

# Species status report for the Cinereous (Black) Vulture

*Aegypius monachus*



2017



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**Supported by**

Coordinating Unit of the Memorandum of Understanding on the Conservation of Migratory Birds of Prey in Africa and Eurasia (Raptors MoU)

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Date of adoption: Final version – June 2017

Recommended citation: Andevski J., (2017) Species status report for the Cinereous Vulture *Aegypius monachus*. Report of Actions A6, 8, 9 and 10 under the framework of Project LIFE EuroSAP (LIFE14 PRE UK 002). (unpublished report).

## Geographical scope of the report

Figure 1. Cinereous (Black) Vulture distribution range in Europe



Table 2: Range states for the species

| Breeding          | Migration ( <i>Vagrancy?</i> ) | Wintering    |
|-------------------|--------------------------------|--------------|
| Armenia           | Bulgaria                       | Iran         |
| Azerbaijan        | Italy                          | Saudi Arabia |
| France            | Macedonia                      |              |
| Georgia           | Serbia                         |              |
| Greece            |                                |              |
| Portugal          |                                |              |
| Russia (Caucasus) |                                |              |
| Spain             |                                |              |
| Turkey            |                                |              |
| Ukraine (Crimea)  |                                |              |

## **FOREWORD**

The European Action Plan for the Cinereous Vulture (Heredia, 1996) was developed in 1993 and adopted in 1996 by the European Union and the Bern Convention. The action plan has not been revised so far. Its implementation has been reviewed three times – in 2000 (Gallo-Orsi, 2001), 2004 (Nagy & Crockford, 2004) and in 2010 (Barov and Derhé, 2010).

This status review report is mainly based on data collected through the online questionnaire distributed in mid-August 2016 among vulture experts and governmental representatives from the distribution range countries and also from the European Vulture Multi-species Action Plan Workshop held in Monfegüe 25-29 October 2016. The questionnaire and the workshop were shared activities between the EuroSAP Life Project and the development of the Multi-species Action Plan to Conserve African and Eurasian Vultures (Vulture MsAP) - CMS initiative. [More information about the Vulture MsAP.](#)

### **0 - EXECUTIVE SUMMARY**

The species Red List category hasn't changed compared to the last review (2010) still qualifies globally as Near Threatened (BirdLife 2017). The population increase for the last decade in the previous review was considered from 10% to 20%, now should be considered an increase of 50%.

Its geographical scope in the European Species Action Plan covers Albania, Armenia, Azerbaijan, Bulgaria, Croatia, France, Georgia, Greece, Italy, FYR of Macedonia, Portugal, Russia (Europe only), Spain, Turkey and Ukraine. In this status report we also considered important to include Iran and Saudi Arabia as relevant wintering sites for part of the European population of the species. Currently the species has a discontinuous distribution in this range, divided between the large western European populations (Portugal, Spain and France), and the isolated and fragile nucleus in Dardia (Greece) and Ukraine. It also occurs in significant numbers in Turkey and the Caucasus (Georgia and part of Russia). The species is extinct from Albania, Bulgaria, Croatia, Italy and Macedonia (Andevski et al. 2013).

The European Species Action for the Cinereous Vulture and the following review reports are highlighting the unintentional poisoning with baits (used for predators), the food shortage and the habitat loss as major threats to the species. According to the outcomes from the online questionnaire and the workshop (related to this report) the species is still facing the same threats. Collision and electrocution with energy infrastructures were also identified as high priority threats for the Cinereous Vulture (to all vulture species globally).

A lot of effort and funds have been invested in conservation of the Cinereous Vulture in its European range. The significant increase of the Spanish population is obviously due to the strong anti-poison campaign, mitigation measures for the electricity infrastructures and vulture friendly farming practices and sanitary regulations for carcasses disposal (increased food availability). The last implementation review (2010) of the Species Action Plan for the Cinereous vulture was evaluated as good overall, and very good in Greece, France and Spain. Highlighted as most important conservation actions anti-poisoning campaigns, adequate management of breeding sites, and provision of food through a network of vulture feeding stations.

