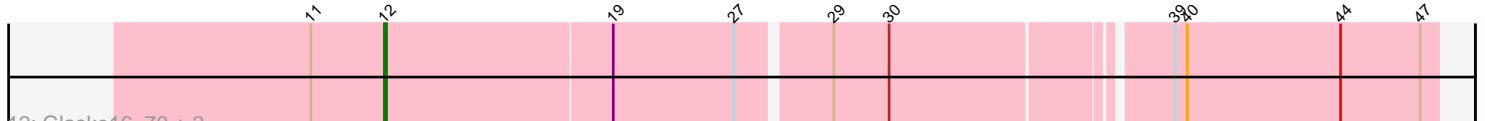
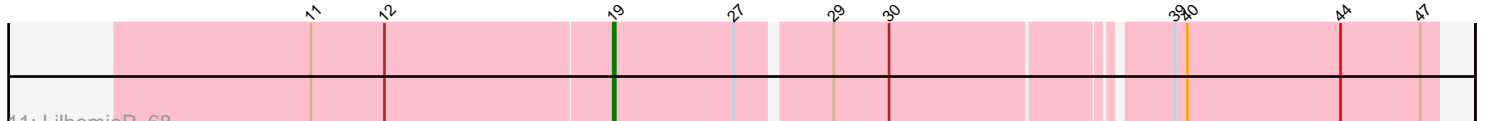
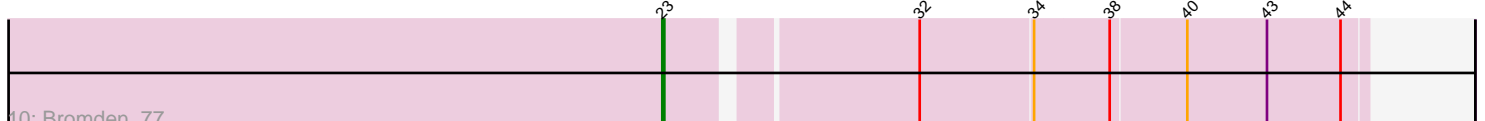
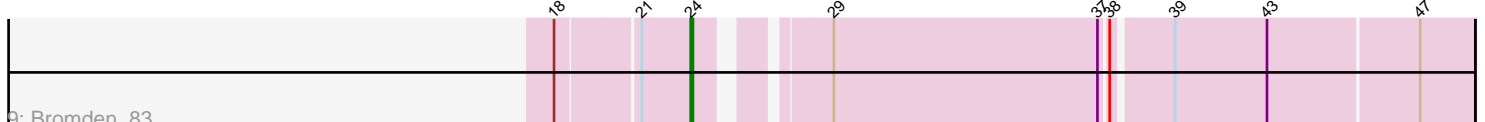
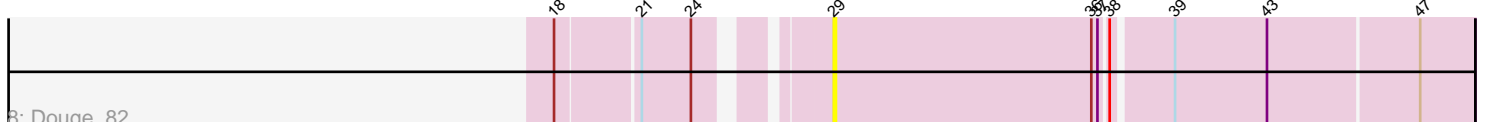
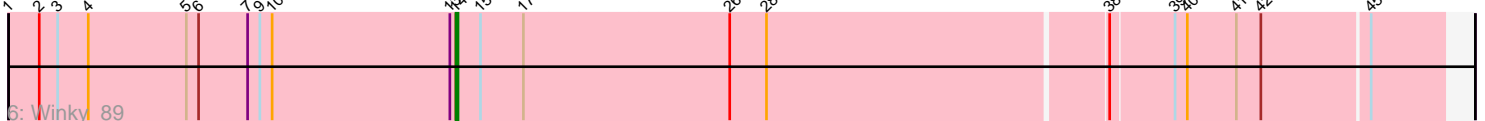
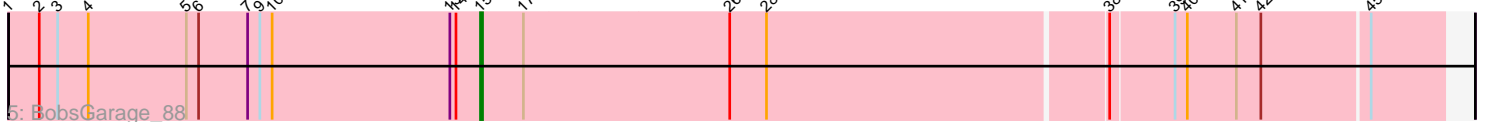
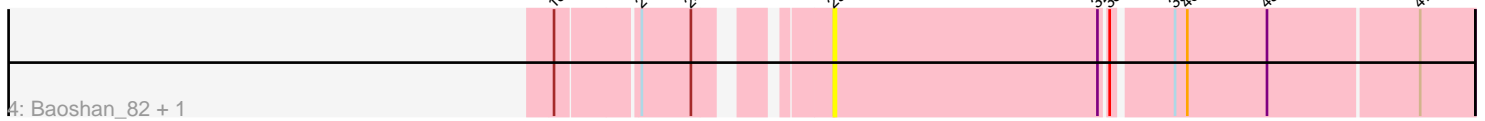
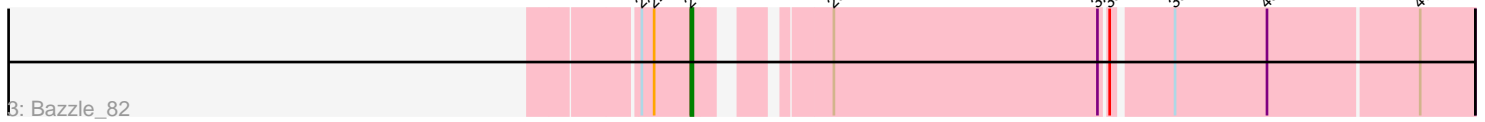
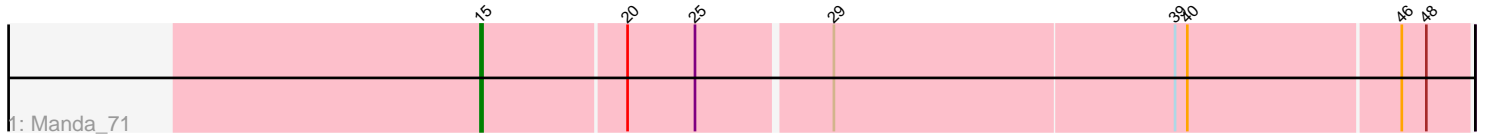


