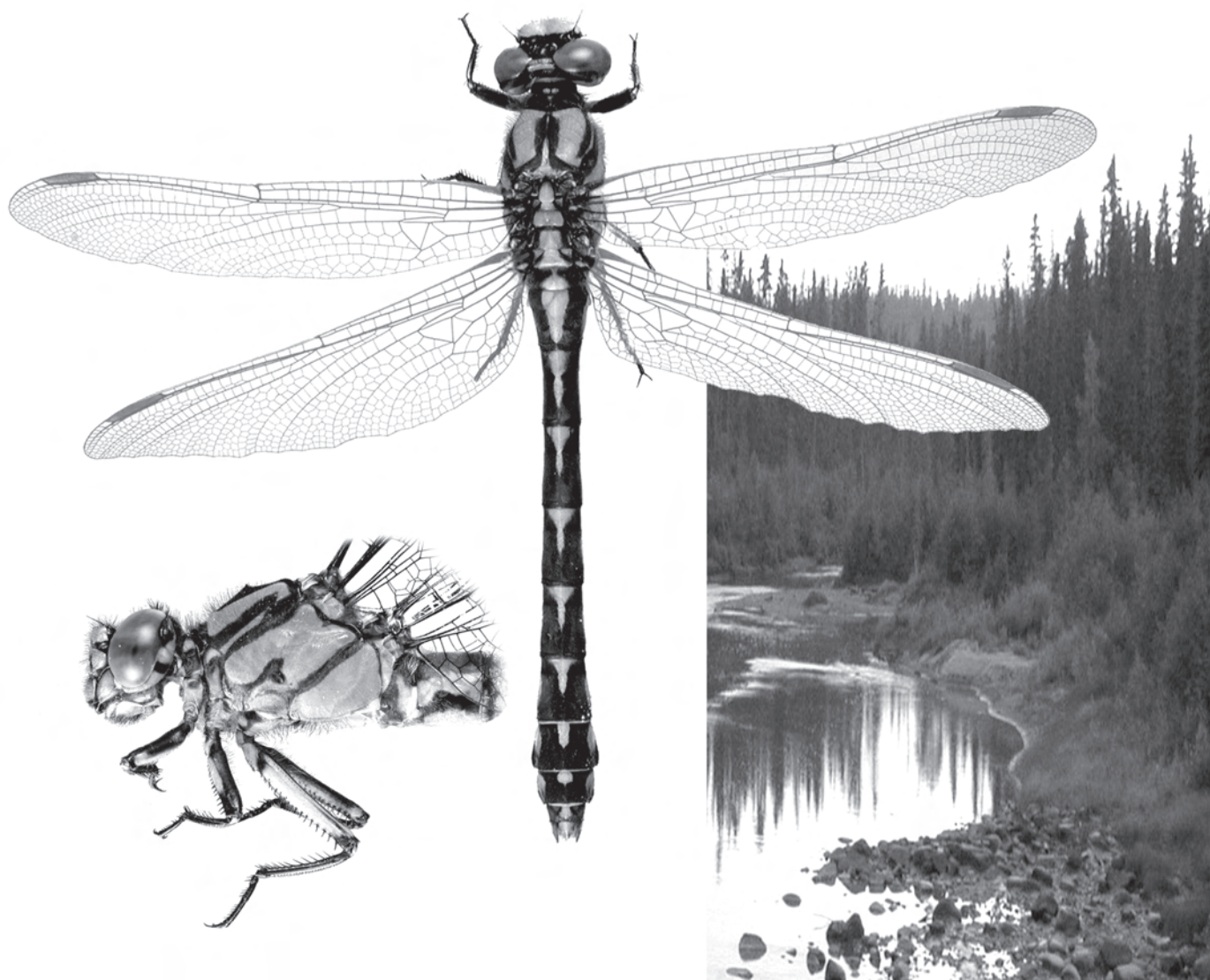


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**An Annotated Checklist of the Odonata of Canada**

Paul M. Catling, Robert A. Cannings, and Paul M. Brunelle, pp. 1–20

# The Dragonfly Society Of The Americas

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# An Annotated Checklist of the Odonata of Canada

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This list of the 208 species of Canadian Odonata is current as of October 2004. It uses the scientific nomenclature and English names of the North American list sponsored by the Dragonfly Society of the Americas (Paulson and Dunkle 1999, updates and revisions). French names come from Pilon and Lagacé (1998), which includes only those species known in the province of Québec as of the date of that publication. Following the basic list is a table of species occurrence by province and territory with rankings indicating national and provincial conservation status. Also included are recent additions to the Canadian fauna, taxonomic notes and an extensive list of references that provides the basis for decisions on occurrence and status.

It is our intention to keep this list up-to-date. We welcome new information and any suggestions for changes or improvements.

## Status

The national and provincial status rankings for the 208 species of Canadian dragonflies were recently posted on the web (see <http://www.wildspecies.ca/dragonflies.cfm?lang=3De>). Much of the conservation ranking of Canadian dragonflies was led by Jim Duncan of the Wildlife and Ecosystem Protection Branch of Manitoba Conservation and facilitated by Lisa Twolan of the Canadian Wildlife Service. Jim organized a workshop held 9 October 2002 during national entomological meetings in Winnipeg, Manitoba. Joe Ackerman, John Acorn, Paul Brunelle, Rob Cannings, Philip Corbet, Jim Duncan, Brent Elliot, Terry Galloway, Donna Giberson, Henri Goulet, and Marjorie Hughes were involved in the ranking work. The rankings were finalized in Ottawa on 22 November 2003 by the National General Status Working Group, which is composed of biologists from each Canadian province and territory and from three federal agencies whose mandate includes wildlife. Our update of the ranking table (Table 1) includes the elimination of some rank “5” provincial listings where no reliable record exists and the addition of several species for various provinces and territories (indicated by a “6”, which signifies known presence but unassessed status). It is to be noted with regard to this table that the Odonata of Nunavut Territory have been relatively little studied and the Saskatchewan Odonate fauna is the least well documented. Lisa Twolan and Jim Duncan of the working group have outlined the importance of these rank-

ings: “Ensuring human actions don’t drive species extinct in Canada means knowing the status of species across the length and breadth of the nation — which species are secure for now, which to keep an eye on, and which need to be formally assessed and perhaps protected. The most recent effort on dragonflies provides an overview of their status in Canada. It brings the results of the remarkably extensive data accumulation by volunteers as well as that of Provincial, Territorial, and Federal agencies onto a single platform for the first time. This effort was conducted under the auspices of the National Accord for the Protection of Species at Risk.”

The monitoring of Odonata populations will increase in importance, and the information provided here will assist in such efforts. Information on changes in status is needed to determine whether species are endangered, threatened, or of special concern, but few studies of this kind (e.g. Catling 2001a, Catling and Brownell 2002, Ramsay and Cannings 2005) have been done, although the information necessary for such valuations is rapidly increasing.

## References

The list of references is not intended to be a comprehensive compilation of the literature covering Canadian Odonata. However, it includes much of the published basis for the rankings, and many of the significant sources of occurrence data — including new national and provincial/territorial records published since Walker (1953, 1958) and Walker and Corbet (1975). We have made this justification as concise as possible — in many cases where the original reference to the occurrence of a species is not listed, it can be traced through the literature provided. For example, many new records for Québec are referenced in Pilon and Lagacé (1998). In most cases only the most recent article on range extensions for a newly recorded species is referenced. For example, the reference to range extensions in Ontario for *Enallagma anna* (Catling *et al.* 2001), first discovered in Canada by Pratt in 1998 (O’Brien and Pratt 1998), is not listed because it can be traced in Jones (2002). For additional information on the resources available for the study of Odonata in Canada see Cannings (2004).

As well as the literature reports, collections and databases provide an essential foundation for the Canadian list and conservation status rankings. Major Odonata collections

include the Canadian National Collection at Agriculture and Agri-food Canada in Ottawa; the Royal Ontario Museum in Toronto; and the Royal British Columbia Museum in Victoria. Some of these are databased; for example, the latter collection contains 30,000 Canadian records. Important databases include those at Conservation Data Centres (see <http://www.natureserve.org/visitLocal/index.jsp>). The Natural Heritage Information Centre (NHIC) in Ontario has 35,000 georeferenced records. Another major database is the Atlantic Dragonfly Inventory Program (ADIP) with 21,000 records from the Atlantic provinces. For additional information on collections and databases see Cannings (2004).

