

FORENSIC SERVICES UNIT NEWSLETTER

Issue 7: December 2010



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Special Points of Interest:

- *Texas law enforcement agencies seek your assistance in identifying a female found in Austin in 1975*
- *Tips for properly using DNA and CODIS in a missing or unidentified person investigation*
- *Fox Valley offers missing and unidentified training in February 2011*

FEATURED UNIDENTIFIED CASE AUSTIN COUNTY, TX JANE DOE

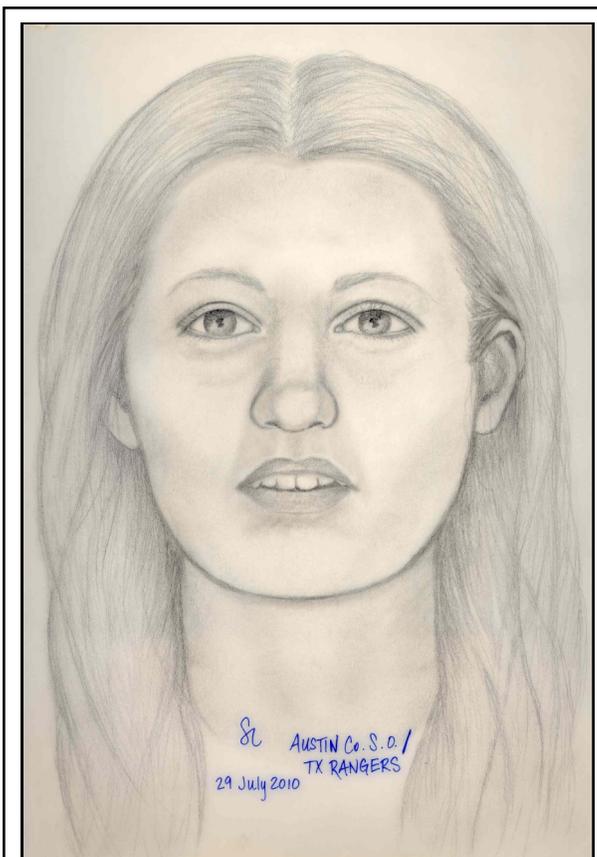
On June 7, 1975 at approximately 6:00 AM, two boys checking their fishing lines in the Brazos River found a body floating in the river. The location was behind the Lazy River subdivision near Sealy, Texas, approximately two miles up river from Interstate 10.

The Austin County Sheriff's Office, a funeral home representative, and Judge Dennis King, Justice of the Peace for Precinct 4, were dispatched to the scene.

The body recovered from the river is thought to be that of a young woman, aged 17 to 25. There was no clothing or jewelry recovered with her body; however, she did have distinctive medical and physical descriptors. The young woman had a 5-1/2 inch scar on the upper left quadrant of her abdomen from a splenectomy and there was a large gall stone present in her body at the time of death. She may have been pregnant or given birth at some time in her life. She also had well-manicured fingernails and toenails, with a deep red/wine nail polish present on all nails.

The young woman's body was thought to have been in the river for 3 to 4 days prior to its discovery, and the body may have drifted from a location farther up the river.

Agencies in surrounding areas were contacted for any reports of missing persons or abandoned vehicles, and a search of the surrounding area was conducted, all to no avail. Fingerprints and other methods of identification available in 1975 also produced no leads as to the woman's identity. The body was returned to



Composite sketch of decedent created by Suzanne Lowe

Austin County Unidentified

Sex/Race: White Female
Estimated Age: 17 to 25 years (+/- 1.5 years)
Height/Weight: 5'03" to 5'06", 110–125 pounds
Hair Color: Sandy/Blonde

SMT: 5-1/2" scar on upper left quadrant of abdomen from splenectomy (surgically missing spleen) and large gall stone present. May have been pregnant or give birth in life. Long sandy blonde hair, fingernails and toenails freshly manicured with deep red/dark wine polish.

Found June 7, 1975 in the Brazos River, Austin County, Texas

FEATURED UNIDENTIFIED CASE AUSTIN COUNTY, TX JANE DOE

(Continued from page 1)

Austin County and was eventually buried in an unmarked grave in the Wallis Cemetery. Judge Dennis King, Pastor Gene Frank and Rudy Kneseck are the only individuals remaining today who were present at the young woman's burial.

