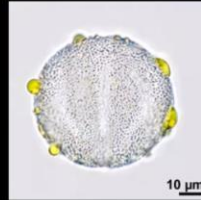
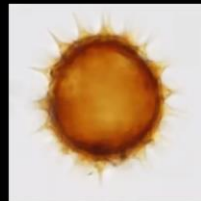
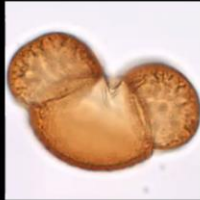


Dispersal mode: wind, animals, water, autogamous

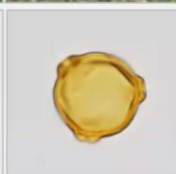
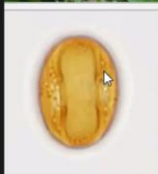


Talking: Martina WEBER

Pollen is species-specific and highly divers



Talking:



Aesculus hippocastanum
Sapindaceae

Betula sp.
Betulaceae

Plantago lanceolata
Plantaginaceae

Juglans regia
Juglandaceae

Brassica napus
Brassicaceae

Clivia sp.
Amaryllidaceae

Acetolysis

Talking: Martina WEBER



removing lime (conc. hydrochloric acid)

removing silicate (hydrofluoric acid)

acetolysis (Erdtman 1960)

chlorination (removes cell content from pollen)

conc. acetic acid + sodium chlorate + hydrochloric acid

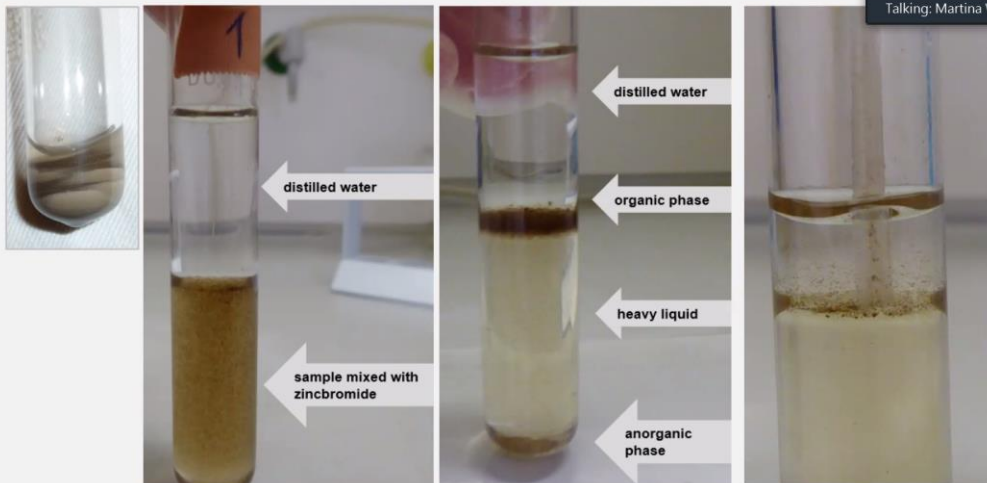
acetylation (stains pollen walls brownish)

9 parts acetic anhydride + 1 part conc. sulphuric acid



Heavy liquid separation

Talking: Martina WEBER



add zincbromide ▶ centrifuge (3000_{rev}/rpm) for 8 min ▶ remove organic phase ▶ wash



