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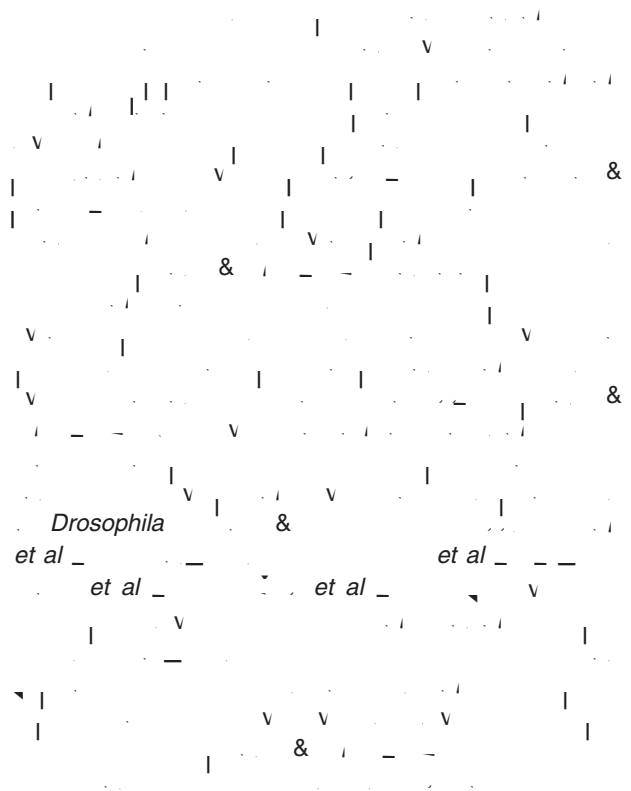
Ab ac

ec e he S₂S₂e (SP) a e ce a S₂a e-
d₂g beha iS, a d a a e e ia Se i he
i a a d e Sd c iS Sf S ga i . U de a d-
g he Se, biS i he ic a h a a d e S iS Sf
i ec che a ca cS₂ i ca iS e ha bee a
e ci g cha e ge fS biS Sgi . CS₂ a ed i h
Le idS e a, i e i S i abS he echa i
de i g he S₂S₂e biS i he i He i e a.
hi d, e i Sa ed a d cha ac e i ed S
e de a a e i e ge e, e ed *Asutdes1* a d
Asutdes2, f S₂ *Adelphocoris suturalis*, a i S a
ag ic a e i Chi a. A hS gh he S ge e
e cS de a i de i ca Se i, SS he bS a a i
e ea ed ha he a e d i ca ed ge e. The
Asutdes2 a c i i S e ab i da ha *Asutdes1*
i he i e e ed, i a ic a he e a hS acic
ce g a d a d fa bSd . Si e c i g *Asutdes* e e -
iS i fe a e b i ec i g dS b e a d ed RNA

(*Asutdes*) a ga i a S iS Sf ne cSd i g e e ce
ha ed b he S ge e e ha ced he Sd c iS Sf
(E)-4-S S-2-he e a, a cS₂ S e Sf he *A. suturalis*
SP b e d, a d d a a i ca e ed he e a
a ac i e e Sf *A. suturalis* fe a e . We cS c de
ha *dsAsutdes1* a Scia ed i h he SP biS i he ic
a h a i *A. suturalis*.

Ke S d : *Adelphocoris suturalis*, *desaturase*, e
he S₂S₂e biS i he i, (E)-4-S S-2-he e a, RNA
i e fe e ce (RNAi).

i Sd c iS



Adelphocoris suturalis

Bacillus thuringiensis

A. suturalis

A. suturalis

A. suturalis
v *A. suturalis*
et al
A. suturalis
fatty acyl-coenzyme A (CoA) reductase desaturase
des acetyltransferase alcohol oxidase
A. suturalis desaturase
Asutdes
v
Asutdes *A. suturalis*
v
Asutdes
A. suturalis
v
A. suturalis

Re

cDNA cloning and sequence analysis

A. suturalis

et al

Asutdes

Asutdes2

Asutdes1

Asutdes2)

Asutdes

Asutdes1

Asutdes2

Helicoverpa zea

H. zea

et al

Choristoneura rosaceana

et al

Trichoplusia ni

Drosophila melanogaster

Bombyx mori

et al

4.

Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains.

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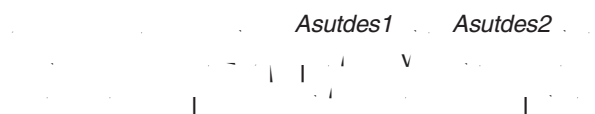
V. *et al.* 1999, *et al.* 2000

et al

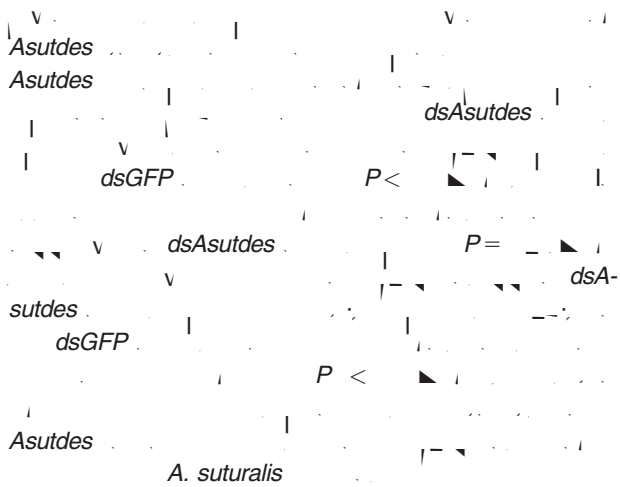
et al _

Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains.

Spatial transcript profiles

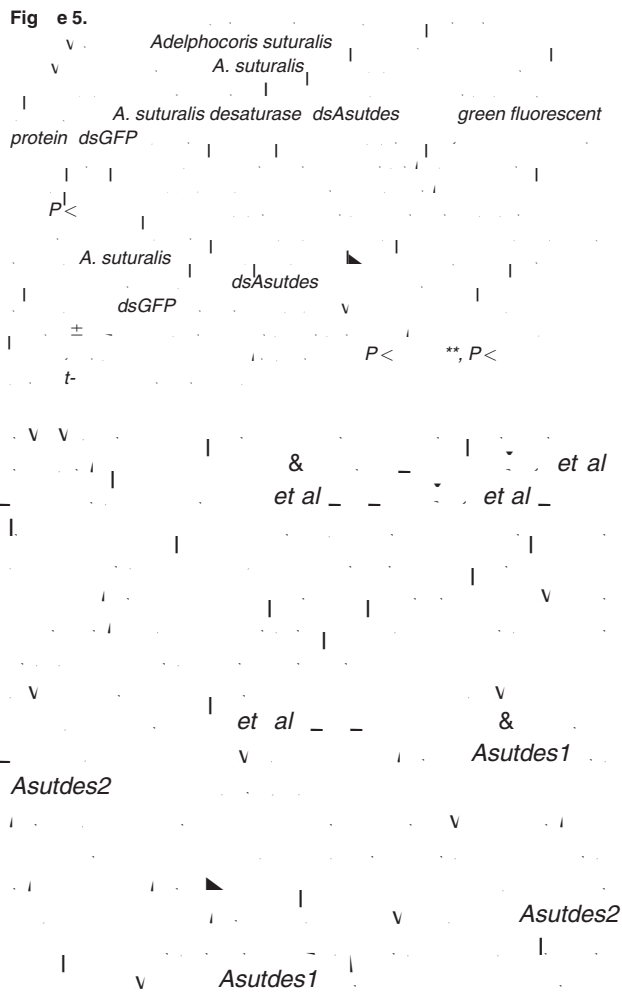


Knockdown of *Asutdes* altered the female pheromone titre



Discussion

The results of this study show that the pheromone titre of female *A. suturalis* is significantly affected by the knockdown of *Asutdes*.



