

2 June 13, 2000 at Dominique Collett's home

Checking my one *Lepyrus* specimen against his, ~~which~~ some of which had been identified by Pouchard in 2004

Actually, only the photograph was identified as *Lepyrus gemellus*

I am taking Dominique's specimen 4525 through the key of Van Dyke (1928).

1 → 5 → 9 → *gemellus*

My specimen, specimen 1450, is also *L. gemellus*.

Dominique also has two specimens of *L. oregonus*

(checking the *L. oregonus* specimen (Dominique's 5329)

using the key of Van Dyke (1928), p. 54

1 → 2 → 4 → *oregonus*

Keying another Curculionid, specimen 1668, using the key of Anderson (2002), p. 725. This specimen looks very much like Dominique's specimen 67120, identified by (?)

↔ *Dorytomus leucophyllus*

1 → 3 → 4 → 5 → 6 → 7 → 8 → 14 → 15 → 17 → *Molytinae* p. 781

↳ 18 → 19

I gave γ. I will have to send it out.

After looking at Dominique's series of *Dorytomus* specimens, I am pretty sure that this is the correct genus. I am using the key of O'Brien (1970) (Dominique's) Key to the species of *Dorytomus* in North America, p. 12.

1 → 4 → 7 → 11 → 12 → 15 → 16 → *subsignatus*?

3
This is very reasonable. The description matches well. According to O'Brien (1970), this species has been collected at various places on the Kauri including Skalak Lake. According to Bousquet's 1991 checklist, this species has been synonymized with *Dorytomus leucophyllus*. Dominique's specimen was identified by D.E. Bright in 1999.

Trying Dominique's *Dorytomus* specimen #4075 in the same key 1 → 4 → 9 → 11 → 12 → 15 → 16 → ~~*subsignatus*~~?

Trying Dominique's *Dorytomus* #4281, a more uniformly brown, more convex specimen in the same key

1 → 4 → 9 → 11 → 12 → 15 → 16 → *subsignatus*!

I am now going to key *Syrphidae* using MND, p. 718

Specimen 2015 1 → *Syrphinae* 2 → 3 → 4 → 5 → 7 → 10 → 11 → 12 → 14 → 15 → 16

→ *Melanostoma mellinum* I checked this against the illustrations in Gilbert (1993), which it matched.

Specimen 2287, same key. Looks like *Melanostoma*, but meta sternum indicates *Platycherus* (64 spp.!).

Using key of Vockeroth (date?) p. 207

1 → 2 → 45 → 47 → 59 → 60 → 61 → 62 → *rosarum*? I do not think so.

specimen 2625 using the same key

1 → 72 → 73 → 80 → 81 → 82 → other spp.

Specimen 2289, same key 1→72...→ other spp.

Specimen 2083, same key 1→2→45→47→59→(0→61→62→
rosarum? 63→11→19→24→25→26→29→
39→40→42→43→44!

Keying specimen 1822, a Sphaerocid, using the key of MWD, p.
995 1→2→Lin osiniinae 4→5→9→10→11→13→14→
Maybe not Sphaerocidae

Trying + key Cantharidae using the key of Ramsdale (2002),
p. 206 1→2→3→4→5→7→

Dominique's specimens on all Podabrus Jumping to Podabrus:
19→28→

! would need Fender (1962)

Fender, K.M. 1962. Family Cantharidae. Pp. 44-68. In: M.H.
Hatch. Beetles of the Pacific Northwest. Part III: Psephenidae and
Diversicornia I. University of Washington Press. Seattle. 503pp.

Keying out a fly using MWD, p. 89

A→B→C→D→E→F→72→73→74→75→76→77→78→
81→108→112→113→Chloropidae p. 1051 Key to species
1→2→3→Oscinellinae 4→10→11→12→14→15→16→17→18
→19→20→27→28→29→30→31→32→34→35→Oscinella?
3 spp. widespread Sobrisky (1936) in part.

Sobrisky, C.W. 1936. A synopsis of the Nearctic species of
Oscinella and Madiza, based on a study of the types (Diptera,
Chloropidae). Ann. Ent. Soc. Am. 29:707-728.

July 13, 2006 LTEMP plant specimens

I am identifying plants from plot 7019

Viola epipisk, var
mistaken using Anderson, p. 177 1→2→3→Key N, p. 179
1→2→3→5→6→7→Draba, p. 197 1→2→3→6→9
→12→13→14→15→D. borealis R. maxima in Hultén.

It is D. borealis v. maxima in Welsh. Aster
subspicatus? Poa lanata

Ranunculus in Welsh, p. 357 1→3→4→5→7→10→12→14
→20→21→22→25→27→R. occidentalis var brevistylus

Polygonum viviparum, Vaccinium uliginosum

Anemone narcissiflora, Arnica, p. 116 in Welsh
1→3→5→8→10→Arnica alpina? Arnica louiseana?

Carex spectabilis

Keying a Saxifragaceae I collected off of Skyline in
Munby. 1→2→3→9→5→6→Leptarrhena?

Ni. Saxifraga nivida

Trying + key a fly, specimen 2393, on Cordylus
(Scathophagidae), using the key of Janus (1955), p.
86. 1→2→3→4→5→picticornis? New I am not

sure that it is Cordilura. It seems to have too many frons-orbital bristles.

Andy and John collected some Martes scat from Surprise Crack yesterday, in which were some Leiodid beetles.

