



Food and Agriculture
Organization of the
United Nations

REUFIS inaugural network meeting

Exotic parasites and urban forestry learning from experience

Lucio Montecchio

University of Padova, Italy

Budapest, 17-19 October 2017

Urban Forestry is not Traditional Forestry

Every single tree is an entity to grow and protect

Plant species often are exotic, or clones, or grafts,
Plants are grown in an artificial environment

Their susceptibility to stressors is higher than in nature

Urban trees need *urban trees' experts*.
Including pathologists and entomologists.

4 possible scenarios

Native parasites vs. Native plants

Not difficult to manage

Native parasites vs. Exotic plants

Rather difficult to manage

Exotic parasites vs. Native plants

Very difficult to manage

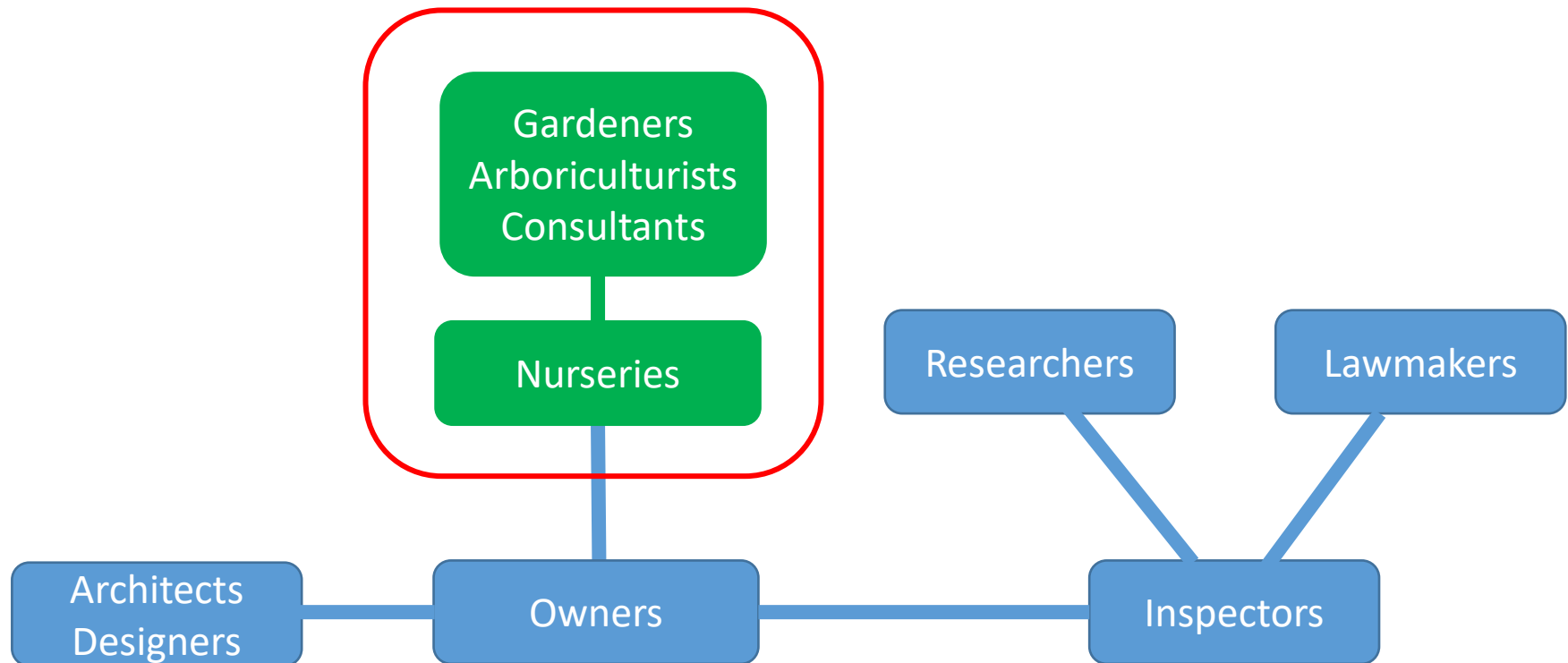
Exotic parasites vs. Exotic plants

A mess !



