NO MEMORY OF PAST ENVIRONMENTAL CONDITIONS IN THE COMMON SNAPDRAGON

Mathilde Mousset, Mathieu Latutrie, Emmanuelle Rataud, Sara Marin, Delphine Gourcilleau, Benoit Pujol
UMR 5174 , Laboratoire EDB, Université Paul Sabatier, Toulouse, France
mathilde.mousset@univ-tlse3.fr

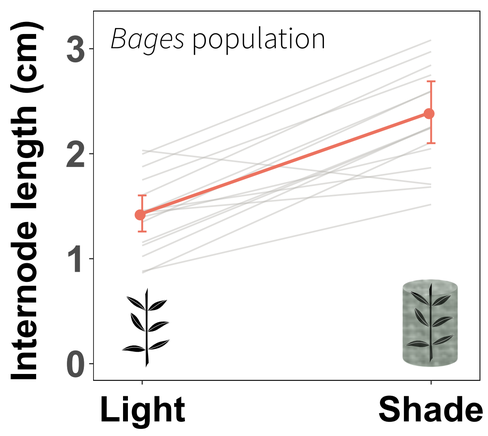
CONTEXT

> Past environmental conditions can sometimes be remembered, allowing a faster or stronger plastic response upon later stimulation (**within-generation "memory"**).

> The **shade avoidance response** is a set of phenotypic plastic responses found in many plants exposed to neighbour shade (i.e. light resource limitation).

Ex: longer internodes or petioles, inhibition of branching

SHADE AVOIDANCE RESPONSE IN THE SNAPDRAGON



> *Antirrhinum majus* exhibits a **shade avoidance response** in a common garden experiment

> Increase of vegetative height, internode length, number of nodes

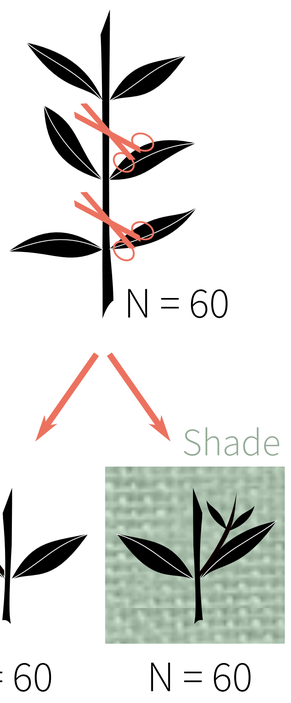
Does previous shade exposure compared to light yield a stronger response?

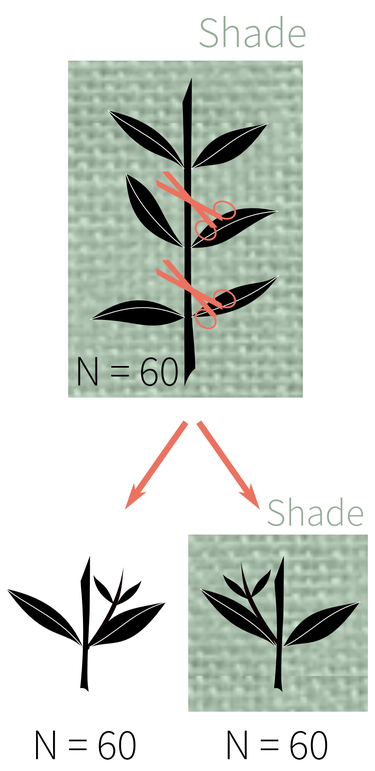
MATERIAL & METHODS

X 3 lines

Donors

Clones



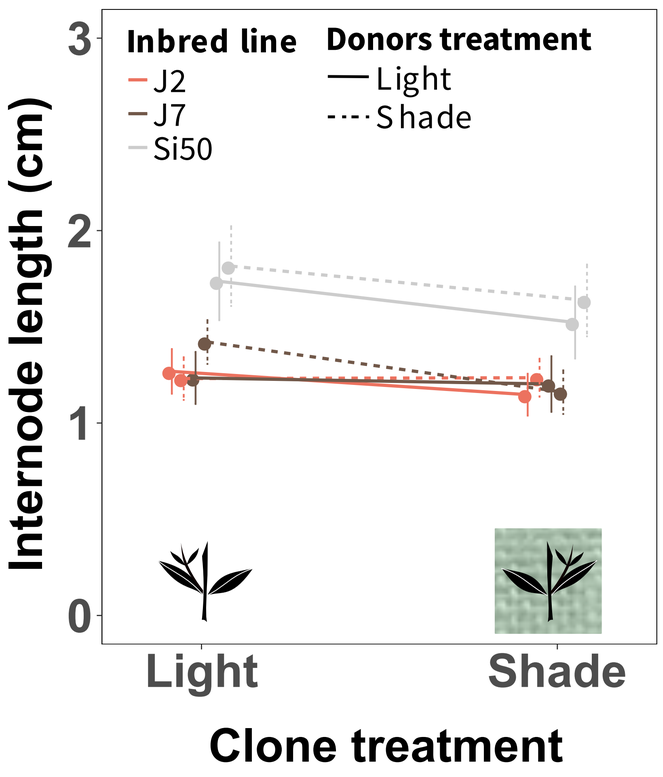


> **Species**
Antirrhinum majus (snapdragon)

> **Experimental setup**
- manipulation of shade in greenhouse
- three inbred lines
- cloning of each donor plant

> **Traits measured on the clones**
- mean internode length (on all individuals)
- shoot diameter (on flowering individuals)

RESULTS



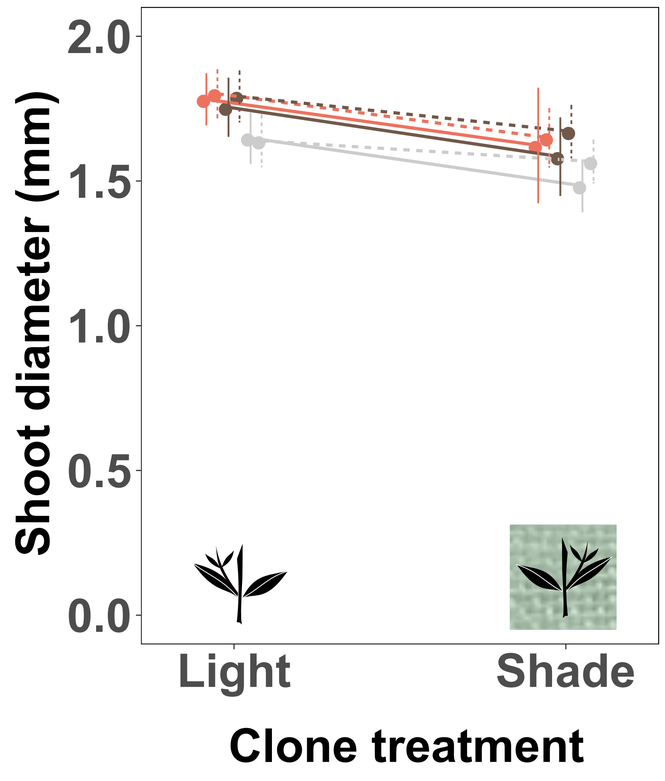
INTERNODE LENGTH

SHOOT DIAMETER

1. Inbred lines differed for the two traits

2. Shoot diameter was smaller in the shade than in the light in the three lines

3. The **donor environment had no effect** on traits (neither directly nor in interaction with the clone environment)



There was no environmental memory in *Antirrhinum majus*

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