Pollen counting

Talking: Martina WEBER



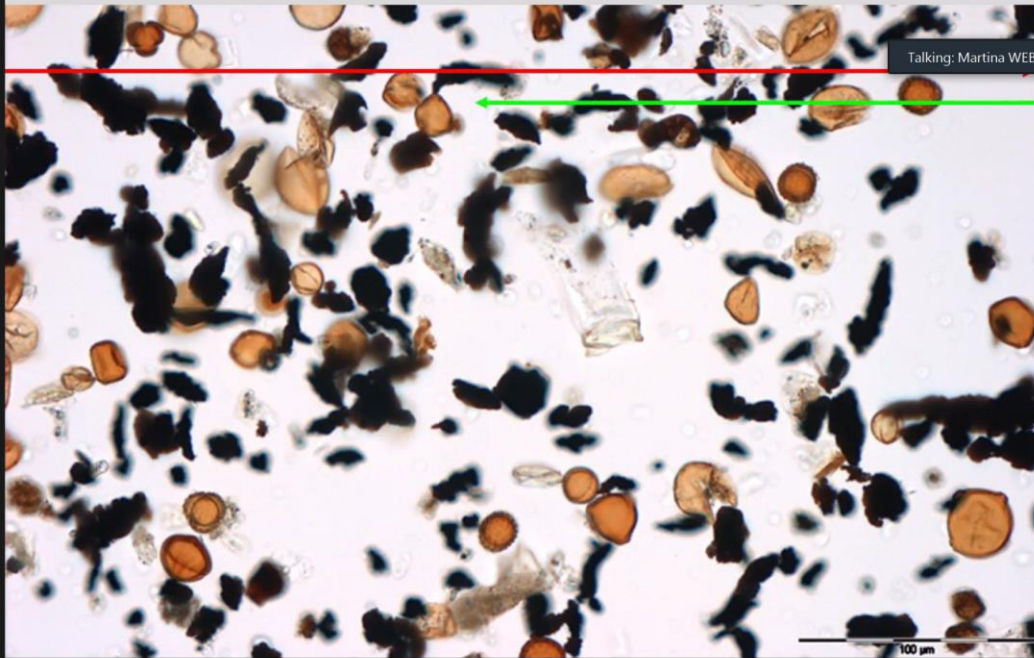
You are viewing Martina WEBER's screen

View Options

View

Pollen identification and counting – Magnification 400x

Talking: Martina WEBER



Unmute

Stop Video

Security

Participants 15

Polls

Chat

Share Screen

Record

Breakout Rooms

Support

Reactions

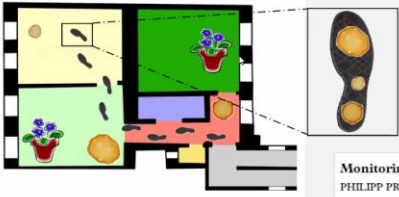
More

End

You are viewing Martina WEBER's screen View Options View

Indoor pollen

FWF-Projekt: P24771-B22
How does pollen on shoes reflect lately visited indoor locations?



Monitoring indoor pollen over two years
PHILIPP PREUSCHKE & MARTINA WEBER
Grana, 2014
<http://dx.doi.org/10.1080/00173134.2014.911954>

Forensic value of pollen from ornamental indoor plants
PHILIPP NGUYEN & MARTINA WEBER
Grana, 2015
Vol. 54, No. 3, 236-246, <http://dx.doi.org/10.1080/00173134.2015.1045024>

Can pollen match shoes to a previously visited indoor location?
PHILIPP NGUYEN & MARTINA WEBER
Grana, 2015
<http://dx.doi.org/10.1080/00173134.2015.1046155>

Martina WEBER

Unmute Stop Video Security Participants 14 Polls Chat Share Screen Record Breakout Rooms Support Reactions More End

You are viewing Martina WEBER's screen View Options View

Fabrics as carrier for pollen



Nanthiya SCL_18 PSU Martina WEBER

Pattaranit Wiriyasiriwatta... Apinya Prachugsorn CHANOKKARN

Krittana PSU.WIT Wariya Ketkaew Chanakarn Sanguarnsak

Pinthira Kuman... อมรรัตน์ ทองซ้าย Paranchai Malai...

