

ANTS

JUNE

1978-1979

7530-00-243-9369

FEDERAL SUPPLY SERVICE

(GPO)



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✓  
16 May SF TR# 8

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	<u>Mura</u>	<u>Syrup</u>
1	~150 M. min, 2 F. pall	20 M. min, 3 F. pall
2	~35 M. min	~50 M. min
3	~15 Myrm. amer	5 M. americana
4	7 Myrmica amer.	23 M. amer.
5	~10 <del>Lasius</del> Lasius	Lasius
7	~4 F. pallide	~10 F. <del>pallide</del>
6	~200 M. min	~150 M. min
7	~100 M. min	~300 M. min
8	~50 M. min	3 M. min
8	2 A. treatae	2 F. pallide
9	~50 M. min	~200 M. min
9	3 Cremat (Celt) <sup>lineolata</sup> more w/ry	
10	~50 M. min	~75 M. min
10	1 F. Pallide	4 F. pallid
11	10 M. min treatae	30 M. min
11	1 F. pallide	
12	~100 M. min	~20 M. min
13	~125 M. min	1 F. Pallide
13	1 F. pall.	~40 M. treatae
14	2 A treatae	
15	6 A. treatae	6 F. pallide
15		1 Lept. ambiguus
16	~75 M. min	~150 M. min
17	50 M. min	~200 F. Pall.
17	2 F. pallide	~200 M. min
18	~10 Fl. neo	6 F. pall 6 L. neo
18		2 Myrm. amer 2 T. <del>sample</del>
19	10 L. neo opposite	
19	8 M. min 5 sides of bait	45 L. neo
20	~200 M. min	~2 M. min, 1 Myrm. Amer.

Lasius all over fauna. MONOS  
on desc - v. little contact - surge  
Lasius avoid Mone column

\* very fast movement w.  
mutual avo. done by  
all spp.



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moisture probes

dist. fr. stream	<u>Knotted</u>	<u>Unknotted</u>
0	8.5	8.5
2	(1.5)	10.0
4	9.25	9.25
6	9.50	9.0
8	9.5	9.5
10m	9.5	9.5

✓ 16 May SF TR#4  
Thrua Symp

(stream dry - just wet mud)

0	2 T. sessile	2 T. sessile
2	0	8 T. sessile
4	0	1 Myrmica punct.
6	0 (+ 1 slug)	5 F. subsericea
8m	2 F. subsericea	1 Myrmica 1 F. subsericea
10m	2 F. sub 1 M. punct.	2 T. sess 2 F. sub
15	~40 M. Min 1 F. sub	1 T. sess 5 M. Min 2 F. subsericea
20	~50 M. Min	5 M. Min.
25	~20 M. Min	5 M. Min (Ponera wkg)
30	~50 Cremat. lineolata	3 I. pr. nosum
35	~65 M. Min	35 Cremat (coll. in lineolata v. alw. spider)
40	~45 M. Min 1 T. sessile	~9 M. Min 2 I. pr. nosum (avoiding M. Min)
45	10 Cremat (coll)	20 I. pr. nosum, 1 M. Min
50	~5 I. pr. nosum	~20 I. pr. nosum
55	~150	~20 M. Min
60	~150 M. Min	~15 M. Min (fighting)

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temp { air 29  
ground 35

clear, calm, dry

17 May

Stevens Field

Daisies in bloom everywhere

TR # 9 (Yellow-Field)

tuna

sugar

1	25 M. min 2 F. pallid.	~50 M. min.
2	~15 M. min (+2 hemipt.)	0
3	0	0
4	0	0
5	1 M. min (+2 hemipt)	0
6	0	0
7	0	0
8	0 (+4 hemipt)	0
9	0 (+1 Hemipt)	0
10	1 Ph. davisi	0
11	0	~5 Ph. davisi just off bait
12	0	0
13	0	0 (Lasius nigr)
14	~10 Ph. davisi (Colony nigr) 2 F. pallid	0
15	2 F. pallid	~20 L. prinosum *
16	2 L. prinosum	4 F. pallidifolva
17	3 L. prinosum -12 M. min	5 M. min 2 L. prinosum
18	5 L. prinosum	2 L. prinosum
19	~60 M. min	15 M. min
20	4 Lasius neo.	0

\* - single Irid can displace a formica - they do so continually.

NOTE: lower part of transect (below Sta. 8 or so) becomes drier w. more bare ground showing,

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17 May

Stevens Field

TR # 65

	<u>Tuna</u>	<u>Symp</u>
0	1 C. ferrug. 4 T. sessile	3 T. sessile
2		
4	1 P. melanurus	0
6	1 C. neochloris	0
8	0	0
10	0	0
15	1 T. sessile	2 T. sessile
20	1 T. sessile	1 T. sessile ✓
25	1 H. subsericea	1 T. sessile coll
30	30 M. min 2 F. pal, 1 F. subs.	~40 M. min
35	6 M. min 6 F. pallid.	1 F. pall (dead) 1 Casius (dead)
40	8 Cremat. lineolata ~35 M. min	1 M. min 1 A. tritata, 20 M. min
45	~15 Cremat. lineolata 2 F. pallid.	0 (cell covered in trash)
50	~40 Cremat. lineolata 1 A. tritata	2 P. mel. V. Schauf.

\* Mostly Separated on opposite sides - a lot of Posturing & pointing abdomen - No real fighting seen

\*\* Formica driven off repeatedly by Single Cremat.

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31 March

TR #1 area

w. Steve Vail looking at P. imparis

Some ♂♂ running around on leaf litter. Ants active at Tuna bait (~20 ants). 5 nest entrances marked in area of ~6 x 6'.

25 P. imparis marked w. dot of red paint at one nest on hillside.

P. imparis on tree trunks gathering sap from saproxylic holes in Mockernut Hickory at top of TR #1

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12 Sept.

Polyergus lucidus

On the same day Steve Vail & Ed  
Bolinley independently discovered  
this species - first records for CBKS.  
Ed had them coming to bait w.  
F. pallidipulva in Sturmsfield  
(syrup bait) along TR #4.

Steve found colony along rd to  
Western Triangle just w. of "T"  
in road below Brownie's trailer.

These ants look superficially  
like F. integra, but ~~are~~ have  
red gaster instead of black.  
legs and antennae infuscated  
noticeably.

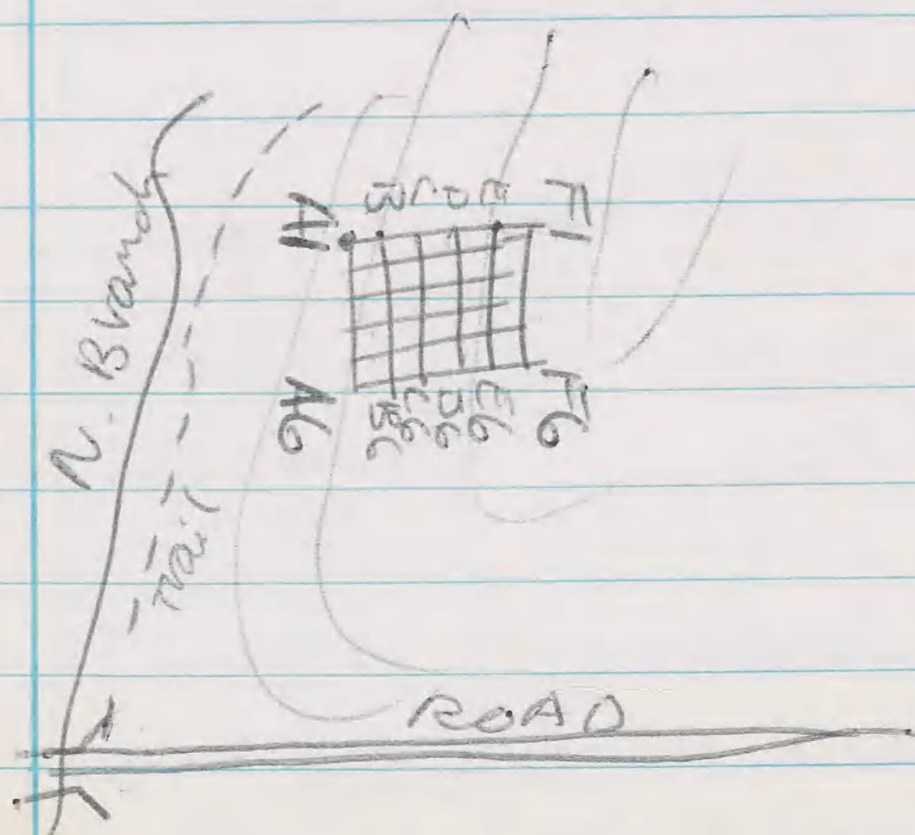
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25 Sept.

1400 - Went out to N. Branch area to work w. Steve Vail locating colonies of ants. He's been surveying 5x5m plots and putting baits out every 1m ( $\Sigma = 36$  baits/quad) - Then follows ants home to locate colonies. Warm, pleasant day w. temp in mid 70's. Clear sky & low humidity.

I set out baits at 1415 & recorded activity periodically (every 0.5h)



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25 Sept.

Check #1

1430-45 [T<sub>0</sub> + 15 min → 30 Min]

A1	1 Pump 1 Pmel
A2	1 Anud
A3	(recruited from P42 0.5m away) Pump, 6 Anudis (Pump chases) (avoid avoids)
A4	3 Anudis 1 Pmel
A5	2 Anudis
A6	30 Pump, 1 Anudis (avoids)
B1	MT
B2	3 Anudis, 1 Pump, 4 Pmel
B3	~ 50 Pump
B4	~ 65 Pump
B5	5 Anudis
B6	4 Pump (fighting), 3 Anudis, 2 Pmel
C1	20 Pump, 1 F. sub (avoiding)
C2	13 Pump
C3	~ 15 Pump
C4	~ 40 Pump (recruiting from previously marked nest P16-1 - 0.3m)
C5	15 Pump (ants fr. same nest also recruiting to rotted log 1.5 m away - getting termites)
C6	~ 30 Pump
D1	4 Anudis
D2	1 Anudis - avoids Pump
D3	4 Anudis (fulva?), 1 Pump
D4	3 Anudis
D5	20 Pump
D6	18 Pump, 2 P. mel (avoid, but Pump doesn't chase)

E1	1 Anudis, 3 P. mel
E2	10 Anudis
E3	1 Anudis (+ 1 cricket)
E4	4 Anudis
E5	~ 12 Anudis
E6	30 Anudis (no fighting)
F1	11 Anudis
F2	~ 35 Pump (recruited from previously marked nest P39) 1m away
F3	~ 45 Anudis (no fighting)
F4	5 Anudis
F5	12 Anudis (fighting)
F6	~ 90 Pump (incl. 1 green worked), 1 Pmel

→ nest marked ~ 0.3 m away

- Food items observed:
- 1) several Pump attaching 1.5cm caterpillar
  - 2) Anudis dragging sm. centipede
  - 3) several Pump attaching lg. Mar. band Hemipt
  - 4) Pump carrying termite
  - 5) Pump .. fungus goat

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Check # 2

150-1515

(T+30.)

A1 ~ 25 Pimp, 2 Pmel (avoid), 1 Dred. (avoid)

A2 ~ 70 Pimp (C. ferr. nubby)

A3 ~ 90 Pimp

A4 ~ 50 Pimp

A5 ~ 50 Pimp

A6 ~ 130 Pimp

B1 ~ 60 Pimp, 1 A. nedis (avoid)

B2 30 Pimp, 1 A. nedis (avoid)

B3 ~ 100 Pimp

B4 30 Pimp

B5 2 Pimp

B6 8 Pimp, 3 Pmel, 1 C. curv.

C1 ~ 35 Pimp

C2 ~ 40 Pimp

C3 ~ 25 Pimp

C4 ~ 35 Pimp

C5 ~ 50 Pimp

C6 ~ 90 Pimp

D1 6 A. nedis

D2 ~ 20 Pimp

D3 ~ 10 A. nedis

D4 1 A. nedis

D5 ~ 35 Pimp

D6 ~ 80 Pimp

E1 5 Pmel, 1 A. nedis

E2 12 A. nedis

E3 2 A. nedis

E4 9 Aph. (nedis?)

E5 ~ 30 A. Pimp.

E6 ~ 25 A. nedis

F1 ~ 90 Pimp

F2 ~ 150 Pimp

F3 20 A. nedis

F4 ~ 125 Pimp

F5 10 A. nedis (fighting)

F6 ~ 120 Pimp

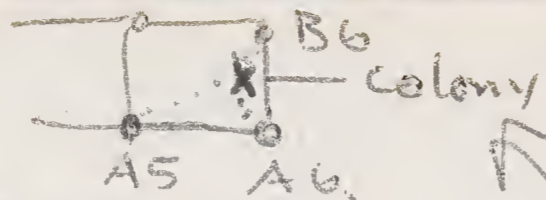
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Check #3 25 Sept. (Cont'd)

15:30-45

(7+60 min)



A1 ~40 Pimp  
 A2 ~50 Pimp  
 A3 ~120 Pimp  
 A4 ~75 Pimp  
 A5 ~50 Pimp  
 A6 ~80 Pimp - recruiting to same colony as A6 ~1 m away  
 recruiting to new colony ~.5 m away ←

B1 ~35 Pimp  
 B2 ~40 Pimp  
 B3 ~60 Pimp  
 B4 ~80 Pimp  
 B5 ~45 Pimp (recruiting to new nest ~1 m away)  
 B6 ~15 Pimp (recruiting to same colony as A6 ~0.5 away)

C1 ~30 Pimp, 1 And (Avoids)  
 C2 ~60 Pimp  
 C3 ~35 Pimp  
 C4 ~35 Pimp, 1 Pimp  
 C5 ~30 Pimp (possibly recruited from same nest as B5)  
 C6 ~160 Pimp

D1 7 A. nedis  
 D2 ~70 Pimp  
 D3 8 A. nedis  
 D4 5 Pimp, 2 A. nedis  
 D5 ~40 Pimp  
 D6 ~110 Pimp

E1 2 Pimp  
 E2 ~14 A. nedis  
 E3 6 A. nedis  
 E4 6 A. nedis  
 E5 ~35 Pimp  
 E6 ~18 A. nedis

F1 ~180 Pimp  
 F2 ~120 Pimp  
 F3 7 A. nedis, 1 Pimp  
 F4 ~120 Pimp  
 F5 ~30 Pimp (2 are fighting)  
 F6 ~100 Pimp

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25 Sept.

