Persecution, disturbance and other threats to vultures



Objectives and methods

Objectives

- 1. To identify and outline other threats to vultures besides poisoning, electrocution and feeding habitat loss
- 2. To help prioritization of the threats based on their impact on vulture populations
- 3. To distinguish regional and species differences where possible

Methods

- 1. Questionnaires sent by experts
- 2. Literature review
- 3. Our own experience



Persecution

Reasons and root causes

- Vultures are considered as a threat for game and/or livestock
- To be used for taxidermy
- Targeted by "sport" hunters
- To be used in traditional "medicine"





Persecution

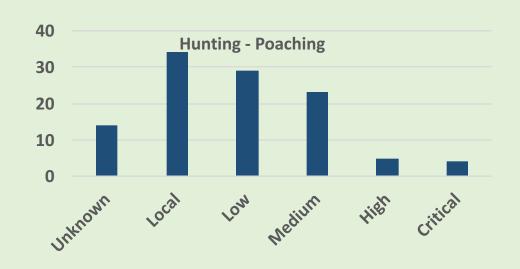
Case studies

- Significant threat for the Bearded vulture in Spain 31% of mortality out of 106 cases were due to shooting. (Margalida et all., 2008)
- Egyptian vulture from Balkan population is affected by persecution in Africa driven by the demand for traditional medicine (Oppel et al., 2015)
- In Bulgaria during 1979-2011, shooting was reason for 6 cases (16 %) out of 38 cases of mortality of Griffon Vultures while poisoning caused 42% of the mortality (Demerdzhiev et al.,2014)

Persecution

Magnitude and impact on vulture populations

- Shooting/poaching is recorded along the whole range of four vulture species being lower in Western Europe and higher in Balkans and Middle East (Abuladze, 2013 Arroyo et al., 1990, Grubach 2004)
- Significant regional and species differences
- May be underestimated and in some cases it is difficult to be quantified



Expert assessment of the impact

Disturbance

Reasons and root causes

- Outdoor sports such as climbing and paragliding
- Forestry activities
- Hunting and tourism
- Construction work and development
- Farming and agriculture activates
- Treasure hunting







Disturbance

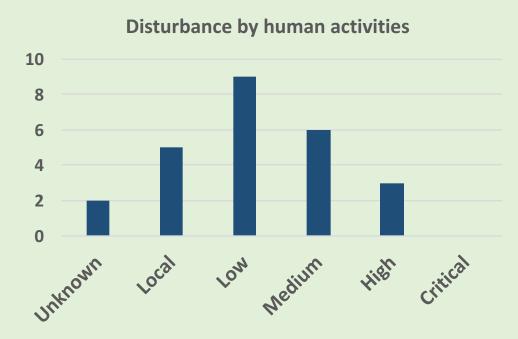
Case studies

- Human disturbance during the breeding season is considered to be a serious threat to the Caucasian vulture populations. (Abuladzhe, 2013)
- In Northern Spain for 12 years period (2000 2012) disturbance altered productivity in 17 out of 22 Egyptian vulture territories Zubergoita et al.,2014)
- Annually up to 25 juvenile Griffon vultures are found fallen in the sea due to human disturbance caused by tourists (Sušić & Radek, 2013).
- Human disturbance by aircrafts and Paragliders reduced Griffon vulture productivity in Italy (Genero, 2009).

Disturbance

Magnitude and impact on vulture populations

- Recorded for to affect all vulture species
- Restricted to some areas
- Considered to have relatively low impact
- Could be significant for some small populations



Expert assessment of the impact

Nest robbing

Reasons and root causes

- Illegal trade of live birds
- Egg-collecting
- Taking of eggs or chicks by local people including children



Nest robbing

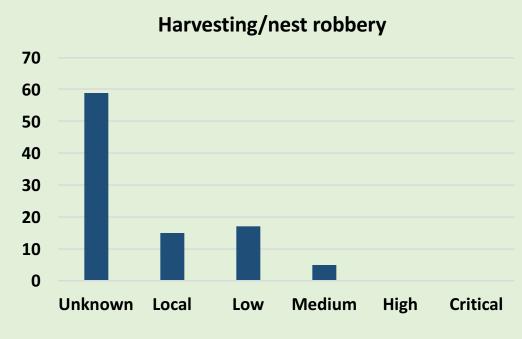
Case studies

- Egyptian vultures from Balkans/ Middle East were found in raptor centers in Western Europe
- Single egg collector robbed three vulture nest in Bulgaria in 2012 only (Dobrev & Stoychev, 2013).
- Between 1978 and 1991 at least 14 16 eggs and 9 Griffon vulture chicks were robbed in Macedonia – FYROM (Grubach, 2013)

Nest robbing

Magnitude and impact

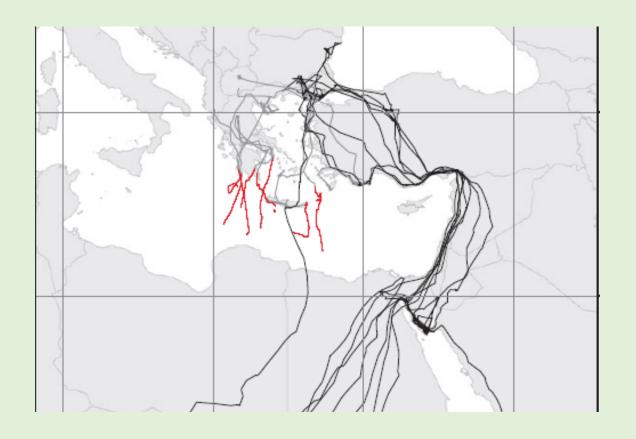
- Seems to be more frequent in the Eastern part of the range - Balkans Caucasus, Meddle East
- Difficult to record
- May be underestimated



Expert assessment of the impact

Wrong migration route

7 out of 19 satellite tracked Egyptian vulture fledglings from the Balkan population disappeared in the Mediterranean sea



Oppel, S, V Dobrev, V Arkumarev, V Saravia, A Bounas, E Kret, M Velevski, S Stoychev & SC Nikolov. 2015. High juvenile mortality during migration in a declining population of a long-distance migratory raptor. *Ibis* 157: 545–557.

Other threats

- Forest fires. Forest fires destroyed Black vulture nests with chicks in Spain (Andalus 1993). It is potential threats for the only Balkan colony located in Greece.
- Destruction of breeding habitat during forestry operation or illegal logging.
 Identified as a threat in Bulgaria (lankov, 1994)
- Leg hold and other mammal traps. In the Great Caucasus a study found that at least 33, or 54% of Bearded Vulture mortality cases established were caused by traps with meat bait set for mammals. (Abuladze, 2013)





Other threats

- Collisions with aircrafts. Several accidents with Griffons vultures and aircrafts were registered in France and Spain (Satheesan, 2000)
- Collisions with vehicles. In 1980 2008 at least 4 incidents with motor vehicles are registered in Macedonia (FYROM) (Grubach 2014)
- Drawing into water reservoirs. In Greece 4 out of 25 cases of Black vulture mortality were due drowning in such reservoir (Skartsi et al., 2008)



