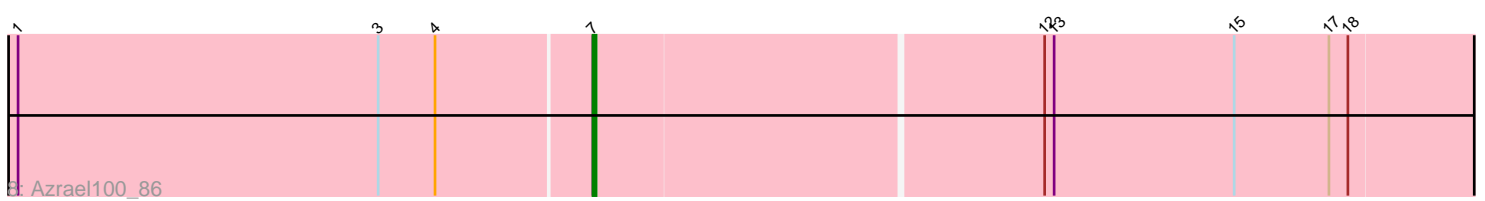
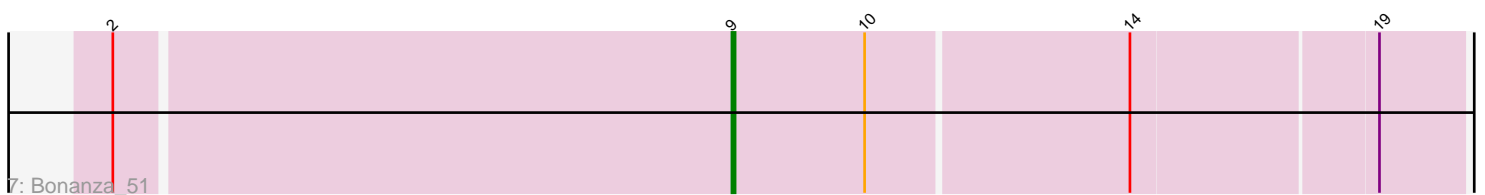
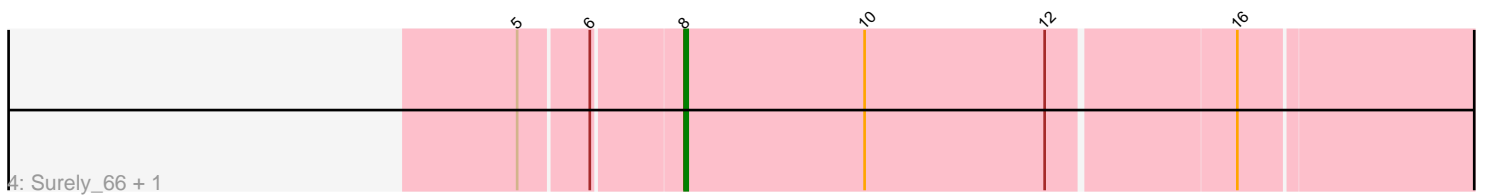
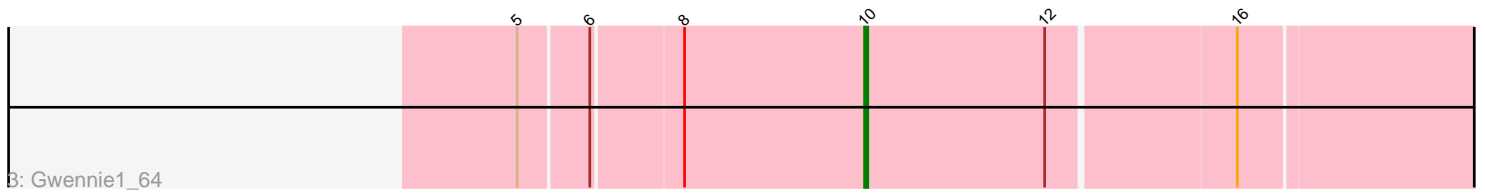
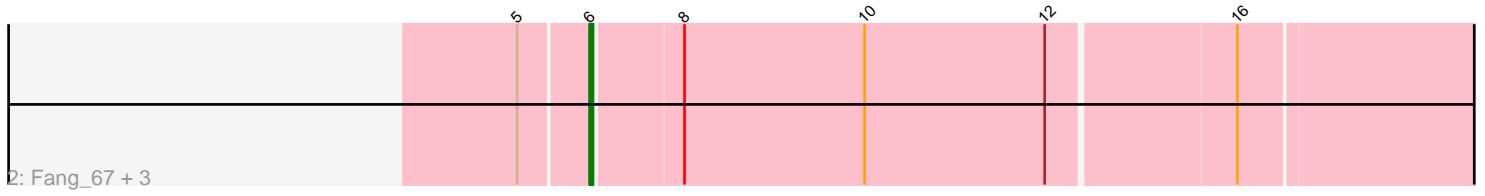
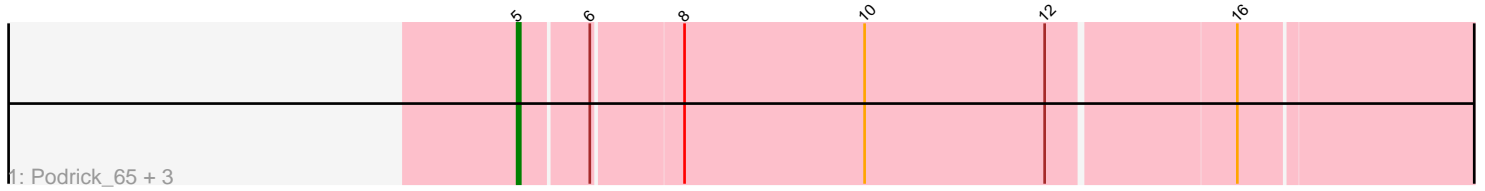


