



TERRA INCOGNITA

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FEASABILITY STUDY 2016: BIO-ASSAY OF BUFO ALVARIUS TOAD SECRETIONS

In 2015 the Terra Incognita Project auspiced a low level study of one gram of fresh Bufo Alvarius toad secretion. The toad secretion was donated by Dr. Octavio Rettig from samples collected in the toad season (July-August) 2015 around Hermasillo, Mexico. The results were clear, if confusing compared to previous research and analysis.

A funded follow up study of the secretions of the Bufo Alvarius toad is much needed. We suggest working to secure a larger base sample of toad secretions, and to extend the sample rate from multiple locations throughout the Sonoran Desert, to examine climate and other variables that may affect the concentrations of 5MEO-DMT, bufotenine and other chemicals present.

This study could follow on and be part of the previous Bufo Alvarius Toad Sustainability study. Protocols and scope need to be extended and properly constructed.

OVERVIEW

19 March 2016

Hi Rak,

I would tend to agree...I saw no evidence of bufotenine, and adapted methods that address psilocin/psilocybin analysis to assure that if there was bufotenine present, I would see it. I didn't. Now, it's altogether plausible to assume there might be seasonal, genetic or environmental conditions where bufotenine accumulates, but at least this one sample did not contain it. I'll be discussing the analytical strategy used that addresses this issue in the write-up I'll put together.

Best,

19 March 2016

Hi ____

glad you can lend your wisdom to the evolving conversation around the bufo secretions and the concentrations of 5MEO / bufotenine etc. I know the website DMT-Nexus has been critical of octavio in the past with his claims **5-HO-**bufotenine converts to 5MEO on high combustion. And from your recent analysis of the toad venom we supplied it seemed to be mostly 5MEO still in the raw secretion, without much bufotenine, at least in that sample from those toads at that point in the season they were milked. So there are lots of variables that are still controversial and any light you can add on that would be excellent.

Cheers

Rak

The title is "The Toad and the Jaguar." Fairly recent, 2013:

http://www.amazon.com/Underground-Research-Visionary-Medicine-5-Methoxy-Dimethyltryptamine/dp/1587902540/ref=sr_1_10?s=books&ie=UTF8&qid=1439509177&sr=1-10&keywords=ralph+metzner

And I have done four separate extractions of the material Juan brought, with analysis by GC/MS and TLC. I'm putting together a more complete report, but three big messages are:

1. The material is apparently present as a salt, making the beige semi-crystalline material insoluble in organic solvents (i.e.: after soaking the material in dichloromethane, that readily solubilizes the free base, no compounds were detected in the solvent by GC/MS).

What this means is that straight vaporization probably destroys a good amount of the active alkaloids before they volatilize. It might be worth discussing a simple experiment, like adding a pinch of sodium bicarbonate (baking soda) to the secretions before they completely dry. On the one hand, the shelf life might be reduced, but with the benefit of greater potency, and less wasting of the material.

2. The principal alkaloid is, in fact, 5-MeO-DMT. I tried different extractions, and compared the last (dilute acetic acid) with a Psilocybe extraction in parallel, hoping to confirm my extractions were not missing bufotenine. I was easily able to see psilocin by both GC/MS and TLC, and it separates from 5-MeO-DMT in both techniques; I saw none in the Bufo extract. The only other compound of possible interest is a possible Beta-carboline (could be an MAOI), but it was present in very small amounts.

3. There's a good amount of "debris" in the extracts, regardless of method. I suspect cellular junk, but it could be anything. Didn't try to get a handle on the relative amount of this balast.

I also experimented with color-forming reactions, and will keep going on this. Ehrlich's reagent forms a purple-blue complex with many indoles, including 5-MeO, so it's possible a relatively cheap 'field method' could be developed using simple spectrophotometers for quantitation. I'll let you know how this goes.

Stand by for pretty pictures, etc.!