

# **BIRD FECAL PELLET FORENSIC ANALYSIS REPORT**

**Prepared for**

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**By**



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**Forensic Analysis Report**

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[illegible]

## II. INTRODUCTION

North American grassland bird populations appear to be declining (Peterjohn and Sauer 1999, Lueders et al., in review). Habitat loss has often been implicated as the cause of the population changes (Samson and Knopf 1994, Vickery et al. 1999), but other habitat-related factors may be driving these declines (Peterjohn 2003). These other factors may include planting and invasion of exotic grasses (Vickery et al. 2000).

Planting and invasion of nonnative grasses has occurred throughout U.S. and Canadian grasslands. Some grassland bird species seem to prefer native to nonnative grasslands (Davis and Duncan 1999), but for other species nonnative areas appear to provide suitable habitats (Scott et al. 2002). While nonnative habitats may act as refugia for grassland birds (Vickery et al. 1999), restoration to native conditions is a long-term goal for some public lands. Studies that address benefits and detriments of nonnative habitats for grassland passerines could be used to guide such restoration efforts.

The Zumwalt Prairie of northeastern Oregon is the last remaining large remnant of Northwest bunchgrass prairie. This prairie consists of both native prairie and oldfields, grasslands that were previously farmed and then later reseeded with nonnative grasses. The suitability of these two habitat types for four grassland bird species, Savannah sparrow (*Passerculus sandwichensis*), western meadowlark (*Sturnella neglecta*), vesper sparrow (*Pooecetes gramineus*), and horned lark (*Eremophila alpestris*), is being studied. The diet composition of these birds is being investigated. As part of the research, invertebrate food availability has been measured, and bird fecal samples have been collected. The goal is to determine the diet preferences of these bird species, and clarify the importance of the availability of different invertebrate taxa.

Forensic Analysis Report  
Methods and Protocols

III. Methods And Protocols

Laboratory Protocol:

Fecal samples were diluted with 70% ethanol for microscopic examination. The samples were carefully separated with microforceps under a binocular dissecting scope at 16 times magnification. Arthropod fragments were removed from the sample and placed in 70% ethanol. Photographs of some fragments were taken at this stage of the protocol to provide different views that would not be possible once the fragments were mounted.

After all fragments were removed from the sample and had soaked at least 5 minutes in 70% ethanol, they were transferred to a bath of 95% ethanol and soaked for 5 minutes. Then the fragments were transferred to Euparal essence for 5 minutes for final clearing and removal of any water. Fragments were then mounted in Euparal on glass slides and covered with glass cover slips. After the slides were allowed to cure for at least 3 days additional photographs were taken of various fragments for identification.

Fragments were identified to the lowest taxonomic unit possible by comparison to reference collections of arthropods collected at the research project site, the OSU Systematic Entomology Collection, and the H.J. Andrews Experiment Forest, and to drawings in taxonomic publications.

Slides are labeled with a four digit number beginning at 0001. A total of sixty-one slides were prepared from the forty-three sample vials. Photographs were taken of sample contents. Photographs are labeled with a two digit ROLL number beginning at 01, and a two digit PHOTO number beginning at 01.

## Forensic Analysis Report

### Methods and Protocols

### Quantification Protocol:

The slides for each sample were examined and the number of each fragment type from different (potential) prey items counted for each sample. Using knowledge about arthropod morphology and anatomy, the number of prey items was estimated for each sample.

Forensic Analysis Report  
 Results

IV. RESULTS

HOLA

SAMPLE H1

Label Data

BUT 01 003  
 07/07/05 @ 745 HOLA

Slides and Photos

0001            01-04, 01-05, 01-07, 01-09, 01-12a, b, c.  
 0002            01-03, 01-10, 01-11, 01-12, 01-13, 01-14

Sample Contents

| Order            | Number of<br>Individuals |
|------------------|--------------------------|
| Araneae          | 1                        |
| Coleoptera sp. 1 | 1                        |
| Coleoptera sp. 2 | 1                        |
| Orthoptera       | 1                        |

Slide 0001



Photo 01-04



Photo 01-05

Forensic Analysis Report  
Results



Photo 01-07



Photo 01-09



Photo 01-12a, b, c

Slide 0002

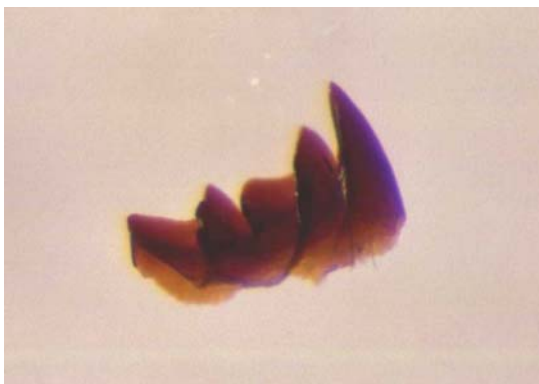
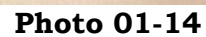
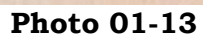
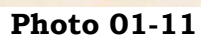


Photo 01-03



Photo 01-10



[illegible]

## Forensic Analysis Report Results

## Label Data

BU7 01 001

06/07/05      HOLA

|      |                                                        |
|------|--------------------------------------------------------|
| 0003 | 01-15, 01-16, 01-17, 01-18, 06-08                      |
| 0004 | 01-19, 01-20, 01-21, 01-22, 01-23a, b, c               |
| 0005 | 02-02, 02-03, 02-04, 02-05, 06-09, 06-10, 06-12, 06-13 |

0003 01-15, 01-16, 01-17, 01-18, 06-08

0004 01-19, 01-20, 01-21, 01-22, 01-23a, b, c

|      |                                                        |
|------|--------------------------------------------------------|
| 0005 | 02-02, 02-03, 02-04, 02-05, 06-09, 06-10, 06-12, 06-13 |
|------|--------------------------------------------------------|

| Order            | Family       | Number of Individuals |
|------------------|--------------|-----------------------|
| Araneae          |              | 1                     |
| Coleoptera sp. 1 | Carabidae    | 2                     |
| Coleoptera sp. 2 |              | 1                     |
| Hymenoptera      | Formicidae   | 1                     |
| Homoptera        | Cicadellidae | 1                     |

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Forensic Analysis Report  
 Results



Photo 01-17

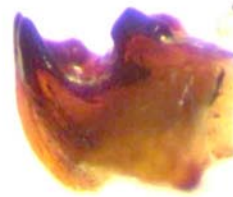


Photo 01-18



Photo 06-08

Slide 0004



Photo 01-19



Photo 01-20

Forensic Analysis Report  
 Results



Photo 01-21



Photo 01-22

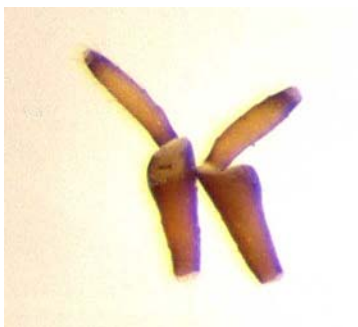


Photo 01-23

Slide 0005



Photo 02-02

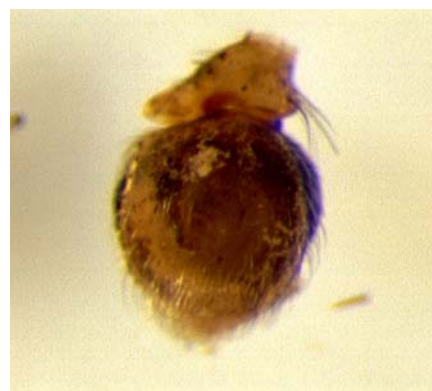
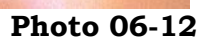
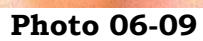
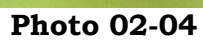


Photo 02-03

[illegible]

