

Testing alternative refuge options

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Photo: D. Mc Clenaghan

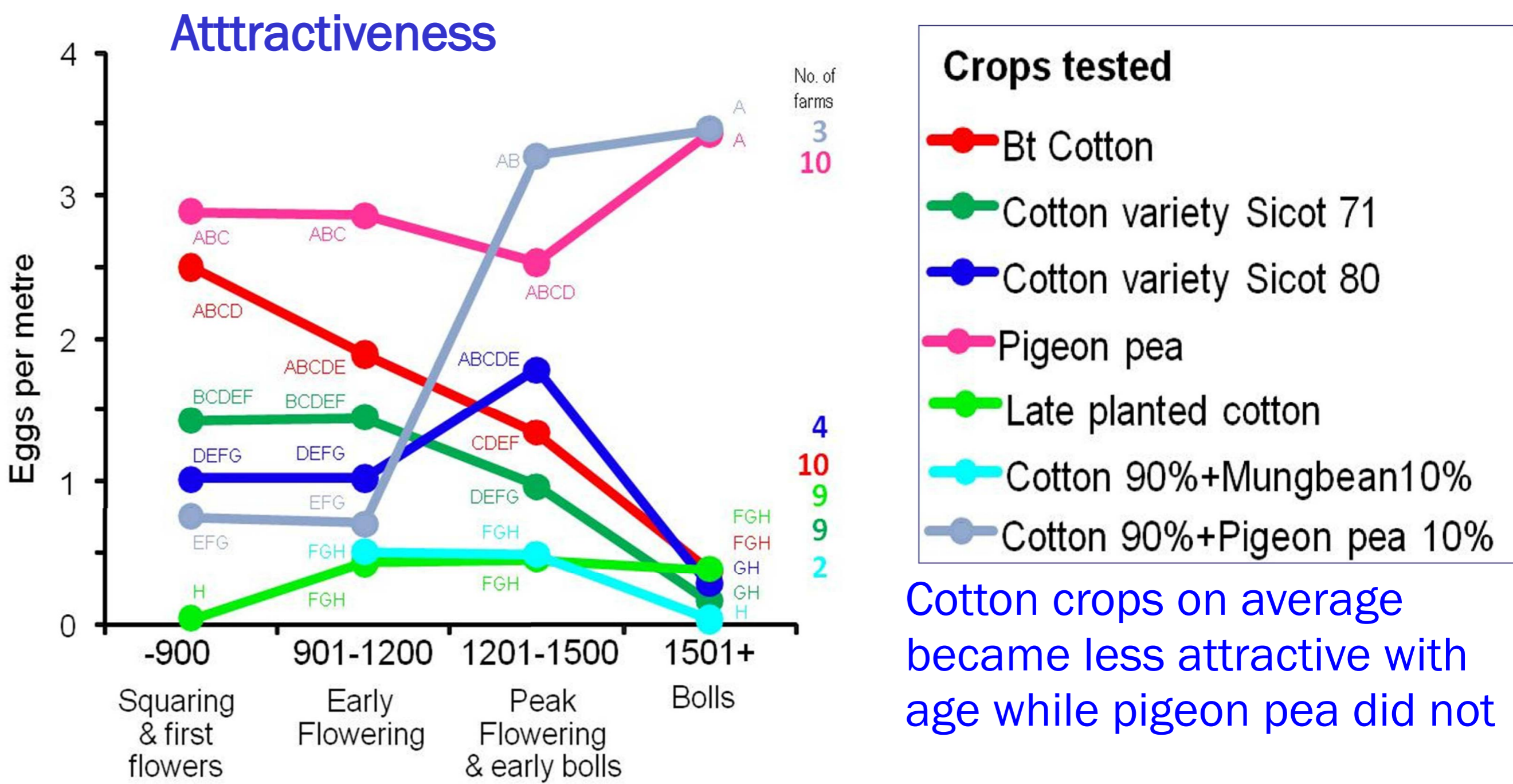
Refuges delay resistance development in *Helicoverpa* by providing susceptible moths that can mate with potentially resistant moths from Bt crops.

Refuges need to attract eggs and produce moths.