They look just like specimens of Cataps egensis that I had identified from Eds 2007 Skyline Canid project.

Keeping using Peck and Cook (2002) p. 729

1 → 2 → 3 → Cataps

Trying Tables 2. and 3. on p. 741

1. Ⓞ

May not work well. Trying key, p. 743

1 → 2 → 4 → 6 → 8 → 10 → 11 → Cataps alsosus? low confidence

From range maps, ^{Kend} Ar species are luridipennis, alsosus, alpinus,

egensis

July 20, 2006 at Dominique Collett's home
(Continued from previous notebook)

2274, Agromyzidae

2275, " "

2745, "

2749, Muscidae

2750, Sphaeroceridae

2751, "

2752, "

2754, Anthomyiidae

2791, Muscidae

2792, Mycetophilidae

2793, Mycetophilidae

2794, "

2795, badly mangled. Probably Chironomidae, but leaving as Diptera for now.

2816, Muscidae

2817, Muscidae

2818, "

2819, "

2820, "

2821, Lauzamiidae? yes.

2822, Muscidae

2823, "

2824, " ← but small, - check this one.

2825, "

2826, "

2827, "

2828, "

2829, "

2830, "

2831, "

2832, Sciartidae

2833, Muscidae

2834, "

2835, "

2836, "

2837, "

2838, Muscidae

2839, Muscidae

2840, Anthomyiidae

2841, Muscidae

Kejiko, not a Rhagozuid, specimen 2643, using the key of Turner (1974) 1 → 2 → 4 → 8 → 12 → stripes group. Just two spp. in this group, but I will need another reference to discern between them. It looks like there may not be anything else besides this reference and original descriptions.

My ride home took 39 minutes, an average speed of 16.6 mph. I had had a tailwind most of the way.

July 21, 2006

I modified my ~~fly~~ Malaise trap today so that it ~~would run~~ I just repaired it and resumed sampling.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Work KENWR, July 24, 2006

Keying a yellow-flowered legume that Todd brought in
Trifolium aureum

Keying plants from LTEMP, p. 3280

a mustard. Using *Hellén*, *Draba exaltata*? Using Welsh (1974)
 p. 197 1→2→18→19→21→25→28→29→30→31→

D. incerta

↳ 22→23→*D. psilophylla*

Either *D. incerta* or *D. nivalis*

↑ 31 has toward *D. incerta* border

~~*Draba incerta*~~

Draba nivalis

Meeting with Todd & Susie

- I need to get literature together

- presses & blitzes

Keying - composite from 3280 using Welsh (1974), p.
 107 1→2→Key # 1→2→3→4→5→ *Erigeron*, p. 141 1→2→
 3→4→5→ *humilis*??

↳ 8→*E. compositus*

↳ *Caryophyllaceae* from same plot using Welsh (1974), p. 79
 1→3→4→5→ *Cerastium*, p. 82 1→2→4→ *C. arvense*

Agropyron, p. 544 1→2→6→ *A. caninum*

Als. *B. repens*, *Waldsteinia silvatica*, *Shepherdia*
canadensis, *Caryophyllus rotundifolius*

From 3283 I identified *Salix arctica*,

Festuca 1→2→4→5→ *ovina*

Antennaria using Boyer (1993), p. 151 1→4→6→8→9→

12→14→15→ *A. rosea* subsp. *confinis*? or *umbellata*

Leaves as *Antennaria* from *Festuca vivipara*?

Minuartia macrocarpa, *Arctostaphylos arctica*, *Poa lanata*

July 25, 2006 identifying LTEMP
plant specimens

Continuing with plot 3283

Luzula spicata, Luzula using Welsh (1974), p. 614 1 → 4 → 5 → 6 → 7 → L. arcuata

Caryophyllaceae in Welsh (1974), p. 74 1 → 3 → 4 → 6 →

Sagina 89 1 → 2 → S. intermedia

Mniurtha macrocarpa

Composit (too immature to identify)

Veronica woronkijoidii sp. woronkijoidii

I checked the malaise traps that I had set out
on Friday.

Susy Grimes is keying LTEMP specimens with me too.

We are starting plot 5639. She keyed -

Potentilla to P. villosa. Also represented were

Saxifraga tricuspidata, Myosotis alpestris, Silene
acutis, Polygonum viviparum, Artemisia arctica

Draba (?) keying using Welsh (1974), p. 197 1 → 2 → 18 → 19 →
21 → 22 → D. nivalis?

Susy keyed out Festuca ovina, Dryas octopetala, Arabis lyrata

Festuca altaica, Salix sitchensis, Salix arctica

Saxifraga? - minute perennial with one pink blossom, 2 ovaries,
at least 7 stamens. Using Welsh (1974), p. 430 1 → 16 → 17 →

S. talbotii No. Saxifraga oppositifolia

July 26, 2006 night observations

At ~12:30 am I peeked around in my back yard in Banner
Ln. It was quite dark and raining ever so slightly. I saw
2 Trochilophus alternatus; one on the siding of my house,
freshly killed by a black Theroiid(?) spider and one on
Sorbus scopulina, where it had apparently been feeding. It
had suffered heavy damage. It apparently perceived my
red light, though because it dropped off of the leaf.

work at Dominique's, July 26, 2006 (7:15-11:00)

I biked today: 52 minutes.

