International workshop on poisoning and vultures:
The situation in Morocco

2014 April
Everybody believes poisoning is a conservation problem in Morocco.

So, poisoning in Morocco would threaten local scavenger raptors population and European migrant populations: 100% annual migrant Egyptian Vultures; near 10,000 annual migrant Eurasian Griffon Vultures; many migrant Red and Black Kites; dispersal Black Vultures, Bearded Vultures and Iberian Imperial Eagle.

Then, Andalusian Anti Poisoning Strategy has committed a POCTEFEX project to know:

- Is poison a real threat and limiting factor for local and migrant vultures in Morocco?
- What kinds of compounds are operating and what are the target species and methods used?
- Is there any fighting against wildlife poisoning?
Poisoning is forbidden in Morocco

- Le dahir du 6 Hijja 1341 (21 Juillet 1923); sur la police de la chasse tel qu’il a été modifié et complété;
- Le décret du 16 Joumada II 1432 (20 Mai 2011) pris pour l’application du Dahir du 6 Hijja 1341 (21 Juillet 1923);
- L’arrêté du Ministre de l’Agriculture n° 582-62 du 5 Joumada II 1382 (3 Novembre 1962] portant réglementation permanente de la chasse, tel qu’il a été modifié et complété;
- L’arrête du Haut Commissaire aux Eaux et Forets et a la lutte contre la desertification, portant ouverture cloteur et reglementation speciale de la chasse pendant la saison 2012/2013

http://ecologie.ma
REVIEW OF HISTORIC POISONING EVIDENCES

- Decreasing of scavenger raptors populations.
  - Griffon vulture: scarce common breeder in 1915 and 1960; rare in 1980s; extinct in 2000s
  - Egyptian vulture: common breeder in 1970s; nearly extinct 2011
  - Bearded Vulture: common breeder in first half of XX century; nearly extinct in 2014
  - Black Vulture: extinct in XX century (1970s?)
  - Iberian Imperial Eagle: extinct in XX century
  - Lappet-faced Vulture: extinct in XX century
  - Red Kite: Very scarce in 1910s, very scarce in 1990s, nearly extinct in 2011

- Governmental policies of extirpation of mammal and raptor predators from 1950s to 1970s through strychnine use: thousands of killed individuals.

- References:
  - Soto (1986): Poisoning was the main cause of Griffon Vulture breeding population decline
  - Bergier (1987): Poisoning is one of the main threats to big eating-carrion raptors species
  - Cuzin (2003): Poisoning is one of the main threats to Golden Jackal, Hyenas, Foxes, etc.
  - Thevénat et al (2003). Poisoning is one of the main threats to big eating-carrion raptors species
  - Cuzin (2011): “The main threats range from poisoning meant to kill dogs and jackals...” (Bearded Vulture)

- Eradication of feral dogs because rabies and predator control. From 1950 to today there was programs of control, including poisoning.
RECENT POISONING EVENTS

Seven wildlife poisoning events, one in 1994 and five from 2000

- 14 Red Fox in 1994 with strychnine
- 1 genet with strychnine in a lentil stew bait to eliminate wild boards in 2005
- One possible poisoned Black Kite
- Several Red Foxes, Wild Cats, Rats and Mongooses with takaout (paraphenylenediamine) and methomyl ("Lannate") in chicken heads baits to eliminate Feral Dogs
- Wild Boards in human food baits (figs and sardines) with carbide.
- One known event of poisoned Golden Jackals in last ten years.

Mouad Hachri
SO, CURRENT SITUATION COULD BE NOT A CONCERN...

- There are not clear evidences that wildlife poisoning is actually a conservation problem to vultures.
- Then, why are vultures population so small in Morocco?
  - Strong decreasing in XX century because human prosecution.
  - Low awareness to apply Conservation Laws. Wildlife shooting and illegal sale of any animal are habitual in all Morocco.
  - Very low wild and domestic carcasses availability.

http://moroccanbirds.blogspot.com
THOUGH IT COULD BE

- There are not robust data on the magnitude of the problem
- Any single poisoning incident could extinct local populations of Egyptian Vulture, Bearded Vulture or Red Kite and kill migrant and dispersal European Vultures and Eagles crossing Morocco
- High obsolete pesticides availability.
- Pesticides (and maybe strychnine) can be gotten in any place for everybody.
REVIEW CURRENT TECHNIQUES AND TOOLS

- There are not current techniques and tools to fight wildlife poisoning.
- Identification of a wildlife poisoning incident used to be through visual observation of naturalists. There is not professional and trained people.
- There are not implemented forensic methods to identify wildlife poisoning.
- There are not collection of samples to toxicological analysis neither laboratory analysis.
- There are not public awareness measures about wildlife poisoning.
CURRENT GAPS IN THE FIGHT AGAINST POISON

- Lack of standardized field information about poisoning incidents
- Lack of control of poisons
- Lack of designed and implemented techniques and tools to fight poison.
- Lack of trained people

Lack of awareness about wildlife poisoning as a real problem

POCTEFEX Project is working now:
- Field missions
- Local stakeholders
- Poison sales point
- Poisoning indexes
NEXT WORKS

- Identify to Moroccan main conservation actors to
  - Vigilance about poisoning. Awareness and formation
  - Monitoring of Vultures populations
  - Implementing techniques and tools to fight poison
  - Get funding
  - Making conservations actions on Vultures.
    - Creation of a feeding stations net to support survival and setting of Egyptian vultures and Eurasian Griffon Vultures and to make a sure vulture migrating flyway corridor
    - Management of human wastes disposal sites as sure vultures feeding sites
    - Recovering of wild ungulates populations

- GREPOM. Possible champion in country to promote investigation on poisoning issues. Moroccan Partner of BirdLife International
Thank you!

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