### CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA



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### UPDATED INFORMATION SHEETS ON WEST AFRICAN VULTURES

The attached information document has been submitted by the Secretariat and prepared by the Secretariat of the Convention on Migratory Species (CMS) in relation to agenda item 20.<sup>1</sup>

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### **CINEREOUS VULTURE** – Aegypius monachus

#### **Red List Category**

- · Near Threatened (2018)
- · Since 2004

#### **Population size**

· 15,600 – 21,000 mature individuals

### Population trend Increasing

Range Europe, Asia, Africa (rare)





### Distribution map of the Cinereous Vulture Aegypius monachus

### Distribution

This species breeds in Spain, Greece, Turkey, Armenia, Azerbaijan, Georgia, Ukraine, Russia, Uzbekistan, Kazakhstan, Tajikistan, Turkmenistan, Kyrgyzstan, Iran, Afghanistan, northern Pakistan (BirdLife International 2017), Mongolia and mainland China, with a reintroduced population in France (Heredia 1996, Heredia et al. 1997, BirdLife international 2017) and Bulgaria (Vulture Conservation Foundation 2020). The wintering range includes additional states to the south of the breeding range, in Saudi Arabia, Iran, northern India, Nepal, Bhutan, Bangladesh, DPR Korea and Republic of Korea (North and South Korea, respectively). It appears to be very rare and of irregular occurrence in Africa

(e.g. Egypt: Goodman and Meininger 1989), with no reliable records in Sudan (Nikolaus 1987) but several observations in West Africa (Borrow and Demey 2014, A. Camiña pers. comm.) and three tracked birds in Sub-Saharan Africa (Vulture Conservation Foundation 2019/20).

### **Population size and trend**

The most recent global population estimate for Cinereous Vulture is 7,800 - 10,500 pairs, which equals to 15,600 - 21,000 mature individuals. This consists of 2,300 - 2,500 pairs in Europe (BirdLife International 2004) and 5,500 - 8,000 pairs in Asia. Although quantified information is not available, the trend across Asia is believed to be an ongoing moderate decline. The latest population count for wintering Cinereous Vultures in the South Korea was 2,532 individuals in 2012 (Cultural Heritage Administration 2012). In Europe, the species occurs in Spain (2,068 breeding pairs in 2012 – 15 and increasing), Portugal (up to 18 pairs) and France (31 pairs in 2016). In Greece, the population is located at a single colony (21 – 35 breeding pairs, slowly increasing). Recently collected data from Europe, Central Asia and the Middle East suggest a population estimate of 9,657 - 12,306 breeding pairs, with a stable or increasing population trend in Europe and probably declining in Asia.

### **Movements**

The species is a partial migrant (Bildstein 2006); while it is sedentary in some areas, many individuals winter south of the breeding range, and there is also a good deal of nomadism. Gavashelishvili and McGrady (2006) recorded long range movements by a bird that fledged in Georgia, travelled south to Saudi Arabia, and then headed north into Russia. Many adults and juveniles in Mongolia apparently migrate in autumn to wintering areas in the Republic of Korea (South Korea) (Batbayar 2004, Batbayar et al. 2006), while birds from central Asia migrate to the Indian subcontinent, southern China, Russian Far East, and the Republic of Korea (Batbayar 2006). 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.

### Habitat

The species prefers arid hilly and montane habitat, including wooded areas and semi-desert, areas above tree line, and agricultural habitats with patches of forest. Birds spend much time soaring overhead in search of food. They perch more often on trees than on cliff faces or on the ground. Although not numerous, in places of abundant food they may congregate in large flocks (Flint 1984).

### **Ecology**

The species 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). It forages over many kinds of open terrain, 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. In Mongolia, at least, the species is reliant on livestock numbers for successful nesting (Batbayar et al. 2006).

### Trade

In the past, direct persecution was one of the main threats to the species in Europe. Nowadays this threat appears only sporadically, although it seems to be a significant threat for the species in Central Asia. Batbayar (2005) reported an increase in the deliberate persecution of the Cinereous Vulture in Mongolia and the trapping or shooting of birds in China for their feathers. In China, there is certainly

some persecution of vultures for direct meat consumption, but this also extends to belief based use and is considered a significant threat (MaMing et al. 2017).

### **Major threats**

Unintentional poisoning (poison baits). Birds are killed by feeding on carcasses deliberately laced with pesticides to kill feral dogs or wild carnivores across the species' range. This seems to be on the increase in areas such as Mongolia (Batbayar 2005).

Electrocution on or collision with energy infrastructure. Dixon et al. (2013) recorded Cinereous Vultures among the species killed on power lines during a study in Mongolia. Although little substantive data concerning mortalities of this species are known, it is unlikely that such mortalities are underrecorded.

Decline of food availability (wild and domestic ungulate populations) in Asia and eastern Europe. Numbers of livestock have substantially reduced in areas of the former Soviet Union, due to changed agricultural practices and urbanisation. McGrady et al. (2007) link declines in the species in Georgia and Armenia to the cancellation of subsidies for sheep herding and the resultant reduction in availability of food. Lee et al. (2006) also state that the species is dependent on supplementary feeding in South Korea due to the lack of available food in the environment.

### **Secondary threats**

Habitat degradation and Human disturbance.

Direct persecution. Batbayar (2005) report an increase in the deliberate persecution of this species in Mongolia and the trapping or shooting of birds in China for their feathers.

Unintentional poisoning (NSAIDs). Overwintering birds in northern India could be exposed to veterinary NSAIDs such as diclofenac which could severely impact this increasing population (BirdLife International 2017).

More details regarding the species' biology, threats and conservation effort is available in the *Flyway Action Plan for the Conservation of the Cinereous Vulture Aegypius monachus* (CVFAP).



