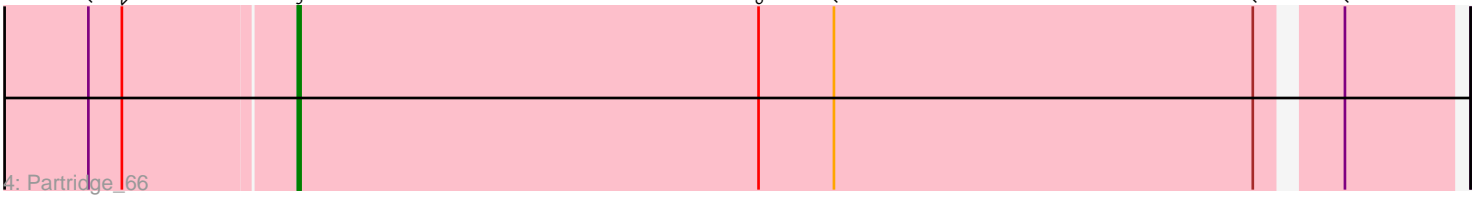
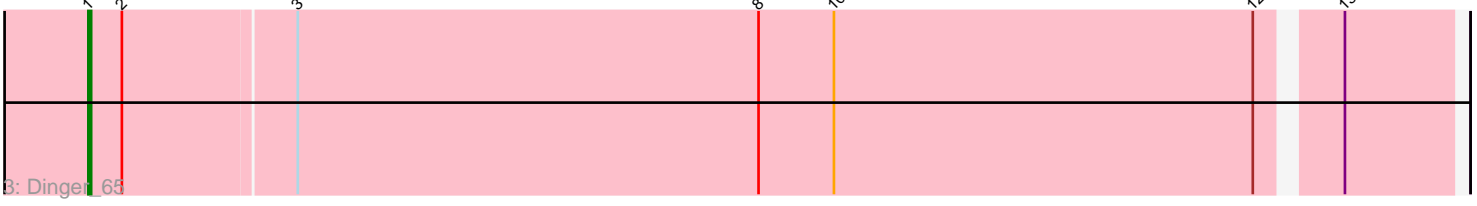
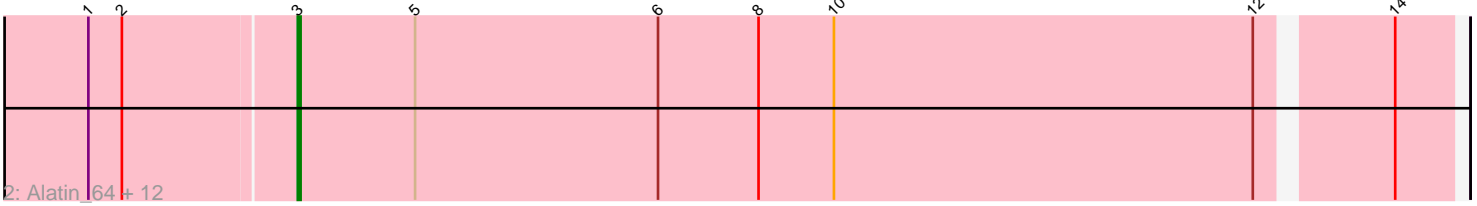
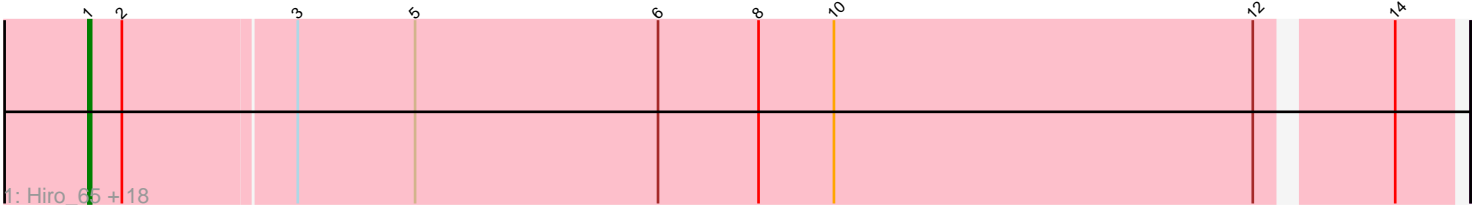


Pham 142675



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 142675 Report

This analysis was run 04/28/24 on database version 559.