### Recent Additions

Since the classic works on Canadian Odonata by Walker (1953, 1958) and Walker and Corbet (1975), 16 species have been added to the Canadian fauna. These are (in alphabetical order with first province, date, discoverer(s) and the first published reference):

- Archilestes grandis* (ON 2002 — P. Pratt and S. Paiero, 2002; Pratt and Paiero 2003).
- Dromogomphus spoliatus* (ON 1987 — P. Pratt, P. Bondy and J. Barton; Pratt 1996).
- Enallagma anna* (ON 1998 — P. Pratt; O'Brien and Pratt 1998).
- Enallagma traviatum westfalli* (ON 1991 — I. Carmichael and J. Skevington; Skevington and Carmichael 1997).
- Enallagma basidens* (ON 1985 — R.A. Cannings; Cannings 1989).
- Epitheca semiaquea* (NS, NB, once considered *E. cynosura* records; shown for five locations in NS and one in NB; Donnelly 2004b).
- Gomphus abbreviatus* (NB 2001 — A.W. Thomas; Sabine *et al.* 2004).
- Hetaerina titia* (ON 1985 — P. Pratt; Pratt and Catling 1998).
- Ischnura kellicotti* (ON 2001 — P. Pratt; Pratt 2002).
- Macromia taeniolata* (ON 1987 — P. Pratt, P. Bondy and J. Barton; Pratt 1996).
- Neurocordulia michaeli* (NB 1993 — P.M. Brunelle; Brunelle 1997, 2000b).
- Neurocordulia obsoleta* (NB 2002 — D.L. Sabine; Sabine *et al.* 2004).
- Ophiogomphus howei* (NB 2002 — P.M. Catling; Catling 2002a).
- Progomphus obscurus* (ON 1996 — P. Burke and C.D. Jones; Burke 1996).
- Somatoclora linearis* (ON 2003 — P. Burke and C.D. Jones; Jones and Burke 2004).
- Stylurus laurae* (ON 1999 — P.M. Catling; Catling and Catling 1999).

Numerous additions to the known Odonate fauna of provinces and territories, significant range extensions within provinces, and much additional information on regional status of species can be traced through the references provided.

### Excluded Records (National and Provincial/Territorial)

- Aeshna verticalis* Hagen was recently excluded from Manitoba by Hughes and Duncan (2003).
- Coenagrion angulatum* Walker was erroneously reported from Prince Edward Island in Westfall and May (1996); the error is explained in Brunelle (1997).
- Crocothemis servilia* (Drury) was discovered emerging from containers of imported aquatic plants inside a building in Québec (Perron *et al.* 2003). This indoor record is excluded.
- Enallagma durum* (Hagen) is not included. It is recorded, but questioned, for Québec by Westfall and May (1996), but is omitted by Pilon and Lagacé (1998).
- Enallagma exsulans* (Hagen) locations in British Columbia (Donnelly 2004c) are database errors.
- Lanthus parvulus* (Sélys) locations in Ontario (Donnelly 2004a) are mapping errors (T.W. Donnelly, pers. comm.).
- Lestes disjunctus australis* Walker should be raised to a full species from subspecific rank in accordance with the DSA list, a change based on the paper by Donnelly (2003). However, this species is not included because earlier records from southern Ontario are considered erroneous or lack supporting evidence (Catling 2003) and re-evaluation of specimens from Atlantic Canada is incomplete. With further study, the presence of *L. australis* in Canada might be confirmed.
- Nasiaeschna pentacantha* (Rambur) was erroneously reported from Nova Scotia in Donnelly (1995); it is not known from that province.
- Ophiogomphus anomalus* Harvey was erroneously reported from Nova Scotia in Donnelly (1995); it is not known from that province.
- Plathemis subornata* (Hagen) was reported from British Columbia (Cannings 1983, Needham *et al.* 2000). Despite specimen evidence we have omitted this species of the southwestern United States because it cannot not be considered accidental based on the number of specimens and the fact that it is not a wandering species. It was reported by only a single collector and all records are before 1973. Furthermore, appropriate habitat does not exist for hundreds of kilometers around Nanaimo where the specimens were reported to have been collected. It is likely that there has been a mix-up of collection data — probably the specimens were obtained from elsewhere but were sorted incorrectly. For example, odonatologists occasionally use envelopes that have been used before

and bear data associated with a previous locality, and sometime forget to replace the locality data.

***Somatochlora albicincta*** (Burmeister) was erroneously reported from Nova Scotia in Donnelly (1995), but was not known from that province at that time. It was later discovered there in 1998.

***Sympetrum illotum*** (Hagen) was recently excluded from Manitoba by Hughes and Duncan (2003).

***Sympetrum janeae*** Carle, described in 1993, is excluded pending taxonomic clarification. Despite some effort, Canadian experts have not been able to recognize it as a distinct taxon (e.g. Pilon and Legacé 1998, Catling 2002b).

***Sympetrum rubicundulum*** (Say) was recently excluded from Manitoba by Hughes and Duncan (2003).

***Tachopteryx thoreyi*** (Hagen), reported from Québec was discussed by Savard (1987) and discounted by Pilon and Legacé (1998, p. 27).

### Synonymy

A number of scientific names have changed since the publication of Walker (1953, 1958) and Walker and Corbet (1975); with the recent re-issuing of the Walker volumes, some confusion about nomenclature may still exist. Most of these changes appear in major publications such as Westfall and May (1996) and Needham *et al.* (2000) and are accepted here; however, not all are included in the DSA list (Paulson and Dunkle 1999 and updates) and thus some are not followed herein. Some of the potentially confusing nomenclature is noted below. The Walker usage is usually indicated first.

***Aeshna californica*** — Walker (1958), now *Rhionaeschna californica*.

***Aeshna multicolor*** — Walker (1958), now *Rhionaeschna multicolor*.

***Aeshna mutata*** — Walker (1958), now *Rhionaeschna mutata*.

**Agriidae** — Walker (1953), now Calopterygidae.

***Agrion*** — Walker (1953), now *Calopteryx*.

***Anomalagrion hastatum*** — Walker (1953), now *Ischnura hastata*.

***Argia violacea*** — Walker (1953), now *Argia fumipennis violacea*.

***Celithemis monomelaena*** — Walker and Corbet (1975), now *Celithemis fasciata*.

***Enallagma vernale*** — Walker (1953), but treated in Westfall and May (1996) as *E. cyathigerum vernale*; herein as *E. vernale* (see Donnelly 1998, McPeck 1998).

***Epitheca canis*** — Walker and Corbet (1975), but treated as *Tetragoneuria canis* in Needham *et al.* (2000); herein as *Epitheca canis*.

***Epitheca cynosura*** — Walker and Corbet (1975), but treated

as *Tetragoneuria cynosura* in Needham *et al.* (2000); herein as *Epitheca cynosura*.

***Epitheca princeps*** — Walker and Corbet (1975), but treated as *Epicordulia princeps* in Needham *et al.* (2000), herein as *Epitheca princeps*.

***Epitheca semiaquea*** — Walker and Corbet (1975), but treated as *Tetragoneuria semiaquea* in Needham *et al.* (2000); herein as *Epitheca semiaquea*.

***Epitheca spinigera*** — Walker and Corbet (1975), but treated as *Tetragoneuria spinigera* in Needham *et al.* (2000); herein as *Epitheca spinigera*.

***Erythemis collocata*** (Hagen) and ***E. simplicicollis*** (Say) are maintained as separate species pending further taxonomic clarification (see Donnelly 2004d).

***Gomphus amnicola*** — Walker (1958), now *Stylurus amnicola*.

***Gomphus brevis*** — Walker (1958), now *Gomphus adelphus*.

***Gomphus cornutus*** — Walker (1958), now *Arigomphus cornutus*.

***Gomphus furcifer*** — Walker (1958), now *Arigomphus furcifer*.

***Gomphus intricatus*** — Walker (1958), now *Stylurus intricatus*.

***Gomphus notatus*** — Walker (1958), now *Stylurus notatus*.

***Gomphus olivaceus*** — Walker (1958), now *Stylurus olivaceus*.

***Gomphus plagiatus*** — Walker (1958), now *Stylurus plagiatus*.

***Gomphus scudleri*** — Walker (1958), now *Stylurus scudleri*.

***Gomphus villosipes*** — Walker (1958), now *Arigomphus villosipes*.

***Lanthus albistylus*** — Walker (1958), now *Stylogomphus albistylus*.

***Lestes disjunctus australis*** — Walker (1953), now *L. australis*.

***Libellula exusta*** — Walker and Corbet (1975), now *Ladona exusta*.

***Libellula julia*** — Walker and Corbet (1975), now *Ladona julia*.

***Libellula lydia*** — Walker and Corbet (1975), now *Plathemis lydia*.

***Macromia rickeri*** — Walker and Corbet (1975) is considered a synonym of *M. magnifica* based on unpublished research by D.R. Paulson. This opinion is generally accepted, e.g. Needham *et al.* (2000), Cannings 2002b.