Compiled by the Coordinating Unit of the Raptors MOU, April 2020 Information taken from the Multi-species Action Plan to Conserve African Eurasian Vultures (Vulture MsAP)

### **WHITE-BACKED VULTURE** – Gyps africanus

#### **Red List Category**

- · Critically Endangered (2018)
- · Since 2015

#### **Population size**

· 270,000 individuals

### Population trend Decreasing

Range Africa



#### Distribution map of the White-backed Vulture *Gyps africanus*



### **Distribution**

The White-backed Vulture is the most common and widespread vulture species in Africa, occurring extensively throughout West, East and southern Africa. It is normally absent from North Africa, although, having reached the Iberian Peninsula (in tiny numbers), it presumably passes through this region. The extent of declines and range contractions is complex and variable throughout the range. Range contraction is particularly marked in West Africa (Thiollay 2006), and the species may be extirpated in Nigeria, and hanging on in a few strongholds in Ghana and Niger. Declines are also

recorded in Kenya, Somalia, South Sudan and Sudan, but status is apparently more stable in Uganda, Tanzania and parts of southern Africa.

### Population size and trend

Currently estimated at 270,000 individuals and rapidly declining; this decline has been projected at 90% (range 75–95%) over the last three generations (Ogada et al. 2016).

### **Movements**

The species is generally considered sedentary, but individuals will cover huge areas in search of food (BirdLife International 2017, Ferguson-Lees and Christie 2001). Juveniles, in particular, disperse over vast areas. For example, six immature birds tracked from South Africa were found to range across six countries (South Africa, Namibia, Angola, Zambia, Botswana and Zimbabwe) and three were noted to travel more than 900 km from their place of capture (Oschadleus 2002, Phipps et al. 2013a) with mean foraging range of 269,103 km<sup>2</sup>. Some populations are thought to shift their ranges in response to food availability and seasonal rains (Bildstein 2006, Ferguson-Lees and Christie 2001).

White-backed Vultures tagged in Kenya are known to travel across large portions of Kenya and into Tanzania (Kendall et al. 2014). Like Rüppell's Vulture, this species has also been recorded with increasing frequency in the Iberian Peninsula over the last 10 years and these birds are assumed to accompany Griffon Vultures during their northward migration; however, numbers reaching Iberia appear to be significantly smaller than for Rüppell's, more suggestive of vagrancy, and this occurrence is not included in the range map.

### Habitat

Primarily a lowland species of open wooded savannah, particularly areas of Acacia. They require tall trees for nesting, usually in loose colonies of 2–13 nests (del Hoyo et al. 1994). The species has also been recorded nesting on electricity pylons in South Africa (Anderson and Hohne 2007, de Swardt 2013).

### **Ecology**

White-backed Vulture is a highly gregarious species congregating at carcasses, in thermals and at roost sites. The species feeds on carrion and bone fragments of larger carcasses, mainly soft muscle and organ tissue. They soar together with other vultures, which can facilitate efficient foraging. After feeding, they often bathe together with other species at favoured sites (del Hoyo et al. 1994). In South Africa, Monadjem et al. (2013) showed that adult survival was high for vultures with many regularly visiting supplementary feeding sites.

### Trade

White-backed Vultures are regularly traded in West Africa, with an estimated 924–1,386 individuals traded over a six-year period, which most likely represents a significant proportion of the regional population (Buij et al. 2016). The decline and possible extirpation of White-backed Vulture in Nigeria has been attributed to the trade in body parts for traditional juju practices (BirdLife International 2020). In southern Africa, vultures are caught and consumed for perceived medicinal and psychological benefits. In South Africa, White-backed Vultures are one of the most prevalent vulture species in trade, according to a survey of traditional healers and traders (McKean et al. 2013). As a result of this and environmental pressures, it is predicted that the population in Zululand (District Municipality of KwaZulu-Natal, South Africa) could become locally extinct in 26 years (from 2007), unless harvest rates have been underestimated, in which case local extinction could have been be 10–11 years away (McKean and Botha 2007).

### **Major threats**

Unintentional poisoning (poison baits) is a major threat, especially in East and southern Africa (Ogada and Keesing 2010, Otieno et al. 2010, Kendall and Virani 2012, Roxburgh and McDougall 2012, Botha et al 2015).

Intentional poisoning (sentinel poisoning). Prevalent in southern Africa (Roxburgh and McDougall 2012, Ogada et al. 2015, Murn and Botha 2017), this is the deliberate poisoning of the carcasses of large mammals such as elephant and buffalo after being poached to reduce vulture numbers in an area where poachers are active; large numbers of birds have been killed in this manner. All vultures occurring in areas where this is practiced are susceptible to this threat, but the threat to White-backed Vultures is particularly severe because of the large number of birds of this species that congregate at carcasses.

Intentional poisoning (belief-based use) is a threat especially in West Africa (Nikolaus 2006, Buji et al. 2016) and southern Africa (McKean and Botha 2007, McKean et al. 2013, BirdLife International 2017).

Habitat loss and degradation results mainly from rangeland conversion to crop farming (Virani et al. 2011) and from bush encroachment (Schultz 2007). The effect of elephants damaging breeding trees in protected areas requires additional research (Vogel et al. 2014).

Decline of food availability (wild ungulate populations) affects populations especially in West Africa (Craigie et al. 2010) but also in East Africa (Western et al. 2009).

### **Secondary threats**

Electrocution on energy infrastructure. Mortality of this species on powerline poles has been documented (Anderson and Kruger 1995, BirdLife International 2016a).



Human disturbance of this species can include nest harvesting (Bamford et al. 2009).



Compiled by the Coordinating Unit of the Raptors MOU, April 2020 Information taken from the Multi-species Action Plan to Conserve African Eurasian Vultures (Vulture MsAP)

### **GRIFFON VULTURE** – Gyps fulvus

### **Red List Category**

- · Least Concern (2016)
- · Since 1988

#### **Population size**

· 500,000 – 999,999 mature individuals

### Population trend Increasing

Range Europe, Asia, Africa





### Distribution map of the Griffon Vulture Gyps fulvus

### Distribution

The Griffon Vulture has a large breeding range, extending over Europe, the Middle East and at least formerly North Africa; some migrate to spend the non- breeding season further south in Africa, passing through the latter region. It occurs from India west to Portugal and Spain, including some island populations in the Mediterranean (Sardinia, Crete, Cyprus and recently established in Mallorca) as well as the Kvarner Archipelago in Croatia. The range also includes Turkey, the Crimean Peninsula and the Caucasus (Katzner et al. 2004), and to the Middle East and into Central Asia. In North Africa, it is

probably extinct as a breeding species, even though it occurs in large numbers during migration in Morocco. The species has been successfully reintroduced to France, Italy and central Bulgaria.

