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Alolobad Case: More evidence for poisoning of Egyptian Vultures in Somali region, Ethiopia



Photo: Clementine Bougain

TECHNICAL REPORT
under action D1 of the “Egyptian Vulture New LIFE” project
(LIFE16 NAT/BG/000874)

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AUTHORS

Solomon Mengistu¹, Volen Arkumarev², Samuel Bakari³

¹ Ethiopian Wildlife and Natural History Society

² Bulgarian society for the protection of Birds/BirdLife Bulgaria, Sofia 1111, Yavorov complex 71

³ BirdLife International

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ABOUT THE PROJECT

This survey and report are developed under the frames of the LIFE project “Egyptian Vulture New LIFE” (LIFE16 NAT/BG/000874, www.LifeNeophron.eu) funded by the European Commission and co-funded by the “A. G. Leventis Foundation”. The project aims to mitigate the main threats along the flyway of the Balkan population of the Egyptian vulture and is implemented by an alliance of 20 partners in 14 countries in the Balkans, Middle East and Africa.

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SUMMARY

Alolobad was an immature Egyptian Vulture captured and tagged in Afar region, Ethiopia in December 2019. In December 2020, the transmitter's signal indicated that the vulture was dead near Dire Dawa, Somali region. A team from EWNHS visited the site to investigate the case and identify the reasons for Alolobad's mortality. The investigation revealed that Alolobad died after feeding on a goat carcass laced with poison (Agronite 90 SP). The goat was laced with poison in a retaliatory attempt by locals to kill jackals and hyenas attacking their livestock. The team also found one poisoned jackal and a Hooded Vulture (*Necrosyrtesmonachus*) but got information from the locals that one more jackal and Hooded Vulture were also poisoned in the same incident. Using carcasses laced with poison is a common practice in the area as a response to the increasing number of predator attacks to livestock. The enlargement of the areas covered by the invasive *Prosopis juliflora* leads to decrease of grazing land for the livestock and provides good opportunities hiding and breeding conditions for the predators thus increasing the human-carnivore conflict in the entire area. The main predators targeted by this illegal activity are jackals and hyenas. The chemical used in this particular case was Agronite 90 SP which contains methomyl as an active substance. It can be found for 700 Eth. Birr in the local market in Dire Dawa and bought without prescription.

BACKGROUND INFORMATION

Alolobad was an immature Egyptian Vulture which was tagged with transmitter in Ethiopia. It was captured as 1 c.y. at the rubbish dump of Logia, Afar region on 14th December 2019 and tagged with Ornitela GPS-GSM transmitter. After tagging Alolobad spent most of its time in Afar near the towns of Hayu, Logia and Mile along the main road to Djibouti (Fig. 1). In August 2020 it made exploratory flight north towards Afrefalake. In November and December Alolobad made 3 exploratory flights south to Somali region.