**Forensic Analysis Report  
Results**

## Label Data

TNC 05 011

07/01/05 9:58      HOLA

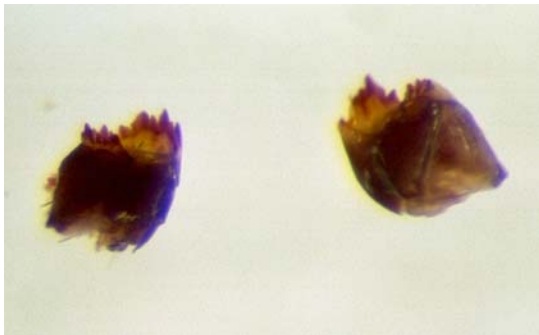
## Slides and Photos

0006 02-06, 02-07, 02-08, 06-14

## Sample Contents

| Order       | Family  | Number of Individuals |
|-------------|---------|-----------------------|
| Araneae     |         | 1                     |
| Coleoptera  |         | 1                     |
| Heteroptera | Miridae | 1                     |
| Orthoptera  |         | 1                     |

**Slide 0006**

**Photo 02-06**

**Photo 02-07**



**Forensic Analysis Report**

**Results**



Forensic Analysis Report  
 Results

SAMPLE H4

Label Data

TNC 06 011  
 07/05/05 0900      HOLA

Slides and Photos

0007              02-09, 02-10a, b, 02-11, 02-12a, b, 02-13

Sample Contents

| Order       | Number of<br>Individuals |
|-------------|--------------------------|
| Coleoptera  | 1                        |
| Lepidoptera | 1                        |
| Orthoptera  | 2                        |

Slide 0007

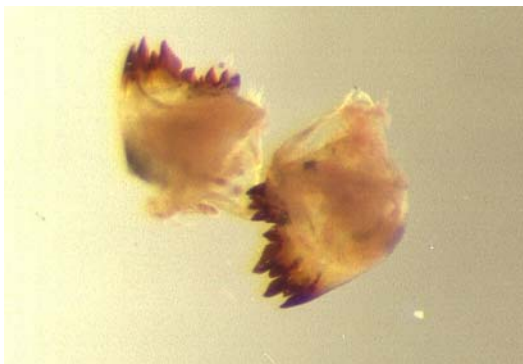


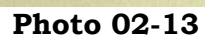
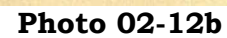
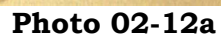
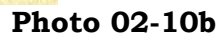
Photo 02-09



Photo 02-10a



**Forensic Analysis Report  
Results**



[illegible]

## Label Data

TNC 05 011  
07/05/05 0920 HOLA

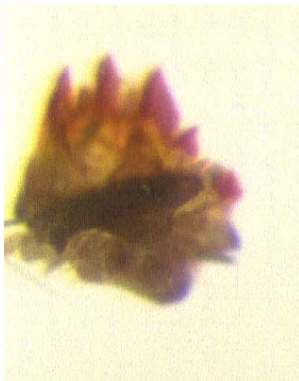
## Slides and Photos

0008 02-14a, b, 02-15, 02-16, 02-17, 02-18, 02-19, 02-20

## Sample Contents

| Order      | Family    | Number of Individuals |
|------------|-----------|-----------------------|
| Araneae    |           | 1                     |
| Coleoptera | Carabidae | 2                     |
| Orthoptera |           | 2                     |

**Slide 0008**

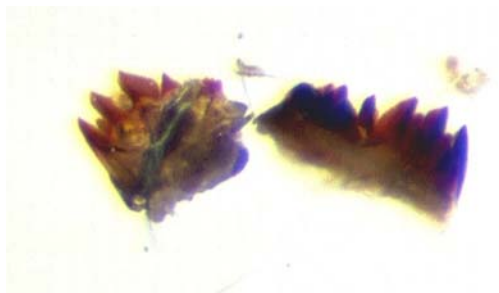


**Photo 02-14a**



**Photo 02-14b**

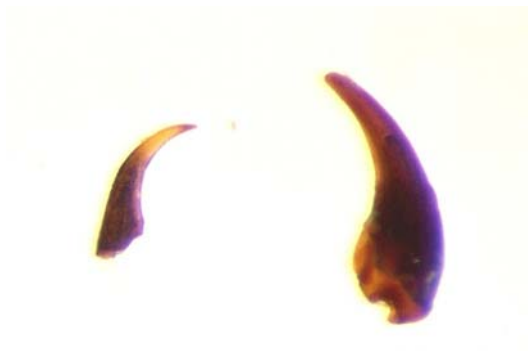
~~~~~  
**Forensic Analysis Report**  
**Results**  
 ~~~~~



**Photo 02-15**



**Photo 02-16**



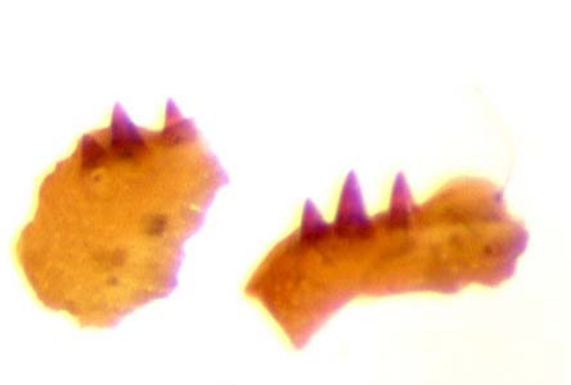
**Photo 02-17**



**Photo 02-18**



**Photo 02-19**



**Photo 02-20**

## Forensic Analysis Report Results

## SAMPLE H6

## Label Data

TNC 03 011  
08/05/05 HOLA

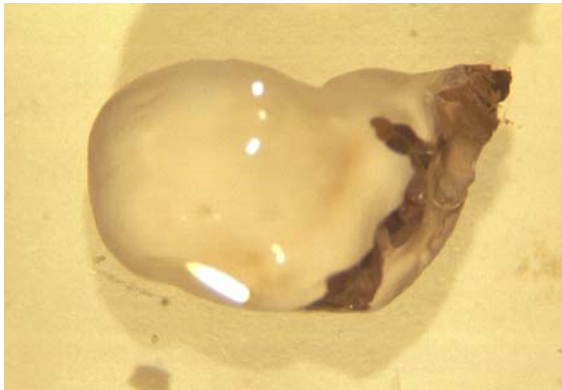
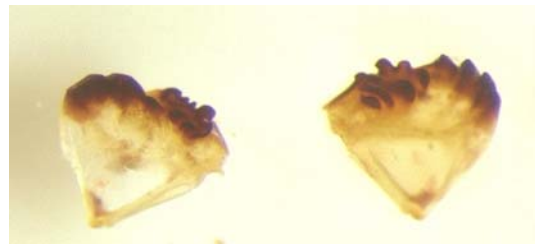
## Slides and Photos

0009 02-21, 02-22, 02-23, 06-15, 06-16, 06-17

## Sample Contents

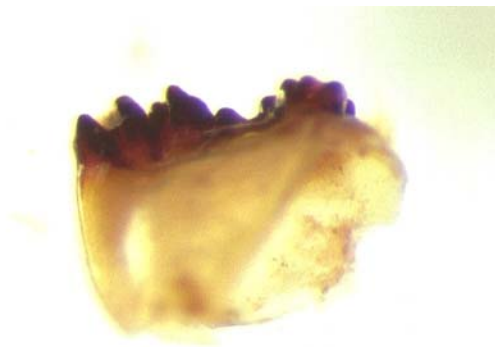
| Order      | Family    | Number of Individuals |
|------------|-----------|-----------------------|
| Coleoptera | Carabidae | 1                     |
| Orthoptera |           | 2                     |

## Slide 0009

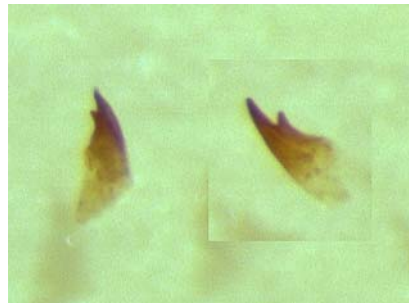
**Photo 02-21**

**Photo 02-22**

~~~~~~  
**Forensic Analysis Report**  
**Results**  
 ~~~~~~



**Photo 02-23**



**Photo 06-15**



**Photo 06-16**



**Photo 06-17**

## Forensic Analysis Report Results

## SAMPLE H7

## Label Data

BUT 01 003  
07/05/05 HOLA

## Pellet

7-mm x 7-mm

## Slides and Photos

|      |                                   |
|------|-----------------------------------|
| 0010 | 03-02, 03-03, 03-04, 06-18        |
| 0011 | 03-05, 03-06, 03-07, 06-19, 06-20 |

