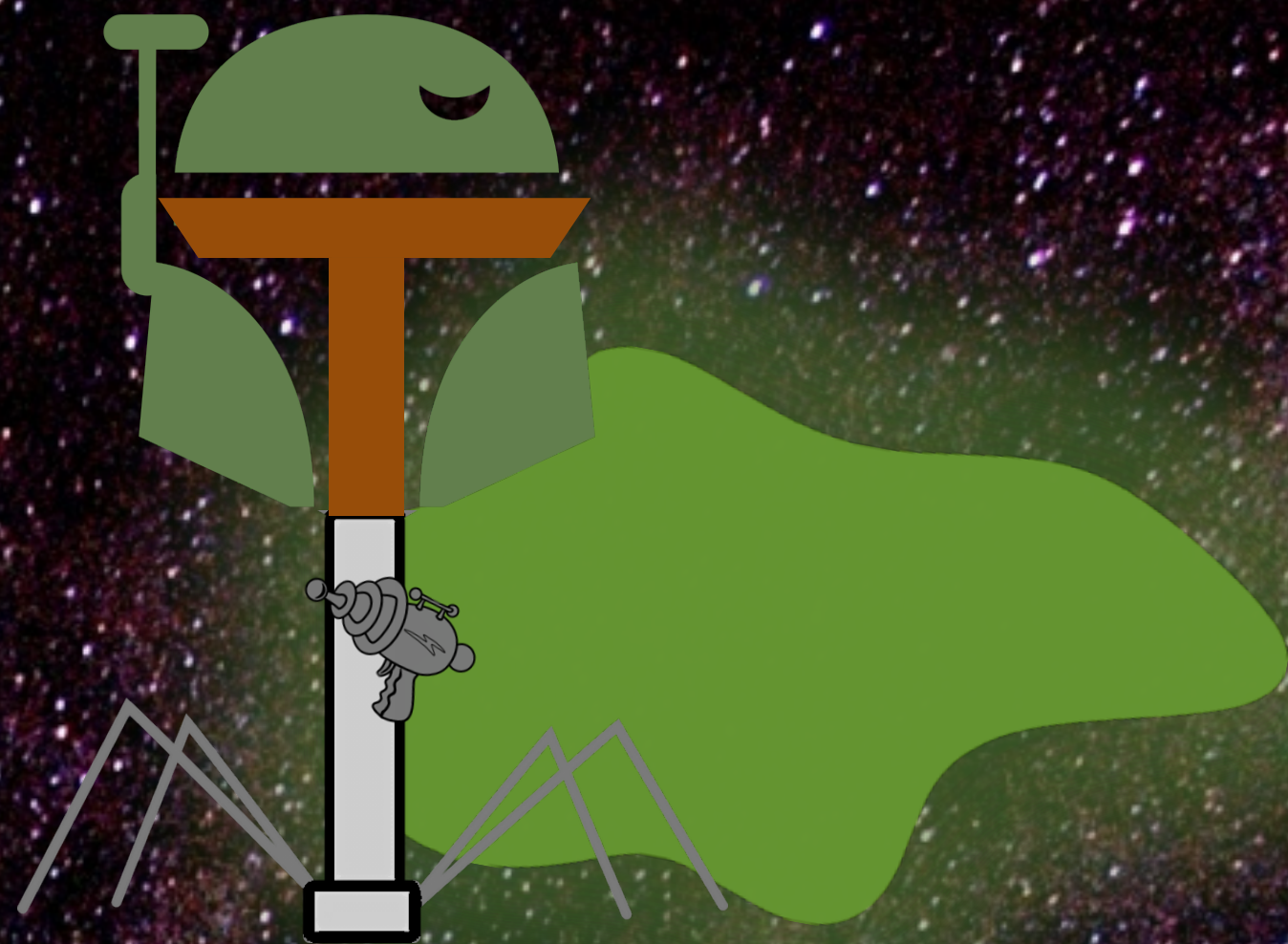




A Tale of Two Phages: Isolating Different Phage Populations Through The Identification of Cluster-Specific Genes and Primers

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The Phorce Awakens

A long time ago, in a galaxy far, far away, BobaPhett was discovered within the deep moist bushbed depths of Drexel's Buckley Tennis Courts. His reputation as the ultimate bacteria bounty hunter started from an enrichment culture where he continues to grow in power and numbers, successfully making a name for himself in this galaxy and the next one over. As time passed, it became apparent that he was a phorce to be reckoned with as he was not pursuing this ultimate mission alone, but with his faithful ally, JangoPhett, found hiding within the sequenced DNA sample.



