



HOW WILDLIFE TRAFFICKING THREATENS MEXICO'S BIODIVERSITY

MERCILESS MARKETS: HOW WILDLIFE TRAFFICKING THREATENS MEXICO'S BIODIVERSITY

A Report From the Center for Biological Diversity November 2022

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Cover photo: Rescued jaguar at an animal shelter

All animal pictures in the report are real and demonstrate wildlife trafficking, as documented by the Center

Check out our webpages about this report in English and Spanish.

English: Link

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EXECUTIVE SUMMARY

exico's unparalleled biological diversity faces a profound threat from wildlife trafficking. From jaguars and sloths to sea cucumbers and giant totoaba fish, imperiled animals across Mexico are being captured illegally from the wild and sold for profit. Many are kept in cruel confinement, and death rates are high.

To assess the causes, scope and mechanisms of this growing danger to Mexico's wildlife, the Center for Biological Diversity launched a four-month-long undercover investigation. It included sting operations on social media, visits to public markets and a series of interviews with law enforcement officials and wildlife experts. The Center's investigators found the following:

- A robust digital marketplace, including on Facebook, allows wildlife to be routinely bought and sold
 illegally without limits or regulations. Howler monkeys, crocodiles, sloths, big cats and parrots, among
 others, are traded online.
- Wildlife trafficking in Mexico is out of control. A lax government system is overwhelmed by the scope of the problem, with little political will to address it.
- Most illegal transactions are carried out via social media. Many people are involved in this illicit activity because anyone can create a false profile and put plants or animals up for sale without permits.
- Mexico's conservation legislation is implicated because legally established Management Units for the
 Conservation of Wildlife (UMAs) and Farms or Facilities that Manage Wildlife (PIMVS) are part of the
 black market in wildlife. These facilities, which are regulated by the government, are increasingly likely to
 sell species that are not covered by their registration.

The Center's investigation also sheds light on the need for strong action to combat the illegal trade in wildlife, including the following steps:

- Mexico's Secretariat of Environment and Natural Resources (Semarnat) must invest time and resources
 to review the files of permits granted and to revoke the registrations of all permittees who facilitate trade
 in unauthorized species or who do not provide or implement required annual reports, inventories and
 management programs.
- The General Wildlife Law that regulates UMAs and PIMVS needs to be thoroughly reviewed, because these facilities play key roles in illegal wildlife trafficking.
- The government of Mexico and companies such as Meta should develop collaboration agreements to combat illegal traffic on social media and request support from the Scientific Division of the National Guard to detect illegal activities through the internet.
- The Federal Attorney for Environmental Protection (Profepa) must resume intelligence work to fight against illegal trafficking of species, arrest leaders of organized gangs, and dismantle warehouses.
- An ambitious program of inspection and surveillance should be launched to eradicate the illegal trafficking of species in public markets and street markets, as well as through ports, airports and borders.
- A social media campaign must be launched to dissuade users from buying wildlife as pets.
- New regulations are needed to prevent wildlife trafficking and irresponsible possession of wildlife as pets.

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Photo: Rescued jaguarundi.

INTRODUCTION

exico is a nation of incredibly rich biodiversity. It is one of 17 countries recognized as "megadiverse," which are nations that harbor between 60 and 70% of the planet's known biological diversity.

Approximately 10 or 12% of the world's known species inhabit Mexico.¹

Many of these animals and plants are unique to Mexico (i.e., they are endemic). Between 50 and 60% of known plant species, more than 40% of recorded fish species, 48% of known amphibians, 45% of reptiles, about 11% of birds, and more than 30% of mammals live only within Mexico's borders.²

However, human activities such as agriculture, livestock, urbanization, hunting and wildlife trade cause population declines and the modification, fragmentation and loss of natural habitats, at a high cost to overall biodiversity.³

Among all these threats, the wildlife trade has a direct and irreversible impact on ecosystems and their biodiversity.⁴ Millions of species around the globe face extinction in the coming decades, and exploitation (mostly for trade) is the second leading driver of species' declines.⁵

Every year in Mexico, tens of thousands of animals are extracted from the wild for commercial purposes, mainly to be used as pets or food and for their parts, including their skins. Wildlife trade has caused declines in numerous Mexican species, including the giant totoaba fish in the Gulf of California; Mexican black howler monkeys inhabiting Tabasco and Chiapas; scarlet macaw in Chiapas, Veracruz and Oaxaca; sea cucumbers taken from the Yucatan Peninsula and the Gulf of California and exported for consumption in Asia; and even tarantulas and peyote.

The capture of wildlife in Mexico also affects ancestral ecological knowledge. There are about 80 indigenous peoples in Mexico, amounting to 12.4 million Mexicans. In the humid tropical forests alone, 1,330 species of plants useful for indigenous knowledge have been identified, from which more than 3,000 products are obtained — including for medicines, food, construction materials, wood, fodder, fibers and fuels.⁷

Illegal wildlife trafficking has increased significantly in recent years, despite government efforts, because it often yields high profits but carries low risk of punishment. This illicit trade operates based on an organized network in which different levels and different members carry out specific activities, ranging from the initial capture of wildlife specimens to storage, transportation, distribution and finally sale.⁸

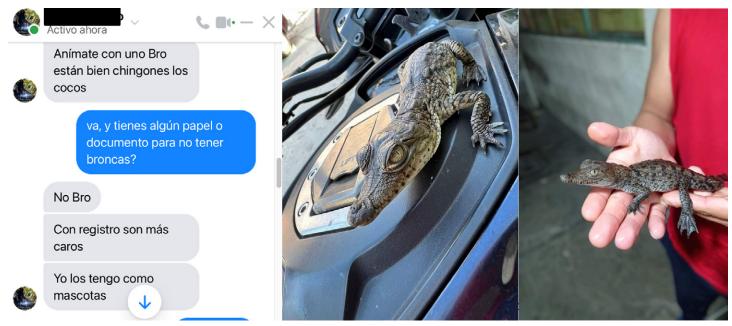
Worryingly, organized crime's involvement in wildlife trafficking has skyrocketed — with profits subsidizing other illicit activities — and the wildlife trade has become a complex problem that demands urgent measures. Illegal trade in some species has become even more profitable than the drug trade, and organized crime groups are using the same methods to smuggle products out of Mexico. The pet trade has moved to social media platforms, leading to a general uptick in online sales of illegal wildlife, products and byproducts.

This report presents a snapshot of illegal wildlife trafficking in Mexico based on official information obtained through the Federal Law of Transparency and Access to Public Information and interviews by a private investigator with traffickers of endangered wildlife species, officials, former officials and civil society organizations.

I. ONE CLICK AWAY: HOW SOCIAL MEDIA FEEDS ILLEGAL TRAFFICKING

"I am selling or exchanging, a beautiful specimen of a Mexican crocodile, serious people, not questioners, no jrks \$\$\$." This is how Juan,¹² originally from Chimalhuacán in the state of Mexico, is promoting himself on social media. He was offering two Morelet's crocodiles (*Crocodylus moreletii*) — without documentation or registration — to the highest bidder.

After a brief negotiation through Facebook Messenger, a private chat, Juan agreed to lower the price from 1,200 pesos (US\$60) to 850 pesos (US\$42) for each four-month-old crocodile.



Photos: Conversation about selling a Morelet's crocodile.

To buy and sell "protected" wild animals in Mexico, you only need to click to join or request access to public and private Facebook groups, where native, endemic or exotic fauna can be found. Many sellers offer immediate delivery, either in person or by parcel delivery.

An undercover investigation carried out by an associate of the Center between May and August 2022 found that the animals marketed on this digital platform often come from illegal trafficking, and the trade is open, easy to access and totally unregulated.

After the Center's investigator posted a fake request for some of the most-seized animal species in Mexico¹³ — including a keel-billed toucan (*Ramphastos sulfuratus*), a howler monkey (*Alouatta pigra*), an orange-fronted parakeet (*Eupsittula canicularis*) and a sloth (*Bradypus variegatus*) — offers soon arrived from Facebook groups such as Exotic Animals State of Morelos (1,100 members), Exotic Animals Zacatecas (2,300 members) and GDL Exotic Animals (2,700 members).

