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CHECKLIST OF WISCONSIN DRAGONFLIES

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In 1975, William Hilsenhoff summarized dragonfly species (Odonata: Anisoptera) known from Wisconsin. There were reports of 90 species at that time, but one was found to be reported in error leaving the state's fauna at 89. To date, an additional 23 species have been reliably reported from the state. This <u>checklist</u> <u>provides a current summary of these 112 dragonfly species</u> with an indication of population and legal status, breeding habitat, and estimates of range and flight period based on records maintained by the Natural Heritage Inventory Program (NHI) of the Wisconsin Department of Natural Resources. Five species reported from Wisconsin, but never substantiated as part of the state's fauna, are listed in addition. Many of these new state records added since 1975 have not been published and are included here with the permission of the discoverers.

SPECIES: English names are, with one exception, from a website titled "The Odonata of North America"

http://www.ups.edu/biology/museum/NAdragons.html maintained by The Dragonfly Society of the Americas. Species are grouped phylogenetically by family. Species names in each family are arranged in alphabetical order.

STATUS: Population status is indicated with the Global and State species ranks as defined below. The Wisconsin DNR's Natural Heritage Inventory Program (NHI) utilizes this species population ranking system for all plant and animal species found in the state. Global ranks are maintained by "NatureServe," an organization stemming from The Nature Conservancy, which collects and develops authoritative information about the plants, animals, and ecological

communities of the Western Hemisphere. State ranks are assigned by NHI. Note, these ranks reflect current knowledge of the population status of each species and are subject to change whenever new information is available. The current biological and legal status of dragonflies as well as other biota in Wisconsin are available on the Endangered Resources Program Webpage http://www.dnr.state.wi.us/org/land/er/.

Definition of Biological Ranks

Global Species Ranks:

- Gl = Critically imperiled globally because of extreme rarity (5 or fewer populations or very few remaining individuals) or because of some factor(s) making it especially vulnerable to extinction.
- G2 = Imperiled globally because of rarity (6 to 20 populations or few remaining individuals) or because of some factor(s) makes it very vulnerable to extinction throughout its range.
- G3 = Vulnerable to extinction throughout its range because it is rare (21 to 100 populations or individuals) and local throughout its range, or found locally (even abundantly at some of its locations) in a restricted range (e.g., a single state, a physiographic region), or because of other factors.
- G4 = Apparently globally secure, although it may be quite rare in parts of its range, especially at the periphery.
- G5 = Demonstrably secure globally, although it may be quite rare in parts of its range, especially at the periphery.

State Species Ranks:

- Sl = Critically imperiled in the state because of extreme rarity (5 or fewer populations or very few remaining individuals) or because of some factor(s) making it especially vulnerable to extirpation from the state.
- S2 = Imperiled in the state because of rarity (6 to 20 populations or few remaining individuals) or because of some factor(s) makes it very vulnerable to extirpation from the state.
- S3 = Rare or uncommon in the state (21 to 100 populations).
- S4 = Apparently secure in the state, with many populations.
- S5 = Demonstrably secure in the state and essentially uneradicable under present conditions.
- SA = Accidental in the state, including species recorded once or twice or only at very great intervals, hundreds or even thousands of miles outside of their usual ranges; a few of these species may even have bred on one or two occasions.
- SH = Of historical occurrence in the state, perhaps having not been verified in the past 20 years, and suspected to be still extant. A species would become SH without such a 20 year delay if the only known population in the state were destroyed, or if it bad been extensively and

unsuccessfully looked for. Upon verification of an extant population, SH ranked species would typically receive a SI rank.

- SR = Reported from the state, but without persuasive documentation which would provide a basis for either accepting or rejecting the report. Some of these are very old single records for which the NHI program hasn't yet received first hand information; others are old, obscure reports that are hard to dismiss because the habitat is now destroyed.
- SRF = Reported falsely (in error) from the state, but this error persists in the literature. The limits of uncertainty with regard to rank are indicated by a range (e.g., "G1G2" or "S2S3"), and species with a questionable taxonomic assignment are given a "Q" after the Global rank.

