

# FORENSIC SERVICES UNIT NEWSLETTER

Issue 6: November 2010

FORENSIC  
SERVICES UNIT



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## Special Points of Interest:

- *A case study and recommendations to law enforcement for working with qualified search dogs and handlers*
- *The Oklahoma Project begins October 29, 2010—a unique collaboration between law enforcement agencies across the state to resolve missing and unidentified cases*
- *A NamUs dental identification case study*
- *Upcoming training opportunities from the National Center for Victims of Crime*

## CASE STUDY: MULTI-JURISDICTIONAL SEARCH WITH FORENSIC CADAVER DOG

**By Vi Shaffer**  
Forensic Cadaver Dog Handler

Convenience store Manager David Elliott disappeared on December 20, 1996 after he left the store in Hood County, Texas to make a bank deposit. Investigators suspected foul play since the rather small amount of money was never deposited, his car was found abandoned near the store and co-workers and relatives hadn't seen him since. Elliott was last seen getting into a motor home owned by their primary suspect.

The Hood County Sheriff's Department worked tirelessly to come up with leads on this disappearance. In January of 1997, tips regarding sightings of the motor home produced several areas, including some in another county, needing to be searched.

My K-9 "Mercy" and I were called to assist by Hood County Chief Investigator Larry Goin. The areas were varied - from lakes and shorelines to fields, swamp areas, woods and dumpsites. As the number of search areas increased, so did the number of agencies working the case. The Texas Rangers became involved, along with the Tarrant County Sheriff's Department, the Hood County Rescue/Recovery Team, Office of the Attorney General and eventually the Palo Pinto County Sheriff's Department and the Palo Pinto County Game Warden.

As time went on, although leads and tips on possible locations stopped being reported, the Agencies continued to work on the Case. In late January 1998, thirteen months after David Elliott went missing, out-of-town landowners discovered skeletal remains on their rural property in Palo Pinto County.

The wooded property - two counties away (approximately 38 miles from where Elliott

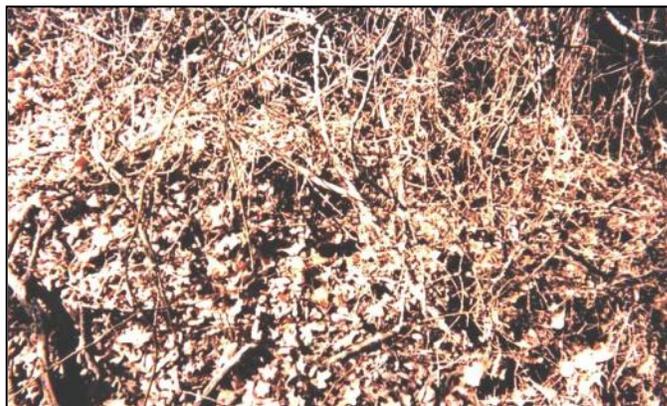
went missing) had a few open areas, dense brush, vines and tall grass. In other portions, mulch and thick, dead leaves blanketed the ground.

Investigators from both Hood County and Palo Pinto County worked the crime scene for two days, searching visually for bones and evidence. Scavengers in the area had scattered the remains over great distances from where the pelvis, some bones and



Above: Briars and vines make searching difficult.

Below: It is easy to see why visual searching was so difficult since the bones blended with ground cover.



## FORENSIC CADAVER DOG CASE STUDY

(Continued from page 1)

clothing had been found. After they were finished searching, Mercy and I were called to search for additional remains and evidence.

Upon conclusion of our search efforts, Mercy had found over 20 of the victim's bones and pieces of evidence – some of which were in varmint holes, in brush, or buried by the scavengers.

Enough evidence was finally obtained to issue an arrest warrant for the primary suspect – Phillip A. Adams. With the assistance of the Shreveport, LA Police Department, Adams was arrested. Palo Pinto County Sheriff's deputies brought Adams back to Texas where he was charged and convicted of the murder. David Elliott was returned to his family.

### Summary:

It is proven that a dog's nose is exponentially greater than a human's. A *properly trained K9* – along with a *well trained Handler*, is a "Team" that is a tremendous asset. If a K9 is good but the Handler is questionable – then the "Team" is usually questionable. A "cadaver dog" also called a "human remains detection dog" or "death investigation dog", etc. is not just a dog that knows the odor of human decomposition. There is an incredible amount of training involved for both the dog and the Handler. The Handler must understand scent theory, atmospheric conditions and the effect on scent, search strategies, crime scene preservation, soil factors, forensic taphonomy, decomposition rates and numerous other subjects. There are also a range of locations a Team may be called to search.