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

## Pham 305401 Report

This analysis was run 06/08/26 on database version 649.

Pham number 305401 has 15 members, 0 are drafts.

Phages represented in each track:

- Track 1 : Podrick\_65, Usavi\_66, Squid\_65, Buckeye\_66
- Track 2 : Fang\_67, Vortex\_65, OliverWalter\_64, Gyarad\_0065
- Track 3 : Gwennie1\_64
- Track 4 : Surely\_66, TomBombadil\_66
- Track 5 : Nacho\_0068
- Track 6 : KLucky39\_100
- Track 7 : Bonanza\_51
- Track 8 : Azrael100\_86

### ***Summary of Final Annotations (See graph section above for start numbers):***

The start number called the most often in the published annotations is 5, it was called in 5 of the 15 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Buckeye\_66, Nacho\_0068, Podrick\_65, Squid\_65, Usavi\_66,

Genes that have the "Most Annotated" start but do not call it:

- Fang\_67, Gwennie1\_64, Gyarad\_0065, KLucky39\_100, OliverWalter\_64, Surely\_66, TomBombadil\_66, Vortex\_65,

Genes that do not have the "Most Annotated" start:

- Azrael100\_86, Bonanza\_51,

### **Summary by start number:**

Start 5:

- Found in 13 of 15 ( 86.7% ) of genes in pham
- Manual Annotations of this start: 5 of 15
- Called 38.5% of time when present
- Phage (with cluster) where this start called: Buckeye\_66 (B1), Nacho\_0068 (B1), Podrick\_65 (B1), Squid\_65 (B1), Usavi\_66 (B1),

Start 6:

- Found in 13 of 15 ( 86.7% ) of genes in pham
- Manual Annotations of this start: 4 of 15
- Called 30.8% of time when present
- Phage (with cluster) where this start called: Fang\_67 (B1), Gyarad\_0065 (B1), OliverWalter\_64 (B1), Vortex\_65 (B1),

#### Start 7:

- Found in 1 of 15 ( 6.7% ) of genes in pham
- Manual Annotations of this start: 1 of 15
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Azrael100\_86 (V),

#### Start 8:

- Found in 13 of 15 ( 86.7% ) of genes in pham
- Manual Annotations of this start: 2 of 15
- Called 15.4% of time when present
- Phage (with cluster) where this start called: Surely\_66 (B1), TomBombadil\_66 (B1),

#### Start 9:

- Found in 1 of 15 ( 6.7% ) of genes in pham
- Manual Annotations of this start: 1 of 15
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bonanza\_51 (CA),

#### Start 10:

- Found in 14 of 15 ( 93.3% ) of genes in pham
- Manual Annotations of this start: 1 of 15
- Called 7.1% of time when present
- Phage (with cluster) where this start called: Gwennie1\_64 (B1),

#### Start 11:

- Found in 2 of 15 ( 13.3% ) of genes in pham
- Manual Annotations of this start: 1 of 15
- Called 50.0% of time when present
- Phage (with cluster) where this start called: KLucky39\_100 (B1),

### **Summary by clusters:**

There are 3 clusters represented in this pham: CA, B1, V,

#### Info for manual annotations of cluster B1:

- Start number 5 was manually annotated 5 times for cluster B1.
- Start number 6 was manually annotated 4 times for cluster B1.
- Start number 8 was manually annotated 2 times for cluster B1.
- Start number 10 was manually annotated 1 time for cluster B1.
- Start number 11 was manually annotated 1 time for cluster B1.

#### Info for manual annotations of cluster CA:

- Start number 9 was manually annotated 1 time for cluster CA.

#### Info for manual annotations of cluster V:

- Start number 7 was manually annotated 1 time for cluster V.

