

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 194271 Report

This analysis was run 11/02/24 on database version 579.

Pham number 194271 has 27 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Pipefish 71
- Track 2 : 39HC\_061, 40BC\_061
- Track 3: KayaCho\_61, Hosp\_059, Jolie1\_061
- Track 4 : Knocker 66
- Track 5: Quesadilla 66
- Track 6 : MakoManhole\_59, CaiB\_62
- Track 7 : AnClar 58
- Track 8: Fresco\_62, Axumite\_62, Shatter\_62, Ligma\_62
- Track 9 : BiggityBass 60
- Track 10 : LittleMunchkin 63
- Track 11: Mariokart 58
- Track 12 : AnarQue 64
- Track 13 : CharlottesWeb\_58Track 14 : CloverMinnie\_61
- Track 15 : Sour 62
- Track 16: Yago84 59, Sisko 60
- Track 17 : BobRoss2024\_65
- Track 18: Wooper 63
- Track 19 : NHagos\_59

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

The start number called the most often in the published annotations is 7, it was called in 10 of the 21 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

 AnClar\_58, Axumite\_62, BiggityBass\_60, CharlottesWeb\_58, Fresco\_62, Ligma\_62, LittleMunchkin\_63, Shatter\_62, Sisko\_60, Sour\_62, Yago84\_59,

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

Mariokart\_58, NHagos\_59,

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

• 39HC\_061, 40BC\_061, AnarQue\_64, BobRoss2024\_65, CaiB\_62, CloverMinnie\_61, Hosp\_059, Jolie1\_061, KayaCho\_61, Knocker\_66, MakoManhole\_59, Pipefish\_71, Quesadilla\_66, Wooper\_63,

# **Summary by start number:**

### Start 3:

- Found in 8 of 27 (29.6%) of genes in pham
- Manual Annotations of this start: 1 of 21
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Mariokart\_58 (DR),

### Start 5:

- Found in 1 of 27 ( 3.7% ) of genes in pham
- Manual Annotations of this start: 1 of 21
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NHagos 59 (DR),

### Start 6:

- Found in 7 of 27 (25.9%) of genes in pham
- Manual Annotations of this start: 2 of 21
- Called 28.6% of time when present
- Phage (with cluster) where this start called: Knocker\_66 (B9), Quesadilla\_66 (B9),

#### Start 7:

- Found in 13 of 27 (48.1%) of genes in pham
- Manual Annotation's of this start: 10 of 21
- Called 84.6% of time when present
- Phage (with cluster) where this start called: AnClar\_58 (DR), Axumite\_62 (DR), BiggityBass\_60 (DR), CharlottesWeb\_58 (DR), Fresco\_62 (DR), Ligma\_62 (DR), LittleMunchkin\_63 (DR), Shatter\_62 (DR), Sisko\_60 (DR), Sour\_62 (DR), Yago84\_59 (DR),

### Start 8:

- Found in 1 of 27 (3.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BobRoss2024 65 (DR),

#### Start 10:

- Found in 1 of 27 (3.7%) of genes in pham
- Manual Annotations of this start: 1 of 21
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pipefish 71 (B3),

### Start 11:

- Found in 4 of 27 (14.8%) of genes in pham
- Manual Annotations of this start: 2 of 21
- Called 50.0% of time when present
- Phage (with cluster) where this start called: AnarQue\_64 (DR), CloverMinnie\_61 (DR),

### Start 12:

- Found in 5 of 27 (18.5%) of genes in pham
- Manual Annotations of this start: 3 of 21
- Called 60.0% of time when present
- Phage (with cluster) where this start called: CaiB\_62 (DR), MakoManhole\_59 (DR), Wooper\_63 (DR),

### Start 14:

- Found in 5 of 27 (18.5%) of genes in pham
- Manual Annotations of this start: 1 of 21
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 39HC\_061 (B6), 40BC\_061 (B6), Hosp\_059 (B6), Jolie1\_061 (B6), KayaCho\_61 (B6),

# Summary by clusters:

There are 4 clusters represented in this pham: B6, DR, B9, B3,

Info for manual annotations of cluster B3:

•Start number 10 was manually annotated 1 time for cluster B3.