All four species are protected under Mexican law. The keel-billed toucan is a "threatened" species; the black howler or saraguato monkey is "in danger of extinction" and the orange-fronted parakeet has "special protection" under Official Mexican Standard 059.14 Accordingly, permits are required for the removal of these animals from the wild and for subsequent sale.

The same four species are also protected under the Convention on International Trade in Endangered Species (CITES), and under both that treaty and Mexican law, permits are required before animals of these species may be imported to or exported from Mexico.

Through Facebook Messenger, Pedro¹⁵ — originally from Durango, Mexico — offered a keel-billed toucan for 12,000 pesos (US\$600) and a black howler monkey for 18,000 pesos (US\$900), with a shipping cost of an extra thousand pesos (US\$50) for each animal.



Photos: Howler monkey and toucans photos sent by the seller.

When questioned about the origin of the animals, he acknowledged that he does not have any record or document that proves their legal origin:

"No, that's the only problem with Mexican animals," he replied. "The black howler monkeys don't have papers, friend, because they are endangered animals, and there are no papers."

For the keel-billed toucan, do you have papers? he was asked.

"No, friend — toucans don't have papers either. Animals with papers go up a lot in price," he explained.

Pedro revealed that, once the negotiation was concluded and he received the payment, the black howler monkey and the toucan would travel from the southern region of the country to Mexico City.

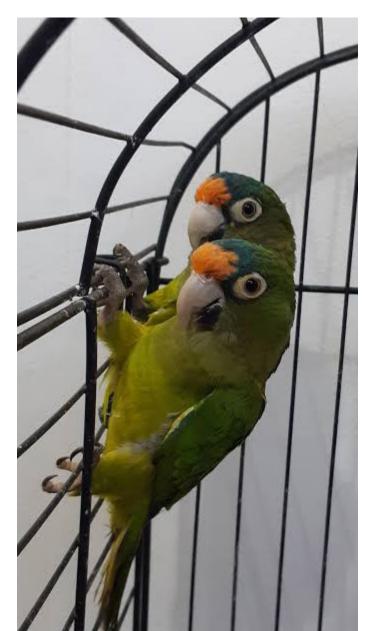
"I have a supplier in the south, and that supplier takes them by land in trucks," he said. "I warn you, then they arrive at such hours and you go there and they give you your animals."



Audio on how to send the animals: Listen

Translated transcription: "I have a supplier in the south, and this supplier . . . takes them by land, that is, by truck, and claims that the trucks arrive at such hours and you get there and they hand over the animals, and this is how this is handled."

In a separate conversation, Ricardo 16 — a vendor from Cuernavaca, Morelos — offered orange-fronted parakeets for 1,000 pesos (\$500) each, selling them wholesale.







Photos: Orange-fronted parakeets photos shared by the seller.



Video of orange-fronted parakeets sent by the seller: Watch

When asked to name a price for 10 orange-fronted parakeets with shipment to Mexico City, he offered to deliver them personally for an extra 600 pesos (US\$30) each to help cover the cost of gasoline and crossing the Tlalpan toll booth where the Mexico-Cuernavaca highway begins.

He explained that the parakeets would travel in cardboard boxes inside the trunk of his car and that the total cost would be 10,600 pesos (US\$530). Sale of this parrot species was prohibited in 2008 based on a decree banning the capture, import, export and sale of all 22 parrot species native to Mexico.¹⁷

It is estimated that more than 78,000 parrots are illegally captured each year in Mexico. Of these, 77% die before reaching the final consumer, which means the trade kills around 60,000 parrots annually.¹⁸

TORN FROM THEIR MOTHERS' ARMS

Roberto¹⁹ is represented on social media as the owner of the Exotic Paradise hatchery,²⁰ located in Chignahuapan-Zacatlán, Puebla. His business card sent via Messenger indicates that he is involved in the sale of exotic animals through the Facebook page "Pimvs Exotic Paradise." The category of the page is registered as "animal shelter."

However, the General Directorate of Wildlife of the Ministry of Environment and Natural Resources (Semarnat) database²¹ reveals that the registration number really belongs to the "Xaman" hatchery ("The God who guides," in Mayan), located in Tuxtla Gutiérrez, Chiapas.

According to official data, the holder of the "Xaman" permit, in force since 2019, is Alejandro²² who has authorization to market the royal python (Python regius), veiled chameleon (Chamaeleo calyptratus), panther chameleon (Furcifer pardalis), African pygmy hedgehog (Atelerix albiventris) and leopard gecko (Eublepharis macularius).



Photo: Business card sent by the seller.





Photos: Facebook profile of the seller "El Diablo Rivera."

In his Facebook profile, the man who apparently only uses the Exotic Paradise name as a cover wears a police uniform, carries long weapons and claims to be "Region Commander in the Secretary of Security of the State of Mexico." He is nicknamed "El Diablo Rivera."

In a long conversation with the Center's investigator over several days, Roberto offered to sell a sloth brought directly from the United States. At first, the alleged state policeman promised a one-week-old sloth, which was still hanging from its mother's body, supposedly with papers in order, for 40,000 pesos (US\$2,000). But later he proposed bringing it illegally across the border into Tamaulipas and lowering the cost to 35,000 pesos (US\$1,750).

According to what was indicated, the documentation that Roberto first said would be delivered at the Mexico City International Airport (MEX) was a simple import petition sheet, ²³ although import of the sloth, being an exotic animal and one of the most valued for illegal trafficking, ²⁴ requires an export certificate or permit issued under CITES (the Convention on International Trade in Endangered Species).

Sadly, between 80% and 90% of sloths that are trafficked die. Babies are taken from their mothers, often violently, and are then often malnourished, cramped in cages and physically abused. In many cases their claws are cut to prevent them from hurting humans — a terrible cruelty, since sloths depend on their claws for crucial natural behaviors such as hanging from trees.²⁵



Photo: Sloth offered by the seller.

"Here in Mexico, upon arrival at the airport, Customs receives the animal and verifies the documents, so that everything is correct," said the seller.



Audio about the sloth: <u>Listen</u>

Transcription: "As I tell you that it is small and he has not registered it yet dude, that's why he can't send it to me by plane dude, I have to go to the Tamaulipas border for him, for him, he takes it to me there to the border and I pick it up, I pay for it and I bring it to Mexico, but clandestine, man, I mean, he's not going to give you any document, man, because it's not registered yet. I'll bring it to you just like the monkeys' man, I mean illegal, obviously it's cheaper man, it's cheaper than what I told you, so illegal man it costs 35 thousand pesos [US\$1,750] man, but well I have to go there man, if you want I'll bring it to you like this, dude."

The three-toed sloth (Bradypus variegatus) is native to Central and South America. The International Union for Conservation of Nature (IUCN) has found that illegal trade in this sloth species is increasing, causing concern for wild populations.²⁶ In addition, the sloth is listed in Appendix II of CITES, so its trade must comply with strict national and international controls.

CITES statistics show that between²⁷ 2016 and 2022, there were no authorized exports of either live animals or parts or derivatives of sloths recorded, so the export of the animal was unpermitted and thus illegal.

Roberto also showed us videos and photos uploaded to his Instagram and TikTok, where more animals could be seen, including a one-and-a-half-month-old howler monkey who was still being bottle-fed.



Video of baby howler monkeys sent by the seller: Watch



Video of a baby hower monkey drinking from a bottle: Watch

He indicated that the small monkey was in the possession of a vendor in Mexico City, who was offering it for 50,000 pesos (US\$2,500), but that the price could be negotiated.

Regarding the documents of the black howler monkey or saraguato, he admitted that breeding is illegal because it was captured in the wild: "It is a captured saraguato, and surely to get it they had to kill their mother, because they are very aggressive and defend their babies a lot," he said.