1600

Check #4

1190 mm

A1 ~70 Pimp  
 A2 ~75 Pimp  
 A3 ~150 Pimp  
 A4 ~90 Pimp  
 A5 ~90 Pimp  
 A6 ~40 Pimp

~~A7~~  
~~A8~~ B1 ~60 Pimp  
~~A9~~ B2 ~70 Pimp  
~~A10~~ B3 ~60 Pimp  
 B4 ~150 Pimp  
 B5 ~60 Pimp  
 B6 ~60 Pimp

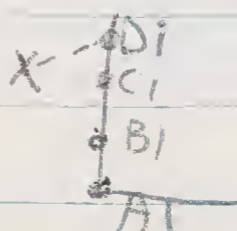
C1 ~50 Pimp  
 C2 ~90 Pimp  
 C2 ~50 Pimp, 1 Anolis (chased off)  
 C3 ~70 Pimp  
 C4 ~40 Pimp  
 C5 ~35 Pimp  
 C6 ~100 Pimp

D1 ~20 Anolis (2 Fighting)  
 D2 ~~4 Anolis~~ 50 Pimp, 1 Anolis (chased off)  
 D3 11 A. (fulva?)  
 D4 10 Pimp  
 D5 ~40 Pimp  
 D6 ~120 Pimp

E1 6 Pimp <sup>more P. i. nearby</sup>  
 E2 5 Anolis, 1 Pimp (A.v. attack P. i., but seem disoriented)  
 E3 6 Anolis  
 E4 ~~~100~~ 13 Pimp  
 E5 ~30 Pimp  
 E6 23 P. i. anolis

F1 ~70 Pimp  
 F2 ~150 Pimp  
 F3 ~15 Anolis  
 F4 ~180 Pimp  
 F5 ~80 Pimp  
 F6 ~150 Pimp

→ recruiting to 'new' colony ~ 1 m. away off grid



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25 Sept.  
1630h

Check # 5  
T+ 2.25h

A1	~170 Pimp
A2	~90 Pimp
A3	~160 Pimp
A4	~80 Pimp
A5	~80 Pimp
A6	~70 Pimp
A	
B1	~100 Pimp
B2	~70 Pimp
B3	~40 Pimp
B4	~90 Pimp, 1 Anid. (chased off)
B5	~50 Pimp
B6	~60 Pimp
C1	~60 Pimp
C2	~60 Pimp, 1 P. mel
C3	~75 Pimp
C4	~40 Pimp
C5	~30 Pimp
C6	~110 Pimp
D1	13 Anidus
D2	~70 Pimp
D3	2 Anid, 2 Pimp, 1 Cfern
D4	15 Pimp
D5	~30 Pimp
D6	~160 Pimp

E1	~70 Pimp
E2	~25 Pimp
E3	9 Anidus
E4	10 Anidus
E5	~50 Pimp
E6	~22 Anidus
F1	~55 Pimp
F2	~150 Pimp
F3	~30 A. rudis (reverse fighting)
F4	~130 Pimp
F5	~60 Pimp
F6	~100 Pimp

→ An starts to bite gaster of Pimp, then recoils

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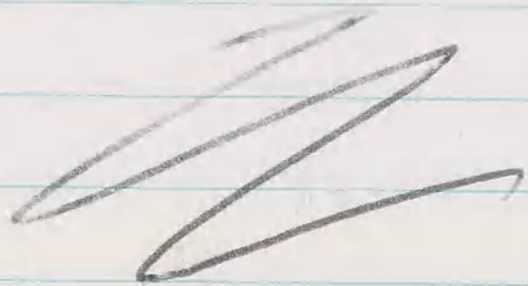


26 Sept.

N. Branch area (same as  
25 Sept)

10:00 rebaited 36 stations on  
The 5x5m quadrat where I  
worked yesterday. I'd left tuna  
at the bait stations when I  
finished yesterday at 16:30,  
but racoons had eaten it  
all during the night (fresh  
scat at edge of grid, *Persimmon*  
seeds in droppings) - noted  
*Peromyscus* mobilized on scats.

Set out baits at 10:00. Temp  
= 15°C (ground and air);  
Clear, crisp, breezy, dry day -  
much like yesterday, but T  
lower now than yesterday afternoon



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20 Sept.

10:15

check #1  
T<sub>0</sub>+15 min

A1	8 Pimp
A2	7 Pimp
A3	~75 Pimp
A4	11 A rudis
A5	30 Pimp, 2 Pmel
A6	5 Pimp
B1	13 A rudis, 1 L. curv. spinosus
B2	25 Pimp
B3	35 Pimp
B4	15 Pimp
B5	30 Pimp
B6	25 Pimp, 1 Pmel
C1	40 Pimp
C2	40 Pimp
C3	50 Pimp
C4	25 Pimp
C5	8 Pimp
C6	~60 Pimp
D1	3 Pimp
D2	0
D3	3 Pimp, 1 A rud (avoids)
D4	40 Pimp, 3 Pmel
D5	30 Pimp
D6	~120 Pimp

E1	2 Myrmica <del>8 A rudis, 4 Pimp - off A.r.</del> <i>P. attack and drive</i>
E2	20 Pimp
E3	1 A rudis
E4	2 Pmel.
E5	20 Pimp
E6	5 A rudis, 1 Pimp
F1	8 A rudis, 4 Pimp ( <i>P. attack and drive</i> off A.r.)
F2	~35 Pimp
F3	1 A rudis, 1 Pimp
F4	40 Pimp, 1 Pmel
F5	3 A rudis
F6	~75 Pimp

→ In 5 minutes I saw many interspecific encounters, most fell into 2 categories.

- 1) A rudis detects Pimp (usually w. antennal contact) - avoids
- 2) P. imp detects A.r. - chases.

In two cases P. imp got hold of A.r.; doubled gaster over it appeared to spray A.r. - latter disoriented and STAGGERED away.

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10:30

T<sub>g</sub> = 15°C  
T<sub>air</sub> = 15°C

Check #2  
++ 30 min

A1 15 Pimp  
A2 25 Pimp  
A3 ~85 Pimp  
A4 15 A rudis, 3 Pimp  
A5 40 Pimp  
A6 20 Pimp, 1 Anid

A.v. try to detach Pimp, which go into glottis - up deflusive posture of vepel attacks

B1 9 A rudis, 1 Pimp (no interaction)  
B2 20 Pimp (incl. one marked green)  
B3 20 Pimp  
B4 18 Pimp  
B5 30 Pimp  
B6 40 Pimp

C1 ~20 Pimp  
C2 ~~~20~~ 50 Pimp  
C3 30 Pimp  
C4 25 Pimp, 1 Skenanura (ignored)  
C5 20 Pimp  
C6 ~100 Pimp  
D1 8 Pimp  
D2 ~ 1 Pimp  
D3 15 Pimp  
D4 30 Pimp, 4 Pmel  
D5 25 Pimp  
D6 ~150 Pimp

E1 1 Myrmica  
E2 ~20 Pimp  
E3 1 Pimp  
E4 ~~12 Pimp~~ 12 Pmel  
E5 ~~60 Pimp~~ ~~12 Pimp~~  
E6 ~~5~~ 5 A rudis, 3 Pimp  
E7  
E8 12 Pimp  
E9 ~70 Pimp  
E10 3 A rudis, 1 Pmel  
E11 60 ~~Pimp~~ Pimp  
E12 2 Anid  
E13 ~60 ~~Pimp~~ Pimp

Food items:

~30 Pimp mobilized on dead wood cricket  
1 A. rudis carrying dead Pimp  
1 A. rudis dragging sm. dead beetle  
~10 Pimp mobilized on dead cricket  
1 Anid carrying dead Pimp

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11:50 AM  
T+1h

check #3

A1	~65 Pimp
A2	~75 Pimp
A3	~120 Pimp
A4	4 Anelis, 3 Pimp
A5	~60 Pimp
A6	~30 Pimp
B1	20 Anelis
B2	15 Pimp, 1 Anel. (1 Pimp marked green)
B3	13 Pimp, 1 Pmel
B4	~20 Pimp
B5	~45 Pimp
B6	~50 Pimp
C1	~110 Pimp
C2	<del>30</del> 30 Pimp
C3	~30 Pimp
C4	~25 Pimp
C5	~35 Pimp
C6	~200 Pimp
D1	~35 Pimp
D2	0
D3	~50 Pimp
D4	~40 Pimp
D5	~25 Pimp
D6	~200 Pimp

E1	1 Myrmica
E2	~30 Pimp
E3	~8 Pimp
E4	7 Pmel, 1 Anel
E5	~70 Pimp
E6	~25 Pimp
F1	~50 Pimp
F2	~90 Pimp
F3	2 Anelis, 4 Pmel
F4	~40 Pimp
F5	3 Pimp, 2 Anelis
F6	~70 Pimp

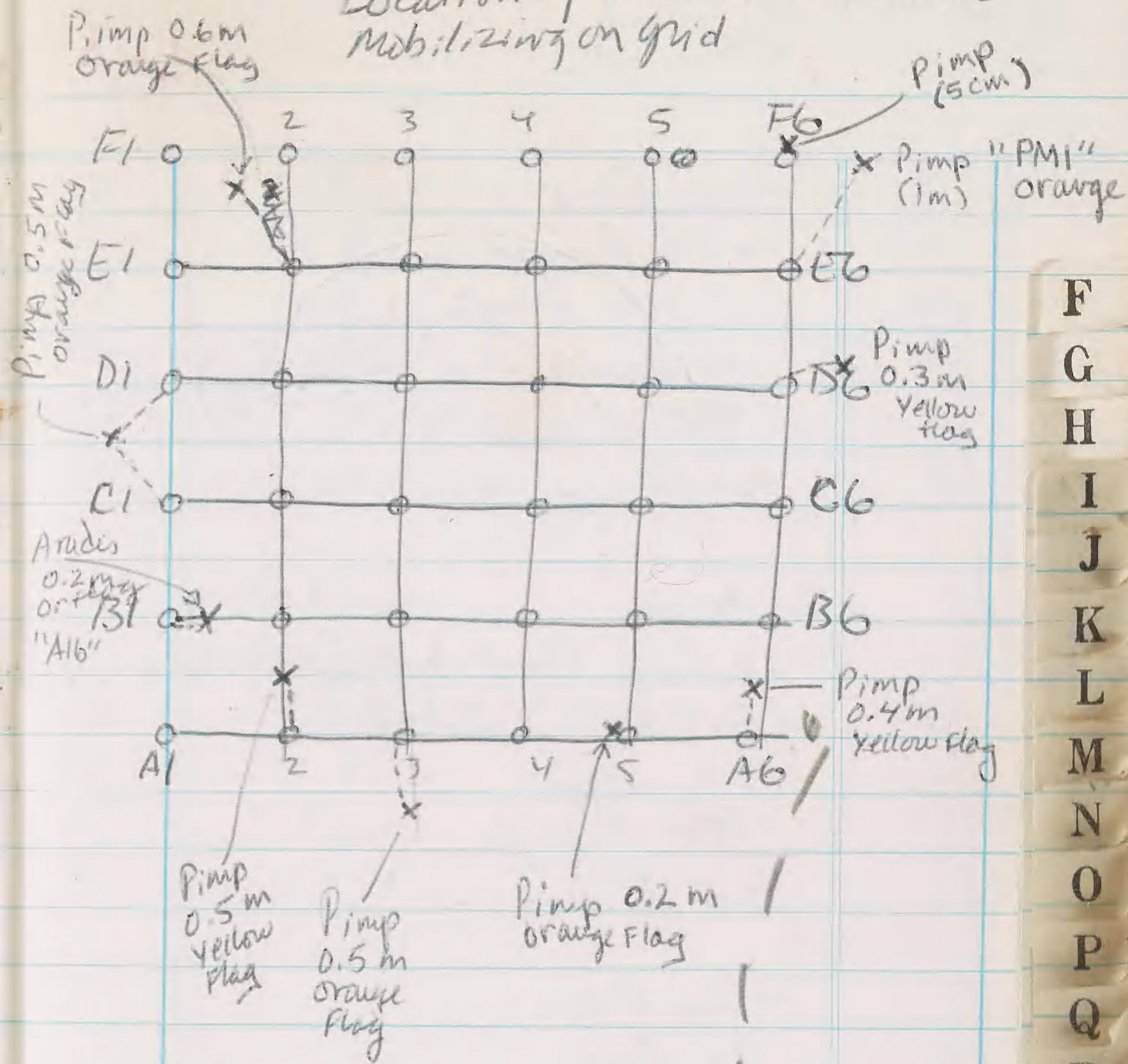
P. mel nest found in deep  
litter nr A1 - many alate  
♂♂ and ♀♀.

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25-26 SEPT

Location of nests where ants  
Mobilizing on grid



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11:30 AM

Check #4

T = 18°C

T<sub>0</sub>+1.5

A1 - 100 Pump  
 A2 ~ 75 Pump  
 A3 ~ 110 Pump  
 A4 14 Anolis (2 fighting)  
 A5 - 75 Pump  
 A6 30 Pump

B1 2) Anolis  
 B2 ~ 22 Pump (incl green washed one)  
 B3 ~ 70 Pump; 1 Pmel  
 B4 ~ 30 Pump  
 B5 40 Pump  
 B6 35 Pump

C1 ~ 200 Pump  
 C2 35 Pump  
 C3 45 Pump  
 C4 ~ 35 Pump  
 C5 ~ 50 Pump  
 C6 ~ 150 Pump

D1 40 Pump  
 D2 2 Pump  
 D3 70 Pump  
 D4 40 Pump  
 D5 ~ 20 Pump  
 D6 ~ 130 Pump

E1 6 Pmel, 2 Myrmica  
 E2 35 Pump  
 E3 11 Pump  
 E4 11 Pmel, 1 Anolis  
 E5 ~ 70 Pump  
 E6 ~ 60 Pump

F1 ~ 90 Pump  
 F2 ~ 90 Pump  
 F3 1 Anolis, 8 Pmel  
 F4 - 90 Pump  
 F5 3 Pump, 1 Anol, 1 Myrmica  
 F6 ~ 55 Pump

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12:00

Check # 5

170C  
Tot 26

A1	~80 Pump
A2	~50 Pump
A3	~120 Pump
A4	5 Anidis
A5	60 <del>the</del> Pump
A6	~ <del>30</del> 35 Pump

B1	19 Anidis
B2	~20 Pump (incl. green one)
B3	~35 Pump
B4	~40 Pump
B5	30 Pump
B6	35 Pump

C1	~150 Pump
C2	25 Pump
C3	~25 Pump
C4	50 Pump
C5	~50 Pump
C6	~120 Pump

D1	55 Pump
D2	2 Pump
D3	55 Pump
D4	60 Pump
D5	25 Pump
D6	~150 Pump

E1	8 Pmel
E2	~25 Pump
E3	20 Pump
E4	12 Pmel, 1 Pump
E5	~110 Pump
E6	~55 Pump

F1	~30 Pump
F2	~60 Pump
F3	6 Anidis, 5 Pmel
F4	~70 Pump
F5	3 Pump, 2 Myrmica
F6	~60 Pump

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13:00

T = 18°C

check #6

T<sub>0</sub> + 3h

- A1 ~70 Pump
- A2 ~60 Pump
- A3 ~85 Pump
- A4 ~40 Pump, 1 *And* (aroids)
- A5 ~60 Pump
- A6 ~40 Pump

- B1 17 *A. rudis*
- B2 ~20 Pump, 1 *P. mel*
- B3 ~25 Pump
- B4 ~30 Pump
- B5 ~35 Pump
- B6 ~25 Pump

- C1 200 Pump + 2 ~~*F. subsericea*~~
- C2 2 *A. rudis*
- C3 ~30 Pump
- C4 ~40 Pump
- C5 ~60 Pump
- C6 ~60 Pump

- D1 ~50 Pump + 2 *F. subsericea* (aroids)
- D2 ~30 Pump
- D3 ~80 Pump
- D4 ~55 Pump
- D5 ~30 Pump
- D6 ~100 Pump

- E1 10 *P. mel*, 1 *P. imp*
- E2 ~40 Pump
- E3 ~35 Pump
- E4 3 *P. mel*, 1 *A. rudis*
- E5 ~70 Pump
- E6 ~60 Pump

- F1 ~50 Pump
- F2 ~80 Pump
- F3 12 *A. rudis*, 2 *P. mel*
- F4 ~75 Pump
- F5 8 Pump, 1 *L. curv.* sp.
- F6 ~45 Pump

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Time = 1530

Check # 7

T = 18.5°C. ground  
17.5°C. air  
T<sub>0</sub> + ~~35~~ 5.5h

A1	38 Pimp
A2	40 Pimp
A3	36 Pimp
A4	110 Pimp (dark colored Pimps)
A5	60 Pimp
A6	25 Pimp, 1 A.rod, 1 P.mel.

B1	7 A.rod, 1 L.cwr.
B2	20 Pimp, 3 P.mel.
B3	25 Pimp, 1 A.rod, 2 P.mel.
B4	45 Pimp.
B5	35 Pimp.
B6	30 Pimp.

C1	200 Pimp.
C2	7 A.rod, 4 Pimp, 2 P.mel.
C3	1 A.rod, 7 Pimp.
C4	45 Pimp, 1 L.cwr.
C5	40 Pimp
C6	50 Pimp, 1 P.mel.

D1	45 Pimp
D2	2 A.rod.
D3	45 Pimp.
D4	40 Pimp, 1 P.mel.
D5	25 Pimp
D6	85 Pimp

E1	100 Pimp
E2	30 Pimp
E3	30 Pimp
E4	4 A.rod.
E5	70 Pimp, 1 A.rod.
E6	50 Pimp

F1	85 Pimp
F2	55 Pimp
F3	3 P.mel., 6 A.rod.
F4	110 Pimp.
F5	1 A.rod, 1 M.pun, 2 L.cwr, 7 Pimp
F6	65 Pimp.

