Electronic Supplementary Material

Kemp DJ, Natal hostplant influences adult reproductive behaviour in the butterfly *Heliconius charithonia*

Figure S1

Images of lab-reared *H. charithonia* across life stages. **(a)** Eggs laid by F0 females upon the growing shoots of *P. incarnata*. A single hatchling is visible (prior to being randomly assigned to develop upon either *P. incarnata* or *P. suberosa*); **(b)** A pupa obtained in laboratory rearing and still attached to the natal host; **(c)** The same pupa once removed and affixed to cotton string, shown next to its eclosion container; **(d)** Pupae as housed individually in clean, gauze-topped containers for eclosion; **(e)** a fifth instar larvae on *P. incarnata*; **(f)** An adult male as photographed during adult observations in the glasshouse.

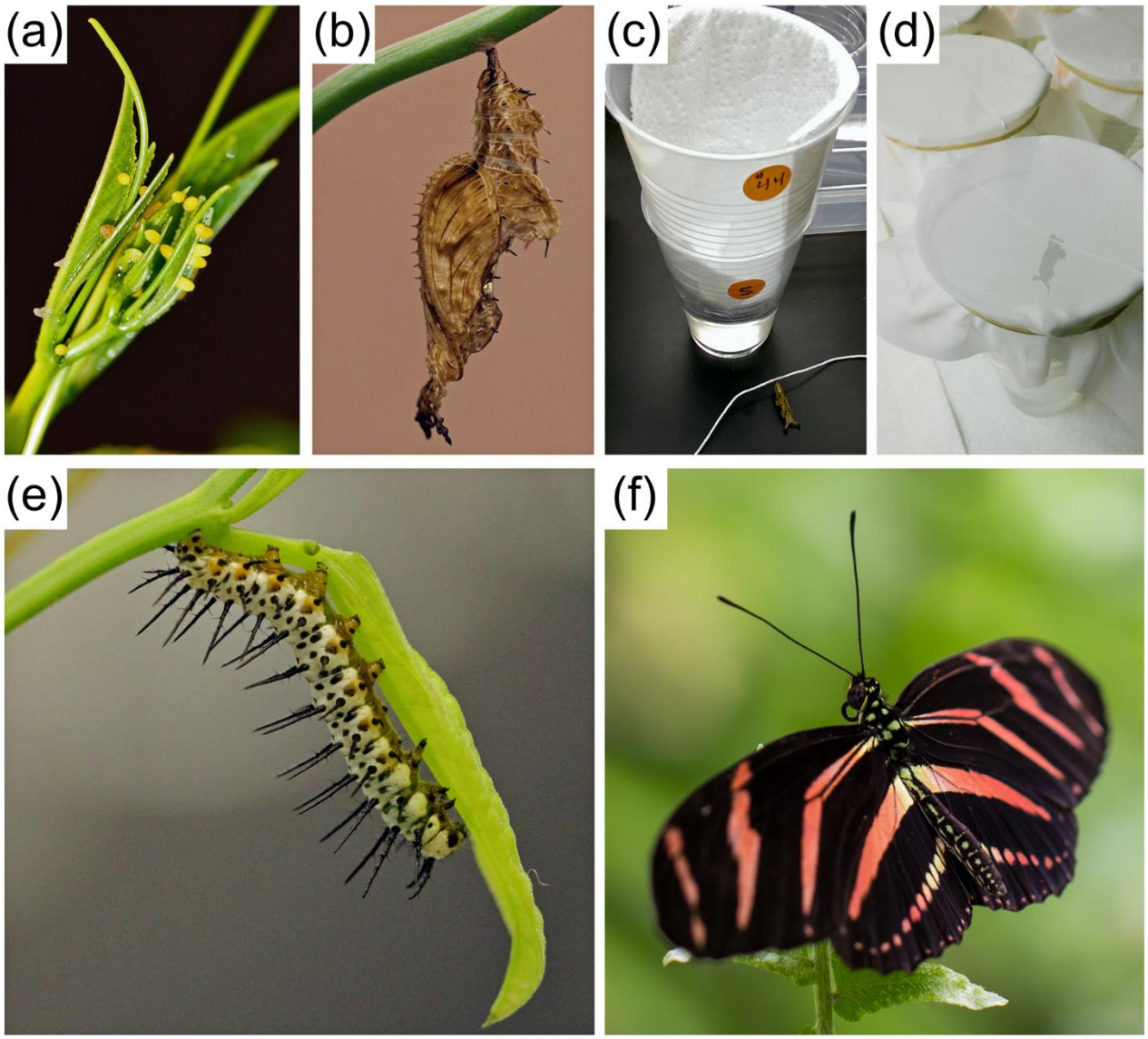

Figure S2

Simulation test results for inducible host preference in ***(a)*** female and ***(b)*** male *H. charithonia*. Probability density functions (null distributions) for the index of