Keying - Tephritid, specimen 2637, using the key of
Foots (1960), p. 72 1 → 2 → 3 → 4 → 6 → 8 → 9 → 10 → 12 →
13 → ovatifemoris? no. In Foots (1960), only one species
reported from Alaska: T. angustipennis Horn is yellow.

My specimen is similar to the illustration of T. angustipennis
in MND, p. 817, but, among other small differences in
wing coloration, my specimens have three hyaline spots
in R₁ beyond the stigma; the illustration has 2.

Dominique is preparing to send more material to Ferris for identification. I included several *Lepidoptera* specimens to send also. These are 1856, 2139, 2278, 2298, 2499, 2538, 2616, 2617, 2669, 2744, 2771, 2806, 2807, 3299, 3300.

Keying specimen 2609 using the key of Reinhard (1955), p. 51
1 → 2 → 3 → Wagnata clivides? Distributed "across the North American continent through southern Canada to northern United States." No information on biology is given. Hosts of the genus are phalaenid and noctuid hosts (Reinhard, 1955).

Dominique's three specimens 7060 look like what I called Tephritis. These came from a light fixture in Dominique's house on October 3, 2005.

Keying specimen 2638, a Tricimba, using the key of Sabrosky (1975), p. 428 1 → 2 → brunnicollis western: Oregon and Californian Washington. Wow! my specimen looks just like the illustration of T. trisulcata in MNP, p. 1011, Fig. 53. But the coloration is different.

Sorting Diptera

- 2842, Muscidae
- 2843, Muscidae
- 2844, Muscidae
- 2845, Muscidae

2846, Muscidae

2893, Mycetophilidae

2894, "

2895, Sciariidae

2896, Muscidae

2897, Anthomyiidae

2898, Muscidae

2899, (Chironomidae?) yes.

2900, Tipulidae

2901, Chironomidae

2902, Ceratopogonidae

2996, ? Keying using MND, p. 105 72 → 73 → 74 → 75 → 76 → 77 → 78 → 81 → 108 → 112 → 113 → 114 → Ephydriidae

(ch. 98) Key to genera, p. 1030 1 → 2 → 41 → Hydrillinae 42 → 44 → 45 → 46 → Notiphila 47 → 48 → Dichaeta?

22 spp., widespread Mathis 1979

Mathis, W.N. 1979. Studies of Notophilinae (Diptera, Ephydriidae), I: Revision of the Nearctic species of Notiphila Fallén, excluding the condata group. Smithsonian Contr. Zool. 287: i-iv, 1-111.

2997, "

2998, Ephydriidae MND, p. 1070 1 → 2 → 3 → 4 → 5 → 6 → Psilopinæ 7 → 9 → 10 → 11 → 12 → 14 → 17 → 19 → 25 → 26 → 27 →

28 → Ditrichophora? 15 spp. widespread Cresson 1942
low confidence

Cresson, E.T., Jr. 1942. Synopsis of North American Ephydriidae (Diptera). I. The subfamily Psilopinae, with descriptions of new species. Trans. Am. ent. Soc. 68:101-128.

2999, Sphaeroceridae

3000, Muscidae

3001, Ephydriidae MND, p. 1030 1 → Ephydrinae 64 → 65 → 66 → 67 → Ephydra 68 → 69 → Ephydra (Ephydra), 13 spp., widespread, Wirth 1971

Wirth, W.W. 1971. The brine flies of the genus Ephydra in North America (Diptera: Ephydriidae). Ann. ent. Soc. Am. 64:357-377.

I requested the three articles above.

3002, Muscidae

3003, Ephydriidae, MND, p. 1030 1 → 2 → 3 → 36 → 40 → Parydrinae 51 → 52 → Parydra 53 → Parydra (Parydra), 15 spp.; widespread; Clausen and Cook 1971.

Clausen, P.O., and E.F. Cook. 1971. A revision of the Nearctic species of the tribe Parydrini (Diptera: Ephydriidae). Mem. Am. ent. Soc. 29:1-150.

3004, Chironomidae

3005, Ceratopogonidae

3006, Sphaeroceridae

3007, Notiphila

3008, Ephydriidae, MND p. 1030 1 → 2 → 3 → 36 → 40 →

Parydrinae 51 → 56 → 59 → 61 → 62 → 63 → Lytogaster

8 spp.; widespread; Clausen 1982

Clausen, P.O. 1982. A revision of the Nearctic species of the genus Lytogaster (Diptera: Ephydriidae). Trans. Am. ent. Soc. 108:401-428.

3009, Muscidae

3010, Parydra

3011, Parydra

3012, Muscidae

3013, Notiphila

3014, "

3015, "

3016, "

3017, "

3019, Parydra

3018, Notiphila

3020, Ceratopogonidae

3021, Diptera (no head!, probably Ephydriidae)

3022, Parydra

3023, Notiphila

3024, Ephydriidae. MND, p. 1030 1 → 2 → 3 → 36 → 40 →
 Parydrinae 51 → 56 → 59 → 61 → Pelina 7 spp; widespread;
 Clausen 1973

Clausen, P.J. 1973. A revision of the Nearctic species of
 the genus Pelina (Diptera: Ephydriidae). Trans. Am. ent. Soc.
 99: 119-156.

3025, Muscidae

3026, Ditrichophora

3027, Muscidae

3028, Lyfagaster

3029, Chloropidae?

