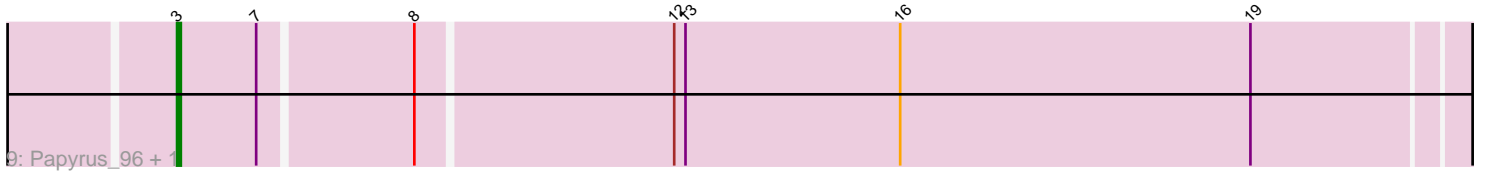
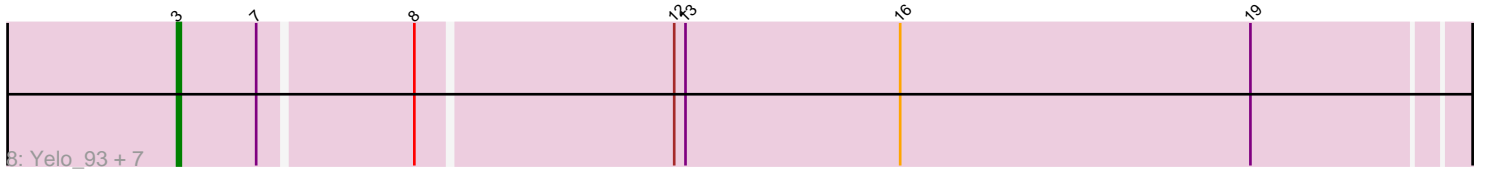
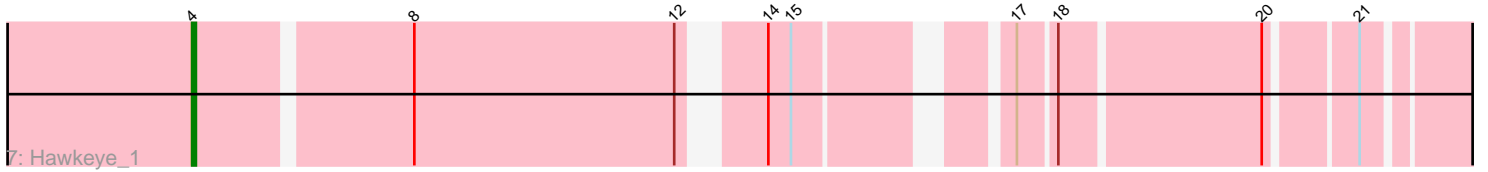
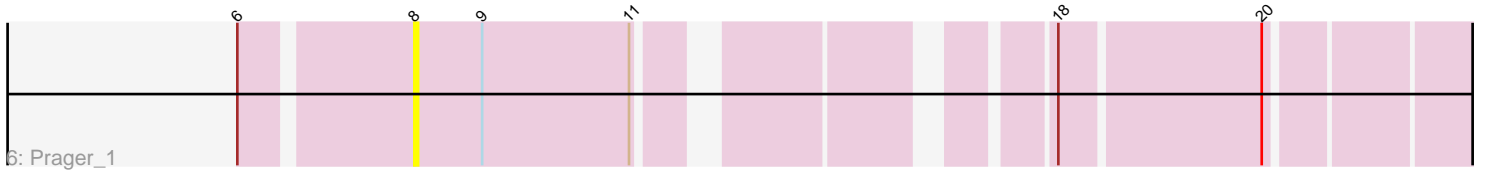
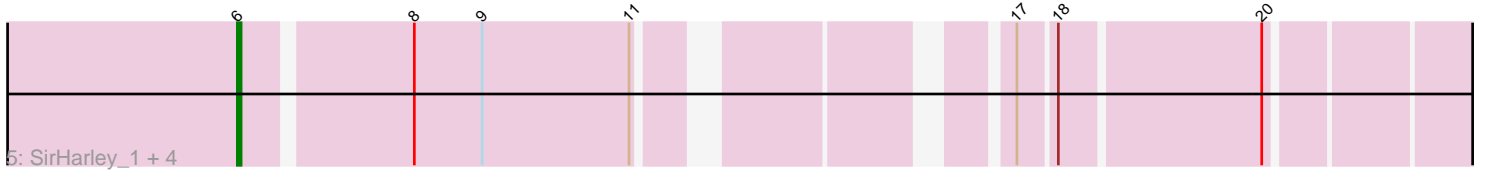
