



Vulture updates No 18 - April 2023 - Around the World of Vultures & VSG activities

The VSG sadly lost two stalwart members early in 2023 with the passing of [Michel Terrasse](#) and [Peter Mundy](#), both pioneers in the conservation of vultures in Europe and Africa respectively. We send our deepest condolences to their families, colleagues and friends, knowing that the world of vulture conservation is much poorer without their presence but that their legacies will prevail.

The CMS Raptors MoU, working with the original drafting partners, the IUCN SSC Vulture Specialist Group, BirdLife International and the Vulture Conservation Foundation have engaged in a mid-term implementation review of the [CMS Multi-species Action Plan for African-Eurasian Vultures \(Vulture MsAP\)](#) that will be conducted over the coming months in the run-up to the [14th CMS Conference of the Parties](#) in October 2023 and beyond. The review will include the circulation of questionnaires to Signatories, Parties and a range of other stakeholders, including NGOs to assess progress in terms of uptake and implementation of the 124 actions proposed by the MsAP. There will also be direct engagement at various events until the end of 2023 and we trust that VSG members will again be willing to assist us with this initiative. An [NSAIDs factsheet was finalised](#) and made available by the CMS Raptors MoU.

The VSG announces the appointment of [Evan Buechley](#) as regional co-chair for North America, and a member of the VSG Steering Committee. Welcome Evan, we look forward to working with you! And Lesley Jerome has been helping compile material for these newsletters for ten years but is graciously stepping down from this role. Many thanks Lesley!

Asia Roundup:

South & SE Asia: The annual [SAVE](#) open day meeting was held online in Jan 2023, including a full spread of talks from all six focal countries and beyond. The meeting included discussions for over 200 participants: watch the [presentations here](#) if you missed it. The 12th Annual meeting and first [face-to-face SAVE meeting](#) for two and a half years following Covid was [opened](#) by Nepal's Dir. General of Dept Nat Parks & Wildlife Cons, in **Nepal** in March 2023, hosted by BCN. [Rhys Green](#) having served his 4-year term handed over the Chair to newly [elected Jemima Parry-Jones](#) at the end of the meeting. Vibhu Prakash was presented with the Disney Conservation Lifetime Award which will be announced more officially soon. The [final release of the last ten captive WRV](#) and the successful closure of the Nepal vulture breeding programme took place nearby in the Chitwan NP buffer zone the day after the meeting - a celebration of the major success in Nepal in removing the key threat of diclofenac, and the corresponding positive vulture population trends for the past six years. There was further tagging-training session for SAVE partners linked to this. Another tagging milestone for Nepal was two Slender-billed Vultures ([SBV](#)) [sat-tagged](#) in late March, the first SBVs ever tagged in South Asia. Meanwhile 5 of the earlier released WRV were confirmed breeding in the wild, so further good news. Less good however was a [poison-baits incident nearby](#) which involved one released/tagged bird - and there's no room for complacency on NSAIDs either as despite diclofenac use being almost zero in Nepal, there is a worrying rising recent trend in veterinary sales of nimesulide, known to be toxic, and not yet banned in Nepal or India. Meanwhile the Delhi High Court case demanding that the **Indian** Govt honours Govt vulture action plan commitments to ban vulture-toxic drugs (specifically nimesulide, aceclofenac, ketoprofen) and that safety-testing on vultures is carried out on all drugs before

licensing had a third hearing in Dec 2022 raising hopes for further legislation being forthcoming in India during 2023 – next hearing 24 Apr 2023. The NGO [Arulagam](#) initiated South India's first Vulture Safe Zone with a fresh grant approved from the Segre Foundation. The first India-wide large scale (9,000km) vulture road transect survey since 2017 was completed by BNHS and although publication is awaited, provisional indications are that Indian vulture population trends have stabilised but remain at post-decline very low levels showing no significant recovery. A separate initiative for much-needed coordinated counts in 3 states of South India is also underway. Further poison baits incidents in Assam (NE India) killed over 100 vultures between several incidents over an 8-month period. Trial releases of further WRVs (now totalling 31) took place in West Bengal, India despite ongoing concerns of high levels of toxic NSAIDs use there. But pressures have grown for further releases as breeding success at the BNHS-run centres means numbers held (and related costs) have risen to over 800 of the 3 species (WRV, SBV, LBV) across the Indian centres, and erratic funding flow from Govt has caused major problems for regular feeding costs of the birds. However, no area in India (unlike in Nepal) has yet been demonstrated as safe from the NSAID threats so far – so plans for major wild vulture tagging and survival monitoring as a new approach which could help define such safe areas for future releases seems an important way forward.

