

OM

OM



Cisco Craig Dietz born 1952 Hollywood California

Pre- Dental UCLA 1970 -- 1972

1973 UCLA Film School Graduated 1974

Commercial photographer 1976 - 1994

Los Angeles - New Orleans

San Cristobal Chiapaz 1994

1994 2015 Rescuing plants from Chiapaz

2009 2015 Orquideas Moxviquil Botanical Garden

Photography was and always will be part of my life.....

- Polaroid SX70  
1978





- Hollywood  
1979



Flannings Cafe

200-6000 SE  
Mpls.





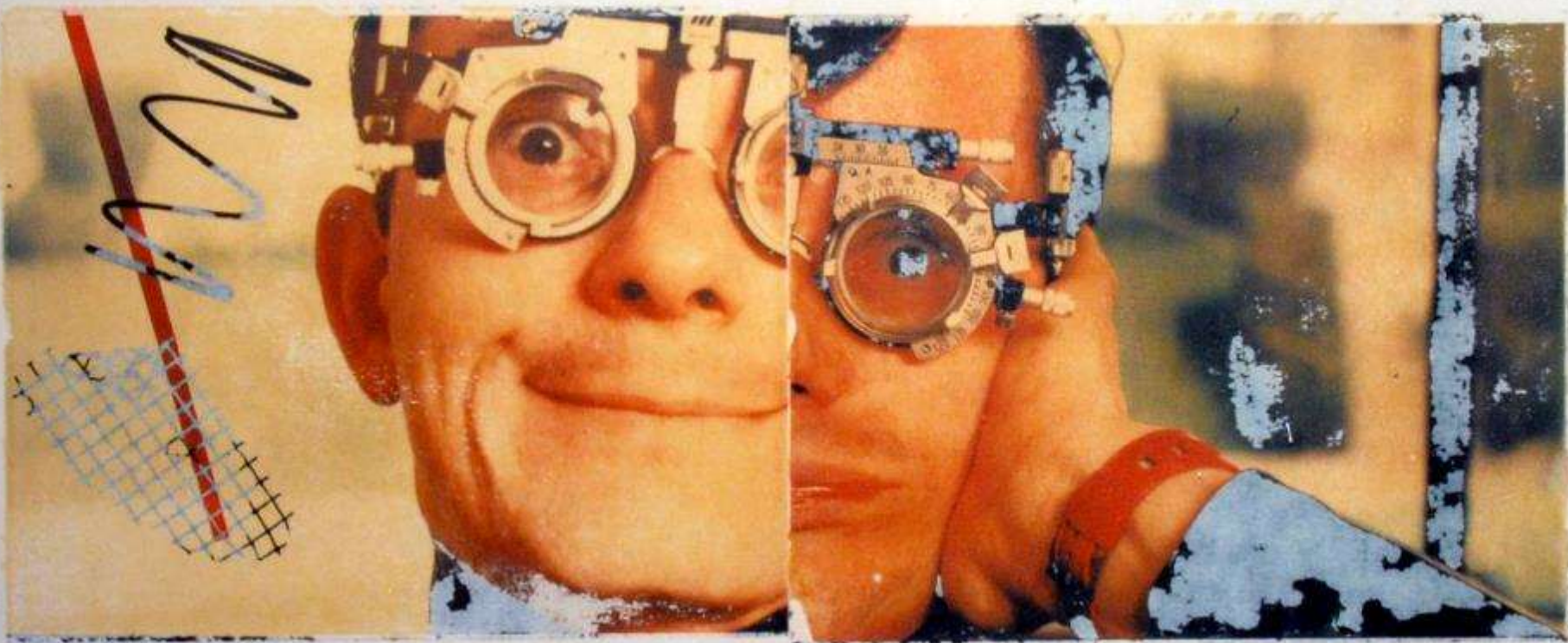
TY FILM 5063

KODAK





- Polaroid Transfers  
1982



Mark Mothersbaugh











Prince & New Power Generation

C. 1992

- Commercial  
1981 - 1993



**INVEST IN  
FUTURES**







- Chiapaz Digital  
1998





- Scanner Images  
2003









- Gente de Chiapaz  
2004







- Gente de Chiapaz CU  
2008











# **Orquideas Moxviquil: Jardin Botánico**

**veinte años de rescate,**

**educación y**

**investigación en Chiapas**



# Orquideas Moxviquil Botanical Garden

A talk to share the wonders of  
Chiapaz's varied flora and more.

How a passion became a love, life changer  
and eventually an emerging botanical garden.