Audio about the howler monkeys: Listen

Transcription: "I am going to speak to you sincerely, my friend, the spider monkey, the saraguato monkey [howler monkey], doesn't have documents of legal origin, since no authority — neither Semannat nor Profepa – grants you those documents, if you want to check the special protection status that it has the Secretary of the Environment, the spider monkey and the saraguato or howler monkey as it is known, are protected because they are in danger of extinction. In other words, there are no documents of legal origin, and those that come to be of howler monkeys and



Photo: Photograph sent by the seller of a one-and-a-half-month-old howler monkey.

black howler monkey are only those that are in the zoo or in UMAs, but those are not for sale; those reproduce within the same UMA zoos and they cannot be marketed, so practically I get the animal from outside, which is why the price, because if you were to find it with documents or some zoo or UMA sell it to you, it will not go below 150,000 pesos [US\$7,500] for the documents. If, in a given case you will find it, because I have been with the PIMVS for about five years, six years with it, I have not found a UMA or a zoo that sells them."

LEGISLATION

The trafficking or illegal trade of wild plants and animals is a crime in Mexico under article 420, sections IV and V, of the Federal Penal Code. It is punishable by one to nine years in prison and a fine equivalent to 300 to 3,000 days of a convicted person's income. A day's fine under the Code is equal to the net daily earnings of a sentenced person at the time of committing the crime.

The Code establishes that an additional penalty of up to three more years in prison and up to an additional 1,000 days of fine must be applied when the crime is carried out in a protected natural area or for commercial purposes.

RESTRICTIONS IN META

As of February 2022, Meta — the company of Mark Zuckerberg, CEO of the Facebook social network — had around 89.7 million users in Mexico; Mexico numbers fifth in number of user profiles worldwide.²⁸

Meta's current terms and policies state that Facebook posts "may not promote the buying or selling of animals or animal products." In addition, commercialization of any product or part of threatened or endangered animals — such as leather, fur, hair or wool, bones, teeth, horns, ivory, taxidermy pieces, organs, external limbs, secretions or carcasses — is prohibited.

Wildlife Conservation Units or UMAs are registered properties and facilities that operate in accordance with a government-approved management plan and monitor species therein (LGVS, Art. 3). There are two types of UMA management: free-living (or extensive) and intensive (LGVS Regulations, Art. 2, 24). Free-living management applies to species living in natural conditions, without restrictions on their movements. Intensive management is for wild species held in captivity or confined conditions (LGVS, Art. 3).

On the other hand, farms or facilities that manage wildlife (PIMVS) are intensive farms, nurseries, botanical gardens or the like that manage wildlife in a confined manner for the purpose of controlled reproduction for commercial purposes (LGVS Regulation, Art. 2). They may only operate if they have management plans authorized by the Ministry of the Environment and Natural Resources (LGVS, Art. 78).

Photo: Rescued tortoise





Photo: Trafficked green iguana.

II. WHERE AND HOW TRAFFICKING HAPPENS

With information obtained through the Transparency Law,³⁰ the Center for Biological Diversity attempted to identify the states where species are illegally captured or collected, the distribution and commercialization routes and the modus operandi of the organized criminal gangs dedicated to this illicit activity.

According to the Federal Attorney for Environmental Protection (Profepa), based on monitoring data, complaints and reports for the illegal sale of animals or plants, parts and derivatives, the primary states in which illegal wildlife collection is occurring are Campeche, Chiapas, Tabasco, Yucatán, Veracruz, Oaxaca, Guerrero, Puebla, Jalisco, Nayarit and Sinaloa. Regionally, the Upper Gulf of California and Cuatro Ciénegas de Carranza stand out.

Animals and plants taken from the wild are mainly transported by land (highways) and to a lesser extent by air to Guadalajara, Monterrey, Tijuana, Mérida, Celaya, Reynosa, Ensenada and Mexico City, "where it is presumed that . . . distribution and commercialization takes place," according to Profepa.

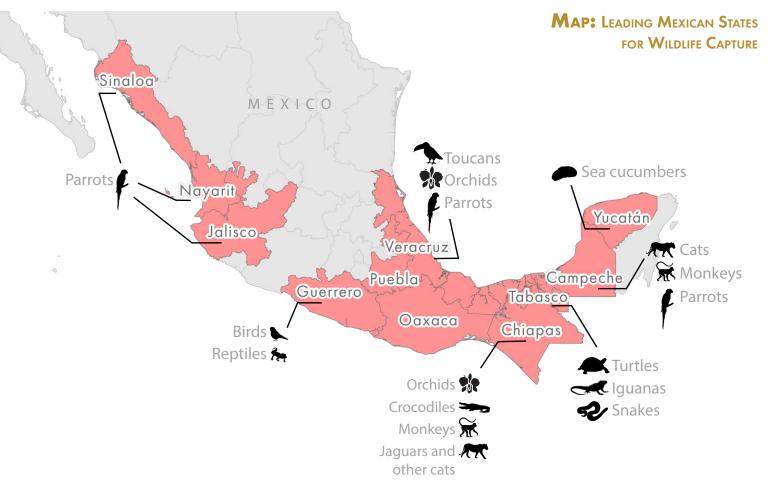




Photo above: Parrots for sale. Photo below: Cactus for sale.

It's a Menagerie

An array of animals and plants are highly sought for the wildlife trade in Mexico. Among the top species are:

- Monkeys for pets, including the three varieties of monkeys found in Mexico: spider monkey, howler monkey and black howler monkey.
- Six species of cats: jaguar (Panthera onca), ocelot (Leopardus pardales), margay (Leopardus wiedii), jaguarundi (Herpailurus yagouaroundi), cougar (Puma concolor) and wild cat (Linx rufus).
- 23 species of Psittacids, mainly the scarlet macaw (Ara macao), green macaw (Ara militaris), yellow-headed parrot (Amazona oratrix), orange-fronted parakeet (Eupsittula canicularis) and white-fronted parakeet (Amazona albifrons).
- Lizards of the genus Abronca spp. and Barisia spp. known as little dragons and scorpions, in addition to the green iguana (Iguana iguana), black iguana of the genus Ctenosaura spp. and the Gila monster of the genus Heloderma spp.
- Constrictor snakes such as the mazcuata (Boa constrictor), rattlesnakes of the genus Crotalus spp. and snakes of the genus Lampropeltis spp.
- Tortoises of the genera Trachemys spp., Terrapene spp., Copherus spp., Kinosternon spp., Staurotypus spp. and Claudius spp.
- Birds of prey: golden eagle (Aquila chrysaetos), red-tailed hawk (Butco jamaicensis), Harris's hawk (Parabuteo inincinctus), American kestrel (Falco sparverius), peregrine falcon (Falco peregrinus), great horned owl (Bubo virginianus) and barn owl (Tyto albo).
- Marine species: Totoaba fish (Totoaba macdonaldi), sea cucumber of the genus Isostichopus spp., Holothuria spp., seahorses of the genus Hippocampus spp. and some corals.
- Plants such as the case of cacti of the genera Mommillaria spp., Aztekium spp., Cephalocereus, Echinocactus spp., Astrophytum, Coryphanta spp., Ceohintonia spp. and Lophophora spp. and some species of orchids, palms and sotoles (Dasylirion spp). Also African blackwood, rosewood and cocobolo of the genus Dalbergia spp., cedars of the genus Cedrela spp. and some pines of the genus Pinus spp.³¹



According to the Ministry of the Environment and Natural Resources (Semarnat), the fundamental driver of the demand for wildlife species is social status: "Opportunistic buying motivated by the desire to own exotic pets, hunting trophies, and rare plants and animals, as well as the acquisition of byproducts in the form of handicrafts and jewelry are examples of associated social status-driven demand." Medicinal value attributed to many products of animal or plant origin is the secondary driver.

ILLEGAL TRAFFIC IN THE AIR

According to a recent report by the Center for Advanced Defense Studies (C4ADS),³³ Mexico is one of the main consumer and export countries of wildlife specimens, products and byproducts that move illegally by air in Latin America and the Caribbean. Between 2010 and 2020, 36% of documented wildlife trafficking cases by air in the region occurred in Mexico.³⁴

Most of the air-based wildlife trafficking activities involved the smuggling of the swim bladder or "buche" of totoaba fish (Totoaba macdonaldi), which left the country hidden in checked luggage. And despite the dramatic reduction in flights due to the Covid-19 pandemic, "wildlife traffickers in Mexico continued to exploit the air transport sector to send Totoaba bladders abroad."

