BOWSER LAB NOTEBOOK

7530-00-222-3521
FEDERAL SUPPLY SERVICE
(GPO)

Matt Bowser

lab notes

March 11, 2011 — July 10, 2012

If found, please contact
Matt Bowser

matthewnkim@gmail.com
Matt_Bowser@fws.gov
(907) 260-6104
(907) 260-2512

9 5/4 x 7 7/8

(11.III 2011) Friday

Keying Diapriidae. Drying specimen [ICNUK 1854] using the key of Nixon (1957) on Diapriid.org.

1 → 7 → 8 → 12 → 17 → 21 → 22 → 24 → 25 → 26 → 32 → Pantoclis?

↳ 27 → 29 → 30 → Belyta?

This might be a male. If it is ♂, then I think it keys to Pantoclis. If it is a ♀, I think it keys to Belyta.

(1997), → 20 →

14.III.2011 Monday

Attempting to key specimen [KNWR 4903], a Diapriid (Belytinae).

1→7→8→17→21→22→ Leptorhaptus?

This is now a synonym of Cinetus.

15.III.2011 Tuesday

Talking with Mark and Pam about ARCTOS. Mark suggested $1500 for initialization/setup and $500 for annual maintenance. What is the method of payment?

Now I am looking at specimens of Encyrtidae.

[KNWR 4869] Dominique identified as Pseudoencyrtus.

[KNWR 4076] is identical.

[KNWR 3237] is different.

[KNWR 4001] is Pseudoencyrtus.

[KNWR 5156] is different than any I've seen so far.

[KNWR 5141] is something else different.

[KNWR 5140] is like [KNWR 5141], but not identical.

Keying [KNWR 5141] using Gibson, et al (1997), p. 175 1→3→4→11→15→16→17→18→19→20→21→22→!

~~Pseudorhaptus~~?!

No, the spelling is Pseudencyrtus.

4

16.III.2011 Wednesday

I photographed specimen KNMR 6750, an Oidaematophorus.

I photographed specimen KNMR 4903, a Cinetus.

18.III.2011 Friday

I am photographing specimen KNMR 4078, a Pseudencyrtus.
Also photographing KNMR 3237.
Also KNMR 5156.
Also KNMR 5140

Trying to key specimen KNMR 3397, a Ceraphronid, using the key of Dessart and Cancerni (1987), p. 310 1→2→3*→7+→16→17→18→ Ceraphron?

15.III.2011 Friday

I received a box of vials from Susan Wise-Eagle. I unpackaged the 22 vials.

28.III.2011 Monday

KNWR 4076 is Psyllaephagus, det. Noyes by photo.
KNWR 5156 is Coccophagus. There are some keys, so I should pursue this one.
KNWR 5140 - Noyes requested photos of the clypeus, antenna, and wings. I photographed KNWR 5140.

Dominique stopped by while I was looking at KNWR 5141. We think it is Eulophidae: Euderinae. I am now trying to key it using Gibson, et al. (1997), p. 342 41→42→43→44→ Euderus
Keying using Yoshimoto (1971), p. 543 1→2→3→4*→ Euderus? p. 559 1→2→3→4→6→ ... (only female characters, mine is ♂.) Looks like it is in the solidaginis group.

- Need to request Grissell (1983) on Dinotiscus.
- Enter Yoshimoto (1971)
-

29.III.2011 / Tuesday

New sorting Odonata.

[CNUR 5140] is apparently Systasis, so I am trying to key it using Heylen (1995), p. 572 1→3→4→ encyrtoides.

10 (30. III. 2011 | Wednesday

Keying KNHC 6154, a Dinotiscus, using Russell (1983), p. 96 1→3→4→5→ euptorus

Keying a bee using BTJ, p. 676 17→18→19→20→ Andrenidae, Andreninae

New using Michener p. 229 1→2→3*→4→ Andrena p. 233 1→4→5→6→7→

(31. III. 2011 | Thursday

Keying a Mycetophilid collected yesterday using McAlpine et al. (1983), p. 228 1→3→22→23→24→ Mycetophilinae 74→75→76→77→ Exechia

4.IV.2011 Monday

Shay brought in a dead swan with lice on it

Outlet of Skilak on Kenai River. Shay had collected it on March 25 from juvenile (1st year) trumpeter swan

Keying using BTJ, p. 277 1→2→3→4→5→Menoponidae

Trying to key using Clay (1969), p. 20 1→2→30→31→36→Microctenia ??
→Odoriphila?
→2→3→4→5→7→Colpocephalum complex?, p. 17

Anatoecus?? No, this is Philopteridae

6.IV.2011 Wednesday

Keying another species of louse, a long, pale one, from also from the same swan.

Keying using BTJ, p. 277 1→2→7→Philopteridae

Now using Arnold (2005)
It looks like mine is Ornithobius waterstoni.

14

7. IV. 2011 Thursday

Keying (KNUK 6806) a Ciconiphilus, using Price and Beer (1965), p. 665
1→3→4→7→ cygni??, but I am very unsure.

14. IV. 2011 Thursday

Keying a small ♂ collected from under a birch log near headquarters using Forsyth (2004), p. 30
1→10→16→19→26→29→32→ ~~Polycoma~~ ~~serricollis~~??
↳ 33→34→35→36→
↳ 30→ Dasicia??

Keying a Psyllid ♂ picked up on a black spruce using Hodkinson (1978), p. 330
1→2→ Psylla, p. 337 1→5→ will have to Psylla sp. for now. ↳ 7→8

Keying a Livopsyllid using Ulrich et al. (2004), p. 128
1→2→51→53→54→55→57→ 69→68→69→86→ ... Walkeriana? yes.

(18. IV. 204) Monday

Again I am considering the Walckenaeria I collected the other day. It is in the directa group, either directa, subdirecta, communis, or indirecta.

It is not communis because the hairs extend all the way down the horn.

I think it is not indirecta because the posterior row of eyes is not so strongly procurved.

It looks like directa based on the epigynal file.

(19. IV. 204) Tuesday

Today I collected a few specimens when I was outside doing other things.

(KNUK 6833) - Linyphiid

(KNUK 6834) - Curculionid

(KNUK 6835) - Linyphiid

18

2.V.2011 Monday

Keying a Hydroptilid using Key of Arnett & Thomas (2000), p. 195 1→2→3→4→5→25→27→28→ Rhyacophilidae?? no. After looking at checklist and pictures, I think it is Cymbiodyta. I requested Smetana (1974).

4.V.2011 Wednesday

Keying a large female Lycosid I collected on Monday using Ubick et al (2005), p. 165 1→2→3→7→8→9→10→11→12→13→22→23→24→ Arctosa? Using Dondale & Redner (1990) Arctosa littoralis Hentz, 1844.

Keying Plecoptera collected from Headquarters Lake today, using key of Merritt and Cummins (1996), p. 239 1→2→4→5→ Capniidae 45→49→50→51→ → Utacapnia

9. May. 2011 Monday

Attempting to key Arostracan specimens we collected on Saturday off of D. Valle Road using Belk (1975), p. 93

1 → 2 → 4 → 6 → 12 → 14 → 15 → ! no

↳ 16 → 17 → 18 → 20 → 22 → 23 → ?

Eubranchipus bundyi? or

24 → Eubranchipus intricatus?

After looking at photographs of antennae of these two spp. on the internet and based on range, I think these are E. bundyi.

1 ♂ and 2 ♀.

I acquired Hartland-Rowe (1967) and re-examined the specimens. The spines of the antennae look like E. bundyi. I removed the right second antennae to get a better look at the labrum, but I still do not see the hook clearly.

17. May. 2011 Tuesday

Keying a Chironomid midge from Shiloh Lake using McAlpine, et al. (1983), p. 427

1 → 2 → 5 → 6 → Orthocladinae 90 → 94 → 96 → 111 → 120 → 121 → 122 → 123 → Psectrocladius?

7. June 2011

I am trying to key a flea that Todd collected from a black bear, KNWR 7023. I think it is Vermipsyllidae.

Checking host parasite index of Holland (1985): Chaetopsylla tuberculaticeps, Oropsylla arctomys

I think it might be C. tuberculaticeps because this species is known from black bears from Chickaloon Flats (Holland, 1985). Both of my specimens in KNWR 7023 are ♀'s, so I need a clear one.

Now keying KNWR 7022, an Ailit, using MND, p. 555

1 → 2 → 8 → 14 → 27 → 16 → 28 → 29 → 33 → 37 → 38 → 47 → 48 → 49 → 50 → 51 → 52 → 53 → Eucyrtopogon

Need Curran (1923)

9. June 2011

Again looking at flea, KNWR 7023, now after one ♀ has been cleared in KOH. It does look like C. tuberculaticeps.

Keying specimen KNWR 7033, a spider. I think it is Agelinidae

Keying using Ubick et al., p. 58

1 → 2 → 5

↳ Agelenopsis?

I think so.

I have Chamberlin & Ivie (1941)! Two species in checklist for AK:

A. oregonensis ♀♀ 39, 24

A. utahana ♀♀ 38, plate VI; 23, plate III

I think it is A. utahana

14 June 2011

Keying in Argid I collected yesterday using Smith (1989), p. 155
1 → 2 → 13 → 17 → 18
↳ 19 → 20 → cyra (KNWR 7039)

Where are (KNWR 3264) and KNWR (4977)?

5 July 2011

I am processing specimens collected today as part of our REA last week.

6. July. 04

I am keying specimens from Juneau using the key of Reynolds (1977).

KNUK 7043 from Auke Lake.
More than one species is included in this sample. I think one is Dendrobaena. 1→2→6→7→8→9→10→!
(Clitellum starts at segment 32)
→11→ (male pores on 15) 12→15→16→
Octolasion tyrtaeum?

The second species, a larger, pigmented specimen, may not be mature.
1→2→6→ (clitellum on 37-29) 7→8→9→!
→3→4→ Lumbricus castaneus?
Only one of four of these is adult.

Two of the four O. tyrtaeum are adult.

There is also a very tiny worm which cannot be identified.

The O. tyrtaeum and very tiny immature I kept in the same vial; the L. castaneus I put in a new vial, KNUK 7109

Now I am looking at KNUK 7044
One is a pale worm with clitellum starting on 29, but setae closely paired.
15→17→19→20?
I am leaving this at Aporrectodea sp. I cannot get further. This calls into question my determination of KNUK 7043. It may be Aporrectodea as well.

There is also a large, but immature Lumbricus. I think there are two species of Lumbricus: one small but mature L. castaneus and at least a couple of some immature but much larger Lumbricus.

4 immature Lumbricus I left at KNUK 7044
1 mature L. castaneus I put in a second vial. → KNUK 7110
2 mature and 6 immature Aporrectodea I put in another vial. → KNUK 7111

I did re-check 7043. I am sticking with my first tentative ID.

18. July 2014

Keying a Syrphid (KNUK 7130)
using MND, p. 718 1→ Syrphinae 2→3→
4→5→7→10→14→17→18→19→22→ Sphaerophoria?
Now trying Vockeroth (1992)..
& think it is Doros aequalis

Now & am keying (KNUK 7129), a
Chrysopid using Steinmann (1964), p.
258 ~~73~~ 1 or ② → 3 or ① → 5 or ⑥ Nigrochrysopa?
Now keying using Penny (2000), p. 778
1→2→ Chrysopa chi.

21. July 2014

Keying Tabanids collected yesterday
at Headquarters Lake, using
McAlpine, et al. (1983), p. 465 1→2→9→10→11→
Chrysops 15→ Chrysops (Chrysops)

& have not yet found a key for our area.
C. excitans?? | & keyed to C. scoditatus
C. nigripes?? | in key to eastern spp.

& downloaded Teskey (1990). Now keying
p. 45 1→2→10→11→12→14→16→17→ nigripes?
Yes.

(24. July. 2011)

Portage Diabloz

Hemiptera
- Cercopidae?
- Cicadellidae
- Eriosomatidae

Coleoptera
- Carabidae 1
- Carabidae 2

Collembola
- Sminthuridae (Pterothrix)
- Entomobryidae
- Isotomidae
- ?Hypogastruridae

Oligochaeta
- Dendrobaena octaedra
- 1 enchytraeid?

Gastropoda
- 1 slug
- 1 snail

30

32

(24

Diptera
Dipulidae (?)
Muscidae
Xylophagidae
Lauxaniidae orange
Phoridae
Scionyzidae
Empididae (small)
Mycetophilidae - Mycetophila
Scatophagidae
Ceratopogonidae
Chironomidae
Boletina? 1
Boletina? 2
Empididae (large)
Lauxaniidae dark
Rhamphomyia
Large Muscid
Culicidae
Large Muscid?
Cecidomyiid

Hymenoptera
- Braconidae
- Ichneumonidae 1
- Ich. 2
Diapriid
- Proctotrupid?
- Ich. 3
- Ceraphronid?

Lepidoptera
- Geometrid
- Noctuid
- 3 micros
- white micro

Acari
4 F.

