

CBCES ANTS

1977

7530-00-222-3521

FEDERAL SUPPLY SERVICE

(GPO)

James F. Lynch
CBCES
Smithsonian Institution
Rt. 4, Box 622
Edgewater, MD 21037
phone: 798-4424
or 261-4190

26 February

WT

Transect #1

Thin overcast
Mild ($\sim 60^\circ$)
Sl. breeze

Checked Elnik recorder to make sure
it's functioning. Seems OK

No ant activity

Some wolf spider, flies active

Chipmunk active in bottom of transect

Ran Elnik BSC-6 temp. recorder
at transect #1 for 3 days to
test out machine. Monitored
temp. at depths of 0.5m and 0.25m
below surface, at surface, inside a
log, and in air at 5'. Underground
temps. were identical & virtually
invariant over 3 day period (less
than 1°C . change) - no freezing.
Surface temp. was highest & most
variable. No ants active at
this time.

5 March - Warm, sunny day in 60's.
Paul Opler informed me that ants
(undoubtedly Prenolepis imparis) are
swarming at Belt Woods today.

7 March CBCE3 - Ed Balinsky saw
a few Prenolepis down under leaf litter
while we was setting mouse traps.

Clear, warm (~70-75°F.), H. breeze

11 March 1:30 PM TRANSECT #1

First big mating flight of Prevolopsis
Thousands of alates (99% ♂♂) - all
lq. trees have swarms. ♀♀ actively
biting at alates on ground and on
small prominences where ♀♀ tend to get
hung up. Intense ♂♂ competition
for females - several ♂♂ almost
invariably attack ♀ as she crawls full
speed up tree trunk (or on ground) -
They often fall off her in a tangled pile -
often she "escapes" altogether. As many
as 10 ♂♂ grasping 1 ♀.

Workers actively prevent ♂♂ from mating w.
♀ on ground - grab ♂♂ & carry them off.
Seemingly protect ♀. ♂♂ extremely fast
& agile - much more so than workers. Females
slow - never seem to fly.

Ed climbed Decid to height of ~
30' - could see to nearly 50' -
♂♂ still swarming on trunk. At
least 1 ♀ seen at 30' on adjacent
hickory.

active colony of Aphekaris (Felton?)
under log, but not active at surface.

dead alate C. castaneus ♀ under
log nr. road.

11 March

Soil Moisture - TR #1

| | knotted | unknot |
|-----|---------|----------|
| 50m | 9.0 | 9.0 |
| 45 | 9.0 | 9.0 |
| 40 | 9.0 | 9.0 |
| 35 | 9.25 | 9.25 |
| 30 | 9.25 | 9.25 |
| 25 | 9.25 | 9.25 |
| 20 | 9.25 | 9.25 |
| 15 | 9.25 | 9.25-9.5 |
| 10 | 9.25 | 9.25 |
| 8 | 9.25 | 8.75 |
| 6 | 9.50 | 9.25 |
| 4 | 9.5 | 9.25 |
| 2 | 9.25 | 9.25 |
| 0 | — | — |

✓ 11 March

Baiting TR #1

Set out 1 PM
checked 2:30 PM

| | Sugar | Tuna |
|------------------|---------------------|-----------------------------|
| 50 | 0 | 0 |
| 45 | 0 | 2 ♂ <u>Prenolepis</u> |
| 40 35 | 2 <u>P. imparis</u> | 30 <u>P. imparis</u> w, 1 ♂ |
| 30 | 0 | 6 <u>P. imparis</u> |
| 25 | 6 <u>P. imp</u> | 1 <u>P. imp</u> |
| 20 | 1 <u>P. imp</u> | 11 <u>P. imp</u> |
| 15 | 0 <u>P. imp</u> | 18 <u>P. imp</u> |
| 10 | 6 <u>P. imp</u> + ♂ | 2 <u>P. imp</u> |
| 8 | 0 | 1 <u>P. imp</u> |
| 6 | 0 | 0 |
| 4 | 0 | 0 |
| 2 | 0 | 0 |
| 0 | 0 | 0 |

TOTALS: 1 species, 13 occurrences
86 ants

PC, moderate breeze
 T_{ground} = 19.0°C Start 1:30 PM
 T_{air} 19.0°C pickup 3 PM

| 14 March | TR # 8 | SF |
|------------------|--------------------------|---|
| <u>Sta.</u> | <u>Trwa</u> | <u>Sugar</u> |
| 58 | 0 | 0 |
| 48 56 | 0 | 0 |
| 46 54 | 0 | 0 |
| 44 52 | 0 | 0 |
| 42 50 | 0 | 0 |
| 48 | 0 | 0 |
| 46 | 0 | 0 |
| 44 | 0 | 0 |
| 42 | 0 | 1 T. sessile coll |
| 40 | 3 <u>A. treatae</u> coll | 5 <u>P. melanderi</u> 4 <u>T. sessile</u> coll |
| 38 | 0 | 0 |
| 36 | 0 | 6 T. sessile |
| 34 | 1 T. sessile | 10 T. sessile |
| 32 | 3 T. sessile | 0 |
| 30 | 1 T. sessile | 0 |
| 28 | 0 | 0 |
| 26 | 0 | 0 |
| 24 | 3 T. sessile | 0 |
| 22 | 0 | 0 |
| 20 | 1 <u>M. minimum</u> | 0 |

total: 4 species, 11 occurrences
T. sessile, P. melanderi, A. treatae, M. minimum

