

STUDY CASE

ANOPOPHORA CHINENSIS **FOUND IN SARAJEVO**



Mariangela Ciampitti

Sarajevo, 7-8 December, 2016

Content



- *Anoplophora ID*
- Range of host plants
- Pathway
- Scenario of a possible crisis situation

Biology and ethology



**Females ~ 3,13 cm
Males ~ 2,74 cm**

**Adult with long antennae,
black and white spotted**



Biology and ethology

... as soon as they emerge, they go up
into the crown,
feeding the bark of
young twigs...



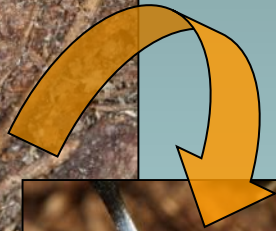
Biology and ethology



... then... they mate and females start in laying eggs...



Biology and ethology



With the mandibles, female make an incision in the bark to insert in it one single egg...

Biology and ethology

The egg is very similar to a rice seed... and it is layed in the bark inside a T shape incision...



Biology and ethology



Exuvium

**Larvae are 45 – 55
mm in length**



**Pupal chamber, full of chewed
tree debris**

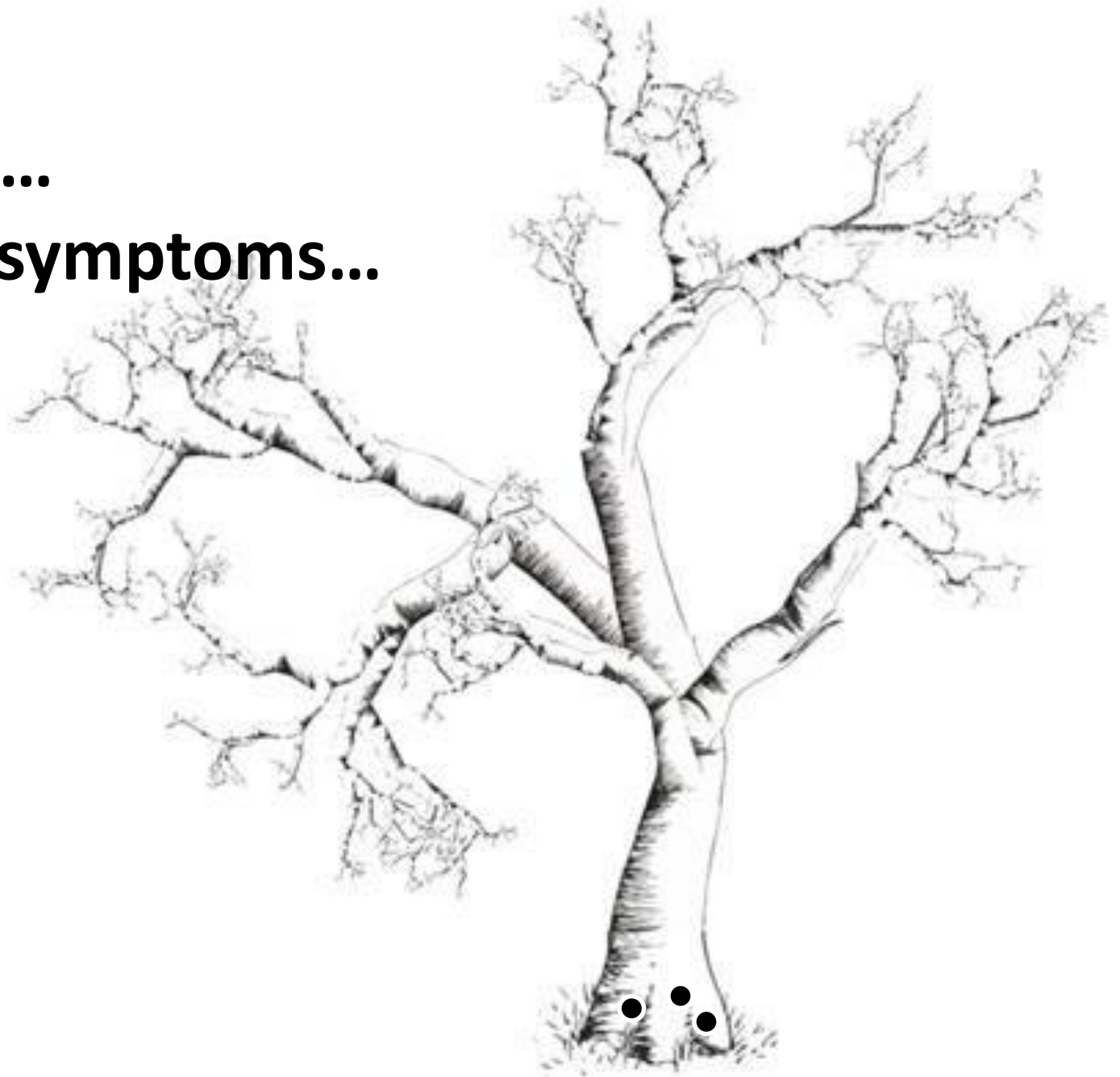


Biology and ethology

.. emerging
from the tree
through a
perfect, round
shape, exit
hole...



Looking for...
... sign and symptoms...





Following the adult's feeding, on the crown is it possible to see dead twigs...



Sign and symptoms



An overview of different kind of oviposition scars...

Sign and symptoms

Frass (excrements)

The amount of extruded frass varies depending on the host plant species, larval instar and environmental conditions...



Frass is not systematically found on infested trees; frass is not a fully reliable symptom which may be lacking even if trees are infested with larvae. Furthermore, it may be located on ground level and could be easily washed off during irrigation or removed by gardeners.