Pharmacy survey results (among other results) also [reported at the SAVE open day](#) from **Myanmar** showed that diclofenac is now in widespread veterinary use in the country unlike a few years ago, so NSAID bans are needed here too. Vulture and pharmacy survey work was completed despite logistical challenges related to civil unrest, and key veterinarians have engaged further in the Myanmar Vulture WG. In **Cambodia**, the two tagged WRV continued to spend most of their time defining areas of Cambodia and **Laos** as important for the species, and *Rising Phoenix* plans to tag more birds in Siem Pang in the coming year. One artificial nesting platform was also successfully used by a pair of SBV there. The Change Manga breeding centre in **Pakistan** successfully fledged two WRV chicks in 2022, and there are currently 3 chicks in Mar 2023 close to fledging. Pharmacy survey results of WWF from Pakistan show worrying NSAID trends there, but there is growing interest from the Drug Administration for addressing this threat. In **N Bangladesh**, a [new breeding colony of WRV](#) was discovered in Pabna district, with 6 nests, and 12-18 vultures recorded.

Awareness campaigns on vultures and threats have already been organised in the locality and a community-based Vulture Conservation Team is being formed to monitor the nests. Training in thoracic cross-hatch [harnessing/tagging](#) methodology was carried out by SAVE/RSPB in Oct 2022 and the [first ever WRV was satellite tagged](#) there. The bird spent most of its time in Tripura, **India**, and results are helping to initiate trans-boundary cooperation. Tragically, the bird stopped moving on 22 Mar 2023, alerting the IUCN Bangladesh team to a [poison-bait event](#) (poisoned feral dogs) at Raipur, Moulovi bazar, **Bangladesh**, which killed at least 12 WRVs including the tagged bird, and 2 HGs – an event that without the tagging and monitoring would have gone undetected. Locals interviewed indicated that goats had been attacked by feral dogs or jackals and villagers poisoned at least 4 dogs, kites, a jackal and the affected vultures had apparently consumed them. This loss is significant for Bangladesh WRV population, estimated at less than 300, and is already resulting in adapted awareness work. Meanwhile the Govt ketoprofen ban of 2021 is beginning to reduce ketoprofen availability, as confirmed from pharmacy surveys across the country as stocks start to run down. As usual, over 40 imm. Himalayan Griffons (HG) have been taken into care over the winter period from across Bangladesh, and held at the Forest Dept Vulture Rescue Centre, Singra NP, Dinajpur. [10 were released](#) there in March 2023, attended by senior Govt officials & SAVE, including [3 that were satellite tagged](#) to understand their movements, also generating media attention – all three birds are already mobile further north in India and **Bhutan**.

Central Asia: The [Central Asian Vultures project](#) for **Uzbekistan** and **Kazakhstan** had tagged 11 EV in summer 2022 which successfully reached their wintering grounds in **India** and **Pakistan**. By 2022, 15 EVs had been tagged (4 juvs, 5 imm/sub-ads) - 9 from Uzbekistan and 6 in Kazakhstan (although one Uzbekistan tag never worked). Both teams [presented](#) at the Nov 2022 EV conference and further updates [were presented](#) at the Annual SAVE open day in Jan 2023. One team member [visited the wintering grounds in India](#) to assess the locations of the tagged birds – probably the largest EV congregation globally at Bikaner in Rajasthan, India. Two of the 6 Kazakhstan juvs stopped transmitting in late Dec 2022 in SE Pakistan. In early Jan 2023 one juv started transmitting again but it emerged that it was being held by the Pakistan authorities who had espionage concerns. The Biodiversity Research & Conservation Center Community Trust (BRCC) Kazakhstan team successfully negotiated one bird's [release](#) on Feb 7 but only after major

efforts and official letters etc and the sat-tag had been removed. The fate of the other tagged EV remains unknown. Further results and updates of tagging [here](#), and movements of Kazakhstan birds can be found [here](#). A paper in Raptor Cons 44 by MaMing reviewed 253 rescued vultures from 25 provinces of **China** 2010–2021, concluding over 50% involved hunger, and that this situation was worsened following the Covid-19 pandemic probably due to interrupted cattle supply chains.

West Asia/Middle East: The Environment Society of **Oman**, with funding from Disney Cons. Fund and in collaboration with Int. Avian Fund and the Env't. Authority (EA) initiated a 2-weeks EV field survey in Feb 2023 on Masirah Island. This is a repeat of the 2012 survey, when 52 occupied breeding territories were found, one of the highest densities in the world. The field team is also collaborating with EA rangers and volunteers to locate active LFV nests, recover lost tags and identify active nests in 2023.

500 more hazardous [poles were insulated](#) in **Jordan** to mitigate identified electrocution risk for EV and other migratory soaring birds (see the [video](#)). [Two workshops](#) were held in **Iraq** (Baghdad and Erbil) with involvement of 35 stakeholders and decision makers, as well as experts from Saudi Arabia, Jordan, Lebanon, Bulgaria, and UK, discussing the conservation status of wild birds including vultures, in Iraq and the region. Various solutions were recommended to reduce the impacts of illegal hunting and trade through amending environmental laws and regulations and more importantly, enforcing the existing laws. Autumn EV migration 2022 was monitored in [Sarimazi, Turkey](#) and [Antykithira, Greece](#). [Guidelines](#) for avoiding wildlife poisoning and a [Report](#) on illegal killing and trafficking of birds, including vultures, was published by DD in **Turkey**. Vulture conservation messages of DD reached [220,000 people](#) through the Istanbul Marathon 2022. DD continues to expand the [network of nomad shepherds](#) in support of EV conservation. EVs that were previously confiscated by SPNL and SSCW from illegal collections in [Lebanon](#) and [Syria](#) were imported to Europe to support the captive breeding programme of EAZA. Also, one GV picked up in N Lebanon in Oct had apparently been poisoned there and despite all efforts, it didn't survive.

