Status of Egyptian Vulture *Neophron percnopterus* in the North Caucasus, Russian Federation

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The Egyptian Vulture *Neophron percnopterus* is a widely distributed species in southern Europe, northern Africa and southern Asia. However, its numbers have declined throughout the major part of its Western Palearctic range (Burfield & van Bommel 2004), including Russia (Til'ba 2001). It is included in the Red Data Book of Russia (category 3, 'rare species'). Numbers in Europe are estimated at 3500–5600 pairs (Burfield & van Bommel 2004). In Russia the species breeds only in the North Caucasus where the numbers are estimated at 70–120 pairs (Mischenko *et al* 2004, Belik 2005).

The Egyptian Vulture (Plates 1 & 2) is a breeding summer visitor to the North Caucasus and the northern limit of its breed-

Plate 1. Egyptian Vulture *Neophron percnopterus*, Kasumkentski reserve IBA, Daghestan. © *G Dzhamirzoev*

Plate 2. Egyptian Vulture *Neophron percnopterus*, Turanchaij region, Azerbaijan. © *K Cepenas*

ing range in Russia crosses the region (Figure 1). Egyptian Vultures occur throughout the mountainous parts of the North Caucasus and move into adjacent plains. The species breeds in Krasnodar krai, Adygeya republic, Stavropol krai, Karachaevo-Cherkessia republic, Kabardino-Balkar republic, North Osetia-Alania republic, republic of Ingushetia, Chechen republic and the Daghestan republic. Wandering individuals may reach north to the Kalmykia republic (Figure 1) where some birds were seen at fawning sites of the Saiga antelope *Saiga tatarica* (Bliznyuk 2004). The Egyptian Vulture is also a very rare vagrant north to the Manych-Gudilo lake area including Rostov oblast (Minoransky *et al* 2006).

In Daghestan, birds arrive at breeding sites in the first days of April. By mid-April, Egyptian Vultures may be found everywhere throughout their North Caucasus breeding range. In autumn, the last birds were seen in the foothills of Daghestan in late September (pers obs). In the western and central North Caucasus, Egyptian Vultures arrive in late March (the earliest date is 21 March) or early April and can remain until late September (Boehme 1926, Khokhlov & Vytovich 1990, Khokhlov *et al* 2005). The latest record was end of the first week of November (Khokhlov 1995).

HABITAT REQUIREMENTS AND BREEDING BIOLOGY

In the North Caucasus, the species doesn't breed in the high mountains or far out on the plains though it may be recorded in such habitats in the breeding period. Rather, it breeds at medium altitudes and in the foothills and adjacent plains (Plates 3 & 4). Breeding territories are usually found in terrain with exposed rock faces and steep cliffs with nearby river valleys and vast open plains *eg* foothill plains or intermontane depressions. In Daghestan (pers obs), the species is recorded in breeding time at 200–2000 m asl, but the majority of birds breed in the foothills and intermontane areas no higher than 1000 m asl. Egyptian

