# What's that Bloomin' thing?

Presentation by Sohleong Lim


(Sol Leon)

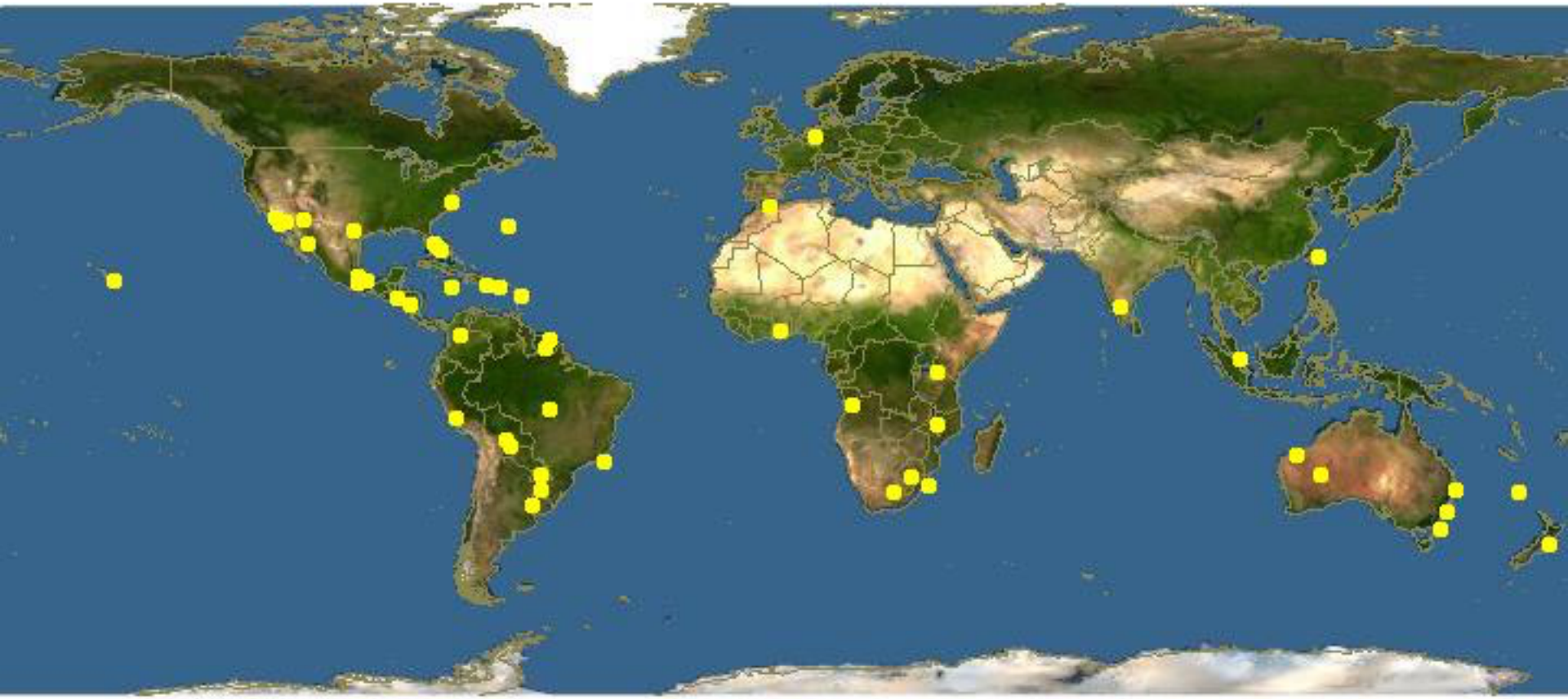
So what is THIS bloomin’ thing?

