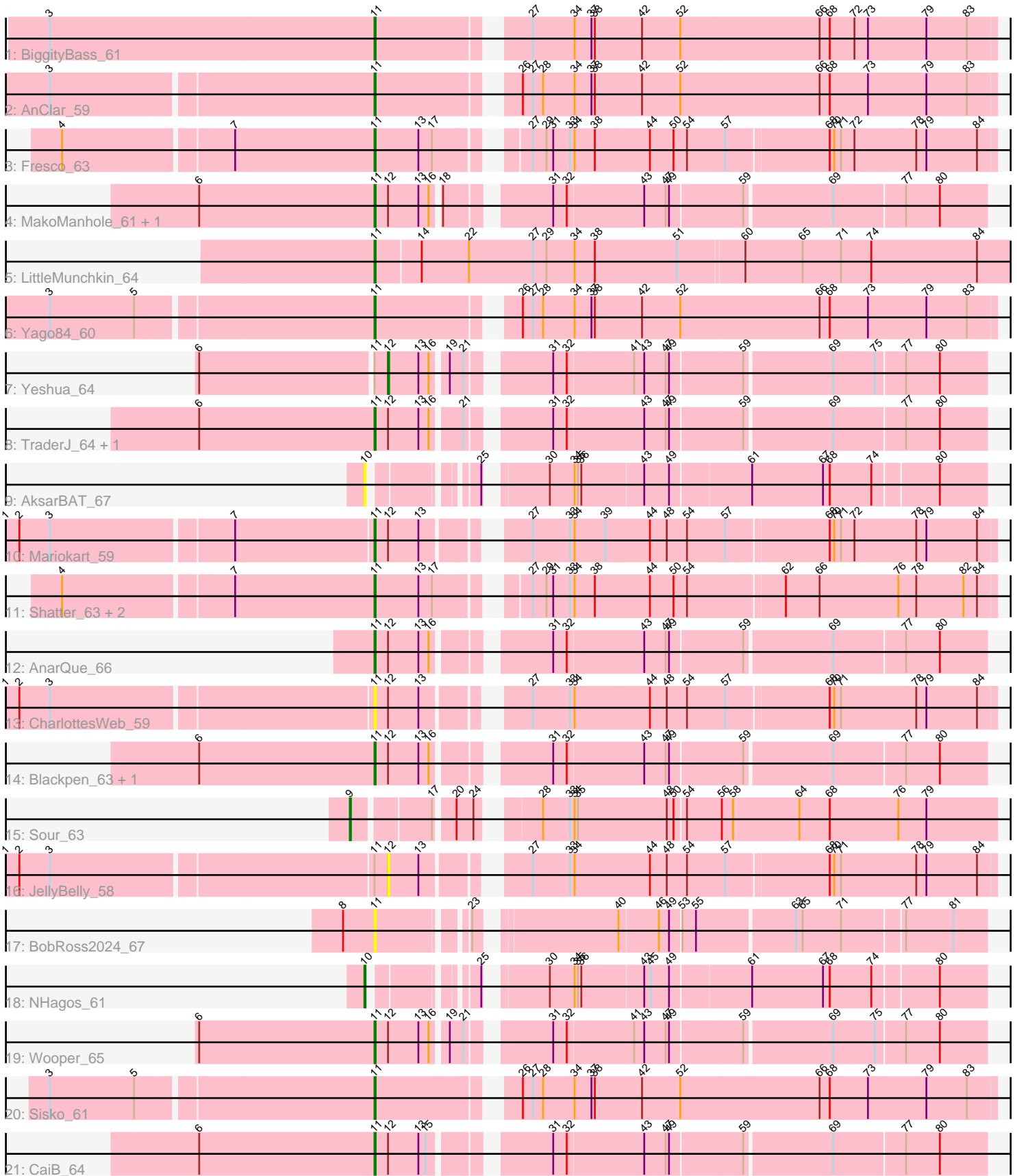


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 309126 Report

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

Pham number 309126 has 26 members, 6 are drafts.

