


Banisteriopsis caapi

By Susan Emmert

"It was thirty minutes before I felt the first sensation, a numbness on the lips, and a warmth in my stomach that spread to my chest and shoulders even as a distinct chill moved down my waist and lower limbs...I opened my eyes to a flash of light, a passing headlight on the road, harsh and intrusive. I retreated again and felt myself fade into an uncomfortable physical body, prostrate on the mat, and tormented by vertigo and a mounting nausea" (Davis 1996). This account describes the beginning feelings and affects of an experience between Wade Davis and *yage*, a drink whose main component is the plant *Banisteriopsis caapi*.

Banisteriopsis caapi is a plant found in the tropical regions of South America, including the countries of Brazil, Ecuador, Peru, and more. It is a liana that grows in the tropical forests of these regions and is often utilized in native tribe cultures. Many different aboriginal tribes of the Amazon rainforests use drinks prepared from this plant under many different names: *ayahuasca*, *caapi*, *yage*, *yaje*, *natem*, *datem*, *pinde*, *dapa*, and more. It has been used in various tribe cultures for years and still has a place in today's societies and religions.

Banisteriopsis of the Malpighiaceae, is a genus of around one hundred species of plants in tropical America. Three of these are known for their hallucinogenic affects in ayahuasca. These three plants are *B. inebriens*, *B. caapi* (Schultes 1970) and *B. quitensis* (Schultes 1995). The best known of these three species and the main component of *ayahuasca* is *B. caapi*.

When the drink *ayahuasca* is made, it is often supplemented with other plants that provide hallucinogenic properties to the drink. There are many species of plants, stretching across genera, that are added. Some of the plants included in these various admixtures are *Diplopterys cabrerana*, *Psychotria viridis*, and *Psychotria carthaginensis*. There are also members of the Solanaceae that are commonly used, *Nicotiana* species, *Brugmansia* species, and *Brunfelsia* species (Schultes and von Reis 1995). These plants bring different chemical constituents to the drink.

The chemical components of *Banisteriopsis caapi* that cause the hallucinogenic effect are beta-carboline

alkaloids found in the bark. More than nine alkaloids have been isolated in *B. caapi*. The three main active constituents, and most well known from this plant, are harmine, harmaline, and tetrahydroharmine. Other beta-carboline alkoloids include harmine-N-oxide, harmic acid methylester, harmalinic acid, harmic amide, and more (Kawanishi et al 1982).

B. caapi alone in *ayahuasca* has limited hallucinogenic affects, but it is sometimes fashioned this way. More likely though, the prepared drink is composed of more than just *B. caapi*. When these other plant species (listed above) are used in the preparation of the drink they bring along their own chemical compounds and enhance the psychoactive affects of the drink. The active chemical compound of these plants is N,N-dimethyltryptamine (DMT). It is believed that this provides most of the hallucinogenic effects of the drink.

DMT is not orally active. This is why *B. caapi* is such an important component of the drink. The chemical compounds in *B. caapi* are believed to guard the DMT from being destroyed, and thus rendered inactive when taken orally. Since the DMT is not destroyed it can then elicit an effect (Schultes and von Reis 1995).

The indigenous tribes of the Amazon do not imbibe in their drinks prepared from *B. caapi* and various other hallucinogenic plants because they are looking for the high that today's culture and society in the United States and other countries want. "The casual Western uses of hallucinogens for escape, relaxation, or experimentation are foreign to them" (Bennett 1992). Shamans, as the tribes medicine men are sometimes called, take the *ayahuasca*, *natem*, or *pinde*, which ever name their tribe uses, for religious and spiritual reasons and healing purposes. The shamans "drink hallucinogenic beverages to communicate with the spirit world, diagnose illnesses, determine guilt, and see the future" (Bennett 1992).

When the *ayahuasca* is used for medical purposes, the shaman is the person to take the drugs, not the patient. Sometimes the patient has already tried conventional medicine. If that fails, they will turn to the shaman for treatment believing that the source of the illness may be magical. During this treatment the shaman will imbibe in the drink and translate the visions he sees while under the influence of the drug. He interprets these visions so he can discern what caused the illness and fight it symbolically. The shaman will sing to the patient about the fight and in the process is freeing him from the evil (Rivier and Lindgren 1972). This is not the only way the drinks are used medicinally. In some cultures, the shaman and the patient will ingest the drink (Bennett 1992).

Apart from the medicinal uses of the drinks prepared from *B. caapi*, the drinks are also consumed on a social basis. But not in the same customary ways that western societies display. In many of the tribes that utilize the *natem, caapi, hoasca*, etc., it is the men that imbibe the drink. They drink it in order to have visions. Often these ceremonies involve singing and chanting and the words of the songs reflect what is being seen in the visions. The visions that the person sees vary greatly. They see enjoyable images or terrifying ones. They might have a vision in which they make contact with a deceased or absent person or they might see serpents and jaguars. They also sometimes have visions of objects of

their culture and of more modern culture. What ever they see, it is told of in the songs the person sings (Lindgren and Rivier 1972).

