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### ADDITIONS TO THE LIST OF ODONATA OF THE MARITIME PROVINCES

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#### ABSTRACT

Ten species of Odonata are added to the number hitherto known from the Maritime Provinces, nineteen to the Nova Scotia list and five to the New Brunswick list. No new records have been received from Prince Edward Island. The totals now stand as follows: Nova Scotia, 76 species; New Brunswick, 67; Prince Edward Island, 15; total for the Maritime Provinces, 88 species.

Since the publication of the writer's list of the Odonata of the Maritime Provinces of Canada (Walker, 1933) many records have been gathered, which add materially to our knowledge of the fauna of this region. The collections on which most of these records are based may be listed under the names of the collectors and localities as follows:

- C. E. Atwood: Nashwaaksis River, Longo Creek and Fredericton, N. B. (National Collection, Ottawa, and Royal Ontario Museum of Zoology, Toronto).
- W. J. Brown: Annapolis Royal, N. S.; Boiestown and Fredericton, N. B. (National Collection, Ottawa).
- J. H. McDunnough: South Milford, Annapolis Co., N. S., and White Point Beach, Queen's Co., N. S. (National Collection, Ottawa).
- E. M. Walker: Clementsport, Milford and other localities in Annapolis and Digby Cos., N. S. (Royal Ontario Museum of Zoology, Toronto).
- H. C. White: Moser River, Halifax Co., N. S.

The writer collected in 1940 from July 5 to 20 and again in 1941 during the first half of August.

In the following list ten species are added to the number hitherto known from the Maritime Provinces, nineteen to the Nova Scotia list and five to the New Brunswick list. No new records have been received from Prince Edward Island. The totals now stand as follows: Nova Scotia, 76 species; New Brunswick, 67; Prince Edward Island, 15; total for the Maritimes, 88.

## ZYGOPTERA

### AGRIIDAE

#### *Agrion maculatum* Beauv.

N. S., Annapolis Co.—Annapolis Royal, 24 VII '28 (W.J.B.), outlet of Baillie Lake, 5 to 15 VII '40, abundant; 10 VIII '41, fairly common; Lequille River near Lamb Lake, 12 VII '40; small stream near Lake La Rose, 17 VII '40, abundant; 8 VIII '41, 2♂; Milford, 9 VII '40, one or two at outlet of bog lake (E.M.W.).

Males were displaying their courtship flight along the small stream near Lake La Rose on July 17, 1940, and near the head of the small rapid stream which flows out of Baillie Lake, on Aug. 11, 1941. On the former date a newly emerged adult with its exuvia was found, and on the latter date a male was seen to hover before a female which was resting on foliage overhanging the water. He faced the female within a few inches, with the four wings spread apart like a cross and vibrating rapidly. After hovering thus for about half a minute he seized the prothorax of the female with his anal appendages. The female remained on the leaf, the abdomen bending downward, but another half minute or so was passed before she finally bent the abdomen forward to engage the genitalia of the male.

#### *Agrion aequabile* Say.

N. B.—Fredericton, 2 VII '28 (W.J.B.); Nashwaaksis River, 8 VII '34 (C.E.A.).

Throughout the Maritime Provinces this species is slightly smaller, in average size, than in southern Ontario, and the dark areas at the apices of the wings are more nearly equal, those of the front wings being larger and those of the hind wings slightly smaller.

*Agrion amatum* (Hagen).

N. B.—Longo Creek, 10 VII '34, 1♂ 1♀; Phyllis Creek near Fredericton, 24 VI '34, 1♀ (C.E.A.).

#### LESTIDAE

*Lestes congener* Hagen.

N. S., Annapolis Co.—Clementsport, 3 VIII '41, 1♂; 15 VIII '41, 1♀ (E.M.W.).

The male had just emerged from a small pond, formed by damming the outlet of a springy bog on a partially wooded slope, above the village. The female was found within a few minutes' walk from the same pond and was also a teneral. The season was doubtless just beginning, as this is a late species. The records are the first for Nova Scotia.