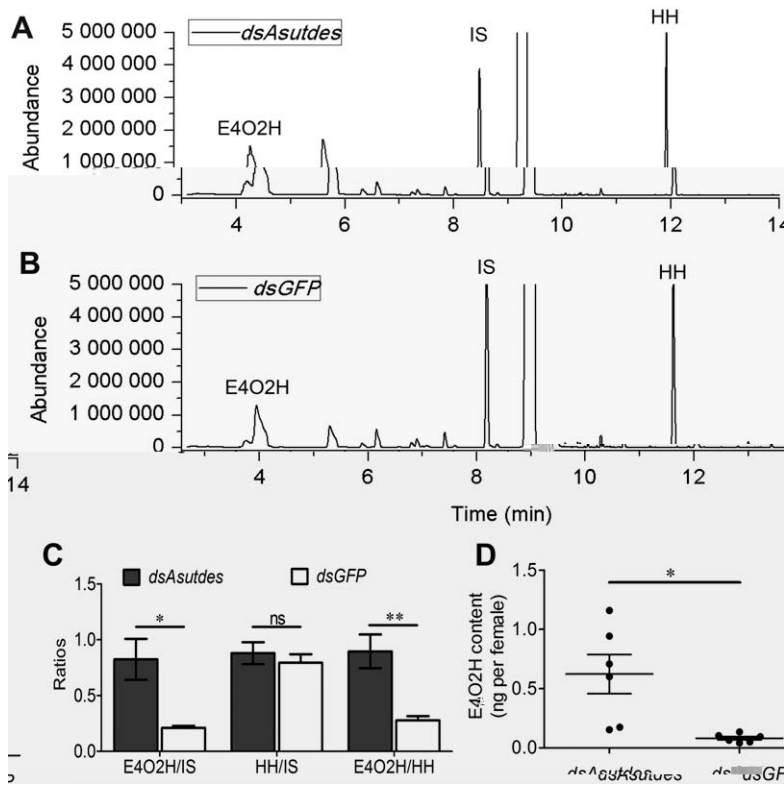
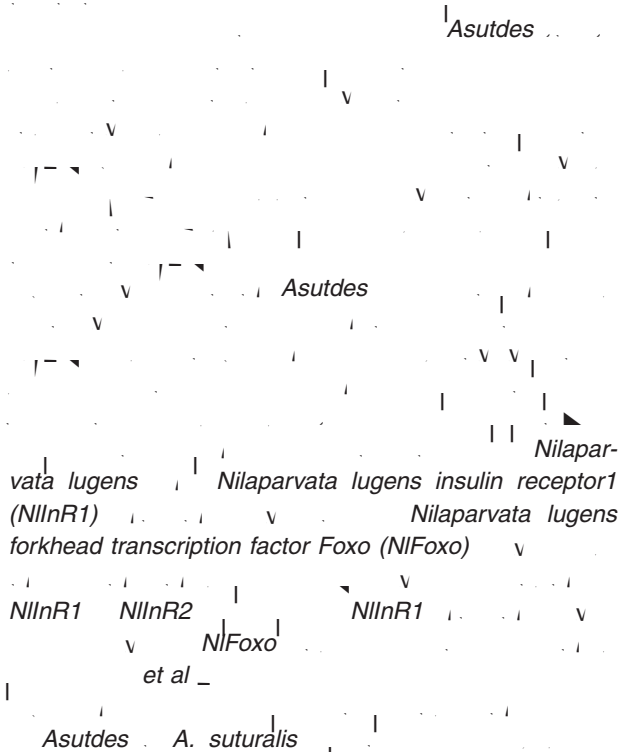
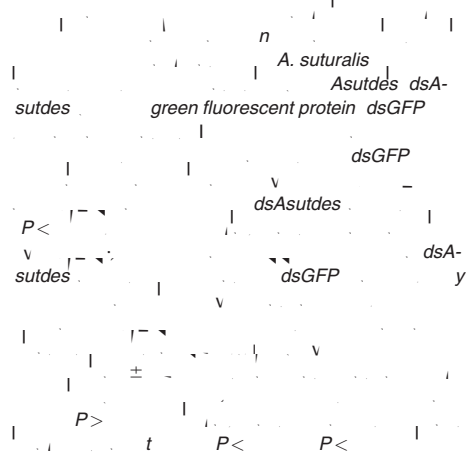