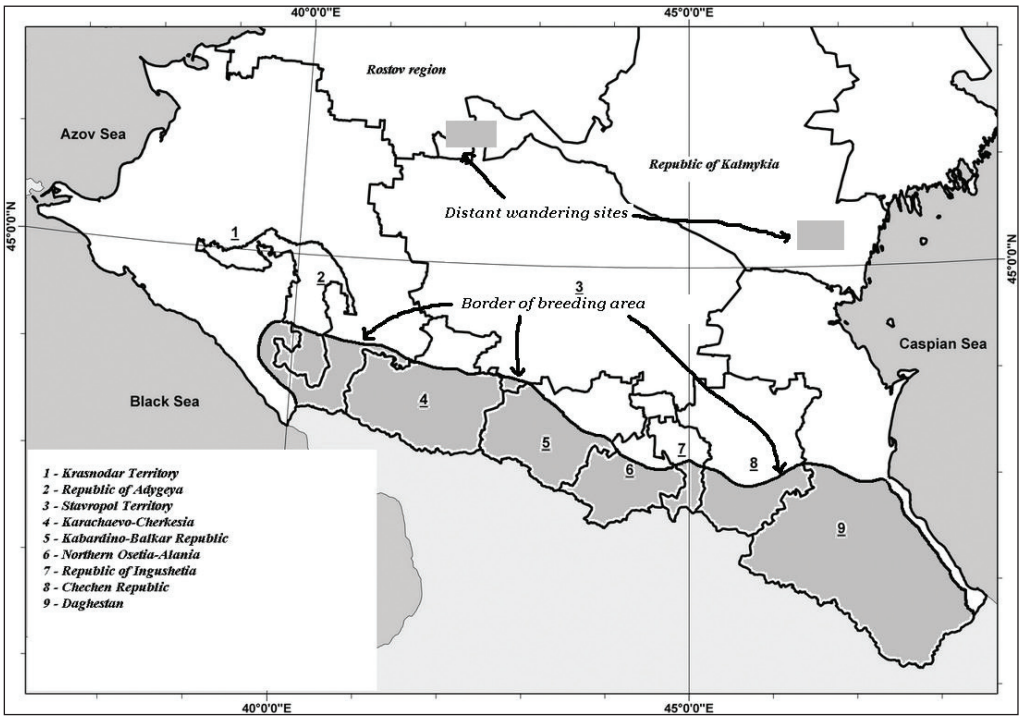

Figure 1. Political map of the North Caucasus, Russian Federation, showing approximate breeding range, in grey, of the Egyptian Vulture *Neophron percnopterus*.

Table 1. Important Bird Areas in the North Caucasus that contain breeding Egyptian Vultures.

Russian code*	International code	IBAs name	Coordinates of the centre	Breeding numbers (pairs)
АД-001	EU-RU318	Vicinity of Dakhovka	44°13' N, 40°11' E	1
ДС-005	EU-RU282	Kayakentski reserve	42°21' N, 47°49' E	1–2
ДС-008	EU-RU303	Samurski ridge	41°30' N, 47°45' E	1
ДС-013	EU-RU281	Kasumkentski reserve	41°38' N, 47°59' E	1–2
ДС-014	EU-RU285	Laman-Kam area	41°37' N, 48°15' E	2–3
ДС-019	EU-RU299	Orota depression	42°35' N, 46°57' E	1–2
ДС-021	EU-RU385	Talginskaya valley	42°52' N, 47°26' E	1–3
ДС-022	EU-RU274	Andreyaul'ski reserve	43°07' N, 46°43' E	1–2
ДС-023	EU-RU275	Barchan Sarykum and Narat-Tyube	43°00' N, 47°10' E	5–6
ДС-024	EU-RU307	Shur-Dere	41°51' N, 48°14' E	2–3
ДС-027	EU-RU429	Kosobsko-Kelebski reserve	42°16' N, 46°21' E	1–2
ДС-028	EU-RU426	Buinakskaya depression	42°54' N, 47°15' E	1–2
ДС-036	EU-RU427	Gunibskoye plateau	42°25' N, 46°54' E	1–2
КБ-003	EU-RU407	Malka river ravine	43°40' N, 42°43' E	1
КБ-004	EU-RU409	Ravine of Gundelen-Tyzyl river	43°35' N, 43°05' E	2–3
КБ-007	EU-RU411	Chegemskoye ravine	43°23' N, 43°09' E	1
КБ-009	EU-RU414	Ushchel'ye reki Cherek-Balkarski	43°10' N, 43°29' E	1–2
КД-008	EU-RU317	Valley of Khodz' river	44°10' N, 40°37' E	1–7
КД-013	EU-RU154	Akhmet-Skala ridge	44°06' N, 41°00' E	2–3
КД-014	EU-RU162	Valley of Urup river	44°02' N, 41°17' E	1–2
КЧ-002	EU-RU308	Skalisti ridge between Urup and Maly Zelenchuk rivers	43°59' N, 41°29' E	5–10
КЧ-005	EU-RU402	Sources of Kuma river	43°52' N, 42°11' E	4–6
КЧ-007	EU-RU403	Sources of the Podkumok river	43°49' N, 42°19' E	3–5
КЧ-008	EU-RU404	Marinskaya cuesta of Skalisti ridge	43°49' N, 42°06' E	1
СО-001	EU-RU169	Alagirskoye i Kurtatinskoye ravines (Severo-Osetinski nature reserve)	42°46' N, 44°05' E	2–3
СО-006	EU-RU416	Valley of Gizel'don river	42°52' N, 44°26' E	1–2
СТ-003	EU-RU382	Outskirts of Kislovodsk	43°51' N, 42°37' E	6–7
ЧЕ-005	EU-RU433	Kezenoi-Am lake	42°46' N, 46°10' E	1–3