Phages represented in each track:

- Track 1 : BiggityBass\_61
- Track 2 : AnClar\_59
- Track 3 : Fresco\_63
- Track 4 : MakoManhole\_61, CloverMinnie\_63
- Track 5 : LittleMunchkin\_64
- Track 6 : Yago84\_60
- Track 7 : Yeshua\_64
- Track 8 : TraderJ\_64, MossRose\_64
- Track 9 : AksarBAT\_67
- Track 10 : Mariokart\_59
- Track 11 : Shatter\_63, Axumite\_63, Ligma\_63
- Track 12 : AnarQue\_66
- Track 13 : CharlottesWeb\_59
- Track 14 : Blackpen\_63, FelixTres\_65
- Track 15 : Sour\_63
- Track 16 : JellyBelly\_58
- Track 17 : BobRoss2024\_67
- Track 18 : NHagos\_61
- Track 19 : Wooper\_65
- Track 20 : Sisko\_61
- Track 21 : CaiB\_64

### ***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 17 of the 20 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• AnClar\_59, AnarQue\_66, Axumite\_63, BiggityBass\_61, Blackpen\_63, BobRoss2024\_67, CaiB\_64, CharlottesWeb\_59, CloverMinnie\_63, FelixTres\_65, Fresco\_63, Ligma\_63, LittleMunchkin\_64, MakoManhole\_61, Mariokart\_59, MossRose\_64, Shatter\_63, Sisko\_61, TraderJ\_64, Wooper\_65, Yago84\_60,

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

- JellyBelly\_58, Yeshua\_64,

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

- AksarBAT\_67, NHagos\_61, Sour\_63,

### Summary by start number:

Start 9:

- Found in 1 of 26 ( 3.8% ) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sour\_63 (DR),

Start 10:

- Found in 2 of 26 ( 7.7% ) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AksarBAT\_67 (DR), NHagos\_61 (DR),

Start 11:

- Found in 23 of 26 ( 88.5% ) of genes in pham
- Manual Annotations of this start: 17 of 20
- Called 91.3% of time when present
- Phage (with cluster) where this start called: AnClar\_59 (DR), AnarQue\_66 (DR), Axumite\_63 (DR), BiggityBass\_61 (DR), Blackpen\_63 (DR), BobRoss2024\_67 (DR), CaiB\_64 (DR), CharlottesWeb\_59 (DR), CloverMinnie\_63 (DR), FelixTres\_65 (DR), Fresco\_63 (DR), Ligma\_63 (DR), LittleMunchkin\_64 (DR), MakoManhole\_61 (DR), Mariokart\_59 (DR), MossRose\_64 (DR), Shatter\_63 (DR), Sisko\_61 (DR), TraderJ\_64 (DR), Wooper\_65 (DR), Yago84\_60 (DR),

Start 12:

- Found in 13 of 26 ( 50.0% ) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 15.4% of time when present
- Phage (with cluster) where this start called: JellyBelly\_58 (DR), Yeshua\_64 (DR),

### Summary by clusters:

There is one cluster represented in this pham: DR

Info for manual annotations of cluster DR:

- Start number 9 was manually annotated 1 time for cluster DR.
- Start number 10 was manually annotated 1 time for cluster DR.
- Start number 11 was manually annotated 17 times for cluster DR.
- Start number 12 was manually annotated 1 time for cluster DR.