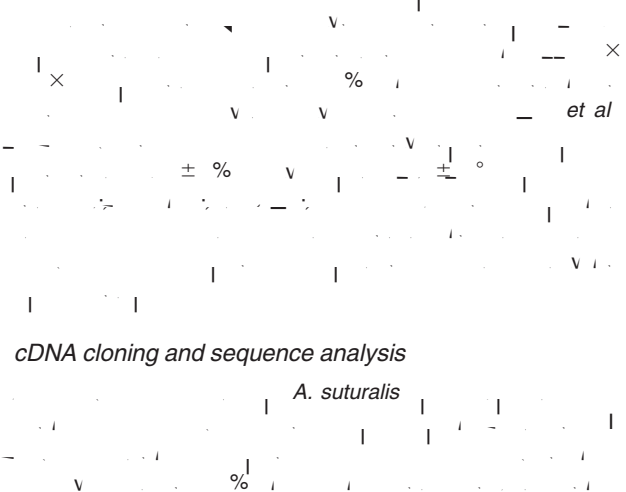
Fig e6. *Adelphocoris suturalis* desaturase
Asutdes



E e i e / a Sced e

Insect rearing

A. suturalis



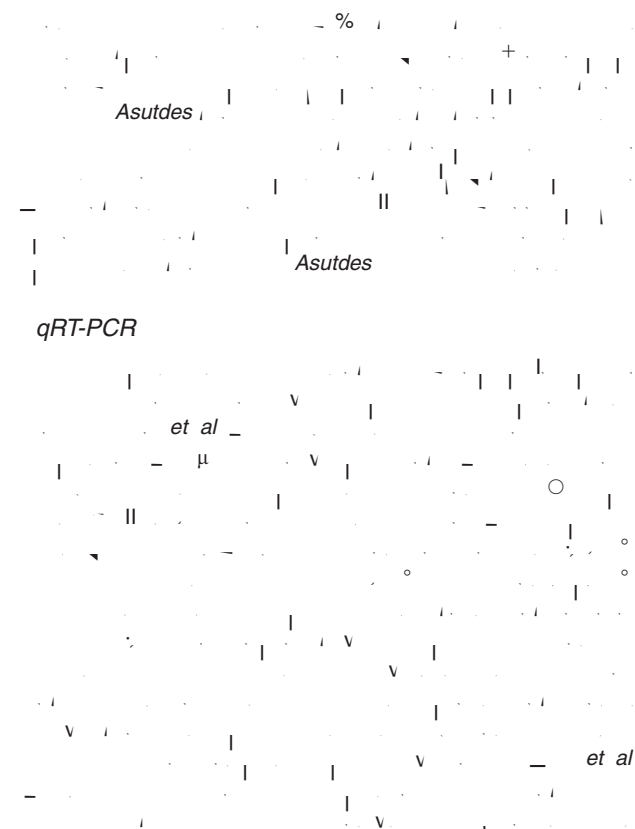
cDNA cloning and sequence analysis

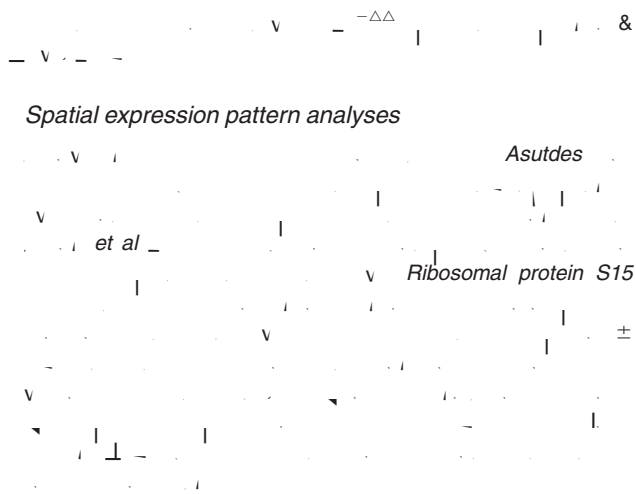
