

APPENDIX 5

Rare species associated with Hine's emerald dragonfly

An annotated list of Federal and state rare, threatened, and endangered species known to occur within or located near areas inhabited by *S. hineana*. State status is presented only if the species is known to occur within or located near *S. hineana* sites. Definitions of abbreviations and references follow the table.

Species Name	Common Name	Federal Status	G Rank	Illinois Status	Wisconsin Status	Michigan Status
Plants						
<i>Amelanchier interior</i>	Shadbush		G5	E		
<i>Arenaria patula</i>	Slender sandwort		G4	T		
<i>Arethusa bulbosa</i>	Swamp pink		G4		SC	
<i>Calamagrostis stricta ssp. inexpansa</i>	New England northern reed grass		G5		SC	
<i>Calamintha arkansana</i>	Low calamint		G5		SC	
<i>Calopogon tuberosus</i>	Grass pink orchid		G5	E		
<i>Calypso bulbosa</i>	Calypso orchid		G5		T	
<i>Cardamine pratensis</i>	Cuckooflower		G5		SC	
<i>Carex capillaris</i>	Hair-like sedge		G5		SC	
<i>Carex concinna</i>	Beautiful sedge		G4G5		T	
<i>Carex garberi</i>	Elk sedge or Garbers sedge		G4		T	
<i>Carex gynocrates</i>	Northern bog sedge		G5		SC	
<i>Carex livida var. radicaulis</i>	Livid sedge		G5T5		SC	
<i>Carex scirpoidea</i>	Bullrush sedge		G5			T
<i>Carex tuckermanii</i>	Tuckman's sedge		G4	E		
<i>Carex weigandii</i>	Weigand's sedge		G3			T

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Plants						
<i>Cypripedium arietinum</i>	Ram’s head lady’s slipper		G3		T	
<i>Cypripedium candidum</i>	White’s lady’s slipper orchid		G4	T	T	
<i>Cypripedium reginae</i>	Showy lady’s slipper		G4		SC	
<i>Dalea foliosa</i>	Leafy prairie clover	E	G2G3	E		
<i>Deschampsia cespitosa</i>	Tufted hairgrass		G5		SC	
<i>Eleocharis pauciflora</i>	Few flowered spike rush		G5		SC	
<i>Eleocharis rostellata</i>	Beaked spike rush		G5	T	T	
<i>Empetrum nigrum</i>	Black crowberry		G5			T
<i>Equisetum palustre</i>	Marsh horsetail		G5		SC	
<i>Equisetum variegatum</i>	Variegated horsetail		G5		SC	
<i>Erigeron hyssopifolius</i>	Hyssop-leaved fleabane		G5			T
<i>Erythronium americanum</i>	Adder’s tongue		G4T5		SC	
<i>Geocaulon lividum</i>	Northern comandra		G5		E	
<i>Hymenoxys acaulis var glabra</i>	Lakeside daisy	T	GU	E		PE
<i>Iris lacustris</i>	Dwarf lake iris	T	G3		T	
<i>Leucophysalis grandiflora</i>	Large flowered ground cherry		G3?		SC	
<i>Liatris scariosa var nieuwlandii</i>	Blazing star		G5?TU	T		

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Plants						
<i>Muhlenbergia richardsonis</i>	Mat muhly		G5		E	T
<i>Orobancha uniflora</i>	One-flowered broomrape		G5		SC	
<i>Pinguicula vulgaris</i>	Butterwort		G5		E	SC
<i>Plantanthera dilatata</i>	White bog orchid		G5		SC	
<i>Plantanthera hookeri</i>	Hooker’s orchid		G5		SC	
<i>Plantanthera orbiculata</i>	Round leaved orchid		G5?		SC	
<i>Primula mistassinica</i>	Bird’s eye primrose		G5		SC	
<i>Pterospora andromeda</i>	Pine-drops		G5		E	T
<i>Ribes hudsonianum</i>	Northern black currant		G5		SC	
<i>Scirpus cespitosus</i>	Tussock bulrush				T	
<i>Selaginella selaginoides</i>	Low spike moss		G5		E	
<i>Solidago ohioensis</i>	Ohio goldenrod		G4		SC	
<i>Solidago houghtonii</i>	Houghton’s goldenrod	T	G3			T
<i>Solidago sempervirens</i>	Seaside spurge		G5?		SC	
<i>Solidago simplex var gillmanii</i>	Sticky goldenrod		G5T3		T	
<i>Sphaeralcea angusta</i>	Globe mallow		G?Q	E		