Araneae
Theridiidae?
Linyphiid

Thysanoptera

totals
Acari 6 → 8 Arach.
Araneae 2

Collembola 4
Hemiptera 3
Coleoptera 2
Diptera 22
Hymenoptera 7
Lep. 4
42

42 insects

Oligochaete 2

Gastropoda 2

54 inverts

26. July 2014

I am now processing sample (KNMK 7114), a large, dry malaise sample. I pinned

9	77 Diptera and 7 Hymenoptera plus one
16	Lepidoptera.
17	
21	
+14	
77	

29. July 2014

Keying an Agaricus from the HQ lawn using Arora (1986), p. 314 1→7→8→16→19→ A. crocidilinus? 9→10→11→41→ A. osecanus group & A crocodilinus

→20→

7→25→38→39→42→44→45→41→47→ A. campestris? & think so!

8. August 2014

KNWR 7107 is Anthomyiidae.

Keying using MND, p. 1100 1→3→5→6→10→14→16→18→24→25→27→28→29→32→35→39→46→56→60→11→!

Need to evert genitalia

KNWR 7108 is a Muscid

15. August 2014

Keying an Acrocera using Sabrosky (1948), p. 398

1→2→

I think it might not be an Acroceridae, but an Empididae.

Keying using MND, p. 610

1→13→20→35→36→Microphorus

(18 August 2014)

Sorting specimen (KNWR 7138)

- Formicidae ☒ ☒ ☒ (Formica)
- these went back into the original vial
- Geophilomorpha (7138A)
- Araneae ☒ ☐ (7138B)
- Tomoceridae (7138C)

Everything else ☒ ☒ ☒ ☐ (7138D)

Psocoptera
Elateridae
Carabidae
Trichoptera
Gastropoda
Staphylinidae
Acari
Anthocoridae
Thysanoptera
Onychiuridae

(KNWR 7142) appears to be only immature ants. (KNWR 7143) is also just ants, but mostly mature, all Formica

(KNWR 7197) also appears to be just Formica, mostly workers.

(22 August 2014)

Keying an Anthomyiid using MND, p. 1100 1→3→5→6→10→14→16→18→24→19→20→21→22→Pegomya — some of these are known to breed in Agaricus.

Now using Huckett (1965), p. 117 (key to ♀s) 1→2→8→13→16→winthemi??

26. August. 2011

This afternoon I walked down to the Raynat shed to get a list of chemicals stored here in order to get an MSDS sheet out here.

-76 UNAX AW-WR32 - 5 gal. bucket, nearly empty

- XPS mineral oil 2 stroke

- White gas fuel bottles must be ~~bott~~ labeled.

- Do car/marine batteries need MSDS's?

- 100% ETOH

- 95% denatured ETOH ← needs labeled

- gasoline

- propane ← needs labeled

- Formalin
- rose bengal } mixed out plain formalin.

- unicide by Drulin

- MAPP gas

Later, I returned to the fuel shed to take more notes.

Formalin: Fisher Scientific cat # 23-427-098
1:1 dilution (buffered)
I already have the right MSDS for this.

MAPP gas - from Benzomatic, model MG9.

Unicide is empty container.

(31. August 204)

at CIA

Log Hotel - a good book about decomposition

Razmar shed

NAPA Stowaway Marine Deep Cycle
~~182 105~~ 182 105 Ah
NAPA No. 8270

Exide Road Force AGM200
PN: XRF31D

Exide Powerfit ES27 ES2700000

(1. September 204)

At 09:00 I am pulling out bulk sample (KNWR 7113), from Emerald Lake, and pointing specimen.
& also separated some vial specimens
Thysanoptera → (KNWR 7359)
Psyllidae → (KNWR 7365)
etc. ... (stopped counting)

New keying (KNWR 7171) Ophioninae using key at AEI on line
1→~~2~~→4→5→6→9→ Ophion

Keying using Hooker (1912), p. 25
1→6→7→12→13→~~15~~→14→ Ichneumon??

Keying (KNWR 7172), a Lepturine, using American Beetles, vol. 2, p. 571
1→2→4→5→8→9→ Stenocorus??
& am not very confident about this.

41 (13. September 2014)

I am comparing two Delia specimens, KNWR 3840 and KNWR 3848.
3840 is a ♀ I had thought was Delia lineariventris.
3848 is a ♂ I had thought was Delia simplex.
KNWR 3846 appears to be identical to 3840. Both are ♀s.
In Tuckett (1965), it is couplet 32, p. 39 which separates ♂s of these species.
KNWR 3848 in this key 32 → 33 → 34 → D. lineariventris?

(15. September 2014)

I am keying KNWR 7439, a Tachinid I collected yesterday.
Using MND key to genera, p. 1202
1 → 175 → 191 → 218 → 235 → 271 → 272 → 273 → 274 → Phasia? (also Alophorella, Hyalomya, Trichoraneta, Rhaicomyia, Thoracanthella) - see p. 1258. → see Brooks (1946)

Now keying KNWR 7438, another Tachinid, same key 1 → 2 → 3 → 7 → Gymnocheta?

16. September 204

Keying another Lachnid, (KNWR 7441), same key as yesterday.
1→2→3→7→8→ Xanthopsyta? I think this is a bit suspect. This genus is known from BC, but not AK.

23. September 204

Again looking at Phasia specimens, this time trying to get to species using Brooks (1945)
Keying specimen (KNWR 7439), p. 652
1→2→3→6→7→8→ Alophoropsis?
p 662 1→2→3→ alaskensis?

Apparently this is now called Phasia aeroventris.

Keying (KNWR 7438), using Brooks (1941), p. 87 1→2→3→ rufipalpis??

I wonder if it is Chaetotachina.
Keying in MND again, p. 1202 3→4→5→

18 - October - 2011

Keying a Sphaerocerid specimen KNWR 7352 using MND, p. 995 1→2→3→36→37→!

This is a Platycejid. p. 683
1→3→8→9→10→11→12→Plesioclythia

Hessel and Maggioncalda (1968)

19 - October - 2011

Plesioclythia is not in our Alaska checklist.

Looking at Chandler (2001) on Google Books, it appears that at least some of Plesioclythia spp. have been transferred to Lindneromyia.

Keying KNWR 4247 using MND, p. 995
1→2→3→Copromyzinae 39→Crumomyia??
Norrbom and Kim (1985a)

Keying using p. 183 1→4→5→Crumomyia
p. 186 1→2→4→5→nitida??
↳ 6→11→12→?!

C. maculipennis	no
C. pruinosa	no
C. annulus	no
C. setitibialis	no
C. pilosa	maybe - & think so
C. subapter	no
C. gelida	no

KNWR 6152 is the same.

Keying another Sphaerocerid, [KNWR 3087], using MND, p. 995
1→2→ Limosininae 4→5→ Leptocera 6→8
→ (O. pacifrons). 7 spp., Spuler 1924c

Now using Spuler (1924), p. 122
1→ Is this referring to the preapical bristle on the mid-tibia? I am guessing so.
It is absent on a ♂ from the same locality.
2→5→ coelebata??
↳3→4→ cartagensis??

20. October 2011

A number of other specimens appear to match with [KNWR 3087]:

3093	♂
3094	♀
~~3095~~	~~♂~~
3115	♂
3116	♀
3151	♂
3177	♂
3197	♂
3208	♂
3054	♂
3006	♀
2999	♂

Now I am keying [KNWR 2750], a small, dark Sphaerocerid ♂, using MND, p. 995 1→2→ Limosininae 4→5→9→10→11 →13→14→16→17→18→19→23→24→26→27→28 →29→30→31→32→33→34→ Spelobia??

KNWR 2752 is the same, ♂
KNWR 2751 I think is the same, ♀

25. October 204

Keying KNUR 7330, a wingless Diapriid, using key to subfamilies on diapriid.org

This may be Ochreumenidae & think it is Polygaulon.

26. October 204

KNUR 7214 is Ophion bilineatus

KNUR 7215 is a Vespid. Keying using Akre et al. (1981), p. 12 1→2→Vespula p. 17 1→3→5→6→7→8→V. atropilosa? no. V. acadica??

KNUR 7216 is a Syrphid. Keying using MND, p. 718 1→Syrphinae Now using Vockeroth (1992) p. 27 1→3→Chrysotoxum p. 48 1→2→3→fasciatum? Keying using Shannon (1926) A'→B'→C²→D→²E→²F→²G→²H→²I→² perplexum Johnson?

KNUR 7217 is Muscidae Keying using MND, p. 1118 1→2→6→7→8→9→! Potens?? Polietes??

27. October 204

Working KNUR 7217 using Hackett (1965), p. 21 1→2→4→5→6→7→8→9→ I think this is where I went wrong yesterday. Phaoniini?

Trying MND again... 1→15→18→20→27→28→29→30→44→43→56→59→60→Muscinae? ↳61→62→Phaonia

I think this bristle is damaged or lacking.

Now using Hackett (1965), p. 311 1→22→23→24→26→apicalis?? 27→atracyanea??

KNUR 7218 is a Calliphorid p. 1136 of MND 1→9→13→17→18→21→19→20→Acrophaga?

Now using Whitworth (2001), p. 699, key to Calliphora 1→! p. 693, key to genera 1→9→13→14→15→16→Cyanomya p. 707 1→cadaverina?

KNUR 7220 is a Muscid. MND, p. 1118
1 → 15 → 18 → 20 → 27 → 28 → 29 → 30 → 44 → 45 → 51 → 59 → 60 → Muscina? Snyder 1956

KNUR 7222 is Tachinidae.

28. October 204

KNUR 7222 using MND, p. 1202 1 → Prosternum is extremely hard to see, but I cannot see any hair on it. 175 → 191 → 218 → 235 → 271 → 276 → 279 → 296 → 291 → 292 → 293 → 294 → 295 → 296 → Panzeria? Brooks (1943)

New beginning KNUR 3035, a small Muscid resembling Coenosia, using MND, p. 1118. 1 → 15 → 18 → 20 → 27 → 28 → 29 → 30 → 31 → 32 → 33 → 34 → 35 → 37 → 38 → 39 → Limnophila albifrons

KNUR 3039 is the same, ♂

3041	♂
3044	♀
3049	♀
3050	♀
3034	♀
3027	♀
3025	♀
3009	♀
3002	♂
3000	♂
3013	♀
3075	♀
3084	♂
3086	♀
3090	♂
3092	♂
3097	♂
3100	♂
3120	♀
3124	♀
3131	♂
3140	♂
3146	♂
3148	♂
3158	♂
3165	♂
3180	♂
3187	♀
3186	♀
3202	♂
6024	♂
6023	♀
6021	♂
6020	♂
6019	♀
6018	♀
6017	♀
6016	♀
6015	♀
6013	♂
6012	♂
6011	♀
6010	♀
6008	♀

KNUR 6007 I think is a Tachinid. It is damaged, though.

6025	♂
6035	♀
6036	♂
6037	♀
6038	♂
6039	♀
6040	♀
6044	♀
6046	♂

1. Nov. 204

Keying KNUK 7222 using Brooks (1943), p. 68 1→ (only three post-torso-central 2→4→5+6→?
:→8
→ Ernestia?? no.

3. Nov. 204

Doug Newbould brought in two Drosophilids from his house. I added these to the collection as KNUK 7442 and KNUK 7443.

Keying using MND, p. 1012 1→4→9→10→17→18→19→20→ Drosophila

Now keying KNUK 7349, a Plesiocliytia. Nevermind. There is no key (in Kessel and Maggioncalda 1968).
Only four species: californica, agarici (Willist) - nice illustration in MND.
wheleri (Kessel and Kessel) 1967 - southwest.
flavicornis (Loew) - eastern
abscondida (Snow) - Oregon
two most likely

5. Nov. 204

Keying KNUK 7220 using Snyder (1956), p. 445 1→2→3→4→ assimilis?
This may now be called Muscina levida.

Now keying KNUK 7221 using MND, p. 1118 1→2→5→10→12→13→ Eudasyphora?
→ Morellia? I think so
Using Huckett (1965), p. 326. 1→3→ podagrica??

9. Nov. 204

Continuing with KNUK 7221
Eudasyphora is Pyrellia in Huckett (1965). I am pretty sure mine is Morellia. It has no mid-ventral bristle on the mid tibia. I think it is M. podagrica.
Looking for more M. podagrica:
7223 ♂
7224 ♀

Now I am keying KNWR 7231
using MND, p. 1118
1 → 5 → 18 → 20 → 21 → 22 → 23 → Graphomya
Arntfield 1975
Keying using Arntfield (1973), p. 361 →
2 → 3 → unguva ??
↳ 4 → columbaina ?? } either would be reasonable.

Now trying to key KNWR 5797, a ♂ Muscid using MND, p. 1118
1 → 15 → 18 → 20 → 27 → 28 → 29 → 30 → 31 → 32 → 33 →
34 → 35 → 37 → 38 → 39 → Pseudocoenosia? I think not.

I checked in MND, p. 103, etc. in the key to make sure it is Muscidae and it is, running it Muscidae at couplet 70.
30 → 44 → 45 → 46 → 47 → 48 →
↳ Helina?

Keying using Snyder (1949), p. 113 1 → 2 → 5 → 6 → 7 → 12 → 13 → 14 → 16 → 17 → 19 → 20 → 24 → 26 → 28 →
Marguerita??
Bohemani?
→ 8 → 9 → 11 → obscurata?? I think so.
5796, 5799, and 5798 are the same.
4254, 4255, 4190, 4192, 5745

4519 looks like a different, but very similar, Helina.