According to the report's review of documented air seizures, 50% of the regional trafficking was destined for importation into Mexico, mainly of lizards, lizards, snakes and big cat products, while illegal exports from Mexico were mostly of protected marine species.

C4ADS's investigation further shows that criminal groups in Mexico are mainly engaged in drug and human trafficking but have become more active in the illicit wildlife trade to diversify their sources of income.³⁵



Photo: Totoaba.

III. SUCCESS STORIES: COMBATING THE MONSTER WITH A THOUSAND HEADS

Wildlife trafficking has extended its tentacles to the internet, particularly to social networks, where the largest amount of activity of illegal sale of plant and animal species in Mexico is currently recorded.

An investigator for the Center talked with an acting inspector from the Federal Attorney for Environmental Protection (Profepa), whom we will call "Jacobo" to preserve his anonymity. Jacobo told us that ads to market endangered animals and plants are rampant on Instagram, TikTok and Facebook.

He recalled that the first indications that this crime was moving online occurred between 2010 and 2014, a period in which Profepa notified the then-Attorney General of the Republic about the existence of 500 cases, which triggered 13 investigations and nine inspection visits.

This resulted in the seizure of 424 wildlife specimens and the arrest of a man named Alejandro Landeros Ortiz, who was sentenced to serve a six-month prison sentence after it was verified that he trafficked birds and reptiles on the internet. A trafficker named Aldo Alfonso Galicia was also sentenced by a federal judge to two years and six months in prison for the use of social networks to market protected species.

In 2014 the companies JD Reptiles and JD Exotics, which were promoted on Facebook pages, were sanctioned with the payment of a fine of more than 3 million pesos (US\$150,000) for not accrediting the legal origin of more than 380 specimens.³⁶

As part of the Mexican government's efforts to curb illegal wildlife trafficking over the internet, in July 2014 Profepa signed a collaboration agreement with <u>Mercado Libre</u>, a leading company in electronic commerce in Mexico and Latin America, to carry out permanent monitoring of the sale of wildlife on its platform and the immediate withdrawal of advertisements that do not comply with environmental legislation.³⁷

Until the beginning of 2019, says Jacobo, an inspector with extensive experience, there was a special group within Profepa that was dedicated to creating false profiles to interact daily on social networks with alleged traffickers and request catalogs of the plants and animals that were for sale illegally. But with the change of administration this group disappeared.

"The information that was collected was sent to the then Scientific Division of the Federal Police, which searched for the user and his whereabouts, in order to later set up operations and be able to dismantle the gangs dedicated to illegal wildlife trafficking," Jacobo said.

WANTED

From January 2015 to April 2022, Profepa seized 127,045 animals and plants protected under the Official Mexican Standard 059 or CITES from a list of the 32 most trafficked species in national territory.³⁸

Incredibly, Profepa does not know the fate of more than 97% of the animals rescued from illegal trafficking — around 123,290 animals — according to its own records.³⁹ After the animals were discovered, at least 487 were held by the alleged offenders. Thus, over eight years, jaguars, lions, tigers, totoabas, crocodiles, iguanas, macaws, toucans, spider monkeys, saraguatos, turtles, sea cucumbers, salamanders, geckos, iguanas, eagles, tarantulas and parakeets have disappeared, in addition to plants such as elephant foot palm, soyates, barrel cactus and a great variety of orchids.

OVERFLOWING TRAFFIC

Jacobo, the Profepa inspector, stressed that along with the increase in violence in Mexico and the strengthening of organized crime gangs, there has been a rise in the illegal trafficking of species — especially of big cats, who are seen as symbols of bravery, power and status among drug kingpins.

He pointed out that in searches of farms, residences and ranches owned by organized crime members, it is common to find exotic animals such as African lions, Bengal tigers or leopards, as well as native cats such as jaguars, pumas or jaguarundis.

Jacobo warned that, given the high levels of impunity, there are also many people who, due to fashion or imitation, acquire these animals on the black market, but due to the lack of sufficient resources for the animals' care, food and care, end up abandoning them.

In an interview, Erika Ortigoza, executive director of the <u>Invictus Foundation</u>, recalled the emblematic case of "Kiro," an African lion cub rescued in April 2022, in the municipality of Ecatepec, state of Mexico. The cub was found wandering the streets of the Las Américas subdivision, without carrying a chip identifying it as a specimen from a farm registered with the Ministry of Environment and Natural Resources (Semannat).



Photo: Kiro the lion.

According to the findings of veterinarians, Kiro suffered from malnutrition, malformations in his limbs and severe injuries to his skull due to contusive blows that had practically left him blind. In addition, it is believed that the little lion lived chained in a garden because he had a neck injury and his intestines were clogged with balls of grass, which he ate out of hunger. The activist also said that the animal had its claws removed and its fangs cut and filed in an unorthodox and very painful way.

Now the director of the Invictus Foundation works on the rehabilitation of Kiro so that he can be sent to the largest and oldest sanctuary for large carnivores in the world, <u>Wild Animal Sanctuary</u>, located in Denver, Colorado.

The idea is that soon the lion cub can run free, joining 60 big cats that Erika Ortigoza Vázquez rescued from illegal wildlife trafficking in Mexico.

In the past eight years, Profepa seized 243 Bengal tigers, 157 African lions, 153 jaguars, 4,037 Morelet's crocodiles, nine golden eagles, 216 spider monkeys and 37 saraguato monkeys, which are among the most valued species among drug kingpins.⁴⁰

A QUESTION OF JUSTICE

The Attorney General's Office (FGR) revealed that, from January 2015 to March 2022, it opened preliminary investigations or investigation files in 782 cases of illegal trafficking, illegal possession or illegal use of the list of 32 species of protected plants and animals.⁴¹

As part of these investigations, 697 alleged environmental criminals were arrested, of which only 474 were prosecuted, which represents an effectiveness rate of 68%.

Among the animals most commonly involved in FGR's illegal trafficking investigations were:



(1) **SEA CUCUMBERS:** Brown sea cucumber (Isostichopus fuscus), chocolate chip sea cucumber (Isostichopus badionotus) and Florida sea cucumber (Holothuria floridana) appear the most in the FGR files, with 200 preliminary investigations or investigation files, 293 people arrested and 176 people prosecuted.



(2) TOTOABA (*Totoaba macdonaldi*), an endemic fish from the Upper Gulf of California, with 87 preliminary investigations or investigation files, 95 people arrested and 48 people prosecuted.



(3) TERRESTRIAL OR FRESHWATER TURTLES, including the mud-turtle (Kinosternon leucostomum), musk turtle (Staurotypus triporcatus), slider turtle (Trachemys spp.) and narrowed bridged musk turtle (Claudius angustatus), with 76 preliminary investigations or investigation files, 49 people arrested and 45 people prosecuted.



(4) GREEN IGUANA (Iguana iguana), with 71 preliminary inquiries or investigation files, 47 people arrested and 39 people prosecuted.



(5) MORELET'S CROCODILE (Crocodylus moreletii), with 49 preliminary investigations or investigation files, 26 people arrested and 17 people prosecuted.

Other species involved, in descending order, include the orange-fronted parakeet (Eupsittula canicularis), keel-billed toucan (Ramphastos sulfuratus), Bengal tiger (Panthera tigris), seahorse (Hippocampus spp.), African lion (Panthera leo), white-fronted parakeet (Amazona albifrons), peyote (Lophophora williamsii), spider monkey (Ateles geoffroyi), barrel cactus (Chinocactus platyacanthus and Ferocactus histrix), black iguana (Ctenosaura pectinata), jaguar (Panthera onca), chameleon (Phrynosoma asio, Phrynosoma orbiculare and Chamaeleo calyptratus).