### **Population size and trend**

The European population is estimated at 32,400-34,400 pairs (BirdLife International 2017). Spain alone holds an estimated 25,000 pairs. The population in Europe is significantly increasing (around 200% in the last 12 years), mainly owing to implementation of conservation measures, notably campaigns to minimise poisoning and provide safe food at vulture restaurants. Its range has also expanded thanks to reintroduction projects in France, Italy and the Balkans (Deinet et al. 2013).

### **Movements**

Some birds are migratory, overwintering in Africa, although many others are resident or nomadic (del Hoyo et al. 1994). Breeding adults are largely sedentary, but most juveniles are migratory or nomadic. Donázar (1993) found that 30% of juvenile Griffon Vultures in Spain migrate for long distances in late winter and spring. Susi (2000) reported that almost 100% of Croatian juveniles migrate. There are concentrations of migrating birds in some specific locations, e.g. Gibraltar and Suez (Bijlsma 1987); Terrasse (2006) found that large numbers move through the eastern Pyrenees in spring northward into France and other countries in western Europe. In south-western Europe, some French birds join the autumn migration of Spanish birds to northern Spain and western Africa (Terrasse 2006); these birds return to France in late winter and early spring, often accompanied by Spanish birds. In recent years, more Griffon Vultures have been seen in central and northern Europe (including Belgium, Estonia, Finland, Germany, Latvia and the Netherlands). This may be linked to the large population increase in Spain and France.

### Habitat

The species roosts and nests on large cliffs and soars over surrounding open countryside in search of food. It avoids woodlands. The landscape should support the formation of thermals (Mebs and Schmidt 2006) as large vultures prefer to save energy by gliding and soaring over active flight. Generally, it occurs from sea level up to an elevation of 1,500 m and occasionally as high as 2,500 m (Slotta-Bachmayr et al. 2006).

### Ecology

The species needs cliffs for nesting; the nest is usually built on a rocky outcrop, with sheltered ledges or small caves preferred (del Hoyo et al. 1994). Griffon Vulture nests in colonies of up to 100 pairs on large cliffs, walls of ravines, and precipices. It feeds almost exclusively on carrion of medium-sized and large domestic and wild animals, often in large numbers, although there are a few records in Spain of birds approaching injured or weak sheep or cattle.

### Trade

The Griffon Vulture, like other vultures is susceptible to hunting and trade for economic purposes and may have local commercial value as a traditional medicine in their African range.

### **Major threats**

Unintentional poisoning (poison baits) is the most significant threat to Griffon Vultures. Birds are normally killed when feeding from poisoned carcasses set for mammalian predators (Snow and Perrins 1998, Ferguson-Lees and Christie 2001) as a result of human predator conflicts.

Electrocution on energy infrastructure is a threat affecting the species in its entire range of distribution. It is one of the raptor species commonly found on lists of electrocuted birds, especially in countries

with an abundant population. In Spain (Ferrer 1993, Palacios and Garcia-Bacquero 2003), in Portugal (Infante et al. 2005) and in the Middle East (Israel), electrocution is also identified as a serious threat to the species (Prinsen et al. 2012).

Collision with energy infrastructure is considered a highly important threat, especially caused by wind energy development (Strix 2012), but also from electricity cables.

Decline of food availability (domestic ungulate populations). In parts of Asia and eastern Europe, a reduction in available food supplies has resulted from changes in livestock management practices (Ferguson-Lees and Christie 2001, Orta et al. 2015).

### **Secondary threats**

Unintentional poisoning (NSAIDs). Veterinary NSAIDs pose a threat to this species. One case of suspected poisoning of a Griffon Vulture caused by flunixin, an NSAID, was recorded in 2012 in Spain (Zorrilla et al. 2015). Diclofenac, a similar NSAID, has caused severe declines in Gyps vulture species across Asia and, following its approval for veterinary use in Spain, could potentially cause significant effects on populations of Griffon Vultures there too (Green et al. 2016).

Unintentional poisoning (lead). Several instances of lead poisoning have been recorded in the Iberian Peninsula (Mateo 1997, Carneiro 2015), where it was also proven that the source of the lead poisoning was ammunition used in hunting.

Human persecution (without poison) was a serious threat to the species throughout the 19th and 20th centuries in much of Europe, North Africa and the Middle East and was one of the main reasons for population decline. Now it appears to be more relevant to the eastern Europe and Central Asia and possibly the Middle East.

Habitat degradation and Human disturbance are additional, more localised, threats.





Compiled by the Coordinating Unit of the Raptors MOU, April 2020 Information taken from the Multi-species Action Plan to Conserve African Eurasian Vultures (<u>Vulture MsAP</u>)

### **RÜPPELL'S VULTURE** – Gyps rueppelli

### **Red List Category**

- · Critically Endangered (2016)
- $\cdot$  Since 2015

#### **Population size**

· < 22,000 mature individuals

## Population trend

Decreasing

### Range

Africa



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### Distribution map of the Rüppell's Vulture Gyps rueppelli

### Distribution

Rüppell's Vultures occur throughout the Sahel region of Africa from Senegal, Gambia and Mali in the west to Sudan, South Sudan and Ethiopia in the East. Their range also extends south of the Sahel belt through the savanna regions of East Africa in Kenya, Tanzania and they are reported to occur in northern Mozambique. For occurrence in the Iberian Peninsula, see movements below.

### Population size and trend

Formerly abundant, the species has experienced extremely rapid declines in much of its range, particularly West Africa. Although the population was estimated at 22,000 individuals in the early 1990s (Mundy et al. 1992), based on recent rapid declines projected at 97% (94–99%) over the last three generations (Ogada et al. 2016) it is now certainly much lower.