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Time =

Check # 8

T =

A1

A2

A3

A4

A5

A6

~~A7~~

B1

B2

B3

B4

B5

B6

C1

C2

C3

C4

C5

C6

D1

D2

D3

D4

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D6

E1

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27 Sept

Experiment to determine influence of distance between colony and food source on size of mobilization in

T=19°C Sunny, dry, sl breeze

F6 Bait d=10cm B4 Bait

9:30		
9:36	1st Pimp on disc	9:35 BATED
9:37	1 mel arrives, Pimp feeding	
9:38	2nd Pimp arrives, circles, almost immediately begins to feed (now 2 Pimp, 1 mel)	
9:40	2nd Pimp begins dragging tip of gaster around edge of bait & moves off to nest. 3rd Pimp arrives.	
9:41	Milking group of Pimp issuing from nest in direction of bait	
9:42	1st of new group on disc, soon followed by others. Not at all a tight column - a loose, 'skirmish line' that wanders gradually to bait	
9:45	17 Pimp, 1 P. mel (moved bait to 30cm)	
9:50		10 Pimp (more on the way) (moved bait to 20cm)
10:15	48 Pimp (seen) move to 60cm	
10:20		34 Pimp (move to 60)
10:50	45 Pimp	
11:00	'newly' Pimps fr another colony arriving at distal end of main shaft - fighting going on	

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27 Sept Pump Speed to a from bait

T = 20°C time 10:00 -

dist (cm)	time (sec)	direction	replete
35-8	20	return	replete
" "	26	"	"
10-45	42	outw.	MT
45-8	26	return	replete
10-45	21	out	MT
8-45	17	out	MT
55-8	32	ret	replete
8-65	29	out	MT
8-75	43	out	MT
85-8	53	ret	replete
8-85	39	out	MT
8-95	36	out	MT
95-8	60	ret	replete
95-8	64	ret	replete
95-8	58	ret	replete
8-95	33	out	MT
8-95	38	"	"
8-95	45	"	"
8-75	33	out	MT

note 11:08-11:05

3 outward-bound ones in a row that I tried to monitor reversed direction when ~ 1/2 way to 80 cm distant bait

9B, one wandered off meter stick ~ 1/2 way there

velocity cm/min	dist. cm	time	rel	velocity cm/min
	67-13	33	ret. replete	
	46-8	24	ret repl.	
	8-46	18	out-MT	
11:15	46-13	18	ret repl.	
	8-46	16	out MT	
	46-8	23	ret repl.	
11:20	8-46	21	out MT	
	8-26	6	out MT	
11:35	8-26	7	out MT	
11:22.5	26-12	8	in-replete	
	26-8	9	in replete	
	26-8	10	in replete	
	8-26	7	out MT	
14:00	8-45	16	out-replete	
14:23.5	8-45	15	out-MT	
	45-6	19	in replete	
	45-8	31	in-MT	
	8-45	21	out MT	
	8-45	26	out-MT	

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26 Sep +

Turnover data *P. imparis*  
syrup bait

10:00  
start

NO. ANTS Entering & leaving bait in 2 min.

leave

enter

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|

$\Sigma = 16 = 8/\text{min}$      $\Sigma = 15 = 7.5/\text{min}$     Bait 100 cm  
fr nest

10:50 AM 49 on bait at end

11:15

|||||

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$\Sigma = 34$

$\Sigma = 31$

$= 17/\text{min}$      $\approx 90$  on bait at end     $= 15.5/\text{min}$   
Bait 50 cm fr nest

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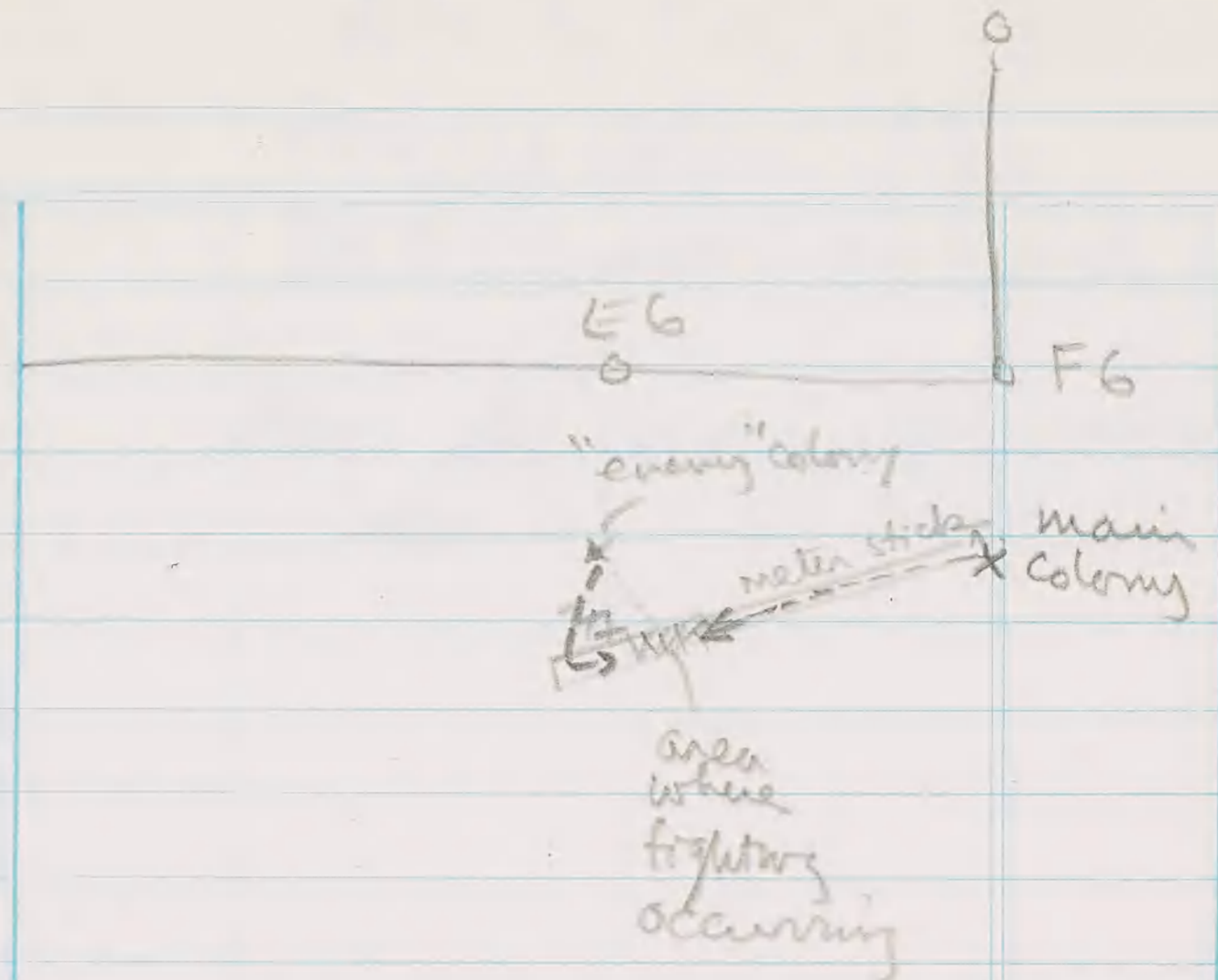
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did ~~the~~ census at 12:00 noon,  
then returned at 1:30  
COUNTS

PM:			BY
Tot 15m	17	10cm	10
+ 45	48	50cm	34
+ 80	45	100cm	39
+ 120	90	50cm	74
+ 150	45	10cm	70
+ 240	65	50cm	105
+ 270	60	10cm	100



Notes:

Basic setup is OK, but  
need to give ants a longer  
time to equilibrate before  
starting manipulations.  
2h would probably be best.

New design: Start 6 obs.  
colonies. Put baits at 50cm  
from each. Leave for 2h.  
Return & count. Move 3  
colonies to 1m, 3 to 10cm.  
Return after 2h, count  
again.

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Mark recap colony  
Painted Blue F6

$$34 + 26 + 24 = 84 \text{ marked}$$

From B4 Colony (painted white)

$$30 + 31 = 61 \text{ marked}$$

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30 Sept. Same area nr tree.

Returned to get more data on foraging speeds vs. distance, and on turnover rates at bait. Set up same 2 sugar baits as before. Time = 1330. T = 22.0°C.

Weather sunny, dry, sl. breeze in tree tops. Bait #1 is 20 cm from nest (Colony F6)

4:08 1st worker finds dec, touches nym, immediately begins laying odor trail back to colony entrance.

5:10 This 1st ant has made it back to nest

5:40 group of Pimp appears at colony mouth and moves deliberately to bait. ~6 ants in 1st group, then a few more. One immediately lays another odor trail back to nest. Rest stay and feed.

7:06 13 Pimp at bait. 2 are fighting. Then 3 or 4 more gang upon one of them and drag it to edge of dec, pulling on legs.

- 10:00 24 Pimp at bait
- 7:50 60 Pimp (4 of them marked)
- 29:00 56 Pimp (3 marked)
- 23:00 moved bait to 40 cm
- 47:00 45 Pimp (2 marked)

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20 Sept  
(Cont'd)

15+15+(15+15+15+15)

BAIT #11 - Start at 25 cm

	Start	end	dist	time	repeats?	v (cm/sec)
13:00	6	16	10	6	no	1.67
	6	16	10	5	no	2.00
	6	16	10	13	no	.77
	6	16	10	6	no	1.67
14:00	16	6	10	6	no	1.67
	6	16	10	13	no	.77
	6	16	10	6	no	1.67
	6	16	10	9	no	1.11
	6	16	10	11	no	0.91
	6	16	10	9	no	1.11
	6	16	10	10	no	1.00
	16	6	10	9	yes	1.11
	16	6	10	9	yes	1.11
	16	6	10	8	yes	1.25
	16	6	10	8	yes	1.25
20:00	16	6	10	6	yes	1.67
	16	6	10	10	yes	1.00
	16	6	10	7		1.43
	16	6	10	9		1.11
	16	6	10	7		1.43
----- moved to 40 cm -----						
	6	36	30	35	no	.86
	6	36	30	25	no	1.20
	6	36	30	27	no	1.11
32:00	6	36	30	32	no	.94
	6	36	30	24	no	1.25

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Bait #2

t = 23 minutes      22 Pimp (1 marked)  
 T = 47 min        75 Pimp (1 marked)  
 T = 1 hr, 20 min    66 (5 marked)

Start	end	dist	time	replete	velocity <sup>cm/sec</sup>
36	6	30	44	yes	.68
36	6	30	25	yes	1.20
36	6	30	53	yes	0.57
36	6	30	25	yes	1.20
36	6	30	18	yes	1.67
6	36	30	21	no	1.43
6	36	30	19	no	1.58
6	36	30	20	no	1.50
6	36	30	20	no	1.50
6	36	30	27	no	1.11
36	6	30	18	yes	1.67
36	6	30	19	yes	1.58
45:00 36	6	30	20	yes	1.50
36	6	30	29	yes	1.03
36	6	30	27	yes	1.11

47:00 move bait to 80 cm

1 INTENSIVE FIGHTING NOW  
 occurring all along length of  
 meter stick (mostly w/ by on ground)  
 between this colony & the wily  
 'enemy colony' noted a couple of  
 days ago.

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Column # 2  
 $d = 40 \text{ cm}$

velocity

Start	end	dist.	time	velocity	replete?
35	2	33	17	1.94	yes
2	35	33	18	1.83	no
35	2	33	13	2.54	yes
2	35	33	29	1.14	no
35	2	33	24	1.38	yes
2	35	33	22	1.50	no
35	2	33	23	1.43	yes
2	35	33	19	1.74	no
35	2	33	19	1.74	yes
2	35	33	14	2.36	no
35	2	33	20	1.65	yes
2	35	33	15	2.20	no
35	2	33	20	1.65	yes
2	35	33	16	2.06	no
35	2	33	18	1.83	yes
2	35	33	18	1.83	no
35	2	33	18	1.83	yes ✓
2	35	33	17	1.94	no
35	2	33	18	1.83	yes
2	35	33	19	1.74	no
more bait to 80 cm					
90:00	76	2	74	48	1.54 yes
	2	76	74	38	1.95 no
	76	2	74	43	1.72 yes
	2	74	72	34	2.12 no

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nest #2 (Cont'd)

Start	end	dist	time	replete	$\checkmark$
76	2	74	47	yes	1.57
2	76	74	47	no	1.57
76	2	74	44	yes	1.68
2	76	74	47	no	1.57
76	2	74	38	yes	1.95
2	76	74	40	no	1.85
76	2	74	36	yes	2.06
2	76	74	40	no	1.85
76	2	74	63	yes	1.17
2	76	74	38	no	1.95
76	2	74	49	yes	1.51
2	68	66	43	no	1.53
76	2	74	48	yes	1.54
2	76	74	50	no	1.18
76	2	74	44	yes	1.68
2	76	74	32	no	2.31

COUNT = 90 on bait (3 marked)

turnover

ON	OFF

21 ON 17 OFF

IN 2 MINUTES

10.5/min

8.5/min

d = 40 cm

mean = 9.5/min

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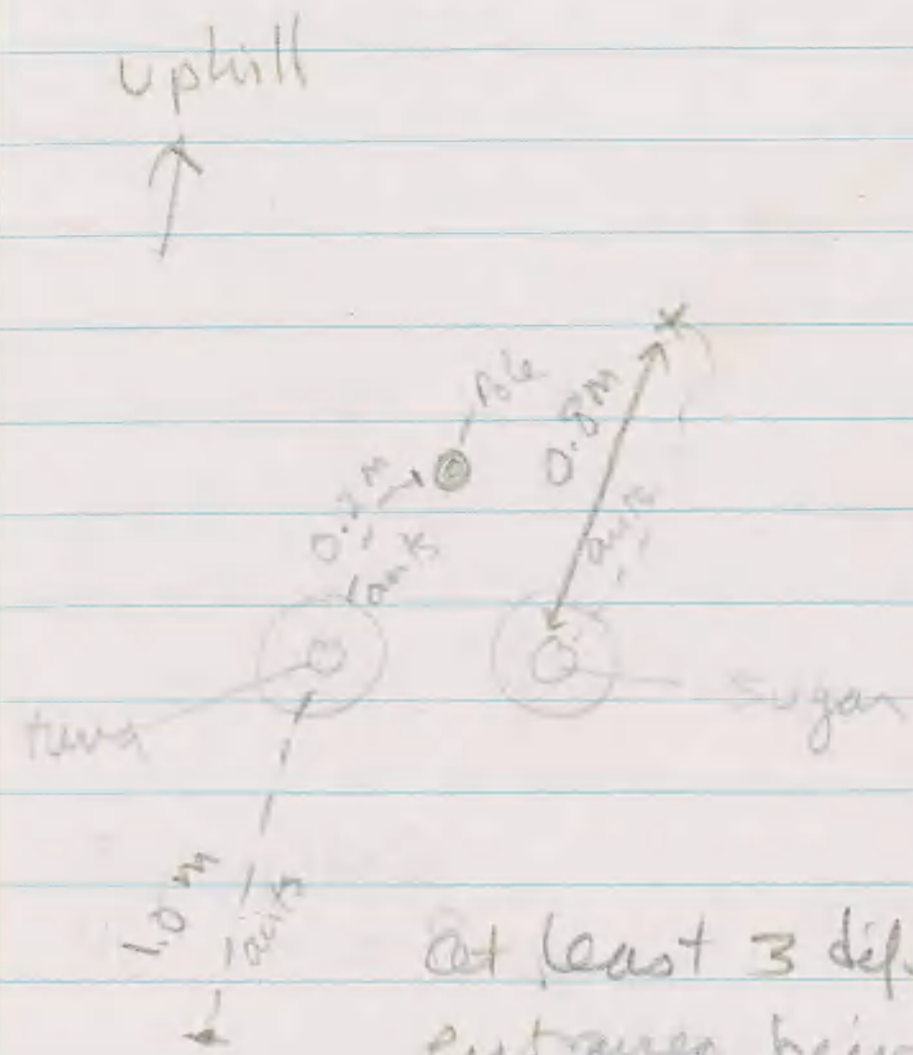


3 Oct 78

TR # 7 - bottom of transect (Sta. 10)

Time = 1530 hrs ; T = 18°C

clear, dry, 5-10 mph breeze in the top  
data on turnover at 2 beets left in  
place since 0730 this morning.



at least 3 diff. colony  
entrances being used,  
but no fighting, so must  
be same colony.