European Round-up:

Fighting threats: On 15 Feb 2023, the [use of lead ammunition became illegal](#) in and around wetlands across all the **27 EU countries, plus Liechtenstein, Iceland and Norway**. A total phase-out of **lead-ammunition** in the EU is now a possibility. The ban on lead ammunition, a toxic compound seriously affecting wildlife, human health and vultures is a meaningful step forward. The [BalkanDetox LIFE project](#) continues to address the illegal poisoning threat. In 2022 its' [achievements](#) included completion of studies to analyse the problem, the development of links with relevant governmental authorities, closely monitoring multiple poisoning incidents in the region, and capacity building. Over [30 forensic and police professionals](#) in wildlife crime from Europe, the Middle East and North Africa recently convened to improve investigation and prosecution results in their respective countries, participating in the Advanced Course of the [Wildlife Crime Academy](#). Standard Operational Protocols for the investigation of poisoning incidents, conduction of forensic necropsies and toxicological analysis of wildlife have been developed in **Albania, Bosnia & Herzegovina, Croatia, Greece** and **North Macedonia**. In recent months, the following wildlife crime convictions have been successful: in **Hungary**, [four hunters were prosecuted](#) for killing "Icherá" a GPS-tagged Spanish CV released in Bulgaria, and 4 Common Buzzards. In **Cyprus**, an individual received [a fine of 21,000€](#) for killing wild birds using poison – the first such fine there.

Bearded Vulture (BV): The [Annual BV meeting 2022](#) was attended by 130 people to discuss threats and showcase conservation actions being taken in Europe, [with many key takeaways](#). Collision possibly represents the most important threat to the BV in the Alps and the Birdski project worked with ski resort managers to persuade them to invest in mitigation measures particularly around collision risks. The Alpine BV population is steadily increasing, with 80+ breeding territories. In 2022, a new record was achieved, with [49 fledglings and a reproductive success of 0.44](#). Across the Pyrenees, [approximately 200 pairs fledged 50 juvs in 2022](#). Although the number of territories is still increasing, the proportion of fledglings remains low. In the Pyrenees, the average reproductive success (the number of young fledged/clutch) was 0.35. In **France**, a new project started, the [LIFE GypAct](#), a continuation of the LIFE GypConnect project, which focused on reintroduction actions in the Grands Causses, Baronnies and Vercors to encourage the connection between the populations in the Alps and Pyrenees. The new project aims to reduce disturbance and mortality and improve food availability. Up to 60 captive-bred BVs will be released and conservation actions will be implemented to improve food availability and tackle the main challenges for the species in

the region. In **Corsica**, 20 captive-bred [mouflons were released](#) to improve food availability for BV within the Life GypRescue project. The decrease in food availability represents a significant threat and wild ungulate carcasses are seen as optimal as they are available all year round. Since 2020, a total of 53 Corsican mouflons have been released there. In Andalusia, **Spain**, the project to [bring BV back to Maestrazgo](#) is progressing with the [recently released birds adapting well](#). The aim is to establish a wild breeding population to link the Pyrenean and Andalusian populations. The project started in 2018 and until now, a total of 11 BV (five males and six females) were released, of which 9 are still alive, with two dying from natural causes, ‘Cocó’ in 2020 and ‘Durall’ in 2021, in a sequence of Golden Eagle attacks. Movements of the released birds can be followed on the VCF’s [public maps page](#). The breeding season is going well in the [BV Captive Breeding Network](#), as pairs [started to mate in autumn](#) and the [first egg was laid in Nov 2022](#). So far 45 pairs have laid 75 eggs, 18 of which only laid 1 clutch and 3 of the pairs could still lay a second. 16 eggs failed but another 16 have already hatched, the [first on 19 January](#) and [others have followed](#). More are expected in the coming weeks. An unusually high number died in captivity 2021-22, [including one of the last remaining ‘founder’ birds](#), partly due to emerging diseases, some caused by climate change, a first case of bird flu for the species in captivity, and an increasing incidence of West Nile virus. The network is investing in vaccines and other efforts to deal with these diseases. The [International BV Monitoring Network \(IBM\)](#) monitors the movements of the species across seven regions in Austria, France, Italy, Spain and Switzerland. Both released and wild-hatched birds are equipped with GPS tags and an [analysis of recent movements is available](#). Boni, a BV released in Andalusia, **Spain**, was the first reintroduced bird that [crossed the Straits of Gibraltar and reached North Africa](#), another milestone for the long-term objective to connect populations. Eglazine, a BV released in the Grands Causses in early 2021, has visited the **Netherlands** in two consecutive summers and spent part of the winter in **Germany**, the [first time a BV has wintered so far north](#). The BV, hatched at the Green Balkans Wildlife Rehab. & Breeding Centre (WRBC) in 2019 in Bulgaria and released in **Italy**, [formed a pair in the wild](#). The [first BV for 2023 hatched](#) at WRBC in **Bulgaria**.

