Pham 72253


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 72253 Report

This analysis was run 04/05/24 on database version 557.
Pham number 72253 has 38 members, 1 are drafts.
Phages represented in each track:

- Track 1: Jessica_4, Guntur_3, Inspire2_3, LouisXIV_3, Sandman_3, TinoCrisci_3, Muttlie_3, Moloch_3, CGermān_3, TymĀ̄reu_3, Hunnie_3, Courtney3_3, Ronnie_3,
Maggie_3, Chestnut_3, Stratus_3, Decurro_3, Azathoth_3, Mariposa_3, Link_3,
Copper_3, Massimo_3, Prospero_3, Dewayne_3
- Track 2 : Taj14_3
- Track 3 : Yank_3
- Track 4 : Laila_4
- Track 5 : KylieMac_4
- Track 6 : Lore_3, Blair_3, Swenson_3, Elkhorn_3, StewieGriff_3
- Track 7 : Toulouse_2, Seume_3
- Track 8 : Arby_3
- Track 9 : Saphira_3
- Track 10 : Sourignavong_4


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

The start number called the most often in the published annotations is 3 , it was called in 32 of the 37 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Azathoth_3, Blair_3, CGermain_3, Chestnut_3, Copper_3, Courtney3_3, Decurro_3, Dewayne_3, Elkhorn_3, Guntur_3, Hunnie_3, Inspire2_3, Jessica_4, Línk_3, Lore_3 3 , LouisXIV_3, Maggie_3, Mariposa_3, Massimo_3, Moloch_3, Muttlie_3, Prospero_3, Ronnie_3, Sandman_3, Seume_3, StewieGriff_3, Stratus_3, Swensōn_3, Taj14_3, TinoCrisci_3, Toulouse_2, TymĀbreu_3,

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

- Arby_3, KylieMac_4, Laila_4, Sourignavong_4, Yank_3,

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

- Saphira_3,


## Summary by start number:

Start 3:

- Found in 37 of 38 ( $97.4 \%$ ) of genes in pham
- Manual Annotations of this start: 32 of 37
- Called $86.5 \%$ of time when present
- Phage (with cluster) where this start called: Azathoth 3 (AN), Blair 3 (AN),

CGermain_3 (AN), Chestnut_3 (AN), Copper_3 (AN), Courtney3_3 (AN), Decurro_3 (AN), Dewayne_3 (AN), Elkhorn 3 (AN), Guntur_3 (AN), Hunnie-3 (AN), Inspire2-3 (AN), Jessica 4 (AN), Link_3 (AN̄), Lore_3 (AN), LouisXIV_3 (AN), Maggie_3 (AN), Mariposa_3 (ĀN), Massimo_3 (AN), Moloch_3 (AN), Muttlie_3 (AN), Prospero_3 (AN), Ronnie_3 (AN), Sandman_3 (AN), Seüme_3 (AN), StèwieGriff_3 (AN), Stratus_3 (AN), Swenson_3 (AN), Taj14_3 (AN), TinoCrisci_3 (AN), Toulouse_2 (AN), TymAbreu_3 (AN),

Start 4:

- Found in 37 of 38 ( $97.4 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 37
- Called $2.7 \%$ of time when present
- Phage (with cluster) where this start called: Yank_3 (AN),

Start 6:

- Found in 1 of 38 ( $2.6 \%$ ) of genes in pham
- No Manual Annotations of this start.
- Called $100.0 \%$ of time when present
- Phage (with cluster) where this start called: Sourignavong_4 (AN),

Start 9:

- Found in 38 of 38 ( $100.0 \%$ ) of genes in pham
- Manual Annotations of this start: 3 of 37
- Called 7.9\% of time when present
- Phage (with cluster) where this start called: KylieMac_4 (AN), Laila_4 (AN),

Saphira_3 (AN),
Start 11:

- Found in 38 of 38 ( $100.0 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 37
- Called $2.6 \%$ of time when present
- Phage (with cluster) where this start called: Arby_3 (AN),


## Summary by clusters:

There is one cluster represented in this pham: AN
Info for manual annotations of cluster AN:

- Start number 3 was manually annotated 32 times for cluster AN.
- Start number 4 was manually annotated 1 time for cluster AN.
-Start number 9 was manually annotated 3 times for cluster AN.
-Start number 11 was manually annotated 1 time for cluster AN.


