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**The odor of a plant metabolite affects life history traits in dietary
restricted adult olive flies**

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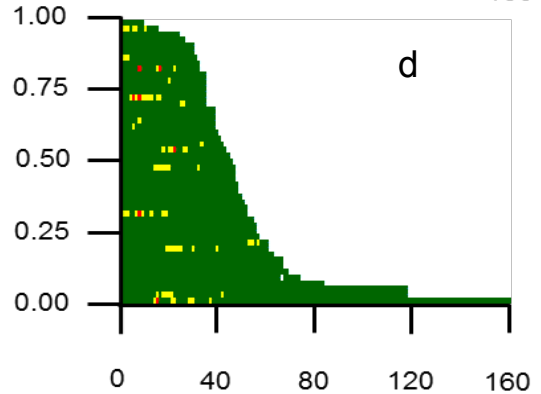
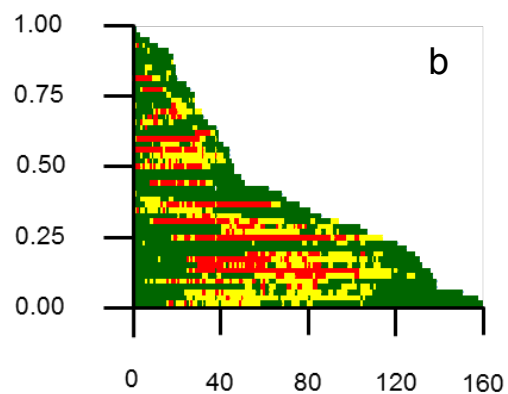
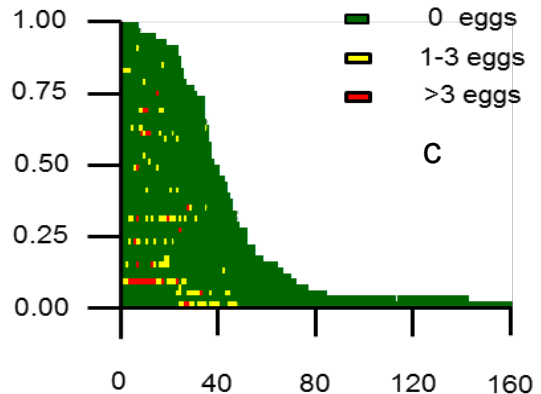
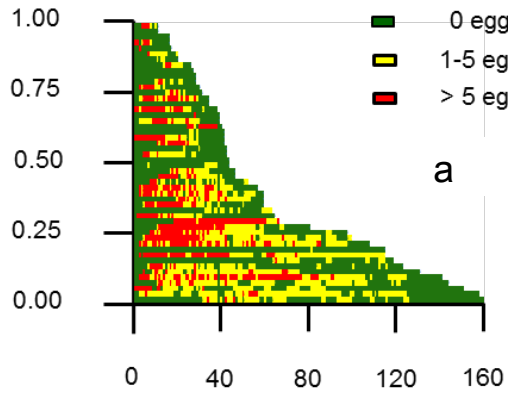
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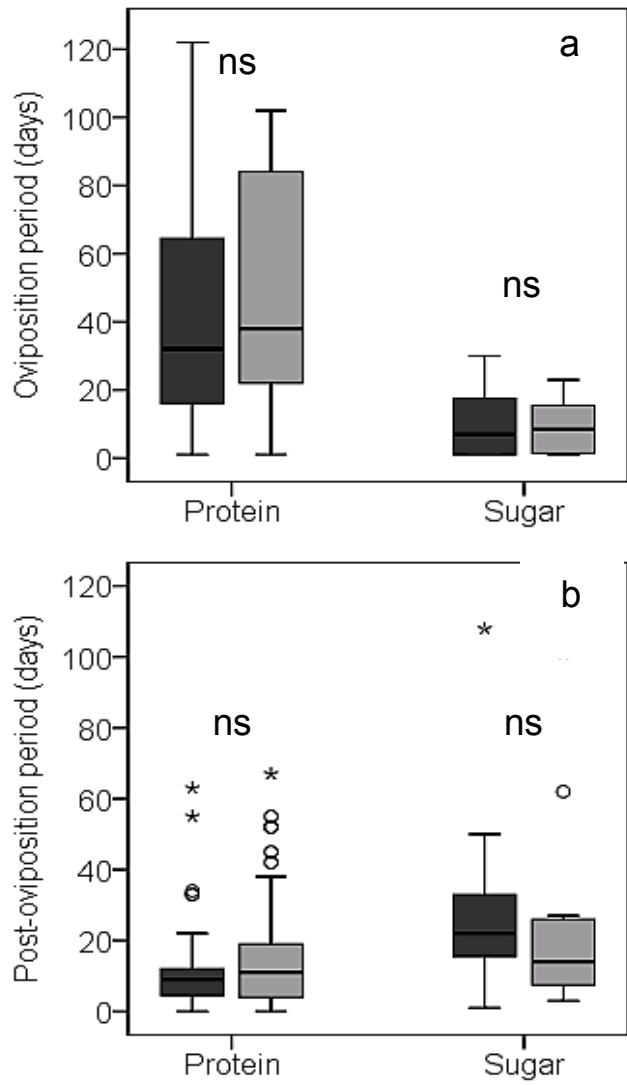
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Supplementary Figure 1. Event history diagrams