Sign and symptoms

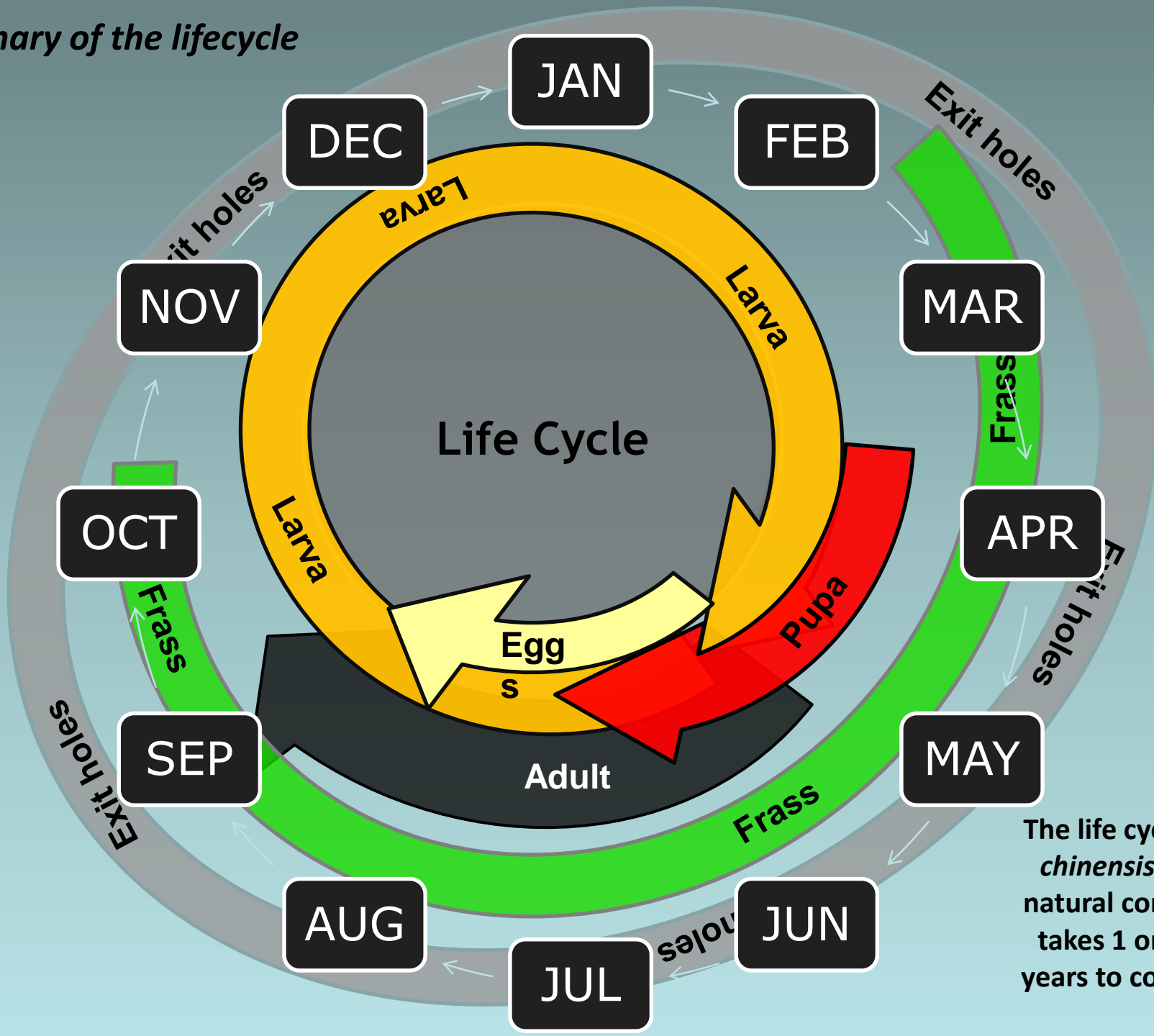


**Freshly made, hold and
cicatrizized exit holes...**

Sign and symptoms



Summary of the lifecycle



The life cycle of *A. chinensis* under natural conditions takes 1 or 2 (3?) years to complete.

Range of host plants

- The main host plants are Acer (maple and sycomores), Betula (birch), Ulmus (elm), Fagus (beech), Corylus avellana (hazel), Rosa (rose), Prunus laurocerasus
- but the list of host plants is very long (see EPPO Standard PM 9/16)



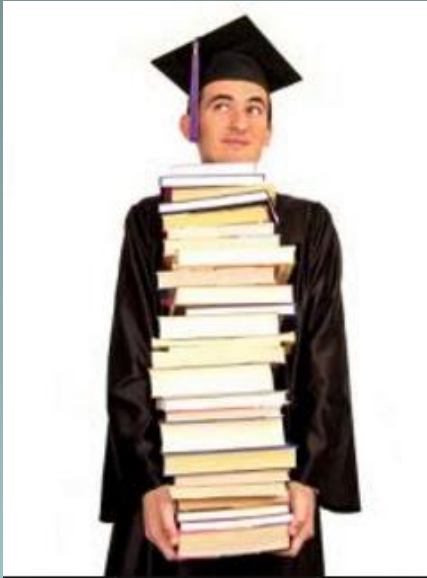
Pathway



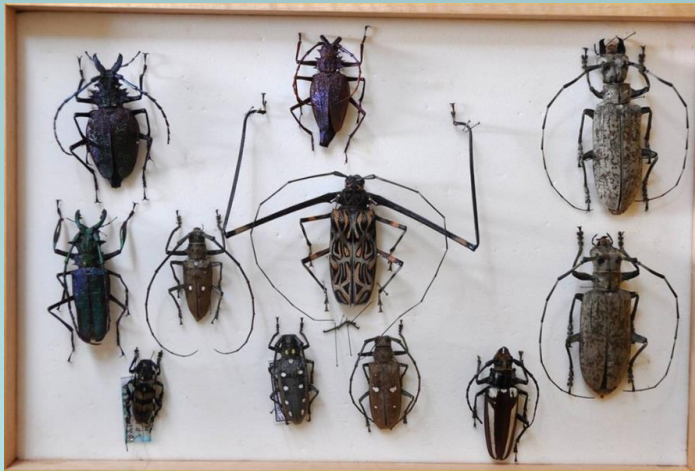
Anoplophora can spread through active fly for a short distance



Possible scenario



- On 12 February a student at Mostar during an examination shows an entomological box with a collection of insects.
- The teacher notices the presence of a beetle that he identifies as *Anoplophora chinensis*.
- The student says that the insect was collected in a boulevard in Sarajevo during the visit to some relatives took place in the previous July.
- The professor alerts the Plant Protection Service.



The task for you:

To identify measures to be taken by plant health services in order to:

- Identify possible source of infestation
- Prohibit further potential spread of quarantine insect
- Eradicate the outbreak
- Involve local authorities and stakeholders

GOOD LUCK !!! 😊