12. Nov. 2014

Keying KNWR 7330, using Downes (1983), p. 191 1 → 5 → 6 → Polyamba canadensis Harrington.

18. Nov. 2014

Dominique is working with me again today. He is sorting labeled specimens.

I am pulling specimens from bulk sample KNWR 7196. I pinned 36 specimens.

vials:

Lebiagnatha	♂:	♀:	
- Dolichidae?			
- Cecidellidae	many		
- misc. (7196)	many		
Aphididae			
Sminthuridae ← Check this one.			
Limphiidae ♀	May not be Sminthurus.		

Keying Sminthurid from [7196] using Christiansen and Bellinger (1998) p. 1188 1→2→3→ Sminthurinae p 1192 1→3→4→. I cannot key this without a good scope. I am using a junky one because I am allowing D. to use the good scope. I think this is Sminthurus after all.

[21. Nov. 04]

I am pinning the three damselflies from [KNWR 7188]. I pinned these and set them on a foam board to dry.

I am now pulling specimens from bulk sample [KNWR 7195]

vial:
Psyllidae
Belliidae

I pinned 53 specimens from [KNWR 7195]. The rest of the sample I put in a vial. This is a large sample of Cicadellidae with misc. Diptera mixed in.

[22. Nov. 04]

I am entering data into Arctos.

I cloned on record from [KNWR 7196], this became [7463]. From [7463] I made 35 clones (pinned) and one clone (vial).

From [KNWR 7188] I made two clones: 7415 and 7416.

→ 7467 - 7477, 7479 - 7502

→ 7478 e from this specimen I made 5 clones. → 7605 - 7609

From [KNWR 7195] I made one clone, [KNWR 7464]. → From this I made 52 pinned clones. → 7558 - 7614

→ I also made two more clones. → 7615 - 7616

30 Nov 2011

I am selecting Platygastridae specimens to send to Jeff Cumming. First I am sexing them:

7352	♀	
7343	♂	damaged antennae
7344	♀	
7345	♀	
7346	♂	
7347	♀	
7349	♀	
7350	♀	
7348	♂	

To loan:

7343
7348
7352
7347

Keying KNWR 7356 using Broad (2006), 5 1→2→6→8→28→29→30→33→35→36→ p. 37→ Mesochorinae

Now keying using Wahl (1993), p. 385 1→7→ Mesochorus?

This is a hyperparasitoid

Now I am keying KNWR 7448, another Ichneumonid, using Broad (2006) 1→2→6→8→28→29→30→33→34→ Tryphoninae (Oedemopsini)

Only two species in the checklist for Alaska. I think I am off here.

Keying Doulos & Huber (1993), p. 396 1→2→6→7→8→9→10→11→33→35→39→40→41→42→43→45→46→ Ctenopelmatinae?

Opheltes & Eucopterus

5 Dec 2011

KNWR 7266 is an interesting fly. I am not sure of the family. It is Scathophagidae. Keying using MWD (1987), p. 1087 1→2→3→6→ Cordilura 7→8→ subgen. Cordiluraria Malloch (1923) = Parallelomma James (1955).

Keying using James (1955) 1→14→15→17→18→21→22→ vittipes?

8. Dec. 2011

I am re-examining specimen KNUR 7171, which Dominique thought might be Enicospilus. Using GIN, key to Ophioninae 1→ .. skipping to couplet 9, which separates Ophion and Enicospilus.

New keying on Ichneumonid collected by Collet in 2004 using Goulet & Huber (1993), p. 396 1→2→6→7→8→9→10→11→33→35→39→40→41→42→43→45→47→48→12→70→71→ Cryphonine? I think it is Netelia. I requested Townes (1937). I entered this specimen as KNUR 7618.

Keying KNUR 7641, an Ichneumonid, using Goulet & Huber (1993), p. 396
1→2→6→7→8→9→10→12→13→16→17→19→20→21→!
↳22→24→26→27→28→

9. Dec. 2011

Keying an Ichneumonid collected from the HQ lawn (no KNURID yet) using G&H (1993), p. 396 1→2→6→7→8→9→10→11→33→35→39→! Diplazontinae? Why not Ctenopelmatinae?

13. Dec. 2011

Keying KNUR 7038, an Ichneumonid using G&H (1993) p. 396 1→2→6→7→8→9→10→11→33→35→39→40→41→43→44→!

27. Dec. 2014

Keying an Ichneumonid collected by Colla in 2004 using Broad (2006), p. 5
1 → 2 → 6 → 8 → 9 → 12 → 13 → 15 → 17 → 19 → 20 → 21 → 22 → 23 → Campopleginae?
Dasyrna? Campopleginae is only tribe in America N of Mexico.
I added these two specimens as (KNUR 7622) and (KNUR 7623).

28. Dec. 2014

Today I am processing bulk sample (KNUR 7190), pinning mostly Diptera and Hymenoptera.

vials:

Araneae	⁘	7124
Bulk	⊠⊠⊓ (7190)	7190
Entomobryidae	⁘	7625

Also, 38 pinned specimens 7626 – 7663

29. Dec. 2014

I am processing (KNUR 7309).

vials

Siphonoptera	⊠⊠ ⁘ adults, larvae	(7309)

n = 24

Now I am processing (KNUR 7297)
I pinned 14 beetles → 7168 – 7181

vials

Carabidae	⊠⊠⊠⊠⊠☑	(7293)
Plecoptera	adults: ⊠ imm.: ⁘	(7164)
Araneae	⁘	(7165)
Hymenoptera	⁘	(7166)
Collembola	⁘	(7167)

7167 14 7181

30. Dec. 204

Keying ~~a~~ Haliplid (not yet labelled, from (KNWR 7293), using Arnett & Thomas, ~~(1980)~~ (2000), p. 140 1→

No, it is a Dytiscid.

p. 160 1→2→ Celina? no

↳ 3→!

↳ 4→ ? Hydroporinae 5→7→8→17→ 19→20→22→ ? Hygrotus??

↳ 23→30→ Oreodytes?? yes.

~~Alarie~~ (1993)

Alarie → Larson (2000)

need to get this.

(KNWR 7681)

5. Jan. 204

Processing (KNWR 7707), a bulk sample.

vials		
Hemiptera	♀	7707
Acari	:	7682
Lymphiidae	♀ :	7683

and 5 pinned specimens: 7684-7688

4 Hemiptera 7684-7687

1 Hemerobiidae → 7688

I received Downes (1938), so I am going to try to key my Netelia specimens.

(KNWR 7618), p. 175 1→3→4→ ~~Paradelia~~? no.

Mine are ♂.

p. 188 1→5→8→12→13→ no

I would have to dissect genitalia.

I dissected out the genitalia. They appear to be most similar to N. rogersi, but this occurs nowhere close to here.

9. Jan. 2011

I am processing ~~specimen~~ bulk sample (KNWR 7192)

vials		
Netelia	♂ ♀	7192
Geophilomorpha	♂	7690
Lycosidae	♂ ♀	7691
~~Lycosidae~~ Lycosidae	♀	7692
~~Lycosidae~~ Agelenidae	♂ ♀	Tomoceridae 7693
Acari	♂	7694
Gastropoda	♀	7695
Coleoptera larvae	♀	7696

Also, 4 pinned beetles 7697-7700

Photographing moths

	frames
KNWR 7193:	28-29
7451	30-32
7452	33
7454	34
7456	35-36
7455	37
7459	38

I am attempting to identify KNWR 7690, a Geophilomorph, using ~~Dunte~~ Mundel (1990), p. 827
9 → 11 → 13 → 17 → 19 → 20 → Geophilidae?
41 pairs of legs

10. Jan. 204

I sorted into the collection the moths identified by Clifford Ferris.
KNWR 7453 and 7454 are also Energin informata.

11. Jan. 204

I photographed one of the two centipedes in KNWR 7331, the less contorted of the two. It looks just like KNWR 7690.
3316 - 3320
3325 - 338

Now I am processing bulk sample KNWR 7294.

vials

Araneae	: : unm	7294
Lithobiomorpha		7703

Also, one pinned specimen, a Calliphorid. 7704

Now I am processing bulk sample (KNUK 7291). I pinned four specimens: 7291; 7705-7707

(12. Jan. 2012)

Today I began processing bulk sample (KNUK 7708), a malaise trap collection. I spread one moth. I pinned 86 more specimens, mostly Diptera and some Hymenoptera.

moth: 7710
rest: 7711-7796

Now I am keying a Dytiscus, (KNUK 7797) using Larson et al. (2000) pp. 778 1→18→19→ alaskanus?? or (hamiicus)

(KNUK 7798) - ♀, same key 1→2→ Harisii.

Keying (KNUK 7557) in Bugho (1987) p. ... I think it is likely Melanophila acuminata based on its distribution and photo.

p. 125 1→2→3→ acuminata.

(17. Jan. 2012)

Today I am entering data for sweep net samples I collected on August 16, 2011.

2011MLB001 → KNUK 7799
2011MLB002 → KNUK 7800
2011MLB003 → KNUK 7801
2011MLB004 → KNUK 7802

Now I am getting a rough tally of the contents of (KNUK 7799) and (7800) just looking through the whirl-pac bags. I do not want to take them out because I do not want to loose any of the original liquid.

Contents of (KNUK 7799)

Gastropoda
?Heleomyzidae
Mycetophilidae
Exiguinae
Sciaridae
Velina pressleri
Braconidae
Phoridae
Araneidae
Empididae or ?Hybotidae
?Hypogastruridae
Entomobryidae
Diapriidae
Muscidae ? or Fanniidae
Aphididae
Cecidomyiidae
?Hemerobiidae
Ichneumonidae
Chironomidae
Torymidae
Lyniphiinae
Acari
Delphacidae

(KNUK 7800)

Lepidoptera
Ichneumonidae
Braconidae
Empididae or Hybotidae
Heleomyzidae
Diapriidae
Sciaridae
Mycetophilidae
Gastropoda
~~Psyllidae~~ Isoptera
Velina pressleri
Staphylinidae
Exiguinae
Lyniphiidae
Phoridae
Acari
Neuroptera (larva)
Psyllidae
Entomobryidae
Thysanoptera
Muscidae
Delphacidae
Araneidae
Lonchaeidae?

Keyed (KNUR 7681), an *Oreodytes* (?) using Larson et al. (2000), p. 453 1→2→3→4→7→8→ *O. laevis*? yes.

(19. Jan. 2012)

I photographed (KNUR 7803), a Geophilomorph centipede.
3345–3350

(20 Jan. 2012)

I ~~kept~~ photographed Geophilomorph specimen (KNUR 7504).
3370–3385

27. Jan. 2012

for Anchorage
- specimens
- computer
- nail trimmer
- cook
- maps
- razor
- chocolate

(28. Jan. 2012)

AKEs meeting

Jim Kruse looked over some moths that I brought

7449 - Pyralid
7433 - will
7431 - to dissect
7311
7429
7432
7450
} Epinotia solandriana
-(birch/alder leaf roller)

- presentation quality
- scientific quality
- depth of knowledge demonstrated by answering question

Rachel Schiebly
Mike Racy
Jonny Newman
Jim Kruse
Roger Burnside
Ken Zogas

Steve
Derek
Sayde

Steve will be ~~surveying~~ surveying this summer - defoliators on Kenai
We are in 3rd or 4th year of outbreak
- aspen leaf miner

Derek - live insects exhibit at CAM
- resurvey & Nielsen ant survey

- Sayde may be working on Aphodiines

- Casey will be continuing with Aegelids.

Mike - Gypsy moth trapping, ...
- on-line ID service interest -

Rachel - ant project looking at ant diet

Jenny - thesis writing this summer
Dan - now at AKNHP
- looking at role of insect pred on Kenai
- I&M on Kenai
- I&M on Lethia previous years
- in Arctic - exuviae of midges from ponds

Jim - spruce budworm

Roger - aerial survey
- early detection & pests

Derek's talk -

- I need to check to see if GBIF has my records.

Gayde - well organized
Very nice slides

Did you get any prey in whole body amplifications?

Were amplification destructive?

Answered questions well

Jenny Newman
- spoke nice and clearly

What feeds on aspen phloem?

volatile organic compounds -
announce attack.
Very nice presentation (graphics)

inducible defense
some figures too small

Is it more sugar per leaf or more sugar overall?

Good responses to questions, excellent depth of knowledge

Casey Dickford -

What does Aegiclites eat?

Very clear speach

Lidia Dacted has extracted & sequenced Aegialites.

Were there sandy beaches on Hokaido?

(Lunch break)
- Jim Kruse -

What is the larger owl. autumn moth?

1 Jimmy
2 Casey
3 Gabie

Business meeting
15/18 renewed through Paypal
$2264.07 is current balance.
$1060 is designated as endowment, etc.

Derek will take Facebook and images?

- Alaska -

- GBIF -

trap box

Check for detailed web site stats.