The reintroduction projects in France (Grand Causses, Baronnies and Verdon) and Catalonia, Spain (Boumort, Alinyà) have also been successful in driving recolonization and increases of Cinereous vulture range and numbers. The projects in the Grands Causses (Cevennes), Verdon and Baronnies in Southern France, has resulted in the establishment of a small breeding population (30 pairs in 2016),

with good prospects for further increases. Also the ongoing reintroduction program in Catalonia (7 breeding pairs in 2015) are beginning to give positive results. Start of a new reintroduction project for the species is foreseen in Bulgaria for 2018.

The EU Birds Directive and the EU LIFE programme have undoubtedly contributed to the recovery and conservation of the species in Europe, particularly in Spain. An effective campaign against illegal poisoning, particularly in Andalucía, also appears to have been crucial for population recovery and increase.

About 80.000.000€ were invested in vulture conservation in the last 15 years, approximately 50.000.000€ coming from the EU LIFE programme.

The species is protected by national law in all range countries (relevant to this report). Everywhere officially protected from intentional killing (shooting) and poisoning.

## **1 - BIOLOGICAL ASSESSMENT**

### **Taxonomy and biogeographic populations**

From the *Accipitridae* family, the only species in the genus *Aegypius*. Scientific name: *Aegypius monachus* (Linnaeus, 1766). Common names: Cinereous Vulture, Eurasian Black Vulture, European Black Vulture, Monk Vulture. No subspecies identified (*Global Raptor Information Network*. 2016), although there is a debate and intentions to separate the European and Asian population due to some population differences - limited genetic variation in the species, body size increases from west to east, with the birds from southwest Europe averaging about 10% smaller than the vultures from Central Asia (*Ferguson-Lees et al.* 2001).

### **Distribution throughout the annual cycle**

The species is partial migrant (Bildstein 2006). Mostly sedentary in Europe, but many individuals from the Caucasus (Eastern Europe and Central Asia) winter south of the breeding range, and generally there is also a good deal of nomadism (vagrancy). Gavashelishvili and McGrady (2006) recorded long range movements by a birds which fledged in Georgia, travelled south to Saudi Arabia and Iran, and then headed north into Russia. In Europe the adults are mostly sedentary while the juvenile birds disperse over larger areas. In Spain, the movements of the juveniles are mostly limited to the western part of the Iberian Peninsula and in the surroundings of the breeding colonies (Moreno-Opo 2009). Reports of Cinereous Vultures as regular winter visitors to Africa (Egypt and Sudan) appear to be unfounded, at least at the present time, although very small numbers have been recorded (less than annually) in Egypt.

Movements of individuals from/to Spain, France and Italy have been recorded in recent years. Also birds from Dardia colony in Greece are regularly visiting the vulture feeding sites in southern Bulgaria and even Turkey. In the last few years an individual with unidentified origin is almost regularly visiting Serbia and Macedonia.

### **Habitat requirements**

Prefers arid hilly and montane habitat, including wooded areas and semi-desert, areas above treeline, and agricultural habitats with patches of forest. The species normally inhabits forested areas in hills and mountains at 300-1,400 m in Spain, but occurs at higher altitudes in Asia, where it also occupies scrub and arid and semi-arid alpine steppe and grasslands up to 4,500 m (Thiollay 1994). Spends much time soaring overhead in search of food. Perches more often on trees than on cliff faces or on the ground. Not numerous, but in places of abundant food, may congregate in large flocks (Flint 1984).

It forages over many kinds of open terrain, including forest, bare mountains, steppe and open grasslands. Nests are built in trees or on rocks (the latter extremely rarely in Europe but more frequently in parts of Asia), often aggregated in very loose colonies or nuclei. Its diet consists mainly of carrion from medium-sized or large mammal carcasses, although snakes and insects have been recorded as food items. Live prey is rarely taken. (Batbayar *et al.* 2006).

### **Survival and productivity**

With very rare exceptions, clutch size is one egg (*del Hoyo et al.* 1994). While hatching success is generally high, many pairs do not breed every year, so the species has a slow recovery potential. It

can live 20–30 years in the wild and up to 39 years in captivity (*Newton et al.* 1990). The incubation period is on average 57 days but can vary from 50–68. Only one egg is laid. The young spends between 110 and 120 days in the nest (with extreme ranges from 88 to 137 days) (*Moreno-Opo* 2007). Both males and females are sexually mature at 4 to 5 years of age (*Heredia et al.* 1996).