Definition of Legal Status Codes

U.S. Fish and Wildlife Service and WI DNR legal status is also given as a superscript after the species' name when appropriate as follows:

- 1 = WI Endangered or Threatened
- 2 = WI Special Concern (no protection)
- 3 = Federally Endangered or Threatened
- No number given means there is no legal status.

BREEDING HABITAT: Suitable aquatic habitat for the larvae is a primary factor determining odonate presence. Important habitat parameters include substrate, waterbody size, dissolved oxygen content, rate of flow, pH, structure of emergent and submergent vegetation, and water quality. The adjacent terrestrial land use and land cover can also be limiting. Many dragonflies, especially stream species, are apparently limited to waterbodies in largely forested watersheds.

RANGE: With a few exceptions, systematic surveys for Wisconsin dragonflies have not been conducted and as a result ranges given here are generalized to broad map units. Wisconsin range delineation's are made using a modified version of Leslie A. Ferge's floristic province divisions from his <u>Checklist of Wisconsin Butterflies</u>, with permission of the author. More detailed range delineations are given when known, based on knowledge of the distribution of suitable habitat or relatively complete surveys. <u>See Figure 1</u>. When records are restricted to a section of a region, its designation is modified to reflect this; e.g., southern section of the Western region = "W(s)." When records appear to be concentrated near a major river, that river's (abbreviated) name follows the region

designation. Lower Wisconsin River = "LWR," Mississippi River = "Miss R," Saint Croix River = "St Cr R." Some species appear to have the Northern portion (or the entirety) of their range limited to the Door County peninsula; this is indicated by "N(Door)". Some species appear to have the Western portion of their range concentrated in the Baraboo Range; this is indicated by "W(Baraboo)." Some records in the Milwaukee area are entirely historical (occurring near the beginning of the 20th century); this group is indicated by "E h." The order of ranges listed reflects the representation of each range in the distribution of records, with the range with the most occurrences listed first, and so on. Map unit abbreviations are as follows:

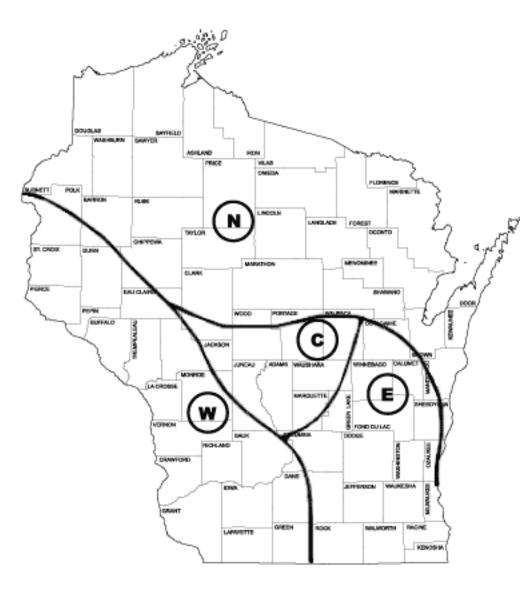


Figure 1

N = Northern Highland C = Central Sands W = Western Upland (driftless area) E = Eastern Ridges and Lowlands

NOTE: Some records appear to fall on the border between two regions; this is indicated by a slash between the designations. For instance, between the Central and Western regions = "C/W." **FLIGHT PERIOD:** The range of dates given for adult presence begins with the earliest recorded larval emergence (often as evidenced by exuviae) and ends with the latest recorded capture or sighting of an adult. Most species require one to two weeks to become sexually mature after emergence and usually are not seen in their breeding habitat until then. In an attempt to summarize the available data, the authors have used the following convention when indicating the times of the earliest emergence and latest adult records:

- E (month) = from the 1st to the 10th day of that month
- M (month) = from the 11th to the 21st of that month
- L (month) = from the 22nd to the end of that month

Be advised that these flight periods are approximate; for instance, adults may still be flying in the middle of a month even though the latest recorded sighting occurred on the tenth day of that month.