# OM

















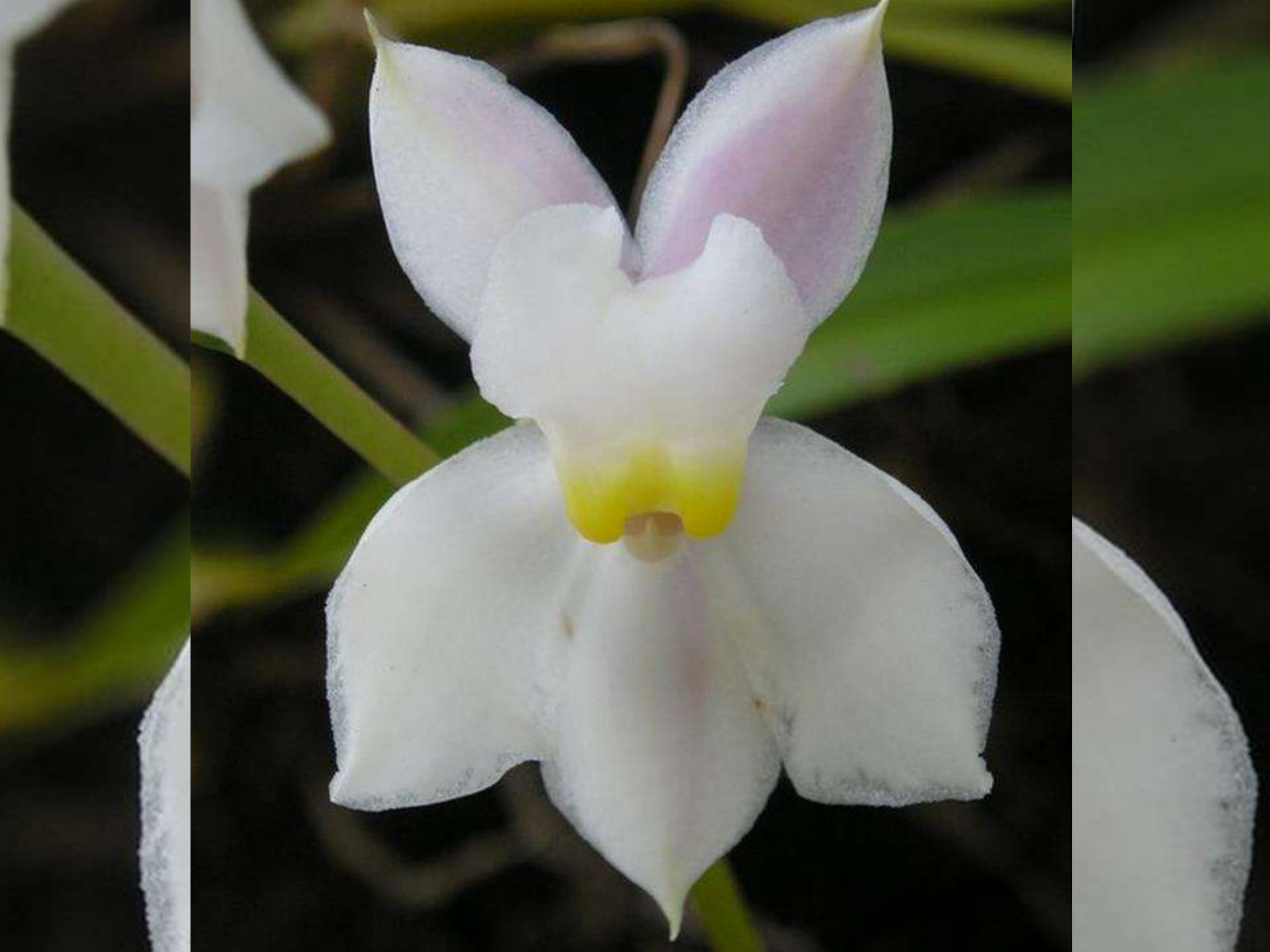


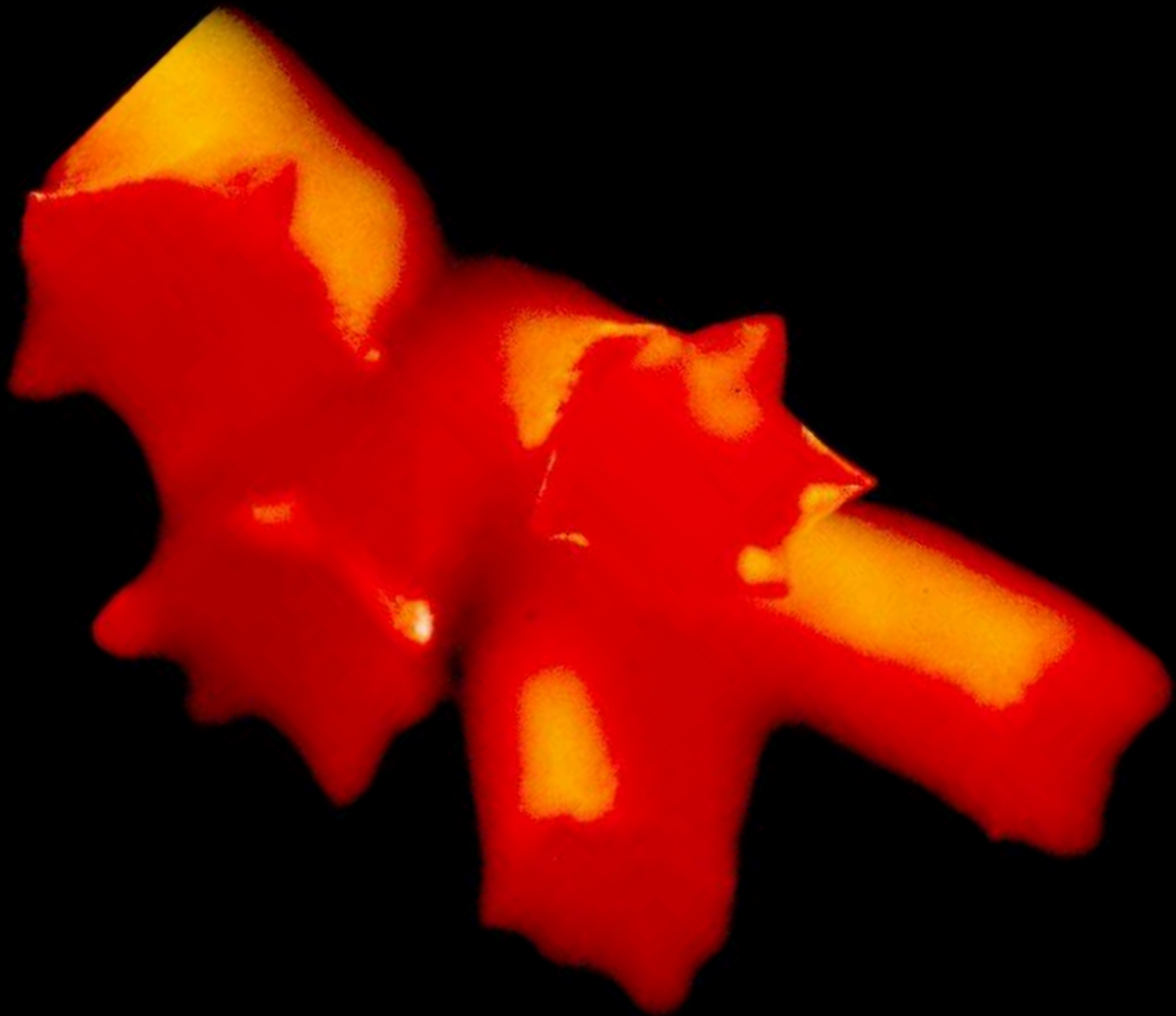














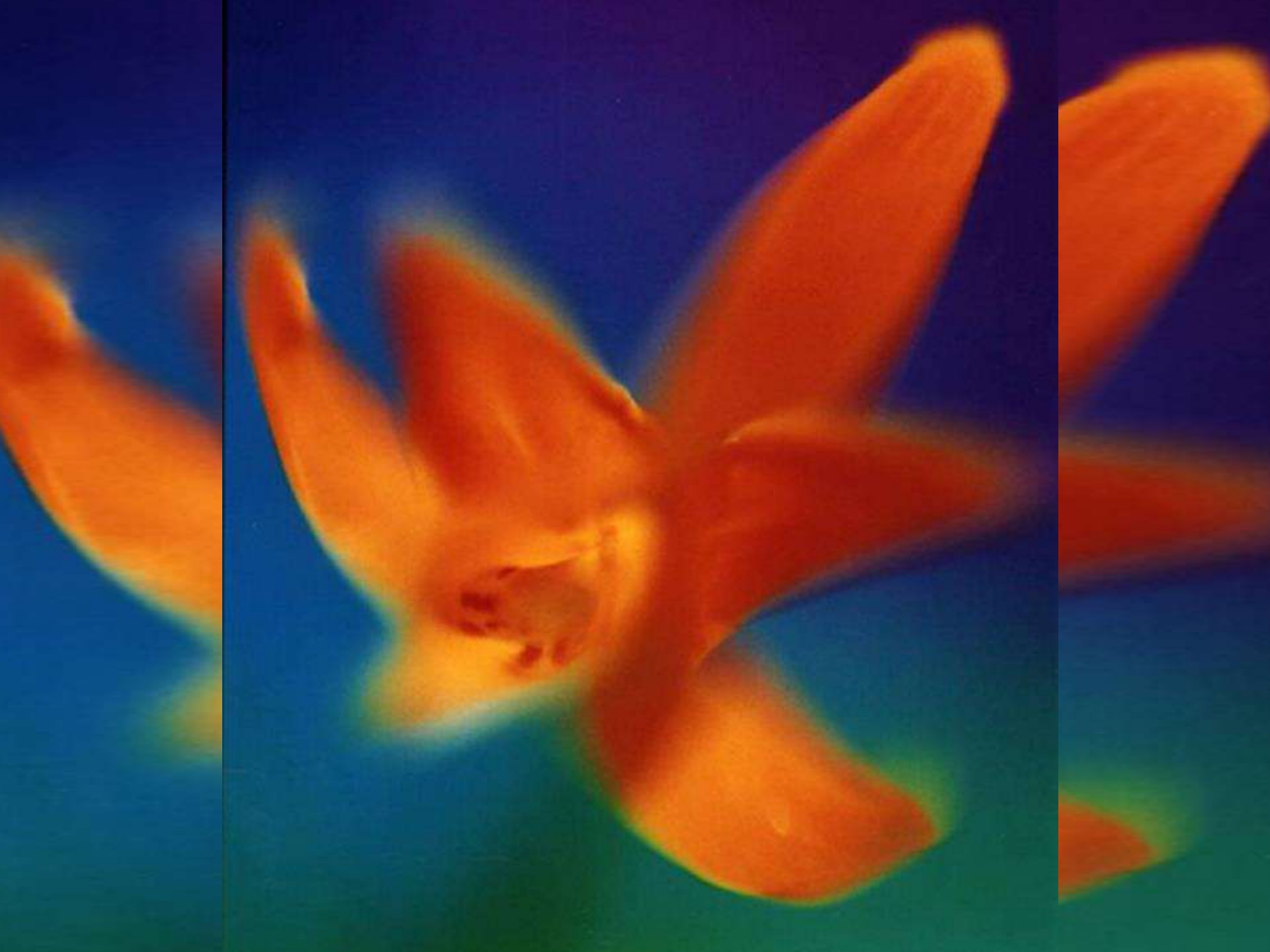








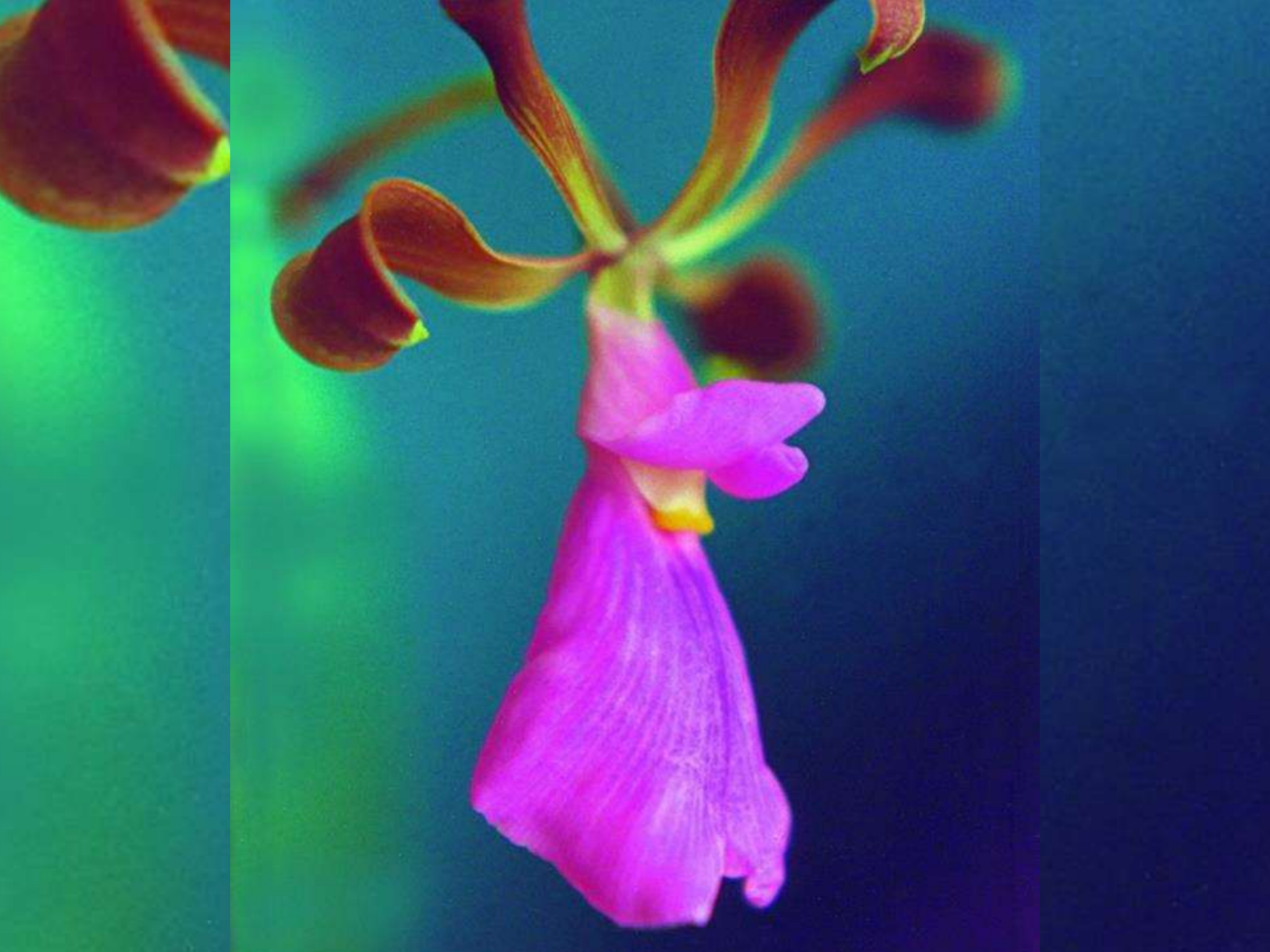


























11005

ORCIDUM

Robinson

STO 4

HUTER

2159



ESPECIES	LOCATION	ELE	Municipio	ESTADO	HABITAT
<i>Encyclia cordigera</i>	Col Mispia	1600		CH	Semi Open Forest
(L.) W. E. Higgins				CH	
	Lagos de Montebello	1700	Comitan	CH	Mesofilo
<i>Epidendrum parkinsonianum</i>		0		CH	
<i>Nemaconia striata</i> (Lindl.) van den Berg. Salazar & Soto Arenas (iné)	Lagos de Montebello	1700	Comitan	CH	Mesofilo
<i>Nemaconia striata</i> (Lindl.) van den Berg. Salazar & Soto Arenas (iné)	Lagos de Montebello	1700		CH	Mesofilo
<i>Maxillaria densa</i>	Lagos de Montebello	1700	Comitan	CH	Mesofilo
<i>Isochilus</i> sp.	Belen	2150	Teopisca	CH	Dense Mature old Growth Forest

**Example of data base. Started in November 1994 and now with over 5,471 entries. We have lost registration sync for 940 tags.**



















LITTLE CRAB  
*Erycina pumilio*









*Lycaste aromatica*





































In 2002, I and PRONATURA CHIAPAS AC, a Mexican NGO, signed an agreement to work together so that I could continue my work legally. We acquired an UMA, which legalized what I had been doing for 8 years, thus eliminating some of the problems I faced during the rescue campaigns.





































































# OM Phase 1 2007



Construction of the botanical garden began at the Moxviquil reserve in March 2007.

OM opened on April 1 2009.

The following photos illustrate the results of our toils, love and passion.

We have had over 6,000 visitors form Argentina to China, Israel to Russia. Average 3 a day.





**Construction zone**





















Inside greenhouse 2009













2015























