

## **Peyote is in Danger**

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### **ABSTRACT**

Peyote is a small cactus that produces psychoactive compounds, growing in the American southwest and northern Mexico, and it has been used for spiritual practices by the certain North American Indigenous groups for thousands of years. Most peyote used is harvested from the wild, and access to peyote has become a problem in modern day for people who depend on it for their spiritual practices. This access challenge is due to a combination of ecological and legal obstacles, which include reduced wild populations as well as indigenous land access problems, especially in the United States. Most peyote grows in Mexico, but American practitioners are only legally allowed to use peyote grown in the American wild. Existing populations that are harvested for use in the United States have suffered population decline. I conducted interviews with peyote practitioners, conservation, and religious organizations to learn their perspective on access, conservation, and the future of peyote usage. Respondents detailed that many solutions to this issue are being explored, such as peyote cultivation, advocating for legal changes, population restoration in areas where it is depleted, and peyote alternatives.

### **KEYWORDS**

psychedelics, indigenous rights, land access, cacti, desert, environmental law

## INTRODUCTION

The United States has a long history of using the criminalization of drugs as a way of oppressing certain ethnic groups. Use of substances can be for spiritual, medicinal, or cultural purposes and it is often unfairly demonized and persecuted by the government and society in general (Rosino 2018). The most famous example of this persecution was the prohibition of cannabis in the 1970 Controlled Substances Act, due to unfair moral panic and prejudices against the communities that were seen as the main cannabis users. This has led to a large increase in the rate of incarceration in the United States, as it was used as a tool of legal persecution against communities of color (Rosino 2018).

Before these more famous examples, the United States government had already been using drug bans as a way of suppressing certain groups. Peyote (*Lophophora williamsii*) is a small cactus that contains the psychoactive compound mescaline, and is distributed in the southwest United States and northern Mexico. Peyote has been used by a variety of Indigenous groups for over 5000 years (El-Seedi et al. 2005). During the colonization of North America, peyote usage was suppressed by the Spanish and then the United States, and much of peyote culture was lost (Myerhoff 1974). Peyote entered a dark period for hundreds of years and use went underground. After many years, Native American activists were able to secure the legal right to use peyote in the United States in 1970 under the Religious Freedom Restoration Act of 1993 (Caiuby 2016). Despite these victories, peyote usage still faces challenges in modern times.

Peyote faces ecological and legal obstacles to its usage. According to the International Union for Conservation of Nature, the peyote population has declined by at least 30%, mostly due to habitat loss due to human development. A lot of peyote habitat is still being rapidly developed, and this is its greatest threat in the future (Céspedes 2018). In addition, when peyote is consumed by humans, it is usually harvested from the wild (Muneta 2020). This harvesting has also led to some amount of population decline, but that is not the primary driver of population loss and it has only occurred in certain limited areas. However, peyote population in the areas that humans harvest it from has declined greatly. These losses have made peyote increasingly difficult to access for those who depend on it for their spiritual practices. Peyote users in the United States specifically face certain legal and land access obstacles. They struggle to acquire peyote where they are legally

allowed to harvest and access it, even though it is readily available in places besides that (Caiuby 2016).

Although peyotism is strong, its future has been called into question. These issues surrounding peyote access need to be understood better. How does the current conservation status, political climate, and land access constraints impact peyote usage? How is the plant doing in the US in the wild? How is reduced peyote availability affecting practitioners and how are they adapting? What is the future of peyote usage?

### **Long History of Peyote Usage**

Although this practice is a new and blossoming field to mainstream society in the United States, humans consuming natural psychedelic substances and participating in psychedelic culture is not new. In North America, the first records of psychedelic usage took place between 3780 and 3660 BCE when archaeologists discovered evidence of peyote usage in a cave along the Rio Grande in caves in southern Texas (El-Seedi et al. 2005). This usage continued and Mescalero, Tonkawa, and Lipan Apache tribes developed rich cultural practices and histories centering around peyote. Peyote was a central part of their culture in many instances, and it shapes their spiritual beliefs and societies. It was often seen as a great healer, which is in line with how it is used in modern day (Schaefer 1997).

