LOOK AT THE BRIGHT SIDE

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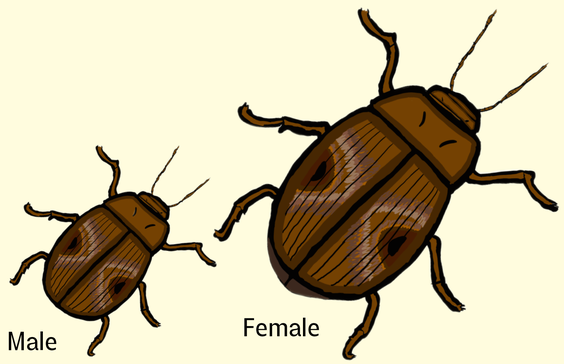
Does light exposure influence the reproduction of *Callosobruchus maculatus* on their natal bean type?

1 HAVE YOU EVER WONDERED...

... what would happen to the reproductive success of bean beetles if you **expose them to bright light or complete darkness day and night?**

So did we!



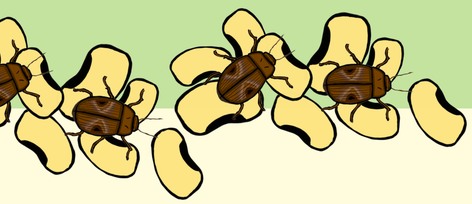
Bean Beetle (*Callosobrachus maculatus*)

2 HOW CAN WE FIND THAT OUT?

To find out we designed **three** different treatments: **constant light, dimmed light** and complete **darkness**.

In each petri dish we put **one male and one female** together.

Three weeks later, we **counted the eggs laid.**



3 DARKNESS - A MOOD KILLER?

Females laid **more eggs** in the **light** and **dimmed light** treatments compared to the complete darkness one, but there was no significant difference between the egg laying rate in dimmed and light conditions (Fig 1).

The **deviation** from **standard light to dark** conditions could have altered the female's ability **to find suitable beans** for egg laying **and males** for mating. The female's **ovipositional behaviour varies** with different parameters. (Kar & Ganguli, 2016).

In other words, **leave the lights on!**

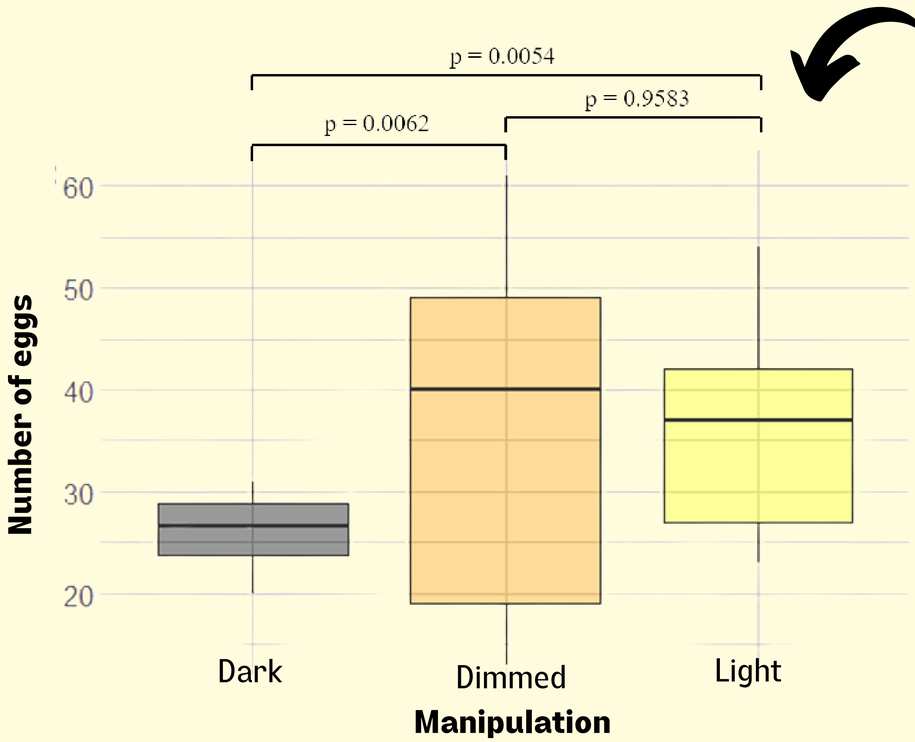


Figure 1: Distribution of eggs in dark (black), dimmed (orange), and light (yellow) conditions.

References:
Kar, A, Ganguli, J. 2016. Fecundity and preferential oviposition by pulse beetle, *Callosobruchus maculatus* F on chickpea (*Cicer arietinum* L.) var Dollar. Legume Research - An International Journal 39, 310-314.