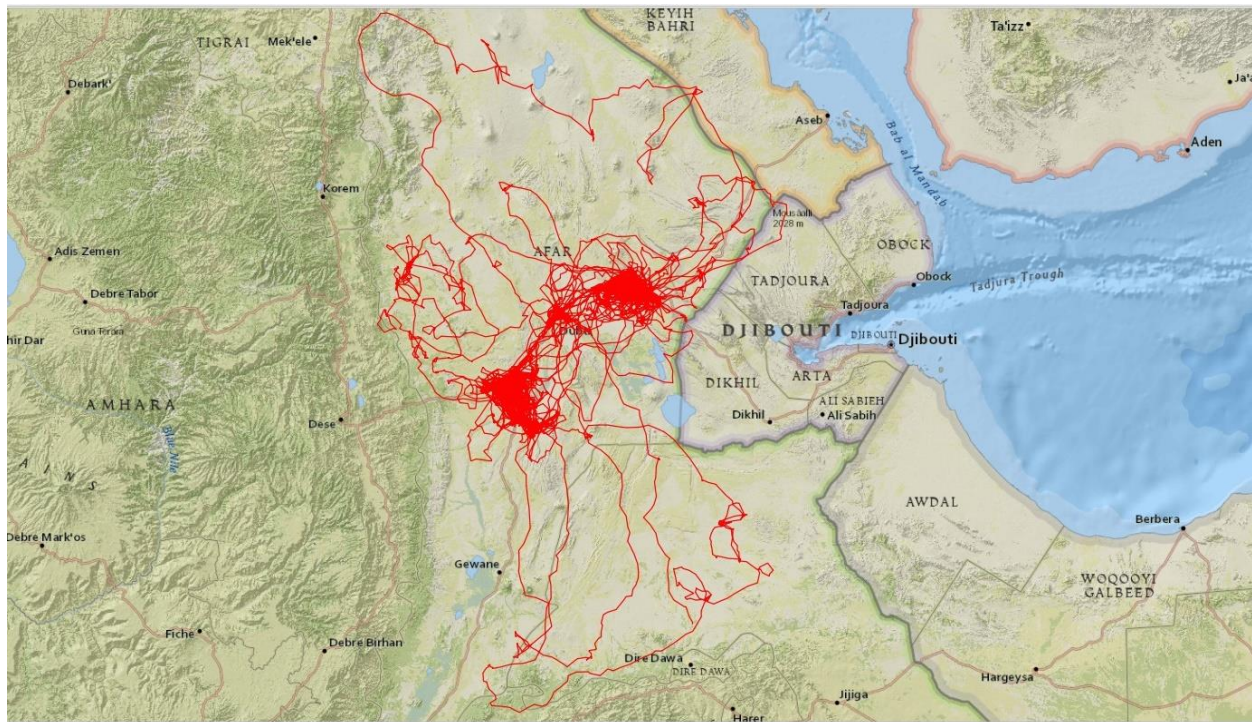


Fig. 1. The track of Alolobad (14.12.2019 – 13.12.2020)

Its last trip started on 12th December from Hayu, Afar. It flew over 250 km straight south towards Dire Dawa. It landed to roost on a high voltage pylon along the road about 30 km north of Dire Dawa (Fig 2). On the next morning at 09:03 local time Alolobad landed on the ground to feed just 250 m from the pylon and 20 minutes later (at 09:23) it suddenly died at the spot (Fig 3). Based on the GPS and ACC data from the transmitter we suspected poisoning as the cause of

dead. The vulture most probably fed on a carcass laced with poison or consumed a poison bait. Since then, the transmitter was sending signal from the very same position.



Fig. 2. An overview map of the area where Alolobad died.



Fig. 3. Map of the last locations visited by Alolobad – the pylon used for roosting and the spot where it died.



AIM OF THE SURVEY

The aim of the survey was to investigate the cause of death and collect evidence in the field. The secondary aim was to collect information on the threats for the Egyptian Vultures in the area e.g. electrocution, poisoning etc. In addition, we aimed to assess perceptions of local community towards vultures in general and particularly the Egyptian Vulture.

METHODS

The investigation in the field was conducted by Solomon Mengistu (Ethiopia Wildlife and Natural History Society) in the period 22nd December – 25th December 2020 following similar methodology as applied in the investigation of another poisoning incident in Somali region in 2019 (Mengistu et al. 2020). He met with Shinilie zone administrative who was very cooperative. He was briefed about vultures and their importance in the ecosystem, the Egyptian Vulture NEW Life project and its role in conservation of the species and why we needed his assistance. He then dialed to the Woreda agricultural office and informed them to assist us. The Shinilie Woreda officer was also young and very cooperative. As Solomon briefed him about Alolobad’s death in about 30 km northeast of Shinilie, he called a guy who could know both Amharic and Somali language from the Food security sector and told him to go join the team and assist in translation of the interviews we were going to do with the local communities near where Alolobad died. The name of the assistant was Esmael Hassen. The coordinates of the last signals from the transmitter were input in a GPS and visited on the ground (Table 1). Questionnaires were conducted with local people to collect more information about the Alolobad’s death, perceptions towards vultures, human-predator conflict and the use of poison. Four interviews were conducted involving 9 respondents.

Table 1. Localities visited by the field team

No	Point name	Latitude	Longitude	Comments

1	Dead	N9.847051	E41.879579	The location where the bird died
2	Roosting site	N9.845502	E41.877786	The roosting site used by Alolobad on 12 th December

RESULTS

Finding Alolobad

On 24th December the investigating team drove northeast of Shinilie along dusty road through *Prosopis juliflora* forest and at the end of bushes there was water hole where local communities from the surrounding areas fetch water. After driving about 10 km from the waterhole to northeast we reached the spot indicated by the GPS. On arrival, Alolobad's carcass was found lying on sandy ground about 450 m away from the main road (Fig. 4.).



Fig. 4. Retrieving the GPS tag from Alolobad (Photo: Solomon Mengistu, Dec, 2020)

Nearby, a goat carcass was found (GPS Coordinates: N09.84414 E041.87770) probably used as a poison bait. A dead jackal was also found just near the poisoned carcass as well as a Hooded Vulture (GPS Coordinates: N09.84326 E041.87608) that looked relatively as old as Alolobad (Fig. 5). Most probably all these animals died at the same time after consuming from the goat carcass laced with poison



Fig. 5. Remains of the goat carcass laced with poison and poisoned Hooded Vulture and a jackal

Alolobad's last roosting site was also visited which was a high-voltage pylon standing about 250m from the spot where its body was found (Fig 6).