Judge King has never given up on resolving this case. He keeps a notebook with all relevant facts notes, conversations and photos. Each time he attends a training event, an inquest, a fact-finding mission to a morgue, or just a phone call to a medical examiner's office, he takes the opportunity to ask what else he can do to identify this young woman.

For nearly 35 years, there was always an issue. A lab was too far to transport the body, cost was very high for available reconstruction processes, the person on the other end of the phone didn't

have the time or the case was out of their jurisdiction. Finally, however, Judge King's persistence paid off.

In a phone conversation with a medical examiner from Galveston, Judge King brought up the case and was referred to the University of North Texas Center for Human Identification. Technology had been developed to extract DNA from skeletal remains and communication had advanced to the point where information could be instantaneously shared around the world. However, Judge King indicated that what finally reinvigorated the investigation were people.

"I finally got someone on the other end of the phone who cared as much as I did," said Judge King.

An exhumation took place on July 29, 2009 and arrangements were made to send the remains to UNT for DNA analyses. Meanwhile,

Texas Ranger Forensic Artist Suzanne Lowe began creating a facial reconstruction from the decedent's skull, to show what the young woman may have looked like in life. Lowe is the only forensic artist employed by the Texas Rangers and used the decedent's skull, medical reports, descriptions and crime scene photographs to create her forensic drawing.

One year to the day after exhuming the body, Judge King received a copy of Suzanne Lowe's facial reconstruction. Judge King is hopeful that the new forensic drawing and DNA analyses will help determine the young woman's identity.

Attempts to develop DNA profiles from the long bones were unsuccessful, therefore, new testing is being performed on the decedent's teeth in an attempt to extract her DNA.

The next step is distributing the decedent's information and likeness to the public. Anyone having information concerning this case or any missing person who could be a match to this decedent is encouraged to contact any of the agencies listed below.

The UNT Forensic Services Unit welcomes the opportunity to feature missing and unidentified person cases for law enforcement, medical examiners, or coroners across the country. For more information on submitting a featured missing or unidentified case, contact:

B.J. Spamer

816-792-9820

BJ.Spamer@unthsc.edu

or

George Adams

817-735-5451

G.W.Adams@unthsc.edu



Judge Dennis King, Justice of the Peace for Precinct 4 reviews the case file for the Austin County unidentified female. The case has recently been reopened.

**Austin County
Sheriff's Office
979-865-3116**

**Justice of the Peace
Precinct 4
979-478-6723**

**Texas DPS
Missing Persons
Clearinghouse
1-800-346-3243**

BEST PRACTICES FOR MISSING & UNIDENTIFIED DNA

Knowing how to properly utilize DNA for a missing or unidentified person case can save agencies time, labor, and money. It can also bring resolution to families of missing persons and save them years – if not decades – of searching and waiting for answers.

The Forensic Services Unit has developed the following list of some DNA “Best Practices” to help investigators submit proper family reference samples, select an appropriate CODIS laboratory to perform their analyses, and ask the right questions to ensure that their profiles are being properly searched in the National DNA Index System.

Best Practices #1:

DNA samples should only be sent to laboratories that have the ability and willingness to:

- Use multiple technologies to develop mitochondrial, STR and YSTR profiles
- Routinely process degraded and skeletal remains
- Upload profiles to the National DNA Index System

There are private, state and local laboratories across the country performing different types of DNA analyses. It is important when conducting a missing or unidentified person investigation to utilize a laboratory that meets the above criteria. More than STR profiles are needed to effectively investigate a case; mitochondrial profiles are also crucial and when the missing person is male, YSTR profiles also become important. Developing

profiles using more than one technology will enhance CODIS searching capabilities.

DNA laboratories must also be experienced in developing profiles from degraded samples and skeletal remains. Laboratories with this experience will use enhanced amplification strategies to develop profiles where no profiles could be obtained just a few years ago.

Best Practices #2:

DNA samples should only be sent to laboratories with dedicated missing and unidentified sections. This will ensure that missing and unidentified casework is not backlogged behind criminal casework that is deemed more time sensitive.

Best Practices #3:

Samples with only STR profiles and/or YSTR profiles should be sent to a laboratory capable of developing mitochondrial profiles. Without mitochondrial profiles for missing and unidentified persons, there is potential to miss associations in CODIS. Therefore, if only nuclear DNA profiles have been developed for a case, it is important to submit new samples to a laboratory that will develop mitochondrial DNA profiles for upload to CODIS.