Each of them poses their own unique characteristics and challenges – from urban to wilderness, building, water, fire and vehicle. The Dog Team must be trained in each one. For example: scavengers, from rodents to Coyote and Bobcat, each have their own pattern of how they collect and where they conceal their food sources. Those factors should be understood and included in the search strategy in rural and wilderness type areas. In addition, the dog must be trained to alert (indicate) on *only* human remains and not on animal remains.

It is extremely important that law enforcement *verify* the qualifications and information provided by K-9 teams. This is to ensure the information is factual and the dog and Handler are properly trained in all the intricacies of cadaver search prior to calling them for assistance. No "search team" should just show up at a scene or contact the family to conduct searches without law enforcement involvement. That is a great indication of their lack of training, unprofessionalism, or a possible ulterior motive.

In addition, it is understandable that families want to continue searching when law enforcement has exhausted all their leads on locations. In those instances, some families have called upon Search Teams they heard of or saw on the Internet, to search areas without talking to the investigators working the case. This can be a two-edged sword. Evidence may be found – that is good. However, the scene may be compromised by the Search Team that has no law enforcement oversight; problems with scene photographs; chain of



Above: Mercy alerting on a bone fragment. Orange flags show some of the areas of other remains Mercy found. Orange flags were used to indicate Mercy's "finds", differentiating them from pink flags used by investigators.

Below: The scatter pattern far exceeded the flagged locations in this photo. The skull was almost 90 yards from the other remains.



evidence; if the search was on private property and conducted with permission from the landowner; and other issues. Also, there have been times when the perpetrator inserted themselves into a search group/team to steer the search away from the location (where the victim was) or say they searched the area and it was negative.

Some excellent Dog Teams do not have websites but are called by agencies through word-of-mouth because of their work. On the other hand, there are Teams who have glorified websites where the information cannot be

substantiated. There are numerous search dog teams – many are *very good* – but there is *no such thing* as a "wonder dog". Unfortunately there are also glory-seekers and charlatans.

Several dog Handlers have been prosecuted in the past six years and there are cases on appeal based on a Dog Team's actions, training – or lack thereof – for that particular type of search. K9 Detection work has no place for glory-seekers, media-hounds, or egos... the *only* name that is important is the name of the victim.

## FORENSIC CADAVER DOG CASE STUDY: ABOUT THE AUTHOR



### Vi Shaffer

(formerly Vi Hummel-Carr)

has been assisting law enforcement as a K9 Handler for over 19 years. The majority of her searches have been homicide cases. Vi and her

current K9 "Spirit" are certified by Law Enforcement Training Specialists International. Vi, a member of the Federal Disaster Mortuary Operational Response Team (DMORT), is the National Chair for the Federal National Disaster Medical Systems OER/HHS/DMORT Mass Fatality K9 Standards and Requirements Committee. She also served on the Board of Directors for the Region 6 DMORT team for two years. Her training, experience and resume are extensive – specializing in human remains detection. Vi has worked with

the Texas Rangers, FBI, ATF, NTSB, TPWD, NCMEC and law enforcement agencies and fire departments across the state of Texas and in several other states. Vi is also a Speaker and Instructor and has written several articles. She has been involved in many national and nationally known searches – including being on the Victim Recovery K9 Team at the Pentagon in the aftermath of 9-11, at the request of the FBI. Vi does not charge for her services and will assist law enforcement anywhere she's needed.



Above: Vi Shaffer's certified K-9, Spirit.



Above: Vi Shaffer's certified K-9, Spirit, and her two K-9s in training, True and Omega.

## NEW RESOURCE: FILLABLE MISSING PERSON INTAKE FORM

Using a standardized missing person case intake form will ensure that every investigator in your agency consistently collects all of the information needed to locate or identify a missing person.

A standardized case intake form should collect all of the data necessary to later enter a missing person into NCIC and NamUs, and where appropriate, to report the case to other agencies who might assist, such as the National Center for Missing & Exploited Children.

Collecting complete data on the missing person at the earliest opportunity will prevent data from being lost, such as a family member no longer recalling what the missing person was wearing at the time of his or her disappearance.

