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Poster 21 (candidate for student prizes)

Symposium: Evolution of plant-pollinator interactions

Wednesday 12

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Is there a role of male sex pheromones in bumblebee cuckoo-host interactions?

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In social insects, severe brood care costs have promoted the evolution of cheaters that exploit workers services of conspecifics or heterospecifics. In Bumblebees, a lot of species use hosts facultatively as an alternative to care for their own brood, while true cuckoo bumblebees (subgenus *Psithyrus*) have lost their worker caste and are completely dependent on hosts to produce their sexuals. Cuckoo bumblebees constitute a monophyletic group within the *Bombus* genus. However, preliminary analyses seem to show a close similarity between *Psithyrus* species and their specific host according to male sex pheromones composition. These data could reflect a selection of cuckoo bumblebees for chemical mimicry with their host. The aim of this study is to confirm these results with more precise analyses of male sex pheromones composition and then to define the role of this putative chemical mimicry in cuckoo-hosts interactions by ethological analyses using the cuckoo bumblebee *Bombus vestalis* and its host *Bombus terrestris*.