Pham 85912


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 85912 Report

This analysis was run 04/05/24 on database version 557.
Pham number 85912 has 41 members, 1 are drafts.
Phages represented in each track:

- Track 1 : CGermain_19, TinoCrisci_19, Prospero_19, Mariposa_19, Maggie_19, Massimo_19, TymAbreu_19, Copper_19, Guntur_19, Toulouse_18, Chestnut_19, Seume_19, Dewayne_19, Hunnie_19, Stratus_19, Ronnie_19, Inspire2_19, Azathoth_19, Moloch_19
- Track 2- Kels 17
- Track 3 : Saphira_20
- Track 4 : Yank_19, Link_19, Muttlie_19
- Track 5 : Jessica_20, Sāndman_19, LouisXIV 19
- Track 6 : Courtney3_19, Sourignavong_20, Arby_19
- Track 7 : Swenson_19
- Track 8 : Decurro_19
- Track 9 : Arielagos_17, SerialPhiller_17
- Track 10 : KylieMac_20, Lore_19, StewieGriff_19
- Track 11 : Taj14_19
- Track 12 : Elkhorn_19, Blair_19, Laila_21


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

The start number called the most often in the published annotations is 6 , it was called in 25 of the 40 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Azathoth_19, CGermain_19, Chestnut_19, Copper_19, Dewayne_19, Guntur_19, Hunnie_19, Inspire2_19, KylieMac_20, Link_19, Lore_19, Maggie_19, Mariposā_19, Massimo_19, Moloch_19, Muttlie_19, Prospero_19, Ronnie_19, Sēume_19, StewieGriff_19, Stratus_19, TinoC̄risci_19, Toulouse_18, TymAbreu_19, Yank_19,

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

- Arby_19, Blair_19, Courtney3_19, Decurro_19, Elkhorn_19, Jessica_20, Laila_21, Louis $\overline{X I V}$ _19, Sāndman_19, Sāphira_20, Soūrignavong_20, Swenson_19, Taj14_19,

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

- Arielagos_17, Kels_17, SerialPhiller_17,


## Summary by start number:

Start 4:

- Found in 38 of 41 ( $92.7 \%$ ) of genes in pham
- Manual Annotations of this start: 1 of 40
- Called $2.6 \%$ of time when present
- Phage (with cluster) where this start called: Taj14_19 (AN),

Start 5:

- Found in 38 of 41 ( $92.7 \%$ ) of genes in pham
- Manual Annotations of this start: 3 of 40
- Called $10.5 \%$ of time when present
- Phage (with cluster) where this start called: Arby_19 (AN), Courtney3_19 (AN),

Saphira_20 (AN), Sourignavong_20 (AN),
Start 6:

- Found in 38 of 41 ( $92.7 \%$ ) of genes in pham
- Manual Annotations of this start: 25 of 40
- Called $65.8 \%$ of time when present
- Phage (with cluster) where this start called: Azathoth_19 (AN), CGermain_19 (AN), Chestnut_19 (AN), Copper_19 (AN), Dewayne_19 (AN), Guntur_19 (AN), Hunnie_19 (AN), Inspire2_19 (AN), KylieMac_20 (AN), Link_19 (AN), Lore_19 (AN), Maggie_19 (AN), Mariposā 19 (AN), Massimo_19 (AN), Moloch_19 (AN), Muttlie_19 (AN), Prospero_19 (AN), Ronnie_19 (AN), Seume_19 (AN), StewieGriff_19 (AN), Stratus_19 (AN), TinoCrisci_19 (AN), Toulouse_18 (AN), TymAbreu_19 (AN), Yank_19 (AN),

Start 7:

- Found in 41 of 41 ( $100.0 \%$ ) of genes in pham
- Manual Annotations of this start: 11 of 40
- Called $26.8 \%$ of time when present
- Phage (with cluster) where this start called: Arielagos 17 (AN), Blair_19 (AN), Decurro_19 (AN), Elkhorn_19 (AN), Jessica_20 (AN), Kels_17 (AN), Laila_21 (AN), LouisXIV_19 (AN), Sandmān_19 (AN), SerialPhiller_17 (AN̄), Swenson_19 (AN),


## Summary by clusters:

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

- Start number 4 was manually annotated 1 time for cluster AN.
- Start number 5 was manually annotated 3 times for cluster AN.
- Start number 6 was manually annotated 25 times for cluster AN.
- Start number 7 was manually annotated 11 times for cluster AN.


