

The Chrysopidae of Canada (Neuroptera): recent acquisitions chiefly in British Columbia and Yukon

J. A. GARLAND

1011 CARLING AVENUE, OTTAWA, ONTARIO, CANADA K1Y 4E7

ABSTRACT

Chrysopidae collected since 1980 chiefly in British Columbia and Yukon, Canada, and some late additions collected before 1980, are reported. *Nineta gravida* (Banks) is reported for the first time in the last 90 years. This is the first supplement to the inventory of Chrysopidae in Canada.

Key words: Neuroptera, Chrysopidae, Canada

INTRODUCTION

The chrysopid fauna of Canada, as presently understood (Garland 1984, 1985), has been fully inventoried up to 1980 (Garland 1982). Since then, newly collected specimens in British Columbia and the Yukon, and some older-dated specimens not previously seen, have become available. The purpose of publishing these specimen label data is to supplement the already extensive inventory of label data on the Canadian chrysopid fauna, thereby extending it to the year 2000. Materials and methods appropriate to this study have been documented elsewhere (Garland 2000). All specimens reported here are deposited in the Spencer Entomological Museum, Department of Zoology, University of British Columbia. Acronyms used below: BC, British Columbia; SK, Saskatchewan; and YK, Yukon Territory.

FAMILY CHRYSOPIDAE Schneider, 1851 SUBFAMILY CHRYSOPINAE Schneider, 1851

A total of 57 specimens belonging to 10 recent species of Chrysopinæ are reported here, as follows:

Chrysopa chi Fitch

BC: 1 ♀, Gavin L[ake], 25.v.1987 (R. Reich); 1 ♂, *id.*, 3.vi.1987 (R. Reich).

Chrysopa coloradensis Banks

BC: 1 ♂, Penticton, 23.viii.1983 (R.J. Cannings).

Chrysopa nigricornis Burmeister

BC: 1 ♂, Galiano I[sland], Spanish Hills, 26.vi.1987 (G.G.E. Scudder); 1 ♂, Osoyoos, 15.vii.1990 (G.G.E. Scudder); 4 ♂♂, *id.*, 16.vii.1990 (G.G.E. Scudder); 1 ♂, Osoyoos, East Bench, 30.viii.1997 (G.G.E. Scudder); 1 ♂, Penticton, 23.viii.1983 (R.J. Cannings); 1 ♂, Vanc[ouver], 4. 6 [vi]. [19]25, Permanent Loan from Vancouver City Museum.

Chrysopa oculata Say

YK: 1 ♀, Alaska Hwy, 29.vi.1974 (G.G.E. Scudder); 2 ♀♀, McCabe Cr[eeek], 8 km S[outh], 30.vi.1985 (E. Krebs & J.J. Robinson); 1 ♀, Pelly Crossing, 30.vi.1985 (E. Krebs & J.J. Robinson); 1 ♀, Tatchun L[ake], 29.vi.1985 (E. Krebs & J.J. Robinson).

BC: 1 ♀, Dutch Cr[eeek], 1 km N[orth], 31.viii.1998 (G.G.E. Scudder); 1 ♀, F[or]t Nelson, 1367 [collected in alcohol], 2.viii.1982 (G.G.E. Scudder); 1 ♀, Galiano I[sland], North end, 25.vi.1989 (G.G.E. Scudder); 1 ♀, Moyie, 1.ix.1998 (G.G.E. Scudder); 1 ♀, Osoyoos L[ake], Haynes Ecol[ogical] Res[erve], 27.vi.1981 (S.G. Cannings); 1 ♀, Sparwood, 20.vi.1982 (G.G.E. Scudder).

SK: 1 ♂, Regina, 18.vi.1943 (P. Larkin).

Chrysopa pleuralis Banks

BC: 1 ♂, Osoyoos, M[oun]t Kobau R[oa]d, km 17.1, 1720 m, IDFdk1,6VK:F/2DYd4/2RO, sweeping K3, 28.vii.1997 (G.G.E. Scudder).