RSS fed

- bumper sticker
- on demand T-shirt

Sayde will check into T-shirts

Jones made motion to do T-shirt

mentorship program

facilitate mentoring

ASIHEs

- Ask Mike Raney to volunteer for judging at

- Ask John Hudson / Mark Schultz

- Look into award document

- Check out cafe press

- Ask Kim about his new guide

Sayde bugs rule the universe @ hotmail.com

30. Jan. 2012

I transferred the thrips specimens from (CNWR 7112) from a whirl-pac bag to a vial ☒"

31. Jan. 2014

Sorting bulk sample (CNWR 7198)

vials		
Trichoptera	⁘	7808
Psammelitus?	⁖	7198
Ephemerella?	⁘	7809
Heptageniidae	☒ ⁖	7810
Ephemeroptera	⁘	7811
Plecoptera	☒ ☒ ☐	7812
Diptera	☒ ☒ ⁖	7

Keying Ephemeroptera from KNWR 7198
1→2→6→7→10→11→12→14→15→16→18→
Siphlonuridae? 19→21→ Paramoletus?

Another 1→2→6→7→10→ Ephemerellidae
67 #→68→69→70→ Ephemerella?

2 February 2012

Processing KNWR 7158

vials
Lepidoptera □ larvae
(rather squished)
Also, the bag was mostly filled with the host, a branch and leaves of Sorbus sitchensis.

Processing KNWR 7197

vials
Formicidae adult ⊠ ∴
(Formica) imm. ⊠⊠⊠□

Also, two pinned specimens:
Lygaeidae " 7817
Cicadellidae " 7819

KNWR 7308 is all Trichoptera, already in a vial.

KNWR 7194, an Elateroid, 2 pinned. It needs a label.

Processing KNWR 7290

vials
Psocoptera ∴ 7818
Plecoptera ∴ adult 7820
Thysanoptera □ 7821
Aphididae " 7822
Psyllidae " 7823
bulk (lots) 7290
mostly Diptera and Cicadellidae.

Also, 22 pinned specimens, mostly Diptera, some Hymenoptera. 7824–7845

Trying to key a minute wasp, one of the pinned specimens from KNWR 7290. I think it is a Cerophroid.
No, Megaspilidae 7844

I have a number of other Megaspilids collected by Dominique. Pte

identified them as Dendrocerus.
(KNWR 7844) is similar.
↓
Keying using Dessart and Cancerno (1987), p. 314 24→29→30→ (no stemmaulus) 31→ Dendrocerus

(7. Feb. 2012)
Keying a late Chalcopid (KNWR 7857), using MND, p. 1051 1→2→3→ Oscinellinae 4→10→11→12→14→15→16→17→18→19→20→21→23→24→25→26→
↳27→28→29→30→31→32→34→
Oscinella. Sabrosky 1936
I did look at Sabrosky's key. This specimen would be nitidissima rather than ~~C~~ frit based on the shining black mesonotum, ~~pleuron~~.

(7. Feb. 2012)
Photos of Laemophloeid (KNWR7945)
3393-3402

(10 Feb. 2011)
Keying a Cerambycid from my house taken this last summer. Using Arnett et al. (2002), p. 569 1→4→5→6→
(Cerambycinae, ~~Asemine~~, or ~~Lepturinae~~ gestalt) eyes not completely divided; pronotum not bell-shaped
p. 575, key VII 1→77
Could be Letropium (Asemina)
& photographed it.
3416-3425

(13. Feb. 2011)
Keying a Psychodid collected from the headquarters building today using MND p. 295 1→Psychodinae 4→5→6→8→10→11→
↳12→ Psychoda Quate. (1955)

Sorting specimen KNWR 7191
vials
Lycosidae °° 7191
~~Cliff~~
Cybaeidae ° 7951

Also, one pinned Curculionid 7952

Keying the Cybaeid, p. 87 in Ubick
1→5→9→10→11→ Cybaeus? ♀

This is Trichalophus alternatus.

Now processing KNWR 7292
vials
Petridiobius
Erigoninae ♀ 7292 A 7950
Araneae imm. ☒ 7292 B 7953
(Lycosidae, Theridiidae
Plecoptera adult ° 7292 C 7954
Theridiidae ♀ ° 7292 D 7955
Robertus

(14 Feb. 2012)
Keying KNWR 7955, a Robertus, using Kaston (1948), p. 3 1→2→3→4→?
I looked at all the ~~photos~~ illustrations of epigyna, but it seemed to match none.
(1 115, 110 116, 320
I photographed it.
3445-50 - epigynum
3459-3477 - habitus

Keying KNWR 7686 using McAtee (1914), p. 126 AA→B
p. 127 AA Deocaris

15. Feb. 2012

Processing (KNWR 7185)

6	21	→ 41 pinned specimens
9	15	15 7958 – 7998
12	17	1
10	17	14
4	21	
41		

Keying (KNWR 8001) Scatopsidae using MWD, p. 317 1→3→9→10→ Anapausis?

↳ Anapausis ♀?

Too damaged to key.

22. Feb. 2012

Processing bulk sample (KNWR 8004)

4 pinned:

Carabidae
Staphylinidae

vials

Oligochaeta		8009
Thysanoptera		8010
Hypogastruridae		8011
Plenothrix		8012
Sphaeroceridae		8013
Ptiliidae		8014
Oribatida		8015
bulk	(many)	8004

Arctos went down, so I could not finish entering these above. Now I am trying to identify (KNWR 7607), a Ptiliid using ~~Ateyo~~ Ateyo and Luxton (1962), p. 231 1→2→ Ptiliidae?

I would need Ateyo (1960). I requested this through ARLIS.

(23. Feb. 2012)

Keying = flea, (KNHK 8016)
& put one ♀ in KOH to clear.

Keying (KNHK 5017), a Cicadellid,
using Beirne (1956), p. 11 1→2→19→
Idiocerinae, p. 21 Idiocerus

(24. Feb 2012)
& am pulling Delphacidae to go
to Charles Bartlett.

7594	♂
7569	♀
7365	♀
4229	1 ♀ & 3 unm.
4356	♀
4512	♀
4556	♀
4577	♀'s and ♂'s
4710	♂'s
4771	♂
4804	3 ♂'s and 1 unm
4956	2 ♀'s and 1 unm,
5092	3 ♀'s
5199	1 ♂ and 1 unm,
5263	1 ♂ Achorotile

5273	♀
5320	2 ♀, 2 ♂
5336	1 ♂, 2 ♀
5762	4 ♂, 1 ♀
5833	1 ♀, 1 ♂
5723	1 ♂, 2 ♀

(27. Feb. 2012)

Keying (KNUR 5489), a Coniopterygi; using Johnson (1980), p. 256 → Coniopterygini Aleropteryginae? p. 267 1→2→ Helicoconis?

(KNUR 4814) looks similar.

(28. Feb. 2012)

Processing specimen (KNUR 7306).

~~pins~~:
Formicidae (8015)
Hemiptera, imm. (8016)

vials:
Lycosidae 1♀, 1 imm. (7306)
~~Dictynidae~~ Araneae imm. (8017)

I cleared one of the flees of specimen (KNUR 8016) and today mounted it on a slide. Keying using BTJ, p. 493 1→2→3→4→5→6→7→ Ceratophyllinae?
Now keying using Holland (1985) p. 291→294→5→6→

1→7→22→30→
↳ 33→34→

It is Euhoplopsyllus glacialis
Kohls (1940) - New record

(29. Feb. 2012)

Sorting specimens.
7740 Lipsuridae
Syrphidae:
7749
7754
7792
7768
7722
7707

7653 is Lenthredo.
7793
7777 → Lenthredinidae
7719 Syrphidae
7716 Eristalis annexum ♂
7715 Eristalis ♀

Now I am photographing Lepidoptera

specimen	frames
7710	65–69
7424	70 ≠
7415	71
7447	72
7337	73
7331	74
7335	75
7452	76
7460	77
7339	78
7423	79
7445	80
7446	81
7447	82
7461	83

1. March. 2012

I need to examine (KNWR 7452) to describe the hairs on the surface of the eye.

5. March. 2012

Tired of spending so much time on the computer, I am now using this lab notebook as my general work journal. I had been keeping a work journal in a digital format.

I worked on the upcoming AKFS newsletter longer than I should have.

I updated Lepidoptera determinations made by Clifford Ferris.

I packaged five vials of Collembola to be mailed to Ernest Bernard.

I checked some arthropod names from Kodiak NWR for Mike Cunningham.

I did some labeling and sorting of specimens.

7960 - Vespidae, Dolichovespula arenaria?
7961 - Vespidae
Keying (KNWR 7960) using Akre, et al (1981), p. 13 1→2→ Vespula p. 17 1→3→ 5→6→ 9→ vulgaris.
(KNWR 7961) is Dolichovespula p. 15 1→2→3→ arenaria

7962 - Trichoptera
7963 - Bombus
7706 - Bombus
7964 - Trichodezia albovittata

6. March. 2012, Tuesday

I added a couple of old specimens to the collection (8068 & 8069).

I did some sorting in the vial collection, moving from a catalog number system to a synoptic system.

(KNWR 2492) is a large ♂ Lycosid that I should key out.

There are also lots of Psyllids that need to be identified.

I sorted through specimen (2713)

I need to look into the determination of (KNWR 7593) Tanysderidae.

I formatted Roger Downside's article, pulling it into the AKES Newsletter.

I am now examining (KNWR 7593)
It is Tipulidae - p. 158 in MND 1→2→ (palps broken off, but has nasus) 3→ Limoniinae 53→54→51→ Limonia? 57→58→60→61→ (♀)

Now keying (KNWR 7740) same key. 1→2→ (palpi broken off)→4→9→13→15→ 16→17→ Tipula 18→19→22→23→38→39→41 → Triplicitipula?

KNWR 2496 is a ♀ Lipula.
38 → 79 → 41 → !

KNWR 1787 same key 1 → 2 → 4 → 9 → 13 → 15 → 16 → 17 → Lipula ♂

KNWR 3825 is Lipula ♂

KNWR 5356 is damaged, I think not Lipula
1 → 2 → 4 → 9 → 13 → 14 → Prionocera?
I requested Brodo (1987) through ARLIS.

I finished entering all of Dominique's identifications into Arctos and sorted these specimens into the collection.

KNWR 7610 and 7601 are Sciomyzidae

Now I am sorting specimens.

7558	Agromyzidae - Abdomen broken off
7560	Anthomyzidae ♂
7561	Anthomyzidae ♀
7563	Anthomyzidae ♂
7566	Anthomyzidae ♀
7497	Anthomyzidae ♀
7480	Dolichopodidae
7562	Dolichopodidae - in poor shape
7487	Sciomyzidae
7490	Anthomyzidae ♂
7488	Agromyzidae ♂
7482, 7501, 7491, 7565, 7486	Ephydridae

Keying KNWR 7491 using MND, p. 1030. 1 → 2 → 41 → Hydrelliinae 42 → 44 → Hydrellia

7 March 2012

Today I am again examining KNWR 5489, a Coniopterygid, now using Meinander (1972), p. 35 1 → Aleuropterygiinae 1 → 3 → 5 → 6 → ♂ → ♀ Heliconis? → 9 → Neoconis

I think Heliconis, based on distribution. Venation is like Heliconis and Neoconis. I am having trouble seeing the plicature.

1.117 1 → 2 →

I photographed the specimen.

I went on a really nice ski over lunch out across Headquarters Lake and over toward the airport.

I spent the afternoon compiling a table, etc. of specimens collected as part of the 2011 Kenai REA.

8. March. 2012

I attended Meg Purdue's talk about wood frogs today. I need to get Don Logan's lats. I found it interesting that there could be a relationship between gravel road dust and metals contaminants. I need to look into the parent material.

I prepared a loan of Coniopterygidae to go out to Doug Johnson.

John asked me to work on LTEMP data entry.

I am pulling specimens to go to UAM

7814
7816
7943
8005 - 8008
7965 Cantharidae
7966 Cantharidae
(Need to print label for 7194)
- 9 non-databased specimens from SE Dillitz 2011:
Lepidoptera 6
Staphylinidae 2
Syrphidae 1

Vials

1414
1961
2092
2508
} immature Coleoptera

1198
1201
1213
1416
1432
1441
1488
} immature Araneae

Vials to go to UAM, continued

1521	2461	immature Arareae
1548	2480	
1555	2493	
1572	2250	
1593	2572	
1614	2424	
1593	2655	
1636	2662	
1678	2675	
1724		
1741		
1758		
1777		
1805		
1807	1206	Nothodelphus
1839	7786	Cantharidae
1861	7751	Cantharidae
1986		
2054		
2060		
2077		
2111		
2103		
2137		
2167		

13. March. 2012

Today I am performing data entry on LTEMP bryophyte and lichen data from 2004:

3175
3197
3212
3249
3250
3251
3255
3259
3265
3267

Now I am trying to key (KNWA 7482), which I think is a ♂ Hydrellia, using Deonier (1971), p. 26 1→2→3→4→5→6→7→8→9→10→11→12→19→20→21→22→23→

After looking at photos, etc., I think this might be H. griseola. I don't know, though.

I composed a letter to Dr Deonier, asking if he would be willing to examine some of our Hydrellia specimens.

I also pulled all of the Alaska records from Deonier (1971) for the Alaska checklist.

Now I am attempting to key (KNWR 80701), a Bombus, using a simplified key to subgenera by Paul Williams. 1→2→4→5→9→10→12→13→14→?!

