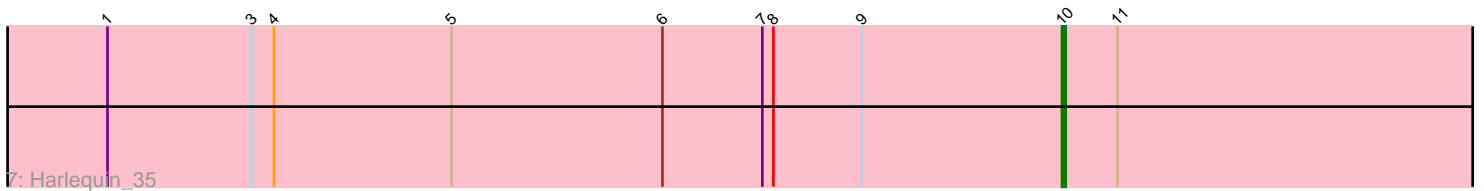
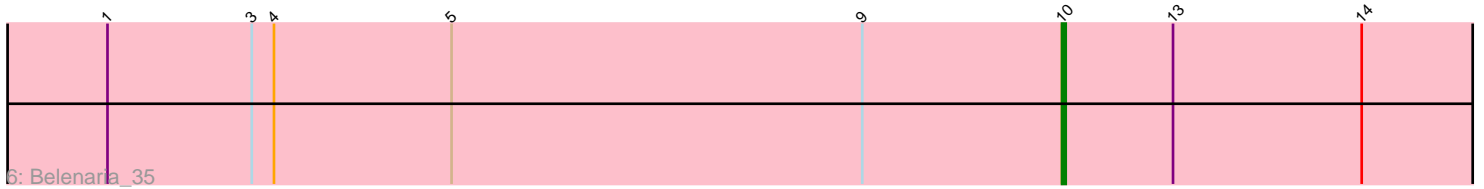
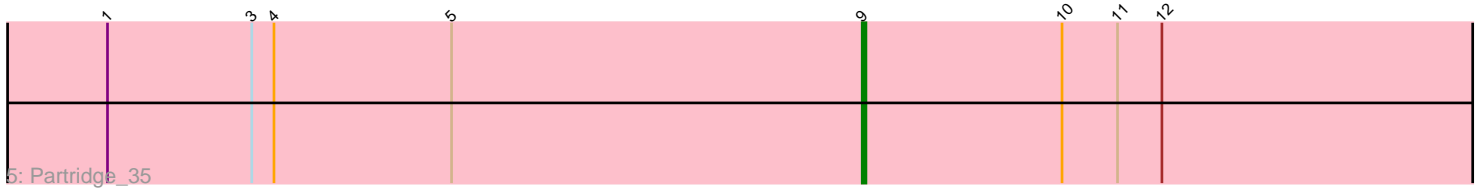
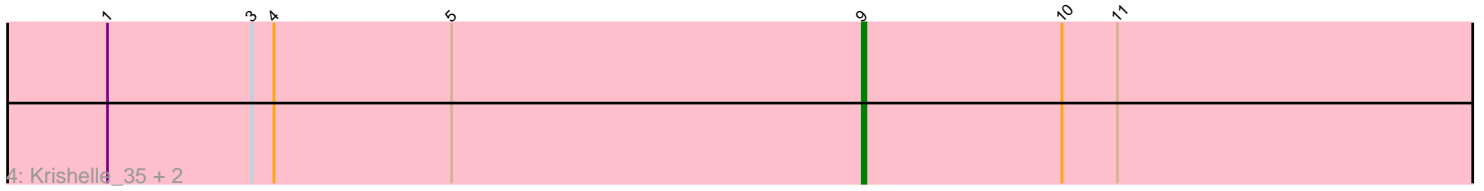
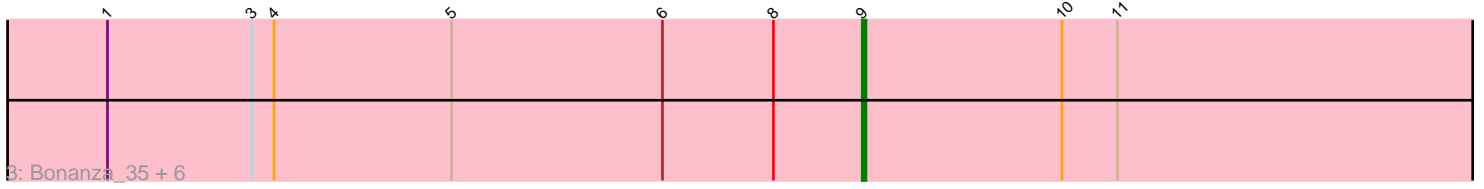
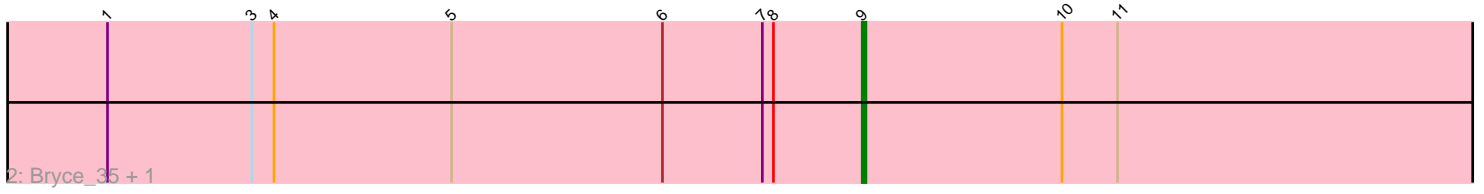
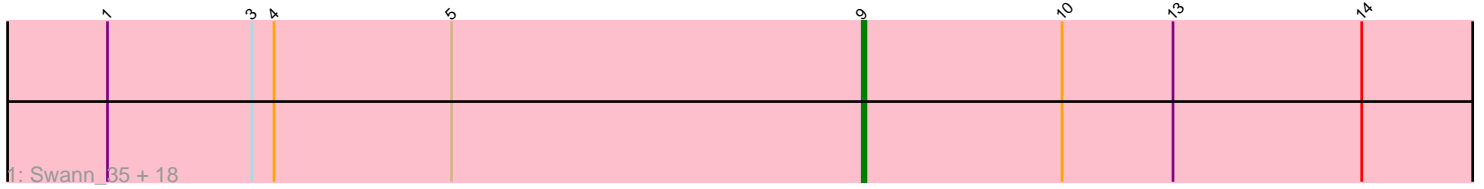


