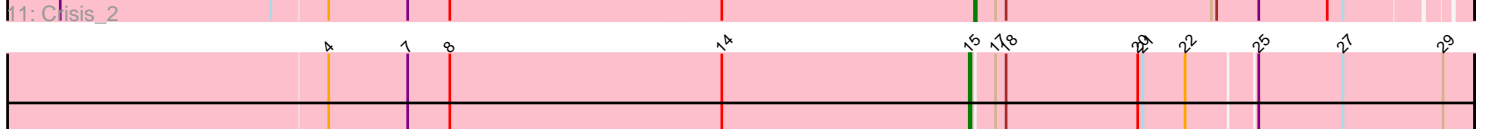
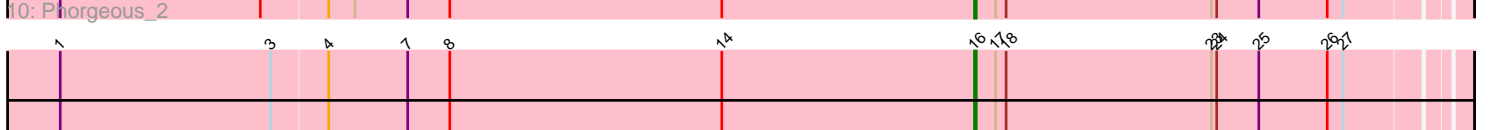
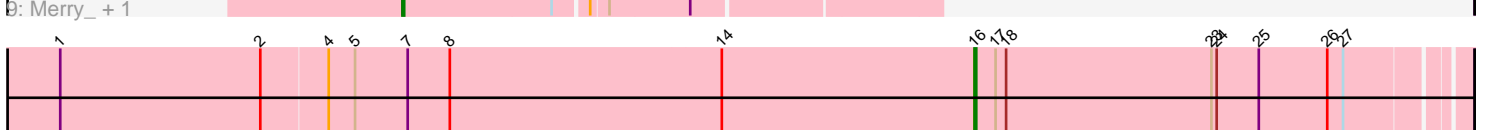
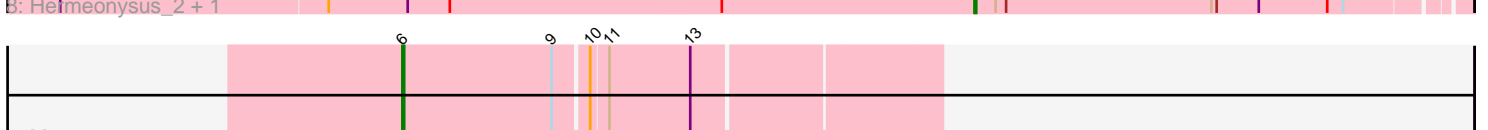
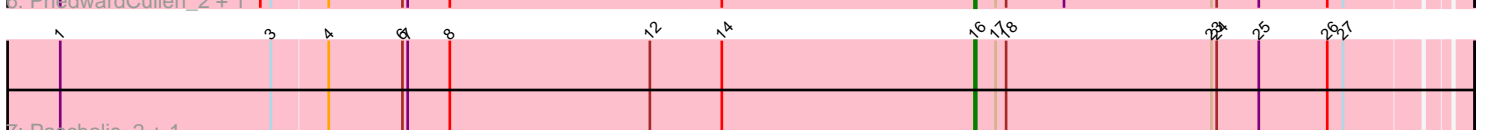
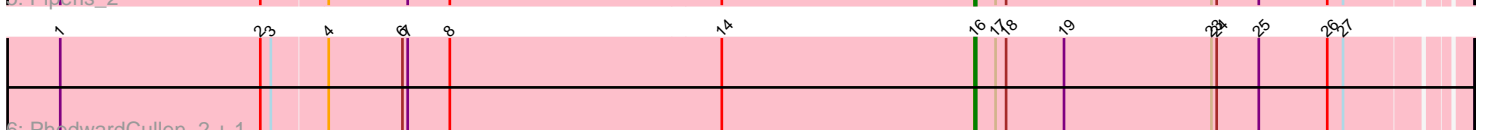
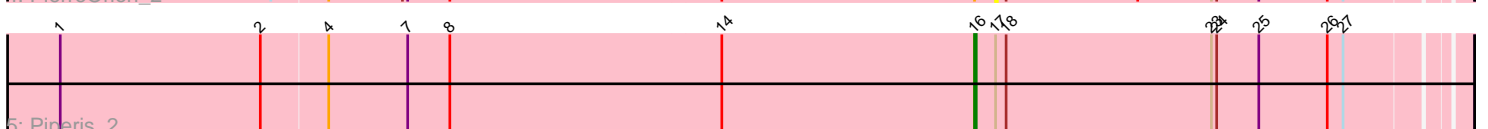
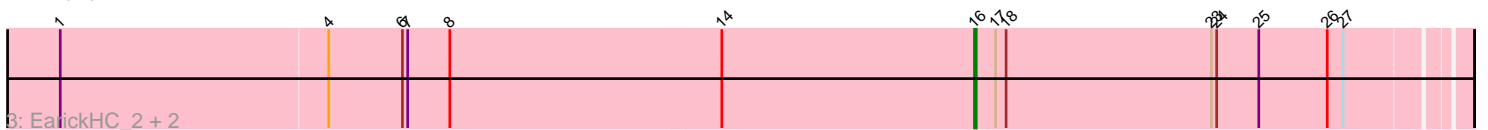
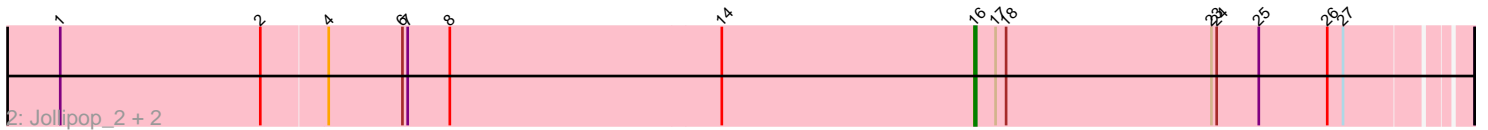
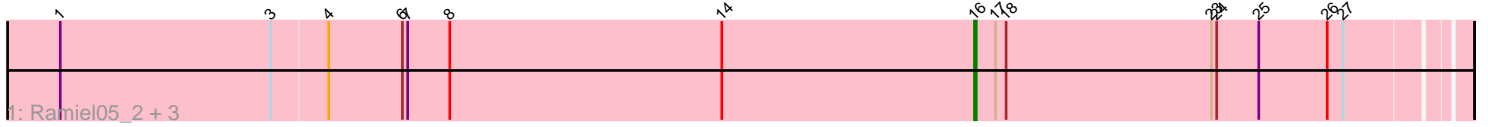