During the colonization of North America, peyote culture was brutally suppressed. Peyote was banned and many peyote users were killed (Myerhoff 1974). In Mexico, multiple peyote using tribes united to form the Huichol tribe, famous for their peyote art in modern times, and clashed with Spanish invaders to defend their land and culture. Once the Spanish conquered them and forced them to work, many of their cultural practices were banned, including peyote (Schafer 45). Later, similar bans took place in the United States on the practice of native culture. Again, peyote was included under this umbrella, but was not directly targeted so much as that all native cultural practices were attacked in general. For Native Americans, the number of users of peyote was not high at the time, and colonization pushed that practice underground. Ultimately it is difficult to determine how peyote practices survived, and how they were altered during this period. Peyote spirituality was highly resilient and was able to reemerge later (Myerhoff 1974).

Peyote was legalized for usage in the United States by the Religious Freedom Restoration Act of 1993. This law gave the right to use peyote for people organized under the umbrella of the Native American Church. This church is not really a single religious organization, but a collection of all the legally operating peyote religions in the United States. Putting all these groups under a single banner was valuable for them in that they were able to gain legal protection but has caused a lot of confusion in how they are perceived. Although members have the fact that they use peyote for spiritual purposes in common, their spiritual beliefs could wildly vary. Christianity is often blended with various Indigenous spiritual systems. These systems are very diverse as they represent the beliefs of hundreds of different Native American nations (Caiuby 2016).

### **Land Access Problems in Modern Times**

The growth characteristics of the peyote plant create certain challenges for its users in modern day, especially under the legal framework of acquiring peyote in the United States. Peyote does not have a limited range of growth in general, with there being huge amounts of relatively untouched land in Mexico where peyote can grow. However, in the United States specifically, the growth range is limited to a small region of southwest Texas along the Rio Grande River (Martin et al. 2011). It only has an estimated habitat range in this region of 5-6000 square kilometers (Feeney 2017). These regions consist mostly of private land owned by a variety of ranchers (Lang and Berte). Yet Native American Church members can only legally use peyote from the United States despite the limited range, creating an obstacle to peyote access.

### **Valuable Healing Medicine**

Peyote is not only essential to the spiritual practices of many natives, but it also is a valuable medicine for their mental and spiritual health. It has very legitimate therapeutic uses and there are many instances of this medicine curing ailments such as anxiety and depression. Although Native American Church healers are not operating within traditional western psychology and psychotherapy. There is a thousands of year long history of peyote being used to improve the human psyche. The main psychoactive compound contained in peyote is mescaline (Caiuby 2016). Mescaline has been able to benefit many users beyond just peyote, as there are practices with other

mescaline containing cacti such as San Pedro (*Echinopsis pachanoi*) that have also been able to benefit their respective practitioners. Most of these healing effects come from the effects of mescaline as well as the ritual methods used (Trout 2013).

Peyote is also a potentially valuable medicine in the more western framework of psychology. This is evident in the pharmacological similarities it has to other, proven to be successful drugs used for treatment, especially for substance abuse disorders. It likely has therapeutic benefits like those present in substances such as MDMA and psilocybin. (Winkelman 2014). There are also testimonies of many Native American Church members who have been successful using peyote to treat psychological problems (Dinis-Oliveira 2019). Most of these effects likely come from the mescaline alkaloid content, but in addition to that, there are other, much more mildly psychoactive alkaloids such as pelotone in peyote that have potential value in this way as well, separating peyote from other mescaline containing plants in terms of therapeutic potential (Trout, 2013).

## METHODS

### Literature Analysis

The beginning of my literature analysis involved searching the internet for information on peyote, especially in more popular media. A large portion of the literature analyzed was material put forward by religious organizations centering around peyote. The most valuable testimony in this field is that which came from practitioners themselves. For more formal research, material on peyote is limited. There are still some researchers doing a lot of work in this field. The emerging field of psychedelic research seems to play a big part in this. Peyote's initial legalization as well as the challenges to the Religious Freedom Act have also led to countless legal studies on that issue.

### Semi-structured Interviews

My information gathering was based on a combination of literature analysis as well as long form interviews. My goal was to speak with a combination of peyote practitioners, advocacy organizations, as well as researchers. I reached out to organizations as well as individuals in each

of these groups via email. I had way better success reaching out to individuals working in organizations than I did directly emailing the organizations. I decided to use interviews because it was the only way to get answers to certain questions of peyote access.