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 306672 Report

This analysis was run 06/27/26 on database version 652.

Pham number 306672 has 35 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Swann\_35, CosmicSans\_35, Phrankenstein\_35, Rhodalysa\_35, Natosaleda\_35, Erik\_35, Naiad\_35, Lillie\_35, Nancinator\_35, Alatin\_35, RexFury\_35, Shuman\_35, Gollum\_35, Espica\_35, Rasputin\_35, UhSalsa\_35, StCroix\_35, Bradshaw\_35, TWAMP\_35
- Track 2 : Bryce\_35, Jester\_35
- Track 3 : Bonanza\_35, PhailMary\_34, RER2\_28, Yogi\_35, Hiro\_35, Alpacados\_34, Yoncess\_35
- Track 4 : Krishelle\_35, AppleCloud\_33, Dinger\_35
- Track 5 : Partridge\_35
- Track 6 : Belenaria\_35
- Track 7 : Harlequin\_35
- Track 8 : Takoda\_35

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

The start number called the most often in the published annotations is 9, it was called in 32 of the 34 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alatin\_35, Alpacados\_34, AppleCloud\_33, Bonanza\_35, Bradshaw\_35, Bryce\_35, CosmicSans\_35, Dinger\_35, Erik\_35, Espica\_35, Gollum\_35, Hiro\_35, Jester\_35, Krishelle\_35, Lillie\_35, Naiad\_35, Nancinator\_35, Natosaleda\_35, Partridge\_35, PhailMary\_34, Phrankenstein\_35, RER2\_28, Rasputin\_35, RexFury\_35, Rhodalysa\_35, Shuman\_35, StCroix\_35, Swann\_35, TWAMP\_35, Takoda\_35, UhSalsa\_35, Yogi\_35, Yoncess\_35,

