



Birds

American Three-toed Woodpecker

Picoides dorsalis

Priority 1 Species of Greatest Conservation Need (SGCN)

Class: Birds (*Aves*)

Order: Woodpeckers (*Piciformes*)

Family: Woodpeckers (*Picidae*)



General comments:

American Three-toed Woodpeckers are medium-sized woodpeckers with barred black-and-white backs and pale underparts; males have a yellow crown patch. In Maine, they are rare and confined to just a few populations in spruce-fir forests of the far north, where they favor black spruce stands, especially in areas disturbed by insect outbreaks or recent logging. Populations remain scarce and vulnerable to habitat loss from intensive commercial harvest of black spruce. Post-disturbance salvage logging and the loss of old forest structure additionally reduce the quality and availability of breeding habitat.

Species Conservation Range Maps:

Town Map: [Picoides dorsalis_Towns.pdf](#)

Subwatershed Map: [Picoides dorsalis_HUC12.pdf](#)

SGCN Priority Ranking - Designation Criteria:

State Special Concern:	American Three-toed Woodpecker is listed as a species of Special Concern in Maine.
High Climate Change Vulnerability:	Vulnerability: 3, Confidence: High, Reviewers: 5

Professional Discretion:

Current criteria ranked *Picoides dorsalis* as SGCN priority 2, however, species should qualify as SGCN priority 1 based on professional discretion.

Justification:

The initial ranking of P2 was based on their high vulnerability to climate change and their small, isolated populations (they depend on large stands of disturbed black spruce), abundance was too low to get any meaning population trend estimates from BBS data. Their update in status reflects their rarity in combination with significant range retraction in the state identified in the 2nd Breeding Bird Atlas. They likely qualify for Threatened status.

Habitat Associations:

Formation: Boreal Wetland Forest

Macrogroup: North American Boreal Conifer Poor Swamp

Habitat System: Eastern Boreal-Sub-boreal Conifer Acidic Swamp and Treed Poor Fen

Formation: Northeastern Upland Forest

Macrogroup: Acadian-Northern Appalachian Forest

Habitat System: Acadian Low Elevation Spruce-Fir-Hardwood Forest

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Formation: Northeastern Upland Forest

	Habitat System: Acadian Sub-boreal Spruce Flat
	Habitat System: Acadian-Appalachian Montane Spruce-Fir Forest
	Habitat System: Laurentian-Acadian Sub-boreal Dry-Mesic Pine-Black Spruce-Hardwood Forest

Formation: Northeastern Wetland Forest

Macrogroup: Laurentian-Acadian Flooded & Swamp Forest

	Habitat System: Acadian-Northern Appalachian Conifer Seepage Forest
	Habitat System: Northern Appalachian-Acadian Conifer-Hardwood Acidic Swamp

Formation: Peatland

Macrogroup: North American Boreal & Subboreal Bog & Acidic Fen

	Habitat System: Eastern Boreal-Sub-Boreal Acidic Basin Fen
	Habitat System: Eastern Boreal-Sub-Boreal Bog

Threats

Threat Priority Level based on Severity and Actionability		Moderate Severity		High Severity	
	Highly Actionable		Medium-High		High
	Moderately Actionable		Medium		Medium-High
	Actionable with Difficulty		Low		Low

IUCN Level 1 Threat Other Options

IUCN Level 2 Threat: Lack of knowledge

Severity: Moderate Severity **Actionability:** Highly Actionable

Notes: Breeding populations in Maine are sparse and low-density, monitoring could be increased. The species' strong response to disturbance makes it vulnerable to changes in forest management and climate, but these responses remain poorly understood in the Northeast. Better baseline data are essential to detect changes and evaluate conservation success.

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IUCN Level 1 Threat Biological Resource Use

IUCN Level 2 Threat: Logging and Wood Harvesting

Severity: Moderate Severity **Actionability:** Moderately Actionable

Notes: In Maine, this species is associated with mature and old-growth spruce-fir forests and benefits from natural disturbance processes (e.g., windthrow, insects, fire). Modern timber harvest, especially short rotation cycles, reduces habitat availability and complexity, including standing deadwood needed for nesting and foraging. Salvage logging after disturbance further reduces suitability. While not inherently incompatible with forestry, standard practices limit the presence of high-quality habitat.