Probability of success is strictly related to the experience, knowledge and **ability of all the actors to interact** quickly and synergically

Fresh infos are not easily available
to the actors daily working with trees



Research without Development

Researchers do not grow trees, **we grow grants, impact factors, citations, H-indexes.**

«Publish or Perish», no way 😞

Communication flow is sectorial.

Informations on new pests and parasites
move inside experts groups.

And these experts often are
not familiar with urban forestry.

To slow down an «invasion»
actors should communicate all together, simply and quickly.

Sharing needs, knowledge, strategies
Successes and failures



Tree-technicians could be our eyes,
much better than Citizen scientists

They climb, prune, watch and touch trees daily.
From above and from inside canopies.

They are **hungry for knowledge**
but they still miss a «place» to refer to.

Choices through polls. The «Like» democracy.

Diagnosis and treatment from a smartphone picture



Facebook, sept 2017

What is and what can I do on this Araucaria?



Cut it

Lichens

Don't know but **it will die.**

Bacterial infection

Remove the soil and spill some fosetyl aluminium every 15 days. **It's a fungus**

Fill 2-liter bottles with **fosetyl**, open 4 equidistant holes in the ground with a stick, 30cm deep, 1 mt from the base. Insert the bottle neck and wait until the soil uptakes

Best season for such treatment is **may-june.**
Now something will happen but next year start in the right season.

Facebook, June 2017

*I have this on a Calicanthus. **Root fungus?***



👍 Mi piace ➦ Condividi

With high soil moisture they are susceptible to root rotters.

Mi piace · 17 giugno alle ore 14:18

Have the same feeling. Was thinking to **treat with fosetyl aluminium**

First of all remove the excess of water, pipes, ...

Mi piace · 17 giugno alle ore 15:14

Now I treat and ... will see

Mi piace · 17 giugno alle ore 16:27

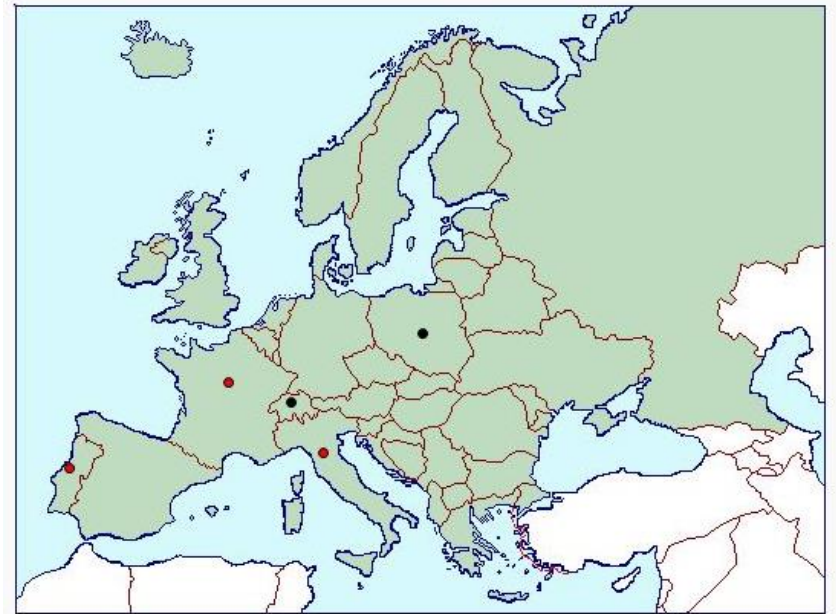
Ceratocystis platani is lethal and still spreading

Imported from the US through WPM in 1945 ca.

Reported in Italy in 1972.

Listed in the EPPO A2 annex in 1978;

Quarantine status in the EU (1992, 14 yrs later)



Facebook, May 2017

Dying Planes: *Ceratocystis* ?



