

Dragonflying in the Mountains

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For quite a few summers now we've always been plagued with bad weather on our field trips—sometimes the whole summer was a write-off and others we just picked the worst two weeks to get out of the office. We were coming dangerously close to becoming eternal whiners. Last summer, however, our luck changed and the sun shone on our dragonfly survey of the Kootenay region in southeastern British Columbia. Actually—to whine one last time—June was wet and cold, but the second phase of the survey was incredibly warm and sunny. And the dragonflies didn't disappoint us!

Leah Ramsay and I (from the B.C. Conservation Data Centre) made up one of the two teams; we were joined later by Rob Cannings (from the Royal B.C. Museum) and Gord Hutchings, and by enthusiastic volunteers from local communities and from the UK. Funded by Parks Canada and the Columbia Basin Trust (through the Royal BC Museum's *Living Landscapes* project), we splashed our way around the mountain National Parks and intervening valleys, swinging our nets and dipping our pH meters.

For the previous two years, the BCCDC had sponsored several intensive and extensive inventories in British Columbia, primarily focused on regions where our rarest species occurred: the southwest coast, the dry southern interior, and the far northeast, and the Kootenay region was the next logical target. But the Kootenays cover an area about the size of Austria or Maine, and since our primary funding didn't come through, we decided to focus on the National Parks of the Columbia and Rocky Mountains—Mount Revelstoke, Glacier (not the same as Montana's Glacier National Park!), Yoho and Kootenay—and the intervening valleys. Other than a brief SIO field trip through the Rocky Mountain Trench in 1983, very little dragonfly collecting has been done in the region since a few early odonatologists visited the area by train in the 1920s and 1930s. We wanted to find such northern specialties as *Aeshna septentrionalis*, *Somatochlora septentrionalis*, *S. whitehousei*, *Coenagrion interrogatum*, and *Leucorrhinia patricia* in the high mountains; the first two had been found in the Rockies just over the hill in Alberta but were unknown this far south in British Columbia. Conversely, we were also looking for southern species such as *Argia vivida*, *A. emma*, *Gomphus graslinellus*, *Libellula lydia*, and *L. pulchella* in the deep Trench valleys.

My personal dream was to find *Somatochlora forcipata* in British Columbia. This species had been collected about 3 km from the B.C.-Alberta border in Banff National Park by Edmund Walker back in the 1920s, and this ancient collection remained the only record of this species west of Manitoba. Surely it had to live in “small spring runs” following “devious courses” (as described by Walker) west of the Continental Divide as well!

We spent a couple of wonderful weeks in late July and early August exploring mountain wetlands. The highlights included two days supported by a helicopter, flying over icefields and reaching absolutely pristine fens and marshes several days hiking from the nearest road. We had added such widespread species as *Somatochlora minor*, *S. walshii*, and *Leucorrhinia glacialis* to the Kootenay list, but had found nothing more spectacular than some emerging *Aeshna tuberculifera* at a big calcareous fen in Glacier National Park. But on August 3, we found ourselves at a fascinating sloping fen in Yoho National Park, only 300 m from Alberta and just around the corner from Lake Louise, Banff. We spent a great morning sampling the diverse dragonfly fauna (including *Somatochlora franklini*, *S. whitehousei*, *Aeshna sitchensis*, and *A. subarctica*) flying about this quaking, calcareous mire (and falling through holes in the peat up to our waists when we became too focused on the sky above!). We were about to leave when Gord noticed small *Somatochloras* patrolling tiny, shaded, spring-fed pools at the edge of the fen... *S. forcipata*!! The pools obviously made up a small spring brook that was mostly dry at this time of year. Females oviposited in the pools and males patrolled them, often clashing with *S. semicircularis* males that we had encountered so many thousand times in the previous two weeks.

Once we knew the habitat, we visited another likely spot the next day near Emerald Lake, also in Yoho Park—and there they were again! I was even more surprised at this site, since the spring-fed trickles they were patrolling and ovipositing in were even shallower and smaller than those at the first site. The next week, Larry Halverson, the Chief Naturalist for Kootenay National Park, took Gabrielle Archard and Sally Coates (our English volunteers) to a similar site in the headwater drainage of the Vermilion River, just over the hill from the site where Edmund Walker had found them so many decades ago—and they were there, too! But even though we were successful beyond all our expectations, this dragonfly is still obviously quite rare in this region—simply because their habitat is sparsely distributed. I would be very interested in corresponding with anyone in the