

**Radionuclide Levels and Harvest Rates of American Alligators:  
Considerations for Exposure**

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**ABSTRACT**

The American alligator (*Alligator mississippiensis*) is found primarily in the southeastern region of the United States. Since the 19th century the species was hunted across the entire range for its valuable leather hide and as a food source. In 1962 commercial and recreational hunting was outlawed across the country, and in 1967, the species was listed under the Endangered Species Preservation Act. Careful management and conservation efforts resulted in population recovery and in 1987 the species was removed from the endangered species list. Following the delisting, numerous states within the historical range of the species have reintroduced commercial and sport hunting of the species. Obviously, due to habitat and population densities, both Florida and Louisiana have mature commercial, sport, and nuisance control programs.

In recent years sport hunting of the alligator has expanded across the southeast with Mississippi (2003), Alabama (2006), Georgia (2003), South Carolina (2008), and Texas (2010) establishing sport hunting seasons. These programs provide new hunting opportunities for outdoor enthusiasts and a food source for subsistence hunters. In this investigation we examine harvest rates of the species across the southeast, highlighting harvest data near nuclear facilities. We then present available historical and recent information on radionuclide levels observed in alligator tissue associated with the Savannah River Site and the Savannah River basin. While limited, the data set indicates that radionuclide levels observed from publicly harvested alligators in the Savannah River basin are consistent with levels observed in fish.

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