Chrysoperla carnea (Stephens)

BC: 1 ♂, Alaska Hwy, km 670, Racing River, 1.viii.1982 (G.G.E. Scudder); 1 ♀, Alaska Hwy, 32.1 km E[ast of] Steamboat, 1.viii.1982 (G.G.E. Scudder); 1 ♀, Charlie L[ake], 25 km W[est], 5.viii.1982 (G.G.E. Scudder); 3 ♂♂, 10 ♀♀, F[or]t Nelson, 1367 [collected in alcohol], 2.viii.1982 (G.G.E. Scudder); 1 ♀, Galiano I[sland], Spanish Hills, 26.vi.1987 (G.G.E. Scudder); 1 ♀, Nanaimo, 7.v.1987 (G.G.E. Scudder); 1 ♂, Sonora I[sland], Owen Bay, 26.vii.1986 (G.G.E. Scudder); 1 ♂, 1 ♀, W[est] Vancouver, 12.viii.[19]34 (G.H. Larnder), Permanent Loan from Vancouver City Museum; 5 ♂♂, 2 ♀♀, Wood Creek, 2 km N[orth of] Toad River, 1361 [collected in alcohol], 1.viii.1982 (G.G.E. Scudder).

Meleoma dolichartha (Navás)

BC: 1 ♂, Galiano I[sland], Spanish Hills, 26.vi.1987 (G.G.E. Scudder).

Meleoma emuncta (Fitch)

BC: 1 ♀, Penticton, 23.viii.1983 (R.J. Cannings).

Meleoma signoretti Fitch

BC: 1 ♀ [left FW & abdomen missing], W[est] Vancouver, 12.viii.[19]34 (G.H. Larnder), Permanent Loan from Vancouver City Museum.

Nineta gravida (Banks)

BC: 1 ♂, Gabriola Island, 19.vii.1999 (R.D. Kenner & G.S. Kenner).

DISCUSSION

For all ten species, the provincial and territorial distributions reported here were already known (Garland 1982, 1985; *cf.* Penny *et al.* 1997). However, for some of the species, the present data include important new locality records, *e.g.*, *Chrysopa pleuralis* in the South Okanagan just west of Osoyoos; for *Chrysoperla carnea*, all the specimens were yellow-green, characteristic of summer generations of this insect, which is thought to be bivoltine about the latitude of Whitehorse, Yukon and southward (Garland 1989); and, for *Nineta gravida*, the specimen reported here marks the first collecting record of the species for British Columbia in over 90 years, since 1908 in fact (Garland 2000).

ACKNOWLEDGEMENTS

Dr. G. G. E. Scudder, Professor Emeritus, University of British Columbia, kindly made the specimens mentioned here available for study.

REFERENCES

- Garland, J.A. 1982. The Taxonomy of Chrysopidae of Canada and Alaska (Insecta: Neuroptera). Ph. D. Thesis, McGill University, Canada. 1: 418 pp. 2: 132 figs., 24 maps.
- Garland, J.A. 1984. Catalogue of Chrysopidae of Canada and Alaska (Neuroptera). Neuroptera International 3:93-94. [Legal deposit, 31 December 1984]
- Garland, J.A. 1985. Identification of Chrysopidae in Canada, with bionomic notes (Neuroptera). The Canadian Entomologist 117:737-762, 1278 (*errata*).
- Garland, J.A. 1989. Phénologie de l'espèce holarctique *Chrysoperla carnea* (Stephens) (Neuroptera: Chrysopidae) dans la partie septentrionale de l'Amérique du Nord. Neuroptera International 5:181-183.
- Garland, J.A. 2000. Rediscovery of *Nineta gravida* (Banks, 1911) in British Columbia, and review of the genus *Nineta* Navás, 1912 in Canada (Neuroptera: Chrysopidae). Journal of Neuropterology 3: [in press].
- Penny, N.D., P.A. Adams, and L.A. Stange. 1997. Species catalog of the Neuroptera, Megaloptera, and Raphidioptera of America north of Mexico. Proceedings of the California Academy of Sciences 50:39-114.