

Species of Greatest Conservation Need (SGCN) Habitat Associations

Macrogroup: Boreal Upland Forest

Habitat Systems within Macrogroup:

- Acadian Low Elevation Spruce-Fir-Hardwood Forest
- Acadian Sub-boreal Spruce Flat
- Acadian-Appalachian Montane Spr-Fir-Hwd Forest
- Boreal Jack Pine-Black Spruce Forest
- Boreal Upland Forest Macrogroup - Unknown Habitat System (i.e. Macrogroup)

Description: Wooded uplands characterized by black spruce or jack pine; sometimes by red spruce without temperate elements

SGCN Associated With This Habitat

Total SGCN: 1: 11 2: 28 3: 82

Class	Amphibians <i>Amphibia</i>	SGCN Category
Species	Blue-spotted Salamander <i>Ambystoma laterale</i>	2
Class	Birds <i>Aves</i>	SGCN Category
Species	American Three-toed Woodpecker <i>Picoides dorsalis</i>	3
Species	Bay-breasted Warbler <i>Setophaga castanea</i>	3
Species	Bicknell's Thrush <i>Catharus bicknelli</i>	1
Species	Black-and-white Warbler <i>Mniotilta varia</i>	2
Species	Black-backed Woodpecker <i>Picoides arcticus</i>	3
Species	Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i>	3
Species	Blackburnian Warbler <i>Setophaga fusca</i>	3
Species	Blackpoll Warbler <i>Setophaga striata</i>	3
Species	Black-throated Green Warbler <i>Setophaga virens</i>	3
Species	Bonaparte's Gull <i>Chroicocephalus philadelphia</i>	3
Species	Boreal Chickadee <i>Poecile hudsonicus</i>	2
Species	Broad-winged Hawk <i>Buteo platypterus</i>	3
Species	Canada Warbler <i>Cardellina canadensis</i>	2
Species	Cape May Warbler <i>Setophaga tigrina</i>	3
Species	Eastern Kingbird <i>Tyrannus tyrannus</i>	2
Species	Eastern Screech-owl <i>Megascops asio</i>	3
Species	Evening Grosbeak <i>Coccothraustes vespertinus</i>	2
Species	Fox Sparrow <i>Passerella iliaca</i>	3
Species	Gray Jay <i>Perisoreus canadensis</i>	3
Species	Great Blue Heron <i>Ardea herodias</i>	2
Species	Lincoln's Sparrow <i>Melospiza lincolnii</i>	3
Species	Long-eared Owl <i>Asio otus</i>	3
Species	Northern Parula <i>Setophaga americana</i>	3
Species	Olive-sided Flycatcher <i>Contopus cooperi</i>	2
Species	Pine Grosbeak <i>Pinicola enucleator</i>	3
Species	Purple Finch <i>Haemorhous purpureus</i>	3
Species	Red Crossbill <i>Loxia curvirostra</i>	3
Species	Ruby-crowned Kinglet <i>Regulus calendula</i>	2
Species	Rusty Blackbird <i>Euphagus carolinus</i>	1
Species	Snowy Egret <i>Egretta thula</i>	3
Species	Spruce Grouse <i>Falcipennis canadensis</i>	3

