



Supplementary Material

The Missing Tailed Phages: Prediction of Small Capsid Candidates

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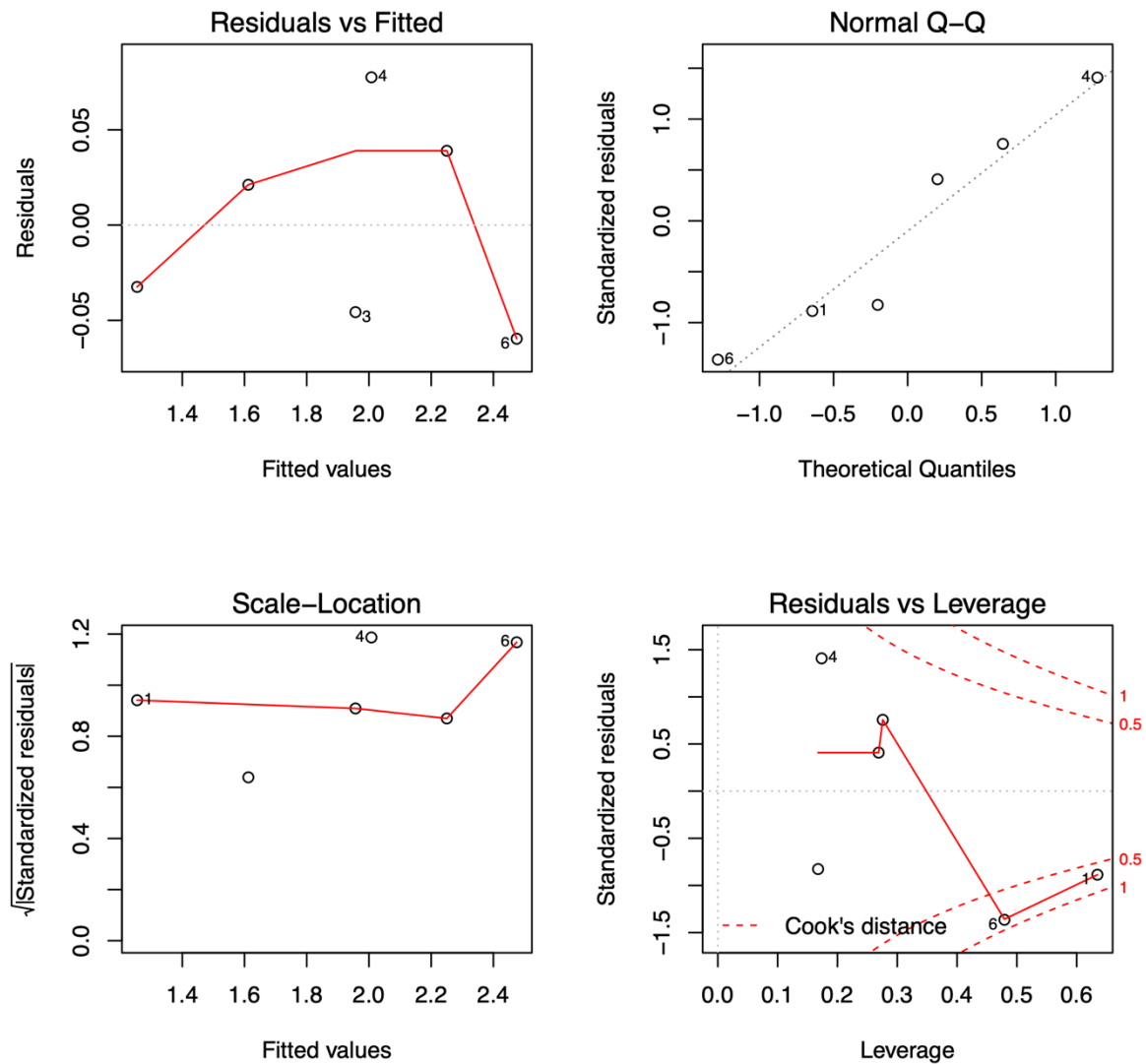