### Gene Information:

Gene: AksarBAT\_67 Start: 52529, Stop: 53014, Start Num: 10

Candidate Starts for AksarBAT\_67:

(Start: 10 @52529 has 1 MA's), (25, 52601), (30, 52643), (34, 52664), (35, 52667), (36, 52670), (43, 52724), (49, 52745), (61, 52814), (67, 52877), (68, 52883), (74, 52919), (80, 52973),

Gene: AnClar\_59 Start: 51973, Stop: 52494, Start Num: 11

Candidate Starts for AnClar\_59:

(3, 51697), (Start: 11 @51973 has 17 MA's), (26, 52081), (27, 52090), (28, 52099), (34, 52126), (37, 52141), (38, 52144), (42, 52186), (52, 52219), (66, 52342), (68, 52351), (73, 52384), (79, 52435), (83, 52471),

Gene: AnarQue\_66 Start: 52691, Stop: 53188, Start Num: 11

Candidate Starts for AnarQue\_66:

(Start: 11 @52691 has 17 MA's), (Start: 12 @52703 has 1 MA's), (13, 52730), (16, 52739), (31, 52823), (32, 52835), (43, 52901), (47, 52919), (49, 52922), (59, 52982), (69, 53057), (77, 53117), (80, 53147),

Gene: Axumite\_63 Start: 50823, Stop: 51332, Start Num: 11

Candidate Starts for Axumite\_63:

(4, 50556), (7, 50700), (Start: 11 @50823 has 17 MA's), (13, 50862), (17, 50874), (27, 50934), (29, 50946), (31, 50952), (33, 50967), (34, 50970), (38, 50988), (44, 51036), (50, 51057), (54, 51069), (62, 51150), (66, 51180), (76, 51249), (78, 51264), (82, 51306), (84, 51318),

Gene: BiggityBass\_61 Start: 52529, Stop: 53050, Start Num: 11

Candidate Starts for BiggityBass\_61:

(3, 52241), (Start: 11 @52529 has 17 MA's), (27, 52646), (34, 52682), (37, 52697), (38, 52700), (42, 52742), (52, 52775), (66, 52898), (68, 52907), (72, 52928), (73, 52940), (79, 52991), (83, 53027),

Gene: Blackpen\_63 Start: 51130, Stop: 51627, Start Num: 11

Candidate Starts for Blackpen\_63:

(6, 50980), (Start: 11 @51130 has 17 MA's), (Start: 12 @51142 has 1 MA's), (13, 51169), (16, 51178), (31, 51262), (32, 51274), (43, 51340), (47, 51358), (49, 51361), (59, 51421), (69, 51496), (77, 51556), (80, 51586),

Gene: BobRoss2024\_67 Start: 52266, Stop: 52751, Start Num: 11

Candidate Starts for BobRoss2024\_67:

(8, 52245), (Start: 11 @52266 has 17 MA's), (23, 52335), (40, 52443), (46, 52476), (49, 52485), (53, 52494), (55, 52506), (63, 52590), (65, 52596), (71, 52629), (77, 52680), (81, 52722),

Gene: CaiB\_64 Start: 52475, Stop: 52972, Start Num: 11

Candidate Starts for CaiB\_64:

(6, 52325), (Start: 11 @52475 has 17 MA's), (Start: 12 @52487 has 1 MA's), (13, 52514), (15, 52520), (31, 52607), (32, 52619), (43, 52685), (47, 52703), (49, 52706), (59, 52766), (69, 52841), (77, 52901), (80, 52931),

Gene: CharlottesWeb\_59 Start: 49407, Stop: 49913, Start Num: 11

Candidate Starts for CharlottesWeb\_59:

(1, 49092), (2, 49104), (3, 49131), (Start: 11 @49407 has 17 MA's), (Start: 12 @49419 has 1 MA's), (13, 49446), (27, 49515), (33, 49548), (34, 49551), (44, 49617), (48, 49632), (54, 49650), (57, 49683), (68, 49770), (70, 49773), (71, 49779), (78, 49845), (79, 49854), (84, 49899),

Gene: CloverMinnie\_63 Start: 51638, Stop: 52135, Start Num: 11

Candidate Starts for CloverMinnie\_63:

(6, 51488), (Start: 11 @51638 has 17 MA's), (Start: 12 @51650 has 1 MA's), (13, 51677), (16, 51686), (18, 51692), (31, 51770), (32, 51782), (43, 51848), (47, 51866), (49, 51869), (59, 51929), (69, 52004), (77, 52064), (80, 52094),