***Neurocordulia michaeli*** *sp. nov.* Brunelle (1997) now *N. michaeli* Brunelle (2002).

***Somatochlora albicincta massettensis*** Whitehouse 1941, a large form described by Whitehouse from the Queen Charlotte Islands, has been most recently treated as a synonym (e.g. Garrison 1991).

## Subspecies

Although there are relatively few subspecies in Canadian Odonata, several pose taxonomic questions which have not yet been resolved. The National General Status Ranking Group (NGSRG) ranks only species. Subspecies are ranked collectively as the species they belong to. Thus not all subspecies in the list are included in Table 1.

In some cases it is clear which subspecies were ranked because only one subspecies occurs in Canada. For example: *Argia fumipennis* populations in Canada include only members of the subspecies *violacea*; *Enallagma traviatum* populations in Canada include only members of the subspecies *westfalli* (Donnelly 1973); *Ophiogomphus mainensis* in Canada includes only subspecies *mainensis*.

*Aeshna interrupta* populations in Canada are believed to include members of three subspecies: *A. i. interrupta*, *A. i. interna*, and *A. i. lineata*. Although *A. i. interrupta* is mostly eastern and *A. i. lineata* is mostly western with a break in northwestern Ontario, it is not quite that simple. Individuals apparently referable to *A. i. lineata* have been documented at low frequencies in the Atlantic provinces and the typical eastern *A. i. interrupta* occurs on the Pacific coast (west of the Cascades and Coast ranges), and also is mixed in with *A. i. lineata* in the interior of British Columbia. Even worse there are occasional specimens that have a line on one side and are thus referable to *A. i. lineata* and two separate spots on the other side and thus referable to *A. i. interrupta*. *Aeshna interrupta interna*, with a relatively broad thoracic stripe, occurs in the southeast British Columbia and in the southern Rocky Mountains of Alberta, but the region is also characterized by intergrades (Cannings & Stuart 1977). Although there is an interesting pattern of variation, the recognition of subspecies appears to require more study.

The subspecies of *Aeshna umbrosa* are also an area of difficulty. The nominate green subspecies, *A. u. umbrosa* is transcontinental whereas the blue subspecies, *A. u. occidentalis* is generally considered to be only western. Although blue individuals occur in the east, a more serious problem is that both occur throughout much of British Columbia and both are common in the interior, often in the same locality. Green individuals referable to *A. u. umbrosa* also occur with *A. u. occidentalis* on the Pacific coast (Cannings & Stuart 1977). See Walker (1958) for additional information on these races and reference to a dark form on Vancouver Island.

Although little studied until recently, *Gomphus fraternus manitobanus*, a paler race with yellow on external surfaces of tibiae and abdominal segments 9 and 10 each with a dorsal yellow spot, appears to be discrete in Canada and is apparently confined to the region of Winnipeg and westward.

*Gomphus fraternus fraternus* is the darker eastern form that evidently does not overlap.

The relatively dark *Ophiogomphus severus montanus* is the common form in the interior of British Columbia and in Rocky Mountains of Alberta whereas the lighter *O. s. severus* is the Great Plains form, occurring in British Columbia east of the Rockies (Peace River area, etc.) and in Alberta.

The separation of the eastern *Sympetrum semicinctum* from the western *S. occidentale* requires more study. Not only is there some difficulty in separating the species, but the *S. occidentale* has two Canadian subspecies; *S. o. occidentale* occurs in the mountains while *S. o. fasciatum* with more strongly banded wings occurs in the Great Plains.

Other species have races but are not currently treated as subspecies either because they have been placed in synonymy (e.g. *Macromia rickeri*, *Somatochlora albicincta massettensis*) or the variations within Canada have not been recognized taxonomically (e.g. *Epithea cynosura*, *Epithea princeps*, *Leucorrhinia proxima*). Some of these have well marked geographic variants related to climate and particularly temperature. *Macromia rickeri* is a dark form of *M. magnifica*. The amount of pale coloration is dependent on the average temperature and amount of rainfall in the various areas where the species occurs. *Leucorrhinia proxima* has the pale areas red and is truly the Red-waisted Whiteface in much of the west, but is pale yellow on the waist and elsewhere in much of the east (e.g. Donnelly 2004b).

## List of Species

**Order ODONATA** — Damselflies and Dragonflies (208 species)

**Suborder ZYGOPTERA** — Damselflies (57 species)

**Family CALOPTERYGIDAE** — Broad-winged Damselflies (5 species)

*Calopteryx aequabilis* Say, 1839 — River Jewelwing / caloptéryx à taches apicales

*C. amata* Hagen, 1890 — Superb Jewelwing / caloptéryx élané

*C. maculata* (Beauvois, 1805) — Ebony Jewelwing / caloptéryx bistré

*Hetaerina americana* (Fabricius, 1788) — American Rubyspot / courtisane d'Amérique

