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### Plant volatile organic compounds that affect the sexual behaviour of *Anastrepha fraterculus* males

#### ABSTRACT

Plant secondary metabolites affect the sexual behaviour and sexual communication of phytophagous insects in various ways. There has been particular interest in the effect of phytochemicals on the reproductive biology of Tephritidae fruit fly males. In this presentation, I summarise results on the effect of phytochemicals produced by guava fruit on the mating behaviour and reproductive biology of the South American fruit fly, *Anastrepha fraterculus* (Diptera: Tephritidae). Our initial trials revealed that wild, as well as laboratory, males increased their mating success after they were exposed to guava fruit odours. Interestingly, contact with the fruit was not needed in order to trigger this phenomenon. Here, I will focus on understanding the basis of such preference, from a functional as well as an evolutionary perspective, but also considering the potential use of guava odours as male sexual enhancer in the context of the sterile insect technique.



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*"I am a biologist (Dr in Biological Sciences) graduated from the University of Buenos Aires. I work for the National Institute of Agriculture of Argentina and the National Council of Science. I teach (Associated Professor) at the University of Salvador. I have been doing work on fruit fly and parasitoids for the past 20 years, usually within the fields of insect behaviour, behavioural ecology and chemical ecology."*

