The Emerging Black Market of Cacti 3/1/17 NPCC

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Overview

Most people think of a black market as a medium to purchase sinister items such as drugs, weapons, or even exotic animals. While those items certainly are popular through illegal exchanges, an item that receives less atention is cacti. These plants are commonly removed from their natural habitats and either introduced to private collections or sold to those interested in the particular type of succulent. With 30% of the species in threat of extinction, the Native Plant Conservation Campaign proposed several measures to reverse this tragedy (Cacti). This paper describes the issues currently facing this type of plant and how to solve them. Action must be taken to preserve this vital aspect of the ecosystem before its too late and several types of cacti are wiped out completely. Even though most removals of native cacti aren't completed with malicious intent, awareness must be spread of the dangers of this illegal behavior. With a worldwide effort to explain the issues that many of these plant species encounter, the cacti population of the world will be able to recover slowly. As cacti are unique to the Americas, it is crucial to prevent cacti from either being destroyed or introduced as an invasive species to other regions in the world and harm other environments.

Size of Market

The cacti black market has grown substantially as access to the plant has expanded. With illegal items being readily available with the adaptation of the internet, devious plant sales have skyrocketed. The total value of illegal plant sales is estimated to be hundreds of millions of dollars by conservative estimates. An indicator of the rising popularity of this market is the increase in plant smuggling arrests in the U.S. (Cumming). Many people caught in the act of uprooting cacti make a living off the practice and willing buyers exist throughout the world. Some purchasers of illegal plants aren't even eccentric collectors, with some merely looking for unique landscaping options. As certain plants rise in scarcity, their value will only grow, and demand will increase further. The size of the market for illegal plants indicates that unless further action is enforced to protect these endangered species, several types of cacti might become extinct in the wild.

This market also spans worldwide with collectors inhabiting all populated continents. In the U.S., most illegal plant sales are sold to surrounding states. Thieves usually drive deep into state owned land and uproot cacti in the middle of the night. Some robbers have even been caught with large cacti in the bed of their trucks (Colin). Besides surrounding states, areas of the country that aren't connected to a desert remain popular destinations for sales of illegal plants.

Stolen cacti from Central and South America sell large amounts of plants primarily to people located in Europe and Asia (Colin).

Ecosystem

If no action is taken to reverse the population decline of cacti, enormous damage to the local ecosystem will occur. Located in all arid region across the Americas, cacti are critically important to the animals that live in these regions. By holding large amount of water, these plants can supply much needed hydration to animals in dire need of liquid (Kinver). With fresh water being so scarce in deserts, without cacti several mammals could face challenges in surviving that they previously haven't had to deal with. Deer, rabbits, coyotes, and lizards among other animals depend on the water sources provided by these desert plants (Kinver). If they continue to be removed from their environment, the rippling effects could devastate the entire ecosystem. This creates a chain event in which all surrounding life is impacted the negative consequences of small cacti populations. Beyond the effects to animals in the environment, other plant life is destroyed as cactus flowers supply nectar to bees, moths, and hummingbirds in local areas. Without the nectar available to certain animals anymore, these pollinators aren't able to help support surrounding non cactus plants. The entire ecosystem would face debilitating effects from the downfall of the cactus with no species remaining unharmed.

Humans have also used these plants for food for hundreds of years. While only certain species of cacti are edible, they remain a staple of some rural communities in Central and South America (Kinver). Even though only applicable to rare circumstances, cacti have also provided a water source to stranded people wandering the desert. Being regions of the earth with rare water sources, cacti provide springs of life to all animal life in the surrounding areas. Cacti remain a vital part of the environment that impacts not only the plant and animal life of the region but also the humans that inhabit arid deserts. No one remains unaffected by the removal of cactus species and it should be a concern for all factions of the desert regions. Local indigenous people have also used cacti for medicinal purpose for years. Specifically, prickly pear cacti are used to lower blood sugar levels when ingested (Cummings).

Types of Cacti

What exactly makes a cactus? Cacti are plants that are native to the Americas and belong to the succulent family of plant life. Cacti are succulents due to their mechanism of storing water through dry periods in the environment but differ to succulents by containing small areas on the plant where spines grow called areoles (Torre). These plants are diverse in nature with over 2000 types of cacti having been discovered. While they all grow specifically in arid conditions, they vary by color, size, presence of flowers, and life span. They also share the ability to last long periods of time with little or no water due to their roots which absorb water deep in the ground (Torre). The variance in characteristics of cacti is vast and consists of nearly every major biological difference imaginable.