In addition, having a standardized case intake form enables your agency to provide this form to family members of missing persons, who can complete and return the form directly to your missing persons detective. Giving family members this task not only gives them a sense of being involved in the investigation, it will likely result in the family providing more descriptive information about the missing person, as the form will prompt for descriptions of clothing, jewelry, or other items the family may not otherwise have considered relevant.

A model case intake form has been created by the Forensic Services Unit and is now available for download from:

[www.UNTFSU.com/DOWNLOADS](http://www.UNTFSU.com/DOWNLOADS)

## THE OKLAHOMA PROJECT: SEARCH FOR THE MISSING

On October 29, 2010, the Oklahoma State Bureau of Investigation, Oklahoma Department of Corrections, and Oklahoma Medical Examiner's Office held two press conferences to announce the launch of a program to identify missing and unidentified persons throughout the state.

Created by the Oklahoma Cold Case Investigator's Association, the Oklahoma Project enlists law enforcement agencies throughout the state to find relatives of missing persons who have not donated DNA. The project was created to help identify remains recovered across the state.

The Oklahoma Medical Examiner's Office will submit remains from approximately 200 unidentified decedents to the University of North Texas (UNT) Center for Human Identification for DNA analyses and upload to the National DNA Index System. At the same time, law

enforcement agencies throughout the state will collect family reference DNA samples that will also be submitted to UNT.

The Oklahoma State Bureau of Investigation, the Oklahoma Department of Corrections, the Oklahoma State Medical Examiner's Office, the Oklahoma City Police Department Missing Person's Unit, the Tulsa Police Department Missing Person's Unit, and numerous local police and sheriff's departments have joined force in this effort.

Family members who volunteer for this program will have their DNA samples collected by swabbing the inside of their cheek; no needles or blood are necessary to collect the samples. Parents and relatives will be asked to sign a consent waiver giving permission to have their DNA samples profiled and loaded into the National DNA Index System.



Above: Lewis and Jackie Heim speak about their missing daughter, Karen Heim, at the Tulsa press conference.

(Photo courtesy of James Gibbard/Tulsa World)

All DNA analyses for this project will be conducted by the UNT Center for Human Identification at no cost through grant funding from the National Institute of Justice. The UNT Center for Human Identification is proud to support this important project that will not only bring resolution to families of missing persons throughout Oklahoma, but to family members across the nation.

Families who wish to provide DNA samples should make an appointment for their DNA collection by contacting the Oklahoma Project through any of the following channels:

### Search for the Missing:

**1-800-522-8017**

Ask the operator to speak with someone about a missing relative.

### Oklahoma Department of Corrections:

[frs@doc.state.ok.us](mailto:frs@doc.state.ok.us)

### Oklahoma Medical Examiner's Office:

[missingpersons@ocmeokc.state.ok.us](mailto:missingpersons@ocmeokc.state.ok.us)

### Oklahoma State Bureau of Investigation:

[missingpersons@osbi.ok.gov](mailto:missingpersons@osbi.ok.gov)

### Oklahoma City Police Department:

[ocpd.missingpersons@okc.gov](mailto:ocpd.missingpersons@okc.gov)

### Tulsa Police Department:

[tpdmissingpersons@cityoftulsa.org](mailto:tpdmissingpersons@cityoftulsa.org)

Also visit the Oklahoma Project website at:

[www.untfsu.com/OKLAHOMA](http://www.untfsu.com/OKLAHOMA)



Above: Special Agent Ray Homer of the Oklahoma Bureau of Investigation speaks at the Oklahoma City press conference.

(Photo Courtesy of the Oklahoma Publishing Company)



## UPCOMING TRAINING OPPORTUNITIES FROM NCVC

### THE CSI EFFECT: MAXIMIZING THE POTENTIAL OF FORENSIC DNA

December 7, 2010  
Las Vegas, Nevada

Platinum Hotel  
211 E. Flamingo Road  
Las Vegas, Nevada  
[www.theplatinumhotel.com](http://www.theplatinumhotel.com)

#### Course Overview:

Hear from the nation's leading experts in forensic DNA, including a cold case detective, a retired New York City Homicide Investigator, a survivor/victim advocate, and scientific and public policy experts. We will demystify the function of the CODIS database; review best practices for working cold cases; discuss using DNA in missing person cases; explore crime scene evidence collection and Touch DNA; and discuss innovations in the criminal justice use of DNA, such as familial searching.