The NHI is actively compiling records of dragonflies on the current Working List at <u>http://dnr.wi.gov/org/land/er/working_list/taxalists/</u>. Readers are encouraged to contribute species occurrence records to the senior author. We are especially interested in detailed information on species considered very rare, i.e. State rank of S1, S2, and SH.

Checklist of 112 Dragonfly Species

FAMILY: <u>AESHNIDAE (DARNERS);</u> <u>GOMPHIDAE (CLUBTAILS);</u> <u>CORDULEGASTRIDAE (SPIKETAILS);</u> <u>MACROMIIDAE (CRUISERS);</u> <u>CORDULIIDAE (EMARALDS);</u> <u>LIBELLULIDAE (SKIMMERS);</u> <u>REPORTED FROM WISCONSIN,</u> <u>BUT NOT SUBSTATIATED</u>

SPECIES	STATUS	BREEDING HABITAT	RANGE	FLIGHT PERIOD		
SUBORDER ANISOPTERA (DRAGONFLIES)						

<i>Aeshna canadensi</i> s Walker, 1908 Canada darner	G5 S5	bog or marsh-bordered lakes; sluggish marsh- bordered streams	N C E W-LWR	M June - E Oct
Aeshna clepsydra Say, 1839 mottled darner	G4 S2	reed-bordered lakes; deep sterile lakes	N E-h	M June - E Sept
Aeshna constricta Say, 1839 lance-tipped darner	G5 S4	ponds; small lakes; marshes; slow streams in open marshes	ENCW	M July - E Oct
Aeshna eremita (Scudder, 1866) ake darner ²	G5 S3	bog- or marsh-bordered ponds and lakes	N	L July - E Oct
<i>Aeshna interrupta</i> Walker, 1908 variable darner	G5 S5	shallow marsh-bordered bays; bog or beach ponds; slow streams	N	L July - M Sept
<i>Aeshna mutata</i> Hagen, 1861 spatterdock darner <u>1</u>	G3G4 S1	shallow peaty lakes with abundant floating vegetation	С	E June - L June
Aeshna subarctica Walker, 1908 subarctic darner ²	G3G4 S1	wet sphagnum in muskeg habitat	N (Douglas)	E Sept
Aeshna tuberculifera Walker, 1908 black-tipped darner ²	G4 S3	acidic bog ponds; peaty acidic lakes	CN	M Aug - M Sept
Aeshna umbrosa Walker, 1908 shadow darner	G5 S5	partially- to heavily-shaded cool streams; ditches; and forest ponds	N C W(s)	L June - M Oct
Aeshna verticalis Hagen, 1861 green-striped darner ²	G5 S3	wetlands with little open water; marsh-bordered lakes; poor fens	CEN	M June - L Sept
A <i>nax junius</i> (Drury, 1770) common green darner	G5 S5	still water with emergent or floating leaved aquatics	Statewide	E April - M Oct
A <i>nax longpipes</i> Hagen, 1861 comet darner ²	G5 SA	fishless ponds; small lakes	С	L June - E July
Basuaeschna janata (Say, 1839) springtime darner	G5 S4	well-oxygenated ponds; lakes; and warm streams	Statewide	L May - E July
Boyeria vinosa (Say, 1839) fawn darner	G5 S5	shady edges of cool-warm streams with moderate current	N W-LWR C	M June - M Sept
<i>Epiaeschna heros</i> (Fabricus, 1798) swamp darner ²	G5 S2S3	shady ponds; ditches; sloughs bordering woods	N(Door) E W(s)	E June - L July
<i>Gomphaeschna furcillata</i> Say, 1839 harlequin darner ²	G5 S2	sphagnum bogs; alder swamps; wooded swamps	N	Early June