With numbers of these succulents on a downward spiral, 141 species are in immediate danger. Out of these 141 types of plants, 25 belong on the endangered list with another 27 on the

critically endangered list. This troublesome statistic emphasizes the urgency of action needed to be taken place to save these plants. According to the conservation organization World Wildlife Fund, some species have been reduced by as much as 95% in only the past 25 years (Colin). While some of the damage to cacti habitats can be attributed to deforestation, a large contributing factor to the decrease in plant life is the removal of cacti for personal use or sale illegally.

One of the most commonly sold cacti on the black market is the saguaro cactus. This plant can live for over 150 years and grow to heights of over 40 feet. Commonly seen growing "arms" out of the side of its base, this cactus is easily found in Arizona with the Saguaro National Park containing a large percentage of the population. As these succulents can be sold for hundreds of dollars illegally, some of the plants have been implanted with chips in order to track their location in case of theft (Cumming).

What We Can Do

The most effective solution would be to catch those transporting plants and prosecute them to the extent of the law. Even with preexisting laws against the movement of plants in certain states, many people still remove native cacti. By increasing the severity of these laws, less people would be willing to risk jail time for selling cacti on the black market. Currently in the U.S., theft of a plant that is worth less than \$100 is considered a misdemeanor but theft of a plant worth over that price constitutes a felony charge. Due to the threat to the environment, intentional removal of native plants should hold a heavier punishment than what currently involves stands. Arizona officials estimate that "plants harvested by permit and resold on the commercial market amounted to more than 1.8 million in sales last year versus \$500,000 in illegal sales" (Kinver). This makes the black market a substantial piece of the total market. Another method of combating this destruction to the environment is to raise awareness. The more people have information on this topic, the more likely they are to look out for potential cactus thieves and alert authorities. A portion of the people buying cacti for landscaping purposes could also be unaware of the harm they are doing to the ecosystem. With proper awareness, some buyers may have second thoughts and look to ethically source their succulent purchases. While creating tougher laws is a solution that could take time and effort, alerting the general population about the dangers of the cacti black market has a chance at making an immediate change. With a conscious effort to make a difference, the cactus population can be sustainable. A large portion of stolen cacti are taken in government owned land that doesn't see much human activity but those who are passionate about solving this problem can work as watchdogs for others who look to sell the plants. Various conservation organizations also exist to inform people of local events and different activities they can do to help endangered species.

Possible Issues

The most difficult aspect of solving this conservation issue and dismantling the cacti black market is dealing with the people who ignore the law no matter how much the punishment becomes. If less people attempt to steal cacti, then the people who still attempt to distribute the plants can sell them for even higher costs. Another troublesome aspect of this issue is the work it would take to update current law. With initial protections that are already in place not working, more deterrents in the law system may not even be effective. If updated laws might not work, then an increase in police monitoring could enforce policies already in place. If the illegal sale of these succulents decreases substantially then the cacti population still has a chance of recovering. With some species already critically endangered, the population of cacti has a long way ahead to get back to normal conditions. Multiple conservation organizations have made efforts to inform the general public but they will have to continue their efforts to spread awareness on the problem (Cacti). Even though some progress has been made, plant populations continue to decline at rapid rates. A shift in public support will be needed to protect cacti who are important parts of arid regions.

Conclusion

The expansion of the cactus black market represents a difficult environmental problem. With multiple species facing extinction, work needs to be done immediately to reverse this process. If certain cacti populations are removed from the ecosystem, all life in those environments will suffer immensely (Cacti). The animals surrounding the arid environments will lack a crucial water source that is necessary to their survival. Also, the additional plant life will be without an important pollination component. From top to bottom, cacti are an indispensable aspect of desert regions that other forms of life can't live without (Cummings). Some groups of people will even be without a plant that served as a food source for years. While the demand for certain cacti continues to grow, this can be brought to a crawl by enforcing strict policies to those transporting plants illegally. Laws currently in place have helped the issue but police officers are spread thin and unable to spend resources making certain that cacti aren't being stolen. High profile busts are made occasionally but hundreds in thousands of dollars in plants are still shuffled. By increasing law enforcement and public opinion, people can start recognizing when cacti are stolen and report it to the local authorities. Even the people who unknowingly use endangered cacti in their yards can gain knowledge that will aid the local environment. The Native Plant Conservation Campaign remains committing to enacting change that positively impacts the American ecosystem. As people continue to become aware of this issue and heed conservation advice, the environment will make positive strides. The cacti black market remains a large illegal operation but not one that is hopeless. Support for those protecting species that need help is crucial for the recovering cacti population.

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