

ILLEGAL TRADE

Global cactus traffickers are cleaning out the deserts



ANDREA CATTABRIGA VIA THE NEW YORK TIMES

Italian investigators with Operation Atacama prepare a specimen *Copiapoa solaris* for shipment back to Chile from a greenhouse in Milan, Italy. A recent raid in Italy involving rare Chilean species highlights the growing scale of a black market in cacti.

By Rachel Nuwer
The New York Times Company

Andrea Cattabriga has seen a lot of cactuses where they didn't belong. But he'd never seen anything like Operation Atacama, a raid carried out last year in Italy. A cactus expert and president of the Association for Biodiversity and Conservation, Cattabriga often helps the police identify the odd specimens seized from tourists or intercepted in the mail.

This time, however, Cattabriga was confronted by a stunning display: more than 1,000 of some of the world's rarest cactuses, valued at over \$1.2 million on the black market.

Almost all of the protected plants had come from Chile, which does not legally export them, and some were well over

a century old. The operation — which occurred in February 2020 but is being made public now because of the cactuses' recent return to Chile — was most likely the biggest international cactus seizure in nearly three decades. It also highlights how much money traffickers may be earning from the trade.

Seeing the collected cactuses brought a profound sadness to Cattabriga.

"Here is an organism that has evolved over millions of years to be able to survive in the harshest conditions you can find on the planet, but that finishes its life in this way — just as an object to be sold," he said.

As with the market for tiger bones, ivory, pangolin scales and rhino horn, a flourishing illegal global trade exists for plants

"Just about every plant you can probably think of is trafficked in some way," said Eric Jumper, a special agent with the Fish and Wildlife Service. Cactuses and other succulents are among the most sought after, along with orchids and, increasingly, carnivorous species.

Trafficking can take a serious toll. Over 30% of the world's nearly 1,500 cactus species are threatened with extinction. Unscrupulous collection is the primary driver of that decline, affecting almost half of imperiled species. Yet this realm of illegal trade is typically overlooked, a prime example of "plant blindness," or the human tendency to broadly ignore this important branch on the tree of life.

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CACTUS, FROM PAGE 1:

ITALY REPATRIATES CACTI TO CHILE

"The basic functioning of the planet would effectively grind to a halt without plants, but people care more about animals," said Jared Margulies, a geographer at the University of Alabama who studies plant trafficking. "A lot of plant species are not receiving the amount of attention they would be if they had eyes and faces."

Yet the size of Operation Atacama could be a notable exception. It is also the largest known example of cactus stolon from the wild being repatriated for reintroduction into their native habitat.

Experts also hope the case can be a turning point for how cactuses, collectors, conservationists and the industry deal with the thorny issues of international cactus trafficking.

"Society as a whole can no longer continue to have a naive view of this problem," said Pablo Guerrero, a botanist at the University of Concepcion in Chile.

Passion for rarity

Cactuses and other succulents are hot business today. They have become the darling of social media, promoted by indoor plant influencers for their outlandish looks and minimal care requirements. The pandemic only increased their popularity, with shops struggling to keep some species in stock.

"A lot of what drives the interest and passion for these plants is their uniqueness and rarity," said Barbara Goettlich, co-chair of the Cactus and Succulent Society of America. "Entire populations are being stripped."

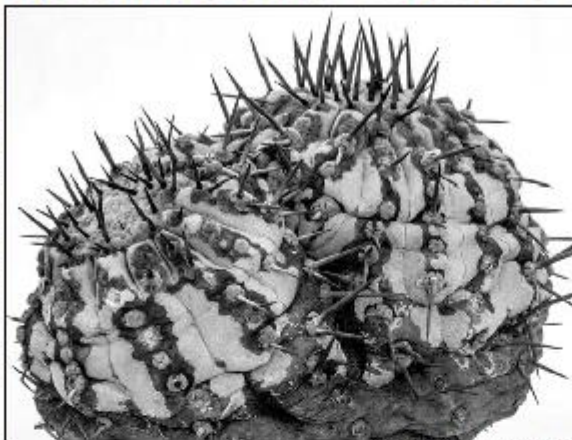
Although no estimates exist for the scope of the illegal cactus trade, many experts believe it is increasing. "It was a much smaller issue 20 years ago, but now, it's major," said Jeff Porek, president of the Cactus and Succulent Society of America. "Entire populations are being stripped."

A poacher's playbook

In February 2020, Italian police, responding to a tip, visited the home of Andrea Pionibetti, a well-known cactus collector and seller in Senigallia, a town on the Adriatic coast. In a makeshift greenhouse, officers discovered around 1,000 protected Chilean *Copiapoa* and *Eriocaulis* species, ranging from the size of a baseball to a beach ball. Police officers seized the plants, along with Pionibetti's cellphone and passport.

It was not the first time Pionibetti, who did not respond to interview requests, and who is now awaiting trial, had been accused of cactus trafficking. The police also seized a shipment of 500 Chilean cactuses from him in 2015. But the case was never prosecuted because of bureaucratic delays, and the statute of limitations passed.

"Many environmental crimes in Italy have this problem — they can't be punished after four or five years," said Lt. Col. Simone Cecchini, chief of the wildlife division of the local police department, who led the 2015



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A *Copiapoa cinerea* cactus that is from Chile is photographed after it was seized in Italy. A recent raid in Italy involving rare Chilean species highlights the growing scale of a black market in cacti.

which plants they want. Traffickers are rarely caught or prosecuted. While American, British, European and Japanese collectors have traditionally driven the illegal trade, more recently, interest has also spread to China, Korea and Thailand.

