

When Doves Cry: Description of a Mass Mortality Event.

When birds experience mass mortality events, it usually reflects some environmental, biological, or human-caused stress factors in the ecosystem. This study focuses on the fatalities of 37 Eurasian Collared-Doves (*Streptopelia decaocto*) in Park County, WY, 4 Feb 2025. Investigating potential causes, including bacterial and viral infections, toxic exposure, and environmental contamination, we combined morphological examination and laboratory testing. We hypothesized that a food-borne illness such as salmonellosis, generally caused by *Salmonella enterica*, was the cause death. We aseptically swabbed dove cloacae onto selective and differential media suitable for growth of this pathogen. Analysis of these samples, however, showed no presence of any *Salmonella* but variable abundance of *Escherichia coli* in many of the doves. Toxicological tests are being analyzed at the WGF Health Lab, as environmental evaluations include data on recent pesticide (Starlicide) applications within the area. Initial results indicate that toxic exposure and pathogenic infection might have played a role requiring further testing to determine the leading cause. This study seeks to identify the fundamental causes of this event to improve avian health risk assessment, guide conservation efforts, and validate the necessity of continuous wildlife monitoring. Addressing these mortality events is essential because they may affect ecological stability.