

GOING VIRAL

MYANMAR'S WILDLIFE TRADE ESCALATES ONLINE

2021

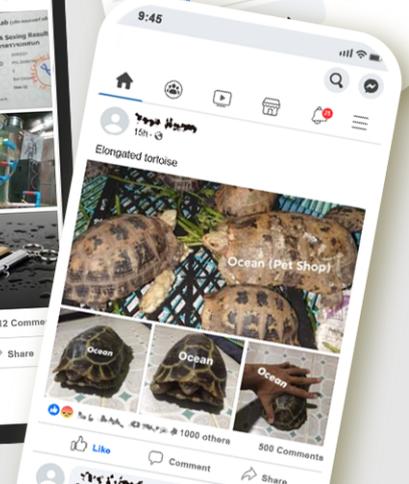
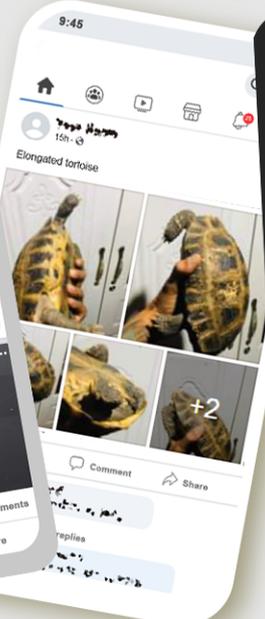
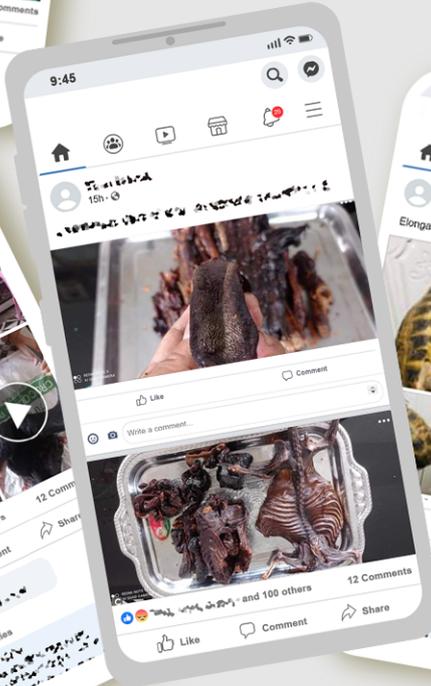
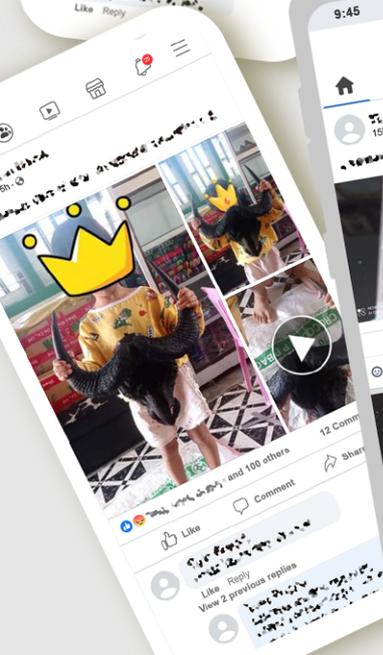
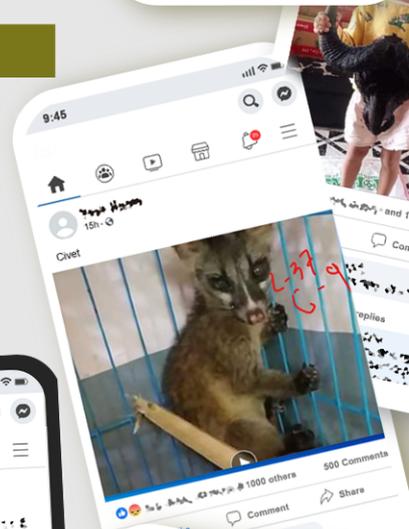
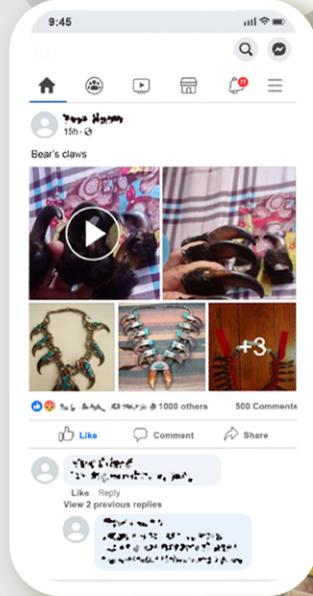


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ACRONYMS

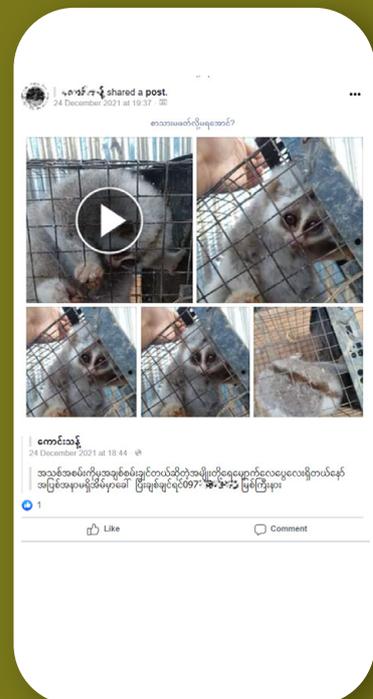
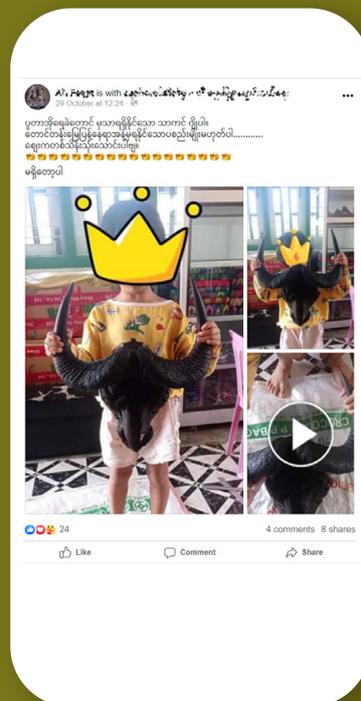
CBPA	Conservation of Biodiversity and Protected Areas
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
IFAW	International Fund for Animal Welfare
IUCN	International Union for Conservation of Nature
TRAFFIC	The Wildlife Trade Monitoring Network

SUMMARY

Myanmar's illegal trade in live wild animals and their body parts is escalating on social media, monitoring by WWF has revealed. This not only threatens the country's wildlife, one of the world's great stores of biodiversity, but also risks starting new epidemics as the trade brings humans and wild animals into close contact and increases the possibility of the transmission of new pathogens.

This report, based on monitoring in 2021, follows similar WWF studies in 2017, 2018 and 2020 that showed how wildlife traders are increasingly using Facebook, Myanmar's most popular social media platform. Social media has provided traders with round-the-clock access to an unlimited number of customers, at no cost and with limited risk, and without the need for special skills or technology.

In 2021, the number of wildlife items for sale on Facebook increased by 74 per cent. This included a greater number of live bears and bear body parts and, for the first time since WWF began monitoring in Myanmar, ivory products and elephant skins, popular as materials for personal accessories and as purported cures in traditional Chinese medicine. Meanwhile, the number of identified traders rose by 69 per cent from the previous year and the number of wild animal species on offer by 21 per cent. These figures suggest that the online wildlife trade is largely immune to Myanmar's upheavals, including the COVID-19 pandemic, which inflicted a particularly devastating toll on Myanmar in 2021.





74% ↑

ITEMS



69% ↑

TRADERS



21% ↑

SPECIES



80% ↑

THREATENED



96% ↑

LIVE ANIMALS



241% ↑

MAMMALS

Increases in aspects of the illegal wildlife trade in 2021

Fifty-four of the 173 species traded in 2021 are threatened with global extinction, according to the International Union for Conservation of Nature (IUCN) Red List of Threatened Species, an 80 per cent rise on the number of similarly threatened species traded in 2020.¹ According to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the global wildlife trade treaty, 39 of the 173 species traded in 2021 are threatened with extinction and listed under CITES Appendix I, which prohibits international trade other than in exceptional circumstances; this represents a 77 per cent rise on those traded in 2020.² Species traded included elephants, bears and gibbons, as well as the critically endangered Sunda and Chinese pangolins, and Asian giant tortoise. There were also posts advertising wild meat, including meat from species of viper and from the sambar and barking deer.

Although the study targeted Myanmar’s domestic wildlife trade, Thailand was identified as the source of several bird species and some of the recorded items were likely for export to neighbouring China or India. This indicates an overlap between domestic and cross-border trade, posing a threat from novel diseases to human health in the broader region.

Other trends were consistent with the previous year. For instance, 96 per cent of sales posts advertised live animals, and more than three-quarters were for animals taken from the wild. In addition, most of the observed trade took place on open-access groups, where any Facebook user can buy, sell or browse illegal wildlife items. Purchases of legally protected species were discussed openly in public comments on these groups.

¹ Three per cent of the posts advertising species in 2021 were listed in IUCN Red List of Threatened Species as “Critically Endangered”, which includes species that face an extremely high risk of extinction in the wild, 10 per cent as “Endangered” meaning they face very high risk of extinction in the wild, and 18 per cent as “Vulnerable” indicating a high risk of extinction in the wild.

² Twenty-three per cent of the posts advertising species in 2021 were listed in CITES Appendix I, which includes all species threatened with extinction which are now or may be affected by trade, and 42 per cent in Appendix II, for those that “are not necessarily now threatened with extinction but that may become so unless trade is closely controlled”.