***Tecoma capensis*** (Cape honeysuckle)
Family: Bignoniaceae (big-no-nih-AY-see-ee)
Genus: Tecoma (tek-OH-muh)

***Tecoma stans*** (Yellow bells)

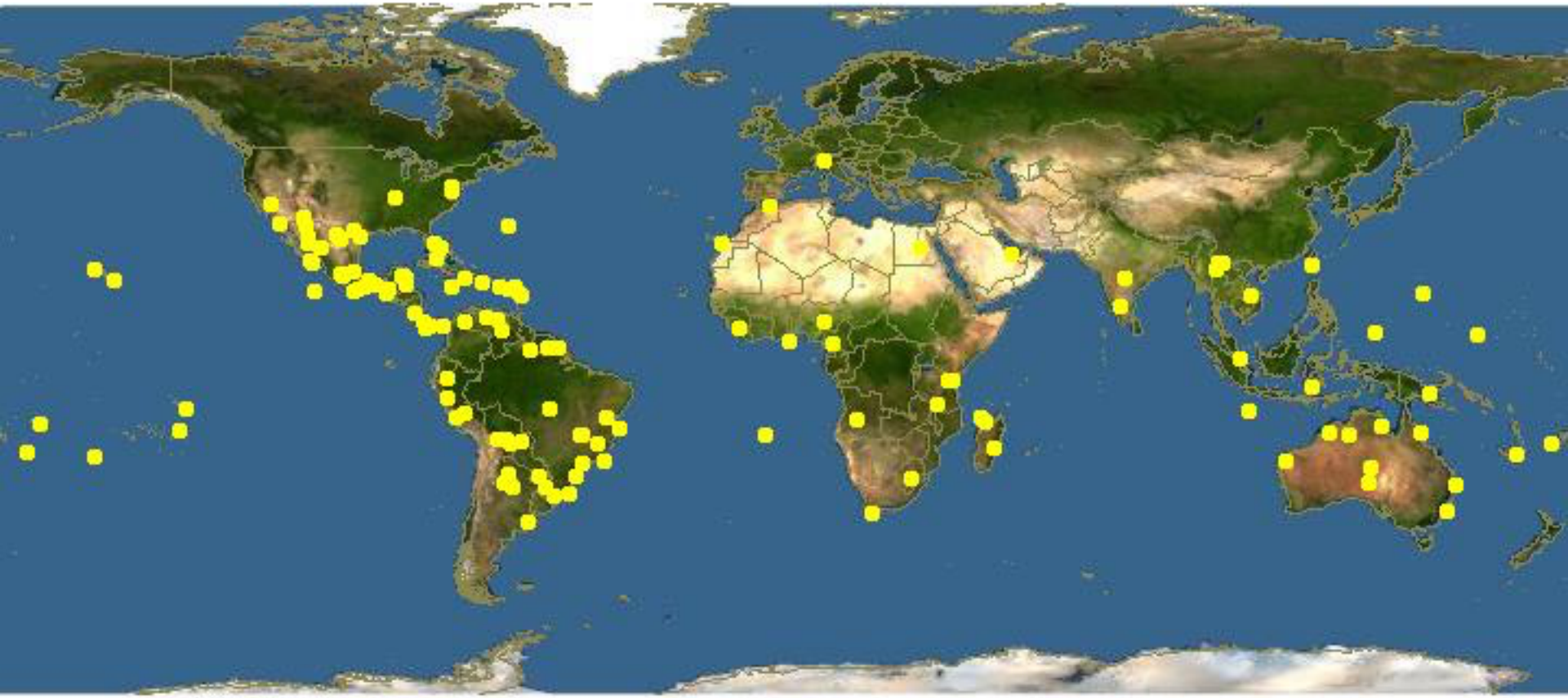
- Yellow trumpetbush
- Trumpet flower
- Esperanza

# Map of *Tecoma capensis*



http://www.discoverlife.org/mp/20m?kind=Tecoma+capensis

# Map of *Tecoma stans*



http://www.discoverlife.org/mp/20q?search=Tecoma+stans

**Positive** On Jul 2, 2011, faithiep from Oldsmar, FL (Zone 10b) wrote:

***Love love love*** this plant… in clearwater fl. True, it is a little wild and will require pruning and watching. But if you're going for the tropical look, all your plants are pretty much like that...I think it should probably be the main specimen in a planting, not a supporting cast member.

**Negative** On Jun 11, 2012, luvsandeigo from LA JOLLA, CA wrote:

***I hate*** this plant and would do ANYTHING to avoid it. It is invasive, aggressive and almost impossible to kill. Spreading 15' or more into the surrounding territory. It's a nightmare. It's NOT the plant you want to use unless you have a lot of time to dig and cut to control it. TOO much work. I put this plant next to Bamboo and Horsetails .... a nightmare.



**Form:** Vase-shaped shrub or small tree capable of reaching 20 feet tall.

- - Excellent plant for wildlife garden
- - Popular with sunbirds and hummingbirds due to its nectar

# *Tecoma stans* or Yellow Bells

This plant is attractive to bees, butterflies and birds

# *Poison honey ???*

"Yellow bells is poisonous, yet bees are attracted to it. The bees are not killed by it, but the honey that comes from it IS poisonous."

http://www.botanical-journeys-plant-guides.com/yellow-elder.html
http://patwelsh.com/wpmu/blog/garden-q-a/is-cape-honeysuckle-tecoma-capensis-toxic/


