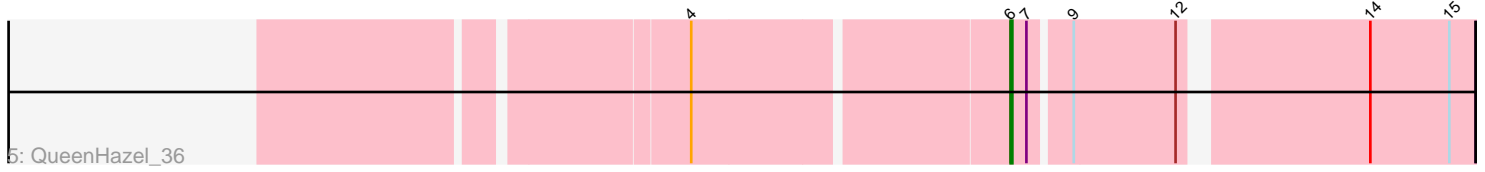
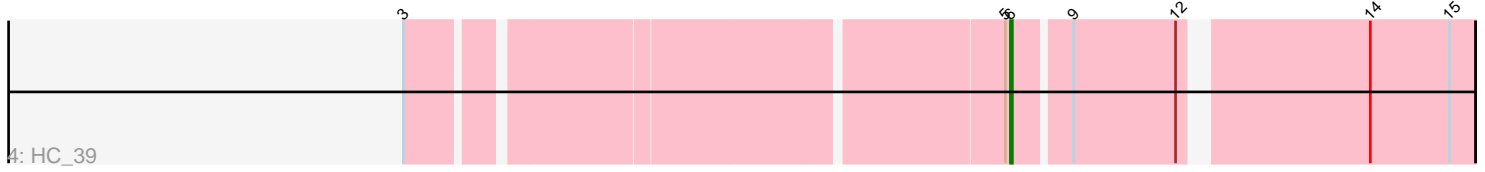
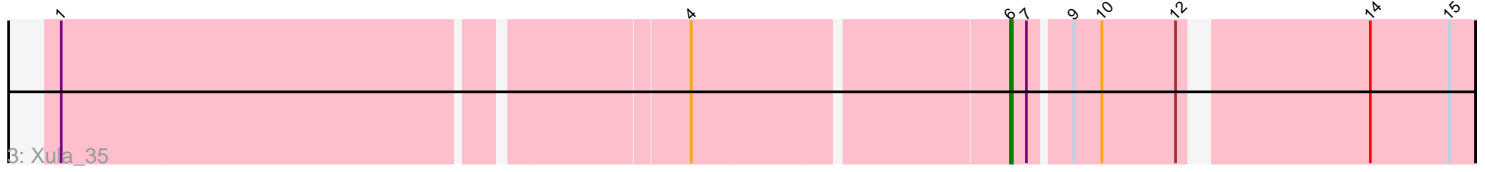
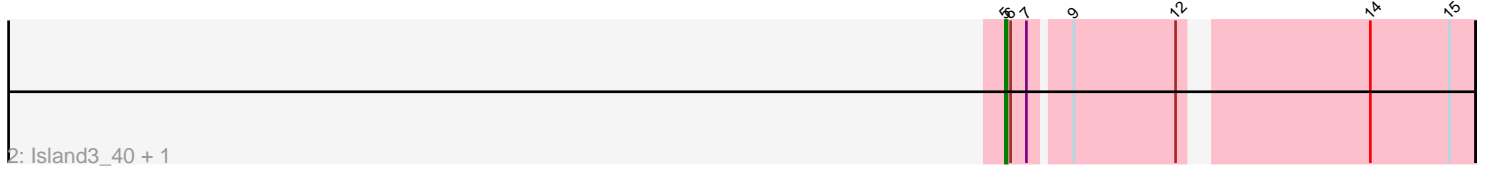
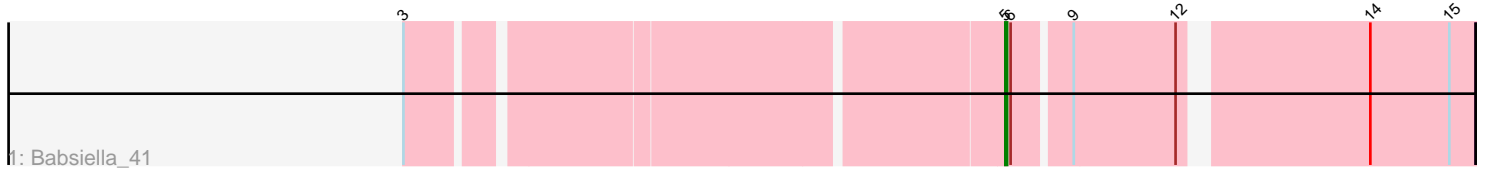


