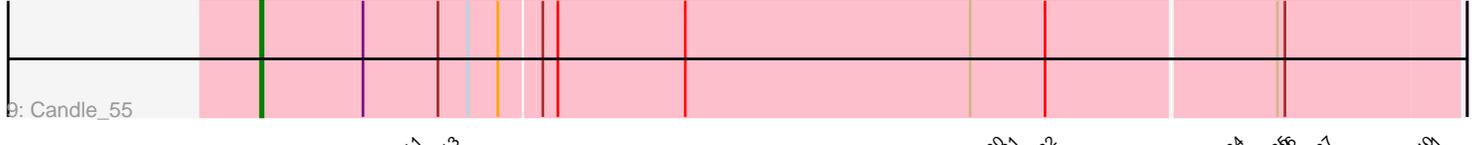
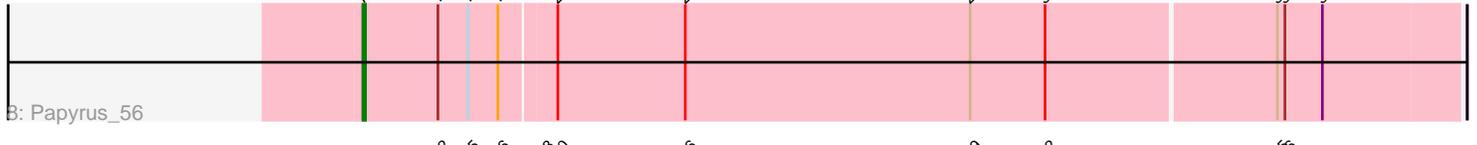
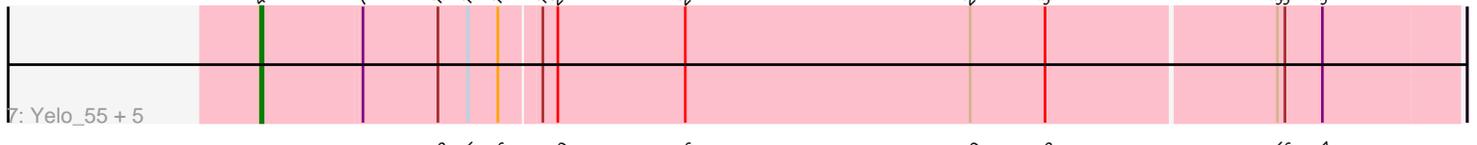
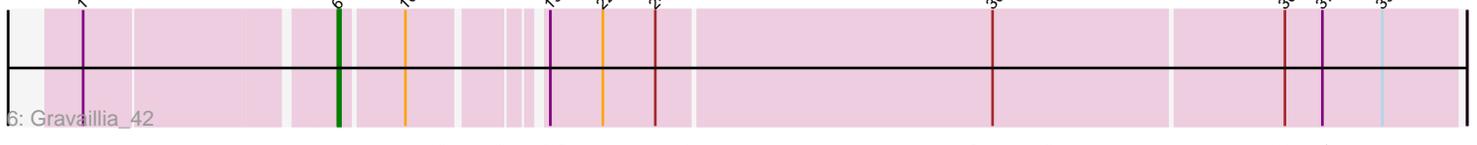
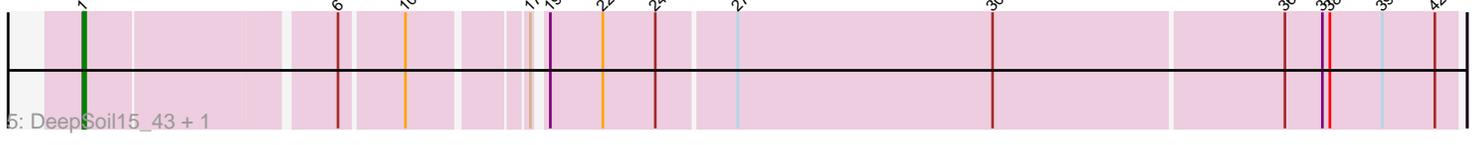
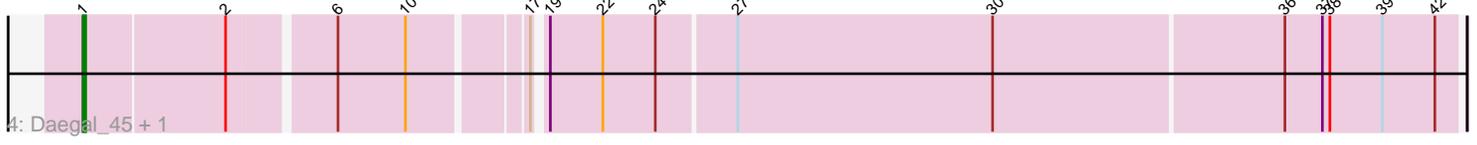
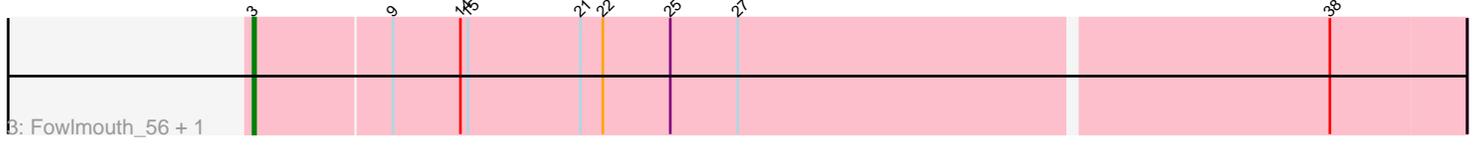
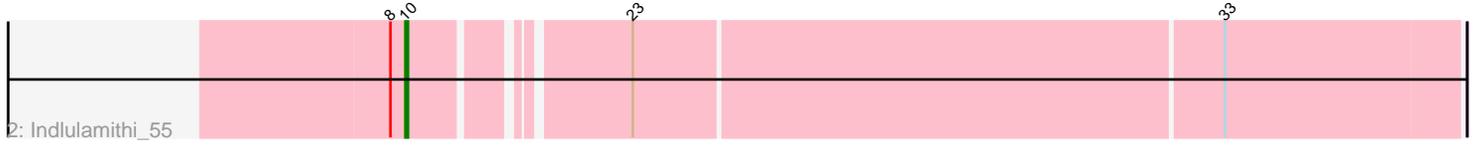
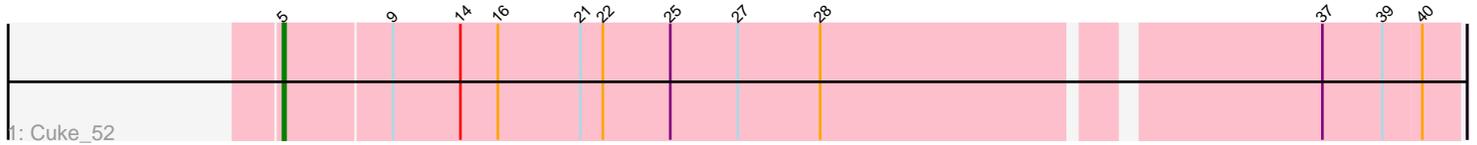