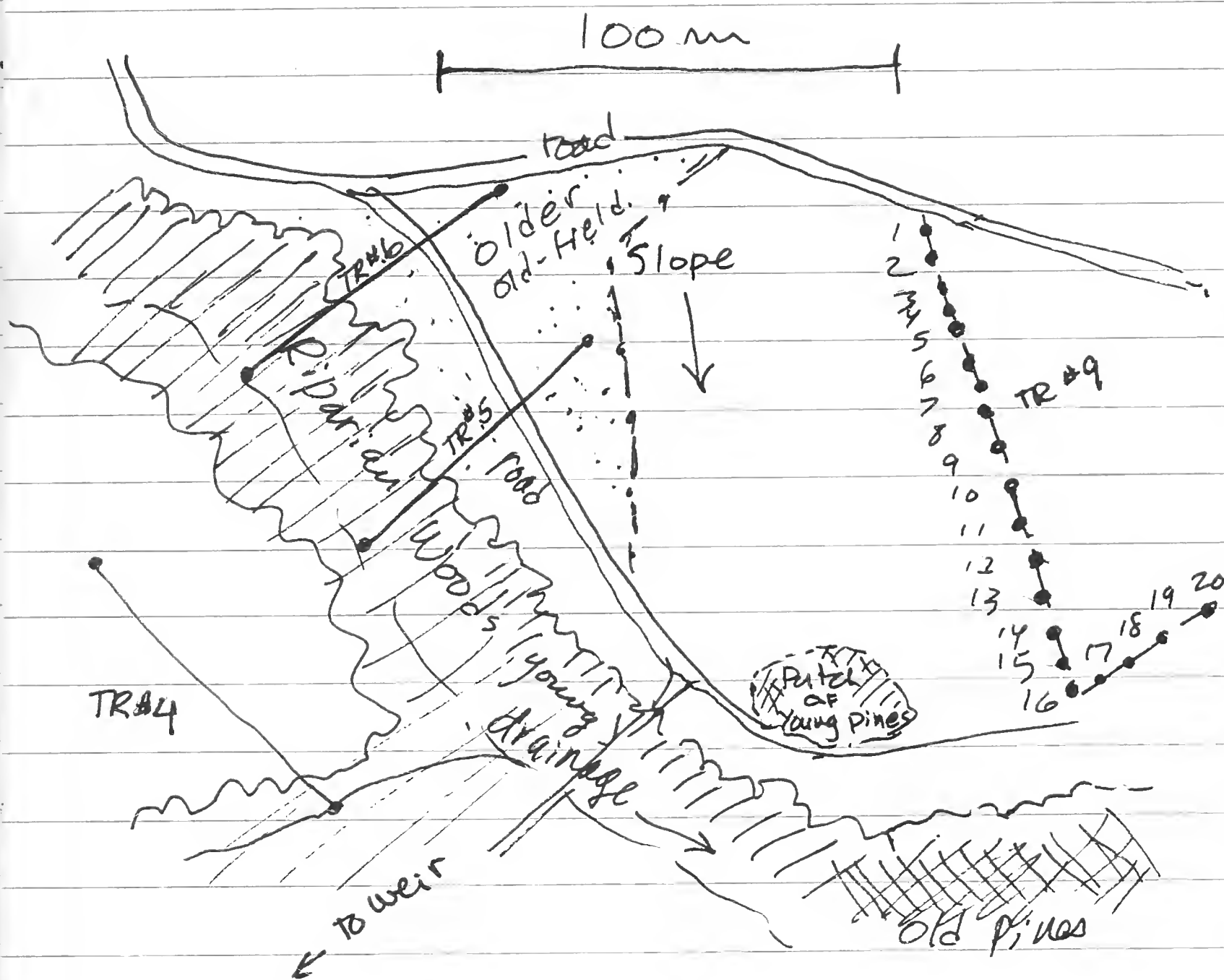
34 ants

$$\begin{array}{r} 150 \\ 150 \\ \hline 7500 \\ 150 \\ \hline 22,500 \text{ m}^2 \end{array}$$

$$\begin{array}{r} 100 \\ 100 \\ \hline 10,000 \end{array}$$

Sketch Map of
 TRANSECT # 9
 Stevens Farm, CBCES

20 stations (2 baits each) @ 10 m
 intervals. E length = 200 m.



total area of field is
 approximately 2.5 hectares.

16 March
 13:30 hrs

Sunny, clear, moderate \rightarrow br. sk wind
 vegetation dry

Ed & I laid out transect # 9 in the lower
 Stevens field. This is an old-field
 that was in corn until Fall 1975,
 and has been fallow since that time.
 Compared to other Stevens field sites,
 this one is much younger (others
 abandoned 5-6 yrs ago), has
 lower vegetation dominated by several
 species of grasses; Composite rosettes
 (aster spp, black-eyed susan, etc.)
 also common. Fair amount of bare
 ground between individual plants,
 but no large bare patches.
 Mosses comm. on soil.

Evident ant activity low - an
 occasional Formica pallidifurva
 & M. minimus were all we saw as
 we laid out baits. Set this transect
 up like # 7 and # 8 - 20 stations
 at 10m intervals, each with a
 pair of baits (tuna & sugar syrup).

We also ran standard 14 sta. transect at
 TR# 5 (riparian and old-field 60 yr.)

✓
16 March

started: 13:45 hrs

checked:

transect #9 Stevens Field

Sta.

Tuna

Sugar

1

○ (+ Hemipr.)

○

(1 *F. pallidiflora*
seen nearby)

2

○

○

3

○

○

4

○

○

5

○

○

6

○

○

7

○

○

8

1 M. minimum

○

9

○

○

10

○

○

11

○

○

12

3 Lasius niger? coll

○

13

○

○

14

○

○

15

○

○

16

○

○

17

○

○

18

○

○

19

○

○

20

16 March ✓

TR #5

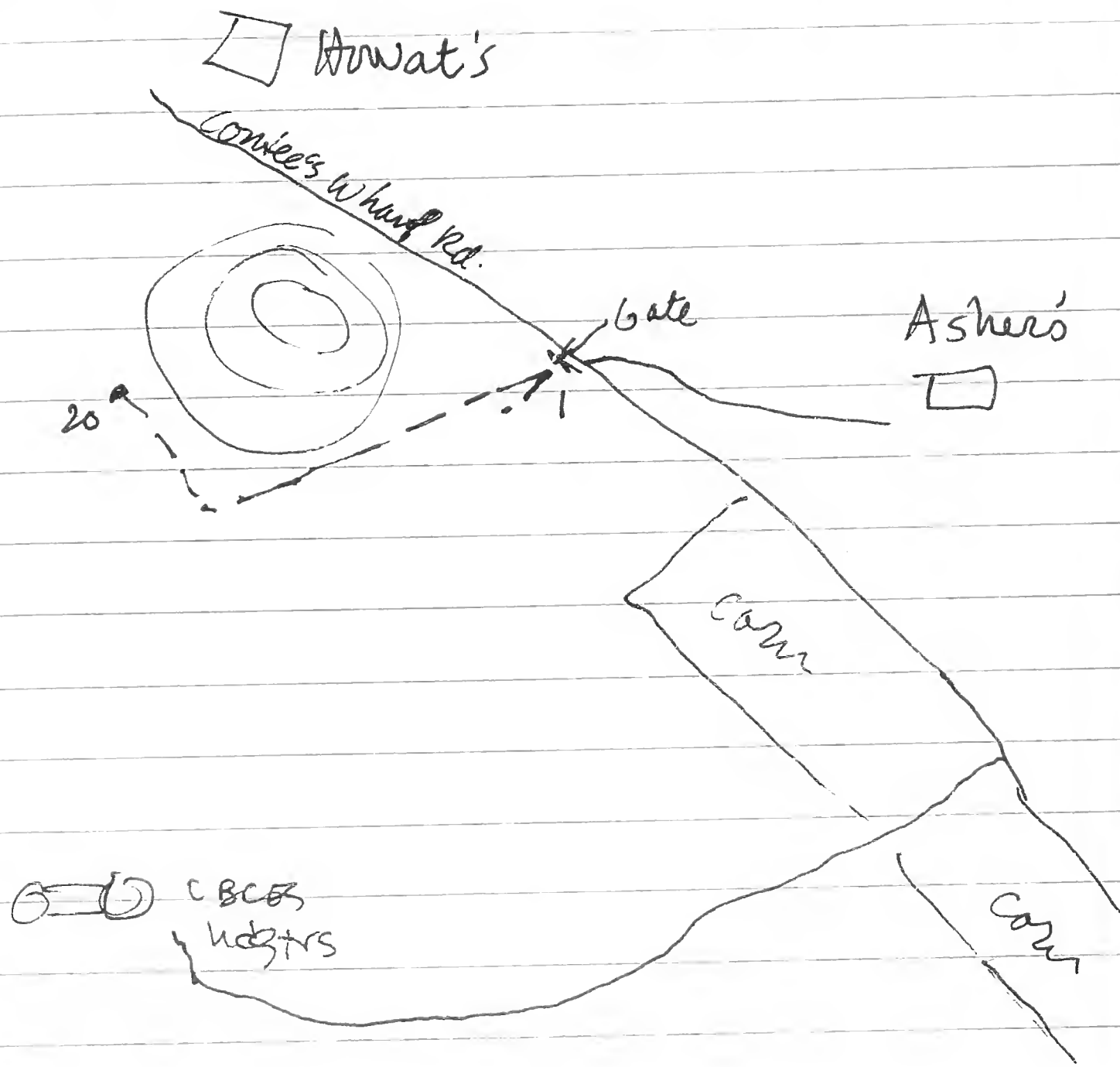
| Sta. (m) | tuna | symp |
|----------|------------------------------------|--|
| 0 | 0 | 0 |
| 2 | 0 | 0 |
| 4 | 0 | 0 |
| 6 | 0 | 0 |
| 8 | 0 | 0 |
| 10 | 0 | 0 |
| 15 | 0 | 0 |
| 20 | 0 | 0 |
| 25 | 0 | 0 |
| 30 | 0 | 1 Myrmica } under bait 1 T. sessile } (coll.) |
| 35 | 1 Aph. treatae | 1 Aph. treatae } coll. 1 T. sessile } |
| 40 | 0 | 1 Formica schaufuss? (coll) |
| 45 | 4 Aph. treatae | 0 |
| 50 | 15 T. sessile 1 F. pallidipulva | 2 coll 1 T. sessile |

clear, mod "stiff" breeze.