*H. titia* (Drury, 1773) - Smoky Rubyspot

**Family LESTIDAE** — Spreadwings (10 species)

*Archilestes grandis* (Rambur, 1842) — Great Spreadwing

- Lestes congener* Hagen, 1861 — Spotted Spreadwing / lestes tardif  
*L. disjunctus* Sélys, 1862 — Northern Spreadwing / lestes disjoint  
*L. dryas* Kirby, 1890 — Emerald Spreadwing / lestes dryade  
*L. eurinus* Say, 1839 — Amber-winged Spreadwing / lestes flamboyant  
*L. forcipatus* Rambur, 1842 — Sweetflag Spreadwing / lestes à forceps  
*L. inaequalis* Walsh, 1862 — Elegant Spreadwing / lestes inégal  
*L. rectangularis* Say, 1839 — Slender Spreadwing / lestes élané  
*L. unguiculatus* Hagen, 1861 — Lyre-tipped Spreadwing / lestes onguiculé  
*L. vigilax* Hagen in Sélys, 1862 — Swamp Spreadwing / lestes matinal
- Family COENAGRIONIDAE** — Pond Damsels (42 species)
- Amphiagrion abbreviatum* (Sélys, 1876) — Western Red Damsel  
*A. saucium* (Burmeister, 1839) — Eastern Red Damsel / agrion rougeâtre  
*Argia apicalis* (Say, 1839) — Blue-fronted Dancer  
*A. emma* Kennedy, 1915 — Emma's Dancer  
*A. fumipennis* Burmeister, 1839 violacea (Hagen, 1861) — Violet Dancer / argie violacée  
*A. moesta* (Hagen, 1861) — Powdered Dancer / argie svelte  
*A. sedula* (Hagen, 1861) — Blue-ringed Dancer  
*A. tibialis* (Rambur, 1842) — Blue-tipped Dancer  
*A. translata* Hagen in Sélys, 1865 — Dusky Dancer  
*A. vivida* Hagen in Sélys, 1865 — Vivid Dancer  
*Chromagrion conditum* (Hagen in Sélys, 1876) — Aurora Damsel / agrion à tache jaune  
*Coenagrion angulatum* Walker, 1912 — Prairie Bluet  
*C. interrogatum* (Hagen in Sélys, 1876) — Subarctic Bluet / agrion ponctué  
*C. resolutum* (Hagen in Sélys, 1876) — Taiga Bluet / agrion résolu  
*Enallagma anna* Williamson, 1900 — River Bluet  
*E. antennatum* (Say, 1839) — Rainbow Bluet / agrion arc-en-ciel  
*E. aspersum* (Hagen, 1861) — Azure Bluet / agrion saupoudré  
*E. basidens* Calvert, 1902 — Double-striped Bluet  
*E. boreale* Sélys, 1875 — Boreal Bluet / agrion boréal  
*E. carunculatum* Morse, 1895 — Tule Bluet / agrion des scirpes  
*E. civile* (Hagen, 1861) — Familiar Bluet / agrion civil  
*E. clausum* Morse, 1895 — Alkali Bluet / agrion halophile  
*E. cyathigerum* (Charpentier, 1840) — Northern Bluet / agrion porte-coupes  
*E. ebrium* (Hagen, 1861) — Marsh Bluet / agrion enivré  
*E. exsulans* (Hagen, 1861) — Stream Bluet / agrion exilé  
*E. geminatum* Kellicott, 1895 — Skimming Bluet / agrion minuscule  
*E. hageni* (Walsh, 1863) — Hagen's Bluet / agrion de Hagen  
*E. minusculum* Morse, 1895 — Little Bluet  
*E. signatum* (Hagen, 1861) — Orange Bluet / agrion orangé  
*E. traviatum* Sélys, 1876 westfalli Donnelly, 1964 — Slender Bluet  
*E. vernale* Gloyd, 1943 — Vernal Bluet / agrion printanier  
*E. vesperum* Calvert, 1919 — Vesper Bluet / agrion vespéral  
*Ischnura cervula* Sélys, 1876 — Pacific Forktail  
*I. damula* Calvert, 1902 — Plains Forktail  
*I. erratica* Calvert, 1895 — Swift Forktail  
*I. hastata* (Say, 1839) — Citrine Forktail  
*I. kellicotti* Williamson, 1898 — Lilypad Forktail  
*I. perparva* McLachlan in Sélys, 1876 — Western Forktail  
*I. posita* (Hagen, 1861) — Fragile Forktail / agrion posé  
*I. verticalis* (Say, 1839) — Eastern Forktail agrion vertical  
*Nehalennia gracilis* Morse, 1895 — Sphagnum Sprite / déesse gracieuse  
*N. irene* (Hagen, 1861) — Sedge Sprite / déesse paisible
- Suborder ANISOPTERA** — Dragonflies (151 species)
- Family PETALURIDAE** — Petaltails (1 species)
- Tanypteryx hageni* (Sélys, 1879) — Black Petaltail
- Family AESHNIDAE** — Darners (24 species)
- Aeshna canadensis* Walker, 1908 — Canada Darner / aeschne du Canada  
*A. clepsydra* Say, 1839 — Mottled Darner / aeschne clepsydre  
*A. constricta* Say, 1839 — Lance-tipped Darner / aeschne constrictor  
*A. eremita* Scudder, 1866 — Lake Darner / aeschne portecrosses  
*A. interrupta interrupta* Walker, 1908 — Variable Darner / aeschne domino  
*A. interrupta lineata* Walker, 1908 — Variable Darner  
*A. interrupta interna* Walker, 1908 — Variable Darner  
*A. juncea* (Linnaeus, 1758) — Sedge Darner / aeschne des joncs  
*A. palmata* Hagen, 1856 — Paddle-tailed darner  
*A. septentrionalis* Burmeister, 1839 — Azure Darner /

- aeschne septentrionale
- A. sitchensis* Hagen, 1861 — Zigzag Darner / aeschne à zigzags
- A. subarctica* Walker, 1908 — Subarctic Darner / aeschne subarctique
- A. tuberculifera* Walker, 1908 — Black-tipped Darner / aeschne à tubercules
- A. umbrosa umbrosa* Walker, 1908 — Shadow Darner / aeschne des pénombres
- A. umbrosa occidentalis* Walker, 1912 — Shadow Darner / aeschne des pénombres
- A. verticalis* Hagen, 1861 — Green-striped Darner / aeschne verticale
- Anax junius* (Drury, 1770) — Common Green Darner / l'anax
- A. longipes* Hagen, 1861 — Comet Darner
- Basiaeschna janata* (Say, 1839) — Springtime Darner / aeschne printanière
- Boyeria grafiana* Williamson, 1907 — Ocellated Darner / aeschne fuligineuse
- B. vinosa* (Say, 1839) — Fawn Darner / aeschne vineuse
- Epiaeschna heros* (Fabricius, 1798) — Swamp Darner / aeschne majestueuse
- Gomphaeschna furcillata* (Say, 1839) — Harlequin Darner / aeschne pygmée
- Nasiaeschna pentacantha* (Rambur, 1842) — Cyrano Darner / aeschne Cyrano
- Rhionaeschna californica* (Calvert, 1895) — California Darner
- R. multicolor* (Hagen, 1861) — Blue-eyed Darner
- R. mutata* (Hagen, 1861) — Spatterdock Darner
- Family GOMPHIDAE** — Clubtails (41 species)
- Arigomphus cornutus* (Tough, 1900) — Horned Clubtail / gomphe cornu
- A. furcifer* (Hagen in Sélys, 1878) — Lilypad Clubtail / gomphe fourchu
- A. villosipes* (Sélys, 1854) — Unicorn Clubtail
- Dromogomphus spinosus* Sélys, 1854 — Black-shouldered Spinyleg / gomphe épineux
- D. spoliatus* (Hagen in Sélys, 1858) — Flag-tailed Spinyleg
- Gomphus abbreviatus* Hagen in Sélys, 1878 — Spine-crowned Clubtail
- G. adelphus* Sélys, 1858 — Moustached Clubtail / gomphe jumeau
- G. borealis* (Needham, 1901) — Beaverpond Clubtail / gomphe boréal
- G. descriptus* (Banks, 1896) — Harpoon Clubtail / gomphe descriptif
- G. exilis* Sélys, 1854 — Lancet Clubtail / gomphe exilé
- G. externus* Hagen in Sélys, 1858 — Plains Clubtail
- G. fraternus fraternus* (Say, 1839) — Midland Clubtail / gomphe fraternel
- G. fraternus manitobanus* Walker, 1958 — Manitoba Clubtail
- G. graslinellus* Walsh, 1862 — Pronghorn Clubtail
- G. lividus* Sélys, 1854 — Ashy Clubtail / gomphe livide
- G. quadricolor* Walsh, 1863 — Rapids Clubtail
- G. spicatus* Hagen in Sélys, 1854 — Dusky Clubtail / gomphe pointu
- G. vastus* (Walsh, 1862) — Cobra Clubtail / gomphe-cobra
- G. ventricosus* (Walsh, 1863) — Skillet Clubtail / gomphe ventru
- G. viridifrons* Hine, 1901 — Green-faced Clubtail
- Hagenius brevistylus* Sélys, 1854 — Dragonhunter / l'hagénie
- Lanthus parvulus* (Sélys, 1854) — Northern Pygmy Clubtail / gomphe minuscule
- Octogomphus specularis* (Hagen in Sélys, 1859) — Grappletail
- Ophiogomphus anomalus* Harvey, 1898 — Extra-striped Snaketail / ophiogomphe bariolé
- O. aspersus* Morse, 1895 — Brook Snaketail / ophiogomphe saupoudré
- O. carolus* Needham, 1897 — Riffle Snaketail / ophiogomphe de Carole
- O. colubrinus* Sélys, 1854 — Boreal Snaketail / ophiogomphe boréal
- O. howei* Bromley, 1924 — Pygmy Snaketail
- O. mainensis mainensis* Packard, 1863 — Maine Snaketail / ophiogomphe du Maine
- O. occidentis* Hagen, 1883 — Sinuous Snaketail
- O. rupinsulensis* (Walsh, 1862) — Rusty Snaketail / ophiogomphe roussâtre
- O. severus severus* Hagen, 1874 — Pale Snaketail
- O. severus montanus* (Sélys, 1878) — Pale Snaketail
- Progomphus obscurus* (Rambur, 1842) — Common Sanddragon
- Stylogomphus albistylus* (Hagen in Sélys, 1878) — Least Clubtail / gomphe à styles blancs
- Stylurus amnicola* (Walsh, 1862) — Riverine Clubtail / gomphe riverin
- S. intricatus* (Hagen in Sélys, 1858) — Brimstone Clubtail
- S. laurae* (Williamson, 1932) — Laura's Clubtail
- S. notatus* (Rambur, 1842) — Elusive Clubtail / gomphe marqué
- S. olivaceus* (Sélys, 1873) — Olive Clubtail
- S. plagiatus* (Sélys, 1854) — Russet-tipped Clubtail
- S. scudderi* (Sélys, 1873) — Zebra Clubtail / gomphe de Scudder
- S. spiniceps* (Walsh, 1862) — Arrow Clubtail / gomphe



fléché

**Family CORDULEGASTRIDAE** — Spiketails (4 species)

*Cordulegaster diastatops* (Selys, 1854) — Delta-spotted Spiketail / cordulégastré aux yeux séparés