## Gene Information:

Gene: Arby_3 Start: 690, Stop: 806, Start Num: 11

Candidate Starts for Arby_3:
(Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675),
(Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),
Gene: Azathoth_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Azathoth_3:
(Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675), (Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),

Gene: Blair_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Blair_3:
(1, 567), (Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (5, 609), (8, 633), (Start: 9 @648
has 3 MA's), (Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (16, 729), (17, 759),
Gene: CGermain_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for CGermain_3:
(Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675),
(Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),
Gene: Chestnut_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Chestnut_3:
(Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675), (Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),

Gene: Copper_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Copper_3:
(Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675),
(Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),
Gene: Courtney3_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Courtney3_3:
(Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675), (Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),

Gene: Decurro_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Decurro_3:
(Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675),
(Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),
Gene: Dewayne_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Dewayne_3:
(Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675),
(Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),
Gene: Elkhorn_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Elkhorn_3:
(1, 567), (Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (5, 609), (8, 633), (Start: 9 @648 has 3 MA's), (Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (16, 729), (17, 759),

Gene: Guntur_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Guntur_3:
(Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675),
(Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),

Gene: Hunnie_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Hunnie_3:
(Start: 3 @ 591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675),
(Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),
Gene: Inspire2_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Inspire2_3:
(Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675), (Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),

Gene: Jessica_4 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Jessica_4:
(Start: 3 @ 591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675),
(Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),
Gene: KylieMac_4 Start: 635, Stop: 793, Start Num: 9
Candidate Starts for KylieMac_4:
(Start: 3 @578 has 32 MA's), (Start: 4 @587 has 1 MA's), (5, 596), (8, 620), (Start: 9 @635 has 3
MA's), (Start: 11 @677 has 1 MA's), (12, 683), (13, 686), ( 14,692 ), (17, 746),
Gene: Laila_4 Start: 648, Stop: 806, Start Num: 9
Candidate Starts for Laila_4:
(1, 567), (Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (5, 609), (8, 633), (Start: 9 @648 has 3 MA's), (Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (16, 729), (17, 759),

Gene: Link_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Link_3:
(Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675),
(Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),
Gene: Lore_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Lore_3:
(1, 567), (Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (5, 609), (8, 633), (Start: 9 @648 has 3 MA's), (Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (16, 729), (17, 759),

Gene: LouisXIV_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for LouisXIV_3:
(Start: 3 @ 591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675), (Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),

Gene: Maggie_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Maggie_3:
(Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675), (Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),

Gene: Mariposa_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Mariposa_3:
(Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675),
(Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),
Gene: Massimo_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Massimo_3:
(Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675), (Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),

Gene: Moloch_3 Start: 665, Stop: 880, Start Num: 3
Candidate Starts for Moloch_3:
(Start: 3 @665 has 32 MA's), (Start: 4 @674 has 1 MA's), (Start: 9 @722 has 3 MA's), (10, 749), (Start: 11 @ 764 has 1 MA's), (12, 770), (13, 773), (14, 779), (17, 833), (18, 872),

Gene: Muttlie_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Muttlie_3:
(Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675),
(Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),
Gene: Prospero_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Prospero_3:
(Start: 3 @ 591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675),
(Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),
Gene: Ronnie_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for Ronnie_3:
(Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675), (Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),