“THE LACK OF SECRECY SUGGESTS THE TRADE ON FACEBOOK REMAINS LARGELY RISK-FREE”

This lack of secrecy suggests the trade on Facebook remains largely risk-free, thanks to the anonymity Facebook offers to sellers and buyers and the limited capacity of Myanmar authorities to control the trade. To WWF’s knowledge, very few cases of online wildlife crime have been prosecuted.³ This weak enforcement is partly due to gaps in Myanmar’s wildlife laws, particularly when it comes to online sales, but also to a lack of resources and the low priority assigned to tackling wildlife crime by successive governments. The political crisis that erupted in February 2021 has further hampered environmental regulation and law enforcement.⁴

Also similar to the findings in 2020, payments were made largely via mobile banking and mobile money services, whose use in Myanmar appears to have increased due to widespread difficulties accessing cash since early 2021. Although these payments are, in theory, easier for authorities to track, they appear to lack the ability to do so effectively. The shipment of wildlife items was helped by a similar lack of effective controls. Live animals or body parts were sent to customers across Myanmar on public buses and private vehicles, often in flimsy packaging that left the cargo visible, and sometimes with labels clearly identifying the contents.

An additional challenge to addressing wildlife crime emerged in 2020 when Myanmar’s Forest Department released a list of 90 legally protected species that can be commercially bred for specific purposes. Although a licence is required and the terms and conditions for obtaining and holding a licence have not yet been published, the eventual issuing of these could further complicate efforts to curb illegal wildlife sales. In fact, the publication of the list is already providing a degree of cover for traders, some of whom were observed claiming they were licensed.

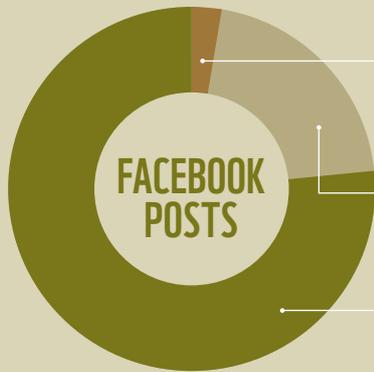
Poaching to service illegal trade can drive immediate wildlife population declines and cause long-term demographic problems, such as sex-ratio imbalances that slow the reproduction rate of vulnerable species over time. Moreover, WWF researchers saw evidence of wild animals kept in close proximity, even in the same cage, with other animals. Disease transmission between wild and domesticated animals, and from these animals to humans, is the most common source of new epidemics and pandemics. In the absence of effective law enforcement action, conservation groups in Myanmar and elsewhere, including WWF, have collaborated with Facebook and other social media and e-commerce companies to curtail the online trade through the Coalition to End Wildlife Trafficking Online. This collaboration has resulted in the removal worldwide of thousands of trading groups on Facebook, which prohibits trade in live animals on the platform, except by verified merchants. However, researchers in Myanmar noted that previously removed traders re-emerged in newly created groups during 2021, demonstrating the limitations of the current approach. Much more needs to be done through partnerships between private companies, law enforcement agencies, civil society and local communities to reduce demand and disrupt online sales before they escalate further, endangering Myanmar’s precious wildlife and global public health.⁵

³ “Illegal Wildlife Trade Goes High-Tech.” *The Myanmar Times*, October 24, 2019. <https://www.mmtimes.com/news/illegal-wildlife-trade-goes-high-tech.html>

⁴ “Impacts of the Myanmar Military Coup on Natural Resource Economies in Kachin State.” Rainforest Journalism Fund, 2019. <https://rainforestjournalismfund.org/projects/impacts-myanmar-military-coup-natural-resource-economies-kachin-state>.

⁵ Salyer, Stephanie J., Rachel Silver, Kerri Simone and Casey Barton Behravesh. “Prioritizing Zoonoses for Global Health Capacity Building—Themes from One Health Zoonotic Disease Workshops in 7 Countries, 2014–2016.” *Emerging Infectious Diseases* 23, no. 13 (December 2017). <https://doi.org/10.3201/eid2313.170418>.

KEY FINDINGS



2%  Reptiles

22%  Mammals

76%  Birds



11,046

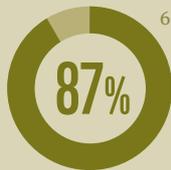
WILDLIFE ITEMS POSTED FOR SALE ON FACEBOOK IN 2021

74%↑
INCREASE FROM 2020

241%↑
INCREASE IN MAMMAL SALES



LIVE ANIMALS



FROM THE WILD

=



RISK TO BIODIVERSITY + PUBLIC HEALTH



LARGEST TRADING GROUP

>19,000



DAILY POSTS

>30

69%↑

The number of identified traders on Facebook increased by 69% from 2020, to 639 accounts in 2021.



Pieces of elephant skin were observed for sale on Facebook for the first time.



More live bears and bear parts were advertised in posts than at any point since monitoring began in 2017.

80%↑

The number of traded species on the IUCN Red List of Threatened Species rose 80% from 2020. Traded species included threatened elephants, bears, gibbons, the critically endangered Sunda and Chinese pangolins, and Asian giant tortoise.



Traders often shipped unconcealed items on public buses. Buyers and sellers took few precautions, discussing sales on open-access Facebook groups. This indicates weak enforcement of existing laws.



Posts advertising live civets and pangolins as wild meat, and the commercial breeding potential of both animals, were recorded. Both civets and pangolins have been determined to be involved in the spread of zoonoses, the diseases that jump from animals to humans.

6 Daszak, P., Das Neves, C. Hayman, T. Roche, C. Buss, P. Dundarova, H. Feferholtz, et al. "IPBES (2020) Workshop Report on Biodiversity and Pandemics of the Intergovernmental Platform on Biodiversity and Ecosystem Services," n.d. <https://doi.org/10.5281/zenodo.4147317>.

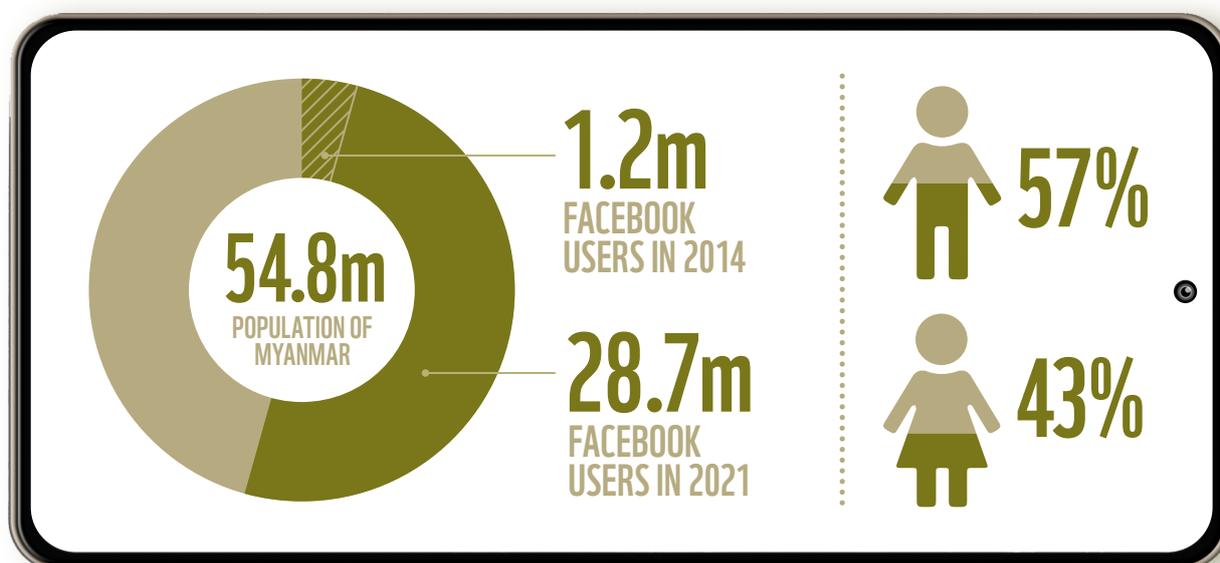
BACKGROUND

Telecommunications reforms in 2014 allowed people in Myanmar to buy cheap SIM cards for the first time. This, together with huge investments in mobile network infrastructure by foreign companies, produced a dramatic expansion in internet access in what was previously one of the least connected countries in the world. Most internet browsing, however, has been confined to Facebook's social media platform; in January 2021, Facebook had more than 28.7 million users in Myanmar, representing over half the population and up from just 1.2 million users in 2014. Of users in 2021, 12.4 million were between the ages of 25 and 34 and 57 per cent were male.⁷

The connectivity revolution prompted much of the country's commerce to move online, and the anonymity and mass reach provided by social media platforms has proved particularly convenient for traders – and consumers – of illegal commodities such as protected wildlife. These traders and consumers have also benefited from the expansion of mobile banking and

mobile money services like Wave Money and KBZPay that remove the need for risky in-person cash exchanges. They largely sell and buy with impunity because law enforcement agencies do not effectively monitor online transactions. The political crisis that began in February 2021 also sparked a banking crisis, with many depositors rushing to withdraw their savings and banks restricting cash withdrawals in response.⁸ The resulting shortage of cash has prompted an even greater adoption of mobile money services and authorities have even less capacity to monitor because of the crisis.

The year 2021 saw authorities impose large-scale internet restrictions. These include bans on Facebook and Twitter that were imposed in February and remained in place throughout the year, as well as the temporary suspensions of the mobile data connections on which most people in Myanmar rely. However, as the year progressed, the restrictions were more confined to active conflict zones. Moreover,



⁷ NapoleonCat.com, accessed January 2022.

⁸ "As Striking Staff Return to Work, Myanmar's Banks Face a Cash Crunch." Frontier Myanmar, May 5, 2021. <https://www.frontiermyanmar.net/en/as-striking-staff-return-to-work-myanmars-banks-face-a-cash-crunch>.



© Aleksandra_Iarosh / Shutterstock. Illustrative photo.

the gradual whitelisting of certain websites,⁹ together with greater public familiarity with virtual private networks (VPNs), enabled internet usage to largely recover to its pre-crisis level after dropping as low as 64 per cent in April.¹⁰ Facebook is still widely accessed through VPNs and, as this report shows, the restrictions did not stop illegal wildlife trade from growing on the platform.

In recent years, online trade in protected wildlife has emerged as a major source of cybercrime worldwide, but policing the trade is particularly challenging in developing countries such as Myanmar. The country's Forest Department and the Myanmar police force cybercrime unit lack the required finances, personnel and training to enforce wildlife law; many police and forestry officers are not trained to identify legally protected species, whether on a Facebook page or in a physical package.