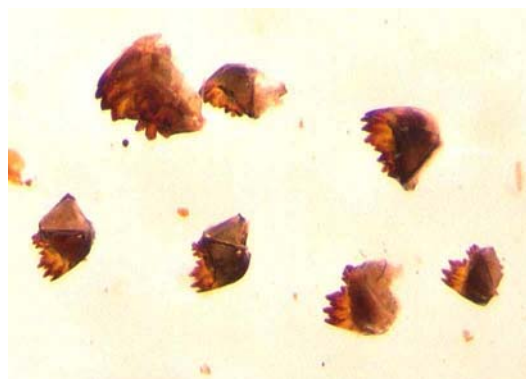
## Sample Contents

| Order       | Family     | Number of Individuals |
|-------------|------------|-----------------------|
| Coleoptera  |            | 2                     |
| Lepidoptera |            | 1                     |
| Hymenoptera | Formicidae | 1                     |
| Orthoptera  |            | 4                     |

# Slide 0010



**Photo 03-02**



**Photo 03-03**



Forensic Analysis Report  
Results

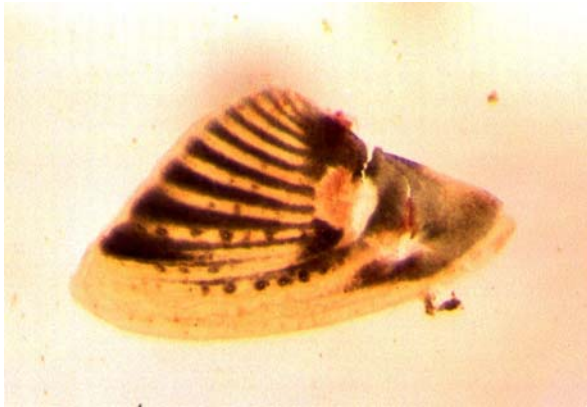


Photo 03-04



Photo 06-18

Slide 0011



Photo 03-05

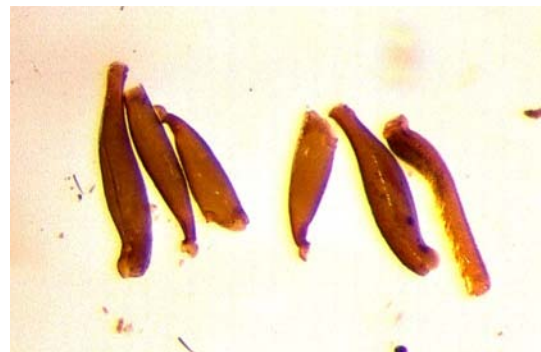


Photo 03-06



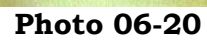
Photo 03-07



Photo 06-19

**Forensic Analysis Report**

**Results**





Forensic Analysis Report  
Results

## SAMPLE H8

## Label Data

TNC O3 011  
08/11/05 HOLA

## Pellet

16-mm x 8-mm & 10-mm x 8-mm

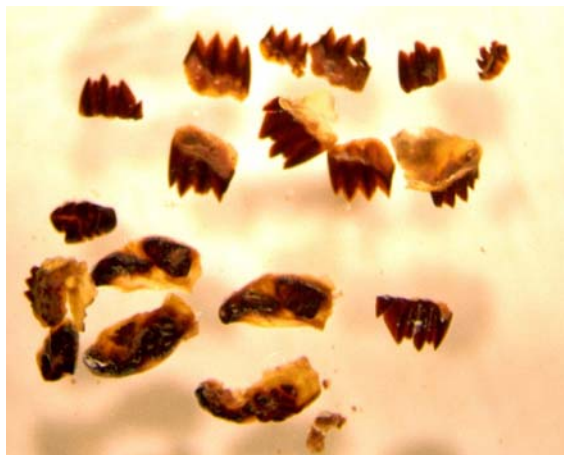
## Slides and Photos

|      |                            |
|------|----------------------------|
| 0012 | 03-08                      |
| 0013 | 06-21, 06-22, 06-23, 07-03 |

## Sample Contents

| Order      | Number of Individuals |
|------------|-----------------------|
| Coleoptera | 1                     |
| Orthoptera | 5                     |

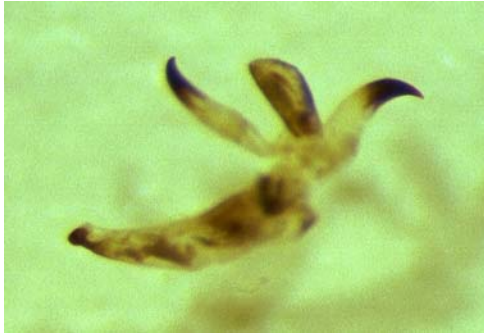
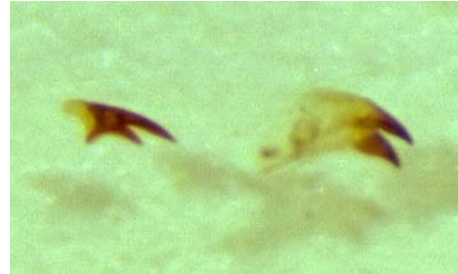
## Slide 0012



**Photo 03-08**

Forensic Analysis Report  
Results

## Slide 0013

**Photo 06-21****Photo 06-22****Photo 06-23****Photo 07-03**

## Forensic Analysis Report Results

## SAMPLE H9

## Label Data

BUT 01 003  
07/07/05 @745      HOLA

## Pellet

15-mm x 6-mm & 8-mm x 2-mm

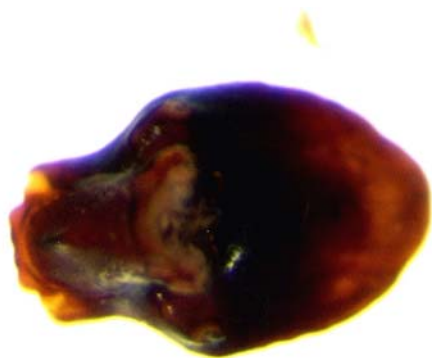
## Slides and Photos

0014 03-09, 03-10a, b, 07-04, 07-05, 07-06, 07-07, 07-08

## Sample Contents

| Order      | Number of Individuals |
|------------|-----------------------|
| Araneae    | 1                     |
| Coleoptera | 1                     |
| Orthoptera | 1                     |

## Slide 0014



**Photo 03-09**



**Photo 03-10a**

~~~~~  
**Forensic Analysis Report**  
**Results**  
 ~~~~~



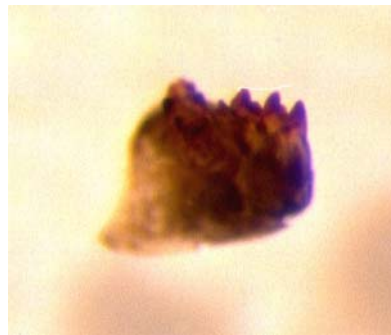
**Photo 03-10b**



**Photo 07-04**



**Photo 07-05**



**Photo 07-06**



**Photo 07-07**



**Photo 07-08**

**Forensic Analysis Report**

**Results**

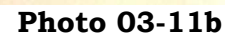
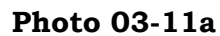
## Label Data

## Pellet

## Slides and Photos

## Sample Contents

## Slide 0015



[illegible]**Photo 07-09**

\*\*\*\*\*  
**Forensic Analysis Report**  
**Results**  
 \*\*\*\*\*

**SAMPLE H11**

**Label Data**

TNC 06 011  
 07/07/05                      HOLA

**Slides and Photos**

0016                      03-12a, b, c

**Sample Contents**

| Order       | Number of<br>Individuals |
|-------------|--------------------------|
| Coleoptera  | 1                        |
| Lepidoptera | 1                        |
| Orthoptera  | 1                        |

**Slide 0016**



**Photo 03-12a**



**Photo 03-12b**



**Photo 03-12c**

**Forensic Analysis Report**

**Results**

## Label Data

## Pellet

## Slides and Photos

## Sample Contents

**Slide 0017**





Forensic Analysis Report  
Results



Photo 07-10



Photo 07-11



Photo 07-12



Photo 07-13

**Forensic Analysis Report**

**Results**

## Label Data

## Pellet

## Slides and Photos

## Sample Contents

# Slide 0018



Forensic Analysis Report  
Results

## Label Data

TNC 05 002  
05/26/05

8-mm x 5-mm PLUS

0019            03-16a, b

| Order      | Family        | Number of Individuals |
|------------|---------------|-----------------------|
| Araneae    |               | 1                     |
| Coleoptera | Curculionidae | 1                     |