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 309181 Report

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

Pham number 309181 has 24 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Ramiel05\_2, Kowalski\_2, BrazzalePHS\_2, BeagleBug\_2
- Track 2 : Jollipop\_2, Shotgun\_2, Rockwell\_2
- Track 3 : EarickHC\_2, KaiHaiDragon\_2, Yeti\_2
- Track 4 : PierreOrion\_2
- Track 5 : Piperis\_2
- Track 6 : PhedwardCullen\_2, CrazyRich\_2
- Track 7 : Paschalis\_2, Cranjis\_2
- Track 8 : Hermeonysus\_2, Onika\_2
- Track 9 : Merry\_, Sunny\_
- Track 10 : Phorgeous\_2
- Track 11 : Crisis\_2
- Track 12 : NoodlelyBoi\_2
- Track 13 : Glorp\_2

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

The start number called the most often in the published annotations is 16, it was called in 19 of the 22 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BeagleBug\_2, BrazzalePHS\_2, Cranjis\_2, CrazyRich\_2, Crisis\_2, EarickHC\_2, Glorp\_2, Hermeonysus\_2, Jollipop\_2, KaiHaiDragon\_2, Kowalski\_2, Onika\_2, Paschalis\_2, PhedwardCullen\_2, Phorgeous\_2, Piperis\_2, Ramiel05\_2, Rockwell\_2, Shotgun\_2, Yeti\_2,

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

- PierreOrion\_2,

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

- Merry\_, NoodlelyBoi\_2, Sunny\_,

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

Start 6:

- Found in 18 of 24 ( 75.0% ) of genes in pham
- Manual Annotations of this start: 2 of 22
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Merry\_ (EC), Sunny\_ (EC),

Start 15:

- Found in 1 of 24 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NoodlelyBoi\_2 (EC),

Start 16:

- Found in 21 of 24 ( 87.5% ) of genes in pham
- Manual Annotations of this start: 19 of 22
- Called 95.2% of time when present
- Phage (with cluster) where this start called: BeagleBug\_2 (EC), BrazzalePHS\_2 (EC), Cranjis\_2 (EC), CrazyRich\_2 (EC), Crisis\_2 (EC), EarickHC\_2 (EC), Glorp\_2 (EC), Hermeonysus\_2 (EC), Jollipop\_2 (EC), KaiHaiDragon\_2 (EC), Kowalski\_2 (EC), Onika\_2 (EC), Paschalis\_2 (EC), PhedwardCullen\_2 (EC), Phorgeous\_2 (EC), Piperis\_2 (EC), Ramiel05\_2 (EC), Rockwell\_2 (EC), Shotgun\_2 (EC), Yeti\_2 (EC),

Start 17:

- Found in 22 of 24 ( 91.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 4.5% of time when present
- Phage (with cluster) where this start called: PierreOrion\_2 (EC),

### **Summary by clusters:**

There is one cluster represented in this pham: EC

Info for manual annotations of cluster EC:

- Start number 6 was manually annotated 2 times for cluster EC.
- Start number 15 was manually annotated 1 time for cluster EC.
- Start number 16 was manually annotated 19 times for cluster EC.

