Hallucinogenic Snuff Drugs of the Yanomamo Caburiwe-Teri in the Cauaburi River, Brazil

CHARLES BREWER-CARIAS AND JULIAN A. STEYERMARK[1]

As indicated by Schultes and Holmstedt (1968), the sources of narcotic snuffs used by South American natives have been treated vaguely and often were based on uncertain botanical identifications. As these authors also point out, it had long been the assumption that such snuffs were produced wholly either from tobacco or from *Anadenanthera peregrina* (more commonly known as *Piptadenia peregrina*). Thanks to the intensive research on this subject, principally by Schultes and Holmstedt (1968), it is now known that other important plant sources are used, such as various species of *Virola* (*V. theiodora, V. elongata, V. calophylla,* and *V. calophylloidea*), *Elizabetha princeps*, and *Justicia pectoralis* var. *stenophylla*. Moreover, the combination of *Virola, Elizabetha,* and *Justicia* is used by some South American natives to the exclusion of *Anadenanthera peregrina.*

During October of 1971 the present authors were based at the Maturacá Mission in Brazil, participating in a botanical exploration of the summit of Cerro de la Neblina (Serra do Neblina) with helicopter facilities provided by the Frontier Commission of Venezuela and Brazil through the good graces of Mr. Georges Pantchenko. Our observations further corroborate the botanical identifications and data published by Schultes and Holmstedt (1968) concerning the narcotic drug plants used by the Indians of the Maturacá area and emphasizes of the importance of species other than *Anadenanthera peregrina* in the production of narcotic snuffs.

The Yanomamö Indians

The Indians living in this area are the Yanomamö. On the Brazilian side of the Venezuela-Brazil border, a few groups or settlements of Yanomamö Indians (known also as the Waika, Guaharibos, and Sirishana) have established their dwellings on the edge of a well known and ever expanding territory, the center of distribution of which is located in the basin of the Siapa river and in the headwaters of the Orinoco river and its tributaries, the Mavaca, the Manaviche, and the Mahekoro-u. (Fig. 1 and 2).

The Yanomamö Indians were known from early descriptions of adventurers and explorers of the headwaters of the Orinoco. The earliest prolonged contact with this group was made by James Barker, an evangelist missionary of the New Tribes Mission, which, in 1951, established the first house in the village of the Mahekoro-teri people near a place now known as the Platanal Catholic Mission in the headwaters of the Orinoco.

Although *Yanomamö* is the name used by these people to define themselves in the Brazilian and Mavaca river areas, in several places other variations of the name (*Yanonamö* and *Yanoamö* in the Parima range and Ocamo river areas, respectively) are found, due to local differences in pronunciation. Our observations were made among a Yanomamö group now known as the Caburiwe-teri, because they live near the Cauaburi river (Fig. 3), near the Maturacá Mission established by the Salesians in 1954. This group, formerly known as the

[1]Instituto Botanico, Apartado 2156, Caracas, Venezuela.

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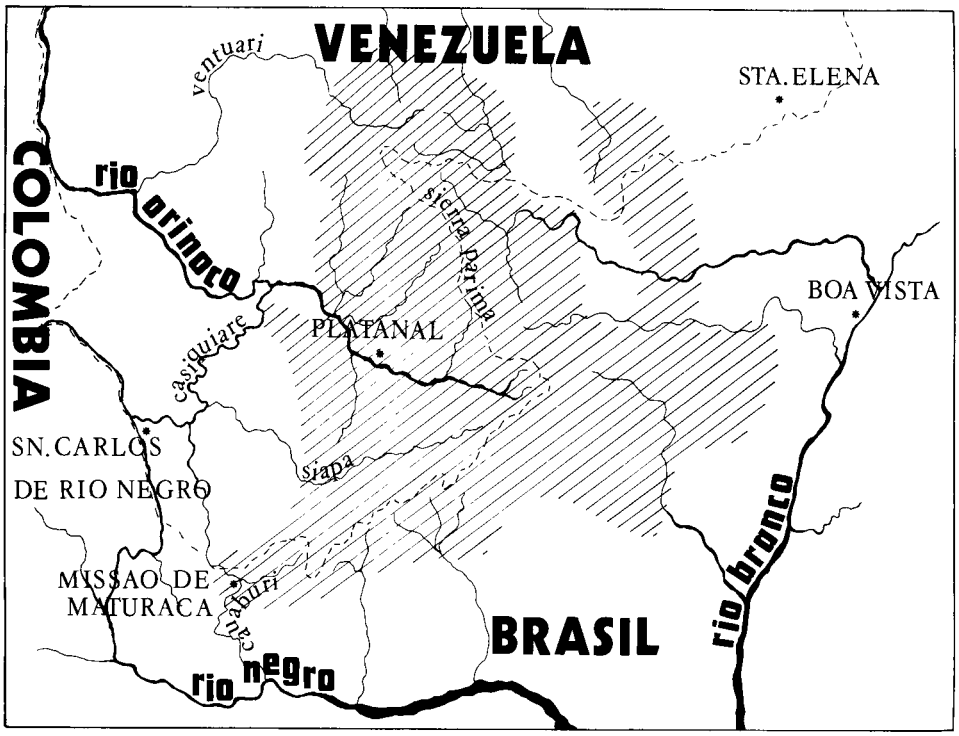