3030, Lyfagaster

3031, Parydra

3032, Notiphila

3033, Ditrichophora

3034, Muscidae

3035, Muscidae

3036, Ephydra? → or Cerrala? 64 → 74 → 75 → 76 → 77 →

Scatella 78 → Scatella (Scatella) 3 spp; western;

Mathis and Shewell 1978

Mathis, W.N., and G.E. Shewell. 1978. Studies on
 Ephydrinae (Diptera: Ephydriidae), I: Revisions of
Parascatella Cresson and the trisetata group of Scatella

R. bineau-Desvoidy. Smithson. Contr. Zool. 285: i-iii,
 1-44.

(but next sent is Analyptidae)

3037 ? (Otitidae?) MND, p. 72 → 73 → 74 → 75 → 76 → 77
 → 78 → 81 → 82 → 93 → 94 → 95 → 104 → 105 → 106 →
Pallopteridae? 107 → Otitidae

3038 - Sphaerocarida

3039, Muscidae

3040, Parydra

3041, Muscidae

3042, Ephydriidae

3043, Notiphila

3044, Muscidae

3045, Notiphila

3046, Notiphila

3047, "

3048, "

3049, Muscidae

3050, Muscidae

3051, Notiphila

3052, Ditrichophora

3053, Dolichopodidae

Keying 3042, an Ephydrid using MND, p. 1030 1→2→
3→4→5→6→Psilopinne 7→9→10→11→12→14→17→
19→20→21→22→23→24→Psilopa? (6 spp.)
wide spread; Crosson 1942. ^{low confidence}

I already requested this reference.

July 28, 2006 lab work, KEANOR

Keying a fly, specimen 2564, which I had identified as

July 20, 2006, as Anthomyiidae: Fucellia.

Using Huckett (1965) Key to subfamilies of Muscidae, p.

21 1→2→3→Fucellinae, Key to genera, p. 22

→Fucellia Key to males, p. 23 1→4→thinobla?

known collected from Anchorage in Sedona.

Specimen 2754 is also F. thinobla, but it is a ♀.

Today I am servicing the mouse traps I had set out and serviced last in July 25.

July 30, 2006 King County Creek Fire 07:45-

Drew Gurnes, Wyatt Rivard, Jason Young, and I are headed west to the King County Creek fire today where a couple of smokes appear to have survived the winter.

Wyatt was telling me that squirrels have been dying and exhibiting strange behavior this year. Even had full size a couple of days ago. This

he ~~saw~~ saw a dying squirrel with a heavy load of ticks. Wyatt says that the squirrels are unusually easy to approach.

Josh is coming also.

Drew and others had gone in yesterday, but they were unable to get out on the lake until late in the day. They worked on mopping up a spot yesterday. We will start there again. Then we will go over to another two smokes. Campy is all worked off, but much of duff remains. There will be an eagle's nest. This we will try to give a 300ft buffer. Drew and Jason will have radios. This is all in the black, so safety zones will be all around.

Need - Pulaskis, PFDs, 10 sticks of 1.5" hose, 1 wire Jerry can of pump fuel. ~~the~~
• radios: local DG on fire; hideout options.

We left the firehouse at 08:45 and arrived at Lower Skillek Lost launch at 09:25. I drove. We were to meet Mark with the Ark here. We arrived first.

All the brushland was a willow with what I was unfamiliar

...

(Mark Vagner arrived with the Ark at 09:50.

↳ This willow was a tall shrub with smooth, gray bark, ovate, entire leaves. The upper dark green on top and glaucous beneath; fuzzy white stems; short to leafy bracts; and male catkins

present now.

We were on the water at 10:10. On shore at 10:45.
At the strike where they had been working yesterday.
We found just a couple of smoldering spots, which
we took care of with hand tools. There was a lot of
Marchantia polymorpha, Festuca alticola, Salix scouleriana,
Chenopodium angustifolium, and some beautiful Corydalis
conopsea. We were back on the water at 11:05.
It had begun raining lightly as we worked.

We worked until ~13:00 on the first ~~stage~~ strike just
E of the eagle nest. I worked mostly with Wypoff
alternately using the hose and Pulaski, cleaning up the
perimeter. We lunched and ~14:00 dinner in the Ark
with Mark. We finished up most of our work and hit a boat at
16:18. We were done and loaded at 17:13. Lots of
Allium in this S. strike of Skilak L.

We were at Lower Skilak boat ramp unloading at 17:45.
At head quarters 18:45.

July 31, 2006

Equipment list for work in Tustumena Lake strike
area.

- | | |
|-------------------------|-----------------|
| - fire clothes & gloves | - boxes |
| - uniform | - warm hat |
| - sleeping pad | - flashlight |
| - sleeping bag | - boot |
| - cup | - PDA |
| - bowl | - watch |
| - spoon | - pack |
| - sponge | - GPS (?) |
| - soap | - camera |
| - tooth brush | - batteries |
| - tooth paste | - glasses case |
| - head net | - knives |
| - rain gear | - water bottles |
| - work clothes | - sun hat |
| - boots | - microscope |
| - sandals / slippers | - gloves |
| - first aid kit | - socks |
| - emergency blanket | |
| - lighter | |
| - collecting equipment | |
| - net | |
| - note books | |
| - seals | |

BAER weed walk August 1, 2006 07:00-

I checked serviced the 'vine' traps in this morning. Ted Estelin, Susy Grimes, Helen Cortes (AKUHP), and I departed from head quarters just before 07:00 for slack water. We arrived at slack water at 09:30 and departed in the "New Skiff," in manual Atec, at 10:00. We arrived at Taylor just before 11:00.