To register, visit: [www.surveymonkey.com/s/R59639X](http://www.surveymonkey.com/s/R59639X)

#### AGENDA

##### Katie's Law: Preventing Crimes and Saving Lives with Arrestee DNA Databases

*Mai Fernandez, Executive Director, National Center for Victims of Crime*

##### Maximizing the Potential of DNA Technology

*Jayann Sepich, Survivor and Advocate, DNASaves.org*

##### CODIS Overview, Policy Update, and Funding News

*Chris Asplen, VP, Gordon Thomas Honeywell Governmental Affairs*

##### A Detective's Perspective: Innovations in Law Enforcement Use of DNA

*Joe Blozis, Retired Detective, New York City Police Department*

##### Working Cold Cases: Two Case Studies

*Sgt. Mike Huff, Homicide Unit Supervisor, Tulsa Police Department*

##### Protecting High-Risk Victims and Resolving Missing and Unidentified Cases With DNA

*B.J. Spamer, Program Manager, UNT Center for Human Identification*

### WORKING COLD CASES 101: TWO CASE STUDIES

December 1, 2010 / 1:00 PM (EST)  
Don't miss this free webinar!

Learn from a 35-year law enforcement veteran and cold case investigator about solving cold cases and homicide investigation. Sergeant Mike Huff will present two cases to explore best practices and ways to prevent cases from going cold. Hear about the formation and mission of the International Association of Cold Case Investigators.

#### Presented By:

Sergeant Mike Huff  
Homicide Unit Supervisor  
Tulsa Police Department  
(co-founder, International Association of Cold Case Investigators)

To register for this free webinar, visit: [www.ncvc.org/dna](http://www.ncvc.org/dna)



## DENTAL IDENTIFICATION: EVERYONE HAS A ONE-OF-A-KIND SMILE

One of the most effective ways to identify someone is through their dental records. NJ's National Missing and Unidentified Persons Database (NamUs) offers online access to dental information to streamline identification and case resolution.

Every record in NamUs has the capability of containing personal identification information, be it DNA availability, dental records or fingerprints. While the availability status of this information is viewable by all, the actual records can only be viewed by law enforcement, forensic specialists, and other registered secure users.

### Missing Persons Matched with Unidentified Remains:

**Jody King**

**NamUs case #:** MP #1992  
**Person Missing:** April 20, 2009  
**Body Found:** June 18, 2009  
**Body Identified:** June 19, 2009

In April 2009, a man disappeared following a car accident in Connecticut. Police and dogs searched the area, finding the man's wallet and some clothing, but not the man himself and he became a missing person.

A few weeks later, Jody King's aunt learned about NamUs, and entered very thorough information — including dental records and images of tattoos and a wedding band — into the system. The following month, a body was found in the area of the accident scene and, in June 2009, with the help of the dental records that were readily accessible in NamUs, the body was identified as Jody King, the man who had disappeared following the car accident.

### Dental

[Send request for help to RSA](#)

**Select one - Required \***

Dental information / charting is currently not available (Explain in comments box below)

Dental information / charting is available and will be entered later (Explain below)

Dental information / charting is below

---

X-Rays available       Models available       Photographs available

Baby/primary teeth present       Implants       Upper jaw has no teeth

Filling or crown present       Braces       Lower jaw has no teeth

Removable dentures       Retainer

Bridge work       Root canal

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[Show NCIC Dental Chart](#)

|             |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |            |
|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------|
|             | 1                        | 2                        | 3                        | 4                        | 5                        | 6                        | 7                        | 8                        | 9                        | 10                       | 11                       | 12                       | 13                       | 14                       | 15                       | 16                       |            |
| Upper Right | <input type="checkbox"/> | Upper Left |
| Lower Right | <input type="checkbox"/> | Lower Left |
|             | 32                       | 31                       | 30                       | 29                       | 28                       | 27                       | 26                       | 25                       | 24                       | 23                       | 22                       | 21                       | 20                       | 19                       | 18                       | 17                       |            |

- N = Natural tooth, no filling
- F = Filling, inlay, onlay, or veneer
- C = Crown or cap
- B = Bridge work
- R = Root canal
- A = Antemortem loss (healed socket)
- I = Impacted
- O = Other features (describe in dental comments)

Comments

Above: The NamUs dental charting system allows for quick identification screening. Forensic odontologists are available at no charge to jurisdictions requesting charting or identification assistance.

