## A Hunt through a Genetic Haystack

For 24 years investigators sought the identity of the man who killed Jessica Baggen

By: Megan A. Peters

Earlier this month, the Alaska Department of Public Safety announced that it solved its third cold case in a year and a half by using a relatively new investigative tactic, genetic genealogy. Jessica Baggen was sexually assaulted and murdered more than two decades ago in Sitka. Her death left her family and community grieving and overwhelmed. It also haunted the investigators that spent years trying to figure out what

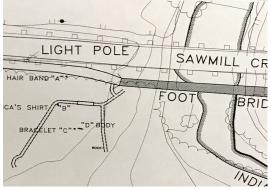
they had missed and what else could be done to bring justice and

solace to the Baggen family.

In the early morning hours of May 4, 1996, Jessica left her sister's place and took a paved bike path, paralleling Sawmill Creek road, home. She spent the previous day celebrating her 17th birthday with family and friends. The walk to her house should have only taken her about 20 minutes to traverse but she never got there. Instead, she was sexually assaulted and murdered—left buried under soil and brush beneath a fallen tree trunk about 70 feet from the bike path.

Jessica's killer, a 66-year old man who resided in Auburn, Arkansas, by the name of Steve Branch, flew under the radar until he was tracked down through his ancestor's DNA. Branch killed himself shortly after Trooper investigators questioned him in early August. The news of the case closure was a tremendous relief, in particular, to Dave Tugmon, a retired law enforcement officer that spent many years himself, attempting to find out who killed Jessica.

When Jessica was found dead, it was Tugmon, an investigator with the Sitka Police Department, that was assigned the case. Two troopers with the Criminal Investigation Bureau (now known as the Alaska Bureau of Investigation) were at the training academy in Sitka the same day teaching a class on evidence collection.



A diagram of the crime scene originally done in 1996 as a part of the initial investigation.



Jessica's body was found approximately 70 feet into the woods off the bike path that parrellels Sawmill Road that she used to walk home after celebrating her 17th Birthday.

"They came over and we collected every possible piece of evidence from the scene," said Tugmon. "Clothes, hair, everything."

Nearly every male that had a connection to Jessica or was known to be near the scene on the night she was killed became a suspect in Jessica's death, to include Tugmon's son.

"He was one of the last two known people to have seen her alive. He had offered her a ride home, but Jessica said she's rather walk. He left about 15 minutes after Jessica did; we had to check him out as a suspect," said Tugmon. "The next day when I told him Jessica was dead, his face showed pure horror and disbelief. Another officer collected his DNA to be tested, and just like every other suspect, he wasn't a match."

Nine days after Jessica was discovered deceased, a man confessed to her sexual assault and murder. While

there was plenty of circumstantial evidence, it was determined months later that none of the physical evidence collected from the crime scene connected the suspect to the actual crime. The man went to trial for Jessica's sexual assault and murder in early 1997 and was found not guilty on all charges; the hunt for Jessica's killer, the man with the matching DNA, went on.

When asked about the man previously tried, Tugmon said he understood why the case went to trial. The man simply knew too much and there were too many coincidences— one being that when the man's boat was searched, there was a nude poster of a woman found above the man's bed; the model's name was Jessica.

Tugmon worked the case until he left Sitka PD about a year and a half later to take a job in the Lower 48. "I must have talked to Jessica's family about every day until I left," said Tugmon. "Her dad was always very helpful and appreciative. He even paid out of his own pocket for the DNA testing for anyone that gave a sample to compare to the killers."

Less than a decade later Tugmon returned to Alaska, joining the ranks of the Alaska State Troopers. A few years later, in 2007, he, at this point a Lieutenant, was put in charge of the Cold Cast Investigation Unit (CCIU). With the case file in hand, Tugmon went into his Captain's office to tell him the CCIU had to review it.