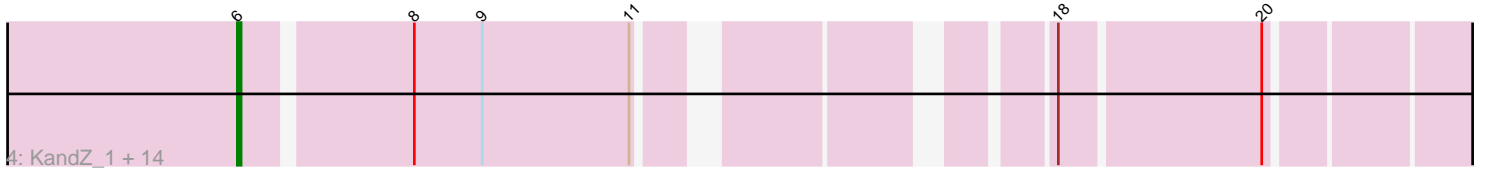
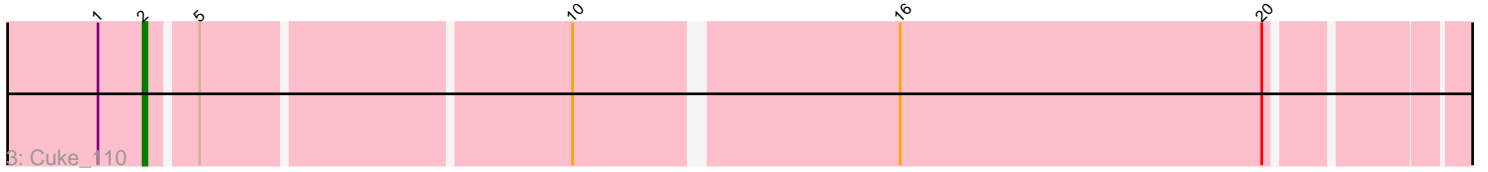
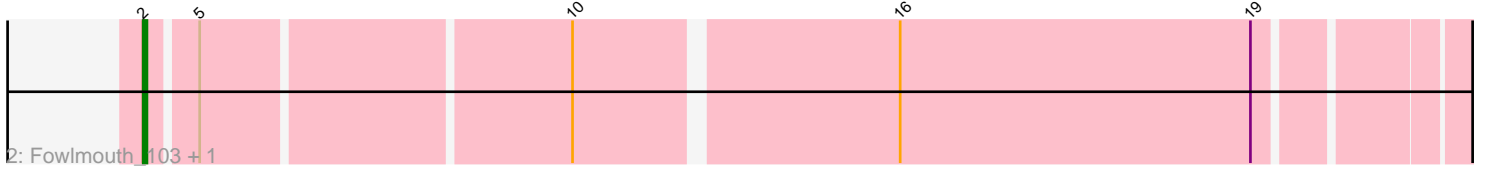
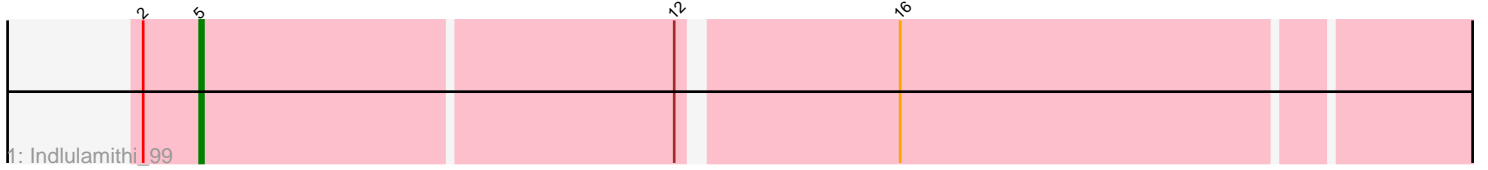