The pond referred to is the same one at which the next five species were taken and where *Aeschna verticalis* Say was found emerging in 1940. It was nearly covered by a somewhat dense stand of sedges. The principal area of open water, which was only a few square yards in extent was just above the dam. As the writer discovered this pond through the croaking of innumerable green frogs, and a few swamp tree frogs and spring peepers, it will be referred to for convenience as the "frog pond."

*Lestes unguiculatus* Hagen.

N. S.—Clementsport, 20 VII '40, many tenerals; 1 to 7 VIII '41, abundant (E.M.W.).

These were all taken at the frog pond referred to above. Their season was just beginning at the end of my visit in 1940 but they were mature in August, 1941, some pairs in copula having been observed. They showed a distinct tendency to

frequent the edges of the open water, just above the dam, and adjacent areas where the emergent vegetation was very short. This is usually a species of temporary ponds.

*Lestes dryas* Kirby (syn. *L. uncatu*s Kirby).

N. S.—Clementsport, 5 to 20 VII '40; 1 to 3 VIII '41 (E.M.W.).

This species was already mature on July 5, 1940, when no other species of *Lestes* had yet appeared at the frog pond. It was still present in August, 1941, at the same pond but was not abundant at any time. It is typically a species of temporary ponds and was somewhat out of its usual habitat at the frog pond.

*Lestes disjunctus* Selys.

N. S., Annapolis Co.—Clementsport, 1 to 7 VIII '41; outlet of Baillie Lake, 11 VIII '41, 1 ♂; Digby Co.—pond near Digby, 7 VIII '40, common (E.M.W.).

Males were common among the tall sedges growing in the frog pond, most of them mature. Females appeared around the edges of the pond or in the bushes along the shore and were scarce, most of them still rather juvenile. Pairs in copula were observed on Aug. 7. This species is typical of permanent waters.

*Lestes forcipatus* Rambur.

N. S., Annapolis Co.—Clementsport, 1 to 7 VIII '41; pond near Lequille, 12 VII '40; cold marshy lake near Graywood, 12 VII '40 (E.M.W.).

The specimens taken in July were all tenerals, those in August mature. It was abundant at the shallow pond near Lequille and also at the frog pond, where its numbers about equalled those of *L. unguiculatus*. It frequented the tall sedges rather than the open water and nearly all the individuals seen were males, except in the case of copulating pairs, which were common on Aug. 7. These are the first records for Nova Scotia.

*Lestes rectangularis* Say.

N. S., Annapolis Co.—Clementsport, 3 to 15 VIII '41; outlet of Baillie Lake, 15 VII '40, 1 ♂; 11 VIII '41, a few ♂'s; Lamb Lake 4 VIII '41 2 ♂; Milford, 5 VII '40, 2 ♂, 5 VIII '41, a few ♂'s seen. Digby Co.—pond near Digby, 19 VII '40 (E.M.W.).

Only one male was seen at the frog pond on Aug. 3 but it was becoming commoner by Aug. 15. It was the only *Lestes* seen at the bog lake where *L. vigilax* was taken in July, 1940.

*Lestes vigilax* Hagen.

N. S., Annapolis Co.—Milford, 8, 9 VII '40; cold marshy lake near Graywood, 12 VII '40, 1 ♀ (E.M.W.).

This species was found along the moat or open ditch at the foot of a rocky wooded slope, bordering a large floating sphagnum bog. All the individuals seen were more or less teneral. On visiting the same spot on Aug. 5, 1941, the ditch was dried up and *L. vigilax* had disappeared.

This is the first record of this species for the Maritimes.

## COENAGRIIDAE

*Argia moesta* (Hagen).

N. S., Annapolis Co.—Sandy Bottom Lake, 5 VII '40, abundant; Beeler Lake, 20 VII '40, 1 ♀; Lequille River below Lamb Lake, 4 VIII '41 (E.M.W.); South Milford, 26 VI '34 (J.H.M.).

