

"Rite in the Rain"®



ALL-WEATHER
LEVEL
Notebook No. 311

Matt Bouser

Field Notes

27. VII. 2010 - 11. VIII. 2011

"*Rite in the Rain*"
ALL-WEATHER WRITING PAPER



Name Matt Bowser

Address matt_bowser@fws.gov

matthewnkim@gmail.com

Phone (907) 260-2803

Project _____

²
27.VII.2010

Today I am riding with Alberto Pantoja, Bob Footitt, and Keith and Louise Pike out to Skilak Lake Road.

I had arrived at 07:30 and gone over to the bihut to get the Berlese funnels. We started the mass samples from yesterday in the Berlese funnels before heading out into the field.

I rode with them in their rental minivan. We drove out to Skilak Lake Road, starting at the west end. We collected aphids at several stops along the way.

At Hidden Lake campground near the boat launch I found a large earthworm in deciduous leaf litter, as well as plenty of Dendrobaena octaedra.

We were back at headquarters at about 16:00. I left at 16:30.

[30 VII 2010]

Tim and I left headquarters a little before lunch time. We were headed out to the Morse Research center to find out if there is a wetland there suitable for Tim's vegetation work.

We stopped at the wetland just east of Merganser Lake because it is the kind of shrubby wetland he is after. There were plenty of ripe blueberries (Vaccinium uliginosum) here.

We were at the second chain link gate of the MRC at 13:38.

We walked south along the east side of the fence past a large megalith to an area of large dwarf birch, grasses, and stunted black spruce. The shrubs here are ~~too~~ too large to consider driving a snow-machine over. I collected some aphids from Solidago canadensis here.

There was an abundance of bumble bees when we parked at the gate on clover and Solidago. I collected a few. We were back in the truck at 14:24.

We stopped at Rainbow Lake campground, where I looked through litter for earthworms. I found only Dendrobaena.

At Dolly Varden Lake campground I found only Dendrobaena.

3. VIII. 2010

Tim and I drove out to Skilah Loop this afternoon to reconnoiter the wetland by Marsh Lake. We parked at 13:33.

We walked out to the wetland that includes Marsh Lake. We stopped at 60.49004°N $150.43697^{\circ}\text{W}$, which looked like a good spot for this study.

We were back at the truck at 15:25. We were back at headquarters at 16:07.

5.VIII. 2010.

We spent the middle of the day carrying five loads of PVC pipe (all 250) out to the wetland S of Headquarters Lake.

At about 13:30 we started set-up. The first transect ran at 129° (magnetic)

We set up the ends of all of the transects and installed piping on one side of the first transect. We were back at the truck at 16:02.

There were a lot of nice little boletes in the wetland, some of which I harvested.

7
6. VIII 2010 | Friday

I arrived before 08:00.

Tim and I headed down to Headquarters Lake. We finished installing all of the large PVC pipes. We were done with this at 13:26. It has rained all day so far.

We sampled the first 13 woody shrub lines along transect 1, revising our protocol some as we went.

We were back at the lab at 16:08.

I left at ~~16:00~~ 16:30.

8
9. VIII. 2010 Monday

I arrived a little before 13:30. I walked down to Headquarters Lake, where I expected to help Tim this afternoon. John Heydinger was already there, however, helping Tim, so I was not needed for this. Since I was out here, I opted to get GPS coordinates for the transects.

transect	start/ end	Latitude ($^{\circ}N$)	Longitude ($^{\circ}W$)
1	start	60.45932	151.07823
2	start	60.45929	151.07831
3	start	60.45928	151.07841
4	start	60.45925	151.07851
5	start	60.45921	151.07858
5	stop	60.45884	151.07805
4	stop	60.45888	151.07796
3	stop	60.45890	151.07790
2	stop	60.45893	151.07780
1	stop	60.45896	151.07770

For all of these coordinates, I averaged over 100 waypoints using the GPS's averaging function.

(16 VIII 2016) Tuesday

Tim, John, and I were down at Headquarters Lake at 09:17. Today we will be using the pin frame.

Tim left in the middle of the day for an appointment. We had gotten four pin frame plots done.

John and I finished eight by the end of the day.

[11. VIII. 2010] Wednesday.

John, Tim and I are heading down
to Headquarters Lake.