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"Many environmental crimes in Italy have this problem — they can't be punished after four or five years," said Lt. Col. Simone Cecchini, chief of the wildlife division of the local police department, who led the 2015

and 2020 investigations. "This time, our prosecutor said we'll try to be very fast, because he wants to avoid what happened in 2015."

Pionibetti has not yet entered a plea in court.

Cattabriga and other experts carried out a number of analytical tests to confirm that the plants had not been homegrown, but instead were collected from the wild in Chile's Atacama Desert. Cecchini and his colleagues found that Pionibetti had made seven trips to Chile, most recently in December 2019, where they say he poached the cactuses in the Atacama Desert, near Parí de Arica National Park.

After collecting the cactuses, Cecchini's investigation revealed that Pionibetti allegedly mailed the plants to addresses in Gronos and Bolzano, where international customs are more lax than in Italy. Because of their hardiness, cactuses can survive long journeys by post without soil, water or light.

Cecchini found many records of illegal cactus sales in Pionibetti's phone, including receipts from a Japanese company that seemed to place large monthly orders. Based on the prices quoted by text, the police calculated that the seized cactuses were worth over 1 million euros.

"We need bigger penalties in Italy for this type of environmental crime," Cecchini said.

A first-of-its-kind homecoming

After the seizure, Cattabriga arranged for the plants, many of which were in extremely poor health, to be transferred to the Città Studi Botanical Garden of Milan for temporary care. As

the investigation progressed, the question of what to do with them became more urgent.

Cactuses confiscated by Italian authorities are normally destroyed or, if they are rare species, sent to botanical gardens. But with Operation Atacama, "it was very different," Cattabriga said. The number of cactuses was so large, and some were critical, by endangered species found in areas of Chile spanning just a few square miles with very specialized needs. Keeping the cactuses at the garden was a likely death sentence.

At first, there was discussion of sending the plants to other botanical gardens in Italy and broader Europe. But Cattabriga, Cecchini and Guerrero were adamant they be returned to Chile for both conservation and symbolic purposes. But Cattabriga, Cecchini and Guerrero were adamant they be returned to Chile for both conservation and symbolic purposes. But Cattabriga, Cecchini and Guerrero were adamant they be returned to Chile for both conservation and symbolic purposes.

Working with Goettlich and several others, they spent much of 2020 navigating Italian, Chilean and international bureaucracy to secure permission to send the plants home. "It's the first time this has happened, so no one was really clear on how to do this," Guerrero said.

Authorities finally agreed to the transfer in late 2020. But neither Chile nor Italy would pay the approximately \$5,600 shipping cost.

Goettlich managed to secure about three-quarters of the funds from the International Union for Conservation of Nature, and the botanical garden in Milan pitched in as well. The rest was provided by Liz Vayda, owner of B. Willow, a plant shop in Baltimore that regularly donates to environmental groups.

Finally, in late April, 844 cactuses made the return journey

to Chile. Around 100 others had died, and 84 stayed in Milan for study.

Cattabriga has been making daily video calls to try to ensure the plants are being properly cared for while they are in quarantine. According to Bernardo Martínez Aguilar, head of the forest inspection department at Chile's National Forest Corporation, the final goal "is that the majority of these individuals return to their natural environment, which they never should have left."

Vayda at B. Willow is in conversation with the International Union for Conservation of Nature about potentially establishing homeplant industry standards for certifying that greenhouses use legally sourced plants, similar to organic or fair-trade food labels.

Carrots and sticks

Operation Atacama is by far the biggest bust in recent history, but there are other signs that law enforcement is beginning to take note of cactuses. Six men were sentenced to a number of penalties, most federal convictions involving a cactus trafficking ring that poached thousands of living rocks in southwest Texas for smuggling to Europe and Asia. Additional cactus-related prosecutions have taken place in California and Arizona.

But while stronger law enforcement is welcome, a variety of experts believe prohibition, on its own, will not stop trafficking. Instead, they favor meeting demand through sustainably managed collection of seeds or cuttings of wild plants, which could be used for artificial propagation by certified greenhouses.

Sales of these legally sourced plants could help offset illegal trade. Preferably, the proceeds would go directly to conservationists living alongside the species, the experts say, creating incentives to protect them. The cactus and succulent trade is "big business, but the majority of that money is not centered in countries of origin," Margulies said. "I think there should be a push to engage in this more from a social justice lens."

Many countries' domestic legislation prohibits those types of activities, however, as do strict international trade laws and bureaucracy. The result, Cattabriga said, is a system that "discourages the reproduction of rare plants in captivity, and has the side effect of exacerbating the illicit trade."

Guerrero hopes that Operation Atacama will ignite discussions of how to reform legislation to make it more amenable to solutions.

Meantime, some plant enthusiasts are going out of their way to change cactus collecting culture. The Cactus and Succulent Society of America is trying to steer members away from the temptation of poached plants through educational talks, articles it publishes and other means. The society also housed growers from entering specimens into specialty shows and competitions that members would have no way of legally acquiring today.

"You can't have a *Copiapoa* collected in Chile in the 1970s get the ribbon, and then tell members, 'No, you can't have that plant, you have to start from seed and in 200 years you can have it,'" Porek said. "We have to reset what people's goals and expectations are."

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