Moreover, the relevant laws, the Conservation of Biodiversity and Protected Areas (CBPA) Law of 2018 and the Telecommunications Law of 2013, are largely silent on online trade and fail to apportion responsibilities between different agencies. This has not created an effective system for collaboration or information sharing. After successive governments neglected the problem, the Forest Department worked with local and international organizations to devise the Countering Illegal Wildlife Trade Action Plan 2021-2025. The five-year plan was approved in May 2021, but the current political crisis has stopped it from being implemented.

Threatened wildlife species in Myanmar are formally protected under the 2018 CBPA law. The law references CITES, an international treaty that ensures that international trade does not threaten the

⁹ Robinson, Gwen. "Myanmar Junta Plans Restricted 'Intranet' to Silence Opposition." *Nikkei Asia*. Nikkei Asia, May 18, 2021.

¹⁰ "Social Media Stats Myanmar | Statcounter Global Stats." *StatCounter Global Stats*, 2022. <https://gs.statcounter.com/social-media-stats/all/myanmar>.



Asian leopard cats for sale on Facebook. February 2021

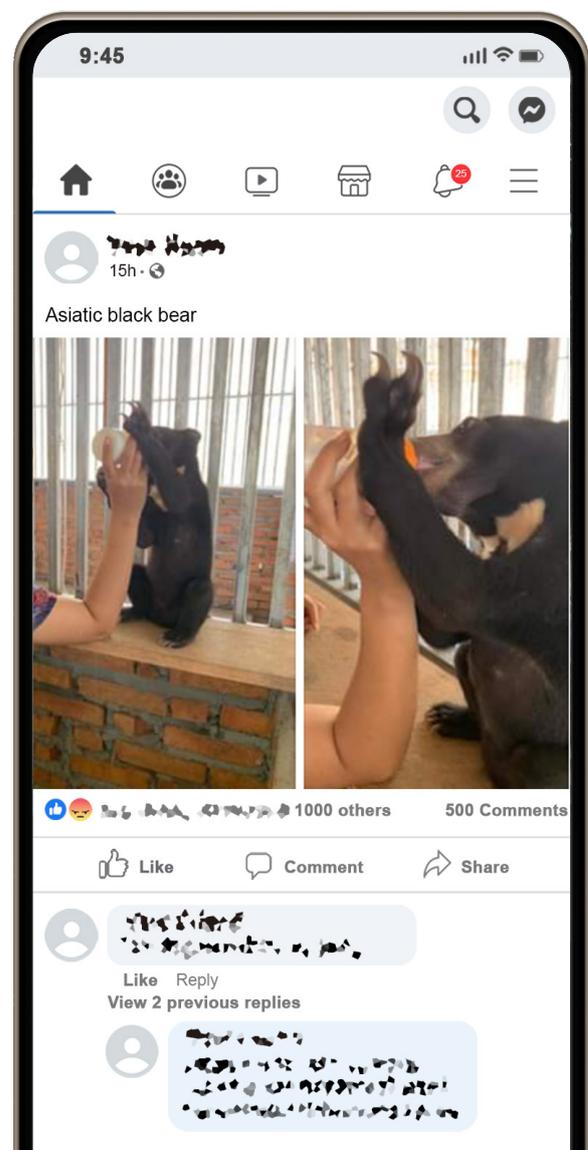
survival of species and to which Myanmar acceded in 1997. The CBPA law designates species as “completely”, “normally” or “seasonally” protected, and CITES lists them in different appendices. Under Myanmar’s CBPA law, whoever kills, hunts, possesses or trades “completely protected species”, or their parts or derivatives, can be punished with a fine and prison sentence of between three and 10 years.

In June 2020, the Forest Department published a list of 90 species “completely protected” under the CBPA law but that can be bred commercially with a licence. The purposes for which they can be bred are specific to each species; only nine of the species – three mammals, five birds and one reptile – can be bred for commercial sales. The rest can only be bred for select purposes, which include use in zoos, safari parks and ecotourism ventures, as well as the manufacturing of traditional medicines.¹¹ However, while some private zoos reportedly now hold licences, the Forest Department has yet to publicly issue the terms and conditions of holding a licence for commercial sales. This means that all the online trade observed for this report can be presumed illegal, despite some traders claiming to have a licence.

¹¹ “Out of the Wild: Myanmar’s Controversial Plan to Harvest Endangered Species.” Frontier Myanmar, July 27, 2020. <https://www.frontiermyanmar.net/en/out-of-the-wild-myanmars-controversial-plan-to-harvest-endangered-species>.

In recognition of the threat that online trade poses to world’s wildlife, the Coalition to End Wildlife Trafficking Online was launched in 2018 by WWF, the Wildlife Trade Monitoring Network (TRAFFIC) and the International Fund for Animal Welfare (IFAW) in partnership with technology companies including Facebook (now called Meta), Google, Alibaba, eBay and Etsy. WWF regularly monitors the online platforms of the companies in the Coalition and reports posts that advertise wildlife. It is also working closely with Facebook to strengthen the platform’s policies prohibiting wildlife sales, making it easier for users to report these sales, improve the automated detection of endangered species and shut down prolific trading groups. However, the rapid re-emergence of some of the banned traders on newly created groups shows the need for an expanded approach across sectors.

Asiatic black bear for sale on Facebook. April 2021



OBJECTIVES

WWF monitored Facebook during 2021 to track the growth and evolution of the illegal wildlife trade from 2020, when WWF conducted a similar survey.¹² To provide a robust comparison, WWF used the same methodology. Researchers recorded not only the volume of trade but also the types of species put up for sale, the item types – live animals, body parts or derivatives – and how buyers and sellers communicated and completed transactions with each other. Where possible, the survey also recorded the source and destination of the wildlife items, and where traders operated.

WWF intends for the report to alert people in Myanmar and the international community to the threat that the online

trade poses to Myanmar's wildlife and to public health worldwide. It also aims to demonstrate the trade's continued growth amid Myanmar's political crisis, and the need for more robust action and stronger cooperation between conservation organizations, private companies and Myanmar citizens to curb illegal wildlife sales before they escalate further.

WWF will use the survey findings in an online public awareness campaign to change behaviours and foster greater public involvement in curbing the illegal trade, including by reporting local cases of wildlife crime, and by discouraging friends, relatives and neighbours from participating.

ALERT THE THREAT THAT ONLINE TRADE POSES TO



Myanmar's wildlife



Public health worldwide

DEMONSTRATE



The trade's continued growth



The need for more robust action



The need for stronger cooperation

USE FINDINGS TO



Curb illegal wildlife sales



Increase public involvement in curbing the illegal trade



Report wildlife crime



Discourage participation

¹² The survey findings were published in the report "In plain sight: The online trade in Myanmar's wildlife", published by WWF in August 2021.

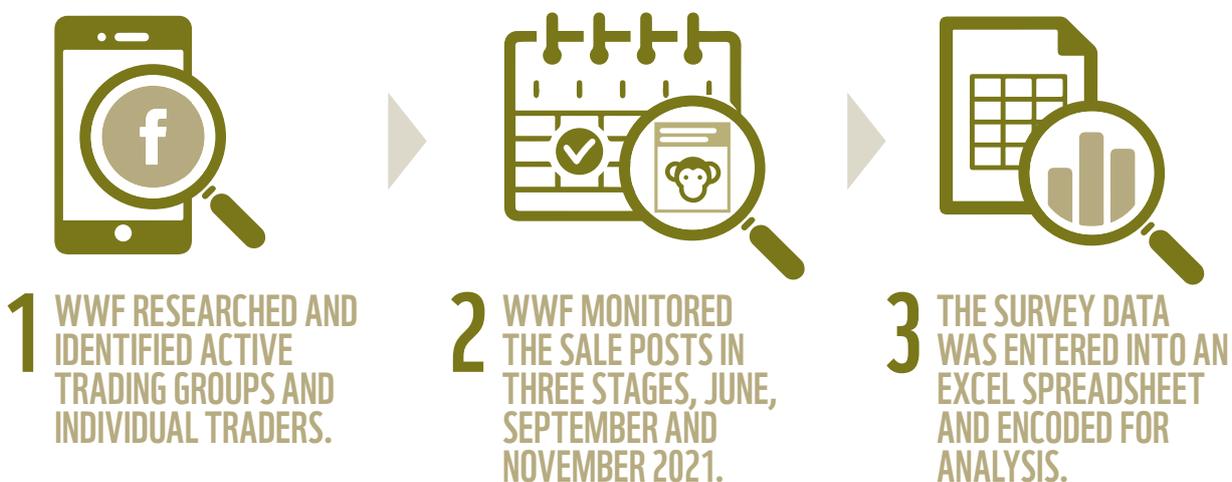
METHODOLOGY

Researchers logged the attempted sale of live animals or their body parts from species protected under either Myanmar's 2018 CBPA law, listed under CITES or both. The survey was focused on the domestic market in Myanmar, but includes animals imported from neighbouring Thailand, the only other source country mentioned in sales posts.

The survey data was derived from animal sales posts in both open-access and closed Facebook groups,¹³ and from personal Facebook accounts belonging to active traders. WWF researchers collated the sales posts in three stages during 2021 – in June, September and November. Eight groups, six of which were open access, were monitored during the year; the number of groups being tracked at any one time fluctuated between four and six as Facebook removed groups and others emerged in their place. The personal accounts of three traders were under direct observation throughout the year.

The recorded Facebook posts were mostly in the Myanmar language, but sometimes included English text. Trading groups and the accounts of individual traders were identified by searching Facebook for generic Myanmar terms used in the trade, although inconsistent spellings and the lack of standardisation in how Myanmar text is encoded hampered search results. Once groups were identified, researchers focused on the most active groups and traders. Some of the groups included were for the sale of domesticated animals as pets, but also posted sales of wildlife. Other groups were identified because traders posted in groups already being monitored.

Screenshots were taken of posts that advertised wildlife items with images or words. The quantity and type of discernible products, including what animal species they came from, were recorded alongside the sales price, if mentioned. Sometimes,



¹³ In closed Facebook groups, users need to be admitted by an administrator before they can view posts or interact with other members, whereas any Facebook user can freely view or participate in open groups.

the same items appeared to be advertised on multiple posts, or the items or prices featured in existing posts were changed, while in some posts the items were difficult to interpret. To avoid duplicate counting, the survey calculated volume at the lower end of the scale. The survey data was entered into an Excel spreadsheet and encoded for analysis.