### **Movements**

The species is considered an irruptive and local migrant by Bildstein (2006) but ranges widely in search of food and occasionally makes long-distance movements for reasons that are not well understood (Ogada). Juveniles and sub-adults disperse widely (juveniles tagged by Ogada in central Kenya have flown to southern Chad) and it is unknown whether they return to their natal colonies to breed. Daily foraging movements of up to 150 – 200 km have been recorded (Ferguson-Lees and Christie 2001) and in West Africa they regularly disperse several hundred kilometres north and south in response to seasonal rains (del Hoyo et al. 1994). Recent satellite tracking studies have shown that the species can cover huge areas. Ogada (2014) found that the home range size of a satellite tagged adult was 55,144 km<sup>2</sup>, while that of an immature bird was 174,680 km<sup>2</sup>. Kendall (pers. comm.) has found the average home range of this species to be 100,000 km2 with individuals moving between Kenya, Tanzania as far south as Ruaha National Park as well as South Sudan and Ethiopia. In the last 15 years, the species has been recorded far away from its breeding colonies, reaching the Iberian Peninsula and north-eastern regions of South Africa (Kemp and Kemp 1998, Ferguson-Lees and Christie 2001, De Juana 2006). It has been suggested that the movement of Rüppell's Vulture across the Strait of Gibraltar into Europe in the company of migrant Griffon Vultures may be a regular, annual and considerably under-recorded phenomenon (Gutiérrez 2003, De Juana 2006, Ramírez et al. 2011), and this is therefore mapped as a regular, non-breeding population.

### Habitat

Rüppell's Vultures frequent open areas of Acacia woodland, grassland and montane regions within a broad range of elevations. They avoid overflying developed areas whenever possible.

### **Ecology**

A highly gregarious species that congregates at carrion, soars in flocks and locates food by sight, following conspecifics, other vulture species, or other scavenging raptor species such as Bateleur *Terathopius ecaudatus* and Tawny Eagle *Aquila rapax*. The species feeds on carrion and bone fragments of larger carcasses, mainly soft muscle and organ tissue, rarely coming down to small carrion. It follows other vultures and migrant game or stock herds to locate much of its food (Del Hoyo et al. 1994). The species breeds on cliff faces and escarpments at a broad range of elevations, in colonies of one to (at least formerly) 1,000 pairs, building a platform of sticks on rock ledges; tree nesting occurs occasionally, at least in West and Central Africa (Rondeau et al. 2006). Monitoring conducted at the Kwenia colony in Kenya indicates that breeding in East Africa may be triggered by rainfall and geared to producing fledged young at the end of the dry season (July–October) when carrion is most abundant (Virani et al. 2012).

### Trade

Rüppell's Vulture has been heavily exploited for trade in West Africa (Nikolaus 2006) and the estimated numbers traded of 1,128–1,692 individuals over a six-year period represents a significant proportion of the regional population (Buij et al. 2016). It is the second most commonly traded vulture species (excluding Palm-nut Vulture) for belief-based use in West and Central Africa (Buij et al. 2016). The Dogon of central Mali climb the Hombori cliffs to take eggs and chicks of this species (Rondeau and Thiollay 2004). The decline and possible extirpation in Nigeria appears to be highly, if not entirely attributable to the trade in vulture parts for traditional juju practices. This species is apparently also

captured for international trade. In 2005, 30 birds were reportedly confiscated by the Italian authorities (Birdlife International 2020).

### **Major threats**

Unintentional poisoning (poison baits) is a major threat throughout its African range (Ogada and Keesing 2010, Otieno et al. 2010, Kendall and Virani 2012, African Wildlife Poisoning Database unpub. data), as for other vulture species.

Intentional poisoning (belief-based use) is the other major threat, especially in West and Central Africa (Rondeau and Thiollay 2004, Nikolaus 2006, Buij et al. 2016).

### **Secondary threats**

Decline of food availability (declining wild ungulate populations) is a threat at least in East Africa (Western et al. 2009).

Human disturbance can include nest harvesting, rock climbing as well as other forms of disruption of breeding (Rondeau and Thiollay 2004, Bamford et al. 2009).





Compiled by the Coordinating Unit of the Raptors MOU, April 2020 Information taken from the Multi-species Action Plan to Conserve African Eurasian Vultures (Vulture MsAP)

### **HOODED VULTURE** – Necrosyrtes monachus

### **Red List Category**

- · Critically Endangered (2016)
- $\cdot$  Since 2015

### **Population size**

· 197,000 individuals

### Population trend

Decreasing

### Range

Africa





### Distribution map of the Hooded Vulture Necrosyrtes monachus

### Distribution

A widespread resident throughout, and endemic to, sub-Saharan Africa, including densely forested areas in Central Africa.

### Population size and trend

Estimated at 197,000 individuals (Ogada and Buij 2011) but rapidly declining; this decline has been projected at 83% (range 64–93%) over the last three generations (Ogada et al. 2016).

### **Movements**

The species is generally considered sedentary, with some dispersal of non-breeders and immature birds, especially in response to rainfall (Ferguson-Lees and Christie 2001). Recent satellite tracking has shown that individuals move several hundreds of kilometres from their capture sites between South Africa, Mozambique and Zimbabwe (Coordinating Unit of the Raptors MOU 2015).

### Habitat

In West Africa, it is often associated with human settlements, but is also found in open grassland, forest edge, wooded savannah, semi-desert and along coasts (Ferguson-Lees and Christie 2001). In southern Africa, it tends to avoid human settlements and often breeds in large trees along river courses (Roche 2006). It occurs up to 4,000 m, but is most numerous below 1,800 m. In East Africa, it is mostly associated with human settlements and activities. For example inside the Masai Mara National Reserve it is frequently found scavenging the remains of picnic sites from hot air balloon safaris.

### **Ecology**

The species feeds on carrion, but in urban areas it congregates at slaughterhouse disposal sites and rubbish dumps. It is gregarious at larger carcasses but because of its smaller size is often dominated by larger species. Generally, north of the equator it is a human commensal, gathering in large numbers in urban areas (Ogada and Buij 2011). South of the equator it is generally more solitary and is largely found in conservation areas where it relies on natural food for most of its diet (Anderson 1999).