T ground - 18.00
T a.v 13.5

17 March New Pasture Site - TR #10

Howat pasture just N. of center property, off Center's Wharf Rd



fairly uniform overgrazed pasture - grasses, forbes, bare ground; lots of cow pies.

17 March 77

start 10:30

Pick up: 11:30

✓

TR #10

Howat Pasture

| Sta. | Fluor | Sugar |
|------------------|----------------------------------|--------------------------------------|
| 1 | 0 | 0 |
| 2 | 0 | 0 (2 flies) |
| 3 | 0 | 0 |
| 4 | 0 | 0 |
| 4 | 0 | 0 |
| 5 4 | 0 | 0 |
| 6 2 | 0 | 0 |
| 7 8 | 0 (2 flies) | 0 |
| 8 4 | 0 | 0 |
| 9 10 | 2 <i>Myrmica americana</i> coll. | 0 |
| 10 10 | 0 | 0 |
| 11 10 | 0 | 3 <i>M. minimum</i> |
| 12 10 | 1 <i>Myrmica americana</i> | 0 |
| 13 10 | 0 | 0 |
| 14 10 | 0 | 0 |
| 15 10 | 0 | 0 |
| 16 10 | 0 | 0 |
| 17 10 | 4 <i>Myrmica americana</i> coll. | 0 |
| 18 10 | 0 | 0 |
| 19 10 | 0 | 1 <i>L. niger</i> coll. - under bait |
| 20 | 0 | 0 |

totals: 3 spp ; 5 occurrences ; 11 ind.

✓

29 March 77

New Transect - TR#11

Howat Cornfield just S. entrance
rd. to Center of Contee's Wharf Rd

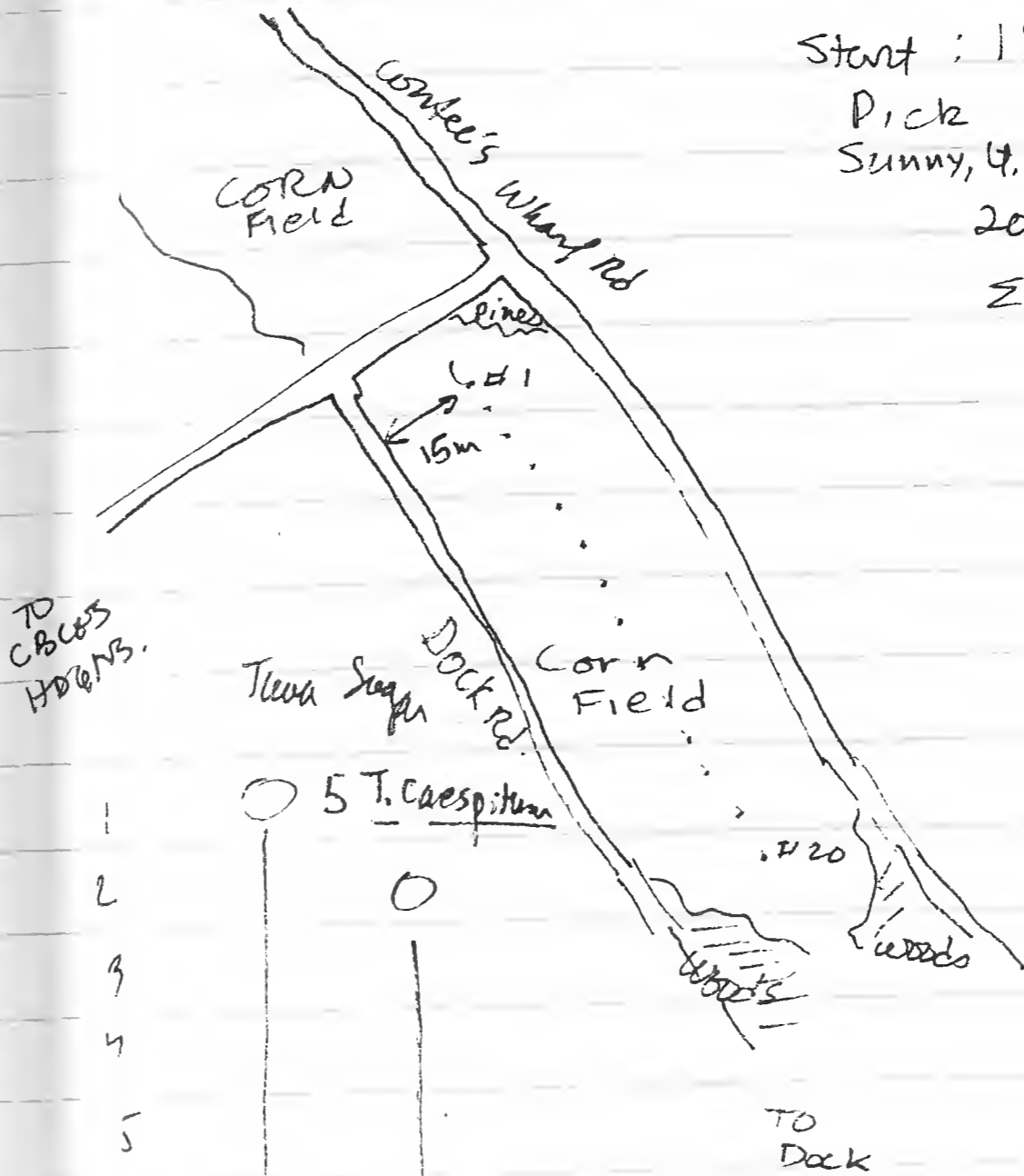
Start: 1:20 PM

Pick: 3:15 PM

Sunny, lt. breeze, high nr. 80°F

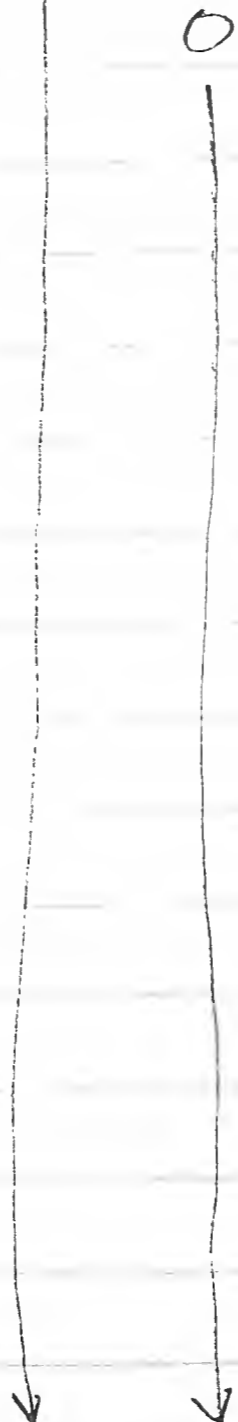
20 baits @ 10m intervals;