It was most abundant at Sandy Bottom Lake, where most of the population were young adults, some just emerged. Old males were fairly common on the Lequille River on August 4.

These are the first records from Nova Scotia.

*Argia violacea* (Hagen).

N. S., Annapolis Co.—Baillie Lake, 5 VII '40, common; outlet of Baillie Lake, 15 VII '40, 11 VIII '41; stream near Lake La Rose, 17 VIII '40, 18 VIII '41; near Fisher's Lake, 16 VII '40; near Beeler Lake, 20 VII '40 (E.M.W.).

Common along small streams with exposed rocks. On July 5 only teneral were seen but on and after July 11 fully coloured individuals were the rule. They were still common in August, 1941.

*Enallagma boreale* Selys.

N. S., Annapolis Co.—Reservoir Lake on “North Mt.” near Bridgetown, 6 VII '40, frequent, some pairs in copula (E.M.W.).

N. B.—Near St. George, 16 VII '34, 1♂ (C.E.A.).

Except on the higher land on the Fundy side of the Annapolis Basin, the season for this early species was doubtless over before collecting was begun in 1940. Although common across the continent it had not been previously reported from Nova Scotia.

*Enallagma hageni* (Walsh).

N. S., Annapolis Co.—outlet of Baillie Lake, 5, 15 VII '40, common along the quieter reaches, 11 VIII '41, scarce; small lake near Graywood, 8 VII '40, frequent; Beeler Lake, 20 VII '40; Lamb Lake, 12, VII '40 (E.M.W.); Milford, 1 VII '34 (J.H.M.); 5 VIII '41, 1♂ at bog pond (E.M.W.). Halifax Co., Moser River, 18 VIII '40, 2♂ 1♀ (H.C.W.).

N. B.—Nashwaaksis River, 1 mile from mouth, 23 VI '34, 4♂ 4♀ (C.E.A.).

The season for this abundant species was apparently already waning in early July, 1940, and was practically over in August, 1941. June is the month of its great abundance.

*Enallagma ebrium* (Hagen).

N. S., Annapolis Co.—small lake near Graywood, 8 VII '40, fairly common. Digby Co.—Midway Lake, 14 VII '40, common (E.M.W.).

*Enallagma minusculum* Morse.

N. S., Annapolis Co.—near Beeler Lake, 20 VII '40, 1♂; Fisher's Lake, 16 VII '40, 1♂, flying over water near shore (E.M.W.).

The scarcity of this species suggests that the season was nearly over.

*Enallagma carunculatum* Morse.

N. S., Annapolis Co.—Fisher's Lake, 16 VII '40, 1 ♂, flying over water near shore (E.M.W.).

N. B.—Bocabec Lake, 19 VII '23, 1 ♂ (E.M.W.).

The male from Bocabec Lake was taken with *E. civile* and was overlooked in my previous paper. It has not been hitherto reported from the Maritime Provinces.

*Enallagma civile* (Hagen).

N. S., Annapolis Co.—Beeler Lake, 20 VII '40, 2 ♂, recently emerged; Lake La Rose, 20 VII '40, many teneral; Cady Lake, 11 VIII '41, 6 ♂'s, (E.M.W.). Queen's Co.—White Point Beach, 11, 12, 19 VII '34 (J.H.M.).

The distribution of this species in Canada appears to be discontinuous. It is common in the Maritime Provinces unknown in Quebec, rare in Ontario, except in the extreme west, and abundant in southern Manitoba, decreasing in numbers again westward and apparently not reaching British Columbia.

*Enallagma vesperum* Calvert.

N. S., Annapolis Co.—small lake near Fisher's Lake, 16 VII '40, 1 ♂; Beeler Lake, 20 VII '40, 1 ♂ 2 ♀ (E.M.W.).

These specimens differ from Ontario examples in the greater width of the dark humeral band. It was not previously known from Nova Scotia.

*Ischnura verticalis* (Say).

