



Wildlife Disease & Contaminant Monitoring & Surveillance Network

NEWLETTER number 13. WILDCOMS supports new international guidelines on poisoning

Spring Spotlight 2015

The 11th Meeting of the Conference of the Parties to the United Nations Environment Programme (UNEP) Convention on the Conservation of Migratory Species of Wild Animals ([CMS COP11](#)) was held in Quito, Ecuador, from 4 to 9 November 2014. At the meeting, the CMS parties adopted the [Guidelines to Prevent the Risk of Poisoning of Migratory Birds](#). Signatories to the convention are obliged to address key focused areas in the guidelines:

- feeding on rodents and insects exposed to pesticides (particularly, second-generation anticoagulant rodenticides and the insecticides carbamates and organophosphates);
- poison baits used to control predators and protect game estates, and harvesting;
- feeding on domestic livestock carcasses treated with veterinary pharmaceuticals;
- ingestion of lead ammunition and/or fishing weights directly from the environment or within prey or carrion.

The **Wildlife Incident Investigation Schemes (WIIS)** operating throughout the UK are ideally positioned to provide evidence to assess the impacts of UK adoption of these guidelines. WIIS is a unique evidence base for monitoring mortality related to compounds used for rodent and insect control and for crop protection, as well as the use of poison baits for predator control and protection of game birds. The scheme also encounters some uses of veterinary pharmaceuticals, although these are not formally included within WIIS. Through a coordinated, multi-agency approach, evidence on poisoning from all these uses in the UK is gathered, reported and acted on. Such action can include provision of evidence needed to justify revision of label instructions for pesticides and evidence of illegal pesticide use that can be used to enforce legislation relating to the safe use of pesticides and the protection of food, the environment and animals. These enforcement activities have both a deterrent effect and may result in the safe disposal of toxic pesticides that are no longer approved.

The CMS guidelines suggest that results of poisoning incidents should be reported regularly and made publically available. Details of all [WIIS](#) and [SASA](#) incidents investigated in the UK are already published [quarterly](#). The [Partnership for Action against Wildlife Crime \(PAW\)](#) and [PAW Scotland](#), which includes the police, land managers, conservationists and Government publish [maps of raptor persecution](#) and [annual wildlife crime statistics](#).

The guidelines also highlight that anticoagulant rodenticides can be a risk to wildlife. The habitat, type of anticoagulant rodenticide, presentation strategy and timing of treatment, will all influence the risk of non-target exposure or poisoning. Combination of the monitoring data acquired through WIIS and the PBMS for a variety of non-target species provides an extensive dataset on both exposure and possible poisoning from anticoagulant rodenticides. This data provides evidence for the extent of contamination in the UK and for the impact of any legislative changes.

Another area highlighted by the CMS guidelines is the risk to wildlife from lead (Pb). As a top predator of freshwaters, the otter is an excellent indicator of the health of the aquatic environment. Tissues from otters found dead have been used to monitor contaminants, including pesticides and metals, which can threaten a wide range of taxa including migratory birds. Research by [Cardiff University Otter Project \(CUOP\)](#) used rib bones from otters found in the south west to quantify variation in lead (Pb) contamination, demonstrating the

reduction in environmental lead levels following legislation to reduce, and then remove, leaded petrol ([Chadwick et al., 2011](#)). Archived samples from across England and Wales now provide a historic baseline of lead levels in wetlands, against which future changes can be assessed following the reduction in use of lead shot or lead fishing weights. CUOP monitor a range of contaminants and disease; in a new area of research (commencing later this year) the Project will use otter tissues to monitor aquatic contamination with pharmaceuticals – an emerging threat for wildlife.

PBMS work that is relevant to the CMS guidelines focuses on anticoagulant rodenticides, as already highlighted, and on Pb. PBMS studies on Pb have involved measuring total-lead concentrations in the livers of two scavenging species, red kites and common buzzards, and two species that are less likely to ingest Pb shot, the sparrowhawk and barn owl. Barn owls and sparrowhawks generally had lower Pb concentration than those measured in buzzards and red kites. Generally median liver Pb concentrations in the four species studied were lower than levels associated with clinical and sub-clinical adverse effects in Falconiformes. The latest PBMS reports on SGARs and total Pb in predatory birds from the UK can be downloaded from the [PBMS website](#).

WILDCOMS news

WILDCOMS are pleased to welcome a new scheme to the network, [Garden Wildlife Health \(GWH\)](#), a collaborative project between the Zoological Society of London, the British Trust for Ornithology, Froglife and the Royal Society for the Protection of Birds. GWH aims to monitor trends of endemic diseases and investigate emerging health threats to garden wildlife across Great Britain. Our research covers both infectious and non-infectious diseases affecting these species.

GWH appeal to members of the public to report sightings of sick or dead garden birds, amphibians, reptiles or hedgehogs to us via our website www.gardenwildlifehealth.org. Post-mortem examinations are performed on specimens from a subset of these wildlife mortality incidents at the Institute of Zoology and an extensive fixed and frozen tissue archive, culture and parasite collections are retained for further study. Reporters receive feedback and advice on disease prevention and control. GWH findings are translated into peer-reviewed publications and best practice guidance for wildlife-friendly garden habitat management to help safeguard species health and biodiversity in the future.

CONTACT US: If you would like to see a particular topic in the “spotlight” section of the WILDCOMS quarterly bulletin, or would like to contact us about WILDCOMS related matters, please e-mail the WILDCOMS coordinator, Jacky Chaplow (jgar@ceh.ac.uk).

Scheme News

WIIS-Scotland. The latest results are published quarterly and can be viewed at <http://www.sasa.gov.uk/document-library/wiis-quarterly-reports>.

A landowner was fined £675 in December 2014 after pleading guilty to being vicariously liable for his employee's crime of poisoning a wild bird. This was the first prosecution under section 18A of the Wildlife and Countryside Act 1981 (which came into force in Scotland on 1 January 2012). His employee had previously been fined a total of £4,450 at Stranraer Sheriff Court on 18 June 2013 after admitting four contraventions of the Wildlife and Countryside Act including possessing the pesticides alphachloralose, carbofuran and strychnine and poisoning a buzzard in December 2012.

PBMS work features in recently published second edition of the book “[Rodent Pests and their Control](#)”, edited by AP Buckle and RH Smith. Chapter 17, authored by many of the PBMS team, describes the evidence for exposure of wildlife to rodenticides and includes work conducted by the PBMS. Chapter 16 (co-authored by Richard Shore, [the Principal Investigator of the PBMS](#)) covers the issue of the environmental effects of rodenticides. For full details see [Publications](#).