

Information Sessions:

June 10, 2014

Thomson, Illinois

6:00 p.m. - 8:00 p.m.

Refuge Visitor Center
7071 Riverview Road
Thomson, IL 61285

June 12, 2014

Prairie du Chien, Wisconsin

6:00 p.m. - 8:00 p.m.

Community Center
214 East Blackhawk Avenue
Prairie du Chien, WI 53821

June 18, 2014

Winona, Minnesota

6:00 p.m. - 8:00 p.m.

Winona Historical Society
160 Jackson Street
Winona, MN 55987

June 19, 2014

Onalaska, Wisconsin

6:00 p.m. - 8:00 p.m.

Refuge Visitor Center
N5727 County Road Z
Onalaska, WI 54650



Study Summary

Lead exposure in Bald Eagles in the Upper Midwest



**Upper Mississippi River
National Wildlife and Fish Refuge**
Wildlife Refuge Manager
51 East 4th Street, Room 101
Winona, MN 55987

507 452-4232

UpperMississippiRiver@fws.gov

www.fws.gov/refuge/upper_mississippi_river

Study

In 2011, researchers with the U.S. Fish & Wildlife Service initiated a study to assess lead exposure in bald eagles in the Upper Midwest. The livers of 168 bald eagles found dead throughout the Upper Midwest were examined by the U.S. Geological Survey's National Wildlife Health Center in Madison, Wisconsin for lead content. Detectable concentrations of lead were found in 48% of the livers and 21% had lead concentrations considered lethal. Additionally, most of the eagles exhibited physical signs consistent with lead exposure.

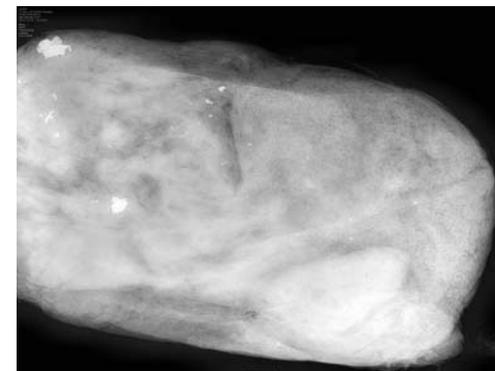
Studies conducted throughout the United States and internationally have shown spent hunting ammunition as a pathway for lead exposure in many wildlife species, including bald eagles. The subject study was conducted to determine if the incidence of lead poisoning of eagles in the Upper Midwest was potentially related to spent lead ammunition.

X-rays Showed Lead Fragments

Managed deer hunts are conducted on the Upper Mississippi River National Wildlife and Fish Refuge (Refuge) - Lost Mound Unit located in northwest Illinois. During managed hunts in 2012 and 2013, 57 white-tailed deer were harvested and gut piles from 25 harvested with lead ammunition were collected and x-rayed. The x-rays showed that 36% of the gut piles contained from 1 to 107 lead fragments per pile. During winter months when fish are not readily accessible, eagles rely on carrion, including deer carcasses and gut piles, as a primary food source.

Conservation of Wildlife

The Refuge extends 261 miles through the states of Illinois, Iowa, Wisconsin and Minnesota and has 84,000 acres of uplands included within 200,000 acres of public hunting lands. Non-lead ammunition is required on the Refuge, except for rifle bullets and shotgun slugs used for deer, squirrel and non-game (e.g. coyote) hunting. Thousands of hunters annually participate in these activities on the Refuge, with many using lead ammunition.



X-ray showing lead fragments in gut pile.

As a unit within the National Wildlife Refuge System, our mission is the conservation and management of wildlife species and their habitat. With thousands of bald eagles wintering and hundreds of eagles nesting on the Refuge, we are concerned with the potential long term impacts of the occurrence of lethal lead levels documented in this study. We are also concerned that other wildlife that feed on wounded but not retrieved deer, discarded deer parts, and deer gut piles are being exposed to lead.