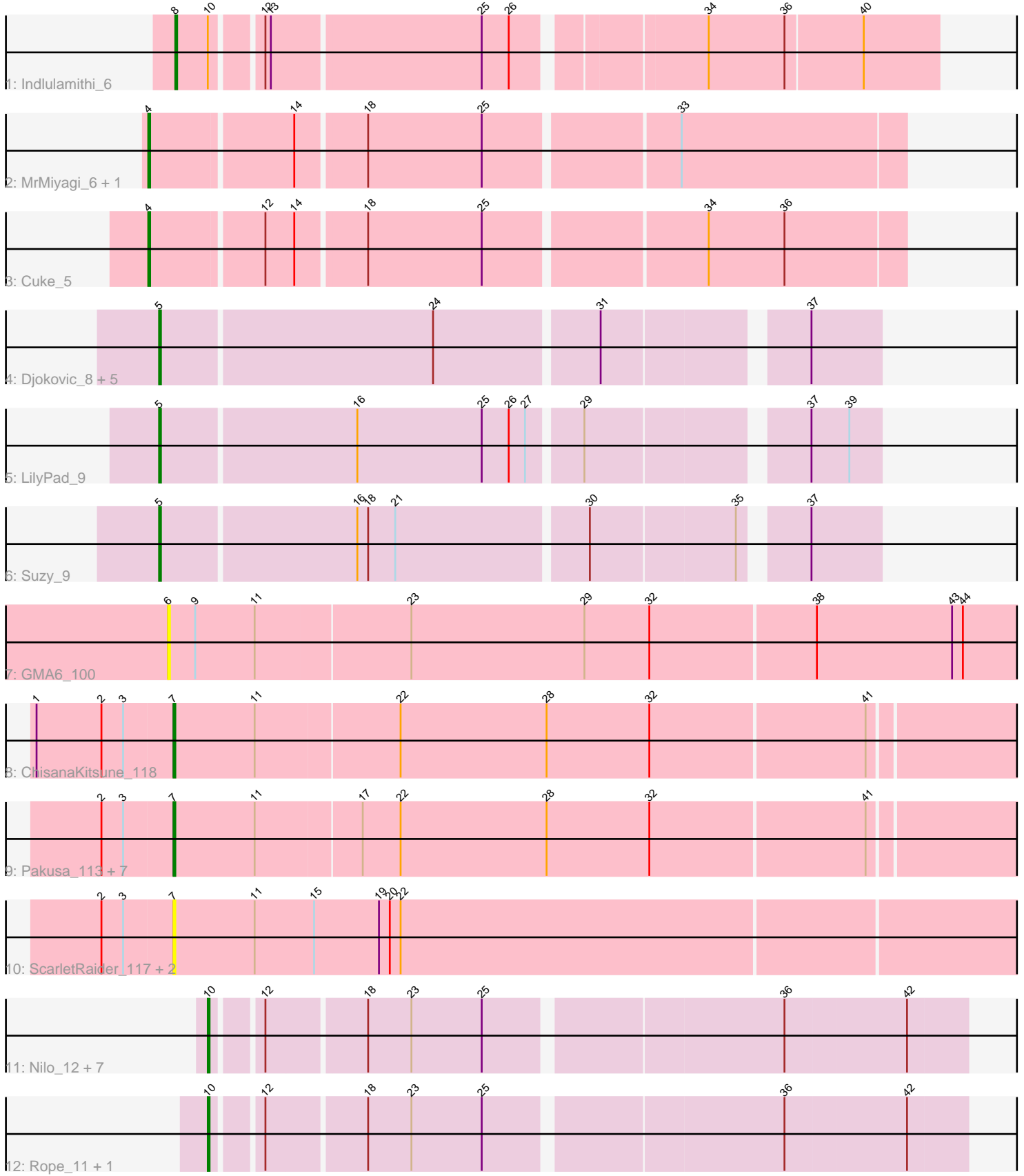


Pham 171638



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 171638 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171638 has 35 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Indlulamithi\_6
- Track 2 : MrMiyagi\_6, Fowlmouth\_6
- Track 3 : Cuke\_5
- Track 4 : Djokovic\_8, Terapin\_8, Sienna\_8, BiteSize\_8, Beyoncage\_8, Madi\_8
- Track 5 : LilyPad\_9
- Track 6 : Suzy\_9
- Track 7 : GMA6\_100
- Track 8 : ChisanaKitsune\_118
- Track 9 : Pakusa\_113, Schomber\_117, Gray\_116, Chidiebere\_119, Oogie\_114, Kabocha\_120, Alok\_111, Hanem\_118
- Track 10 : ScarletRaider\_117, FlyingTortilla\_117, UBSmoodge\_119
- Track 11 : Nilo\_12, Zenon\_12, Papyrus\_11, Send513\_11, Yelo\_11, Weiss13\_11, MontyDev\_11, Candle\_11
- Track 12 : Rope\_11, Riparian\_11