Impractical to monitor T.O. with  
so many

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3 Oct 78  
T=18°C

Prudis colony ~ 4 m hollow tubes  
Prudis 2.5" x 1.5" (85 cm)  
lengths from  
Pump colony

Part #1

T	T <sub>0</sub> (= 15/15 h)
1:20	1 Prudis on disc of bait
3:20	" " " "
3:30	1 Pump on disc
4:10	" " " "
5:15	2 A. nidi at bait; take away off chunks of bait
7:05	Pump & Prudis on disc Prudis chase Pump Prudis off, but rather return and grab chunks of pump, Pump too.
8:30	2 A. nidi <del>at</del> at bait, to be seen
10:20	A. nidi at bait - grab some water
10:45	Pump <del>at</del> on disc
11:20	" " " "
11:30	A. nidi on disc - approach bait
13:00	2nd A. nidi enters followed by Pump
13:40	1st A. nidi to disc
14:30	Pump on bait
14:40	2nd A. nidi to disc
16:00	2 Pump, 2 A. nidi enter disc
18:00	1 Pump, 1 A. nidi on bait Pump chases off A. nidi from bait

3 Oct 78  
T=18°C

0.5 m hollow tubes (12 cm)  
for colony  
Part #2

T	T <sub>0</sub> (= 15/15 h)
2:30	1 Pump on disc off disc, then approach bait
1:50	without 2 Pump leave on 5 m disc
2:30	now 7 Pump; 2 A. nidi approach, 1 drive off 2 A. nidi disc; other when it gets to bait 1 Pump still on disc (10 cm)
4:15	Pump streaming to bait - now 18 at bait, 1 A. nidi circling disc, but repeatedly drive off
6:00	~40 Pump at bait
8:00	~70 Pump
10:00	~100 Pump
12:00	~110 Pump
15:00	~110 Pump



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3 Oct 78  
(cont'd)

Bait # 1 cont'd

19:30 5 Pimp, 2 Arud - Arud avoid Pimp,  
Pimp occasionally chase Arud

22:00 11 Pimp, 2 Arud - latter still quite  
successful at getting v. lg. clumps  
of tuna. Pimp still attacks Arud  
from time to time, but Arud always  
gets away.

24:00 13 Pimp, 0 Arud

30:00 28 Pimp 0 Arud

(Arud still occ. stealing tuna,  
but immediately attacked by Pimp)

40:00 34 Pimp

3 Oct 78

Bait # 2 (cont'd)

20:00 ~ 120 Pimp

30:00 ~ 100 Pimp

40:00 ~ 100 Pimp

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6 OCT PC, litter wet  
 from rain yesterday  $T_{air} = 18.0^\circ$   
 $T_g = 18.0^\circ$   
 Bait #3 (36cm)  
 for nest  
 of Pimp

$T_0 = 1445$   
 elapsed

0:10	3 Pimp at bait, leave quickly
1:10	2 Pimp on disc - securing by leaving odor trails
3:00	7 Pimp - now swarming out of nest
4:00	11 Pimp
5:00	17 Pimp
6:00	18 Pimp
8:00	35 Pimp
10:00	~46 Pimp
12:00	52 Pimp
14:00	64 Pimp
18	~70 Pimp
20	~60 Pimp
22	~60
24	55
26	~50 Pimp, 1 <i>Ambis</i> (around Pimp)
28	~55 Pimp
30	55 Pimp
34	~65 Pimp
38	~75 Pimp

6 OCT 15+15+15  
 Bait #4 (160 cm fr nest of Pimp)  
 32 cm fr *Ambis* nest

3:05	1. <i>A. rudis</i> at bait - soon leaves
7:20	1. <i>A. rudis</i> enters, soon leaves
8:05	1. <i>A. rudis</i> enters
8:30	2nd <i>A. rudis</i> enters (now 2 at bait)
9:40	3rd <i>A. rudis</i> enters
10:15	1 <i>Ambis</i> lvs. with trunk, followed by other 2. (now none)
11:10	<i>Ambis</i> enters, then lvs. bait (now none)
12:00	<i>Ambis</i> enters, then lvs (now none)
14:40	2 <i>A. rudis</i> enter
14:55	3rd + 4th <i>A. rudis</i> enter
15:05	5th <i>Ambis</i> (now 5)
15:20	6th <i>Ambis</i> (now 6)
5:00	Periodic counts
18:00	2 <i>Ambis</i>
18:30	5 <i>Ambis</i>
20:00	10 <i>Ambis</i>
22:00	28 <i>Ambis</i>
24	34 <i>Ambis</i>
26	46 <i>Ambis</i>
28	33
30	35
34	49 <i>Ambis</i>
36:00	P. Imp enters bait - attacked & driven off by <i>Ambis</i>
38	309 <i>A. rudis</i>

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BAIT #3 - cont'd

42:00	~90	Pump
46:00	~80	Pump
50:00	~90	Pump
54:00	90-100	Pump
58:00	~90	Pump
62	~90-100	Pump

BAIT #4 - cont'd

42:00	37	Arvid's
46:00	28	
50:00	31	Arvid's
57:20		Pump enters, tussles w. Arvid's w/ of is driven off
57:00	2	Arvid's fighting
54:00	23	Arvid's - seems to be some fighting off bait - de-alate running around
58:00	29	Arvid's
61:40		Pump enters - immediately driven off
62:00	15	Arvid's
		Arvid's seen to attack several Pump workers that wandered into vicinity of Arvid's nest entrance,

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4 June 79 - active spp. seen on ground in vicinity of baits

Common: P. imp, A. rufis, P. mel

UNC: M. punctiventris, L. curv. spinosus

4 June 79 overcast, moderate breeze Av nest ~60 cm fr bait  
 a.r = ground = 19.0°C N. Branch area  
 ground wet from previous rains BAIT #1 20 Pinhead crickets  
 Start: 1500 hours # left

15:00:20	Pump on disc	
:40	approaches bait & contacts several crickets	
16:00	lvs crickets and circles disc ( <u>D. rufis</u> a few cm fr. disc)	
02:30	Pump lvs w. c (has been "handling" crickets for ~ 2 min. before finally lving w. one)	19 P
2:45	Pump on disc	
3:05	contacts cc	
3:30	Pump lvs w. c	18 P
4:10	Ar on & off disc	
4:30	Ar on bait grabs c - lvs turned	17
9:40	Pump at bait	
9:30	<u>A. rufis</u> at bait	
9:45	Pump lvs w c	16 P
10:10	<u>A. rufis</u> lvs w c	15
13:50	<u>A. rufis</u> on bait	
14:05	<u>A</u> lvs w c	14
15:20	Ar on bait	
:25	ws w c	13
16:30	Ar at bait	
:40	lvs w c	12
21:00	<u>A. rufis</u> at bait	
:10	lvs w c	11
:25	Ar at bait	
:50	lvs w. c	10

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n.b.  
 BAIT #1  
 Cont'd 2 pages  
 ahead

AKP

A nuder's nest ~ 60 cm  
 from bait (hole in dirt)

BAT #2

Colony ~ 10 cm  
 from disc

15:01:30	Pump on disc		P
02:40	1 vs w. C		19
3:15	Pump at bait - contacts C immediately		
4:20	2nd Pump on bait		
4:30	1st Pump vs w. C		18 <sup>P</sup>
4:40	3rd Pump at bait		
4:45	2 <sup>nd</sup> vs w. C		17 <sup>P</sup>
5:10	3 <sup>rd</sup> vs w. C		16
5:30	Pump on disc		L
6:00	Ar d 3 more Pumps		M
6:10	Ar vs w. C (now 3 Pumps)	15	N
6:30	Pump vs w. C	14	O
6:40	Ar on disc - avoids Pumps		P
6:55	3 more Pumps		Q
7:10	Pump vs w. C (now 6 left)	13	R
8:00	Pump vs w. C (12 Pumps on bait)	12	S
8:15	" " " C	11	T
8:35	" " " C	10	U
9:05	" " " C	9	V
6:50	" " " C	8	W
10:30	" " " C	7	X
10:40	Auder on disc - avoids Pumps - vs (now 16 Pumps)		Y
11:40	Pump vs w. C	6	
12:00	Pump vs w. 2 cc	4	
	[7 Pump left] (all gone - missed 4)		
	END		



BAIT #1 - cont'd

25:15 Ar on bait (pretty sure this is same one that left at 27:50 followed it to nest - went in w. casket, immediately emerged, & made beeline back to bait for another)

25:25 Ar lvs w C

28:15 Ar at bait (same one again, I think)  
2nd one at same time

1 lvs. bait carrying 2nd toward nest  
I think carried for has c in jaws ♂

32:15 Ar at bait

33:00 lvs w C

~~Probably left~~  
36:05 Ar at bait

37:10 lvs w. C

37:20 Ar on disc

:30 - contacts C

37:45 lvs w c

40:30 Ar at ~~bait~~ disc

41:00 contacts c

:15 lvs w. C

43:40 Ar on disc

44:00 contacts c

44:15 lvs w c

45:00 Ar on disc

48:15 contacts c

45:30 lvs w c

9

87

6

5

4

3

2

BAIT #1 cont'd  
~~BAIT #3~~

48:30

Ar on disc

49:15

2nd Ar on disc

49:30

1st one contacts bait

49:40

lvs w. C

50:10

2nd Ar lvs w/o c

50:45

Ar on disc

51:05

" lvs.

51:25

Ar on disc

51:40

contacts c

52:20

lvs w c

END

elapsed time = 52:20

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17 May 79

TR#1 area  
Clear, mild, breezy, low humidity  
T ~ 70°F.

Bait #1 25 cm from active Pimp colony\*

Time	Notes	Count
1342:00	T+	
1343:00	1.00 Pimp on bait	
43:45	2nd Pimp	
44:00	1st one leaves, laying odor trail	
45:30	2 more onto bait	
46:45	1 laying odor trail around bait, &	
47:15	thin one leaves	3
48:00	Coarse hole of web issuing from nest	
49:30	L. curvi on disc	
49:45	2 Pimp on disc	4
51:00	Pimps ignore L. curvi, which avoids them.	6
52:00		8
53		14
55		17
57		26
14:00		33
14:04		42
14:11:00		56
14:17		77
26:00		69
31:30		88
31:00		~110
42:00		~100
57:00		125
3:10:00		140

\* This colony has trail going up trunk of 2' diameter tulip poplar ~ 75 cm from nest entrance. At least 50-60' to first foliage

Bait #2 1 m from Pimp nest

Time	Notes	Count	Ar	Pi
1345:00				
48:00	Arcis on disc	1	Ar	Pi
48:30	lvs w/o contacting bait	0		
56:00	Arcis on and off	1		
56:45	Pimp on & off	0		1
14:00:00	1 Arcid.	1		
14:01:30	2nd Arcid	2		
14:01:45	3rd	3		
02:30	2 leave, dragging gasters - odor trail, carrying	1		1
02:45	Pimp on and off	0		0
03:00	3rd Arcid leaves	1		0
03:30	Arcid to bait	0		1
9:10	Pimp on and off	1		0
11:30	Arcid on bait	0		0
14:15	lvs	0		0
14:45	Pimp on & off	0		1
17:45	Pimp	0		1
18:30	2 more Pimp	0		3
:40	2 leave	0		1
20:30	last Pimp lvs	0		0
21:00	Pimp on	0		1
21:15	2nd Pimp	0		2
21:30	Arcid on, Pimp leave - 1 back			
22:00	Arcid snags at Pimp - they spray gaster, Arcid retreats, lvs			

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Bait # 1

23:00  
24:00

Arvids Pimp

0 2  
~~0 2~~

Bait #2 - cont'd

1423:00

24:30

26:00

27:30

29:00

30:00

30:45

32:15

36:00

37:15

38:00

39:00

39:30

42:00

57:00

3:10:00

Pimp

Pimp

Pimp

Pimp

A red on bait - no interactions seen

A red lvs.

1 Arvids on ~~off~~ - circles bait, lvs 1

2 Arvids avoiding Pimp, feeding, A red w.

A red on bait, avoids Pimp

feeds briefly, lvs

Arvid Pimp

2

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22 May. Test of attractiveness of

two particulate bait types -  
sesame seeds and rice grains,  
both sautéed in butter to make  
them more attractive to ants.

Used one of Steve U's 5x5m quadrats  
nr. TR#1. Baited on 1x1m grid,  
for total of 36 baits. ~~24~~ baits  
consisted of disc w. 10 sesame  
seeds, 10 rice grains. 12 had  
only "dry" (uncoated) sesame seeds.  
Periodically patrol baits &  
check out action.

In general, Pimps (by far the most abundant  
species here) incapable of handling  
either grain type - a few sesame  
grains moved, some by pres. of Pseudopis.  
None could move rice grains.

In contrast, even small Anidis could  
carry rice grains unaided; Myrmica  
& A. fulva also had no problem.

Pimp kept trying to move bait, but didn't  
form large mobilizations - generally  
less than 5-6 ants/bait.

overcast, sl. breeze ~ 68°F.

baited at 1450 h

1455 <sup>5</sup>  
~~56~~ Pimps at 5-6. Can't handle either  
sesame or rice

ditto 5-5

ditto 1-5

3-6-~~10~~

1500 Ar & Pimp at 6-4. A <sup>fulva</sup> side  
t+10 drags away rice grain while Pimp  
struggles to get sesame seed. Finally  
Pimp gets sesame; 2nd Ar gets  
rice grain

1507 5-6 - A. m. dragging off  
t+17 sesame seeds (9 left)

1512 ~~46~~ <sup>fulva</sup> A. m. carries off rice (8 left)  
t+22 4-5 Anidis gets sesame grain -  
1517 Pimps unable to lift them  
t+27

5-6 Anidis carries off sesame (6 left)  
Pimp carrying fungus mat

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1520  
t+30

4-6 Ant carries off sesame (3 left)

1524  
t+34

6-5 A fulva drops off rice grain  
(no pimps) - 2 rice left; 6 Ses.

1527  
t+37

#6 A. ~~Ant~~<sup>fulva</sup> drops off sesame  
A nid drops off another sesame  
(1 left + 9 rice)  
(several Pimps + leptotlax on bait)

1531  
t+44

4-6 A. fulva trying to pick up  
last sesame, finally takes  
rice grain (1 sesame, 4 rice left)

5-6 Ant drops off rice  
(0 sesame, 8 rice left)

3-6 no ants present, but all  
sesame gone > 4 rice left.

