

SHORT COMMUNICATIONS

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'uxa Identified.

Among the scattered brittle and often well-armed vegetation of Mexico's central desert in the state of San Luis Potosi, bands of Huichol Indians return each year during the dry season to stalk, hunt and collect the hallucinogenic peyote cactus (*hicuri*) (*Lophophora williamsii* Lemaire & Coulter). Another plant "hunted" on this archaic religious pilgrimage is a nondescript grayish shrub whose roots are harvested and treasured as the raw material for preparing a sacred yellow face paint still used today as it was nearly 100 years ago (Carl Lumholtz, 1900, *Symbolism of the Huichol Indians*, American Museum of Natural History, Memoirs 1(2), New York, p. 25, 34-35, 196); (1973 [1902], *Unknown Mexico*, Rio Grande Press, Glorieta, New Mexico, p. 141-143). Despite additional published references to the plant in the intervening years, only now for the first time is a scientific name provided for this notable and holy shrub.

Lumholtz referred to the plant as *toy* (1900:25, 35). *Toy* has recently been identified as a species of *Karwinskia* (*tui* or *tuuvii*) (Bauml & Voss 1768) with small, edible black fruits and with foliage used medicinally and for spiritual cleansing (Benitez, 1975, *In the Magic Land of Peyote*, University of Texas Press, Austin). It does not appear to be the source of a yellow pigment.

Robert Mowry Zingg (1938, *The Huichols: Primitive Artists*, G.E. Stechert, New York) noted the use of this yellow face paint and used the name *kielei* for the plant (1938:584-585). That name is used today for an unidentified *Solandra* species (Bauml & Voss 2101) which is a sacred plant but not the source of a yellow paint. More recently, Barbara Meyerhoff (1974, *Peyote Hunt*, Cornell University Press, Ithaca, New York) witnessed the peyote trip and described *'uxa* as a "desert laurel" collected from a location near a lake known as Agua Perdida (p. 147n). Ramon Mata Torres (1980, *El Arte de los Huicholes*, Guadalajara) describes a search for the roots growing in the walls of an arroyo and provides a photograph of the root (p. 80, 84). Benitez (1975) narrates the discovery and use of *'uxa* in Huichol myth (p. xxi, 135) and song (p. 76-77) and identifies the place where the

plant grows as '*Uxataremekamakuu*, 'the place where the gods painted themselves yellow' (p. 135).

Face painting designs have been figured or interpreted by Lumholtz (1900: 11, 35, 196-203; 1973:141-142), Zingg (1938:584, 585), and Mata Torres (1980:82-83). Photographs illustrating this tradition have been published in the last dozen years (Norman, 1977, Mexico's People of Myth and Magic, *National Geographic* 151(6):836; Berrin (ed), 1978, *Art of the Huichol Indians*, p. 21, 45, 136).

The authors found that the plant as well as the roots are called by the Huichols '*uxa* or '*uxa mutaaxauye*. According to linguist Joseph Grimes (1989:*pers. comm.*) '*uxa* is a marking, including one made with paint. *taaxaa-* refers to the dry season, and *-taaxauye* refers to "anything that is dry season color, basically the color of dried grasses but extending into the vivid yellows of pigments." The seasonal reference may relate to the dry-season peyote pilgrimage and related ceremonies with which the paint is associated. The phrase '*uxa mutaaxauye* can refer equally to the substance put on the face or to the resulting design. Lumholtz (1900) used the names '*ura* and '*uram tarai*, for the face paintings, and he translates the names 'spark' and 'yellow root spark' respectively (p. 196). Lumholtz also referred to the root as '*tarai* (p. 25), possibly a corruption of *-taxauye* (see above) or of '*tauxi* which, according to Grimes (1989, *pers. comm.*) is a generic term for face paints.

The 'spark' translations above correspond better with Lumholtz' association of peyote with the gods of fire, Grandfather Fire and Great-Grandfather Deer-Tail whose colors are yellow (p. 34, 196). He explains that sparks from the now archaic flint and steel are the facial painting of the two gods (p. 10-11). He later states that the designs may actually represent the faces of several or all of the gods (p. 196). In contrast, Zingg recounts an association of the yellow paint with the "multicolored foam from the mouth of the first deer, Peyote," which sprang up when it was killed (1938:585).

As a participant in the peyote pilgrimage on several occasions, the third author observed the collection of this root. After the party approached the plants, smoke from sacred tobacco was blown at them and some questions asked of them. Roots sections up to 15 cm long and 1-2 cm in diameter lying close below the surface were then dug out and the bark scraped away with a knife. Older plants are selected because they are believed to produce a superior quality of yellow pigment.

Rock samples (*tapaari*) used for grinding the roots are also collected in the peyote desert in a location named *Tapaarimatimani*. These rocks are naturally flat, a rusty brown color, and approximately rectangular in shape. One such stone measuring 7.7-9 cm wide by 10-10.2 cm long was characterized as finely crystalline olivine norite.

To prepare the paint, one end of the root is alternately wetted with water and rubbed against the stone in the direction of the tip to release the pigment. The resulting paint is collected on the end of a finger with a piece of straw (Meyerhoff 1974:173; Lumholtz 1900:196; 1973:142) or a with a toothpick-sized stick, and it is painstakingly applied with the help of a small mirror. After the period of use, the dried paint is washed off (Lumholtz, 1973:143) or carefully removed, collected, and burned as an offering.

Voucher specimens (*Collings s.n.*) have provided a means of identifying the source plant as *Mahonia trifoliolata* (Moric.) Fedde var. *glauca* I.M. Johnson (= *Berberis trifoliata* Hartw. ex Lindl.) of the Barberry family (Berberidaceae), a 1-2 meter tall shrub which ranges from Texas, westward to southern Arizona, and southward into north-central Mexico (Ahrendt, 1961, *Berberis* and *Mahonia*. A taxonomic revision, *Journal of the Linnean Society of London* 57(369):352-353). Uphof (1968, *Dictionary of Economic Plants*, 2nd ed., Von Cramer, Lehre, Germany), mentions eleven taxa of *Berberis* (not including *B. trifoliolata*), of which seven are used to produce a yellow dye. According to Standley (1922, *Trees and Shrubs of Mexico, Contributions from the United States National Herbarium* 23(2):271), this plant (treated as *Odostemon trifoliolatus*), has wood which is the source of a yellow dye. He notes that in Mexico it is known as "agritos," "agrillo," and "palo amarillo." In Texas and New Mexico, the name "agrigo" has been corrupted into "agarita" and even "algerita."

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Herbarium voucher specimens are deposited at the herbaria of the Rancho Santa Ana Botanic Garden, Claremont, CA (RSA) and at the Universidad Autonoma de Mexico, Mexico City (MEXU).