

***CENTROPTILUM INFREQUENS* MCDUNNOUGH (EPHEMEROPTERA: BAETIDAE),
A JUNIOR SYNONYM OF *PSEUDOCENTROPTILUM PENNULATUM* (EATON)**

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Centroptilum infrequens McDunnough, 1924 was found to be widespread in Canada and was described in detail at the 5th International Ephemeroptera Conference, Marysville, Australia, 1987 (Lowen and Flannagan 1989). At that time, similarities between *C. infrequens* and published accounts of *Pseudocentroptilum pennulatum* (Eaton 1870) were noted and it was suggested that these species are conspecific. We have recently compared specimens of *C. infrequens* with specimens of *P. pennulatum* from western Europe, and have noted no discernable differences at any life stage. We therefore conclude that *Centroptilum infrequens* McDunnough, 1924 is a junior synonym of *Pseudocentroptilum pennulatum* (Eaton) 1870. This is the first record of *Pseudocentroptilum* in North America and the first record of a holarctic *Pseudocentroptilum* species, as *P. pennulatum* is also known from the arctic Ural and Pacific Coast regions of the Soviet Union.

Specimens used in this study were borrowed from collections listed below or are from the senior author's private collection.

- CNIC — Canadian National Insect Collection, Agriculture Canada, Ottawa, Ont., Canada K1A 0C6.
FWISL — J.F. Flannagan, Freshwater Institute, Department of Fisheries and Oceans, Winnipeg, Man., Canada R3T 2N6.
JBWM — R. Roughley, University of Manitoba, J.B. Wallis Museum, Winnipeg, Man., Canada R3T 2N2.
MGUK — M. Gillies, Whitfeld, Hamsey, Lewes, E. Sussex, BN8 5TD, England.
ROMC — G. Wiggins, Royal Ontario Museum, 100 Queen's Park, Toronto, Ont., Canada M5S 2C8.
UWWO — J. Ciborowski, University of Windsor, Department of Biology, Windsor, Ont., Canada N9B 3P4.
ZSMG — Zoologische Staatssammlung, Münchhausenstr. 21, D-8000 München 60, Federal Republic of Germany.

Specimens Examined. CANADA (as *Centroptilum infrequens* McDunnough) — Holotype: Winnipeg Beach, Manitoba (coll. J. Hunter), 10/VII/1923, (No. 695 in CNIC); ALBERTA: Battle River, New Norway (UWWO); Lethbridge (CNIC); Medicine River, Eckville (UWWO); Pembina River, Entwistle (UWWO); MANITOBA: Churchill (CNIC); Cowan Creek, Cowan; Little Ochre River, Riding Mountain National Park; North Pine River, Hwy. 10; Ochre River; South Duck River, Hwy 10; Wilson Creek, Riding Mountain National Park; NEW BRUNSWICK: Boiestown (CNIC); NORTHWEST TERRITORIES: Nahanni River, Nahanni National Park (FWISL); ONTARIO: Limehouse, Halton Co. (JBWM); QUEBEC: Missisquoi River, S. Bolton (CNIC); SASKATCHEWAN: Lavellee Lake, Prince Albert National Park (ROMC). FEDERAL REPUBLIC OF GERMANY — 32. G. Kyll b., Dohm, 6.10.1959 (ZSMG). SCOTLAND — Momenish Burn, Loch Tay (MGUK).

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- Eaton, A.E. 1870. On some British species of *Ephemeridae*. *Trans. ent. Soc. London* **18**: 1-8.
- Lowen, G.R., and J.F. Flanagan. 1989. The male and nymph of *Centroptilum infrequens* McDunnough (Ephemeroptera: Baetidae). In Campbell, I. (Ed.), Proc. 5th Int. Conf. Ephemeroptera, Australia, 1987. In press.
- McDunnough, J. 1924. New Canadian Ephemeridae with notes, II. *Can. Ent.* **56**: 90-98.

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