

**New collection records and range extension for the caddisfly  
*Arctopora salmon* (Smith, 1969) (Trichoptera: Limnephilidae)**

Author(s) :Blake R. Hossack, Robert L. Newell, and David E. Ruitter

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## Scientific Note

### New collection records and range extension for the caddisfly *Arctopora salmon* (Smith, 1969) (Trichoptera: Limnephilidae)

The type specimen of the limnephilid caddisfly *Arctopora salmon* (Smith 1969) was collected on 22 July 1965 from a meadow near Johnson Creek, 6 miles south of Landmark in Valley County, Idaho. Smith (1969) originally described the species as *Lenarchulus salmon*, but Fisher (1969) designated *Lenarchulus* as a junior synonym of *Arctopora*. Since the type specimens were collected, we are aware of only one additional collection of *A. salmon*, from Alturas Lake, Blaine County, Idaho, in 1985 (Royal Ontario Museum specimens 128,918, 128,921–128,942; Figure 1). The lack of distribution and habitat information on *A. salmon* has contributed to its classification as critically imperiled or vulnerable across its range (G1G3; NatureServe 2011, accessed 29 September 2011).

We report the collection of *A. salmon* from Glacier County, Montana. A single female of *A. salmon* was collected on 22 July 2010 during a survey for aquatic invertebrates at a small wetland (~ 100 m<sup>2</sup> area). This site is at 1632 m elevation near Lee Creek in the northeast corner of Glacier National Park (48.9939335 N, 113.6525095 W; Figure 1). Additionally, one *Arctopora* larva was collected on 11 July 2011 from a small wetland (~ 3200 m<sup>2</sup> area) at 1640 m elevation in the Summit Creek catchment near the southern edge of the park (48.3547975 N, 113.3237560 W). Both wetlands were < 1 m maximum depth, had a mud bottom, and supported extensive emergent vegetation (primarily *Carex* spp.).

The *Arctopora* larva fits well the diagnoses provided by Flint (1960) and Wiggins (1996). Characters not specifically mentioned by those authors that are useful to separate this genus from other Limnephilinae include the lack of a dark posterior margin to the mesonotum; lack of small, strong spines on the anterior corner of the pronotum; lack of accessory setae on lateral surfaces of meso- and metafemur; and multi-colored (one clear, one dark) major, ventral setae on the meso- and metafemur. Larvae of *Arctopora* could be most readily mistaken for *Grammotaulius*, which we have collected from the same wetland in Glacier National Park and which builds similar cases. Flint (1960 – as *Lenarchulus*) pointed out that anterior pieces of *Arctopora* cases are connected along only one edge, which is true for our specimen, resulting in a weak case that comes apart easily. The similar *Grammotaulius* case, however, is sturdy. *Grammotaulius*, like *Arctopora*, have dorsal chloride epithelia, although they can be difficult to see. Collections of *Grammotaulius* from this region should be reexamined for these characters.

On 1–3 August 2011, an ultraviolet light trap was placed at the wetland near Lee Creek, where *A. salmon* was collected in 2010. *Asynarchus mutatus* (Hagen) 1861, *Banksiola crotchii* Banks 1943, *Dicosmoecus atripes* (Hagen) 1875, *Hesperophylax designatus* (Walker) 1852, and *Nemotaulius hostilis* (Hagen) were collected, but not *A. salmon*. Additional benthic surveys at this wetland and 3 neighboring wetlands on 1–2 August 2011, as well as 15 other wetlands around the park during 2010–2011, have not detected *A. salmon* other than the two above specimens. These records expand the known geographic range of *A. salmon* by ~ 430 km and to the east side of

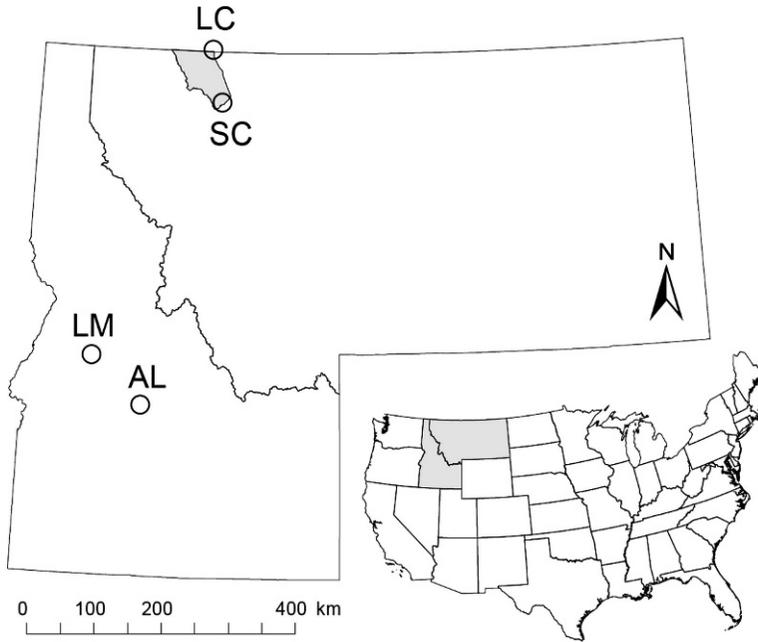


Figure 1. Collection locations for *Arctopora salmon* in Idaho and Montana. LM represents the location for the type specimens from near Landmark, Valley County, Idaho (Smith 1969). AL represents Alturas Lake in Blaine County, Idaho, and LC and SC are the Lee Creek and Summit Creek areas of Glacier National Park, Glacier County, Montana, respectively.

the Continental Divide in the Rocky Mountains. It seems likely that additional populations occur between the type locality in central Idaho and the collection sites in Glacier National Park. The lack of collections elsewhere in the park suggests the species occurs at low densities, but also indicates the need for additional sampling of wetlands and other similar habitats of the region.

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Blake R. Hossack<sup>1,2</sup>, Robert L. Newell<sup>3</sup>, and David E. Ruiter<sup>4</sup>, <sup>1</sup>*U.S. Geological Survey, Northern Rocky Mountain Science Center, Aldo Leopold Wilderness Research*

*Institute, 790 East Beckwith Ave., Missoula, Montana 59801; <sup>2</sup>Wildlife Biology Program, University of Montana, Missoula, Montana 59812; e-mail: blake\_hossack@usgs.gov; <sup>3</sup>102 South 8th St., Dayton, Washington 99328; <sup>4</sup>6260 South Grant St., Centennial, Colorado 80121; <sup>4</sup>6260 South Grant St., Centennial, Colorado 80121*

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