Researchers also recorded information from posts and public comments that indicated consumer preferences for certain species or products; the most common modes of payment, shipment and communication; and the location of sellers, buyers and items when possible. However, buyers and sellers mostly settled the details of their transaction privately via the Facebook Messenger instant messaging application, or through phone calls. WWF was unable to access these conversations.

To help set priorities for the upcoming public awareness campaign, WWF identified and assessed the vulnerability of the most commonly traded species. The average number of wildlife sales posts each month was also calculated to assess possible impacts from internet restrictions imposed

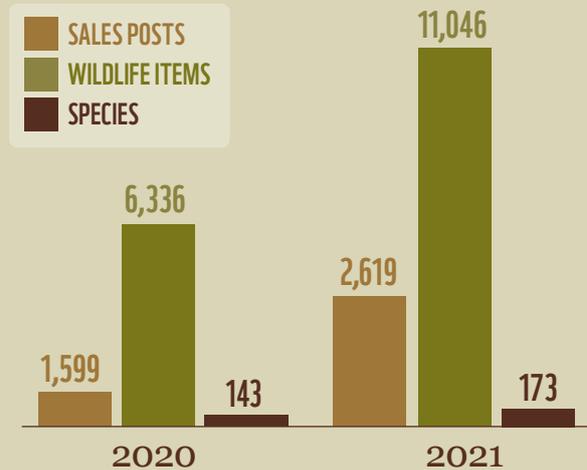
in 2021. However, the retrospective collation of monthly figures at the three points during the year, and the changes in the sample size caused by Facebook removing groups and accounts and new ones being created, made this impact harder to assess.




RESULTS

TRADED SPECIES

WWF researchers counted 11,046 wildlife items, including live animals, parts and derivatives, across 2,619 Facebook sales posts in 2021. This is a dramatic 74 per cent increase on 2020, during which researchers identified 6,336 items across 1,599 sales posts. The species count rose from 143 in 2020 to 173 in 2021, a 21 per cent increase.



IUCN RED LIST OF THREATENED SPECIES

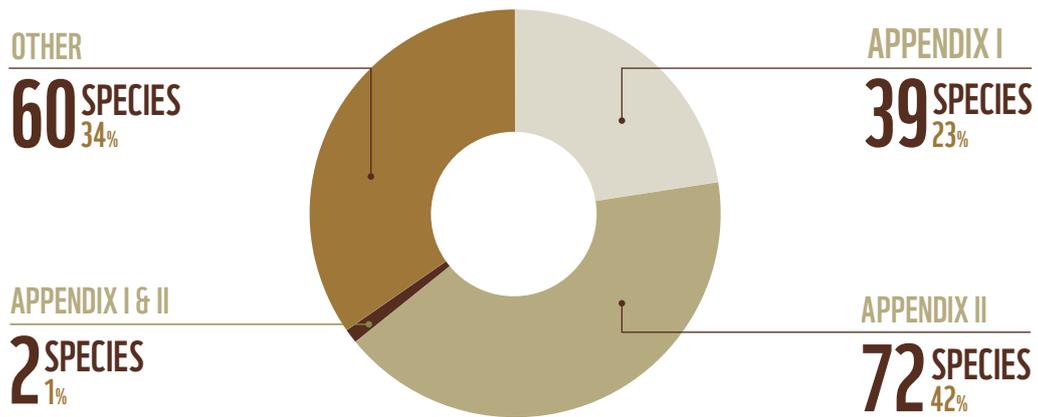


Seventy-one per cent of the species observed were “completely protected” under Myanmar’s 2018 CBPA law, a 10 per cent increase compared to 2020. These included three non-native species listed under CITES Appendix I: Tibetan antelope, golden parakeet and salmon-crested cockatoo.

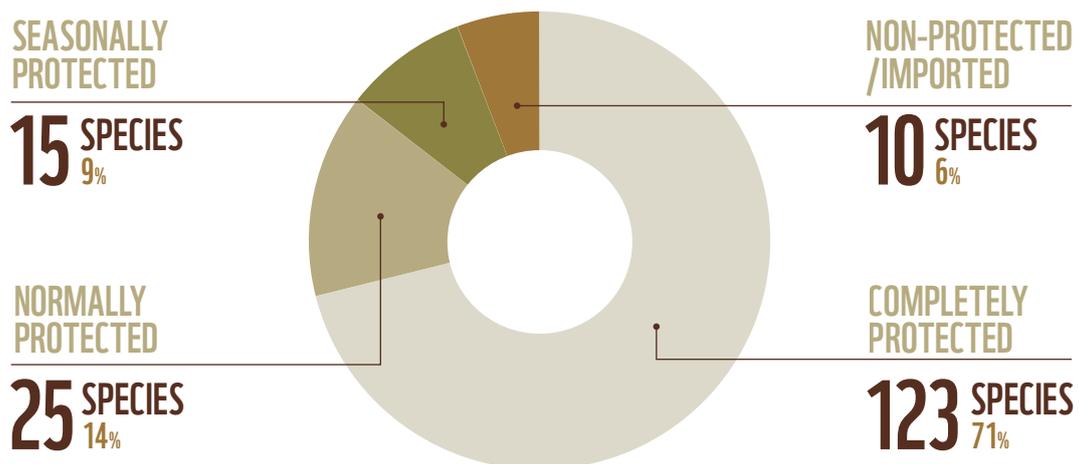
Also recorded were six species marked “Critically Endangered” in the IUCN Red List of Threatened Species: Asian brown tortoise, Burmese star tortoise, elongated

tortoise and Burmese narrow-headed softshell turtle, as well as Sunda and Chinese pangolins. There were also 17 species marked “Endangered” in the IUCN Red List of Threatened Species and 31 marked “Vulnerable”, with each category respectively denoting a very high and high risk of extinction. The traded species consisted of 99 birds, 60 mammals and 14 reptile species, although some appeared much more frequently than others in sales posts. As in 2020, birds accounted for the large majority of recorded posts, at 76 per

CITES LISTED SPECIES



SPECIES PROTECTED BY MYANMAR'S 2018 CBPA LAW



cent. Mammals followed at 22 per cent and reptiles at only 2 per cent.

According to the descriptions on sales posts and the appended comments, 87 per cent featured animals harvested from the wild, with the rest having been reared in captivity according to the sellers. Whatever their origin, live animals accounted for the majority of all sales posts, at 96 per cent. Most were traded either as pets or for captive rearing and breeding purposes, although some, including wild boar, were advertised as wild meat. These figures are

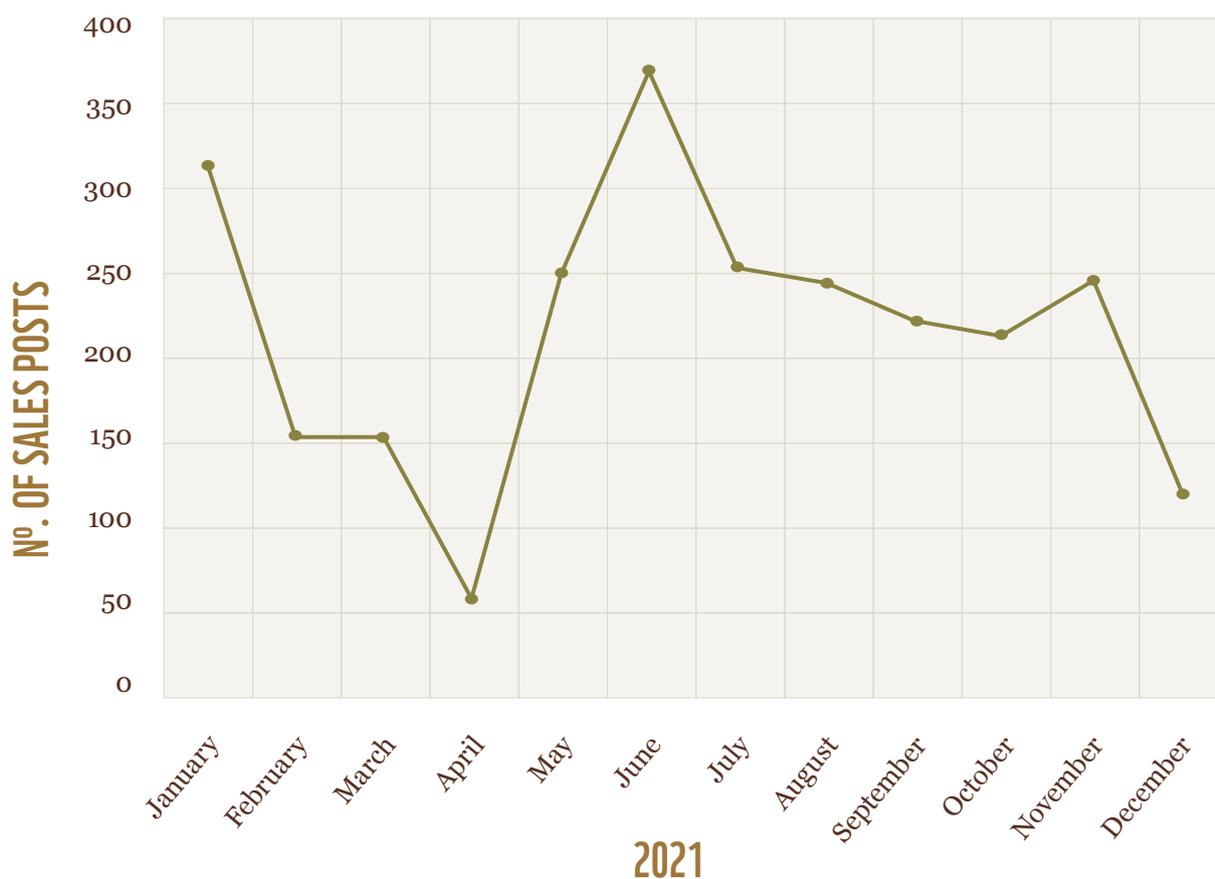
also similar to 2020, during which 96 per cent were live animals and 79 per cent were taken from the wild.