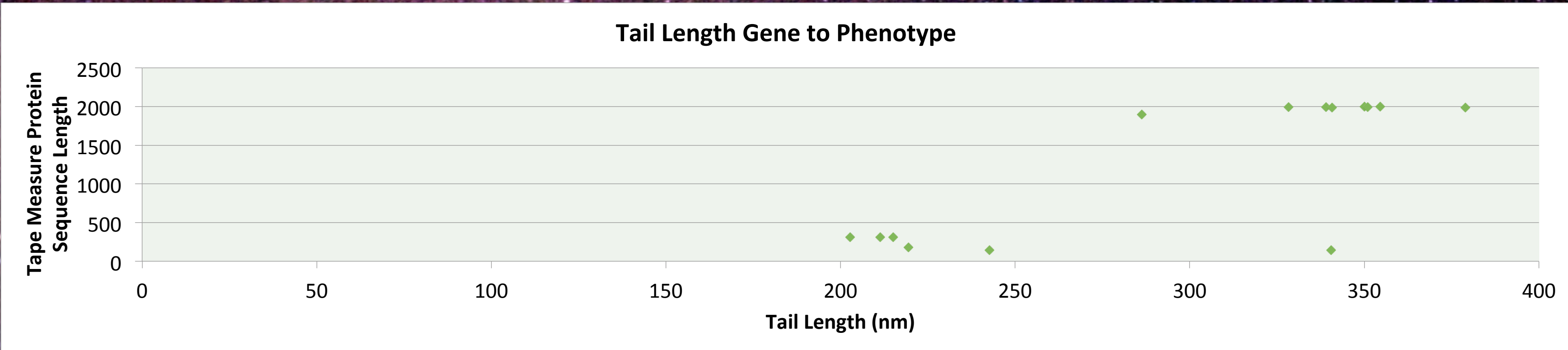
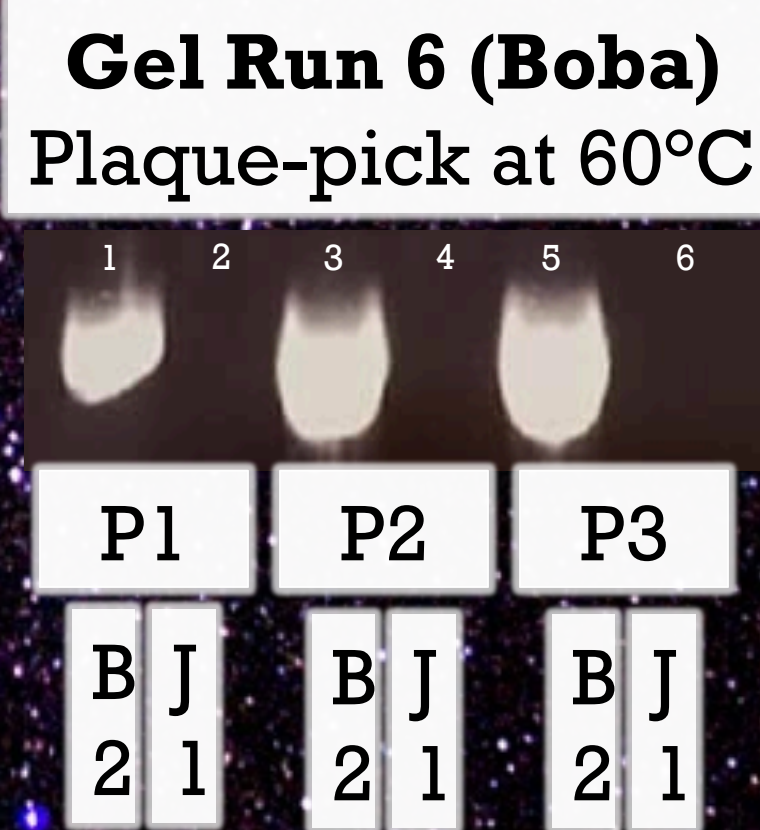
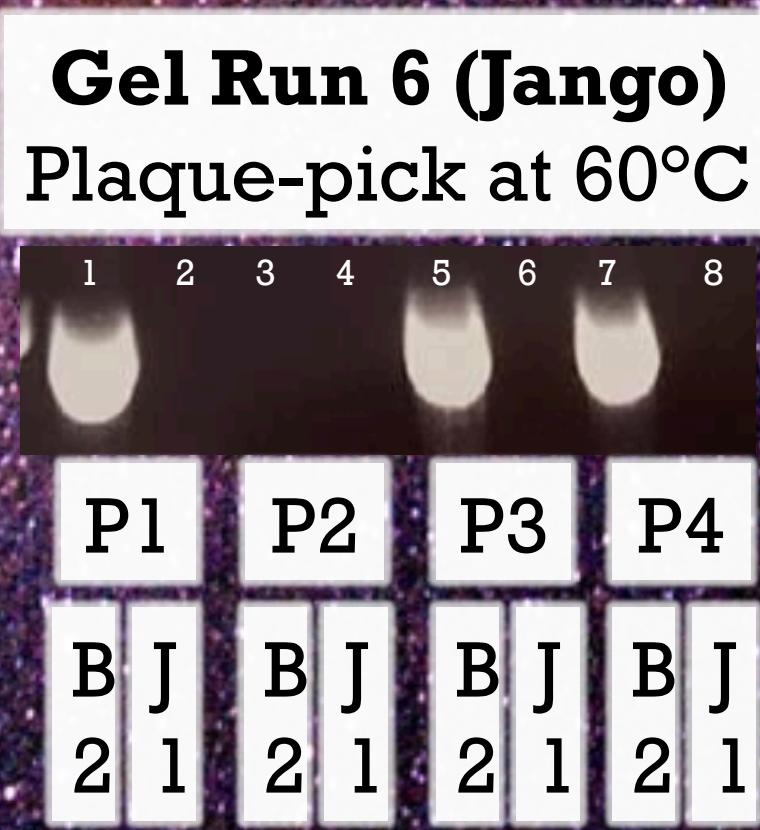
