



Mardi 2 avril 2019, 11:00


Salle de réunion


SYMBIONTS PROTECT APHIDS FROM PARASITIC WASPS BY ATTENUATING HERBIVORE-INDUCED PLANT VOLATILES


par

Enric Frago

Cirad-CBGP

 Plants often respond to insect attack by releasing blends of volatile chemicals that attract the herbivore's specific natural enemy, while insect herbivores often carry endosymbiotic microorganisms that directly improve survival after natural enemy attack. Here we demonstrate that the two phenomena can be linked.

 Plants fed upon by aphids carrying symbionts were less attractive to parasitic wasps and aphids on those plants were less attacked by wasps. The volatile composition of plants fed upon by aphids carrying or not symbionts were different, some particular volatiles being emitted at lower amounts when plants were attacked by symbiont-carrying aphids.

 Our results reveal a previously unknown mechanism by which insect symbionts protect their hosts through manipulation of the physiology of the plant.