Besides posts for live animals, the remaining 4 per cent were for animal parts and derivatives, intended either for consumption as wild meat, use in traditional medicine, or use as decorative ornaments and accessories. Although posts advertising wild meat – numbering only seven, or less than 0.3 per cent of the total – amounted to less than half of the 13 posts recorded in 2020, the items often sold

within minutes of being posted, with buyers requesting more. This indicates continued demand despite the known link to novel disease transmission. Of particular concern, in terms of the risk of the trade starting new epidemics or even pandemics, were posts advertising live civets and pangolins as wild meat, as well as posts referring to the commercial breeding potential of both animals. Civets were an intermediate host of the virus that caused the 2002 SARS outbreak,¹⁴ while pangolins carry SARS-related betacoronaviruses.^{15, 16, 17}

The average number of sales posts each month fluctuated substantially during 2021 due to the political crisis and the associated internet restrictions, but also due to Facebook’s removal of trading groups. From 302 posts in January, before the crisis began, the number of posts sunk to 63 in April, when internet restrictions were at their tightest. However, from then, the post count recovered beyond the pre-crisis level, peaking at 367 in June, then declining to just 119 posts in December following Facebook’s removal of one popular trading group in September and another in November.

AVERAGE NUMBER OF SALES POSTS PER MONTH



14 Wang, L. F., and B. T. Eaton. "Bats, Civets and the Emergence of SARS." *Current Topics in Microbiology and Immunology*, 2007, 325–44. https://doi.org/10.1007/978-3-540-70962-6_13.

15 Nga, Nguyen Thi Thanh, Alice Latinne, Hoang Bich Thuy, Nguyen Van Long, Pham Thi Bich Ngoc, Nguyen Thi Lan Anh, Nguyen Van Thai, et al. "Evidence of SARS-CoV-2 Related Coronaviruses Circulating in Sunda Pangolins (Manis Javanica) Confiscated from the Illegal Wildlife Trade in Viet Nam." *Frontiers in Public Health* 10 (March 9, 2022). <https://doi.org/10.3389/fpubh.2022.826116>.

16 Zhang, Tao, Qunfu Wu, and Zhigang Zhang. "Probable Pangolin Origin of SARS-CoV-2 Associated with the COVID-19 Outbreak." *Current Biology* 30, no. 7 (April 2020): 1346–1351.e2. <https://doi.org/10.1016/j.cub.2020.03.022>.

17 Xiao, Kangpeng, Junqiong Zhai, Yaoyu Feng, Niu Zhou, Xu Zhang, Jie-Jian Zou, Na Li, et al. "Isolation of SARS-CoV-2-Related Coronavirus from Malayan Pangolins." *Nature* 583, no. 7815 (May 7, 2020): 286–89. <https://doi.org/10.1038/s41586-020-2313-x>.

MAMMALS

Mammal sales posts saw the biggest increase, from 169 in 2020 to 576 posts in 2021, a 241 per cent jump. Of these posts, 494, or 86 per cent, were for live animals and the remainder were for their body parts or products derived from them.

Of the six species classified as “Critically Endangered” on the IUCN Red List of Threatened Species, two were mammals. Of the 60 recorded mammal species, a further 11 are “Endangered” and 15 are “Vulnerable”. Genital parts and skin pieces of unknown otter species were also recorded. Additionally, 28 of the recorded mammal species are listed in CITES Appendix I.

MAMMAL SALES POSTS

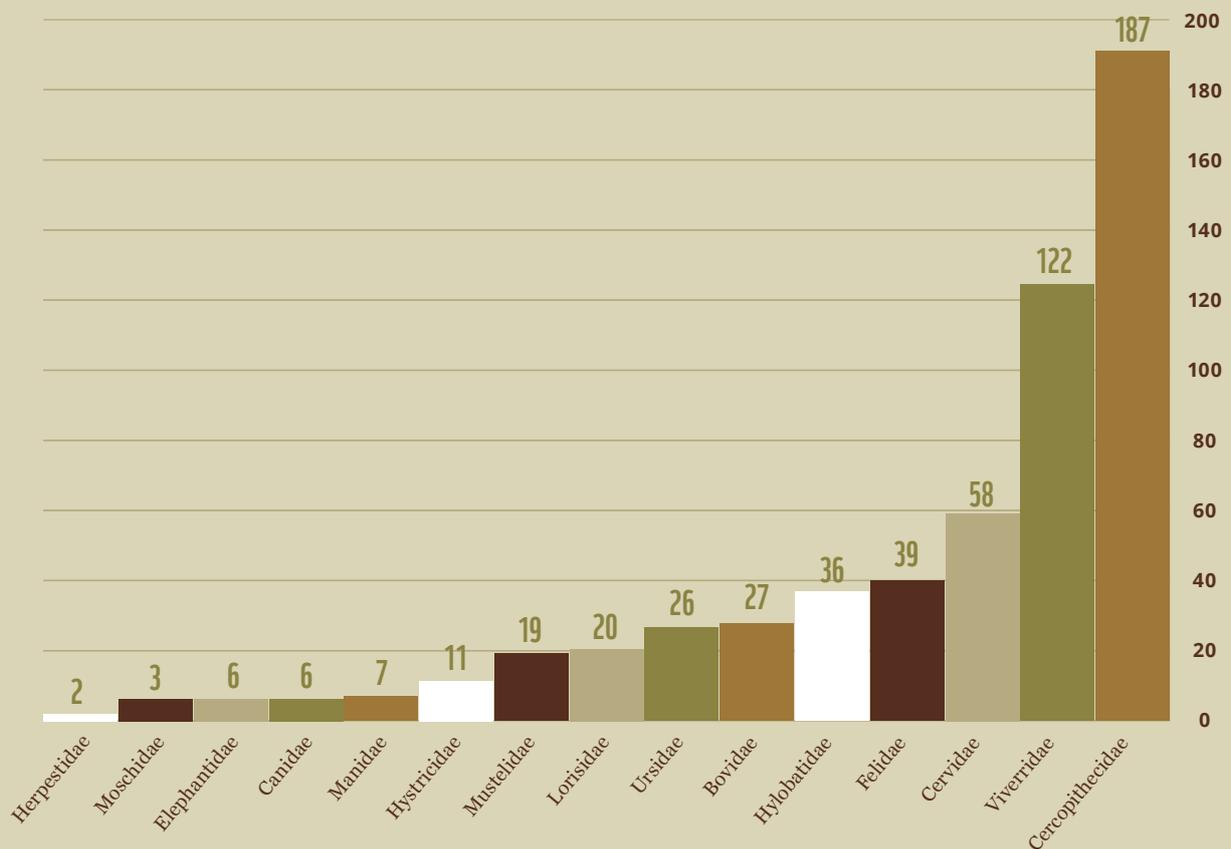


241%
INCREASE IN MAMMAL SALES POSTS SINCE 2020

47%
SPECIES THREATENED WITH EXTINCTION IUCN RED LIST

86%
LIVE ANIMALS

MAMMAL SALES POSTS BY TOP 15 SPECIES FAMILY



The largest proportion of mammal sales posts, at 32 per cent, were for animals belonging to the Cercopithecidae family of species, including dusky and Shortridge’s langurs, as well as stump-tailed and northern pig-tailed macaques. The 187 sales posts accounted for 289 individuals from the species family, all of which were advertised as live pets. Seventy-nine percent – 228 individuals – were juveniles.

The next largest group of mammal posts, at 21 per cent, were posts advertising species from the Viverridae family. The 122 posts in this group featured 167 live individuals, all but two of which were civets from five different species. The most numerous were common palm civets, followed by large Indian, small Indian, masked palm and small-toothed palm civets. Besides civets, two live binturongs were recorded for sale.

Posts advertising members of the Cervidae family were less numerous, at 10 per cent. Thirty-eight of the 58 sales posts in this group were for live animals, a total of 40 individuals that included sambar, muntjac and hog deer. These were sold for captive breeding or for butchering. Commonly, their

skulls and antlers are desired as decorations and other parts for traditional medicine or wild meat. The remaining 10 sales posts were for dead animals or their parts and derivative products. One of the 10 sales posts was for a taxidermy of a deer species, sold as a decorative item by one of the high profile sellers.

Next, at 7 per cent, were sales posts for Felidae species. Thirty-two of the 39 posts were for live specimens, featuring a total of 48 individuals that included leopards, jungle cats, marbled cats, and Asian golden cats. The remaining seven posts were for wild cat products, including the pelt and skeleton of a black leopard, the pelts and the canine teeth of two clouded leopards, and products that purported to include tiger canines.¹⁸ Animals from the Hylobatidae family accounted for 6 per cent of mammal sales posts. The 36 posts included advertisements for 42 live gibbons, including western and eastern hoolock and white-handed gibbons. All but two of them were juveniles.

Serows and gorals from the Bovidae family and bears from the Ursidae family each accounted for just under five per cent of



Pangolin for sale on Facebook. July 2021



Asiatic black bear for sale on Facebook. August 2021

¹⁸ These canines could not be confirmed as tiger teeth because their size could not be determined from the photographs. It is possible that they were bear canines instead.



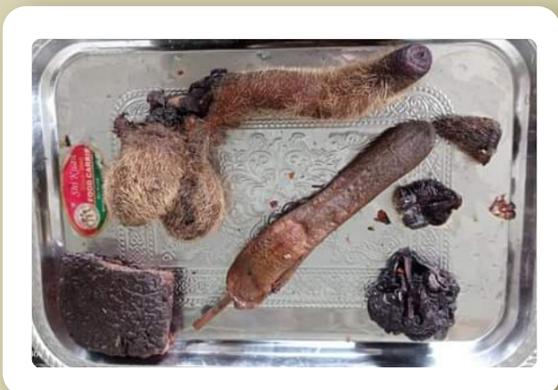
Malayan sun bear for sale on Facebook. 2021



Civet for sale on Facebook. August 2021



Fresh sambar meat advertised for consumption in a post on Facebook. June 2021



Royal Liquor Ingredients for sale on Facebook. 2021

mammal posts. Featured among the 26 Bovidae posts were a banteng horn and multiple takin skulls. Both items appeared to be in high demand based on the number of enquiries from prospective buyers in the form of public comments beneath the posts.

Of the 26 sales posts related to bears, 16 advertised live specimens and 10 posts were for bear skin, skulls, gallbladders and claws, as well as oil derived from bear fat. These items, which are used in traditional medicine, fetched high prices and suggested high demand, although scarcity might also

be a factor. Fifteen of these were Asiatic black bears and 11 were Malayan sun bears, the greatest number recorded since WWF began monitoring Facebook in 2017.