Gene: Sandman_3 Start: 665, Stop: 880, Start Num: 3
Candidate Starts for Sandman_3:
(Start: 3 @665 has 32 MA's), (Start: 4 @674 has 1 MA's), (Start: 9 @722 has 3 MA's), (10, 749),
(Start: 11 @764 has 1 MA's), (12, 770), (13, 773), (14, 779), (17, 833), (18, 872),
Gene: Saphira_3 Start: 648, Stop: 806, Start Num: 9
Candidate Starts for Saphira_3:
(Start: 4 @600 has 1 MA's), ( 5,609 ), ( 8,633 ), (Start: 9 @648 has 3 MA's), (Start: 11 @690 has 1 MA's), (12, 696), ( 13,699 ), ( 14,705 ), $(16,729),(17,759)$,

Gene: Seume_3 Start: 387, Stop: 602, Start Num: 3
Candidate Starts for Seume_3:
(2, 378), (Start: 3 @387 has 32 MA's), (Start: 4 @396 has 1 MA's), (Start: 9 @444 has 3 MA's), (10, 471), (Start: 11 @486 has 1 MA's), $(12,492)$, ( 13,495 ), $(14,501),(17,555),(18,594)$,

Gene: Sourignavong_4 Start: 725, Stop: 907, Start Num: 6
Candidate Starts for Sourignavong_4:
(Start: 3 @689 has 32 MA's), (6, 725), (7, 731), (Start: 9 @749 has 3 MA's), (10, 776), (Start: 11 @791 has 1 MA's), $(12,797),(13,800),(14,806),(17,860),(18,899)$,

Gene: StewieGriff_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for StewieGriff_3:
(1, 567), (Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (5, 609), (8, 633), (Start: 9 @648 has 3 MA's), (Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (16, 729), (17, 759),

Gene: Stratus_3 Start: 665, Stop: 880, Start Num: 3
Candidate Starts for Stratus_3:
(Start: 3 @665 has 32 MA's), (Start: 4 @674 has 1 MA's), (Start: 9 @722 has 3 MA's), (10, 749), (Start: 11 @764 has 1 MA's), (12, 770), (13, 773), (14, 779), (17, 833), (18, 872),

Gene: Swenson_3 Start: 714, Stop: 929, Start Num: 3
Candidate Starts for Swenson_3:
(1, 690), (Start: 3 @ 714 has $3 \overline{2}$ MA's), (Start: 4 @ 723 has 1 MA's), (5, 732), (8, 756), (Start: 9 @771 has 3 MA's), (Start: 11 @813 has 1 MA's), (12, 819), (13, 822), (14, 828), (16, 852), (17, 882),

Gene: Taj14_3 Start: 569, Stop: 784, Start Num: 3
Candidate Starts for Taj14_3:
(Start: 3 @ 569 has 32 MA's), (Start: 4 @578 has 1 MA's), ( 5,587 ), ( 8,611 ), (Start: 9 @626 has 3 MA's), (Start: 11 @668 has 1 MA's), (12, 674), (13, 677), ( 14,683 ), ( 15,689 ), ( 16,707 ), (17, 737),

Gene: TinoCrisci_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for TinoCrisci_3:
(Start: 3 @ 591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675), (Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),

Gene: Toulouse_2 Start: 387, Stop: 602, Start Num: 3
Candidate Starts for Toulouse_2:
(2, 378), (Start: 3 @387 has 32 MA's), (Start: 4 @396 has 1 MA's), (Start: 9 @444 has 3 MA's), (10, 471), (Start: 11 @486 has 1 MA's), (12, 492), ( 13,495 ), ( 14,501 ), ( 17,555 ), ( 18,594 ),

Gene: TymAbreu_3 Start: 591, Stop: 806, Start Num: 3
Candidate Starts for TymAbreu_3:
(Start: 3 @591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675), (Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),

Gene: Yank_3 Start: 600, Stop: 806, Start Num: 4
Candidate Starts for Yank_3:
(Start: 3 @ 591 has 32 MA's), (Start: 4 @600 has 1 MA's), (Start: 9 @648 has 3 MA's), (10, 675),
(Start: 11 @690 has 1 MA's), (12, 696), (13, 699), (14, 705), (17, 759), (18, 798),

