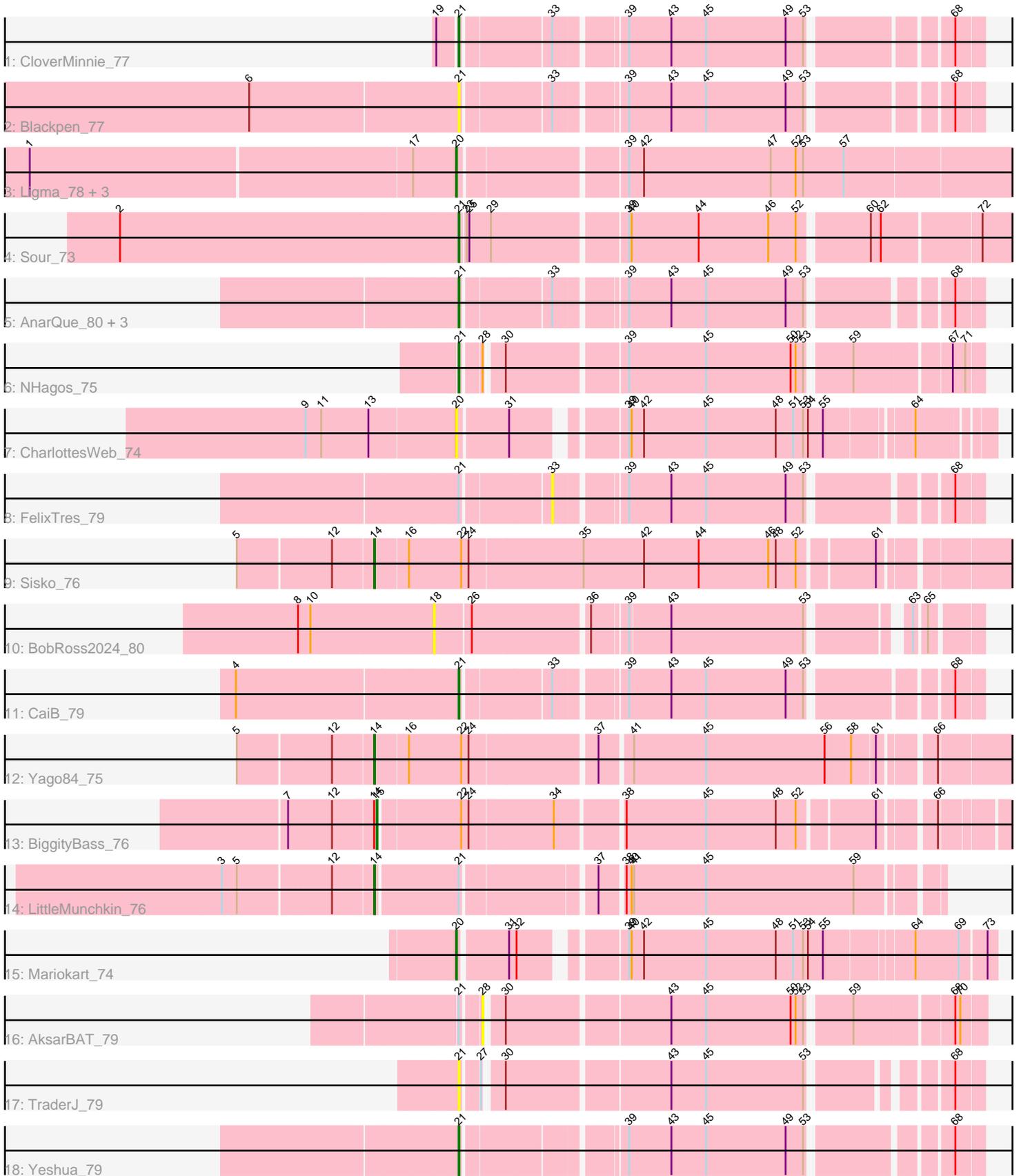


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 282439 Report

This analysis was run 02/23/26 on database version 636.