This study aimed to develop new refuge crop options to improve efficacy and provide more choice.

key findings:

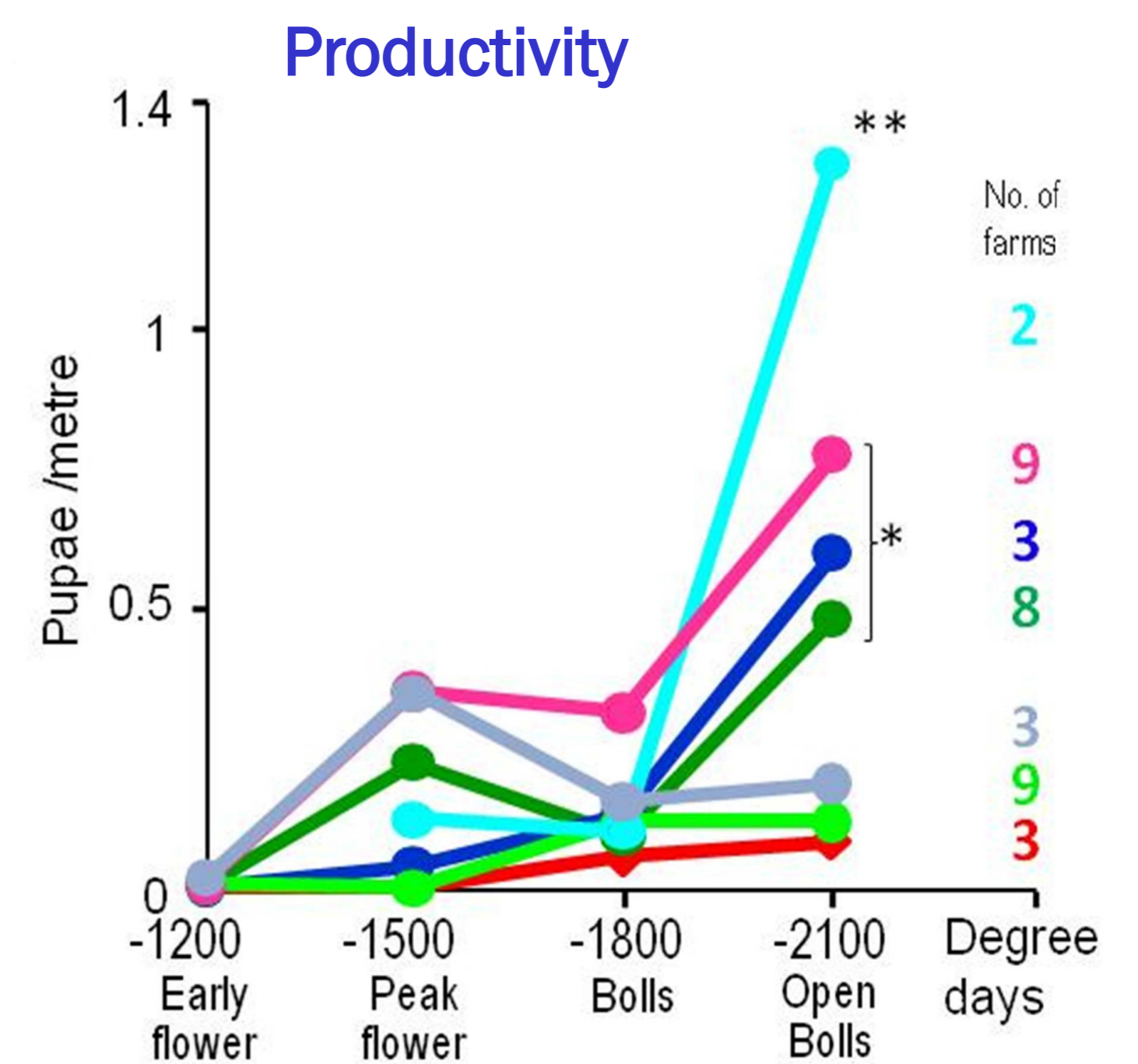
- Attractiveness and productivity were highly variable between farms and seasons.
- Pigeon pea did not perform as well as expected. It was only twice as attractive as Bt cotton at the end of the season, and it did not produce twice as many pupae as non-Bt cotton refuges.
- None of the new refuge crop options consistently out-performed cotton.