N. S., Annapolis Co.—Clementsport, 5 to 8 VII '40, 1 to 3 VIII '41; Bailie Lake, outlet, 15 VII '40, 11 VIII '41; Cady Lake, 5 VII '40, 11 VIII '41; Beeler Lake, 20 VII '40; Lamb Lake, outlet, 4 VIII '41; small stream near Lake La Rose, 17 VII '40, 8 VIII '41; small lakes in vicinity of Fisher's Lake, 16 VII '40; Milford, 8, 9, VII '40; 5 VIII '41 (E.M.W.),

23 VI '34 (J.H.M.). Digby Co.—pond near Digby, 7 VIII '41; Midway Lake, 14 VII '40 (E.M.W.); Queen's Co.—White Point Beach, 12 VII '34 (J.H.M.).

N. B.—Nashwaaksis River, 23 VI '34, 2♂ 2♀ (C.E.A.)

This was much the most generally distributed damselfly and usually the most abundant. On the small streams, such as the outlet of Baillie Lake and the brook near Lake La Rose, it was restricted to the quiet reaches.

*Ischnura posita* (Hagen).

N. S., Annapolis Co.—Milford, ditch bordering open bay, 8, 9 VII '40; outlet of Baillie Lake, 15 VII '40; stream near Lake La Rose, 17 VII '40, 8 VIII '41 (E.M.W.).

On the streams this little damselfly was commoner than *I. verticalis* where there was a slight current but less common than that species on the quiet reaches.

*Nehalennia irene* (Hagen).

N. S., Annapolis Co.—Clementsport, 1, 3 VIII '41, common at the frog pond among the short sedges, bordering open water; outlet of Baillie Lake, 15 VII '40, frequent on quiet reaches; Milford, 8, 9 VII '40, common in the open bog (E.M.W.).

This species had disappeared from the Milford bog in August, 1941.

*Nehalennia gracilis* Morse.

N. S., Annapolis Co.—Milford, open bog, 8 VII '40, 1♂ (E.M.W.); Queen's Co.—White Point Beach, 21 VII '34, 4♂ 1♀ (J.H.M.).

These are the first Nova Scotia records.

*Chromagrion conditum* (Hagen).

N. S., Annapolis Co.—outlet of Baillie Lake, 15 VII '40, occasional along the brook, chiefly in a boggy pasture (E.M.W.); Milford, 21 VI '34, 2♂ 4♀ (J.H.M.).

These are the first Nova Scotia records.



## ANISOPTERA

## AESCHNIDAE

*Gomphaeschna furcillata* (Say).

N. S., Annapolis Co.—Milford, 27 to 30 VI '34 (J.H.M.);  
8, 9 VII '40 (E.M.W.).

A good series of males was taken along a road at South Milford by Dr. McDunnough. The writer first saw this species in the afternoon of July 8, flying along the ditch which borders an extensive open sphagnum bog, at the foot of a rocky wooded slope. The ditch was full of water about a foot deep and was overhung by the branches of small maritime birches, alders and other trees. Occasional individuals flew along the ditch but none appeared over the open bog. Two were taken, both males. The same bog was visited on the following morning, the weather being fine and warm. On this occasion *Gomphaeschna* was flying over the open bog as well as the ditch and a series of eight males was taken. They were easier to net on the wing than most aeschnids. No females nor exuviae could be found. The bog was visited a third time on July 16. The weather was fair but windy and not a single *Gomphaeschna* was seen.

These are the only Canadian records for this species.

*Boyeria vinosa* (Say).

N. S., Halifax Co.—Moser River, 13 VIII '40, 1♂;  
1 X '40, 1♂ (H.C.W.).

*Boyeria grafiana* Wmsn.

N. S., Halifax Co.—Smith Brook, Moser River, 20 VII '40, 1♀, somewhat teneral (H.C.W.); 3 IX '40, 1♂ 1♀ (D. G. Wilder).

These are the first records of this species for the Maritime Provinces.

*Basiaeschna janata* (Say).

