

Analysis

[Science](#), [Genetics](#)



In August 2001, a man walking his dog in Lindley Woods in West Yorkshire, England, found the body of 16-year old Leanne Tiernan, buried in a shallow grove. She was found about 10 miles from her home. Tiernan had been walking home from a Christmas shopping trip with her best friend in November 2000 when she disappeared. She had a black plastic bag over her head held in place with a dog collar, a scarf and cable tied around her neck, and cable ties holding her wrists together. Her body was then wrapped in green plastic bin liners tied with twine. The pathologist examining her body said that her body had not been there since November and that Leanne Tiernan had been strangled and her body was stored at low temperatures in the intervening time. Police tracked down suppliers of the dog collar and found that a man from Bramley had bought several similar to the one found around Tiernan's neck. His name was John Taylor, and he was a poacher who had been seen around the woods where the body was found. The twine, used for rabbit netting, was tracked down to a supplier in Devon, which only produced one batch, matching the twine in Taylor's home. The scarf tied around Leanne Tiernan's neck had a few hairs caught in the knot. However, there was not sufficient DNA in the roots for standard DNA profiling. Fortunately, scientists found very small amount of DNA in the hair shaft and used Mitochondrial DNA testing (traces a person's matrilineal or mother-line ancestry using the DNA in his or her mitochondria) matching the hair to John Taylor. There were dog hairs on Leanne Tiernan's body as well, leading scientists in Texas to produce a partial dog DNA profile. This was the first time a British murder investigation had used dog DNA profiling. Although John Taylor's dog had died, traces of hair left behind in his home linked to

the hair found on Tiernan, matching in color and structure. Forensic scientists found a strand of pink carpet fiber on Leanne Tiernan's clothes with specific patterns of dye. Though John Taylor had destroyed the carpet by burning it, police found strands around a nail that matched the fiber on her jumper. Lastly, forensic experts were able to connect pollen found on Leanne with pollen that existed solely in Taylor's garden, where she had been just before she was killed. John Taylor was arrested in October 2001, and sentenced to two life sentences in July 2002. In February 2003, he was convicted of two rapes, based on hair analysis, and given two additional life sentences.