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

- Belenaria\_35, Harlequin\_35,

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

- 

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

#### Start 9:

- Found in 35 of 35 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 32 of 34
- Called 94.3% of time when present
- Phage (with cluster) where this start called: Alatin\_35 (CA), Alpacados\_34 (CA), AppleCloud\_33 (CA), Bonanza\_35 (CA), Bradshaw\_35 (CA), Bryce\_35 (CA), CosmicSans\_35 (CA), Dinger\_35 (CA), Erik\_35 (CA), Espica\_35 (CA), Gollum\_35 (CA), Hiro\_35 (CA), Jester\_35 (CA), Krishelle\_35 (CA), Lillie\_35 (CA), Naiad\_35 (CA), Nancinator\_35 (CA), Natosaleda\_35 (CA), Partridge\_35 (CA), PhailMary\_34 (CA), Phrankenstien\_35 (CA), RER2\_28 (CA), Rasputin\_35 (CA), RexFury\_35 (CA), Rhodalysa\_35 (CA), Shuman\_35 (CA), StCroix\_35 (CA), Swann\_35 (CA), TWAMP\_35 (CA), Takoda\_35 (CA), UhSalsa\_35 (CA), Yogi\_35 (CA), Yoncess\_35 (CA),

#### Start 10:

- Found in 35 of 35 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 2 of 34
- Called 5.7% of time when present
- Phage (with cluster) where this start called: Belenaria\_35 (CA), Harlequin\_35 (CA),

#### Summary by clusters:

There is one cluster represented in this pham: CA

Info for manual annotations of cluster CA:

- Start number 9 was manually annotated 32 times for cluster CA.
- Start number 10 was manually annotated 2 times for cluster CA.

#### **Gene Information:**

Gene: Alatin\_35 Start: 26385, Stop: 26179, Start Num: 9

Candidate Starts for Alatin\_35:

(1, 26589), (3, 26550), (4, 26544), (5, 26496), (Start: 9 @26385 has 32 MA's), (Start: 10 @26331 has 2 MA's), (13, 26301), (14, 26250),

Gene: Alpacados\_34 Start: 26290, Stop: 26084, Start Num: 9

Candidate Starts for Alpacados\_34:

(1, 26494), (3, 26455), (4, 26449), (5, 26401), (6, 26344), (8, 26314), (Start: 9 @26290 has 32 MA's), (Start: 10 @26236 has 2 MA's), (11, 26221),

Gene: AppleCloud\_33 Start: 26260, Stop: 26054, Start Num: 9

Candidate Starts for AppleCloud\_33:

(1, 26464), (3, 26425), (4, 26419), (5, 26371), (Start: 9 @26260 has 32 MA's), (Start: 10 @26206 has 2 MA's), (11, 26191),

Gene: Belenaria\_35 Start: 26265, Stop: 26113, Start Num: 10

Candidate Starts for Belenaria\_35:

(1, 26523), (3, 26484), (4, 26478), (5, 26430), (Start: 9 @26319 has 32 MA's), (Start: 10 @26265 has 2 MA's), (13, 26235), (14, 26184),

Gene: Bonanza\_35 Start: 26292, Stop: 26086, Start Num: 9

Candidate Starts for Bonanza\_35:

(1, 26496), (3, 26457), (4, 26451), (5, 26403), (6, 26346), (8, 26316), (Start: 9 @26292 has 32 MA's), (Start: 10 @26238 has 2 MA's), (11, 26223),

Gene: Bradshaw\_35 Start: 26318, Stop: 26112, Start Num: 9

Candidate Starts for Bradshaw\_35:

(1, 26522), (3, 26483), (4, 26477), (5, 26429), (Start: 9 @26318 has 32 MA's), (Start: 10 @26264 has 2 MA's), (13, 26234), (14, 26183),

Gene: Bryce\_35 Start: 26293, Stop: 26087, Start Num: 9

Candidate Starts for Bryce\_35:

(1, 26497), (3, 26458), (4, 26452), (5, 26404), (6, 26347), (7, 26320), (8, 26317), (Start: 9 @26293 has 32 MA's), (Start: 10 @26239 has 2 MA's), (11, 26224),

Gene: CosmicSans\_35 Start: 26318, Stop: 26112, Start Num: 9

Candidate Starts for CosmicSans\_35:

(1, 26522), (3, 26483), (4, 26477), (5, 26429), (Start: 9 @26318 has 32 MA's), (Start: 10 @26264 has 2 MA's), (13, 26234), (14, 26183),

Gene: Dinger\_35 Start: 26302, Stop: 26096, Start Num: 9

Candidate Starts for Dinger\_35:

(1, 26506), (3, 26467), (4, 26461), (5, 26413), (Start: 9 @26302 has 32 MA's), (Start: 10 @26248 has 2 MA's), (11, 26233),

Gene: Erik\_35 Start: 26316, Stop: 26110, Start Num: 9

Candidate Starts for Erik\_35:

(1, 26520), (3, 26481), (4, 26475), (5, 26427), (Start: 9 @26316 has 32 MA's), (Start: 10 @26262 has 2 MA's), (13, 26232), (14, 26181),

Gene: Espica\_35 Start: 26319, Stop: 26113, Start Num: 9

Candidate Starts for Espica\_35:

(1, 26523), (3, 26484), (4, 26478), (5, 26430), (Start: 9 @26319 has 32 MA's), (Start: 10 @26265 has 2 MA's), (13, 26235), (14, 26184),

Gene: Gollum\_35 Start: 26318, Stop: 26112, Start Num: 9

Candidate Starts for Gollum\_35:

(1, 26522), (3, 26483), (4, 26477), (5, 26429), (Start: 9 @26318 has 32 MA's), (Start: 10 @26264 has 2 MA's), (13, 26234), (14, 26183),

Gene: Harlequin\_35 Start: 26269, Stop: 26117, Start Num: 10

Candidate Starts for Harlequin\_35:

(1, 26527), (3, 26488), (4, 26482), (5, 26434), (6, 26377), (7, 26350), (8, 26347), (Start: 9 @26323 has 32 MA's), (Start: 10 @26269 has 2 MA's), (11, 26254),

Gene: Hiro\_35 Start: 26578, Stop: 26372, Start Num: 9

Candidate Starts for Hiro\_35:

(1, 26782), (3, 26743), (4, 26737), (5, 26689), (6, 26632), (8, 26602), (Start: 9 @26578 has 32 MA's), (Start: 10 @26524 has 2 MA's), (11, 26509),

Gene: Jester\_35 Start: 26254, Stop: 26048, Start Num: 9

Candidate Starts for Jester\_35:

(1, 26458), (3, 26419), (4, 26413), (5, 26365), (6, 26308), (7, 26281), (8, 26278), (Start: 9 @26254 has 32 MA's), (Start: 10 @26200 has 2 MA's), (11, 26185),

Gene: Krishelle\_35 Start: 26602, Stop: 26396, Start Num: 9

Candidate Starts for Krishelle\_35:

(1, 26806), (3, 26767), (4, 26761), (5, 26713), (Start: 9 @26602 has 32 MA's), (Start: 10 @26548 has 2 MA's), (11, 26533),

Gene: Lillie\_35 Start: 26318, Stop: 26112, Start Num: 9

Candidate Starts for Lillie\_35:

(1, 26522), (3, 26483), (4, 26477), (5, 26429), (Start: 9 @26318 has 32 MA's), (Start: 10 @26264 has 2 MA's), (13, 26234), (14, 26183),

Gene: Naiad\_35 Start: 26331, Stop: 26125, Start Num: 9

Candidate Starts for Naiad\_35:

(1, 26535), (3, 26496), (4, 26490), (5, 26442), (Start: 9 @26331 has 32 MA's), (Start: 10 @26277 has 2 MA's), (13, 26247), (14, 26196),

Gene: Nancinator\_35 Start: 26319, Stop: 26113, Start Num: 9

Candidate Starts for Nancinator\_35:

(1, 26523), (3, 26484), (4, 26478), (5, 26430), (Start: 9 @26319 has 32 MA's), (Start: 10 @26265 has 2 MA's), (13, 26235), (14, 26184),

Gene: Natosaleda\_35 Start: 26318, Stop: 26112, Start Num: 9

Candidate Starts for Natosaleda\_35:

(1, 26522), (3, 26483), (4, 26477), (5, 26429), (Start: 9 @26318 has 32 MA's), (Start: 10 @26264 has 2 MA's), (13, 26234), (14, 26183),

Gene: Partridge\_35 Start: 26401, Stop: 26195, Start Num: 9

Candidate Starts for Partridge\_35:

(1, 26605), (3, 26566), (4, 26560), (5, 26512), (Start: 9 @26401 has 32 MA's), (Start: 10 @26347 has 2 MA's), (11, 26332), (12, 26320),

Gene: PhailMary\_34 Start: 26640, Stop: 26434, Start Num: 9

Candidate Starts for PhailMary\_34:

(1, 26844), (3, 26805), (4, 26799), (5, 26751), (6, 26694), (8, 26664), (Start: 9 @26640 has 32 MA's), (Start: 10 @26586 has 2 MA's), (11, 26571),