Pham number 142675 has 38 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Hiro\_65, Gollum\_65, Nancinator\_64, Espica\_66, Alpacados\_64, Bradshaw\_65, Rasputin\_65, AppleCloud\_62, Harlequin\_65, Jester\_64, Bryce\_64, Swann\_65, Phrankenstein\_65, Bonanza\_66, Belenaria\_66, Shuman\_66, Erik\_65, Krishelle\_65, PhailMary\_62
- Track 2 : Alatin\_64, Yogi\_66, StCroix\_64, TWAMP\_65, RER2\_59, RexFury\_64, CosmicSans\_65, BobbyDazzler\_65, Lillie\_65, Yoncess\_64, Naiad\_64, Natosaleda\_64, Rhodalysa\_65
- Track 3 : Dinger\_65
- Track 4 : Partridge\_66
- Track 5 : UhSalsa\_65
- Track 6 : RGL3\_60
- Track 7 : Takoda\_67, AngryOrchard\_63

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

The start number called the most often in the published annotations is 1, it was called in 22 of the 36 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alpacados\_64, AngryOrchard\_63, AppleCloud\_62, Belenaria\_66, Bonanza\_66, Bradshaw\_65, Bryce\_64, Dinger\_65, Erik\_65, Espica\_66, Gollum\_65, Harlequin\_65, Hiro\_65, Jester\_64, Krishelle\_65, Nancinator\_64, PhailMary\_62, Phrankenstein\_65, Rasputin\_65, Shuman\_66, Swann\_65, Takoda\_67,

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

- Alatin\_64, BobbyDazzler\_65, CosmicSans\_65, Lillie\_65, Naiad\_64, Natosaleda\_64, Partridge\_66, RER2\_59, RexFury\_64, Rhodalysa\_65, StCroix\_64, TWAMP\_65, UhSalsa\_65, Yogi\_66, Yoncess\_64,

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

- RGL3\_60,

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

#### Start 1:

- Found in 37 of 38 ( 97.4% ) of genes in pham
- Manual Annotations of this start: 22 of 36
- Called 59.5% of time when present
- Phage (with cluster) where this start called: Alpacados\_64 (CA), AngryOrchard\_63 (CA), AppleCloud\_62 (CA), Belenaria\_66 (CA), Bonanza\_66 (CA), Bradshaw\_65 (CA), Bryce\_64 (CA), Dinger\_65 (CA), Erik\_65 (CA), Espica\_66 (CA), Gollum\_65 (CA), Harlequin\_65 (CA), Hiro\_65 (CA), Jester\_64 (CA), Krishelle\_65 (CA), Nancinator\_64 (CA), PhailMary\_62 (CA), Phrankenstien\_65 (CA), Rasputin\_65 (CA), Shuman\_66 (CA), Swann\_65 (CA), Takoda\_67 (CA),

#### Start 2:

- Found in 37 of 38 ( 97.4% ) of genes in pham
- Manual Annotations of this start: 1 of 36
- Called 2.7% of time when present
- Phage (with cluster) where this start called: UhSalsa\_65 (CA),

#### Start 3:

- Found in 38 of 38 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 13 of 36
- Called 39.5% of time when present
- Phage (with cluster) where this start called: Alatin\_64 (CA), BobbyDazzler\_65 (CA), CosmicSans\_65 (CA), Lillie\_65 (CA), Naiad\_64 (CA), Natosaleda\_64 (CA), Partridge\_66 (CA), RER2\_59 (CA), RGL3\_60 (CA), RexFury\_64 (CA), Rhodalysa\_65 (CA), StCroix\_64 (CA), TWAMP\_65 (CA), Yogi\_66 (CA), Yoncess\_64 (CA),

### Summary by clusters:

There is one cluster represented in this pham: CA

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

- Start number 1 was manually annotated 22 times for cluster CA.
- Start number 2 was manually annotated 1 time for cluster CA.
- Start number 3 was manually annotated 13 times for cluster CA.

### Gene Information:

Gene: Alatin\_64 Start: 43606, Stop: 43202, Start Num: 3

Candidate Starts for Alatin\_64:

(Start: 1 @43678 has 22 MA's), (Start: 2 @43666 has 1 MA's), (Start: 3 @43606 has 13 MA's), (5, 43564), (6, 43477), (8, 43441), (10, 43414), (12, 43264), (14, 43222),

Gene: Alpacados\_64 Start: 43501, Stop: 43025, Start Num: 1

Candidate Starts for Alpacados\_64:

(Start: 1 @43501 has 22 MA's), (Start: 2 @43489 has 1 MA's), (Start: 3 @43429 has 13 MA's), (5, 43387), (6, 43300), (8, 43264), (10, 43237), (12, 43087), (14, 43045),