Supplementary Figure 2. Oviposition and post-oviposition periods



Supplementary Figure 3. Oviposition distribution

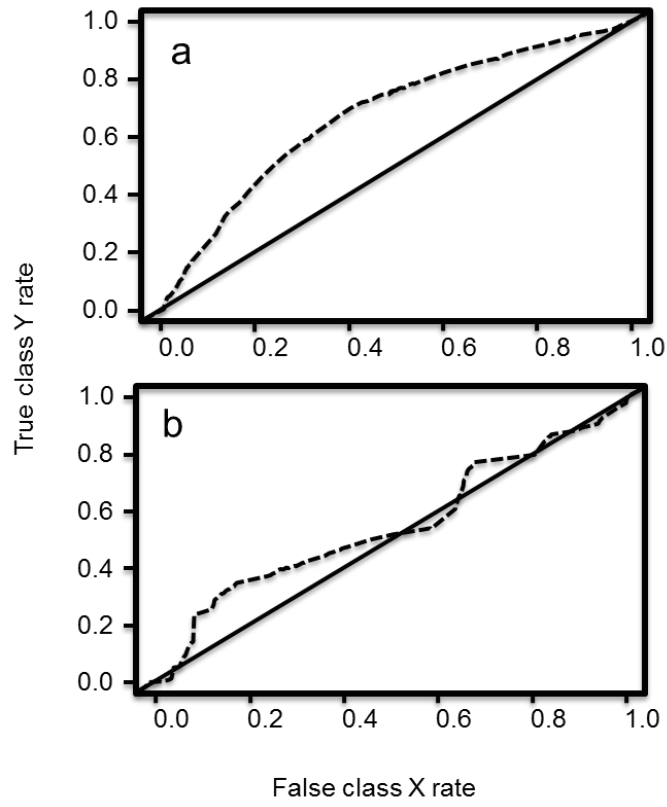


Figure 1S. Event history charts (Carey et al., 1998) for *Bactrocera oleae* females showing relationship of cohort survival and individual-level reproduction across treatments. Each horizontal line within a graph denotes a life line for an individual female, the length of which is proportional to her lifespan and with color-coded segments corresponding to age classes. The age-specific egg laying intensity for each individual female corresponds to the shading: green = zero eggs; yellow = 1–5eggs; red > 5 eggs for females fed in FD conditions (Fig a & b). Figure a represents exposed females to α -pinene whereas Fig b non-exposed ones. For females feeding in DR conditions, color scale has been modified and represent different laying intensities, green = zero eggs; yellow = 1–3 eggs; red >3 eggs for females fed in sugar (Fig c & d). Figure c represents exposed females to α -pinene whereas Fig d non-exposed ones.

Figure 2S. Box-plots representing oviposition (a) and post-oviposition (b) periods of females, exposed to the aroma of α -pinene (black boxes) and non-exposed (grey boxes) in the respective food regimes.

Figure 3S. Effect of exposure to α -pinene on age-specific fecundity. Receiver Operation Characteristics (ROC) analysis depicting the overlap of oviposition distribution between *Bactrocera oleae* females a) fed in FD conditions-exposed vs. non-exposed to α -pinene (AUC = 0.67, $P = 0.002$) and b) fed in DR conditions- exposed vs non-exposed to α -pinene (AUC = 0.55, $P = 0.62$)