Species of Greatest Conservation Need (SGCN) Habitat Associations

Macrogroup: Boreal Upland Forest

Species	Swainson's Thrush <i>Catharus ustulatus</i>	3
Species	Tennessee Warbler <i>Oreothlypis peregrina</i>	2
Species	White-throated Sparrow <i>Zonotrichia albicollis</i>	3
Species	White-winged Crossbill <i>Loxia leucoptera</i>	3
Species	Yellow-bellied Flycatcher <i>Empidonax flaviventris</i>	3
Class	Insects <i>Insecta</i>	SGCN Category
Species	A Caddisfly <i>Hydroptila blicklei</i>	3
Species	A Caddisfly <i>Hydroptila parachelops</i>	3
Species	A Caddisfly <i>Hydroptila tomah</i>	3
Species	A Caddisfly <i>Ochrotrichia denningi</i>	3
Species	A Mayfly <i>Ameletus browni</i>	3
Species	A Mayfly <i>Baetisca berneri</i>	3
Species	A Mayfly <i>Baetisca carolina</i>	3
Species	A Mayfly <i>Baetisca lacustris</i>	3
Species	A Mayfly <i>Baetisca rubescens</i>	3
Species	A Mayfly <i>Hexagenia rigida</i>	3
Species	A Mayfly <i>Metretopus borealis</i>	3
Species	A Mayfly <i>Nixe horrida</i>	3
Species	A Mayfly <i>Parameletus midas</i>	3
Species	A Mayfly <i>Rhithrogena undulata</i>	3
Species	A Mayfly <i>Siphonurus barbaroides</i>	3
Species	A Mayfly <i>Siphonurus barbarus</i>	2
Species	A Mayfly <i>Siphonurus demaryi</i>	2
Species	A Moth <i>Nepytia pellucidaria</i>	3
Species	A Stonefly <i>Alloperla voinae</i>	3
Species	A Stonefly <i>Neoperla mainensis</i>	3
Species	Acadian Swordgrass Moth <i>Xylena thoracica</i>	3
Species	American Bumble Bee <i>Bombus pensylvanicus</i>	2
Species	Arrow Clubtail <i>Stylurus spiniceps</i>	3
Species	Arrowhead Spiketail <i>Cordulegaster obliqua</i>	3
Species	Ashton's Cuckoo Bumble Bee <i>Bombus ashtoni</i>	2
Species	Big Bluet <i>Enallagma durum</i>	3
Species	Black Saddlebags <i>Tramea lacerata</i>	3
Species	Bog Elfin <i>Callophrys lanoraieensis</i>	3
Species	Boreal Snaketail <i>Ophiogomphus colubrinus</i>	1
Species	Broad-tailed Shadowdragon <i>Neurocordulia michaeli</i>	3
Species	Brown-belted Bumble Bee <i>Bombus griseocollis</i>	3
Species	Canada Whiteface <i>Leucorrhinia patricia</i>	2
Species	Carolina Saddlebags <i>Tramea carolina</i>	3
Species	Citrine Forktail <i>Ischnura hastata</i>	3
Species	Cobra Clubtail <i>Gomphus vastus</i>	3
Species	Comet Darner <i>Anax longipes</i>	3
Species	Common Sanddragon <i>Progomphus obscurus</i>	3
Species	Elfin Skimmer <i>Nannothemis bella</i>	3
Species	Extra-striped Snaketail <i>Ophiogomphus anomalus</i>	3

Species of Greatest Conservation Need (SGCN) Habitat Associations

Macrogroup: Boreal Upland Forest

Species	Fernald's Cuckoo Bumble Bee <i>Bombus fernaldae</i>	3
Species	Graceful Clearwing <i>Hemaris gracilis</i>	3
Species	Incurvate Emerald <i>Somatochlora incurvata</i>	3
Species	Indiscriminate Cuckoo Bumble Bee <i>Bombus insularis</i>	2
Species	Lemon Cuckoo Bumble Bee <i>Bombus citrinus</i>	3
Species	Leonard's Skipper <i>Hesperia leonardus</i>	3
Species	Lilypad Clubtail <i>Arigomphus furcifer</i>	3
Species	Martha's Pennant <i>Celithemis martha</i>	3
Species	New England Bluet <i>Enallagma laterale</i>	2
Species	Northern Blue <i>Plebejus idas</i>	2
Species	Ocellated Emerald <i>Somatochlora minor</i>	3
Species	Painted Skimmer <i>Libellula semifasciata</i>	3
Species	Pine Pinion <i>Lithophane lepida lepida</i>	2
Species	Purple Lesser Fritillary <i>Boloria chariclea grandis</i>	2
Species	Pygmy Snaketail <i>Ophiogomphus howei</i>	2
Species	Quebec Emerald <i>Somatochlora brevicincta</i>	2
Species	Rambur's Forktail <i>Ischnura ramburii</i>	3
Species	Ringed Emerald <i>Somatochlora albicincta</i>	3
Species	Roaring Brook Mayfly <i>Epeorus frisoni</i>	1
Species	Rusty-patched Bumble Bee <i>Bombus affinis</i>	1
Species	Sanderson's Bumble Bee <i>Bombus sandersoni</i>	3
Species	Satyr Comma <i>Polygonia satyrus</i>	3
Species	Scarlet Bluet <i>Enallagma pictum</i>	2
Species	Seaside Dragonlet <i>Erythrodiplax berenice</i>	3
Species	Sedge Darner <i>Aeshna juncea</i>	2
Species	Southern Pygmy Clubtail <i>Lanthus vernalis</i>	2
Species	Spatterdock Darner <i>Rhionaeschna mutata</i>	3
Species	Spiny Salmonfly <i>Pteronarcys comstocki</i>	3
Species	Swamp Darner <i>Epiaeschna heros</i>	3
Species	Tomah Mayfly <i>Siphonisca aerodromia</i>	1
Species	Tule Bluet <i>Enallagma carunculatum</i>	3
Species	Yellow Bumble Bee <i>Bombus fervidus</i>	3
Species	Yellowbanded Bumble Bee <i>Bombus terricola</i>	3
Species	Zigzag Darner <i>Aeshna sitchensis</i>	3