Pham number 282439 has 24 members, 6 are drafts.

Phages represented in each track:

- Track 1 : CloverMinnie\_77
- Track 2 : Blackpen\_77
- Track 3 : Ligma\_78, Axumite\_78, Fresco\_78, Shatter\_78
- Track 4 : Sour\_73
- Track 5 : AnarQue\_80, MossRose\_78, Wooper\_80, MakoManhole\_75
- Track 6 : NHagos\_75
- Track 7 : CharlottesWeb\_74
- Track 8 : FelixTres\_79
- Track 9 : Sisko\_76
- Track 10 : BobRoss2024\_80
- Track 11 : CaiB\_79
- Track 12 : Yago84\_75
- Track 13 : BiggityBass\_76
- Track 14 : LittleMunchkin\_76
- Track 15 : Mariokart\_74
- Track 16 : AksarBAT\_79
- Track 17 : TraderJ\_79
- Track 18 : Yeshua\_79

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

The start number called the most often in the published annotations is 21, it was called in 9 of the 18 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AnarQue\_80, Blackpen\_77, CaiB\_79, CloverMinnie\_77, MakoManhole\_75, MossRose\_78, NHagos\_75, Sour\_73, TraderJ\_79, Wooper\_80, Yeshua\_79,

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

- AksarBAT\_79, FelixTres\_79, LittleMunchkin\_76,

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

- Axumite\_78, BiggityBass\_76, BobRoss2024\_80, CharlottesWeb\_74, Fresco\_78, Ligma\_78, Mariokart\_74, Shatter\_78, Sisko\_76, Yago84\_75,

### Summary by start number:

#### Start 14:

- Found in 4 of 24 ( 16.7% ) of genes in pham
- Manual Annotations of this start: 3 of 18
- Called 75.0% of time when present
- Phage (with cluster) where this start called: LittleMunchkin\_76 (DR), Sisko\_76 (DR), Yago84\_75 (DR),

#### Start 15:

- Found in 1 of 24 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 1 of 18
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BiggityBass\_76 (DR),

#### Start 18:

- Found in 1 of 24 ( 4.2% ) 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\_80 (DR),

#### Start 20:

- Found in 6 of 24 ( 25.0% ) of genes in pham
- Manual Annotations of this start: 5 of 18
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Axumite\_78 (DR), CharlottesWeb\_74 (DR), Fresco\_78 (DR), Ligma\_78 (DR), Mariokart\_74 (DR), Shatter\_78 (DR),

#### Start 21:

- Found in 14 of 24 ( 58.3% ) of genes in pham
- Manual Annotations of this start: 9 of 18
- Called 78.6% of time when present
- Phage (with cluster) where this start called: AnarQue\_80 (DR), Blackpen\_77 (DR), CaiB\_79 (DR), CloverMinnie\_77 (DR), MakoManhole\_75 (DR), MossRose\_78 (DR), NHagos\_75 (DR), Sour\_73 (DR), TraderJ\_79 (DR), Wooper\_80 (DR), Yeshua\_79 (DR),

#### Start 28:

- Found in 2 of 24 ( 8.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: AksarBAT\_79 (DR),

#### Start 33:

- Found in 8 of 24 ( 33.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 12.5% of time when present
- Phage (with cluster) where this start called: FelixTres\_79 (DR),

### Summary by clusters:

There is one cluster represented in this pham: DR

Info for manual annotations of cluster DR:

- Start number 14 was manually annotated 3 times for cluster DR.
- Start number 15 was manually annotated 1 time for cluster DR.
- Start number 20 was manually annotated 5 times for cluster DR.
- Start number 21 was manually annotated 9 times for cluster DR.