Fig. 6.The high-voltage pylon used for roosting by Alolobad

Interviews with the local community

After retrieving the tag and collecting feather samples, the team went to the nearby village (GPS Coordinates: N09.84467 E041.87701) where they found two women building a hut (Fig. 7.). They were 20-30 years old. After brief introduction by the assistant, they agreed to be interviewed. The ladies thought that vultures are not harmful or useful to them. However, later one of them confessed that sometimes vultures are used as indicator when lost animals have died or were predated somewhere in the area. Jackals and hyenas were indicated as the most serious problem wildlife. They indicated that following the expansion of *Prosopis juliflora* the number of jackals also increased because the *Prosopis* is used for breeding and as hiding site. The second woman observed that the loss of a single goat is a huge loss for them as they have no other living activity like farming.



Fig. 7. Photo of the two women whom we interviewed (Photo: Solomon Mengistu, Dec, 2020)

They knew about the poisoning incidence and the dead wildlife including the two observed vultures. According to them 3 vultures had died in this incident after feeding on a goat laced with poison to purposefully target killing of the jackals in retaliation to predation. However, the team only found 2 dead vultures so possibly the third victim was dragged away by mammalian carnivore. The two women said that they mostly protect their goats from predators by keeping them in enclosure during the night. During the day, goats' keepers (mostly children or women who look after goats) are advised to keep goats away from dense *Prosopis juliflora* bushes and chase away Jackals when encountered. Whenever goats are killed by jackals or hyenas, some men poison the carcass and put it where jackals or hyenas can get it easily. The use of poison (they call it "DDT") is very common practice according to the women we interviewed. Upon requesting them to show the chemical that was used to poison the carcass, the team was referred to the people in the other village about 500 m away.

The next village (GPS coordinates: N09.84300 E041.87701) where the team met with two men and three women, aged 30-60. After introductions, the old man (he was about 60 years old) laughed at us and said that "if you don't have job why not you look after my goats and I will give some?" "You don't have job this is why you are worrying about the birds". He added "What is the use of vultures? Why not you bring us chemicals that exterminate jackals that attack our goats?"



The translator talked with the old man and convinced him to do an interview. He was asked whether vultures are useful or harmful. The old man said that vultures (Shimbir Giel in Somali language) - bird that feed on dead camel in Somali language) feed on dead animals. He said that they don't have any harmful effects on them and they are creature of Allah. In the past vultures were used as indicators when animals are lost and die or are depredated somewhere.

Roots of poisoning in the area

All the informants indicated that jackals and hyenas are a big problem as they attack their livestock. Grazing land is shrinking due to the *Prosopis* expansion which is used as a hiding and breeding sites by jackals and hyenas according to the informants. All the informants said that three vultures and two jackals died after feeding on the poisoned goat in that single incident.

According to the informants, anybody can buy the poisonous chemicals without any restriction from the Agricultural drug store in DireDawa. They frequently use the poison to kill jackals whenever predation happens on their goats. When asked to show the team the chemicals used to poison the carcass, they claimed the guy that poisoned the goat was not around and an appointment next day early in the morning was offered.

The poison substance used

On 25th December early in the morning the team arrived at the village. The man had already been informed (his age is about 40 years) and directly went to the team parking. After greetings, the gentleman seek to know why the need the chemicals/package. After discussion with the translator and confirming no legal action would be taken on him, he agreed to lead the team to his hut. He took out the package with small poison still inside from the hut on the outside. With negotiations photos of of the package (Fig. 8.) were taken. The package is usually hidden outside of the hut to protect children and women according to his explanation. The local people call it "DDT" but in fact it is AGRINATE 90% SP, a broad spectrum fast acting systemic insecticide used for the control of aphids and other insects in vegetables. Its active substance is Methomyl.



Fig. 8. Package containing chemicals used for poisoning carnivores

The informant said that he bought it for 700 Eth. Birr (about 14 Euro) and could use this package for three poisoning cases. Poisoning is carried out by cutting through the belly of the carcass and then sprinkling on the internal organs. He said that the poisoned carcass is kept for some time to allow the poison to get well absorbed into the flesh before the target animals feed on it for its effectiveness. This obviously has a devastating collateral damage to the vulture populations. There is a pressing need to intervene on the use of agrochemicals and awareness raising among local community.

