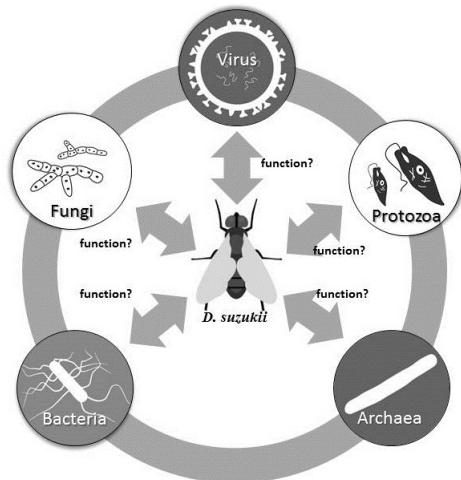


## The role of microbial symbionts in the niche shift of *Drosophila suzukii*

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Microbes interact with their hosts, profoundly influencing their ecology and evolution (Clark et al., 2017). They also affect the life history of their hosts in terms of development and fitness (Broderick et al., 2014). In our project we aim to understand if microbes affect the development, fitness and behaviour of the insect host *Drosophila suzukii*. *D. suzukii* is an invasive insect pest of soft fruits. It has its origin in Asia yet has successfully invaded regions of America and Europe, where also The Netherlands being one of the infested regions.

Picture credits: Joana Falcão Salles

Broadly, we aim to achieve the following:

- Examine the diversity, the co-occurrence patterns and infection rates of the associated microbes of *D. suzukii* in a range of soft fruits.
- Dissect the functional roles of microbial symbionts on their hosts' development and behaviour.
- Study the effect of microbes on chemical communication by analysing how the pheromones of *D. suzukii* are influenced by their symbionts.

**Methods:** microbiome analysis using next generation sequencing, microbial culture, fly behavioural assays, fly pheromonal profile

If your research interests overlap with our project objectives we can discuss and accommodate further possibilities.

**Starting date:** September 2019 or later