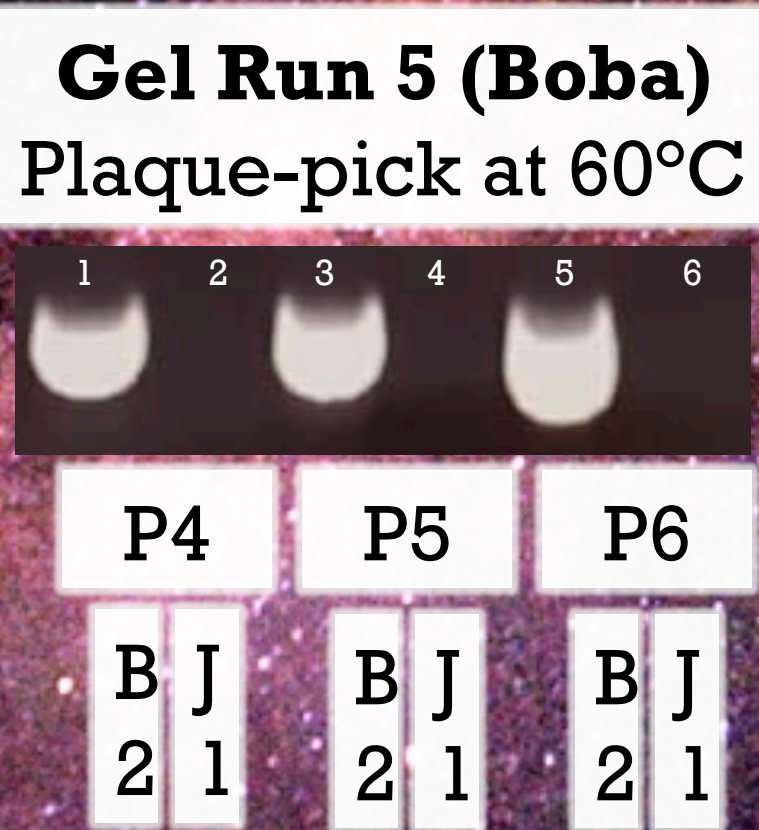
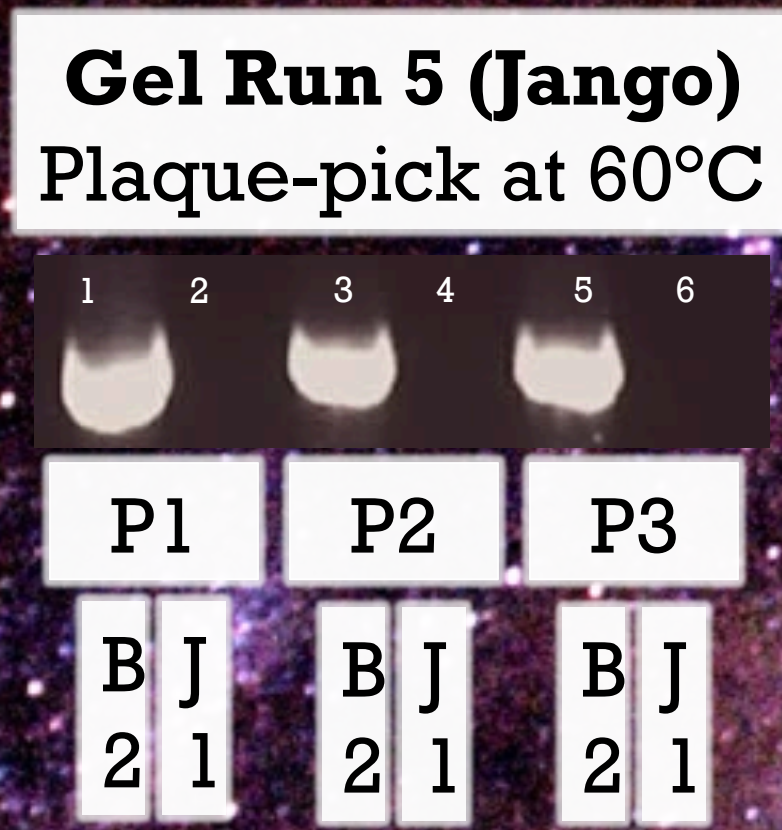
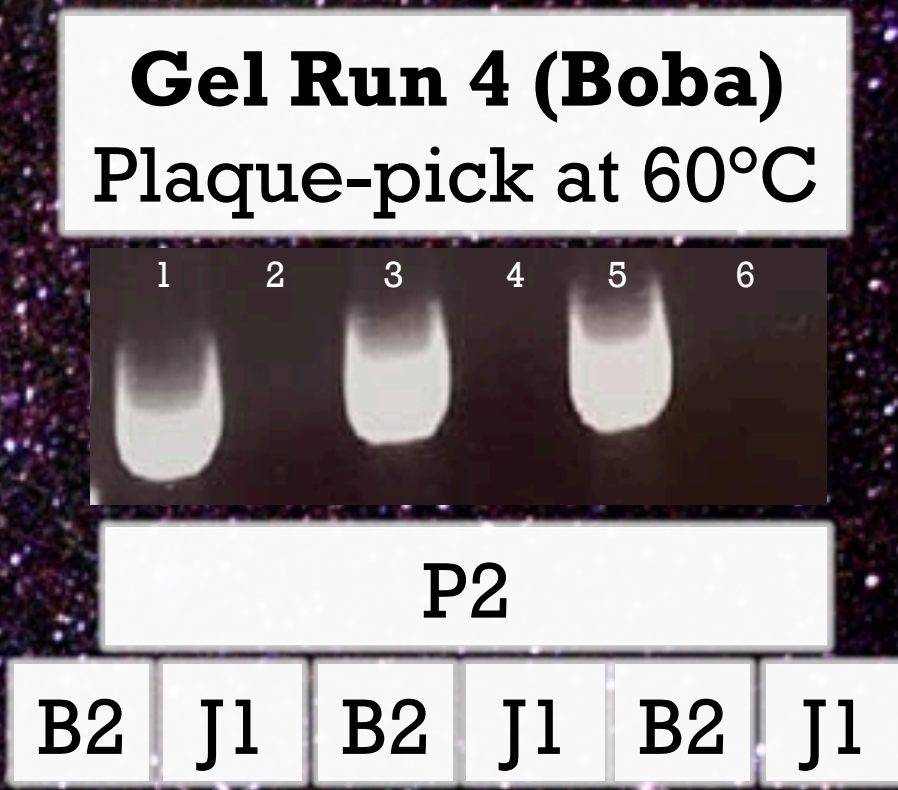