1

1 comment

I really think so

If you don't belong to a FB Community,
you can type
Ceratocystis platani
on Google

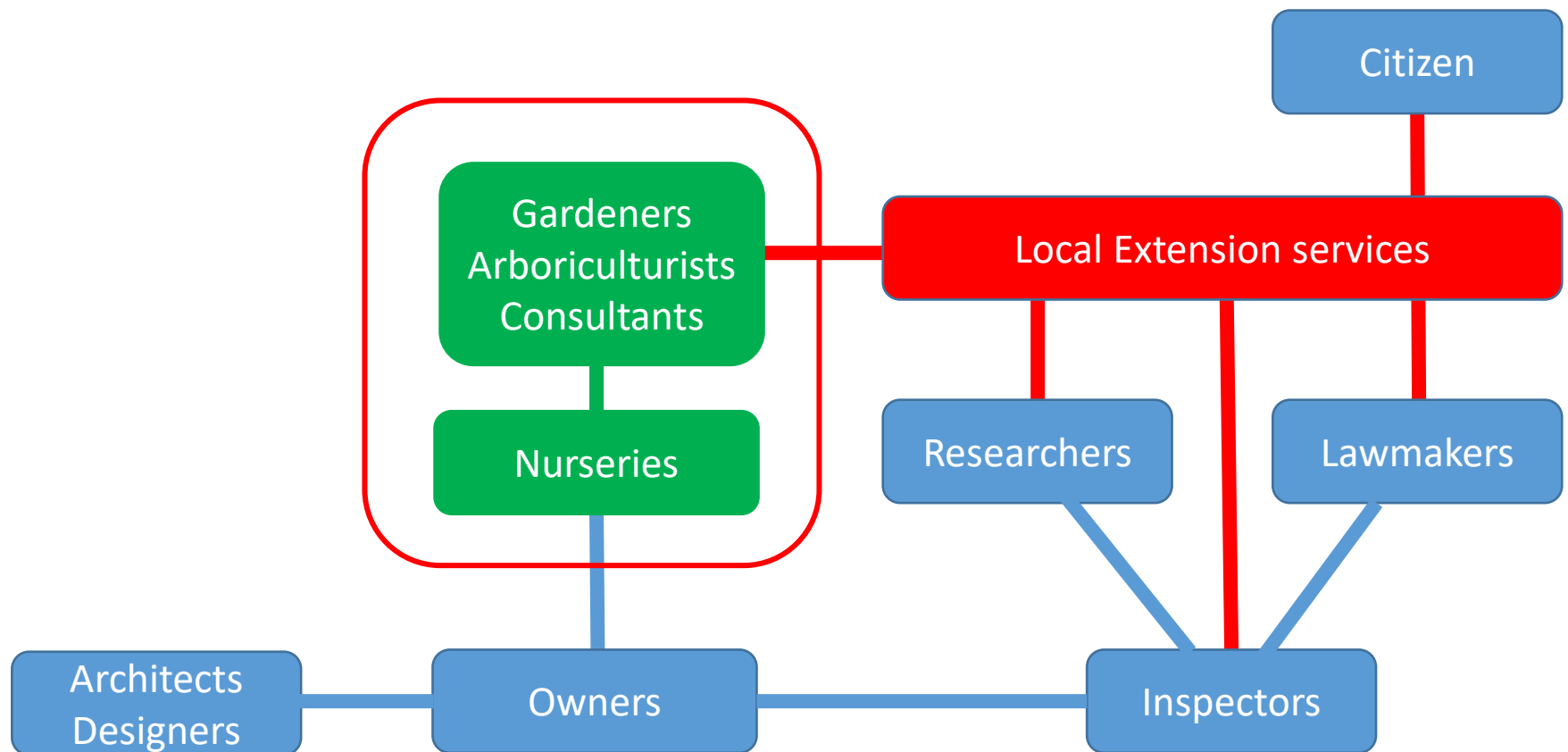
Wrong communication drives to wrong choices

Ceratocystis platani



Canker caused by *Ceratocystis platani*
on a plane tree

Extension services can speed up the flow of correct infos



A successful experience



2016: Development of a IT-UK partnership model for early detection of Canker Stain of Plane