Other species include the golden eagle (Aquila chrysaetos), howler monkey (Alouatta pigra and A. palliata), green macaw (Ara militaris), rattlesnake (Crotalus horridus and C. sp.), gecko (Eublepharis macularius and Family Gekkonidae), salamander or axolotl (Ambystoma mexicanum and A. velasci), queen conch (Lobatus gigas), red knee tarantula (Brachypelma smithi), three-toed sloth (Bradypus variegatus), orchids (Lycaste skinneri, Prosthechea citrina and Laelia speciosa), elephant foot palm (Beaucarnea recurvata), Gila monster (Heloderma suspectum), caracara (Caracara cheriway), and Harris's hawk (Parabuteo unicinctus).⁴²

IV. UNDER THE RADAR: LEGAL COLLECTIONS OFFER COVER

Mexican law allows some protected wildlife specimens to be sold through 73,153 Management Units for the Conservation of Wildlife (UMAs) and in the so-called Farms or Facilities that Manage Wildlife (PIMVS). These designated facilities/areas must be registered with the Ministry of Environment and Natural Resources (Semannat).⁴³

Semarnat's current register of the General Directorate of Wildlife (DGVS) shows there are 3,071 Intensive UMAs in Mexico, including hatcheries, aquariums, zoos, nurseries and botanical gardens that hold the species of flora or fauna in captivity.⁴⁴

In addition, Semarnat lists 28,593 Extensive UMAs registered with the DGVS and 39,839 Extensive UMAs registered in the federal delegations in the states. Species at Extensive UMAs roam free in large estates in their native range, for example, at hunting ranches.⁴⁵

A total of 1,650 PIMVS are registered. These private collections or facilities hold exotic species confined outside their native range. Because the species do not exist in the wild within Mexico, they are not subject to recovery programs for their subsequent integration into the wild.⁴⁶

According to the information provided by the DGVS, the state with the most UMAs and PIMVS is Tamaulipas, with 12,177, followed by Chiapas with 2,296, Jalisco with 2,215, Veracruz with 2,087, Michoacán with 1,622, Morelos with 1,215, the state of Mexico with 1,184, Yucatan with 654, Quintana Roo with 624, and Mexico City with 471.47

The species found in the highest number of UMAs and PIMVS are the green iguana (311), freshwater turtles (262), elephant foot palm (224), green macaw (177), black iguana (151), Harris's hawk (144), rattlesnake (137), jaguar (129), Morelet's crocodile (121), keel-billed toucan (117), white-fronted parakeet (117), biznaga (112), African lion (107), Bengal tiger (102) and orange-headed parrot (100).⁴⁸

According to environmental legislation, the UMAs and PIMVS must have a management plan authorized by Semarnat and submit an annual activity report — a law with which very few hatcheries, zoos or hunting ranches fully comply. This results in mismanagement of wildlife due to the lack of inspection and surveillance operations by Profepa.

Species Laundering

In Mexico, animals rescued from illegal trafficking that are delivered to the UMAs or PIMVS for attention, rehabilitation and care may reenter the black market, Joel González Moreno, the former general director of Inspection and Surveillance of Wildlife, Marine Resources and Coastal Ecosystems of Profepa, acknowledged in an interview.

González Moreno, the senior official of the past federal administration, recalled that, although the General Wildlife Law prohibits the sale of seized animals, sales nonetheless occur when wildlife marking goes unverified or when facilities fail to include wildlife in the inventory that hatcheries or botanical gardens must submit to Semarnat as annexes to their annual activity reports.

"If the marking system is not complied with and the registry is not carried out to achieve the traceability of the specimens, we are talking about laundering of species," he warned. The marking can be done with subcutaneous microchips, metal rings, earrings, staples or labels, which contain all the information about the protected animals and plants.

González Moreno, who from 2010 to 2019 led operations to combat wildlife trafficking, explained that there are different ways to turn illegal animals into legal ones overnight.

"It is a reality in Mexico that there is laundering of species, and it can occur with specimens that are illegally captured in the wild, that reach the UMAs or PIMVS and are incorporated into their collections and included in their inventories as births in captivity, and in other cases, with specimens reproduced within the UMAs or PIMVS, which are not reported in inventories or in the applications for use to avoid paperwork, and which are sold without documentation," he explained.

LACK OF BUDGET

Animals and plants rescued from illegal wildlife trafficking almost always end up in farms, zoos, nurseries or private collections that are registered as UMASs or PIMVS. Semarnat cannot take charge of the animals' care in designated Centers for the Conservation and Research of Wildlife (CIVS), which are under Semarnat's administration, due to budget limitations.

In response to an information request, ⁴⁹ Semarnat claimed that 11 of the 13 CIVS were closed throughout Mexico in recent years due to administrative needs "derived from budget and personnel adjustments to which the federal government was subjected."

Now only two Centers for Wildlife Conservation and Research remain in operation. The Centers can only receive animals for a short time to assess their health status and decide whether they can be released into the wild or require placement in a UMA or PIMVS.

The two remaining Centers are located in the municipality of Los Reyes La Paz, in the state of Mexico, and the municipality of Villa Tututepec de Melchor Ocampo, in Oaxaca. The two shared a joint budget of just 1.4 million pesos (US\$70,000) in 2020.

PROVIDING COVER

It is increasingly common for the UMAs or PIMVS to sell species that are not covered by their registration with Semarnat, violating the General Wildlife Law. One example is the hatchery Exotic Birds Saint Lucia, located 10 minutes from Uruapan, Michoacán, which illegally markets keel-billed toucans.

"Toucans are, in addition to being exotic and majestic, a pet that will beautify your garden; you will be the envy of your visitors," says the website of Aves Exóticas Santa Lucía, founded in 2010.



Photo: Toucans offered online.

When a Center investigator called the telephone number that appears on the hatchery's site to request information, a man confirmed that facility was selling male and female keel-billed toucans of the species *Ramphastos sulfuratus*, "which is the one with many colors."

The price of a pair of toucans was 30,000 pesos (US\$1,500), but the female or the male could also be sold separately for 15,000 pesos (US\$750), plus shipping costs to any part of Mexico.



Audio about the toucans: Listen

Transcription: "It is the multicolored toucan, the one with the multicolored beak. If it is the one with the keel beak, it is called *Ramphastos sulfuratus*, which is the one with many colors."

"To Mexico City, 2,500 extra pesos [US\$125] are charged, for the round-trip bus ticket of the person who will deliver the toucan to the buyer's address, the processing of a zoosanitary guide for the transfer and the box where the bird will be transported," commented the seller.

The specimens marketed were approximately two years old and took three to four days to reach the buyer, once the bank deposit was confirmed.

According to the representative of Aves Exóticas Santa Lucía, "the toucans are completely legal, since they carry a marking ring on their leg and a bill of sale is delivered with the full name of the hatchery, all the data from the registry with Semannat, RFC, address, telephone and the description of the specimen, so that there is no problem."

When questioned about the minimum conditions of space or attention that should be provided to the specimen, he said they only guide customers on the type of food that the bird requires.

"There are those who have a cage in their garden; we have a client who put a roof on his patio and bought macaws from us and keeps them there; there are people who have toucans as a pet inside their house, and they only put a stick by them at night so they can sleep, that just depends on each person," he said.



Video of a toucan sent by the seller: <u>Watch</u>

Exotic Birds Santa Lucía apparently has the current registration "DGVS-PIMVS-CR-IN-1172-MICH/10" as part of its "commitment to ecology and the conservation of endangered species." However, in reviewing public access databases, the hatchery only has permission to manage white swans, silver pheasants and peacocks as a Farm or Facility that Manages Wildlife (PIMVS).

The Center's investigator then requested detailed information from the Ministry of the Environment and Natural Resources (Semarnat),⁵⁰ which confirmed that Aves Exóticas Santa Lucía does not have authorization to breed keel-billed toucans, much less to sell them.

The General Directorate of Wildlife (DGVS) of Semannat further revealed that, when reviewing the hatchery's file to respond to our request for information, it realized that the PIMVS operates outside the norm, since it has not updated its management plans or submitted its activity reports, without specifying since what year.