In West Africa and Kenya, it breeds throughout the year, but especially from September to July. Breeding in North- east Africa occurs mainly in October-June, with birds in southern Africa tending to breed in May-December. It is an arboreal nester and lays a clutch of one egg. Its incubation period lasts 46–54 days, followed by a fledging period of 80–130 days. Young are dependent on their parents for a further 3–4 months after fledging (Ferguson-Lees and Christie 2001).

### Trade

Across West and Central Africa the Hooded Vulture is one of the most heavily affected species, with an estimated 5,850–8,772 individuals traded over a six-year period in West Africa alone (Buij et al. 2016). In Nigeria, a survey of medicinal traders found this to be the most commonly traded species of vulture, accounting for 90% of all vulture parts traded (Saidu and Buij, 2013). Nigeria and Benin are known to be important drivers of the regional trade in raptors. Due to lower population numbers within Nigeria, traders are largely obtaining the birds from neighbouring countries such as Chad, Burkina Faso and Niger (Buij et al., 2016). Hooded Vultures are also killed for belief-based uses in South Africa but not as commonly as other species (McKean et al. 2013), perhaps simply because of the relatively low population in the country compared to other species.

### **Major threats**

Intentional poisoning (belief-based use). Especially in South Africa (McKean et al. 2013) and West Africa (Nikolaus 2006, Saidu and Buij 2013, Buij et al. 2016), birds are killed for this purpose mainly through poisoning but locally by capture at abattoirs (e.g. Uganda: D. Pomeroy pers. comm.) A survey of traders in Nigeria found that more than 90% of vulture parts traded were that of Hooded Vultures (Saidu and Buij 2013) and Buij et al. (2016) estimate 5,850 – 8,772 individuals of this species were traded over a period of six years in West and Central Africa. A mass mortality of over 1600 Hooded Vultures in February 2020 in Guinea-Bissau (one of the most important countries in the world for Hooded Vultures) was likely to be caused by poisoning using poisoned baits, deliberately targeted at vultures. Belief-based use, in particular possession of vulture heads or other body parts is thought to bring good fortune or special powers (several hundred of vultures were found without heads).

Additionally, a high demand for vulture body parts from neighboring countries (and potentially other countries further afield) may be driving cross-border trade.

Intentional poisoning (food and bushmeat trade). The species is known to be consumed by people in West and Central Africa (Rondeau and Thiollay 2004, Ogada and Buji 2011).

Unintentional poisoning (poison baits). Especially in East Africa (Roxburgh and McDougall 2012), poisoned baits targeting at mammalian carnivores causing livestock losses kills these birds when they feed on the baits themselves or the animals that were killed by them.

Intentional poisoning (sentinel poisoning). Carcasses of large mammals such as elephant and buffalo are laced with poison after being poached, to reduce vulture numbers in areas where poachers are active.

### **Secondary threats**

Decline of food availability results from improvements to slaughterhouse sanitation and rubbish disposal (Ogada and Buij 2011).

Disease. Avian influenza due to feeding on discarded poultry carcasses (Ducatez et al. 2007) is a potential threat, although this requires substantiation.





Compiled by the Coordinating Unit of the Raptors MOU, April 2020 Information taken from the Multi-species Action Plan to Conserve African Eurasian Vultures (<u>Vulture MsAP</u>)

### **EGYPTIAN VULTURE** – Neophron percnopterus

### **Red List Category**

- · Endangered (2019)
- · Since 2007

#### **Population size**

- · 57,000 218,000
- · 12,000 38,000 mature individuals

Population trend Decreasing

Range Africa, Europe, Asia







### Distribution

Egyptian Vulture is a Palearctic, Afrotropical and western Indo-Himalayan species: a breeding (summer) migrant across the northern part of the range, but with resident populations and nonbreeding visitors further south. The northern breeding range includes southern Europe and North Africa eastwards through the Balkans, Turkey, Iran, Kazakhstan, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Georgia, Azerbaijan and Armenia. There are sedentary populations in Spain: on the Balearic Islands (on Menorca mainly) and (endemic subspecies *majorensis*) the Canary Islands, consisting of fewer than 40 pairs in each case (Kretzmann et al. 2003); recently, a wintering population of 120 individuals has been recorded in Extremadura (Sánchez et al. 2015). A very small resident population is also present on the islands of Cabo Verde .

The smaller Asian subspecies (*ginginianus*) is largely sedentary, remaining within the Indian subcontinent (Pakistan, India, Nepal), although other populations (of the nominate race) are also sedentary in Arabia (Oman, Saudi Arabia, United Arab Emirates and Yemen) as well as much of the Central and East African range. The African range is huge, concentrated along a broad band of the Sahel from Sudan (Nikolaus 1987) and Ethiopia (holding the largest African breeding population: Mundy et al. 1992), Somalia, Eritrea and Djibouti west to Senegal (Rondeau and Thiollay 2004, Petersen et al. 2007, Wacher et al. 2013) and south to Kenya and northern Tanzania. It also occurs in North Africa (Morocco, Tunisia, Algeria, Libya and Egypt: Levy 1996). A few resident pairs may occur in Angola, but it is currently considered regionally extinct as a breeding species in South Africa (Taylor et al. 2015) and Namibia (Simmons et al. 2015).