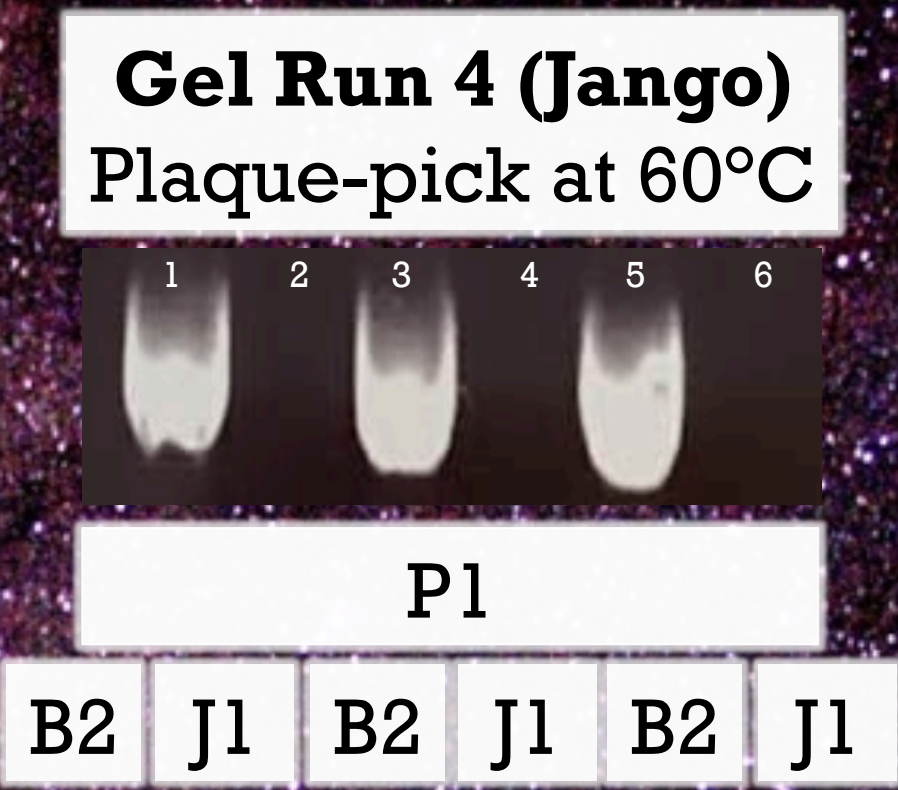
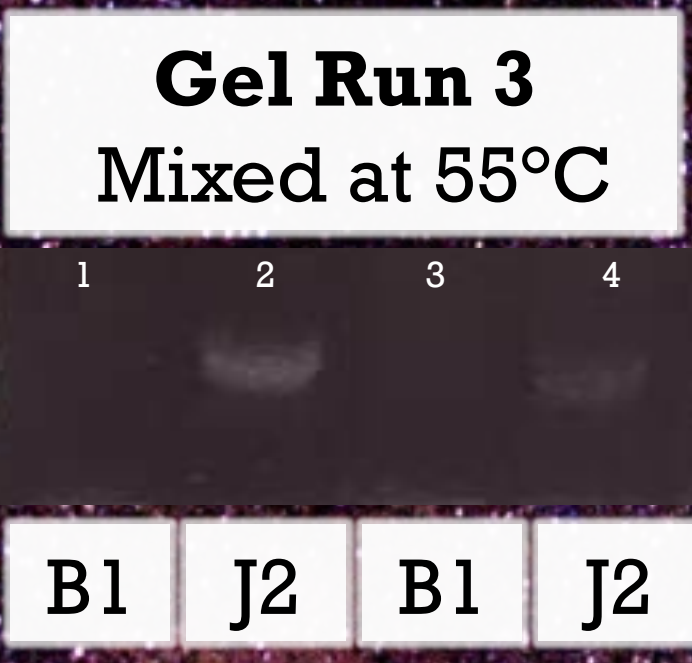
