



**Eberswalde University
for Sustainable
Development**



How can we help our honey bees adapt to climate change?

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Some climate change threats to honey bees

Climate change
and changing
weather patterns



Damage to flowers



Phenological changes of plants (abnormal flowering time)

Habitat restoration & preservation

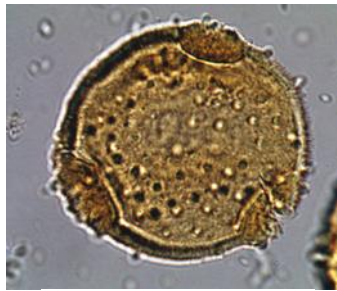
In agriculture:

Crops that are resilient to
climate

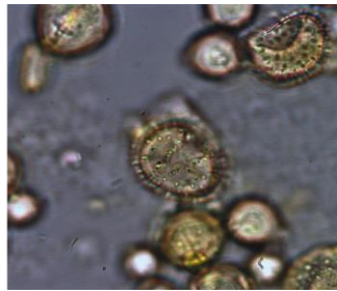
For our honey bees:

Ensure they have “food”
and “houses”

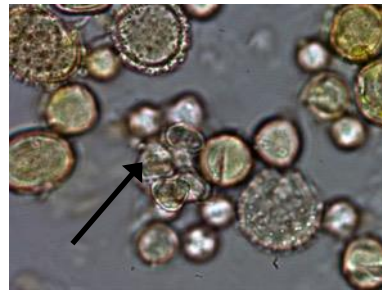
Honey pollen content for targeted reforestation