Σ transect = 200 m



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20

5 *T. caespitum*



6 April 77 TR #1 humidity sensors

| distance from stream (m) | depth of probe | |
|-----------------------------|--------------------|-----------------|
| | 0.25 m (unknotted) | 0.5 m (knotted) |
| 0 | 9.5 | 9.5 |
| 2 | 9.75 | 9.5 |
| 4 | 0.25 | 9.5 |
| 6 | 0.50 | 9.5 |
| 8 | 9.25 | 9.0 |
| 10 | 0.75 | 9.5 |
| 15 | 9.50 | 8.75 |
| 20 | 1.00 | 9.5 |
| 25 | 1.25 | 9.25 |
| 30 | 3. | 9.5 |
| 35 | | 9.5 |
| 40 | | 9.25 |
| 45 | | 9.25 |
| 50 | | 0 |

✓
6 April 77 - TR #1 - N. Brauch, W.D.

Start: 1:30 PM; Check 3:10 PM

scattered clouds; lt. breeze. Air temp ~ 60°F (15°C)

| distance Sta | Tuna | Sugar |
|-----------------|---------------|--------------|
| 0 | 0 | 0 (in water) |
| 2 | 0 | 0 |
| 4 | 0 | |
| 6 | 20 P. imparis | 35 P. imp |
| 8 | 40 P. imp | 10 P. imp |
| 10 | 35 P. imp. | 3 P. imp |
| 15 | ~30 P. imp | 6 P. imp |
| 20 | ~30 P. imp | 7 P. imp |
| 25 | 4 P. imp. | 1 P. imp |
| 30 | 40 P. imp. | 4 P. imp |
| 35 | 50 P. imp. | 15 P. imp |
| 40 | 40 P. imp. | 15 P. imp |
| 45 | 50 P. imp. | 1 P. imp |
| 50 | 7 P. imp. | 3 P. imp |

✓
7 Apr 77

TR #7 - WA

partly cloudy, cool, dry, sl. breeze

start: 1:15 PM checks: 3:15 PM

| Sta. | Sugar | Tuna |
|------|-----------------------------|--|
| 10 | 4 <u>P. imparis</u> | 35 <u>P. imparis</u> |
| 12 | 0 | 1 <u>Aph. ruderis</u> |
| 14 | 0 | 0 |
| 16 | 0 | ~12 <u>P. imparis</u> |
| 18 | 0 | 0 |
| 20 | 0 | 0 |
| 22 | 1 <u>Formica subsericea</u> | 0 |
| 24 | 0 | 0 |
| 26 | 0 | 0 |
| 28 | 0 | 1 <u>Leptothorax curv. sp. newst.?</u> |
| 30 | 0 | 0 |
| 32 | 0 | 0 |
| 34 | 0 | 0 |
| 36 | 0 | 0 |
| 38 | 0 | 0 |
| 40 | 0 | 0 |
| 42 | 0 | 0 |
| 44 | 0 | 0 |
| 46 | 0 | 0 |
| 48 | 0 | 0 |

Totals: 4 spp; 6/40 baits occupied;
.15 occurrences / bait

✓
11 April 77 TR#10 - Pasture

Start: 1:45 PM Check: 3:25 PM

Sunny, warm ~ 75°F; Wind 7-9 mph; dry

| <u>Sta.</u> | <u>Seagr</u> | <u>Tuwa</u> |
|-------------|------------------------|---|
| 1 | 0 | 0 |
| 2 | 0 | 0 |
| 3 | 0 | 0 |
| 4 | 1 <u>L. neoviger</u> | 5 <u>L. neoviger</u> ; 1 <u>F. pallidiflora</u> (coll.) |
| 5 | ~ 20 <u>M. minimum</u> | ~ 20 <u>M. min.</u> |
| 6 | 3 <u>M. min.</u> | 50 <u>M. min.</u> |
| 7 | 25 <u>M. min.</u> | 8 <u>M. min.</u> |
| 8 | 0 | 6 <u>Myrmica americana</u> |
| 9 | 2 <u>M. min.</u> | 5 <u>L. neoviger</u> |
| 10 | 2 <u>M. min.</u> | 20 <u>M. min.</u> |
| 11 | 0 | 3 <u>Myrm. amer.</u> ; 3 <u>L. neoviger</u> |
| 12 | 0 | 5 <u>L. neoviger</u> ; 2 <u>M. min.</u> |
| 13 | 5 <u>M. min.</u> | 3 <u>Myrm. amer.</u> ; 15 <u>M. min.</u> |
| 14 | 0 | 1 <u>Myrm. amer.</u> ; 2 <u>M. min.</u> |
| 15 | 0 | 1 <u>Myrm. amer.</u> ; 2 |
| 16 | 0 | 0 |
| 17 | 0 | 0 |
| 18 | 5 <u>M. min.</u> | 15 <u>L. neoviger</u> |
| 19 | 0 | 0 |
| 20 | ~ 25 <u>M. min.</u> | 0 |
| 2 | | |

✓
 11 Apr: 1977 TR #11 - cornfield
 Start: 1:45 PM Check 3:45 (see last page
 for weather)

| <u>Sta</u> | <u>tuna</u> | <u>Sugar</u> |
|------------|-------------|------------------------------------|
| 1 | 0 | ~ 25 <u>T. sessile</u> |
| 2 | 0 | ~ 200 <u>Tetramorium caespitum</u> |
| 3 | 0 | 2 <u>T. sessile</u> |
| 4 | 0 | 0 |
| 5 | 0 | 0 |
| 6 | 0 | 0 |
| 7 | 0 | 0 |
| 8 | 0 | 0 |
| 9 | 0 | 0 |
| 10 | 0 | 0 |
| 11 | 0 | 0 |
| 12 | 0 | ~ 50 <u>T. caespitum</u> |
| 13 | 0 | 0 |
| 14 | 0 | 0 |
| 15 | 0 | 0 |
| 16 | 0 | 0 |
| 17 | 0 | 0 |
| 18 | 0 | 0 |
| 19 | 0 | 0 |
| 20 | 0 | 0 |