At 15:43 we finished frame 22 of
transect 1.

I left at 16:30.

[16. VIII. 2010] Monday.

Tim, John, and I walked down to Headquarters Lake to work on Tim's project. We started at transect 2, plot 22.

John left at lunch time to work on data entry.

Tim and I finished the day with plot 12, transect 3. We are now past half way.

17. VIII. 2010 Tuesday

I met Tim and John for lunch. Tim and I were down at the wetland at 12:42.

We finished transect 3. We were back at headquarters at 16:12.

I left at 16:30.

18. VIII. 26101 Wednesday.

I met Tim and John for lunch.
They had completed plots 1-7 of
transect 4. Tim and I walked down
to the wetland and completed plots
8-15 of transect 4, finishing at 15:49.

[19.VIII.200] Thursday

Tim and I are headed down to Headquarters Lake wetland this morning to pick up where we had left off yesterday.

At 11:53 Tim and I had finished plots 16-21 of transect 4.

23.VIII.2010 | Monday

Tim and I were down at Headquarter
Lake at 08:53. Only 11 plots remain
to be done. We finished at 12:47
and headed up.

[15. IX, 2010] Wednesday

I rode with Mark to work today.

Debbie, Dawn, Mark, Donna, Todd, Dusty, and I drove together to Anchorage for our smart card appointment.

They dropped me off at 11:00 at the FWS building. Vivian produced a FWS ID card for me quickly.

Debbie picked me up at 11:15, then we headed to the Federal building. We were not able to get our smart cards because the woman who issues them was away in Fairbanks despite all of our appointments.

Most of us had lunch at the Snow Leopard, which was pretty good.

After lunch, we drove to the FWS building so that others of us could at least get FWS ID cards. I walked to New Sagaya and shopped while this went on.

When I got back, I collected some earthworms from leaf litter behind the FWS building.

We were on the road by 15:00.

30. [X.200] Thursday

I left work at about 13:45 and drove to the Hideout Hill trail. I made it to my destination, a rock outcrop at $60.51962^{\circ}N$ $150.23540^{\circ}W$ \pm 9m at 13:40.

I did find fruitflies here, both immatures and adults. There were plenty of Nelima on the rocks. I also found a few small harvestmen (immature Leptobium?) in cracks of rock and one under moss on the rocks. I started packing up at 14:37.

I was back at the truck at 15:11.

28.6.2011

17. June. 2011

19

In FSAT lab, Guesau, looking through specimens.

There was an Antomyza from Douglas Island & about contact Kevin Baebce about.

Photos 2599-2600 - "Dear letter" according to Mark.

We also saw Chimbleberry...

Down at the stream below the Kachay
Derk found some Swallowtails and an Aegides. This was below the FSAT building.

A tiny Glox is one of the ~~main~~ most interesting plants I have been seeing.

False lily of the valley
Maianthemum dilatata

(18-June-2011)

Kim and Deborah were most gracious hosts to me, serving poached eggs over English muffins, coffee, and amoceties for breakfast. Kim lent me his Toyota pick-up truck. They strongly suggested I see the glaciers, so I did so. I took the Nugget Falls trail, choosing the path near the lake.

I started collecting under rocks.

20110618-1/ 09:18 - two Linyphiid
frames 2608-2609 are habitat.

20110618-2/ 09:30 - same locality, under wood I collected some Carabids.

There was a really neat fiberglass jet boat cruise operated by Alaska Travel Adventures, of which I took a couple of photos.

I spent quite a while looking through talus and rock outcrops near the falls, both young, active talus and, elder, moss and alder covered talus. I found no signs of harvestmen. I saw one immature

bustletail, but I was unable to collect it. On the way back I stopped in a patch

I typed into a garage
etc. too!

of forest near a stream, where I looked for Pedentatus under loose bark, in and under moss, etc. I found none, but I did find five earthworms, which I collected. [20110618-3]

At VAS camp, we got ready for the Bioblitz. It started raining at about 13:40.

We first headed to the lake. Next we headed to the forest near the lake.

At 17:15 Mark, Crystal, Casey, Evan and I headed out again. We will be heading up Lake Creek Trail. Allan will meet us there with his children.

(19. June 2011)

I stopped by the U this morning to switch soil samples.