Fig. 1. Map showing the distribution of the Yanomamö tribes in the Venezuela-Brazil border.

Kohoroshiwe-teri, were involved in the well documented kidnapping of a farmer's daughter, Helena Valero, in 1933, and now live near the Mission on which they are more or less dependent for trade goods, thus exposing themselves to the complexities of acculturation and diseases brought in by the missionary traders.

Our informants, when questioned about the use of drugs, pointed in several directions to seven of the neighboring Indian settlements which, because of intimate relationships developed, probably use the drugs in the same local manner as those around the Maturacá Mission. The seven neighbouring settlements indicated are: Wawanaweteri on the Maiá river, the Pohoroapuiwei-teri on the Irapirapi river, the Pukimabui-teri on the Pukimabué river, the Shamau-teri at the Salesian Mission on the Marauiá river, the Aprue-teri, the Hawaro-teri, and the Toshamosh-teri on the Siapa river. The last three are located in Venezuela, while the first five belong to Brazil. The senior author had visited the various Indian settlements located in the headwaters and tributaries of the Orinoco river, and our local informant had heard about, but did not know, some of their names.

Plants employed by the Indians at the Maturacá Mission

While based at the Maturacá mission in Brazil, we had an opportunity to obtain specimens of plants used for their hallucinogenic effects by these Yanomamó Indians. The following observations were made from three different species employed.

1. **Justicia pectoralis** Jacq. var. **stenophylla** Leonard (Fig. 4).

This plant, known to the Yanomamö Indians as *mashihiri*, is herbaceous with spreading stems growing low to the ground, and the leaves are narrowly oblanceolate or lance-elliptic. It is cultivated on the edge of gardens and forms a dense cover on the ground. When fresh, it is faintly fragrant. The slender leaves are packed together in a bunch, and the petioles are inserted into the pierced ear-lobes by the women for ear ornaments, which have the appearance of

Fig. 2. Lined area in square showing the location of the detailed map of Fig. 1.