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Forensic Analysis Report  
 Results

SAMPLE S2

Label Data

BUT 01 002  
 06/07/05                      SAVS

Slides and Photos

0020                      07-14, 07-15

Sample Contents

| Order      | Number of<br>Individuals |
|------------|--------------------------|
| Araneae    | 1                        |
| Coleoptera | 1                        |

Slide 0020

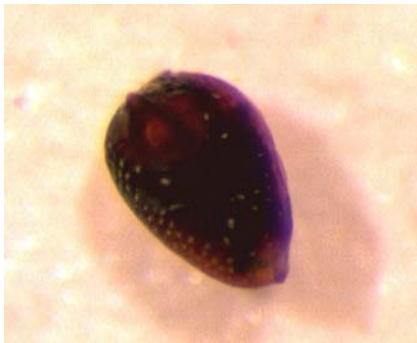


Photo 07-14



Photo 07-15

\*\*\*\*\*  
**Forensic Analysis Report**  
**Results**  
 \*\*\*\*\*

**SAMPLE S3**

**Label Data**

TNC 05 015  
 06/28/05                      SAVS

**Pellet**

5-mm x 4-mm   PLUS

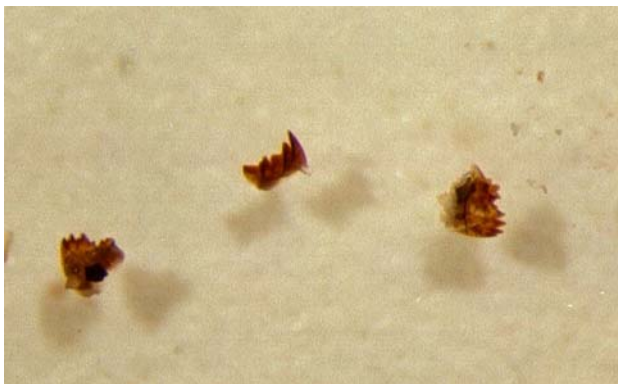
**Slides and Photos**

0021                      07-17, 07-18, 07-19

**Sample Contents**

| Order      | Number of<br>Individuals |
|------------|--------------------------|
| Coleoptera | 1                        |
| Orthoptera | 3                        |

**Slide 0021**

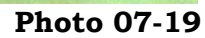


**Photo 07-17**



**Photo 07-18**

**Forensic Analysis Report  
Results**



**Forensic Analysis Report**

**Results**

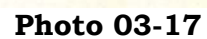
## Label Data

## Pellet

## Slides and Photos

## Sample Contents

## Slide 0022



Forensic Analysis Report  
Results



Photo 07-20



Photo 07-21



Photo 07-22



Photo 07-23



~~~~~  
**Forensic Analysis Report**  
**Results**  
 ~~~~~

**SAMPLE S5**

**Label Data**

TNC 05 004  
 05/26/05                SAVS

**Pellet**

12-mm x 7-mm & 10-mm x 1.5-mm

**Slides and Photos**

0023                03-19, 07-24, 07-25a, b  
 0024                08-01, 08-02, 08-03, 08-04

**Sample Contents**

| Order       | Family        | Number of<br>Individuals |
|-------------|---------------|--------------------------|
| Araneae     |               | 1                        |
| Coleoptera  | Curculionidae | 1                        |
| Lepidoptera |               | 1                        |
| Hymenoptera | Formicidae    | 1                        |
| Orthoptera  |               | 1                        |

**Slide 0023**



**Photo 03-19**



**Photo 07-24**

Forensic Analysis Report  
Results



Photo 07-25

Slide 0024



Photo 08-01



Photo 08-02



Photo 08-03



Photo 08-04

Forensic Analysis Report  
Results

## Label Data

## Pellet

## Slides and Photos

## Sample Contents

## Slide 0025

*Pacific Analytics, L.L.C.*

**Forensic Analysis Report**

**Results**

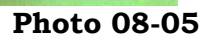
## Label Data

## Pellet

## Slides and Photos

## Sample Contents

## Slide 0026



[illegible]

## Label Data

## Pellet

## Slides and Photos

## Sample Contents

*Pacific Analytics, L.L.C.*

## Forensic Analysis Report Results

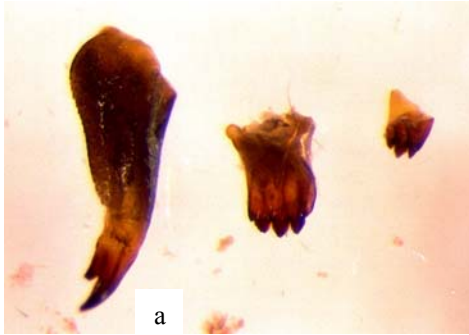
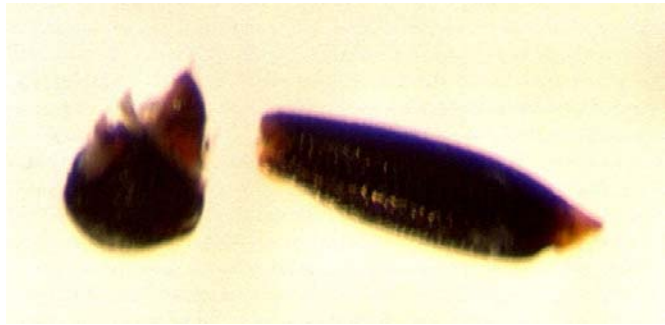
A close-up photograph of a dark, textured, spherical object, likely a seed or fruit, resting on a light-colored surface. The object has a rough, bumpy texture and is dark brown or black in color. It is positioned in the upper left quadrant of the frame. To its right, there is a smaller, similar object, also dark and textured, which appears to be partially obscured or attached to the larger one. The background is a light, yellowish-white surface with some faint, scattered brown spots.

A dark, heavily textured, rectangular object, possibly a piece of ancient pottery or a fragment of a larger artifact, showing significant wear and discoloration. The surface is uneven and appears to have some organic or mineral growth. The object is set against a plain, light-colored background.

*Pacific Analytics, L.L.C.*

[illegible]

## Slide 0028

**Photo 03-20**

**Photo 03-24b**



**Photo 03-23**



**Photo 08-07**

**Forensic Analysis Report  
Results**

## Slide 0029

**Photo 03-20**

**Photo 08-11**

**Photo 08-12****Photo 08-13****Photo 08-14**



[illegible]

## Slide 0030

**Photo 08-09****Photo 08-10**

Forensic Analysis Report  
 Results

SAMPLE V1

Label Data

GOE 01 007  
 07/01/05 VESP

Pellet

IN MANY SMALL PIECES

Slides and Photos

0031 08-15, 08-16, 08-17, 08-18, 08-19  
 0032 08-21, 08-22, 09-01, 09-02, 09-03, 08-20

Sample Contents

| Order            | Family     | Number of<br>Individuals |
|------------------|------------|--------------------------|
| Coleoptera sp. 1 |            | 2                        |
| Coleoptera sp. 2 |            | 1                        |
| Hymenoptera      | Formicidae | 1                        |
| Lepidoptera      |            | 1                        |
| Orthoptera       |            | 1                        |

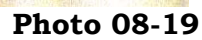
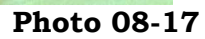
Slide 0031



Photo 08-15

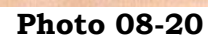
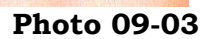