*C. dorsalis* Hagen in Selys, 1858 — Pacific Spiketail

*C. maculata* Selys, 1854 — Twin-spotted Spiketail / cordulégastré maculé

*C. obliqua* (Say, 1839) — Arrowhead Spiketail / cordulégastré oblique

**Family MACROMIIDAE** — Cruisers (4 species)

*Didymops transversa* (Say, 1839) — Stream Cruiser / macromie brune

*Macromia illinoiensis* Walsh, 1862 — Swift River Cruiser / macromie noire

*M. magnifica* McLachlan in Selys, 1874 — Western River Cruiser

*M. taeniolata* Rambur, 1842 — Royal River Cruiser

**Family CORDULIIDAE** — Emeralds (32 species)

*Cordulia shurtleffii* Scudder, 1866 — American Emerald / cordulie de Shurtleffer

*Dorocordulia lepida* (Hagen in Selys, 1871) — Petite Emerald

*D. libera* (Selys, 1871) — Racket-tailed Emerald / cordulie écorcée

*Epithecica canis* (McLachlan, 1886) — Beaverpond Baskettail / épithèque canine

*E. cynosura* (Say, 1839) — Common Baskettail / épithèque à queue de beagle

*E. princeps* (Hagen, 1861) — Prince Baskettail / épithèque princière

*E. semiaquea* (Burmeister, 1839) — Mantled Baskettail

*E. spinigera* (Selys, 1871) — Spiny Baskettail / épithèque épineuse

*Helocordulia uhleri* (Selys, 1871) — Uhler's Sundragon / épithèque d'Uhler

*Neurocordulia michaeli* Brunelle, 2000 — Broad-tailed Shadowdragon

*N. obsoleta* (Say, 1839) — Umber Shadowdragon

*N. yamaskanensis* (Provancher, 1875) — Stygian Shadowdragon / épithèque de Provancher

*Somatochlora albicincta* (Burmeister, 1839) — Ringed Emerald / cordulie annelée

*S. brevicincta* Robert, 1954 — Québec Emerald / cordulie de Robert

*S. cingulata* Selys, 1871 — Lake Emerald / cordulie ceinturée

*S. elongata* (Scudder, 1866) — Ski-tailed Emerald / cordulie alongée

*S. ensigera* Martin, 1906 — Plains Emerald

*S. forcipata* (Scudder, 1861) — Forcinate Emerald / cordulie fourchue

*S. franklini* (Selys, 1861) — Delicate Emerald / cordulie de Franklin

*S. hudsonica* (Hagen in Selys, 1871) — Hudsonian Emerald

*S. incurvata* Walker, 1918 — Incurvate Emerald / cordulie incurvée

*S. kennedyi* Walker, 1918 — Kennedy's Emerald / cordulie de Kennedy

*S. linearis* (Hagen, 1861) — Mocha Emerald

*S. minor* Calvert, 1898 — Ocellated Emerald / cordulie mineure

*S. sahlbergi* Trybom, 1889 — Treeline Emerald

*S. semicircularis* (Selys, 1871) — Mountain Emerald

*S. septentrionalis* (Hagen, 1861) — Muskeg Emerald / cordulie septentrionale

*S. tenebrosa* (Say, 1839) — Clamp-tipped Emerald / cordulie ténébreuse

*S. walshii* (Scudder, 1866) — Brush-tipped Emerald / cordulie de Walsh

*S. whitehousei* Walker, 1925 — Whitehouse's Emerald / cordulie de Whitehouse

*S. williamsoni* Walker, 1907 — Williamson's Emerald / cordulie de Williamson

*Williamsonia fletcheri* Williamson, 1923 — Ebony Boghaunter / cordulie bistrée

**Family LIBELLULIDAE** — Skimmers (45 species)

*Celithemis elisa* (Hagen, 1861) — Calico Pennant / céli thème indienne

*C. eponina* (Drury, 1773) — Halloween Pennant / céli thème géante

*C. fasciata* Kirby, 1889 — Banded Pennant

*C. martha* Williamson, 1922 — Martha's Pennant

*Erythemis collocata* (Hagen, 1861) — Western Pondhawk

*E. simplicicollis* (Say, 1839) — Eastern Pondhawk / éry thème des étangs

*Erythrodiplax berenice* (Drury, 1770) — Seaside Dragonlet / érythrodiplax côtier

*Ladona exusta* (Say, 1839) — White Corporal

*L. julia* (Uhler, 1857) — Chalk-fronted Corporal / la julienne

*Leucorrhinia borealis* Hagen, 1890 — Boreal Whiteface

*L. frigida* Hagen, 1890 — Frosted Whiteface / leucorrhine frigide

*L. glacialis* Hagen, 1890 — Crimson-ringed Whiteface / leucorrhine glaciale

*L. hudsonica* (Selys, 1850) — Hudsonian Whiteface / leucorrhine hudsonienne  
*L. intacta* (Hagen, 1861) — Dot-tailed Whiteface / leucorrhine mouchetée  
*L. patricia* Walker, 1940 — Canada Whiteface / leucorrhine nordique  
*L. proxima* Calvert, 1890 — Red-waisted Whiteface / leucorrhine apprivoisée  
*Libellula forensis* Hagen, 1861 — Eight-spotted Skimmer  
*L. incesta* Hagen, 1861 — Slaty Skimmer / la voluptueuse  
*L. luctuosa* Burmeister, 1839 — Widow Skimmer / la mélancolique  
*L. pulchella* Drury, 1770 — Twelve-spotted Skimmer / la gracieuse  
*L. quadrimaculata* Linnaeus, 1758 — Four-spotted Skimmer / la quadrimaculée  
*L. semifasciata* Burmeister, 1839 — Painted Skimmer  
*L. vibrans* Fabricius, 1798 — Great Blue Skimmer  
*Nannothemis bella* (Uhler, 1857) — Elfin Skimmer / nannothème d'elfe  
*Pachydiplax longipennis* (Burmeister, 1839) — Blue Dasher  
*Pantala flavescens* (Fabricius, 1798) — Wandering Glider / pantale flavescence  
*P. hymenaea* (Say, 1839) — Spot-winged Glider / pantale bimaculée  
*Perithemis tenera* (Say, 1839) — Eastern Amberwing  
*Plathemis lydia* (Drury, 1770) — Common Whitetail / la lydienne [6]  
*Sympetrum ambiguum* (Rambur, 1842) — Blue-faced Meadowhawk  
*S. corruptum* (Hagen, 1861) — Variegated Meadowhawk / sympétrum bagarreur  
*S. costiferum* (Hagen, 1861) — Saffron-winged Meadowhawk / sympétrum rubigineux  
*S. danae* (Sulzer, 1776) — Black Meadowhawk / sympétrum noir  
*S. illotum* (Hagen, 1861) — Cardinal Meadowhawk  
*S. internum* Montgomery, 1943 — Cherry-faced Meadowhawk / sympétrum intime  
*S. madidum* (Hagen, 1861) — Red-veined Meadowhawk  
*S. obtrusum* (Hagen, 1867) — White-faced Meadowhawk / sympétrum éclairéur  
*S. occidentale occidentale* Bartenev, 1915 — Western Meadowhawk  
*S. occidentale fasciatum* Walker 1951 — Western Meadowhawk  
*S. pallipes* (Hagen, 1874) — Striped Meadowhawk  
*S. rubicundulum* (Say, 1839) — Ruby Meadowhawk / sympétrum à dos roux  
*S. semicinctum* (Say, 1839) — Band-winged Meadowhawk / sympétrum semi-ambré  
*S. vicinum* (Hagen, 1861) — Autumn Meadowhawk / sympétrum tardif

*Tramea carolina* (Linnaeus, 1763) — Carolina Saddlebags  
*T. lacerata* Hagen, 1861 — Black Saddlebags / traméa lacérée  
*T. onusta* Hagen, 1861 — Red-mantled Saddlebags

### Hybrids

With the exception of those species of *Somatochlora* noted below, hybrids are a generally rare occurrence in dragonflies. In addition to the hybrids reported from Canada, hybrids have been reported in the US for species that also occur in Canada including *Enallagma anna* × *carunculatum* (possibly equivalent to *E. opimolocus*, Westfall & May 1996; Miller & Ivie 1996), *Gomphus graslinellus* × *lividus* reported by Williamson (1906) *Ophiogomphus rupinsulensis* × *carolus* (Donnelly, pers. comm.) and *Sympetrum internum* × *obtrusum* (e.g. Donnelly 2004b).

