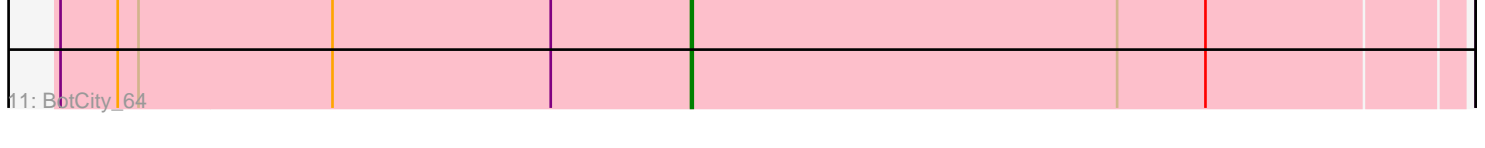
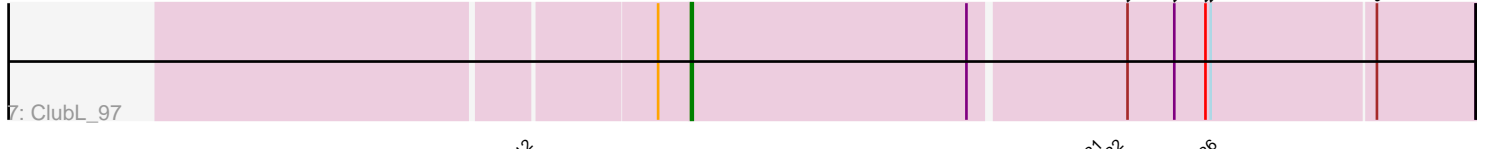
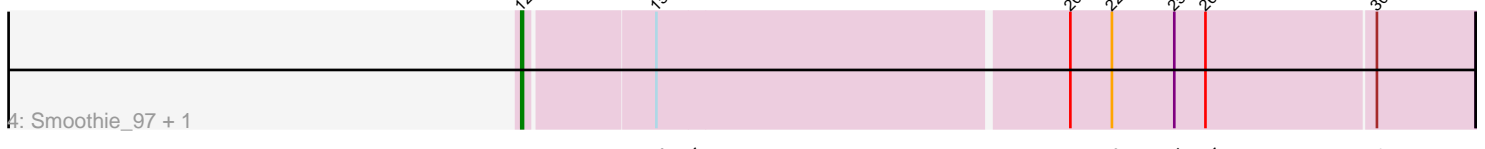
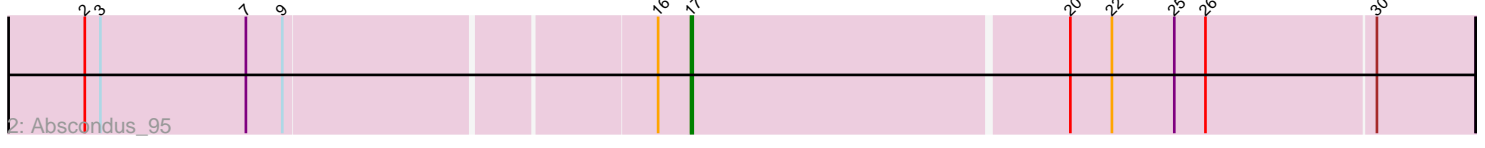
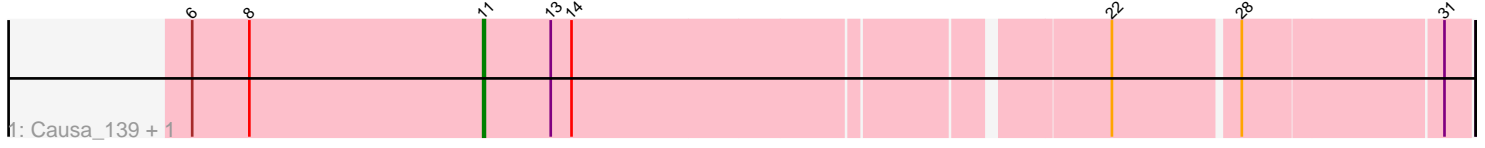


