Element 3: Threats

2015 State of Maine Wildlife Action Plan

Element 3: Threats

Action Plans must include descriptions of problems facing SGCN or their habitats
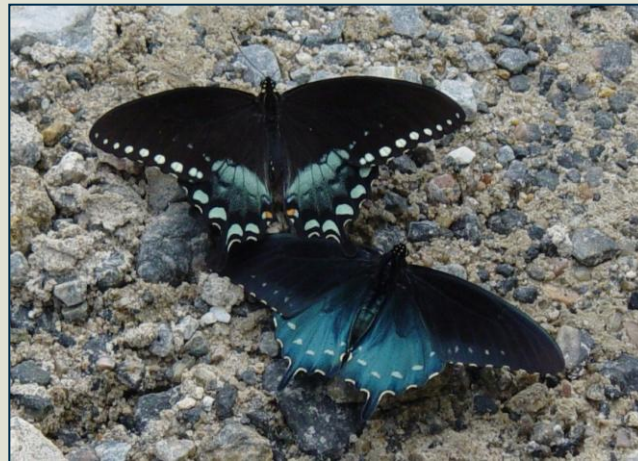
Element 3: Threats

- **Threats should clearly point to Conservation Actions**
  - Habitat threats → broad Actions that affect multiple spp.
  - Species threats → specific Actions
- **Standardized classification allows for:**
  - Ranking
  - Prioritization
  - Mapping
  - Regional and/or National plan crosswalk

IUCN Classification System

- International Union for the Conservation of Nature
  - http://www.iucnredlist.org/technical-documents/classification-schemes/threats-classification-scheme
- Recommended by both the Northeast Lexicon & Best Practices Report
- Used by all states in the NE

IUCN Classification System

- Provides standard terminology
  - International recognition
  - Used in majority of Action Plans
- Uses a 3-tiered system
  - 1st and 2nd levels pre-defined
  - 3rd level partially defined, but flexible

IUCN - CMP Unified Classification of Direct Threats

Version: 3.2		

Level of Classification			**Definition**
1	**2**	**3**	*Examples*

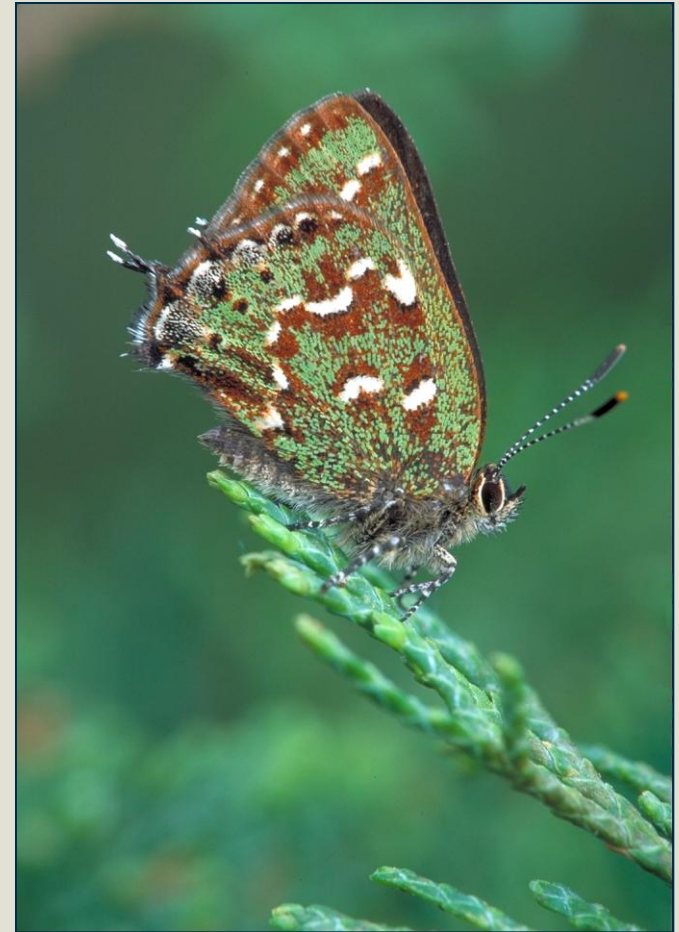|		
1. Residential & Commercial Development		Threats from human settlements or other non-agricultural land uses with a substantial footprint
	1.1 Housing & Urban Areas	Human cities, towns, and settlements including non-housing development typically integrated with housing
	List the type of development	*urban areas, suburbs, villages, ranchettes, vacation homes, shopping areas, offices, schools, hospitals, birds flying into windows, land reclamation or expanding human habitation that causes habitat degradation in riverine, estuary and coastal areas, etc.*