N. S., Annapolis Co.—Baillie Lake, 5, 15 VII '40, 1♂ at outlet; others seen along the stream where it flows through

an open marsh; Lequille River, below Lamb Lake, 12 VII '40, not infrequent over both quiet and rapid parts of the stream; stream near Lake La Rose, 17 VII '40, a few patrolling the stream; Milford, outlet of bog lake, 9 VII '40 (E.M.W.).

N. B.—Nashwaaksis River, 23, 27 VI '34, 1♀ (C.E.A.).

*Aeschna clepsydra* Say.

N. S., Halifax Co.—Moser River, 21, 25 VIII '40, 2♂ (H.C.W.).

*Aeschna canadensis* Walker.

N. S., Annapolis Co.—Clementsport, 7 VIII '41; outlet of Baillie Lake, 11 VIII '41; Milford, 5 VIII '41 (E.M.W.), 28 VI '34 (J.H.M.). Digby Co.—pond near Digby, 7 VIII '41 (E.M.W.).

This species was abundant at the "frog pond," where *A. verticalis* emerged in numbers in 1940. It was also common at the other stations, and was the only aeschnid at the Milford bog pond, where *Gomphaeschna furcillata* was taken in 1940. August is, of course, too late for the latter species.

*Aeschna verticalis* Say.

N. S., Annapolis Co.—Clementsport, 5 to 20 VII '40, many newly emerged adults with exuviae; 1 VIII '41, 1♀ (E.M.W.).

On July 5 a male and a female, just emerged, with exuviae, were found at the "frog pond." The pond was visited daily for the next three days and each day several newly emerged specimens were found, as well as a large number of exuviae. A final visit was made to the pond on July 20 and a few more exuviae were taken but no more adults. The season of emergence appeared to be about over. Altogether nearly forty exuviae were collected. On visiting the same pond in August, 1941 the first *Aeschna* taken was *verticalis* and the only exuvia found was also this species. Aeschnas were plentiful but nearly all were *canadensis*.

This is the first time that *A. verticalis* has been found in emergence. The nymph has been recently described by the

writer (Walker, 1941). This species was hitherto unknown from Nova Scotia.

*Aeschna tuberculifera* Walker.

N. S., Annapolis Co.—Clementsport, 7 VIII '41, 1 ♂ (E.M.W.). Hants Co.—Falmouth, 26 VIII '37, 1 ♀ (H. E. Payne). Colchester Co.—Truro, 12 IX '37, 1 ♀ (M. D. Payne). Lunenburg Co.—Petite Riviere Bridge, 9 VIII '36, 1 ♀, 13 VIII '36, 1 ♂ (T. N. Freeman).

The male from Clementsport was taken at the frog pond among many specimens of *A. canadensis*. The species is new to the Maritime Provinces but is evidently commoner here than in Ontario or Quebec.

*Aeschna umbrosa* Walker.

N. S., Halifax Co.—Halfway Brook, Sheet Harbour, 13 IX '40, 2 ♂; Goldmine Brook, Moser River, 21, 22 VIII '40, 2 ♂ 1 ♀ (H.C.W.).

N. B.—Fredericton, 7 VIII '35, 1 ♀ (J. C. R. Burnham).

*Anax junius* Drury.

N. S., Annapolis Co.—Clementsport, 5 VII '40, one seen at the frog pond.

GOMPHIDAE

*Hagenius brevistylus* Selys.

N. S., Annapolis Co.—near Baillie Lake, 9 VII '40, 1 ♂ (E.M.W.). Halifax Co.—Moser River, 10 to 21 VIII '40, 1 ♂ 2 ♀ (H.C.W.).

Mr. White reports this species to be common on the Moser River.

*Ophiogomphus carolus* Needham.

N. S., Halifax Co.—Moser River, 12 VI '40, 1 ♀ (H.C.W.).

N. B.—Longo Creek, 10 VII '34, 1 ♀ (C.E.A.).

*Ophiogomphus rupinsulensis* (Walsh).