Helen gave us methods, data sheet, hand-over class: (via Verner) at 11:00 describe what is (1) = 5% in - profile, but describe depth of soil, organic layer, etc. = 2% even for investigation. Ignore fire indicators basin. *List each species found and location (space, 1%, 3%, 5%, 10%, etc.) Area will usually be low. *After filling spp., fill in "vegetal" box. *Wepp. int is averaged. We decided on lunch before leaving, then left with DeVito Bay. I collected a wood-boring bee at Taylor cabin.

We left Taylor cabin for Davitts Bay at 12:24.

Here we are Cabin for Algae and Phleum in grassy marsh of the shore. On shore 12:43. We are calling this site "Tustumena." 1" was last year it was called Glacier Creek / Indian Creek - old cabin site. I collected a scapthead bug here on Festuca rubra. Here we found Algae, Phleum presence, Festuca rubra, Poa, and an Agropyron. There are bird tracks here. I saw a canon on a rock. uncomp. Ted found a bird's tail, which I collected.

Dine here at 13:57. Next is Blakey cabin swamp. We arrived at 14:15. This 'swampy' marshy area is completely under water. We motored in the skiff to within about 3m of this point where Capella had been collected previously. We pulled ashore at Blake cabin at 14:47. We walked along the shore but did not find any exotic leaves (capsules). Then went to the Blake cabin. We are calling this site Tustumena 2. There are infestations here of Eurytoma and Hardaway borer on the herbarium. Helen and Susie put in a plot; Ted and I surveyed another. I took France 10 and 11 on plot # (Blake 1). We left at 15:46. We arrived at the Andrew Berg cabin at 15:51. At the Berg cabin there were some Psyllids on a mustard. I collected these. Back at Andrew Berg ^{Taylor} cabin around 17:00.

It seems notable that I did not see any Phalangium opilio at any of the locations today even though I looked. Helen talked about R44 helicopters being very cheap to operate helicopters.

In the evening, after dinner, dessert, and dishes, Helen did the Taylor Cabin plot (Tustumena 4?).

I am keying plants that we collected here. Keying using Welsh (1979) 1 → 5 → 8 → 9 → 10 → Oxytropis 1 → 3 → 4 → 8 → 9 → O. viscaria?
 (Gentiana 1 →
 Going back to Gentianaceae
 Trying Hultén → O. campestris)

Gentianaceae 1→3→ Coentianella? 1→7→ amirella?
 Caryophyllaceae 1→3→4→6→ Archaria 1→2→7→8→9→
 10→ A. stricta? M. hirsuta?

01:00 - July August 2, 2000 Tustumena Lake BAFR work

Helen, Susan, and I are departing for Emma Lake cabin on the Emma Lake Trail. We reached the Emma Lake cabin at 11:00. We were completely covered in mud through fir and oak brush. Most of the brush was thick forest. We did BAFR y12 at the cabin "Tustumena 5" and left at 11:50. At 12:25, Helen spotted a Trifolium on the trail. She named the location and called it "Emma TR" for Emma Trail. We returned to the Taylor cabin at 13:30. We lunched, finished cleaning up, and departed at 14:30. Todd had been tidying the cabin while we were away on the Emma Lake Trail. On shore at Bear Creek 14:42. We will park in two sites here: "Tustumena 6" at Mouse Creek cabin (canine) and another on the beach. There has been much bear activity here. We departed at 15:30. Just as we left I picked up a couple (4) harvestmen from under driftwood on the beach. We arrived at Steckenstein and were loaded by 16:30. At host quarters 17:10.

KENWIK lab work, August 3, 2000

I examined the four specimens of harvestmen that I collected yesterday at Mouse Creek beach on Tustumena Lake. Two look like ground ♀ Leptobunus borealis; the other two look like immature Nelima praesertim.

Keying bumble bee using Milliron (1971)
 Specimen 1962, key to tribes, p. 39 1→2→ Bombini
 p. 43 1→2→ (♀)

↳ 3→4→ Pyrobombus subg. Pyrobombus?
 Specimens 2497, 2598, and 2770 appear to be the same taxon.

Specimen 2800 looks like a Bombus, p. 44 1→a (♂)
 p. 17 no.

Trying cheat sheet of Fox (no date)
 Specimen 2800 looks like Bombus occidentalis.
 Specimens 1962, 2497, 2598, and 2770 look like either
Bombus melanopygus or Bombus sylvicola

Examining specimen 3057 - Notiphila using Mathis (1979)
 Key to the subgenera of Notiphila, p. 16 → subg. Dicheeta,
 p. 54. Key to species, p. 55 1→7→8→9→ dearis? not in
 range
 ↳ 10→11→12→13→14→

uliginosa

Fox Creek Fire Effects plots August 4, 2008

0845-

I scanned Mathis (1979).

I added a little more ethanol to the malaise traps. There seem to be slowing down here. Less was collected than previously.

Today Drew and Susie Grosses and Diane McLane will be heading out to the Fox Creek Fire Effects plots.

Plot	Coordinates
FE-HS2-P1	E 0619353 N 664887

FE-HS2-P3

FE-HS2-P4

We left head quarters at 0850 for Sildana Airport.