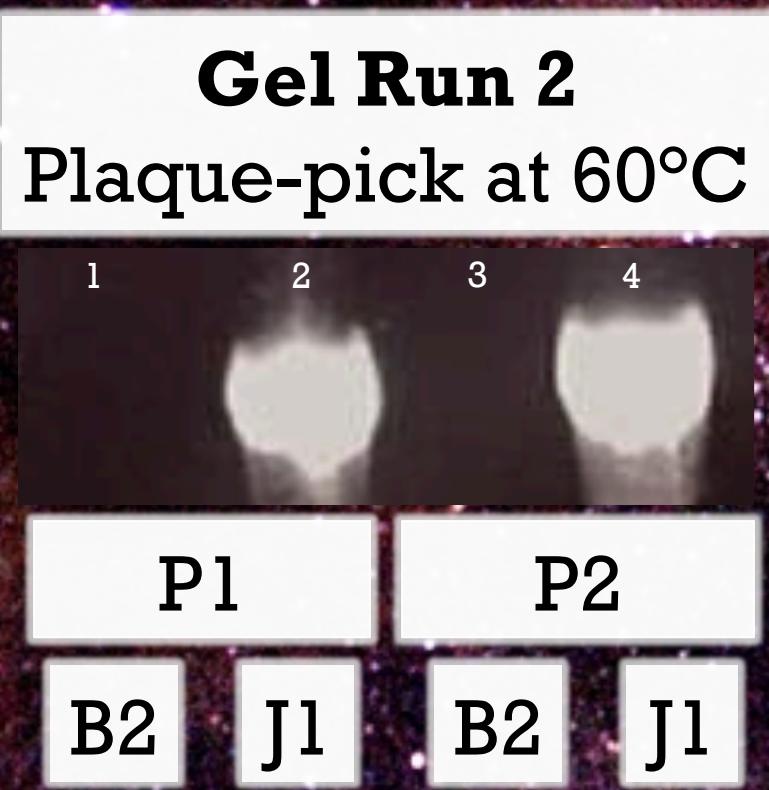
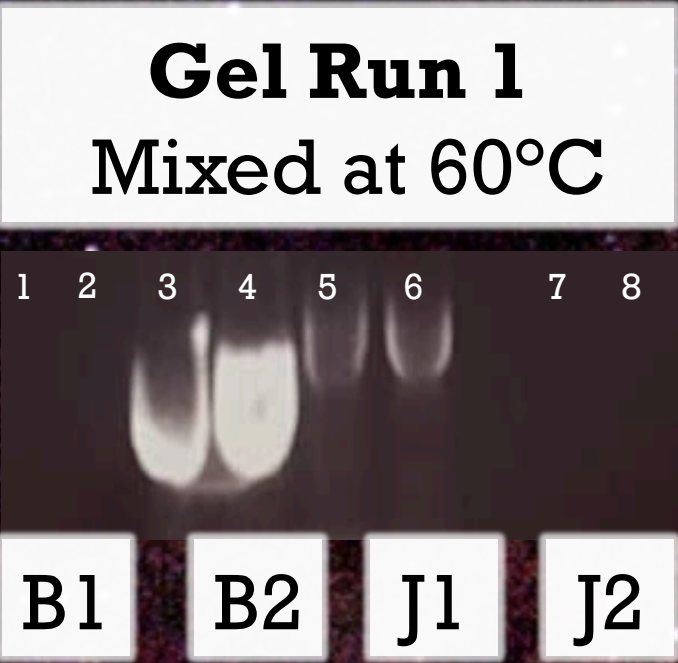
Figure 1: GPS location for soil sample