START 11:30 AM
Change 3:15 PM

12 April ✓ Steeles Field

712000000 #9
T= 315, 300, 200, 100, 50, 25, 10, 5, 2, 1

- | | | |
|-----|----------------------------------|----------------------------------|
| | TUNA | SURGE |
| 1 | 350 <i>lineolata?</i> | 15 |
| 2 | 40 <i>M. minor</i> | 3 <i>M. minor</i> |
| 3 | 50 <i>M. minor</i> | 4 (larger than 1, but look same) |
| 4 | 0 | 1 <i>M. minor</i> |
| 5 | 15 <i>M. minor</i> | 0 |
| 6 | 0 | 0 |
| 7 | 0 | 0 |
| 8 | 0 | 0 |
| 9 | 5 <i>T. sessile</i> | 0 |
| 10 | 4 <i>T. pallidiflorus</i> | 0 |
| 11 | 1 <i>M. minor</i> | 1 <i>T. pallidiflorus</i> |
| 12 | 6 <i>Pheidole</i> sp. (coll.) | 1 <i>T. pallidiflorus</i> |
| 13 | 0 | 0 |
| 14 | 0 | 0 |
| 15 | 0 | 0 |
| 16 | 0 | 0 |
| 17 | 0 | 0 |
| 18 | 0 | 0 |
| 19 | 0 | 0 |
| 20 | 0 | 0 |
| 21 | 0 | 0 |
| 22 | 0 | 0 |
| 23 | 0 | 0 |
| 24 | 0 | 0 |
| 25 | 0 | 0 |
| 26 | 0 | 0 |
| 27 | 0 | 0 |
| 28 | 0 | 0 |
| 29 | 0 | 0 |
| 30 | 0 | 0 |
| 31 | 0 | 0 |
| 32 | 0 | 0 |
| 33 | 0 | 0 |
| 34 | 0 | 0 |
| 35 | 0 | 0 |
| 36 | 0 | 0 |
| 37 | 0 | 0 |
| 38 | 0 | 0 |
| 39 | 0 | 0 |
| 40 | 0 | 0 |
| 41 | 0 | 0 |
| 42 | 0 | 0 |
| 43 | 0 | 0 |
| 44 | 0 | 0 |
| 45 | 0 | 0 |
| 46 | 0 | 0 |
| 47 | 0 | 0 |
| 48 | 0 | 0 |
| 49 | 0 | 0 |
| 50 | 0 | 0 |
| 51 | 0 | 0 |
| 52 | 0 | 0 |
| 53 | 0 | 0 |
| 54 | 0 | 0 |
| 55 | 0 | 0 |
| 56 | 0 | 0 |
| 57 | 0 | 0 |
| 58 | 0 | 0 |
| 59 | 0 | 0 |
| 60 | 0 | 0 |
| 61 | 0 | 0 |
| 62 | 0 | 0 |
| 63 | 0 | 0 |
| 64 | 0 | 0 |
| 65 | 0 | 0 |
| 66 | 0 | 0 |
| 67 | 0 | 0 |
| 68 | 0 | 0 |
| 69 | 0 | 0 |
| 70 | 0 | 0 |
| 71 | 0 | 0 |
| 72 | 0 | 0 |
| 73 | 0 | 0 |
| 74 | 0 | 0 |
| 75 | 0 | 0 |
| 76 | 0 | 0 |
| 77 | 0 | 0 |
| 78 | 0 | 0 |
| 79 | 0 | 0 |
| 80 | 0 | 0 |
| 81 | 0 | 0 |
| 82 | 0 | 0 |
| 83 | 0 | 0 |
| 84 | 0 | 0 |
| 85 | 0 | 0 |
| 86 | 0 | 0 |
| 87 | 0 | 0 |
| 88 | 0 | 0 |
| 89 | 0 | 0 |
| 90 | 0 | 0 |
| 91 | 0 | 0 |
| 92 | 0 | 0 |
| 93 | 0 | 0 |
| 94 | 0 | 0 |
| 95 | 0 | 0 |
| 96 | 0 | 0 |
| 97 | 0 | 0 |
| 98 | 0 | 0 |
| 99 | 0 | 0 |
| 100 | 0 | 0 |

* *Conomyrma* *Conomyrma* *M. minor*

✓
12 April 77 Steven's Field #5

| | <u>Tuna</u> | <u>Sugar</u> |
|-----|---------------------------------|---|
| 0 | 2 <i>T. deserti</i> | 0 <i>T. deserti</i> |
| 20 | 22 <i>T. deserti</i> | 0 # |
| 40 | " | " |
| 60 | 0 | 0 |
| 80 | 13 <i>T. deserti</i> | 0 |
| 100 | 1 <i>T. deserti</i> | 0 |
| 125 | 0 (1 quart) | 0 |
| 150 | 1 <i>M. ...</i> | { ✓ <i>Myrmica punctiventris</i> coll ✓ <i>T. ...</i> |
| 175 | 1 <i>F. subsericea</i> | 12 <i>F. subsericea</i> |
| 200 | 150 <i>M. ...</i> | 1 <i>F. ...</i> |
| 225 | 1 <i>F. ...</i> | 70 <i>M. ...</i> |
| 250 | 4 <i>F. (Schaufussi?)</i> | coll. |
| 275 | 20 <i>F. ...</i> | 1 <i>F. ...</i> |
| 300 | 1 <i>F. ...</i> | 15 <i>F. ...</i> |
| 325 | 1 <i>F. ...</i> | (<i>lineolata?</i>) |
| 350 | 1 <i>F. ...</i> | coll. |
| 375 | 1 <i>F. ...</i> | 1 <i>F. ...</i> |
| 400 | 1 <i>F. ...</i> | 1 <i>F. ...</i> |

* *Formica ...*
 * *Formica ...*
 * *Formica ...*

P. integra colony under

gas tank in 5th to left

" of sta. 25m flag T7 # 4 SF
(2 vials)

(Sample by colony under metal left of 5m)

by ventilation + exploded from

colony under metal tank

2m under T7 # 4 SF

TR #1 - N. Brewer

(Baits paired)

Mostly clear
cf → moderate breeze
T_{air} = 32°C
T_{ground} = 32.5°

13 April 1977

Start: 10:00 AM
Back up: 11:30 AM

dry

| | <u>tuna</u> | <u>sugar</u> |
|----|---|---|
| 0 | 0 | 0 |
| 2 | 0 | 0 |
| 4 | coll. { 1 Aphid. Aphid. ruidis ✓ 1 Leptotetrax curvispinosus ✓ | 0 |
| 6 | coll { 3 Aph. ruidis ✓ 1 Paratrech. melandri ✓ | 0 |
| 8 | 3 Aph. ruidis (more vrb) 1 Camp. pennsylvanicus ✓ | 0 |
| 16 | 0 | 0 |
| 15 | 0 | 0 |
| 20 | 1 Leptotetrax (like #4T) | 0 |
| 25 | 1 Formica coll. | 1 Formica sp. (cree) ^{pallidiflora?} |
| 30 | ~10 Prenolepis | ~6 Prenolepis |
| 35 | 0 | 0 |
| 40 | 0 | 0 |
| 45 | 0 | 0 |
| 50 | 0 | coll { 4 Camp. pennsylvanicus ✓ 2 Lept. sp. ruidis curvispinosus ✓ 1 L. longispinus ~4 Aph. tennesseensis ✓ |

13 April

TR #7 WD

Hr = 29.0

time out: 10:15

ground = 31.5

checked 11:45

mostly clear, lt → mod breeze, dry

| | <u>Tuma</u> | <u>Sugar</u> |
|------|--|----------------------------|
| 10 | ~6 <i>Prenolepis</i> | 4 <i>Prenolepis</i> |
| ✓ 12 | ✓ 3 <i>Formica</i> ^{<i>schantussi?</i>} sp (coel) | ○ |
| 14 | ○ | ○ |
| 16 | ○ | ○ |
| 18 | ○ | ○ |
| 20 | 1 <i>Aph. rufis</i> 4 <i>F. subsericea</i> | 2 <i>F. subsericea</i> |
| 22 | 1 <i>F. subsericea</i> | ○ |
| ✓ 24 | 2 <i>Formica</i> sp. (coel.) ② <i>pallidifurca?</i> | ○ |
| 26 | 1 <i>F. subsericea</i> | ○ |
| 28 | 1 <i>F. subsericea</i> | ○ |
| 30 | ○ | 1 <i>Camp. ferrugineus</i> |
| 32 | ○ | ○ |
| 34 | 3 <i>Aph. rufis</i> | ○ |
| 36 | ○ | ○ |
| 38 | ○ | ○ |
| 40 | 3 <i>Aph. rufis</i> | ○ |
| 42 | ○ | ○ |
| 44 | 6 <i>F. subsericea</i> 1 <i>Aph. rufis</i> | ○ |
| 46 | ○ | ○ |
| 48 | ○ | ○ |