According to data from Spain, obtained from intensive monitoring of 283 pairs from the beginning of the breeding season (early February) until the chicks are fledged (late September) the productivity of the species in 2006 was estimated at  $0,47\pm 0,05$ , with the breeding success being  $0,58\pm 0,07$  (*De la Puente et al.* 2007).

The supplementary feeding has been proved useful for increasing pre-adult survival (*Oro et al.* 2008) and breeding parameters (*González et al.* 2006, *López-Bao et al.* 2008). Vulture restaurants (feeding sites) also may help to reduce vulture mortality by providing safe food (not contaminated by pesticides and confirmed not to contain transmissible agents of zoonosis or livestock diseases because of the human control of the deliveries, see: (*Margalida et al.* 2008, *Hernández & Margalida* 2009). However, supplementary feeding can also have negative effects (see *Robb et al.* 2008). The creation of supplementary feeding stations in which large quantities of food are delivered and pile up, does not favour the most threatened avian scavengers. In this respect, it can influence the spatial distribution of the breeding population (*Margalida et al.* 2008a). It can also attract facultative scavengers, which could predate on species living in the surrounding area (*Cortés Avizanda et al.* 2009), and thereby have a detrimental effect on fecundity (*Carrete et al.* 2006) (*Moreno-Opo et al.* 2010).

### **Population size and trend**

According to the recently collected data (questionnaire, workshops, literature) the European population of the Cinereous Vulture can be estimated on 2 375 – 2 648 breeding pairs (in the range countries subject to this report). The mayor part (80-90%) of the European Cinereous Vulture population is in Spain (stronghold autonomous regions: Extremadura, Andalusia, Castilla la Mancha and Castilla y Leon) (*De la Puente et al.* 2007), marking increase of 48% in the last decade (2 068 breeding pairs in 2012/2015 (*Moreno-Opo & Margalida et al.* 2014)). The populations from the Spanish neighbouring counties Portugal (18 pairs in 2016) and France (30 pairs in 2016) are also increasing, due to successful conservation practices (reintroduction project in France), but also facilitated by the connection with Spanish population (confirmed by marked of birds). In the eastern part of Europe, we have the smaller population in Georgia (up to 25 pairs in 2016 (*Abuladze* 2013)) and Greece (up to 31 pairs in 2016 (*Zakkak* 2015)) marking stable trend, but the species has negative trend in Russia (Caucasus) (up to 102 pairs in 2004 (*Belik* 2004)) and Turkey (up to 200 pairs in 2013), from where precise and recent data is not available.

Therefore, the Cinereous Vulture population in Europe has increasing trend (especially in the western part), mostly due to the increase of the Spanish population, but the population on the eastern part have stable or negative trend.

Table 3. Population size and trend by country.

| Country                 | Status   | Breeding  | Quality | Year(s)   | Breeding Population trend in the last | Quality |
|-------------------------|----------|-----------|---------|-----------|---------------------------------------|---------|
| <b>Albania</b>          | extinct  | 0         |         |           |                                       |         |
| <b>Armenia</b>          | breeding | 50        | M       | 2007-2009 | stable                                | M       |
| <b>Azerbaijan</b>       | breeding | 20-100    | M       | 2000-2016 | stable                                | M       |
| <b>Bulgaria</b>         | extinct  | 0-1       | M       | 2016      | stable                                | M       |
| <b>Croatia</b>          | extinct  | 0         |         |           |                                       |         |
| <b>France</b>           | breeding | 30        | G       | 2016      | small increase                        | G       |
| <b>Georgia</b>          | breeding | 10-25     | G       | 1995-2016 | stable                                | G       |
| <b>Greece</b>           | breeding | 21-35     | G       | 2006-2015 | stable                                | G       |
| <b>Italy</b>            | extinct  | 0         | G       | 2016      |                                       |         |
| <b>Portugal</b>         | breeding | 18        | G       | 2016      | large increase                        | G       |
| <b>Russia (Europe)</b>  | breeding | 63-102    | M       | 2004      | small decline                         | M       |
| <b>Spain</b>            | breeding | 2068      | G       | 2016/2012 | moderate increase                     | G       |
| <b>Macedonia</b>        | extinct  | 0         | G       | 2015      |                                       |         |
| <b>Turkey</b>           | breeding | 80-200    | M       | 2013      | decline                               | M       |
| <b>Ukraine (Crimea)</b> | breeding | 15-19     | G       | 2015      | stable                                | G       |
| <b>Overall</b>          | /        | 2375-2648 | G       | 2017      | increase                              | M       |

**Q – Data Quality:** *Good (Observed)* = based on reliable or representative quantitative data derived from complete counts or comprehensive measurements.