Nasiaeschna pentacantha (Rambur, 1842) cyrano darner ²	G5 S3	swampy warm streams; lake coves & ponds with roots or branches in water	W-LWR E N	E June - E July
FAMILY GOMPHIDAE	(CLUBTA	ILS) Return to top	<u>,</u>	,
<i>Arigomphus cornutus</i> Tough, 1900 horned clubtail	G4 S3S4	sluggish marsh- or bog- bordered streams; muddy ponds	N E-h	M June - M July
<i>Arigomphus furcifer</i> Hagen, 1878 lilypad clubtail	G5 S3S4	marshy ponds; lakes & sluggish streams with abundant floating vegetation	Statewide (local)	L May - E July
<i>Arigomphus submedianus</i> Williamson, 1914 jade clubtail ²	G5 S1S2	backwaters; ponds; sloughs	S	Early July
<i>Arigomphus villosipes</i> Selys, 1854 unicorn clubtail ²	G5S2	ponds and sluggish streams with little vegetation	E(s)	Late June
<i>Dromogomphus spinosus</i> Selys, 1854 balck-shouldered spinyleg	G5 S4	warm fast streams; large lake shores	N C W-StCrR W/C	E June - L July
<i>Gomphus (Gomphurus) externus</i> Hagen, 1858 plains clubtail ²	G5 S2	warm rivers with moderate current and turbid water	WC	E June - L July
<i>Gomphus (Gomphurus) fraternus</i> Say, 1839 midland clubtail	G5 S4	relatively clean medium- large streams with at least mod. Current; large lakes	W N C E-h E/W	L May - L July
Gomphus (Gomphurus) lineatifrons Clvert, 1921 splendid clubtail ²	G4 S3	medium to large fast-flowing streams with good water quality	W-StCrR N C	L May - L July
<i>Gomphus (Gomphurus) vastus</i> Walsh, 1862 cobra clubtail	G5 S4	medium to large rivers with moderate to rapid current	W N E-Rare	L May - L July
<i>Gomphus (Gomphurus) ventricosus</i> Walsh, 1863 skillet clubtail ²	G3G4 S2S3	medium to large warm streams with good water quality	N W-StCrR C	L May - L July
<i>Gomphus (Gomphus) adelphus</i> (Selys, 1857) moustached clubtail	G4 S3S4	small to medium rapid clean cool-warm streams	NC	L May - L July
Gomphus (Gomphus) viridifrons (Hine, 1901) green-faced clubtail 2	G3 S3	medium to large rapid clean warm streams	N W-StCrR C	E May - M july
<i>Gomphus (Phanogomphus) exilis</i> Selys, 1854 lancet clubtail	G5 S3S4	quiet marsh-bordered lakes and streams; marshy corners of rocky streams	NCE	E June - E July