* Regions: АД republic of Adygeya, ДС Daghestan republic, КБ Kabardino-Balkar republic, КД Krasnodar krai, КД republic of Kalmykia, КЧ Karachaevo-Cherkesia republic, СО republic of North Osetia-Alania, СТ Stavropol krai, ЧЕ Chechen republic.

Vultures in the North Caucasus avoid vast unfragmented forests but prefer unforested sites in mountains with open dry valleys. Optimal habitats are arid intermontane areas and foothills with signs of desertification due to high grazing pressure. The nests are placed on ledges, in niches or shallow caves in rocks and cliffs.

Plate 3. Egyptian Vulture *Neophron percnopterus* breeding habitat in west central North Caucasus, Kislovodsk outskirts IBA, Stavropol region. © *V Belik*

Egyptian Vultures are less timid than other scavengers. If conditions are suitable, Egyptian Vultures will breed in the vicinity of small villages. Usually pairs are widely dispersed but sometimes, in favourable conditions, small colonies may be found which consist of several pairs breeding nearby *eg* up to 10–12 pairs of Egyptian Vultures breed in southernmost Stavropol krai in the outskirts of Kislovodsk (Khokhlov 1995, Parfenov 2007). Egyptian Vultures suffer from shooting and disturbance at many sites near human settlements, which otherwise are suitable for breeding.

Breeding sites are used year after year. Egyptian Vultures commence breeding in late April in the North Caucasus. Egg laying is recorded in early May (Parfenov 2007, pers obs). The complete clutch consists of 1–2 eggs. The incubation period lasts for about 1.5 months. First nestlings are seen in mid-June. Nestlings remain in nests up to mid-August (Til'ba 1995, Parfenov 2007, pers obs).

POPULATION HISTORY IN THE NORTH CAUCASUS

Unfortunately, there is little information on the species in the North Caucasus in the 19th and early 20th centuries. Probably, the Egyptian Vulture was common but not numerous at that time. The species was recorded regularly on the foothill plains (Bogdanov 1879, Radde 1884, Dinnik 1886, Satunin 1907, Boehme 1926 *etc*). There appear to have been no considerable changes in the pattern of distribution of Egyptian Vulture in the North Caucasus since that time, though in the first half of the 20th century the species occurred along the Black Sea coast near the towns of Gelendzhik and Sochi during the breeding season, where it is now absent (Til'ba 2001).

The numbers of Egyptian Vultures have declined slightly in the western North Caucasus, within Krasnodar krai and the republic of Adygeya, in last 25–30 years. Numbers were estimated at 6–8 breeding pairs in the 1980's but nowadays 4–5 pairs breed in Krasnodar krai and 1–2 pairs in Adygeya (Til'ba 1995, Til'ba 2001, PA Til'ba & RA Mnatsekanov pers comm). In the late 1980s, the numbers of Egyptian Vultures were estimated at 30–40 pairs in Karachaevo-Cherkessia and Stavropol krai together (Khokhlov & Vytovich 1990). Now the numbers are estimated at 20–30 pairs in Karachaevo-Cherkessia (AA Karavaev pers comm) while 12–15 pairs breed in Stavropol krai (Khokhlov *et al* 2005, AN Khokhlov & MP Ilyukh pers comm).