*Good (Estimated)* = based on reliable or representative quantitative data derived from sampling or interpolation.

*Medium (Estimated)* = based on incomplete quantitative data derived from sampling or interpolation.

*Medium (Inferred)* = based on incomplete or poor quantitative data derived from indirect evidence.

*Poor (Suspected)* = based on no quantitative data, but guesses derived from circumstantial evidence.



**Table 4: Breeding population estimates by country – comparative table**

| <b>Country</b>           | <b>Population in SAP (1993)</b> | <b>Population in 1st review (2004)</b> | <b>Population in 2nd review (2010)</b> | <b>Current review (2017) breeding pairs</b> |
|--------------------------|---------------------------------|--|--|---|
| <b>Albania</b>           | -                               | -                                      | -                                      | -   |
| <b>Armenia</b>           | 15-25                           | 8-15                                   | 7-10                                   | 50  |
| <b>Azerbaijan</b>        | 100                             | (10-30)                                | 30-100                                 | 20-100                                      |
| <b>Bulgaria</b>          | 0-1                             | 0                                      | 0-1                                    | 0-1   |
| <b>Croatia</b>           | 0                               | 0                                      | 0                                      | 0   |
| <b>France</b>            | 0                               | 8-10                                   | 22                                     | 30  |
| <b>Georgia</b>           | 10-20                           | 20-30                                  | 20-30                                  | 10-25                                       |
| <b>Greece</b>            | 20-21                           | 21                                     | 24-31n 20-28bp                         | 21-35                                       |
| <b>Italy</b>             | 0                               | 0                                      | 0                                      | 0   |
| <b>Macedonia</b>         | 0                               | 0-4                                    | 0                                      | 0   |
| <b>Portugal</b>          | 0                               | 0-5                                    | 0-3                                    | 18  |
| <b>Russia (Caucasus)</b> | 30-50                           | 30-70                                  | no data                                | 63-102                                      |
| <b>Spain</b>             | 1.050-1.150                     | 1.358                                  | 1.845-2.440 pairs                      | 2068  |
| <b>Turkey</b>            | 100-500                         | 300-400                                | 50-200 pairs                           | 80-200                                      |
| <b>Ukraine (Crimea)</b>  | 4-6                             | 2-3                                    | 2-20 pairs                             | 15-19                                       |

## 2 - THREATS

### General overview

In the previous review (Barov, B. & Derhé, M. et all. 2010) identified as most important threats were: the decline of herbivores; loss of nest sites due to forestry and disturbance; reduction of animal carcasses in the wild due to modernisation of agriculture. Persecution and especially poisoning played a critical role leading to reduction of population or even extinction in some countries. The illegal use of poisons is the most important threat to the species at present, followed by collision with energy infrastructures (cables and windfarms), electrocution and the food shortage. Precisely these three groups of threats were prioritized by the online questionnaire and discussed over the Workshop in Monfragüe.

**Table 5: Threats prioritization (questionnaire results)**

| Country              | Poisoning | Collision & Electrocution | Food availability |
|----------------------|-----------|---------------------------|-------------------|
| Albania              |           |                           |                   |
| Armenia              |           |                           |                   |
| Azerbaijan           |           |                           | Low               |
| Bulgaria             | Local     | High                      | Critical          |
| Croatia              |           | Low                       | High              |
| France               | Low       | Medium                    | Local             |
| Georgia              | Low       | Low                       | Low               |
| Greece               | Medium    | Medium                    | Medium            |
| Italy                | High      |                           |                   |
| Portugal             | High      | Local                     | High              |
| Russia (Caucasus)    | Low       |                           | Medium            |
| Spain                | High      | High                      | High              |
| The FYR of Macedonia | High      |                           |                   |
| Turkey               | Medium    |                           | High              |
| Ukraine Crimea       |           | Local                     | Medium            |