Pinthira Kumannoi อมรรัตน์ ทองซ้าย Paranchai Malaikanok

Nattanid sadad... P

Nattanid sadadsadian อมรรัตน์ ทองซ้าย

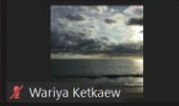
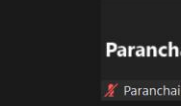
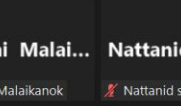
Unmute Stop Video Security Participants 14 Polls Chat Share Screen Record Breakout Rooms Support Reactions More End

Manuka-Honey




1.700 t produced in NZ
10.000 t worldwide sold

Manuka = *Leptospermum scoparium* und/oder *L. polyglaifolium* (Myrtaceae)

 Nanthiya	 SCI_18 PSU	 Martina WEBER
 Pattaranit Wiriyasiriwatta...	 Apinya Prachugsorn	 นายเพชรวิธ รามศิริ
 CHANOKKARN	 KrittanaI_PSU.WIT	 Wariya Ketkaew
Chanakarn San...	Pinthira Kuman...	อมวรัตน์ ทองชัย
 Chanakarn Sanguarnsak	 Pinthira Kumannoi	 อมวรัตน์ ทองชัย
Paranchai Malai...	Nattanid sadad...	
 Paranchai Malaikanok	 Nattanid sadadsadian	

Which questions can (forensic) palynology answer?

Saffron – the golden spice



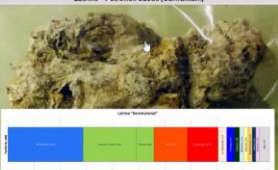
THB 250.000 - 590.000 per kg
50 working days per kg
200 000 flowers pro kg

The mummy from Hauslabjoch 19.09.1991

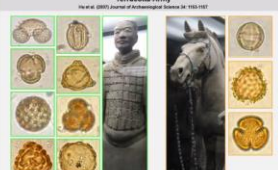


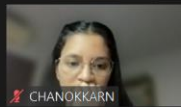
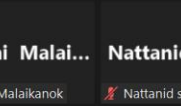
So starb OTZI

Latrine – Petronell Castle (Carinthium)

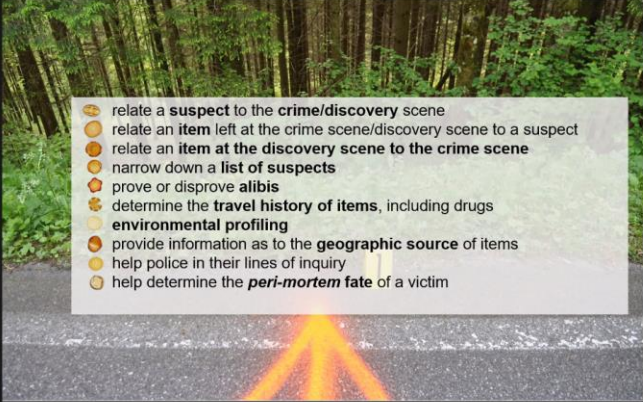


Terracotta-Army
(ca. 300 BC) (Museum of Archaeology, Vienna 19.09.1991)

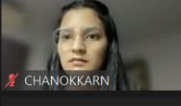
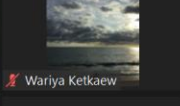


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Paranchai Malai...	Nattanid sadad...	
 Paranchai Malaikanok	 Nattanid sadadsadian	

Pollen – a powerful tool

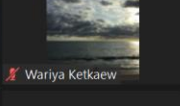
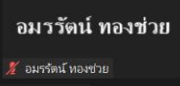


- 🍷 relate a **suspect** to the **crime/discovery** scene
- 🍷 relate an **item** left at the crime scene/discovery scene to a suspect
- 🍷 relate an **item at the discovery scene to the crime scene**
- 🍷 narrow down a **list of suspects**
- 🍷 prove or disprove **alibis**
- 🍷 determine the **travel history of items**, including drugs
- 🍷 **environmental profiling**
- 🍷 provide information as to the **geographic source** of items
- 🍷 help police in their lines of inquiry
- 🍷 help determine the **peri-mortem** fate of a victim

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Paranchai Malai...  Paranchai Malaikanok		Nattanid sadad...  Nattanid sadadsadian

Pompeii – Vesuv



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