



# SGCN and Habitat Threats

## Level 1 Threat Natural Systems Modifications

### Level 2 Threat: Fire and Fire Suppression

Suppression or increase in fire frequency and/or intensity outside of its natural range of variation

#### Species Associated With This Threat:

SGCN Priority Level P1 = 16 / P2 = 31 / P3 = 5

#### Class Birds (*Aves*)

#### SGCN Priority

##### Brown Thrasher (*Toxostoma rufum*)

2

**Severity:** Moderate Severity

**Actionability:** Moderately Actionable

Fire suppression over many years contributes to advancing forest succession and shortens amount of time a site is suitable for this species

##### Eastern Towhee (*Pipilo erythrophthalmus*)

3

**Severity:** Moderate Severity

**Actionability:** Moderately Actionable

Fire suppression especially in dry forest types enhances advancement of succession to closed canopy forest

##### Grasshopper Sparrow (*Ammodramus savannarum*)

1

**Severity:** Moderate Severity

**Actionability:** Highly Actionable

Proper fire regime critical to maintaining species at Kittery Point, which is our largest population

##### Olive-sided Flycatcher (*Contopus cooperi*)

2

**Severity:** Moderate Severity

**Actionability:** Actionable with Difficulty

Suppression of natural disturbance regimes (particularly wildfire), reducing early-successional and postfire habitats critical for breeding.

##### Short-eared Owl (*Asio flammeus*)

1

**Severity:** Moderate Severity

**Actionability:** Moderately Actionable

Lead to loss of grassland and increase in shrub and woody cover.

#### Class Insects (*Insecta*)

#### SGCN Priority

##### Arctic Fritillary (*Boloria chariclea grandis*)

1

**Severity:** Moderate Severity

**Actionability:** Moderately Actionable

Fire is likely an important natural disturbance force in the boreal woodland heath habitat

##### Barrens Itame (*Macaria exonerata*)

2

**Severity:** High Severity

**Actionability:** Moderately Actionable

pine barren habitat is fire dependent; fire suppression can alter successional stage and habitat availability over time; poorly timed/planned fire can cause direct mortality



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### Level 2 Threat: Fire and Fire Suppression

| Class | Insects ( <i>Insecta</i> )                                                                                                                                                                                                                                  | SGCN Priority |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|       | <b>Barrens Metarranthis Moth</b> ( <i>Metarranthis apiciaria</i> )                                                                                                                                                                                          | 2             |
|       | <b>Severity:</b> High Severity <b>Actionability:</b> Moderately Actionable<br>pine barren habitat is fire dependent; fire suppression can alter successional stage and habitat availability over time; poorly timed/planned fire can cause direct mortality |               |
|       | <b>Bold-based Zale Moth</b> ( <i>Zale lunifera</i> )                                                                                                                                                                                                        | 2             |
|       | <b>Severity:</b> High Severity <b>Actionability:</b> Moderately Actionable<br>pine barren habitat is fire dependent; fire suppression can alter successional stage and habitat availability over time; poorly timed/planned fire can cause direct mortality |               |
|       | <b>Broad Sallow</b> ( <i>Xylotype capax</i> )                                                                                                                                                                                                               | 2             |
|       | <b>Severity:</b> High Severity <b>Actionability:</b> Moderately Actionable<br>pine barren habitat is fire dependent; fire suppression can alter successional stage and habitat availability over time; poorly timed/planned fire can cause direct mortality |               |
|       | <b>Cobweb Skipper</b> ( <i>Hesperia metea metea</i> )                                                                                                                                                                                                       | 2             |
|       | <b>Severity:</b> High Severity <b>Actionability:</b> Moderately Actionable                                                                                                                                                                                  |               |
|       | <b>Dusted Skipper</b> ( <i>Atrytonopsis hianna hianna</i> )                                                                                                                                                                                                 | 3             |
|       | <b>Severity:</b> High Severity <b>Actionability:</b> Moderately Actionable<br>pine barren habitat is fire dependent; fire suppression can alter successional stage and habitat availability over time; poorly timed/planned fire can cause direct mortality |               |
|       | <b>Eastern Buckmoth</b> ( <i>Hemileuca maia maia</i> )                                                                                                                                                                                                      | 2             |
|       | <b>Severity:</b> High Severity <b>Actionability:</b> Moderately Actionable<br>pine barren habitat is fire dependent; fire suppression can alter successional stage and habitat availability over time; poorly timed/planned fire can cause direct mortality |               |
|       | <b>Edwards' Hairstreak</b> ( <i>Satyrium edwardsii edwardsii</i> )                                                                                                                                                                                          | 2             |
|       | <b>Severity:</b> High Severity <b>Actionability:</b> Moderately Actionable<br>Fire suppression is causing some barrens to succeed to other vegetation types                                                                                                 |               |
|       | <b>Juniper Hairstreak</b> ( <i>Callophrys gryneus gryneus</i> )                                                                                                                                                                                             | 1             |
|       | <b>Severity:</b> Moderate Severity <b>Actionability:</b> Moderately Actionable<br>Fire is likely beneficial for regeneration of the rare, pioneer host plant -- <i>Juniperus virginiana</i>                                                                 |               |
|       | <b>Oblique Zale</b> ( <i>Zale obliqua</i> )                                                                                                                                                                                                                 | 2             |
|       | <b>Severity:</b> High Severity <b>Actionability:</b> Moderately Actionable<br>pine barren habitat is fire dependent; fire suppression can alter successional stage and habitat availability over time; poorly timed/planned fire can cause direct mortality |               |



