Conclusions - Lead poisoning seminar & workshop

28 – 29 of September, Annecy, Haute-Savoie, France

Workshop objectives

- Present current knowledge and best practices on the issue of lead poisoning
- Develop recommendations for conservation actions against lead intoxication in the project area of the GypHelp project

Conclusions (1) – global context

- Lead poisoning on wetlands and wetland species, and its effect on wildlife and public health, is well established – elicited regulation and legislation
- Lead poisoning can be significant threat to some terrestrial species as well
- Recent regulatory pressure – CMS COP11 declaration.
- Tendency in EU regulatory environment to limit and/or ban lead in products and food – matter of time before it also reaches hunting
- Lead bullets – high fragmentation. Scattered in muscle, viscera and bone!
- Hunting modalities in the Alps – favour consumption of lead by scavengers. Most viscera from shot animals have lead!

Conclusions (2) – impact on vultures

- ✓ Direct toxic effect (acute & sub lethal – up to 50% sampled raptors) & chronic effect
- ✓ "Masked" impact through behavioural disorders (birds with sub lethal levels more likely to die of trauma) - tip of the iceberg?
- ✓ It can have population level impacts, also on vultures (e.g. California Condors)

- ✓ Bearded vulture – small sample sizes – prevalence of lead poisoning high in some areas. High individual susceptibility (due to diet and physiology). Alps is one of the main mortality factors – e.g. Austria suspected population effect

Conclusions (3) – origins of lead

- ✓ Origins of lead (evidence so far):

- Lead hunting ammunition – both from prey and from direct shooting events, main or one of the main sources.

- Locally and/or regionally, environmental sources (mining, industrial)

- Air pollution not a factor

Conclusions (4) – how to measure

Methods to measure

- ✓ Feathers (raki & new feathers better to exclude external contamination) – but not so good for isotope analysis.
- ✓ Faeces
- ✓ Blood – short half life
- ✓ Liver and kidney
- ✓ Bones - but bioaccumulation, age effect. Ideal for isotope analysis

Conclusions (5) – ammunition

Non-lead ammunition

- ✓ Good performance (terminal ballistics); other secondary added value – better meat, environment
- ✓ Technical information and own experience crucial for acceptance
- ✓ Price an issue

- ✓ Voluntary approach better than regulatory approach

Recommendations

- ✓ Based on scientific evidence
- ✓ Multidisciplinar approach (different analysis, isotopes, species population demography)
- ✓ Ownership, engagement and collaboration by all stakeholders. Hunting associations play important role.
- ✓ Probably need for regulation on disposal of offal hunting in the meantime
- ✓ Game keeping with non-lead ammunition – first step in introducing a new paradigm?
- ✓ Voluntary testing by hunters for non-lead ammunition important step as well

From words to action (France & LIFE GYPHELP)(1)

- ✓ Independent evaluation ordered by FNC. Characterization of hunting methods would be very useful
- ✓ LIFE GYPHELP: technical working group and small budget (10,000€) to better characterise incidence of lead poisoning in the project area, including its origins:

  -Risk assessment with data from literature (follow risk assessment methodology)

  -Enhance analysis of lead incidence on bearded vulture (liver or kidney + bones dead birds-museum samples) + blood live birds (tagged nestlings) (with Stelvio National Park)

  - Isotope analysis (soil, ammunition, birds)

- ✓ LIFE GYPHELP: Socio-economic evaluation on practice and attitudes of the hunting community (*conducted by the FDC 74*)
- ✓ LIFE GYPHELP: bearded vulture population demography study (to inform population level impacts)
- ✓ LIFE GYPHELP: develop new regulations for disposal of offal that are then shared and promoted
- ✓ FDC74: commitment to start voluntary testing of ammunition (performance, practicality)
- ✓ ONCFS: produce action plan to introduce non-lead ammunition to gamekeeping operations (management and control of ungulates and-or pests)