The natives of the Amazon believe that they can discern differences of the *B. caapi* even without touching, smelling, tasting, or cutting the liana. There may be no morphological difference in these different types of *B. caapi* yet the native will contend that there are distinct kinds and that they can be used to make various types of the drink with varying strengths. "The natives insist that they can utilize these different 'kinds' of *caapi* to prepare drinks of sundry strengths, for different purposes or in connections with various ceremonies, dances, or magico-religious needs or for whatever the partaker wishes to kill in the hunt" (Schultes 1991). According to Shultes there are at least thirty different types of *B. caapi* that the natives of the Amazon acknowledge, have names for, and have uses for.

The preparation of the *B. caapi* seems to be similar in most of the indigenous tribes of the Amazon. The preparation of the drug varies little from one village to another...Fifteen stems of *Banisteriopsis caapi* are crushed with a short thick pole and cut into pieces 10 cm long...layers of vine are packed alternating with leaves of *Psychotria* sp., until the vessel is full. Ten litres of water are added, and the mixture is boiled for one hour. The vegetable sediments are eliminated by filtering through a strainer. As soon as it is cold, the decoction is ready for consumption (Lindgren and Rivier 1972). This reported preparation of *caapi* was from a paper written by Lindgren and Rivier published in 1972. In 1992, Bennett gives a similar account, a Shuar shaman, prepares the *natem* beverage by first splitting a 1 to 2 m length of *B. caapi* stem into small fragments. He places these in a pot with several liters of water and then adds leaves of *Diplopterys cabrerana* (Cuatrec.) B. Gates, *Herrania* sp., *Ilex guayusa* Loes., *Heliconia stricta* Huber and *mukuyasku* (an unidentified Malpighiaceae). He boils the mixture until most of the water evaporates and the solution has a syrupy consistency" (Bennett 1992).

These two acounts twenty years apart still describe the same process for preparation. Taking this drug has many effects on a human both mentally and physically. Ayahuasca causes profound alternations in consciousness, including changes in time and space perception, rapid mood change, synesthesia, de-personalization and increased suggestibility. *Ayahuasca* also brings on a state of immobility and incoordination of movement, as well as nausea, occasional heavy vomitting and frequent diarrhea, the latter symptons marking initial experiences for many" (de Rios 1970).

The episodes with *ayahuasca* can be pleasant or painful. William Borroughs, Harvard classmate of Richard Evans Schultes, "described *ayahuasca* as being like kicked in the head by a mule" (Cuckburn 1997). Other people also report negative experiences with the drink. Lindgren and Rivier described their first account with *ayahuasca* as being mildly uncomfortable. They experienced some nausea and numbness and tingling, but the bothersome sensations went away at the start of the visions. Then they report with their second experience, a much more painful encounter. "Three months later, a second experience proved to be extremely violent, painful and quite negative...[it] left one with a feeling of fatigue and frustration and also a lasting fear that it might return" (Rivier and Lingren 1972). One effect on the body caused by the alkaloids in the *B. caapi*, is an induced photosensitivity of the eyes. This makes any light, even moonlight or candlelight or car lights irritating to the eyes (Bennet 1992).

While *ayahuasca* can have a negative effect it can also bring about positive effects. The people consuming the drink can have feelings of flying and encounters with spiritual beings. Some even claim to "leave their bodies [invisibly] and enter those of their enemies in order to inflict incurable disease" (de Rios p 298). So while the actual physical effects of the hallucinogen may be painful, the visions and mental effects can be exalting. Over all *ayahuasca* and related drinks made with *B. caapi*, have a profound effect on the mind and body.

While the use of *B. caapi* brings about a feeling of disillusion and distortment, the importance of such plants must not escape society. Plants such as *B. caapi*, have chemical compounds that can be very useful for humans. This alone though, can not be the driving force for preservation of tropical rain forests and other ecosystems all around the world. The importance of biodiversity goes beyond human exploitation. Diversity must be saved for diversity's sake.

There are many wonderous plants out there waiting to be discovered, some of them will have chemical compounds of tremendous significance. These plants, while tremendously important to medicine and technology, will also appeal to people with the desire to understand and appreciate the mysteries of nature. As long as biodiversity is maintained people will continue to discover and hold in high esteem the phenomenons of nature and will continue to experience the wonders... At first it was pleasant, a wondrous sense of life and warmth enveloped all things. But then the sensations intensified, became charged with a strange current, and the air itself took on a metallic density. Soon the world as I knew it no longer existed. Reality was not distorted, it was dissolved as the terror of another dimension swept over the senses. The beauty of the colors, the endless patterns of orblike brilliance were as rain falling away from my skin (Davis 1996).

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