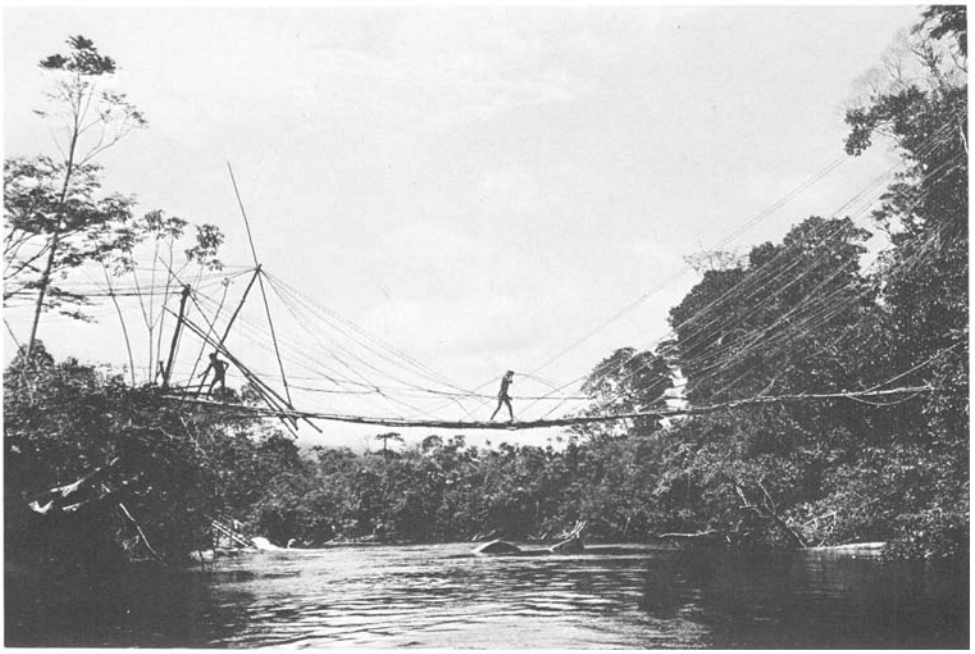

Fig. 3. 40-meter long bridge of jungle vine across the Maturacá river, made by the Yanomamö Indians of the village of Caburiwe-teri.

green puff balls (Fig. 5).

In the region of Maturacá, our informants at the village of Caburiwe-teri use the leaves of this plant to make an hallucigenic snuff, which can be used alone, but most of the time it serves rather to strengthen the more powerful *épena* snuff powder. The *mashihíri* snuff is also called *épena*, and the term is used generically for drug snuff in general.

The leaves of this plant are dried over a fire or in the sun, then toasted over a piece of an old clay pot heated to make the leaves crisp. These crisp leaves are then mashed or crushed between the palms of the hands. The resultant flakes are ground by means of a special stone employed as a pestle, the stone being rubbed against the clay pot until a fine powder is yielded. The powder is then gathered by means of a feather and brushed into the base of a palm leaf-sheath or a fresh banana leaf, either of which serve as a dish. Usually, when much powder is prepared, it is kept tightly closed for future use in a hollow stem of a bamboo.

Since the powder of the *mashihíri* by itself is too fine, it is generally mixed with the ashes of the bark of the *áma-asíta* tree (*Elizabetha princeps*) in order to give bulk and some "strength," or, as previously stated, to be used in a mixture with the *épena* powder.

Schultes and Holmstedt (loc. cit. pp. 135-139) describe the process of preparing this herb for snuff at the Maturacá Mission, and indicate that preliminary chemical investigation of this plant suggests that it may contain some pharmacologically active ingredient.

2. **Virola elongata** (Benth.) Warb. (Fig. 6).

Schultes and Holmstedt (loc. cit. p. 152) identify their specimens from Maturacá (*Schultes 24574, 24575*) as *Virola theiodora* (Spruce ex Bentham) Warburg, indicating that this name is synonymized under *V. elongata* in A. C. Smith's treatment of the genus in 1937. Since the leaves from the specimen collected in Maturacá by the junior author (*Steyermark 104039*) are relatively thin, subacute at the base and not sinuous near the margins in life, as well as having inconspicuous lateral nerves (characters emphasized by Schultes and Holmstedt to delimit *V. elongata* from *V. theiodora*, it would seem that our material would best apply to *V.*

Fig. 4. *Justicia pectoralis* Jacq.

