Potential vectors of *Xylella fastidiosa* recorded in France / Morphological identification

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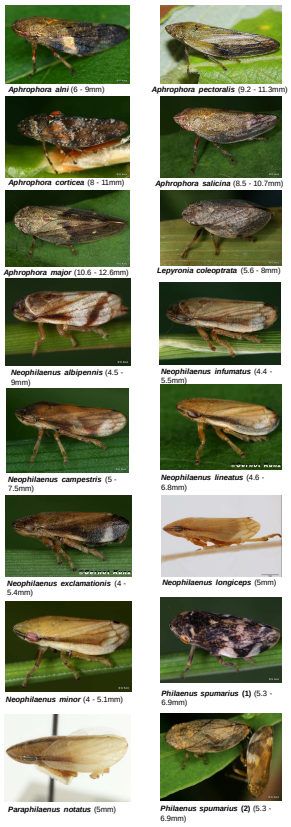
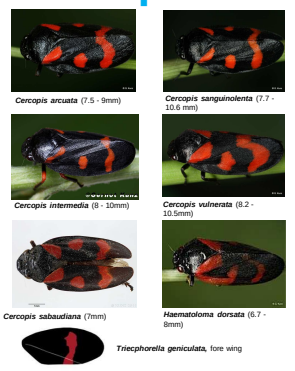
anses
French agency for food, environmental and occupational health safety
Investigate, evaluate, protect

Presentation of Hemiptera Auchenorhyncha from France xylem feeders that could be involved as vectors of *Xylella fastidiosa.*

Aphrophoridae

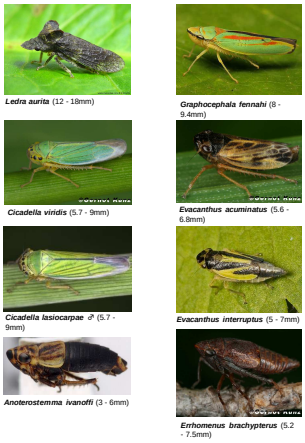


Cercopidae

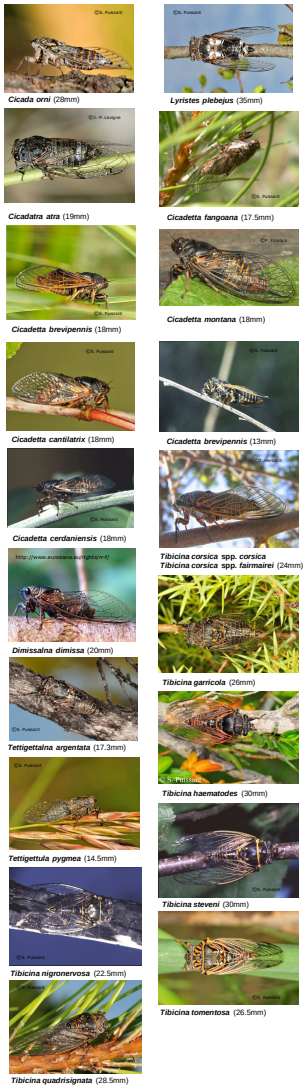


Cicadellidae

Ledrinae and Cicadellinae



Cicadidae



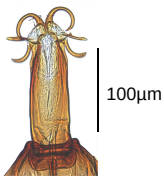
Morphological identification

Morphological identification involves the use of dichotomous keys available in the literature and the observation of external morphological criteria associated with the study of genitalia.

Aphrophoridae

They are generally oblong in shape. The largest species belong to *Aphrophora* (6.0 / 12.6mm), and the smallest to *Neophilaenus* (4.0/6.8mm). the *Philaenus* are intermediate (5.3 / 6.9mm). *Lepyronia* (5.6 / 8.0mm) are globular in shape. Species recognition must be validated by the observation of male genitalia.

The LSV carried out a fact sheet on *Philaenus spumarius*, which could be the most involved species in the vectorization of *Xylella fastidiosa*.

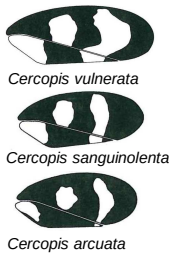


Aedeagus *Philaenus spumarius*

Cercopidae

Red and black species. Extend of red colouration allow specific identification. That must be confirmed by observation of male genitalia

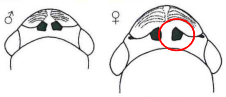
C. vulnerata (@Dusoulier)



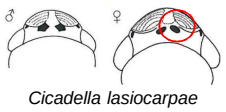
Cicadellidae

Nervulation of the fore and hind wings, distribution of various spots the thorax and vertex, and observation of the genitalia of males, are discriminating.

For example, *Cicadella viridis* and *Cicadella lasiocarpae* can be distinguished by body color in males (dark blue for the first, yellow green for the second) and the shape of the two spots on the vertex in females (polygonal in *Cicadella viridis* , round in *Cicadella lasiocarpae)*. On the other hand, for these species, the male genitalia are quite similar.



Cicadella viridis

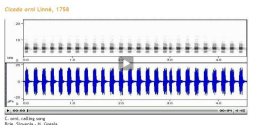


Cicadella lasiocarpae

Male genitalia
Cicadella viridis

Cicadidae

Body size, wingspan, head shape, number of teeth on the pro-femora, color of the veins and various spots on the wings are distinctive criteria, but the sonograms and oscillograms of cymbalization are the most discriminating



Sonogram and oscillogram of *Cicada orni*

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http://www.cicadasong.eu/cicadidae/cicada-orni.html

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