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Author(s): Richard Evans Schultes and Robert F. Raffauf
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A rare report of an intoxicating snuff from the Amazon

RICHARD EVANS SCHULTES* & ROBERT F. RAFFAUF**

Summary. A record of the use of seeds of *Dimorphandra parviflora* (Leguminosae: Mimosoideae) to make an intoxicating snuff is reported.

In the Herbarium of the Royal Botanic Gardens, Kew, there is a specimen of the leguminous *Dimorphandra parviflora* Spruce ex Bentham collected in Manáos, Amazonian Brazil, by Richard Spruce in April 1851; it is the type specimen: Spruce 1465. The field notes are in Spruce's handwriting, whereas the name of the plant was written by Bentham. ***

The field notes read: "Tree 40 ft. × 12 in. or more; wood hard, Lv. whitish beneath. Corolla yellowish. Anthers red. Habitat in sylvis Capoeiras prope Manáos, prov. Alto Amazonas. From the seeds of this a noted snuff is made. Paricá, lin. geral."

The term *paricá* is a word borrowed from the Tupí-Guaraní or Nhegatu language, and is widely employed today throughout the northwest Amazon of Brazil to refer to a psychoactive or hallucinogenic snuff. The same name is applied to the intoxicating snuffs prepared from the leguminous *Anadenanthera peregrina* (L.) Spegazzini (syn: *Piptadenia peregrina* (L.) Bentham) and from several species of the myristicaceous genus *Virola*—*V. calophylla* Warburg, *V. calophylloidea* Markgraf, *V. elongata* (Spruce ex Benth.) Warburg and especially *V. theiodora* (Spruce ex Benth.) Warburg.

This record of *Dimorphandra parviflora* as the source of an hallucinogenic snuff has, apparently, not hitherto been published.

The foliage of *Dimorphandra parviflora* is bipinnate and resembles that of *Anadenanthera peregrina*. It is, however, highly unlikely that a meticulously observant botanist like Spruce would have made a mistake in the determination of his specimen, particularly when he was already familiar with *A. peregrina*. The seeds of the two plants—the part utilised in snuff-making in both species—are different: those of *Dimorphandra* being tannish and usually rather elongated; those of *Anadenanthera* glossy black and orbicular to suborbicular. Furthermore, the pods of the former species are short with three or four, possibly five, beans, whereas the latter normally has elongated pods with up to 12 or more seeds.

Little is known of the chemistry of *Dimorphandra*, a genus of some 25 species of the humid tropics of the Americas. Murad *et al.* (1969) and Murad & Gazinelli

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*Botanical Museum, Harvard University, Cambridge, Mass.

**College of Pharmacy, Northeastern University, Boston, Mass. Research Associate, Botanical Museum, Harvard University.

****Dimorphandra parviflora* Spruce ex Bentham in Martius, Fl. Bras. 15, pt. 2 (1870) 251.

(1971) found rutin in the bark and leaflets of *D. mollis* Benthams, along with respectable amounts of alkaloids (0.58% and 0.70%, respectively), but attempts to separate these secondary metabolites by thin-layer chromatography were unsuccessful. The seeds were not examined. The pharmacology of the extracts was investigated. In view of the well known reliability of the author of this significant ethnobotanical note and the chemo-taxonomic importance of toxic compounds in many species of the *Leguminosae*, chemical analyses of the seeds of *Dimorphandra parviflora* would seem to be worth-while. Contraction of smooth muscle in experimental animals produced by acetylcholine, serotonin, histamine, barium chloride and oxytocin was blocked by aqueous or alcoholic extracts. Curare-like action was observed, but it was not antagonised by prostigmine or mesitonin. Pagnocca and his co-workers (1981, 1984) determined the content of vitamin B₆, thiamine and choline in the seeds of *D. mollis*. Triterpene saponines have been reported in the genus (1984).

It is probable that during the 137 years since this field observation was made, use of an intoxicating snuff from this plant may have died out in the region of Manáos where the few Indians who now live on the outskirts of the city are fully acculturated.

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