Pham 163772



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 163772 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163772 has 36 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Indlulamithi\_99
- Track 2 : Fowlmouth\_103, MrMiyagi\_101
- Track 3 : Cuke\_110
- Track 4 : KandZ\_1, Erk16\_1, Helpful\_1, Butterscotch\_1, Delton\_1, Penelope2018\_1, PBI1\_1, PLOT\_1, Visconti\_1, Troll4\_1, Adjutor\_1, Chill\_1, Giuseppe\_1, WaldoWhy\_1, BigMama\_1
- Track 5 : SirHarley\_1, Nova\_1, Thoth\_1, Gumball\_1, Mopey\_1
- Track 6 : Prager\_1
- Track 7 : Hawkeye\_1
- Track 8 : Yelo\_93, Send513\_95, Riparian\_98, Nilo\_99, Weiss13\_96, MontyDev\_96, Rope\_95, Zenon\_98
- Track 9 : Papyrus\_96, Candle\_92

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

The start number called the most often in the published annotations is 6, it was called in 20 of the 33 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adjutor\_1, BigMama\_1, Butterscotch\_1, Chill\_1, Delton\_1, Erk16\_1, Giuseppe\_1, Gumball\_1, Helpful\_1, KandZ\_1, Mopey\_1, Nova\_1, PBI1\_1, PLOT\_1, Penelope2018\_1, SirHarley\_1, Thoth\_1, Troll4\_1, Visconti\_1, WaldoWhy\_1,

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

- Prager\_1,

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

- Candle\_92, Cuke\_110, Fowlmouth\_103, Hawkeye\_1, Indlulamithi\_99, MontyDev\_96, MrMiyagi\_101, Nilo\_99, Papyrus\_96, Riparian\_98, Rope\_95, Send513\_95, Weiss13\_96, Yelo\_93, Zenon\_98,

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

Start 2:

- Found in 4 of 36 ( 11.1% ) of genes in pham
- Manual Annotations of this start: 3 of 33
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Cuke\_110 (AC), Fowlmouth\_103 (AC), MrMiyagi\_101 (AC),

#### Start 3:

- Found in 10 of 36 ( 27.8% ) of genes in pham
- Manual Annotations of this start: 8 of 33
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Candle\_92 (R), MontyDev\_96 (R), Nilo\_99 (R), Papyrus\_96 (R), Riparian\_98 (R), Rope\_95 (R), Send513\_95 (R), Weiss13\_96 (R), Yelo\_93 (R), Zenon\_98 (R),

#### Start 4:

- Found in 1 of 36 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 1 of 33
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hawkeye\_1 (D2),

#### Start 5:

- Found in 4 of 36 ( 11.1% ) of genes in pham
- Manual Annotations of this start: 1 of 33
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Indlulamithi\_99 (AC),

#### Start 6:

- Found in 21 of 36 ( 58.3% ) of genes in pham
- Manual Annotations of this start: 20 of 33
- Called 95.2% of time when present
- Phage (with cluster) where this start called: Adjutor\_1 (D1), BigMama\_1 (D1), Butterscotch\_1 (D1), Chill\_1 (D1), Delton\_1 (D1), Erk16\_1 (D1), Giuseppe\_1 (D1), Gumball\_1 (D1), Helpful\_1 (D1), KandZ\_1 (D1), Mopey\_1 (D1), Nova\_1 (D1), PBI1\_1 (D1), PLOT\_1 (D1), Penelope2018\_1 (D1), SirHarley\_1 (D1), Thoth\_1 (D1), Troll4\_1 (D1), Visconti\_1 (D1), WaldoWhy\_1 (D1),

#### Start 8:

- Found in 32 of 36 ( 88.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 3.1% of time when present
- Phage (with cluster) where this start called: Prager\_1 (D1),

### Summary by clusters:

There are 4 clusters represented in this pham: AC, R, D2, D1,

Info for manual annotations of cluster AC:

- Start number 2 was manually annotated 3 times for cluster AC.
- Start number 5 was manually annotated 1 time for cluster AC.

Info for manual annotations of cluster D1:

- Start number 6 was manually annotated 20 times for cluster D1.

Info for manual annotations of cluster D2:

- Start number 4 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster R:

- Start number 3 was manually annotated 8 times for cluster R.

### **Gene Information:**

Gene: Adjutor\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for Adjutor\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (18, 184), (20, 235),

Gene: BigMama\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for BigMama\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (18, 184), (20, 235),

Gene: Butterscotch\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for Butterscotch\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (18, 184), (20, 235),

Gene: Candle\_92 Start: 69971, Stop: 70333, Start Num: 3

Candidate Starts for Candle\_92:

(Start: 3 @69971 has 8 MA's), (7, 69992), (8, 70031), (12, 70097), (13, 70100), (16, 70157), (19, 70250),

Gene: Chill\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for Chill\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (18, 184), (20, 235),

Gene: Cuke\_110 Start: 62225, Stop: 62581, Start Num: 2

Candidate Starts for Cuke\_110:

(1, 62213), (Start: 2 @62225 has 3 MA's), (Start: 5 @62237 has 1 MA's), (10, 62330), (16, 62411), (20, 62507),

Gene: Delton\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for Delton\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (18, 184), (20, 235),

Gene: Erk16\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for Erk16\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (18, 184), (20, 235),

Gene: Fowlmouth\_103 Start: 62697, Stop: 63053, Start Num: 2

Candidate Starts for Fowlmouth\_103:

(Start: 2 @62697 has 3 MA's), (Start: 5 @62709 has 1 MA's), (10, 62802), (16, 62883), (19, 62976),

Gene: Giuseppe\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for Giuseppe\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (18, 184), (20, 235),

Gene: Gumball\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for Gumball\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (17, 175), (18, 184), (20, 235),