Using Milliron (1971), p. 43 1→3→4→Pyrobombus?

14. March 2012

I spent the morning on the AKES Newsletter, incorporating Dereks article and then arranging the layout. I decided that I just needed to get it done, then I could move on.

I went on a really nice ski over lunch, skiing all the way around the upland island to the west of Headquarters Lake. This took less than 1.5 hours because the trails were beautiful.

(KNWR 7363) is Anthomyiidae.
7388 is Muscidae
7389 is Anthomyiidae
7368 Muscidae
7397 Anthomyiidae
7378 Bibionidae
7398 Anthomyiidae
7401 Anthomyiidae
7400 Anthomyiidae
7390 Anthomyiidae
7403 Anthomyiidae

15. March 2012

I am sorting pinned specimens.
(KNWR 7371) is Agromyzidae
7380 Muscidae (or Tachinidae?)
7381 Tachinidae
7366 Muscidae (or Tachinidae?)
7367 Muscidae
7384 Anthomyiidae
7394 damaged, but Acalyptratae Psilidae? Sepsidae?
7399 Cicadellidae

Sc incomplete 109→110→111→112→113→114→115→79→Micropezidae

7418	Anthomyiidae
7419	Ceratopogonidae
7473	Anthomyiidae ♂
7579	Dolichopodidae
7472	Hydrellia
7591	Scathophagidae
7596	Scathophagidae
7597	Muscidae
7599	Scathophagidae
7567	Syrphidae? damaged, missing head.
7589	Syrphidae
7613	Anthomyiidae
7959	Muscidae
7958	Muscidae
7626	Anthomyiidae
7627	Delphacidae
7652	Dolichopodidae
7651	is interesting. Sciomyzid? ♀ incomplete, 1 costa break
	Sphaeroceridae
7650	Diapriidae
7649	Braconidae
7648	Proctotrupidae?
7647	Diapriidae
7646	Bibionidae
7645	Anthomyiidae

7457
~~7479~~ - Platypezidae

Anthomyzidae to go to Kevin Barber

7560	♂
7561	♀
7563	♂
7566	♀
7490	♂ – might not be Anthomyzidae
7477	♂ ditto

→ Chamaemyiidae? Keying using McAlpine et al (1987) p. 966 1→2→3→4→5 → Chamaemyia. ♂ need to check up on Gaimari loan of Dec '09.

♂ prepared a loan of Anthomyzidae for Kevin Barber and a loan of Platypezidae for Jeff Cumming.

KNWR 7651 is almost identical to 4247 and 6152. 7651 is a ♂; the others are ♀'s.

♀ keying using Norrbom and Kim (1985), p. 156 1→2→3→5→6→7→9→10→!

glida, annulus, maculipennis, pilosa, pruinosa, scitiventris, subapicata

7651 may be different than the other two. The katepisternum is bare, whereas it is setose in the other two.

16. March 2012

I am trying to key (KNNR 5555+) using Brodo (1987), p. 17 3→4→7→12→13 dimidiata?

Now I am doing some sorting.

7207 Muscidae
7234 ditto
7228 ↓
7232
7233 Calliphoridae
7277 ~~Muscidae~~ Lonchaeidae
7226 Muscidae
7229 Muscidae
7236 Muscidae
7225 ditto
7238 Anthomyiidae
7237 ditto
7230 ditto
7287 ditto
7252 Scathophagidae
7254 ditto
7255 ditto
7240 Anthomyiidae
7241 ditto
7285 ditto
7281 Muscidae
7375 Anthomyiidae
7284 Muscidae
7260 Anthomyiidae
7256 Muscidae
7279 Lonchaeidae? or Lauxaniidae? Compare with 7277, which is similar. It is Lonchaeidae.
7245 Anthomyiidae
7270 Muscidae
7373 Muscidae
7275 Anthomyiidae
7376 Muscidae
7404 Anthomyiidae
7386 Muscidae
7385 Anthomyiidae
7392 ditto
7402 Staphylinidae
7253 Muscidae
7278 Muscidae?
7243 ~~ditto~~ Muscidae
7265 ditto
7271 Dolichopodidae ♂

7272	Anthomyiidae
7763	Muscidae
7753	ditto
7748	Muscidae
7788	ditto
7785	ditto
7736	ditto
7773	"
7735	"
7739	"
7755	"
7776	"
7789	?Hymenoptera with extremely reduced venation Scelionidae or Platygasteridae. Platygastridae.
7790	Ichneumonidae
7791	ditto
7747	ditto
7765	ditto
7717	ditto
7780	ditto
7689	ditto
7637	ditto
7635	Braconidae
7761	Delphacidae
7794	Ichneumonidae

7795	Empididae
7796	ditto
7770	ditto
7779	Scathophagidae
7778	Muscidae
7775	ditto
7769	Bibionidae
7766	Phoridae
7764	Mycetophilidae
7737	Anthomyiidae
7762	Muscidae
7761	Empididae
7760	Bibionidae
7759	Empididae
7758	ditto
7757	Lauxaniidae
7756	Braconidae
7750	Muscidae
7741	ditto
7745	Empididae
7744	Muscidae
7743	Empididae
7742	Muscidae
7741	Chironomidae
7738	Empididae
7734	Hemerobiidae
7733	Empididae

7732	Braconidae
7731	Braconidae
7730	Phoridae
7729	Sciaridae
7728	Braconidae
7727	Empididae
7726	Empididae
7725	ditto
7724	Mycetophilidae
7723	Chironomidae
7721	Muscidae
7720	ditto
7718	Heleomyzidae
7711	Bibionidae
7712	Scathophagidae
7716	ditto
7715	Syrphidae
7714	~~Anthomyiidae~~ and a mite Scathophagidae?
7713	Lauxaniidae
7752	Xenthredinidae
7787	Scathophagidae
7784	Mycetophilidae
7783	Dolichopodidae
7732	Empididae
7774	Muscidae
7781	Muscidae

7772	Lachiniidae
7771	Muscidae
7767	Anisopodidae, Sylvicola fuscatus ↑ in collection.
7763	Drosophilidae? or Sciomyzidae? I think Drosophilidae
7734	Ichneumonidae
7644	Apoidea, Andrenidae

19 March 2012

Now I am working on LTEMP non-vascular data entry.

3271	3315
3278	3331
3279	3332
3281	3334
3295	
3296	
3297	
3298	
3300	
3311	
3313	
3314	

I am trying to key [KNWR 7463]
(Dryomyzidae) using MND, p. 926
1→2→ Oedoparena?? No.
I think it is Sciomyzidae

Sorting bulk sample [KNWR 7159]:
I pinned 46 specimens from this
sample. 8073 - 8118.

(20. March 2012)
I investigated some molecular
identifications of moth specimens at the
request of Clifford Ferris.

I worked on data entry of some
Archaeognatha specimens.

(21. March 2012)
I scanned and returned Brodo (1987).

I am pulling specimens to send
to Bob Foottit.
pinned Psyllidae
7475
7370
2537
2743
3302
4939
5987
4024
3975
3911
3898
3830
3658
3495
3417
3416

visits to go to Dof Tootlit

7823 - needs label ✓
7615
6810 - needs label. no, it's ok.
5699
5314
5170
5058
4996
4948
4793
7822 - needs label ✓
7608
8010 - needs label ✓
7821 - needs label ✓
7359 - needs label ✓
7112 - needs label. no, it's ok

N & mailed off these specimens to Dof.

Now & am photographing Hemiptera

specimen	frames
7086	3553 - 3552
7004	3553 - 3554
3371	3555
7383	3556
7492	3557
5908	3558
3499	3559
3497	3560

& worked on labeling specimens.

Trying to identify (KNUK 7999), an orange acalyptrate fly. Keying using BTJ, 4444, p. 576 108 → 109 → 110 → 111 → 112 → 117 → 118 → 119 → Dixoscelididae? or Heleomyzidae? Keying using MND, p. 975 1 → 4 → 6 → 8 → 9 → 11 → 12 → 13 → 14 → 15 → 16 → 17 → 18 → Neoleria?? Neoleria? ↳ 19 → 21 → Acanthoneura?

(22. March. 2012)

~~Identified~~ Examining specimen (KNUK 8124), Archeognatha from Haynes Ecological Reserve

Machilinus aurantiacus ♂
Mesomachilis ♀, all ♀

8124 8125

Now Examining (KNUK 8126)

Machilinus 8126
Mesomachilis ♀ 8127

Another UBC vial with label data

BC, Osoyoos
Haynes ER
Pitfall ER 5-3
15.VII-12.IX.1997
G.G.E. Scudder

Machilinus 8128
Mesomachilis ♀ 8129

Q entered data for LTEMP site 3349

KNUK 7643 is Muscidae
7642 Anthomyiidae
7641 ditto
7640 Sciomyzidae
7639 Ochyromyidae
7638 Piophilidae
7636 Phoridae
7634 Cicadellidae
7663 ditto
7633 Dolichopodidae ♂
7632 Anthomyiidae
7631 ditto
7630 Muscidae
7629 ditto
7628 ditto
7662 ditto
7660 Ochyromyidae
7659 Braconidae
7658 Phoridae
7657 Chloropidae
7656 Cicadellidae
7655 Ochyromyidae
7654 Cicadellidae
7687 Saldidae
7685 Lygaeidae
7705 Colletidae: Hylaeinae

I entered data for LTEMP site 3350.

Examining specimen with label data

BC, Osoyoos
Haynes ER
Pitfall ER 5-4
6.VII - 19.VIII.2001
G.G.E. Scudder

Machilenius ♂ 8130
Mesomachilis ♀ 8131

23-March-2012

I need to put out an advertisement for an entomologist intern.

I entered data for LTEMP site 3351, and 3362.

I am examining a specimen with label data

BC, Osoyoos
Haynes ER
Pitfall ER 4-3
14.VII - 26.IX.2007
G.G.E. Scudder

It contains 1 female Mesomachilis, with the caudal filaments broken off.
→ KNWR:Ento:8132

Examining a specimen with label data

BC, Osoyoos
Haynes ER
Pitfall ER 5-2
14.VII - 26.IX.2007
G.G.E. Scudder

This contained
Carabidae ♂ 8133
Mesomachilis ♀ 8134

I pinned the Carabid.

I worked on developing barcode labels for KNWR:Ento specimens, successfully getting a Wasp WLR900 scanner to scan up to a six digit code on a 17mm x 6mm label on a pin. I would prefer QR codes, but we do not have a scanner capable of scanning 2D codes. I am using code39.

Sciomyzidae to Lon to Benjamin Foote:

4193	4983
4981	5066
4982	5447

5444
7590
7463
7601
7616
7487
7460

& packaged the above specimens to go out to Benjamin Foote

& pinned a fly from the Portage Biobliz. → 8135

26. March 2012

Haynes ER sites

ER 3-3	~~½-1~~
ER 4-1	F4
ER 4-3	
ER 5-1	and one similar
ER 5-2	BC, Vaseux Cr.
ER 5-3	CWS Beach
ER 5-4	Pitfall ½-1
ER 5-5	8.VII-3.VIII.1994
G1	G.G.E. Scudder
G4	
H5	

& loaned my radio to Meg Fierke, who will be sampling snow next week.

& entered data for LTEMP site 3363,

3368
3370
~~3015~~
5559
5575
5597
5619
5641
5706
5718
6675

Sick of data entry, & am going to look at insects. Examining a specimen with label data

BC, Osoyoos
Haynes ER
Pitfall ER 5-3
12.X.2003 - 5.IV.2004
G.G.E. Scudder

In the vial is 1 ♀ Mesomachilis → 5136

Examining a vial with label data

BC, Osoyoos
Haynes ER
Pitfall ER 4-1
11.VII – 15.VIII. 2004
G.G.E. Scudder

This contains about 21 specimens of Machilinus.
→ KNHK 8137

Dominique stopped by briefly.

Examining a specimen with label data

BC, Osoyoos
Haynes ER
Pitfall ER 5-2
27.VIII – 18.IX.2003
G.G.E. Scudder

This vial contains 1 ♀ Mesomachilis.
→ 8138

Examining a specimen with label data

BC, Osoyoos
NR. Haynes ER
Pitfall G1
18.IX – 12.X. 2003
G.G.E. Scudder

This contains Machilinus, about 19 specimens.
→ 8139

I started fiddling with object tracking on Arctos.

27. March. 2012

Examining a specimen with label data

BC, Osoyoos
NR. Haynes ER
Pitfall G4
15.VIII – 12.IX. 1997
G.G.E. Scudder

This contains 11 Machilinus.
→ 8140

Examining a specimen with label data

BC, Osoyoos
Haynes ER
Pitfall ER 5-3
14.VII – 26.IX.2007
G.G.E. Scudder

Machilinus ♂ 8141
Mesomachilis 1 ♀ 8142

Examining a specimen with label data

BC, Osoyoos
NR. Haynes ER
Pitfall H5
13.VII – 9.VIII. 1995
G.G.E. Scudder

This vial contains 10 Machilinus. The fluid has completely evaporated, so these are dry specimens.
→ 8143

Examining a vial with label data

BC, Osoyoos
Haynes ER
Pitfall ER 5-1
15.VIII-12.IX.1997
G.G.E. Scudder

Mesomachilis.