Gene: FelixTres\_65 Start: 51945, Stop: 52442, Start Num: 11

Candidate Starts for FelixTres\_65:

(6, 51795), (Start: 11 @51945 has 17 MA's), (Start: 12 @51957 has 1 MA's), (13, 51984), (16, 51993), (31, 52077), (32, 52089), (43, 52155), (47, 52173), (49, 52176), (59, 52236), (69, 52311), (77, 52371), (80, 52401),

Gene: Fresco\_63 Start: 50823, Stop: 51332, Start Num: 11

Candidate Starts for Fresco\_63:

(4, 50556), (7, 50700), (Start: 11 @50823 has 17 MA's), (13, 50862), (17, 50874), (27, 50934), (29, 50946), (31, 50952), (33, 50967), (34, 50970), (38, 50988), (44, 51036), (50, 51057), (54, 51069), (57, 51102), (68, 51189), (70, 51192), (71, 51198), (72, 51210), (78, 51264), (79, 51273), (84, 51318),

Gene: JellyBelly\_58 Start: 49416, Stop: 49910, Start Num: 12

Candidate Starts for JellyBelly\_58:

(1, 49089), (2, 49101), (3, 49128), (Start: 11 @49404 has 17 MA's), (Start: 12 @49416 has 1 MA's), (13, 49443), (27, 49512), (33, 49545), (34, 49548), (44, 49614), (48, 49629), (54, 49647), (57, 49680), (68, 49767), (70, 49770), (71, 49776), (78, 49842), (79, 49851), (84, 49896),

Gene: Ligma\_63 Start: 50823, Stop: 51332, Start Num: 11

Candidate Starts for Ligma\_63:

(4, 50556), (7, 50700), (Start: 11 @50823 has 17 MA's), (13, 50862), (17, 50874), (27, 50934), (29, 50946), (31, 50952), (33, 50967), (34, 50970), (38, 50988), (44, 51036), (50, 51057), (54, 51069), (62, 51150), (66, 51180), (76, 51249), (78, 51264), (82, 51306), (84, 51318),

Gene: LittleMunchkin\_64 Start: 53578, Stop: 54135, Start Num: 11

Candidate Starts for LittleMunchkin\_64:

(Start: 11 @53578 has 17 MA's), (14, 53617), (22, 53659), (27, 53716), (29, 53728), (34, 53752), (38, 53770), (51, 53842), (60, 53899), (65, 53950), (71, 53983), (74, 54010), (84, 54103),

Gene: MakoManhole\_61 Start: 50993, Stop: 51490, Start Num: 11

Candidate Starts for MakoManhole\_61:

(6, 50843), (Start: 11 @50993 has 17 MA's), (Start: 12 @51005 has 1 MA's), (13, 51032), (16, 51041), (18, 51047), (31, 51125), (32, 51137), (43, 51203), (47, 51221), (49, 51224), (59, 51284), (69, 51359), (77, 51419), (80, 51449),

Gene: Mariokart\_59 Start: 49692, Stop: 50198, Start Num: 11

Candidate Starts for Mariokart\_59:

(1, 49377), (2, 49389), (3, 49416), (7, 49572), (Start: 11 @49692 has 17 MA's), (Start: 12 @49704 has 1 MA's), (13, 49731), (27, 49800), (33, 49833), (34, 49836), (39, 49863), (44, 49902), (48, 49917), (54, 49935), (57, 49968), (68, 50055), (70, 50058), (71, 50064), (72, 50076), (78, 50130), (79, 50139), (84, 50184),

Gene: MossRose\_64 Start: 51953, Stop: 52450, Start Num: 11

Candidate Starts for MossRose\_64:

(6, 51803), (Start: 11 @51953 has 17 MA's), (Start: 12 @51965 has 1 MA's), (13, 51992), (16, 52001), (21, 52025), (31, 52085), (32, 52097), (43, 52163), (47, 52181), (49, 52184), (59, 52244), (69, 52319), (77, 52379), (80, 52409),