IUCN Level 1 Threat Pollution

IUCN Level 2 Threat: Agricultural and Forestry Effluents

Severity: Moderate Severity **Actionability:** Moderately Actionable

Notes: MSMA (used for bark beetle control) is not widely applied in Maine, but the broader use of insecticides to control forest pests may have unintended consequences on this bark-foraging species through reduced prey availability or contamination via bioaccumulation.

Species Level Conservation Actions:

None. Only species specific conservation actions that address high (red) or medium-high (orange) priority threats are summarized here.

Conservation Actions Associated with the Boreal Conifer birds Guild:

Conservation Action	Category	Biological Priority	Type
Manage for a mature white pine component including those that extend beyond the canopy.	Habitat Management	moderate	on-going

Threat(s) Addressed By This Conservation Action

- Logging and Wood Harvesting
- Wood and Pulp Plantations

Conservation Action	Category	Biological Priority	Type
Conserve large, contiguous tracts of mature spruce-fir and black spruce forest across Maine's boreal region.	Habitat Management	critical	on-going

Threat(s) Addressed By This Conservation Action

- Logging and Wood Harvesting
- Habitat Shifting or Alteration

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Conservation Action	Category	Biological Priority	Type
Promote forest management practices that maintain or restore mature conifer forest structure, including vertical diversity and intact canopy cover.	Habitat Management	high	new

Threat(s) Addressed By This Conservation Action

- Logging and Wood Harvesting
- Habitat Shifting or Alteration

Conservation Action	Category	Biological Priority	Type
Minimize large-scale salvage and preemptive harvesting during forest pest outbreaks to preserve long-term forest integrity. Promote pest outbreak response strategies that maintain mature forest structure (older trees, snags and downed wood, structural diversity).	Habitat Management	moderate	new

Threat(s) Addressed By This Conservation Action

- Problematic Native Species-Diseases

Conservation Action	Category	Biological Priority	Type
Identify and protect climate refugia and elevational/latitudinal habitat gradients critical to boreal species persistence under changing conditions.	Research	high	new

Threat(s) Addressed By This Conservation Action

- Habitat Shifting or Alteration

Conservation Action	Category	Biological Priority	Type
Increase coordinated monitoring efforts across seasons and regions to better track population trends and distribution shifts in boreal bird communities.	Survey and Monitoring	high	new

Threat(s) Addressed By This Conservation Action

- Lack of knowledge

Conservation Action	Category	Biological Priority	Type
Incorporate innovative monitoring approaches (e.g., ARUs, remote sensing) to improve detection of low-density or cryptic species across remote boreal landscapes.	Survey and Monitoring	high	new

Threat(s) Addressed By This Conservation Action

- Lack of knowledge

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Conservation Action	Category	Biological Priority	Type
Coordinate across public and private landowners to maintain landscape-scale connectivity of mature boreal forest habitats.	Public Outreach	high	new

Threat(s) Addressed By This Conservation Action

- Other Ecosystem Modifications

Conservation Action	Category	Biological Priority	Type
Monitor bird community responses to spruce budworm treatment and integrate bird impact assessments into outbreak response planning. Expand research and monitoring efforts to understand short- and long-term effects of insecticide use (including newer agents like tebufenozide) on boreal bird populations, especially for spruce budworm specialists.	Survey and Monitoring	high	new

Threat(s) Addressed By This Conservation Action

- Agricultural and Forestry Effluents
- Problematic Native Species-Diseases

Broad Taxonomic Group Conservation Actions:

Additional relevant conservation actions for this species are assigned within broader taxonomic groups in Maine's Wildlife Action Plan: Element 4.

Habitat Based Conservation Actions:

Additional conservation actions that may benefit habitat(s) associated with this species can be found in Maine's Wildlife Action Plan: Element 4. Click on the Habitat Grouping of interest to launch a habitat based report summarizing relevant conservation actions and associated SGCN.

The Wildlife Action Plan was developed through a lengthy participatory process with state agencies, targeted conservation partners, and the general public. The Plan is non-regulatory. The species, threats, and voluntary conservation actions identified in the Plan complement, but do not replace, existing work