At 07:45 I was at the harbor at 07:45 to board the Dyoukera. Chad is our skipper. We will be dropped off at Portland Island, with a pick-up at 11:30.

I spent the morning on the island poking around.

12:27 - Now at the lab, sorting.

Portland Island: rocks

Geophilomorpha

Petridiobius arcticus

Elateridae, small brown

Large Isopod

Ceratopogonidae

Bdellidae

Diptera List

Pipunculidae - Portland Isl.

Ceratopogonidae - Portland Isl.

Culicidae - site 2, large

Empis - Portland Island

Scathophagidae - Portland Island

Ephydriidae - Portland Island

Tipulidae - Portland Island

Dolichopodidae - Portland Island

Muscidae - Port. Isl.

Psilidae - black, Port. Isl., site 2 or Agromyzidae?

Psilidae? - orange head, black body, - Portland Island.

Bibionidae - Port. Isl.

Heleomyzidae - Port. Isl.

Laukaniidae?? - site 3 - gray

Muscid?? - site 3, much smaller

Muscid? - mid-sized - site 2

Laukaniidae - gray thorax, orange abd., site 2

Mycetophilidae - site 2

Mycetophilidae - site 2, large, thin

Rhamphomyia? - site 2, a large one

Chironomidae - small black, site 2

Mycetophila - site 2

Heleomyzidae, 2nd sp., see site 2

Ceiodomyiidae, site 2

Pherbellia? - orange

(. continued on page 28)

Collembola

Poduridae - Portland Isl.

Isotomidae - Portland Isl.

Tomoceridae - Site 2

Smithuridae - site 2 - Ptenothrix

Isotomidae. Anke Bay, larger

Entomobryid - VAS hemlock - reddish, monstersize.

Hypogastruridae - Portland Isl.

~~Spider list~~

~~Colibius pictus~~

~~Tetragnatha sp.~~

~~Cyclosa canica~~

~~Linyphiidae - Portland Isl~~

Harvestmen

Sclerobunus brunneus - site 2

Melima paessleri - site 1

Leptobunus borealis

Portland Island - sweep

Tipulidae

Pipunculidae

Scathophagidae

Ephydriidae

Dolichopodidae

Muscidae

Psilidae

Bibionidae

Heleomyzidae

Site 3

Lauxaniidae ?? - black

Ceratopogonidae

Muscid ?? - small

Site 2

Muscid?

Lauxaniid - gray thorax, orange abdomen

Mycetophilidae - small

Mycetophilidae - large

Rhamphomyia?, large

Bibionidae ♂

Ceratopogonidae

Chironomidae, small black

Site 2, continuedMycetophila

Helcomyzidae - 2 spp., both orange, different infuscation of wings

Cecidomyiidae

Ptilidae? - all black

Phorbellia? - orangeRhamphomyia? - smaller black

Sciariidae

Site 2, different sample

Tomoceridae

Sminthuridae

Sclerobunus brunneus

Culicidae

Auke Bay, dead crowAgromyzidaeUAS campus, beatingTachydromia

Cecidomyiidae

Chironomidae, large pale

Diptera list, continued from page 23Rhaphomyia, smaller black, site 2

Tipulidae, larger black, site 2

Sciaridae, site 2

Tachydromia, VAS campus, beaking shrubs

Chironomidae, large pale

Empididae, - site 2 - small dark w/ pale wings

MesembrinaDrosophilidae, ~~Drosophila~~? site 1

Empidid, very slender - site 1

Syrphidae - site 1

~~Agroridae~~ ^{Phoridae}, darker - site 1

large Syrphid

UAS campus, 2nd growth hemlock

Entomobryid

Auke Bay, Auke CreekUSDA FTP labLeptoburys borealis - immature1
37

Culicidae

3

7

Auke Lake - site 2

47

Cecidomyiidae

Mycetophila

small dark Empidid

Site 1

Dolichopodidae

Mesembria

Drosophilid

Rhamphomyia

Empidid, very slender

large Heleomyzid

Syrphidae

Chironomidae

~~dark Agronyzid?~~ Phoridae?

27. June. 2014

I am starting to deploy traps as part of the Keri REA.