Gomphus (Phanogomphus) graslinellus Walsh, 1862 pronghorn clubtail ²	G5 S2	ponds; lakes; slow streams	N(w) E-h	E June - L July
Gomphus (Phanogomphus) lividus Sleys, 1854 ashy clubtail	G5 S4	trout streams; small to medium fast cold-cool streams; sheltered parts of large lakes	NC	L May - M July
Gomphus (Phanogomphus) quadricolor Walsh, 1862 rapids clubtail ²	G3G4 S4	small to large rapid clean warm streams	N C/W E-h	L May - M July
<i>Gomphus (Phanagomphus) spicatus</i> Hagen, 1854 dusky clubtail	G5 S5	boggy or marshy lakes and ponds	NCE	L May - M July
<i>Hagenius brevistylus</i> Selys, 1854 dragonhunter	G5 S4	protected portions of large lakes; moderate to fast warm forest streams	N W-StCrR W/C	E June - M Aug
<i>Ophiogomphus anomalus</i> Harvey, 1898 extra-striped snaketail ¹	G3 S1	medium to large fast clean warm streams	N	L May - L June
<i>Ophiogomphus</i> sp 1 nr aspersus, sand snaketail ²	G3 S2	small to medium fast clean sandy warm streams	N/W N C	L May - M June
<i>Ophiogomphus carolus</i> Needham, 1897 riffle snaketail ²	G5 S3	small to medium fast warm rocky streams with sand	N	L May - M Aug
<i>Ophiogomphus colubrinus</i> Selys, 1854 boreal snaketail	G5 S4	clean cool rapid streams; trout streams	N N/W	M June - M Aug
<i>Ophiogomphus howei</i> Bromley, 1924 pygmy snaketail <u>1</u>	G3 S3	small to large fast clean warm streams gravel/sand substrate	N W-StCrR C	L May - L June
<i>Ophiogomphus rupinsulensis</i> Walsh, 1862 rusty snaketail	G5 S4	small to large fast warm streams	NCW	L May - M Aug
<i>Ophiogomphus susbchcha</i> Vogt & Smith, (1993) St. Croix R. snaketail ¹	G1G2 S1	moderately large fast clean warm streams with cobble/gravel/sand substrate	N(w) W-StCrR	M May - L June
<i>Progomphus obscurus</i> Rambur, 1842 common sanddragon	G5 S3S4	very sandy warm streams and lakes	N W/C W-LWR E-R	E June - L July
Stylogomphus albistylus Hagen, 1878 least clubtail ²	G5 S3	small fast warm streams with cobble/boulder/gravel substrate	N	M June - E July

<i>Stylurus amnicola</i> Walsh, 1862 riverine clubtail	G4 S3	medium to large warm rivers with fast current and sandy substrate	WNC	M June - E Aug
<i>Stylurus notatus</i> Rambur, 1842 elusive clubtail ²	G3 S2S3	medium to warm large rivers with clean depositional sandy areas	W C E(s)	E June - L Sept
<i>Stylurus plagiatus</i> Selys, 1854 russet-tipped clubtail ²	G5 S2	medium to large turbid rivers with silty sandy substrate	W E(s) C	L June - M Aug
<i>Stylurus scudderi</i> Selys, 1873 zebra clubtail ²	G4 S3	small to medium clean cool rapid sandy streams; trout streams	N W/C	E July - L Aug
<i>Stylurus spiniceps</i> Walsh, 1862 arrow clubtail	G5 S4	sandy depositional zones of relatively clean medium to fast warm streams	N W-StCr W(c)C	M June - M Aug

FAMILY CORDULEGASTRIDAE (SPIKETAILS) Return to top

Cordulegaster diastatops Selys, 1854 delta-spotted spiketail ²	G5 S1S2	seeps; spring runs in clearings or brushy areas	N(e)	L June - E July
<i>Cordulegaster maculata</i> Selys, 1854 twin-spotted spiketail	G5 S4	small to medium fast clean cool forest streams; trout streams	Statewide (local E, W)	L May - L July
Cordulegaster obliqua Say, 1839 arrowhead spiketail $\frac{2}{2}$	G4 S3	small wooded headwater seeps/streams	W(Baraboo) N E-h	E June - L July

FAMILY MACROMIIDAE (CRUISERS) Return to top

<i>Didymops transversa</i> Say, 1839 stream cruiser	G5 S4	sandy forest streams; lakes with wave action	N(e)	L June - E July
<i>Macromia illnoiensis</i> Walsh, 1862 Illinois river cruiser	G5 S4	small to large fast clean warm streams; exposed shores of large lakes	N C/W E-h	L May - M Aug
<i>Macromia pacifica</i> Hagen, 1861 gilded river cruiser ²	G4 SH	rapid streams; one old record from Milwaukee River	E-h	Early July
<i>Macromia taeniolata</i> Rambur, 1842 royal river cruiser ²	G5 S1	rocky open shorelines of large southern rivers	W(s) & WI Dells	L June - E Aug