Our ship is an Astor operated by Eim Aviation; red, white, and black, N183EH. Our pilot is Anders.

This is a cool, breezy, sunny morning.

On ground at FE-HS2 at 09:00. Anders is to pick us up at 16:00. On plot 09:18 (plot FE-HS2-P1)

This is black spruce forest. 100% of trees have been killed. Most are still standing. Observation: It looks like all of this plot had been stuffed remains, and most of the plot. Chen in

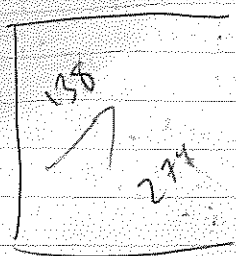
angustifolius, Betula papyrifera, and Marchantia polymorpha are colonizing the exposed mineral soil areas; some Urtica spp. Stacey and Cornus canadensis are responding to intense stuffed remains. Asp. Lohm. palustris (a little) and Orbitia secunda.

The 30m stake had been damaged by fire, so we replaced it. Drew and Susie are doing the Brown's census. Drew and I will do photographic and point measurements. Diane and Susie will take stuffed depth and burn measurements. Drew and I also did occasional cover measurements of vegetation and tall trees.

On plot FE-HS2-P3 at 11:40. We lunched here before beginning plot work. We returned work at 12:30. We finished FE-HS2-P3 at 13:14.

Next we will go to FE-HS2-P4.





Draw out J.L. Ferguson to correct
sawing trees, so we did so. We
finished at 14:00.

On plot FE-1152-p4 at 14:15.

Apex 20m, base 7, tip 65

$$h = \frac{(65) - (7)}{20} = 72 (20m)$$

$$\frac{72}{20}$$

$$14.4$$

$$14.4$$

$$\frac{(67) - (-37)}{(65\%)(20m)}$$

$$\frac{0.65}{20}$$

$$13.0m$$

$$\frac{(49\%) - (-27)}{(51\%)(20m)}$$

$$\frac{0.51}{20}$$

$$10.2$$

$$10.20m$$

$$\frac{(57) - (-26\%)(20m)}{78\%}$$

$$78\%$$

$$\frac{20m}{0.78}$$

$$15.6$$

$$15.6m$$

We measured the LZ at 16:17
on the ground w. Sildana Airport and calculated
at 16:50.

[Lab Work KENWR, August 7, 2008]

Keying an Arnica I picked up this morning off of
Kibik St. and Kibik Ct., Sildana. It seems to be
a weedy roadside plant. To by says he thinks he has
seen it as a roadside plant.

Ugh, Hutton it keyed to Arnica latifolia. I checked
around on the internet and compared it with the European
Arnica montana, which can be bought commercially. It does
appear to be A. latifolia.

Keying LTEMP plant specimens
plot 5794, Lycopodium selago, Lycopodium alpinum,
Luettkea pectinata, Phyllodoce alectica, Cassiope
stelloriana, Lupinus nootkatensis

Plot 7248

Pedicularis lancea, Stellaria sp. Stellaria menziesii? (Keyed using Hutton)

Plot 3233

Aconitum delphinifolium, Ribes laxiflorum, Salix
hardaxii

More from 3248

Salix pulchra, Salix reticulata, Vaccinium uliginosum,
"Covars-2" - stigmata 2; Upper spike staminate, lower two or three
female; perianth beakless. "Covars-1" is the same.
Using Walsh (1974) pp. 488 1→2→3→ Key III, 472 1→2→
2→4→ Wigandii (C. Lyngby)

5598 - examining a specimen from "near 5598"

I do not know what family this is, so I am doing a
floral dissection. 5 sepals (+ 1 sepal well below the rest.)
They are ~~connate~~ ~~basally~~ basally. Petals connate,
forming a tube, 5 petals. This is Androsace alaskana.

I remembered about the Psyllids I had collected on August
1, and I checked on them. Many had matured to become adults,
so I put them in alcohol.

Keying using Hodkinson (1978) pp. 376 1→3→ Aphelora?
Key to species 1→ manitobaensis "Known from few localities
in southern and central Alaska". Known hosts for the taxon
Alaskan spp. of Aphelora or Polygonum and Rumex.

Lab work KENWR, August 8, 2006

Keying a mustard from the Andrew Berg cabin
collected on August 1. It had been heavily
parasitized by Psyllids. Using Walsh (1974) pp. 177
1→2→3→ Key III and Key IV

Key III 1→5→8→9→ Sisymbrium?Key IV 1→8→15→16→17→18→ Cardamine?Sisymbrium?or Barbarea?↓
Cardamineumbellata?↓
R. nasturtium-nasturtium?Barbarea orthoceras

Leaves auriculate-clasping

= C. oligospermaAndrosace?I think it is Barbarea orthoceras

Lab work KENWR, August 10, 2006

Keying a composite from "near 5598" using Hultén
→ Eriogonum purpuratum

Preparing for fire sighting August 12, 2001

- fire clothes
- gloves (2 sets)
- helmet
- boots
- socks
- boxers
- long johns
- sleeping clothes
- warm hat
- ball cap
- camera
- PDA (battery & charge base)
- stamps (16)
- envelopes
- paper
- pencils
- white books
- Ziploc bags
- vials (empty) with labels
- glasses case
- first aid kit
- lighter
- rain gear
- tooth brush
- tooth paste
- floss
- Bible
- shorts
- swim suit
- sandals? (or comfy shoes)
- cup? yes
- vials
- folder
- book?
- multitool
- assorted socks
- razor
- pack towel
- recorder
- music?