*Enallagma anna* × *civile* (Donnelly 2000)

*Enallagma carunculatum* × *civile* (Catling, pers. obs.)

*Enallagma ebrium* × *hageni* (Catling 2001b)

*Somatochlora albicincta* × *sahlbergi* (Cannings & Cannings 1997)

*Somatochlora hudsonica* × *sahlbergi* (Cannings & Cannings 1997)

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Table 1: Species Distribution by Province and Territory with Status Ranks

The thirteen provinces and territories are listed west to east (the three territories, which make up Canada north of 60°N, are listed after the provinces): BC—British Columbia; AB—Alberta; SK—Saskatchewan; MB—Manitoba; ON—Ontario; QC—Québec; NB—New Brunswick; NS—Nova Scotia; PE—Prince Edward Island; NF—Newfoundland and Labrador; YT—Yukon; NT—Northwest Territory; NU—Nunavut. With regard to geographic groupings, BC, AB and SK are included in western Canada. Central Canada includes MB and ON. Eastern Canada includes QC, NB, NS, PE and NF. Northern Canada includes YT, NT and NU.

represent the current general status categories (i.e. ranks) for the species generated by the National General Status Working Group (NGSWG) and approved by the Canadian Wildlife Directors Committee (2003) and indicate the species' conservation status. The latest evaluation occurred in November 2003. The codes are: 1—At Risk; 2—May Be At Risk; 3—Sensitive; 4—Secure; 5—Undetermined (usually further information is being sought); 6—Not Assessed; 7—Exotic (introduced); 8—Accidental (including migrants). An asterisk (\*) indicates species with more than one subspecies in Canada; these subspecies are not ranked because infrataxa are not ranked by NGSWG. See notes on subspecies preceding the list for additional information on these taxa.

A number in the column indicates that the species is reported from that province or territory. The numbers

Species	Canada	Western			Central		Eastern			Northern				
		BC	AB	SK	MB	ON	QC	NB	NS	PE	NF	YT	NT	NU
<b>Calopterygidae</b>														
<i>Calopteryx aequabilis</i>	4	1	5	4	4	4	4	4	4	4	5	-	-	-
<i>C. amata</i>	4	-	-	-	-	-	4	4	4	-	-	-	-	-
<i>C. maculata</i>	4	-	-	-	2	4	4	4	4	2	-	-	-	-
<i>Hetaerina americana</i>	4	-	-	-	-	4	8	3	-	-	-	-	-	-
<i>H. titia</i>	2	-	-	-	-	2	-	-	-	-	-	-	-	-
<b>Lestidae</b>														
<i>Archilestes grandis</i>	5	-	-	-	-	5	-	-	-	-	-	-	-	-
<i>Lestes congener</i>	4	4	4	5	2	4	4	4	4	4	5	-	5	-
<i>L. disjunctus</i>	4	4	4	4	4	4	4	4	4	4	4	4	4	-
<i>L. dryas</i>	4	4	4	4	4	4	4	4	4	4	-	3	3	-
<i>L. eurinus</i>	4	-	-	-	-	3	4	4	5	2	-	-	-	-
<i>L. forcipatus</i>	4	4	5	5	5	4	4	3	5	2	-	6	6	-
<i>L. inaequalis</i>	3	-	-	-	2	3	3	3	-	-	-	-	-	-
<i>L. rectangularis</i>	4	-	-	-	3	4	4	3	4	-	-	-	-	-
<i>L. unguiculatus</i>	4	4	4	4	4	4	4	2	4	4	5	-	-	-
<i>L. vigilax</i>	3	-	-	-	-	3	2	3	5	-	-	-	-	-
<b>Coenagrionidae</b>														
<i>Amphiagrion abbreviatum</i>	4	4	3	5	-	-	-	-	-	-	-	-	-	-
<i>A. saucium</i>	4	-	-	-	2	3	4	3	4	-	-	-	-	-
<i>Argia apicalis</i>	4	-	-	-	-	4	-	-	-	-	-	-	-	-
<i>A. emma</i>	3	3	-	-	-	-	-	-	-	-	-	-	-	-
<i>A. fumipennis violacea</i>	4	-	-	6	-	4	4	4	4	-	-	-	-	-
<i>A. moesta</i>	4	-	-	-	-	4	4	4	4	-	-	-	-	-
<i>A. sedula</i>	2	-	-	-	-	2	-	-	-	-	-	-	-	-
<i>A. tibialis</i>	3	-	-	-	-	3	-	-	-	-	-	-	-	-
<i>A. translata</i>	2	-	-	-	-	2	-	-	-	-	-	-	-	-
<i>A. vivida</i>	3	2	3	-	-	-	-	-	-	-	-	-	-	-
<i>Chromagrion conditum</i>	4	-	-	-	2	4	4	4	4	2	-	-	-	-
<i>Coenagrion angulatum</i>	4	4	4	4	3	2	-	-	-	-	-	-	5	-
<i>C. interrogatum</i>	4	4	4	5	5	4	4	3	5	-	5	4	5	-

Table 1 continued . . .

Species	Canada	Western			Central		Eastern					Northern		
		BC	AB	SK	MB	ON	QC	NB	NS	PE	NF	YT	NT	NU
<i>C. resolutum</i>	4	4	4	4	4	4	4	4	2	3	4	4	4	-
<i>Enallagma anna</i>	3	-	3	6	-	3	-	-	-	-	-	-	-	-
<i>E. antennatum</i>	4	-	-	6	-	4	4	-	-	-	-	-	-	-
<i>E. aspersum</i>	4	-	-	-	-	3	3	5	4	2	-	-	-	-
<i>E. basidens</i>	3	-	-	-	-	3	-	-	-	-	-	-	-	-
<i>E. boreale</i>	4	4	4	4	4	4	4	4	4	3	4	4	4	-
<i>E. carunculatum</i>	4	4	3	5	3	4	4	2	5	2	-	-	-	-
<i>E. civile</i>	4	2	-	5	4	4	3	4	4	3	4	-	-	-
<i>E. clausum</i>	4	4	5	4	2	2	3	-	-	-	-	-	-	-
<i>E. cyathigerum</i>	4	4	4	5	4	3	4	4	5	4	5	4	4	-
<i>E. ebrium</i>	4	4	4	5	4	4	4	4	4	4	4	6	6	-
<i>E. exsulans</i>	4	-	-	-	-	4	4	4	4	-	-	-	-	-
<i>E. geminatum</i>	4	-	-	-	-	4	4	5	-	-	-	-	-	-
<i>E. hageni</i>	4	3	4	5	4	4	4	4	4	4	-	-	6	-
<i>E. minusculum</i>	3	-	-	-	-	-	-	2	3	2	-	-	-	-
<i>E. signatum</i>	4	-	-	-	-	4	4	2	5	-	-	-	-	-
<i>E. triviatum westfalli</i>	2	-	-	-	-	2	-	-	-	-	-	-	-	-
<i>E. vernale</i>	5	-	-	-	-	3	4	-	5	-	-	-	-	-
<i>E. vesperum</i>	4	-	-	-	-	4	4	2	5	-	-	-	-	-
<i>Ischnura cervula</i>	4	4	3	5	-	-	-	-	-	-	-	-	-	-
<i>I. damula</i>	3	2	3	5	2	-	-	-	-	-	-	6	-	-
<i>I. erratica</i>	4	4	-	-	-	-	-	-	-	-	-	-	-	-
<i>I. hastata</i>	2	-	-	-	-	2	-	-	-	-	-	-	-	-
<i>I. kellicotti</i>	2	-	-	-	-	2	-	-	-	-	-	-	-	-
<i>I. perparva</i>	4	4	3	6	2	-	-	-	-	-	-	-	-	-
<i>I. posita</i>	4	-	-	-	5	4	4	2	4	-	5	-	-	-
<i>I. verticalis</i>	4	-	5	5	4	4	4	4	4	4	4	-	-	-
<i>Nehalennia gracilis</i>	4	-	-	-	-	3	4	4	5	2	-	-	-	-
<i>N. irene</i>	4	4	4	4	4	4	4	4	4	4	5	6	2	-
<b>ANISOPTERA</b>														
<b>Petaluridae</b>														
<i>Tanypteryx hageni</i>	3	3	-	-	-	-	-	-	-	-	-	-	-	-
<b>Aeshnidae</b>														
<i>Aeshna canadensis</i>	4	4	4	4	4	4	4	4	4	4	5	2	6	-
<i>A. clepsydra</i>	4	-	-	-	-	3	3	3	4	-	-	-	-	-
<i>A. constricta</i>	4	2	3	4	4	4	4	4	5	3	-	-	-	-
<i>A. eremita</i>	4	4	4	4	4	4	4	4	4	3	4	4	4	-
<i>A. interrupta*</i>	4	4	4	4	4	4	4	4	4	4	4	4	4	-
<i>A. juncea</i>	4	4	4	4	5	3	4	2	-	-	4	4	4	5
<i>A. palmata</i>	4	4	4	5	-	-	-	-	-	-	-	3	-	A.
<i>septentrionalis</i>	4	4	5	5	5	2	3	-	5	-	5	4	4	-
<i>A. sitchensis</i>	4	4	4	4	4	4	4	3	4	-	4	4	5	5
<i>A. subarctica</i>	4	4	5	4	3	2	4	3	4	2	5	4	3	-
<i>A. tuberculifera</i>	4	3	5	6	2	4	4	4	4	3	-	-	-	-
<i>A. umbrosa*</i>	4	4	4	4	4	4	4	4	4	4	4	2	3	-
<i>A. verticalis</i>	4	-	-	-	6	2	3	4	4	-	-	-	-	-
<i>Anax junius</i>	4	4	4	4	4	4	4	4	4	4	-	-	-	-