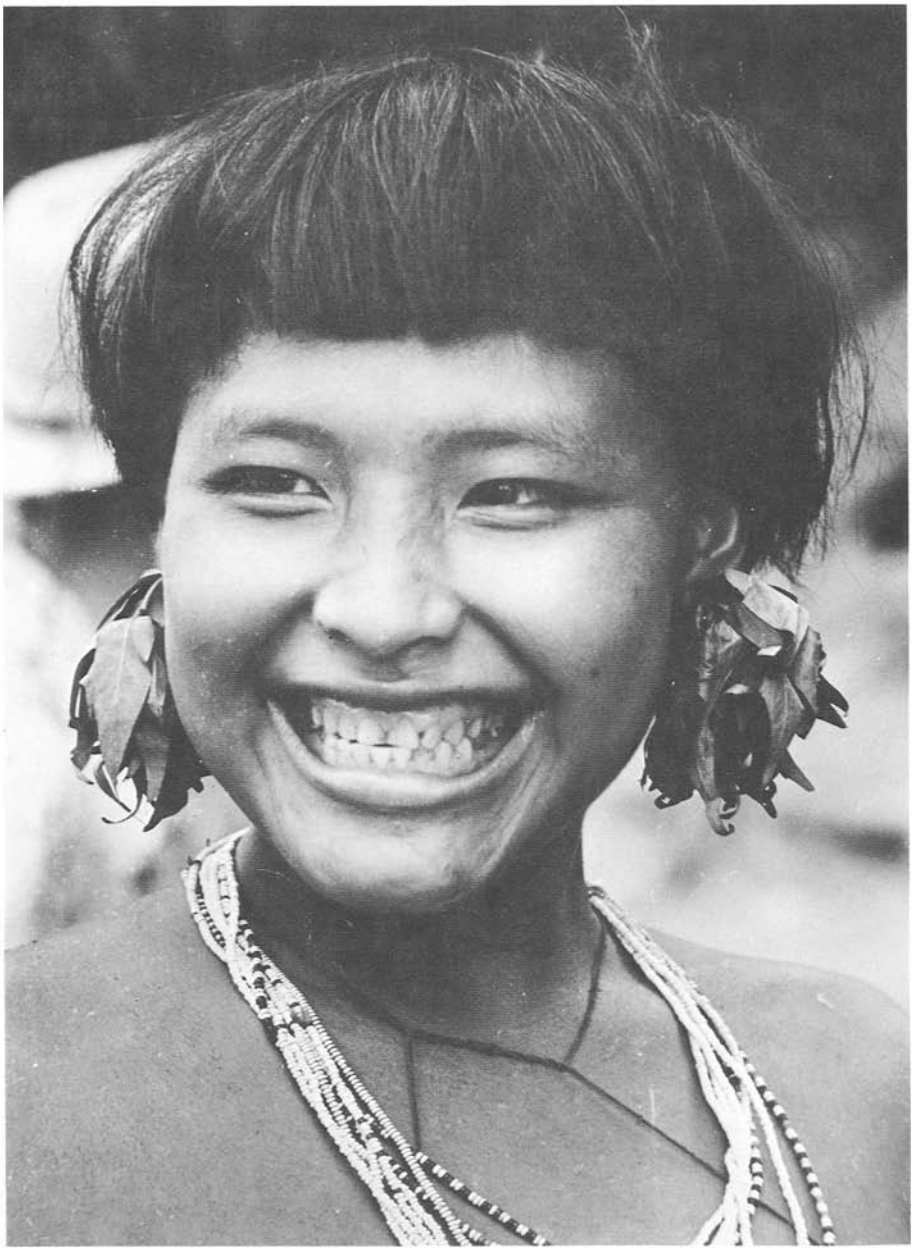

Fig. 5. Yanomamö woman, showing the leaf puffs of *Justicia pectoralis* or mashihiri in the pierced ear-lobes. These leaves are slightly fragrant and are one of the main plants used as hallucinogenic snuff.

elongata.

The Yanomamö Indians call this tree *épena.* It is a large tree in the region of Maturacá, with a trunk up to 50 cm. diameter and with very rough bark. The main branches extend horizontally, and the leaves are dark green and shining above, and gray-silvery below. The drug is prepared by scraping the fresh, newly exposed, soft, inner surface adherent to the bark. These pieces are either collected in the field and brought to the village in a package of leaves, or the same bark is brought fresh back to camp and then scraped at the time needed.

The scraps of bark are placed on a piece of an old clay pot over a fire and dried carefully until crisp. If they are too wet, they are mixed with powder from the ashes of the áma-asíta tree (*Elizabetha princeps*) to help them dry faster. The resultant crisp bark strands are ground to a powder by hand and by a stone pestle against a clay pot. In the region of Maturacá and Cauaburí, the powder of the *épena* is considered to be the main hallucinogenic drug, and the name *épena* is employed indifferently for snuff made either from this powder alone or one mixed with the powder of the *mashihíri* herb (*Justicia pectoralis* var. *stenophylla*) and/or with the ashes of the áma-asíta bark.

Schultes and Holmstedt (loc. cit. p. 135) describe the preparation of the *Virola theiodora* bark at Maturacá and at Wayhana-oo-thle, noting differences between the two villages in the elaboration of the snuff from this particular species of *Virola.*

3. **Elizabetha princeps** Schomb. ex Benth. (Fig. 7).