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

The start number called the most often in the published annotations is 10, it was called in 9 of the 27 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Candle\_11, MontyDev\_11, Nilo\_12, Papyrus\_11, Riparian\_11, Rope\_11, Send513\_11, Weiss13\_11, Yelo\_11, Zenon\_12,

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

- Indlulamithi\_6,

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

- Alok\_111, Beyoncage\_8, BiteSize\_8, Chidiebere\_119, ChisanaKitsune\_118, Cuke\_5, Djokovic\_8, FlyingTortilla\_117, Fowlmouth\_6, GMA6\_100, Gray\_116, Hanem\_118, Kabocha\_120, LilyPad\_9, Madi\_8, MrMiyagi\_6, Oogie\_114, Pakusa\_113, ScarletRaider\_117, Schomber\_117, Sienna\_8, Suzy\_9, Terapin\_8, UBSmoodge\_119,

## Summary by start number:

### Start 4:

- Found in 3 of 35 ( 8.6% ) of genes in pham
- Manual Annotations of this start: 3 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cuke\_5 (AC), Fowlmouth\_6 (AC), MrMiyagi\_6 (AC),

### Start 5:

- Found in 8 of 35 ( 22.9% ) of genes in pham
- Manual Annotations of this start: 8 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beyoncage\_8 (DG1), BiteSize\_8 (DG1), Djokovic\_8 (DG1), LilyPad\_9 (DG1), Madi\_8 (DG1), Sienna\_8 (DG1), Suzy\_9 (DG1), Terapin\_8 (DG1),

### Start 6:

- Found in 1 of 35 ( 2.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA6\_100 (DQ),

### Start 7:

- Found in 12 of 35 ( 34.3% ) of genes in pham
- Manual Annotations of this start: 6 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alok\_i\_111 (DQ), Chidiebere\_119 (DQ), ChisanaKitsune\_118 (DQ), FlyingTortilla\_117 (DQ), Gray\_116 (DQ), Hanem\_118 (DQ), Kabocha\_120 (DQ), Oogie\_114 (DQ), Pakusa\_113 (DQ), ScarletRaider\_117 (DQ), Schomber\_117 (DQ), UBSmoodge\_119 (DQ),

### Start 8:

- Found in 1 of 35 ( 2.9% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Indlulamithi\_6 (AC),

### Start 10:

- Found in 11 of 35 ( 31.4% ) of genes in pham
- Manual Annotations of this start: 9 of 27
- Called 90.9% of time when present
- Phage (with cluster) where this start called: Candle\_11 (R), MontyDev\_11 (R), Nilo\_12 (R), Papyrus\_11 (R), Riparian\_11 (R), Rope\_11 (R), Send513\_11 (R), Weiss13\_11 (R), Yelo\_11 (R), Zenon\_12 (R),

## Summary by clusters:

There are 4 clusters represented in this pham: R, DG1, AC, DQ,

Info for manual annotations of cluster AC:

- Start number 4 was manually annotated 3 times for cluster AC.
- Start number 8 was manually annotated 1 time for cluster AC.

Info for manual annotations of cluster DG1:

- Start number 5 was manually annotated 8 times for cluster DG1.

Info for manual annotations of cluster DQ:

- Start number 7 was manually annotated 6 times for cluster DQ.

Info for manual annotations of cluster R:

- Start number 10 was manually annotated 9 times for cluster R.

### **Gene Information:**

Gene: Alok1\_111 Start: 82312, Stop: 82782, Start Num: 7

Candidate Starts for Alok1\_111:

(2, 82273), (3, 82285), (Start: 7 @82312 has 6 MA's), (11, 82357), (17, 82414), (22, 82435), (28, 82516), (32, 82573), (41, 82690),

Gene: Beyoncage\_8 Start: 5498, Stop: 5872, Start Num: 5

Candidate Starts for Beyoncage\_8:

(Start: 5 @5498 has 8 MA's), (24, 5645), (31, 5732), (37, 5834),

Gene: BiteSize\_8 Start: 5498, Stop: 5872, Start Num: 5

Candidate Starts for BiteSize\_8:

(Start: 5 @5498 has 8 MA's), (24, 5645), (31, 5732), (37, 5834),

Gene: Candle\_11 Start: 6411, Stop: 6803, Start Num: 10

Candidate Starts for Candle\_11:

(Start: 10 @6411 has 9 MA's), (12, 6435), (18, 6486), (23, 6510), (25, 6549), (36, 6705), (42, 6771),

Gene: Chidiebere\_119 Start: 83442, Stop: 83912, Start Num: 7

Candidate Starts for Chidiebere\_119:

(2, 83403), (3, 83415), (Start: 7 @83442 has 6 MA's), (11, 83487), (17, 83544), (22, 83565), (28, 83646), (32, 83703), (41, 83820),

Gene: ChisanaKitsune\_118 Start: 82458, Stop: 82928, Start Num: 7

Candidate Starts for ChisanaKitsune\_118:

(1, 82383), (2, 82419), (3, 82431), (Start: 7 @82458 has 6 MA's), (11, 82503), (22, 82581), (28, 82662), (32, 82719), (41, 82836),

Gene: Cuke\_5 Start: 3636, Stop: 4034, Start Num: 4

Candidate Starts for Cuke\_5:

(Start: 4 @3636 has 3 MA's), (12, 3696), (14, 3711), (18, 3747), (25, 3810), (34, 3927), (36, 3969),

Gene: Djokovic\_8 Start: 5498, Stop: 5872, Start Num: 5

Candidate Starts for Djokovic\_8:

(Start: 5 @5498 has 8 MA's), (24, 5645), (31, 5732), (37, 5834),

Gene: FlyingTortilla\_117 Start: 86256, Stop: 86732, Start Num: 7

Candidate Starts for FlyingTortilla\_117:

(2, 86217), (3, 86229), (Start: 7 @86256 has 6 MA's), (11, 86301), (15, 86334), (19, 86370), (20, 86376), (22, 86382),

Gene: Fowlmouth\_6 Start: 3802, Stop: 4200, Start Num: 4  
Candidate Starts for Fowlmouth\_6:  
(Start: 4 @3802 has 3 MA's), (14, 3877), (18, 3913), (25, 3976), (33, 4078),

Gene: GMA6\_100 Start: 73320, Stop: 73802, Start Num: 6  
Candidate Starts for GMA6\_100:  
(6, 73320), (9, 73335), (11, 73368), (23, 73452), (29, 73548), (32, 73584), (38, 73674), (43, 73749),  
(44, 73755),

Gene: Gray\_116 Start: 82771, Stop: 83241, Start Num: 7  
Candidate Starts for Gray\_116:  
(2, 82732), (3, 82744), (Start: 7 @82771 has 6 MA's), (11, 82816), (17, 82873), (22, 82894), (28,  
82975), (32, 83032), (41, 83149),

Gene: Hanem\_118 Start: 82312, Stop: 82782, Start Num: 7  
Candidate Starts for Hanem\_118:  
(2, 82273), (3, 82285), (Start: 7 @82312 has 6 MA's), (11, 82357), (17, 82414), (22, 82435), (28,  
82516), (32, 82573), (41, 82690),

Gene: Indlulamithi\_6 Start: 3798, Stop: 4190, Start Num: 8  
Candidate Starts for Indlulamithi\_6:  
(Start: 8 @3798 has 1 MA's), (Start: 10 @3816 has 9 MA's), (12, 3840), (13, 3843), (25, 3954), (26,  
3969), (34, 4065), (36, 4107), (40, 4149),

Gene: Kabocha\_120 Start: 84255, Stop: 84725, Start Num: 7  
Candidate Starts for Kabocha\_120:  
(2, 84216), (3, 84228), (Start: 7 @84255 has 6 MA's), (11, 84300), (17, 84357), (22, 84378), (28,  
84459), (32, 84516), (41, 84633),

Gene: LilyPad\_9 Start: 6255, Stop: 6629, Start Num: 5  
Candidate Starts for LilyPad\_9:  
(Start: 5 @6255 has 8 MA's), (16, 6360), (25, 6429), (26, 6444), (27, 6453), (29, 6480), (37, 6591), (39,  
6612),

Gene: Madi\_8 Start: 5498, Stop: 5872, Start Num: 5  
Candidate Starts for Madi\_8:  
(Start: 5 @5498 has 8 MA's), (24, 5645), (31, 5732), (37, 5834),

Gene: MontyDev\_11 Start: 6069, Stop: 6461, Start Num: 10  
Candidate Starts for MontyDev\_11:  
(Start: 10 @6069 has 9 MA's), (12, 6093), (18, 6144), (23, 6168), (25, 6207), (36, 6363), (42, 6429),

Gene: MrMiyagi\_6 Start: 3802, Stop: 4200, Start Num: 4  
Candidate Starts for MrMiyagi\_6:  
(Start: 4 @3802 has 3 MA's), (14, 3877), (18, 3913), (25, 3976), (33, 4078),