This vial contains two specimens of Machilidae in rather poor shape. I think these are two ♀ → 8144

I entered bryophyte and lichen data for LTEMP site 6693, 6713, 6732, 6765, 6766, 6786, 6997. That concludes the 2004 data entry. 2006 and 2008 data remain.

Now I am keying a Vespid collected by Todd at Skilak Lake, Skilak River Flats, on June 29, 2011, using Akre, et al. (1981), p. 13 2→ Dolichovespula, p. 15 1→2→ albida →(KNWR 8145)

I pinned four Dytiscid beetles from Gibbout Hill KNWR 8146-8149

Examining a vial with label data

BC, Kereneos Creek
just north of Hwy 3A
elev. 1900 feet
49 19'N 119 48'E
July 9, 1982
H. Kirk

In the vial is a second label:

1A 9.VII 82

These are Machilinus, very fragile and in poor shape, ♀ of item. →(KNWR 8150)

29. March. 2012

I am looking at the two live bristletails I collected yesterday. The larger one is about 8.3 mm long; the smaller one is about 6.5 mm. I photographed these two animals. I gathered a small amount of arboreal lichens from a cottonwood (Letharia pulmonaria etc.) and put these in with the bristletails. I collected a handfull of Badonnelia from the floor drain and put these in with the bristletail.

John asked me to pull LTEMP data for the Shadura EIS, He wanted all species for an area a little larger than the area considered by the EIS.

Rick Sullivan from Asepsis came over in the afternoon and tested our fume hood. Craig Hill and I helped him with this.

Sorting specimens

7684 - Geocoris → in collection
7688 - Hemerobiidae → in collection
7704 - Calliphoridae → in collection
7970 - Ichneumonidae → in collection
7323 Chironomidae → in collection
7315 Ceratopogonidae, damaged, in coll.
7577 Lephritidae → in collection
7576 Phoridae → in collection
7575 Phoridae
7574 Scaridae → in collection
7572 Agromyzidae? - check. → Keying (KNWR 7572) using MND, p. 105 72→73→74→75→76→77→78→81→108→112→113→Chloropidae
7969 Scathophagidae → in coll.
7571 Dolichopodidae ♀ → in coll.
7570 Phoridae → in collection
7968 Scathophagidae ♂ → in coll.
7470 Hydrellia → in collection
7967 Ichneumonidae → in collection

(KNWR 7577) looks like our other Lephritid, Campiglossa fariniata.

7188 Endagnia
7422 Chironomidae } in collection
7430 Chironomidae }
7430
7426
7427
7428
7457
7458
} Geometridae → in collection

30. March. 2012

I sent John data from LTEMP and Arctos for the Shadura EIS.

Examining a specimen with label data

BC, Campbell Mtn,
Penticton
13. V. 1983
S. G. Cannings

→ KNWR 8151

This is a ♀. I cannot discern any scales on the flagella of the antennae. I photographed the ovipositor and the lateral ocellus. 2+2 eversible vesicles on II–V only. Verhoeffiella? I think this is near Pedetontus calceatus based on the spiny, short ovipositor.

I took a short walk in the afternoon. It was so glorious outside & collected a few Collembola in the snow.

↑ ↳ KNWR 8152

These are Isotomidae with purple bodies, purple (dark) antennae, and pale legs and furcula. There are also pale spots on the head.

Examining a specimen with label data.

BC, Osoyoos,
Haynes Ecol. Res.
10. vii–14 viii.
1986, S. Cannings

This contains three ♀ Mesomachilis.

→ KNWR 8153

sand / Artemisia /
Parishia pitfall

(2. April 2012)

John asked me to get to him a product: a spatial re-sample of the LTEMP grid (all species) at 35 km resolution, then find how many of the total species are found. I spent most of the day on this assignment.

Late in the day I introduced Libby to our collection management system and the state of the herbarium

3. April. 2012

I am sorting specimens from (KNWR 7177).

vials		
Sminthurus	☒ ☐	8155
Paralbidae	☒ ☒	856

I also pinned 40 specimens → 8154

Examining a vial with label data

BC, Windermere
Valley, pitfall #11
50° 43' 40"N
116° 07' 32"W
26.VII–17.IX.2000
R. Sargent

This contains Two ♀ bristletails, Pedetontus. The eversible vesicles are hard to discern, but I think it has 2+2 on II–VI, making these Pedetontus s. str. One of those is small and I think immature. The larger one has a short, delicate ovipositor of the usual type (not like P. calcaratus), The ovipositor extends beyond urosternite IX by about 0.6mm. The animal is about 5.5mm long. The palpi are quite long, about 2.8mm. The lateral ocelli are sole-shaped, only slightly emarginate, and do not quite touch the pigmented area in the middle of the face, much like

Petridrobius arcticus. → (KNWR 8157)

Examining a specimen with label data

Protection I, in
Cortes I, Squirrel
Cove B.C.
20.VII.1986
G.G.E. Scudder

In the vial is a single ♀ bristletail, a delicate specimen. It has a single pair of eversible vesicles on urosternite VI. The scales are all brown like the Pedetontus ssp. of submuticus specimens I have seen from BC. The lateral ocelli are hard to see, but they appear to be typical of this taxon, extending well into the middle of the face. The ovipositor is about as long as stylets IX. All terminal filaments are broken. One antenna is unbroken and about 7mm long. The body is curled and would be difficult to measure the length of, but it is a mature individual.

→ (KNWR 8158)

4. April 2012

I used an R script to reformat 2006 LTEMP bryophyte and lichen data for data entry, then printed off copies of all of the datasheets to take home.

I did some cleaning in the lab.

5. April 2012

I got to work early today. I spent a good part of the day doing something I shouldn't: revising a key to the bristletails of North America.

Kim was in a lot of pain today and asked me to come home early, so I did so after 2:00 pm.

6. April 2012

I refined my key to the bristletails of North America a little this morning.

I entered data for LTEMP sites 3080, 3205, 3233, 3248, 3260, 3280, 3283, 5558, 5598, 5618, 5639, 5691, 5694, 7019. And that is all for the 2006 data!

I did some checking of these data and sent them to Mark.

I am examining KNUR 8121, a vial containing two Mesomachilis specimens from Hells Canyon. One is large, about 12mm long, apparently an adult ♀ based on the normal ~~stylo~~ coxal stylets, though at first glance I cannot see the ovipositor, which must be hidden behind the sternites IX.

I photographed the specimens' right labial palpus, the distal two segments. → frames 3575–3590. I also photographed a lateral view of the head (frames 3591–3594).

The distal flat surface of the labial palp does have the pattern of light, round spots on a darker background that Alan mentioned. It looks like the light spots might be the bases of the stout spines that arm the tip of the palp.

The other specimen in the same vial is quite different. It ~~has~~ looks like perhaps an immature ♂. It is about 10mm long with stout forlegs. I think there is a sensory field on the outside of femora I. Also, there is a strange sensory structure. I photographed this (frames 3595-3604). I also photographed the anterior lateral portion of the animal (frames 3605-3607) and the sensory field on the right foreleg (frames 3605-3619). This animal has two normal coxal styletes & I think this is Mesomachilis canadensis, although it appears to me that the sense organ along the margin of tergite III arises from coxite II.

I think that the ♀ and ♂ in this vial might represent two species. The ♂ is smaller and with less pigment than the ♀. (In most conspecifics, it seems that the ♂'s are generally larger at maturity, and now I think this is a mature male). This male does not seem to have the white spots on the labial palpi as did the ♀.

♀ → (KNHR 8121)
♂ → (KNHR 8159)

(KNHR 8120) is a ♂.

My two live Petrobius and live Badonnelia specimens have been doing well. The larger of the two bristletails, which had lost many of its scales, molted recently.

9. April 2012

I attended the Biology staff meeting this morning. John wants me to get the LTEMP bryophyte and lichen data incorporated. I worked on dealing with the names from this project.

10. April 2012

I worked on getting final versions of LTEMP bryophyte and lichen data to Mark, working mostly in R until about 14:00, when I felt like I could stare at the computer no more.

Examining a vial of bristletails from wild label data

BC, Keremeos Creek
Old Mt. Apex Rd
elev. 3000 feet
49 22'N 119 49'E
July 9, 1982
H. Kirk

These are in very poor shape, extremely delicate.

There are a couple of Machilinus, a Petrobius colonatus, and a puzzling pair of Mesomachilis.

2C 9·VII·82

Of the Mesomachilis there are a ♀ and a ♂. The ♂ has coxal stylii only on legs II, and these are normal looking. No, both are ♀. The one missing coxal stylus III must be damaged.

Machilinus " " → 8160
Petrobius colonatus " ♀ → 8161
Mesomachilis " " ♀ → 8162

One of these is just a fragment of the abdomen including terminal segments.

11. April 2012

I got the LTEMP bryophyte and lichen data from 2008 to Mark & John.

I entered data for UBC 740, 4A, and 40B, which are now KNWR 8163, 8164, 8165. I intend for these to be a type series.

Keying KNWR:Ento:7785, which looks like KNWR:Ento:5946 (Mesembrius latreillii) using Hubbell (1965), p. 325 1→2 latreillii? KNWR 7785 is the same.

Keying [KNWR 7959], a striking blue Muscid, using M.N.D, p. 1118 1→ N., this is Calliphoridae.

Keying [KNWR 7232], ~Muscid, using M.N.D, p. 1118 1→15→16→17→ Eurygonnini? No. I get frustrated with this one and gave up.

[13. April. 2012]

Off & worked some on the bristletail key.

John asked me to prepare a presentation for Anchorage, next Wednesday, the 18th

[16. April. 2012]

I spent most of the day on my presentation for the regional folks this Wednesday.

[17. April. 2012]

I spent the day on my DNA barcoding presentation.

The smaller of the two bristletails I am keeping has molted. They appear to be eating the Lobaria well.

[18. April 2012]

John and I drove to Anchorage in the morning and attended an inventory and monitoring meeting, where I presented on DNA barcoding methods. I drove home in the afternoon (John stayed in Anchorage), stopping in Girdwood to collect bristletails in the afternoon.

[19. April 2012]

I had a short day at work today. Kim had one of her GI episodes, so I needed to go home.

20. April 2012

I need to start returning bristletail specimens. To be returned:

8124
8126
8128
8130
8137
8139
8140
8141
8143
8156
8160
8151
8138
8144
8153
8162

I packaged these specimens to go out today.

I began working toward a description of the new *Mesomachilis*, the one from Osoyoos.

I started amassing LTEMP data to give John another export.

23. April 2012

I worked on compiling LTEMP data for John. I also worked on the Microcoryphia paper some.

24. April 2012

I packaged immature earthworms to be mailed to Dan Shain on behalf of Deanna.

I pinned flies I had collected from birch sap yesterday 8167 – 8181

Keying a Ephydrid from the series above using MND, p. 1030 1→ Ephydrinae (4→ 6S→ 66→ 67→ *Ephydra* (8→ 69→ (*Ephydra*)

Keying using Wirth (1971) p. 362 1→3→4→11→? *Ephydra riparia*? ♂ → KNWR 8167

Another fly from this series looks like ?*Helcomyza*. Keying using MND, p. 975 1→4→6→8→22→25→?*Helcomyza*. Now using Dill (1962), p. 589 1→2→3→4→ *serrata*? – from fungi and hen manure! → KNWR 8169

26. April 2012

I worked at home a little on compiling LTEMP data, but most of the day I took off for appointments for Tim.

27. April 2012

I continued working on compiling LTEMP data, finding several errors that had to be corrected.

28. April 2012

I finished compiling LTEMP data and sent this to John.

When I checked on the bristletails today, the ones I collected on April 18, I saw that a first instar bristletail had appeared! There must have been an egg in the tuft of turf and lichens (mostly Cladonia) that I had collected from the top margin of the rock face. There are at least two first instar immatures.

Examining a vial with label data

BC, Osoyoos
Haynes Ecol. Res.
10-31 V. 1986
S.G. Cannings

The hand writing of the date is faded, making it ~~extremely~~ hard to read.

The bristletails in this vial are disintegrating.

Mesomachilis ♀ ∴ → KNWK 8182

Also in the vial is what appears to be Petrobius (Verhoeffilis) ♂, but it is in very poor shape. This could be Petrobius calcaratus.

♂ ∴ → KNWK 8183

At least I think there are ♂s. These were very delicate and hard to examine. The lateral ocelli are quite thick on this species.

Machilinus ⊠ ∴ → KNWK 8184

There may be parts of other species in this vial and the count is approximate because several specimens are partial, but the vial is at least mostly filled with Machilinus.

30. April 2012

I labeled insect specimens.

I attended the LIDAR teleconference at 10:00.

I started working on a map John requested.

I think [KNWR 8183], which I examined the other day, may be Pedetontoides because I remember seeing this genus from UBCZ material.
[UBCZ 31] I had identified as ♀ Pedetontoides on May 7, 2009. I entered a couple of specimens into Arctos:
[UBCZ 31] → [KNWR 8185]
[UBCZ 21] → [KNWR 8186]

1. May 2012

I continued working on a map for John.