### **Gene Information:**

Gene: AksarBAT\_79 Start: 57782, Stop: 57225, Start Num: 28

Candidate Starts for AksarBAT\_79:

(Start: 21 @57800 has 9 MA's), (28, 57782), (30, 57764), (43, 57578), (45, 57536), (50, 57434), (52, 57428), (53, 57419), (59, 57371), (68, 57260), (70, 57254),

Gene: AnarQue\_80 Start: 58928, Stop: 58365, Start Num: 21

Candidate Starts for AnarQue\_80:

(Start: 21 @58928 has 9 MA's), (33, 58829), (39, 58754), (43, 58703), (45, 58661), (49, 58565), (53, 58544), (68, 58397),

Gene: Axumite\_78 Start: 57722, Stop: 57081, Start Num: 20

Candidate Starts for Axumite\_78:

(1, 58226), (17, 57773), (Start: 20 @57722 has 5 MA's), (39, 57536), (42, 57518), (47, 57365), (52, 57335), (53, 57326), (57, 57278),

Gene: BiggityBass\_76 Start: 59275, Stop: 58550, Start Num: 15

Candidate Starts for BiggityBass\_76:

(7, 59377), (12, 59326), (Start: 14 @59278 has 3 MA's), (Start: 15 @59275 has 1 MA's), (22, 59182), (24, 59173), (34, 59074), (38, 59002), (45, 58906), (48, 58822), (52, 58798), (61, 58714), (66, 58657),

Gene: Blackpen\_77 Start: 57391, Stop: 56825, Start Num: 21

Candidate Starts for Blackpen\_77:

(6, 57637), (Start: 21 @57391 has 9 MA's), (33, 57292), (39, 57217), (43, 57166), (45, 57124), (49, 57028), (53, 57007), (68, 56857),

Gene: BobRoss2024\_80 Start: 58265, Stop: 57684, Start Num: 18

Candidate Starts for BobRoss2024\_80:

(8, 58427), (10, 58412), (18, 58265), (26, 58226), (36, 58094), (39, 58055), (43, 58007), (53, 57848), (63, 57752), (65, 57740),

Gene: CaiB\_79 Start: 58726, Stop: 58160, Start Num: 21

Candidate Starts for CaiB\_79:

(4, 58987), (Start: 21 @58726 has 9 MA's), (33, 58627), (39, 58552), (43, 58501), (45, 58459), (49, 58363), (53, 58342), (68, 58192),

Gene: CharlottesWeb\_74 Start: 56348, Stop: 55770, Start Num: 20

Candidate Starts for CharlottesWeb\_74:

(9, 56525), (11, 56507), (13, 56450), (Start: 20 @56348 has 5 MA's), (31, 56291), (39, 56180), (40, 56177), (42, 56162), (45, 56087), (48, 56003), (51, 55982), (53, 55970), (54, 55964), (55, 55946), (64, 55850),

Gene: CloverMinnie\_77 Start: 57895, Stop: 57329, Start Num: 21

Candidate Starts for CloverMinnie\_77:

(19, 57916), (Start: 21 @57895 has 9 MA's), (33, 57796), (39, 57721), (43, 57670), (45, 57628), (49, 57532), (53, 57511), (68, 57361),

Gene: FelixTres\_79 Start: 58071, Stop: 57607, Start Num: 33

Candidate Starts for FelixTres\_79:

(Start: 21 @58170 has 9 MA's), (33, 58071), (39, 57996), (43, 57945), (45, 57903), (49, 57807), (53, 57786), (68, 57639),

Gene: Fresco\_78 Start: 57728, Stop: 57087, Start Num: 20

Candidate Starts for Fresco\_78:

(1, 58232), (17, 57779), (Start: 20 @57728 has 5 MA's), (39, 57542), (42, 57524), (47, 57371), (52, 57341), (53, 57332), (57, 57284),

Gene: Ligma\_78 Start: 57722, Stop: 57081, Start Num: 20

Candidate Starts for Ligma\_78:

(1, 58226), (17, 57773), (Start: 20 @57722 has 5 MA's), (39, 57536), (42, 57518), (47, 57365), (52, 57335), (53, 57326), (57, 57278),

Gene: LittleMunchkin\_76 Start: 59392, Stop: 58763, Start Num: 14

Candidate Starts for LittleMunchkin\_76:

(3, 59566), (5, 59548), (12, 59440), (Start: 14 @59392 has 3 MA's), (Start: 21 @59296 has 9 MA's), (37, 59149), (38, 59125), (40, 59119), (41, 59116), (45, 59029), (59, 58852),

Gene: MakoManhole\_75 Start: 57267, Stop: 56704, Start Num: 21

Candidate Starts for MakoManhole\_75:

(Start: 21 @57267 has 9 MA's), (33, 57168), (39, 57093), (43, 57042), (45, 57000), (49, 56904), (53, 56883), (68, 56736),

Gene: Mariokart\_74 Start: 56634, Stop: 56044, Start Num: 20

Candidate Starts for Mariokart\_74:

(Start: 20 @56634 has 5 MA's), (31, 56580), (32, 56571), (39, 56469), (40, 56466), (42, 56451), (45, 56376), (48, 56292), (51, 56271), (53, 56259), (54, 56253), (55, 56235), (64, 56136), (69, 56085), (73, 56055),

Gene: MossRose\_78 Start: 58178, Stop: 57615, Start Num: 21

Candidate Starts for MossRose\_78:

(Start: 21 @58178 has 9 MA's), (33, 58079), (39, 58004), (43, 57953), (45, 57911), (49, 57815), (53, 57794), (68, 57647),

Gene: NHagos\_75 Start: 56476, Stop: 55907, Start Num: 21

Candidate Starts for NHagos\_75:

(Start: 21 @56476 has 9 MA's), (28, 56458), (30, 56440), (39, 56308), (45, 56215), (50, 56113), (52, 56107), (53, 56098), (59, 56050), (67, 55942), (71, 55927),

Gene: Shatter\_78 Start: 57722, Stop: 57081, Start Num: 20

Candidate Starts for Shatter\_78:

(1, 58226), (17, 57773), (Start: 20 @57722 has 5 MA's), (39, 57536), (42, 57518), (47, 57365), (52, 57335), (53, 57326), (57, 57278),

Gene: Sisko\_76 Start: 58151, Stop: 57393, Start Num: 14

Candidate Starts for Sisko\_76:

(5, 58307), (12, 58199), (Start: 14 @58151 has 3 MA's), (16, 58112), (22, 58049), (24, 58040), (35, 57905), (42, 57833), (44, 57767), (46, 57683), (48, 57674), (52, 57650), (61, 57566),

Gene: Sour\_73 Start: 58426, Stop: 57770, Start Num: 21

Candidate Starts for Sour\_73:

(2, 58831), (Start: 21 @58426 has 9 MA's), (23, 58420), (25, 58417), (29, 58393), (39, 58240), (40, 58237), (44, 58156), (46, 58072), (52, 58039), (60, 57961), (62, 57949), (72, 57835),

Gene: TraderJ\_79 Start: 58292, Stop: 57744, Start Num: 21

Candidate Starts for TraderJ\_79:

(Start: 21 @58292 has 9 MA's), (27, 58274), (30, 58256), (43, 58070), (45, 58028), (53, 57911), (68, 57776),

Gene: Wooper\_80 Start: 58260, Stop: 57697, Start Num: 21

Candidate Starts for Wooper\_80:

(Start: 21 @58260 has 9 MA's), (33, 58161), (39, 58086), (43, 58035), (45, 57993), (49, 57897), (53, 57876), (68, 57729),

Gene: Yago84\_75 Start: 57850, Stop: 57104, Start Num: 14

Candidate Starts for Yago84\_75:

(5, 58006), (12, 57898), (Start: 14 @57850 has 3 MA's), (16, 57811), (22, 57748), (24, 57739), (37, 57595), (41, 57562), (45, 57475), (56, 57334), (58, 57304), (61, 57277), (66, 57220),

Gene: Yeshua\_79 Start: 58236, Stop: 57673, Start Num: 21

Candidate Starts for Yeshua\_79:

(Start: 21 @58236 has 9 MA's), (39, 58062), (43, 58011), (45, 57969), (49, 57873), (53, 57852), (68, 57705),