N. B.—Boiestown, 13 VII '28, 4 ♂ 1 ♀ (W.J.B.).

This is a new record for the Maritime Provinces.

*Lanthus albistylus* (Hagen).

N. S., Annapolis Co.—stream near Lake La Rose, 17 VII '40, 3♂; 20 VII '40, 1♀ (E.M.W.).

A few males were seen but they were extremely wary. They rested frequently on boulders in shallow running water.

*Gomphus exilis* Selys.

N. S., Annapolis Co.—Baillie Lake and outlet, 5, 15 VII '40, occasional; Cady Lake, 5 VII '40, 1♂, others seen; Reservoir Lake, near Bridgetown, 6 VII '40, 1♂; Lequille River, just below Lamb Lake, 12 VII '40, ♀ ovipositing; vicinity of Fisher's Lake, 16 VII '40, 1♂ (E.M.W.).

The season for this common species was evidently past its height.

*Gomphus brevis* Hagen.

N. S., Halifax Co.—Bear Lake, Moser River, 12 VI '40, 2♀, 16 VI '40, 3♂ (H.C.W.).

*Gomphus ventricosus* Walsh.

N. B.—Fredericton, 30 VI '34, 1♂ (C.E.A.).

This is the first record for the Maritime Provinces and was unexpected.

## CORDULEGASTERIDAE

*Cordulegaster maculatus* Selys.

N. S., Annapolis Co.—Moose River near Clementsport, 9 VII '40, 1♂, others seen; stream on Lequille Rapid near Lake La Rose, 17 VII '40, 2♂'s, others seen including an ovipositing female (E.M.W.).

N. B.—Longo Creek, 10 VI '34, 1♂ (C.E.A.).

*Cordulegaster diastatops* Selys.

N. S., Halifax Co.—Moser River, 4 VII '42, 1♂ (H.C.W.).

N. B.—Longo Creek, 10 VI '34, 1♂ (C.E.A.).

## CORDULIIDAE

*Dorocordulia lepida* (Hagen).

N. S., Annapolis Co.—outlet of Baillie Lake, 15 VII '40, 1♂; Lamb Lake, 12 VII '40, 1♀ (E.M.W.); S. Milford, 23 VI '34, 7 VII '34, 4♂ 4♀ (J.H.M.).

The male from Baillie Lake was found clinging to herbage near the ground, close to a rapid part of the stream. The female from Lamb Lake was ovipositing under bushes along a marshy bit of the shore.

*Dorocordulia libera* (Selys).

N. S., Annapolis Co.—Milford, 8 VII '40, 2♂'s flying around the edge of one of the ponds in the floating bog (E.M.W.).

*Somatochlora minor* Calvert.

N. S. Annapolis Co.—S. Milford, 6 VI '34, 1♂, 26 VI '34 1♀ (J.H.M.).

Two individuals of a *Somatochlora* that appeared to be this species were seen hovering over the outlet of Baillie Lake on Aug. 11, 1941, but both escaped.

*Somatochlora elongata* (Scudder).

N. S., Annapolis Co.—S. Milford, 26 VI '34, 1♀ (J.H.M.); small stream on the Lequille Road near Lake La Rose, 17 VII '40, 2♂'s, others seen (E.M.W.). Halifax Co.—Halfpenny Brook, Sheet Harbour, 28 VIII '40, 1♂; Moser River, 1 IX '40, 1♀ (H.C.W.).

N. B.—Boiestown, 11 VII '28, 1♂ (W.J.B.).

*Somatochlora kennedyi* Walker.

N. B.—Fredericton, 17, 30 VI '34, 2♀; 12 VII '30, 1♀; St. John River near Jennsey, 3 VII '35, 2♂; near Yaho, 7 VI '34, 1♂ (C.E.A.).

While we did not see this species in Annapolis Co., N. S., in 1940 an exuvia was found at the frog pond on July 5 which

appears to belong to it, but might belong to the next species, whose nymph is unknown.

*Somatochlora incurvata* Walker.