## SGCN and Habitat Threats

### Level 2 Threat: Fire and Fire Suppression

| Class | Insects ( <i>Insecta</i> )                                                                                                                                                                                                                                                                                                     | SGCN Priority |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|       | <b>Pine Barrens Zanclognatha</b> ( <i>Zanclognatha martha</i> )<br><b>Severity:</b> High Severity <b>Actionability:</b> Moderately Actionable<br>pine barren habitat is fire dependent; fire suppression can alter successional stage and habitat availability over time; poorly timed/planned fire can cause direct mortality | 2             |
|       | <b>Pine Devil</b> ( <i>Citheronia sepulcralis</i> )<br><b>Severity:</b> High Severity <b>Actionability:</b> Moderately Actionable<br>Pine barren habitat is fire dependent - fire suppression can alter successional stage and habitat availability over time; fire can cause direct mortality                                 | 3             |
|       | <b>Pink Sallow</b> ( <i>Psectraglaea carnosae</i> )<br><b>Severity:</b> High Severity <b>Actionability:</b> Moderately Actionable<br>Pine barren habitat is fire dependent - fire suppression can alter successional stage and habitat availability over time; fire can cause direct mortality                                 | 3             |
|       | <b>Red-winged Sallow</b> ( <i>Xystocheilus rufago</i> )<br><b>Severity:</b> High Severity <b>Actionability:</b> Moderately Actionable<br>pine barren habitat is fire dependent; fire suppression can alter successional stage and habitat availability over time; poorly timed/planned fire can cause direct mortality         | 2             |
|       | <b>Similar Underwing</b> ( <i>Catocala similis</i> )<br><b>Severity:</b> High Severity <b>Actionability:</b> Moderately Actionable<br>pine barren habitat is fire dependent; fire suppression can alter successional stage and habitat availability over time; poorly timed/planned fire can cause direct mortality            | 2             |
|       | <b>Sleepy Duskywing</b> ( <i>Erynnis brizo</i> )<br><b>Severity:</b> High Severity <b>Actionability:</b> Moderately Actionable<br>Fire suppression is causing some barrens to succeed to other vegetation types                                                                                                                | 2             |
|       | <b>Twilight Moth</b> ( <i>Lycia rachelae</i> )<br><b>Severity:</b> High Severity <b>Actionability:</b> Moderately Actionable<br>pine barren habitat is fire dependent; fire suppression can alter successional stage and habitat availability over time; poorly timed/planned fire can cause direct mortality                  | 2             |
|       | <b>Waxed Sallow Moth</b> ( <i>Chaetoglaea cerata</i> )<br><b>Severity:</b> High Severity <b>Actionability:</b> Moderately Actionable<br>Pine barren habitat is fire dependent - fire suppression can alter successional stage and habitat availability over time; fire can cause direct mortality                              | 3             |
| Class | Reptiles ( <i>Reptilia</i> )                                                                                                                                                                                                                                                                                                   | SGCN Priority |