A. suturalis



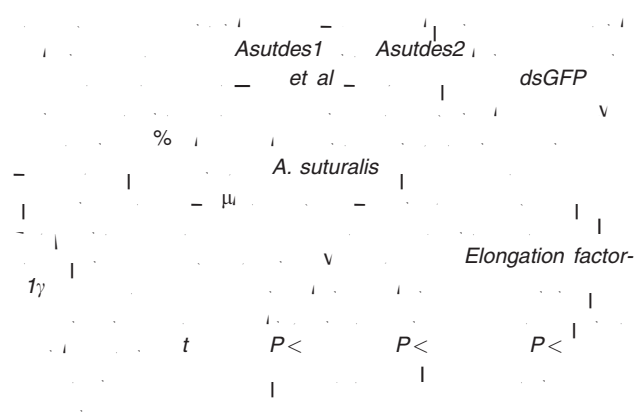
Asutdes *Adelphocoris suturalis* desaturase
RPS15 ribosomal protein 15

EF1 γ elongation factor-1 γ GFP green fluorescent protein

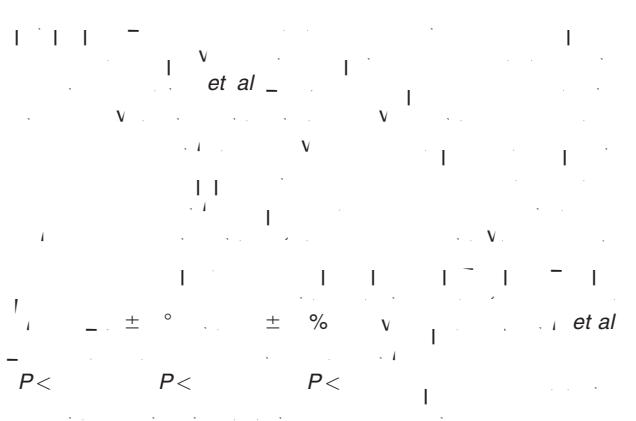
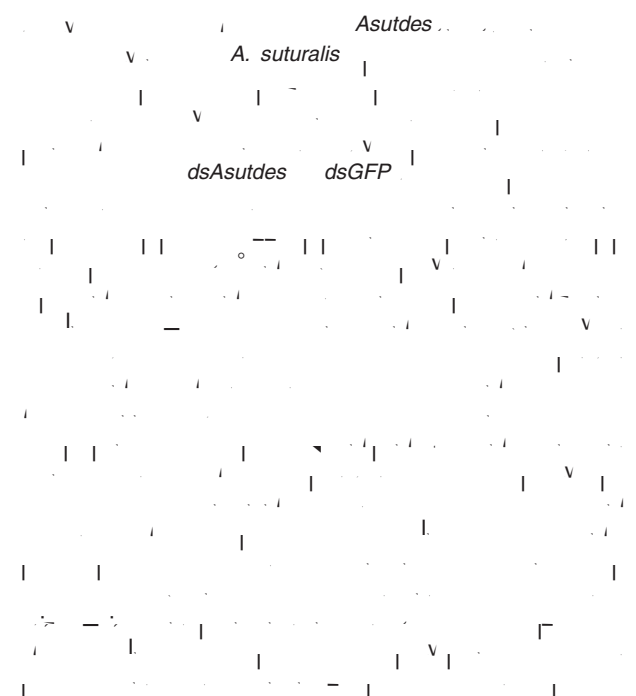