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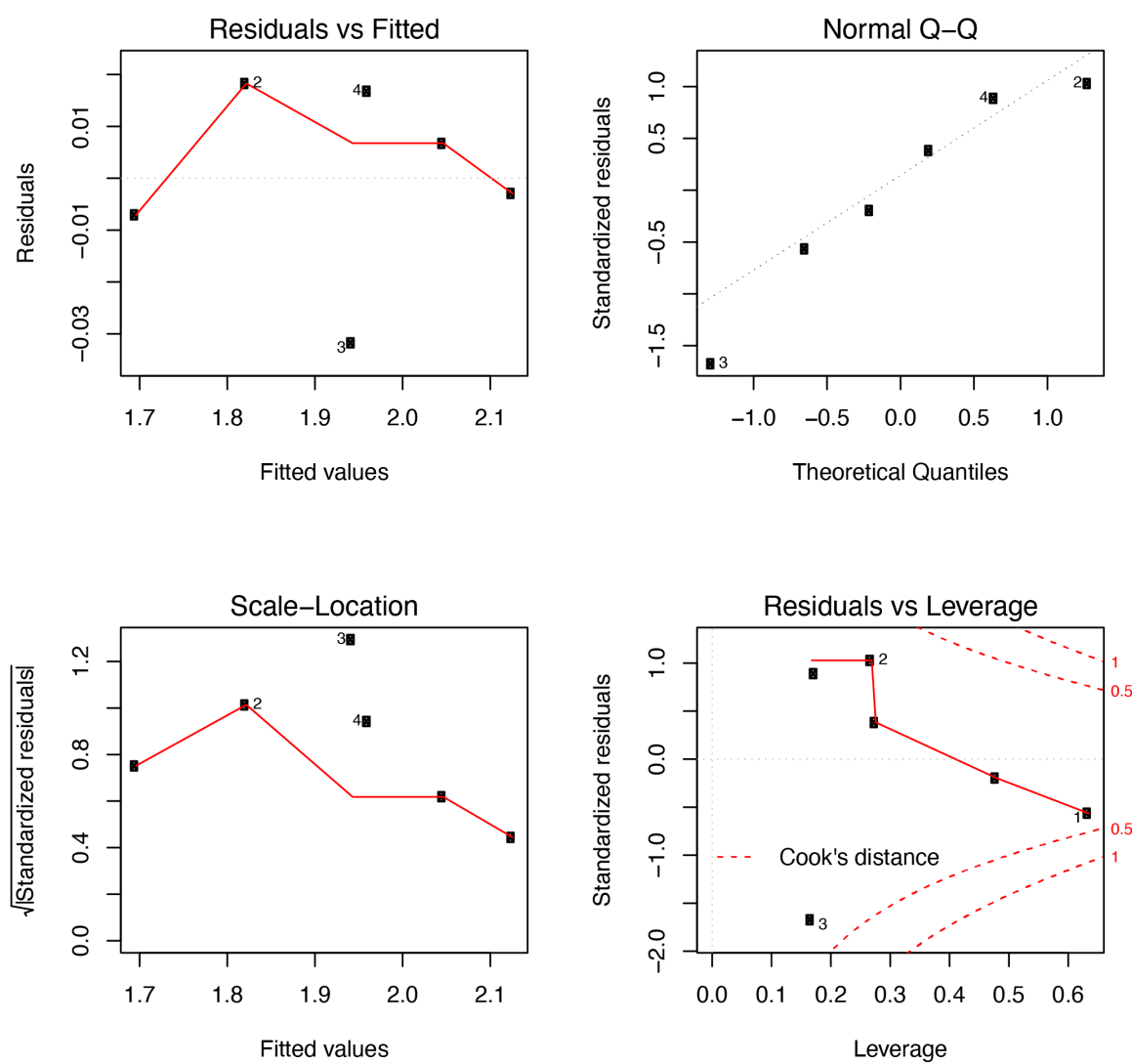
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14 **Supplementary Figures and Tables**