During the investigation, Dave Tugmon, now retired and living in the Lower 48, wrote to Sen. Ted Stevens to request help with getting the FBI to conduct a Mitochondrial DNA test on the hairs collected on scene in an attempt to identify a suspect. At the time, it was a new technique and Jessica's case was the first time it was used in a case from Alaska.

The case was assigned to Investigator Tim Hunyor, re-hired by the Department of Public Safety after many years of serving as an experienced Alaska State Trooper investigator. Hunyor started from scratch. He poured over the file, flew down to Sitka to conduct some interviews and collect the evidence and the Sitka PD report to bring it to Trooper Headquarters in Anchorage. Over the years, he tracked down the man that originally confessed to the crime, re-interviewed other past suspects and would hold round tables with long-time investigators.

According to Hunyor, now fully retired from the Department of Public Safety, the case was riddled with mystery. "A few times we were certain we found the guy. We would fly down to interview the suspect and collect DNA. Each time the suspect DNA didn't match, and we had to start again to try to figure out what we were missing."

Always looking for ideas, Hunyor even kept a picture of an injury found on Jessica's back on his office door. "I didn't care what trooper or co-worker walked in my office; I would ask them if they had any idea what could have caused the injury. It was one of the things we never figured out."

In 2011, it was time for Hunyor to retire. A year after, Tugmon followed. While the case was no longer either's responsibility, neither of the lawmen could put it in their past.

"I was a cop for 31 years. Every [retired] officer seems to have that one case that they can't let go—that just haunts them. This case was mine," said Tugmon. "I still would wake up wondering what I missed."

The file stayed with the CCIU and other investigators reviewed it. In 2013, retired AST Investigator Randy McPherron was hired. The Baggen case was one he reviewed but the first case that he saw a promising outcome to was the 1997 Sandra Perry murder case in Yakutat. His efforts lead to a murder conviction in 2014 of Perry's then-boyfriend. However, due to budget restrictions, the unit was shuttered in 2015.

The CCIU was reestablished in 2017 and McPherron was rehired. Jessica's murder was still considered a viable case even with all the dead ends over the years. In May of 2018, McPherron read about a cold case from the late 1980s getting solved out of Washington state through genetic genealogy, something he never heard of before because it was the first time it was used to track down a killer. Then, a couple months later, the Golden State Killer was caught through the same method.



Parabon Nanolabs created a computer generated picture based off of its analysis of the forensic evidence. The generated image was remarkably similar to Steve Branch.

"I thought, maybe we can use that for some of our cases," said McPherron. "Why not? I had a stack of cases that we were looking for that needle in the haystack. What have we got to lose?"

McPherron reached out to Parabon Nanolabs to find out more about the process and to learn how to submit a case. After reviewing the cold cases and what viable forensic evidence was available, the Sophie Sergie case was selected to be the trial run for the new technique because it had the most forensic evidence. If genetic genealogy could identify Sophie's killer, more cases, to include Jessica's, would be submitted.

McPherron wasn't the only investigator to take note of the cases in the Lower 48. Then-Lieutenant Lance Jamison-Ewers, with the Sitka Police Department, called McPherron. Could Jessica's case be solved with genetic genealogy?

"I told Lance we were giving it a shot with Sophie's case," said McPherron. "We discussed the submission process and costs... Jessica's case was in our stack to move on if Sophie's worked."

Jessica's unresolved case had hung over Jessica's family and the community of Sitka for too long already. "We wanted to do whatever we could to push the case forward," said Jamison-Ewers. "Her parents deserved to see a resolution in their lifetime, and it was the right thing to do."

The DPS would keep case responsibility and do follow up investigation on whatever clue Parabon Nanolabs discovered in its search of public genealogical databases and Sitka PD would assist. With that, Jamison-Ewers filled out the paperwork on behalf of Sitka PD, worked with Alaska State Crime Detection Laboratory to determine if the appropriate forensic evidence was available for the process, and Jessica's Patty Busby spent months building a complicated unknown attacker's profile was submitted in September of 2018.



family tree based on the SNP-DNA profile generated by Parabon Nanolabs from the blood found on Jessica's shirt to assist Inv. McPherron in the investigation.