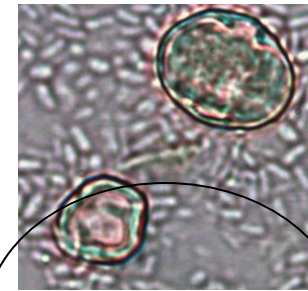
Malvaceae



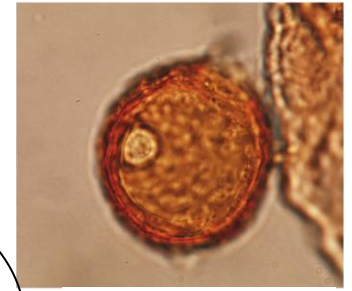
Arecaceae



Myrtaceae



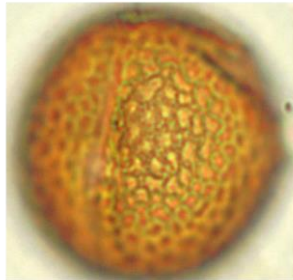
Rhizophoraceae



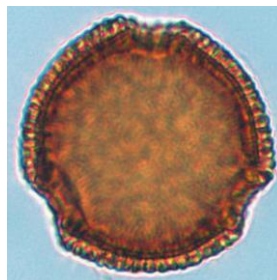
Fabaceae



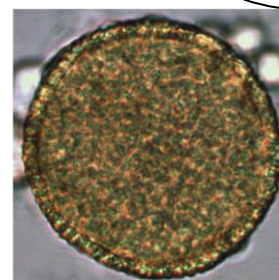
Cunoniaceae



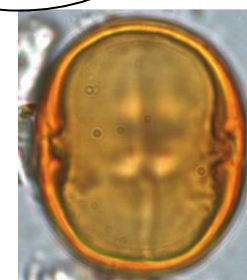
Sterculiaceae



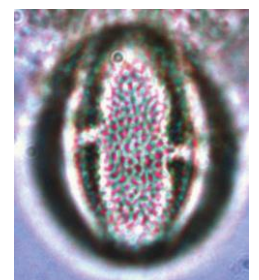
Rubiaceae



Euphorbiaceae



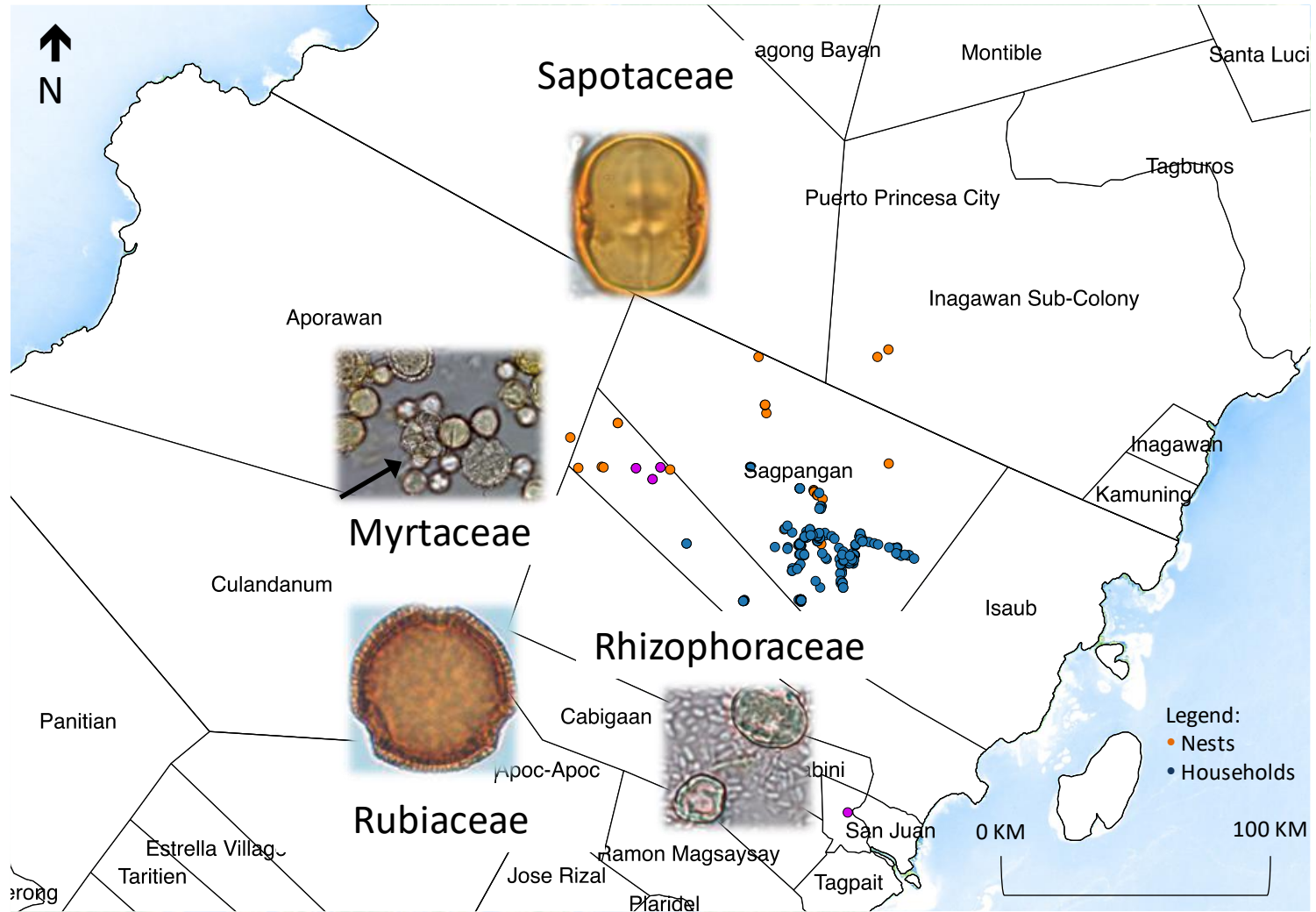
Sapotaceae



Rutaceae

In collaboration with Anne-Marie Sémah, IRD Sorbonne Universités France

Taking care of the “house” of the honey bee



Pollen analysis & targeted forest restoration



*We planted a total of 6,024
wildlings directly planted in
plots with a total of 1.5
hectares*

IMPORTANT: prioritize native flora



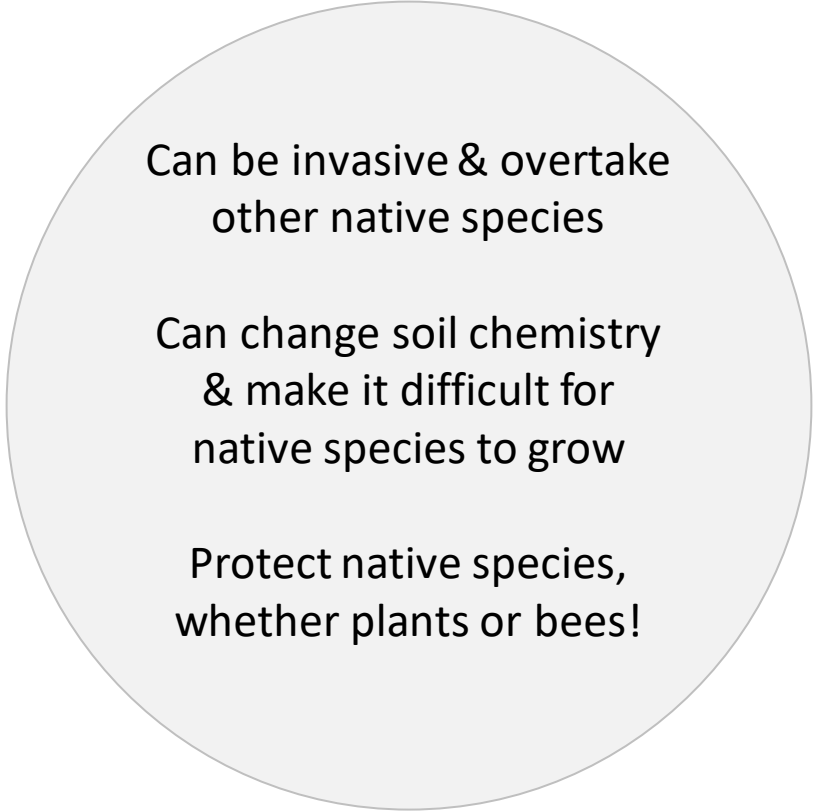
IMPORTANT: prioritize native flora

Native to South America, now pantropical weed



Mimosa pudica (Makahiya, Touch-Me-Not)

Potential negative impacts of non-native species



Can be invasive & overtake
other native species

Can change soil chemistry
& make it difficult for
native species to grow

Protect native species,
whether plants or bees!

What else can be done?

Habitat “preservation”

Ensuring the “house” of bees do not fall to land use change

Examples of land use change: clearing forests for mining operations




What else can be done?

Awareness-raising

Quite a number of people
are afraid of bees & tend
to kill them

Climate change not just a physical science but social science issue



Issue of “power relations”

We are the best advocates
for bee species but easy to
say, hard to do

Know our privilege





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In the face of climate change, let us advocate for the bees, their homes, but also let us advocate for each other.