- swim trunks
- all must be in bag
- tooth paste
- cheap shoes
- socks

August 15, 2001, Lab work (E.N.W.R.)

WinBUGS

geo R

exponential

exponential

disc

ni?

$$p(h) = e^{-\phi h^K}$$

$$p(h) = e^{-\frac{h}{\phi}}$$

so, ϕ in WinBUGS = $\frac{1}{\phi}$ in R

and $K = 1$.

Also, I must use the same units in both programs.

→ or can use powered-exponential to use K as well.

S. I must use an exponential model.

Plants from LTEMP point 5598

Draba (using Welsh, 1974) 1 → 2 → 18 → 19 → 21 → 25 → 28
→ 29 → 30 → 31 → D. incerta

Petrorhiza villosa

Oxytropis (using Welsh) 1 → 3 → 4 → 5 → 6 → 7 → nigrescens
~~O. affinis?~~ nigrescens

Papaver 1 → 2 → 3 → albicaenum?

Saxifraga truncapilata, Saxifraga oppositifolia

another Draba (note from data sheet: petals white)

1 → 2 → 18 → 19 → 21 → 22 → D. nivalis

Caryophyllaceae 1 → 3 → 4 → 5 → (crastium)

1 → 2 → 4 → 5 → C. beeringianum

Festuca anthers 1mm (slightly immature) F. ovina

Lab work KENWR August 16, 2000

continuing to key out plant specimens from LTEMP print 5598.

Stellaria 1 → 2 → 3 → 4 → 5 → 6 → 7 → 8 → 9 → 10 →

humifusa? Stellaria minima

Poa? (viriparvus)

I checked the malaise traps over lunch. The forest trap had been knocked down and ripped by a mouse. Most of the alcohol was gone and few specimens had been collected.

Relatively few specimens had been collected in the float plane back trap, so I left it for next week. T.J. had accompanied me. He agreed to check the trap next week.

(for Ken) - website to check is

<http://www.nifc.gov/nicc/index.htm>

click on "Incident Management Situation Report."

11191, 40

Lab work KENWR, August 17, 2000

Keying Draba from 5639

1 → 2 → 18 → 19 → 21 → 22 → D. nivalis

(1 stem scapose; other with 1 small cauline leaf)

List of specimens to have checked

taxon	plt
<u>Poa</u> (?)	5598
<u>Poa</u>	5691
<u>Festuca</u>	3283
<u>Anemone</u> (?)	3260
<u>Carex</u> <u>bigelowii?</u>	3248
<u>Arnica</u>	7019
<u>Aster</u>	7019
<u>Draba</u>	5639

Room 134

+ Biol, called installing hardware. No word as to how long it will take.

Monday, Aug 21, 00:20 on

Last night I left home at 19:35 heading to Skyline Trail to observe harvestmen and bristletails. I arrived at the parking lot at 08:10 a.m. and hit the trail at 08:20. It was cool and misty. It had been raining for days. The trail was slick as I walked up. I fell twice. I reached the site where I camped in July at 20:00, 15 minutes after official sunset. I quickly set up camp in the fading light, then ate a bird. By 21:00 I was not observing just below camp. It was nearly still and no longer raining, but a penetrating, damp mist obscured all but the nearest ferns and all was completely saturated. I saw four harvestmen and probably 10 bristletails. ~~After~~ All the harvestmen were still when I came upon them, pressed to rock surfaces with their legs spread out. Two of them, after a time, seemed to be perturbed by either my light or my breath. It was not clear that even they may ~~be~~ respond to all manner of vertical surfaces or underhangs, even horizontal surfaces. All seemed to be wetly. On set of three on one rock surface I checked my four

times over the course of the next hour. One never budged, one disappeared and one appeared to be disturbed by me or that fourth visit. At one point, a bristletail waddled by. It never seemed to defect the harvestman, but the harvestman responded to interaction of one of its outstretched legs by raising the leg up and down for a short time. The body and other legs of the harvestman never budged. The only other animals were some large muscoid flies and a large noctuid (?) moth. I retired after 00:00.

Work KENUR, August 21, 2006

Keeping vascular plant specimens from Suzee's trip on the Hanson Horse Trail

- grass labeled "8/15/06 GPS: CAMP 3
Spp A CACA?"

Calamagrostis lapponica? or C. canadensis

- poison hemlock labeled "8/15/06 GPS: CAMP 3
wide spread throughout meadow 3?"

Sicula mitchelliana

42
- grass labeled "8/14/06 GPS - FRCAMP2
? SIA
Poa annua

- grass labeled "8/14/06 Meadow across from
FRCAMP2 ?? spp B"

Anthers ~1.2mm long; Lemma with hair only on
keel and margin; rhizomatous?; culm smooth; weak vein
between keel and marginal nerve.

Poa pratensis? ssp. alpigena - native.
or

Poa glauca - but do not know if it is stuffed or not.

- grass labeled "8/14/06 GPS FRCAMP2 spp C"
not sure

Calamagrostis canadensis

- composite labeled "8/14/06 Hieracium umbellatus?
GPS - FRCAMP2 Meadow across ck spp D"

Senecio lugens

- grass labeled "8/17/06 High camp spp A Tusti
bench Poa spp?