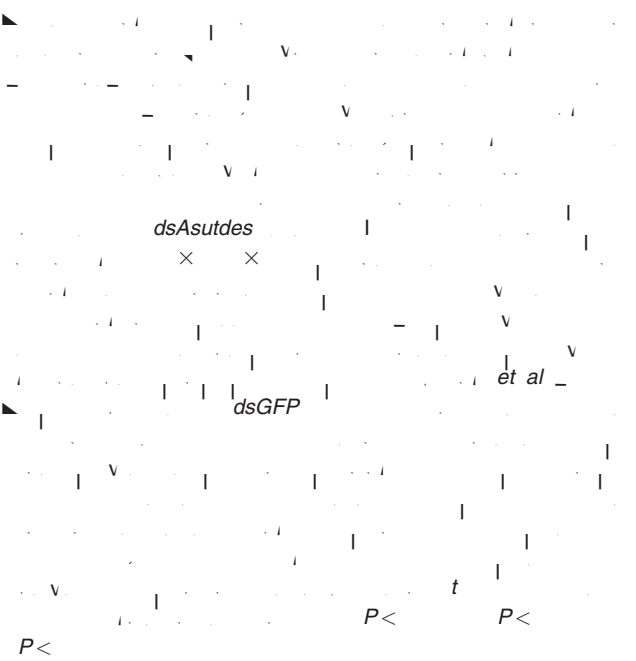
RNAi in



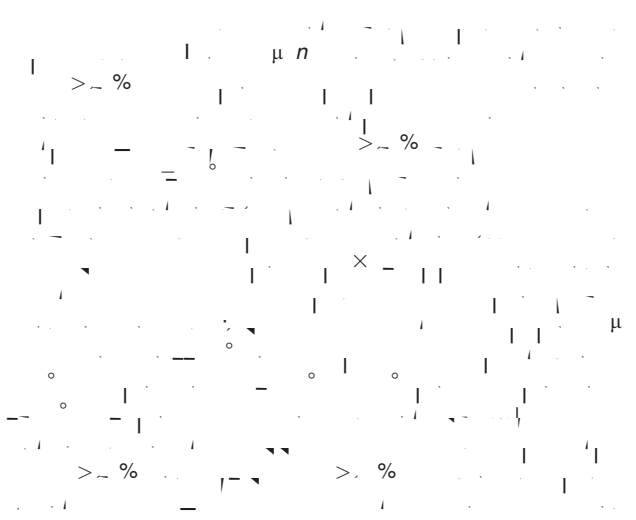
Y-tube olfactometer bioassay



Field trapping experiments



Pheromone extraction and GC-MS analysis



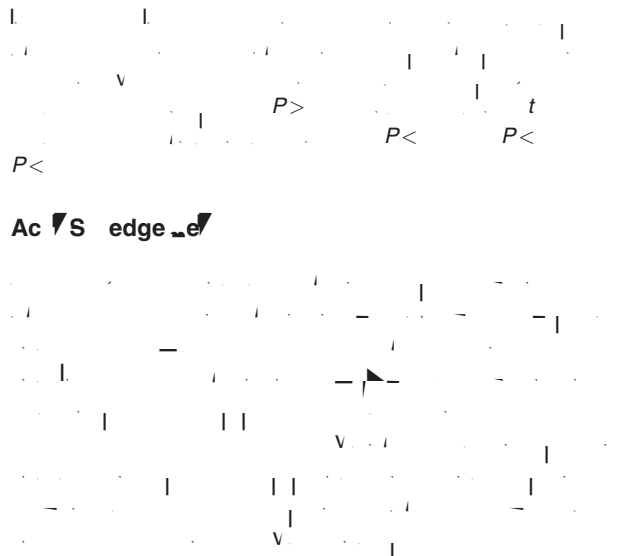


Figure 1 | **Genome-wide association study (GWAS) results for sex pheromone biosynthesis.**

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