>Sterna paradisaea</i> | A1 | Restricted to single colony reliant on management, but NH at extreme southern edge of species' range and it will likely never be common in the state. Retain on list to ensure continued recovery. Also declining overall in Gulf of Maine. |
| Whip-poor-will | <i>Caprimulgus vociferus</i> | A1 | Declining across region and of concern in all northeastern states. Northeast Regional Conservation Concern. |
| Olive-sided Flycatcher | <i>Contopus cooperi</i> | A1 | Consistent population declines and range retractions. NH population declining at -7.5% per year. Recently listed as Threatened in Canada. |
| Horned Lark | <i>Eremophila alpestris</i> | A1 | May only occur at 6-7 sites in state, all of which are airports. Historically occurred in Hampton/Seabrook dunes, but no recent data. |
| Purple Martin | <i>Progne subis</i> | A1 | New Hampshire population has experienced significant declines, but major limiting factor may be extreme weather events rather than loss of habitat or other manageable threats. Entirely reliant on human-provided housing for breeding. Because of declines and rarity, worth retaining as SC. |
| Bank Swallow | <i>Riparia riparia</i> | A1 | Consistent population declines and range retraction throughout the region.. Considered for threatened status in Canada. |

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| Cliff Swallow | <i>Petrochelidon pyrrhonota</i> | A1 | Dramatic loss of colonies in NH, with many former colonies now unoccupied. NH population declining at -7.5% per year. Declining elsewhere in Region, but usually not as strongly. |
| Bicknell's Thrush | <i>Catharus bicknelli</i> | B | Regional endemic. NH holds over 30% of global habitat, much of it high quality. Northeast Regional Conservation Concern. |
| American Pipit | <i>Anthus rubescens</i> | A1B | Isolated population of ~15 pairs in Presidential Range. One of only 3-4 such sites in the Northeast. |
| Golden-winged Warbler | <i>Vermivora chrysoptera</i> | A1 | Probably extirpated from NH in last decade. A species of continental concern. Northeast Regional Conservation Concern. |
| Cerulean Warbler | <i>Dendroica cerulea</i> | A1 | Only reliable location in state is Pawtuckaway SP, where less than 5 pairs breed. A species of continental concern. Northeast Regional Conservation Concern. |
| Vesper Sparrow | <i>Pooecetes gramineus</i> | A1 | Significant declines. Now only known from fewer than 20 sites statewide. |
| Nelson's Sharp-tailed Sparrow | <i>Ammodramus nelsoni</i> | A1 | Limited habitat at risk from climate change and development |
| Saltmarsh Sharp-tailed Sparrow | <i>Ammodramus caudacutus</i> | A1 | Limited habitat at risk from climate change and development. Regional endemic considered vulnerable at global scale. Northeast Regional Conservation Concern. |
| Seaside Sparrow | <i>Ammodramus maritimus</i> | A1 | Limited habitat at risk from climate change and development. Very rare in NH and may not be present in all years. |
| Eastern Meadowlark | <i>Sturnella magna</i> | A1 | State and regional population declines (NH -5.8% per year). Appears to have disappeared from many formerly occupied areas, especially from the Lakes Region north. |
| Rusty Blackbird | <i>Euphagus carolinus</i> | A1 | Species of high regional and continental concern due to population declines. Limited data suggest absence from many formerly occupied sites in NH. |

Mammals

| Common Name | Scientific Name | Category | Overview of Rationale |
|-------------------|----------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eastern Red Bat | <i>Lasiurus borealis</i> | A1 | Lack of information on population status in combination with high risks from wind power as they congregate during migration. Also at risk from some logging practices that may harm some maternity roosts. Northeast Regional Conservation Concern. |
| Hoary Bat | <i>Lasiurus cinereus</i> | A1 | Lack of information on population status in combination with high risks from wind power as they congregate during migration. Also at risk from some logging practices that may harm maternity roosts. Northeast Regional Conservation Concern. |
| Silver-haired Bat | <i>Lasionycteris noctivagans</i> | A1 | Lack of information on population status in combination with high risks from wind power and some logging practices may harm maternity roosts which are preferentially in old growth forests. Northeast Regional Conservation Concern. |

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| Northern long-ear bat | <i>Myotis septentrionalis</i> | A1 | Prefer smaller winter hibernacula in NH, which are not protected from disturbance, and populations at the two largest have decreased. Susceptible to White Nose Syndrome. Summer roosts threatened by forest fragmentation. |
| Eastern Pipistrelle changed to Tricolored bat | <i>Pipistrellus subfalvus</i> changed to <i>Perimyotis subflavus</i> | A1 | These bats are known from few sites in NH. Winter hibernacula are threatened by disturbance and White Nose Syndrome. Strong fidelity to summer roosts means forestry operations can have larger impact. |
| Northern Bog Lemming | <i>Synaptomys borealis sphagnicola</i> | A1 | Only a few records known despite surveys in potential habitat. Northeast Regional Conservation Concern. |