

Criteria Used by Experts to Assess SGCN:

1. *Listed Species*

Species on Minnesota's list of endangered, threatened, and special concern species and species on the federal list of endangered and threatened species found in Minnesota, including proposed and candidate species, are automatically included on Minnesota's list of SGCN.

2. *Rare or Declining Species*<sup>1</sup>

This criterion is used to evaluate native species that do not meet criterion 1 for inclusion on Minnesota's list of SGCN as rare or declining species. Species considered extirpated,<sup>2</sup> occasional,<sup>3</sup> abundant,<sup>4</sup> or migratory in Minnesota should not be evaluated under criterion 2. Migratory species should be evaluated under criterion 3C.

- A. Species for which a statistically valid decline throughout Minnesota has been documented.
- B. Species for which populations in Minnesota may be rare, have declined, or may decline within the next decade due to factors such as the following:

- 1. terrestrial and aquatic habitat concerns
  - a. dependence on a rare, vulnerable, or declining habitat<sup>5</sup>
  - b. habitat loss
  - c. habitat degradation
  - d. habitat fragmentation
- 2. specific threats
  - a. overexploitation, collecting, bounty killing
  - b. invasive species
  - c. disease
  - d. contaminants
  - e. deliberate killing
  - f. predation beyond normal levels
- 3. life-history characteristics
  - a. require large home ranges or multiple habitats as part of their life cycle (i.e., herps)
  - b. depend on large habitat patch sizes
  - c. need special resources, such as host species, or have narrow thermal preferences
  - d. depend on an ecological process, such as fire, that no longer operates within the natural range of variation
  - e. are limited in their ability to recover on their own due to low dispersal ability or low reproductive rate
  - f. have a highly localized or restricted distribution
  - g. aggregate their populations during some time of the year

C. Survey efforts indicate a decline, but there is uncertainty as to the cause of the decline.

### 3. *Stewardship Species*

This criterion is used to evaluate native species not identified by criterion 1 or 2 for inclusion on Minnesota's list of SGCN as stewardship species.

- A. Species for which populations in Minnesota represent a significant portion of their North American breeding or wintering population, or
- B. Species whose Minnesota populations are stable, but whose populations outside of Minnesota have declined or are declining in a substantial part of their range.
- C. Species for which migrating populations congregating in Minnesota represent a significant portion of the North American population.

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## Definitions

- <sup>1</sup> Rare species are those species whose low population densities, few occurrences, or restricted distributions warrant concern about their viability in Minnesota. Species that have always been rare in Minnesota are not considered SGCN. Declining species are those species whose populations have substantially declined within the past decade, and these declines are not part of a recognized population cycle or the result of management activities.
- <sup>2</sup> A species is presumed extirpated from Minnesota if there is no expectation of it returning as a resident or being reintroduced in the next decade.
- <sup>3</sup> A species occurrence is occasional as a result of wandering behavior of individuals and when no breeding populations are established or likely to become established in the next 10 years. Regular migrating or overwintering species that depend on habitat within Minnesota are not included in this group.
- <sup>4</sup> A species is abundant when it is abundant both in Minnesota and throughout its range.
- <sup>5</sup> Rare habitats are those with few occurrences or restricted distributions in Minnesota whose rarity may impact the viability of species that depend on them. Declining habitats are those whose acreage or overall quality of habitat has substantially declined within the past decade. Vulnerable habitats are those most likely to be altered or degraded within the foreseeable future.

## Assessing the Status of Each Species

Species Technical Advisory Teams met separately by taxon. Each team followed the same process described below and used the same set of criteria listed above for evaluating a species as a SGCN.

- State-listed animal species: The DNR updated Minnesota's list of endangered, threatened, and special concern species in 2013. All state-listed species are automatically SGCN. The following actions were taken to account for changes in the state list in 2013:
  - Animals added to the 2013 state list that were not included in the 2005 SGCN list were automatically added to the proposed 2015 SGCN list. Even though these species are automatically SGCN, Species Technical Advisory Teams did evaluate each species to determine the criterion (in addition to criterion 1) the species met.