Egyptian Vulture (EV): An [International EV online conference](#) was held on 8-9 Nov 2022, involving over 60 talks from 26 countries, and over 300 attendees from 50 countries ([Link](#) to the recorded sessions). Proceedings will be published in *Vulture News*, with selected papers in supplement 17 of *Acta Zoologica Bulgarica*. The project EV New LIFE, aiming to conserve EV along the E Mediterranean flyway, involving 22 partners from 14 countries, successfully finished at the end of 2022 and its [Layman’s Report](#) and [Layman’s video](#) were published (report on the project’s impact on the EV population [here](#)). The final report on the flyway campaign “[A Mile for the EV](#)” was produced involving over 300 people from 16 countries in the [campaign to outrun migrating tagged EVs](#) during IVAD 2022.

In 2022, the [LIFE EV Project](#) released another [six EVs in Italy](#) (Murgia Materana Park, Basilicata). The project is testing two different release methods: a delayed released normally in [May](#) with birds with up to two year old birds, and a short-term acclimatisation method, with 2 juvs released in [August](#). In **Greece**, a massive wildfire that deflagrated in Dadia-Lefkimi-Soufli Forest NP July 2022, burned 22,097 Ha of vegetation and threatened important vulture colonies during a key period of their breeding season. [Two EV chicks were retrieved from their nest](#) after the locals’ teams determined their survival was under threat. The chicks were kept in suitable facilities for 8 days and then placed back in their nests when there was no fire risk. The parents accepted their returned chicks and they successfully fledged. In 2022, ‘Sara’ became the [first captive-bred EV to breed in the wild](#). ‘Sara’ was released in Puglia, Italy, in 2015. After spending 4 years in Sub-Saharan Africa, she returned to Southern Italy and spent spring-summer months in Italy since then, wintering in **Niger**. In 2022, ‘Sara’ returned with a partner and they successfully hatched and reared 2 chicks! In the autumn, [‘Sara’ and the entire family left their nest](#) site and started their migration route to Africa. A second captive-bred female EV ‘Boyana’ had also started breeding in the wild in 2022, in the Eastern Rhodopes, **Bulgaria**, but [unfortunately it was shot dead](#). ‘Boyana’ was originally hatched in Prague Zoo in 2017, released in Bulgaria in 2018 within the EV New LIFE project. During three years, ‘Boyana’ visited 22 countries in Europe, the Middle East and Africa. In spring 2022, the bird returned to Bulgaria, found a partner and start breeding in the Eastern Rhodopes, becoming the first captive-bred EV to breed in the wild in the country.

A [paper](#) examined whether the number of released EVs is sufficient to prevent genetic diversity loss due to random genetic drift and what the origin of the individuals should be that comprise the captive breeding pool. The [annual EV nest-guarding programme](#) for 2022 was implemented successfully. BSPB continues to

[use trail cameras to investigate the main causes of mortality of EV hatchlings](#), among them are diseases, malnutrition, predation, or cainism which occurs mostly during the first two weeks after hatching. Three more wild EVs were trapped and tagged with GPS transmitters in the Eastern Rhodopes, expecting to find out interesting aspects of their behavior as they are in the age to find partners and choose breeding territories. The Ministry of Interior formed [two anti-poison dog units](#). [BSPB celebrated World Migratory Bird Day 2022](#), dedicated to the EV and other migratory birds of prey, in Sofia Zoo. The Regional Museum of Ruse, in collaboration with BSPB, launched a [communication campaign dedicated to the EV](#).

Greece: [Training seminars for vets](#) on poisoned birds necropsy were held in Thessaly and Epirus. Kuki, [the first poison bait sniffer dog in Greece](#), retired after 8 years of action. A [documentary](#) about the link between nomad shepherds and EV was produced by HOS. **Albania:** PPNEA [maintained a local network and implemented pilot actions to mitigate human-wildlife conflict](#), thus reducing the risk of vulture poisoning in Albania. The [EV was a flagship of Dropulli Run 2022](#) highlighted for IVAD.