1540  
t+50

4-6. A fulva carries off rice  
(1 sesame, 3 rice left)

P.  
7  
L

1550  
t+50

Census of grains  
Ses      rice

66      5      8      (A nid w. sesame seed)

56      0      6      (3 lept, 2 Pimps on bait)

46      1      3      A fulva on bait  
trying to pick up ses

36      0      1      no ants

26      10      7      no ants

16      5      9      2 lept

65      9      7      no ants

55      10      10      no ants

45      3      10      no ants

35      9      10      no ants

25      8      8      2 Pimps  
(1 A nid  
w. rice grain)

15      9      10      no ants

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t+70

Census

1600h

		Ses.	rice	ants
66	6-6	0	3	(4 A fulva at bait, 2 are dragging rice gran)
65	5-6	0	2	3 left
64	4-6	0	3	0
63	3-6	0	0	1 A fulva on bait disc
62	2-6	9	7	1 Stenamma at rice
61	1-6	5	6	4 left. 1 Pimp
56	6-5	9	7	0
55	5-5	9	10	0
54	4-5	2	10	1 Pimp
53	3-5	9	10	0
52	2-5	8	8	0
51	1-5	8	10	0

1/1

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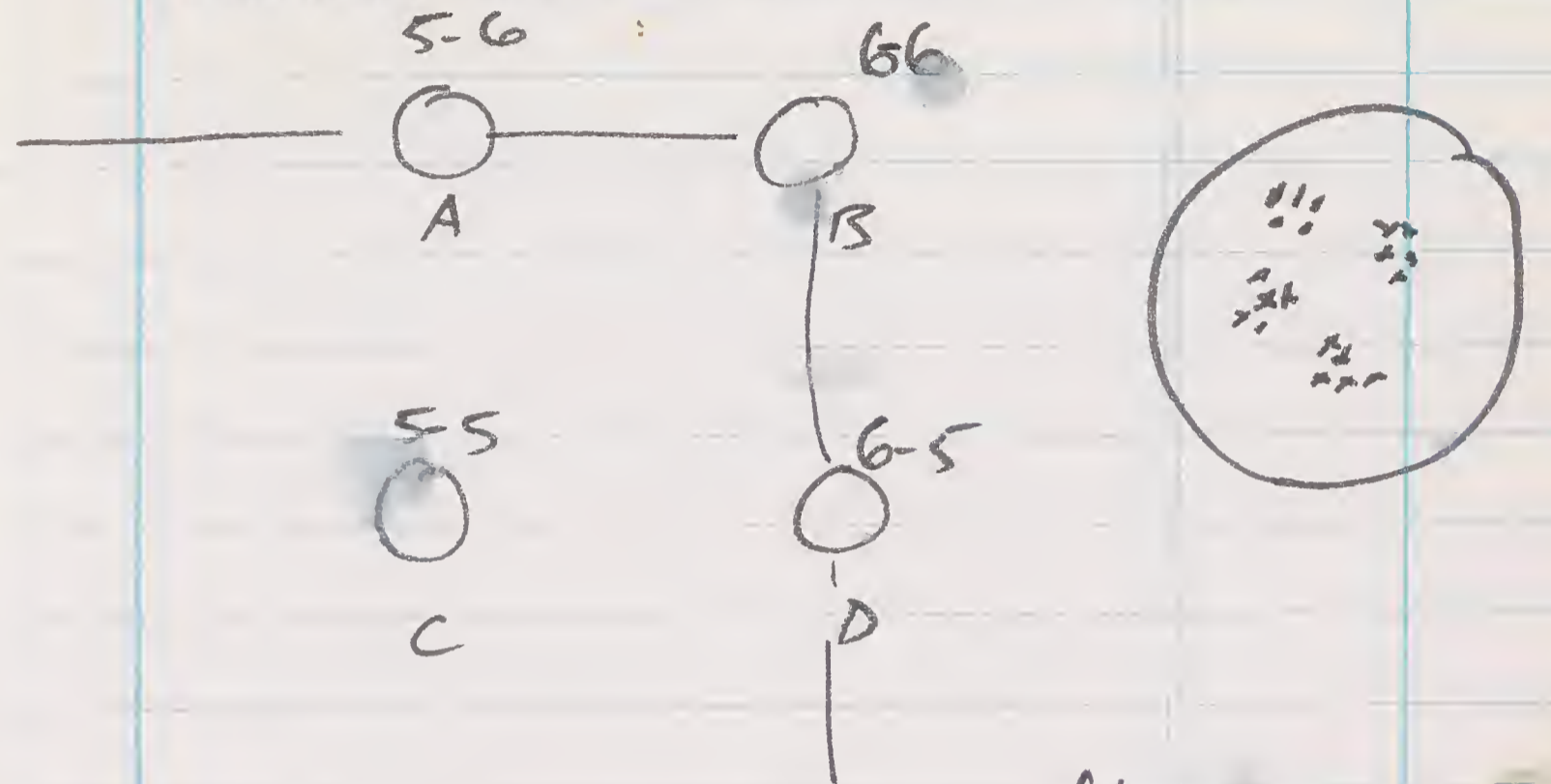
P. mel nest in curled up leaf.  
 (incl. several alate ♀♀)  
 100-200 workers

Fri.  
 24 May

hc. TR #1

Start:  
 14:25 T=19.0°C  
 overcast; ground  
 wet fr. recent rain

Put out 4 baits in same grid as  
 last time - each w. 20 "pinhead" baby  
 crickets. Census every 5 min.



- 3:00 A. fulva & P. imp on disc C. <sup>Full circles, most</sup> A ~~1 vs 100~~  
 touching crickets, but Pi gets one
- 4:15 A finally finds crickets, gets one
- 4:45 Pimp takes cricket from A
- 6:00 A fulv on & off disc C
- 12:15 Pimp gets cricket from C. Has a  
 hard time handling it effectively, but  
 finally carries it off
- 13:45 A ful on bait, C 14:00 - (vs. w. cricket)
- 15:20 Pimp on C - fumbles around, gets help

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Bait A

4:45 Pump finds bait - takes anchor

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24 May

Census

	A	B	C	D
5:00	9	10	8	10
10:00	9	10	8	10
15:00	9	10	7	10
20:00	9	10	6	10

(rain + rat)

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ground T = 18.5°C BAIT #1 - randomly placed  
 air T = 22.0°C - along path

28 May

Vicinity of TE#1 (North Branch)

Baiting experiments with dead tiny crickets  
 (pinheads) - 20 per bait

	1357:00	Start	
0:50	1:57:50	2 Pimp on bait	
1:00	58:00	2 carry off crickets	18
1:30	58:30	1 more carry off	16
1:45	58:45	2 more (15 left)	14
3:30	60:30	2 more at bait (11 left)	11
5:15	02:15	Pump on and off disc	
7:30	04:30	Pump on and off disc	
9:00	06:00	Pump on bait - grabs cricket	
9:40	6:40	1 lvs w. cricket (10 left)	10
12:00	9:00	Pump at bait	
12:10	9:10	1 w cricket (9 left)	9
17:30	14:30	Pump at bait	
18:00	15:00	2 more	
18:30	15:30	1 leaves w. cricket	8 left
19:00	16:00	2 Pimps at bait	
19:45	16:45	1 lvs without cricket	
20:30	17:30	1 lvs w. cricket	7 left
20:45	17:45	Pump curbing bait - lvs.	
25:30	22:30	Pump on and off	
26:30	23:30	Pump on and off	
28:30	25:30	lept. on disc	
29:30	26:30	Pump on disc	
31:00	28:00	Stop	7 left

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28 May

Bait #2 - randomly placed  
 > 1 m apart

elapsed time			
	1357:00	start	18 <sup>4</sup> left
2:30	59:30	2 Pimp on bait avg off cricket	18
2:45	1:05	2 more Pimp + <u>left</u> at bait	
3:15	0:15	2 leave w. cricket	16
4:30	61:30	1 at bait (+ left.)	
4:45	1:45	leaves w. cricket	15 left
5:30	2:30	2 Pimp on and off disc. <u>left</u> smuggling to left wicket	
6:15	3:15	Pimp on bait, struggling to grasp cricket	
6:45	3:45	leaves w. cricket (left still struggling)	14 left
8:15	5:15	Pimp arrives quickly lvs. w. cricket	
9:30	6:30	Pimp on bait - lvs w cricket (left still struggling)	13 left
10:40	7:40	Pimp on & off disc.	N
12:00	9:00	Pimp on bait at wicket	O
12:20	9:20	lvs w. cricket	P
12:25	9:25	Pimp on bait	12 left
12:55	9:55	lvs w cricket	11 left
13:30	10:30	Pimp at bait	R
13:45	10:45	lvs. w cricket	10 left
15:15	12:15	Pimps at bait	T
15:25	12:25	lvs w cricket	9 left
16:30	15:30	Pimp at bait	U
18:45	18:45	lvs w cricket	V
21:00	18:00	2 Pimp at bait	W
21:15	18:15	3 <sup>rd</sup> Pimp	X
21:20	18:20	1 lvs w cricket	8
			7

4  
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 15 left  
 14 left  
 13 left  
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elapsed time

19:00	22:00	1 lvs. w. cricket	5 left
19:30	22:30	Pump at bait - cricket left	
19:45	22:45	Pump lvs w. cricket	4 left
20:00	22:50	Pump on bait	
20:30	23:30	lvs w. cricket	3 left
21:00	24:00	left bait	
21:45	24:45	2 Pump discarding bait - w. without cricket	
22:00	25:00	2 Pump at bait 1 leaves w. cricket	
23:15	26:15	Pump lvs w. cricket (left still there)	2 left

24:15	27:15	Pump on bait - pulls cricket away from left	
24:30	27:30	Pump lvs w. cricket	1 left
25:00	28:00	pump at bait when approached - left lvs still pulls in legs & antennae	
26:45	29:45	2 Pumps on disc	
26:55	29:55	1 lvs w. cricket	0 left

$\Sigma$  time = 29 min, 55 sec

28 May BAIT # 3

			# left
14:32:00	START		
2:00	34:00	Pump at bait	
	34:30	leaves w. cricket	20
	35:00	Pump at bait - circles & leaves w. cricket after contacting bait	20
	35:30	Pump at bait - checks out several diff crickets, circles, leaves w. cricket	20
	38:00	Pump at bait	
6:30	38:30	lvs w. cricket	19
	42:30	Pump on disc	
10:30		lvs w. cricket	18
	51:00	Pump at bait	
19:30	51:30	lvs w. cricket	17
	52:15	Pump on bait - lvs w. cricket within 5 sec	16
20:15			
	56:30	A. tuda on bait - lvs within 5 sec w. cricket	15
	24:30		
	59:00	A. nid on disc - circles lvs w. contacting bait	15
	43:00		
	15:00	<u>STOP</u>	

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28 May Bait #4

cont'd

14:32:00 START

Crickets  
# left

36:30	Pump on disc	
37:30	2nd Pump	
<sup>6:15</sup> 38:15	1 vs w. cricket (other still there)	19
41:30	2nd Pump on disc - 1 vs again	
43:00	2nd Pump on disc	
<sup>11:15</sup> 43:15	1 vs. w cricket	18
43:20	one on and off (now 1 left)	
45:30	2nd on disc (now 2)	
<sup>14:30</sup> 46:30	one has been messing w. cricket all along both have w/o cricket	18
47:30	2 Pump on disc, 1 immediately forwards cricket	
<sup>16:15</sup> 48:15	1 vs w. cricket	17
48:25	2nd vs. w/o bait	
51:00	Pump on and off disc	
53:00	Pump at bait	
<sup>21:15</sup> 53:15	1 vs w cricket	16
54:20	2 Pump on disc	
55:00	3rd Pump	
<sup>23:15</sup> 55:15	1 vs w cricket	15
25	1 vs w/o cricket	15
<sup>23:30</sup> 55:30	1 vs w cricket	14
56:15	2 Pump on disc	
<sup>24:30</sup> 56:30	1 vs w. cricket	13
57:00	Pump arrives (now 2)	
57:15	1 Pump 1 vs w cricket (1 left)	12
<sup>25:15</sup> 57:15		

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Time	Activity	# left
26:15		
58:15	Pump lvs w cricket	11
59:30	3 Pump on bait	
40 27:40	1 lvs. w. cricket	10
60:00 28:00	1 lvs w cricket	9
60:10 28:10	1 lvs w cricket	8
60:15	2 Pump	
3	3 rd Pump	
28:30	1 lvs w cricket	7
28:50	1 lvs w cricket	6
29:00	1 lvs. cricket	5
61:05	2 Pump lv	#3
61:20	104 lvs. w cricket	<del>2</del>
30:00	5 on	
62:00	2 lv w crickets	1
30:45	(5 on disc)	
	2 lvs lvs w cricket	0
	(5 left on disc)	
	End	
	TOTAL ELAPSED TIME : 30:45 <sub>m</sub> sec	
	ants continue to build up on MT bait. at 65:00 there were 12 9-12 ants at disc for several more minutes The colony entrance is about 30 cm from bait	

### BAIT #5

Start 15:18:00

Time	Activity	# crick left
15:15	1 Pump on & off	20
20:00	2 on bait	
2:15	1 lvs w cricket	19
20:15	A red on	
27:15	lvs w cricket	18
4:25	Pump lvs w cricket	17
25:30	Ant on and off	
26:00	Pump on & off	
8:05	A red at bait lvs w cricket	16
26:30	2nd A red on & off	
8:50	1st one lvs w cricket	15
26:50	Pump at bait	
27:00	Pmel	
27:15	A red (now 1 of each sp)	
27:20	Pmel lvs w cricket	14
10:00	A red lvs w cricket	13
10:15	Pump lvs w cricket	12
28:15	(2 more Pump now on bait)	
10:30	1 Pump lvs w cricket	11
11:00	1 Pump lvs w cricket	10
29:00	2 Pump on bait	
12:25	1 lvs w cricket	9
30:00	A red at bait	
12:55	Pump lvs w cricket	8
30:55	A red lvs w cricket	7
13:15		

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13:30	Pump on bait	
14:00	Pump on bait	
14:45	Pump lvs w. cricket	6
14:45	Pump lvs w. cricket	5
15:30	Pump on bait	
15:35	lvs w. cricket	4
15:45	Pump at bait	
15:45	lvs w. cricket	3
16:00	Pump at bait	
16:30	2nd Pump at bait	
18:45	1st Pump lvs w. cricket	2
19:00	2nd Pump lvs w. cricket	2
19:15	Pump at bait	
19:45	Pump lvs w. cricket	1
38:00	Arid on disc - lvs	
38:10	Pump on disc	
38:15	Pump on & off	
38:50	Pump, Arid, Arid all on disc	
39:30	Pump lvs w. cricket	0
21:30		

END

Σ time = 21m 30 sec

Bait #6 *P. imparis*  
colony ~ 15 cm away  
15:18:00

17:30	Pump on bait	
17:40	lvs w. cricket	18
18:20	3 on	
18:30	1 lvs w. cricket	18
20:00	1 on	
21:10	1 lvs w. cricket (2 left)	17
21:15	1 lvs w. cricket (1 left)	16
21:30	1 lvs w. cricket (2 left)	15
3:00	1 lvs w. cricket (3 left)	14
3:30	1 lvs w. cricket (4 left)	13
4:00	2 lvs w. cricket	11
4:10	1 lvs w. cricket	10
4:15	1 lvs w. cricket	9
4:45	1 lvs w. cricket	8
5:00	1 lvs w. cricket	7
5:30	3 lvs w. cricket	4
5:50	1 lvs w. cricket (3 left)	3
6:45	1 lvs w. cricket (3 left)	2
7:30	1 lvs w. bait	1
8:15	1 lvs w. bait	0

Σ time = 48m 15 sec

P  
Q  
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X  
Y



Clear, breezy

30 May -

23.5 air  
14.5 ground

baiting trials w. 20 Pinhead  
crickets on plastic disc. Set at  
random along path w. TR # 1

real elapsed BAIT #1 \* Start 13:35

real	elapsed	activity	count
41:30	6:30	Pump on and off disc	20
42:00	7:00	Pump on and off disc	
43:00	8:00	Pump at bait	
43:45	8:45	1vs. laying over trail	
44:00	9:00	Pump on and off	20
46:45	11:45	Pump at bait	
47:00	12:00	1vs. w. cricket	19
48:30	13:30	Pump on disc	
48:45	13:45	1vs w/o cricket	19
50:30	15:30	Pump on	
51:50	16:50	1vs w. cricket	18
52:30	17:30	Pump on & off disc	
54:30	19:30	Pump on and off disc	
55:30	20:30	Pump on disc & off	
58:30	23:30	Pump on & off	
59:30	24:30	Pump on disc	
59:40	24:40	1vs w cricket	17
60:00	25:00	Pump on and off	
1:45	26:45	Pump at bait	
2:10	27:10	1vs w cricket	16
3:10	28:10	Pump on disc	
3:20	28:20	off	16
3:30	28:30	2 on disc	
3:40	28:40	both off - 1 w. cricket	15
4:15		Pump at bait	
4:25	29:35	1vs w cricket	14

\* 40 can from

Pump  
along

P  
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Y



1335 start

BAIT #1 - cont'd

6:15	3:15	Pump on disc	
6:25		off	
6:30		on - approaches bait	
6:40		3 more on - all approach bait	
7:15		1 lvs w cricket	13
7:20		2 more lvs w cricket	11
9:10		Pump on & off disc	
10:15		Pump approaches bait	
1:30		2nd Pump " " "	
1:40		3rd Pump	
1:50		1st one leaves w cricket	10
1:55		other 2 lvs w/o cricket	
12:00		Pump approaches bait	
1:10		1 lvs w cricket	9
14:00		3 pumps at bait	
1:10		1 lvs w cricket	8
1:45		1 lvs w cricket	7
15:10		1 lvs w cricket	6
15:30		Pump at bait	
16:10		1 lvs w cricket	5
16:10		2 pumps at bait	
16:20		1 lvs w cricket	4
16:30		Pump at bait	
17:00		1 lvs w cricket	3
17:20		3 Pump on disc	
17:45		1 lvs w cricket (2 left)	2