## Gene Information:

Gene: Arby_19 Start: 12875, Stop: 13153, Start Num: 5
Candidate Starts for Arby_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), (8, 12932), (9, 13013), (11, 13076), (12, 13082), (13, 13085), (16, 13130),

Gene: Arielagos_17 Start: 12419, Stop: 12694, Start Num: 7
Candidate Starts for Arielagos_17:
(1, 12308), (2, 12368), (Start: 7 @12419 has 11 MA's), (11, 12620), (14, 12632),
Gene: Azathoth_19 Start: 12887, Stop: 13153, Start Num: 6
Candidate Starts for Azathoth_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), (8, 12932), (9, 13013), (11, 13076), (12, 13082), (13, 13085), (16, 13130),

Gene: Blair_19 Start: 12893, Stop: 13150, Start Num: 7
Candidate Starts for Blair_19:
(Start: 4 @12869 has 1 MA's), (Start: 5 @12872 has 3 MA's), (Start: 6 @12884 has 25 MA's), (Start: 7 @12893 has 11 MA's), (10, 13049), (11, 13073), (12, 13079), (13, 13082), (15, 13115), (16, 13127),

Gene: CGermain_19 Start: 12887, Stop: 13153, Start Num: 6
Candidate Starts for CGermain_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), ( 8,12932 ), ( 9,13013 ), (11, 13076), (12, 13082), ( 13,13085 ), (16, 13130),

Gene: Chestnut_19 Start: 12887, Stop: 13153, Start Num: 6
Candidate Starts for Chestnut_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), ( 8,12932 ), ( 9,13013 ), (11, 13076), (12, 13082), ( 13,13085 ), (16, 13130),

Gene: Copper_19 Start: 12887, Stop: 13153, Start Num: 6 Candidate Starts for Copper_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), (8, 12932), (9, 13013), (11, 13076), (12, 13082), (13, 13085), (16, 13130),

Gene: Courtney3_19 Start: 12875, Stop: 13153, Start Num: 5
Candidate Starts for Courtney3_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), (8, 12932), (9, 13013), (11, 13076), (12, 13082), (13, 13085), (16, 13130),

Gene: Decurro_19 Start: 12896, Stop: 13153, Start Num: 7
Candidate Starts for Decurro_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), (9, 13013), (11, 13076), (12, 13082), (13, 13085), (16, 13130),

Gene: Dewayne_19 Start: 12887, Stop: 13153, Start Num: 6 Candidate Starts for Dewayne_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), ( 8,12932 ), ( 9,13013 ), (11, 13076), (12, 13082), ( 13,13085 ), ( 16,13130 ),

Gene: Elkhorn_19 Start: 12893, Stop: 13150, Start Num: 7
Candidate Starts for Elkhorn_19:
(Start: 4 @12869 has 1 MA's), (Start: 5 @12872 has 3 MA's), (Start: 6 @12884 has 25 MA's), (Start: 7 @12893 has 11 MA's), (10, 13049), (11, 13073), (12, 13079), (13, 13082), (15, 13115), (16, 13127),

Gene: Guntur_19 Start: 12887, Stop: 13153, Start Num: 6 Candidate Starts for Guntur_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), (8, 12932), (9, 13013), (11, 13076), (12, 13082), (13, 13085), (16, 13130),

Gene: Hunnie_19 Start: 12887, Stop: 13153, Start Num: 6
Candidate Starts for Hunnie_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), (8, 12932), (9, 13013), (11, 13076), (12, 13082), (13, 13085), (16, 13130),

Gene: Inspire2_19 Start: 12887, Stop: 13153, Start Num: 6
Candidate Starts for Inspire2_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), (8, 12932), (9, 13013), (11, 13076), (12, 13082), (13, 13085), (16, 13130),

Gene: Jessica_20 Start: 12896, Stop: 13153, Start Num: 7 Candidate Starts for Jessica_20:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), (8, 12932), (9, 13013), (11, 13076), (12, 13082), (13, 13085), (16, 13130),