## SGCN and Habitat Threats

### Level 2 Threat: Fire and Fire Suppression

| Class | Reptiles ( <i>Reptilia</i> )                                                                                                                                                                                                                                                                                                    | SGCN Priority |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|       | <b>Northern Black Racer</b> ( <i>Coluber constrictor constrictor</i> )                                                                                                                                                                                                                                                          | <b>1</b>      |
|       | <b>Severity:</b> High Severity <b>Actionability:</b> Moderately Actionable<br>Suppression of fire OR fires that occur too frequently in fire prone systems where racers occur can result in gradual loss of habitat (too much fire results in loss of low shrub and too little fire results in succession tall brush or forest) |               |
| Class | Eudicots ( <i>Eudicots</i> )                                                                                                                                                                                                                                                                                                    | SGCN Priority |
|       | <b>American Chestnut</b> ( <i>Castanea dentata</i> )                                                                                                                                                                                                                                                                            | <b>2</b>      |
|       | <b>Severity:</b> Moderate Severity <b>Actionability:</b> Moderately Actionable                                                                                                                                                                                                                                                  |               |
|       | <b>Barren-strawberry</b> ( <i>Geum fragarioides</i> )                                                                                                                                                                                                                                                                           | <b>1</b>      |
|       | <b>Severity:</b> Moderate Severity <b>Actionability:</b> Highly Actionable                                                                                                                                                                                                                                                      |               |
|       | <b>Bitternut Hickory</b> ( <i>Carya cordiformis</i> )                                                                                                                                                                                                                                                                           | <b>2</b>      |
|       | <b>Severity:</b> Moderate Severity <b>Actionability:</b> Moderately Actionable                                                                                                                                                                                                                                                  |               |
|       | <b>Chestnut Oak</b> ( <i>Quercus montana</i> )                                                                                                                                                                                                                                                                                  | <b>2</b>      |
|       | <b>Severity:</b> Moderate Severity <b>Actionability:</b> Moderately Actionable                                                                                                                                                                                                                                                  |               |
|       | <b>Flowering Dogwood</b> ( <i>Benthamidia florida</i> )                                                                                                                                                                                                                                                                         | <b>1</b>      |
|       | <b>Severity:</b> Moderate Severity <b>Actionability:</b> Moderately Actionable                                                                                                                                                                                                                                                  |               |
|       | <b>Great Rhododendron</b> ( <i>Rhododendron maximum</i> )                                                                                                                                                                                                                                                                       | <b>1</b>      |
|       | <b>Severity:</b> Moderate Severity <b>Actionability:</b> Moderately Actionable                                                                                                                                                                                                                                                  |               |
|       | <b>Hairy Boneset</b> ( <i>Eupatorium pubescens</i> )                                                                                                                                                                                                                                                                            | <b>2</b>      |
|       | <b>Severity:</b> Moderate Severity <b>Actionability:</b> Highly Actionable                                                                                                                                                                                                                                                      |               |
|       | <b>Mountain Honeysuckle</b> ( <i>Lonicera dioica</i> )                                                                                                                                                                                                                                                                          | <b>2</b>      |
|       | <b>Severity:</b> Moderate Severity <b>Actionability:</b> Moderately Actionable                                                                                                                                                                                                                                                  |               |
|       | <b>Mountain-laurel</b> ( <i>Kalmia latifolia</i> )                                                                                                                                                                                                                                                                              | <b>2</b>      |
|       | <b>Severity:</b> Moderate Severity <b>Actionability:</b> Moderately Actionable                                                                                                                                                                                                                                                  |               |
|       | <b>Northern Blazing Star</b> ( <i>Liatris novae-angliae</i> )                                                                                                                                                                                                                                                                   | <b>1</b>      |
|       | <b>Severity:</b> Moderate Severity <b>Actionability:</b> Highly Actionable                                                                                                                                                                                                                                                      |               |
|       | <b>Scarlet Oak</b> ( <i>Quercus coccinea</i> )                                                                                                                                                                                                                                                                                  | <b>2</b>      |
|       | <b>Severity:</b> Moderate Severity <b>Actionability:</b> Moderately Actionable                                                                                                                                                                                                                                                  |               |