Pham 170356



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 170356 Report

This analysis was run 07/09/24 on database version 566.

Pham number 170356 has 18 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Manda\_71
- Track 2 : Wamburgexpress\_58, Calm\_59, OhShagHennessy\_56, Zaria\_59
- Track 3 : Bazzle\_82
- Track 4 : Baoshan\_82, ZhongYanYuan\_82
- Track 5 : BobsGarage\_88
- Track 6 : Winky\_89
- Track 7 : Bromden\_89
- Track 8 : Douge\_82
- Track 9 : Bromden\_83
- Track 10 : Bromden\_77
- Track 11 : LilhomieP\_68
- Track 12 : Glaske16\_70, SlimJimmy\_68, Skinny\_71

### ***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 4 of the 15 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Calm\_59, OhShagHennessy\_56, Wamburgexpress\_58, Zaria\_59,

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

- 

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

- Baoshan\_82, Bazzle\_82, BobsGarage\_88, Bromden\_77, Bromden\_83, Bromden\_89, Douge\_82, Glaske16\_70, LilhomieP\_68, Manda\_71, Skinny\_71, SlimJimmy\_68, Winky\_89, ZhongYanYuan\_82,

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

Start 12:

- Found in 4 of 18 ( 22.2% ) of genes in pham
- Manual Annotations of this start: 3 of 15

- Called 75.0% of time when present
- Phage (with cluster) where this start called: Glaske16\_70 (M1), Skinny\_71 (M1), SlimJimmy\_68 (M1),

Start 14:

- Found in 2 of 18 ( 11.1% ) of genes in pham
- Manual Annotations of this start: 1 of 15
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Winky\_89 (L2),

Start 15:

- Found in 4 of 18 ( 22.2% ) of genes in pham
- Manual Annotations of this start: 3 of 15
- Called 75.0% of time when present
- Phage (with cluster) where this start called: BobsGarage\_88 (L2), Bromden\_89 (L4), Manda\_71 (E),

Start 16:

- Found in 4 of 18 ( 22.2% ) of genes in pham
- Manual Annotations of this start: 4 of 15
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Calm\_59 (L1), OhShagHennessy\_56 (L1), Wamburgrxpress\_58 (L1), Zaria\_59 (L1),

Start 19:

- Found in 4 of 18 ( 22.2% ) of genes in pham
- Manual Annotations of this start: 1 of 15
- Called 25.0% of time when present
- Phage (with cluster) where this start called: LilhomieP\_68 (M1),

Start 23:

- Found in 2 of 18 ( 11.1% ) of genes in pham
- Manual Annotations of this start: 1 of 15
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Bromden\_77 (L4),

Start 24:

- Found in 5 of 18 ( 27.8% ) of genes in pham
- Manual Annotations of this start: 2 of 15
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Bazzle\_82 (L2), Bromden\_83 (L4),

Start 29:

- Found in 10 of 18 ( 55.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 30.0% of time when present
- Phage (with cluster) where this start called: Baoshan\_82 (L2), Douge\_82 (L4), ZhongYanYuan\_82 (L2),

**Summary by clusters:**

There are 5 clusters represented in this pham: E, L4, L2, M1, L1,

Info for manual annotations of cluster E:

- Start number 15 was manually annotated 1 time for cluster E.

Info for manual annotations of cluster L1:

- Start number 16 was manually annotated 4 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 14 was manually annotated 1 time for cluster L2.
- Start number 15 was manually annotated 1 time for cluster L2.
- Start number 24 was manually annotated 1 time for cluster L2.

Info for manual annotations of cluster L4:

- Start number 15 was manually annotated 1 time for cluster L4.
- Start number 23 was manually annotated 1 time for cluster L4.
- Start number 24 was manually annotated 1 time for cluster L4.

Info for manual annotations of cluster M1:

- Start number 12 was manually annotated 3 times for cluster M1.
- Start number 19 was manually annotated 1 time for cluster M1.

### ***Gene Information:***

Gene: Baoshan\_82 Start: 55413, Stop: 55715, Start Num: 29

Candidate Starts for Baoshan\_82:

(18, 55305), (21, 55341), (Start: 24 @55365 has 2 MA's), (29, 55413), (37, 55542), (38, 55545), (39, 55572), (40, 55578), (43, 55617), (47, 55689),

Gene: Bazzle\_82 Start: 55265, Stop: 55615, Start Num: 24

Candidate Starts for Bazzle\_82:

(21, 55241), (22, 55247), (Start: 24 @55265 has 2 MA's), (29, 55313), (37, 55442), (38, 55445), (39, 55472), (43, 55517), (47, 55589),

Gene: BobsGarage\_88 Start: 57587, Stop: 58045, Start Num: 15

Candidate Starts for BobsGarage\_88:

(1, 57356), (2, 57371), (3, 57380), (4, 57395), (5, 57443), (6, 57449), (7, 57473), (9, 57479), (10, 57485), (13, 57572), (Start: 14 @57575 has 1 MA's), (Start: 15 @57587 has 3 MA's), (17, 57608), (26, 57707), (28, 57725), (38, 57887), (39, 57917), (40, 57923), (41, 57947), (42, 57959), (45, 58010),

Gene: Bromden\_89 Start: 57826, Stop: 58278, Start Num: 15

Candidate Starts for Bromden\_89:

(8, 57715), (10, 57724), (Start: 15 @57826 has 3 MA's), (Start: 23 @57907 has 1 MA's), (38, 58120), (39, 58150), (40, 58156), (41, 58180), (42, 58192), (45, 58243), (47, 58267),

Gene: Bromden\_83 Start: 54891, Stop: 55241, Start Num: 24

Candidate Starts for Bromden\_83:

(18, 54831), (21, 54867), (Start: 24 @54891 has 2 MA's), (29, 54939), (37, 55068), (38, 55071), (39, 55098), (43, 55143), (47, 55215),

Gene: Bromden\_77 Start: 52678, Stop: 53001, Start Num: 23

Candidate Starts for Bromden\_77:

(Start: 23 @52678 has 1 MA's), (32, 52789), (34, 52843), (38, 52879), (40, 52915), (43, 52954), (44, 52990),