**Gene Information:**

Gene: Azrael100\_86 Start: 53580, Stop: 53879, Start Num: 7

Candidate Starts for Azrael100\_86:

(1, 53400), (3, 53514), (4, 53532), (Start: 7 @53580 has 1 MA's), (12, 53718), (13, 53721), (15, 53778), (17, 53808), (18, 53814),

Gene: Bonanza\_51 Start: 36554, Stop: 36330, Start Num: 9

Candidate Starts for Bonanza\_51:

(2, 36746), (Start: 9 @36554 has 1 MA's), (Start: 10 @36512 has 1 MA's), (14, 36431), (19, 36356),

Gene: Buckeye\_66 Start: 56706, Stop: 56368, Start Num: 5

Candidate Starts for Buckeye\_66:

(Start: 5 @56706 has 5 MA's), (Start: 6 @56685 has 4 MA's), (Start: 8 @56658 has 2 MA's), (Start: 10 @56601 has 1 MA's), (12, 56544), (16, 56487),

Gene: Fang\_67 Start: 56134, Stop: 55817, Start Num: 6

Candidate Starts for Fang\_67:

(Start: 5 @56155 has 5 MA's), (Start: 6 @56134 has 4 MA's), (Start: 8 @56107 has 2 MA's), (Start: 10 @56050 has 1 MA's), (12, 55993), (16, 55936),

Gene: Gwennie1\_64 Start: 55894, Stop: 55661, Start Num: 10

Candidate Starts for Gwennie1\_64:

(Start: 5 @55999 has 5 MA's), (Start: 6 @55978 has 4 MA's), (Start: 8 @55951 has 2 MA's), (Start: 10 @55894 has 1 MA's), (12, 55837), (16, 55780),

Gene: Gyarad\_0065 Start: 55454, Stop: 55137, Start Num: 6

Candidate Starts for Gyarad\_0065:

(Start: 5 @55475 has 5 MA's), (Start: 6 @55454 has 4 MA's), (Start: 8 @55427 has 2 MA's), (Start: 10 @55370 has 1 MA's), (12, 55313), (16, 55256),

Gene: KLucky39\_100 Start: 55360, Stop: 55136, Start Num: 11

Candidate Starts for KLucky39\_100:

(Start: 5 @55474 has 5 MA's), (Start: 6 @55453 has 4 MA's), (Start: 8 @55426 has 2 MA's), (Start: 10 @55369 has 1 MA's), (Start: 11 @55360 has 1 MA's), (16, 55255),

Gene: Nacho\_0068 Start: 56644, Stop: 56306, Start Num: 5

Candidate Starts for Nacho\_0068:

(Start: 5 @56644 has 5 MA's), (Start: 6 @56623 has 4 MA's), (Start: 8 @56596 has 2 MA's), (Start: 10 @56539 has 1 MA's), (Start: 11 @56530 has 1 MA's), (16, 56425),

Gene: OliverWalter\_64 Start: 55908, Stop: 55591, Start Num: 6

Candidate Starts for OliverWalter\_64:

(Start: 5 @55929 has 5 MA's), (Start: 6 @55908 has 4 MA's), (Start: 8 @55881 has 2 MA's), (Start: 10 @55824 has 1 MA's), (12, 55767), (16, 55710),

Gene: Podrick\_65 Start: 55695, Stop: 55357, Start Num: 5

Candidate Starts for Podrick\_65:

(Start: 5 @55695 has 5 MA's), (Start: 6 @55674 has 4 MA's), (Start: 8 @55647 has 2 MA's), (Start: 10 @55590 has 1 MA's), (12, 55533), (16, 55476),

Gene: Squid\_65 Start: 55898, Stop: 55560, Start Num: 5

Candidate Starts for Squid\_65:

(Start: 5 @55898 has 5 MA's), (Start: 6 @55877 has 4 MA's), (Start: 8 @55850 has 2 MA's), (Start: 10 @55793 has 1 MA's), (12, 55736), (16, 55679),

Gene: Surely\_66 Start: 56140, Stop: 55850, Start Num: 8

Candidate Starts for Surely\_66:

(Start: 5 @56188 has 5 MA's), (Start: 6 @56167 has 4 MA's), (Start: 8 @56140 has 2 MA's), (Start: 10 @56083 has 1 MA's), (12, 56026), (16, 55969),

Gene: TomBombadil\_66 Start: 56124, Stop: 55834, Start Num: 8

Candidate Starts for TomBombadil\_66:

(Start: 5 @56172 has 5 MA's), (Start: 6 @56151 has 4 MA's), (Start: 8 @56124 has 2 MA's), (Start: 10 @56067 has 1 MA's), (12, 56010), (16, 55953),

Gene: Usavi\_66 Start: 56267, Stop: 55929, Start Num: 5

Candidate Starts for Usavi\_66:

(Start: 5 @56267 has 5 MA's), (Start: 6 @56246 has 4 MA's), (Start: 8 @56219 has 2 MA's), (Start: 10 @56162 has 1 MA's), (12, 56105), (16, 56048),

Gene: Vortex\_65 Start: 55861, Stop: 55544, Start Num: 6

Candidate Starts for Vortex\_65:

(Start: 5 @55882 has 5 MA's), (Start: 6 @55861 has 4 MA's), (Start: 8 @55834 has 2 MA's), (Start: 10 @55777 has 1 MA's), (12, 55720), (16, 55663),