Figure 2: DNA Restriction Digest



Electron Microscopy Images (respectively): JangoPhett, Both, BobaPhett



Cluster	Phage Name	Gene #	Tail Length (nm)	Tape Measure Protein Sequence Length
B	Phergie	27	350	1998
B	Phengiskhan	26	354.6	1999
B	Phrodobaggins	27	379	1991
B	Virapocalypse	28	351	1992
F	Geralt	14	340.5	144
	Dori	24	286.2576	1901
B	Newman	28	339.06728	1992
	Pipsqueak	28	328.2872	1992
	Squid	28	340.82	1991
F	Corndog	55	242.66	147
	Poptart	13	202.801	311
	Hamulus	12	219.38	183
	Velveteen	14	211.32	311
	Seagreen	14	215	311

Conclusions and Future Work

Once the two phage populations have been successfully separated, the next step would be to obtain a medium titer lysate (MTL) and a high titer lysate (HTL) for both BobaPhett and JangoPhett. Once obtained, the DNA for each individual phage must be isolated to confirm that the sample is completely purified without contamination or mixture. Afterwards, genome annotations on both phage sequences can be completed.

References and Acknowledgements

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Sequencing Notes	mixed sample, 16% reads Cluster B1
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Phage Name	Tail Length (nm)	Cluster
BobaPhett	354 nm	F1
JangoPhett	157 nm	B1