### **Population size and trend**

In Europe the largest populations are in Spain and Turkey (each estimated at 1,000–2,000 pairs). Other countries with significant populations (≥ 200 pairs) are: Azerbaijan, France, Georgia, Iran, Iraq, Kazakhstan, Oman, Portugal, Russia, Uzbekistan and Yemen. The European breeding population is estimated to number 3,000 – 4,700 breeding pairs, equating to 6,000 – 9,400 mature individuals (BirdLife International 2017). Europe forms 25 – 49% of the global range, so a very preliminary estimate of the global population size is 18,000 - 57,000 individuals, roughly equivalent to 12,000-38,000 mature individuals, although further validation of this estimate is needed (BirdLife International 2017). The pop- ulation is generally decreasing all over its range, except for some isolated island populations in the Mediterranean on Menorca and in the south-western part of Asia, notably Socotra (Ferguson-Lees and Christie 2001, Porter and Suleyman 2012) and Masirah (Angelov et al. 2013c). In India, it has declined by more than 90% in the last ten years (Cuthbert et al. 2006); European populations have declined by 50 – 79% over the last three generations and there is evidence of high juvenile mortality on migration (Oppel et al. 2015). Western, eastern and southern African breeding populations also appear to have declined significantly, as have Arabian populations (Jennings 2010). Africa holds the main wintering grounds of the eastern migratory population, but the African estimate for annual wintering and migrating individuals is less than 2,000. Ethiopia holds probably the largest congregation of wintering Egyptian Vultures in eastern Africa, with over 1,000 individuals annually; however, a decline in these numbers has been reported over the last five years (Arkumarev et al. 2014). Buij and Croes (2014) states that the species occurs in Cameroon as a breeding resident and as a Palearctic migrant. In Chad, Djibouti, Niger, Nigeria, and Somalia the current population status is unknown (Meyburg et al. 2004, Oppel et al. 2015).

### **Movements**

The populations breeding on the Canary Islands, Balearic Islands, Cabo Verde islands, Socotra and Masirah Island, on the Arabian Peninsula, and those on the Indian subcontinent are sedentary. Northern breeders conduct long distance intercontinental migrations, flying over land, and often utilise the narrowest part of the Strait of Gibraltar or the Bosphorus and Dardanelles on their way to sub-Saharan Africa (García-Ripollés et al. 2010, López-López et al. 2014, Oppel et al. 2015). Other known migration bottlenecks are the Gulf of Iskenderun in Turkey (Oppel et al. 2014), Suez in Egypt (Bougain and Oppel 2016), and Bab el Mandeb between Yemen and Djibouti (McGrady et al. 2013).

On the Indian subcontinent, the population is elevated, especially in north-western India, by the migrant nominate race in the winter, but the exact regional distribution and status of the two races remains unclear. Egyptian Vultures are rare and irregular visitors to southern Africa, where they used to breed; a few may still do so in northern Namibia.

Migratory adult birds spend about 6–7 months on the breeding grounds (March-September) and the rest of the year along the flyway and in the wintering grounds. After the first migration (August-October), the juvenile Egyptian Vultures remain in the wintering regions for at least 1.5 years (in some cases up to three years) and do not attempt spring migration in the year after their first arrival in Africa (Oppel et al. 2015).

### Habitat

In most parts of its breeding range, this species inhabits arid woodlands and semi-arid bush country, especially canyons and rocky areas, often near villages and along roads. It usually occurs singly or in pairs, less commonly in small groups, and rarely in large groups of more than 100. It soars low in search of food. It roosts on cliff faces or in dead trees and is rarely found far from nesting cliffs. It is less wary and more tolerant of humans than other vultures. The wintering habitat includes mainly sub- deserts and savanna in the Sahel zone (Oppel et al. 2015, Meyburg et al. 2004) where birds often roost on pylons (Arkumarev et al. 2014).

### **Ecology**

The Egyptian Vulture typically nests on ledges or in caves on cliffs (Sarà and Di Vittorio 2003), crags and rocky outcrops, but occasionally also in large trees, buildings (mainly in India), electricity pylons (Naoroji 2006) and exceptionally on the ground (Gangoso and Palacios 2005). It forages in lowland and montane regions over open, often arid, country, while also scavenging at human settlements, being an opportunistic scavenger with a broad diet including carrion (not only livestock but often domestic chicken), tortoises, organic waste, insects, young vertebrates, eggs and faeces (Margalida et al. 2012, Dobrev et al. 2015, 2016). Although usually solitary, it will congregate at feeding sites, such as rubbish tips, or vulture restaurants (i.e. supplementary feeding stations), and will form roosts of non-breeding birds (Ceballos and Donázar 1990). Pairs perform energetic display flights. The species exhibits high site fidelity, particularly in males (Elorriaga et al. 2009, García-Ripollés et al. 2010, López- López et al. 2014).

### Trade

The Egyptian Vulture, like other African vultures is susceptible to hunting for economic purposes and has local commercial value as a traditional medicine throughout Africa (Birdlife International 2020). Vultures are hunted and traded for food (Koeni 2006, Wacher et al. 2013), and for taxidermy (Aghababyan et al. 2011). Vultures are also trapped and sold in markets alive (Grubač et al. 2014), while their nests are robbed by traders for eggs and chicks (Sarukhanova 2011).

### **Major threats**

Unintentional poisoning (poison baits). Feeding on carcasses poisoned by poison baits targeting and killing mammalian predators, which also present a source of food containing poison, is thought to be the most significant cause for declines in this species in Europe (Carrete et al. 2007, Carrete et al. 2009, Cortés- Avizanda et al. 2009, 2015, Hernandez and Margalida 2009, Sanz-Aguilar et al. 2015b, Oppel et al. 2016, Angelov 2009, Saravia et al. 2016). Disposal of poisoned feral dog carcasses from problem animal control actions at dumps in Ethiopia also pose a threat (BirdLife International 2017).

Electrocution on or collision with energy infrastructure. Incidents of mortality involving this species have been recorded on the Canary Islands (Donázar et al. 2002) and Oman (Al Fazari and McGrady 2016) and is considered a possible risk in regions of Spain (Donázar et al. 2007 2010, de Lucas et al. 2008) and in Africa, especially at congregation sites where a 30 km section of powerline near Port Sudan is known to have caused the deaths of hundreds of Egyptian Vultures and other birds of prey since its construction in the 1950s (Angelov et al. 2013).

Decline of food availability (wild and domestic ungulate populations). Improvement of slaughterhouse sanitation and declines in wild ungulate populations seem to have contributed to the decline of this species in Africa (Mundy et al. 1992, Ogada et al. 2016). Amended management practices at refuse dumps in Europe and the Middle East (Al Fazari and McGrady 2016) may also result in reduced availability of food.