I used an extremely open ended and long form structure for interviews, on average 60 minutes in length. Questions were always tailored for the specific interviewee. I also heavily relied on developing new questions mid interview to keep a natural conversational flow. The first questions were always centered around the work and specific interests of the person being interviewed. My goal was to show them that I care about their work in this field, and ask them what they think is most important. I always asked my central research question eventually. I ended up conducting four interviews this way. In some cases, I was not able to do a full-length interview. Instead, all a person or organization I wanted to interview was interested in was answering email questions. Even in this more limited format, I was able to get some useful information through email.

I have decided to keep my interviewees anonymous. I do not feel comfortable publishing information on illegal practices of respondent, even for those that said that they are okay with their name being published. Two people I spoke to even talked about having to deal with law enforcement directly. My research goes into how many peyote practitioners have essentially been pushed into committing federal drug trafficking. Although this practice has not really been prosecuted now, it is still a possibility, especially considering the history of the federal government with similar substances. It would be an ethical concern to publish how specific people have broken the law and how it is not being enforced against them.

## **RESULTS AND DISCUSSION**

Peyote access problems are caused by two factors, which are ecological problems and legal barriers. An underlying theme of many interviews was frustration at how simple it would be to solve the issue of peyote access for practitioners in the United States, but it still is not feasible. This is because of legal restrictions, as they can only legally use the peyote from a small portion of the United States. In this small portion, the population has greatly decreased from harvesting, causing a supply and demand issue (Feeney 2017).

## **Different Peyote Sources**

Knowing where peyote is sourced from by different groups is key to understanding the status of peyote usage in the United States. The Native American Church has traditionally sourced their peyote almost exclusively from sources within the United States, using the established framework of legally acquiring it. There are five legally licensed peyote suppliers, or peyoteros that they can use. They are essentially middlemen that buy peyote from those who harvest it directly and sell it to various Native American Church groups (Ermakova 2020). In large part due to this artificial monopoly, the situation of sourcing peyote from within the United States has become quite difficult. This has pushed many practitioners into acquiring it from Mexico instead. Two different interviewees spoke on how the Native American Church's official peyote usage numbers do not add up with the amount being sold by the licensed peyoteros. This means that this gap is most likely being filled by peyote that originated in Mexico, according to peyote insiders who have knowledge of the peyote trade.

The differences between peyote sourcing between different groups within the Native American Church, as well as the practitioners outside of it is a large part of what factional divides exist between peyote practitioners. Some groups have strong relationships with the five legal peyote suppliers in south Texas, while others are left out by that process. In one interview, a practitioner spoke strongly for the importance of sourcing peyote legally, however, they were with an organization that had a lot of money and connections to source it this way, as prices for this peyote have increased dramatically, more than doubling since the year 2000 (Feeney 2017). Others spoke of how this system is not realistic for them to be able to meet their peyote needs, and they are forced to either get it from Mexico or grow it themselves, which is also potentially putting themselves at risk.

## **Impacts of Sourcing Through Harvesting**

Although human harvesting has had an impact on peyote populations to a noticeable degree, it is difficult to say how much it has affected the general health of peyote in the wild beyond a few limited regions. It is true that in certain areas, the wild population has been decimated due to harvest for human consumption. However, the scope of these areas is extremely limited. In the

United States in particular, land access for natives who wish to harvest peyote in south Texas is a major issue. Texas has such little public land compared to other parts of the United States. Most of this public land is in areas of west Texas that have little ability for anything to grow (Lang and Haigh). This includes peyote, which means almost all harvesting must occur on private land. According to the Religious Freedom Restoration Act, recognized members of the Native American Church should have the right to harvest on private land. The issue is that this sort of idea exists so far outside of the economic and legal framework of the US. There is no precedent for this sort of occurrence, and thus it is up to individual ranchers and other landowners to allow for this harvesting to happen on their land by the peyoteros (Ermakova 2020).