Given this situation, the DGVS sent a notification to the citizen Arturo Troyo Escobedo, informing him about the revocation of his registration "DGVS-PIMVS-CR-IN-1172-MICH/10."

In the letter, dated April 1, 2022,⁵¹ Semarnat states that it decided to withdraw the registration "for not complying with the presentation of reports of conservation activities and sustainable use of wildlife and not having presented the update of the management plan, in compliance with the Third Transitory article of the Decree by which various provisions of the Regulations of the General Wildlife Law are reformed and added."

However, the website <u>exoticbirds.com.mx</u> continues to operate, and although it no longer has toucans on display, it offers cotton-headed tamarins, lion-headed monkeys, cockatoos and parakeets, now with a supposedly new Semarnat registration number of 09/K2-0026/22/13.

V. PUBLIC MARKETS: IN THE BOWELS OF ILLEGAL TRAFFICKING

Mexico City is the epicenter of wildlife trafficking in Mexico. It is where most of the direct marketing of plants and animals taken from the wild is carried out, reaching warehouses and homes in its boroughs of Iztapalapa, Cuauhtémoc, Venustiano Carranza, Gustavo A. Madero, Azcapotzalco and Xochimilco, for later distribution.

The key destinations for exhibition and sale of wildlife in Mexico City are traditional markets like Mercado de Sonora, New San Lazaro Market, Fish and Pet Market "Alfredo Robles Domínguez," Madreselva Plant and Flower Market and Cuemanco Plant and Flower Market, among others.



Photos: Trafficked species are sold in the markets of Sonora and Nuevo San Lázaro.

Undercover investigators for the Center visited the corridors, stores and surroundings of these popular supply centers between May and September 2022 to document animals' trade and treatment.

The visits had to be conducted undercover, as the facilities employ people as "hawks" to monitor and alert traders about possible inspection operations and prevent onlookers from taking pictures or reporting any suspicious activity. The harassment exerted by these "hawks" when they detect people documenting the wildlife or asking uncomfortable questions becomes very aggressive, intimidating and even violent.

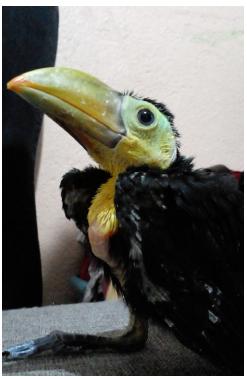
In these public markets, animals protected by the Official Mexican Standard 059 or the CITES Convention can be seen openly offered for sale. These mainly include reptiles (snakes, turtles, geckos and crocodiles), birds in the family Psittacidae (parrots, parakeets and macaws) and birds of prey (Harris's hawks, hawks and kestrels) and amphibians (axolotls, salamanders and frogs).

Plants abound, including large elephant feet palm, peyotes, barrel cactus or biznagas and all kinds of cacti, as well as orchids still attached to the trunk or bark of the tree.

If a patron is looking for a particular species that is larger, exotic or difficult to access, such as an African lion, Bengal tiger, jaguar, puma, jaguarundi, ocelot, sloth or black bear, the sellers have catalogs that they distribute through the internet, on social networks and in WhatsApp groups, with home or parcel delivery of the animals.







Photos: Protected animals for sale by catalog in Mexico City.

Watch these videos of protected specimens for sale by catalog in Mexico City:

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Video: Black leopard

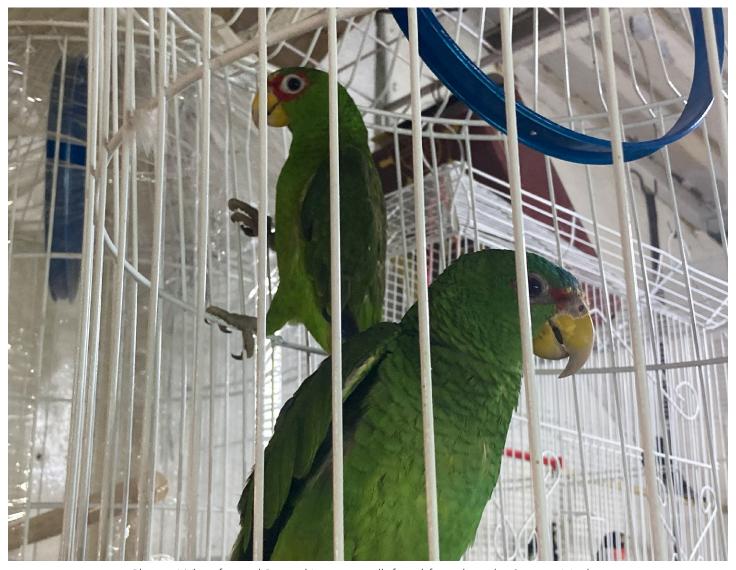
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Video: <u>Tiger</u>

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Video: <u>Tiger</u>

During the market tours, Center investigators found, for example, that in the Sonora Market, located in the Merced Balbuena neighborhood of the Venustiano Carranza municipality, white-fronted parrots (Amazona albifrons), a species that is under "Special Protection," were offered for 2,500 pesos (US\$ 125), without any documentation that proved their legal origin.



Photos: White-fronted Parrot (Amazona albifrons) for sale in the Sonora Market.

In the New San Lázaro Market, located on street Río Frío 174, in the Magdalena Mixiuhca neighborhood of the Venustiano Carranza municipality, a Mexican axolotl (Ambystoma mexicanum), a species under "Special Protection," fetched a price of 800 pesos (US\$40). The green iguana (Iguana iguana), also under "Special Protection," was 250 pesos (US\$12).

Other species offered included the tapayaxin chameleon or horned lizard (*Phrynosoma mcallii*), an endemic species from the Sonoran Desert included in the "Threatened" category, for 120 pesos (US\$6); red-kneed tarantula (*Brachypelma smithi*), also "Threatened," for 250 pesos (US\$12); and emerald toucan (*Aulacorhynchus prasinus*), under "Special Protection," for 1,800 pesos (US\$90).



Photos: Species for sale in the Nuevo San Lázaro market.

At the Alfredo Robles Domínguez Fish and Pet Market, located on Avenida Ing. Alfredo Robles Domínguez s/n, Colonia Guadalupe Insurgentes, in the Gustavo A. Madero municipality, ocellated dwarf geckos (*Sphaerodactylus argus*), a species under "Special Protection," could be bought for 1,200 pesos (US\$60); and the veiled chameleon (*Chamaeleo calyptratus*), included in Appendix II of CITES, could be bought for 2,500 pesos (US\$125).

In the Cuemanco Plant and Flower Market on Avenida Canal Nacional number 2000, Colonia Rinconada Coapa, Xochimilco municipality, peyote (Lophophora williamsii), a species under "Special Protection," was 1,200 pesos (US\$60); elephant legs (Beaucarnea recurvata), an "Endangered" palm species, were between 4,000 (US\$200) and 7,000 pesos (US\$350); and orchids (Prosthechea citrina) and (Laelia speciosa), under "Special Protection," were between 400 (US\$20) and 900 pesos (US\$45).



Photos: Species for sale in the Cuemanco Plant and Flower Market.

In the Plants and Flowers Market Madreselva in calle Madreselva s/n, colonia Xaltocan, Xochimilco municipality, there were elephant legs palms more than 2.5 meters high (Beaucarnea recurvata), at 25,000 pesos (US\$1,250), and peyotes (Lophophora williamsii), at 350 (US\$17) pesos each.



Photos: Peyote for sale in the Honeysuckle Flower and Plant Market.

EXPERT INSIGHT

Many people are involved in wildlife trafficking in Mexico because it is not necessary to make large investments or have warehouses, facilities or UMAs, said Joel González Moreno, former director general of Inspection and Surveillance of Wildlife, Marine Resources and Coastal Ecosystems of Profepa, in an interview with the Center.

The former federal official explained that specimens can be put up for sale through social media, through the creation of multiple false profiles and by having contacts with the collectors to obtain the animals or plants.