# RESCUES

# Canon de Sumidero













**Ficha Colecta**  
**ORQUIDEAS MOXVIQUIL**  
**PRONATURA CHIAPAS** UMA: MX/JB-058-CHIS/02  
 Craig "Cisco" Dietz FIRMA Craig Dietz

<b>Nombre del colector</b>	<b>Fecha</b>	<b>Localidad</b>	<b>Coordenadas</b>
Craig "Cisco" Dietz	9 junio 2009	Canon de Sumidero lado este	16 49 954 93 04 680

<b>Temperatura</b>	<b>Humedad</b>	<b>Luz</b>	<b>Exposición</b>	<b>Altitud</b>
28	72	16fc	Open mixed forest	1294msnm

**Perturbación presente en el sitio**

Corta Árboles	Apertura por cultivo	Apertura por ganadería	Incendio	Apertura por electricidad	Apertura carretera	Ciada de Plantas XXX
---------------	----------------------	------------------------	----------	---------------------------	--------------------	-------------------------

**Tipo de vegetación**

Bosque XXX	Selva	Bosque de niebla	Pastizal	Acahual	Otro (especificar):
---------------	-------	------------------	----------	---------	---------------------

**Forma de crecimiento**

Epifita XXX	Litofita	Terrestre	Condición de plantas Varios calidad
----------------	----------	-----------	--

**Observaciones**

Various plants in a small section of the Canon de Sumidero park. The forest was open with many different trees. No large trees downed only small branches.



# Javi's Rancho Tuxtla Gutierrez







In this rescue we identified and rescued 28 orchid species. We saw and identified an additional 7 orchid species that were on their host trees. This in an area of 1 hectare at 1000 MSNM. This in an area that I had dismissed as not having any interesting plants. Boy was I wrong.



# Chacatanango













Lazaro Cárdenas















FUN, Exciting AND  
a  
\$10,000 pesos FINE.

A TRAP?  
Definitely.



Teopisca













# Amatenango













Rayon

















Vuluva

















# San Cristobal Oak/Pine Forest













# NAHA Selva Lacandon Botanical Garden









# JARDIN BOTANICO NAJA



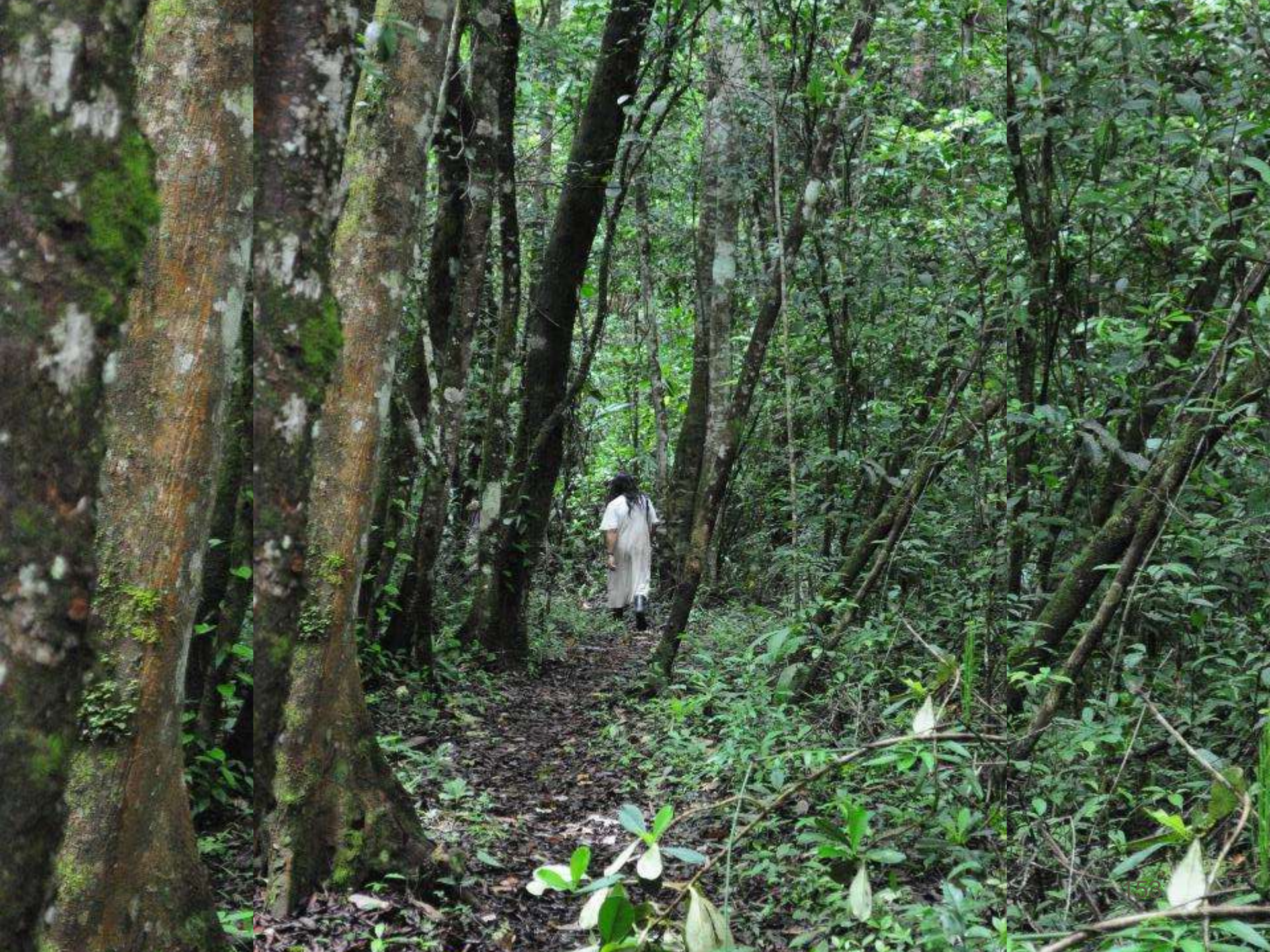
ORQUIDEAS DE NAJO EN TODO LADOS  
OTRA PLANTAS EN SU LUGAR