30 May - cont'd

BAIT #2

START 13:35:00

10:30	3:00	Pump at bait w cricket	# left
39:30			19
45:00		Pump at bait	
45:20	16:20	lvs w cricket	18
52:00		1 cricket on & off disc	
60:00		Pump on disc - approaches bait - struggles to pick up cricket	
01:50	26:50	1 lvs w cricket	17
11:15		Pump at bait, Pmel at bait	
11:35	36:35	Pump lvs w cricket	16
		Pmel still there, struggling w cricket	
14:15		Pmel lvs w/o cricket	
25:15	50:15	Pump takes cricket	15
31:00		2 pumps at bait	
34:25	59:25	1 lvs w cricket, other w/o	14
40:00		<u>STOP</u>	
18:30		1 approaches bait - struggles w it	1
19:00		1 lvs w cricket (2 Pump left on disc)	
20:00		1 lvs w cricket (3 Pump left)	0
		<u>END</u>	

Q  
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BAIT #3

START 14:28:00

47:00  
:15

A ruidison ~~10~~  
carries off cricket

19

1500

STOP

Q  
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Y



Bait #4

1.2 m from  
Dimp colony

START: 14:43:00

elapsed time

46:00	Pump on & off disc		20
46:30	Pump at bait		
47:15	1 vs w. cricket	4:15	19
47:40	Pump at bait		
:55	1 vs w cricket	4:55	18
48:30	2 Pump s at bait		
48:40	1 vs w cricket	5:40	17
49:00	2nd 1 vs w. cricket	6:00	16
49:10	2 Pump on & off disc		
50:00	Pump on disc - to bait		
50:15	1 vs w cricket	7:15	15
50:20	Pump at bait		
50:40	1 vs w. cricket	7:40	14
51:30	Pump at bait, 2nd on disc		
52:10	1 vs w. cricket	9:10	13
52:45	Pump at bait		
53:00	1 vs w. cricket	10:00	12
53:15	Pump on disc		
:20	contacts bait		
:30	1 vs w cricket	10:30	11
54:30	Pump at bait		
:40	1 vs w cricket	11:40	10
:50	2 Pump at bait		
55:	2 1v w bait	12:00	8
55:30	1 1v w cricket	12:30	7
55:40	1 vs w. cricket	12:50	6

Q  
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BAIT #5 Colony at 1 m.

1502:00

56:00	13:00	1 lvs w cricket	5
56:15		Pump at bait	
56:40	13:40	lvs w cricket	4
57:30		Pump at bait	
57:40	14:40	lvs w cricket	3
57:50		Pump on & off disc	
58:00		Pump " " "	
58:40		1 Pump at bait, 2 on disc	
59:00	15:50	lvs w cricket	2
		(2 Pups left)	
59:30		now 3 Pumps on disc - &	
59:50		1 cricket w cricket	
60:00	16:00	lvs w cricket	1
60:10	16:10	2nd lvs w cricket	0

END

2:05	2:45	Pump at bait - carries off pup	19
3:05		Pump at bait	
04:00	2:50	carries off cricket	18
04:15	2:45	Pump at bait - carries off cricket	17
5:15		Pump at bait	
5:15	3:25	carries off cricket	16
7:15		Pump at bait	
7:45	5:45	lvs w cricket	15
7:50		Pump at bait	
8:10	6:10	lvs w cricket	14
9:20		Pump at bait	
9:50	7:50	lvs w cricket	13
10:00		Pump at bait	
10:10		Pump at bait (new 2)	
10:30	8:30	1 lvs w cricket	12
10:40	8:40	2nd lvs w. Cricket	11
10:50	8:50	3rd lvs w cricket	10
11:00		Pump at bait	
11:10	9:10	lvs w cricket	9
11:30		Pump at bait	
11:40	9:40	lvs w cricket	8
11:55		2 Pump on disc - one to bait	
12:00	10:00	lvs w cricket	7
12:10		Pump at bait	
12:50	10:50	lvs w cricket	6
13:40		Pump at bait	
14:00	12:00	lvs w cricket	5

Q  
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BAIT #6 Colony 15m

Start: 15:14:00

15:14:40	Pump at bait	
15:15:00	1 vs w cricket	4
15:30	Pump at bait	
15:40	2 more on disc (now 7)	
15:50	1 vs w cricket	3
16:15	Pump on disc	
16:55	contact bait	
17:10	3 <sup>rd</sup> Pump on disc - contact bait	
17:15	1 vs w cricket	2
17:25	2 <sup>nd</sup> vs w cricket	1
17:45	3 Pump on disc -	
18:00	one contacts bait (now 4)	
18:20	1 vs w cricket (now 3)	0

End

18:40	4:40 Pump at bait - take cricket	19
19:15	5: " " "	
19:40	5:40 " " "	18
20:10	6 Pump at bait	
20:25	6:25 1 vs w cricket	17
21:15	Pump at bait	
21:30	7:30 1 vs w cricket	16
22:10	8:10 Pump 1 vs w cricket	15
23:10	Pump at bait	
23:20	9:20 1 vs w cricket	14
23:40	Pump at bait	
24:30	A redie on a off disc	
25:00	11:00 Pump 1 vs w cricket	13
25:30	Pump at bait	
25:50	11:50 1 vs w cricket	12
25:55	Pump at bait	
26:15	12:15 1 vs w cricket	11
26:25	Pump at bait	
26:40	12:40 1 vs w cricket	10
26:55	2 Pump at bait	
27:20	13:20 1 vs w cricket (now 2 pump)	9
27:40	13:40 2 vs w crickets	7
27:50	A redie on disc - avoids Pump + leaves	
28:10	Pump at bait	

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1530h air 21.5  
ground 21.5

14:30	28:30	Pump 1/5 w cricket	6
	28:50	Pump on disc	
16:20	29:30	2 Pump on disc (now 3)	5
	30:20	1 1/5 w cricket	
	31:15	4 Pump at bait	
17:25	31:55	1/5 w cricket	4
18:25	32:25	1/5 w cricket (now 2)	2
18:40	32:40	1/5 w cricket (now 2)	1
	33:20	Pump at bait (2 more water)	
19:30	33:30	1/5 w cricket	0

End

30 May 79

Note: Ed van Britin transect  
1. At 50m station, C. pennsylvan-  
icus & P. imparis disputing bait.  
No doubt as to victor - P. imparis

No match for C. pen - no dead  
P. imparis at baits - crushed by  
C. pen. Major C. pen workers  
seen to patrol periphery of baits -  
which are not so responsive to  
other ants.

A. rudis in area - no interactions  
noted - watched one A. rudis  
itself among C. pen w/o response.

- Ants active today:
- P. imparis - v. abund.
  - P. nul. - common
  - L. curv. - v. common
  - A. rudis - common.
  - C. penn. - 1 colony seen
  - C. terr. - common - nr. road

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N.B.

4 June (cont'd) (BAITS #1 & 2 on pages before start of '79 notes)

elapsed			
	17:20	Bait #3 - 15:16:00 Pump on disc - quickly approaches bait	
2:45	18:05	1 vs. w. c	19 Pump
	22:00	P. mel. on bait	
6:00	22:20	1 vs w. c	18 P mel
	22:25	P. imp at bait	
	28:25	<del>P. mel</del> P mel at bait	
	30:30	Pump 1 vs. w c	17 Pump
	33:30	P. imp at bait	
17:40	33:40	1 vs w. c (P. mel still at bait, struggling to pick up c)	16 Pump
	38:00	P mel still at bait trying to pick up c	
	44:00	2nd P mel on disc - 1st one still there	
	48:00	1 vs. w/o c	
	49:00	2nd vs w/o c	
	56:30	P mel on disc	
	56:40	1 vs w/o c	
	16:00:00	P mel on disc	
	:01:15	1 vs w c	15 Pump
	18:30	P mel at bait - struggles to pick up several diff. cc	
	18:35	1 vs w c	14 P mel
	25:40	Pump on bait	
	35:05	1 vs w.	13 Pump

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Bait # 3 - cont'd

1635:30 P mel on bait - contacts cc immediately  
 37:30 Pump on bait - starts to drag off c,  
 Then drops it & runs quickly away  
 55:00 SW 4 13 left

BAIT # 4

20 pin heads

4 June  
 (cont'd)

15:55:00 - start

#cc  
 left

redel time elapsed T

1607:15

M. punct. at bait

1607:40 12:40

1 vs w c

19

166:20

L. curv. on bait - moves to c to e  
 trying to pick them up - no luck

26:30

V. imp. on disc

40

contacts c, moves to another,  
 then 3rd, 4th, etc. doesn't

30:30

[L. curv. - curv. do]  
 fully pick up but tries  
 Pump 1 vs w/c cricket  
 (L. curv. still at bait)

35:00

~~at bait~~

45:00

L. curv. still at bait

47:00

2nd L. curv. - fighting  
 w. 1st - one move to other  
 side of disc

52:40

Arudis on bait

53:30

1 vs w c

18

(still 2 L. curv. sp.)

55:00

~~STOP~~

~~18 cc~~

(2 L. curv. at bait)

54:30

Pump at bait

55:00

Pump 1 vs w c

17

STOP at 1 hour

S  
 T  
 U  
 V  
 W  
 X  
 Y



BAITING trials - 20 pinhead crickets. Hazy sunshine, breezy, soil damp from previous rain. Pimp actively foraging  $T_A = 21.0^\circ\text{C}$

5 June

11:15:00 START  $T_G = 18.5$

elapsed		Notes		
7:20	22:30	BAIT #1 Pimp on disc goes immediately to C	Pimp colony ~ 1 m away	
7:30	23:30	lvs w. c	19	Pi
	23:35	Pimp on bait		
13:35	35:35	lvs w c	18	Pi
		looks like 1. Hle phalanx of Pimps approaching bait fr. direction this Pimp is heading		
	1130:00	Pimp on bait		
15:10	1:10	lvs w c	17	Pm
	32:25	Pimp on and off disc quickly		
	36:20	Pimp on disc - goes to bait quickly		
22:05	37:05	lvs w/c	16	Pi
	38:00	Ar on disc - off again w/o contacting cc		
	39:20	Pimp on disc - goes right to cc		
25:00	40:00	Pimp lvs w. c	15	Pm
	41:00	Ar on bait		
26:20	42:20	lvs w c	14	Ar
	47:00	Ar on bait		
27:10	48:10	lvs w/c	13	Ar
	49:00	Pimp		
	49:10	Ar		
34:20	49:20	Ar lvs w c	12	Ar
34:30	49:30	Pimp lvs w c	11	Pm

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Time	Event	Count	Elapsed
50:00	Pump on bait	Pi	
50:10	lvs w c	10	35:00
51:20	Ar on bait	Ar, Ar	
51:35	lvs w. 2CC	8	36:35
53:30	Pump & Ar arrive at same time	Pi	
53:50	Pump lvs w c	7	38:30
54:00	Ar lvs w 2 cc	5	38:30
54:00	Pmel arr	Ar, Ar	
54:25	Pmel lvs w c	4	39:25
<del>54:30</del>			
54:30	Pump on disc		
54:40	Ar on disc	Ar	
54:55	Ar lvs w c	3	44:55
60:20	Pmel on disc	Pi	
60:30	Pump lvs w c	2	45:30
61:15	Pmel lvs w/o conta		
62:40	Ar on disc	Ar	
62:50	lvs w/c	1	47:50
65:00	Ar on disc - circling edge		
65:45	Pump on disc	Pi	
67:10	lvs w c (one other Pump on disc)	0	

End

Pump, Ar, Pmel, M, Punct all seen foraging in vicinity of baits

5 June Ar colony ~ 90 cm fr. bait

BAIT # 2 11:55:00 Start

Time	Event	Count	Elapsed	# crickets left
17:15	Ar on disc -			
17:40	carries off c			19
19:00	Ar on disc			
19:10	off w/o c			
20:20	Pump on disc			
20:35	contacts c - moves from one to another, circles entire disc, seem			
22:40	Ar on disc			
22:50	lvs w c			18
	(Pump still cruising around disc)			
23:10	Pump lvs w/o c			
24:00	Pump on disc - goes directly to cc			
24:30	lvs w/o c			
26:40	Ar on disc goes right to cc			
27:00	lvs w c			17
	(Pump on disc)			
27:45				
30:40	Pig lvs w/o c			
31:00	Ar on bait			
31:10	lvs w c			16
32:10	Pump back on disc			
33:30	2nd Pump on disc			
34:30	Ar on disc			19
34:40	lvs w c			15
35:40	1 Pump lvs w/c			
38:10	Ar on disc			

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# 2 - cont'd

38:15	Ar lvs w c	14	23:15
40:10	Ar on boat		
40:15	lvs w c	13	25:15
43:50	Ar on disc		
	2 <sup>nd</sup> Ar " "		
44:00	1 <sup>st</sup> lvs w c	12	29:00
44:20	3 <sup>rd</sup> Ar on disc		
44:30	2 <sup>nd</sup> one lvs w c	11	29:30
44:45	3 <sup>rd</sup> one lvs w. c	10	29:45
47:20	Pump on disc		
48:00	2 Ar on disc - one		
	avoids pump when contacted		
48:15	Ar lvs w c	9	33:15
48:50	2 <sup>nd</sup> Ar lvs w/o c (now just Pump)		
51:40	2 Ar		
52:20	Ar lvs w. c	8	37:20
	Other lvs w/o c (still Pump here)		
52:50	Ar back - on disc - goes to boat		
53:20	lvs w 2 cc	6	38:20
55:50	Ar at boat		
56:10	lvs w c	5	41:10
56:50	Ar on boat		
58:15	lvs w c	4	42:15

# 2 - cont'd

57:30	Ar on disc		
58:40	lvs w c	3	42:40
59:55	Ar on disc		
60:05	Ar lvs w c	2	45:05
61:00	Ar on disc		
61:10	Contacts c		
61:20	lvs w c	1	46:20
61:30	Ar on disc		
61:40	lvs w c	0	46:40

END

T  
U  
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W  
X  
Y



\* note - many Pumps involved in raid on Myrmica nest in litter - probably made them less responsive to baits

elapsed  
11:30  
3:00  
03:15  
7:55  
10:30  
14:15  
14:40  
22:10  
23:45  
23:55  
24:55  
25:00  
26:20

6 June 79  
react  
09:51:30  
09:53:00  
09:53:15  
57:45  
:55  
11:02:15  
:30  
02:45  
03:15  
04:10  
4:15  
4:40  
11:55  
12:10  
13:20  
13:40  
14:45  
:55  
:55  
14:45  
:50  
14:55  
15:10  
16:02  
16:20

Ar on off disc w/o contacting c  
Pump on disc - Immed. grabs c  
Pump lvs w c  
Pump on disc - directly to c  
lvs w c  
Pump on disc  
lvs w c  
Myrmica on disc  
contacts c  
~~Ant~~ Myrmica  
12<sup>th</sup> lvs w c  
13<sup>th</sup> lvs w c  
Pump on disc - gradually to c  
lvs w c  
teeny rudis on disc  
Myrmica on disc  
rudis lvs w c  
Myrmica lvs w c  
Pump on off disc  
larger rudis on disc  
Pump on disc  
rudis lvs w c  
Pump lvs w c  
small rudis on disc  
lvs w c

cc left  
19  
18  
17  
16, 15  
14  
13  
12  
11  
10  
9  
8

clean but hazy, still fairly humid  
air = 21.0°C  
ground = 20.0°C  
20 p. heads  
Pump colony at 400m  
Myrmica colony ~ 400m  
START AT 09:50