Starting from common misleading
symptoms already present in the UK

Misleading symptoms

Homogeneously transparent canopy



Misleading symptoms

Cup-shaped leaves



Misleading symptoms

Twig cankers



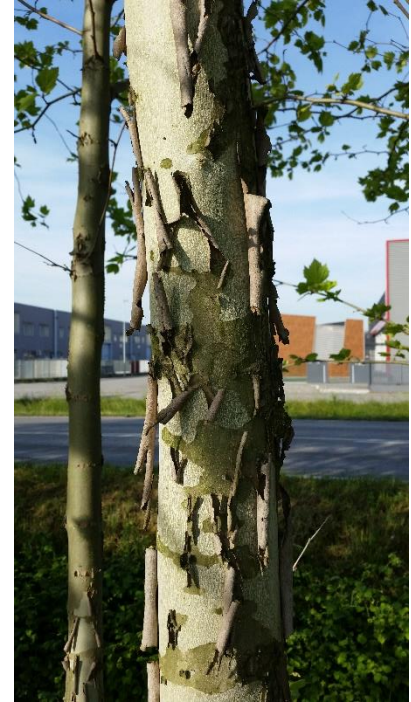
Misleading symptoms

Epicormic twigs



Misleading symptoms

Bark cracks and turn-over



Misleading symptoms

Wound closure reactions



Misleading symptoms

Tumors

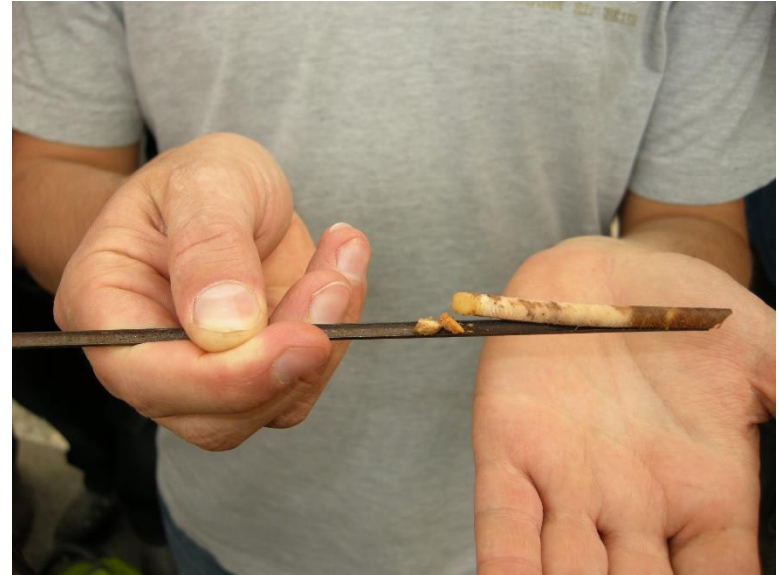


Then moving to
Peculiar symptoms





The sampling procedure





Felling and splitting a tree



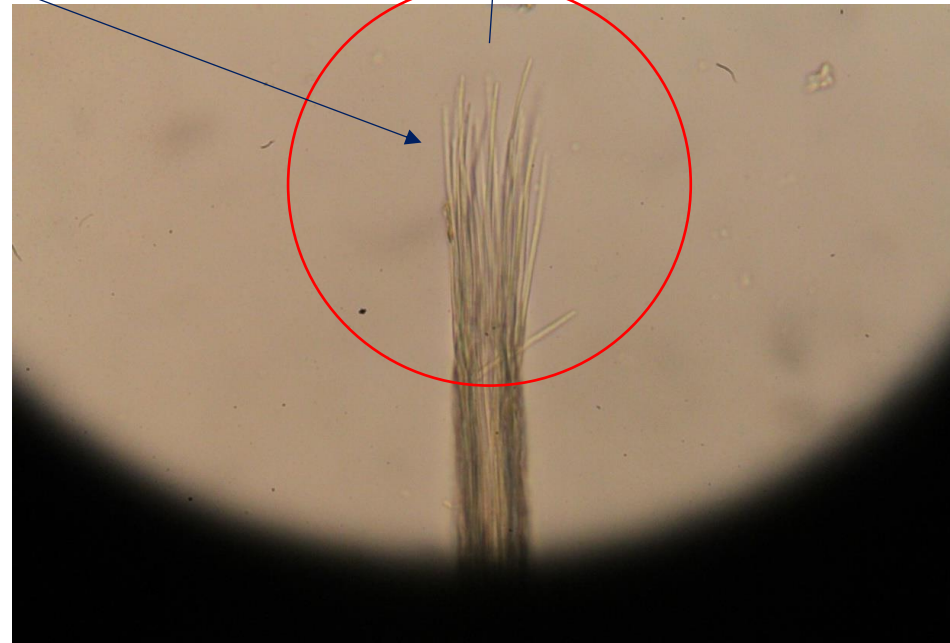
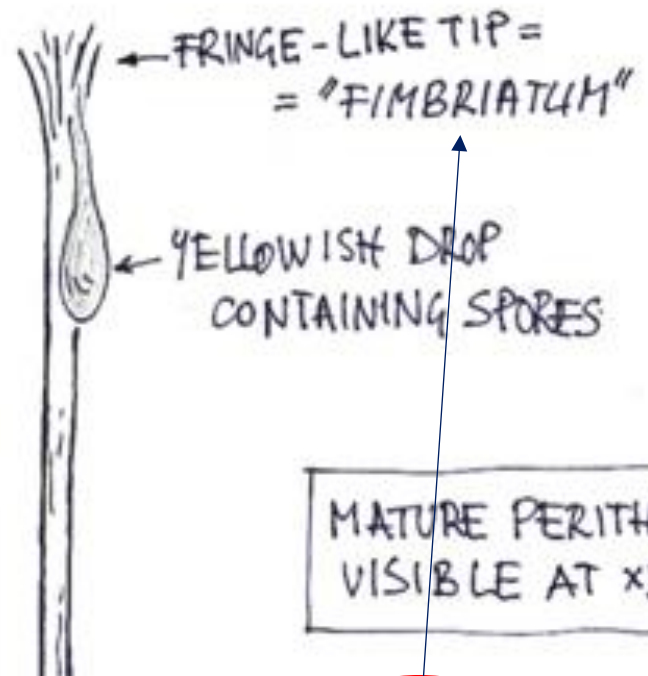
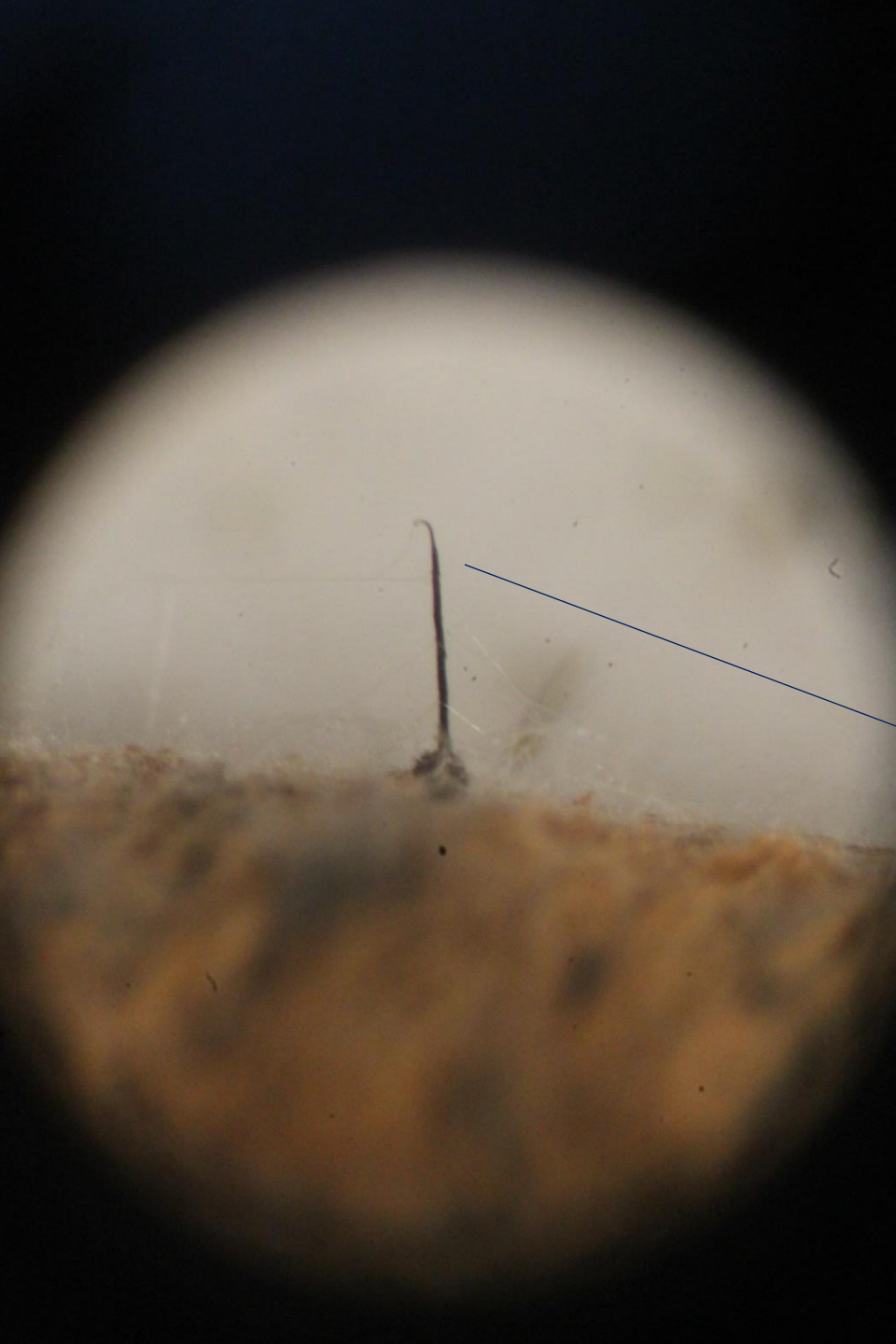