  

|         |       |     |        |      |          |
|---------|-------|-----|--------|------|----------|
| Unknown | Local | Low | Medium | High | Critical |
|---------|-------|-----|--------|------|----------|

**Table 6: Defined direct threats to the species at the Vulture MsAP workshop**

| Definition  | Scope | Severity | Time | Overall | Overall impact | Evidence                                   | Gaps  |
|---|-------|----------|------|---------|----------------|--|---|
| Unintentional poisoning with poison baits   | 3     | 3        | 3    | 9       | Critical       | Good                                       | Effective toxicological screening   |
| Shortage of freely available food   | 3     | 3        | 3    | 9       | Critical       | Good                                       | North Africa, Middle East, Central Asia. Effect on population dynamics, role for meta-population connections                |
| Collision with any energy infrastructure (cables and wind turbines)               | 3     | 2        | 3    | 8       | Critical       | Good                                       | Need better methodology to identify corpses/cases related to collision; demographic models needed to understand real impact |
| Electrocution with energy infrastructures   | 3     | 2        | 3    | 8       | Critical       | Good                                       | Need to centralised reporting system  |
| Lead poisoning  | 2     | 2        | 3    | 7       | High           | Good on effects/poor on population impacts | Lead poisoning analysis and masked effects on mortality by other threats  |
| Diclofenac  | 1     | 3        | 2    | 6       | High           | Good                                       |   |
| Inappropriate supplementary feeding   | 2     | 1        | 3    | 6       | High           | Good                                       | Effect on population dynamics, role for meta-population connections   |
| Direct Persecution  | 2     | 1        | 3    | 6       | High           | Good                                       | Middle East data incomplete   |
| Destruction of Habitat (P)  | 1     | 2        | 3    | 6       | High           | Good                                       | Long-term habitat suitability data  |
| Farming related indirect poisoning  | 2     | 1        | 3    | 6       | High           | Poor                                       | Effective toxicological screening   |
| Poisoning by other vet drugs  | 2     | 1        | 3    | 6       | High           | Poor                                       | Lack of knowledge /effects on pop dynamics  |
| Disturbance from Human Activities   | 2     | 1        | 3    | 6       | High           | Poor                                       | Collect & Analyse available data  |
| Poisoning of pests on dumps   | 1     | 1        | 3    | 5       | Medium         | Poor                                       |   |
| Unsafe water  | 1     | 1        | 3    | 5       | Medium         | Poor                                       | Population effects,location/exposure  |
| Shortage of water   | 1     | 1        | 3    | 5       | Medium         | Poor                                       | Arid countries, relevance to migration  |
| Genetic diversity loss  | 0     | 1        | 1    | 2       | Low            | Poor                                       | Lack of substantive data  |
| Collision with moving vehicles  | 1     | 0        | 3    | 0       | Low            | Poor                                       | Data sharing & Transparency   |
| Collision with any man made infrastructure excluding power lines or wind turbines | 0     | 0        | 3    | 0       | Low            | Poor                                       | Standard monitoring protocols   |

**Table 7: Defined direct threats to the species for Europe and Central Asia into the Vulture MsAP**

|   |          |
|---|----------|
| Unintentional poisoning with poison baits | Critical |
| Collision with any energy infrastructure  | High     |
| Shortage of freely available food         | High     |
| Electrocution at power poles and pylons   | High     |
| Destruction of Habitat                    | High     |
| Direct Persecution (intentional killing)  | High     |
| Disturbance by human activities           | High     |

### 3 - POLICIES AND LEGISLATION RELEVANT FOR MANAGEMENT

#### International conservation and legal status of the species

In 2017 the global IUCN Red List Category is Near threatened (C1) as at the time of adoption of the plan and in the last three reviews of the Plan, because the species has a moderately small population which appears to be suffering an ongoing decline in its Asiatic strongholds, despite the fact that in parts of Europe numbers are now increasing.

In Europe, the species does not meet regional IUCN Red List criteria, and its European Threat Status is *Rare* (BirdLife International, 2017). The species is listed in Annex I of the Birds Directive and in Appendix II of the Bern convention. The species is legally protected in all range states covered by the plan.

