

BLACK-EYED PEAS - "I GOTTA FEELING"

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Is female oviposition preference in *Callosobruchus maculatus* based on natality or size of bean?

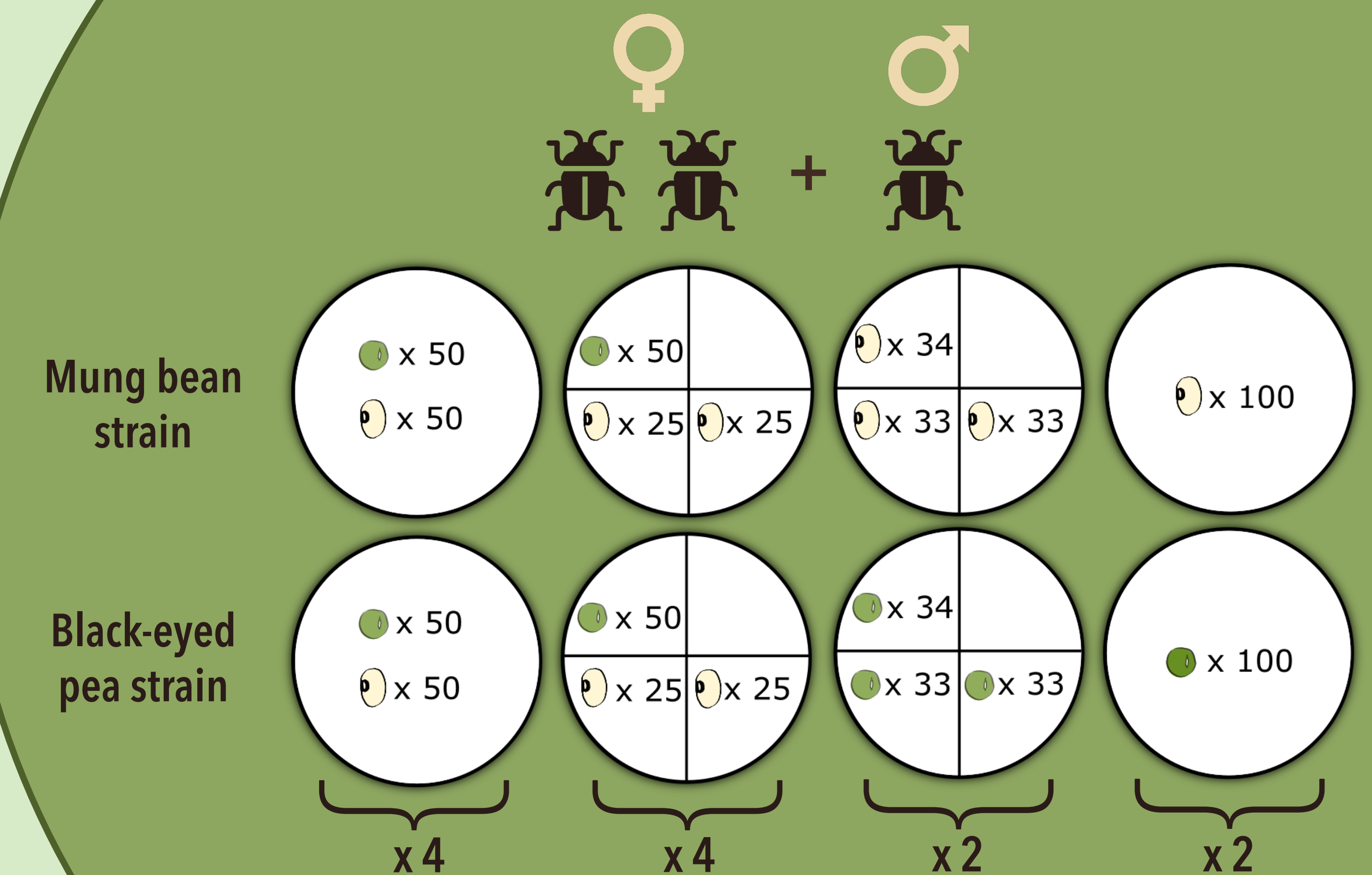
1 SO, WHO IS SHE ?

She, the bean beetle (*C. maculatus*) is a agricultural post-harvest pest insect. She lays her eggs on the surface of beans where the larvae thrive inside the bean until it emerges as an adult bean beetle.

The bean beetles in this experiment were reared on **mung beans** and **black-eyed peas**, both types are suitable but differ in size and nutrient quality.



