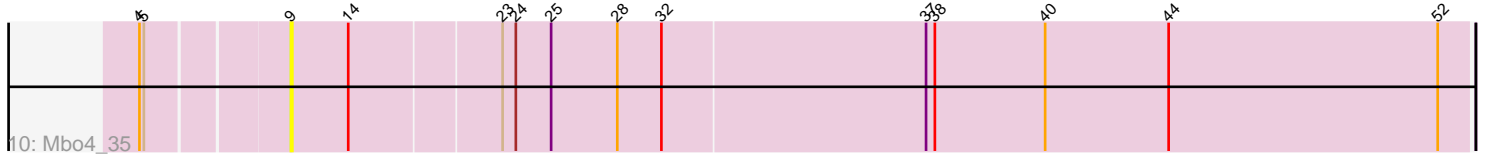
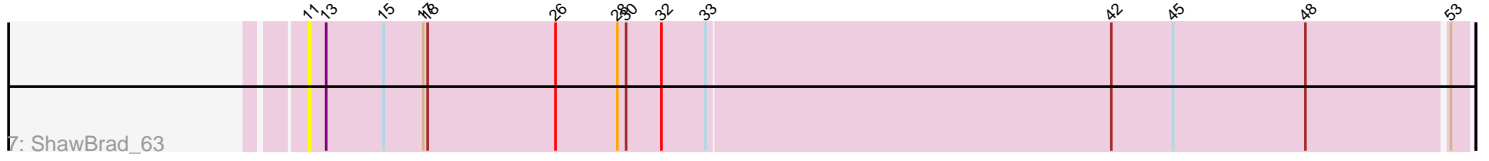
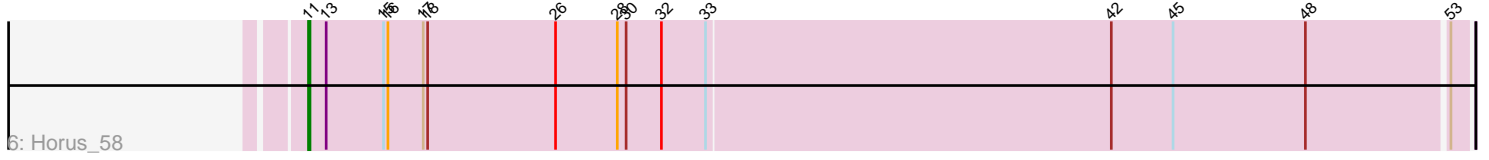
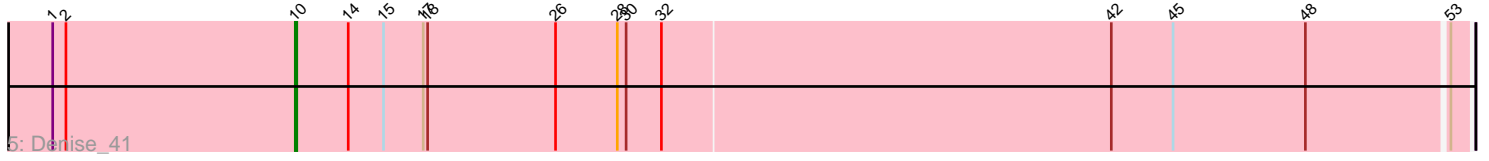
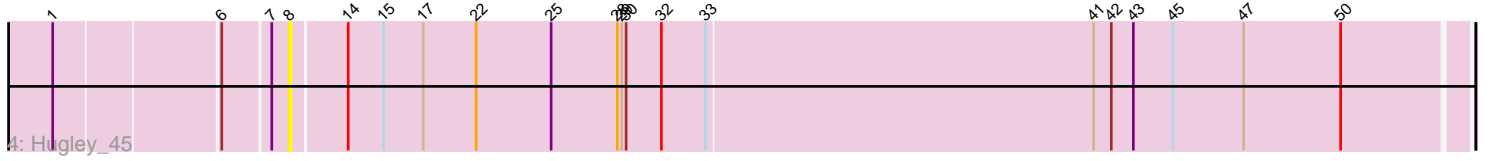
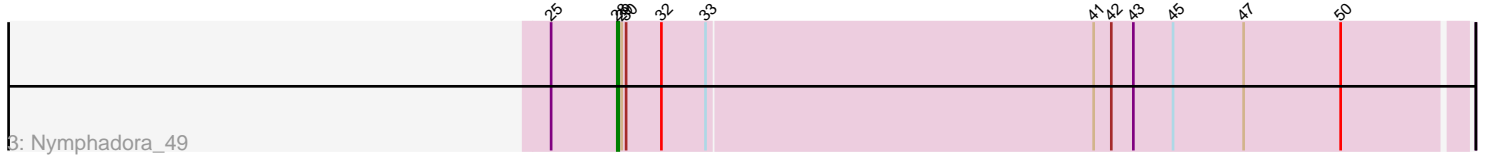
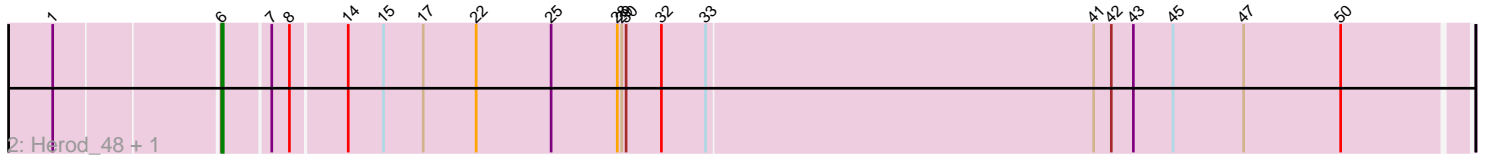
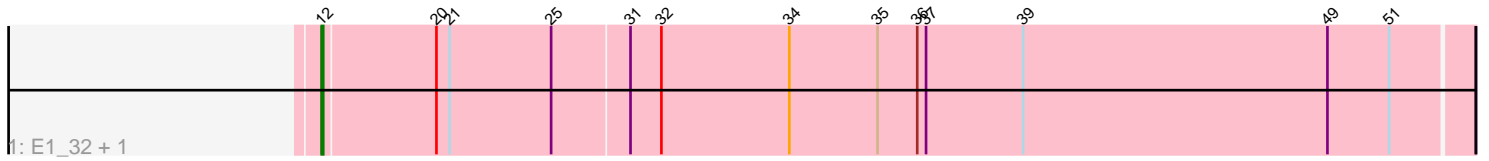