Gene: Nilo\_12 Start: 6411, Stop: 6803, Start Num: 10  
Candidate Starts for Nilo\_12:  
(Start: 10 @6411 has 9 MA's), (12, 6435), (18, 6486), (23, 6510), (25, 6549), (36, 6705), (42, 6771),

Gene: Oogie\_114 Start: 84275, Stop: 84745, Start Num: 7  
Candidate Starts for Oogie\_114:

(2, 84236), (3, 84248), (Start: 7 @84275 has 6 MA's), (11, 84320), (17, 84377), (22, 84398), (28, 84479), (32, 84536), (41, 84653),

Gene: Pakusa\_113 Start: 82240, Stop: 82710, Start Num: 7

Candidate Starts for Pakusa\_113:

(2, 82201), (3, 82213), (Start: 7 @82240 has 6 MA's), (11, 82285), (17, 82342), (22, 82363), (28, 82444), (32, 82501), (41, 82618),

Gene: Papyrus\_11 Start: 6070, Stop: 6462, Start Num: 10

Candidate Starts for Papyrus\_11:

(Start: 10 @6070 has 9 MA's), (12, 6094), (18, 6145), (23, 6169), (25, 6208), (36, 6364), (42, 6430),

Gene: Riparian\_11 Start: 5869, Stop: 6261, Start Num: 10

Candidate Starts for Riparian\_11:

(Start: 10 @5869 has 9 MA's), (12, 5893), (18, 5944), (23, 5968), (25, 6007), (36, 6163), (42, 6229),

Gene: Rope\_11 Start: 6061, Stop: 6453, Start Num: 10

Candidate Starts for Rope\_11:

(Start: 10 @6061 has 9 MA's), (12, 6085), (18, 6136), (23, 6160), (25, 6199), (36, 6355), (42, 6421),

Gene: ScarletRaider\_117 Start: 85473, Stop: 85949, Start Num: 7

Candidate Starts for ScarletRaider\_117:

(2, 85434), (3, 85446), (Start: 7 @85473 has 6 MA's), (11, 85518), (15, 85551), (19, 85587), (20, 85593), (22, 85599),

Gene: Schomber\_117 Start: 82643, Stop: 83113, Start Num: 7

Candidate Starts for Schomber\_117:

(2, 82604), (3, 82616), (Start: 7 @82643 has 6 MA's), (11, 82688), (17, 82745), (22, 82766), (28, 82847), (32, 82904), (41, 83021),

Gene: Send513\_11 Start: 6411, Stop: 6803, Start Num: 10

Candidate Starts for Send513\_11:

(Start: 10 @6411 has 9 MA's), (12, 6435), (18, 6486), (23, 6510), (25, 6549), (36, 6705), (42, 6771),

Gene: Sienna\_8 Start: 5498, Stop: 5872, Start Num: 5

Candidate Starts for Sienna\_8:

(Start: 5 @5498 has 8 MA's), (24, 5645), (31, 5732), (37, 5834),

Gene: Suzy\_9 Start: 6741, Stop: 7115, Start Num: 5

Candidate Starts for Suzy\_9:

(Start: 5 @6741 has 8 MA's), (16, 6846), (18, 6852), (21, 6867), (30, 6969), (35, 7047), (37, 7077),

Gene: Terapin\_8 Start: 5498, Stop: 5872, Start Num: 5

Candidate Starts for Terapin\_8:

(Start: 5 @5498 has 8 MA's), (24, 5645), (31, 5732), (37, 5834),

Gene: UBSmoodge\_119 Start: 86043, Stop: 86519, Start Num: 7

Candidate Starts for UBSmoodge\_119:

(2, 86004), (3, 86016), (Start: 7 @86043 has 6 MA's), (11, 86088), (15, 86121), (19, 86157), (20, 86163), (22, 86169),

Gene: Weiss13\_11 Start: 6100, Stop: 6492, Start Num: 10

Candidate Starts for Weiss13\_11:

(Start: 10 @6100 has 9 MA's), (12, 6124), (18, 6175), (23, 6199), (25, 6238), (36, 6394), (42, 6460),

Gene: Yelo\_11 Start: 6411, Stop: 6803, Start Num: 10

Candidate Starts for Yelo\_11:

(Start: 10 @6411 has 9 MA's), (12, 6435), (18, 6486), (23, 6510), (25, 6549), (36, 6705), (42, 6771),

Gene: Zenon\_12 Start: 6413, Stop: 6805, Start Num: 10

Candidate Starts for Zenon\_12:

(Start: 10 @6413 has 9 MA's), (12, 6437), (18, 6488), (23, 6512), (25, 6551), (36, 6707), (42, 6773),