adult host assortment (H_{pref}) were derived from 50,000 simulations wherein each individual was free to associate randomly with *P. incarnata* or *P. suberosa* in each of their observed reproductive events. The H_{pref} index is analogous to a correlation between natal host identity and adult host assortment, whereby positive values indicate associative bias (and zero indicates indifference). Observed H_{pref} values are indicated for each sex. The one-tailed critical region defines the values of positive host assortment expected to arise purely from chance in less than 5 % of occasions.

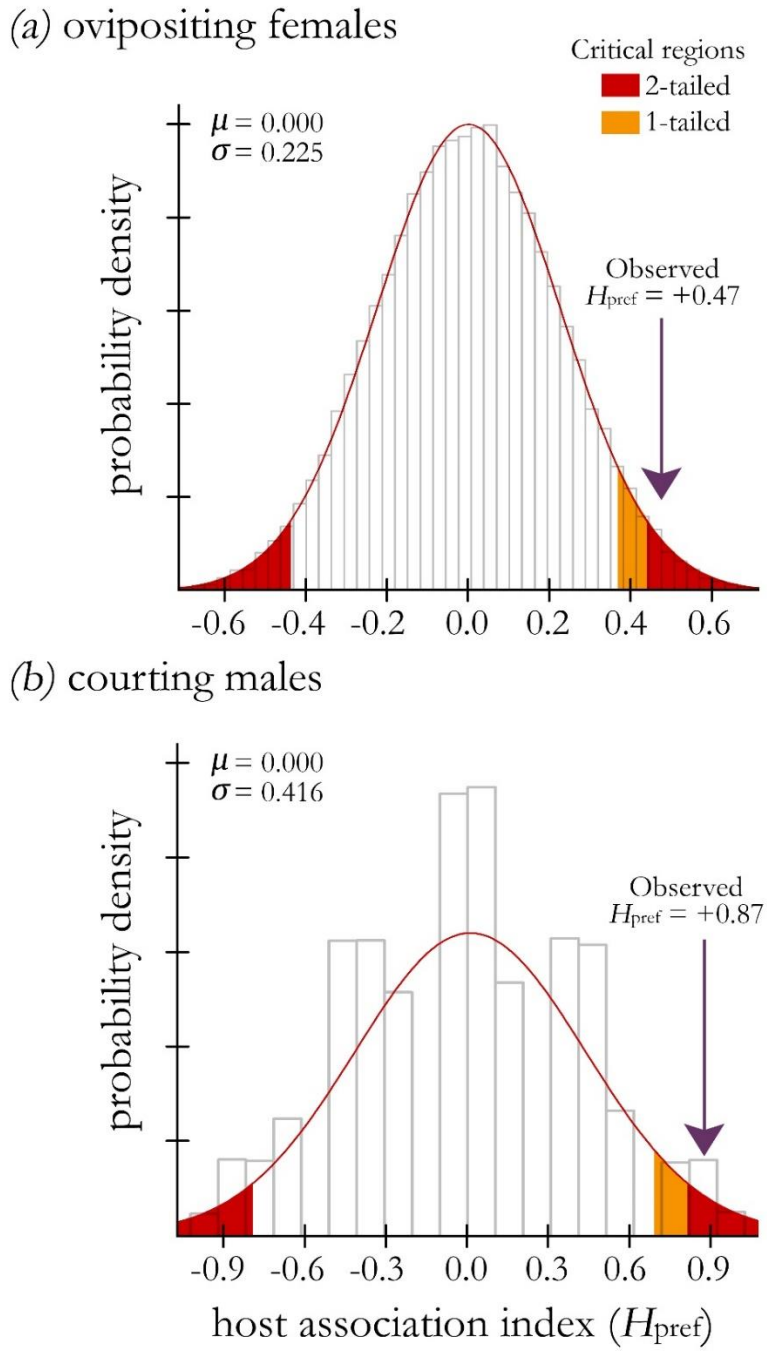

Figure S3

Summary of the simulation test for assortative mating on the basis of natal host. The null distribution for M_{pref} was derived via a procedure identical to that for Figure S2. The observed M_{pref} value and critical probability regions are indicated. The one-tailed critical region defines the values of positive mate assortment expected to arise purely from chance in less than 5 % of occasions.