No large fluctuations in numbers appear to have occurred elsewhere in the North Caucasus either. In Kabardino-Balkaria the numbers are estimated at 5–10 pairs (RK Pshegusov pers comm). In North Osetia, 2–4 pairs of Egyptian Vultures breed (YE Komarov pers comm). The numbers of the species are estimated at 4–5 pairs in Chechnya and Ingushetia together (Gizyatullin *et al* 2001).

The largest breeding population of Egyptian Vulture in the North Caucasus is now found in Daghestan. Probably, it is also stable. Previously, it was estimated at 15–20 pairs

(Dzhamirzoev *et al* 2000) but according to the data of our latest surveys the population is at least 40–50 pairs, a discrepancy probably due to better survey coverage rather than an increase in numbers.

About 80% of the overall breeding population of the species in the North Caucasus is concentrated in three areas: in foothills of Karachaevo-Cherkessia (more than 20 pairs), in the outskirts of Kislovodsk (10–12 pairs) and in the dry foothills of eastern Daghestan (35–40 pairs). The Egyptian Vulture is recorded at virtually every Important Bird Area in the mountainous parts of the North Caucasus (Dzhamirzoev & Bukreev 2008) and breeds in many of them (Table 1).

Plate 4. Egyptian Vulture *Neophron percnopterus* breeding habitat in eastern North Caucasus, Kasumkentski reserve IBA, Daghestan. © *G Dzhamirzoev*

THREATS AND LIMITING FACTORS

The main limiting factors for Egyptian Vulture populations in the North Caucasus appear to be habitat change, shortage of food resources, disturbance and shooting (Dzhamirzoev *et al* 2000, Til'ba 2001, Khokhlov *et al* 2005 *etc*). In the east, Egyptian Vulture habitats have changed less. Dry desertified foothills are used mainly as pasture, especially in winter. In Daghestan, the Egyptian Vulture is well adapted to life in these degraded ecosystems, which it seems to prefer. In the foothills of central and western North Caucasus intensive recreational use near breeding sites, such as mountaineering and tourist camps and creation of new sport/recreational facilities may become a problem for the species.

No problems of food shortage appear to have occurred in Daghestan so far. The increase in cattle numbers indicates that probably the impact of this factor will be minimal in the near future. In the western part of North Caucasus, decrease in food supply for Egyptian Vultures was noted due to the apparent decrease in both cattle numbers and cattle disposal sites (Til'ba 2001). Probably, shortage of breeding sites is not a limiting factor for Egyptian Vultures in the North Caucasus. If food resources are available, they can readily find enough suitable places at rock exposures and cliffs to breed.

The impact of disturbance is recorded throughout the breeding range of the species in the North Caucasus. Cases are known where birds abandoned a territory because people visited the breeding site too often (Parfenov 2007). The birds also suffer from curiosity of local people, especially children, if breeding sites are not far from human settlements. Direct persecution by man is the main factor limiting the numbers of Egyptian Vulture in the eastern North Caucasus. Cases of destroying nests or shooting birds are especially frequent in arid foothill areas where many cattle farms ('kutans') are situated close to Egyptian Vulture breeding sites. Some cases of catching birds for sale by local people are known. Unfortunately, we must note a generally negative attitude of local people to these splendid birds in breeding areas. In western North Caucasus some cases of shooting Egyptian Vultures by herdsmen and hunters have been reported (Khokhlov 1995). Cases of Egyptian Vulture mortality due to poisoning by taking baits have also been reported (Khokhlov *et al* 2005). We have no data on losses at power transmission lines (PTL), but given the habit of Egyptian Vultures of using PTL pylons as perches, losses may well occur.

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