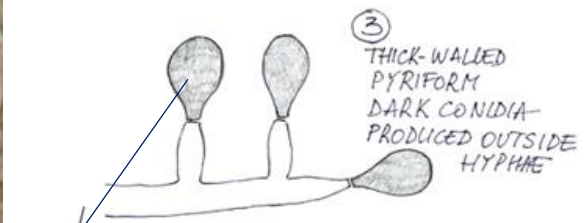
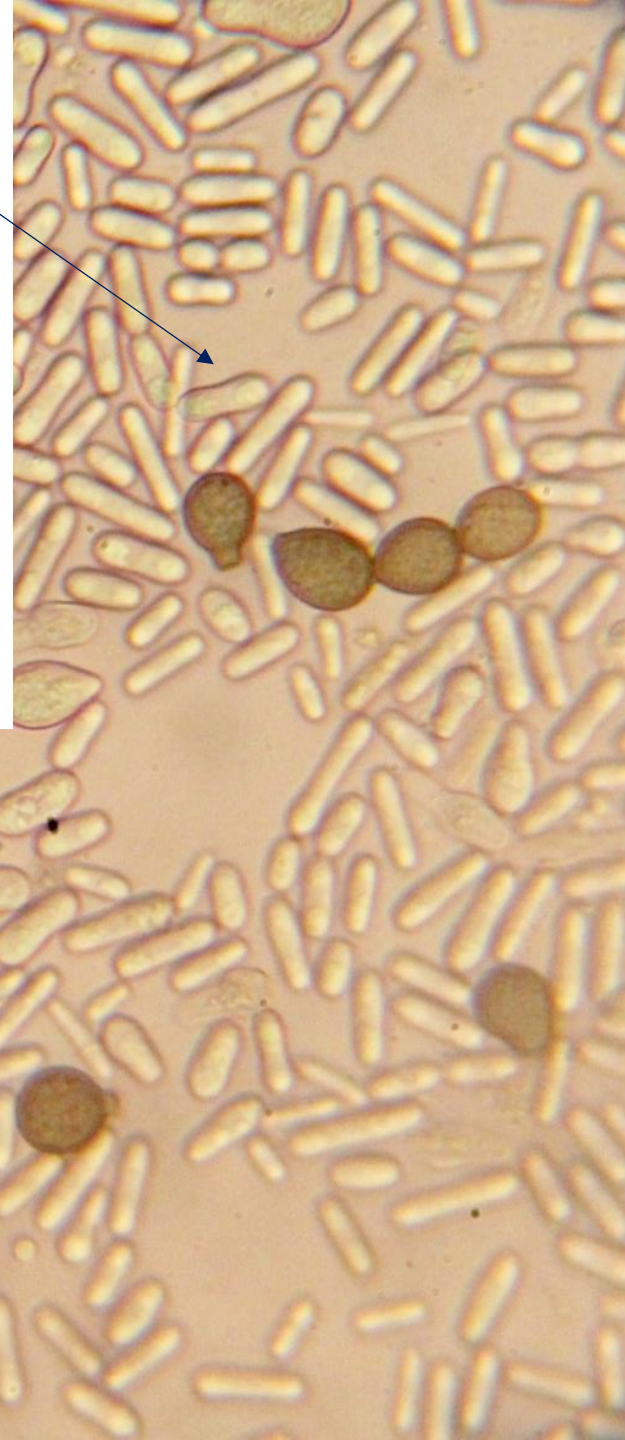
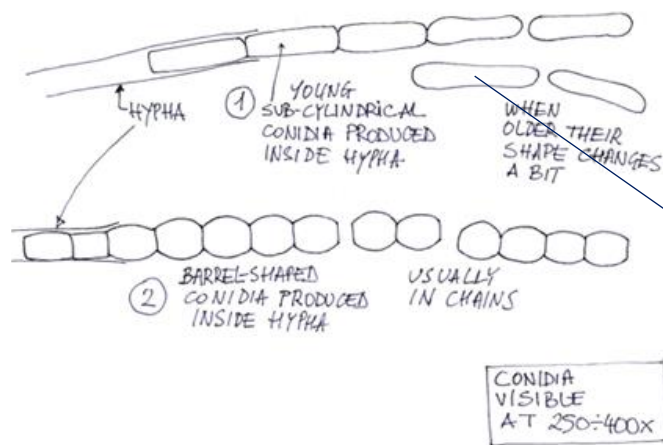