2. May 2012

I continued working on a map for John, stubbornly using R to do so.

In the middle of the day I attended the potluck for Rick Ernst's retirement.

I left early because I was needed at home.

Late at night, I finished the map and produced another graphic for John.

3. May 2012

I am examining specimen [KNWR:Ento:8184]
I am removing species other than
Pedetontoides
Mesomachilis ♀° → 8187
Pedetontus calcaratus ♀° → 8188
Machilinus ♂ → 8189

Most of the sample appears to be *Pedetontoides*, more ♀'s than ♂'s. I examined the genitalia of one ♂ as well as I could under the stereoscope. It does have paramera on the VIII-d and IX-d segments, the paramera IX large and clearly annulated, the paramera VIII slender and not annulated. The paramera VIII are about ½ the diameter of paramera IX and very easy to miss. I separated out this ♂. [♂1] → (KNUR 8190)

Looking at another ♂ from this sample, I think there are annulations on paramera VIII. They are just hard to see on this old, translucent specimen. Also, the paramera VIII are not so narrow as the above specimen, although still narrower than paramera IX, much like Mendes' (1981) description of *Pedetontoides atlanticus*. [♂2] → (KNUR 8191)

The labial palpi of ♂'s of these *Pedetontoides* are considerably more conical than the illustration (Fig. 6) of *P. atlanticus*, though they are still obliquely truncate apically.

Another ♂, slightly smaller than [♂2], has paramera VIII like [♂1]. Perhaps it is sub-adult. [♂3] → (KNUR 8192)

Pedetontoides ♀ ☒ → (KNUR 8186)

Another two ♂'s that looked to me like the ♂'s of *Pedetontoides* & did not dissect, so I cannot be sure they are *Pedetontoides* and labeled them "*Pedetontoides*?" → (KNUR 8193)

(KNUR 8188) actually has enough scales on it to make out a general pattern, even in alcohol. It is a dark gray brown with a conspicuous, wide, median pale vitta running down the tergites.

Now I am examining a vial with label

Spanish Hills
Galiano Is. B.C.
7. VI. 1981
G.G.E. Scudder

This is a delicate, faded specimen of Pedetontus submutans ♀. There are no scales left on the specimen anywhere and the appendages are translucent.
→ KNUR 8194

Now I am examining a specimen with label data

BC, Ocean Falls
5. viii. 1986
G.G.E. Scudder

It is a ♂ looking like Pedetontus, with lateral ocelli thicker than is usual for P. submutans. 2+2 e.v. on coxite VI. → these not constricted in the middle nor attaining the median pigmented part of the face. → Petridrobius arcticus. I had dissected it the abdomen to examine the eversible vesicles. → KNUR 8195

4. May. 2012

I made a bunch of pinned points this morning.

I am examining specimen (MLB 40), brittletail from Tillamook county, Oregon. Before I had thought these were Pedetontus superior, but now I am pretty sure these are Verhoeffiella. There are only 1+1 eversible vesicles on coxite VI. The lateral ocelli agree with Pedetontus submutans; however, I think they are different than the Alaskan material and BC material. These Oregon specimens have much darker scales, almost black. Other than this, they are quite similar to P. submutans ♂♀ from BC and Alaska and they agree with Silvestri's description, except that the last segment of the maxillary palpi does not have the very long setae illustrated by Silvestri (Fig. III, 14)

I put one damaged ♂ and 3 immatures in one vial → (KNUR 8196)
and the rest (♂ ♀ imm.) → KNUR 8197

Processing bulk sample (KNWR 7145)

vials			
Trichoptera	larvae	⊠ °	= 7145
Trichoptera	larva	°	= 8198
Amphipoda		⊠	8199
♀ Heptageniidae		⊠ ∴	8200
Ephemeroptera		°	8201
Plecoptera		⊠⊠	8202
Plecoptera		∴	8203
Simuliidae	larvae	⁞	8204
Diptera	larvae	∴	8205
Oligochaeta		∴	8206

7. May. 2012

& mailed specimen (KNWR:Ento: 8196) to John Galesy.

& composed a science fair award certificate for Halbe Brown.

(KNWR 7150) has three flies in it:
& pinned them:

Empis ♂	7150	} These two were in copula when collected
Empis ♀	8246	
Bibionidae ♂	8247	

Processing bulk sample (KNWR 7149)

vial			
Geophilomorpha		⊓	7149
Plecoptera adult		°	8248

Also, 17 pinned specimens 8249 - 8265

8. May. 2012

Processing bulk sample (KNWR 7146)

vials			
♀ Heptageniidae		⊠ ∴	7146
Plecoptera		∴	8266
Ephemeroptera		⊠ ⊠	8267
Plecoptera		⊓	8268
Diptera	larvae	⊠ ∴	8269
Oligochaeta		°	8270
Amphipoda		∴	8271
Lymnaeidae		♀ °	8272
Trichoptera	adult	°	8273
Platyhelminthes?		°	8274

I needed to resolve some confusion on my part about the UBCZ Mesomachilis specimens.

UBCZ 40A, now KNWR: Ento: 8164, is a female that I photographed and partially dissected.

UBCZ 16 is a mixed vial containing a ♂ Mesomachilis, the leg of which I had photographed in spring 2009. KNWR 8275

I examined the specimens in this vial, which has label data

BC, Osoyoos
Haynes ER
Pitfall ER 5-2
22.VIII-28.IX.05
G.G.E. Scudder

- Mesomachilis ♂, the leg of which was previously photographed.
Body: 10mm
antennae: broken, 5-6mm
caudal filaments: 6 and 19mm
Its left fore- and midleg have been removed and are in a genitalia vial.

The coxal stylet of the right midleg is tattered like the UWBM specimen. This one retains the labels UBCZ16 and KNWR 8275.

Another ♂:
body: 9mm
antennae: 11 (broken) and ~ about 11mm, coiled
caudal filaments: 6 and 16mm, median filament broken.
The left maxillary palpi had been broken and had re-grown. The apices of the labial palpi have notable declivities which may prove useful for identification. The mid coxal stylets are tattered as on the right midleg of KNWR 8275 above. → temporary label KNWR 8275A. → KNWR 8276

A ♀:
body: 9.5mm
antennae: broken, about 5mm
caudal filaments: 6 and 14mm, the median filament with some kind of mass stuck to its distal tip. KNWR 8275B
→ KNWR 8277

Another ♀:
body: 10 mm
antennae: ~11 mm
caudal filaments: broken, about 4 mm.
The labial palps are the most extremely modified of this series. This seems to be a variable character. KNMR 8275C → KNMR 8278

The rest I put into another vial labeled 8275D because I ran out of time. contents:
Mesomachilis ♂ } KNMR 8279
Mesomachilis ♀ }

I did separate out the *Machilinus* → KNMR 8275E → KNMR 8280

9 May 2012
I took my fire pack test and refresher class today, which consumed most of my day.

16 May 2012
I moved to a different office this morning at Josh's request. I moved into what had been Libby Bella's office.

I updated the chemical inventory for the lab and printed this off. This took a while.

I also updated and printed the lab chemical hygeine plan.

I photographed the lateral habitus of KNMR 8275 (frames 3620 – 3662)

11 May 2012
From 09:00 to nearly 11:00 I attended the safety committee meeting.

14 May 2012

I attended the chainsaw refresher this morning.

I am examining the left foreleg of KNHR 82751, which had been removed some time ago. I photographed this (frames 3663-3680). There is not conspicuous pigmentation on this leg; most of the coloration is attributable to the scales. There are no conspicuous sensory areas as in Mesomachilis candensis. I took more photos of this leg (frames 3681-3692).

I mounted this leg in glycerol on a slide and attempted to count the numbers of spine-like setae

femur		0
tibia		1
tarsomeres	1	5?
	2	5?
	3	3?

There are a number of fine, curved back setae among the stouter setae.

Measurements:

@ 40x ~~fe~~ coxa

Measurements: @ 40x

segment	length (ticks)
coxa	53
trochanter	39
femur	49
tibia	46
tarsus	51

I photographed some of the setae of tarsomere 3 (frames 3693-3721).

I did some data entry of DNA barcode identifications of earthworm specimens in Arctos.

15. May 2012

Processing a bulk sample with label data

USA, Alaska, Portage Valley
Williwaw Campground
23-24 ~~May~~ July 2011
M C Bowser
malaise

From this I sorted one vial of bulked specimens, mostly Diptera, as well as 51 pinned specimens. → 8286 → 8287 – 8337

I imported Kenai COI data from iBOL data release 2.75.

I had a teleconference with Dave, Danielle, and Mitch at the regional office from 2 – 3 pm. I presented on DNA barcoding.

I am examining a specimen with label data

Royal British Columbia Museum ENT991-062089
Machilidae
Qty: 1
Canada, British Columbia, Vancouver Island
Cape Cook, Brooks Peninsula, Cape Cook Lagoon
08 AUG 1981
leg. Cannings, Robert A. And Cannings, Sydney, G.
50°42'00"N 127°48'00"W
UTM: 09 585145 5561338 Locref: MAP
CN: 991-62089

This is a ♀ Peletarius subnudatus (KNWR 8338)

16. May. 2012

I am examining a specimen with label data

Royal British Columbia Museum ENT998-010700
Machilidae Age: A
Petrobius sp.
Canada; British Columbia
Kamloops; 244 Chancellor Dr.
14 Dec 1995
leg. Baker, J
Map: 92-I-9 [1927] 50°40'00"N 120°19'00"W
UTM: 10 689600 5615900
Location Remarks: in house
CN: 998-010700

This is a Mesomachilis canadensis ♂.
→ KNUR 8339

I am now pulling Lepidocyrtinae to be mailed to

7653	7282
7358	7039
7361	2626
3602	1979
7374	6745
7752	2279
7777	4344
7793	2513

Keying an Ichneumonid, KNUR 7689, using Goulet and Huber (1993), p. 396 1→2→6→7→8→9→10→11→12→22→24→26→27→28→29→31→ Ichneumoninae

I need Heinrich (1961-1962) to go further.

Now keying KNUR 7038, same key 1→2→6→7→8→9→10→11→33→35→39→40→41→42→43→45→47→48→62→70→72→73→74→75→77→!

044→ Labeninae? no.

It looks like Pimplinae, Pimpla, Pimpla pedalis. It keys to this species in Cushman (1920).

I worked a little on organizing our Ichneumonidae.

I am examining a vial with label data

CANADA BRITISH COLUMBIA
DUNDAS ISLAND 1.5 KM SOUTH OF
ARNISON POINT
MAIN CAMPSITE
4m
taken at night by lantern (
12:30-3:30 am)
21 JUL 1987
Crispin S. Guppy
ROYAL BRITISH COLUMBIA MUSEUM
ENT991-60994 70% EtOH
MICROCORYPHIA

In the vial are three bristletails, all ♀. I think these are *Petrisabius arcticus*, although one has lateral ocelli that are slightly oval-shaped (medially constricted). → KNUK:Ento:8340

17. May. 2012

I biked to the church and carpooled with Steve this morning.

KNUK:Ento:7970 is a ♀ that looks like *Pimpla*. I am keying this using Cushman (1920), p. 330 1→3→5→6→10→11→ *tenuicornis*? *Pimpla hesperus* is in the Alaska checklist, but not in Cushman's key.

KNUK 7747 looks like *Mesochorus*. I am trying to key this using W... (I was interrupted here).

I attended the refuge safety meeting at 13:00.

I transplanted a *Hertasia paniculata* and a *Fritillaria* into the EEC garden.

Now I am again keying KNUK 7970, this time using Townes and Townes (1960), p. 313 1→2→4→7→8→ *aquilonius*.

Another RBCM vial has label data

Royal British Columbia Museum ENT991-062088
Machilidae
Pedetontus spp. Qty: 7
Canada, British Columbia; Vancouver Island
Orchard Point; Brooks Peninsula; Orchard Point Beach
04 AUG 1981
leg. Cannings, Robert A. And Cannings, Sydney, G.
50°13'00"N 127°48'00"W
UTM: 09 585615 5563191 Locref: MAP
CN: 991-62088

In the vial are 5 ♀♀ and ♂♂'s. The lateral ocelli are as in ENT991-60999, longer than is usual for Alaskan Petridiobiini and constricted medially. I think I do see the sensory fields on leg I of ♂ as described by Sturm (2001).
↳ KNWR 8391

One of my cultures of Petridiobiini has died. It was a female, still quite fresh. There was no obvious damage on it. The rest of the culture looks good.

18. May. 2012
I dissected the bristletail that had died yesterday. I did not see any obvious sign of a parasite.

Keying specimen KNWR 7747 using Wahl (1993), p. 385 1→7→ Mesachorus

KNWR 7765 I am keying using Goulet and (interrupted)

21. May. 2012
I spent a long day with Jim Mullet out in the field. We hiked out to the refuge boundary on the Mile 126 trail to pick up a traffic counter.

22. May. 2012
I was in the office for a while in the afternoon, mostly taking care of follow-up from yesterday's field work.