N. S., Queen's Co.—White Point Beach, 19 VII '34, 1♀, 21 VII '34, 1♂ (J.H.M.). Halifax Co.—Moser River 10-15 X '40 1♂ (H.C.W.).

The date of the specimen from the Moser River is by far the latest record we have for any species of *Somatochlora* in Canada.

*Somatochlora cingulata* Selys.

N. S., Digby Co.—Midway Lake near Centreville, 14 VII '40, 1♀, recently emerged (E.M.W.).

This specimen was found resting in a dense bed of rushes growing in shallow water near the lake shore. It had apparently flown from the spot from which it had emerged since no exuvia could be found. It is new to the Nova Scotia list.

*Williamsonia fletcheri* Williamson.

N. B.—Fredericton, 1 VII '31 (R. P. Gorham).

The specimen is in the National Collection. The species is new to the Maritime Provinces.

*Helocordulia uhleri* (Selys).

N. S., Annapolis Co.—Lequille River below Lamb Lake, 12 VII '40, 1♂, a few others seen (E.M.W.). Halifax Co.—Moser River, 6 VI '40, 1♀ (H.C.W.).

N. B.—Nashwaaksis River, 23-27 VI '34, 3♂ (C.E.A.).

*Tetragoneuria canis* McLachlan.

N. B.—Nashwaaksis River, 1 mile from mouth, 23 VI '34, 3♂, 8 VII '34, 1♂ (C.E.A.).

*Tetragoneuria spinigera* Selys.

N. S., Annapolis Co.—S. Milford, 25 VI '34 (J.H.M.); Sandy Bottom Lake, 9 VII '40, 1♂, others seen along road

(E.M.W.). Halifax Co.—Bear Lake, Moser River, 16 VI '40, 1♀ (H.C.W.).

N. B.—Nashwaak, 8 VII '34, 1♂; Oak Bay, 15 VI '34 (C.E.A.).

*Tetragoneuria cynosura simulans* Muttkowski.

N. B.—French Lake (C.E.A.).

*Didymops transversa* (Say).

N. B.—Nashwaaksis River, 27 VI '34, 1♂; 8 VII '34, 1♂; near Fredericton, 1 VII '34, 1♂ (C.E.A.).

*Macromia illinoiensis* Walsh.

N. S., Annapolis Co.—S. Milford, 30 VI '34 (J.H.M.); Lequille River below Lamb Lake, 12 VII '40, ♂ seen; near Fisher's Lake, 16 VII '40, ♂ seen (E.M.W.).

N. B.—Boiestown, 10 VII '28 (W. J. Brown); Canaan River, near Cole's Island, 3 VII '35, 1♀ (C.E.A.).

The individual seen on the Lequille River was patrolling a smooth section of the stream, just below the road bridge. The other, near Fisher's Lake, was flying back and forth over the trees in a red maple swamp, near a small lake.

#### LIBELLULIDAE

*Libellula quadrimaculata* L.

N. S., Annapolis Co.—Clementsport, 8 VII '40, one flying over the frog pond (E.M.W.). Halifax Co.—Moser River, 17 VIII '40, 3♂ (H.C.W.).

N. B.—Nashwaaksis River, 8 VII '34, 1♂; Fredericton, 17 VII '34, 1♂ (C.E.A.).

*Libellula pulchella* Drury.

N. B.—Nashwaaksis River, 8 VII '34, 1♂; Fredericton, 17 VII '34, 1♂ (C.E.A.).

*Libellula julia* Uhler.

N. S., Annapolis Co.—S. Milford, 21 VI '34 (J.H.M.); bog lake at Milford, 8, 9 VII '40; near Fisher's Lake, 16 VII

'40; Baillie and Cady Lakes, 5 VII '40; Reservoir lake near Bridgetown, 6 VII '40, abundant (E.M.W.).

This species, hitherto unknown from Nova Scotia, was very common along the margin of Baillie Lake, settling on the rocks and the road, and was also common in the open woods skirting the bog lake at Milford.

*Libellula exusta* Say.

