



How to protect Waterbirds from Lead Shot Poisoning?

Spanish researchers have recently quantified the density of lead shot in several wetlands in Andalusia as well as the quantities of ingested shots in nine bird species in order to assess to what extent shots from hunting are found in birds. The results show that the quantity of lead shots found in birds declined when local hunting restrictions were enforced. However, the authors suggest that to be more efficient, hunting restrictions should be implemented on a broader geographic scale, in order to protect migratory species better. In addition, measures to protect humans from secondary lead ingestion from these poisoned birds should also be considered.

Wetlands in Andalusia (southern Spain) are essential habitats for migratory and sedentary birds and are important breeding areas for other birds such as raptors. In the past, overexploitation of these areas by hunters entailed an accumulation of lead (Pb) shots which may have poisoned waterfowls when ingested. Due to high levels of lead-induced mortality in birds, the use of lead shot for waterbird hunting has been illegal in Andalusia since 2002. This is in accordance with the "Sustainable Hunting Initiative" that recommends not using lead shot in wetlands in order to better protect birds in the context of Natura 2000¹. However, the consequences of intensive hunting activities in the past and continued illegal hunting practices may still impact waterfowl communities.

Spanish scientists have recently studied the density of lead shot in several Andalusian wetlands and ingested by birds in order to assess to what extent these areas are still contaminated by lead shot. To this end, they analysed sediment samples in one marsh and six closed-basins in Andalusia. To measure the lead content in birds, the scientists used X-ray experiments and visual observation of gizzards.

The authors found that the density of lead shots in the upper 10 cm of sediments is heterogeneous and varies from no lead shot to about 150 lead shots per m² depending on the site. The scientists further observed that most of the shots are concentrated at a depth of between 5 and 20 cm. For the nine bird species that were studied, they observed an ingestion of Pb shot in 1% to 28% of birds, depending on the species. In addition, they found embedded lead shots in 1% to 44% of the birds, depending on the species. For raptors, the presence of Pb shots was observed in 11% of the cast pellets regurgitated by birds but declined to 3% during the temporary hunting ban of 1998.

The authors point out that waterfowl ingest lead shots because they perceive them as grit. To preserve these bird species, many actions have been put into place in Andalusia such as a ban on lead shot or a partial clean-up of the area. These actions could explain the declining trend in lead shots observed in some bird species. However, the results of this study show that these local efforts may not be efficient for migratory species since geese and ducks migrate through France where no restrictions on lead shots have been established.

This work shows that lead shots resulting from intensive hunting in the past and from illegal hunting today are found in both wetlands and waterbirds in Andalusia, and have in turn contributed to an increase in bird mortality. The authors argue that the observed decrease of lead shots in birds is probably linked to local measures but they argue that these measures should be extended to broader areas for a better protection of migratory species that can be contaminated by lead shots elsewhere. In addition, waterfowl hunters and their families, especially children, are at risk from secondary lead ingestion from these poisoned birds. Therefore, health management and environmental authorities should draw urgent attention to this environmental problem that presents such a risk to both birds and to human health.

The Commission is promoting the phasing out of lead shot for hunting in wetlands as soon as possible by Member States. This is given added significance since the 2005 ratification by the European Community of the African Eurasian Waterbird Agreement (AEWA) which also aims to achieve this objective. The two key stakeholder groups in Europe on hunting, Birdlife International and FACE (Federation of Associations for Hunting and Conservation of the EU) have also agreed a target to achieve a phase out by 2009 at the latest.

¹For more information: [Report of the Green Week Workshop on Sustainable hunting within and around the Natura 2000 network](#)

Source: R. Mateo et al. (2007) "Lead poisoning in wild birds from southern Spain: A comparative study of wetland areas and species affected, and trends over time", *Ecotoxicology and Environmental Safety* 66:119-126.

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Theme(s): Chemicals.

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To cite this article/service: "[Science for Environment policy](#)": European Commission DG Environment News Alert Service, edited by BIO Intelligence Service.