Gene: Hawkeye\_1 Start: 1, Stop: 324, Start Num: 4

Candidate Starts for Hawkeye\_1:

(Start: 4 @1 has 1 MA's), (8, 55), (12, 124), (14, 139), (15, 145), (17, 190), (18, 199), (20, 250), (21, 271),

Gene: Helpful\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for Helpful\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (18, 184), (20, 235),

Gene: Indlulamithi\_99 Start: 65931, Stop: 66281, Start Num: 5

Candidate Starts for Indlulamithi\_99:

(Start: 2 @65916 has 3 MA's), (Start: 5 @65931 has 1 MA's), (12, 66054), (16, 66108),

Gene: KandZ\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for KandZ\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (18, 184), (20, 235),

Gene: MontyDev\_96 Start: 69838, Stop: 70200, Start Num: 3

Candidate Starts for MontyDev\_96:

(Start: 3 @69838 has 8 MA's), (7, 69859), (8, 69898), (12, 69964), (13, 69967), (16, 70024), (19, 70117),

Gene: Mopey\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for Mopey\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (17, 175), (18, 184), (20, 235),

Gene: MrMiyagi\_101 Start: 62958, Stop: 63314, Start Num: 2

Candidate Starts for MrMiyagi\_101:

(Start: 2 @62958 has 3 MA's), (Start: 5 @62970 has 1 MA's), (10, 63063), (16, 63144), (19, 63237),

Gene: Nilo\_99 Start: 70339, Stop: 70701, Start Num: 3

Candidate Starts for Nilo\_99:

(Start: 3 @70339 has 8 MA's), (7, 70360), (8, 70399), (12, 70465), (13, 70468), (16, 70525), (19, 70618),

Gene: Nova\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for Nova\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (17, 175), (18, 184), (20, 235),

Gene: PBI1\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for PBI1\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (18, 184), (20, 235),

Gene: PLOT\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for PLOT\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (18, 184), (20, 235),

Gene: Papyrus\_96 Start: 69269, Stop: 69631, Start Num: 3

Candidate Starts for Papyrus\_96:

(Start: 3 @69269 has 8 MA's), (7, 69290), (8, 69329), (12, 69395), (13, 69398), (16, 69455), (19, 69548),

Gene: Penelope2018\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for Penelope2018\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (18, 184), (20, 235),

Gene: Prager\_1 Start: 43, Stop: 309, Start Num: 8

Candidate Starts for Prager\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (18, 184), (20, 235),

Gene: Riparian\_98 Start: 69783, Stop: 70145, Start Num: 3

Candidate Starts for Riparian\_98:

(Start: 3 @69783 has 8 MA's), (7, 69804), (8, 69843), (12, 69909), (13, 69912), (16, 69969), (19, 70062),

Gene: Rope\_95 Start: 69591, Stop: 69953, Start Num: 3

Candidate Starts for Rope\_95:

(Start: 3 @69591 has 8 MA's), (7, 69612), (8, 69651), (12, 69717), (13, 69720), (16, 69777), (19, 69870),

Gene: Send513\_95 Start: 70128, Stop: 70490, Start Num: 3

Candidate Starts for Send513\_95:

(Start: 3 @70128 has 8 MA's), (7, 70149), (8, 70188), (12, 70254), (13, 70257), (16, 70314), (19, 70407),

Gene: SirHarley\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for SirHarley\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (17, 175), (18, 184), (20, 235),

Gene: Thoth\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for Thoth\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (17, 175), (18, 184), (20, 235),

Gene: Troll4\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for Troll4\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (18, 184), (20, 235),

Gene: Visconti\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for Visconti\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (18, 184), (20, 235),

Gene: WaldoWhy\_1 Start: 1, Stop: 309, Start Num: 6

Candidate Starts for WaldoWhy\_1:

(Start: 6 @1 has 20 MA's), (8, 43), (9, 61), (11, 100), (18, 184), (20, 235),

Gene: Weiss13\_96 Start: 70021, Stop: 70383, Start Num: 3

Candidate Starts for Weiss13\_96:

(Start: 3 @70021 has 8 MA's), (7, 70042), (8, 70081), (12, 70147), (13, 70150), (16, 70207), (19, 70300),

Gene: Yelo\_93 Start: 70021, Stop: 70383, Start Num: 3

Candidate Starts for Yelo\_93:

(Start: 3 @70021 has 8 MA's), (7, 70042), (8, 70081), (12, 70147), (13, 70150), (16, 70207), (19, 70300),

Gene: Zenon\_98 Start: 70314, Stop: 70676, Start Num: 3

Candidate Starts for Zenon\_98:

(Start: 3 @70314 has 8 MA's), (7, 70335), (8, 70374), (12, 70440), (13, 70443), (16, 70500), (19, 70593),