

14.0 A PRELIMINARY LIST OF THE DRAGONFLIES AND DAMSELFLIES (ODONATA) OF NIAGARA REGION, ONTARIO

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This list of Odonata is based primarily on fieldwork in study sites designated by the Niagara Peninsula Conservation Authority in the summer of 2007 as part of the Niagara Natural Areas Inventory (NAI). As it is based almost exclusively on the observations of one researcher (Curry) in this one summer it cannot be regarded as complete. Furthermore, 2007 was an extreme drought year, the second in succession, which dried up standing water and creeks thereby reducing both the abundance and variety of Odonate species.

OTHER SOURCES OF INFORMATION

The *Ontario Odonate Atlas* (NHIC 2005) plots the occurrence of all species in Ontario. These records are based on specimens in institutions as well as photographs and sight observations. At least 21 Odonate species that were not encountered in 2007 are known to have occurred in Niagara. These are plotted on maps in the *Ontario Odonate Atlas* (NHIC 2005). Thirteen species are historical i.e., specimen records obtained prior to 1984. Another eight species have been recorded (specimens, photographs or sight records) since 1983 but were not encountered in the course of the 2007 field surveys.

ABUNDANCE DESIGNATIONS

The Abundance of Niagara Odonata is based on the number of known stations in the region plus other records since 1983. A station is defined as a population that is separated from any other population by at least one kilometre. For example in some large sites such as Upper 12-Mile Creek or Wainfleet Bog there may be two or even three stations.

The following terms and definitions are used to describe the abundance (area-wide status) of Niagara Odonata.

Common: currently known to be present at more than 10 stations.

Uncommon: currently known to be present at 5 to 10 stations.

Rare: currently known to be present at fewer than 5 stations.

These definitions are quite arbitrary and, no doubt, additional fieldwork would result in more stations being found and the definitions being modified. Nevertheless, they indicate the relative status of each species and point the way to recommendations about habitat preservation for Odonata in Niagara. In some cases an abundance label was applied that was not strictly based upon the number of stations where it was encountered. The reason for this is explained in the species accounts.



ONTARIO STATUS

The Natural Heritage Information Centre (NHIC) of the Ontario Ministry of Natural Resources maintains detailed listings of the status of Ontario butterflies. All species are ranked using the following labels:

- S1 extremely rare in Ontario
- S2 very rare in Ontario
- S3 rare to uncommon in Ontario
- S4 common in Ontario
- S5 very common in Ontario
- SNA not ranked – usually introduced or vagrant species

The NHIC provincial rank is indicated for each species on the list.

All S1 to S3 species are considered **Provincially Significant** and are marked as **PS** in the heading of the species accounts.

SUMMARY OF THE STATUS OF NIAGARA ODONATA

Common	22
Uncommon	10
Rare	25
<u>Historical</u>	<u>13</u>
TOTAL	70

The high number of species (8) that are apparently new to Niagara reflects the lack of field study of these taxa. The high number of “historical” species (13) may reflect the limited aspect of the fieldwork upon which this checklist is based. However, it also may be a function of habitat deterioration. Many of the missed species require clear highly oxygenated waters, something that is no longer prevalent in Niagara.



RECOMMENDATIONS

- more field surveys are necessary to determine the true status of many Niagara Odonata
- search the Ontario Odonata Database maintained by the Natural Heritage Information Centre (NHIC), Ontario Ministry of Natural Resources, in Peterborough, Ontario for all Niagara records

SPECIES CHECKLIST

Ebony Jewelwing [*Calopteryx aequabilis*] S5

Uncommon ---- 5 stations

American Rubyspot [*Hetaerina americana*] S4

Rare ---- at least one station in the Atlas, post 1983

Spotted Spreadwing [*Lestes congener*] S5

Historical ---- 1 record

Common Spreadwing [*Lestes disjunctus disjunctus*] S5

Rare ---- 3 stations

Emerald Spreadwing [*Lestes dryas*] S5

Rare ---- 2 stations

Sweetflag Spreadwing [*Lestes forcipatus*] S4

Historical ---- 1 record from extreme NW Niagara. This species may still occur but is easily overlooked.