Best Practices #4:

For a missing person case, it is important to collect two or more family reference samples for each case. Samples from a single relative will be accepted, but investigators should be aware that without two or more relatives, proper searching will not take place in the National DNA Index System.

Best Practices #5:

When submitting a DNA sample to a CODIS laboratory for profiling and upload to CODIS, investigators should ensure:

- A written voluntary consent from the family member is collected
- The DNA specimen has been collected by a sworn officer or other law enforcement personnel
- Submission forms specific to the CODIS laboratory are included with the specimen
- The DNA donor’s relationship to the missing person is recorded

NamUs entry is also required by some laboratories to process DNA samples. The UNT Forensic Services Unit will assist any agency in entering a missing or unidentified case into NamUs if needed for submission to the UNT Center for Human Identification.

When indicating a DNA donor’s relationship to the missing person, note as much detail as possible. For example, if a DNA donor is a half-sibling, indicate which parent is shared by both individuals. If the donor is a grandmother or more distant relative, indicate if the donor is a maternal or paternal relative. This will assist the laboratory in identifying which specimens should be processed for mitochondrial DNA, assist in the analysis of STR profiles, etc.

Best Practices #6:

DNA samples should always be submitted to a CODIS

laboratory to be profiled and loaded into CODIS as quickly as possible after collection. Samples should never be stored and only submitted for analysis once a potential match is identified through investigation or searches of NCIC, NamUs, etc.

The power of CODIS lies in its proactive searching capabilities to produce associations, or “cold hits”. By not uploading profiles to CODIS as soon as they can be developed, you are not fully utilizing CODIS and your investigation will likely suffer. Allowing CODIS to perform proactive searches can not only save you hundreds of hours in investigating potential matches, it could save families years of searching and waiting for answers.

Best Practices #6:

Never assume.

Especially in long-term, or “cold case” missing persons cases, investigators should never assume that everything which needs to be done in regard to DNA *has* been done.

Unless there is a laboratory report in the case file indicating that DNA profiles from more than one family member have been developed using more than one technology (e.g., STR and mitochondrial profiles), *and* the report indicates that the profiles have been submitted to the National DNA Index System, investigators should consult with their laboratory and request such confirmation. Without having this confirmation in writing, investigators cannot be certain that their missing person’s profiles are in the NDIS for proper proactive searching to take place.

RESPONDING TO MISSING & UNIDENTIFIED PERSONS FEBRUARY 22-24, 2011 - APPLETON, WISCONSIN

Conference Description:

In the U.S. there are over 100,000 active missing persons' cases each day, including both children and adults, who vanish under suspicious circumstances. This statistic reinforces the need to improve access to critical information for investigating the missing. It is important to identify and bridge existing gaps in resources between law enforcement agencies, forensic communities, national, state and local resource providers, as well as families of the missing.



Don't Miss These Keynote Speakers:

- Beth Holloway, mother of Natalee Holloway
- Dr. Emily Craig, Kentucky State Medical Examiner's Office
- Sgt. Jon Mattsen, Detective, King County Sheriff's Office
- Dr. Daniel and Gill Harrington, parents of Morgan Harrington

Who Should Attend:

Law Enforcement

- Administrators, investigators, patrol, K-9 search and rescue officers, medical examiners, coroners and members of the forensic community

Education

- Administrators, academic counselors, school resource officers, and campus security officers

Community

- Coalition members, faith-based personnel, representatives from non-profit organizations, advocates supporting aging/at-risk populations, and families of the missing

Service Occupations

- State clearinghouse staff, victim and child welfare advocates, social services and medical professionals

Conference and Lodging:

Radisson Paper Valley Hotel
333 West College Avenue
Appleton, WI 54911
920-733-8000 / www.radissonpapervalley.com

Participants making reservations on or before 02/01/11 will receive a special lodging rate of \$70 (plus tax). To receive this rate, reference the room block "MISS".

Conference Fee:

Register early! The cut-off date for the early registration fee of \$195 is on or before 02/01/11. After this date, the fee increases to \$225. The fee includes program materials, instructional costs, and refreshment breaks. Participants are responsible for costs and arrangements related to meals, travel and lodging.

For additional information and online registration, visit:

<http://www.fvtc.edu/missing>



Happy Holidays

May our colleagues and friends have a happy and peaceful holiday season, and may 2011 bring answers to the families of our missing.

*Happy Holidays from all of us at the
University of North Texas
Center for Human Identification*

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.