Photo 08-16

[illegible]**Photo 08-21**

**Forensic Analysis Report**

**Results**



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**Forensic Analysis Report**  
**Results**  
 ~~~~~

**SAMPLE V2**

**Label Data**

TNC 06 003  
 05/31/05 12:26 VESP

**Pellet**

14-mm x 3-mm PLUS

**Slides and Photos**

0033 03-25, 04-01, 09-04, 09-05, 09-06, 09-07, 09-08  
 0034 04-02a, b, 04-03a, b, 04-04, 09-09, 09-10, 09-11, 09-12, 09-13

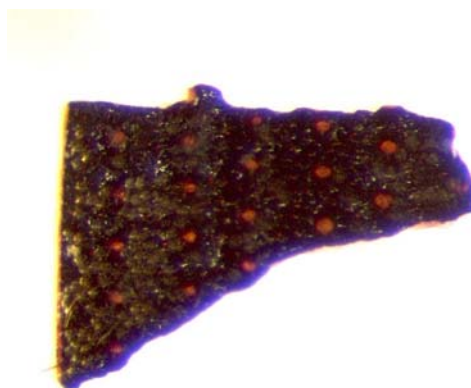
**Sample Contents**

| Order         | Family        | Number of Individuals |
|---------------|---------------|-----------------------|
| Araneae sp. 1 |               | 1                     |
| Araneae sp. 2 |               |                       |
| Coleoptera    | Curculionidae | 1                     |
| Heteroptera   | Miridae       | 1                     |
| Lepidoptera   |               | 1                     |

**Slide 0033**

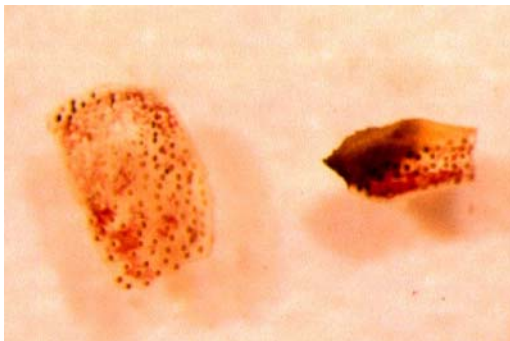
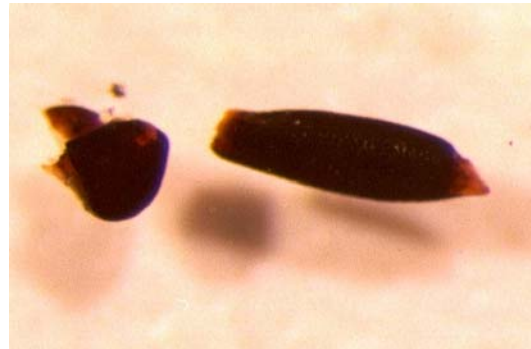


**Photo 03-25**



**Photo 04-01**

## Forensic Analysis Report Results

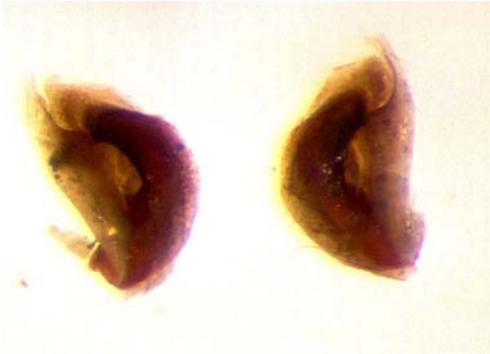
**Photo 09-04****Photo 09-05****Photo 09-06****Photo 09-07****Photo 09-08**



**Forensic Analysis Report**

**Results**

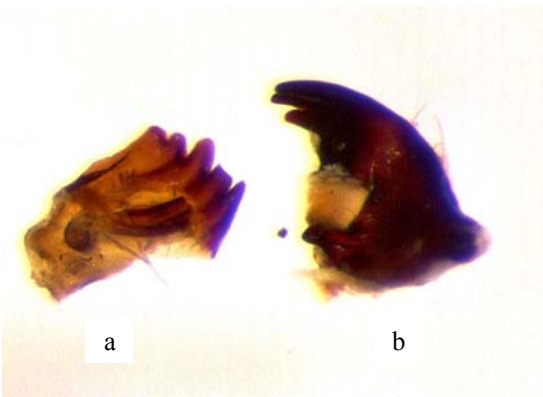
## Slide 0034



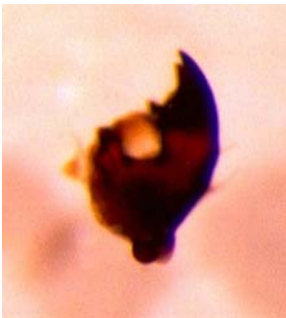
**Photo 04-02a**

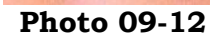


**Photo 04-02b**



**Photo 04-03**

**Photo 04-04****Photo 09-09****Photo 09-10**

[illegible]



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**Forensic Analysis Report**  
**Results**  
 ~~~~~

**SAMPLE V3**

**Label Data**

TNC 04 004  
 06/16/05                      VESP

**Pellet**

15-mm x 3-mm & 6-mm x 5-mm

**Slides and Photos**

0035                      04-05, 04-06a, b, 04-07, 04-08, 04-09a, b, c, 09-14, 09-15, 09-16,  
 09-17  
 0036                      04-05, 04-07

**Sample Contents**

| Order            | Number of<br>Individuals |
|------------------|--------------------------|
| Araneae          | 1                        |
| Coleoptera sp. 1 | 1                        |
| Coleoptera sp. 2 | 1                        |
| Coleoptera sp. 3 | 1                        |

**Slide 0035**



**Photo 04-05**

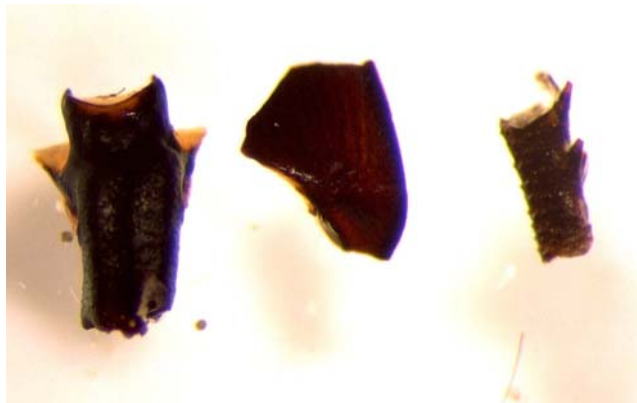


**Photo 04-06a**

\*\*\*\*\*  
**Forensic Analysis Report**  
**Results**  
 \*\*\*\*\*



**Photo 04-06b**



**Photo 04-07**



**Photo 04-08**



**Photo 04-09a**



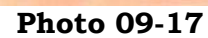
**Photo 04-09b**



**Photo 04-09c**

**Forensic Analysis Report**

**Results**



## Slide 0036



Forensic Analysis Report  
 Results

SAMPLE V4

Label Data

GOE 03 005  
 07/01/05                      VESP

Pellet

12-mm x 4-6-mm & 6-mm x 2-mm

Slides and Photos

0037                      04-10, 04-11, 04-12, 09-18, 09-19, 09-20, 09-21, 09-22

Sample Contents

| Order            | Family       | Number of Individuals |
|------------------|--------------|-----------------------|
| Coleoptera sp. 1 |              | 1                     |
| Coleoptera sp. 2 |              | 1                     |
| Lepidoptera      |              | 1                     |
| Heteroptera      | Miridae      | 1                     |
| Homoptera        | Cicadellidae | 1                     |
| Orthoptera       |              | 2                     |

Slide 0037



Photo 04-10

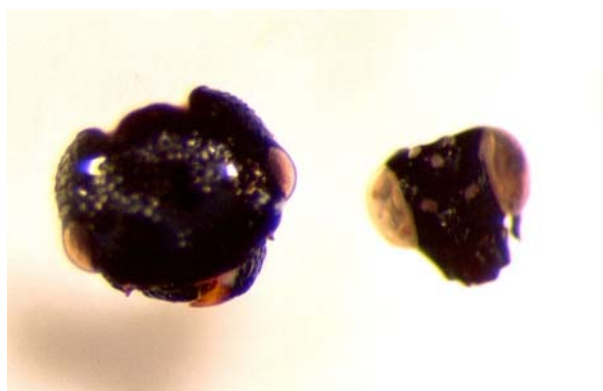
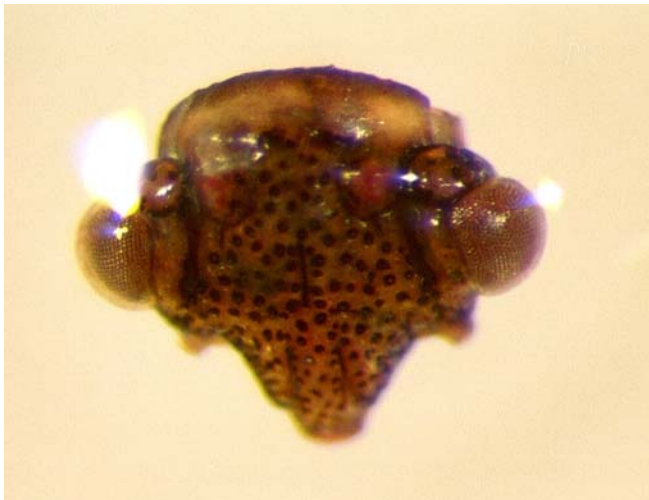