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### Level 2 Threat: Fire and Fire Suppression

| Class Eudicots ( <i>Eudicots</i> )                                    |                                      | SGCN Priority |
|-----------------------------------------------------------------------|--------------------------------------|---------------|
| <b>Seneca Snakeroot</b> ( <i>Polygala senega</i> )                    |                                      | 1             |
| Severity: Moderate Severity                                           | Actionability: Highly Actionable     |               |
| <b>Spotted Wintergreen</b> ( <i>Chimaphila maculata</i> )             |                                      | 2             |
| Severity: Moderate Severity                                           | Actionability: Moderately Actionable |               |
| <b>Unicorn Root</b> ( <i>Aletris farinosa</i> )                       |                                      | 2             |
| Severity: Moderate Severity                                           | Actionability: Highly Actionable     |               |
| <b>Upright Bindweed</b> ( <i>Calystegia spithamea</i> )               |                                      | 1             |
| Severity: Moderate Severity                                           | Actionability: Highly Actionable     |               |
| <b>White-topped Aster</b> ( <i>Sericocarpus asteroides</i> )          |                                      | 2             |
| Severity: Moderate Severity                                           | Actionability: Highly Actionable     |               |
| Class Clubmoss ( <i>Lycopodiopsida</i> )                              |                                      | SGCN Priority |
| <b>Southern Bog-clubmoss</b> ( <i>Lycopodiella appressa</i> )         |                                      | 2             |
| Severity: Moderate Severity                                           | Actionability: Highly Actionable     |               |
| Class Monocots ( <i>Monocots</i> )                                    |                                      | SGCN Priority |
| <b>Bicknell's Sedge</b> ( <i>Carex bicknellii</i> )                   |                                      | 1             |
| Severity: Moderate Severity                                           | Actionability: Highly Actionable     |               |
| <b>Clothed Sedge</b> ( <i>Carex vestita</i> )                         |                                      | 2             |
| Severity: Moderate Severity                                           | Actionability: Highly Actionable     |               |
| <b>Dawn-land Sedge</b> ( <i>Carex waponahkikensis</i> )               |                                      | 1             |
| Severity: Moderate Severity                                           | Actionability: Highly Actionable     |               |
| <b>Muhlenberg Sedge</b> ( <i>Carex muehlenbergii</i> )                |                                      | 2             |
| Severity: Moderate Severity                                           | Actionability: Highly Actionable     |               |
| <b>Orono Sedge</b> ( <i>Carex oronensis</i> )                         |                                      | 1             |
| Severity: Moderate Severity                                           | Actionability: Highly Actionable     |               |
| <b>Prairie White-fringed Orchid</b> ( <i>Platanthera leucophaea</i> ) |                                      | 1             |
| Severity: Moderate Severity                                           | Actionability: Highly Actionable     |               |
| <b>Slender Spikerush</b> ( <i>Eleocharis nitida</i> )                 |                                      | 2             |
| Severity: Moderate Severity                                           | Actionability: Highly Actionable     |               |