Pham 293304



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 293304 Report

This analysis was run 04/18/26 on database version 643.

Pham number 293304 has 12 members, 3 are drafts.

Phages represented in each track:

- Track 1 : E1\_32, Anatole\_32
- Track 2 : Herod\_48, BatStarr\_48
- Track 3 : Nymphadora\_49
- Track 4 : Hugley\_45
- Track 5 : Denise\_41
- Track 6 : Horus\_58
- Track 7 : ShawBrad\_63
- Track 8 : StAB\_31
- Track 9 : Stiles\_32
- Track 10 : Mbo4\_35

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

The start number called the most often in the published annotations is 12, it was called in 4 of the 9 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Anatole\_32, E1\_32, StAB\_31, Stiles\_32,

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

- 

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

- BatStarr\_48, Denise\_41, Herod\_48, Horus\_58, Hugley\_45, Mbo4\_35, Nymphadora\_49, ShawBrad\_63,

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

Start 6:

- Found in 3 of 12 ( 25.0% ) of genes in pham
- Manual Annotations of this start: 2 of 9
- Called 66.7% of time when present
- Phage (with cluster) where this start called: BatStarr\_48 (CZ1), Herod\_48 (CZ1),

Start 8:

- Found in 3 of 12 ( 25.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Hugley\_45 (CZ1),

Start 9:

- Found in 1 of 12 ( 8.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mbo4\_35 (singleton),

Start 10:

- Found in 1 of 12 ( 8.3% ) of genes in pham
- Manual Annotations of this start: 1 of 9
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Denise\_41 (CZ5),

Start 11:

- Found in 4 of 12 ( 33.3% ) of genes in pham
- Manual Annotations of this start: 1 of 9
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Horus\_58 (DN1), ShawBrad\_63 (DN1),

Start 12:

- Found in 4 of 12 ( 33.3% ) of genes in pham
- Manual Annotations of this start: 4 of 9
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anatole\_32 (BV), E1\_32 (BV), StAB\_31 (EP), Stiles\_32 (EP),

Start 28:

- Found in 9 of 12 ( 75.0% ) of genes in pham
- Manual Annotations of this start: 1 of 9
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Nymphadora\_49 (CZ1),

**Summary by clusters:**

There are 6 clusters represented in this pham: singleton, CZ1, CZ5, BV, DN1, EP,

Info for manual annotations of cluster BV:

- Start number 12 was manually annotated 2 times for cluster BV.

Info for manual annotations of cluster CZ1:

- Start number 6 was manually annotated 2 times for cluster CZ1.
- Start number 28 was manually annotated 1 time for cluster CZ1.

Info for manual annotations of cluster CZ5:

- Start number 10 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster DN1:

- Start number 11 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster EP:

•Start number 12 was manually annotated 2 times for cluster EP.