FAMILY CORDULIIDAE (EMARALDS) Return to top

<i>Cordulia shurtleffi</i> Scudder, 1866 American emerald	G5 S5	quiet marshy, boggy waters; small lakes; sphagnum bog ponds	NEC	L May - M July
<i>Dorocordulia libera</i> Selys, 1871 racket-tailed emerald	G5 S5	bog ponds; bog- or march- bordered lakes	NCE	E June - E Aug

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<i>Epitheca (Epicordulia) princeps</i> (Hagen, 1861) prince baskettail	G5 S5	larger lakes; quiet portions of medium to large rivers	Statewide	E June - E Aug
<i>Epitheca (Tetragoneuria) canis</i> McLachlan, 1886 beaverpond baskettail	G5 S5	bog ponds; marshy, cool boggy streams	NC	M May - E July
<i>Epitheca (Tetragoneuria) cynosura</i> Say, 1839 common baskettail	G5 S5	marsh-bordered lakes; bays; slow stream mouths	Statewide	L May - M July
<i>Epitheca (Tetragoneuria) spinigera</i> Selys, 1871 spiny baskettail	G5 S5	marshy borders of lakes and slow streams	NCE	L May - E July
Neurocordulia molesta Walsh, 1863 smoky shadowdragon ²	G4 S2S3	rocky segments of medium to large rivers	W & WI Dells	L May - E July
Neurocordulia yamaskanensis Provancher, 1875 stygian shadowdragon ²	G5 S3	aerated rocky segments of streams; lakes	WNCE	E June - M June
<i>Somatochlora cingulata</i> Selys, 1871 lake emerald ²	G5 S1	aerated lakes with cobble substrate	N	M July
Somatochlora elongata Scudder, 1861 ski-tailed emerald ²	G5 S2S3	forest streams with rapids; outlets of lakes and ponds	Ν	E June - L July
Somatochlora ensigera Martin, 1906 plains emerald ²	G4 S1	small streams lined with woods	E(s)	Late June
Somatochlora forcipata Scudder, 1866 forcipate emerald ²	G5 S2S3	small spring-fed boggy streams	N	M June - E Aug
Somatochlora franklini Selys, 1878 delicate emerald ²	G5 S2S3	spring-fed sphagnum bogs	NC	E June - L June
Somatochlora hineana Williamson, 1931 Hine's emerald $\frac{3}{1}$	G2G3 S1	small cool calcareous marshy streams on bedrock	N(Door) E(e)	E July - L July
Somatochlora incurvata Walker, 1918 incurvate emerald 1	G4 S2	spring-fed bogs; poor fens	CNE	M July - L Aug
Somatochlora kennedyi Walker, 1925 Kennedy's emerald ²	G5 S3	slow streams through open bogs or marshes	NCE	E June - L July
<i>Somatochlora minor</i> Calvert, 1898 ocellated emerald	G5 S4	clear gently-flowing forest streams	NC	L June - M Aug
Somatochlora tenebrosa Say, 1839 clamp-tipped emerald ²	G5 S2	small forest streams with intermittent riffles and pools	W(Baraboo) C Jefferson Co.	E July - M Aug
<i>Somatochlora walshii</i> Scudder, 1866 brush-tipped emerald	G5 S4	small headwater streams through conifer swamps and wetlands	NEC	M June - E Aug

<i>Somatochlora williamsoni</i> Walker, 1907 Williamson's emerald	G5 S4	quiet shady forest streams; small cool marshy streams	N W(local)	L June - L Aug
<i>Williamsonia fletcheri</i> Williamson, 1923 ebony boghaunter ²	G3G4 S3S4	sphagnum bog pools	NC	M May - E July
<i>Williamsonia lintneri</i> , ringed boghaunter	G3 S2S3	sphagnum bog pools	С	M May - L June