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 296809 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296809 has 30 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Babsiella\_41
- Track 2 : Island3\_40, Brujita\_40
- Track 3 : Xula\_35
- Track 4 : HC\_39
- Track 5 : QueenHazel\_36
- Track 6 : Fishburne\_39, Jebeks\_40, Necropolis\_39, Venti\_39, Dynamo\_39, Etoile\_39, BronnyJr\_39, Sonah\_39, Chubbello\_39, Zilizebeth\_39, Bartholomew\_38, FirstPlacePfu\_39, Vidya\_39, Kari\_39
- Track 7 : GaloreK\_39, Langerak\_39, Mangethe\_39, Techage\_39, Majeke\_39, HUHilltop\_39, Phegasus\_39, Arib1\_39
- Track 8 : Donovan\_39
- Track 9 : Malithi\_39

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

The start number called the most often in the published annotations is 8, it was called in 20 of the 26 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arib1\_39, Bartholomew\_38, BronnyJr\_39, Chubbello\_39, Donovan\_39, Dynamo\_39, Etoile\_39, FirstPlacePfu\_39, Fishburne\_39, GaloreK\_39, HUHilltop\_39, Jebeks\_40, Kari\_39, Langerak\_39, Majeke\_39, Malithi\_39, Mangethe\_39, Necropolis\_39, Phegasus\_39, Sonah\_39, Techage\_39, Venti\_39, Vidya\_39, Zilizebeth\_39,

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

- 

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

- Babsiella\_41, Brujita\_40, HC\_39, Island3\_40, QueenHazel\_36, Xula\_35,

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

Start 5:

- Found in 4 of 30 ( 13.3% ) of genes in pham
- Manual Annotations of this start: 3 of 26
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Babsiella\_41 (I1), Brujita\_40 (I1), Island3\_40 (I1),

Start 6:

- Found in 6 of 30 ( 20.0% ) of genes in pham
- Manual Annotations of this start: 3 of 26
- Called 50.0% of time when present
- Phage (with cluster) where this start called: HC\_39 (I1), QueenHazel\_36 (I1), Xula\_35 (I1),

Start 8:

- Found in 24 of 30 ( 80.0% ) of genes in pham
- Manual Annotations of this start: 20 of 26
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arib1\_39 (P1), Bartholomew\_38 (P1), BronnyJr\_39 (P1), Chubbello\_39 (P1), Donovan\_39 (P1), Dynamo\_39 (P1), Etoile\_39 (P1), FirstPlacePfu\_39 (P1), Fishburne\_39 (P1), GaloreK\_39 (P1), HUHilltop\_39 (P1), Jebeks\_40 (P1), Kari\_39 (P1), Langerak\_39 (P1), Majeke\_39 (P1), Malithi\_39 (P1), Mangethe\_39 (P1), Necropolis\_39 (P1), Phegasus\_39 (P1), Sonah\_39 (P1), Techage\_39 (P1), Venti\_39 (P1), Vidya\_39 (P1), Zilizebeth\_39 (P1),

### Summary by clusters:

There are 2 clusters represented in this pham: I1, P1,

Info for manual annotations of cluster I1:

- Start number 5 was manually annotated 3 times for cluster I1.
- Start number 6 was manually annotated 3 times for cluster I1.

Info for manual annotations of cluster P1:

- Start number 8 was manually annotated 20 times for cluster P1.