Class	Mammals <i>Mammalia</i>	SGCN Category
Species	Canada Lynx <i>Lynx canadensis</i>	2
Species	Eastern Red Bat <i>Lasiurus borealis</i>	3
Species	Eastern Small-footed Myotis <i>Myotis leibii</i>	1
Species	Hoary Bat <i>Lasiurus cinereus</i>	3
Species	Little Brown Bat <i>Myotis lucifugus</i>	1
Species	Long-tailed Shrew <i>Sorex dispar</i>	3
Species	Northern Bog Lemming <i>Synaptomys borealis sphagnicola</i>	1
Species	Northern Long-eared Myotis <i>Myotis septentrionalis</i>	1
Species	Silver-haired Bat <i>Lasionycteris noctivagans</i>	2
Species	Tri-colored Bat <i>Perimyotis subflavus</i>	2

Species of Greatest Conservation Need (SGCN) Habitat Associations

Macrogroup: Boreal Upland Forest

Class	Reptiles <i>Reptilia</i>	SGCN Category
Species	Wood Turtle <i>Glyptemys insculpta</i>	1
Endangered (E) and Threatened (T) Plant Species Associated With This Habitat		
Class	Monocots <i>Monocotyledoneae</i>	State Status
Species	Giant Rattlesnake-plantain <i>Goodyera oblongifolia</i>	E

Species of Greatest Conservation Need (SGCN) Habitat Associations

Macrogroup: Boreal Upland Forest

Threats Associated With This Macrogroup

IUCN Level 2 Threat Name: Housing and Urban Areas

Actionability: Actionable with difficulty

Severity: Severe

Reversibility: Irreversible

Immediacy: Immediate

Likelihood: Occurring

Spatial Extent: Localized

Certainty: High Certainty

Notes: Development is generally a lower stressor moving north and into unorganized towns; boreal upland forest had comparatively low predicted development in Anderson et al (2013)

IUCN Level 2 Threat Name: Commercial and Industrial Areas

Actionability: Actionable with difficulty

Severity: Slight Severity

Reversibility: Irreversible

Immediacy: Immediate

Likelihood: Occurring

Spatial Extent: Localized

Certainty: High Certainty

Notes: Impacts likely lower than forest types in southern and central ME

IUCN Level 2 Threat Name: Tourism and Recreational Areas

Actionability: Highly actionable

Severity: Moderate Severity

Reversibility: Reversible

Immediacy: Immediate

Likelihood: Occurring

Spatial Extent: Localized

Certainty: High Certainty

Notes: Ski area development, & non-motorized trail development

IUCN Level 2 Threat Name: Annual and Perennial Non-timber crops

Actionability: Actionable with difficulty

Severity: Severe

Reversibility: Reversible

Immediacy: Immediate

Likelihood: Occurring

Spatial Extent: Localized

Certainty: High Certainty

Notes: land conversion to agriculture

IUCN Level 2 Threat Name: Livestock Farming and Ranching

Actionability: Actionable with difficulty

Severity: Moderate Severity

Reversibility: Reversible

Immediacy: Near-term

Likelihood: Occurring

Spatial Extent: Localized

Certainty: High Certainty

Notes: historically, this had a much greater impact on the landscape in S. Maine.

