A new study published in the Journal of Wildlife Management reveals the devastating effects of lead fishing tackle on loon populations.

Poisoning from lead fishing tackle has been identified as the leading cause of mortality in adult common loons, but the population-level effects of mortality from ingested lead tackle on loons have not previously been determined.

When investigators examined a long-term dataset (1989–2012) on common loon mortality in New Hampshire, 49% of adult loon deaths resulted from lead toxicities from ingested fishing tackle. Jigs accounted for 53% and sinkers for 39% of lead tackle objects removed from loons.

Loons appeared to obtain the majority of lead tackle from current fishing activity rather than from a reservoir of lead tackle on lake bottoms.

The researchers estimated that lead tackle mortality reduced the population growth rate by 1.4% and the statewide population by 43% during the years of the study.

“Our paper quantifies the severity of the effects of lead fishing tackle ingestion not just on individual loons but on loon populations, underscoring the persistent threat to wildlife of lead in the environment,” said Tiffany Grade, lead author of the study. “To our knowledge, this is the first study to define and test for a population-level effect of lead tackle or any stressor on loon populations, with implications for similar assessments of stressors on loons and other wildlife.”

Additional Information


About Journal

The Journal of Wildlife Management publishes manuscripts containing information from original research that contributes to basic wildlife science. Suitable topics include investigations into the biology and ecology of wildlife and their habitats that has direct or indirect implications for wildlife management and conservation. This includes basic information on wildlife habitat use, reproduction, genetics, demographics, viability, predator-prey relationships, space-use, movements, behavior, and physiology; but within the context of contemporary management and conservation issues such that the knowledge may ultimately be useful to wildlife practitioners.

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