most baits in direct sunlight

Start: 12:15
end: 2 PM

✓
14 April

SF TR # 8 and 4
T_{ground} 24.0°C T_{air} = 23.8°C.
Thin overcast; sl. breeze; dry

| Sta. # | Flora | Sugar |
|--------|--|--|
| 1 | ~120 M. min. | ~150 M. min. at edge |
| 2 | { 1 T. sessile ~100 M. min. | ~175 M. min. |
| 3 | 8 M. min | 30 M. min |
| 4 | { ~10 Myrmica americana 2 Formica pallidifolva | 4 F. pallidifolva |
| 5 | 1 Lept. thorax ambiguus (coll) | ~10 T. sessile |
| 6 | ~10 M. min. | ~20 T. sessile 1 Lept. ambiguus (M. min. on ground nearby) |
| 7 | { 3 Aph. treatae * ~50 M. min | ~10 M. min |
| 8 | ~150 M. min. | { 4 Formica integrator ** ~80 M. min. |
| 9 | 12 M. min. 4 F. pallidifolva | 14 F. pallidifolva ~20 M. min. |
| 10 | 16 Aph. treatae | ~8 Aph. treatae |
| 11 | ~60 M. min. | ~90 M. min. |
| 12 | ~300 M. min. | ~250 M. min. |
| 13 | { ~65 M. min. 1 T. sessile | ~200 M. min. |
| 14 | 1 Aph. treatae | 0 |
| 15 | 2 Lept. Ambiguous ~50 T. sessile | ~6 T. sessile 1 L. ambiguus |
| 16 | 1 Aph. treatae ~100 M. min. | ~60 F. pallidifolva M. min. T. sessile |
| 17 | ~75 M. min. | ~150 M. min. on disc (+ ~200 more on ground) |
| 18 | 8 T. sessile | 3-4 Lasius neo. (red) 40 Myrm. americana |
| 19 | ~80 M. min. (colony ~6" away) | 30 Lasius neo. (+ 50 on ground) In few dead M. min. |
| 20 | { ~30 M. min. 1 Lept. ambiguus 1 Myrm. americana | ~40 M. min. on bait (+ ~100 on ground) |
| 22 | ~220 M. min. | (+ ~100 on ground) ~80 M. min. |
| 24 | ~50 M. min. | ~150 M. min. on bait (+ ~200 on ground) |
| 26 | ~80 M. min. 1 Myrm. americana | ~25 M. min. |
| 28 | | |

Big M. min colony nearby

Aph. treatae colony hr. disc

F. integrator "rolling" on ground

* avoiding M. min.
** Aren't afraid of Mona - bite them when attacked

14 April 77 ✓

SF TR #4
Start: 12:30
Pick up: 2:15 PM

TR #4

tuva

Sugar

ground wet, cool here

| Time | tuva | Sugar |
|------|--|--|
| 0 | 0 | 0 |
| 2 | 0 ~ 10 Crematogaster lineolata? ~ 20 M. Min. | ~ 30 M. Min. 9 T. sessile (more nrby) |
| 4 | 1 T. sessile | 6 T. sessile |
| 6 | 0 | 2 Aph. rudiis |
| 8 | 0 | 2 Myrmica punctiventris (under bait) |
| 10 | 2 T. sessile | 4 T. sessile |
| 15 | 9 A. rudiis (F. subsericea nrby) | 7 T. sessile 1 F. integra |
| 20 | | |
| 25 | ~ 25 F. integra | ~ 30 F. integra (also killing a worm) |
| 30 | | |
| 35 | ~ 90 M. Min. 17. sessile | ~ 200 M. Min. |
| 40 | | |
| 45 | ~ 10 Cremat. lineolata 20 M. Min. | ~ 30 M. Min. |
| 50 | | |

start: 11:30
check: 13:15

✓
15 Apr:1 - TR # 12 (new transect)
AREA #5

air = 20.5°C clear, 0-10 breeze, dry
ground = 20.00

| | <u>tuna</u> | <u>sugar</u> |
|----|--|--|
| 1 | 3 <u>Aph. rudis</u> | 1 <u>T. sessile</u> |
| 2 | 7 <u>Aph. rudis</u> | 4 <u>Aph. rudis</u> |
| 3 | 1 <u>Aph. rudis</u> | 0 (but bits of trash on sugar) |
| 4 | 5 <u>Aph. rudis</u> 1 <u>T. sessile</u> | 0 |
| 5 | 1 <u>Aph. rudis</u> (<u>T. sessile</u> nearby) | 0 |
| 6 | 5 <u>Aph. rudis</u> (2 fighting) + 1 <u>Daddy long legs</u> | 0 |
| 7 | 2 <u>Aph. rudis</u> | 0 |
| 8 | 0 | 0 |
| 9 | 0 | 2 <u>Aph. rudis</u> 2 <u>T. sessile</u> (at edge) |
| 10 | 9 <u>T. sessile</u> | 1 <u>T. sessile</u> |
| 11 | 5 <u>T. sessile</u> | 0 |
| 12 | 3 <u>T. sessile</u> 1 <u>Aph. rudis</u> | 1 <u>T. sessile</u> |
| 13 | 6 <u>Aph. rudis</u> | 0 (but trash on syrup) |
| 14 | ~ 3 <u>L. alienus</u> (core) (more attacking grub nearby) | ~ 10 <u>Lasius alienus</u> ? |
| 15 | 0 | 0 |
| 16 | 6 <u>T. sessile</u> 2 <u>F. pallidiflora</u> | 3 <u>T. sessile</u> |
| 17 | 12 <u>Aph. rudis</u> | 1 <u>F. pallidiflora</u> (core) ✓ 1 <u>A. rudis</u> |
| 18 | 2 <u>Aph. rudis</u> | 0 |
| 19 | 1 <u>Leptothorax curvispinosus</u> | 0 |
| 20 | ~ 5 <u>Lasius alienus</u> | ~ 5 <u>L. alienus</u> (core) ✓ |

✓
19 April

Transect #2 (WΔ)

Start 1:30 PM check 3:15 PM

Weather: overcast, ~~dry~~ humid, but foliage dry

T_{air} = 23°
T_{ground} = 22°C


| <u>distance (m)</u> | <u>tuna</u> | <u>Sugar</u> |
|---------------------|----------------------------|-----------------------------------|
| 0 | 0 | 0 |
| 2 | ~15 P. imp | 0 |
| 4 | ~25 P. imp | 13 P. imp. |
| 6 | 0 | 1 A. rudis |
| 8 | ~15 P. imp | 0 |
| 10 | 1 A. rudis | 0 |
| 15 | 50 P. imparis | 0 |
| 20 | 15 P. melandei (coll) | 2 A. rudis |
| 25 | 50 P. imp | 30 P. imp |
| 30 | 4 A. rudis | 0 |
| 35 | 1 A. rudis | 0 |
| 40 | 5 A. rudis 2 T. sessile | 8 A. rudis 2 T. sessile } coll |
| 45 | 3 A. rudis | 0 |
| 50 | 20 P. imp | 0 |

totals:
4 spp ; 18/28 baits ; 20 occurrences

19 April ✓ TR#3 (WA - flood plain)

overcast, humid Air T = 23°C; ground - 22°

Start 1:45 PM; check - 3:35 PM



| | <u>tuna</u> | <u>Sugar</u> |
|----|-------------------|---------------|
| 0 | 0 | 0 |
| 2 | 0 | 0 |
| 4 | 0 | 0 |
| 6 | P. melandei | 0 |
| 8 | 0 | 0 |
| 10 | 50 Lasius alienus | 6 L. alienus |
| 15 | 10 T. sessile | 0 |
| 20 | 0 | 0 |
| 25 | 0 | 19 L. alienus |
| 30 | 0 | 0 |
| 35 | 0 | 2 L. alienus |
| 40 | 2 A. fulva | 10 A. fulva |
| 45 | 0 | 0 |
| 50 | 0 | 0 |

EE

4 spp; 8 baits; 8 occurrences

20 April TR#7 WT - 24 hrs. obs.
(see 8 1/2 x 11 data sheets)

weather mild, calm, dry w. sl. → mod.
haze all day.