Griffon Vulture (GV): In **Cyprus**, the LIFE with Vultures project released [15 Spanish GVs](#) equipped with GPS transmitters. So far, the GPS data shows that the birds are adapting well and have successfully integrated with the local population. But there were also 2 losses – [one from drowning and another from electrocution](#). In **Sardinia**, the latest [LIFE Safe for Vulture census](#) estimates a GV population of 316-338 individuals, confirming a positive trend with an increase of about 20% since 2021. In Dec 2022, another [two GVs, raised in captivity in Holland](#), were released on the island. Alarming [shooting incidents involving GVs](#) were recently recorded in Europe and the Middle East. At least one vulture was shot dead in **Croatia**, a Serbian GV reintroduced to **Serbia** was shot in **Syria**, and two were fortunately rehabilitated and released after being shot in **Spain** and **France**. Despite their protection status and the relevant legislation, illegal killing still occurs in Europe. The lack of enforcement in most cases allows such harmful wildlife crimes to go unpunished. In **Bulgaria**, there was a [good start of the captive breeding season 2023 of GV](#) in the Green Balkans Wildlife Rehabilitation and Breeding Centre. The Zoo in Stara Zagora, received a [pair of GV as a donation from the Green Balkans Wildlife Rehabilitation and Breeding Centre](#), to enhance the captive breeding and ex situ conservation of the species.

Cinereous Vulture (CV): Within the [CV Captive Breeding Network](#) (EEP), in 2022, [11 CV hatchlings \(from 13\) survived and fledged](#). The network donated chicks to support the restocking efforts of this species in **Bulgaria**, within the Vultures Back to LIFE project. A new project has kick-started to consolidate CV populations in Portugal and W Spain. The [LIFE Aegyptius Return project](#) will implement actions across the Portuguese-Spanish border to double the CV breeding population and accelerate the ongoing natural recolonization of the species, with the ultimate goal of changing its conservation status from Critically Endangered to Endangered. The first nests improved in **S Portugal** were [already visited by a pair](#) and in the north, 2 pairs were [seen nest-building](#). A swift local response following an alert of suspicious data being sent by Monsanto's GPS transmitter reflected good coordination/network. Local partners were able to retrieve the device, which probably detached from the CV, as no signs of it were found. Sad news from the restocking efforts in **Bulgaria** within the [Vultures Back to LIFE project](#), as ["Praha-Liberec" was found dead in Greece](#), possibly a victim of illegal poisoning, and ["Dzhuranli" unexpectedly died in Iran](#) but as only few remains of the carcass were found, the cause of death remains unknown. Two more CV released in Bulgaria were shot and killed – one near [Harmanli, Bulgaria](#), and – one in [Istanbul, Turkey](#). The increasing occurrence of wildfires is a major threat to vultures, nests and habitat. Last summer, the wildfire in [Dadia, Greece](#) may have had major impacts on the last (naturally) remaining breeding CV colony in the Balkans. The chicks in the nest were already too big to be rescued, but fortunately, the fire did not quite reach the colony and all the 19 chicks/nests were able to fledge. In Extremadura, **Spain**, a wildfire hit Monfragüe NP in Cáceres, when several CV pairs had chicks ready to fledge. A total of 15 nests were destroyed by the fire, while 13 remained viable, and three youngsters died. CVs are now returning burnt area and [some pairs have even started building new nests](#) earlier than usual. Meanwhile, in the Kotlenska Mountain, reintroduced CVs have returned to the region and [4 pairs are currently nest building](#) along with 20 pairs of GV.

African Vultures in Europe: Observations of African [WBV have been increasing in Europe](#), and in Jan 2022 one in Spain was [fitted with a GPS transmitter](#) to monitor its movements. Likewise, the [Rüppell's Vulture](#) (RV) is slowly becoming more regular in Southern Spain and seems potentially likely to found [a new breeding population](#) there.

Africa Round-up:

The [15th Pan-African Ornithological Congress](#) at Victoria Falls, **Zimbabwe** 21-25 Nov 2022 had no less than 4 symposia and 2 round-table discussions focused on vultures and their conservation with excellent talks from presenters across Africa and further a-field.

West Africa: In **Guinea-Bissau**, in the aftermath of police investigations on the 2020 mass vulture poisoning events, an [historical trial and condemnation](#) took place in a court in the north of the country at the end of 2022. For the first time an individual (from the Republic of Guinea) was condemned for an environmental crime, was sentenced to over 4 years in prison, and fined 1500 USD for the killing of 50 vultures. This followed legal persecution pursued by Environmental Police Dept, framed under "Environmental crime" and "Destruction of Public propriety", the only legal instruments allowing formal criminal accusation. This process was led by continuous efforts from the NGO ODZH in Guinea-Bissau (supported by BirdLife and VSG) and the National Inst. for Biodiversity and Prot. Areas of Guinea-Bissau. A comparative study of markets in **Niger** highlighted the [decrease in the number of vultures for sale](#), with 36 found in 2019 vs only one in 2022 in the same markets. These positive results, benefiting migratory EV and all vulture species in Niger, reflect the involvement and commitment of the various stakeholders, with the leading role of Sahara Conservation. A [Guide for plant-based alternatives to vulture use](#) was produced by NCF in **Nigeria** and distributed among traditional medicine practitioners. Workshops on the impacts of NSAIDs, pesticides and potential vulture poisoning were held with national authorities in both **Ethiopia** and **Nigeria** (see the [video](#)). [IBCP](#) continues support work in three West African countries: In **Ghana**, Samuel Boakye Yiadom started his Univ Ghana MPhil project on the ecology Hooded Vultures (HV) in urban areas. In **Togo**, Zebigou Kolani has been conducting regular HV counts in urban areas since 2021, and Olivier Boissier has been conducting wildlife surveys in protected areas since 2022. In **Benin**, Christopher Ryan Smith has been researching the causes of the vulture extirpation from the Borgou since 2022. Also in Benin, Abiola Sylvestre Chaffra has been conducting raptor surveys in Ramsar wetlands since 2022 and received a HawkWatch Int. grant to research HV in fetish markets and raise awareness of their plight.