Photo 04-11

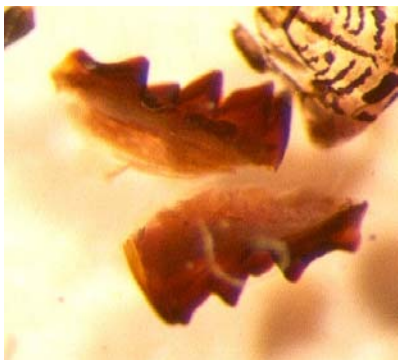
~~~~~  
**Forensic Analysis Report**  
**Results**  
 ~~~~~



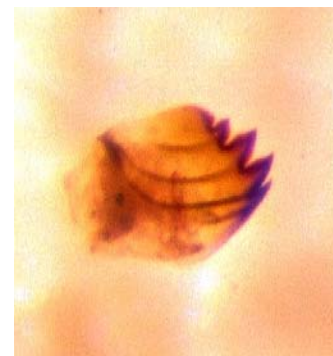
**Photo 04-12**



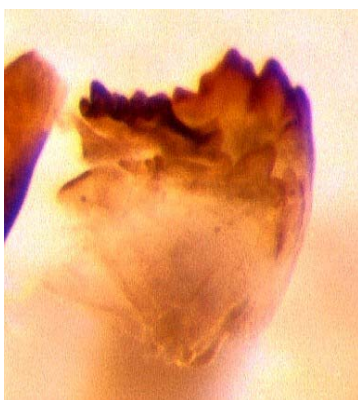
**Photo 09-18**



**Photo 09-19**



**Photo 09-20**



**Photo 09-21**



**Photo 09-22**



[illegible]

**SAMPLE V5**

## Label Data

GOE 01 009  
07/07/05 11:55 VESP

## Pellet

13-mm x 1-mm

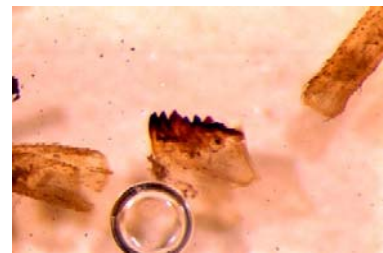
## Slides and Photos

0038 09-23, 09-24, 09-25, 10-01, 10-02, 10-03, 10-04, 10-05

## Sample Contents

| Order      | Number of Individuals |
|------------|-----------------------|
| Araneae    | 1                     |
| Orthoptera | 1                     |

## Slide 0038

**Photo 09-23****Photo 09-24****Photo 09-25**

**Photo 10-01**

Forensic Analysis Report  
Results



Photo 10-02



Photo 10-03



Photo 10-04



Photo 10-05



~~~~~  
**Forensic Analysis Report**  
**Results**  
 ~~~~~

**SAMPLE V6**

**Label Data**

BUT 02 004  
 07/07/05 8:40 AM          VESP

**Pellet**

10-mm x 7-mm & 6-mm x 5-mm

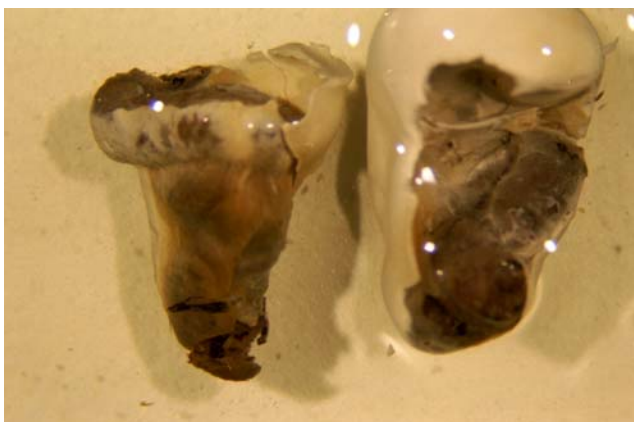
**Slides and Photos**

0039          04-13, 10-06, 10-07, 10-08, 10-09, 10-10

**Sample Contents**

| Order      | Number of<br>Individuals |
|------------|--------------------------|
| Coleoptera | 1                        |
| Orthoptera | 1                        |

**Slide 0039**



**Photo 04-13**



**Photo 10-06**

[illegible]

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**Forensic Analysis Report**  
**Results**  
 \*\*\*\*\*

**SAMPLE V7**

**Label Data**

GOE 01 009  
 07/14/05                VESP

**Pellet**

BROKEN IN PIECES

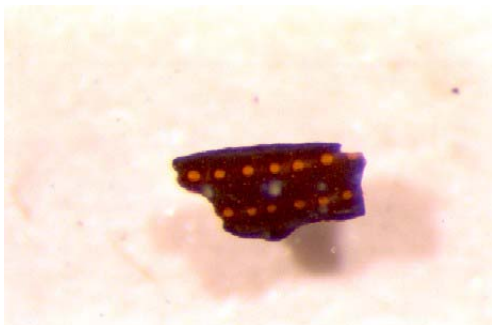
**Slides and Photos**

0040                10-11, 10-12, 10-13, 10-14, 10-15

**Sample Contents**

| Order      | Family        | Number of<br>Individuals |
|------------|---------------|--------------------------|
| Coleoptera | Curculionidae | 1                        |
| Orthoptera |               | 1                        |

**Slide 0040**



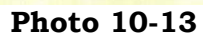
**Photo 10-11**



**Photo 10-12**

**Forensic Analysis Report**

**Results**



Forensic Analysis Report  
Results

## SAMPLE V8

## Label Data

GOE 01 007  
06/30/05 VESP

## Pellet

13-mm x 5-8-mm & 5-mm x 1-mm PLUS

## Slides and Photos

|      |              |
|------|--------------|
| 0041 | 10-16        |
| 0042 | 10-17, 10-18 |

## Sample Contents

| Order      | Number of Individuals |
|------------|-----------------------|
| Araneae    | 1                     |
| Coleoptera | 2                     |

## Slide 0041



**Photo 10-16**

[illegible]

*Pacific Analytics, L.L.C.*

Forensic Analysis Report  
 Results

SAMPLE V9

Label Data

TNC 06 010  
 07/07/05                      VESP

Pellet

8-mm x 7-mm & 7-mm x 3-mm & 9-mm x 2-mm

Slides and Photos

0043                      10-19, 10-20, 10-21  
 0044                      10-22, 10-23, 11-03, 11-04, 11-05

Sample Contents

| Order            | Number of<br>Individuals |
|------------------|--------------------------|
| Coleoptera sp. 1 | 1                        |
| Coleoptera sp. 2 | 1                        |
| Orthoptera       | 1                        |

Slide 0043



Photo 10-19



Photo 10-20



## Forensic Analysis Report Results



*Pacific Analytics, L.L.C.*

[illegible]