Table 1 continued . . .

Species	Canada	Western			Central		Eastern			Northern				
		BC	AB	SK	MB	ON	QC	NB	NS	PE	NF	YT	NT	NU
<i>A. longipes</i>	8	-	-	-	-	8	-	8	-	-	-	-	-	-
<i>Basiaeschna janata</i>	4	-	-	6	2	4	4	4	4	2	-	-	-	-
<i>Boyeria grafiana</i>	4	-	-	-	-	3	4	4	5	5	-	-	-	-
<i>B. vinosa</i>	4	-	-	-	2	4	4	4	4	5	-	-	-	-
<i>Epiaeschna heros</i>	3	-	-	-	-	3	3	5	-	-	-	-	-	-
<i>Gomphaeschna furcillata</i>	2	-	-	-	-	2	2	5	2	-	-	-	-	-
<i>Nasiaeschna pentacantha</i>	3	-	-	-	-	3	2	5	-	-	-	-	-	-
<i>Rhionaeschna californica</i>	4	4	-	-	-	-	-	-	-	-	-	-	-	-
<i>R. multicolor</i>	4	4	5	5	-	-	-	-	-	-	-	-	-	-
<i>R. mutata</i>	2	-	-	-	-	2	-	-	6	-	-	-	-	-
<b>Gomphidae</b>														
<i>Arigomphus cornutus</i>	3	-	-	-	2	3	3	-	-	-	-	-	-	-
<i>A. furcifer</i>	3	-	-	-	-	3	3	5	-	-	-	-	-	-
<i>A. villosipes</i>	2	-	-	-	-	2	-	-	-	-	-	-	-	-
<i>Dromogomphus spinosus</i>	4	-	-	-	2	4	4	4	4	-	-	-	-	-
<i>D. spoliatus</i>	2	-	-	-	-	2	-	-	-	-	-	-	-	-
<i>Gomphus abbreviatus</i>	2	-	-	-	-	-	-	2	6	-	-	-	-	-
<i>G. adelphus</i>	4	-	-	-	-	3	4	4	4	-	-	-	-	-
<i>G. borealis</i>	4	-	-	-	-	2	4	4	4	-	-	-	-	-
<i>G. descriptus</i>	4	-	-	-	-	3	4	3	3	-	-	-	-	-
<i>G. exilis</i>	4	-	-	-	2	4	4	4	4	-	-	-	-	-
<i>G. externus</i>	2	-	-	-	2	-	-	-	-	-	-	-	-	-
<i>G. fraternus*</i>	4	-	-	-	3	3	4	-	-	-	-	-	-	-
<i>G. graslinellus</i>	4	2	8	5	2	2	-	-	-	-	-	-	-	-
<i>G. lividus</i>	4	-	-	-	-	4	3	-	-	-	-	-	-	-
<i>G. quadricolor</i>	2	-	-	-	-	2	-	-	-	-	-	-	-	-
<i>G. spicatus</i>	4	-	-	-	2	4	4	4	4	2	-	-	-	-
<i>G. vastus</i>	4	-	-	-	2	2	4	3	-	-	-	-	-	-
<i>G. ventricosus</i>	2	-	-	-	-	2	2	2	2	-	-	-	-	-
<i>G. viridifrons</i>	2	-	-	-	-	2	-	-	-	-	-	-	-	-
<i>Hagenius brevistylus</i>	4	-	-	-	4	4	4	4	4	-	-	-	-	-
<i>Lanthus parvulus</i>	4	-	-	-	-	-	4	4	3	-	-	-	-	-
<i>Octogomphus specularis</i>	2	2	-	-	-	-	-	-	-	-	-	-	-	-
<i>Ophiogomphus anomalus</i>	3	-	-	-	-	2	2	3	-	-	-	-	-	-
<i>O. aspersus</i>	4	-	-	-	-	-	4	4	2	-	-	-	-	-
<i>O. carolus</i>	4	-	-	-	-	2	4	4	4	-	-	-	-	-
<i>O. colubrinus</i>	4	4	4	4	4	3	4	2	-	-	5	6	2	-
<i>O. howei</i>	2	-	-	-	-	-	-	2	-	-	-	-	-	-
<i>O. mainensis mainensis</i>	4	-	-	-	-	2	4	4	2	-	-	-	-	-
<i>O. occidentis</i>	4	4	-	-	-	-	-	-	-	-	-	-	-	-
<i>O. rupinsulensis</i>	4	-	-	4	2	3	4	4	2	-	-	-	-	-
<i>O. severus*</i>	4	4	4	4	-	-	-	-	-	-	-	-	-	-
<i>Progomphus obscurus</i>	2	-	-	-	-	2	-	-	-	-	-	-	-	-
<i>Stylogomphus albistylus</i>	4	-	-	-	-	3	4	4	4	-	-	-	-	-
<i>Stylurus amnicola</i>	3	-	-	-	6	2	3	-	-	-	-	-	-	-
<i>S. intricatus</i>	3	-	3	5	-	-	-	-	-	-	-	-	-	-
<i>S. laurae</i>	2	-	-	-	-	2	-	-	-	-	-	-	-	-
<i>S. notatus</i>	4	-	-	6	2	2	4	-	-	-	-	-	-	-

Table 1 continued . . .