Gene: AngryOrchard\_63 Start: 43723, Stop: 43247, Start Num: 1

Candidate Starts for AngryOrchard\_63:

(Start: 1 @43723 has 22 MA's), (Start: 2 @43711 has 1 MA's), (Start: 3 @43651 has 13 MA's), (8, 43486), (10, 43459), (12, 43309),

Gene: AppleCloud\_62 Start: 43395, Stop: 42919, Start Num: 1

Candidate Starts for AppleCloud\_62:

(Start: 1 @43395 has 22 MA's), (Start: 2 @43383 has 1 MA's), (Start: 3 @43323 has 13 MA's), (5, 43281), (6, 43194), (8, 43158), (10, 43131), (12, 42981), (14, 42939),

Gene: Belenaria\_66 Start: 43543, Stop: 43067, Start Num: 1

Candidate Starts for Belenaria\_66:

(Start: 1 @43543 has 22 MA's), (Start: 2 @43531 has 1 MA's), (Start: 3 @43471 has 13 MA's), (5, 43429), (6, 43342), (8, 43306), (10, 43279), (12, 43129), (14, 43087),

Gene: BobbyDazzler\_65 Start: 43577, Stop: 43173, Start Num: 3

Candidate Starts for BobbyDazzler\_65:

(Start: 1 @43649 has 22 MA's), (Start: 2 @43637 has 1 MA's), (Start: 3 @43577 has 13 MA's), (5, 43535), (6, 43448), (8, 43412), (10, 43385), (12, 43235), (14, 43193),

Gene: Bonanza\_66 Start: 43953, Stop: 43477, Start Num: 1

Candidate Starts for Bonanza\_66:

(Start: 1 @43953 has 22 MA's), (Start: 2 @43941 has 1 MA's), (Start: 3 @43881 has 13 MA's), (5, 43839), (6, 43752), (8, 43716), (10, 43689), (12, 43539), (14, 43497),

Gene: Bradshaw\_65 Start: 43611, Stop: 43135, Start Num: 1

Candidate Starts for Bradshaw\_65:

(Start: 1 @43611 has 22 MA's), (Start: 2 @43599 has 1 MA's), (Start: 3 @43539 has 13 MA's), (5, 43497), (6, 43410), (8, 43374), (10, 43347), (12, 43197), (14, 43155),

Gene: Bryce\_64 Start: 43357, Stop: 42881, Start Num: 1

Candidate Starts for Bryce\_64:

(Start: 1 @43357 has 22 MA's), (Start: 2 @43345 has 1 MA's), (Start: 3 @43285 has 13 MA's), (5, 43243), (6, 43156), (8, 43120), (10, 43093), (12, 42943), (14, 42901),

Gene: CosmicSans\_65 Start: 43530, Stop: 43126, Start Num: 3

Candidate Starts for CosmicSans\_65:

(Start: 1 @43602 has 22 MA's), (Start: 2 @43590 has 1 MA's), (Start: 3 @43530 has 13 MA's), (5, 43488), (6, 43401), (8, 43365), (10, 43338), (12, 43188), (14, 43146),

Gene: Dinger\_65 Start: 43741, Stop: 43265, Start Num: 1

Candidate Starts for Dinger\_65:

(Start: 1 @43741 has 22 MA's), (Start: 2 @43729 has 1 MA's), (Start: 3 @43669 has 13 MA's), (8, 43504), (10, 43477), (12, 43327), (13, 43303),

Gene: Erik\_65 Start: 43433, Stop: 42957, Start Num: 1

Candidate Starts for Erik\_65:

(Start: 1 @43433 has 22 MA's), (Start: 2 @43421 has 1 MA's), (Start: 3 @43361 has 13 MA's), (5, 43319), (6, 43232), (8, 43196), (10, 43169), (12, 43019), (14, 42977),

Gene: Espica\_66 Start: 43543, Stop: 43067, Start Num: 1

Candidate Starts for Espica\_66:

(Start: 1 @43543 has 22 MA's), (Start: 2 @43531 has 1 MA's), (Start: 3 @43471 has 13 MA's), (5, 43429), (6, 43342), (8, 43306), (10, 43279), (12, 43129), (14, 43087),

Gene: Gollum\_65 Start: 43544, Stop: 43068, Start Num: 1

Candidate Starts for Gollum\_65:

(Start: 1 @43544 has 22 MA's), (Start: 2 @43532 has 1 MA's), (Start: 3 @43472 has 13 MA's), (5, 43430), (6, 43343), (8, 43307), (10, 43280), (12, 43130), (14, 43088),