IUCN Classification System

1. Residential and commercial development
2. Agriculture and aquaculture
3. Energy production and mining
4. Transportation & service corridors
5. Biological resource use
6. Human intrusions & disturbance
7. Natural system modifications
8. Invasive species & disease
9. Pollution
10. Geological events
11. Climate change & severe weather

IUCN Classification System

- Categories
  - 1st tier = 11
  - 2nd tier = 44, expandable
  - 3rd tier = 64 pre-defined, unlimited expansion
- Some threats not applicable to Maine (e.g. nomadic grazing)
- Some 3rd tier categories could be expanded (e.g. logging & wood harvesting)
- Most species & habitats have multiple threats

Threat Characteristics

- Useful for determining threat risk and rank
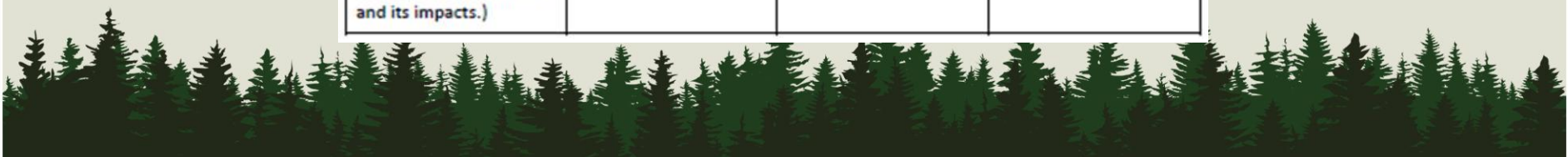
- Northeast Lexicon
  - Severity
  - Reversibility
  - Immediacy
  - Spatial extent
  - Certainty
  - Likelihood

- Each ranked as Low, Moderate, or High impact

Threat Characteristic	Low Impact	Moderate Impact	High Impact
Severity	Slight Severity: Degree of ecological change is minor	Moderate Severity: Degree of ecological change is substantial	Severe: Degree of ecological change is major
Reversibility (Consider the likelihood of reversing the impacts within 10 years)	Reversible: Effects of the threat can be reversed by proven actions	Reversible with difficulty: Effects of the threat may be reversed but costs or logistics make action impractical	Irreversible: Effects of the threat are irreversible
Immediacy (This characteristic assesses the time scale over which impacts of the threat will be observable.)	Long-term: Effects of the threat are expected in 10-100 years given known ecosystem interactions or compounding threats	Near-term: Effects of the threat are expected within the next 1 - 10 years	Immediate: Effects of the threat are immediately observable (current or existing)
Spatial Extent (Consider impact of threat within 10 years)	Localized: (<10%) A small portion of the habitat or population is negatively impacted by the threat.	Dispersed or Patchy: (10-50%)	Pervasive: (>50%) A large portion of the habitat or population is negatively impacted by the threat.
Certainty	Low Certainty: threat is poorly understood, data are insufficient, or the response to threat is poorly understood	Moderate Certainty: some information describing the threat and ecological responses to it is available, but many questions remain	High Certainty: Sufficient information about the threat and ecological responses to it is available
Likelihood (Consider impact of the threat within 10 years) (This characteristic is used to assess the certainty surrounding the threat and its impacts.)	Unlikely: Effects of the threat are unlikely to occur (less than 30% chance)	Likely: Effects of threat are likely to occur (30-99% chance)	Occurring: Effects of the threat are already observable (100% chance)

Maine's Action Plan

- Each SGCN must be linked to Habitats and Threats
- Conservation Actions should be focus of Plan
- Full threat analysis = 300 species, all habitats, >100 threats, 18 threat characteristics, multiple threats/spp
- For many species, threats are poorly understood
- Is there an efficient way to classify threats, allowing more focus on Actions?

Maine's Action Plan

Proposed Threat Classification System:

- For each SGCN, in each habitat:

  - Priority 1 Species: Classify to 2nd level of IUCN hierarchy

  - Priority 2 Species: Classify to 1st level of IUCN hierarchy

- Assign all threats of moderate or higher impact for each SGCN

- No assignment of Threat Characteristics

Maine's Action Plan

Proposed Threat Classification System:

- Advantages:
  - Allows greater focus on Conservation Actions
  - Major threats can be compared Regionally & Nationally
  - Identified Threats & Actions will broader, likely focused in multiple species

- Disadvantages:
  - Some loss of resolution
  - Ranking/Prioritization of Threats & Actions will be more subjective

Maine's Action Plan

Questions & Discussion