Gene: Calm\_59 Start: 41416, Stop: 41874, Start Num: 16

Candidate Starts for Calm\_59:

(Start: 16 @41416 has 4 MA's), (20, 41482), (31, 41617), (33, 41674), (35, 41698), (39, 41740), (49, 41863),

Gene: Douge\_82 Start: 53891, Stop: 54193, Start Num: 29

Candidate Starts for Douge\_82:

(18, 53783), (21, 53819), (Start: 24 @53843 has 2 MA's), (29, 53891), (36, 54017), (37, 54020), (38, 54023), (39, 54050), (43, 54095), (47, 54167),

Gene: Glaske16\_70 Start: 44853, Stop: 45341, Start Num: 12

Candidate Starts for Glaske16\_70:

(11, 44817), (Start: 12 @44853 has 3 MA's), (Start: 19 @44961 has 1 MA's), (27, 45018), (29, 45060), (30, 45087), (39, 45213), (40, 45219), (44, 45294), (47, 45333),

Gene: LilhomieP\_68 Start: 44966, Stop: 45346, Start Num: 19

Candidate Starts for LilhomieP\_68:

(11, 44822), (Start: 12 @44858 has 3 MA's), (Start: 19 @44966 has 1 MA's), (27, 45023), (29, 45065), (30, 45092), (39, 45218), (40, 45224), (44, 45299), (47, 45338),

Gene: Manda\_71 Start: 47070, Stop: 47540, Start Num: 15

Candidate Starts for Manda\_71:

(Start: 15 @47070 has 3 MA's), (20, 47139), (25, 47172), (29, 47235), (39, 47400), (40, 47406), (46, 47508), (48, 47520),

Gene: OhShagHennessy\_56 Start: 40304, Stop: 40762, Start Num: 16

Candidate Starts for OhShagHennessy\_56:

(Start: 16 @40304 has 4 MA's), (20, 40370), (31, 40505), (33, 40562), (35, 40586), (39, 40628), (49, 40751),

Gene: Skinny\_71 Start: 45287, Stop: 45775, Start Num: 12

Candidate Starts for Skinny\_71:

(11, 45251), (Start: 12 @45287 has 3 MA's), (Start: 19 @45395 has 1 MA's), (27, 45452), (29, 45494), (30, 45521), (39, 45647), (40, 45653), (44, 45728), (47, 45767),

Gene: SlimJimmy\_68 Start: 44842, Stop: 45330, Start Num: 12

Candidate Starts for SlimJimmy\_68:

(11, 44806), (Start: 12 @44842 has 3 MA's), (Start: 19 @44950 has 1 MA's), (27, 45007), (29, 45049), (30, 45076), (39, 45202), (40, 45208), (44, 45283), (47, 45322),

Gene: Wamburgxpress\_58 Start: 41304, Stop: 41762, Start Num: 16

Candidate Starts for Wamburgxpress\_58:

(Start: 16 @41304 has 4 MA's), (20, 41370), (31, 41505), (33, 41562), (35, 41586), (39, 41628), (49, 41751),

Gene: Winky\_89 Start: 57575, Stop: 58045, Start Num: 14

Candidate Starts for Winky\_89:

(1, 57356), (2, 57371), (3, 57380), (4, 57395), (5, 57443), (6, 57449), (7, 57473), (9, 57479), (10, 57485), (13, 57572), (Start: 14 @57575 has 1 MA's), (Start: 15 @57587 has 3 MA's), (17, 57608), (26, 57707), (28, 57725), (38, 57887), (39, 57917), (40, 57923), (41, 57947), (42, 57959), (45, 58010),

Gene: Zaria\_59 Start: 41416, Stop: 41874, Start Num: 16

Candidate Starts for Zaria\_59:

(Start: 16 @41416 has 4 MA's), (20, 41482), (31, 41617), (33, 41674), (35, 41698), (39, 41740), (49, 41863),

Gene: ZhongYanYuan\_82 Start: 54996, Stop: 55298, Start Num: 29

Candidate Starts for ZhongYanYuan\_82:

(18, 54888), (21, 54924), (Start: 24 @54948 has 2 MA's), (29, 54996), (37, 55125), (38, 55128), (39, 55155), (40, 55161), (43, 55200), (47, 55272),