"I cannot tell you that there are few people dedicated to illegal trafficking. Let us remember that there is a great diversity of species in our country and unfortunately that also makes us a target of this illicit activity," he said.

"There is a lot of supply and a lot of demand. That is why it is not only necessary to fight the traffickers but to also make citizens aware — to create an attitude of solidarity about the effort that authorities are making to combat the trafficking of species — because as long as there are people who demand specimens of wildlife, this illegal activity will continue to exist," he warned.

González Moreno pointed out that Profepa identified addresses of animal warehouses in the center of Mexico City, the Cuauhtémoc municipality, and the Azcapotzalco municipality. In one of the facilities, Profepa found a directory of scientists and foreign experts interested in collecting endemic species.

The resulting investigation culminated in April 2016 with the arrest of a citizen of German origin at the Monterrey International Airport, Nuevo León, who was carrying 74 endemic fish from Cuatro Ciénegas, Coahuila, hidden in his baggage.⁵²

In November 2020 the National Guard dealt the biggest blow in history to illegal wildlife trafficking in Mexico by securing 15,785 specimens of animals in Iztapalapa. The operation was carried out, in response to a citizen complaint, in two homes located east of Mexico City. Two people were arrested and charged with possessing the specimens. The animals seized were 69 birds, including toucans, green macaws, buglers, goldfinches, parrotlets, white-fronted parrots and calandrias; 15,716 reptiles, including 14,449 hull turtles, 298 crocodiles, 307 abronias or dragonets 15 iguanas and 40 snakes; 28 arachnids, including 23 tarantulas; and five whip scorpions.⁵³

HIGH MORTALITY

In the illegal trade of parrots, parakeets and macaws in Mexico, 8 out of 10 animals die before reaching the final buyer, and then 90% of those who manage to survive die later due to diseases, lack of care or poor nutrition, said Juan Carlos Cantú, director of Defenders of Wildlife Mexico, in an interview with the Center.

Of 100 captured wild parrots, seven die in the capture stage, 24 during storage and confinement, 22 during transportation and 30 during distribution and sale, according to Carlos Cantú.

He explained that there are three ways of capturing the orange-fronted parakeet, or atolero, on the Pacific coast.

First, traders use children to climb trees and lower the chicks from the nests: "During the breeding season, the underage climb trees with nests and break them with a machete or ax to get the chicks out; sometimes they knock down the tree," he said.

A second option is to tie a halter (tame) parrot by its leg to a tree or bush next to a net and make it scream, so that when a flock passes by and goes down to investigate, the birds are frightened into flying toward the trap.

A third way is to put a halter parrot inside a trap cage, and when a flock investigates, there is no escape, he explained.

New Species in Trade

The illegal trade in horned lizards (*Phrynosoma mcallii or Phrynosoma cornutum*) has grown exponentially in recent years, as the demand for these slow-moving reptiles for pets has skyrocketed in the European Union and Asia, warned María Elena Sánchez, president of Teyeliz AC, in an interview with the Center.

She stressed that, for decades, horned lizards have been sold in public markets and flea markets in Mexico, but many die because they are desert animals and sellers do not inform buyers that the lizards' diet is ants.

In December 2020 Customs personnel at the Cologne-Bonn International Airport in Germany discovered 27 specimens of horned lizards, iguanas and freshwater turtles hidden in dolls made out of Mexican cloth.⁵⁴ When the animals were discovered, 10 were dead from suffocation inside the dolls, which were sewed up to try to hide the animals.



Photo: Illegal sale of horned lizard in Mercado Nuevo San Lázaro.

María Elena Sánchez added that most horned lizards sold in Mexico are illegal, and many times juveniles are taken from the wild to pass them off as "captive bred."

CATS EVERYWHERE

Reports of tigers and lions roaming public streets in Mexico are becoming more frequent because, incredible as it may seem, the big cats are not prohibited as pets.⁵⁵ That has become a serious problem, said Antonio Franyuti, director of <u>Animal Heroes</u>, in an interview with the Center.

Franyuti recalled that last April, the House of Representatives approved a bill that prohibits the possession of these animals as pets, but the endorsement of the Senate of the Republic is still lacking.⁵⁶

"According to the General Wildlife Law, we have to request permission to buy big cats, but given the budget cuts in the environmental sector, there is more illegal trafficking because Profepa does not have the operational capacity to inspect, so lions, tigers and jaguars abound. internet sale without any type of documentation that guarantees its legal origin," he said.

In the so-called Golden Triangle formed by the states of Chihuahua, Sinaloa and Durango, there are more tigers in the hands of drug traffickers than can be found in their natural habitat in Southeast Asia, Franyuti said.

TO THE RESCUE

Paradoxically, a large number of big cats sold on the black market come from legally established UMAs or PIMVS. But often these facilities are not complying with environmental regulations, said Erika Ortigoza Vázquez, executive director of the Invictus Foundation, in an interview with the Center.

She explained that the owners of UMAs or PIMVS allege that there is a lot of bureaucracy obtaining authorizations for the use of plants and animals raised in captivity, and for this reason they market them without documentation or disclosing the origin of the animals.

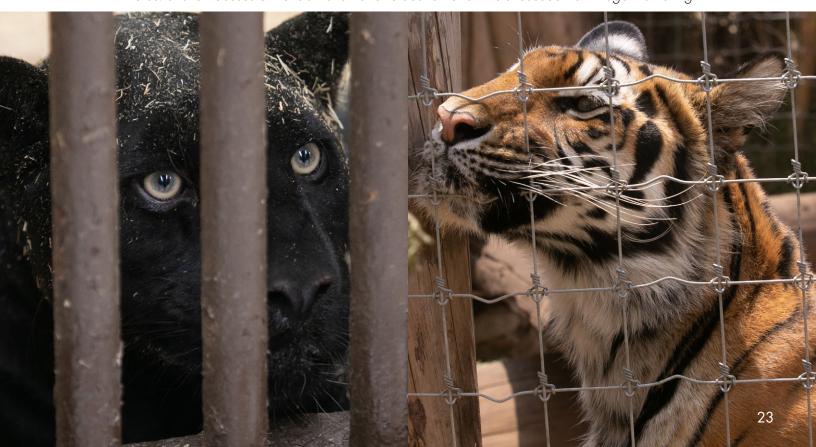
Ortigoza Vázquez stressed that the main factor that triggers the illegal trafficking of big cats is demand, promoted by consumers eager to demonstrate their status through the possession of exotic and endangered species.

She stated that this illicit activity increased with the spread of social media, because the commercialization of wildlife through the internet offers big profits for the seller and very low risks of discovery or sanction by authorities.

"The internet (social media) has played a fundamental role in being able to market specimens, and due to the low risk that this represents, animals are offered on different social networks — Facebook, WhatsApp, Instagram, Telegram — targeting groups with broad purchase power," she explained.

Ortigoza Vázquez said that in addition, budget cuts to the environmental agency responsible for verifying, monitoring and inspecting the sale of wildlife in Mexico have allowed the problem to continue to grow.