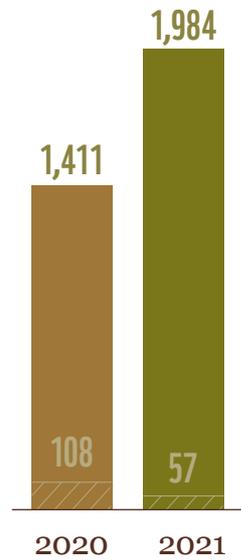
For the first time, posts advertising elephant products, including tusks, molars and skin pieces, were recorded. There were 12 posts. Other new sightings included three posts for the glands of the endangered black musk deer and one for the antlers of a Tibetan antelope, a species not found in Myanmar and listed under CITES Appendix I.

BIRDS

Although still the most numerous, bird sales posts saw a more modest increase from the previous year than mammal posts, rising 40 per cent from 1,411 in 2020 to 1,984 in 2021. Of the 99 bird species, three are “Endangered” in the IUCN Red List of Threatened Species and 12 are “Vulnerable”. Eight are listed in CITES Appendix I and 54 are listed under Appendix II.

The non-native birds belonging to threatened species listed under Appendices I and II were mostly imported from Thailand. These species included the salmon-crested cockatoo and parrots such as the turquoise-fronted amazon as well as sun, golden and crimson-bellied conures.

BIRD SALES POSTS

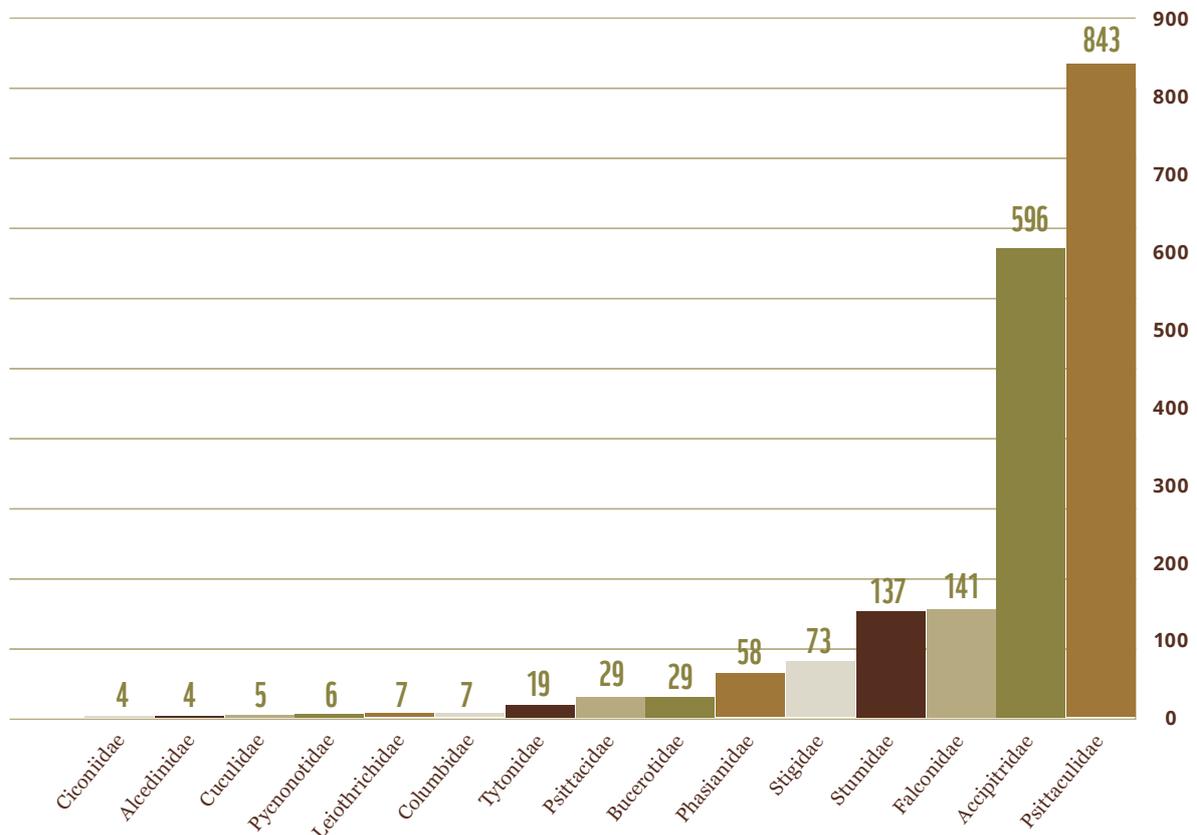


42%
OF SALES POSTS
FOR PARROTS
AND PARAKEETS

99
BIRD SPECIES
RECORDED

15%
SPECIES
THREATENED
WITH EXTINCTION
IUCN RED LIST

BIRD SALES POSTS BY TOP 15 SPECIES FAMILY





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Those that came with DNA certificates commanded higher prices.

WWF also recorded sales posts offering the highest number of hornbills since monitoring began in 2017, including 21 great and one plain-pouched hornbill and all advertised as live specimens. Both species are “completely protected” under Myanmar’s CBPA law, and are also listed as “Vulnerable” in the IUCN Red List of Threatened Species. The survey also recorded posts advertising the skulls of great, wreathed, and oriental pied hornbills, which appeared to meet high demand based on the number of enquiries from potential buyers.

The most common bird posts, at 42 per cent of the total, were for parrots and parakeets from the Psittaculidae family. These 843 sale posts advertised a total of 7,280 live individuals from species that are all “completely protected” under the CBPA law. The next most common posts were for birds of prey from the Accipitridae family, which accounted for 30 per cent of all bird

posts. The 596 Accipitridae posts advertised a total of 1,249 individual birds, the most common of which were black kites, changeable hawk-eagles, shikras and black-shouldered kites. Falcons from the Falconidae family were the next bird most advertised in posts, accounting for 141, or 7 per cent, of all bird sale posts, followed closely by starlings and mynas from the Sturnidae family, with 137 posts, or 7 per cent, and owls from the Strigidae family with 73 posts, accounting for 4 per cent.



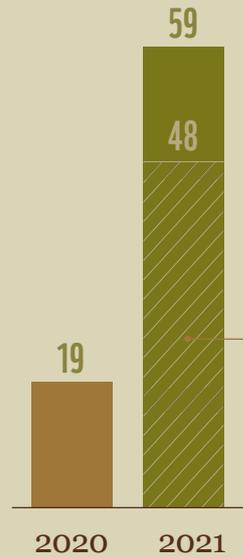
Bird in package for shipment. Facebook - January 2021

REPTILES

The 59 posts advertising reptiles marked a 210 per cent increase from 2020, but they remained a very small proportion of all sale posts, at 2 per cent. However, 12 out of the 14 reptile species recorded for sale are listed under either CITES Appendix I or II, making them “completely protected” under Myanmar law, and are either marked “Critically Endangered” or “endangered” in the IUCN Red List of threatened species. Forty-eight reptile posts – 81 per cent of the total – advertised them as live pets.

The most common posts were for elongated tortoises from the Testudinidae family, accounting for 22, or 37 per cent, of all reptile posts. Next most common, at 18 per cent, were 11 posts advertising gall bladders and wild meat from the Russell’s

