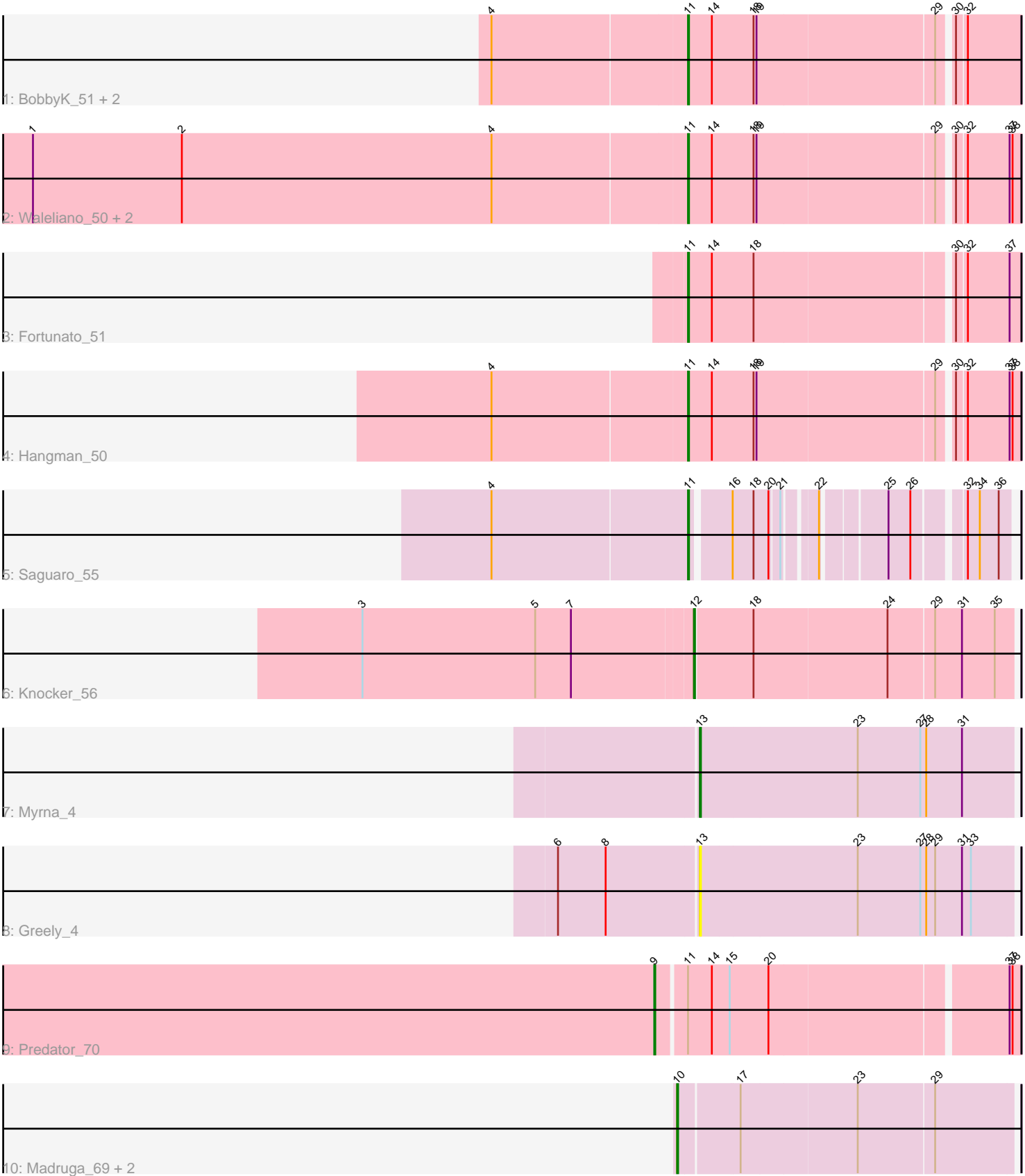


Pham 159470



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 159470 Report

This analysis was run 05/04/24 on database version 560.