**Table 8: National conservation and legal status (questionnaire results)**

| Country           | Protection status | Conservation status   | Legally protected - killing | Legally protected - poisoning | Maximum legal coverage in national leg. | National Species Action Plan |
|-------------------|-------------------|-----------------------|-----------------------------|-------------------------------|---|------------------------------|
| <b>Albania</b>    | Protected         | Extinct in the wild   | Yes                         | Yes                           | No                                      | No                           |
| <b>Armenia</b>    | Protected         | Near threatened       | Yes                         | No                            | Partly                                  | No                           |
| <b>Azerbaijan</b> | Protected         | Endangered            | Yes                         | No                            | Partly                                  | No                           |
| <b>Bulgaria</b>   | Protected         | Extinct in the wild   | Yes                         | Yes                           | Yes                                     | In devel.                    |
| <b>Croatia</b>    | Protected         | Extinct in the wild   | Yes                         | Yes                           | Yes                                     | No                           |
| <b>France</b>     | Protected         | Endangered            | Yes                         | Yes                           | Yes                                     | Yes                          |
| <b>Georgia</b>    | Protected         | Endangered            | Yes                         | Yes                           | Partly                                  | No                           |
| <b>Greece</b>     | Protected         | Endangered            | Yes                         | Yes                           | Yes                                     | No                           |
| <b>Italy</b>      | Protected         | Extinct in the wild   | Yes                         | Yes                           | /                                       | No                           |
| <b>Portugal</b>   | Protected         | Critically Endangered | Yes                         | Yes                           | Partly                                  | In devel.                    |
| <b>Ukraine</b>    | Protected         | Near threatened       | Yes                         | Yes                           | Yes                                     | No                           |
| <b>Russia</b>     | Protected         | Vulnerable            | Yes                         | Yes                           | Yes                                     | No                           |
| <b>Spain</b>      | Protected         | Vulnerable            | Yes                         | Yes                           | Yes                                     | No*                          |
| <b>Turkey</b>     | Protected         | Near threatened       | Yes                         | Yes                           | Yes                                     | Yes                          |

- *Regional Action Plan for the species are prepared in Spain.*

**Table 9: Country involvement in international processes and forums**

| Country           | Convention on Biological Diversity | Convention on Migratory Species | Raptors MoU | CITES | Rotterdam Convention | ASEAN member |
|-------------------|------------------------------------|---------------------------------|-------------|-------|----------------------|--------------|
| Albania           | ✓                                  | ✓                               | X           | ✓     | ✓                    | X            |
| Armenia           | ✓                                  | ✓                               | ✓           | ✓     | ✓                    | X            |
| Azerbaijan        | ✓                                  | ✓                               | X           | ✓     | X                    | X            |
| Bulgaria          | ✓                                  | ✓                               | X           | ✓     | ✓                    | ✓            |
| Croatia           | ✓                                  | ✓                               | ✓           | ✓     | ✓                    | ✓            |
| France            | ✓                                  | ✓                               | ✓           | ✓     | ✓                    | ✓            |
| Georgia           | ✓                                  | ✓                               | X           | ✓     | ✓                    | X            |
| Greece            | ✓                                  | ✓                               | X           | ✓     | ✓                    | ✓            |
| Italy             | ✓                                  | ✓                               | ✓           | ✓     | ✓                    | ✓            |
| Portugal          | ✓                                  | ✓                               | ✓           | ✓     | ✓                    | ✓            |
| Russia            | ✓                                  | X                               | X           | ✓     | ✓                    | X            |
| Saudi Arabia      | ✓                                  | ✓                               | X           | ✓     | ✓                    | X            |
| Serbia            | ✓                                  | ✓                               | X           | ✓     | ✓                    | X            |
| Spain             | ✓                                  | ✓                               | ✓           | ✓     | ✓                    | ✓            |
| The FYR Macedonia | ✓                                  | ✓                               | X           | ✓     | ✓                    | X            |
| Turkey            | ✓                                  | X                               | X           | ✓     | X                    | X            |
| Ukraine - Crimea  | ✓                                  | ✓                               | X           | ✓     | ✓                    | X            |

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