In this case, the quick availability of dental records prevented a prolonged search for this information.

### Working together with NCIC

The NamUs dental codes are not designed to provide direct identification, but provide a strong screening tool that can be quickly used to determine if further comparisons are needed. Because NamUs is available online, investigators can access the charts without delay or the need to make inquiries at multiple agencies. Digital image files can be uploaded to NamUs, including scanned radiographs, dental charts, NCIC forms or other case-related images, and can be marked not viewable by the public.

When possible, both NCIC and NamUs use trained dentists to enter missing persons dental data and to upload the

NCIC Dental Worksheet and Report to NamUs. Because NamUs cases can contain NCIC dental data, both codes can be available for analysis, eliminating redundant work.

### NamUs provides forensic assistance

The NamUs program is able to assist jurisdictions free of charge with the identification of remains through a team of four forensic odontologists and other experts. The odontologists are available to assist with dental charting and comparisons, and to support medical examiners and coroners with identification. To receive assistance with cases in NamUs, registered law enforcement users should contact their NamUs regional system administrator (RSA) to make a request. RSA contact information can be found on a case's Contacts tab, or by

going through the Resources tab and selecting the appropriate region.

Everyone interested in solving missing persons and unidentified decedent cases - law enforcement, medical examiners and coroners, victims' advocates and families can use the system to share information and help solve these heartbreaking cases.

The University of North Texas Center for Human Identification (UNTCHI) and NamUs are funded by the National Institute of Justice and have partnered to enhance the resources and exchange of information related to missing and unidentified persons. For more information on NamUs, visit [www.namus.gov](http://www.namus.gov).

## CONTACT INFORMATION

UNT Center for Human  
Identification  
**Forensic Services Unit**  
3500 Camp Bowie Boulevard  
Room 332-EAD  
Fort Worth, Texas 76054  
800-763-3147 ext. 5451  
missingpersons@unthsc.edu

### **FORENSIC SERVICES UNIT**



### International Association of Cold Case Investigators

5103 S. Sheridan Road, #300  
Tulsa, Oklahoma 74145  
918-409-5026  
Facebook Page:  
“Cold Case Investigators”

*For further information or  
submissions to the  
Laboratory for Forensic  
Anthropology, contact:*

**1-800-279-1399**

*For submission forms,  
sample collection kits or  
further information regarding  
the Forensic Services Unit or  
the Laboratory for  
Molecular Biology, contact:*

**1-800-763-3147**

## OTHER UNTCHI RESOURCES

### Laboratory of Forensic Anthropology

Located in a secure facility on the UNT Denton Campus, the Laboratory of Forensic Anthropology provides:

#### Analysis

- Creation of a biological profile (sex, ancestry, age, stature/physique), providing investigators a basis for their investigation and CODIS analysts with an ability to filter possible matches
- Analysis of possible trauma, answering the question, “What happened to this individual?”
- Descriptions of unique features which may be used to identify an individual
- Acquisition of dental radiographs for comparison should a potential match arise

#### Positive Identification

- Dental identifications through a board certified forensic odontologist
- Radiographic identifications using X-rays, CTs, or MRIs
- Identifications based on medical hardware/surgical procedures

#### Additional Services

- Consultation
- Elimination of non-human remains cases
- Identification of cases with no forensic significance
- Assistance with search and recovery efforts

### Laboratory for Molecular Identification

The Laboratory for Molecular Identification is an accredited laboratory. The lab is one of only a few facilities that integrates nuclear and mitochondrial DNA (mtDNA) for analyses. Once DNA profiles are obtained, they are directly entered into the FBI’s Combined DNA Index System.

The National Missing Persons DNA Database utilizes three categories under the Missing Person Index:

#### Direct Reference Samples

Missing Persons: biological samples from the actual missing persons (hospital blood card, hospital tissue sample, baby tooth, etc.)

#### Family Reference Samples

Biological Relatives of Missing Persons: samples from biological relatives of the missing person (Family Reference Samples)

#### Unidentified Remains

Unidentified Human Remains: biological samples from unidentified remains (bone, skeletal muscle, blood cards, etc.)

The missing persons indices and the unidentified remains index continually search against each other at the local, state, and national levels of CODIS. This provides families of the missing the comfort that the search for their loved one will continue.