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Part #1 - cont'd

17:50	Pump on disc	7	elapsed
18:10	1 vs w/c		
18:30	2 Myrmica - one 1 vs w/c		28:10
18:50	2nd 1 vs w/c	6	28:50
20:00	Pump on and off		
20:15	Myrmica on		
20:20	2 Pumps on		
	1 attacks Myrmica - sprays it, decap 4 off		
20:40	1 vs w/c	5	30:40
20:50	2nd 1 vs w/c ; <del>3rd 1 vs w/c</del> 4	4	30:50
20:10	<del>3rd 1 vs w/c</del>		
22:15	Myrmica on and off		
24:00	Myrmica on and off		
25:30	Pump on disc		
26:00	1 vs w/c		
26:10	Pump on disc - 1 vs w/c		
26:20	tiny <u>tubis</u> on disc		
27:00	contacts C		
27:45	1 vs w/c	3	37:45
27:40	Pump and Myrmica on disc		
	<del>Pump 1 vs w/c</del>		
28:15	Myrmica contacts		
28:20	1 vs w/c	2	38:20
28:50	Pump 1 vs w/c	1	38:50
030:45	A tubis		
31:15	1 vs w/c	0	41:15
	END		

Myrmica nest ~ 1 m (or a little more)

Continue 79

BAIT #2

START 0950

elapsed T

56:15	Ar on disc		
1:20	contacts C		
1:50	1 vs w/c	6:50	19
10:50:15	M. pun on disc - goes directly to C		
1:40	1 vs w/c	10:40	18
10:06:00	Myrmica on disc		
6:35	1 vs w/c	16:35	17
08:15	M. on disc		
09:00	1 vs w/c	19:00	16
10:11:30	Pump on disc - goes directly to C		
12:25	1 vs w/c	22:25	15
12:30	Myrmica on disc - goes directly to C		
12:1			
13:15	2nd Myrmica		
14:10	1st 1 vs w/c	24:10	14
1:15	2nd w/c	24:15	13
19:00	Myrmica goes directly to C		
19:20	1 vs w/c	29:20	12
22:00	Myrmica on disc		
22:50	1 vs w/c	32:50	11
23:00	Myrmica		
24:05	1 vs w/c	34:05	10
	(NB - at 27:00 a 1st pinhead was tipped onto bait)		

T  
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W  
X  
Y



Bait # 2 - Cont'd

28:15	Myrmica		
38:35	1 vs w/c	9	
31:20	Myrmica		
41:30	1 vs w/c	8	
33:10	Myrmica		
43:10	1 vs w/c	7	
35:10	1 vs w/c		
38:30	Myrmica		
38:35	2nd Myrmica		
39:05	A ruder		
49:10 (2)	Myrmica WS with 2 cc	6.5	
39:10	A ruder 1 vs w/c	4	
49:20	A ruder 1 vs w/c	4	
39:20	A ruder 1 vs w/c	4	
49:25	2nd Myrmica WS w/c	3	
39:35	2nd Myrmica WS w/c	3	
41:40	Myrmica - picks up & drops 2cc		
53:25	1 vs w/c	2	
43:25	1 vs w/c	2	
43:35	Myrmica		
55:45	1 vs w/c	1	
45:45	1 vs w/c	1	
47:30	Myrmica		
1:40	A ruder		
58:00	48:00 ruder 1 vs w/c	0	

End  
 elapsed T = 58:00 min.

BAIT # 3 <sup>Ar colony in rotten branch ~80cm from bait</sup>

1035 START

44:50	A ruder on disc	elapsed T	
44:55	2nd A ruder		
45:00	1 vs w/c	10:00	19
45:10	2nd 1 vs w/c	10:10	18
49:30	Ar on disc		
49:45	1 vs w/c	14:45	17
54:00	Ar		
54:15	1 vs w/c	21:15	16
<del>54:20</del>			
56:45	Ar		
57:10	1 vs w/c	22:10	15
57:30	Ar goes directly to c		
1:30	1 vs w/c	22:30	14
58:10	Ar on end of disc		
1:00:15	Ar		
1:00:25	1 vs w/c	25:25	13
1:04:10	Ar		
1:04:20	1 vs w/c	29:10	12
1:04:15	Pump on disc		
1:05:30	1 vs w/c	29:30	11
1:06:10	Ar on disc		
1:07:20	1 vs w/c	31:20	10
07:20	Ar		
07:30	1 vs w/c	32:30	9
08:00	Pump - goes directly to cc		
08:20	1 vs w/c	33:20	8

U  
V  
W  
X  
Y



#3 - cont'd

08:50	Arudeis		
09:05	ivs w/c	34:05	7
13:00	Arudeis		
13:15	Ar ivs w/c	38:15	6
15:00	Ar		
15:08	ivs w/c	40:08	5
21:00	Ar		
21:10	ivs w/c	46:10	4
			↓ probably same ant
25:10	ivs. same hole in log		
27:23	Arudeis		
27:50	ivs w/c, leaves, returns	52:50	3
28:20	1/3 hr from log		
29:35	reaches		
30:55	enters same hole as before		
33:45	Ar andisc		
34:25	ivs w/c		
35:00	Pump on & off		
37:00	Ar		
37:15	ivs w/c	62:15	2
41:00	Ar on & off		
1150	<u>STOP</u>		2 left

Oreobird, Cuckoo calling  
 Barred owl whistled by grackles  
 BART at 4

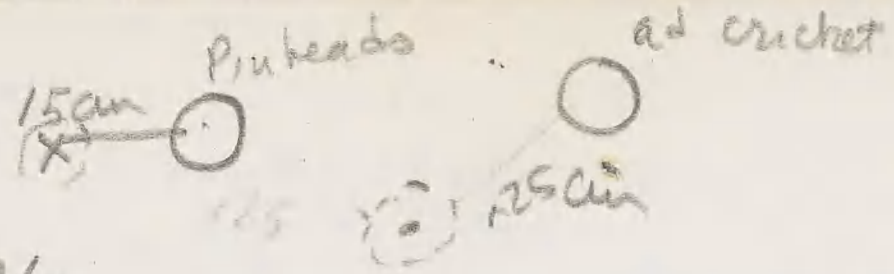
1053:00 START

~~11:15 Ar andisc~~ 19  
 11:25 STOP - no activity  
 (4 arches removed by  
 11:45 - at least 1 by Arudeis  
 ↓ L. curvispinosus andisc)  
Arudeis seen among 5 min. holes

air T = 24°C  
 ground T = 22.5°C

U  
 V  
 W  
 X  
 Y





2 Pump colonies .25 m away

$T_g = 26$

$T_a = 28.5$

#1 - 50 Pin heads

1:10	Pump on & off disc	
2:15	Pump on disc - contacts CC	
4:00	1st w/c	49
4:45	Pump on and off disc	
6:10	Pump on disc - contacts bait	
6:20	1st w/c	48
6:30	Archie	
6:50	1st w/c	47
8:10	Pump	
8:15	Pump	
8:40	1st w/c	46
9:00	2nd w/c	45
9:40	Archie on disc	
10:00	1st w/c	44
10:50	2 radii	
11:10	1st w/c	43
11:15	2nd w/c	42
11:20	Pump + Pmel on disc	
11:35	Pmel 1st w/c	41
11:50	2nd Pump	
12:30	1st Pump 1st w/c	40
12:50	3rd Pump on disc	
13:00	2nd w/c	39
13:20	3rd w/c	38
14:10	Pump	
1:20	1st w/c	37

U

V

W

X

Y



14:30	A redis	36
14:35	1 vs w/c	
15:00	Pump at bat	
15:20	1 vs w/c	35
15:40	Pump	
15:50	1 vs w/c	34
16:00	Pump	
16:10	1 vs w/c	33
16:30	Pump 1 vs w/c	32
16:45	4 Pumps on bat	
16:55	2 1 vs w/c	31, 30
17:30	Pump 1 vs w/c (now 5 at bat)	29
17:40	P 1 vs w/c	28
17:55	" "	27
18:30	3 1 vs w/c	26, 25, 24
18:40	1 1 vs w/c	23
19:00	1 1 vs w/c	22
19:30	4 1 vs w/c	21, 20, 19, 18
19:40	4 " "	17, 16, 15, 14
20:00	2 " (now 7 at bat)	13, 12
20:45	2 1 vs w/c	11, 10
21:15	2 1 vs w/c	9, 8
	(now 6 Pump, 1 Currier)	
21:30	2 1 vs	7, 6
22:10	2 W	5, 4
22:15	1 vs	3

20:12 - #1  
 22:40 - 1 vs w/c 2  
 23:10 1 vs w/c (now 1  
 23:30 1 vs w/c (10 Pump) 0  
 END #2 - Large cricket  
 Pump colony .25 m away

5:30	Pump on and off disc	
7:30	A red on and off disc	
9:00	A red on disc - checks out Cricket thoroughly	
9:30	1 vs.	
13:45	A red on disc	
14:30	1 vs.	
15:20	Pump at cricket - check	
16:10	A red ; Pump 1 vs	
19:00	3 pumps arrive - A reds flees	
20:00	4 Pump + 2 A red	
22:10	12 Pump	
24:00	17	
26:00	27 + 1 A red (chased off)	
28:00	~40 Pump real time = 10:40	
33:00	~45 Pump 10:45	
43:00	40-45 Pump 10:55 (cricket abandoned at 44:00)	
53:00	~60 Pump 11:05	
73:00	~50 Pump 11:30	
83:00	~55 Pump 11:35	

U  
V  
W  
X  
Y



Times of Pupa on  
lg cricket bait (#2)

78 s no contact w. bait

46 s "

---

1:30 make contact

1:33 " "

5:00 + (still on after 5 min) contact

5:00 + " " "

2:30 contact

2:33 "

1:28 "

3:28 "

5:00 + "

4:12 "

U  
V  
W  
X  
Y



tree w/ C. Penn nest

1320h

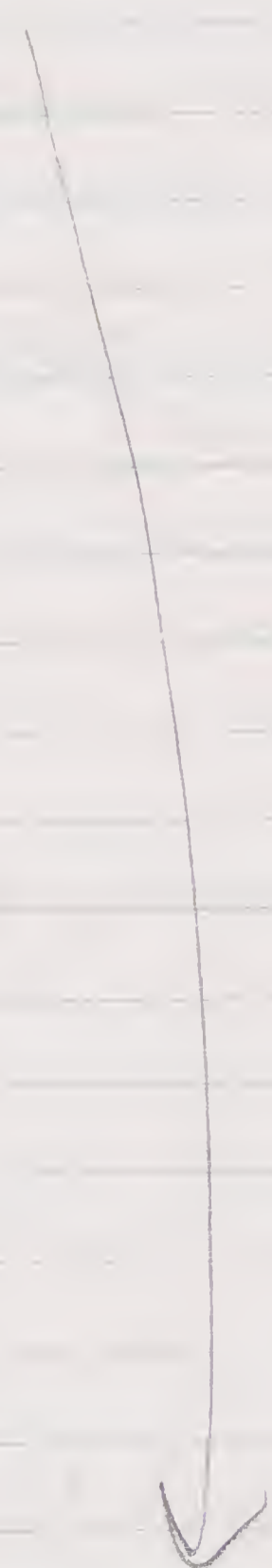
Bait #3 1g cricket

- 0:40 C pen w at cricket
- 1:00 lvs
- 1:30 Arudis on disc - lvs w/o contacting C
- 1:40 F. subsericea on disc - tries to drag C - can't do it
- 2:00 Arudis on disc - immediately contacts C (F sub still on it)
- Arudis - eggs at cricket
- F sub chases Arudis
- 3:20 C pen w at cricket
- 4:15 Arudis lvs, F sub lvs
- 4:45 F sub back on bait
- 4:55 Arudis at bait
- 5:20 little group of 5 C. penn come down tree trunk together - go directly to bait - F sub & Arudis flee. These must have been recruited by w which left at 1:00.
- 6:15 more C pen - now 9
- 6:40 2 more now 11 (incl. several majors)
- workers attempt to cut off chunks of cricket rather than dragging it
- 9:00 now 8 C pen at C

7 June 1320h

Bait #4 - 50 Pinheads

- 7:30 <sup>mine</sup> C pen on disc - beg. no chewing on cc
- 7:45 lvs w cricket - goes up tree 49
- 8:10 C pen at bait - chewing on cc



Cont'd

U  
V  
W  
X  
Y



#3

12:38 C. pen major cuts off head of  
cucklet & carries it up tree  
(5 C pen left on C)

16:00 6 C pen at cucklet - none  
have left since major w/ head

19:15 1/15 w/o any cucklet chunk -  
flies back up tree

19:20 C pen joins group (now 6)

20:05 major arrives from other bait

24:00 7<sup>th</sup> C pen arrives

24:15 8<sup>th</sup> " " "

~~24:20 9<sup>th</sup> " " "~~

C penn, C neotenus, A nedis, P imp, P mel, F sub,  
all common and active  
L. longisp.

#4

an = ground = 27.5

12:20 C pen 1/15 w. 3 cc (Missing  
1 antenna) 46

12:45 2 C penn

:50 1/15 w e 45

13:30 C 1/15 w 2cc 43

16:10 C pen on di's

16:15 1/15 w e 42

17:10 C pen w. missing ant. back at bait  
chewing on pin heads

17:40 2nd C pen at bait  
1 1/15 w/o cucklet

18:15 missing ant. one 1/15 w 2cc 40

19:10 C pen

19:35 2nd C pen (major)

19:50 1<sup>st</sup> C pen 1/15 w 2cc 3

20:00 Major 1/15 - goes to other bait

21:30 broken ant. back

:40 1/15 w 2cc 36

23:00 C pen

23:15 1/15 w 2cc 34

24:00 missing ant. arrives - frantically  
picks up a number of cc's

24:20 1/15 w/o e

V  
W  
X  
Y



#3 - cont'd

26:20	1 lvs w. piece of cricket	
28:40	1 lvs (now 5)	
28:30	C pen on <del>at 1/2</del>	
28:40	1 lvs w. leg of cricket (now 5)	
30:20	#6 C pen	
:30	1 lvs w. leg	
32:15	1 lvs w. piece of C (now 4)	
33:00	finally have moved C just off disc (now 3)	
33:50	#4 arrives	
34:30	#5 arrives	
36:15	#6 arrives to other part	
36:20	3 more on (now 9)	
40:10	minor lvs w. lg chunk of C (now 8)	

#4 - Cont'd

30:40	1 C pen	
30:50	lvs w 2 cc	32
31:40	C pen on d off	
32:00	C pen	
32:10	lvs w c	31
32:40	1 C pen	
32:45	lvs w/c	30
32:50	1 C pen	
:58	lvs w c	29
35:40	Major C arr, most of several cc, lvs w/o taking any	
36:10	returns, lvs again goes to other part	
37:20	C pen minor arr	
37:30	lvs w 2 cc	27
38:45	C pen on d off	

W  
X  
Y



Hcy - cont'd

63:20 1 lvs w lg chunk of c  
 (now just 1 med sized piece  
 left - remnant of abdomen)  
 3 cpen on it - 3-4 more mby.

65:00 lg major picks up last chunk  
 and carries it up tree.