Some of the delegates never used
a microscope before.

With simple, practical information
all delegates learned the way to
make a diagnosis, and they did it!







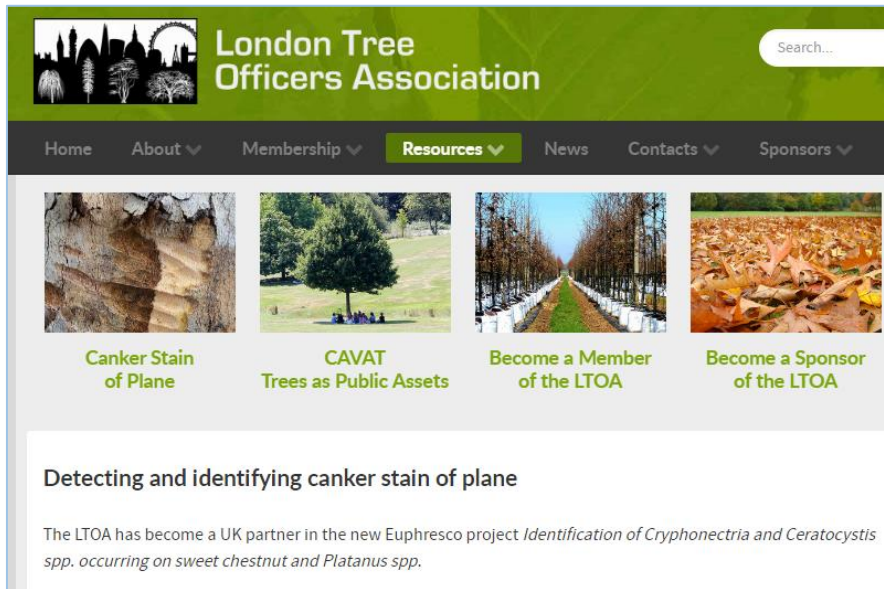
“Round table” on control measures



Delegates got back in the UK transferring knowledge, strategies, successes and failures in their sub-groups.



The «user's manual» we made for the delegates now is widely distributed in the UK by the London Tree Officers Association



I am pretty sure it will be difficult for Canker Stain to land in the UK now.

All of us we have a collective responsibility
on our Urban Forests' health.

Communication
should be a priority keyword





Food and Agriculture
Organization of the
United Nations

REUFIS inaugural network meeting

Exotic parasites and urban forestry learning from experience

Lucio Montecchio

University of Padova, Italy

Budapest, 17-19 October 2017