Gene: Phrankenstein\_35 Start: 26264, Stop: 26058, Start Num: 9

Candidate Starts for Phrankenstein\_35:

(1, 26468), (3, 26429), (4, 26423), (5, 26375), (Start: 9 @26264 has 32 MA's), (Start: 10 @26210 has 2 MA's), (13, 26180), (14, 26129),

Gene: RER2\_28 Start: 23190, Stop: 22984, Start Num: 9

Candidate Starts for RER2\_28:

(1, 23394), (3, 23355), (4, 23349), (5, 23301), (6, 23244), (8, 23214), (Start: 9 @23190 has 32 MA's), (Start: 10 @23136 has 2 MA's), (11, 23121),

Gene: Rasputin\_35 Start: 26288, Stop: 26082, Start Num: 9

Candidate Starts for Rasputin\_35:

(1, 26492), (3, 26453), (4, 26447), (5, 26399), (Start: 9 @26288 has 32 MA's), (Start: 10 @26234 has 2 MA's), (13, 26204), (14, 26153),

Gene: RexFury\_35 Start: 26349, Stop: 26143, Start Num: 9

Candidate Starts for RexFury\_35:

(1, 26553), (3, 26514), (4, 26508), (5, 26460), (Start: 9 @26349 has 32 MA's), (Start: 10 @26295 has 2 MA's), (13, 26265), (14, 26214),

Gene: Rhodalysa\_35 Start: 26318, Stop: 26112, Start Num: 9

Candidate Starts for Rhodalysa\_35:

(1, 26522), (3, 26483), (4, 26477), (5, 26429), (Start: 9 @26318 has 32 MA's), (Start: 10 @26264 has 2 MA's), (13, 26234), (14, 26183),

Gene: Shuman\_35 Start: 26331, Stop: 26125, Start Num: 9

Candidate Starts for Shuman\_35:

(1, 26535), (3, 26496), (4, 26490), (5, 26442), (Start: 9 @26331 has 32 MA's), (Start: 10 @26277 has 2 MA's), (13, 26247), (14, 26196),

Gene: StCroix\_35 Start: 26331, Stop: 26125, Start Num: 9

Candidate Starts for StCroix\_35:

(1, 26535), (3, 26496), (4, 26490), (5, 26442), (Start: 9 @26331 has 32 MA's), (Start: 10 @26277 has 2 MA's), (13, 26247), (14, 26196),

Gene: Swann\_35 Start: 26318, Stop: 26112, Start Num: 9

Candidate Starts for Swann\_35:

(1, 26522), (3, 26483), (4, 26477), (5, 26429), (Start: 9 @26318 has 32 MA's), (Start: 10 @26264 has 2 MA's), (13, 26234), (14, 26183),

Gene: TWAMP\_35 Start: 26318, Stop: 26112, Start Num: 9

Candidate Starts for TWAMP\_35:

(1, 26522), (3, 26483), (4, 26477), (5, 26429), (Start: 9 @26318 has 32 MA's), (Start: 10 @26264 has 2 MA's), (13, 26234), (14, 26183),

Gene: Takoda\_35 Start: 26291, Stop: 26085, Start Num: 9

Candidate Starts for Takoda\_35:

(1, 26495), (2, 26459), (3, 26456), (4, 26450), (5, 26402), (Start: 9 @26291 has 32 MA's), (Start: 10 @26237 has 2 MA's), (11, 26222),

Gene: UhSalsa\_35 Start: 26319, Stop: 26113, Start Num: 9

Candidate Starts for UhSalsa\_35:

(1, 26523), (3, 26484), (4, 26478), (5, 26430), (Start: 9 @26319 has 32 MA's), (Start: 10 @26265 has 2 MA's), (13, 26235), (14, 26184),

Gene: Yogi\_35 Start: 26292, Stop: 26086, Start Num: 9

Candidate Starts for Yogi\_35:

(1, 26496), (3, 26457), (4, 26451), (5, 26403), (6, 26346), (8, 26316), (Start: 9 @26292 has 32 MA's), (Start: 10 @26238 has 2 MA's), (11, 26223),

Gene: Yoncess\_35 Start: 26293, Stop: 26087, Start Num: 9

Candidate Starts for Yoncess\_35:

(1, 26497), (3, 26458), (4, 26452), (5, 26404), (6, 26347), (8, 26317), (Start: 9 @26293 has 32 MA's), (Start: 10 @26239 has 2 MA's), (11, 26224),