Elegant Spreadwing [*Lestes inaequalis*] S4

Rare ---- 1 station (NE Wainfleet Bog) and one historical record.

Slender Spreadwing [*Lestes tectangularis*] S5

Rare ---- 1 station (Wainfleet Bog), where it is common. Commonly encountered elsewhere in the region in the recent past, it likely still occurs.

Lyre-tipped Spreadwing [*Lestes unguiculatus*] S5

Rare ---- 1 post 1983 sighting in the Atlas

Swamp Spreadwing [*Lestes vigilax*] S4

Historical ---- 1 record

Eastern Red Damsel [*Amphiagrion saucium*] S4

Rare ---- 3 stations

Blue-fronted Dancer [*Argia apicalis*] S4

Common

Violet Dancer [*Argia fumipennis violacea*] S5

Common

Powdered Dancer [*Argia moesta*] S5 NEW

Rare ---- only found in the Beaverdams /L. Gibson area, where numerous. This species likes fast-flowing waters.

Taiga Bluet [*Coenagrion resolutum*] S5

Rare ---- 1 post-1983 record

Rainbow Bluet [*Enallagma antennatum*] S4

Common

Azure Bluet [*Enallagma aspersum*] S3 PS

Uncommon ---- 1 station in 2007 (apparently widespread in the Wainfleet Bog ditch system) and 4 other post-1983 records

Boreal Bluet [*Enallagma boreale*] S5

Historical ---- 1 record

Tule Bluet [*Enallagma carunculatum*] S5

Common ---- found on or near the Lake Erie shore and the Niagara River

Familiar Bluet [*Enallagma civile*] S5

Common

Northern Bluet [*Enallagma annexum*] S4

Uncommon ---- about 7 post-1983 records but not encountered in 2007

Marsh Bluet [*Enallagma eribium*] S5

Uncommon ---- one 2007 station and about 8 records in total

Stream Bluet [*Enallagma exsulans*] S5

Common

Skimming Bluet [*Enallagma geminatum*] S4

Common

Hagen's Bluet [*Enallagma hageni*] S5

Uncommon ---- about 7 post-1983 records

Orange Bluet [*Enallagma signatum*] S4

Common

Citrine Forktail [*Ischnura hastata*] S2 PS

Historical ---- one record from Point Abino. This species should be searched for in late summer at seeps and springs, including at the historical site.

Fragile Forktail [*Ischnura posita*] S4

Common

Eastern Forktail [*Ischnura verticalis*] S5

Common

Sedge Sprite [*Nehalennia irene*] S5

Rare ---- 1 station (Wainfleet Bog)

ANISOPTERA – DRAGONFLIES

Lance-tipped Darner [*Aeshna constricta*] S5

Historical ---- 2 records

Spatterdock Darner [*Aeshna mutata*] S1 PS NEW

Rare ---- 1 station (St. John's CA, Upper 12-Mile Creek). This species is found in southwestern Ontario but a station at Puslinch Lake, Wellington (personal observation) suggest that it may be expanding its range north and east.

Shadow Darner [*Aeshna umbrosa umbrosa*] S5

Rare ---- 1 station (Wainfleet Bog) and 2 historical records

Common Green Darner [*Anax junius*] S5

Common

Comet Darner [*Anax longipes*] SNA NEW

Rare ---- 1 station. This impressive insect was observed patrolling over the pond at St. John's CA, Upper 12-Mile Creek on 17 June 2007 and five days later on 22 June. There are only a handful of records for the province.

Springtime Darner [*Basiaeschna janata*] S5

Rare ---- 1 station (Welland River at Chippewa Creek CA) and 2 historical records

Swamp Darner [*Epiaeschna heros*] S2S3 PS

Uncommon ---- 5 stations

Cyrano Darner [*Nasiaeschna pentacantha*] S5

Historical ---- 2 records

Unicorn Clubtail [*Arigomphus villosipes*] S2S3 PS

Uncommon ---- 6 stations and 2 additional post-1983 records. This species is becoming increasingly common in southern Ontario.