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 309357 Report

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

Pham number 309357 has 19 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Causa\_139, StAugustine\_137
- Track 2 : Abscondus\_95
- Track 3 : PhinkBoden\_95, Bachita\_98, Cucurbita\_97, Engineer\_97
- Track 4 : Smoothie\_97, Lozinak\_96
- Track 5 : Culver\_98
- Track 6 : Dusty\_94, Norvs\_98, Aphelion\_97, Miskis\_90
- Track 7 : ClubL\_97
- Track 8 : WilliamBoone\_98
- Track 9 : Toniann\_98
- Track 10 : Geeche\_95
- Track 11 : BotCity\_64

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

The start number called the most often in the published annotations is 17, it was called in 9 of the 18 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abscondus\_95, Aphelion\_97, BotCity\_64, ClubL\_97, Culver\_98, Dusty\_94, Geeche\_95, Miskis\_90, Norvs\_98, Toniann\_98,

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

- 

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

- Bachita\_98, Causa\_139, Cucurbita\_97, Engineer\_97, Lozinak\_96, PhinkBoden\_95, Smoothie\_97, StAugustine\_137, WilliamBoone\_98,

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

Start 11:

- Found in 2 of 19 ( 10.5% ) of genes in pham
- Manual Annotations of this start: 2 of 18
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Causa\_139 (AI), StAugustine\_137 (AI),

Start 12:

- Found in 7 of 19 ( 36.8% ) of genes in pham
- Manual Annotations of this start: 7 of 18
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bachita\_98 (CQ1), Cucurbita\_97 (CQ1), Engineer\_97 (CQ1), Lozinak\_96 (CQ1), PhinkBoden\_95 (CQ1), Smoothie\_97 (CQ1), WilliamBoone\_98 (CQ1),

Start 17:

- Found in 10 of 19 ( 52.6% ) of genes in pham
- Manual Annotations of this start: 9 of 18
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abscondus\_95 (CQ1), Aphelion\_97 (CQ1), BotCity\_64 (DN), ClubL\_97 (CQ1), Culver\_98 (CQ1), Dusty\_94 (CQ1), Geeche\_95 (CQ1), Miskis\_90 (CQ1), Norvs\_98 (CQ1), Toniann\_98 (CQ1),

### **Summary by clusters:**

There are 3 clusters represented in this pham: DN, AI, CQ1,

Info for manual annotations of cluster AI:

- Start number 11 was manually annotated 2 times for cluster AI.

Info for manual annotations of cluster CQ1:

- Start number 12 was manually annotated 7 times for cluster CQ1.
- Start number 17 was manually annotated 8 times for cluster CQ1.

Info for manual annotations of cluster DN:

- Start number 17 was manually annotated 1 time for cluster DN.

### **Gene Information:**

Gene: Abscondus\_95 Start: 58289, Stop: 58732, Start Num: 17

Candidate Starts for Abscondus\_95:

(2, 57953), (3, 57962), (7, 58046), (9, 58067), (16, 58271), (Start: 17 @58289 has 9 MA's), (20, 58502), (22, 58526), (25, 58562), (26, 58580), (30, 58676),

Gene: Aphelion\_97 Start: 59842, Stop: 60285, Start Num: 17

Candidate Starts for Aphelion\_97:

(Start: 17 @59842 has 9 MA's), (20, 60055), (22, 60079), (25, 60115), (26, 60133), (27, 60136), (30, 60229),

Gene: Bachita\_98 Start: 59410, Stop: 59943, Start Num: 12

Candidate Starts for Bachita\_98:

(Start: 12 @59410 has 7 MA's), (15, 59482), (18, 59605), (20, 59713), (22, 59737), (25, 59773), (26, 59791), (30, 59887),

Gene: BotCity\_64 Start: 40040, Stop: 40480, Start Num: 17

Candidate Starts for BotCity\_64:

(1, 39677), (4, 39710), (5, 39722), (10, 39833), (13, 39959), (Start: 17 @40040 has 9 MA's), (23, 40286), (26, 40337),

Gene: Causa\_139 Start: 82353, Stop: 81820, Start Num: 11

Candidate Starts for Causa\_139:

(6, 82521), (8, 82488), (Start: 11 @82353 has 2 MA's), (13, 82314), (14, 82302), (22, 82014), (28, 81945), (31, 81834),

Gene: ClubL\_97 Start: 58432, Stop: 58875, Start Num: 17

Candidate Starts for ClubL\_97:

(16, 58414), (Start: 17 @58432 has 9 MA's), (19, 58591), (24, 58678), (25, 58705), (26, 58723), (27, 58726), (30, 58819),

Gene: Cucurbita\_97 Start: 59917, Stop: 60450, Start Num: 12

Candidate Starts for Cucurbita\_97:

(Start: 12 @59917 has 7 MA's), (15, 59989), (18, 60112), (20, 60220), (22, 60244), (25, 60280), (26, 60298), (30, 60394),

Gene: Culver\_98 Start: 58332, Stop: 58775, Start Num: 17

Candidate Starts for Culver\_98:

(16, 58314), (Start: 17 @58332 has 9 MA's), (22, 58569), (25, 58605), (27, 58626), (30, 58719),

Gene: Dusty\_94 Start: 58348, Stop: 58791, Start Num: 17

Candidate Starts for Dusty\_94:

(Start: 17 @58348 has 9 MA's), (20, 58561), (22, 58585), (25, 58621), (26, 58639), (27, 58642), (30, 58735),

Gene: Engineer\_97 Start: 59383, Stop: 59916, Start Num: 12

Candidate Starts for Engineer\_97:

(Start: 12 @59383 has 7 MA's), (15, 59455), (18, 59578), (20, 59686), (22, 59710), (25, 59746), (26, 59764), (30, 59860),

Gene: Geeche\_95 Start: 58574, Stop: 59014, Start Num: 17

Candidate Starts for Geeche\_95:

(Start: 17 @58574 has 9 MA's), (19, 58733), (22, 58811), (25, 58847), (26, 58865), (27, 58868), (29, 58898),

Gene: Lozinak\_96 Start: 59221, Stop: 59754, Start Num: 12

Candidate Starts for Lozinak\_96:

(Start: 12 @59221 has 7 MA's), (15, 59293), (20, 59524), (22, 59548), (25, 59584), (26, 59602), (30, 59698),

Gene: Miskis\_90 Start: 58011, Stop: 58454, Start Num: 17

Candidate Starts for Miskis\_90:

(Start: 17 @58011 has 9 MA's), (20, 58224), (22, 58248), (25, 58284), (26, 58302), (27, 58305), (30, 58398),

Gene: Norvs\_98 Start: 59340, Stop: 59783, Start Num: 17

Candidate Starts for Norvs\_98:

(Start: 17 @59340 has 9 MA's), (20, 59553), (22, 59577), (25, 59613), (26, 59631), (27, 59634), (30, 59727),

Gene: PhinkBoden\_95 Start: 59011, Stop: 59544, Start Num: 12

Candidate Starts for PhinkBoden\_95:

(Start: 12 @59011 has 7 MA's), (15, 59083), (18, 59206), (20, 59314), (22, 59338), (25, 59374), (26, 59392), (30, 59488),

Gene: Smoothie\_97 Start: 59221, Stop: 59754, Start Num: 12

Candidate Starts for Smoothie\_97:

(Start: 12 @59221 has 7 MA's), (15, 59293), (20, 59524), (22, 59548), (25, 59584), (26, 59602), (30, 59698),

Gene: StAugustine\_137 Start: 83550, Stop: 83017, Start Num: 11

Candidate Starts for StAugustine\_137:

(6, 83718), (8, 83685), (Start: 11 @83550 has 2 MA's), (13, 83511), (14, 83499), (22, 83211), (28, 83142), (31, 83031),

Gene: Toniann\_98 Start: 59280, Stop: 59723, Start Num: 17

Candidate Starts for Toniann\_98:

(Start: 17 @59280 has 9 MA's), (19, 59439), (24, 59526), (25, 59553), (26, 59571), (27, 59574), (30, 59667),

Gene: WilliamBoone\_98 Start: 57962, Stop: 58489, Start Num: 12

Candidate Starts for WilliamBoone\_98:

(Start: 12 @57962 has 7 MA's), (21, 58277), (22, 58289), (26, 58343),