### Gene Information:

Gene: Arib1\_39 Start: 30316, Stop: 30549, Start Num: 8

Candidate Starts for Arib1\_39:

(2, 29923), (Start: 8 @30316 has 20 MA's), (10, 30337), (11, 30376), (13, 30394), (14, 30490), (15, 30535),

Gene: Babsiella\_41 Start: 31234, Stop: 31479, Start Num: 5

Candidate Starts for Babsiella\_41:

(3, 30922), (Start: 5 @31234 has 3 MA's), (Start: 6 @31237 has 3 MA's), (9, 31267), (12, 31324), (14, 31420), (15, 31465),

Gene: Bartholomew\_38 Start: 30310, Stop: 30543, Start Num: 8

Candidate Starts for Bartholomew\_38:

(2, 29920), (Start: 8 @30310 has 20 MA's), (10, 30331), (11, 30370), (13, 30388), (14, 30484), (15, 30529),

Gene: BronnyJr\_39 Start: 30807, Stop: 31040, Start Num: 8

Candidate Starts for BronnyJr\_39:

(2, 30417), (Start: 8 @30807 has 20 MA's), (10, 30828), (11, 30867), (13, 30885), (14, 30981), (15, 31026),

Gene: Brujita\_40 Start: 31964, Stop: 32209, Start Num: 5

Candidate Starts for Brujita\_40:

(Start: 5 @31964 has 3 MA's), (Start: 6 @31967 has 3 MA's), (7, 31976), (9, 31997), (12, 32054), (14, 32150), (15, 32195),

Gene: Chubbello\_39 Start: 30306, Stop: 30539, Start Num: 8

Candidate Starts for Chubbello\_39:

(2, 29916), (Start: 8 @30306 has 20 MA's), (10, 30327), (11, 30366), (13, 30384), (14, 30480), (15, 30525),

Gene: Donovan\_39 Start: 30333, Stop: 30566, Start Num: 8

Candidate Starts for Donovan\_39:

(2, 29940), (Start: 8 @30333 has 20 MA's), (10, 30354), (11, 30393), (13, 30411), (14, 30507), (15, 30552),

Gene: Dynamo\_39 Start: 30718, Stop: 30951, Start Num: 8

Candidate Starts for Dynamo\_39:

(2, 30328), (Start: 8 @30718 has 20 MA's), (10, 30739), (11, 30778), (13, 30796), (14, 30892), (15, 30937),

Gene: Etoile\_39 Start: 30310, Stop: 30543, Start Num: 8

Candidate Starts for Etoile\_39:

(2, 29920), (Start: 8 @30310 has 20 MA's), (10, 30331), (11, 30370), (13, 30388), (14, 30484), (15, 30529),

Gene: FirstPlacePfu\_39 Start: 30342, Stop: 30575, Start Num: 8

Candidate Starts for FirstPlacePfu\_39:

(2, 29952), (Start: 8 @30342 has 20 MA's), (10, 30363), (11, 30402), (13, 30420), (14, 30516), (15, 30561),

Gene: Fishburne\_39 Start: 30310, Stop: 30543, Start Num: 8

Candidate Starts for Fishburne\_39:

(2, 29920), (Start: 8 @30310 has 20 MA's), (10, 30331), (11, 30370), (13, 30388), (14, 30484), (15, 30529),

Gene: GaloreK\_39 Start: 30306, Stop: 30539, Start Num: 8

Candidate Starts for GaloreK\_39:

(2, 29913), (Start: 8 @30306 has 20 MA's), (10, 30327), (11, 30366), (13, 30384), (14, 30480), (15, 30525),

Gene: HC\_39 Start: 30018, Stop: 30260, Start Num: 6

Candidate Starts for HC\_39:

(3, 29703), (Start: 5 @30015 has 3 MA's), (Start: 6 @30018 has 3 MA's), (9, 30048), (12, 30105), (14, 30201), (15, 30246),

Gene: HUHilltop\_39 Start: 30343, Stop: 30576, Start Num: 8

Candidate Starts for HUHilltop\_39:

(2, 29950), (Start: 8 @30343 has 20 MA's), (10, 30364), (11, 30403), (13, 30421), (14, 30517), (15, 30562),

Gene: Island3\_40 Start: 31964, Stop: 32209, Start Num: 5

Candidate Starts for Island3\_40:

(Start: 5 @31964 has 3 MA's), (Start: 6 @31967 has 3 MA's), (7, 31976), (9, 31997), (12, 32054), (14, 32150), (15, 32195),

Gene: Jebeks\_40 Start: 30295, Stop: 30528, Start Num: 8

Candidate Starts for Jebeks\_40:

(2, 29905), (Start: 8 @30295 has 20 MA's), (10, 30316), (11, 30355), (13, 30373), (14, 30469), (15, 30514),

Gene: Kari\_39 Start: 30307, Stop: 30540, Start Num: 8

Candidate Starts for Kari\_39:

(2, 29917), (Start: 8 @30307 has 20 MA's), (10, 30328), (11, 30367), (13, 30385), (14, 30481), (15, 30526),

Gene: Langerak\_39 Start: 30326, Stop: 30559, Start Num: 8

Candidate Starts for Langerak\_39:

(2, 29933), (Start: 8 @30326 has 20 MA's), (10, 30347), (11, 30386), (13, 30404), (14, 30500), (15, 30545),

Gene: Majeke\_39 Start: 30351, Stop: 30584, Start Num: 8

Candidate Starts for Majeke\_39:

(2, 29958), (Start: 8 @30351 has 20 MA's), (10, 30372), (11, 30411), (13, 30429), (14, 30525), (15, 30570),

Gene: Malithi\_39 Start: 30226, Stop: 30459, Start Num: 8

Candidate Starts for Malithi\_39:

(2, 29836), (Start: 8 @30226 has 20 MA's), (10, 30247), (11, 30286), (13, 30304), (14, 30400), (15, 30445),

Gene: Mangethe\_39 Start: 30351, Stop: 30584, Start Num: 8

Candidate Starts for Mangethe\_39:

(2, 29958), (Start: 8 @30351 has 20 MA's), (10, 30372), (11, 30411), (13, 30429), (14, 30525), (15, 30570),

Gene: Necropolis\_39 Start: 30307, Stop: 30540, Start Num: 8

Candidate Starts for Necropolis\_39:

(2, 29917), (Start: 8 @30307 has 20 MA's), (10, 30328), (11, 30367), (13, 30385), (14, 30481), (15, 30526),

Gene: Pegasus\_39 Start: 30318, Stop: 30551, Start Num: 8

Candidate Starts for Pegasus\_39:

(2, 29925), (Start: 8 @30318 has 20 MA's), (10, 30339), (11, 30378), (13, 30396), (14, 30492), (15, 30537),

Gene: QueenHazel\_36 Start: 30012, Stop: 30254, Start Num: 6

Candidate Starts for QueenHazel\_36:

(4, 29841), (Start: 6 @30012 has 3 MA's), (7, 30021), (9, 30042), (12, 30099), (14, 30195), (15, 30240),

Gene: Sonah\_39 Start: 30296, Stop: 30529, Start Num: 8

Candidate Starts for Sonah\_39:

(2, 29906), (Start: 8 @30296 has 20 MA's), (10, 30317), (11, 30356), (13, 30374), (14, 30470), (15, 30515),

Gene: Techage\_39 Start: 30336, Stop: 30569, Start Num: 8

Candidate Starts for Techage\_39:

(2, 29943), (Start: 8 @30336 has 20 MA's), (10, 30357), (11, 30396), (13, 30414), (14, 30510), (15, 30555),

Gene: Venti\_39 Start: 30310, Stop: 30543, Start Num: 8

Candidate Starts for Venti\_39:

(2, 29920), (Start: 8 @30310 has 20 MA's), (10, 30331), (11, 30370), (13, 30388), (14, 30484), (15, 30529),

Gene: Vidya\_39 Start: 30343, Stop: 30576, Start Num: 8

Candidate Starts for Vidya\_39:

(2, 29953), (Start: 8 @30343 has 20 MA's), (10, 30364), (11, 30403), (13, 30421), (14, 30517), (15, 30562),

Gene: Xula\_35 Start: 29536, Stop: 29778, Start Num: 6

Candidate Starts for Xula\_35:

(1, 29026), (4, 29365), (Start: 6 @29536 has 3 MA's), (7, 29545), (9, 29566), (10, 29581), (12, 29623), (14, 29719), (15, 29764),

Gene: Zilizebeth\_39 Start: 30342, Stop: 30575, Start Num: 8

Candidate Starts for Zilizebeth\_39:

(2, 29952), (Start: 8 @30342 has 20 MA's), (10, 30363), (11, 30402), (13, 30420), (14, 30516), (15, 30561),