22 April Epping Forest, Annapolis,
Anne Arundel Co, Md (elev 5m)

picked up 4 spp of ants as I was
raking leaves along front walk of
my house - all within inches of one
another, and all were common:

Tetranorium caespitum

Crematogaster cerasi

Tapinoma sessile

Prenolepis imparis

22 April CBCE3, Anne Arundel Co, Md

Ed Bolinsky picked up a series of
Crematogaster clara - ~~which~~ ~~two~~ ants
mobilized at dead cricket on wall of
barn behind CBCE3 hdqtrs.

Crematogaster clara

22-23 April

Trip to Poplar Islands

1977

Spent Sat. and Sunday on islands with BASGOBARR group (ornithology seminar group). Collected a few ants on Jefferson Is. and Coaches Is.

22 April Jefferson Is, Talbot Co, Md (elev 2 m)

Lasius umbratus - colony under log in woods E. of lodge

22 April Coaches Is, Talbot Co, Md

Lasius umbratus - under log in woods

Aph. rufis - ..

L. alienus - ..

Crematogaster

- under & on

driftwood along E. shore of island.

25 April Cornfield (TR #12)

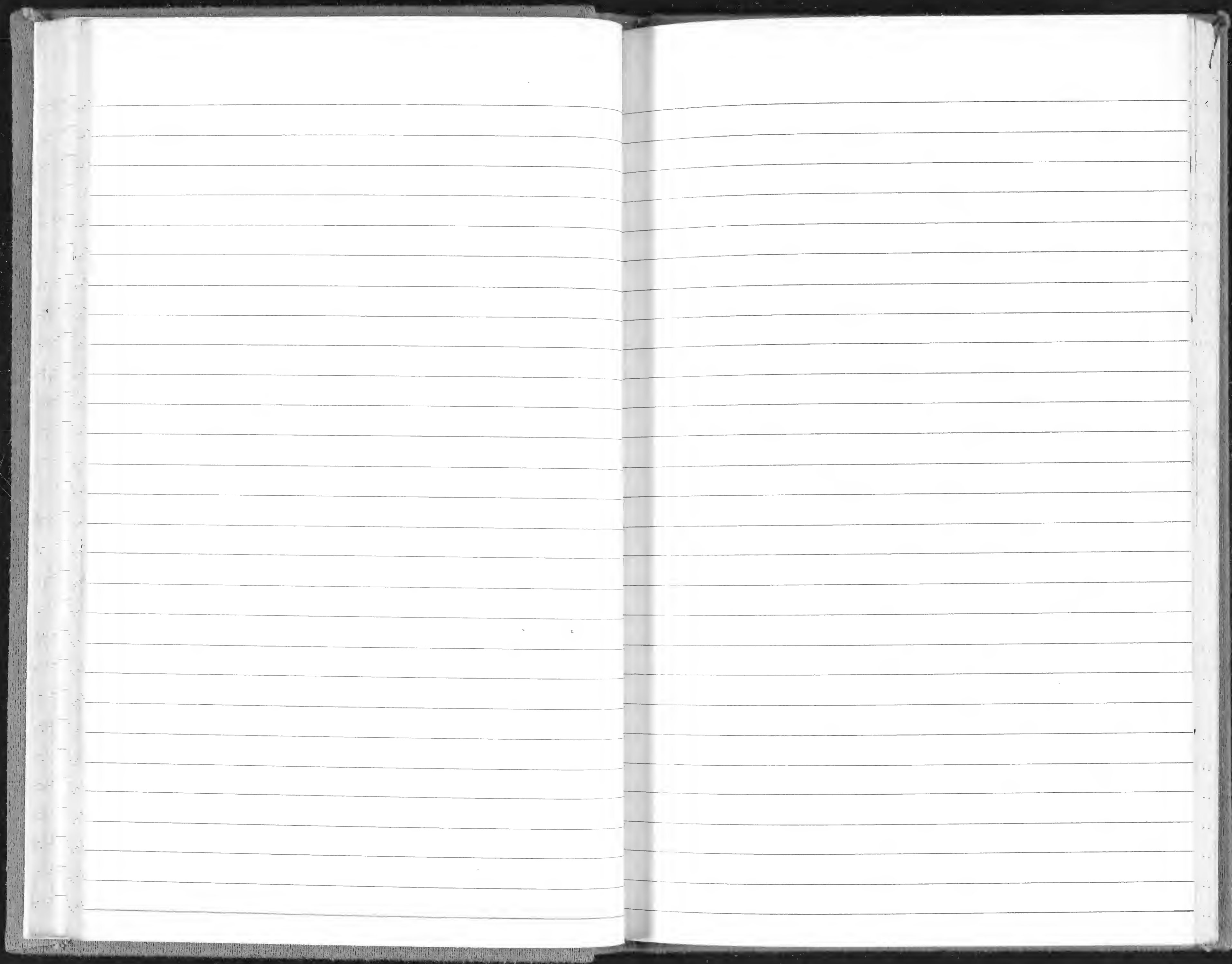
was plowed between 22 April and 24 April.

27-28 April 24 m. transect SF-TR #8

good weather

collected series of several spp. for weights.

F. integra, F. subsericea, L. umbratus, L. alienus, P. pennsylv., Cremat. linedata, M. minimum, T. sessile



13 May - Ran baiting
trapezes # 10 and 11
(Pasture and cornfield)

[See other book]

