

Behavioural thermoregulation in *Acyrtosiphon pisum* (Homoptera: Aphididae): The effect of parasitism by *Aphidius ervi* (Hymenoptera: Braconidae)

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The effects of parasitisation by *Aphidius ervi* on the thermoregulatory behaviour of the pea aphid *Acyrtosiphon pisum* were studied in alfalfa fields and in an experimental thermal gradient. In the field, mummies were found exclusively on the adaxial surface of the upper leaves, and aphids in the mid canopy. The adaxial surface of the upper leaves was ca. 2°C hotter than the mid-canopy. In the thermal gradient, the thermal effect (selected minus exposure temperature) was higher in magnitude in non-parasitised than in parasitised aphids; the thermal effects of both types of aphids were linearly and negatively correlated with exposure temperature (i.e. aphids showed negative thermal sensitivity). The thermal sensitivity of parasitised aphids was lower than that of non-parasitised aphids. The results are discussed in relation to hypotheses on factors governing the host-parasite relationship. © 2001 Elsevier Science Ltd.