# Reforma Agraria Creation of Orquidario











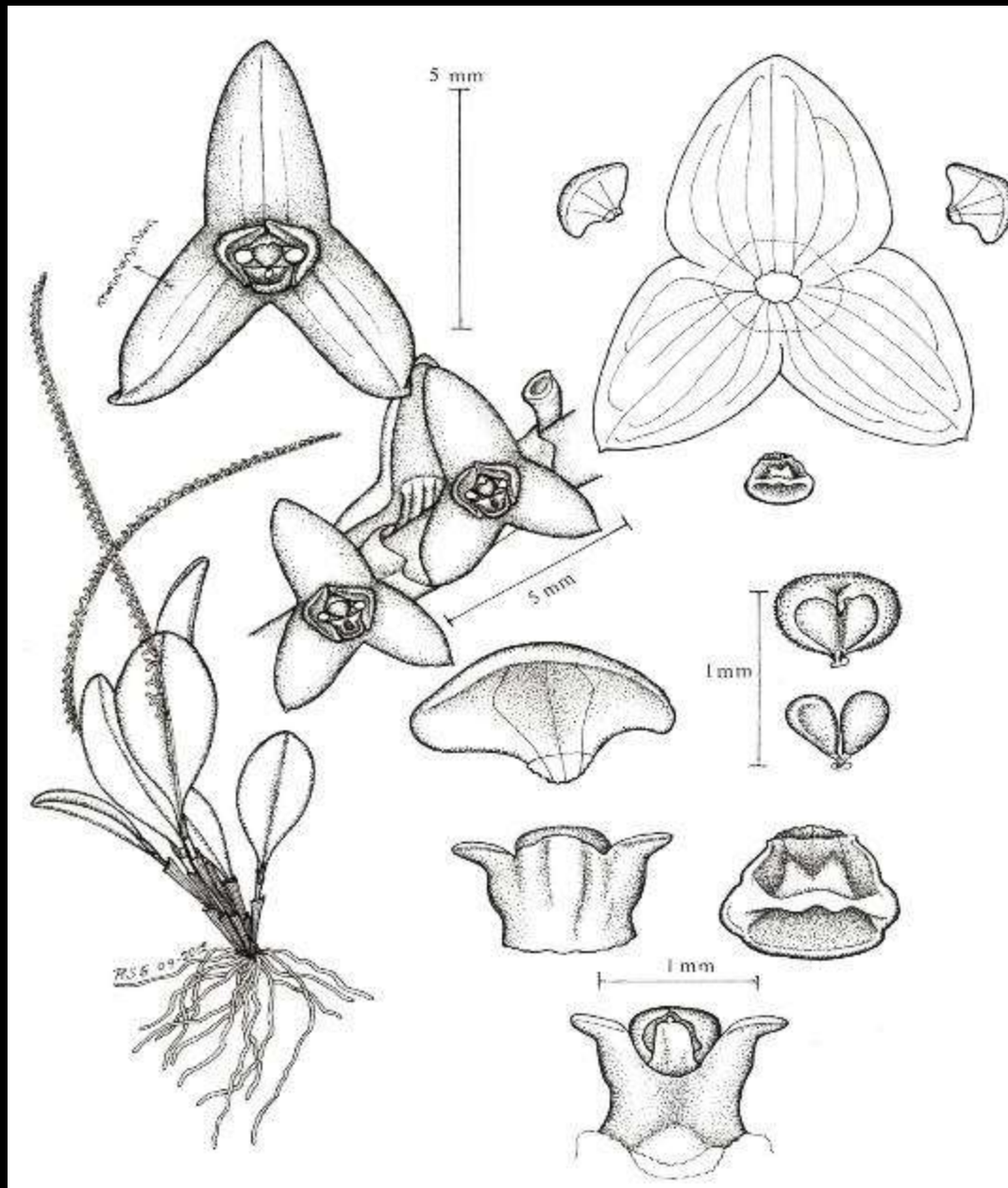
GRUP. DE MUJERES

# ORQUIDEAREO

DE LA GRANDEZA DE LA SELVA DEPENDE NUESTRO DESARROLLO  
Y DE LA NOBLEZA DE NUESTRO CORAZÓN DEPENDE SU CONSERVACIÓN

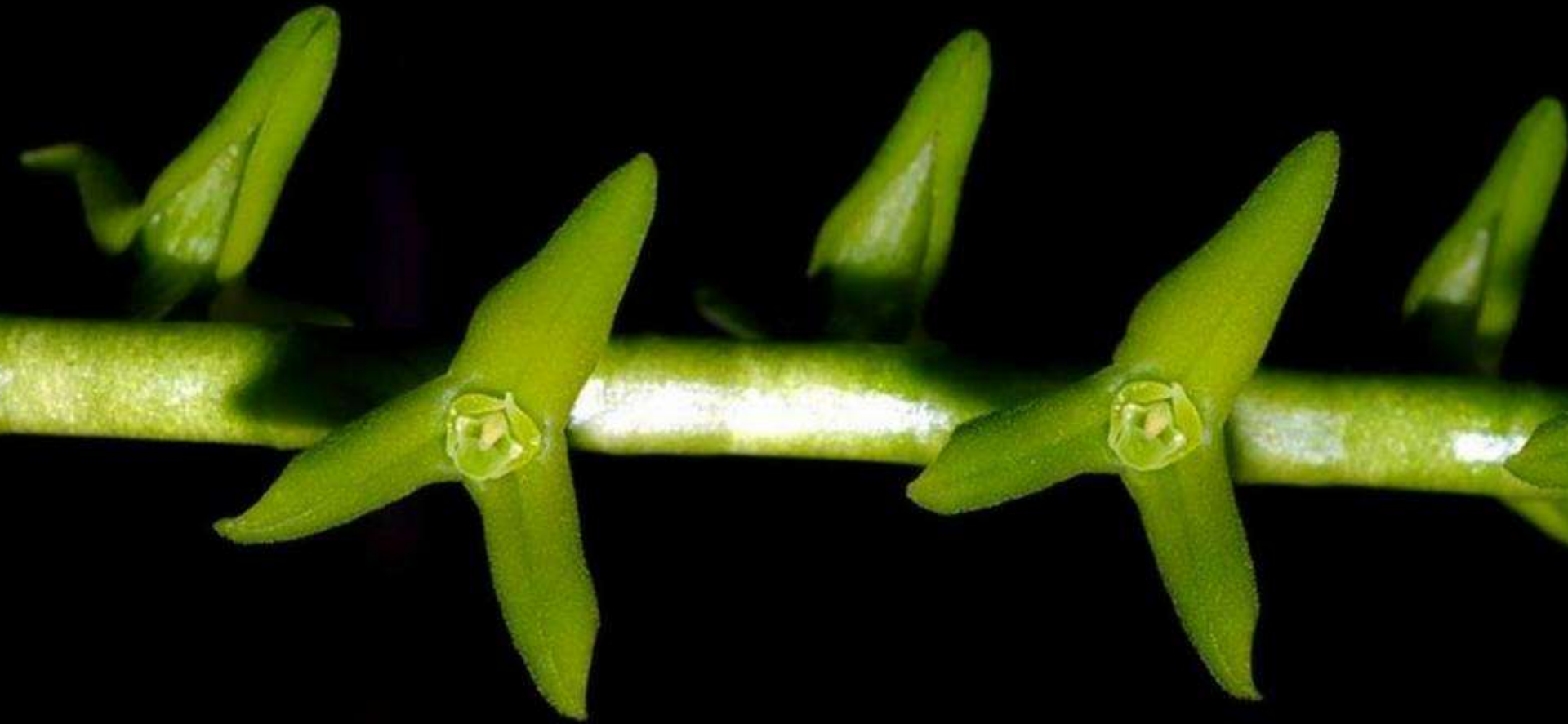


# *Stelis kaiae*





*Stelis kaiae*



A young girl with curly brown hair is sitting on a black plastic chair with a woven seat. She is wearing a pink dress with a blue grapevine pattern and a white belt. She is looking directly at the camera with a slight smile. The background shows a paved area and a red building with a window.

Kaila





Flowering at OM this year

























**Walk of thanks**







## Yisimbe Jobel:

Ja' jun jobel oxvinik centimetro stoylej; jich'il ste'el, xch'ulet xchi'uk ts'akaltik sba yok, ti yanale chlok'tal ta yibel jisajtik no'ox sjamalil, jech kucha'al akuxa; chak' snich xchi'uk sbek', ta spoxta k'uchal anil xvok' olol, ja' no'ox yibel ta xich' panel ta tunesel xchi'uk jun no'ox vaso ta uch'el, Ma'uk toj sik mi ja'uk toj k'ixin vomol.

## Raiz al zacate:

Es un zacate de 60 cms de alto; tallo muy delgado, liso y verde con nudos; las hojas salen de las raíces, delgaditas y aplanadas; flor color café oscuro, alargadas; sus semillas son granos muy chicos color café también. Es para apurar el parto. Se lava bien la raíz y se hierve en 1 litro de agua. Luego se cuele y se toma 1 vaso, cuando empieza el parto. Planta ni tan fría ni tan caliente. Anual.

## Smut grass:

A grass 60 cms high; stem very thin, smooth, green with nodes; the leaves grow from the roots, thin and smooth; fl... its brown seeds are... The root is washed... of water. Excellent



Spartan

# Maya medicine garden





**Bottle tops anti-slip on bridges**







**Since 2008 OM has cut more than 100 non-endemic pines that had created a dead forest. We have planted over 700 native trees, some in peril of extinction. After a survey in 2014 we found over 400 trees living happily in their new home.**





**Reforestation**





**Reforestation 6 years later**













**Banos seco**











What others are saying about OM,  
on Trip Advisor.