**Gene Information:**

Gene: Anatole\_32 Start: 23723, Stop: 24496, Start Num: 12

Candidate Starts for Anatole\_32:

(Start: 12 @23723 has 4 MA's), (20, 23798), (21, 23807), (25, 23876), (31, 23927), (32, 23948), (34, 24035), (35, 24095), (36, 24122), (37, 24128), (39, 24194), (49, 24401), (51, 24443),

Gene: BatStarr\_48 Start: 37326, Stop: 38156, Start Num: 6

Candidate Starts for BatStarr\_48:

(1, 37221), (Start: 6 @37326 has 2 MA's), (7, 37356), (8, 37368), (14, 37404), (15, 37428), (17, 37455), (22, 37491), (25, 37542), (Start: 28 @37587 has 1 MA's), (29, 37590), (30, 37593), (32, 37617), (33, 37647), (41, 37908), (42, 37920), (43, 37935), (45, 37962), (47, 38010), (50, 38076),

Gene: Denise\_41 Start: 31037, Stop: 31825, Start Num: 10

Candidate Starts for Denise\_41:

(1, 30872), (2, 30881), (Start: 10 @31037 has 1 MA's), (14, 31073), (15, 31097), (17, 31124), (18, 31127), (26, 31214), (Start: 28 @31256 has 1 MA's), (30, 31262), (32, 31286), (42, 31589), (45, 31631), (48, 31721), (53, 31814),

Gene: E1\_32 Start: 23723, Stop: 24496, Start Num: 12

Candidate Starts for E1\_32:

(Start: 12 @23723 has 4 MA's), (20, 23798), (21, 23807), (25, 23876), (31, 23927), (32, 23948), (34, 24035), (35, 24095), (36, 24122), (37, 24128), (39, 24194), (49, 24401), (51, 24443),

Gene: Herod\_48 Start: 37326, Stop: 38156, Start Num: 6

Candidate Starts for Herod\_48:

(1, 37221), (Start: 6 @37326 has 2 MA's), (7, 37356), (8, 37368), (14, 37404), (15, 37428), (17, 37455), (22, 37491), (25, 37542), (Start: 28 @37587 has 1 MA's), (29, 37590), (30, 37593), (32, 37617), (33, 37647), (41, 37908), (42, 37920), (43, 37935), (45, 37962), (47, 38010), (50, 38076),

Gene: Horus\_58 Start: 38442, Stop: 39221, Start Num: 11

Candidate Starts for Horus\_58:

(Start: 11 @38442 has 1 MA's), (13, 38454), (15, 38493), (16, 38496), (17, 38520), (18, 38523), (26, 38610), (Start: 28 @38652 has 1 MA's), (30, 38658), (32, 38682), (33, 38712), (42, 38985), (45, 39027), (48, 39117), (53, 39210),

Gene: Hugley\_45 Start: 37367, Stop: 38155, Start Num: 8

Candidate Starts for Hugley\_45:

(1, 37220), (Start: 6 @37325 has 2 MA's), (7, 37355), (8, 37367), (14, 37403), (15, 37427), (17, 37454), (22, 37490), (25, 37541), (Start: 28 @37586 has 1 MA's), (29, 37589), (30, 37592), (32, 37616), (33, 37646), (41, 37907), (42, 37919), (43, 37934), (45, 37961), (47, 38009), (50, 38075),

Gene: Mbo4\_35 Start: 31761, Stop: 32552, Start Num: 9

Candidate Starts for Mbo4\_35:

(4, 31668), (5, 31671), (9, 31761), (14, 31800), (23, 31899), (24, 31908), (25, 31932), (Start: 28 @31977 has 1 MA's), (32, 32007), (37, 32184), (38, 32190), (40, 32265), (44, 32349), (52, 32532),

Gene: Nymphadora\_49 Start: 37586, Stop: 38155, Start Num: 28

Candidate Starts for Nymphadora\_49:

(25, 37541), (Start: 28 @37586 has 1 MA's), (29, 37589), (30, 37592), (32, 37616), (33, 37646), (41, 37907), (42, 37919), (43, 37934), (45, 37961), (47, 38009), (50, 38075),

Gene: ShawBrad\_63 Start: 37969, Stop: 38748, Start Num: 11

Candidate Starts for ShawBrad\_63:

(Start: 11 @37969 has 1 MA's), (13, 37981), (15, 38020), (17, 38047), (18, 38050), (26, 38137), (Start: 28 @38179 has 1 MA's), (30, 38185), (32, 38209), (33, 38239), (42, 38512), (45, 38554), (48, 38644), (53, 38737),

Gene: StAB\_31 Start: 27398, Stop: 28165, Start Num: 12

Candidate Starts for StAB\_31:

(Start: 11 @27389 has 1 MA's), (Start: 12 @27398 has 4 MA's), (18, 27470), (19, 27473), (22, 27503), (Start: 28 @27599 has 1 MA's), (32, 27629), (35, 27773), (37, 27806), (45, 27974), (46, 27992), (51, 28121), (53, 28154),

Gene: Stiles\_32 Start: 27029, Stop: 27793, Start Num: 12

Candidate Starts for Stiles\_32:

(3, 26873), (Start: 11 @27020 has 1 MA's), (Start: 12 @27029 has 4 MA's), (18, 27101), (19, 27104), (25, 27185), (27, 27194), (32, 27257), (35, 27401), (37, 27434), (45, 27602), (46, 27620), (51, 27749), (53, 27782),