

Lead Poisoning at a Shooting Range

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In May 1999, a yellow-rumped warbler and a gray squirrel found at the Federal Law Enforcement Training Center (FLETC) in Glynn County, Georgia, were submitted to SCWDS for diagnosis of central nervous system disease. Lead poisoning was diagnosed in both animals. The case history indicated that additional wild birds and mammals occasionally had been found dead near the shooting range complex. In October 1999, 72 wild animals (35 birds and 37 mammals) comprised of 22 different species were collected from a 60-acre area surrounding the range complex to evaluate exposure to lead and other metals. Liver and kidney tissues were analyzed, and gizzards/stomachs were examined visually and radiographically for ingested metal fragments. Twenty-four (33%) animals (11 species) had tissue lead levels >1.0 ppm, and 12 of these (6 species) had levels >2.0 ppm. Ingested lead fragments were detected in a brown thrasher and two white-tailed deer. In February 2000, seven additional yellow-rumped warblers and a solitary vireo found dead near the FLETC outdoor ranges also were diagnosed with lead poisoning. Lead fragments on the soil surface of four adjacent outdoor ranges probably are the principal source of lead exposure at this location. Prior to the recognition of lead poisoning of wildlife at this site, FLETC had begun a series of measures to reduce and eventually eliminate deposition of lead bullets in the environment. These include:

- a major shift to use of non-toxic ammunition
- transferring most firearms training to new baffled ranges with bullet recovery capabilities
- remediation of existing outdoor ranges to remove existing lead fragments.

(Prepared by Randy Davidson)