*“A magical place”*

*“An unexpected gem...!”*

*“An education and a delight!”*

*“This place is making a real difference to  
the well being of the world”*





**Art**













**Plants, bugs and other wild things**













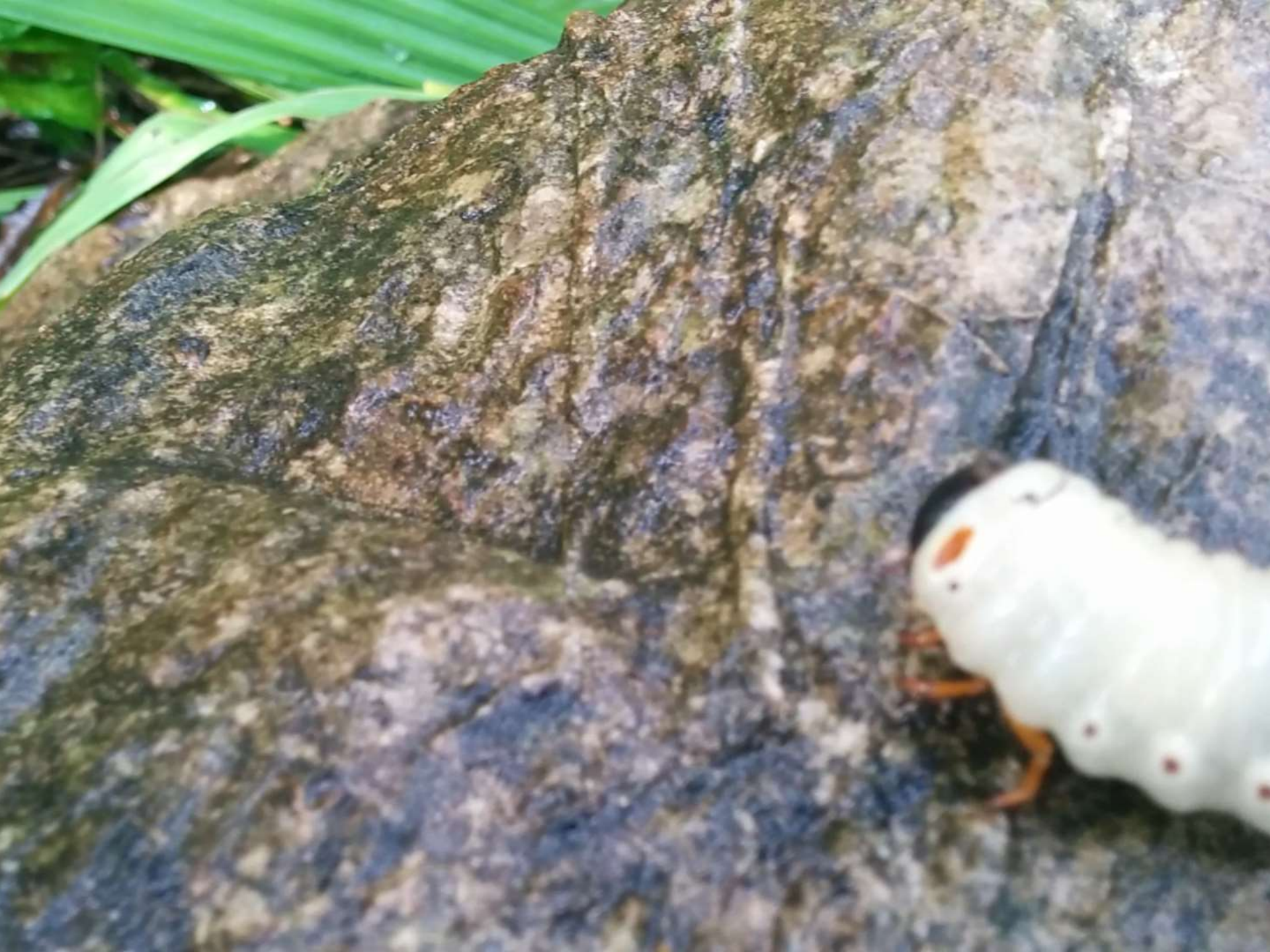






































# Projects at OM



ORCHIDS that change  
some of their  
characteristics after  
pollination

*Oncidium leucochilum*









Virgin flower to be pollinated









Flower without anther cap









Pollinated

Lateral wings, have closed color has changed.









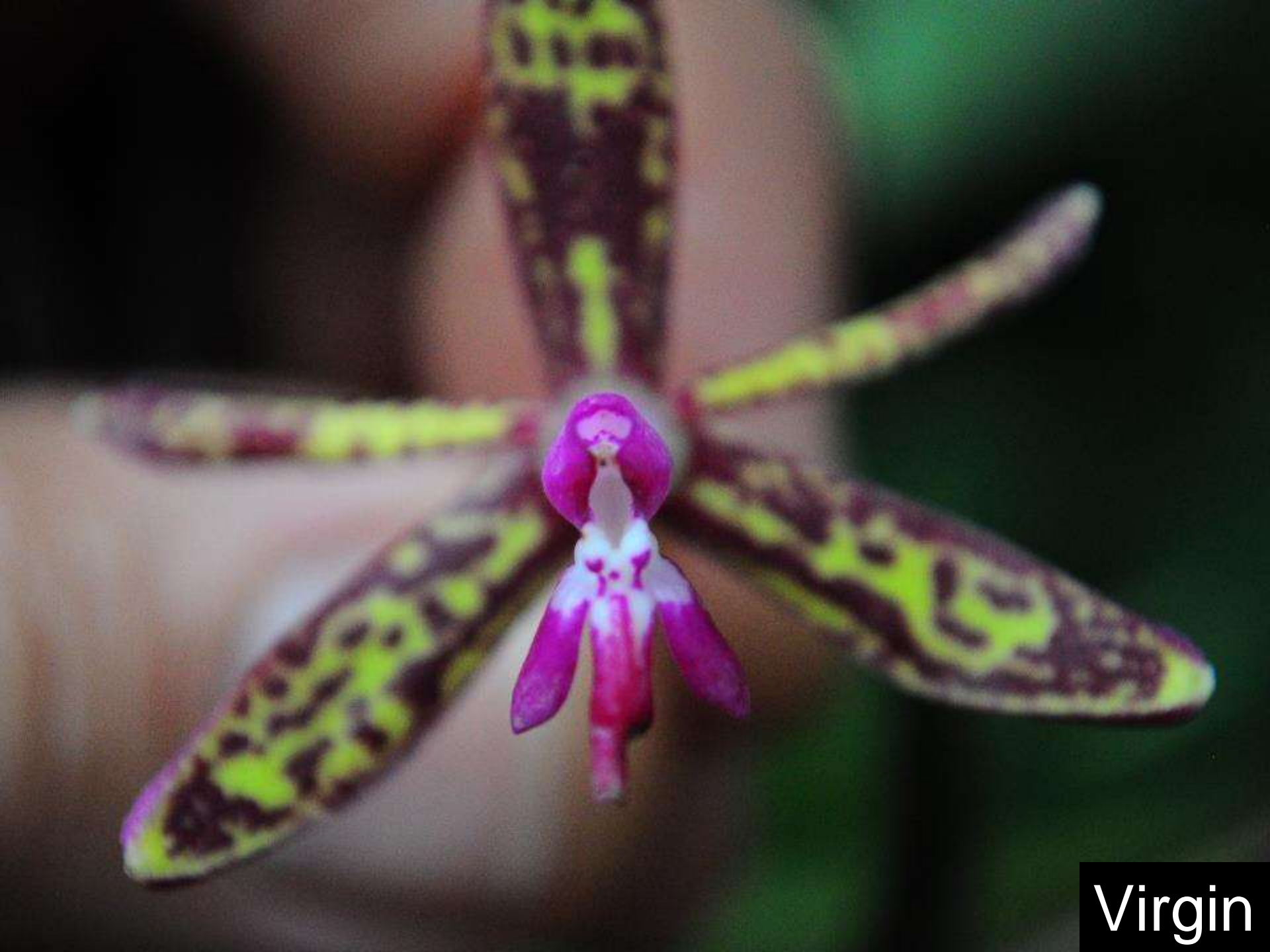
Virgin





Pollinated





Virgin





Pollinated



# MYSTERY SOLVED

Perhaps . . . . .

Why does *Elleanthus cynarocephalus*  
expel flowers one by one until none are  
left?



















## AN IDEA.

*Eleanthus* is found as a terrestrial on cliff sides and an epiphyte with canes that have a tendency to dangle. The canes are very long and thin with little or no structural support to be upright. When they bloom the large dense flower heads are in a downward position. This makes them difficult for a pollinator to view as they fly, buzz or travel by the flowering heads.



It's my belief that the flower head has evolved to produce a sticky gel that, as the flowers are expelled, the gel facilitates attachment to a leaf or other structure directly below the flowering head. These flowers are then visible to a passing pollinator, who will investigate the dropped flowers and discovers none are viable. The pollinator, being in close proximity to the flowering head finds the flowering head where it then may pollinate one of the remaining flowers.



Have I witnessed this in nature? NO.

Have I watched the flower drop and stick to a leaf in our greenhouse? YES, repeatedly.

Open for discussion, ridicule and/or simply another amazing aspect of the evolution of orchids waiting to be discovered.