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16 **Figure S1.** Residual diagnostics for the genome length model.

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19 **Figure S2.** Residual diagnostics for the capsid diameter model.

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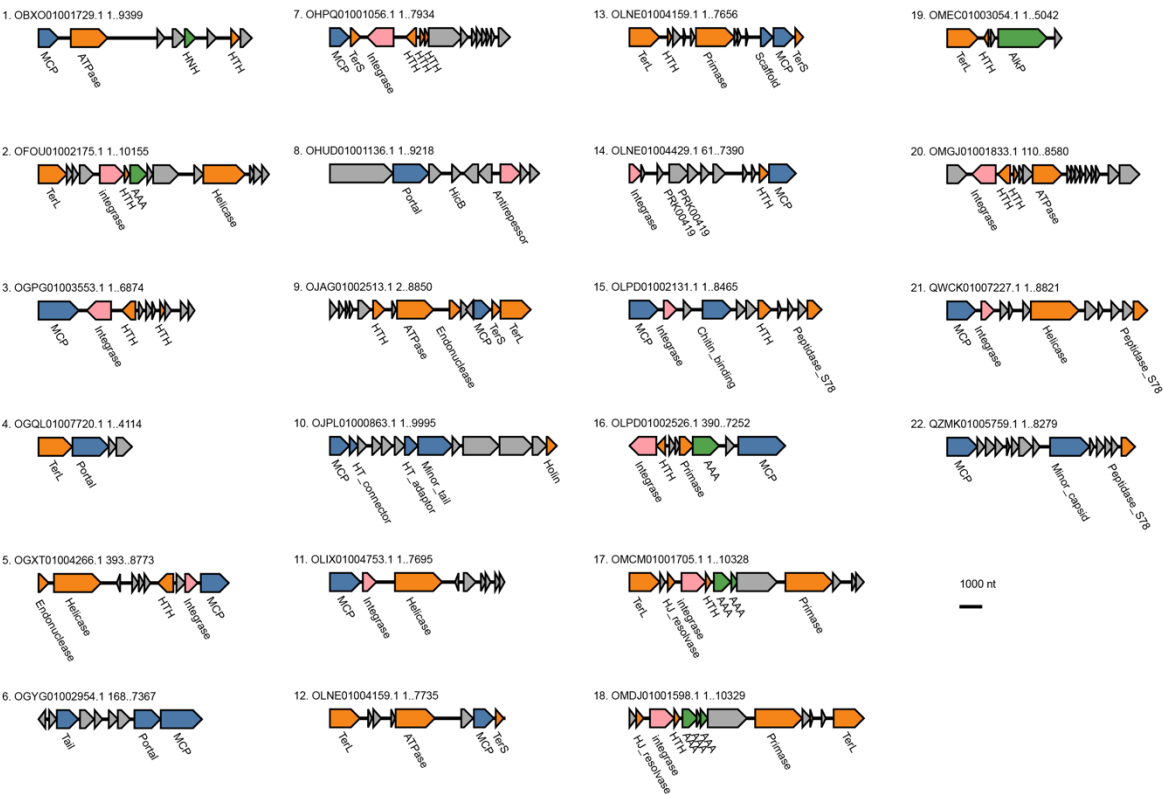


Figure S3. Annotated metagenome-assembled phage genomes for predicted T ≤ 3 capsid architectures.

Property	rho	p-value
Interior volume	0.924	$4.09 \cdot 10^{-6}$ ***
Interior surface	0.923	$4.08 \cdot 10^{-6}$ ***
Exterior surface	0.989	$2.84 \cdot 10^{-6}$ ***
Genome size	0.817	$3.37 \cdot 10^{-6}$ ***
Capsids thickness	0.663	0.0010 **
Interior sphericity	−0.566	0.0069 **
Exterior sphericity	−0.684	0.0006 ***
Genome density	−0.162	0.4695
MCP interior area [§]	0.484	0.0242 *
MCP exterior area [§]	0.380	0.0819

Table S1. Correlation analysis with capsid size. Spearman's correlation coefficient (rho) for structural properties as a function of the external capsid diameter. The stars in the p-value are associated to standard cut-offs for statistical significance: (*) $p < 0.05$, (**) $p < 0.01$, and (***) $p < 0.001$.