Info for manual annotations of cluster B6:

•Start number 14 was manually annotated 1 time for cluster B6.

Info for manual annotations of cluster B9:

•Start number 6 was manually annotated 2 times for cluster B9.

Info for manual annotations of cluster DR:

- •Start number 3 was manually annotated 1 time for cluster DR.
- •Start number 5 was manually annotated 1 time for cluster DR.
- •Start number 7 was manually annotated 10 times for cluster DR.
- •Start number 11 was manually annotated 2 times for cluster DR.
- •Start number 12 was manually annotated 3 times for cluster DR.

### Gene Information:

Gene: 39HC\_061 Start: 56330, Stop: 56530, Start Num: 14

Candidate Starts for 39HC 061:

(Start: 6 @ 56279 has 2 MA's), (Start: 14 @ 56330 has 1 MA's), (15, 56333), (16, 56336), (19, 56348),

Gene: 40BC\_061 Start: 56330, Stop: 56530, Start Num: 14

Candidate Starts for 40BC 061:

(Start: 6 @ 56279 has 2 MA's), (Start: 14 @ 56330 has 1 MA's), (15, 56333), (16, 56336), (19, 56348),

Gene: AnClar\_58 Start: 51779, Stop: 51976, Start Num: 7

Candidate Starts for AnClar 58:

(Start: 3 @51743 has 1 MA's), (Start: 7 @51779 has 10 MA's), (21, 51857), (23, 51878), (29, 51938), (30, 51965),

Gene: AnarQue 64 Start: 52219, Stop: 52398, Start Num: 11

Candidate Starts for AnarQue 64:

(Start: 11 @52219 has 2 MA's), (Start: 12 @52228 has 3 MA's), (29, 52360), (30, 52387),

Gene: Axumite\_62 Start: 50626, Stop: 50826, Start Num: 7

Candidate Starts for Axumite\_62:

(Start: 3 @50590 has 1 MA's), (Start: 7 @50626 has 10 MA's), (23, 50728), (29, 50788), (30, 50815),

Gene: BiggityBass\_60 Start: 52323, Stop: 52532, Start Num: 7

Candidate Starts for BiggityBass\_60:

(Start: 7 @52323 has 10 MA's), (21, 52413), (29, 52494), (30, 52521),

Gene: BobRoss2024\_65 Start: 51837, Stop: 52049, Start Num: 8

Candidate Starts for BobRoss2024 65:

(8, 51837), (17, 51882), (23, 51948), (25, 51975), (29, 52008), (31, 52041),

Gene: CaiB\_62 Start: 52012, Stop: 52182, Start Num: 12

Candidate Starts for CaiB\_62:

(Start: 12 @52012 has 3 MA's), (29, 52144), (30, 52171),

Gene: CharlottesWeb\_58 Start: 49213, Stop: 49410, Start Num: 7

Candidate Starts for CharlottesWeb 58:

(Start: 3 @ 49177 has 1 MA's), (Start: 7 @ 49213 has 10 MA's), (23, 49315), (29, 49375),

Gene: CloverMinnie\_61 Start: 51166, Stop: 51345, Start Num: 11

Candidate Starts for CloverMinnie 61:

(Start: 11 @51166 has 2 MA's), (Start: 12 @51175 has 3 MA's), (29, 51307),

Gene: Fresco\_62 Start: 50626, Stop: 50826, Start Num: 7

Candidate Starts for Fresco\_62:

(Start: 3 @50590 has 1 MA's), (Start: 7 @50626 has 10 MA's), (23, 50728), (29, 50788), (30, 50815),

Gene: Hosp\_059 Start: 54555, Stop: 54755, Start Num: 14

Candidate Starts for Hosp\_059:

(Start: 6 @54504 has 2 MA's), (Start: 14 @54555 has 1 MA's), (15, 54558), (16, 54561), (19, 54573), (26, 54654),

Gene: Jolie1\_061 Start: 56473, Stop: 56673, Start Num: 14

Candidate Starts for Jolie1\_061:

(Start: 6 @56422 has 2 MA's), (Start: 14 @56473 has 1 MA's), (15, 56476), (16, 56479), (19, 56491), (26, 56572),

Gene: KayaCho\_61 Start: 56583, Stop: 56783, Start Num: 14

Candidate Starts for KayaCho\_61:

(Start: 6 @ 56532 has 2 MA's), (Start: 14 @ 56583 has 1 MA's), (15, 56586), (16, 56589), (19, 56601), (26, 56682),

Gene: Knocker 66 Start: 59276, Stop: 59527, Start Num: 6

Candidate Starts for Knocker\_66:

(Start: 6 @59276 has 2 MA's), (18, 59339), (21, 59375),

Gene: Ligma\_62 Start: 50626, Stop: 50826, Start Num: 7

Candidate Starts for Ligma 62:

(Start: 3 @ 50590 has 1 MA's), (Start: 7 @ 50626 has 10 MA's), (23, 50728), (29, 50788), (30, 50815),

Gene: LittleMunchkin\_63 Start: 53357, Stop: 53581, Start Num: 7

Candidate Starts for LittleMunchkin 63:

(Start: 7 @53357 has 10 MA's), (20, 53456), (23, 53483), (27, 53531), (29, 53543), (30, 53570),

Gene: MakoManhole\_59 Start: 50530, Stop: 50700, Start Num: 12

Candidate Starts for MakoManhole\_59:

(Start: 12 @50530 has 3 MA's), (29, 50662), (30, 50689),

Gene: Mariokart 58 Start: 49462, Stop: 49695, Start Num: 3

Candidate Starts for Mariokart\_58:

(Start: 3 @ 49462 has 1 MA's), (Start: 7 @ 49498 has 10 MA's), (23, 49600), (29, 49660),

Gene: NHagos\_59 Start: 49828, Stop: 50055, Start Num: 5

Candidate Starts for NHagos\_59:

(Start: 5 @49828 has 1 MA's), (Start: 7 @49831 has 10 MA's), (9, 49837), (13, 49864), (28, 49987), (29, 49996), (30, 50023),

Gene: Pipefish 71 Start: 58442, Stop: 58660, Start Num: 10

Candidate Starts for Pipefish\_71:

(1, 58295), (2, 58382), (4, 58400), (Start: 10 @58442 has 1 MA's), (Start: 11 @58451 has 2 MA's), (18, 58487), (21, 58529), (24, 58565), (29, 58622),

Gene: Quesadilla 66 Start: 58228, Stop: 58470, Start Num: 6

Candidate Starts for Quesadilla 66:

(Start: 6 @58228 has 2 MA's), (16, 58288), (19, 58300), (21, 58330), (22, 58339), (23, 58351),

Gene: Shatter\_62 Start: 50626, Stop: 50826, Start Num: 7

Candidate Starts for Shatter\_62:

(Start: 3 @50590 has 1 MA's), (Start: 7 @50626 has 10 MA's), (23, 50728), (29, 50788), (30, 50815),

Gene: Sisko\_60 Start: 50847, Stop: 51044, Start Num: 7

Candidate Starts for Sisko\_60:

(Start: 7 @ 50847 has 10 MA's), (21, 50925), (23, 50946), (29, 51006), (30, 51033),

Gene: Sour 62 Start: 53064, Stop: 53273, Start Num: 7

Candidate Starts for Sour 62:

(Start: 3 @53028 has 1 MA's), (Start: 7 @53064 has 10 MA's), (21, 53154), (29, 53235), (30, 53262),

Gene: Wooper\_63 Start: 51561, Stop: 51731, Start Num: 12

Candidate Starts for Wooper\_63:

(Start: 11 @51552 has 2 MA's), (Start: 12 @51561 has 3 MA's), (29, 51693), (30, 51720),

Gene: Yago84\_59 Start: 50332, Stop: 50529, Start Num: 7

Candidate Starts for Yago84\_59:

(Start: 7 @ 50332 has 10 MA's), (21, 50410), (23, 50431), (29, 50491), (30, 50518),