Species	Canada	Western			Central		Eastern			Northern					
		BC	AB	SK	MB	ON	QC	NB	NS	PE	NF	YT	NT	NU	
<i>S. olivaceus</i>	2	1	-	-	-	-	-	-	-	-	-	-	-	-	
<i>S. plagiatus</i>	2	-	-	-	-	2	-	-	-	-	-	-	-	-	
<i>S. scudderi</i>	4	-	-	-	-	3	4	3	5	-	-	-	-	-	
<i>S. spiniceps</i>	4	-	-	-	-	2	4	-	-	-	-	-	-	-	
<b>Cordulegastridae</b>															
<i>Cordulegaster diastatops</i>	4	-	-	-	-	3	4	4	4	-	-	-	-	-	
<i>C. dorsalis</i>	4	4	-	-	-	-	-	-	-	-	-	-	-	-	
<i>C. maculata</i>	4	-	-	-	2	4	4	4	4	3	-	-	-	-	
<i>C. obliqua</i>	4	-	-	-	-	2	3	-	-	-	-	-	-	-	
<b>Macromiidae</b>															
<i>Didymops transversa</i>	4	-	-	-	2	4	4	4	4	-	-	-	-	-	
<i>Macromia illinoensis</i>															
<i>illinoensis</i>	4	-	-	-	2	4	4	4	4	-	-	-	-	-	
<i>M. magnifica*</i>	3	3	-	-	-	-	-	-	-	-	-	-	-	-	
<i>M. taeniolata</i>	2	-	-	-	-	2	-	-	-	-	-	-	-	-	
<b>Corduliidae</b>															
<i>Cordulia shurtleffii</i>	4	4	4	4	4	4	4	4	4	4	4	4	4	-	
<i>Dorocordulia lepida</i>	4	-	-	-	-	-	-	3	4	2	-	-	-	-	
<i>D. libera</i>	4	-	-	-	2	4	4	4	4	2	-	-	-	-	
<i>Epitheca canis</i>	4	3	5	5	3	4	4	4	4	4	-	-	-	-	
<i>E. cynosura</i>	4	-	-	-	2	4	4	5	5	-	-	-	-	-	
<i>E. princeps</i>	4	-	-	-	-	4	4	4	3	-	-	-	-	-	
<i>E. semiaquea</i>	5	-	-	-	-	-	-	5	5	-	-	-	-	-	
<i>E. spinigera</i>	4	4	4	4	4	4	4	4	4	2	-	-	-	-	
<i>Helocordulia uhleri</i>	4	-	-	-	-	3	4	4	4	-	-	-	-	-	
<i>Neurocordulia michaeli</i>	3	-	-	-	-	6	-	3	-	-	-	-	-	-	
<i>N. obsoleta</i>	2	-	-	-	-	-	-	2	-	-	-	-	-	-	
<i>N. yamaskanensis</i>	4	-	-	-	-	4	3	2	-	-	-	-	-	-	
<i>Somatochlora albicincta</i>	4	4	4	4	5	3	4	4	2	-	5	4	5	-	
<i>S. brevicincta</i>	3	2	-	-	-	-	3	2	5	-	5	-	-	-	
<i>S. cingulata</i>	4	4	3	4	5	3	4	4	4	2	4	-	-	-	
<i>S. elongata</i>	4	-	-	-	-	3	4	4	4	3	-	-	-	-	
<i>S. ensigera</i>	2	-	-	5	2	2	-	-	-	-	-	-	-	-	
<i>S. forcipata</i>	4	2	3	6	2	2	4	3	5	6	5	-	2	-	
<i>S. franklini</i>	4	4	4	5	4	4	4	3	5	2	5	3	5	-	
<i>S. hudsonica</i>	4	4	4	5	5	2	-	-	-	-	-	4	4	-	
<i>S. incurvata</i>	4	-	-	-	-	2	2	4	4	2	-	-	-	-	
<i>S. kennedyi</i>	4	2	5	6	3	3	4	4	5	2	5	2	4	-	
<i>S. linearis</i>	2	-	-	-	-	2	-	-	-	-	-	-	-	-	
<i>S. minor</i>	4	4	4	4	5	3	4	4	4	2	5	3	6	-	
<i>S. sahlbergi</i>	3	-	-	-	-	-	-	-	-	-	-	3	2	-	
<i>S. semicircularis</i>	4	4	4	-	-	-	-	-	-	-	-	2	-	-	
<i>S. septentrionalis</i>	4	3	3	-	5	3	4	2	3	-	5	2	5	-	
<i>S. tenebrosa</i>	3	-	-	-	-	2	3	5	3	-	-	-	-	-	
<i>S. walshii</i>	4	4	3	5	2	3	4	4	4	2	4	-	-	-	
<i>S. whitehousei</i>	4	4	4	4	5	2	3	-	-	-	5	2	-	-	

Table 1 continued . . .

Species	Canada	Western			Central		Eastern			Northern				
		BC	AB	SK	MB	ON	QC	NB	NS	PE	NF	YT	NT	NU
<i>S. williamsoni</i>	4	-	-	5	2	3	4	4	2	2	-	-	-	-
<i>Williamsonia fletcheri</i>	3	-	-	-	2	2	2	3	2	-	-	-	-	-
<b>Libellulidae</b>														
<i>Celithemis elisa</i>	4	-	-	-	-	4	3	4	4	2	-	-	-	-
<i>C. eponina</i>	3	-	-	-	-	3	8	-	-	-	-	-	-	-
<i>C. fasciata</i>	5	-	-	-	-	5	-	-	-	-	-	-	-	-
<i>C. martha</i>	5	-	-	-	-	-	-	-	5	-	-	-	-	-
<i>Erythemis collocata</i>	3	3	-	-	-	-	-	-	-	-	-	-	-	-
<i>E. simplicicollis</i>	4	-	-	-	-	4	2	-	-	-	-	-	-	-
<i>Erythrodiplax berenice</i>	2	-	-	-	-	-	2	-	2	-	-	-	-	-
<i>Ladona exusta</i>	4	-	-	-	-	-	-	5	4	-	-	-	-	-
<i>L. julia</i>	4	4	4	5	4	4	4	4	4	3	-	-	-	-
<i>Leucorrhinia borealis</i>	4	4	4	4	3	2	-	-	-	-	-	4	4	-
<i>L. frigida</i>	4	-	-	-	3	4	4	4	4	2	-	-	-	-
<i>L. glacialis</i>	4	4	3	4	3	4	4	4	4	3	5	-	-	-
<i>L. hudsonica</i>	4	4	4	4	4	4	4	4	4	4	5	4	4	-
<i>L. intacta</i>	4	4	4	4	4	4	4	4	4	3	-	-	-	-
<i>L. patricia</i>	4	4	-	4	5	3	4	2	5	-	-	3	5	-
<i>L. proxima</i>	4	4	4	4	4	4	4	4	4	4	5	4	4	-
<i>Libellula forensis</i>	4	4	-	-	-	-	-	-	-	-	-	-	-	-
<i>L. incesta</i>	4	-	-	-	-	4	3	4	4	-	-	-	-	-
<i>L. luctuosa</i>	4	-	-	-	8	4	3	-	5	-	-	-	-	-
<i>L. pulchella</i>	4	3	4	4	4	4	4	4	4	-	-	-	-	-
<i>L. quadrimaculata</i>	4	4	4	4	4	4	4	4	4	4	4	4	4	-
<i>L. semifasciata</i>	2	-	-	-	-	2	-	5	-	-	-	-	-	-
<i>L. vibrans</i>	2	-	-	-	-	2	-	-	-	-	-	-	-	-
<i>Nannothemis bella</i>	4	-	-	-	-	3	3	3	4	-	-	-	-	-
<i>Pachydiplax longipennis</i>	4	3	5	-	2	4	-	5	-	-	-	-	-	-
<i>Pantala flavescens</i>	4	-	8	-	8	4	4	4	4	2	8	-	-	-
<i>P. hymenaea</i>	4	8	-	-	8	4	4	4	4	-	-	-	-	-
<i>Perithemis tenera</i>	3	-	-	-	-	3	-	-	-	-	-	-	-	-
<i>Plathemis lydia</i>	4	4	-	-	2	4	4	4	4	4	-	-	-	-
<i>Sympetrum ambiguum</i>	8	-	-	-	-	8	-	-	-	-	-	-	-	-
<i>S. corruptum</i>	4	4	4	4	4	3	2	-	5	8	-	-	-	-
<i>S. costiferum</i>	4	4	4	4	4	4	4	4	4	4	5	-	3	-
<i>S. danae</i>	4	4	4	4	4	4	4	4	4	2	4	4	5	-
<i>S. illotum</i>	4	4	-	-	-	-	-	-	-	-	-	-	-	-
<i>S. internum</i>	4	4	4	4	4	4	4	5	4	4	5	4	4	-
<i>S. madidum</i>	4	4	5	4	2	-	-	-	-	-	-	2	5	-
<i>S. obtrusum</i>	4	4	4	4	4	4	4	4	4	4	-	6	5	-
<i>S. occidentale*</i>	4	4	4	6	2	4	-	-	-	-	-	-	-	-
<i>S. pallipes</i>	4	4	4	5	-	-	-	-	-	-	-	-	-	-
<i>S. rubicundulum</i>	4	-	-	-	-	4	4	5	5	5	-	-	-	-
<i>S. semicinctum</i>	4	-	-	-	-	4	4	4	4	3	-	-	-	-
<i>S. vicinum</i>	4	3	-	-	5	4	4	4	4	4	-	-	-	-
<i>Tramea carolina</i>	5	-	-	-	-	5	-	-	5	-	-	-	-	-
<i>T. lacerata</i>	4	8	-	-	-	4	8	-	-	-	-	-	-	-
<i>T. onusta</i>	8	-	-	-	-	5	-	-	-	-	-	-	-	-

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