Gene: Kels_17 Start: 12359, Stop: 12631, Start Num: 7
Candidate Starts for Kels_17:
(2, 12308), (3, 12332), (Start: 7 @12359 has 11 MA's), (11, 12557),
Gene: KylieMac_20 Start: 12871, Stop: 13137, Start Num: 6
Candidate Starts for KylieMac_20:
(Start: 4 @12856 has 1 MA's), (Start: 5 @12859 has 3 MA's), (Start: 6 @12871 has 25 MA's), (Start: 7 @12880 has 11 MA's), (10, 13036), (11, 13060), (12, 13066), (13, 13069), (15, 13102), (16, 13114),

Gene: Laila_21 Start: 12893, Stop: 13150, Start Num: 7
Candidate Starts for Laila_21:
(Start: 4 @12869 has 1 MA's), (Start: 5 @12872 has 3 MA's), (Start: 6 @12884 has 25 MA's), (Start: 7 @12893 has 11 MA's), (10, 13049), (11, 13073), (12, 13079), (13, 13082), (15, 13115), (16, 13127),

Gene: Link_19 Start: 12884, Stop: 13150, Start Num: 6
Candidate Starts for Link_19:
(Start: 4 @12869 has 1 MA's), (Start: 5 @12872 has 3 MA's), (Start: 6 @12884 has 25 MA's), (Start: 7 @12893 has 11 MA's), (9, 13010), (11, 13073), (12, 13079), (13, 13082), (16, 13127),

Gene: Lore_19 Start: 12884, Stop: 13150, Start Num: 6
Candidate Starts for Lore_19:
(Start: 4 @12869 has 1 MA's), (Start: 5 @12872 has 3 MA's), (Start: 6 @12884 has 25 MA's), (Start: 7 @12893 has 11 MA's), (10, 13049), (11, 13073), (12, 13079), (13, 13082), (15, 13115), (16, 13127),

Gene: LouisXIV_19 Start: 12896, Stop: 13153, Start Num: 7
Candidate Starts for LouisXIV_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), (8, 12932), (9, 13013), (11, 13076), (12, 13082), (13, 13085), (16, 13130),

Gene: Maggie_19 Start: 12887, Stop: 13153, Start Num: 6
Candidate Starts for Maggie_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), (8, 12932), (9, 13013), (11, 13076), (12, 13082), (13, 13085), (16, 13130),

Gene: Mariposa_19 Start: 12887, Stop: 13153, Start Num: 6

Candidate Starts for Mariposa_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), ( 8,12932 ), ( 9,13013 ), (11, 13076), (12, 13082), ( 13,13085 ), (16, 13130),

Gene: Massimo_19 Start: 12887, Stop: 13153, Start Num: 6
Candidate Starts for Massimo_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), (8, 12932), (9, 13013), (11, 13076), (12, 13082), (13, 13085), (16, 13130),

Gene: Moloch_19 Start: 12961, Stop: 13227, Start Num: 6
Candidate Starts for Moloch_19:
(Start: 4 @12946 has 1 MA's), (Start: 5 @12949 has 3 MA's), (Start: 6 @12961 has 25 MA's), (Start: 7 @12970 has 11 MA's), ( 8,13006 ), ( 9,13087 ), (11, 13150), (12, 13156), (13, 13159), (16, 13204),

Gene: Muttlie_19 Start: 12887, Stop: 13153, Start Num: 6
Candidate Starts for Muttlie_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), ( 9,13013 ), (11, 13076), (12, 13082), ( 13,13085 ), ( 16,13130 ),

Gene: Prospero_19 Start: 12887, Stop: 13153, Start Num: 6
Candidate Starts for Prospero_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), (8, 12932), (9, 13013), (11, 13076), (12, 13082), (13, 13085), (16, 13130),

Gene: Ronnie_19 Start: 12887, Stop: 13153, Start Num: 6 Candidate Starts for Ronnie_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), (8, 12932), (9, 13013), (11, 13076), (12, 13082), (13, 13085), (16, 13130),

Gene: Sandman_19 Start: 12970, Stop: 13227, Start Num: 7
Candidate Starts for Sandman_19:
(Start: 4 @12946 has 1 MA's), (Start: 5 @12949 has 3 MA's), (Start: 6 @12961 has 25 MA's), (Start: 7 @12970 has 11 MA's), ( 8,13006 ), ( 9,13087 ), (11, 13150), (12, 13156), ( 13,13159 ), (16, 13204),