Unintentional poisoning (NSAIDs). Veterinary drugs, especially NSAIDs have been implicated in the serious declines of this species recorded in South Asia (Cuthbert et al. 2006, Galligan et al. 2014), with population trends closely corresponding to those of Gyps vultures known to reflect diclofenac use in that region.

### **Secondary threats**

Direct persecution (belief-based use). At least four cases of direct persecution of Egyptian Vultures are known from West Africa (Nikolov 2014, Buij et al. 2016) while 15–16 individuals of this species have been shot in Macedonia between 1983–2002 (Grubac et al. 2014).

Poisoning (problem animal control). An estimated 60 Egyptian Vultures (>60% of the national population) were poisoned during a single incident in Macedonia in 1993 after the birds fed on a poisoned dog carcass (Velevski et al. 2003). The use of poisons to control feral dog populations in Ethiopia also poses a threat to wintering Egyptian Vultures (Abebe 2013).

Human disturbance and Habitat degradation are also considered threats to this species.

More details regarding the species' biology, threats and conservation effort is available in the *Flyway* Action Plan for the Conservation of the Balkan and Central Asian Populations of the Egyptian Vulture Neophron perconpterus (EVFAP).





Compiled by the Coordinating Unit of the Raptors MOU, April 2020 Information taken from the Multi-species Action Plan to Conserve African Eurasian Vultures (<u>Vulture MsAP</u>)

### WHITE-HEADED VULTURE – Trigonoceps occipitalis

### **Red List Category**

- · Critically Endangered (2016)
- $\cdot\,$  Since 2015

#### **Population size**

· 2,500 – 9,999 mature individuals

### Population trend Decreasing

### Range Africa



### Distribution map of the White-headed Vulture Trigonoceps occipitalis



### Distribution

This species has an extremely large but highly fragmented range in sub-Saharan Africa from Senegal, Gambia and Guinea- Bissau, east to Eritrea, Ethiopia and Somalia, and south to easternmost South Africa and Swaziland. Widespread declines are resulting in an increasingly fragmented distribution and it may be extinct in Somalia and Djibouti (E. Buechley pers. comm.). Across its range it is now largely confined to protected areas.

### Population size and trend

The most recent population estimate is approximately 5,500 individuals (Murn et al. 2016), consisting of just 3,685 (range 2,500–9,999) mature individuals. The species has undergone a rapid population decline across its range.

### **Movements**

Adults are largely sedentary, perhaps more so than any other African vulture; however, there is evidence of seasonal movements in West Africa and immatures are more nomadic (del Hoyo et al. 1994, Ferguson- Lees and Christie 2001). Compared to many vulture species, there is little knowledge of the movements (Murn and Holloway 2014) but recent results from satellite tracked individuals in South Africa (Coordinating Unit of the Raptors MOU 2015) show individuals moving between South Africa and Mozambique, albeit with apparently smaller home ranges than some of the other African vultures.

### Habitat

White-headed Vultures prefer mixed, dry woodland at low altitudes, avoiding semi-arid thorn belt areas (Mundy et al. 1992). It also occurs up to 4,000 m in Ethiopia, and perhaps 3,000 m in Kenya, and ranges across the thorny Acacia dominated landscape of Botswana (Mundy et al. 1992). It generally avoids human habitation (Mundy et al. 1992).

### **Ecology**

It is a predator (Murn 2014) but also feeds on carrion and bone fragments from large and small carcasses. It feeds alone or in pairs, rarely more than two pairs congregating at larger carcasses. It often snatches food from other vulture species, consuming it nearby and it is often the first vulture species to arrive at a carcass (Mundy et al. 1992). It is likely an effective pirate and scavenges from other raptors (del Hoyo et al. 1994). The species is thought to be a long -lived resident that maintains a territory (Murn and Holloway 2014, del Hoyo et al. 1994). It nests and roosts in trees, most nests being in Acacia spp. or baobabs (Mundy et al. 1992). The species is highly sensitive to land use changes and is highly concentrated, particularly for nesting, in protected areas (Murn et al. 2015).

### Trade

White-headed Vultures have been recorded being traded in small numbers in West and Central Africa (Buij et al. 2016), which, given the small population size, is likely to be significant. Since 2000 the species has occasionally been illegally traded to Europe, sometimes in significant numbers (C. Murn *in* litt). In South Africa, this species is killed for belief based use (BirdLife International 2020). In Zambia, White-headed Vultures are known to be poisoned for use in witchcraft (Roxburgh and McDougall 2012).

### **Major threats**

Unintentional poisoning (poison baits). Especially in East and southern Africa, poisoned baits targeting mammalian carnivores causing livestock losses kill these birds when they feed on the baits themselves or the animals that were killed by them.

Habitat loss and degradation. Land use changes through agricultural intensification and development threaten this species throughout its range (Mundy et al. 1992, BirdLife International 2017).

Intentional poisoning (belief-based use) is a major threat in West, Central and southern Africa (Roxburgh and McDougall 2012, Buij et al. 2016).

### **Secondary threats**

Intentional poisoning (sentinel poisoning). Especially in southern Africa (Roxburgh and McDougall 2012, Ogada et al. 2015), carcasses of large mammals such as elephant and buffalo are deliberately laced with poison after being poached, to reduce vulture numbers in areas where poachers are active.





Compiled by the Coordinating Unit of the Raptors MOU, April 2020 Information taken from the Multi-species Action Plan to Conserve African Eurasian Vultures (Vulture MsAP)

### LAPPET-FACED VULTURE – Torgos tracheliotos

### **Red List Category**

- · Endangered (2016)
- · Since 2015

#### **Population size**

· 5,700 mature individuals

### Population trend Decreasing

Range Africa, Middle East





### Distribution map of the Lappet-faced Vulture Torgos tracheliotos

### **Distribution**

The species has a wide distribution across Africa, from the west, across the Sahel into East Africa and further south. Compared to many other African vulture species, it has a rather fragmented distribution. There is a small breeding population in the Arabian Peninsula (Oman, Saudi Arabia, United Arab Emirates and Yemen). It has been extinct in Algeria and Tunisia since the 1930s, and now only small populations remain in southern Egypt and Mauritania (Mundy et al. 1992). It may be extinct in Djibouti (E. Buechley pers. comm.). The last records from Morocco concerned two birds in 1972 (Shimelis et al.