IUCN Level 2 Threat Name: Mining and Quarring

Actionability: Moderately actionable

Severity: Severe

Reversibility: Reversible with difficulty

Immediacy: Long-term

Likelihood: Likely

Spatial Extent: Localized

Certainty: High Certainty

Notes: Mines for minerals, hard rock, metals; some constituent ecological systems are more prone to being developed as gravel pits.

IUCN Level 2 Threat Name: Renewable Energy

Actionability: Moderately actionable

Severity: Moderate Severity

Reversibility: Reversible with difficulty

Immediacy: Near-term

Likelihood: Occurring

Spatial Extent: Localized

Certainty: High Certainty

Notes: wind farms

IUCN Level 2 Threat Name: Roads and Railroads

Actionability: Moderately actionable

Severity: Moderate Severity

Reversibility: Reversible with difficulty

Immediacy: Immediate

Likelihood: Occurring

Spatial Extent: Localized

Certainty: High Certainty

Notes: Impacts of logging roads generally lower than public paved roads; depends on the species, type of road etc.

Species of Greatest Conservation Need (SGCN) Habitat Associations

Macrogroup: Boreal Upland Forest

IUCN Level 2 Threat Name: Utility and Service Lines

Actionability: Moderately actionable	Severity: Slight Severity	
Reversibility: Reversible with difficulty	Immediacy: Immediate	Likelihood: Occurring
Spatial Extent: Localized	Certainty: Moderate Certainty	
Notes: Some utility lines may provide early successional or shrub/scrub habitat		

IUCN Level 2 Threat Name: Logging and Wood Harvesting

Actionability: Highly actionable	Severity: Slight Severity	
Reversibility: Reversible	Immediacy: Immediate	Likelihood: Occurring
Spatial Extent: Dispersed or Patchy	Certainty: Moderate Certainty	
Notes: Severity varies depending on intensity. May be a stress to species preferring closed canopy or late-successional systems; provides habitat for species using early to mid-successional forests; forest management also maintains working forest as valuable open space for wildlife		

IUCN Level 2 Threat Name: Recreational Activities

Actionability: Highly actionable	Severity: Moderate Severity	
Reversibility: Reversible	Immediacy: Immediate	Likelihood: Occurring
Spatial Extent: Localized	Certainty: Moderate Certainty	
Notes: motorized vehicle use off-trail		

IUCN Level 2 Threat Name: Fire and Fire Suppression

Actionability: Highly actionable	Severity: Moderate Severity	
Reversibility: Reversible	Immediacy: Long-term	Likelihood: Likely
Spatial Extent: Localized	Certainty: Moderate Certainty	
Notes: Accidental fire, or fire suppression for a few types (black spruce barrens)		

IUCN Level 2 Threat Name: Problematic Native Species/Diseases

Actionability: Moderately actionable	Severity: Slight Severity	
Reversibility: Reversible	Immediacy: Near-term	Likelihood: Occurring
Spatial Extent: Dispersed or Patchy	Certainty: High Certainty	
Notes: Spruce budworm may alter forest conditions, spraying Bt may be a stress for invertebrates		

IUCN Level 2 Threat Name: Air-Bourne Pollutants

Actionability: Actionable with difficulty	Severity: Slight Severity	
Reversibility: Reversible with difficulty	Immediacy: Long-term	Likelihood: Occurring
Spatial Extent: Pervasive	Certainty: Moderate Certainty	
Notes: Atmospheric nitrogen, among others, but long term impacts are not clear		

IUCN Level 2 Threat Name: Habitat Shifting or Alteration

Actionability: Actionable with difficulty	Severity: Moderate Severity	
Reversibility: Irreversible	Immediacy: Long-term	Likelihood: Likely
Spatial Extent: Pervasive	Certainty: Low Certainty	
Notes: Effects of CC are not clear on forests, but boreal and subalpine are likely among the most vulnerable of Maine's forest types		