Midland Clubtail [*Gomphus fraternus fraternus*] S4

Historical ---- 1 record

Pronghorn Clubtail [*Gomphus graslinellus*] S3 NEW PS

Rare ---- 1 station (St. John's CA., Upper 12-Mile Creek).

Dusky Clubtail [*Gomphus spicatus*] S5

Historical ---- 1 record

Arrow Clubtail [*Stylurus spiniceps*] S2

Historical ---- 1 record from extreme NW Niagara

Delta-spotted Spiketail [*Cordulegaster diastatops*] S4 NEW

Rare ---- 2 stations (both, Upper 12-Mile Creek)

- Common Baskettail [*Epitheca cynosure*] S5**
Common
- Prince Baskettail [*Epitheca prince* prince] S5**
Rare ---- 1 station (Haldimand Sloughs) and 1 historical record
- Spiny Baskettail [*Epitheca spinigera*] S5**
Historical ---- 1 record, Niagara-on-the-Lake. May have been overlooked in 2007
- Williamson's Emerald [*Somatochlora williamsoni*] S4 NEW**
Rare ---- 3 stations
- Calico Pennant [*Celithemis elisa*] S5**
Uncommon ---- 4 stations, 2 more since 1983 and 2 more historical
- Halloween Pennant [*Celithemis eponina*] S4**
Rare ---- 2 site records
- Eastern Pondhawk [*Erythemis simplicicollis*] S5**
Common
- Dot-tailed Whiteface [*Leucorrhinia intacta*] S5**
Uncommon
- Belted Whiteface [*Leucorrhinia proxima*] S5**
Historical ---- 1 record
- Widow Skimmer [*Libellula luctuosa*] S5**
Common
- Twelve-spotted Skimmer [*Libellula pulchella*] S5**
Common
- Four-spotted Skimmer [*Libellula quadrimaculata*] S5**
Rare ---- 2 records one historical and one post-1983. This is a common species in areas to the north of Niagara.
- Painted Skimmer [*Libellula semifasciata*] S2 PS**
Rare ---- 2 stations (Pelham/W. Lincoln Forest, and Wainfleet Bog where there is a colony, and one historical record, Niagara-on-the-Lake. Painted Skimmer is a southern species that may be expanding north into Ontario.
- Blue Dasher [*Pachydiplax longipennis*] S5**
Common
- Wandering Glider [*Pantala flavescens*] S4**
Uncommon ---- 2 stations (Morgan's Point and nearby Wainfleet Wetlands) and 6-7 post-1983 records
- Spot-winged Glider [*Pantala hymenaea*] S4**

Rare ---- 1 post-1983 record

Eastern Amberwing [*Perithemis tenera*] S4

Common ---- 8 stations and 6-7 additional records since 1983

Common Whitetail [*Plathemis (Libellula) lydia*] S5

Common

Variegated Meadowhawk [*Sympetrum corruptum*] S3 NEW

Rare ---- 1 station (Wainfleet Wetlands).

Saffron-bordered Meadowhawk [*Sympetrum costiferum*] S4 NEW

Rare ---- 1 station (Wainfleet Wetlands)

Cherry-faced Meadowhawk [*Sympetrum internum*] S5

Rare ---- 1 post-1983 record

White-faced Meadowhawk [*Sympetrum obtrusum*] S5

Probably uncommon to common. Only noted at one station (plus one post-1983 and one historical record) but the *Sympetrum* species are late season flyers, with the main flight season after the 2007 field season surveys were completed.

Ruby Meadowhawk [*Sympetrum rubicundulum*] S5

Common ---- detected at 3 stations and, in addition, about 8 post-1983 records

Band-winged Meadowhawk [*Sympetrum semicinctum*] S4

Historical ---- 1 record

Autumn Meadowhawk [*Sympetrum vicinum*] S5

Common. This, the latest flying odonate is common throughout southern Ontario.

Black Saddlebags [*Tamea lacerata*] S4

Common



References

Natural Heritage Information Centre, Ontario Ministry of Natural Resources. (2005).

Ontario Odonata Atlas. Retrieved October 1, 2009, from

<http://nhic.mnr.gov.on.ca/MNR/nhic/odonates/atlas.html>