Gene: Harlequin\_65 Start: 43392, Stop: 42916, Start Num: 1

Candidate Starts for Harlequin\_65:

(Start: 1 @43392 has 22 MA's), (Start: 2 @43380 has 1 MA's), (Start: 3 @43320 has 13 MA's), (5, 43278), (6, 43191), (8, 43155), (10, 43128), (12, 42978), (14, 42936),

Gene: Hiro\_65 Start: 43863, Stop: 43387, Start Num: 1

Candidate Starts for Hiro\_65:

(Start: 1 @43863 has 22 MA's), (Start: 2 @43851 has 1 MA's), (Start: 3 @43791 has 13 MA's), (5, 43749), (6, 43662), (8, 43626), (10, 43599), (12, 43449), (14, 43407),

Gene: Jester\_64 Start: 43323, Stop: 42847, Start Num: 1

Candidate Starts for Jester\_64:

(Start: 1 @43323 has 22 MA's), (Start: 2 @43311 has 1 MA's), (Start: 3 @43251 has 13 MA's), (5, 43209), (6, 43122), (8, 43086), (10, 43059), (12, 42909), (14, 42867),

Gene: Krishelle\_65 Start: 43971, Stop: 43495, Start Num: 1

Candidate Starts for Krishelle\_65:

(Start: 1 @43971 has 22 MA's), (Start: 2 @43959 has 1 MA's), (Start: 3 @43899 has 13 MA's), (5, 43857), (6, 43770), (8, 43734), (10, 43707), (12, 43557), (14, 43515),

Gene: Lillie\_65 Start: 43530, Stop: 43126, Start Num: 3

Candidate Starts for Lillie\_65:

(Start: 1 @43602 has 22 MA's), (Start: 2 @43590 has 1 MA's), (Start: 3 @43530 has 13 MA's), (5, 43488), (6, 43401), (8, 43365), (10, 43338), (12, 43188), (14, 43146),

Gene: Naiad\_64 Start: 43552, Stop: 43148, Start Num: 3

Candidate Starts for Naiad\_64:

(Start: 1 @43624 has 22 MA's), (Start: 2 @43612 has 1 MA's), (Start: 3 @43552 has 13 MA's), (5, 43510), (6, 43423), (8, 43387), (10, 43360), (12, 43210), (14, 43168),

Gene: Nancinator\_64 Start: 42941, Stop: 42465, Start Num: 1

Candidate Starts for Nancinator\_64:

(Start: 1 @42941 has 22 MA's), (Start: 2 @42929 has 1 MA's), (Start: 3 @42869 has 13 MA's), (5, 42827), (6, 42740), (8, 42704), (10, 42677), (12, 42527), (14, 42485),

Gene: Natosaleda\_64 Start: 43470, Stop: 43066, Start Num: 3

Candidate Starts for Natosaleda\_64:

(Start: 1 @43542 has 22 MA's), (Start: 2 @43530 has 1 MA's), (Start: 3 @43470 has 13 MA's), (5, 43428), (6, 43341), (8, 43305), (10, 43278), (12, 43128), (14, 43086),

Gene: Partridge\_66 Start: 44015, Stop: 43611, Start Num: 3

Candidate Starts for Partridge\_66:

(Start: 1 @44087 has 22 MA's), (Start: 2 @44075 has 1 MA's), (Start: 3 @44015 has 13 MA's), (8, 43850), (10, 43823), (12, 43673), (13, 43649),

Gene: PhailMary\_62 Start: 42619, Stop: 42143, Start Num: 1

Candidate Starts for PhailMary\_62:

(Start: 1 @42619 has 22 MA's), (Start: 2 @42607 has 1 MA's), (Start: 3 @42547 has 13 MA's), (5, 42505), (6, 42418), (8, 42382), (10, 42355), (12, 42205), (14, 42163),

Gene: Phrankenstein\_65 Start: 43548, Stop: 43072, Start Num: 1  
Candidate Starts for Phrankenstein\_65:  
(Start: 1 @43548 has 22 MA's), (Start: 2 @43536 has 1 MA's), (Start: 3 @43476 has 13 MA's), (5, 43434), (6, 43347), (8, 43311), (10, 43284), (12, 43134), (14, 43092),

Gene: RER2\_59 Start: 40402, Stop: 39998, Start Num: 3  
Candidate Starts for RER2\_59:  
(Start: 1 @40474 has 22 MA's), (Start: 2 @40462 has 1 MA's), (Start: 3 @40402 has 13 MA's), (5, 40360), (6, 40273), (8, 40237), (10, 40210), (12, 40060), (14, 40018),