Peyote has many obstacles to recovery in the wild. It takes many years to reach maturity and produce a single offspring. It does not spread into new territory easily. It is, however, a very hardy plant. It can survive extremely harsh conditions. It is often harvested destructively harvested with the whole plant being taken, though there are some efforts to change this (Terry and Mauseth 2006). There is a call for conservation efforts for wild peyote, to save its usage. To those who consider wild peyote sacred and part of their religion, these efforts are essential (Muneta 2020). Multiple interviewees spoke of an organization doing work to attempt to restore peyote in its natural habitats in the United States where it has been depleted. This work includes replanting peyote where it is harvested from and monitoring via GPS. Another important tactic that is not always used is to leave the base of the peyote plant when it is harvested, so it has a chance to grow back. These restoration efforts are still in early stages, and it could take a long time to see results.

### **Legality and Land Access**

Despite there being many healthy peyote populations in large stretches of barely touched land in Mexico, many practitioners in the United States are financially burdened in their sourcing. If American practitioners could attain peyote from Mexico legally there would not be such an access problem. Therefore, some peyote practices I spoke with are really struggling while others are still going well. For those who still depend on peyote sourced from the United States, they often must be able to spend large amounts of money. The high price for a dose of this peyote has done a lot to change the demographic and culture of those who have access to it (Muneta 2020).



There are some examples of peyote acquired out in the open in the United States in a way that is not directly under the jurisdiction of these 5 peyoteros. The most famous example of this is the Peyote Way Church of God, who grew their own peyote and practiced with it as non natives. In the court case *Peyote Way Church of God, Inc. v. Thornburg*, the United States Fifth Circuit Court of Appeals ruled that they could grow and use their own peyote regardless of their race as long as they were still organized under the umbrella of the Native American Church (Suprynowicz 2020). This could still be up to further legal challenge and this ruling could change in the future.

A system has been created where ordinary people trying to practice their religion properly are forced to participate in the illegal drug trade. This aspect of peyote has not really been explored in the available literature, though when speaking with peyote practitioners they revealed a lot about this practice. There were some concerns about this among those interviewed, though for the most part they still practice their faith fearlessly. Even though it does not have the same character as other drugs that are trafficked, peyote that is brought across the border from Mexico is still international drug trafficking under the law of the United States. This has created a very unfortunate system for many practitioners of peyote. There have been some decriminalization efforts, but they have all taken place in local jurisdictions away from where there are many peyote practitioners. These efforts are also not even necessarily popular among certain peyote groups (Sahagun 2020). Something that was spoken of in the interviews multiple times was how the shift in peyote more into the popular consciousness could bring these issues to light with the law.

## **Peyote Cultivation**

Even though it is far more common to source peyote through wild harvesting, the amount of it acquired through cultivation is still significant. Cultivation being important is especially true when looking forward to being able to acquire peyote legally in the United States in the long term. Some practitioners have been able to source their own peyote and become self-sufficient through cultivation only, but this is still quite rare. The Peyote Way Church of God is known for doing this. The legality of this is questionable as well. The downside to this method is the high costs associated (Terry and Trout 2013). The aforementioned church charges hundreds of dollars for a dose of medicine. This is because their method of cultivation is so time consuming, as well as how inaccessible peyote is. It can take over 5 years to produce a single dose. They are one of the only

groups that openly advertise that they will perform a peyote ceremony with those willing to pay. Despite some problems with this model, it is still possible that peyote cultivation is likely the future. One religious organization told me, “The diminishing of wild Peyote populations is a serious problem for Peyotists Native Americans or non-Native. We can help the wild populations by cultivating small stands for personal use. Unfortunately, Peyote worship is surrounded by traditions that do not serve the plant. As long as it is considered taboo to grow Peyote, the wild populations will continue to be diminished.”