North & NE Africa: NCE implemented a [campaign in Cairo Metro](#) for WMBD dedicated to the EV conservation in **Egypt**, reaching over 9 million people. A [report](#) on the pilot actions to eliminate the use of strychnine or other poisons affecting vultures in **Ethiopia**, **Niger** and **Egypt** was published. BirdLife Africa is working to designate Mille-Sardo Wildlife Reserve in **Ethiopia**, covering IBA/KBA qualifying criteria for 6 species, including the EV wintering in large numbers there. Also **Ethiopia**, an ongoing PhD study on the ecology of HV supported by Hawk Watch Int, Rufford Fndn and Jimma Univ (JU), recorded multiple HV electrocuted at a single point near the hospital dumps at JU, a major feeding, perching and roosting site, used by at least 100 HVs in a day. 82% were juvs, and 65% of the electrocutions occurred during the dry season. JU was informed and encouraged to contact the Ethiopian Electric Power Agency and other stakeholders managing the electric pole to seek mitigation solutions.

East Africa: In southern **Tanzania**, 8 years monitoring data from NC Zoo's Vulture Program suggests declines in WBV, LFBV & WHV populations with a paper in review. 18 confirmed and 8 presumed mortalities of sat-tagged vultures (from 62 tagged) suggest only 72-77% adult annual survival for WBV. A local version of the Coexistence Co-op was initiated to reduce the vulture poisoning threat in a focal area in W Tanzania, - a collaboration between WCS, Lion Landscapes and The Peregrine Fund (TPF), supported by AZA SAFE. An exciting opportunity was initiated developing AI that can recognize vulture (and potentially other large raptor) nests from photos taken during aerial surveys focusing on large mammals in collaboration with Howard Frederick (Tanzania Wildlife Research Institute) and the Allen Institute for AI. TPF, Jomo Kenyatta Univ, Spanish Institute for Game & Wildlife Research, San Diego Zoo Wildlife Alliance, Smithsonian Inst and numerous other local and international partners held a novel 5-day [Wildlife Toxicology Workshop](#) that addressed important aspects in the fight against illicit wildlife poisoning. 51 participants included wildlife vets and professionals from 6 Kenyan labs. Two major challenges were identified: the cost of testing samples, and policy issues whereby labs have the equipment and capacity to test samples, but not the legal mandate to do so. Focus is now on forming a Technical Working Group to solve these issues. In N **Kenya**, TPF is collaborating on a project with [Mugie Conservancy](#), Kenya Wildlife Service, and the Kenya Bird of Prey Trust to provide safe food for vultures by establishing a vulture

restaurant. The Coexistence Co-op project has now trained over 4000 community members, mainly in Laikipia County. Terrible drought continues, but despite this, 600 predator-proof livestock corrals have been constructed by communities and these have been 92% effective in deterring night-time predator attacks. Southern Africa: An initiative led by VulPro with the support from the VSG, the **South African** government and southern African partners established a southern African vulture breeding steering committee. The main goal is to implement actions listed under Objective 11 of the Vulture MsAP, seeking in part to restore vulture populations where they have become extinct and reinforce populations where there is a danger of extinction. Kerri Wolter is Chair and Jose Tavares Secretary. Main activities have been completing a studbook for southern African vultures, aiming to document numbers in captivity and the reasons for their captive status. Also, where there is interest in conservation breeding as opposed to trade. The Southern African Bearded Vulture (BV) Recovery Programme held a series of workshops in Jan 2023 to update the Bilateral BV Recovery Strategy and Action Plan. All actions under each of the 10 objectives were discussed and the necessary details on responsibility, resources, time frames were provided. The objectives of the programme have been realigned based on the outcomes of the PVA workshop held in May 2022 to ensure that the priority threats to the species are being addressed.