Gene: RGL3\_60 Start: 42001, Stop: 41582, Start Num: 3  
Candidate Starts for RGL3\_60:  
(Start: 3 @42001 has 13 MA's), (4, 41986), (7, 41866), (8, 41836), (9, 41818), (10, 41809), (11, 41761), (15, 41599),

Gene: Rasputin\_65 Start: 43572, Stop: 43096, Start Num: 1  
Candidate Starts for Rasputin\_65:  
(Start: 1 @43572 has 22 MA's), (Start: 2 @43560 has 1 MA's), (Start: 3 @43500 has 13 MA's), (5, 43458), (6, 43371), (8, 43335), (10, 43308), (12, 43158), (14, 43116),

Gene: RexFury\_64 Start: 43560, Stop: 43156, Start Num: 3  
Candidate Starts for RexFury\_64:  
(Start: 1 @43632 has 22 MA's), (Start: 2 @43620 has 1 MA's), (Start: 3 @43560 has 13 MA's), (5, 43518), (6, 43431), (8, 43395), (10, 43368), (12, 43218), (14, 43176),

Gene: Rhodalyssa\_65 Start: 43530, Stop: 43126, Start Num: 3  
Candidate Starts for Rhodalyssa\_65:  
(Start: 1 @43602 has 22 MA's), (Start: 2 @43590 has 1 MA's), (Start: 3 @43530 has 13 MA's), (5, 43488), (6, 43401), (8, 43365), (10, 43338), (12, 43188), (14, 43146),

Gene: Shuman\_66 Start: 43553, Stop: 43077, Start Num: 1  
Candidate Starts for Shuman\_66:  
(Start: 1 @43553 has 22 MA's), (Start: 2 @43541 has 1 MA's), (Start: 3 @43481 has 13 MA's), (5, 43439), (6, 43352), (8, 43316), (10, 43289), (12, 43139), (14, 43097),

Gene: StCroix\_64 Start: 43552, Stop: 43148, Start Num: 3  
Candidate Starts for StCroix\_64:  
(Start: 1 @43624 has 22 MA's), (Start: 2 @43612 has 1 MA's), (Start: 3 @43552 has 13 MA's), (5, 43510), (6, 43423), (8, 43387), (10, 43360), (12, 43210), (14, 43168),

Gene: Swann\_65 Start: 43600, Stop: 43124, Start Num: 1  
Candidate Starts for Swann\_65:  
(Start: 1 @43600 has 22 MA's), (Start: 2 @43588 has 1 MA's), (Start: 3 @43528 has 13 MA's), (5, 43486), (6, 43399), (8, 43363), (10, 43336), (12, 43186), (14, 43144),

Gene: TWAMP\_65 Start: 43530, Stop: 43126, Start Num: 3  
Candidate Starts for TWAMP\_65:  
(Start: 1 @43602 has 22 MA's), (Start: 2 @43590 has 1 MA's), (Start: 3 @43530 has 13 MA's), (5, 43488), (6, 43401), (8, 43365), (10, 43338), (12, 43188), (14, 43146),

Gene: Takoda\_67 Start: 43931, Stop: 43455, Start Num: 1  
Candidate Starts for Takoda\_67:

(Start: 1 @43931 has 22 MA's), (Start: 2 @43919 has 1 MA's), (Start: 3 @43859 has 13 MA's), (8, 43694), (10, 43667), (12, 43517),

Gene: UhSalsa\_65 Start: 43531, Stop: 43067, Start Num: 2

Candidate Starts for UhSalsa\_65:

(Start: 1 @43543 has 22 MA's), (Start: 2 @43531 has 1 MA's), (Start: 3 @43471 has 13 MA's), (5, 43429), (6, 43342), (8, 43306), (10, 43279), (12, 43129), (14, 43087),

Gene: Yogi\_66 Start: 43881, Stop: 43477, Start Num: 3

Candidate Starts for Yogi\_66:

(Start: 1 @43953 has 22 MA's), (Start: 2 @43941 has 1 MA's), (Start: 3 @43881 has 13 MA's), (5, 43839), (6, 43752), (8, 43716), (10, 43689), (12, 43539), (14, 43497),

Gene: Yoncess\_64 Start: 43289, Stop: 42885, Start Num: 3

Candidate Starts for Yoncess\_64:

(Start: 1 @43361 has 22 MA's), (Start: 2 @43349 has 1 MA's), (Start: 3 @43289 has 13 MA's), (5, 43247), (6, 43160), (8, 43124), (10, 43097), (12, 42947), (14, 42905),