Gene: NHagos\_61 Start: 50402, Stop: 50887, Start Num: 10

Candidate Starts for NHagos\_61:

(Start: 10 @50402 has 1 MA's), (25, 50474), (30, 50516), (34, 50537), (35, 50540), (36, 50543), (43, 50597), (45, 50603), (49, 50618), (61, 50687), (67, 50750), (68, 50756), (74, 50792), (80, 50846),

Gene: Shatter\_63 Start: 50823, Stop: 51332, Start Num: 11

Candidate Starts for Shatter\_63:

(4, 50556), (7, 50700), (Start: 11 @50823 has 17 MA's), (13, 50862), (17, 50874), (27, 50934), (29, 50946), (31, 50952), (33, 50967), (34, 50970), (38, 50988), (44, 51036), (50, 51057), (54, 51069), (62, 51150), (66, 51180), (76, 51249), (78, 51264), (82, 51306), (84, 51318),

Gene: Sisko\_61 Start: 51041, Stop: 51562, Start Num: 11

Candidate Starts for Sisko\_61:

(3, 50765), (5, 50840), (Start: 11 @51041 has 17 MA's), (26, 51149), (27, 51158), (28, 51167), (34, 51194), (37, 51209), (38, 51212), (42, 51254), (52, 51287), (66, 51410), (68, 51419), (73, 51452), (79, 51503), (83, 51539),

Gene: Sour\_63 Start: 53270, Stop: 53794, Start Num: 9

Candidate Starts for Sour\_63:

(Start: 9 @53270 has 1 MA's), (17, 53333), (20, 53348), (24, 53363), (28, 53402), (33, 53426), (34, 53429), (35, 53432), (48, 53510), (50, 53516), (54, 53525), (56, 53555), (58, 53564), (64, 53621), (68, 53648), (76, 53708), (79, 53732),

Gene: TraderJ\_64 Start: 52079, Stop: 52576, Start Num: 11

Candidate Starts for TraderJ\_64:

(6, 51929), (Start: 11 @52079 has 17 MA's), (Start: 12 @52091 has 1 MA's), (13, 52118), (16, 52127), (21, 52151), (31, 52211), (32, 52223), (43, 52289), (47, 52307), (49, 52310), (59, 52370), (69, 52445), (77, 52505), (80, 52535),

Gene: Wooper\_65 Start: 52024, Stop: 52521, Start Num: 11

Candidate Starts for Wooper\_65:

(6, 51874), (Start: 11 @52024 has 17 MA's), (Start: 12 @52036 has 1 MA's), (13, 52063), (16, 52072), (19, 52084), (21, 52096), (31, 52156), (32, 52168), (41, 52225), (43, 52234), (47, 52252), (49, 52255), (59, 52315), (69, 52390), (75, 52426), (77, 52450), (80, 52480),

Gene: Yago84\_60 Start: 50526, Stop: 51047, Start Num: 11

Candidate Starts for Yago84\_60:

(3, 50250), (5, 50325), (Start: 11 @50526 has 17 MA's), (26, 50634), (27, 50643), (28, 50652), (34, 50679), (37, 50694), (38, 50697), (42, 50739), (52, 50772), (66, 50895), (68, 50904), (73, 50937), (79, 50988), (83, 51024),

Gene: Yeshua\_64 Start: 52013, Stop: 52498, Start Num: 12

Candidate Starts for Yeshua\_64:

(6, 51851), (Start: 11 @52001 has 17 MA's), (Start: 12 @52013 has 1 MA's), (13, 52040), (16, 52049), (19, 52061), (21, 52073), (31, 52133), (32, 52145), (41, 52202), (43, 52211), (47, 52229), (49, 52232), (59, 52292), (69, 52367), (75, 52403), (77, 52427), (80, 52457),