Take home message:

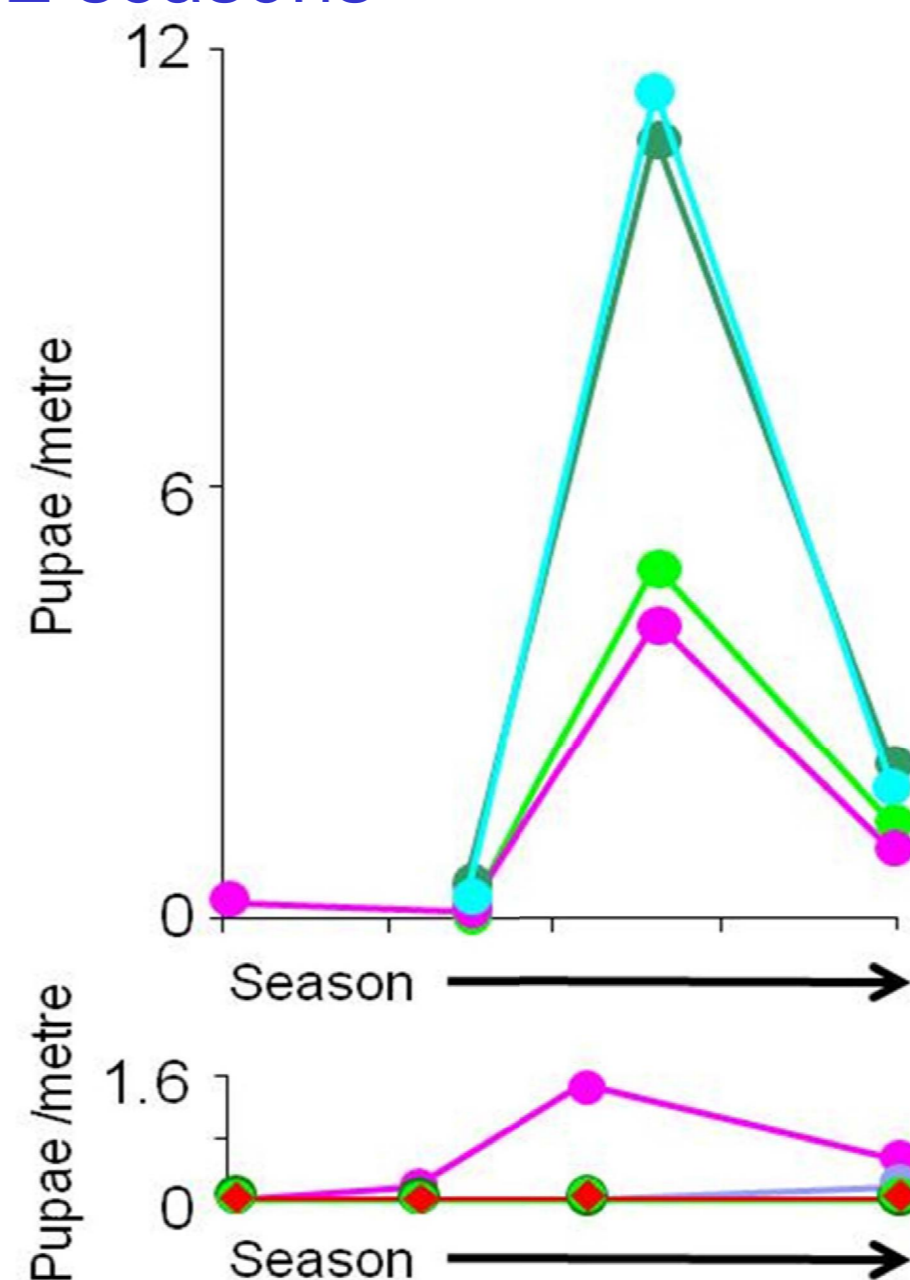
As new refuge crop options were variable and none consistently out performed cotton:

Improving refuge management may increase attractiveness and productivity more than adopting new crop options.