ENDNOTES

- ¹ National Strategy on Biodiversity of Mexico and Action Plan 2016-2030, National Commission for the Knowledge and Use of Biodiversity, 2016. Government of the Republic. Mexico. 388 pages
- ² National Commission for the Knowledge and Use of Biodiversity (Conabio). 2014. Fifth National Report of Mexico before the Convention on Biological Diversity (cbd). conabi. Mexico.
- ³ Sarukhán J, Carabias J, Koleff P, Urquiza-Haas T. Capital natural de México: Acciones estratégicas para su valoración, tenencia y recuperación. Comisión Nacional para el Conocimiento y Uso de la Biodiversidad. 2012
- ⁴ Bush, Er, Baker, SE y Macdonald, DW (2014), Comercio mundial de mascotas exóticas 2006–2012. Biología de la Conservación, 28: 663–676. do: 10.1111/cobi.12240
- ⁵ IPBES (2019): Informe de evaluación global sobre biodiversidad y servicios ecosistémicos de la Plataforma Intergubernamental de Ciencia y Política sobre Biodiversidad y Servicios Ecosistémicos. ES Brondizio, J. Settele, S. Díaz y HT Ngo (editores). Secretaría de IPBES, Bonn, Alemania. 1148 páginas. https://doi.org/10.5281/zenodo.3831673
- ⁶ Nadal-Urías, L., Carmona-Omana, A. y Trouyet-Starr, M. 2013. Tráfico ilegal de vida silvestre. Cuadernos de divulgación ambiental. SEMARNAT, PROFEPA, CECADESU. Primera edición. Guadalajara, Jalisco, México.
- ⁷ Toledo, VM, Al Batis, R. Becerra, E. Martinez, and CH Ramos. 2995. La selva útil: etnobotánica cuantitativa de los grupos indígenas del trópico húmedo de México. Interscience 20(4):177-187
- ⁸ Nadal-Urías, L., Carmona-Omana, A. y Trouyet-Starr, M. 2013. Tráfico ilegal de vida silvestre. Cuadernos de divulgación ambiental. SEMARNAT, PROFEPA, CECADESU. Primera edición. Guadalajara, Jalisco, México.
- ⁹ WWF (2012). La lucha contra el tráfico ilícito de vida silvestre: una consulta con los gobiernos. Dalberg, Londres: Dalberg.
- ¹⁰ SEMAR advierte que tráfico ilegal de Totoaba ya supera las ganancias por trasiego de cocaína. Avilabel at: http://audio.noticiasmvs.com/#!/noticias/trafico-illegal-de-Totoaba-supera-ganancias-del-trasiego-de-cocaina semar-289.
- ¹¹ TRAFFIC (2016) Enfoque en delitos cibernéticos contra la vida silvestre en CITES. Disponible en: http://www.traffic.org/home/2016/9/27/focus-on-wildlife-cybercrime-at-cites.html
- ¹² This is a real person given a fictitious name for procedural secrecy and respect for the presumption of innocence.
- ¹³ Information request: 330024422000586
- ¹⁴ MODIFICATION of Normative Annex III, List of species at risk of the Official Mexican Standard NOM-059-SEMAR-NAT-2010, Environmental protection-Native Mexican species of wild flora and fauna-Risk categories and specifications for their inclusion, exclusion or change- List of species at risk, published on December 30, 2010 at the Diario Oficial de la Federación.
- ¹⁵ This is a real person given a fictitious name for procedural secrecy and respect for the presumption of innocence.
- ¹⁶ This is a real person given a fictitious name for procedural secrecy and respect for the presumption of innocence.
- ¹⁷ DECREE by which an article 60 Bis 2 is added to the General Wildlife Law. DOF: 10/14/2008. Available at: https://dof.gob.mx/nota_detalle.php?codigo=5063852&fecha=14/10/2008#gsc.tab=0
- https://www.pericosmexico.org/consulted on 10/06/2022; Cantú, J. C., Sánchez, M. E., Grosselet, M., & Silva, J. (2007). Tráfico ilegal de pericos en México. Una evaluación detallada. México: Defenders of Wildlife.
- ¹⁹ Real person, fictitious name for procedural secrecy and respect for the presumption of innocence.
- ²⁰ Registration number: DGVS-PIMVS-CR-IN-1878-CHI/SEMARNAT. Information request: 33002672200148.
- ²¹ Id.
- ²² Real person, fictitious name for procedural secrecy and respect for the presumption of innocence.
- ²³ In the Customs Law. Art 2, XVI, is the definition of the Pediment as "the statement in electronic document, generated and transmitted regarding compliance with the laws that tax and regulate the entry or exit of goods from the national territory, which contains the information relative to the goods, the traffic and customs regime to which they are destined, and the other data required to comply with the formalities of their entry or exit from the national territory, as well as that required in accordance with the applicable provisions.
- ²⁴ 10,000 wild animals stolen from their habitat. EL País. 12 Jan 2020. Available at: https://elpais.com/elpais/2020/01/06/album/1578308729_386223.html#foto_gal_1
- ²⁵ Saving the cute sloths. May 3, 2018. UNEP. Available at: https://www.unep.org/en/news-and-features/feat

- ²⁶ Moraes-Barros, N., Chiarello, A. & Plese, T. 2014. Bradypus variegatus. The IUCN Red List of Threatened Species 2014: e.T3038A47437046. https://dx.doi.org/10.2305/IUCN.UK.2014-1.RLTS.T3038A47437046.en.
- ²⁷ CITES trade database.
- ²⁸ Digital Report 2022: The Report on Digital Trends, Social Networks and Mobile. 26 Jan 2022. Available at: https://wearesocial.com/en/blog/2022/01/digital-report-2022-the-report-on-digital-trends-social-networks-and-mobile/
 ²⁹ Prohibited Content Policy. Animals and animal products. Available at: https://www.facebook.com/policies_center/commerce/animals
- ³⁰ Information request: 330024422000586
- 31 Information request: 330024422000586
- ³² Most illegally traded species in Mexico. Secretary of Environment and Natural Resources. Available at: https://www.gob.mx/semarnat/articulos/especies-mas-comercializadas-illegalmente-en-mexico
- ³³ Id.
- ³⁴ Taking off Wildlife trafficking in Latin America and the Caribbean. Reduced Opportunities for Illegal Transport of Endangered Species. Available in: https://c4ads.org/reports/routes-taking-off/
- ³⁵ Id.
- ³⁶ Profepa asegura 424 animales en riesgo que fueron comercializados en línea. Procuraduría Federal de Protección al Ambiente. 23 de julio de 2014. Press release. Available at: https://www.gob.mx/profepa/prensa/profepa-asegura-424-animales-en-condicion-de-riesgo-que-eran-comercializados-por-internet
- 37 Id.
- 38 Information request 330024422000536
- ³⁹ Analysis made by the Center from information request 330024422000536
- 40 ld.
- ⁴¹ Information request: 330024622001446.
- ⁴² Id.
- ⁴³ Information request: 330026722001481
- ⁴⁴ Id.
- ⁴⁵ Id.
- ⁴⁶ Id.
- ⁴⁷ Center analysis based on the information request: 330026722001481
- 48 Id
- ⁴⁹ Information request 0001600016520
- 50 Available at: t.ly/icyW
- ⁵¹ Id.
- ⁵² Ana Ponce. 01.04.2016. Alemán detenido por robar pescado en Cuatro Ciénegas. Milenio. Saltillo Coahuila. Disponible en:https://amp.milenio.com/estados/detener-a-aleman-por-robar-peces-de-cuatro-cienegas
- ⁵³ Ernesto Méndez. 26-11-2020. Aseguran 15 mil animales salvajes en Iztapalapa; Hay dos detenidos. Virutas de embalaje. Disponible en: https://www.excelsior.com.mx/comunidad/aseguran-15-mil-animales-silvestres-en-iztapala-pa-hay-dos-detenidos/1419048
- ⁵⁴ Ernesto Méndez. 12-05-2020. Envían animales mexicanos a Alemania, estaban escondidos en muñecos de trapo. Virutas de embalaje. https://www.excelsior.com.mx/nacional/mandan-animales-mexicanos-a-alemania-iban-escondidos-en-munecas-de-trapo/1420573
- ⁵⁵ Wildlife Law: Article 27. The handling of exotic specimens and populations may only be carried out under conditions of confinement that guarantee the safety of civil society and dignified and respectful treatment of the specimens, in accordance with a management plan that must be previously approved by the Secretariat and must contain the provisions of article 78 Bis, to avoid the negative effects that exotic specimens and populations could have for the conservation of native specimens and populations of wildlife and their habitat. People who own one or more specimens referred to in the preceding paragraph, as a pet or companion animal, must have express authorization from the Secretariat. Those specimens of species that by their nature,
- ⁵⁶ Initiative that reforms article 27 and adds 60 bis 3 to the General Wildlife Law, led by deputy Melissa Estefanía Vargas Camacho, from the PRI parliamentary group. Available at: http://sil.gobernacion.gob.mx/Archivos/Documentos/2021/10/asun_4234472_20211014_1634235346.pdf