What is the Effect of PSR on Wasps?

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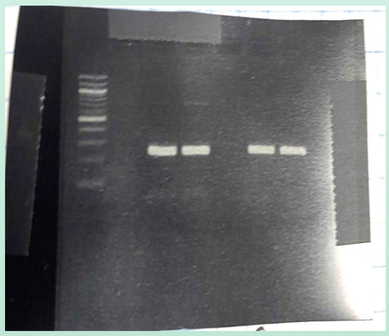
Introduction

In the world of tiny wasps, there's a interesting thing called "Paternal Sex Ratio" (PSR). These wasps have a special trick, they can decide if they want more boys or girls in their family. Imagine if you could choose whether your kids were boys or girls ,that's what these wasps can do. One kind of wasp called Nasonia has a special chromosome that helps it do this. This chromosome can be a bit selfish, it is transmitted via sperm, but causes super condensation and destruction of the paternal chromosomes in early fertilized eggs. It often wants more of one gender, even if it's not balanced. Why does it do this? Because this little chromosome wants to make sure it sticks around in the wasp family for a long time. It's like a clever plan hidden in the wasp's genes. We want to learn more about how this works in Nasonia. It's like solving a puzzle about these small but fascinating insects. Our Research goal is to see if injecting the wasps with RNA would get rid of the PSR in wasps before they become adults.

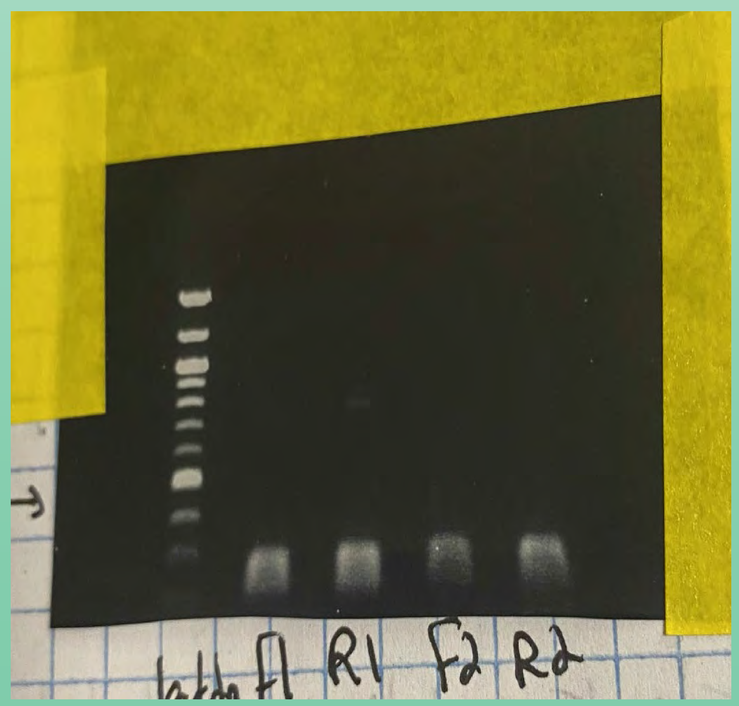


We tested our primers using PCR. In order to start our QPCR.

We started by injecting wasps with RNA Ago-3 and waited until they hatched out and became adults.

Results

- **The Primer test results was a success**
- **After we had to do the QPCR test which was working well until we got a contamination in the samples.**



Conclusion

Although the QPCR failed the result was supposed to show that the RNA- ago 3 worked by showing the right amount of band on the gel. In addition the whole experiment was supposed to show a mutation in the PSR gene. Since the Samples were exposed too much, the RNA ended up getting contaminated and not showing the results that were expected to be seen on the gel.

References

https://pubmed.ncbi.nlm.nih.gov/8454206/#:~:text=Paternal%20Sex%20Ratio%20(PSR)%20is,chromosomes%20in%20early%20fertilized%20eggs.

Acknowledgments

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Alternate Text

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'What is the Effect of PSR on Wasps?'

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Figure 1: We tested our primers using PCR. In order to start our QPCR.
Figure 2: We started by injecting wasps with RNA Ago-3 and waited until they hatched out and became adults.

Results:

- The primer test was a success.
- After we had to do the QCPR test which was working well until we got a contamination in the sample.

Conclusion: Although the QPCR failed the result was supposed to show that the RNA-ago 3 worked by showing the right amount of band on the gel. In addition, the whole experiment was supposed to show a mutation in the PSR gene. Since the samples were exposed too much, the RNA ended up getting contaminated and not showing the results that were expected to be seen on the gel.

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