2005). It is considered likely to be extinct in Western Sahara, as it has not been recorded there since 1955 (Shimelis et al. 2005). In Nigeria, there has been a major decline since the late 1970s and it may now have been extirpated (Brown 1986, Shimelis et al. 2005). It probably previously bred in Jordan (Evans and Al-Mashaqbah 1996), and is considered extinct in Israel, where three birds remained until 1994 (Shimelis et al. 2005). Vagrants are occasionally recorded from Algeria, Burundi, Libya, Morocco and Togo (BirdLife International 2017).

### Population size and trend

The African population has been estimated to be at least 8,000 individuals (Mundy 1992), and around 600 pairs in the Arabian Peninsula (Jennings 2010). This gives a total population of at least 9,200 individuals. This may prove to be an overestimate given current trends for this species (80% projected pop- ulation declines in Africa over three generations: Ogada et al. 2015b), as for other African vultures, as well as apparently severe declines in the Middle East (M. Shobrak pers. comm.).

### **Movements**

Lappet-faced Vultures are regarded as a partial migrant that makes significant movements in response to rainfall (Bildstein 2006). Tagged birds had an average home range size of 22,000 km2 and moved between Kenya and Tanzania (Coordinating Unit of the Raptors MOU 2015). Murn and Botha (ibid.) satellite-tagged an individual which moved more than 200 km from the capture site in South Africa and travelled into Mozambique. Two immature individuals satellite tagged in Saudi Arabia (Shobrak 2014) had a mean home range size of 283,380 km2 and moved about 400 km before returning in the autumn. Vagrants have been reported in Morocco, southern Libya, Jordan and Spain (Ferguson-Lees and Christie 2001).

### Habitat

The species inhabits dry savanna, arid plains, deserts and open mountain slopes (Shimelis et al. 2005), up to 3,500 m (BirdLife International 2017). In Ethiopia, it is also found at the edge of forests, having been recorded at Bonga forest and forest in Bale Mountains National Park in 2007, as well as the Afroalpine habitats of the national park in 2005 (BirdLife International 2017).

### **Ecology**

Lappet-faced Vultures range widely when foraging and whilst they take a broad range of carrion, they are also known to hunt, probably taking a variety of small reptiles, fish, birds and mammals (Mundy et al. 1992). Although usually a more solitary species, up to 50 birds may gather with other vultures at larger carcasses. Lappet -faced Vultures usually build solitary nests often in Acacia but also in Balanites, Terminalia and Maerua (Shimelis et al. 2005, Shobrak 2011). They do not usually breed until at least six years of age and fledge on average 0.4 young/ pair/year (Mundy et al. 1992). Timing of breeding can vary significantly across the species' range, for example in Mozambique, egg-laying occurs from late April until mid-August, with a peak in May and June (Parker 2005). A nest found in Oman contained a small chick in early March, and was thought to have fledged in mid-June (Wernery 2009).

### Trade

Lappet-faced Vultures have been traded in substantial numbers in West and Central African markets, with a known offtake per year of 143–214 individuals (Buij et al. 2016); considering the relatively small population size and fragmented distribution this must be exerting serious pressures on regional populations. The species has also been recorded being used for belief-based use in small numbers in South Africa (McKean et al. 2013).

### **Major threats**

Unintentional poisoning (poison baits) at carcasses deliberately laced with pesticides to kill feral dogs or wild carnivores, especially in eastern and southern Africa (Komen 2009, Otieno et al. 2010, Groom et al. 2013, Kendall and Virani 2012).

Human disturbance. This is particularly significant at nests on the Arabian Peninsula where low tree densities result in people establishing dwellings under or near trees used by this species for breeding, causing them to abandon nesting sites (Shimelis et al. 2005, Shobrak 2011). The same probably applies in areas of sparse tree cover elsewhere within the species' range. In large protected areas containing elephants, nesting trees have also been pushed over and destroyed by these animals (Murn and Botha 2017).

Intentional poisoning (belief-based use). During an incident of sentinel poisoning in the Gonarezhou National Park in Zimbabwe, most of the 15 Lappet-faced Vultures killed had the bills removed, presumably for belief-based use (Groom et al. 2013). The species has been recorded in trade in West and Central African markets with 858–1,284 reported over six years in West Africa (Buij et al. 2016); see also Rondeau and Thiollay (2004) and McKean et al. (2013).

Intentional poisoning (sentinel poisoning). Especially in southern Africa (Ogada et al. 2015), this is the deliberate poisoning of the carcasses of large mammals such as elephant and buffalo after being poached to reduce vulture numbers in areas where poachers are active due to large numbers of birds getting killed in this manner. Lappet-faced Vultures, like most other species occurring in areas where this practise is prevalent, are susceptible to this threat. The 15 birds killed in Zimbabwe in an incident of sentinel poisoning (above) were subsequently used in belief-based practices. Simmons (1995) also reported an incident of deliberate poisoning in Namibia that killed 86 individuals, but it is not clear whether this was an incident of sentinel poisoning.

### **Secondary threats**

Decline of food availability (wild ungulate populations). Rondeau and Thiollay (2004) suggest that reduced availability of food due to declining game populations caused by habitat destruction from human settlement and agriculture as well as overhunting may have contributed to the decline in the population of this species in West Africa. Civil war in Mozambique also caused dramatic declines in wild game populations in that country and continued over-exploitation of game through poaching, make the recovery of Lappet-faced Vulture populations here a challenge (Parker 2005).

Electrocution on or collision with energy infrastructure, particularly power poles. Shimelis et al. (2005) highlight the threat to Lappet-faced Vultures from electrocutions and collisions from powerlines, reporting 49 individuals known to have been killed between 1996 and 2003.



Compiled by the Coordinating Unit of the Raptors MOU, April 2020 Information taken from the Multi-species Action Plan to Conserve African Eurasian Vultures (Vulture MsAP)