I deployed a malaise trap behind the headquarters building at $60.46458^{\circ}N$ $151.07285^{\circ}W$ +/- 2.9m at 14:00. (waypoint 002).

Also behind headquarters I deployed a blue pollinator trap at $60.46465^{\circ}N$ $151.07278^{\circ}W$ +/- 4.3m at 14:21 (waypoint 003).

I deployed a second malaise trap at Headquarters Lake at $60.46099^{\circ}N$ $151.07651^{\circ}W$ +/- 4.1m at 15:23 (waypoint 004).

I set up a pollinator trap at $60.46074^{\circ}N$ $151.07652^{\circ}W$ +/- 4m at 15:31 (waypoint 005).

I set up a small yellow pan trap at $60.46044^{\circ}N$ $151.07646^{\circ}W$ +/- 5m (waypoint 006) at 15:35.

I installed x W light trap at
headquarters as well and two yellow
pan traps.

~~Bob that helped me service the pulvis
trap by headquarters at 14:44.~~

25. June. 2011

At 13:03 I serviced the UV light trap
 I had installed yesterday at $60.46451^{\circ}N$
 $151.07315^{\circ}W$ +/- 8m. It had caught nothing
 save a couple of minute flies. (Vegpoint 007).
 I am concerned that the bulb may not
 be very good, so I will exchange it.
 I did so.

Bob Usab helped me service the
 malaise trap by headquarters

Dave, Dan, and Jeff arrived later in the
 afternoon.

Dan, Jeff and I walked down to Head-
 quarters Lake to check traps.

29. June. 2011

Todd, Derek, Bob, Dan, Dave, Jeff, and I departed from Upper Skalak campground and motored in the Lorion to Skalak River Flats, the south side of it.

At 10:53, Dan and I were sweeping amongst grasses on the river bar.

We all worked on collecting. We stopped for lunch at 12:30. The grass on the river bar was mostly Duchampsonia caespitosa. I did see one Taraxacum officinale sp. officinale, but no other Taraxacum.

We stopped briefly at Lucas Island.

We stopped at the longer gull island.

(76, June, 2011)

Dave, Derek, Jeff and I flew out of Beluga Lake this morning to Emerald Lake at 08:00. We set up our camp above the lake at an established camp site ~~on~~ above the SE shore of the lake. It is beautiful, windy, and gently cloudy.

In the meadow by the lake, one stand of willows had been completely defoliated by caterpillars. The willows were Salix planifolia pulchra. When disturbed, the caterpillars would usually creep, but only 5cm or so, suspended by threads of silk. Derek took pictures:
1904-1918.

Derek and I headed for the ridge after lunch. At a meadow on the N side of the lake at $59.62579^{\circ}\text{N } 151.05559^{\circ}\text{W} \pm 4\text{m}$ we saw the exotic Toxaracus officinalis in a meadow.

Derck took a picture of snow rabbit. 1926 and 1927

While climbing up the slope we ran across
a Holly fern, which Derck photographed
: 1952.

Our campsite was in a little cove of
spruce ~~tree~~ south of the lake at
59,62348°N 151,05928°W ± 10m. (waypoint 008).

Dave was able to get cell phone service
here.

[1. July 2011]

The four of us, after breakfast, crossed the stream and hiked to a snowfield and stream to the NE of Emerald Lake.

We stopped at a little slough and meadow on the way back.

On the way back we found a Taraxacum
eratophyllum on the lake shore!
2004-2009 pictures Derek took.

This was at 59.62465° 151.05562° W ± 4 m. (500+ waypoints averaged).

After lunch, we hiked E to a small lake and sampled for a while.

7. July. 2011

I set up a malaise trap near Headquarters Lake using a wet collecting head I assembled from things in the lab. I set it off of the Keen Eye Trail at

60.46490°N 151.06990°W ± 5m, elev. 64m

11. July, 2011

I met Robert Hegna at the base of the Fuller Lake trail. We will be headed up to set up a transect for the Arctic mink he is studying.

We headed up the trail.

At 10:56 we installed a platform (waypoint 11).

I found and collected Dendrobates along the trail ~~near~~ Robert was installing his transect.