# BRUTE FORCE pollination







*Laelia superbians*



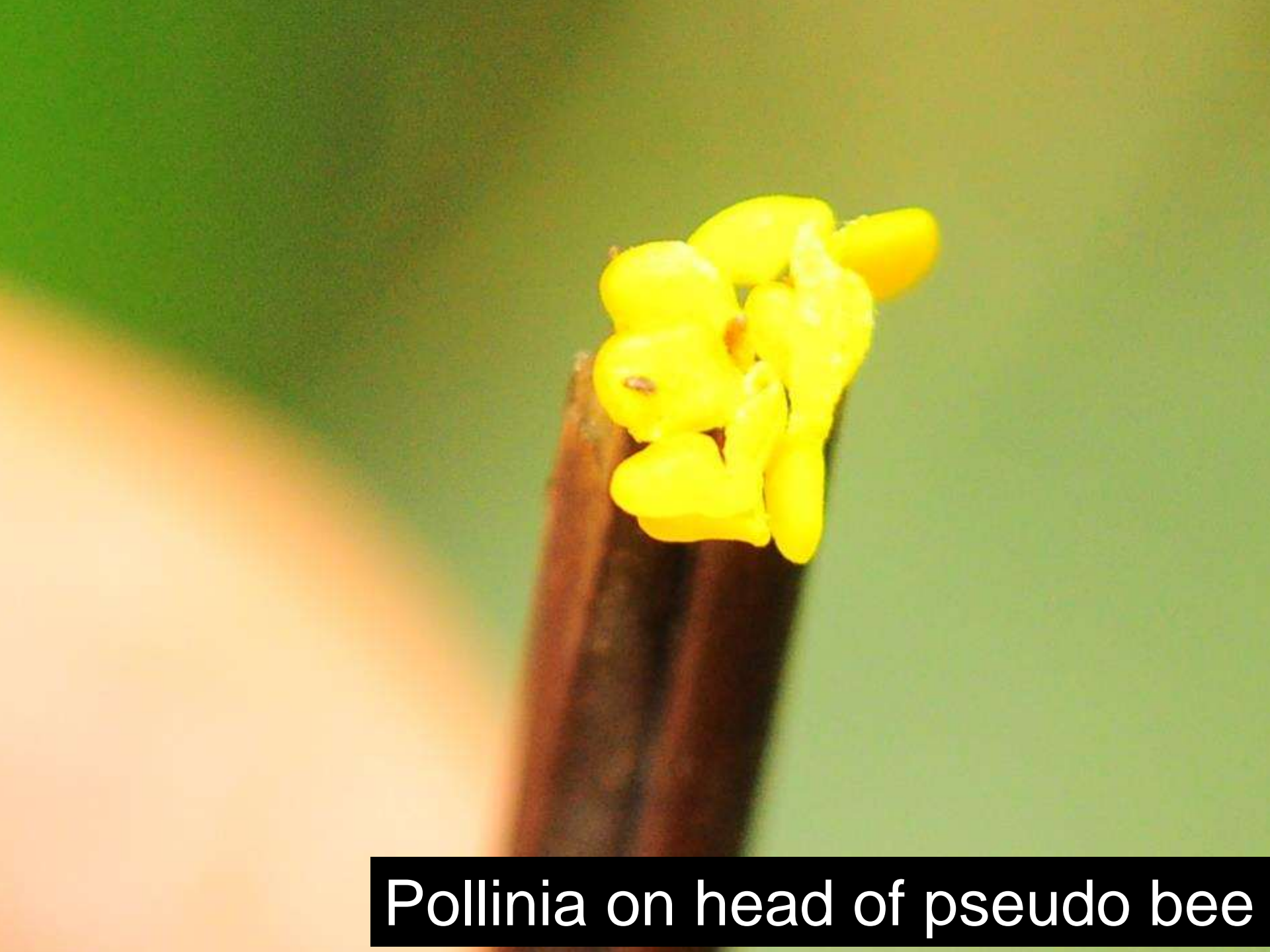








Anther cap with pollinia



Pollinia on head of pseudo bee



# BRUTE force pollination

## *Laelia superbiens*

WHY brute force?

1. The anther cap has no hook or other means to dislodge the pollinia onto a pollinator.

2. The pollinia does not have a viscidium.

Pollinia stays in the anther cap on removal.

3. Watching, *Xylocopa tabaniformis*, a carpenter bee, when it visited the *L. superbiens*, I noticed it was extremely agitated. Finally it flew into the flower then immediately left the flower. I checked to see if the flowers had their anther caps, none did.

# BRUTE force pollination

4. This started the wheels turning. In the past I had difficulty pollinating *L. superbiens* owing to the fact that the anther cap would fall off, without the pollinia sticking to my pseudo pollinator, a stick.
5. I always thought my error. I could only pollinate if I manually extracted the pollinia by forcing a stick, pollinator, into the anther cap then placing the pollinia into the stigmata cavity.



# BRUTE force pollination

6. I did several experiments by forming a stick into the approximate size of the head of the *bee*. I then duplicated what I witnessed; the bees aggression against the flower by pushing directly into the anther cap. This failed several times, but I did have success when the anther cap swung back and the pollinia made contact with the stigmata cavity. Fruits resulted.
7. I will follow the same plan this year to see if we have fruits.

# *Erchoniceus cappsea*

We all know this plant as a major invader of native aquatic systems worldwide.

BUT all is not negative.

All is not black and white, there is fortunately a gray area that we at OM utilize.



OM uses the plant for two reasons.

1. A superb cleanser of water in our lakes. How can we justify this use? In our project the plants cannot escape into a native river or lake system. They are completely contained within the OM botanical garden.

2. We use the roots of the plant as a substrate and as a topping for our rescued plants that are placed on host branches. In nature this purpose is generally served by moss. Moss though is incredibly difficult to transplant. Only after many years can our branches be sufficiently covered in moss.



We have been using this technique for 20 years with outstanding results. We advocate using this system to help maintain epiphytes by using the roots of *Erchoniceus cappa* in a positive and constructive manner.

















# Hand Pollination of *Tillandsia eizii*



# *Tillandsia eizii*

Rarest bromeliad in Chiapas and in peril of extinction, due to human extraction for religious ceremonies in San Cristobal and communities to adorn altars, crosses and saints where it represents the tears and blood of Christ.

It is self incompatible.

Does not produce grass pups.















**Original plant**





**Second plant**





**Third / fourth plants**



*Tillandsia eizii* rape





























A new system for seeding and transplanting bromeliads.

When we started the OM project in 2007 we began to place seeds from various bromeliads from the Altos of Chiapas onto our trees, in anticipation that we would transplant them in 7 years to the native Oaks in the Moxviquil reserve.

But how? KOLA LOKA!











2014



*T.vicintina*





**Krazy**® PEGAMENTO INSTANTANEO  
**KOLA LOKA**®  
**GOTERITO**®  
PLASTICOS • METALES • MUELES • CERAMICA • VIDRIO • UNAS • CRISTAL Y MUCHOS MAS