REPTILE SALES POSTS

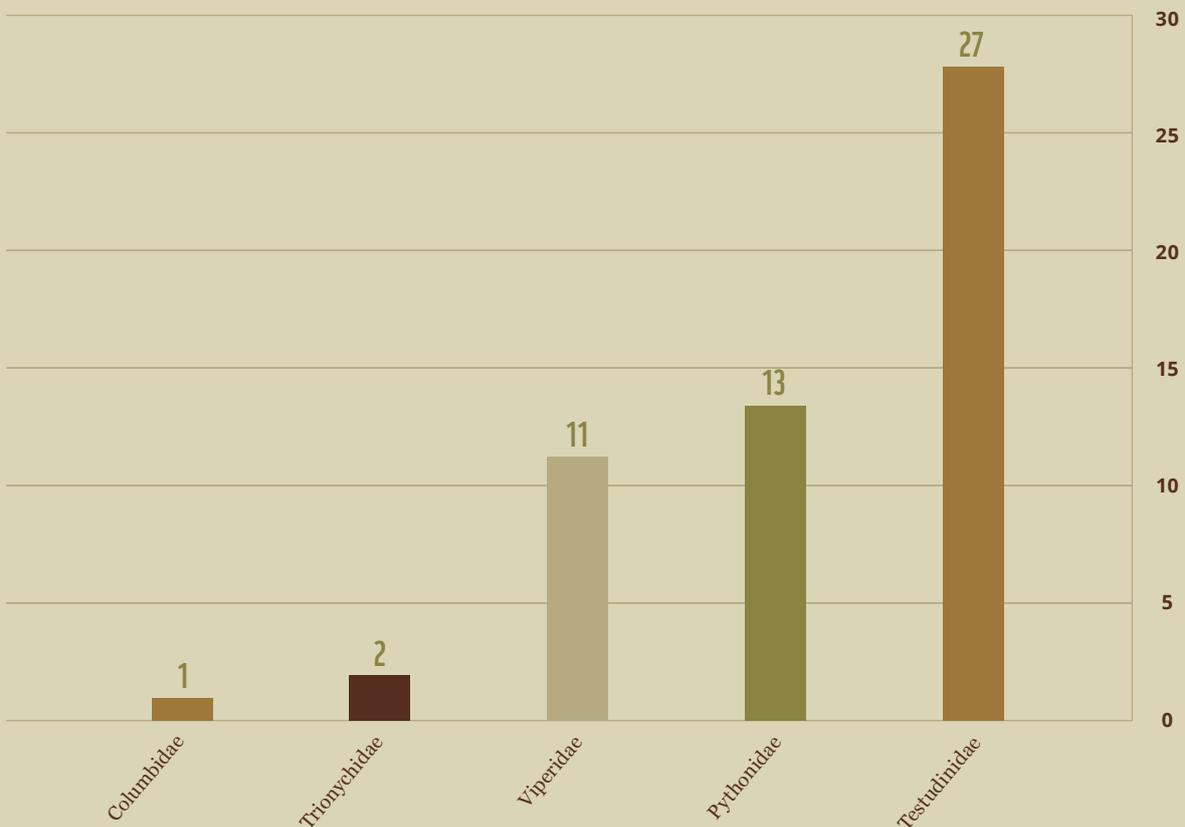


210%
INCREASE IN
REPTILE POSTS
SINCE 2020

79%
SPECIES
THREATENED
WITH EXTINCTION
IUCN RED LIST

81%
ADVERTISED
AS LIVE PETS

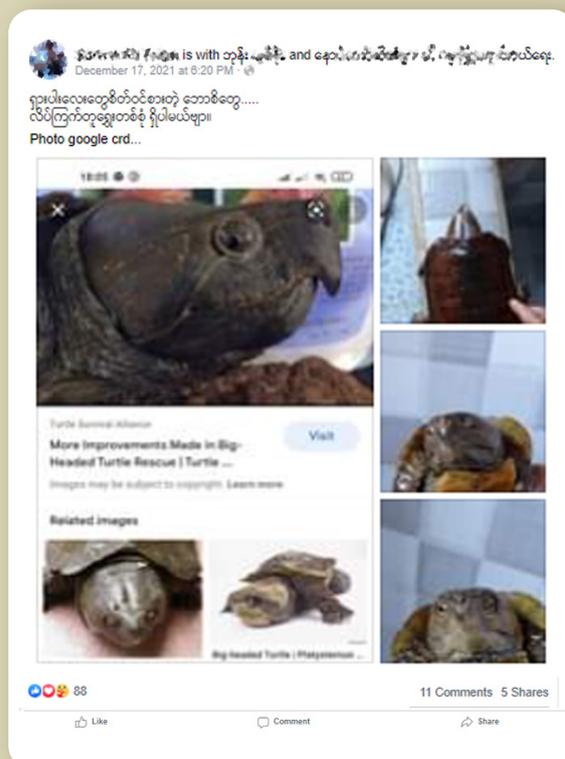
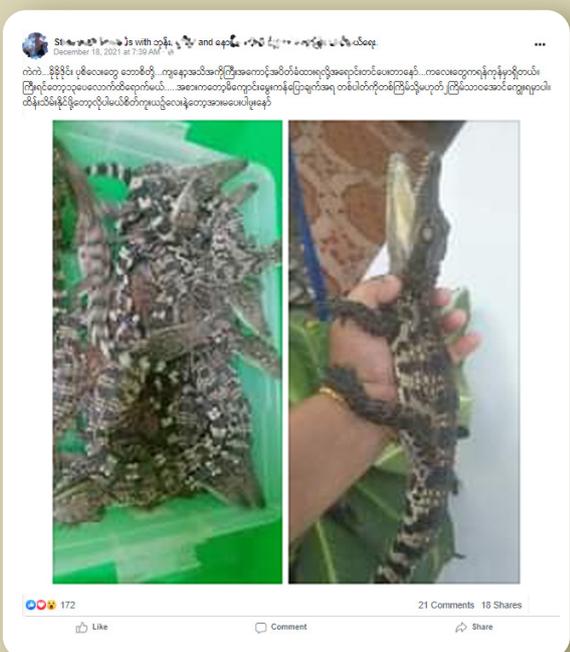
REPTILE SALES POSTS BY TOP FIVE SPECIES FAMILY



viper, of the Viperidae family – the only posts not for live pets. These viper posts were followed, at 17 per cent, by 10 posts featuring 15 live Burmese pythons (Pythonidae); at 7 per cent, by four for Asian brown tortoises (Testudinidae); and at 5 per cent, by three for reticulated pythons (Pythonidae). There were also posts

advertising 10 saltwater crocodiles (Crocodylidae) two big-headed turtles (Platysternidae), one keeled box turtle (Geoemydidae), one Burmese narrow-headed softshell turtle (Trionychidae) and one African spurred tortoise (Testudinidae).

The crocodiles were seen in a mid-December post from a trader who claimed that the animals, which were rarely seen in previous WWF monitoring, were being kept at a breeding farm in Yangon. The following month, on 10 January 2022, local media outlet Zalen reported the seizure of more than 80 wild animals, including crocodiles, at a checkpoint in Kalewa, a town in Myanmar’s north-western Sagaing Region.¹⁹ The animals, who were all alive, were being transported in a private vehicle to the Indian border town of Moreh. The news report did not mention where the wildlife came from and WWF could not confirm whether the crocodiles were the same as those advertised on Facebook.



19 <https://www.facebook.com/lal.mang.7>. “ကလေးဝမြို့အဝင်ကိတ်မှာ ရှားပါးတိရိစ္ဆာန် အကောင် ၈၀ ကျော်ဖမ်းမိ.” Zalen.info, January 17, 2022. <https://www.zalen.info>.

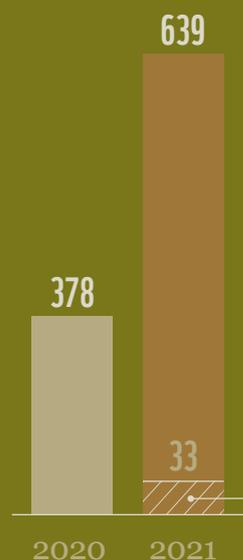
BUYERS AND SELLERS

The biggest of the eight trading groups monitored on Facebook was a bird-focused group with more than 19,000 members and hosted an average of over 30 posts a day from both regular and one-time traders. The second largest group, which was also for birds, had more than 16,000 members and the other six had between 8,500 and 1,000 members. Membership across the monitored groups increased during 2021, including for those created before the start of the year. The two groups that saw the most posts for flagship species – meaning those targeted by conservationists, including elephants, tigers, pangolins, bears and hornbills – were created in April, more than two months into the political crisis, and were open-access.

Three out of the eight groups were dedicated to wildlife trading in general, while one was confined to the trade in birds. Two other groups were for the sale not only of wildlife, but also domesticated animals as pets, and another two were for wildlife, domestic pets and livestock. Each of these groups were administered by different Facebook accounts. Compared to 2020, traders in these groups were even more brazen in advertising legally protected species, and they included pictures, videos and comprehensive written descriptions in their sale posts. Neither traders nor buyers used code words for protected species and generally referred to them by their local names.

The number of active Facebook accounts belonging to identified traders increased by 69 per cent in the course of 2021, from 378 to 639. However, the number of active accounts sank to just 33 in April – perhaps due to the political crisis and related internet restrictions beginning in February – before recovering and then exceeding the

ACTIVE TRADERS

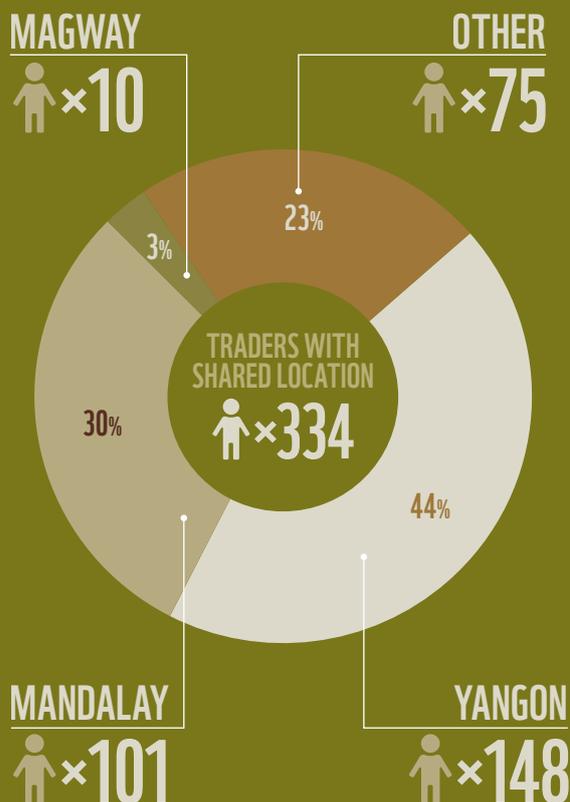


352
ADVERTISED JUST
ONCE DURING THE
STUDY PERIOD

78%
NOT SEEN
PRIOR TO 2021

33
ACTIVE ACCOUNTS
SANK TO JUST 33
IN APRIL

TRADER LOCATIONS





© WWF-Myanmar

level reached at the end of 2020. Just over half the accounts, 352, belonged to traders who were only seen advertising wildlife products once during the study period; and 498 traders, or 78 per cent, had not been seen in monitoring prior to 2021.

Just over half of identified traders shared where they were in Myanmar. Among these 334 traders, 148, or 44 per cent, said they were in Yangon Region, while 101, or 30 per cent, said they were in Mandalay Region, and 10, or 3 per cent, said they were in Magway Region. Smaller numbers of traders said they were in Sagaing and Bago regions and the capital city, Nay Pyi Taw. Although potential buyers could be seen discussing products in public comments beneath sale posts, sales were mostly negotiated in private chats, meaning actual buyers could not be quantified or located.

While the large majority of recorded sale posts were clearly intended for Myanmar's domestic market, monitors identified a traditional Chinese medicine vendor whose Chinese-language posts advertising tiger bones, rhino horns, elephant skin, deer antlers and bear gall bladders appeared to be targeting either Chinese-speakers in Myanmar or customers in China. Monitors also recorded enquiries for live bears, tigers and pangolins, as well as pangolin scales, from an individual who said they lived on the Myanmar-China border. These findings, alongside the seizure of crocodiles en route to India mentioned in the Reptiles section of this report, indicates an overlap between the domestic and cross-border wildlife trades. Although the latter was beyond the scope of this study, WWF intends to focus future studies on Myanmar's role as a source or transit country in the international wildlife trade.

TRANSACTIONS

At 1,119, fewer than half of the recorded sales posts included prices, either in the main body of the post or in the comments beneath where traders often responded directly to price enquiries from customers. Taking steps to avoid over-counting, due to some sales items recurring across multiple posts, and recording the lower of end of any fluctuation in prices, WWF calculated the total value of the 1,119 posts to be MMK158,543,136 in local currency (US\$89,169).²⁰ However, given that this only accounted for 46 per cent of all sales posts, WWF conservatively estimates the total worth of all the wildlife items it recorded in 2021 to be two to three times this amount.