Schultes and Holmstedt (loc. cit. p. 139) are the first to identify this particular ingredient of narcotic snuff used by the Indians at Maturacá, who call the tree *áma-asíta.* The tree, from which the snuff is derived, is somewhat similar to the flamboyant tree (*Delonix regia*) with rough gray bark, pinnately compound leaves, and brown pubescent petioles. The ashes of the bark are used commonly at Maturacá as an additive to the snuff and are considered by some Indians as having no real hallucinogenic effect; it is merely valued for its "strengthening properties" and to add bulk. The strengthening effect is described by them as having an additional irritating sensation, which is felt in the nasal membranes. Schultes and Holmstedt (loc. cit. p. 139) state: "We have every reason to believe that this ash may be an inert ingredient, although it may serve as a means of drying, to free the alkaloids more easily from the resin, to keep the snuff from deteriorating rapidly when stored in the bamboo tubes; or merely for mechanical purposes."

In preparing the bark, the Indians at Maturacá either dry it in the sun or place it quickly over a fire, if it be needed at a particular moment. After being dried, the bark is burnt alone without any other wood; its ashes are collected as a fine powder mixed with the *épena* snuff made only from the *epena* powder or with *mashihíri* (*Justicia pectoralis* var. *stenophylla*) itself, or with a mixture *épena* and *mashihíri.*

Use of the snuff

The use of the drug among the Yanomamö Indians has been well documented by numerous authors and is not noticeably different in the Caburiwe-teri group. The dried, brownish green powder is introduced into the end of a hollow bamboo tube *cerbatana* nearly a meter in length. The tube is then struck with the forefinger to scatter the contents along the length of the tube. One end of the tube is placed into one of the nostrils of the person receiving the drug, while his assistant blows a strong draft of air by means of his mouth to the other end. His breath is emitted in such a way that the air, filled with powder, strikes the interior of the nasal anthrum and returns in part by the free nostril. Both persons carry on their blowing in a squatting position. The one on the receiving end gets a blow on each nostril. He then grimaces, groans, chokes, coughs, lacrimates and usually vomits. After a while, when he is in a kind of stupor, a powder-loaded mucus runs down the nose as a result of the intense irritation to which the mucous membrane has been subjected.

According to the users, the drug produces color visions around the periphery of the visual field, permitting them to enter into contact with their particular *hekura,* miniature spirits that dwell under rocks and on mountains. When the drug