61:50	2	2
62:30	1 lvs w c	21
63:20	2 more cpen	
63:40	1 lvs w c, 1 w/o (1 left)	20
65:20	1 vs. w 2 cc	18
65:30	cpen on disc	
65:45	too w/o c	
67:20	cpen	
67:40	1 vs w <u>3</u> cc	15
70:00	cpen	
70:08	1 vs w 2 cc	13
71:30	cpen	
73:35	1 vs w 2 cc	11
77:00	<u>STOP</u>	11 cc left

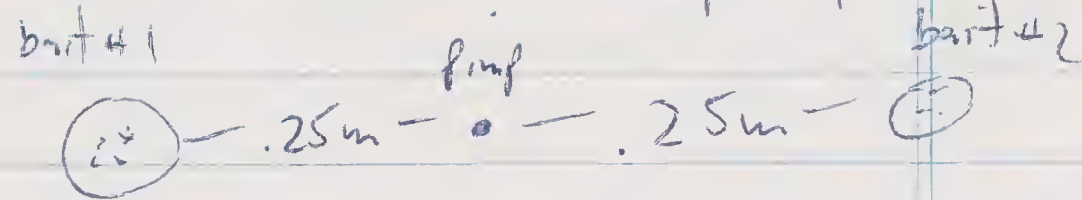
X  
Y



22 June 79  
North Branch

90% cloud cover TA 22.0  
hot + humid TG 21.0  
start 10:30

2 baits each with 50 pinhead crickets.  
approx .25m from pimp colony opening



All Pimps removed from bait # 2

	bait # 1	bait # 2
1:15	○	1 Pimp removed
2:40	○	1 Pimp removed
3:00	1 Pimp on disc	○
3:15	Pimp takes C	○
5:20	○	1 Anolis takes C
5:30	○	1 Pimp removed
7:40	Afulva on/off with C	○
7:45	1 Pimp on disc	○
7:50	Pimp takes C	○
10:00	○	○
15:00	○	○
15:15	1 Afulva on disc	○
15:40	Afulva takes 2 Cs	○
17:00	○	1 Pimp removed
20:00	2 Pimps on disc	○
20:15	Both Pimps take Cs	○

cont.

	bait # 1	bait # 2
21:00	○	1 Leuru
21:20	1 Pimp on disc	"
22:00	1 Pimp on disc	"
22:10	Pimp takes C	"
22:40	1 Pimp on disc	Afulva off with C
22:50	Pimp takes C	1 Leuru
23:00	○	Leuru Leaves
23:20	Afulva takes C	○
24:30	Pimp on disc	○
	(more Pimps in area)	
24:40	Pimp takes C	1 Pimp removed
24:45	2 Pimps on disc	
24:50	1 Pimp takes C	○
	now 1 Pimp on disc	
25:15	3 Pimps on disc	○
25:20	Pimp takes C	○
	2 Pimps on disc	
	(approx 20 Pimps in area)	
25:40	"	Afulva takes C
26:00	3 Pimps + 1 Afulva on disc	○
26:05	Afulva takes C + 1 Pimp takes C	
26:15	2 Pimps take Cs now	○
	5 Pimps on disc	
26:40	2 More Pimps take Cs	1 Pimp removed
	30 CRICKETS Remain	

X  
Y



bait # 1

bait # 2

bait # 1

bait # 2

27:00 3 Pimps take 3 C's

1 Lcuv + 1 Pnel on disc

35:00

~18 Pimps on disc  
0 crickets left.

1 Pnel + 1 Lcuv

28:00 7 Pimps on disc  
2 leave with C's

Pnel takes C

28:30 ~12 Pimps on disc  
C's going fast!

1 Lcuv

END

29:00 } In one minute  
30:00 } 9 pimps entered disc  
& 6 left. 5 pimps leaving  
had C's.

1 Pnel on disc

36:00

36:15

36:30

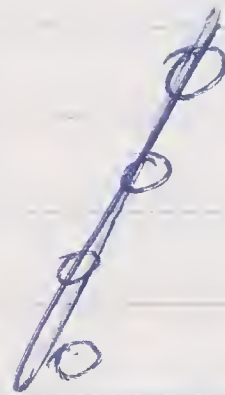
36:40

Pnel took C

2 Pnel on disc

Pnel takes C

Other Pnel take C



30:30 15 Pimps on disc  
3 leaving with C's

Pnel takes C  
another Pnel  
on disc

Bait # 2 cont

31:00 7 C's remain

Pnel takes C

37:00

1 Afulva + 2 Pnel on disc

31:30 13 Pimps on disc

O

37:10

Afulva takes C

' 3 Take C's

37:20

Pnel takes C, still 1 Pnel on disc.

32:00 16 Pimps on disc

1 Pnel

37:40

Another Pnel on disc (2 Pnel)

1 C remains

38:00

Pnel takes C

33:00 14 Pimps on disc

Pnel takes C

38:30

Now 35 C's remain

1 Cricket left

39:00

O

33:30 Pimps avoiding last C

O

39:45

1 Pnel on disc

34:00 1 Cricket left.

39:50

2 Pnel on disc

~ 15 Pimps on disc

40:00

1 Pnel takes C

34:30 I removed last C &  
replaced it with another.  
with 5 sec it was gone

40:15

3 Pnel on disc

40:40

1 Pnel takes C

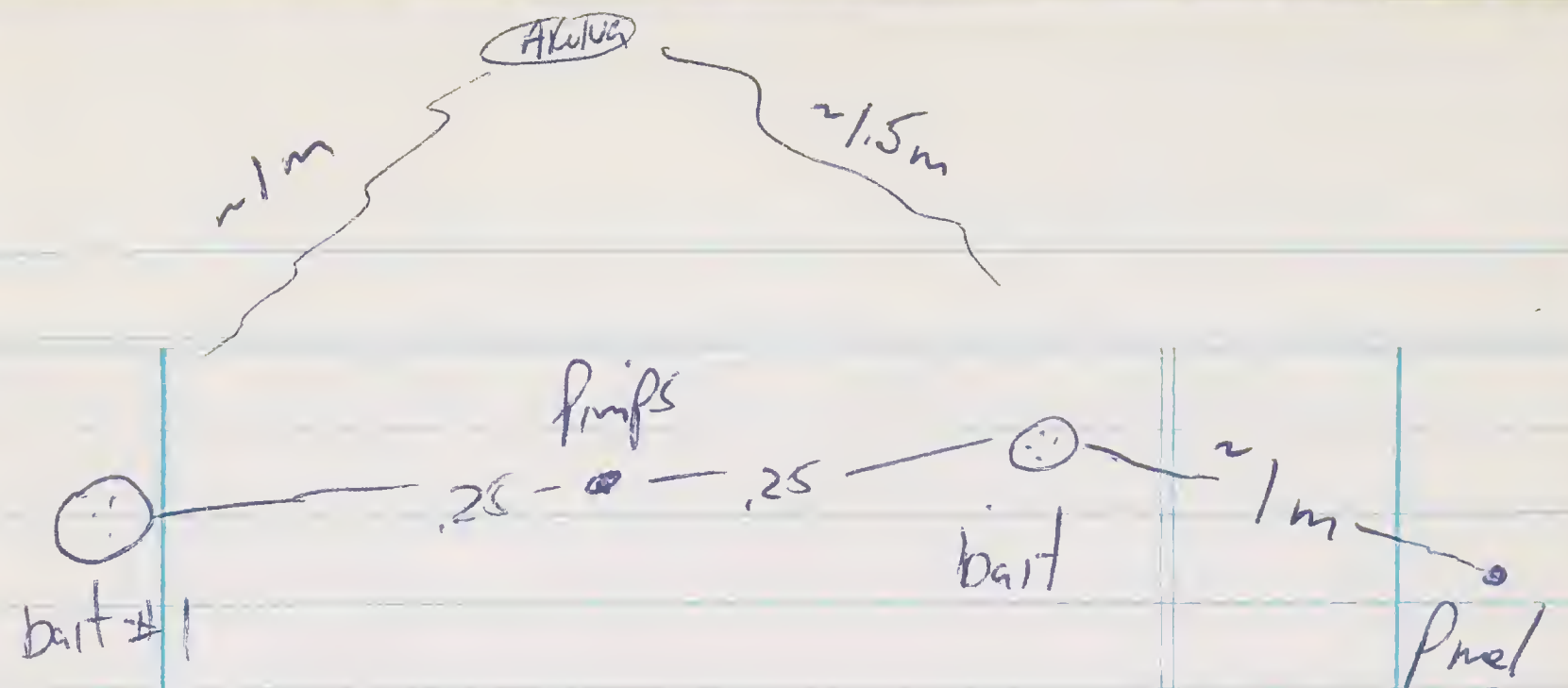
cont

X  
Y



part # 2 cont.

41:00	2 Pnel on disc
41:30	Pnel takes C
41:45	1 Pimp removed - 1 Pnel on disc
42:00	Pnel takes C
43:00	0
43:10	1 Afulva on disc - show off with 2 Cs
44:15	1 Pnel on disc
44:30	Pnel takes C
45:15	1 Pnel on disc
45:20	Pnel takes C
46:00	0
49:20	1 Pnel on + off with C
52:00	1 Pnel on disc
52:25	Pnel takes C
53:00	1 Pnel on disc
53:10	2 Pnel on disc
53:15	1 Pnel takes C
54:00	Pnel takes C
58:20	1 Afulva on + off with C
59:15	1 Pnel on disc
59:35	Pnel takes C
60:00	0
	21 crickets remain



Pnel coming from 1 meter to the right & down hill from disc, Afulva coming down hill to disc's.

70:00	2 Pnel on disc
	17 crickets remain
82:00	1 Pnel & 1 Afulva on disc
	13 crickets remain
88:00	2 Pnel on disc
	10 crickets remain
91:00	1 Pnel on disc
	9 crickets left

END

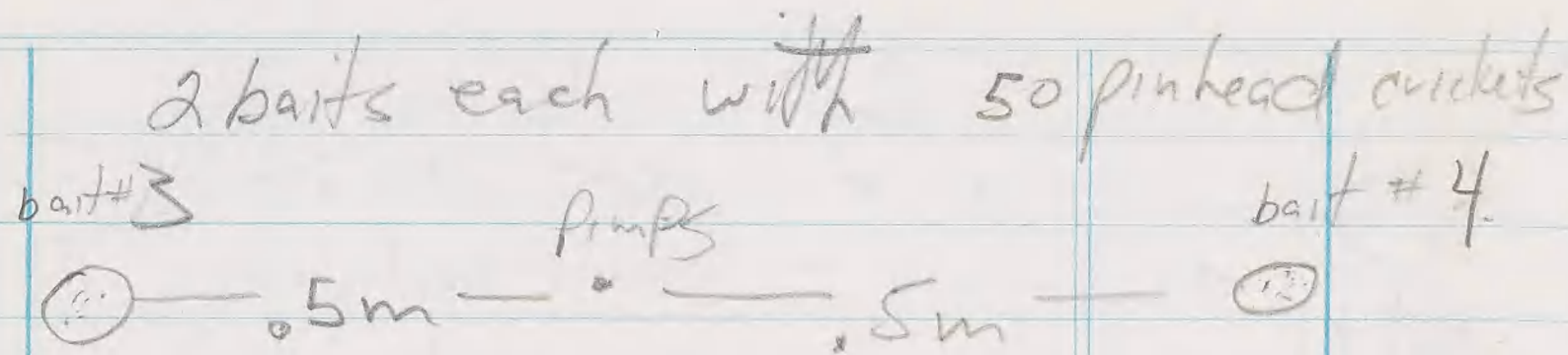


1330 HRS

North Branch  
22 June 79

sunny hot humid

TA 25°  
TB 24°



All Pimps removed from bait #2

	bait #3	bait #4
3:00	1 Andis on + off with C	○
5:00	○	○
6:40	○	1 Leuru on disc
8:20	○	Leuru leaves disc
10:00	○	○

Pimps appear to be cleaning out colony opening & not foraging

16:20	○	1 Andis on disc
16:30	○	Andis takes C
19:15	○	1 Andis on disc
19:20	○	Andis takes C
25:00	1 Pmel on disc	○
25:20	Pmel takes C	○
28:00	○	○
30:00	○	○
31:30	1 Andis on + off with C	○

cont

bait #3

bait #4

36:20	○	1 Pimp removed
41:00	○	1 Pmel on disc
41:10	○	Pmel takes C
46:00	1 Andis on disc	○
46:05	Andis takes C	○
47:15	1 Andis takes C	○
54:00	1 Andis on disc	○
54:10	Andis takes C	○
59:30	○	1 Pmel on disc
60:00	○	1 Pmel on disc
60:15	○	Pmel takes C

END

44 crickets

46 crickets remain

Remain

Pimps not going .5m from nest opening.

X  
Y

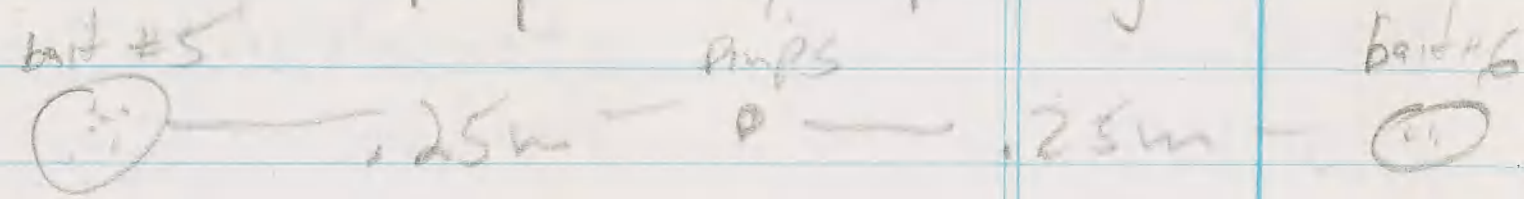


22 June 79  
1530 HRS  
North Branch

sunny, hot + humid TA 25.5  
slight breeze TG 24.0

2 baits each with 50 pinhead crickets

~25m from pimp colony opening



All Pimps removed from bait #5

Bait #5

Bait #6

Time	Bait #5	Bait #6
1:00	1 Pimp removed	1 Pimp + 2 Ants on disc
1:15	1 Pimp removed	1 Ant + 1 Pimp take CS
1:45	0	1 Ant takes C
1:50	0	1 Pimp on disc
3:00	0	Pimp still on disc
3:10	0	3 Pimps on disc
3:20	0	1 Takes C
3:40	0	4 Pimps on disc
4:00	0	2 Pimps take CS 5 Pimps on disc Pimp from 1:50 still on disc
4:30	0	5 Pimps + 1 Ant on disc. 2 Take CS
5:00	0	(Ants chased without C)
5:20	Ants take CS	9 Pimps on disc
6:00	0	* Ants take C 3 Pimps take CS

cont

Time	Bait #5
7:00	0
7:40	0
8:00	0
8:30	0
9:00	0
10-11	0

11:30	0
12:00	0
12:50	0
13:30	0
15:00	0

cont.

~10 Pimps many walking around on disc + not taking CS  
4 leave with CS  
17 Pimps on disc  
30 crickets remain  
21 Pimps on disc  
5 carrying CS

In one minute  
19 Pimps left disc  
(10 carrying CS) and 13 entered disc

18 Pimps on disc  
~12 crickets remain  
~22 Pimps  
7 crickets remain  
~20 Pimp on disc  
3 crickets

All crickets gone  
still ~20 Pimps on disc  
~25 Pimps now on disc

END

At 20 minutes  
~30 Pimps on disc

X  
Y



bait #5

21:00 1 Pimp removed  
 24:30 1 Arudis on disc  
 25:10 Arudis finally takes C  
 30:00 ○

At 30 minutes stop  
 Removing Pimps from disc

33:00 1 Pimp on disc  
 33:15 Pimp takes C  
 35:00 Pimp with C entered colony opening  
 35:00 1 Arudis on disc  
 Arudis ran his antennae over 6-8 pinhead crickets & finally takes one at 35:30  
 35:45 1 Pimp takes C  
 36:00 1 Pimp on disc  
 36:40 Pimp takes C  
 39:00 1 Pimp on disc  
 39:10 Pimp takes C  
 40:10 1 Pimp on disc  
 41:10 Pimp takes C  
 41:30 2 Pimps on disc  
 41:40 1 Pimp takes C

bait #5 cont.

\* A 12 min bait #6 has 9 Pimps on disc

bait #5

42:00 1 Pimp on disc & 1 Arudis entered. Arudis was carrying a small object, dropped it, picked up 1 cricket and left  
 44:00 2 Pimps on disc  
 44:05 Both Pimps leave with CS  
 44:30 1 Pimp on disc pimp takes C  
 44:40 Pimp takes C  
 45:00 2 Pimps on disc  
 45:20 1 Pimp takes C  
 46:00 35 crickets remain  
 46:30 3 Pimps on disc & a large group of ants now coming towards bait  
 46:40 2 Pimps take CS  
 48:00 3 Pimps on disc  
 48:10 1 Pimp takes C  
 48:30 5 Pimps on disc  
 49:00 3 Pimps leave with CS  
 49:30 8 Pimps on disc  
 50:00 12 Pimps on disc  
 4 leaving with CS = 6  
 ending disc  
 cont.

X  
Y



but #5

50:45 ~15 Pimps on disc  
17 Cs remain

51:00 15 Pimps on disc  
5 taking Cs.

52:00 20 Pimps on disc move  
in area. A steady line  
now going in and out  
of opening.

53:00 20 Pimps on disc  
3 Cs remain

53:45 All crickets gone  
Pimps all over disc  
~25 Pimps

END