Parabon successfully developed a Single Nucleotide Polymorphism (SNP) profile of the suspect DNA. The suspect's profile was uploaded into the GEDmatch database where several matches to individuals in the database who shared small amounts of genetic information with the suspect were found. A Parabon genealogist and a Criminal Intelligence Analyst, Patty Busby, with the Department of Public Safety began dissecting a very complicated family tree looking for ties to Alaska amongst thousands of people genetically linked the killer.

"We took the family tree back to the 1850s to one ancestral couple," said Busby, who has had a passion for genealogical research since being introduced to it by her father when she was a young child. "We are talking about every descendent of every descendent. Literally thousands of people that we spent months sifting through. Sometimes it involves trying to call people to see if they are willing to help us by answering questions about their family tree. A lot of people hang up on us."

Fortunately, one person didn't hang up and instead helped Busby identify many family members. The person even reached out to another family member who was elderly to request they make their genetic profile public to help the Troopers possibly find which of their relatives killed Jessica. The newly available public genetic profile proved to be the compass that would ultimately lead to Steve Branch in December of 2019.



Following Branch's suicide and the closure of the case, Inv. Randy McPherron added Jessica's photo to victims from cold cases that he solved while working case at a trial in 1997.) in the Cold Case Investigation Unit.

In January of 2020, McPherron reached out to the Arkansas State Police (ASP). ASP attempted to surreptitiously obtain a discarded DNA sample from Branch who lived in a rural area near the outskirts of Little Rock, AR. The effort failed. McPherron then reached back out to Jamison-Ewers in hopes that Sitka PD would potentially collect a discard DNA sample from one of Branch's genetically close family members to compare to the suspect DNA. McPherron was also vigorously investigating Branch. Not only was it determined that Branch was in Sitka at the time of the killing, he had been the suspect in another reported sexual assault against a young woman in the community just two months prior to Jessica's sexual his office wall, next to the photos of the three other assault and murder. (Branch was ultimately acquitted in that

It took Jamison-Ewers and another Sitka Police Department officer about three weeks to collect a legally discarded sample from a relative of Branch's. The Alaska State Crime Lab was able to generate a profile and send it to Parabon for kinship analysis. In May, Parabon reported back to troopers that it determined that the collected DNA had a very close kinship to the DNA collected on scene in 1996.

The COVID-19 pandemic put a delay on trooper investigators being able to travel to Arkansas to interview Branch until early August. On the third, investigators found Branch at his home and questioned him. No, Branch said he didn't know Jessica. He stated he didn't even remember hearing about the sexual assault and murder that occurred in the small town. No, he would not provide a sample of his DNA.

Troopers left. They were going to get a warrant to seize Branch's DNA and interview a few other people. About a half hour after investigators drove away, Branch got into his pick-up truck, drove to an isolated part of his property and shot himself. The local authorities investigated his death and ruled it a suicide.

On August 5th, McPherron was notified that Branch was dead by his own hand but investigators had secured the warrant for Branch's DNA and were able to collect it at autopsy. The forensic evidence was sent to the Alaska Scientific Crime Detection Laboratory for DNA analysis, which subsequently confirmed that Branch was the source of the suspect DNA found on Jessica.

On Monday, August 10th, the Chief of the Sitka Police Department knocked on Jessica's parent's door to tell them that after almost two and a half decades, their daughter's murder was known and that he took his own life. Jessica finally had a resemblance of justice, even though a jury would never have the opportunity to convict Branch. The following day, the Department of Public Safety announced to the world that Jessica wasn't forgotten. Her killer was found, and her cold case was over.

"I'll still think about Jessica and this case," said Tugmon, "but at least now it won't haunt me. I am so happy for the family and that they finally know who did this."