An MSc project of Rebecca Bishop (Boise S Univ & Intermountain BO) over the last two years used drone technology to monitor 27 White-headed Vulture (WHV) as well as 49 White-backed Vulture (WBV) tree-top (~20m) nests in Gorongosa NP, **Mozambique**. The project also deployed 14 GPS transmitters on WHVs. She is also working with movement data to complete a resource selection analysis for breeding WHV and the project may have identified breeding strongholds for both species. NC Zoo conducted 4 standardized vulture transect surveys (285km) in Kafue NP, **Zambia**. Encounter rates were comparable to 2021 and 2016 suggesting relative population stability, although 2 small scale poisonings are of concern and emphasize that without tagged birds, these events often remain undetected. 9 tags were deployed in Kafue, 1 HV and 8 WBV expanding coverage. Also deployed 3 sat tags on WBV at Victoria Falls, **Zimbabwe** in Nov, expanding coverage within the broader KAZA trans-frontier conservation area, in partnership with VulPro (who also deployed 5 of their own tags) and the Victoria Falls Wildlife Trust. An exciting collaboration between 3 Zambia vulture projects (NCZ-Panthera vulture project, Zambian Vulture Conservation Prog (BirdWatch Zambia, EWT & Caring for Cons Fund) and BioCarbon Partners (with BirdWatch Zambia) combines real-time data to monitor and detect illegal activities. This is being run through the MoveApps analysis and populates individual Earth Ranger instances from a master system. The aim is to scale-up the sentinel model with partnerships across projects and countries to collectively improve vulture conservation efforts in partnership with EWT. For those with current tagged vultures in Africa interested in providing their data for real-time conservation applications, contact corinne.kendall@nczoo.org Some recent **Africa publications**: Individual nest-site selection of WBV was important for productivity in Kimberley, South Africa, illustrating that proximity to conspecific nests is more important than individual nest site selection after when examining a variety of tree nest-site characteristics. [Woksepp et al. 2023](#) showed high prevalence of blaCTX-M-15 type extended-spectrum beta-lactamases in Gambian HVs. [Daboné et al. 2023](#) documents trade in vulture parts in **Burkina Faso** and a key sources of vulture carcasses. [Cervantes et al. 2023](#) presents the utilization distribution for Cape Vultures with respect to guiding wind energy development. [Daboné et al. 2023](#) is a breeding behaviour study of HV in Garango, Burkina Faso. [Daneel et al. 2023](#) describes digestive and feeding behaviour differences between ex-situ LFV and GV in **Tanzania**. [Peters et al. 2022](#) combines models for animal tracking to define behavioural states and understand spatial utilisation with conservation objectives. [Peters et al. 2023](#) identifies priority locations to protect a wide-ranging endangered vulture species. Finally, results of Galala raptor counts 2022 were [published](#) for **Egypt**, including 1200 migrating EVs in spring.

Grants: The [African Raptor Leadership Grant](#) is a new funding opportunity aimed at developing African raptor champions. Applicants must be African students intending to enrol as Msc or honours students at one of three African universities researching African raptors or their threats. Two grants of \$10,000 will be awarded per year, including support for their in-country mentors. Deadline is 30 April.

North American Round-up: *Compiled by Zoey Greenburg*

The global California Condor (CC) population status reached 562 by the end of 2022. This is an increase of 25 individuals since 2021. The total wild free flying population was 348, up by 14. The wild population in

the **USA** breaks down as follows: 116 individuals in the Arizona/Utah population, 184 in southern and central California (CA) and 8 in northern CA. The Baja California, **Mexico** wild population was 40 birds. In Baja, 6 birds will be released in May 2023. 4 individuals are expected to be transferred to the release site, 2 from San Diego Zoo Wildlife Alliance and 2 from the Chapultepec Zoo. One wild-hatched individual was confirmed from the 2022 breeding season. Hurricane Kay impacted 4 nests (3 of which probably failed) in Sept 2022. Collaborative research involving the USDA's Animal and Plant Health Inspection Service (APHIS), Wildlife Services, and Nat. Wildlife Research Center has investigated the effectiveness of inflatable scarecrows to mitigate black vulture property damage (a publication pending), Researchers are also investigating which factors drive home range selection for American Black Vultures (ABV) throughout south-eastern USA, with early indications suggesting local conditions are key. Hawk Mountain Sanctuary (HMS) is tracking [16 Turkey Vultures \(TV\)](#) and 3 ABVs were fitted with satellite transmitters. HMS monitored 2 TV and 19 ABV nests in Pennsylvania (PA) in 2022. One of the TV nests was in a cave and was successful, the other was in a human-made structure and failed. 6 of the ABV nests were in caves (67% success) and 13 were in human-made structures (62% success). 24 ABV nestlings were wing-tagged. HMS and collaborators performed a second round of vulture road transects along the eastern shores of north America, also **Venezuela**, and **Uruguay**. HMS staff met with PA, **USA** livestock managers to discuss and mitigate perceived conflicts from ABV towards livestock. Highly pathogenic avian influenza (HPAI) continued to be a leading cause of mortality in vulture roosts through Dec 2022. HPAI was documented in vulture roosts throughout the east coast including a single roost adjacent to HMS losing 89 ABV in three weeks! Reports from across PA estimated a minimum loss of 1,000 ABV. Wildlife vets reported a Florida site where a HPAI die-off occurred is seeing 60% of ABV with HPAI antibodies. Researchers from Mississippi State Univ and Auburn Univ published a study on the [drivers of skin coloration](#) in the heads of TV and ABV. They are also studying spatial ecology of ABV and TV, how their anatomy and ecology influence microbial communities on and within their bodies, and how movement and resource use influence the potential of New World vultures to transmit disease, particularly avian pox. Anyone with photographic records of either species presenting with pox can email scott.rush@mmstate.edu. A project organized by the Univ of Georgia and collaborators is building new risk models for aircraft strikes with birds incorporating TVs and ABVs. The study monitors movements in relation to aircraft via GPS telemetry.