FAMILY LIBELLULIDAE (SKIMMERS) Return to top

1				
<i>Celithemis elisa</i> Hagen,1861 calico pennant	G5 S5	marshy ponds or lakes with emergent aquatics	ENC	E June - M Aug
<i>Celithemis eponina</i> Drury, 1773 halloween pennant	G5 S4	ponds; lakes; slow streams	W W-MissR	E June - E Sept
<i>Erythemis simplicicollis</i> Say, 1839 eastern pondhawk	G5 S5	lakes; ponds; slow streams	W(s) E N(local)	E June - E Sept
<i>Ladona julia</i> (Uhler, 1857) chalk- fronted skimmer	G5 S5	bog ponds; swampy bays	Statewide (local W)	L May - L July
<i>Leucorrhinia frigida</i> Hagen, 1890 frosted whiteface	G5 S4	bog ponds; swampy bays	NC	L May - M Aug
<i>Leucorrhinia glacialis</i> Hagen, 1890 crimson-ringed whiteface	G5 S4	bog ponds; bog lakes; especially with floating sphagnum	NCE	L May - M Aug
<i>Leucorrhinia hudsonica</i> Selys, 1850 Hudsonian whiteface	G5 S4	bog ponds; bog lakes; marshes	Ν	L May - L June
<i>Leucorrhinia intacta</i> Hagen, 1861 dot-tailed whiteface	G5 S5	cold marshy waters; bog ponds	N C E W-LWR	M May - L Sept
<i>Leucorrhinia proxima</i> Clavert, 1890 red-waisted whiteface	G5 S4	marshy bays; ponds; slow streams	NE	L May - M Aug
<i>Libellula cyanea</i> Fabricius, 1775 spangled skimmer ²	G5 S2	still marshy or bog waters	W-LWR C	L May - L June
<i>Libellula incesta</i> Hagen, 1861 slaty skimmer ²	G5 S2	marshy ponds near floodplain forests	N(e) E	E June - M July
<i>Libellula luctuosa</i> Burmeister, 1839 widow skimmer	G5 S5	ponds; small streams; marshes	ECN	E June - L Aug
<i>Libellula pulchella</i> Drury, 1770 twelve-spotted skimmer	G5 S5	ponds; marshy borders of lakes; bays; slow streams	Statewide	L May - L Sept
<i>Libellula quadrimaculata</i> Linnaeus, 1758 four-spotted skimmer	G5 S5	still waters in marshy or boggy ground	Statewide (local W)	L May - E Aug