Other bird mortalities encountered along the way from Logia to Dire Dawa

On 22nd December along the way to Logia Solomon encountered 11 dead raptors in Yangudi Rassa National park – Steppe Eagles (*Aquila nipalensis*), Tawny Eagles (*Aquila rapax*), Snake Eagles (*Circaetus sp.*) and others (Fig. 10) and many dead Red-billed Quealeas (*Quelea quelea*) on roadside (Fig. 9). The death of all these raptors within 100-150 m made me to stop and investigate the cause of death. The GPS coordinates were recorded (Table 2). He suspected that they most probably were hit by cars when feeding on road-killed Red-billed Quealeas as many of the corpses were still on the road. He had seen many flocks of Red-billed Quealeas at different sites along the road starting at road junction to Dire-Dawa and Afar region. When the flocks cross the road many of them collide with vehicles and crush down on the asphalt. Consequently, when raptors come to feed on the road killed carcasses, they may also end up killed by vehicles. The other scenario is that those raptors were killed by vehicles when feeding on carcasses of wildlife or livestock near the road. At busy roads as this one it is common to see raptors feeding on other road kills and the probability of collision with passing vehicles is high. However, he didn't find any remains such as bones or skins that might confirm death of wild animals (like antelopes, hyenas or warthogs) or livestock.



Fig. 9. Dead Quealeas on the roadside inside Yangudi Rassa National Park

Table 2. The GPS coordinates where dead raptors were encountered

No.	Point Name	Latitude	Longitude	Comments
1	1 st dead raptors found	N10.759992	E040.66792	located along the main road
2	The last dead raptors found + dead rodent	N10.76372	E040.66714	Located along the main road
3	Dead Hooded Vulture found	N10.75963	E040.66687	Located about 100 m west of the main road

Another very probable cause could be poisoning. Solomon observed whitish substance on the asphalt which could have been spilled poisonous chemical. This might have happened if some vehicle carrying it had accident which is a common phenomenon on the road. However, no accidents we observed around that area. The birds that were found on the road were crushed on the ground by vehicles, but this might have happened *post mortem* (Fig. 10). A dead rodent was also spotted near the road side which might also be a clue for potential poisoning. Spraying against locusts in the area might also have caused the poisoning. However, this area is within a national park and spraying against locust is prohibited.







Fig. 10. Dead raptors on the road and roadside at Yangudi Rassa National Park (Photo: Solomon Mengistu).

On 23th December in the same area where Solomon had found 11 raptors dead, he found 3 more carcasses of Yellow-billed Kites (*Milvus aegyptius*) on the roadside (GPS Coordinates: N09.76082 E040.66719). A kite which looked sick was observed sitting on stone and upon approach, flew and perched on small Acacia tree. Then next to where the kite perched on a small Acacia tree, a dead immature hooded vulture was spotted under a bigger Acacia tree about 100 m away from the road where dead raptors were found (see the first plate in Fig. 11). The cause of death of the Hooded Vulture most probably was not collision as it died under the tree about 100 m away from the road. Sometimes birds hit by cars manage to take off from the road and die later from internal bleedings but poisoning is also very probable. The three Yellow-billed Kites were just on the edge of the road with no bleeding signs. All those findings of dead raptors in such small area were very suspicious and might be related to some poisoning incident. We also spotted on the road some whitish dried substance (Fig. 12). No other such mass raptor mortalities within area of 250-350 m were recorded in other parts of our way.

N.B. During online training on “Wildlife Poisoning – Incident Investigation and Management” lead by Andre Botha in March 2021 Solomon shared the photos of the dead birds that were encountered at Yangudi Rassa National Park. Poisoning was confirmed as the most probable cause for the death of those raptors.

Thus, poisoning practices are beyond what we were expecting in Ethiopia at least in the eastern part where communities depend on livestock production for their daily survival. Loss of a single cattle or goats to predator is a huge loss to the local people where drought and encroachment of *Prosopis* to grazing land had already affected the survival of their livestock. Poisoning became common in retaliation for depredation of livestock by mammalian carnivores.





Fig. 11. Dead Hooded Vulture and Yellow-billed Kites on the roadside at Yangudi Rassa National Park (Photo: Solomon Mengistu)



Fig. 12.Whitish substance on the road where raptors were found dead on roadside and on the road. (Photo: Solomon Mengistu)

N.B.

As of January 2020, ground and aerial control operations (Fig 13.) are in progress in **Ethiopia**, with over 8 000 ha treated and more than 21 000 ha controlled in 56 breeding woredas so far (<http://www.-fao.org/emergencies/countries/detail/en/c/151593/>). According to FAO in Ethiopia, the top-up funding will support the deployment of two surveillance helicopters from January to July 2021 to sustain the current surveillance capacity in country ensuring early detection of desert locust, facilitating effective control operations and the funding will also be used to procure biopesticides and insect growth regulator (<http://www.fao.org/emergencies/fao-in-action/stories/stories-detail/-en/c/1333584/>)



Fig. 13. Ground and areal desert locust control in Ethiopia (adapted from:<https://am.al-ain.com/article/ministry-of-agriculture-taking-strict-action-for-prevention-before-next-locust-swarm>)



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