



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 276304 Report

This analysis was run 02/07/26 on database version 634.

Pham number 276304 has 47 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Zapato\_19
- Track 2 : Paschalīs\_21, Phorgeous\_21, PierreOrion\_22, Piperis\_22, Quhwah\_24, Antares\_22, Honeyfin\_23, Scumberland\_23
- Track 3 : PhedwardCullen\_20
- Track 4 : Shrubaron\_22, Tyumbra\_20, RobsFeet\_23, Fireman\_22
- Track 5 : Shotgun\_21, Hermeonysus\_21, Gina\_22, Rockwell\_21, CrazyRich\_21, LittleFortune\_23, Lucretia\_22, Jefe\_22, Savannah\_21, KaiHaiDragon\_22, Ganandorf\_21, Onika\_21, BeagleBug\_21, Yeti\_22, Selwyn23\_23, Ramiel05\_21, Cranjis\_23, BrazzalePHS\_21, Glorp\_23, Kowalski\_21, Jollipop\_22, Teamocil\_22, EarickHC\_22, Pulchra\_23, PiperSansNom\_22
- Track 6 : Jayden\_22
- Track 7 : Metamorphoo\_22, ClearAsMud\_24, SirFrank\_21, NoodlelyBoi\_21
- Track 8 : Merry\_, Sunny\_
- Track 9 : Crisis\_23

### ***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 29 of the 41 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BeagleBug\_21, BrazzalePHS\_21, ClearAsMud\_24, Cranjis\_23, CrazyRich\_21, Crisis\_23, EarickHC\_22, Ganandorf\_21, Gina\_22, Glorp\_23, Hermeonysus\_21, Jefe\_22, Jollipop\_22, KaiHaiDragon\_22, Kowalski\_21, LittleFortune\_23, Lucretia\_22, Merry\_, Metamorphoo\_22, NoodlelyBoi\_21, Onika\_21, PiperSansNom\_22, Pulchra\_23, Ramiel05\_21, Rockwell\_21, Savannah\_21, Selwyn23\_23, Shotgun\_21, SirFrank\_21, Sunny\_, Teamocil\_22, Yeti\_22, Zapato\_19,

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

- Fireman\_22, Jayden\_22, PhedwardCullen\_20, RobsFeet\_23, Shrubaron\_22, Tyumbra\_20,

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

- Antares\_22, Honeyfin\_23, Paschalis\_21, Phorgeous\_21, PierreOrion\_22, Piperis\_22, Quhwah\_24, Scumberland\_23,

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

#### **Start 2:**

- Found in 2 of 47 ( 4.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: PhedwardCullen\_20 (EC),

#### **Start 3:**

- Found in 39 of 47 ( 83.0% ) of genes in pham
- Manual Annotations of this start: 29 of 41
- Called 84.6% of time when present
- Phage (with cluster) where this start called: BeagleBug\_21 (EC), BrazzalePHS\_21 (EC), ClearAsMud\_24 (EC), Cranjis\_23 (EC), CrazyRich\_21 (EC), Crisis\_23 (EC), EarickHC\_22 (EC), Ganandorf\_21 (EC), Gina\_22 (EC), Glorp\_23 (EC), Hermeonysus\_21 (EC), Jefe\_22 (EC), Jollipop\_22 (EC), KaiHaiDragon\_22 (EC), Kowalski\_21 (EC), LittleFortune\_23 (EC), Lucretia\_22 (EC), Merry\_ (EC), Metamorphoo\_22 (EC), NoodlelyBoi\_21 (EC), Onika\_21 (EC), PiperSansNom\_22 (EC), Pulchra\_23 (EC), Ramiel05\_21 (EC), Rockwell\_21 (EC), Savannah\_21 (EC), Selwyn23\_23 (EC), Shotgun\_21 (EC), SirFrank\_21 (EC), Sunny\_ (EC), Teamocil\_22 (EC), Yeti\_22 (EC), Zapato\_19 (EC),

#### **Start 4:**

- Found in 8 of 47 ( 17.0% ) of genes in pham
- Manual Annotations of this start: 7 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antares\_22 (EC), Honeyfin\_23 (EC), Paschalis\_21 (EC), Phorgeous\_21 (EC), PierreOrion\_22 (EC), Piperis\_22 (EC), Quhwah\_24 (EC), Scumberland\_23 (EC),

#### **Start 5:**

- Found in 11 of 47 ( 23.4% ) of genes in pham
- Manual Annotations of this start: 5 of 41
- Called 45.5% of time when present
- Phage (with cluster) where this start called: Fireman\_22 (EC), Jayden\_22 (EC), RobsFeet\_23 (EC), Shrubaron\_22 (EC), Tyrumbra\_20 (EC),

### **Summary by clusters:**

There is one cluster represented in this pham: EC

#### **Info for manual annotations of cluster EC:**

- Start number 3 was manually annotated 29 times for cluster EC.
- Start number 4 was manually annotated 7 times for cluster EC.
- Start number 5 was manually annotated 5 times for cluster EC.