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### Level 2 Threat: Fire and Fire Suppression

| Class                                        | Monocots ( <i>Monocots</i> )                                                                                                                                              | SGCN Priority |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|                                              | <b>Small Whorled Pogonia</b> ( <i>Isotria medeoloides</i> )<br><b>Severity:</b> Moderate Severity <b>Actionability:</b> Moderately Actionable                             | 1             |
|                                              | <b>Spreading Sedge</b> ( <i>Carex laxiculmis</i> )<br><b>Severity:</b> Moderate Severity <b>Actionability:</b> Moderately Actionable                                      | 2             |
|                                              | <b>Swarthy Sedge</b> ( <i>Carex adusta</i> )<br><b>Severity:</b> Moderate Severity <b>Actionability:</b> Highly Actionable                                                | 2             |
| <b>Habitats Associated With This Threat:</b> |                                                                                                                                                                           |               |
| <b>Macrogroup</b>                            | <b>Acadian-Northern Appalachian Forest</b>                                                                                                                                |               |
|                                              | <b>Acadian Low Elevation Spruce-Fir-Hardwood Forest</b><br>Accidental fire, or fire suppression for a few types (black spruce barrens)                                    |               |
|                                              | <b>Acadian Sub-boreal Spruce Flat</b><br>Accidental fire, or fire suppression for a few types (black spruce barrens)                                                      |               |
|                                              | <b>Acadian-Appalachian Montane Spruce-Fir Forest</b><br>Accidental fire, or fire suppression for a few types (black spruce barrens)                                       |               |
|                                              | <b>Acadian-Northern Appalachian Forest Macrogroup- Unknown Habitat System</b><br>Accidental fire, or fire suppression for a few types (black spruce barrens)              |               |
|                                              | <b>Laurentian-Acadian Sub-boreal Dry-Mesic Pine-Black Spruce-Hardwood Forest</b><br>Accidental fire, or fire suppression for a few types (black spruce barrens)           |               |
| <b>Macrogroup</b>                            | <b>Appalachian Oak - Pine Forest &amp; Woodland</b>                                                                                                                       |               |
|                                              | <b>Appalachian Oak - Pine Forest &amp; Woodland Macrogroup - Unknown Habitat System</b><br>Fire suppression leads to species shift & supporting increase in invasive spp. |               |
|                                              | <b>Central Appalachian Dry Oak-Pine Forest</b><br>Fire suppression leads to species shift & supporting increase in invasive spp.                                          |               |
|                                              | <b>Central Appalachian Pine-Oak Rocky Woodland</b><br>Fire suppression leads to species shift & supporting increase in invasive spp.                                      |               |
| <b>Macrogroup</b>                            | <b>Eastern North American Alpine Tundra</b>                                                                                                                               |               |
|                                              | <b>Acadian-Appalachian Alpine Tundra</b><br>Fires lit in alpine zone (e.g., Bigelow e.g.) or accidental (e.g., Big Spencer)                                               |               |
|                                              | <b>Acadian-Appalachian Subalpine Woodland and Heath-Krummholz</b><br>Fires lit in alpine zone (e.g., Bigelow e.g.) or accidental (e.g., Big Spencer)                      |               |
|                                              | <b>Eastern North American Alpine Tundra Macrogroup - Unknown Habitat System</b><br>Fires lit in alpine zone (Bigelow e.g.) or accidental (Big Spencer)                    |               |
| <b>Macrogroup</b>                            | <b>Laurentian-Acadian Calcareous Scrub &amp; Grassland</b>                                                                                                                |               |



# SGCN and Habitat Threats

## Level 2 Threat: Fire and Fire Suppression

### Macrogroup Laurentian-Acadian Calcareous Scrub & Grassland

#### Laurentian-Acadian Calcareous Rocky Outcrop

Fire supression leads to species shift & supporting increase in invasive spp.

### Macrogroup North Atlantic Coastal Forest & Woodland

#### North Atlantic Coastal Plain Maritime Forest

Fire supression leads to species shift & supporting increase in invasive spp.

#### Northern Atlantic Coastal Plain Pitch Pine Barrens

succession as a result of lack of fire or fire supression



## SGCN and Habitat Threats

### Level 2 Threat: Fire and Fire Suppression

*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 programs and priorities by state agencies and partners.*