

SPRUCE AND FIR FOREST TYPES

SPECIES LIST

Asterisk denotes Species of Greatest Conservation Need. Hyperlinks take you to recommendations specific to the species. Colors denote differences due to elevation.

Reptiles and Amphibians

None listed

Birds

Any Elevation	Additional Requirements
Boreal chickadee	
Dark-eyed junco	
Pine siskin	
Spruce grouse *	
Red-breasted nuthatch	
Golden-crowned kinglet	Spruce at low elevation
Gray jay	Spruce at low elevation
Red crossbill	Spruce at low elevation
Ruby-crowned kinglet	Spruce at low elevation
White-winged crossbill	Spruce at low elevation
Pine grosbeak	Spruce/Fir Mix when at low elevation
Hi Elevation Only	
Bicknell's thrush *	
Black-backed woodpecker	
Low Elevation Only	Additional

Requirements	
Bay-breasted warbler *	
Blackburnian warbler	
Cape May warbler *	
Common goldeneye	
Magnolia warbler	
Olive-sided flycatcher *	
Purple finch *	
Rusty blackbird *	
Sharp-shinned hawk *	
Swainson's thrush	
Three-toed woodpecker *	
Yellow-bellied flycatcher	
Hooded merganser	Fir Component
Blackpoll warbler	Spruce component
Blue-headed vireo	Spruce component
Northern parula	Spruce component
Evening grosbeak	Spruce type
Northern saw-whet owl	Spruce type
Hermit thrush	Spruce/Fir Mix
Merlin	Spruce/Fir Mix
Nashville warbler	Spruce/Fir Mix
Ruby crowned kinglet	BF Type
Yellow warbler	BF Type

SPECIES LIST (continued)

Asterisk denotes Species of Greatest Conservation Need. Hyperlinks take you to recommendations specific to the species. Colors denote differences due to elevation.

Mammals

Any Elevation

Snowshoe hare
Red squirrel
Southern red-backed vole
[Long-tailed shrew](#)*
[American marten](#)*

Hi Elevation Only

[Rock vole](#)*
[Northern bog lemming](#)*
[Eastern small-footed bat](#)*
[Canada lynx](#)*

Low Elevation Only

Northern flying squirrel
Deer mouse
[Hoary bat](#)*
[Tri-colored bat](#)*
[Little brown bat](#)*
[Silver-haired bat](#)*
[Northern long-eared bat](#)*
[Indiana bat](#)*
[Red bat](#)*
Red fox
[Bobcat](#)*
[Moose](#)*

RECOMMENDATIONS

These recommendations are designed to optimize wildlife habitat conditions within this forest type. Other silvicultural options may apply, but they won't necessarily optimize potential habitat conditions for the full range of wildlife species that can occupy this type. *Colors denote differences due to elevation.*

For Low Elevation Types	Spruce/Fir Type	Spruce Type	Balsam Fir Type
Use uneven-aged management—group selection with groups size of xx acres	0.1 to 2	less than 1 acre.	3-10
Rotation Age xx years	90	120	75
Entry Cycle Every xx years	15	15-20	15
Let 10 percent of the area in this type age to xxx years before rotating.	120	150	100
Avoid entry during nesting season—April to June.			
Whole-tree harvest or cut-to-length is preferred.			

High-elevation (generally above 2,500 feet) forest types are normally situated on soils that are shallow to bedrock or poor in quality. The soil conditions, coupled with climate conditions at high elevations, result in slow vegetative reproduction and growth. Since the habitat provided by this type at these elevations contains a large proportion of SGCN species, special care must be taken when management takes place at high elevations in this type.

The management preference for optimal habitat is no management at all—allow natural processes to take place. If harvesting in this type at high elevation, contact your state wildlife agency before proceeding.

Composition and Structure Goals

- Within the managed area at least 60 percent should remain in stands with an average DBH of 4 inches or greater and a stocking of at least 90 square feet of basal area per acre.
- Leave 10 percent of the area unharvested. The remaining 30 percent of the area can be less than 4 inches in DBH and less than 90 square feet of basal area.
- Distribute these cut areas across the managed area rather than concentrating them.
- Direct management toward maintaining or increasing softwood types at high elevations.

Harvesting Provisions

- Use group selection with small groups— $\frac{1}{4}$ to $\frac{1}{2}$ acre is preferred.
- Install larger groups (up to 3 acres) or small clearcuts (3 to 5 acres) only where adequate regeneration is in place.
- Minimize residual stand damage.
- Minimize soil compaction.
- Winter harvest is preferred.
- Avoid whole-tree harvest. Use a cut-to-length harvest method, leaving tops and limbs in place.
- Retain three to five large live cull or cavity trees per acre.