## Forensic Analysis Report Results

## Label Data

## Pellet

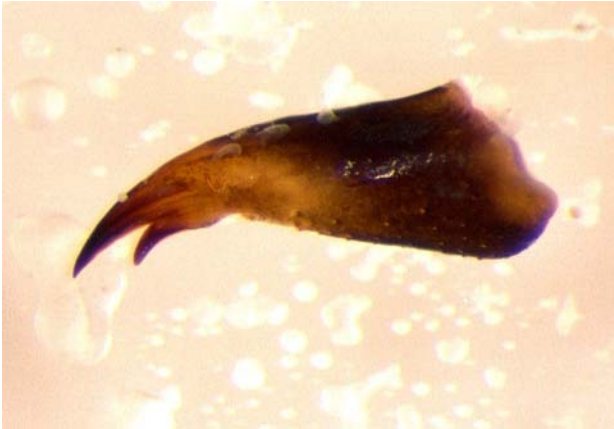
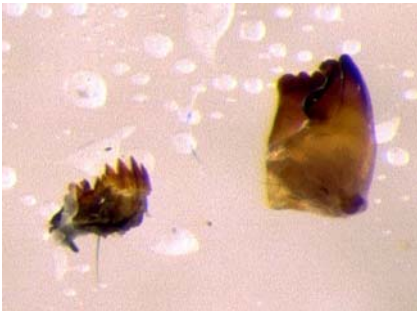
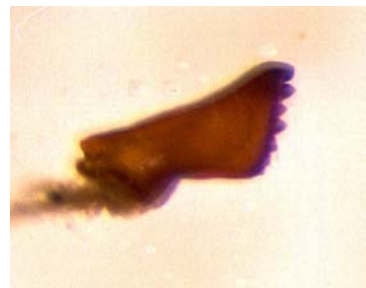
## Slides and Photos

## Sample Contents

*Pacific Analytics, L.L.C.*

Forensic Analysis Report  
Results

## Slide 0045

**Photo 04-14****Photo 04-15****Photo 04-16**

**Photo 04-17**



**Photo 04-18**

**Photo 04-19**

Forensic Analysis Report  
Results



Photo 04-20

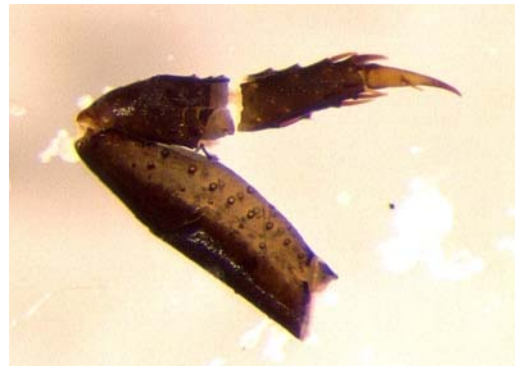


Photo 04-21



Photo 04-22



Photo 11-06

Slide 0046



Photo 04-23



Photo 11-07

**Forensic Analysis Report**

**Results**

## Label Data

## Pellet

## Slides and Photos

## Sample Contents

## Slide 0047



**Forensic Analysis Report**

**Results**





[illegible]

TNC 06 009  
07/05/05 0815 VESP

## Pellet

12-mm x 7-mm

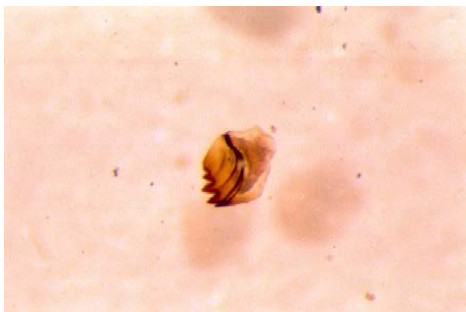
## Slides and Photos

0048 11-11, 11-12, 11-13, 11-14

## Sample Contents

| Order       | Number of Individuals |
|-------------|-----------------------|
| Coleoptera  | 1                     |
| Lepidoptera | 1                     |
| Orthoptera  | 1                     |

## Slide 0048



**Photo 11-11**



**Photo 11-12**

**Forensic Analysis Report  
Results**



Forensic Analysis Report  
 Results

SAMPLE V13

Label Data

BUT 02 004  
 8:40 AM VESP

Pellet

11-mm x 8-mm & 9-mm x 1.5-mm PLUS

Slides and Photos

0049 05-01, 05-02, 11-15a, b, 11-16, 11-17

Sample Contents

| Order            | Family     | Number of Individuals |
|------------------|------------|-----------------------|
| Coleoptera sp. 1 |            | 1                     |
| Coleoptera sp. 2 |            | 1                     |
| Hymenoptera      | Formicidae | 1                     |
| Orthoptera       |            | 2                     |

Slide 0049



Photo 05-01

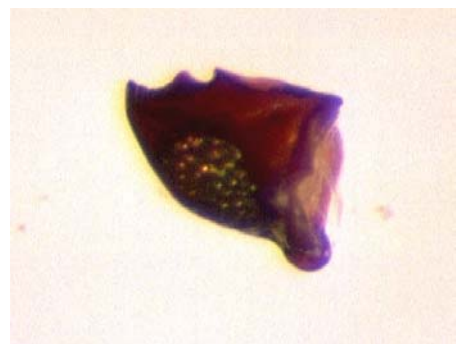
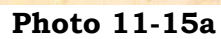


Photo 05-02

**Forensic Analysis Report**

**Results**



Forensic Analysis Report  
 Results

SAMPLE W1

Label Data

TNC 06 007  
 06/10/05                      WEME

Pellet

10-mm x 7-mm & 6-mm x 2-mm

Slides and Photos

0050                      11-18, 11-19, 11-20, 11-21, 11-22, 11-23, 11-24

Sample Contents

| Order            | Number of<br>Individuals |
|------------------|--------------------------|
| Araneae          | 1                        |
| Coleoptera       | 1                        |
| Orthoptera sp. 1 | 1                        |
| Orthoptera sp. 2 | 1                        |
| Orthoptera sp. 3 | 1                        |
| Orthoptera sp. 4 | 1                        |

Slide 0050

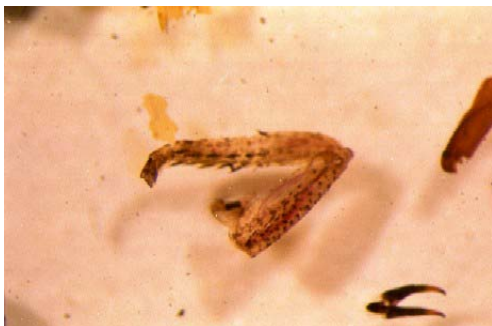


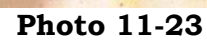
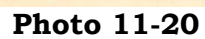
Photo 11-18



Photo 11-19

**Forensic Analysis Report**

**Results**



Forensic Analysis Report  
 Results

SAMPLE W2

Label Data

TNC 03 001  
 05/26/05                      WEME

Pellet

11-mm x 9-mm & 6-mm x 4-mm & 6-mm x 2-mm & 8-mm x 3-mm

Slides and Photos

0051                      05-03, 11-25, 11-26, 12-03, 12-04, 12-05, 12-06, 12-07, 12-08

Sample Contents

| Order       | Family  | Number of<br>Individuals |
|-------------|---------|--------------------------|
| Araneae     |         | 1                        |
| Coleoptera  |         | 1                        |
| Heteroptera | Miridae | 1                        |

Slide 0051



Photo 05-03

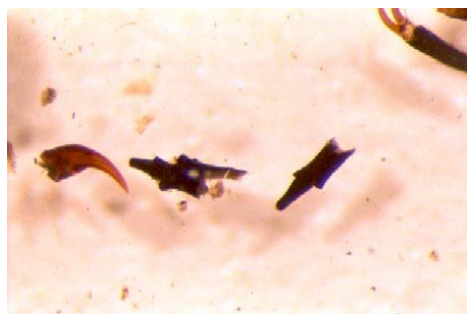


Photo 11-25



Forensic Analysis Report  
Results



Photo 11-26



Photo 12-03



Photo 12-04

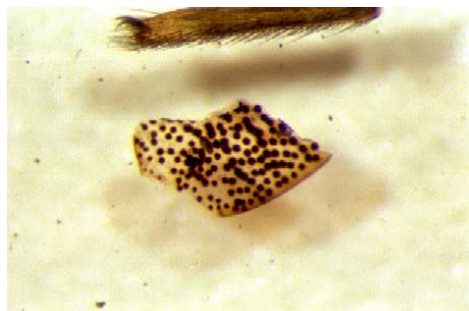


Photo 12-05



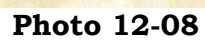
Photo 12-06



Photo 12-07

**Forensic Analysis Report**

**Results**



\*\*\*\*\*  
**Forensic Analysis Report**  
**Results**  
 \*\*\*\*\*

**SAMPLE W3**

**Label Data**

TNC 02 006  
 07/05/05 11:23 WEME

**Pellet**

10-mm x 8-mm & 17-mm x 3-mm & 4-mm x 3-mm

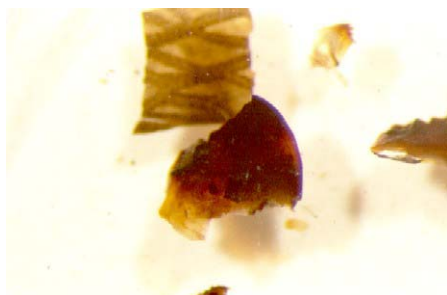
**Slides and Photos**

0052            12-09, 12-10, 12-11

**Sample Contents**

| Order       | Number of<br>Individuals |
|-------------|--------------------------|
| Coleoptera  | 1                        |
| Lepidoptera | 1                        |