12 May - Ran baiting
trapezes # 1 and # 7
in western Triangle (See
other book)

17 May - van baiting
trawsects # 12 and # 5
at Stevens field
(see other book)
Weather clear and warm
(low 80's)

Start: 0930 check: 1100
 18 MAY air: 30.0°C TR # 3 AIR IC HUMID
 ground: 28.0°C
 clear (sl. haze), calm dry WA

| dist | TUNA | Syrup |
|------------------|---|---------------------------------|
| 0 | 0 | 0 |
| 2 | 0 | 0 |
| 4 | 0 | 0 (L. alieus nearby) |
| 6 | 0 | 1 A. rudis (move) |
| 8 | 0 | 16 L. alieus (L. alieus nearby) |
| 10 | 0 | 0 |
| 15 | 0 | 0 (L. ali nearby) |
| 15 20 | 1 P. penns. 1 L. alieus | 1 A. rudis |
| 20 25 | 5 A. rudis ^{fulva} coll | 1 A. rudis Fulva |
| 25 30 | 0 | 4 L. alieus |
| 30 35 | 3 P. imparis | 0 |
| 35 40 | 0 | 3 L. alieus |
| 40 45 | 0 | 0 |
| 45 50 | 1 A. rudis 1 P. melander. | ~35 L. alieus |
| 50 | 0 | 0 |

foraging L. ali abund., but not many at baits

✓
18 May 77

TR #12
AREA 5

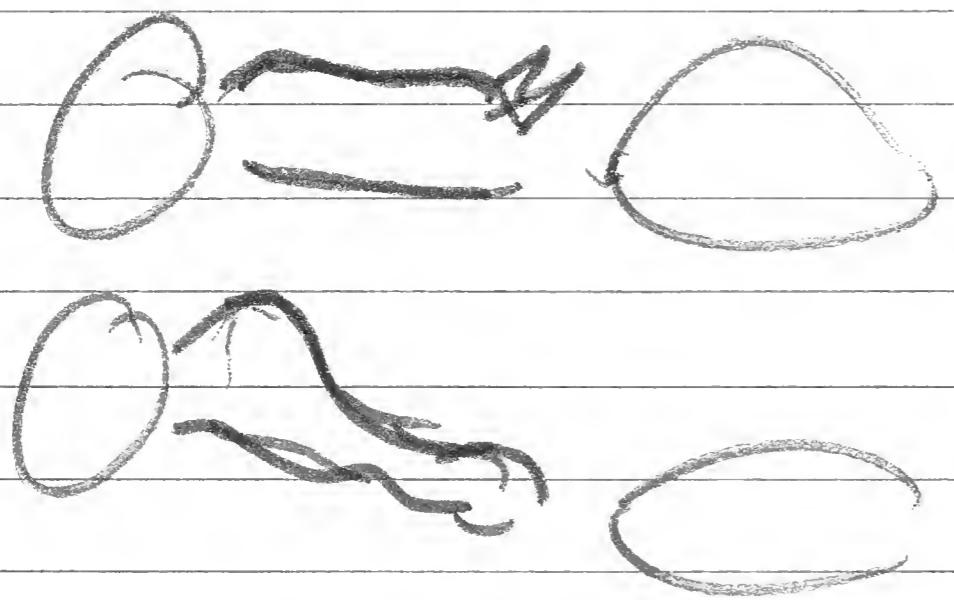
Set: ~~109~~ 0945
Check 1130

Clear w. haze, no wind, dry
veg (but air is humid)

Tuna Syrup

- | | | |
|----|---|---|
| 1 | 2 A. rudis 1 L. curvispinosus | ~80 L. alienus ~8 L. alienus 1 A. rudis |
| 2 | 1 A. rudis 2 L. alienus | 1 A. rudis |
| 3 | 4 A. rudis | ~45 A. rudis |
| 4 | 1 A. rudis | 10 A. rudis |
| 5 | ~10 L. alienus 1 A. rudis | 4 A. rudis |
| 6 | 4 Formica 2 A. rudis | 8 Formica - coll. |
| 7 | 9 A. rudis | 7 A. rudis - covering bait |
| 8 | 20 T. sessile | 2 T. sessile |
| 9 | 16 Cremat. P. melanderi | 8 Cremat. coll 2 P. melanderi |
| 10 | 25 A. tennesseensis? coll | ~8 T. sessile 1 A. rudis |
| 11 | 1 T. sessile 1 A. rudis | 1 A. rudis |
| 12 | 2 A. rudis | ~30 L. alienus |
| 13 | 1 A. rudis | 5 A. rudis |
| 14 | 2 A. rudis | 5 A. rudis |
| 15 | ~30 A. rudis - fighting | 10 A. rudis |
| 16 | 6 T. sessile | ~35 T. sessile |
| 17 | 4 A. rudis, 1 L. curv., 1 T. sessile | ~10 A. rudis covering bait |
| 18 | 5 A. rudis | 3 A. rudis, 6 L. alienus |
| 19 | 1 P. mel., 3 L. ali., 2 A. rudis, 1 L. curv. | 5 L. ali. 2 A. rudis |
| 20 | 5 L. ali., 1 P. mel. | 2 L. ali. 1 A. rud. |

* 1 carry on off live caterpillar



mm

TR # 8

SF

17 June 77

out 10:30

hazy, gentle-mod. breeze, dry.

Check: moon

Ground T =

S

T

- | | | |
|----|---|--|
| 1 | 35 M. min. | 60 M. min |
| 2 | 60 M. min., 1 T. des. | 3 F. pal, 60 M. min. |
| 3 | 7 M. min, 1 A. tre. | 10 M. min, 3 A. tre |
| 4 | 3 M. amer, 2 F. pal | 3 M. amer, 2 F. pal |
| 5 | 2 M. min, 1 F. pal | 2 A. tre (coll.), 3 F. pal |
| 6 | 15 M. min, 1 T. des, 2 F. pal | 45 M. min 1 F. pal |
| 7 | 65 M. min, 1 F. pal, 1 A. tre, 2 F. pal | 65 M. min, 1 F. pal, 2 A. tre |
| 8 | ~25 M. min, 3 F. int | ~30 M. min, 1 A. tre, 1 F. int |
| 9 | ~100 M. min | ~4 C. wat, 1 A. tre, 1 F. pal, ~90 M. min. |
| 10 | 1 A. tre, 1 P. ml | ~20 M. min, 2 R. mel, 1 A. tre |
| 11 | ~50 M. min, 1 F. pal, 1 A. tre | ~70 M. min, ~20 C. ab. ems |
| 12 | 4 F. pal, 9 C. wat | 36 C. wat. |
| 13 | ~20 M. min, 1 A. tre | ~30 M. min, 3 F. pal. |
| 14 | 4 F. pal, 25 M. min | 35 M. min, 1 A. tre |
| 15 | ~12 Myrmica americana | ~25 Myrmica, 1 F. pal |
| 16 | 90 M. min | 40 M. min, 1 F. pal |
| 17 | ~50 M. min | ~200 M. min |
| 18 | 2 F. pal, 2 M. min | 3 Myrmica, 1 C. wat |
| 19 | ~30 M. min | ~65 M. min |
| 20 | ~100 M. min | ~90 M. min |

* Fint attacks A. tre & lives it off
~~to~~ F. pal avoid doing M. min

17 June TR # 4

S

T

- | | | |
|----|--|--|
| 1 | 0 | 0 |
| 2 | 9 T. sessile, 2 M. punct | 4 T. sessile |
| 3 | 16 T. sessile | 2 A. rudis, 11. sessile |
| 4 | 3 M. punct, 2 P. mel | 1 A. rud, 3 M. punct, 1 P. mel |
| 5 | 13 Cal | 20 Cal |
| 6 | ~60 C. alienus | ~40 L. alienus |
| 7 | ~30 M. min | ~90-100 M. min |
| 8 | 3 M. min, 1 V. sub | 2 M. min, 2 F. sub |
| 9 | ~15 M. min. | ~90 M. min, 1 F. int. |
| 10 | 2/1. prui. * 1 Cremat. | ~30-35 Cremat. ^{lineolata} , 11. prui |
| 11 | ~8 M. min. | ~50 M. min. |
| 12 | ~20 M. min | ~85 M. min. |
| 13 | 5 Cremat. in symp. 4 M. min, 3 1. prui. | ~20 M. min, 3 1. prui. |
| 14 | 1 M. min 1 Cremat. | ~45 Cremat. ^{lineolata (coll)} |

Stream w/o water
moist mud

* avoid Cremat.