Many obstacles exist to lower the viability of peyote cultivation to be able to replace wild harvesting. First and foremost, it is that only peyote that grew in the wild is acceptable for use by many Native American Church practitioners. Multiple interviewed practitioners spoke of this, though they gave slightly different justifications. For most, wild grown peyote has a special connection to the earth and is more effective as medicine. As the Native American Church is not a truly unified religious organization, but an umbrella, the reasons beyond this for this doctrine can heavily vary between practitioners. For some, it is part of their dogma, but for others it could come from their own anecdotal experience of the better effects of wild grown peyote for their medicinal purposes. In general though, most practitioners I spoke with were not even very interested in cultivation at all, though there is a shift in thought occurring pushing more towards alternative sourcing methods. This difference needs to be researched more, but again the law is an obstacle preventing this sort of issue from being explored. The alkaloids of peyote are complex and under researched, so it is quite possible that different conditions could affect this alkaloid content (Trout 2013). In addition to these concerns of the practice itself, peyote is difficult to grow. It needs years of time before it is ready to reproduce or consume and needs a lot of space as well (Terry and Trout 2013). Though it is possible according to how it has already been done, and research that has been made on how peyote grows (Terry and Mauseth 2006).

### **Peyote Alternatives**

Regarding peyote sourcing, there are strong alternatives in terms of being able to ingest mescaline and get similar effects. Although is the furthest from ideal solution for Native American Church practitioners, it is still relevant to mention as a last resort for them. Many of these users would not consider it to be anywhere near the same as actual peyote. The most prominent example

is the San Pedro cactus, *Echinopsis pachanoi*. This plant is readily available for legal purchase anywhere in the United States. It contains the highest concentration of mescaline of any cactus besides peyote (Trout 2013). There are some downsides compared to peyote. It is more difficult to get the proper mescaline effects. When asked about San Pedro, peyote practitioners spoke of how it has not worked out well for peyote practitioners they knew of who had tried it. This is in part because of usage of the wrong type of San Pedro or improper route of ingestion. Only certain varieties of San Pedro have enough mescaline content to be considered an effective dose, so it is not as simple as going to the local hardware store and buying one. Though these higher mescaline content variants are still easy to source with a bit of knowledge (Trout 2012).

The idea of peyote alternatives is much more relevant for potential users who do not have the same cultural and spiritual connection to peyote as North American native groups. Many Native American groups when spoken with would prefer that nonnatives stay away from peyote, and at least use the alternatives instead if they are seeking a mescaline experience. There is not a lot of information available on this in the literature, but according to people who work with peyote organizations, some practitioners have already tried alternatives and been unsuccessful. This means it is unfortunate how difficult to access certain peyote alternatives are. Synthetic mescaline would be highly appealing according to certain peyote researchers for those seeking these alternatives to explore, but the United States considers it a Schedule 1 substance, meaning there is no real chance of it being explored further in the foreseeable future (Winkelman 2014).

### **Changing Peyote Culture**

The creation of the Native American Church umbrella as the only legal way to practice peyote forced a sort of cultural shift. Native American groups represent hundreds of different nations and cultures. While they may share common experiences and values on some level, these groups are distinct from each other and have their beliefs within themselves. Yet, when creating this organization, the United States government essentially lumped them all in together (de Verges 1974). In modern America, peyote is becoming more known in the public consciousness. A large amount of peyote practitioners and Native American Church groups are not even native. Nonnatives are forced under that umbrella by the law even if it does not apply to them.

Psychedelic culture becoming mainstream has had a noticeable change on the perception of peyote. To a lot of the younger generation in America especially, peyote is seen as part of something cool and trendy. This has affected peyote in the wild. Increased awareness of how it is a rare and valuable plant means that peyote is the plant that is the least likely to be left alone in the wild in the regions that it grows. It is considered highly desirable to own peyote by many, without consumption even being brought into the equation. Other cacti of the genus *Lophophora* have become expensive and more popular among succulent owners simply because of their appearance that is like peyote, as I have observed by sales of cacti on Reddit cacti buying forums.

The changing culture of peyote as well as psychedelics in general gives practitioners potentially both hope and fear. The future of peyote practice in the United States has always been uncertain. The government has been so hostile to Indigenous people, and its only by the actions of this government that peyote is able to be used openly at all in modern America. Although it seems that society is becoming more open to Indigenous practices and the use of psychoactive substances, that does not necessarily apply to the whole country, and that can always change in an instant with the enactment of a single law at the federal level. In the interviews, there are many worries for practitioners even if they are able to practice openly now. Regardless, the possible solutions to the problem of reduced availability of peyote are all well understood. Various peyote practitioners and organizations are making the adjustments they need, and there is always the hope that the law could improve to be more on their side in the future.

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