N. S., Annapolis Co.—Lamb Lake, 12 VII '40, 1♀, ovipositing in the Lequille River, just below the road bridge (E.M.W.).

*Sympetrum decisum* (Hagen).

N. S., Annapolis Co.—Clementsport, frog pond, 5 VII '40, a few just emerged; 6 VII '40, tenerals more numerous; 20 VII '40, very abundant, some adults, including pairs in copula, but mostly tenerals; 1-7 VIII '41, many adults, including pairs, but still emerging; Milford bog pond, 5 VIII '41, common but not abundant; Lequille River, near Lamb Lake, 5 VIII '41; stream near Lake La Rose, 8 VIII '41; pond on Liverpool Road, near Graywood, 12 VII '40, many just emerged; outlet of Baillie Lake, 11 VIII '41, fairly common, pairs in copula. Digby Co.—pond near Digby, 7 VIII '41 (E.M.W.). Halifax Co.—Moser River, 4, 17 VIII '40, 2♂, 30 IX '40, 1♀; Ecum Secum, 11 IX '40, 3♂ (H.C.W.).

N. B.—Nashwaaksis River, 8, VII '34, 1♂; Gagetown, 9 VIII '34, 1♂ 3♀ (C.E.A.).

This appears to be by far the most abundant of Anisoptera in Annapolis County during late summer.

*Sympetrum obtrusum* (Hagen).

N. S., Annapolis Co.—Clementsport, 20 VII '40, a very few newly emerged individuals among the hosts of *S. decisum* at the frog pond; none seen here in August, 1941; stream near Lake La Rose, 8 VIII '41, 1♀, apparently of this species (E.M.W.).



*Sympetrum vicinum* (Hagen).

N. S., Annapolis Co.—Milford, 5 VIII '41, a few teneral fluttering over the bog; outlet of Baillié Lake, 11 VIII '41, teneral not infrequent about the pond-like expansions of the stream (E.M.W.). Halifax Co.—Moser River, 4, 30 IX '40, 2 ♂; 2 XI '40, 2 ♂ (H.C.W.).

N. B.—Gagetown, 9 VIII '34, 1 ♀ teneral (C.E.A.).

These are the first records of this common species from the Maritime Provinces.

*Sympetrum semicinctorum* (Say).

N. S., Annapolis Co.—outlet of Baillie Lake, 11 VIII '41, several seen, including 2 pairs (E.M.W.). Halifax Co.—Moser River, 24 IX '40, 2 ♂, 30 IX '40, 1 ♂ 1 ♀ (H.C.W.).

One of the pairs observed on the outlet of Baillie Lake was ovipositing in tandem, the female striking the water but not the bank of the stream.

*Leucorrhinia hudsonica* (Selys).

N. S., Annapolis Co.—Milford, in sphagnum bog, 8 VII '40, 1 ♂ only; outlet of Baillie Lake, 15 VII '40, not uncommon, flying about the small mossy puddles connected with the larger, pond-like expansion of the stream (E.M.W.).

*Leucorrhinia frigida* (Hagen).

N. S., Annapolis Co.—Milford, sphagnum bog, 8, 9 VII '40, common; outlet of Baillie Lake, 15 VII '40, frequent about the pond-like expansion of the stream, where pickerel-weed and yellow pond lilies grow (E.M.W.). This is the first record for the Maritime Provinces.

*Leucorrhinia intacta* Hagen.

N. S., Annapolis Co.—Milford, sphagnum bog, 8, 9 VII '40, frequent about the open water areas, 1 pair in copula; Baillie Lake, 5 VII '40, common about the rocks at the lake margin; outlet of Baillie Lake, 15 VII '40, common about the

same pond-like expansions when *L. frigida* was found. Digby Co.—pond near Digby, 9 VII '40, common (E.M.W.).

N. B.—Nashwaaksis River, 1 mile from mouth, 23 VI '34, 1 ♂; 8 VII '34, 5 ♂ 1 ♀ (C.E.A.).

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