Letter to the Editor

Sir:

I do not normally work in the field of forensic biology but I recently was involved in a case that I believe may be of interest. It is my hope that the information reported here may contribute to the resolution of other cases based on botanical evidence.

Tuesday, 4 June 2002, two criminalists from the California Department of Justice called the Department of Biological Sciences at California State University Chico and the department secretary referred them to me. I am an associate professor of botany with regional, taxonomic, and ecological expertise in Northern California. The criminalists stated they were at a dead end in a case of a missing child and explained that they had found the father dead from a self-inflicted gunshot wound in his truck along a mountainous road (Highway 32) in Butte County, California. The father and daughter last had been seen in Las Vegas, Nevada and the only clue was some vegetation found in the truck. The criminalists came to visit me at the herbarium the same morning and presented me with some leaf litter collected from clothing of the missing girl, Jeanene Bonner. The clothing and associated leaf material were matted with blood.

I was presented with a sample of approximately 2 g of leaf litter contained in small clear plastic boxes. Based on leaf composition that ranged from whole to partially decomposed leaves, I estimated the sample to be from the top centimeter of leaf litter. The sample also contained, somewhat curiously, a whole leaf of greenleaf manzanita (Arctostaphylos patula) torn from a living shrub, as indicated by the freshness of the material. The bits of species material present (in order of abundance) were canyon live oak (Quercus chrysolepis) or interior live oak (Q. wislizenii var. wislizenii), white fir (Abies concolor), greenleaf manzanita, ponderosa pine (Pinus ponderosa), and black oak (Quercus kelloggii). I made preliminary identifications of these species and then compared the specimens with known samples from the California State University, Chico Herbarium. Each sample was examined for leaf venation characteristics, leaf margin characteristics, and general appearance. I was not able to positively identify the oak as either canyon or interior live oak based on the dried samples; oak species are notoriously difficult to identify. I proceeded to eliminate possible sites based on known species distributions and ecological site requirements. The species identified do not occur together in Nevada nor on the eastern exposure of the Sierra Nevada. The live oak, in particular, indicated that the site that I did not identify in the sample was douglas fir (Pseudotsuga menziesii).

I only can conjecture that the following events occurred. Based on the amount of blood found in the truck on the passenger side and the medical examiner’s report, the father shot his daughter point blank in the head, removed her shirt to prevent blood flow (there was no blood at the location where the truck must have parked), and carried the body down the slope in the dark to hide it. As he wandered down the slope he crossed into the chaparral where the manzanita leaf was removed. He placed her body on the forest floor between two down logs, pulled the shirt from under her head where he picked up the leaf litter, and took the clothing back to the truck. It is unclear why he took the bloody clothing back to the truck. Perhaps as a message to her mother, he wanted to make clear that he had killed her but did not want the body to be discovered.

Although I am glad that I was able to contribute to closure for the family of Jeanene Bonner, this has been a sad and difficult experience. I have a newfound respect for law enforcement personnel and associated scientists who work in the field of forensics.

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