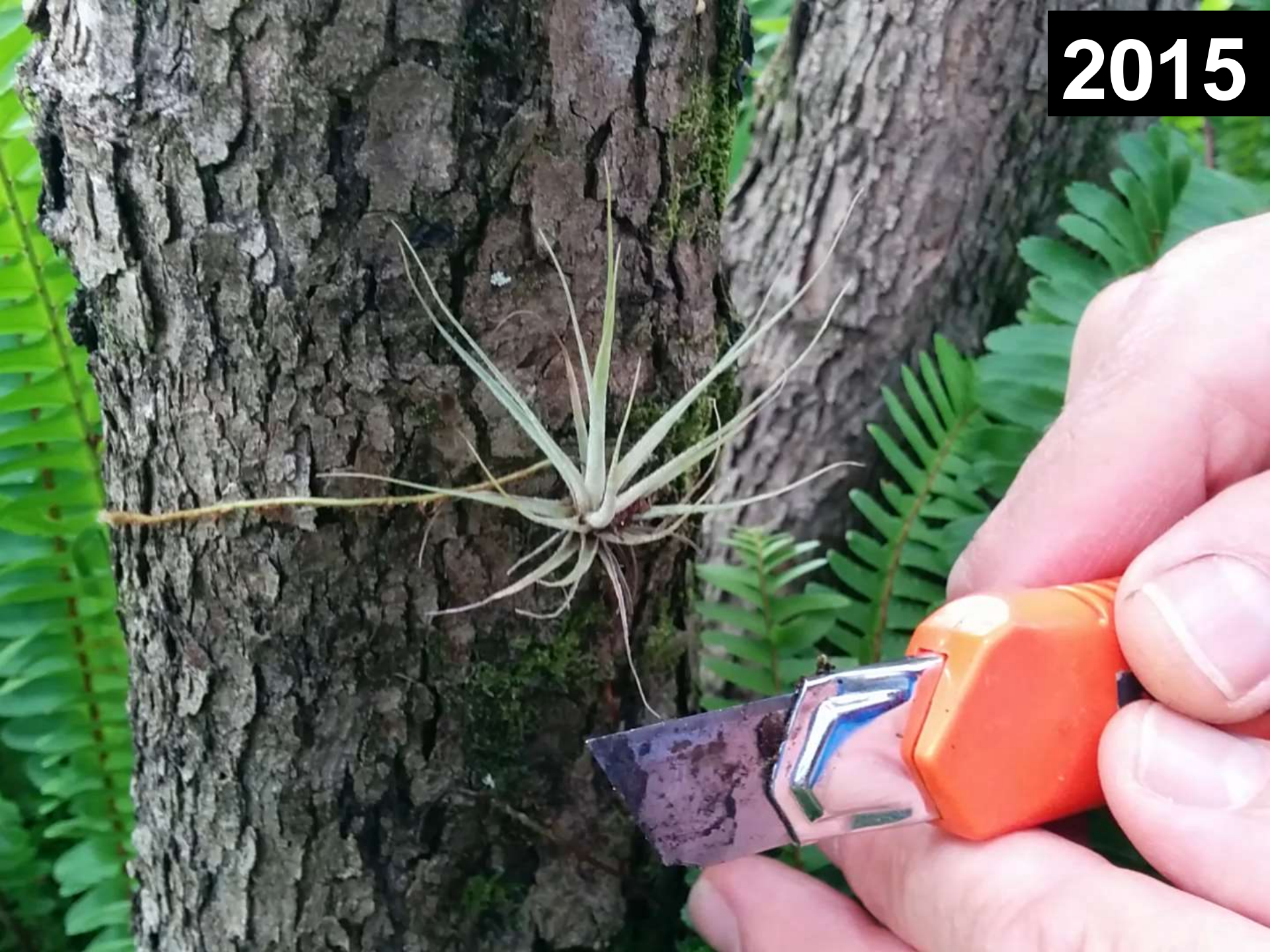




**Host tree *Oreopanax capitatus***



2015







2015

Host *Quercus crispipilis*





***T. guatemalensis***  
**6 years with bark**





**Horizontal branches**





**File rough Oak bark**





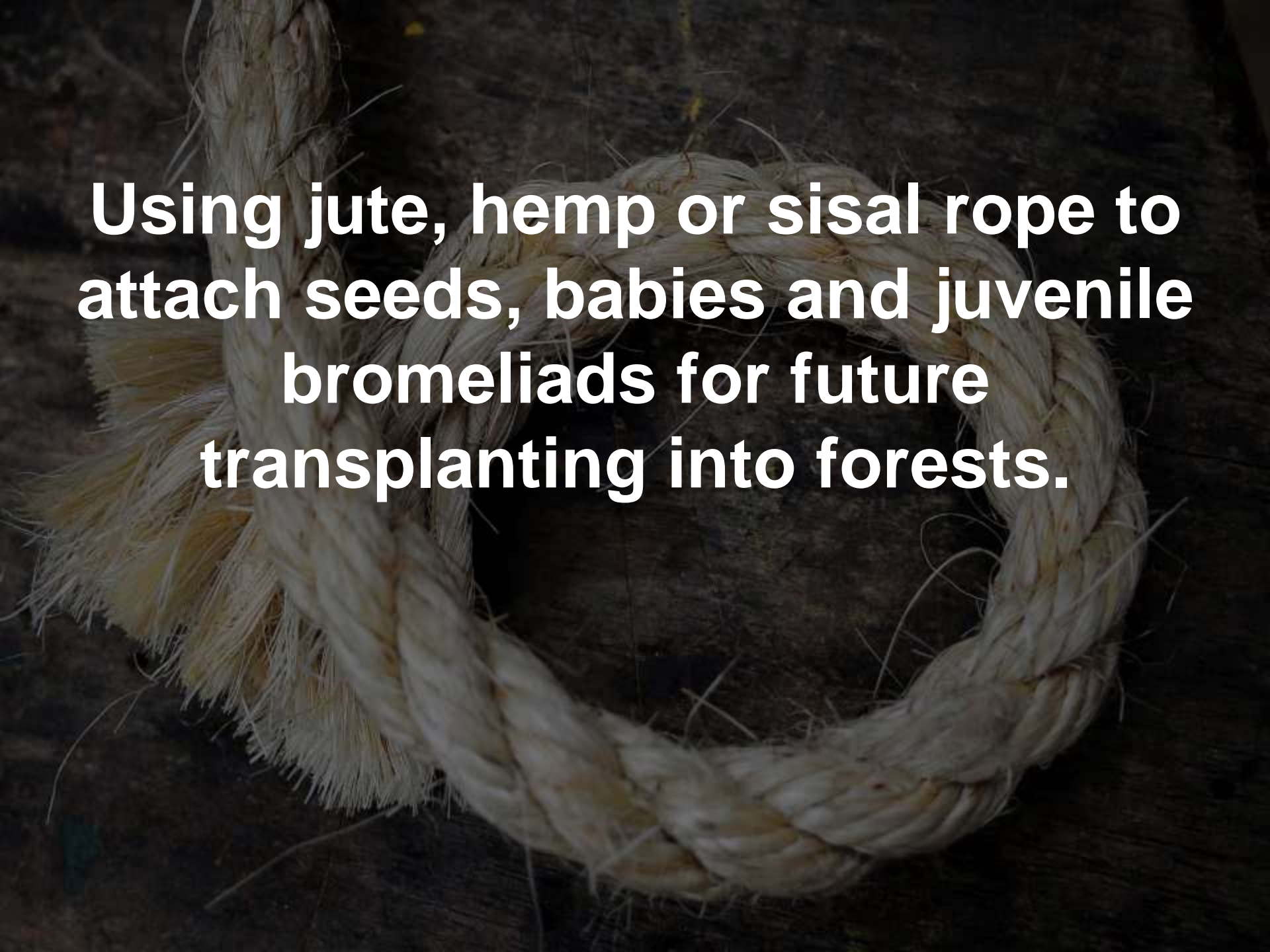






**This technique was tested in May/June 2014. We cut a total of seven, six year old *T. guatemalensis* and *T. vicentina*. Four of the *Tilandsias* were cut with bark, three were not, they were errors. The four cut correctly are still living, the three that were incorrectly cut died. The glue was absorbed into the body, killing them.**





**Using jute, hemp or sisal rope to  
attach seeds, babies and juvenile  
bromeliads for future  
transplanting into forests.**





ABAS  
BASTOS  
COMERCIALES  
Tel. (967) 338 06  
Tel. (967) 776 04  
San Cristóbal de la Casa  
Camp

HONDA  
F1 D5  
B1 D5





















**Scotch fiber pad  
FAILURE**



# Herbarium

OM has donated material to these herbariums.

ECO SUR: San Cristobal de las Casas

AMO: Mexico City

UNAM: Mexico City

CIIDIR: Oaxaca



# Herbarium registration tag

**Orquideas Moxviquil OM**

**San Cristobal, Chiapas**

*Stanhopea dodsoniana*

COLECTOR CISCO

COL # 13379 & Fecha de Col mayo 2009

LOCA. & ELEV. Huitepec Reserva, San Cristóbal Chiapas 2439 msnm

EPI XXX LITHO TERR

LAT LONG 16 45 019 92 40 895

Tipo de Bosque Mesofilo deep in forest on cut tree stump 1.7 meters above ground

Genero Stanhopea species dodsoniana

Color de Flor yellow with rust red dots/spots

Aroma YES spicy. sweet scent

MISC INFO: BLOOM 1 September 2010. Found growing with

*Prosthechea varicosa* *Isochilus aurantiacus*, *Peperomea* sp. and a fern.





Thrip infestation







THRIPS, How do we control?

SpinTor Dow Agro Chemical  
wonder insecticide. EPA organic.

We use NEEM to control fungal  
and scale infestations.

DO NOT USE SULFOXAFLOL as it  
kills bees. Nicotine base.



How to clean calcium salt deposits from plants in a safe, organic and easy manner?

USE KOMBUCHA an organic, safe and sane tea produced by a yeast colony. Home brew. Russian Tea. Mushroom Tea.

IT REALLY WORKS.

























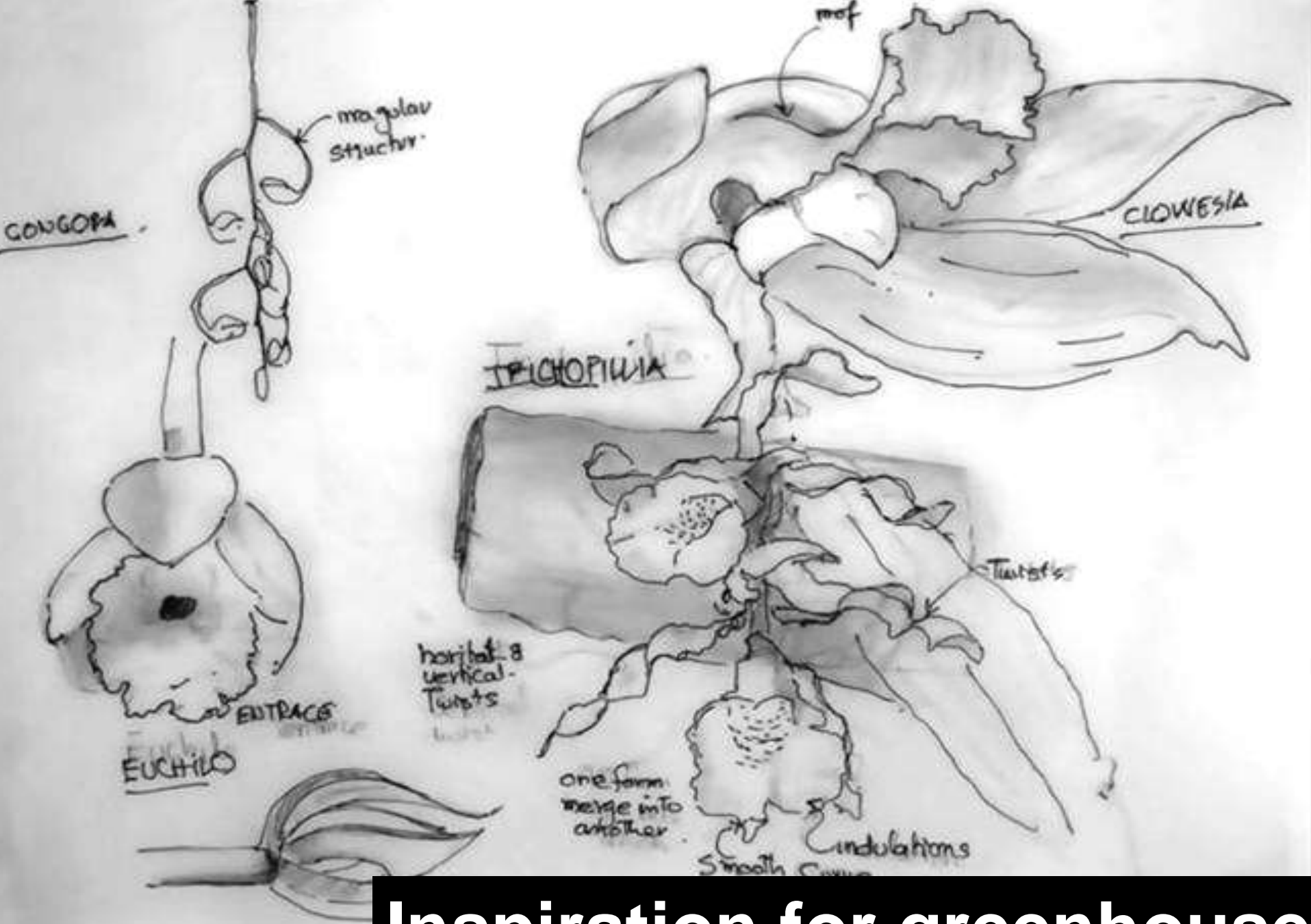


BEGINNING CONSTRUCTION  
of 2<sup>nd</sup> greenhouse  
by the state of Chiapas.