### **Gene Information:**

Gene: BeagleBug\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for BeagleBug\_2:

(1, 126), (3, 246), (4, 276), (Start: 6 @318 has 2 MA's), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: BrazzalePHS\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for BrazzalePHS\_2:

(1, 126), (3, 246), (4, 276), (Start: 6 @318 has 2 MA's), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: Cranjis\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for Cranjis\_2:

(1, 126), (3, 246), (4, 276), (Start: 6 @318 has 2 MA's), (7, 321), (8, 345), (12, 459), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: CrazyRich\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for CrazyRich\_2:

(1, 126), (2, 240), (3, 246), (4, 276), (Start: 6 @318 has 2 MA's), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (19, 693), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: Crisis\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for Crisis\_2:

(1, 126), (3, 246), (4, 276), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: EarickHC\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for EarickHC\_2:

(1, 126), (4, 276), (Start: 6 @318 has 2 MA's), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: Glorp\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for Glorp\_2:

(1, 126), (2, 240), (4, 276), (Start: 6 @318 has 2 MA's), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852), (28, 894),

Gene: Hermeonysus\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for Hermeonysus\_2:

(1, 126), (4, 276), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: Jollipop\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for Jollipop\_2:

(1, 126), (2, 240), (4, 276), (Start: 6 @318 has 2 MA's), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: KaiHaiDragon\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for KaiHaiDragon\_2:

(1, 126), (4, 276), (Start: 6 @318 has 2 MA's), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: Kowalski\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for Kowalski\_2:

(1, 126), (3, 246), (4, 276), (Start: 6 @318 has 2 MA's), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: Merry\_ Start: 950, Stop: 1240, Start Num: 6

Candidate Starts for Merry\_:

(Start: 6 @950 has 2 MA's), (9, 1034), (10, 1052), (11, 1061), (13, 1106),

Gene: NoodlelyBoi\_2 Start: 639, Stop: 917, Start Num: 15

Candidate Starts for NoodlelyBoi\_2:

(4, 276), (7, 321), (8, 345), (14, 498), (Start: 15 @639 has 1 MA's), (17, 651), (18, 657), (20, 732), (21, 735), (22, 759), (25, 795), (27, 843), (29, 900),

Gene: Onika\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for Onika\_2:

(1, 126), (4, 276), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: Paschalis\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for Paschalis\_2:

(1, 126), (3, 246), (4, 276), (Start: 6 @318 has 2 MA's), (7, 321), (8, 345), (12, 459), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: PhedwardCullen\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for PhedwardCullen\_2:

(1, 126), (2, 240), (3, 246), (4, 276), (Start: 6 @318 has 2 MA's), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (19, 693), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: Phorgeous\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for Phorgeous\_2:

(1, 126), (2, 240), (4, 276), (5, 291), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: PierreOrion\_2 Start: 654, Stop: 914, Start Num: 17

Candidate Starts for PierreOrion\_2:

(3, 246), (4, 276), (Start: 6 @318 has 2 MA's), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (20, 735), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: Piperis\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for Piperis\_2:

(1, 126), (2, 240), (4, 276), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: Ramiel05\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for Ramiel05\_2:

(1, 126), (3, 246), (4, 276), (Start: 6 @318 has 2 MA's), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: Rockwell\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for Rockwell\_2:

(1, 126), (2, 240), (4, 276), (Start: 6 @318 has 2 MA's), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: Shotgun\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for Shotgun\_2:

(1, 126), (2, 240), (4, 276), (Start: 6 @318 has 2 MA's), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),

Gene: Sunny\_ Start: 950, Stop: 1240, Start Num: 6

Candidate Starts for Sunny\_:

(Start: 6 @950 has 2 MA's), (9, 1034), (10, 1052), (11, 1061), (13, 1106),

Gene: Yeti\_2 Start: 642, Stop: 914, Start Num: 16

Candidate Starts for Yeti\_2:

(1, 126), (4, 276), (Start: 6 @318 has 2 MA's), (7, 321), (8, 345), (14, 498), (Start: 16 @642 has 19 MA's), (17, 654), (18, 660), (23, 777), (24, 780), (25, 804), (26, 843), (27, 852),