Pham 291487



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 291487 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291487 has 25 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Cuke\_52
- Track 2 : Indlulamithi\_55
- Track 3 : Fowlmouth\_56, MrMiyagi\_55
- Track 4 : Daegal\_45, Gancho\_42
- Track 5 : DeepSoil15\_43, Wishmaker\_41
- Track 6 : Gravaillia\_42
- Track 7 : Yelo\_55, Nilo\_57, Zenon\_56, Send513\_56, MontyDev\_56, Riparian\_57
- Track 8 : Papyrus\_56
- Track 9 : Candle\_55
- Track 10 : Taptic\_44, Argie\_45, Cepens\_44, D12\_43, PR\_44, Megabear\_44
- Track 11 : GodPhather\_45, Jeon\_44

### ***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 8 of the 24 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Argie\_45, Cepens\_44, D12\_43, GodPhather\_45, Jeon\_44, Megabear\_44, PR\_44, Taptic\_44,

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

- 

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

- Candle\_55, Cuke\_52, Daegal\_45, DeepSoil15\_43, Fowlmouth\_56, Gancho\_42, Gravaillia\_42, Indlulamithi\_55, MontyDev\_56, MrMiyagi\_55, Nilo\_57, Papyrus\_56, Riparian\_57, Send513\_56, Wishmaker\_41, Yelo\_55, Zenon\_56,