Funds from Federal Tourism  
to construct a new greenhouse.

JULY 2013





**Inspiration for greenhouse**







But that was not to be!

For reasons beyond our control,  
the architects and OM, were  
excluded from participation.





**Construction site**



















Construction stopped at this stage  
for lack of funds.

The greenhouse remained  
unfinished waiting for a miracle.



# TRANSFORMATION OF SECOND GREENHOUSE

PHASE 2 Begins  
April 2014



A miracle happened.

The transformation of the white elephant began, thanks to a generous grant from a local patron, in April 2014.

We finished construction on July 10, 2014. This greenhouse will house our collection of plants from the Lagos de Montebello, Chiapas .































Construction finished.

Now to create a new magical garden.



























































OUR NEXT CHALLENGE:

WHITE ELEPHANT 2

A NEW BLANK CANVAS!





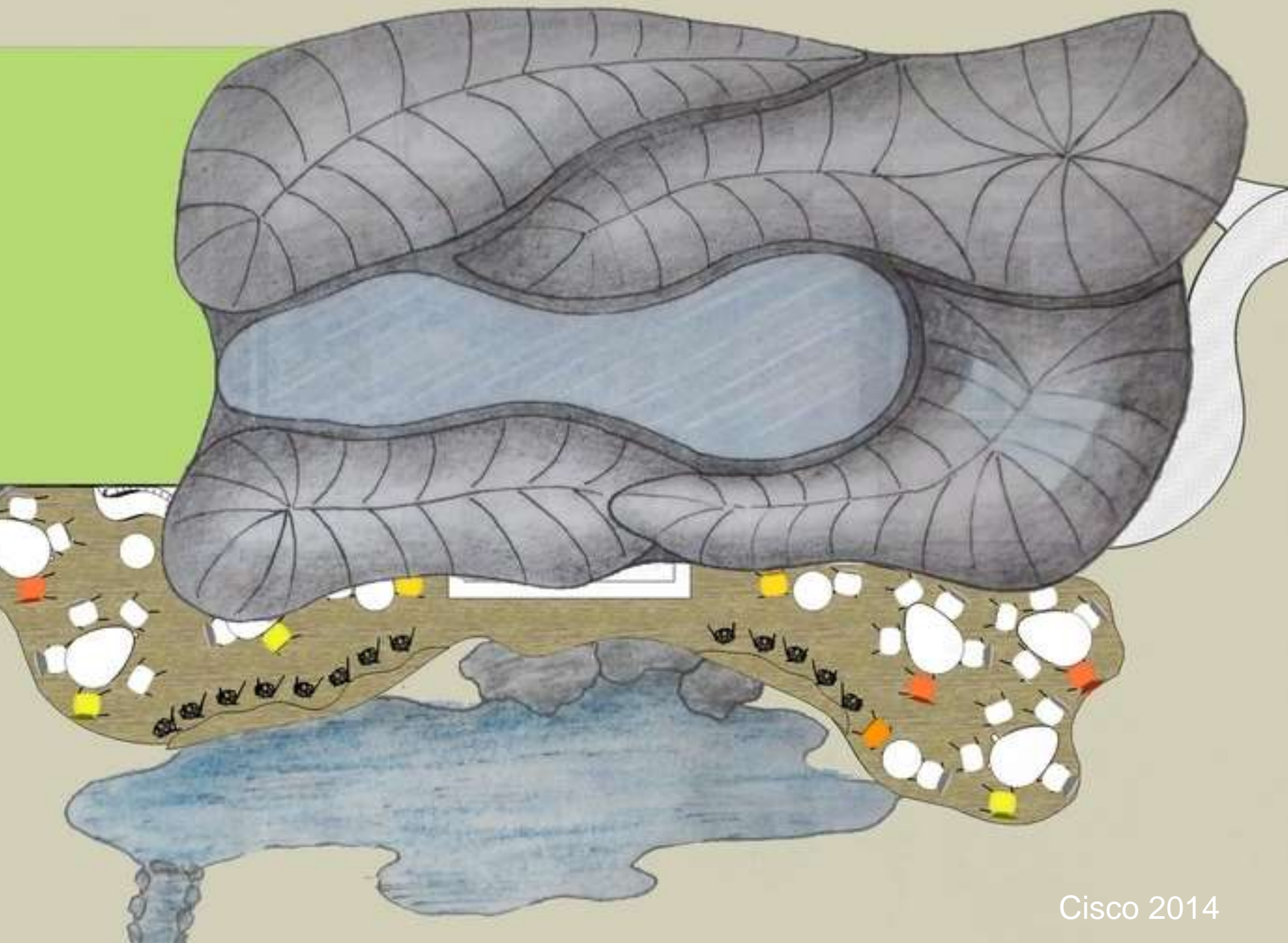


















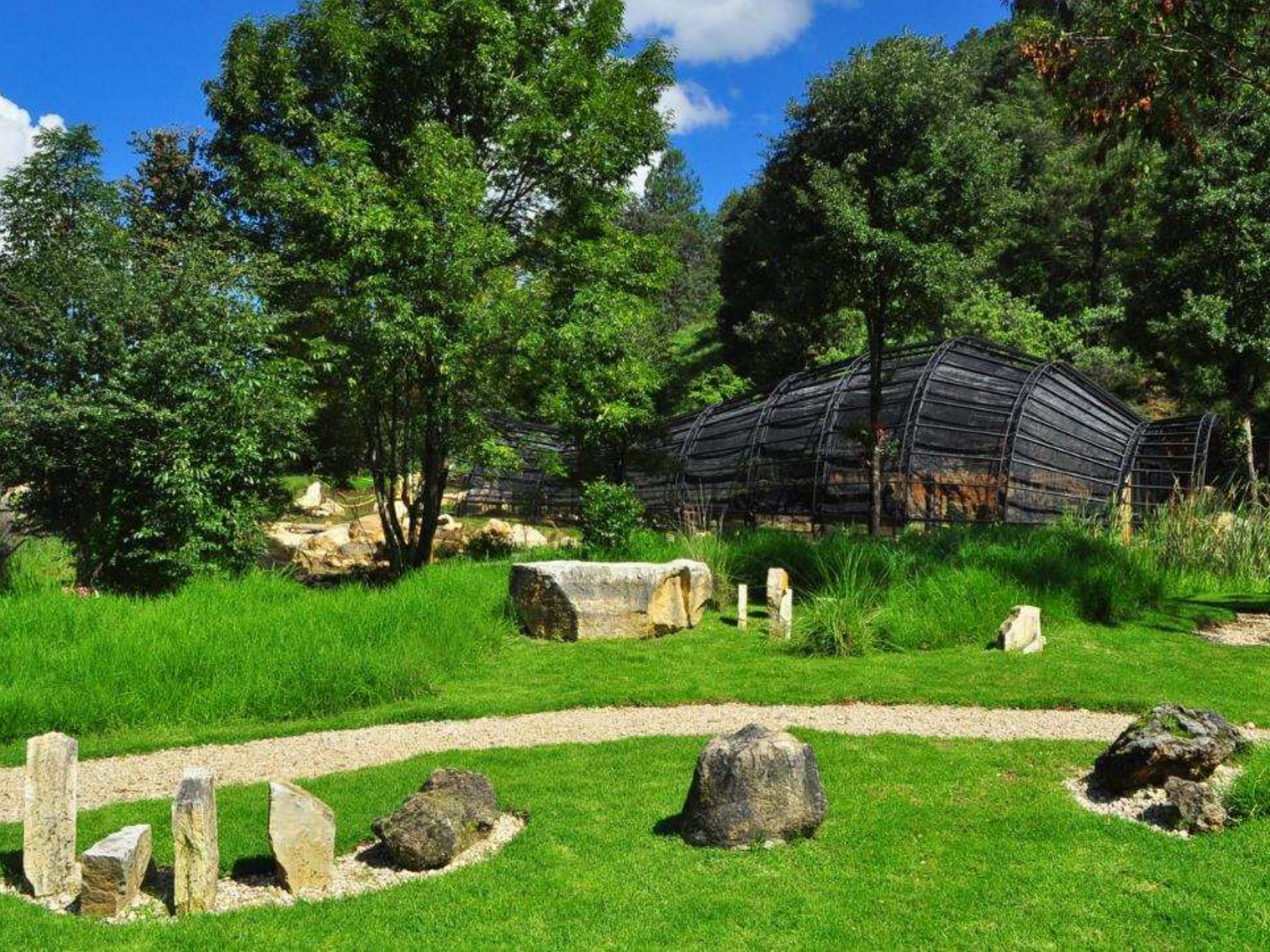
Thanks to all who have allowed OM to share our vision and to those who have confidence that our project can open eyes, hearts and minds and that our work will make positive changes in the world we all love; nature and beyond.

We can all make positive changes when we find the internal power to follow our dreams.

Never say “I CANNOT”, always say, “I CAN”, thus making the world bloom.

Cisco 2015 PAZ.







# ORQUIDEAS MOXVIQUIL OM SAN CRISTOBAL DE LAS CASAS, CHIAPAZ, MEXICO.