At about 12:45 near the upper end of Lower Fuller Lake we stopped so that Robert could install a trap in a meadow by the trail. This was at $60.51049^{\circ}\text{N } 150.05844^{\circ}\text{W}$ $\pm 11\text{m}$, extent 150m. There was also defoliation of willows here. I collected larvae. I only got one larva. Most seem to have pupated.

There were many more larvae and extensive willow damage as we approached.

Upper Fuller Lake. There were at least three different species on Salix pulchra: a dark green caterpillar, with pale stripes, about 15mm long; a larger, grass-green caterpillar; and one small, thin brown species. These are listed in order of abundance, the dark green ones abundant on many hosts: S. pulchra, S. barclayi, Alnus viridis, Soebus.

Up at Upper Fuller Lake, all of the aspen trees had died. They were not defoliated this year: they look as if they have not leafed out. I did see a new sucker coming up, - correction: I did see a little green high up in a handful of aspens.

17 July 1941

Today I am accompanying Deanna and Paige into the field, surveying for earthworms.

We started at the Seven Lakes Trail, navigating to a pre-determined point.

We found Dendrobates here. I took photographs of the two of them working. This is Deanna's site MF-6. Plot 1 had Dendrobates. It was in Pleurazium moss. Plot 2 was in Sphagnum moss.

We found no worms here. The third plot was in Pleurazium and Hylacomium. This is young mixed forest of white spruce, black spruce, paper birch, and some Salix scouleriana. The understory is Vaccinium vitis-idaea, Empetrum nigrum, but covered by moss carpet with some lichens. We found no worms here.

There was a little hemlock seedling at
60.47672°N 150.32828°W ± 5m, ab 90m.

We were back in the truck at Engineer Lake
at 10:40.

We next parked at Upper Skilak campground
and hiked up the Vista Trail to Deann's
point MO-3. It has been raining.

This is a young seral stage from the
Pot-hole Lake Fire: Calamagrostis,
Rubus idaeus, Alnus viridis,
Ribes triste. We found no earthworms
at Plot 1, only Enchytraeids. Plot 2
also yielded no earthworms, but we
did find ^{several} ~~one~~ at the third plot.

We had lunch at the campground
before heading to the Bear Mountain
Trail.

We found no earthworms at Plot 1 off
of the Bear Mountain trail, despite
some very nice alder litter, which should
have been rich in earthworms. Plot 2
yielded no worms. It was in Calamagrostis.

Near plot 3, I hand-picked through
a larger area of alder litter which
was deep and rich; about 15m^2 ,
but I saw no sign of worms. Plot 3,
in grass, yielded no worms. This spot
appears to be free of worms.

(26. July. 2011)

In the afternoon I walked down to the floodplain Headquarters Lake to check on Tim and Ben. They were working on veg plots. They were being harassed by deer flies. I collected one.

I spent a while trying to get a good photograph of Sminthurus A down by the lake. I swept them and then released them and tried to photograph them.

(27. July. 2011)

Later in the day, Berkeley and I left for Deep Creek to fetch a bull eagle that was injured. We were not able to get it. However, we were stuck because of the tide. I collected on the beach here.

(23. July. 2011)

The whole family left home before 09:00 and drove to Portage for the Portage Valley Bioblitz, driving straight through and arriving at 11:30.

At 12:30, I briefly briefed my helpers and I walked to the grass in the parking lot right in front of the Begich - Boggs visitor center. We had lots of participation from kids.

~~We~~ It was extremely windy out. We took shelter in a cove of trees by the trailhead of the Moraine Trail, where we collected some more.

Later, we set up camp at our site in the Williwaw campground at 60.78442°N 148.87527°W ± 5m, elev. 16m. I set up the malaise and two pan traps here at about 16:00.

(29. July. 2011)

I walked down to Headquarters Lake in the late morning to look for "Sminturus" damage. Vaccinium uliginosum and Rubus chamaemorus appeared to be the only species very much fed upon by insects right now, but the damage was different. R. chamaemorus had holes eaten through the leaves 0.3 - 3 cm in size. It looks like caterpillar or sawfly damage.

V. uliginosum has Sminturus-like damage with "windows" in the leaves where upper layers have been chewed off.

However, these have silk on them and I had not heard of Sminturus spinning silk.

11. August 2041

I am working with Toby and his children on the Skelak hare grid.

1: 4

1

1

0

6