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

Start 1:

- Found in 5 of 25 ( 20.0% ) of genes in pham
- Manual Annotations of this start: 4 of 24

- Called 80.0% of time when present
- Phage (with cluster) where this start called: Daegal\_45 (Q), DeepSoil15\_43 (Q), Gancho\_42 (Q), Wishmaker\_41 (Q),

Start 3:

- Found in 2 of 25 ( 8.0% ) of genes in pham
- Manual Annotations of this start: 2 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fowlmouth\_56 (AC), MrMiyagi\_55 (AC),

Start 4:

- Found in 7 of 25 ( 28.0% ) of genes in pham
- Manual Annotations of this start: 6 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Candle\_55 (R), MontyDev\_56 (R), Nilo\_57 (R), Riparian\_57 (R), Send513\_56 (R), Yelo\_55 (R), Zenon\_56 (R),

Start 5:

- Found in 1 of 25 ( 4.0% ) of genes in pham
- Manual Annotations of this start: 1 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cuke\_52 (AC),

Start 6:

- Found in 5 of 25 ( 20.0% ) of genes in pham
- Manual Annotations of this start: 1 of 24
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Gravallia\_42 (Q),

Start 7:

- Found in 8 of 25 ( 32.0% ) of genes in pham
- Manual Annotations of this start: 1 of 24
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Papyrus\_56 (R),

Start 10:

- Found in 6 of 25 ( 24.0% ) of genes in pham
- Manual Annotations of this start: 1 of 24
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Indlulamithi\_55 (AC),

Start 11:

- Found in 8 of 25 ( 32.0% ) of genes in pham
- Manual Annotations of this start: 8 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Argie\_45 (W), Cepens\_44 (W), D12\_43 (W), GodPhather\_45 (W), Jeon\_44 (W), Megabear\_44 (W), PR\_44 (W), Taptic\_44 (W),

**Summary by clusters:**

There are 4 clusters represented in this pham: Q, AC, R, W,

Info for manual annotations of cluster AC:

- Start number 3 was manually annotated 2 times for cluster AC.
- Start number 5 was manually annotated 1 time for cluster AC.
- Start number 10 was manually annotated 1 time for cluster AC.

Info for manual annotations of cluster Q:

- Start number 1 was manually annotated 4 times for cluster Q.
- Start number 6 was manually annotated 1 time for cluster Q.

Info for manual annotations of cluster R:

- Start number 4 was manually annotated 6 times for cluster R.
- Start number 7 was manually annotated 1 time for cluster R.

Info for manual annotations of cluster W:

- Start number 11 was manually annotated 8 times for cluster W.

### **Gene Information:**

Gene: Argie\_45 Start: 40492, Stop: 40893, Start Num: 11

Candidate Starts for Argie\_45:

(Start: 11 @40492 has 8 MA's), (13, 40507), (30, 40723), (31, 40729), (32, 40744), (34, 40804), (35, 40822), (36, 40825), (37, 40840), (40, 40879), (41, 40882),

Gene: Candle\_55 Start: 42652, Stop: 43122, Start Num: 4

Candidate Starts for Candle\_55:

(Start: 4 @42652 has 6 MA's), (Start: 7 @42691 has 1 MA's), (12, 42721), (15, 42733), (16, 42745), (18, 42760), (20, 42766), (26, 42817), (29, 42931), (32, 42961), (35, 43051), (36, 43054),

Gene: Cepens\_44 Start: 40207, Stop: 40608, Start Num: 11

Candidate Starts for Cepens\_44:

(Start: 11 @40207 has 8 MA's), (13, 40222), (30, 40438), (31, 40444), (32, 40459), (34, 40519), (35, 40537), (36, 40540), (37, 40555), (40, 40594), (41, 40597),

Gene: Cuke\_52 Start: 36064, Stop: 36516, Start Num: 5

Candidate Starts for Cuke\_52:

(Start: 5 @36064 has 1 MA's), (9, 36106), (14, 36133), (16, 36148), (21, 36181), (22, 36190), (25, 36217), (27, 36244), (28, 36277), (37, 36463), (39, 36487), (40, 36502),