### **Gene Information:**

Gene: Antares\_22 Start: 10789, Stop: 10881, Start Num: 4  
Candidate Starts for Antares\_22:  
(Start: 4 @10789 has 7 MA's),

Gene: BeagleBug\_21 Start: 10561, Stop: 10659, Start Num: 3  
Candidate Starts for BeagleBug\_21:  
(Start: 3 @10561 has 29 MA's),

Gene: BrazzalePHS\_21 Start: 10575, Stop: 10673, Start Num: 3  
Candidate Starts for BrazzalePHS\_21:  
(Start: 3 @10575 has 29 MA's),

Gene: ClearAsMud\_24 Start: 11297, Stop: 11395, Start Num: 3  
Candidate Starts for ClearAsMud\_24:  
(Start: 3 @11297 has 29 MA's), (Start: 5 @11309 has 5 MA's), (6, 11351),

Gene: Cranjis\_23 Start: 10738, Stop: 10836, Start Num: 3  
Candidate Starts for Cranjis\_23:  
(Start: 3 @10738 has 29 MA's),

Gene: CrazyRich\_21 Start: 10548, Stop: 10646, Start Num: 3  
Candidate Starts for CrazyRich\_21:  
(Start: 3 @10548 has 29 MA's),

Gene: Crisis\_23 Start: 10532, Stop: 10630, Start Num: 3  
Candidate Starts for Crisis\_23:  
(2, 10517), (Start: 3 @10532 has 29 MA's),

Gene: EarickHC\_22 Start: 10459, Stop: 10557, Start Num: 3  
Candidate Starts for EarickHC\_22:  
(Start: 3 @10459 has 29 MA's),

Gene: Fireman\_22 Start: 10210, Stop: 10299, Start Num: 5  
Candidate Starts for Fireman\_22:  
(Start: 3 @10198 has 29 MA's), (Start: 5 @10210 has 5 MA's), (6, 10252),

Gene: Ganandorf\_21 Start: 10595, Stop: 10693, Start Num: 3  
Candidate Starts for Ganandorf\_21:  
(Start: 3 @10595 has 29 MA's),

Gene: Gina\_22 Start: 9728, Stop: 9826, Start Num: 3  
Candidate Starts for Gina\_22:  
(Start: 3 @9728 has 29 MA's),

Gene: Glorp\_23 Start: 10597, Stop: 10695, Start Num: 3  
Candidate Starts for Glorp\_23:  
(Start: 3 @10597 has 29 MA's),

Gene: Hermeonysus\_21 Start: 10465, Stop: 10563, Start Num: 3  
Candidate Starts for Hermeonysus\_21:  
(Start: 3 @10465 has 29 MA's),

Gene: Honeyfin\_23 Start: 10786, Stop: 10878, Start Num: 4

Candidate Starts for Honeyfin\_23:

(Start: 4 @10786 has 7 MA's),

Gene: Jayden\_22 Start: 10133, Stop: 10222, Start Num: 5

Candidate Starts for Jayden\_22:

(1, 10070), (Start: 3 @10121 has 29 MA's), (Start: 5 @10133 has 5 MA's), (6, 10175),

Gene: Jefe\_22 Start: 10518, Stop: 10616, Start Num: 3

Candidate Starts for Jefe\_22:

(Start: 3 @10518 has 29 MA's),

Gene: Jollipop\_22 Start: 10866, Stop: 10964, Start Num: 3

Candidate Starts for Jollipop\_22:

(Start: 3 @10866 has 29 MA's),

Gene: KaiHaiDragon\_22 Start: 10459, Stop: 10557, Start Num: 3

Candidate Starts for KaiHaiDragon\_22:

(Start: 3 @10459 has 29 MA's),

Gene: Kowalski\_21 Start: 10575, Stop: 10673, Start Num: 3

Candidate Starts for Kowalski\_21:

(Start: 3 @10575 has 29 MA's),

Gene: LittleFortune\_23 Start: 10822, Stop: 10920, Start Num: 3

Candidate Starts for LittleFortune\_23:

(Start: 3 @10822 has 29 MA's),

Gene: Lucretia\_22 Start: 10512, Stop: 10610, Start Num: 3

Candidate Starts for Lucretia\_22:

(Start: 3 @10512 has 29 MA's),

Gene: Merry\_ Start: 10556, Stop: 10660, Start Num: 3

Candidate Starts for Merry\_:

(Start: 3 @10556 has 29 MA's), (Start: 5 @10568 has 5 MA's),

Gene: Metamorphoo\_22 Start: 10184, Stop: 10285, Start Num: 3

Candidate Starts for Metamorphoo\_22:

(Start: 3 @10184 has 29 MA's), (Start: 5 @10196 has 5 MA's), (6, 10238),

Gene: NoodlelyBoi\_21 Start: 10604, Stop: 10702, Start Num: 3

Candidate Starts for NoodlelyBoi\_21:

(Start: 3 @10604 has 29 MA's), (Start: 5 @10616 has 5 MA's), (6, 10658),

Gene: Onika\_21 Start: 10548, Stop: 10646, Start Num: 3

Candidate Starts for Onika\_21:

(Start: 3 @10548 has 29 MA's),

Gene: Paschalis\_21 Start: 10570, Stop: 10662, Start Num: 4

Candidate Starts for Paschalis\_21:

(Start: 4 @10570 has 7 MA's),

Gene: PhedwardCullen\_20 Start: 10293, Stop: 10406, Start Num: 2

Candidate Starts for PhedwardCullen\_20:

(2, 10293), (Start: 3 @10308 has 29 MA's),

Gene: Phorgeous\_21 Start: 10422, Stop: 10514, Start Num: 4  
Candidate Starts for Phorgeous\_21:  
(Start: 4 @10422 has 7 MA's),

Gene: PierreOrion\_22 Start: 10725, Stop: 10817, Start Num: 4  
Candidate Starts for PierreOrion\_22:  
(Start: 4 @10725 has 7 MA's),

Gene: PiperSansNom\_22 Start: 10868, Stop: 10966, Start Num: 3  
Candidate Starts for PiperSansNom\_22:  
(Start: 3 @10868 has 29 MA's),

Gene: Piperis\_22 Start: 10547, Stop: 10639, Start Num: 4  
Candidate Starts for Piperis\_22:  
(Start: 4 @10547 has 7 MA's),

Gene: Pulchra\_23 Start: 10940, Stop: 11038, Start Num: 3  
Candidate Starts for Pulchra\_23:  
(Start: 3 @10940 has 29 MA's),

Gene: Quhwah\_24 Start: 10925, Stop: 11017, Start Num: 4  
Candidate Starts for Quhwah\_24:  
(Start: 4 @10925 has 7 MA's),

Gene: Ramiel05\_21 Start: 10575, Stop: 10673, Start Num: 3  
Candidate Starts for Ramiel05\_21:  
(Start: 3 @10575 has 29 MA's),

Gene: RobsFeet\_23 Start: 10477, Stop: 10566, Start Num: 5  
Candidate Starts for RobsFeet\_23:  
(Start: 3 @10465 has 29 MA's), (Start: 5 @10477 has 5 MA's), (6, 10519),

Gene: Rockwell\_21 Start: 10575, Stop: 10673, Start Num: 3  
Candidate Starts for Rockwell\_21:  
(Start: 3 @10575 has 29 MA's),

Gene: Savannah\_21 Start: 10599, Stop: 10697, Start Num: 3  
Candidate Starts for Savannah\_21:  
(Start: 3 @10599 has 29 MA's),

Gene: Scumberland\_23 Start: 10795, Stop: 10887, Start Num: 4  
Candidate Starts for Scumberland\_23:  
(Start: 4 @10795 has 7 MA's),

Gene: Selwyn23\_23 Start: 10768, Stop: 10866, Start Num: 3  
Candidate Starts for Selwyn23\_23:  
(Start: 3 @10768 has 29 MA's),

Gene: Shotgun\_21 Start: 10397, Stop: 10495, Start Num: 3  
Candidate Starts for Shotgun\_21:  
(Start: 3 @10397 has 29 MA's),

Gene: Shrubaron\_22 Start: 10112, Stop: 10201, Start Num: 5  
Candidate Starts for Shrubaron\_22:  
(Start: 3 @10100 has 29 MA's), (Start: 5 @10112 has 5 MA's), (6, 10154),

Gene: SirFrank\_21 Start: 10454, Stop: 10552, Start Num: 3  
Candidate Starts for SirFrank\_21:  
(Start: 3 @10454 has 29 MA's), (Start: 5 @10466 has 5 MA's), (6, 10508),

Gene: Sunny\_ Start: 10556, Stop: 10660, Start Num: 3  
Candidate Starts for Sunny\_:  
(Start: 3 @10556 has 29 MA's), (Start: 5 @10568 has 5 MA's),

Gene: Teamocil\_22 Start: 9728, Stop: 9826, Start Num: 3  
Candidate Starts for Teamocil\_22:  
(Start: 3 @9728 has 29 MA's),

Gene: Tyrumbra\_20 Start: 9553, Stop: 9642, Start Num: 5  
Candidate Starts for Tyrumbra\_20:  
(Start: 3 @9541 has 29 MA's), (Start: 5 @9553 has 5 MA's), (6, 9595),

Gene: Yeti\_22 Start: 10571, Stop: 10669, Start Num: 3  
Candidate Starts for Yeti\_22:  
(Start: 3 @10571 has 29 MA's),

Gene: Zapato\_19 Start: 9771, Stop: 9869, Start Num: 3  
Candidate Starts for Zapato\_19:  
(Start: 3 @9771 has 29 MA's), (6, 9822), (7, 9825),