Pham number 159470 has 16 members, 2 are drafts.

Phages represented in each track:

- Track 1 : BobbyK\_51, Frederick\_50, Mithril\_50
- Track 2 : Waleliano\_50, Zemanar\_51, BrownCNA\_52
- Track 3 : Fortunato\_51
- Track 4 : Hangman\_50
- Track 5 : Saguaro\_55
- Track 6 : Knocker\_56
- Track 7 : Myrna\_4
- Track 8 : Greely\_4
- Track 9 : Predator\_70
- Track 10 : Madruga\_69, Patience\_71, Labelle\_71

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

The start number called the most often in the published annotations is 11, it was called in 8 of the 14 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BobbyK\_51, BrownCNA\_52, Fortunato\_51, Frederick\_50, Hangman\_50, Mithril\_50, Saguaro\_55, Waleliano\_50, Zemanar\_51,

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

- Predator\_70,

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

- Greely\_4, Knocker\_56, Labelle\_71, Madruga\_69, Myrna\_4, Patience\_71,

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

Start 9:

- Found in 1 of 16 ( 6.2% ) of genes in pham
- Manual Annotations of this start: 1 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Predator\_70 (H1),

Start 10:

- Found in 3 of 16 ( 18.8% ) of genes in pham
- Manual Annotations of this start: 3 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Labelle\_71 (U), Madruga\_69 (U), Patience\_71 (U),

Start 11:

- Found in 10 of 16 ( 62.5% ) of genes in pham
- Manual Annotations of this start: 8 of 14
- Called 90.0% of time when present
- Phage (with cluster) where this start called: BobbyK\_51 (B4), BrownCNA\_52 (B4), Fortunato\_51 (B4), Frederick\_50 (B4), Hangman\_50 (B4), Mithril\_50 (B4), Saguaro\_55 (B7), Waleliano\_50 (B4), Zemanar\_51 (B4),

Start 12:

- Found in 1 of 16 ( 6.2% ) of genes in pham
- Manual Annotations of this start: 1 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Knocker\_56 (B9),

Start 13:

- Found in 2 of 16 ( 12.5% ) of genes in pham
- Manual Annotations of this start: 1 of 14
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Greely\_4 (C2), Myrna\_4 (C2),

### **Summary by clusters:**

There are 6 clusters represented in this pham: H1, B4, B7, U, C2, B9,

Info for manual annotations of cluster B4:

- Start number 11 was manually annotated 7 times for cluster B4.

Info for manual annotations of cluster B7:

- Start number 11 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B9:

- Start number 12 was manually annotated 1 time for cluster B9.

Info for manual annotations of cluster C2:

- Start number 13 was manually annotated 1 time for cluster C2.

Info for manual annotations of cluster H1:

- Start number 9 was manually annotated 1 time for cluster H1.

Info for manual annotations of cluster U:

- Start number 10 was manually annotated 3 times for cluster U.

### **Gene Information:**

Gene: BobbyK\_51 Start: 48607, Stop: 48290, Start Num: 11

Candidate Starts for BobbyK\_51:

(4, 48799), (Start: 11 @48607 has 8 MA's), (14, 48583), (18, 48541), (19, 48538), (29, 48364), (30, 48352), (32, 48343),

Gene: BrownCNA\_52 Start: 48871, Stop: 48554, Start Num: 11

Candidate Starts for BrownCNA\_52:

(1, 49525), (2, 49375), (4, 49063), (Start: 11 @48871 has 8 MA's), (14, 48847), (18, 48805), (19, 48802), (29, 48628), (30, 48616), (32, 48607), (37, 48565), (38, 48562),

Gene: Fortunato\_51 Start: 48643, Stop: 48326, Start Num: 11

Candidate Starts for Fortunato\_51:

(Start: 11 @48643 has 8 MA's), (14, 48619), (18, 48577), (30, 48388), (32, 48379), (37, 48337),

