**SCIENTIFIC NOTE**

**SIGNIFICANT WESTWARD RANGE EXTENSION FOR THE LIMNEPHILID CADDISFLY PHANOCELIA CANADENSIS (TRICHOPTERA): FIRST RECORD FROM ALASKA, U.S.A.**

Daniel J. Rinella and Daniel L. Bogan

*Phanocelia canadensis* Banks, the sole species of this northern North American trichopteran genus, has previously been reported from scattered locations in the northeastern United States, most Canadian provinces from Alberta eastward, and the Northwest Territories (see Colburn and Garretson Clapp, 2006, for a recent review). Holocene fossil remains have been reported from the northern Yukon Territory (>9000 y.b.p.; Matthews and Telka, 1997). However, no living or fossilized *P. canadensis* have been reported from west of the Continental Divide.

We collected two *P. canadensis* larvae in a small, unnamed tributary to the Zitziana River in the northern foothills of the Kuskokwim Mountains, interior Alaska (64.511° N, 151.435° W) on July 25, 2004. The site, approximately 65 km southwest of the settlement of Manly Hot Springs, was one of 45 randomly selected sites sampled throughout the Tanana River basin as a stream monitoring effort. We used a 500-µm D-frame net to collect a composite macroinvertebrate sample from 11 transects systematically arranged over a 150-m stream reach from which we identified a 500-organism fixed count in the laboratory.

The unnamed tributary drains boreal forest that typifies areas of interior Alaska underlain by discontinuous permafrost: mixed stands of black spruce (*Picea mariana* [P. Mill.] B.S.P., Pinaceae) and paper birch (*Betula papyrifera* Marsh., Betulaceae) with an ericaceous shrub understory and a thick bryophyte layer. Our sampling reach was immediately downstream of a small *Carex*-dominated cyperacean wetland. Riparian vegetation consisted of an open overstory of black spruce and paper birch with an understory of willow (*Salix* spp., Salicaceae) and graminoid vegetation (*Carex* spp. and grasses) that densely shaded most of the stream channel. The channel width averaged 1.5 m, the slope averaged 2.6%, and the streamflow measured 0.6 L/s. The streambed consisted primarily of organic detritus (mainly grass and wood fragments) with some silt. Temperature was 9.9°C, specific conductance was 102 µs/cm, and pH was 7.33. *Phanocelia canadensis* was the sole Trichoptera taxon collected at this site. Other insect taxa collected at this site included Coleoptera (*Agabinus* sp. [Dytiscidae]); Diptera (*Chironomidae* sp., *Dixella* sp. [Dixidae], *Simulium* sp.).

---

1 Received on September 13, 2007. Accepted on October 18, 2007.

2 Environment and Natural Resources Institute, University of Alaska Anchorage, 707 A Street, Anchorage, Alaska 99501 U.S.A. E-mails: (DJR) rinella@uaa.alaska.edu, (DLB) bogan@uaa.alaska.edu.

Mailed on June 23, 2008