Optimizing Microsatellite Primers for the *Dallia pectoralis* (Alaska Blackfish)

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**Introduction**

*Dallia pectoralis* (Alaska Blackfish) is a fish species of fresh water native to the arctic.

The species is thought to have evolved in the area.

**Conclusion**

We found that changing the concentration of magnesium gave us two distinguishable bands when higher, and clearer results when lower.

The addition of betaine and a higher annealing temperature increased the specificity of the amplification.

Stronger bands were results from primer pair Dpec 14 F02.

Weaker bands were results of primer pair Dpec 34 B05.

We hypothesized that if we manipulate our PCR (polymerase chain reaction) cocktail, we will produce clear DNA bands using gel electrophoresis. We assume the DNA samples that we are testing are accurate representatives of each of their regions.

**Methods and materials**

DNA samples were collected from Ballaine pond, Togiak, Bethel, and Palmer.

**Acknowledgements**


**References**