Gene: Frederick\_50 Start: 48604, Stop: 48287, Start Num: 11

Candidate Starts for Frederick\_50:

(4, 48796), (Start: 11 @48604 has 8 MA's), (14, 48580), (18, 48538), (19, 48535), (29, 48361), (30, 48349), (32, 48340),

Gene: Greely\_4 Start: 1972, Stop: 2283, Start Num: 13

Candidate Starts for Greely\_4:

(6, 1834), (8, 1882), (Start: 13 @1972 has 1 MA's), (23, 2128), (27, 2191), (28, 2197), (29, 2206), (31, 2233), (33, 2242),

Gene: Hangman\_50 Start: 48689, Stop: 48372, Start Num: 11

Candidate Starts for Hangman\_50:

(4, 48881), (Start: 11 @48689 has 8 MA's), (14, 48665), (18, 48623), (19, 48620), (29, 48446), (30, 48434), (32, 48425), (37, 48383), (38, 48380),

Gene: Knocker\_56 Start: 50551, Stop: 50240, Start Num: 12

Candidate Starts for Knocker\_56:

(3, 50878), (5, 50704), (7, 50668), (Start: 12 @50551 has 1 MA's), (18, 50494), (24, 50362), (29, 50317), (31, 50290), (35, 50257),

Gene: Labelle\_71 Start: 47030, Stop: 47353, Start Num: 10

Candidate Starts for Labelle\_71:

(Start: 10 @47030 has 3 MA's), (17, 47087), (23, 47201), (29, 47276),

Gene: Madruga\_69 Start: 46679, Stop: 47002, Start Num: 10

Candidate Starts for Madruga\_69:

(Start: 10 @46679 has 3 MA's), (17, 46736), (23, 46850), (29, 46925),

Gene: Mithril\_50 Start: 48617, Stop: 48300, Start Num: 11

Candidate Starts for Mithril\_50:

(4, 48809), (Start: 11 @48617 has 8 MA's), (14, 48593), (18, 48551), (19, 48548), (29, 48374), (30, 48362), (32, 48353),

Gene: Myrna\_4 Start: 1823, Stop: 2134, Start Num: 13

Candidate Starts for Myrna\_4:

(Start: 13 @1823 has 1 MA's), (23, 1979), (27, 2042), (28, 2048), (31, 2084),

Gene: Patience\_71 Start: 47574, Stop: 47897, Start Num: 10

Candidate Starts for Patience\_71:

(Start: 10 @47574 has 3 MA's), (17, 47631), (23, 47745), (29, 47820),

Gene: Predator\_70 Start: 51316, Stop: 51663, Start Num: 9

Candidate Starts for Predator\_70:

(Start: 9 @51316 has 1 MA's), (Start: 11 @51343 has 8 MA's), (14, 51367), (15, 51385), (20, 51424), (37, 51652), (38, 51655),

Gene: Saguaro\_55 Start: 49468, Stop: 49199, Start Num: 11

Candidate Starts for Saguaro\_55:

(4, 49663), (Start: 11 @49468 has 8 MA's), (16, 49432), (18, 49411), (20, 49396), (21, 49387), (22, 49360), (25, 49303), (26, 49282), (32, 49240), (34, 49228), (36, 49210),

Gene: Waleliano\_50 Start: 48603, Stop: 48286, Start Num: 11

Candidate Starts for Waleliano\_50:

(1, 49257), (2, 49107), (4, 48795), (Start: 11 @48603 has 8 MA's), (14, 48579), (18, 48537), (19, 48534), (29, 48360), (30, 48348), (32, 48339), (37, 48297), (38, 48294),

Gene: Zemanar\_51 Start: 48584, Stop: 48267, Start Num: 11

Candidate Starts for Zemanar\_51:

(1, 49238), (2, 49088), (4, 48776), (Start: 11 @48584 has 8 MA's), (14, 48560), (18, 48518), (19, 48515), (29, 48341), (30, 48329), (32, 48320), (37, 48278), (38, 48275),