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G5 SH	forest brooks; marshy bays; ponds	E-h	E July - L July
G5 SH	marshes; standing water	E-h	June
G4 S3	floating sphagnum bogs; fens	N E(s)	M June - E Aug
G5 S5	lakes; ponds; marsh-edged streams	W(s) N C	M June - M Aug
G5 S4	small standing waterbodies; temporary and artificial ponds	C E W N(Door)	M July - E Sept
G5 S4	small standing waterbodies; temporary and artificial ponds	NEW	L June - M Sept
G5 S4	ponds; quiet streams; backwaters	W(s) E	E June - L July
G5 S5	ponds; puddles; quiet stream pools; marshes	Statewide	L May - M Oct
G5 S4	ponds; slow streams in arid, sandy or gravelly areas	E N(e)	E July - M Sept
G5 S4	reedy marshes bordering sandy, gravelly ponds	EN	E July - M Sept
G5 S3	marshy ponds, especially bog ponds	NE	L Aug - E Oct
G5 S4	marshes; ponds; slow shady streams	N(e) E	M June - M Sept
G5 S5	temporary to permanent ponds in fields or pastures; marshes	NCE	M June - M Oct
G5 S4	ponds; ditches; open marshes; slow streams	N E-h	E June - M Sept
G5 S4	spring-fed ponds and marshes	NEC	E July - L Aug
G5 S5	marshes; slow streams; permanent ponds	NCE	M Aug - M Sept
	G5 SH G4 S3 G5 S5 G5 S4 G5 S4	pondsG5 SHmarshes; standing waterG4 S3floating sphagnum bogs; fensG5 S5lakes; ponds; marsh-edged streamsG5 S4small standing waterbodies; temporary and artificial pondsG5 S4small standing waterbodies; temporary and artificial pondsG5 S4ponds; quiet streams; backwatersG5 S4ponds; quiet streams; backwatersG5 S4ponds; puddles; quiet stream pools; marshesG5 S4ponds; slow streams in arid, sandy or gravelly areasG5 S4ponds; slow streams in arid, sandy, gravelly pondsG5 S4marshy ponds, especially bog pondsG5 S4marshes; ponds; slow shady streamsG5 S4temporary to permanent ponds in fields or pastures; marshesG5 S4ponds; ditches; open marshes; slow streamsG5 S4spring-fed ponds and marshes; slow streams;	ActionpondsActionG5 SHmarshes; standing waterE-hG4 S3floating sphagnum bogs; fensN E(s)G5 S5lakes; ponds; marsh-edged streamsW(s) N CG5 S4small standing waterbodies; temporary and artificial pondsC E W N(Door)G5 S4small standing waterbodies; temporary and artificial pondsN E WG5 S4small standing waterbodies; temporary and artificial pondsN E WG5 S4small standing waterbodies; temporary and artificial pondsW(s) EG5 S4ponds; quiet streams; backwatersW(s) EG5 S4ponds; quiet streams; stream pools; marshesStatewideG5 S4ponds; slow streams in arid, sandy or gravelly areasE N(e)G5 S4reedy marshes bordering sandy, gravelly pondsN EG5 S4marshy ponds, especially bog pondsN EG5 S4marshes; ponds; slow shady streamsN(e) EG5 S4temporary to permanent ponds in fields or pastures; marshesN C EG5 S4ponds; ditches; open marshes; slow streamsN E-hG5 S4spring-fed ponds and marshes; slow streams;N C E

<i>Tramea carolina</i> Linnaeus, 1763 Carolina saddlebags ²	G5 S1S2	ponds; small lakes; quiet water with firm bottom	E/N	L June
<i>Tramea lacerata</i> Hagen, 1861 black saddlebags	G5 S5	ponds; small lakes; open marshy lagoons and bays	E C N(Door)	E June - E Oct
<i>Tramea onusta</i> Hagen, 1861 red saddlebags	G5 S3	ponds; small lakes	E N(Door) W(local)	M June - L July
REPORTED FROM WISCONSIN, BUT NOT SUBSTATIATED: Return to top		COMMENTS:		
<i>Celithemis fasciata</i> Kirby, 1889 banded pennant	G5 SR	Reported as <i>C.</i> <i>monomelaena</i> Williamson, 1910 - which is now a synonym. Likely to be found in southern WI. Habitat: ponds, small lakes. Not included in checklist because authors have not seen primary source or specimen, although a secondary report does exist in the literature.		
<i>Cordulegaster sayi</i> Selys, 1854 Say's spiketail	GIG2 SRF	Unlikely; possibly <i>Cordulegaster erronea,</i> known from Michigan's Upper Peninsula		
<i>Dorocordulia lepida</i> Hagen, 1871 petite emerald	G5 SR	Unlikely; probably Dorocordulia libera		
<i>Dromogomphus spoliatus</i> Hagen, 1858 flag-tailed spinyleg	G4G5 SRF	Likely to be found in southern WI. Habitat: medium streams, small lakes.		
<i>Neurocordulia obsoleta</i> Say, 1839 umber shadowdragon	G4SR	Larvae tentatively identified by Bob DuBois from fish stomach contents collected by Matt Berg and students on the St Croix River in 2004.		

² State special concern³ Federally endangered or threatened

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