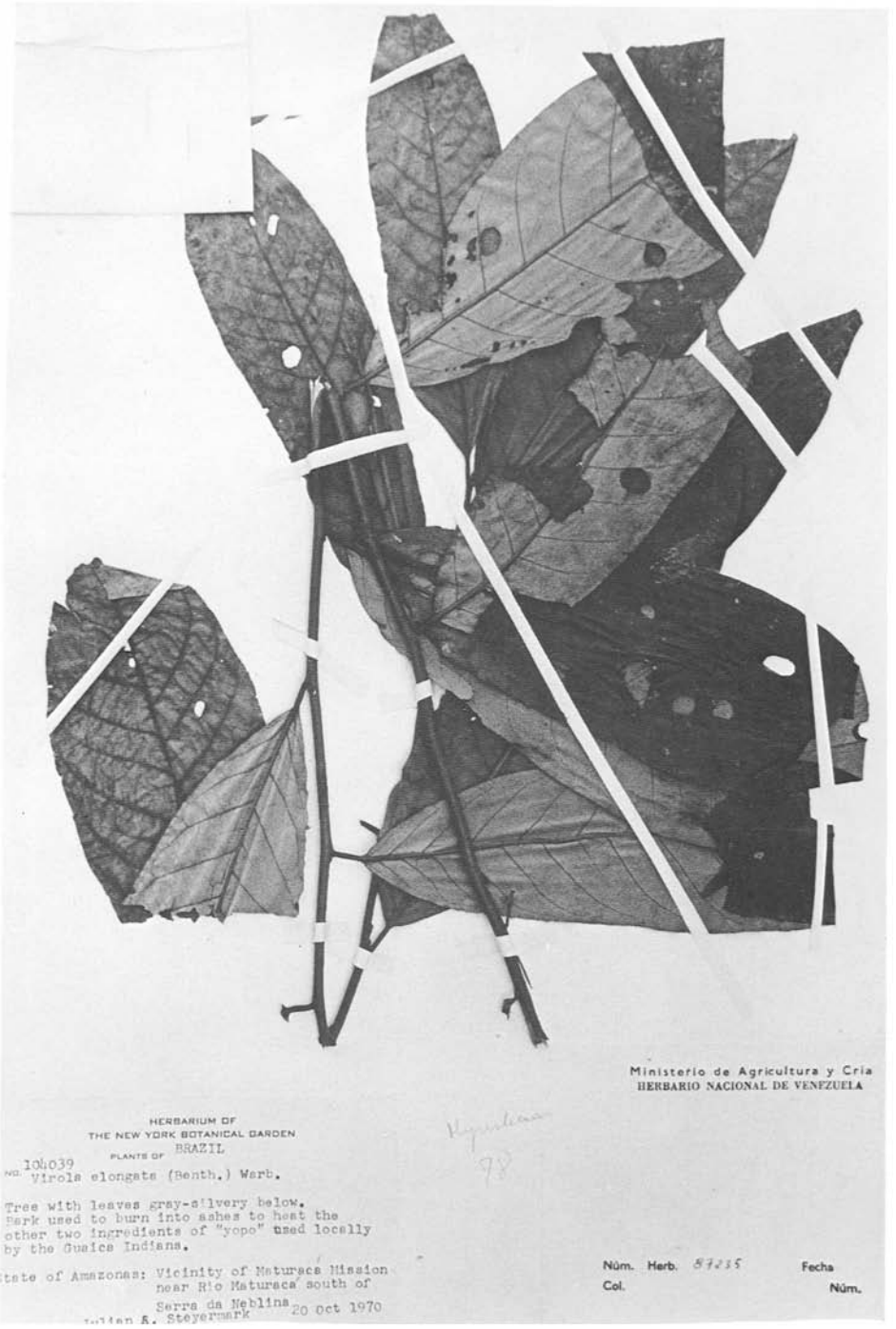

Fig. 6. *Virola elongata* (Benth.) Warb.

Fig. 7. *Elizabetha princeps* Schomb. ex Benth.

starts taking effect, the man usually chants to his *hekura*, inviting it to enter and live in his body.

Use of Anadenanthera

Since the leguminous tree, *Anadenanthera peregrina* (L.) Speg. (formerly known as *Piptadenia peregrina*), is not found wild in the region of the Cerro de la Neblina, the Indians of the Maturacá region know it only by reference and as a very powerful drug. The people of Caburiwe-teri of the Maturacá-Cauaburi river region do not cultivate the tree, either, nor have they acquired the seed by trade. However, the Yanomamä Indians of the Orinoco river region use the seeds of this tree to make their snuff. These seeds are widely employed for this purpose throughout the Orinoco Basin, where they are known as *hisioma* in the *Yanomamö* language of the Orinoco. The drying, grinding, and blowing stages observed among the Indians who do use the seeds of the *Anadenanthera peregrina* is carried on in the same manner as that observed for *épena* by the Caburiwe-teri.

LITERATURE CITED

Biocca, Ettore. *Yanoáma*. Leonardo da Vinca. Bari. 1969.

Chagnon, Napoleon A. *Yanomamö*, the Fierce People. 142 pp. Holt, Rinehart, and Winston. 1968.

Cocco, P. Luis. *Iyëwei-teri*. Escuela Técnica Popular Don Bosco. Caracas. 1972.

Schultes, R. E. De plantis toxicariis e Mundo Novo tropicale commentationes V. *Virola* as an orally administered hallucinogen. Bot. Mus. Leafl. Harvard Univ. **22**: 229-240. 1969.

Schultes, R. E. and B. Holmstedt. De plantis toxicariis e Mundo Novo tropicale commentationes II. The vegetal ingredients of the myristicaceous snuffs of the northwest Amazon. Rhodora **70**: 113-160. 1968.

Seitz, Georg J. Epená, the intoxicating snuff powder of the Waika Indians and the Tucano medicine man, Agostino, in Efron, D. (Ed.) Ethnopharmacologic Search for Psychoactive Drugs, U.S. Publ. Health Serv. Publ. No. **1645**: 315-338. 1967.