South America Round-up: *Compiled by Sergio Lambertucci & Hernan Vargas*

The IV Int. Congress for the Conservation of the AC took place in Quito, **Ecuador** 24-29 Oct. 2022, attended by 40 international researchers working with the species as well as over 140 guests, park rangers, decision makers, bird watchers, students and people interested in the species. Organised by the AC Working Group of Ecuador through its institutional members, the Fundación Cóndor Andino and the Fundación Zoológica del Ecuador. The congress focused on both ex-situ and in-situ conservation/research, education and communication, and vulture conservation threats and mitigation strategies. More details [here](#).

The recent arrival of highly pathogenic influenza [H5N1 across South America](#) has adversely affected many bird species including New World vultures, particularly in **Peru** and **Chile** where large numbers of infected TV & ABV died. The pathogen produced huge quantities of infected carcasses ([e.g. >3000 sea lions died](#)) that are then available to scavengers. A captive Andean Condor (AC) died and tested positive to H5N1 in **Peru**. Between Aug 12-14 2022, the first national AC census was carried out across Peru. 42 points were selected based on earlier presence of the species, and these were monitored simultaneously. Preliminary results suggest a minimum total of 301 individuals. The information collected will be used to carry out occupancy models for the species, for total population estimations and to define the distribution, all of which will help develop conservation measures. An international team collected AC pellets from the Pampa de Galera area (Andes) and from the coastline in San Fernando PA. [Plastic debris](#) was documented in most pellet samples, even some of the most remote areas of Peru. Within the framework of the "AC Monitoring Plan for Extreme Zones of **Chile**", the AC Research and Conservation Group (GICCA) continues with its monitoring that began in 2015. In Jan 2023 in the Magallanes region (Patagonia) 77 AC were recorded from 22 counting stations (including 36 in one site), whilst for the Arica and Parinacota region (high plateau, **Peru-Bolivia** border) the Nat. Zoo of Chile in conjunction with GICCA and ZCOG recorded 6 AC from 16 monitoring stations in Sept 2022. [A study](#) documenting 164 AC injuries and mainly mortalities between 1979 and 2021, of which 83.5% were from **Ecuador**, 15.2% **Colombia**, and 1.2% **Venezuela**, showed that

at least 103 of them were presumed poisoned, 22 were shot, and only 39 were attributed to other causes. Considering the AC population in this region is just a few hundred, these results are concerning. In **Bolivia**, a national AC law was unanimously approved in the Senate or Upper House in Oct 2022 but was held up and still awaits approval in the Lower House. If eventually approved, the law will provide stronger protection for AC, promote the implementation of the 2020-2030 National AC Action Plan, and significantly would make the poisoning of wildlife or any illegal wildlife trade a criminal offence. A recent study in **Argentina** [shows AC](#) but probably not smaller vultures are kleptoparasiting eagles, both in flight and on the ground, to obtain food, particularly the invasive European hare. Another [study found](#) that AC searched for carrion in areas with a high probability of occurrence of puma kills, but avoided areas with tall vegetation and steep slopes where pumas tend to hunt - suggesting that AC may manage the risk of puma predation through the identification of safe foraging sites prior to landing. This highlights the potential risk effects beyond predator-prey interactions, particularly for obligate scavengers.

Grants: The [Oscar Beingolea Raptor Research Grants](#) of 2,000 USD for field raptor research in Mexico, Central & S America/Caribbean. (next deadline of June 30, 2023). Encourages projects for poorly known species, systems, or questions, with a conservation and/or community engagement component.

One more funding opportunity now open, this one worldwide: the Wolfgang Kiessling International [Prize for Species Conservation](#).

Environment and human health impacts: A [significant link](#) between human health (and survival) and the areas where vultures have declined most or disappeared completely in India is established in an [important paper](#) by Eyal Frank – the ecosystem services links are highlighted, together with sanitation effects and the related increases of feral dogs (rabies etc) implicated. Another important [publication](#) suggests GV populations help control livestock and human disease Cystic echinococcosis in Sardinia ([video](#)). Note that VSG plans to update its [position statement](#) on vultures' role in disease transmission soon. [Get in touch](#) if you want to be involved or have comments on what changes are needed.

On a lighter note, thought you might enjoy [this](#) woolly version of a WHV at HCT by Annie Safford! Finally, [let us know](#) if you receive this newsletter indirectly and wish to be added to the circulation list. Do send items for inclusion ahead of the next edition in September. Or submit longer articles [to the editor](#) of the VSG journal, Vulture News. Reminder that the VSG's journal [Vulture News including back copies is available free](#) online – do read it!



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