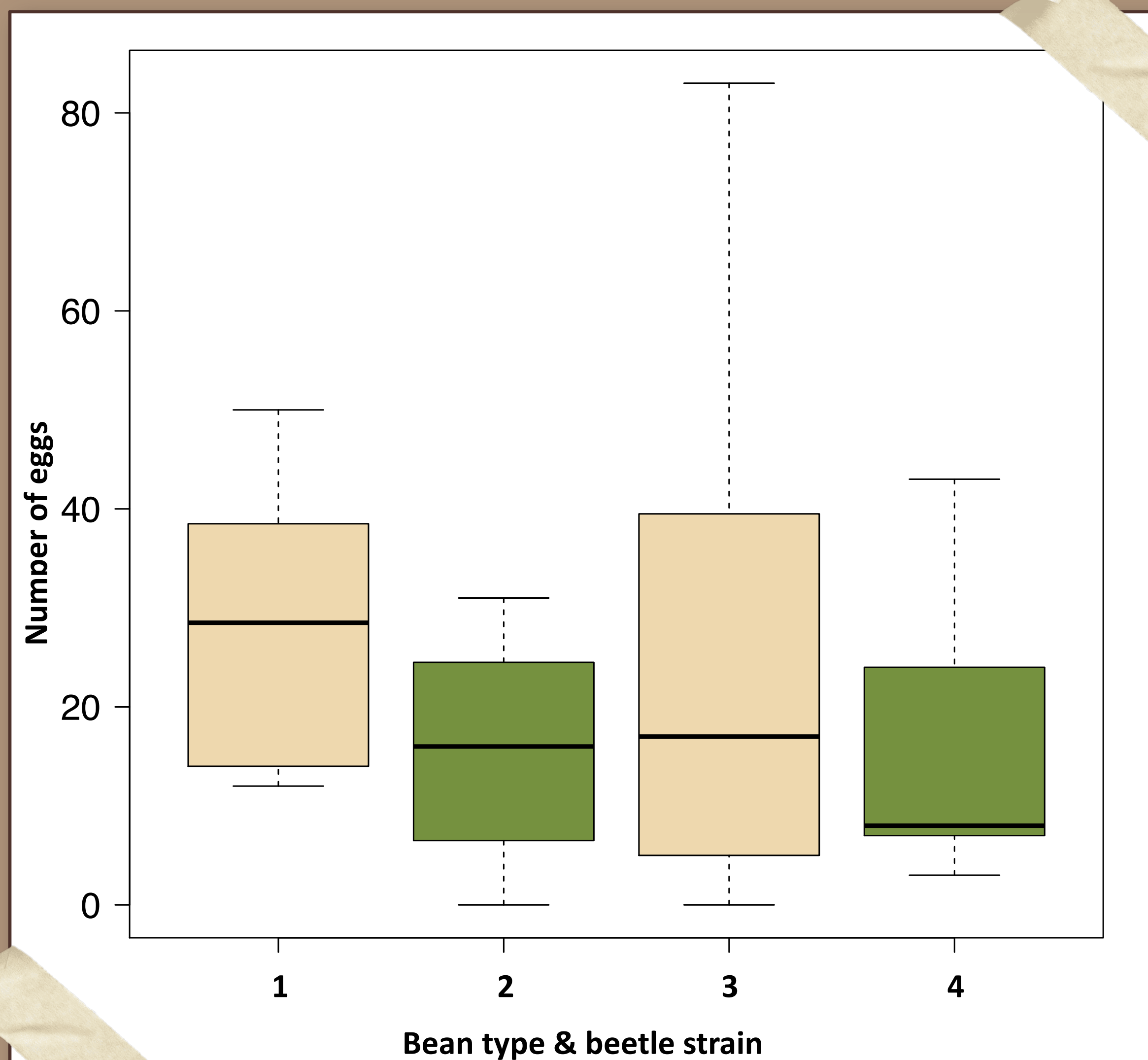
2 OUR SETUP



Two females and one male from two different beetle strains were distributed in 24 petri dishes with 100 beans pr / dish according to the figure above.

3 KEY RESULTS

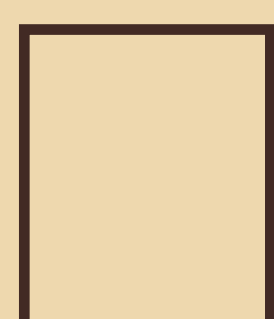
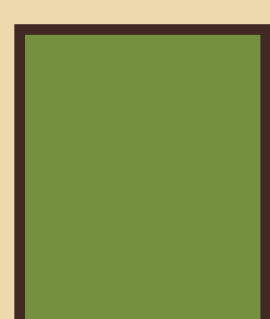
Eggs laid on each bean type:



1/3: $z = 5.735$, $p = <.000.1$

2/4: $z = 5.097$, $p = <.000.1$

Figure shows distribution of number of eggs on each bean type:

Black-eyed peas:  Mung beans: 

Each box represents eggs laid on two bean types from female bean beetles. The natal interaction is rejected because our results are significant when we compare the beetles between each other.

4 BLACK-EYED PEAS, A GOOD FEELING!

From our study the results indicated that female oviposition preference is not based on natality, but rather a **general preference** towards the bigger bean type: the **black-eyed peas**! These results are based on a small study, and more research is needed to determine if female oviposition preference is truly decided by natality, bean size or other important factors.

REFERENCES

- Beck, C. W. and Blumer, L. S. (2011) 'A Handbook on Bean Beetles , *Callosobruchus maculatus*', Caryologia.
- Paukku, S. and Kotiaho, J. S. (2008) 'Female oviposition decisions and their impact on progeny life-history traits', Journal of Insect Behavior, 21(6), pp. 505-520. doi: 10.1007/s10905-008-9146-z.z