23. May 2012

I am examining a bristletail specimen from Cassiope Lake, Vancouver Island, BC. It is a ♀. It has 2+2 eversible vesicles on segment VI and Petridiobius lateral ocelli → P. arcticus. → KNUR: Ents: 8342

I am examining a vial of bristletails from Mount Kobau, Osoyoos, BC (RBCM ENT992-10313 | KNUR: Ents: 8343). The vial is mostly Machilinus, with one ♀ Mesomachilis.

Machilinus ♂ → KNUR: Ents: 8345
Mesomachilis ♀ → KNUR: Ents: 8344

I am again trying to key KNUR 7765 using Soulet and Huber (1993), p. 396 1→2→6→7→8→9→10→11→12→22→24→26→27→28→29→30→Oxytorinae??
431→ Achreumonine
Now keying using Heinrich (1977), p. 10 1→2→4→5→6→7→ Achreumonini? p. 57 1→2→3→ Cratichreumonini? p. 121 1→2→4→5→6→9→10→11→12→13→ Barichreumon?? KNUR 7791 and 7790 are the same → I don't think so

Now I am trying to key KNUR 7689 using Heinrich (1977), p. 10 1→2→4→5→6→7→ Prolichneumonini Protichneumon?

24. May. 2012

I worked on illustrating the left foreleg of KNUR: Ents: 8275.

I modified my chemicals inventory database to include amounts of chemicals. I started on data entry for this task.

I serviced the traps down on Headquarters Lake.

Now I am examining 2012 MLB 001 from pitfall trap HQ1 at Headquarters Lake. There were no Sminthurus. I did pull out a few Diptera.

I examined 2012 MLB 003 from HQ2. There were no Sminthurus. I did pull out one tiny, wingless wasp.

I also examined 2012MLB005 from HQ3. There were no Smidhuren, but I did pull out another of those minute wasps.

25. May. 2012 ~09:30

I got to work late due to harvesting ferns in Nikishi this morning.

I worked on extracting 2011 Kenai KEA data from Arctos.

29. May. 2012

I worked a little on chemicals inventory in the morning.

The middle of the day I spent with most of the rest of the refuge staff at the snowshoe Gun Club, qualifying to carry a shotgun. I collected an Ichneumonid that was flying about there.

KNWR 8345

30. May. 2012

I finished inventorying amounts of all chemicals in the lab.

I am examining a specimen with label data

ENT991-62450
SKIDEGATE, QCI
QCI museum
22 JUL 1980
J.H. SHEPARD

This is a ♂ Petridrobius arcticus, with 2+2 eversible vesicles on segments II-VI, sensory fields on ~~four~~ profemora, and typical Petridrobius arcticus lateral ocelli.

KNWR 8346

Examining a specimen with label data

CANADA, B.C. VICTORIA Mt. Work, 900'
27. APR. 1980 R.A. CANNINGS
On dry rock / Racomitrium outcrop

ENT991-62884

This is a ♀ Perlodontus subnotatus.

KNWR 8347

31. May. 2012

Most of the day I spent in American Heart Association first aid / CPR / AED training

Over lunch I found a small Lepidoptera larva in a new, developing bud of a devil's club. I collected this live with the green bud. I found on the internet that Agonopterix rosacilella feeds on Oplopanax.

I walked down to Headquarters Lake to check my Sminthurus traps.

1. June, 2012

Keying [KNWR:Ento: 8348], a Coccinellid, using Gordon (1985), p. 34 1→2→3→4→5→ Coccinellinae, p. 678 p. 679 1→ Psylloborini? p. 853 1→2→?
↳ Coccinellini? p. 681 1→2→4→
↳ 5→6→9→10→11→12→
13→ Hyperaspini? I don't think so. I photographed this specimen

I spent some of the day reconciling KNWR:Ento and BOLD records for our database of DNA barcodes.

In the afternoon I joined Dan Dugan and friends for collecting near Headquarters Lake.

4. June. 2012

I attended the biology staff meeting this morning. I also put together a Dan Meadows order for Rita in the Rain notebooks and paper.

I am now looking through the Headquarters Lake pitfall trap samples.
2012 MCB 006
Sminthurus ☒ → [KNWR:Ento: 8351]
I discarded everything but Sminthurus, mostly Diptera

Now I am processing (2012 MLB0041)
Sminthurus ☒ T° → (KNUK:Ento:8352)

some of these I think are Ptenothrix.
I also pointed one small beetle from this sample → (KNUK:Ento:8354)

Now I am processing (2012 MLB002)
Sminthuridae T° → (KNUK:Ento:8353)

Now I am pulling Hymenoptera specimens for DNA barcoding

		needs label?
7036	Arge cyra	✓
8360	Cimbex americana	✓
7176	Trichiosoma triangulum	
7175	Sirex cyanus	
4101	Urocerus gigas	
4230	Atlantus albolabris	✓
5174	Amauronematus	✓
4391	Dolerus eldeni	✓
4506	Dolerus gilvipes albifrons	
6168	Dolerus gilvipes albifrons	✓
3892	Dolerus yukonensis	
5758	Empria ignota	✓
3236	Empria improba	
4061	Empria maculata	

8361	Pontania	✓
8362	Pristiphora laterantis	✓
2715	Pristiphora mollis	
1980	Pristiphora standingeri	
3510	Pristiphora sp.	
1437	Rhogogaster viridis	✓
2700	Strongylogaster rufipestris	
1653	Lenthredo ungava	✓
2801	Lenthredo	
7127	Lenthredo	
3518	Aleocles sp #1	
2067	Alysia sp #1	
3413	Aphidius ervi	
2531	Aphidius sp.	
2196	Aspilota sp. #1	
3780	Chorebus 1	
1629	Colastes sp. 1	
2587	Colastes sp. 2	
3523	Dacnusa 1	
2619	Dacnusa 2	
4065	Dinotrema sp. 1	
1597	Dinotrema 2	
1608	Ephedrus incompletus	
2285	Ephedrus lacertosus	
1508	Monoctonus	
3524	Opius 1	
2192	Opius 2	

2215	Opius 3
3799	Orthostigma #1
1853	Orthostigma 2
3887	Rhaenocarpa 1
3661	Rhaenocarpa 2
1536	Trigon
1833	Rhyssalus sp. #1
2407	Syntretus 1
6277	Meteorinae
7573	Cheloninae
7330	Polysaulon canadensis

(51)

8. June. 2012

I am separating beetles from Trichoptera sample [KNMK: Ento: 8364]

Trichoptera " " 8364
Chrysomelidae " "
Coccinellidae "

Now I am processing [2012 MLB 007]

Ichneumonidae ♀ → 8373
Lachnidae " → 8376
The rest I discarded.

Now I am processing [2012 MLB 008]
There were no Ichneumonids in this sample. I did pull out a minute, wingless wasp. → 8377

Now I am processing [2012 MLB 009].

Ichneumonidae " " 8374
Lycosidae " " 8375
The rest I discarded.

11. June 2012

I pressed the Aloxa I had collected in Nunichuk the other day → [KNMK: Herb: 8378]

I am pulling more Hymenoptera specimens to go out for DNA barcoding.

catnum	taxon	needs label?
7173	Ophion bilineatus?	
7970	Pimpla aquilonis?	
7038	Pimpla pedalis?	
7448	Ogheles glaucopteris	
7621	Megarhyssa nortoni	
7618	Netelia	
7356	Mesochorus	
6154	Dimetriscus euptorus	
5268	Mesoleptus	

5156	Coccophagus	
4869	Psyllaephagus	
5141	Euderus	
4941	Megastigmus atedius	
5710	Bootanoidea	
5666	Torymus longistigmus	
8379	Torymus cecidomyiae	✓
5140	~~Systasis encyrtoides~~	
	Selederma	
5327	Tetrastes	
2068	Asaphes?	
5960	Mesopolobus	
5355	Pseudotorymus	
3415	Eurytoma	
2500	Bombus occidentalis	
4903	Cinetus	
4039	Rhaenoglyphis	
8380	Hylaeus	✓
6412	Bombus sylvicola	
8381	Anthophora	✓
5352	Omalus aeneus & Dominiqueus 6460	
8383	Dendrocerus	✓
7215	Vespula austriaca	
8384	Rhopalum clavipes	✓
7961	Dolichovespula arenaria	
7960	Vespula vulgaris	
8385	Vespula rufa	✓

8386	Crabro	✓
8387	Trimorus	✓
(37)		

The Proaviid I collected the other day appears to agree with Dolomedes tritor. ↑

(2012 HLB 018)
(KNWR 8367)

I worked on printing improved insect labels.

(12. June. 2012)
I refined and printed off barcode labels for a series of specimens.

I mixed labels for 8381, 7036

(13. June. 2012)
Miriam and I worked on labelling pinned specimens at home.

14. June 2012

I am flipping through Dasch (1971), which I just received, looking for Kenai NWR records.

Astiphromma leucogrammum

Now I am trying to key specimen (KNWR:Ento:7747) using Dasch (1971), p. 50
1→14→15→16→17→18→20→21→23→24→26→
27→28→29→30→52→56→57→58→59→68→
70→71→72→ It has wing venation like maleficus, but the propodeum is different.
73→74→75→76→77→79→80→81→82→83→84→
85→86→87→89→90→91→93→94→95→

Now I am keying (KNWR:Ento:7356), same key
1→14→15→16→18→20→21→23→24→26→27→28→29→
30→52→56→57→58→59→68→70→71→72→73→74→
75→76→77→79→80→ tachypus?? - I don't think so.
↳81→82→83→84→85→86→87→89→
90→91→93→94→95→96→97→98→ vittatus?
I don't know what this is.

I found that there is good coverage of this genus in BOLD.

15. June 2012

I am photographing Ichneumonidae, trying to get names on them.

specimen	frames
7747	3729 - 3748
7356	3749 - 3766
7791	3767 - 3784
7500	3785 - 3802

I posted these on Arctos and Bug Guide.

I took a walk in the morning, reconnoitering for the pollinator walk I will be leading later today as part of wildflower fun day at the refuge.

I did lead a walk in the afternoon. Miriam accompanied me.

Later, Miriam and I serviced the traps down by Headquarters Lake.

18. June. 2012

I started a Refuge Notebook article on Smithurus.

19. June. 2012

I worked on my Refuge Notebook article, led a "critter camp" group of kids on a walk in the afternoon, and later photographed Smithurus in the muskeg by Headquarters Lake.

20. June. 2012

I finished my Refuge Notebook article.

21. June 2012

I worked on entering data for specimens given to me by Dominique in 2007 and sent to Guelph for DNA barcoding.

25. June. 2012

I spent the day preparing text and data for a manuscript John is submitting.

26. June. 2012

I spent most of the day preparing LTEMP data for John. I did take kids on a walk checking pitfall traps in the afternoon as part of Critter Camp.

27. June. 2012

I spent the day on LTEMP data for John having to do with the paper to be submitted soon.

28. June. 2012

I found some errors in the data I had sent to John previously, and so corrected those and sent him a new map.

I spent the latter part of the day reviewing Ferris et al.'s checklist of the moths of Alaska.

~~24 June 2012~~

3. July. 2012

I finished reviewing the Ferris et al. moth checklist.

Now I am sorting specimens

8094 - Delphacidae, ♀, in coll.

8253
8252
8265 } Cicadellidae, in collection.

I started implementing an object tracking system, designing and printing off code 39 labels.

5. July. 2012

I did a little more ~~bottle~~ labeling of containers and scanning them into Arctos.

I worked with Mark on importing LTEMP data, some of Ed's bryophyte and lichen data.

5. July 2012

I spent most of ~~the~~ day

6. July. 2012

I am examining KNWR 8481, a Saltcicid brought in yesterday.

Keying using Ulrich et al (2005) p. 208

1 → 2 → 11 → 12 → 13 → 14 → 17 → 20 → 21 → 24 → 26 → 35 → ~~36~~ →

↳ 37 → 45 → 46 → 47 → 48 → Rhodopsis?

This is an immature ♀, about 11.3 mm.

Now I am doing a little sorting.

KNWR Ent: 8078
8073
8077 } Carterocephalus palaemon
det. Todd Eskelin
19. March. 2012.

7291
8099
8100
8101 } Syrphidae

8087
8250 } Ichneumonidae

9 July 2012

I hiked Skyline with John, Libby, and Mercedes today to look at and begin investigating shrub die-off.

10 July 2012

Today I am adding container barcodes to all Hymenoptera specimens soon to be sent out to Guelph for DNA barcoding.

I drove out to Dominique's house in the afternoon to get data on some of his Lepidoptera specimens that I had sent to Guelph for DNA barcoding.

6557
7/3/04, Summit Lake, roadside, Parnassia plantaginis

6608
7/20 – 7/21/04 Sterling, Corey St.
Picea glauca forest, disturbed, malaise

6635 6/25/04 Sterling, Corey St.
Picea glauca forest, disturbed. black light trap.

6636 6/26/04 Sterling, Corey, St. Picea glauca forest. black light trap.

6659 8/14 – 8/17/04 Sterling, Corey St.
Picea glauca forest, disturbed. black light trap.

7161 7/27/2006 Sterling, Corey St.
Populus tremuloides. Lithocolletis tremuloidiella.

7183 7/20/2006 Fairbanks, Alnus
Alnus pyramiladus.

I went through various versions and back-ups of Dominiques database with him. I will put these together to give him an up-to-date and useable database.