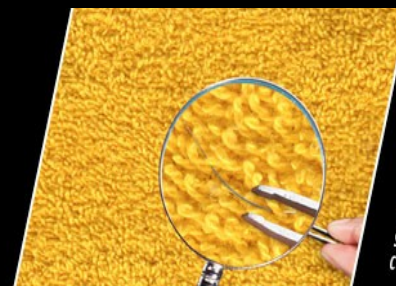


# Case Management Issues from Crime Scene to Court Room



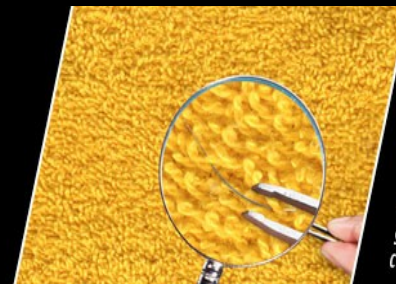
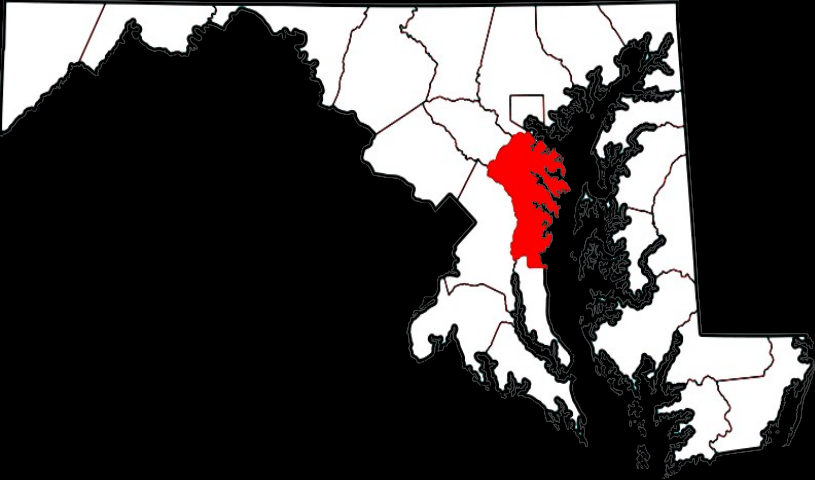
**TRACE  
EVIDENCE**  
SYMPOSIUM

AUGUST 13-16, 2007  
SHERATON SAND KEY  
CLEARWATER BEACH, FL

# Case Management Issues from Crime Scene to Court Room



- Anne Arundel County Police Department, Maryland
- Population: 510,000
- Size : 600 square miles
- PD: 700 sworn  
250 civilian



**TRACE  
EVIDENCE  
SYMPOSIUM**

AUGUST 13-16, 2007  
SHERATON SAND KEY  
CLEARWATER BEACH, FL

# Case Management Issues from Crime Scene to Court Room

- Crime statistics:
- 15 murders
- 100 rapes
- 2,500 Part 1 Violent Crimes
- 15,000 Part 1 Property Crimes



# Case Management Issues from Crime Scene to Court Room

- Organization
- Crime Lab – CDS analysis

## Serology/ DNA

- Identification Unit - Crime Scene Unit

Evidence Coordinators

Latent print

Photo lab



# Case Management Issues from Crime Scene to Court Room

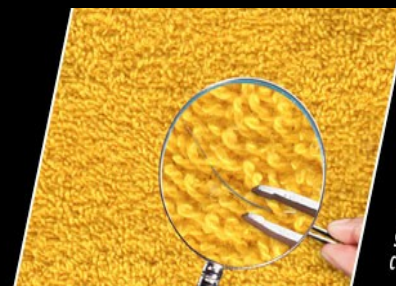
- “To trace, or not to trace.....”
- Evidence coordinators make decision based upon:
  - Type of physical evidence collected
  - Suspect or no suspect
  - Suspect in custody
  - If no suspect, initial emphasis on evidence with databases (DNA & fingerprints)
- Identification v. case enhancement
- Relationships

Pandora's box



# Case Management Issues from Crime Scene to Court Room

- **Most probative results:**
  - Trace considered during initial laboratory screening - equal footing with serology/DNA
- **Least probative results:**
  - Trace analyses considered secondarily or as a “last resort”
- **Trace evidence since 1985:**
  - 1985 - early 90’s MSP & FBI Labs
  - mid 90’s - our own Trace Unit
  - Currently - outsourcing



**TRACE  
EVIDENCE  
SYMPOSIUM**

AUGUST 13-16, 2007  
SHERATON SAND KEY  
CLEARWATER BEACH, FL

# How is trace evidence viewed in our system?

- **Crime Lab**

- Emphasis on DNA
- No plans to bring back trace examiner position

- **Investigators**

- Prefer database-type evidence
- Greater emphasis on forensic sciences

- **Prosecutors**

- Preferred trace evidence
- Moved towards DNA
- Juries expectations shift emphasis back to trace
- Hair comparison with mtDNA

- **Juries**

- Can't get enough!
- If you collected it, why didn't you analyze it?



# Scenario #1: A murder

**Female victim found on the shoulder of a highway**

**Ligature strangulation**

**Partially clothed with possible sexual assault**

- **Scene Examinations**  
(a.k.a. - whatever we can get away with)
- **Search body w/UV and ALS**
- **Collection of extraneous hairs/fibers**
- **Latents from body**
- **Trace evidence vacuum**
- **Inkless fingerprints/fingernail scrapings**
- **Wrap body in sheet**
- **Soil/vegetation standards**
- **Autopsy Examinations**
- **Visible exam**
- **Sexual Assault Kit**
- **Head and pubic hair combings**
- **Fingernail scrapings**
- **Collect standards**
- **Collect clothing**
- **Collect sheet for trace**





# Scenario #1: A murder

Female victim found on the shoulder of a highway

Ligature strangulation

Partially clothed with possible sexual assault

- Laboratory submissions
- Sexual assault kit and clothing to Serology/DNA
- Combing and any extraneous collections/vacuums directly to Trace with victim's standards
- Trace Examinations
- Investigative - initial examinations to identify hairs/fibers foreign to victim that may establish perimortem environment
- Comparative - eventual examination with knowns/unknowns from suspect(s)



## **Scenario #2: Vehicle recovered from a carjacking two male subjects fitting the description of the carjackers used the vehicle during an armed robbery of retail establishment 1 hour later**

- **Vehicle examinations**
- **Usual search and processing for physical evidence**
- **Collect hairs/fibers individually or vacuum**
- **GSR collections, if appropriate**
- **Latent prints interior/exterior surfaces (swab steering wheel-DNA)**
- **Collect standards**
- **Suspects - collection of knowns/unknowns**



# Conclusions

- **More comprehensive training of Serology / DNA analysts**
- **Shift back to the collection and analysis of trace evidence, driven by:**
  - **Jury expectations**
  - **Realization that there ARE limitations to DNA**
  - **Hair comparisons confirmed with mtDNA**
  - **Technological advances**