**Slide 0052**



**Photo 12-09**



**Photo 12-10**

[illegible]

Forensic Analysis Report  
 Results

SAMPLE W4

Label Data

TNC 07 001  
 05/31/05                      WEME

Pellet

17-mm x 8-10-mm    &    11-mm x 2-mm

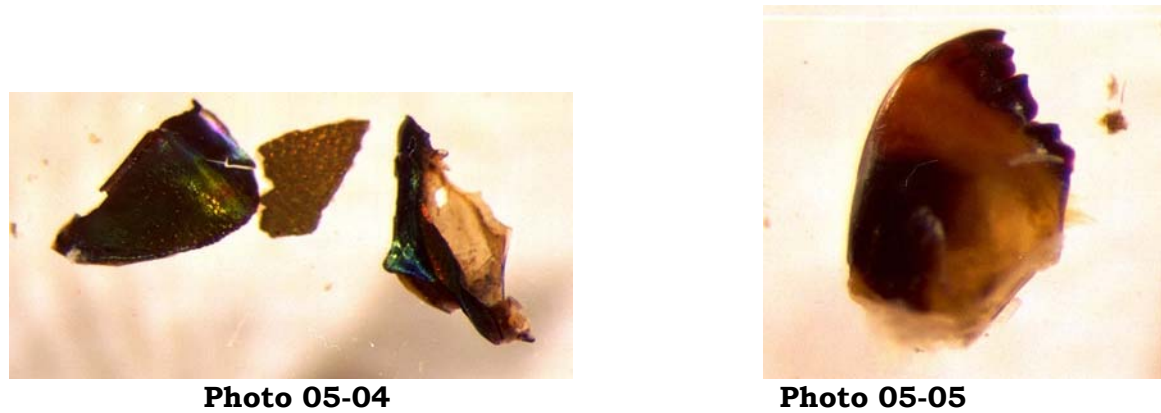
Slides and Photos

0053                      05-04, 05-05, 05-06a, b, c, 05-07, 05-08  
 0054                      05-09, 05-10, 05-11, 12-12, 12-13

Sample Contents

| Order            | Family  | Number of<br>Individuals |
|------------------|---------|--------------------------|
| Coleoptera sp. 1 |         | 1                        |
| Coleoptera sp. 2 |         | 1                        |
| Coleoptera sp. 3 |         | 1                        |
| Heteroptera      | Miridae | 1                        |
| Lepidoptera      |         | 1                        |
| Orthoptera       |         | 1                        |

Slide 0053



Forensic Analysis Report  
Results

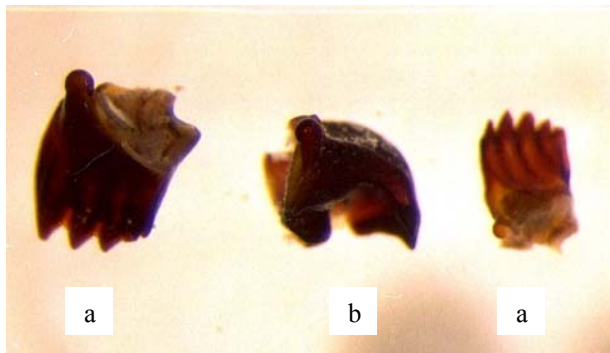


Photo 05-06

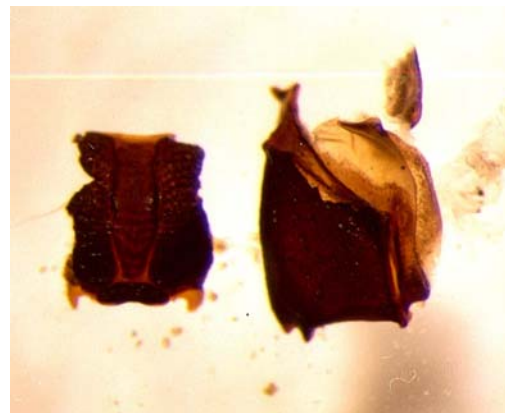


Photo 05-07

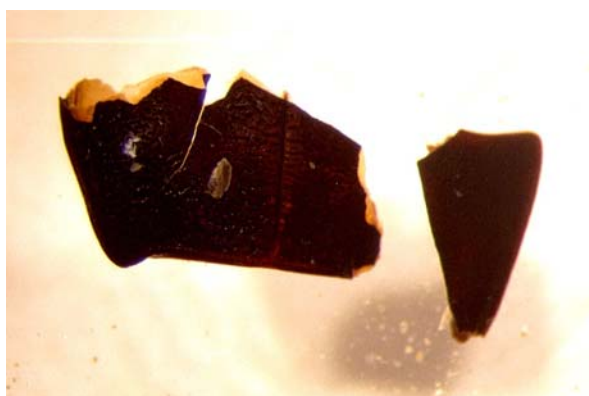


Photo 05-08

Slide 0054



Photo 05-09



Photo 05-10

[illegible]



## Forensic Analysis Report Results

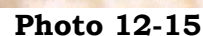
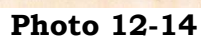
## Label Data

## Pellet

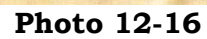
## Slides and Photos

## Sample Contents

**Slide 0055**



## Forensic Analysis Report Results



\*\*\*\*\*  
**Forensic Analysis Report**  
**Results**  
 \*\*\*\*\*

**SAMPLE W6**

**Label Data**

TNC 02 006  
 07/01/05                      WEME

**Pellet**

14-mm x 7-mm

**Slides and Photos**

0056                      12-17, 12-18

**Sample Contents**

| Order      | Number of<br>Individuals |
|------------|--------------------------|
| Coleoptera | 1                        |

**Slide 0056**



**Photo 12-17**



**Photo 12-18**

\*\*\*\*\*  
**Forensic Analysis Report**  
**Results**  
 \*\*\*\*\*

**SAMPLE W7**

**Label Data**

TNC 03 003  
 05/26/05                      WEME

**Pellet**

9-mm x 6-mm

**Slides and Photos**

0057                      12-19

**Sample Contents**

| Order      | Number of<br>Individuals |
|------------|--------------------------|
| Coleoptera | 1                        |

**Slide 0057**



**Photo 12-19**

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**Forensic Analysis Report**  
**Results**  
 ~~~~~

**SAMPLE BRBL1**

**Label Data**

TNC 10 001  
 05/31/05                BRBL

**Pellet**

15-mm x 11-mm

**Slides and Photos**

0058                05-12, 05-13, 12-20  
 0059                12-21, 12-22, 12-23, 12-24, 12-25  
 0060                05-14, 12-26

**Sample Contents**

| Order            | Family        | Number of<br>Individuals |
|------------------|---------------|--------------------------|
| Araneae          |               | 1                        |
| Coleoptera sp. 1 | Curculionidae | 1                        |
| Coleoptera sp. 2 | Carabidae     | 1                        |
| Coleoptera sp. 3 |               | 1                        |

**Slide 0058**



**Photo 05-12**



**Photo 05-13**

Forensic Analysis Report  
Results



Photo 12-20

Slide 0059



Photo 12-21



Photo 12-22



Photo 12-23



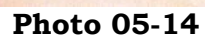
Photo 12-24

**Forensic Analysis Report**

**Results**



## Slide 0060





Forensic Analysis Report  
 Results

SAMPLE BRBL2

Label Data

TNC 10 005  
 R BRBL

Pellet

14-mm x 3-mm & 6-mm x 2-mm

Slides and Photos

0061 05-15, 05-15

Sample Contents

| Order      | Number of<br>Individuals |
|------------|--------------------------|
| Araneae    | 1                        |
| Coleoptera | 1                        |
| Orthoptera | 1                        |

Slide 0061



Photo 05-15



Photo 05-16

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