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Plants						
<i>Tanacetum bipinnatum</i> spp <i>huronense</i>	Lake Huron tansy		G3		E	T
<i>Tomanthera auriculata</i>	Earleaf foxglove		G3	T		
<i>Triglochin maritimum</i>	Common bog grass		G5		SC	
<i>Triglochin palustre</i>	Slender bog arrow grass		G5	T	SC	
<i>Trilochin palustris</i>	Arrow-grass		G5	E		
<i>Trisetum melicoides</i>	Purple false oats		G4		E	
<i>Veronica scutellata</i>	Marsh speedwell		G5	T		
<i>Viola canadensis</i>	Canada violet		G5	E		
Animals						
<i>Buteo lineatus</i>	Red-shouldered hawk		G5	T	T	
<i>Chromagrion conditum</i>	Aurora damselfly		G5		SC/N	
<i>Clemmys guttata</i>	Spotted turtle		G5	E		
<i>Clonophis kirtlandii</i>	Kirtland’s snake		G2	T		
<i>Cordulagaster obliqua</i>	Arrowhead spiketail		G4		SC/N	
<i>Epiaeschna heros</i>	Swamp darner		G5		SC/N	
<i>Euphyes bimacula</i>	Two spotted skipper		G4		SC/N	
<i>Euphyes dion</i>	Dion skipper		G4		SC/N	
<i>Gallinula chloropus</i>	Common moorhen		G5	T		
<i>Gavia immer</i>	Common loon		G5			

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Animals						
<i>Ixobrychus exilis</i>	Least bittern		G5	T		
<i>Lutra canadensis</i>	River otter		G5	T		
<i>Pandion haliaetus</i>	Osprey		G5		T	T
<i>Podilymbus podiceps</i>	Pied-billed grebe		G5	T		
<i>Rallus elegans</i>	King rail		G4G5	E		
<i>Trimerotropis huroniana</i>	Lake Huron locust		G5			T
<i>Somatochlora incurvata</i>	Warpaint emerald dragonfly		G2G3			SC

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Definitions of abbreviations used

E	Federal and/or state listed endangered
T	Federal and/or state listed threatened
SC	State special concern
SC/N	State special concern: no laws regulating use, possession, or harvesting
PE	Proposed for endangered status

G Rank (Global Rank): The Nature Conservancy's global conservation status rank

G1	Critically imperiled globally because of extreme rarity or because of some factor(s) making it especially vulnerable to extinction. Typically five or fewer occurrences or very few remaining individuals (<1000).
G2	Imperiled globally because of extreme rarity or because of some factor(s) making it especially vulnerable to extinction. Typically 6 to 20 occurrences or few remaining individuals (1,000 to 3,000).
G3	Vulnerable globally either because very rare and local throughout its range, found only in a restricted range (even if abundant at some location), or because of other factors making it vulnerable to extinction. Typically 21 to 100 occurrences or between 3,000 and 10,000 individuals.
G4	Uncommon but not rare, and usually widespread. Possibly cause for long-term concern. Typically more than 100 occurrences globally or more than 10,000 individuals.
G5	Common, typically widespread and abundant.
G#G#	A numeric range rank is used to indicate uncertainty about the exact status of taxon.
?	Denotes inexact numeric rank.
Q	Questionable taxonomy that may reduce conservation priority.
T	The status of infraspecific taxa (subspecies or varieties) are indicated by a "T-rank" following the species' global rank. Rules for assigning T-ranks follow the same principles outlined above. For example, the global rank of a critically imperiled subspecies of an otherwise widespread and common species would be G5T1.
U	Do not know how to rank.

Data compiled from information provided by the Illinois Department of Natural Resources, Wisconsin Department of Natural Resources, and Michigan Natural Features Inventory.