Gene: Saphira_20 Start: 12874, Stop: 13152, Start Num: 5
Candidate Starts for Saphira_20:
(Start: 4 @12871 has 1 MA's), (Start: 5 @12874 has 3 MA's), (Start: 6 @12886 has 25 MA's), (Start: 7 @12895 has 11 MA's), (10, 13051), (12, 13081), (13, 13084), (16, 13129),

Gene: SerialPhiller_17 Start: 12419, Stop: 12694, Start Num: 7
Candidate Starts for SerialPhiller_17:
(1, 12308), (2, 12368), (Start: 7 @12419 has 11 MA's), (11, 12620), (14, 12632),
Gene: Seume_19 Start: 12682, Stop: 12948, Start Num: 6
Candidate Starts for Seume_19:
(Start: 4 @12667 has 1 MA's), (Start: 5 @12670 has 3 MA's), (Start: 6 @12682 has 25 MA's), (Start: 7 @12691 has 11 MA's), ( 8,12727 ), (9, 12808), (11, 12871), (12, 12877), (13, 12880), (16, 12925),

Gene: Sourignavong_20 Start: 12976, Stop: 13254, Start Num: 5
Candidate Starts for Sourignavong_20:
(Start: 4 @12973 has 1 MA's), (Start: 5 @12976 has 3 MA's), (Start: 6 @12988 has 25 MA's), (Start: 7 @12997 has 11 MA's), ( 8,13033 ), ( 9,13114 ), (11, 13177), (12, 13183), ( 13,13186 ), (16, 13231),

Gene: StewieGriff_19 Start: 12884, Stop: 13150, Start Num: 6
Candidate Starts for StewieGriff_19:
(Start: 4 @12869 has 1 MA's), (STtart: 5 @12872 has 3 MA's), (Start: 6 @12884 has 25 MA's), (Start: 7 @12893 has 11 MA's), (10, 13049), (11, 13073), (12, 13079), (13, 13082), (15, 13115), (16, 13127),

Gene: Stratus_19 Start: 12961, Stop: 13227, Start Num: 6
Candidate Starts for Stratus_19:
(Start: 4 @12946 has 1 MA's), (Start: 5 @12949 has 3 MA's), (Start: 6 @12961 has 25 MA's), (Start: 7 @12970 has 11 MA's), ( 8,13006 ), ( 9,13087 ), (11, 13150), (12, 13156), (13, 13159), (16, 13204),

Gene: Swenson_19 Start: 13017, Stop: 13274, Start Num: 7
Candidate Starts for Swenson_19:
(Start: 4 @12993 has 1 MA's), (Start: 5 @12996 has 3 MA's), (Start: 6 @13008 has 25 MA's), (Start: 7 @13017 has 11 MA's), (10, 13173), (12, 13203), (13, 13206), (16, 13251),

Gene: Taj14_19 Start: 12868, Stop: 13149, Start Num: 4
Candidate Starts for Taj14_19:
(Start: 4 @12868 has 1 M $\bar{A}$ 's), (Start: 5 @12871 has 3 MA's), (Start: 6 @12883 has 25 MA's), (Start: 7 @12892 has 11 MA's), (10, 13048), (12, 13078), (13, 13081), (16, 13126),

Gene: TinoCrisci_19 Start: 12887, Stop: 13153, Start Num: 6
Candidate Starts for TinoCrisci_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), (8, 12932), (9, 13013), (11, 13076), (12, 13082), (13, 13085), (16, 13130),

Gene: Toulouse_18 Start: 12682, Stop: 12948, Start Num: 6
Candidate Starts for Toulouse_18:
(Start: 4 @12667 has 1 MA's), (Start: 5 @12670 has 3 MA's), (Start: 6 @12682 has 25 MA's), (Start: 7 @12691 has 11 MA's), ( 8,12727 ), ( 9,12808 ), (11, 12871), (12, 12877), (13, 12880), (16, 12925),

Gene: TymAbreu_19 Start: 12887, Stop: 13153, Start Num: 6
Candidate Starts for TymAbreu_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), (8, 12932), (9, 13013), (11, 13076), (12, 13082), (13, 13085), (16, 13130),

Gene: Yank_19 Start: 12887, Stop: 13153, Start Num: 6
Candidate Starts for Yank_19:
(Start: 4 @12872 has 1 MA's), (Start: 5 @12875 has 3 MA's), (Start: 6 @12887 has 25 MA's), (Start: 7 @12896 has 11 MA's), (9, 13013), (11, 13076), (12, 13082), (13, 13085), (16, 13130),