Calamagrostis canadensis

43
Keying a fly, specimen 1963, using Hackett (1965)
p. 21 key to subfamilies
1 → 2 → 4 → 5 → 6 → 7 → 8 → 9 →

Legs had been broken off. Could not continue

specimen 2347 using Chillcott, 1960.

Key + section of Fennimore, p. 42

1 → 3 → Coolingia? I do not think so.

August 22, 2006 Travel to Anchorage

Brian Nichols and his wife Dorene arrived to
pick me up at our house at just before ~~22:00~~
22:00. We boarded an Eze flight out of
Kenai at 23:05 and were situated in the
Anchorage airport at 11:45.

August 23, 2006 more travel

Brian and I spent the rest of the night at the
airport. We woke at 05:30. We took a taxi to
Signature Flight Services, arriving at 07:00.

Brian introduced me to Mary Court. We boarded
a Sierra Pacific Airlines 737 at 10:06. We
were on the ground in Redmond at 14:52 Redmond
time. We met outside the airfield at 15:01. I was
with Andy (we were split up into groups of 3). James

Savage is our crew boss, Brian is the trainee.

On my second one Amber, Max, Zack, Steve, and Paul. It is warm, dry, sunny, breezy, and hazy. Here at the airport is a birch (*Betula papyrifera*), a juniper (*Juniperus* sp?), leguminous trees (*Lacustris*), and in the surrounding area are many pines. There is lots of brush (sage brush?).

Another meeting: we will be waiting here until a type 2 crew is requested. We do not expect to wait long.

James Savage's cell: (907) 978-3144

Brian Nichols' cell: (907) 252-9857 (a KENNA phone)

It became beautifully sunny. In the vicinity of our staging area was sage brush (mostly), grasses, and diverse interesting forbs; thistles, dock, ... On the sagebrush were aphids tended by formica ants, I saw a large fence lizard on a juniper.

Ours (Amber's) is serial 3. I have been issued a shovel. We were issued all necessary equipment and we loaded up our bus, a cab-over, bus 29. Gary is our bus driver. We are headed out to dinner tonight. We get \$44/day per diem here (3/4 of that the first day).

Shipping list? - lighter - isopropyl alcohol
We found out the Mazerolle collection just after 21:00.

August 24, 2006

I rose before my alarm. We were loaded on the bus at 06:00 and we headed out to breakfast. We breakfasted at Short's Restaurant. We stopped at Fred Meyer briefly after breakfast. I used the opportunity to mail to Kim.

08:34 - briefing. We are still in a holding pattern at the moment. We did little for much of the morning. In the middle of the day we loaded buses with equipment for additional Alaskan crews which are to arrive today.

We lunched at Safeway.

14:23 - we are going to do time sheets, then we are headed to La Grande, OR, then 2 hrs further.

NE-Oregon. Walls with National Forest

Hwy 77 to Hwy 84, 84 E to La Grande. We departed at 15:18. After driving through agricultural country with hay fields and live stock, we passed through Madras at 16:00. We passed through Grass Valley at 17:10. We stopped here.

The forest we are heading to is Tim Creek, near Enterprise, about 70-80 mi N of La Grande. At Roadhouse 97 we were entertained by the shop keeper and his dog. A little after 21:00, we stopped at the Charvon

The Pin Creek Fire is in the William-Whitman National Forest.

A little after 21:00, we stopped at the Ocean station in LaGrande to fuel the bus and grab some food. I had kippered herring and biscuits. I was able to call Ken from the gas station. She sounded good. I am heartened to know that she is doing better.

We are to stay in a state park tonight. We arrived at Minner State recreation area at 22:20. I saw a haversham, I think *Phalaropus* sp. to be out in the grass at night.

August 25, 2006 (Friday)

We were loaded on the bus and rolling just after 06:00. The area between Will-Wh and Enterprise includes some beautiful farm land with all manner of livestock. We breakfasted at 02.

Enterprise Safeway. We arrived at the camp at 09:00. We were issued lunches. We were ready. We have been assigned to the structure protection group. We are S of the fire. We are driving to the "Frog Pond" and we will be flown to the Cache Creek structures. We looked up in the bus and left the main camp at 10:19. We are now in Hell's Canyon Recreation Area.

Pre-flight briefing: 11:51. Declination here is 19° E. Elevation at this helipad is ~5,000 ft. I found a light khaki-colored, immature mantis here. The first group was helicoptered out at 12:10. The ship returned at 12:32. It left with the second crew shortly thereafter. I found a couple of more mantids, one of which was an adult. I collected 4 live. The ship returned at 12:58. It left with the third crew at 13:03. This landing zone area had been burned. It is grass with pine and what look to be sub-alpine herbs. There is also *Acer* and *Amelanchier*. I checked some fractured, lichen-covered spotted rock outcrops but found no bristletails (or anything else). We were off the helicopter at 13:33.

The spot we are at is beautiful, with many forest trees! This is a public access visitor center. Our primary mission is structure protection. I have been selected as camp N21.

We set up hose lays around the structures and buried an electricity conduit from a solar panel on the hill down to the structures. We then laid more hose and sprinklers around the ~~low~~ structures. We then sharpened tools. It is now 18:03. At 16:15 we tested our hose lays. By 19:05 were done, we had set up our camps, and we were eating dinner.