TOXIC HONEY

Xenophon (401 BC ) in *Anabasis*

"… but the swarms of bees in the neighborhood were numerous, and the soldiers who ate of the honey all went of their heads, and suffered from vomiting and diarrhea, and not one of them could stand up, but those who had eaten a little were like people exceedingly drunk, while those who had eaten a great deal seemed like crazy, or even, in some cases, dying men. So they lay there in great numbers as though the army had suffered a defeat, and great despondency prevailed. On the next day, however, no one had died, and at approximately the same hour as they had eaten the honey they began to come to their senses; and on the third or fourth day they got up, as if from a drugging"

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3404272/

Original Articles

# Analysis of a Toxic Rhododendron Honey

**DOI:** 10.1080/00218839.1981.11100505

J. D. Kerkvliet[a]

pages 249-253

Publishing models and article dates explained

Received: 11 Mar 1981
Published online: 24 Mar 2015



## Summary

Visitors to eastern Nepal who ate local honey suffered from symptoms of poisoning. Analysis of the honey showed that it was partly derived from a *Rhododendron* species, of which *R. arboreum* or *R. campanulatum* are reported to be predominant in the area. Grayanotoxins I, II and III were not found, but some other grayanotoxin analogues known to occur in *Rhododendron* species were present at approximately 30 ppm. This amount could account for the symptoms of poisoning.



Springer CARDIOVASCULAR TOXICOLOGY
springer.com

Journal of Applied Toxicology

Review Article

## Toxic compounds in honey

Md. Nazmul Islam[1], Md. Ibrahim Khalil[1,*], Md. Asiful Islam[2] and Siew Hua Gan[2]

Article first published online: 11 NOV 2013
DOI: 10.1002/jat.2952



Issue

Journal of Applied Toxicology
Volume 34, 733–742, Ju



Cardiovasc Toxicol. 2012 Sep; 12(3): 208–215.
PMCID: PMC3404272
Published online 2012 Apr 19. doi: 10.1007/s12012-012-9162-2

## Grayanotoxin Poisoning: 'Mad Honey Disease' and Beyond

Suze A. Jansen,[1] Iris Kleerekooper,[1] Zonne L. M. Hofman,[1] Isabelle F. P. M. Kappen,[1] Anna Stary-Weinzinger,[2] and Marcel A. G. van der Heyden[1,3]

Author information ▶ Copyright and License information ▶



## Abstract



Many plants of the *Ericaceae* family, *Rhododendron*, *Pieris*, *Agarista* and *Kalmia*, contain diterpene grayanotoxins. Consumption of grayanotoxin containing leaves, flowers or secondary products as honey may result in intoxication specifically characterized by dizziness, hypotension and atrial-ventricular block. Symptoms are

Journal of Applied Toxicology

Review Article

# Toxic compounds in honey

Md. Nazmul Islam[1], Md. Ibrahim Khalil[1,*], Md. Asiful Islam[2] and Siew Hua Gan[2]

Article first published online: 11 NOV 2013
DOI: 10.1002/jat.2952



Issue

Journal of Applied Toxicology
Volume 34, Issue 7, pages 733–742, July 2014

## ABSTRACT

There is a wealth of information about the nutritional and medicinal properties of honey. However, honey may contain compounds that may lead to toxicity. A compound not naturally present in honey, named 5-hydroxymethylfurfural (HMF), may be formed during the heating or preservation processes of honey. HMF has gained much interest, as it is commonly detected in honey samples, especially samples that have been stored for a long time. HMF is a compound that may be mutagenic, carcinogenic and cytotoxic. It has also been reported that honey can be contaminated with heavy metals such as lead, arsenic, mercury and cadmium. Honey produced from the nectar of *Rhododendron ponticum* contains alkaloids that can be poisonous to humans, while honey collected from *Andromeda* flowers contains grayanotoxins, which can cause paralysis of limbs in humans and eventually leads to death. In addition, *Melicope ternata* and *Coriaria arborea* from New Zealand produce toxic honey that can be fatal. There are reports that honey is not safe to be consumed when it is collected from *Datura* plants (from Mexico and Hungary), belladonna flowers and *Hyoscamus niger* plants (from Hungary), *Serjania lethalis* (from Brazil), *Gelsemium sempervirens* (from the American Southwest), *Kalmia latifolia*, *Tripetalia paniculata* and *Ledum palustre*. Although the symptoms of poisoning due to honey consumption may differ depending on the source of toxins, most common symptoms generally include dizziness, nausea, vomiting, convulsions, headache, palpitations or even death. It has been suggested that honey should not be considered a completely safe food. Copyright © 2013 John Wiley & Sons, Ltd.


A New Zealand History of Toxic Honey
Mark Goodwin


There is a thing called Mad Honey Disease which comes from toxic honey, usually from Rhododendrons.
It can kill you.
In case you were wondering, we do not use Toxic Honey.


Take me
HIGH, honey!

Have you found honey?

Eat only as much as you need, lest you be filled with it and vomit.

Proverbs 25:16