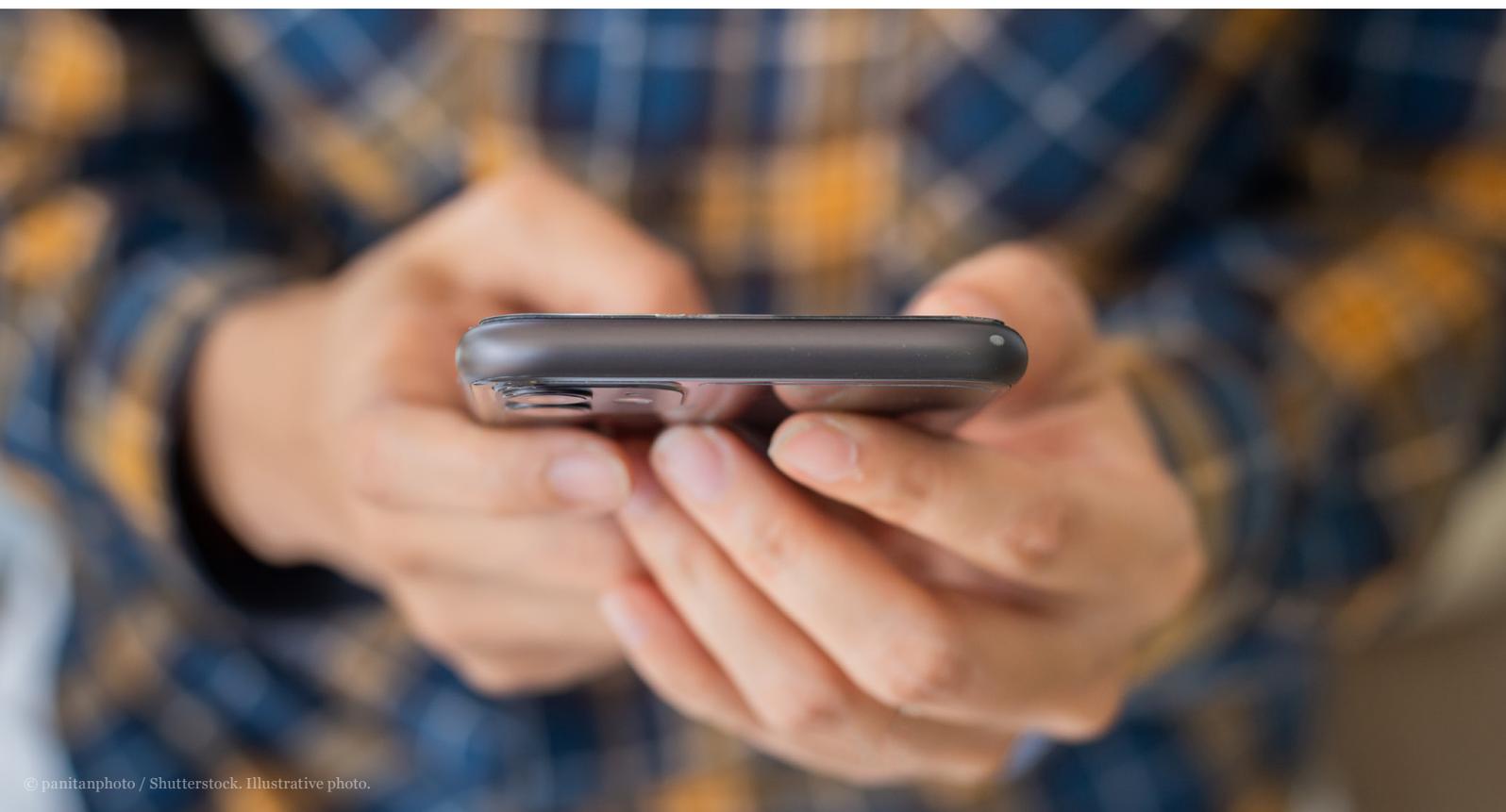
Open communication on trading groups revealed that most payments were made via mobile banking and mobile money services. The KBZPay mobile wallet application, operated by Myanmar's largest private bank, appeared to be the most popular payment medium in 2021, replacing Wave Money,

“WHEN PUBLIC BUSES WERE USED, TRADERS MADE LITTLE EFFORT TO CONCEAL THE ITEMS IN TRANSIT”

which was dominant in 2020. If buyers were not located nearby, traders would always request payment to be transferred before the items were shipped.

Open communication on trading groups also revealed a preference among traders for shipping items to customers on public buses, as in 2020. This preference persisted throughout 2021 despite the political crisis that began in February and Myanmar's

²⁰ US\$89,169 is based on the Myanmar Central Bank exchange rate of MMK1,778 on 4 February 2022.

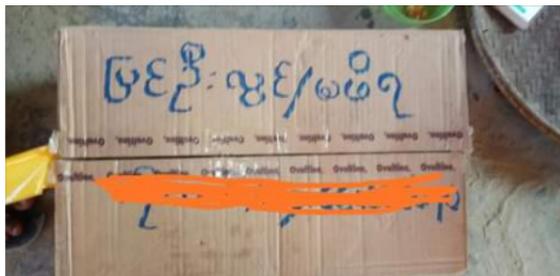


devastating third wave of COVID-19 infections between July and September, both of which made road travel riskier and prompted bus companies to reduce or suspend their services. However, in some cases, traders could be seen requesting customers to pay for a private courier, or more rarely, to pick up the items themselves.

When public buses were used, traders made little effort to conceal the items in transit. Photos shared by traders showed live animals being transported in wooden containers or plastic baskets that were full of holes, and which often came with labels such as “live animals inside” and “bird basket”. Items including big cat and bear body parts, and live gibbons and snakes, were conveyed in this way, but a small

number of products from high-value species or species whose protected status is more widely known, such as pangolins – were packaged and sent with greater secrecy.

“... LIVE ANIMALS (ARE) TRANSPORTED IN WOODEN CONTAINERS OR PLASTIC BUCKETS... WITH LABELS SUCH AS ‘LIVE ANIMALS INSIDE’...”



CONCLUSION AND RECOMMENDATIONS

Monitoring in 2021 has revealed that the illegal trade in Myanmar's wildlife on Facebook continues to grow at an alarming rate. The volume of items, the number of traders and the estimated value of the trade in local currency all increased substantially from 2020, which also saw steady growth from previous monitoring periods in 2017 and 2018.

The trade increased despite the ongoing barriers imposed by the COVID-19 pandemic, which took its heaviest toll so far on Myanmar in 2021, and the political crisis that started in February of that year, which has been accompanied by widespread internet restrictions. Rather, the political crisis may have exacerbated the trade by reducing the already weak capacity of

“THE ILLEGAL TRADE IN MYANMAR’S WILDLIFE CONTINUES TO GROW AT AN ALARMING RATE”

Myanmar authorities to enforce legal protections for the country's wildlife and natural environment. As in previous years, the trade took place largely in plain sight, suggesting widespread impunity. Traders and buyers openly discussed sales, including in open-access groups, without the use of any code phrases, and traders mostly shipped wildlife items on public buses in packaging that clearly revealed the contents.



REDUCED CAPACITY OF AUTHORITIES FOLLOWING THE POLITICAL CRISIS



WILDLIFE PRODUCTS MOSTLY SHIPPED ON PUBLIC BUSES AND CLEARLY LABELED



THE TRADE TOOK PLACE LARGELY IN PLAIN SIGHT



TRADERS AND BUYERS OPENLY DISCUSSED SALES



MOST OF THE TRADED SPECIES ARE AT RISK OF EXTINCTION GLOBALLY



GREATLY ENDANGERS GLOBAL PUBLIC HEALTH

Also consistent with previous monitoring periods, most of the traded species risk extinction globally, making Myanmar's wildlife trade a threat to the world's biodiversity. It also greatly endangers global public health, given the observed conditions of the trade often put different species in close proximity with each other and with humans. The origin of most new epidemics and pandemics is the transmission of diseases from wild animals to humans, often after passing through intermediary animals. Of particular concern, in this respect, is the trade in live mammals, birds and wild meat, all of which pose a high risk of pathogen spillover and disease emergence in humans.

Despite Facebook's policy prohibiting all live animal sales by unverified traders, the nature of the trade on the platform – with its high volume of posts and participants, and the substantial

“TACKLING THE TRADE WILL BE IMPOSSIBLE WITHOUT GREATER INVOLVEMENT AND COLLABORATION FROM THE PRIVATE SECTOR, LAW ENFORCEMENT AGENCIES, CIVIL SOCIETY AND LOCAL COMMUNITIES.”

anonymity open to buyers and sellers – makes it particularly hard to regulate and allows for virtually limitless growth. Tackling the trade will be impossible without greater involvement and collaboration from the private sector, law enforcement agencies, civil society and local communities. To this end, WWF recommends that conservation and other civil society organizations operating in Myanmar work with private companies in the tourism, logistics, finance, transport

and technology industries, with law enforcement agencies and, as appropriate, international agencies, to disrupt the illegal wildlife trade at every stage. They should also develop the capacity of their staff and members to investigate online wildlife crime and prompt social media and e-commerce companies to remove wildlife traders, trading groups and sales posts from their platforms.

These organizations are also well-placed – individually, and through the creation of working groups that could include environmental activists and citizen scientists – to research and regularly monitor Myanmar's online wildlife markets. Their findings could support demand reduction and awareness campaigns to inform members of the public about the harm posed by the trade and what they can do to stop it, including discouraging their friends, neighbours and family members from taking part.

E-commerce and social media companies, meanwhile, should regularly monitor their platforms for illegal wildlife trading – ideally through country-specific monitoring teams – and take swift action when cases are found or reported by users. These companies should also ensure that automatic detection tools, capable of blocking or flagging posts advertising illegal wildlife based on images or local-language trade terms, are expanded to include more key search terms in additional languages and made available to all country offices including those in Southeast Asia. They also have a responsibility to educate users on community standards and policies that prohibit the sale of wildlife and to ensure that regional offices have the resources to do so in local languages. They should also share information with local authorities, as well as with private logistics and transport companies, that could aid seizures, where appropriate.



Working to sustain the natural world for the benefit of people and wildlife.

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