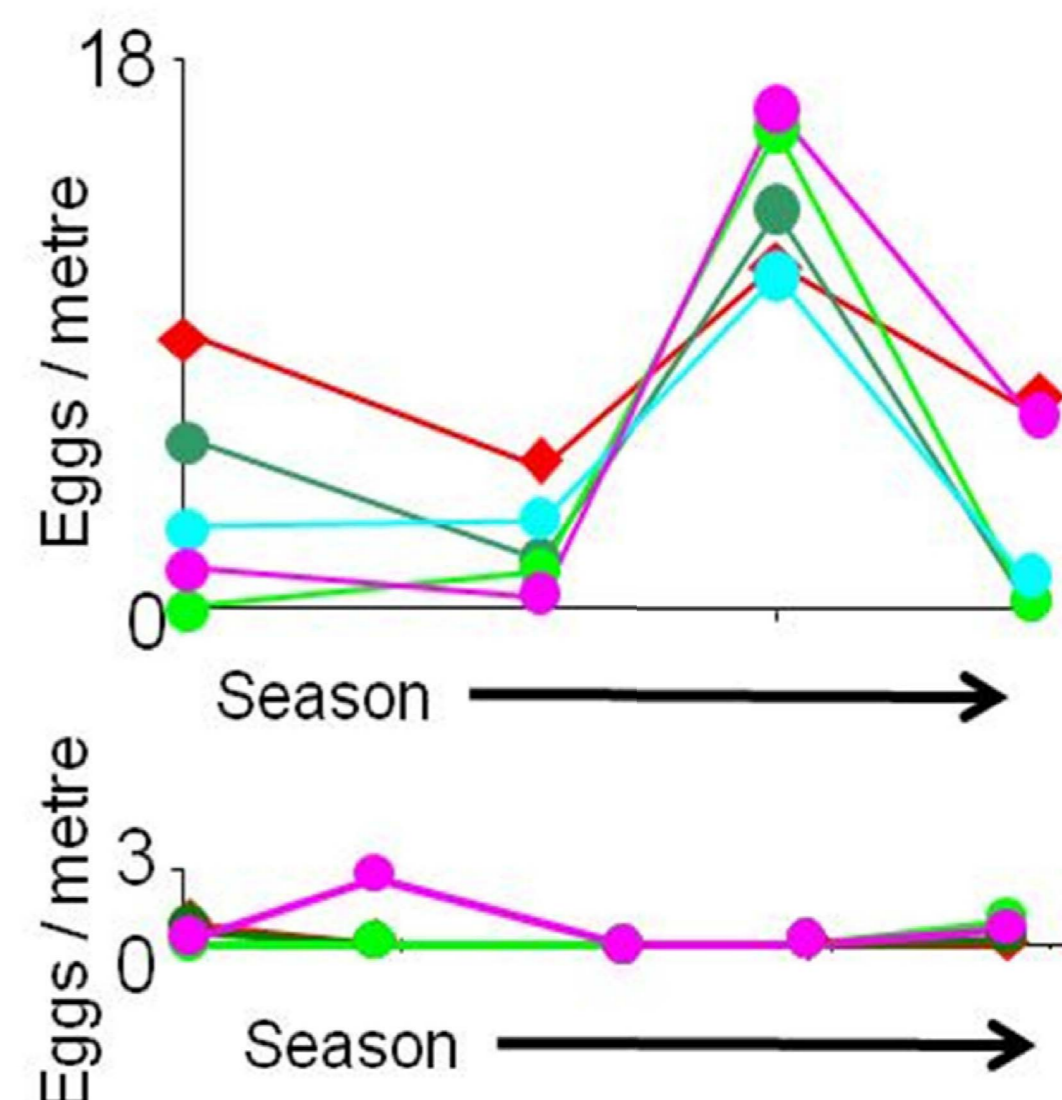


Variability

Variation within a farm over 2 seasons



Variation between farms



Both the most productive refuge and the total number of eggs and pupae found, varied greatly between farms and within the same farm over two seasons.

Acknowledgments

G. Baker, C. Tann, S. Downes, P. Firth, C. Barsby, C. Geddes, H. Millar, R. Eveleigh, A. Thomson, N. Winters, T. Geddes

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