Gene: D12\_43 Start: 40755, Stop: 41156, Start Num: 11

Candidate Starts for D12\_43:

(Start: 11 @40755 has 8 MA's), (13, 40770), (30, 40986), (31, 40992), (32, 41007), (34, 41067), (35, 41085), (36, 41088), (37, 41103), (40, 41142), (41, 41145),

Gene: Daegal\_45 Start: 33993, Stop: 33472, Start Num: 1

Candidate Starts for Daegal\_45:

(Start: 1 @33993 has 4 MA's), (2, 33939), (Start: 6 @33900 has 1 MA's), (Start: 10 @33873 has 1 MA's), (17, 33831), (19, 33828), (22, 33807), (24, 33786), (27, 33756), (30, 33654), (36, 33540), (37, 33525), (38, 33522), (39, 33501), (42, 33480),

Gene: DeepSoil15\_43 Start: 33409, Stop: 32891, Start Num: 1

Candidate Starts for DeepSoil15\_43:

(Start: 1 @33409 has 4 MA's), (Start: 6 @33316 has 1 MA's), (Start: 10 @33292 has 1 MA's), (17, 33250), (19, 33247), (22, 33226), (24, 33205), (27, 33175), (30, 33073), (36, 32959), (37, 32944), (38, 32941), (39, 32920), (42, 32899),

Gene: Fowlmouth\_56 Start: 39448, Stop: 39924, Start Num: 3

Candidate Starts for Fowlmouth\_56:

(Start: 3 @39448 has 2 MA's), (9, 39502), (14, 39529), (15, 39532), (21, 39577), (22, 39586), (25, 39613), (27, 39640), (38, 39871),

Gene: Gancho\_42 Start: 33132, Stop: 32614, Start Num: 1

Candidate Starts for Gancho\_42:

(Start: 1 @33132 has 4 MA's), (2, 33078), (Start: 6 @33039 has 1 MA's), (Start: 10 @33015 has 1 MA's), (17, 32973), (19, 32970), (22, 32949), (24, 32928), (27, 32898), (30, 32796), (36, 32682), (37, 32667), (38, 32664), (39, 32643), (42, 32622),

Gene: GodPhather\_45 Start: 40971, Stop: 41372, Start Num: 11

Candidate Starts for GodPhather\_45:

(Start: 11 @40971 has 8 MA's), (13, 40986), (30, 41202), (31, 41208), (32, 41223), (34, 41283), (35, 41301), (36, 41304), (37, 41319), (40, 41358), (41, 41361),

Gene: Gravaillia\_42 Start: 33359, Stop: 32934, Start Num: 6

Candidate Starts for Gravaillia\_42:

(Start: 1 @33452 has 4 MA's), (Start: 6 @33359 has 1 MA's), (Start: 10 @33335 has 1 MA's), (19, 33290), (22, 33269), (24, 33248), (30, 33116), (36, 33002), (37, 32987), (39, 32963),

Gene: Indlulamithi\_55 Start: 41815, Stop: 42213, Start Num: 10

Candidate Starts for Indlulamithi\_55:

(8, 41809), (Start: 10 @41815 has 1 MA's), (23, 41890), (33, 42121),

Gene: Jeon\_44 Start: 40713, Stop: 41114, Start Num: 11

Candidate Starts for Jeon\_44:

(Start: 11 @40713 has 8 MA's), (13, 40728), (30, 40944), (31, 40950), (32, 40965), (34, 41025), (35, 41043), (36, 41046), (37, 41061), (40, 41100), (41, 41103),

Gene: Megabear\_44 Start: 40128, Stop: 40529, Start Num: 11

Candidate Starts for Megabear\_44:

(Start: 11 @40128 has 8 MA's), (13, 40143), (30, 40359), (31, 40365), (32, 40380), (34, 40440), (35, 40458), (36, 40461), (37, 40476), (40, 40515), (41, 40518),

Gene: MontyDev\_56 Start: 42299, Stop: 42769, Start Num: 4

Candidate Starts for MontyDev\_56:

(Start: 4 @42299 has 6 MA's), (Start: 7 @42338 has 1 MA's), (12, 42368), (15, 42380), (16, 42392), (18, 42407), (20, 42413), (26, 42464), (29, 42578), (32, 42608), (35, 42698), (36, 42701), (37, 42716),

Gene: MrMiyagi\_55 Start: 39832, Stop: 40308, Start Num: 3

Candidate Starts for MrMiyagi\_55:

(Start: 3 @39832 has 2 MA's), (9, 39886), (14, 39913), (15, 39916), (21, 39961), (22, 39970), (25, 39997), (27, 40024), (38, 40255),

Gene: Nilo\_57 Start: 42651, Stop: 43121, Start Num: 4

Candidate Starts for Nilo\_57:

(Start: 4 @42651 has 6 MA's), (Start: 7 @42690 has 1 MA's), (12, 42720), (15, 42732), (16, 42744), (18, 42759), (20, 42765), (26, 42816), (29, 42930), (32, 42960), (35, 43050), (36, 43053), (37, 43068),

Gene: PR\_44 Start: 40732, Stop: 41133, Start Num: 11

Candidate Starts for PR\_44:

(Start: 11 @40732 has 8 MA's), (13, 40747), (30, 40963), (31, 40969), (32, 40984), (34, 41044), (35, 41062), (36, 41065), (37, 41080), (40, 41119), (41, 41122),

Gene: Papyrus\_56 Start: 42546, Stop: 42977, Start Num: 7

Candidate Starts for Papyrus\_56:

(Start: 7 @42546 has 1 MA's), (12, 42576), (15, 42588), (16, 42600), (20, 42621), (26, 42672), (29, 42786), (32, 42816), (35, 42906), (36, 42909), (37, 42924),

Gene: Riparian\_57 Start: 42099, Stop: 42569, Start Num: 4

Candidate Starts for Riparian\_57:

(Start: 4 @42099 has 6 MA's), (Start: 7 @42138 has 1 MA's), (12, 42168), (15, 42180), (16, 42192), (18, 42207), (20, 42213), (26, 42264), (29, 42378), (32, 42408), (35, 42498), (36, 42501), (37, 42516),

Gene: Send513\_56 Start: 42632, Stop: 43102, Start Num: 4

Candidate Starts for Send513\_56:

(Start: 4 @42632 has 6 MA's), (Start: 7 @42671 has 1 MA's), (12, 42701), (15, 42713), (16, 42725), (18, 42740), (20, 42746), (26, 42797), (29, 42911), (32, 42941), (35, 43031), (36, 43034), (37, 43049),

Gene: Taptic\_44 Start: 40128, Stop: 40529, Start Num: 11

Candidate Starts for Taptic\_44:

(Start: 11 @40128 has 8 MA's), (13, 40143), (30, 40359), (31, 40365), (32, 40380), (34, 40440), (35, 40458), (36, 40461), (37, 40476), (40, 40515), (41, 40518),

Gene: Wishmaker\_41 Start: 33409, Stop: 32891, Start Num: 1

Candidate Starts for Wishmaker\_41:

(Start: 1 @33409 has 4 MA's), (Start: 6 @33316 has 1 MA's), (Start: 10 @33292 has 1 MA's), (17, 33250), (19, 33247), (22, 33226), (24, 33205), (27, 33175), (30, 33073), (36, 32959), (37, 32944), (38, 32941), (39, 32920), (42, 32899),

Gene: Yelo\_55 Start: 42715, Stop: 43185, Start Num: 4

Candidate Starts for Yelo\_55:

(Start: 4 @42715 has 6 MA's), (Start: 7 @42754 has 1 MA's), (12, 42784), (15, 42796), (16, 42808), (18, 42823), (20, 42829), (26, 42880), (29, 42994), (32, 43024), (35, 43114), (36, 43117), (37, 43132),

Gene: Zenon\_56 Start: 42661, Stop: 43131, Start Num: 4

Candidate Starts for Zenon\_56:

(Start: 4 @42661 has 6 MA's), (Start: 7 @42700 has 1 MA's), (12, 42730), (15, 42742), (16, 42754), (18, 42769), (20, 42775), (26, 42826), (29, 42940), (32, 42970), (35, 43060), (36, 43063), (37, 43078),