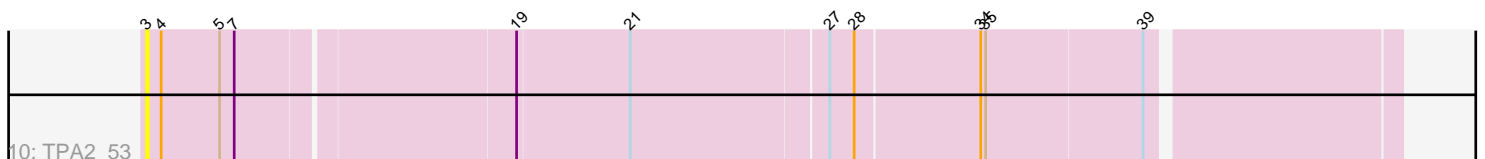
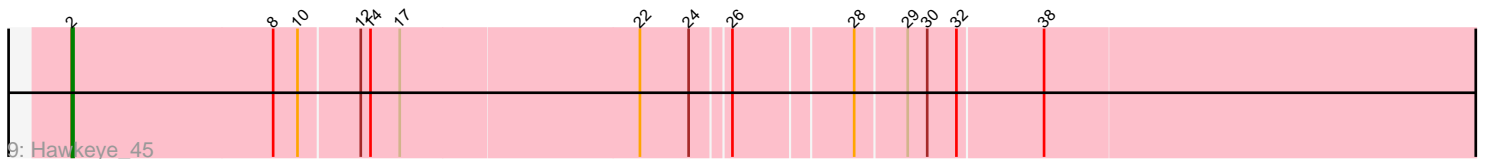
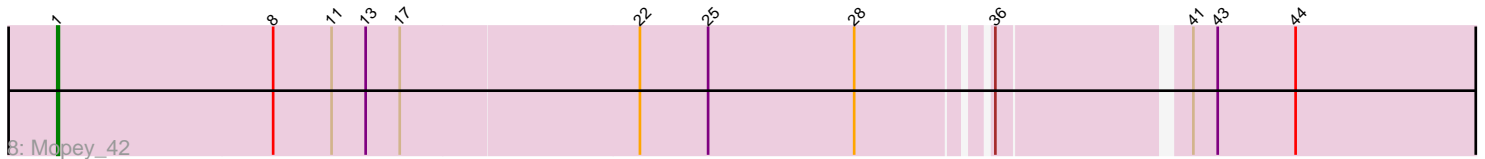
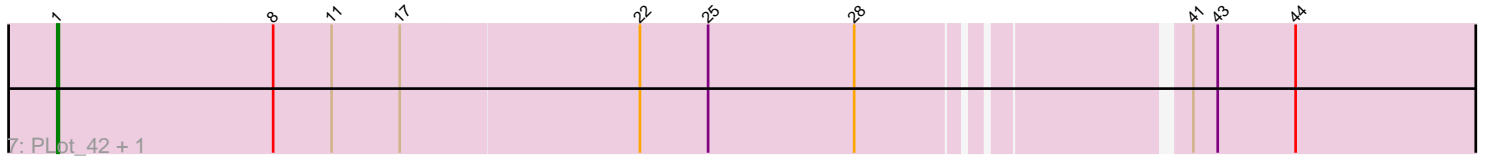
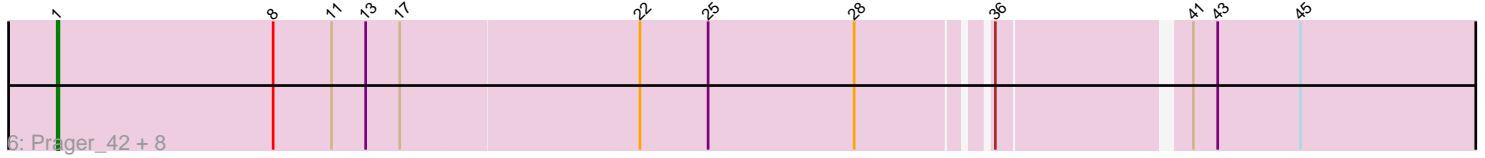
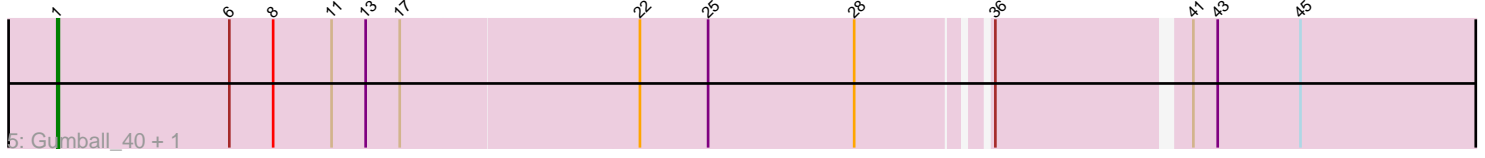
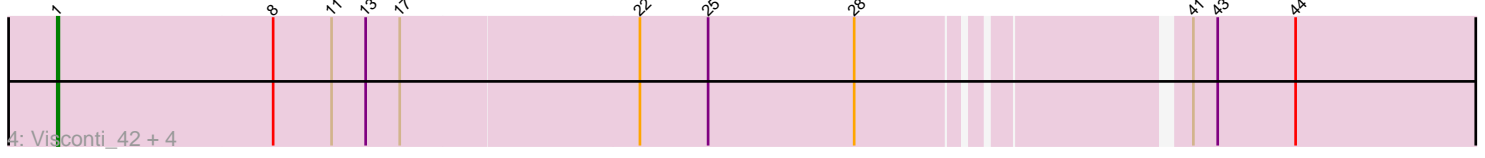
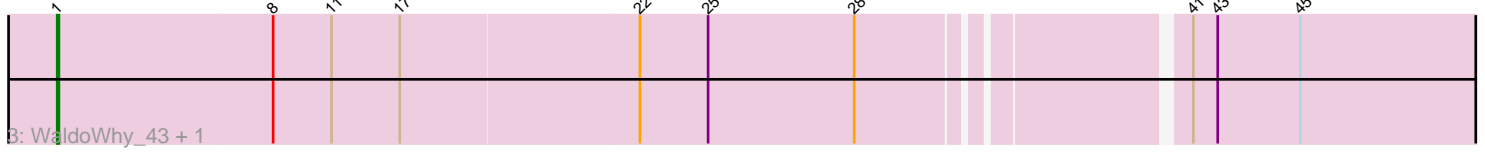
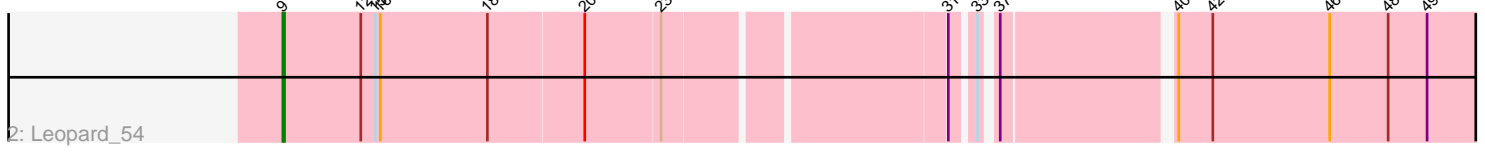
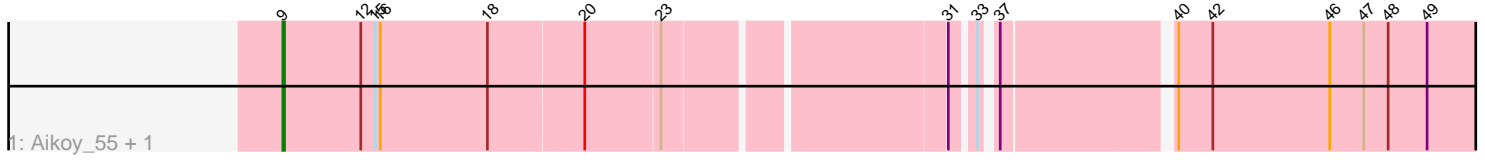


Pham 162112



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 162112 Report

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

Pham number 162112 has 26 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Aikoy\_55, Onyinye\_55
- Track 2 : Leopard\_54
- Track 3 : WaldoWhy\_43, Chill\_43
- Track 4 : Visconti\_42, Helpful\_43, Giuseppe\_42, Troll4\_42, Delton\_42
- Track 5 : Gumball\_40, SirHarley\_41
- Track 6 : Prager\_42, Penelope2018\_42, KandZ\_42, BigMama\_40, Nova\_41, Adjutor\_42, Butterscotch\_41, Thoth\_42, PBI1\_41
- Track 7 : PLOT\_42, Erk16\_41
- Track 8 : Mopey\_42
- Track 9 : Hawkeye\_45
- Track 10 : TPA2\_53

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

The start number called the most often in the published annotations is 1, it was called in 20 of the 24 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adjutor\_42, BigMama\_40, Butterscotch\_41, Chill\_43, Delton\_42, Erk16\_41, Giuseppe\_42, Gumball\_40, Helpful\_43, KandZ\_42, Mopey\_42, Nova\_41, PBI1\_41, PLOT\_42, Penelope2018\_42, Prager\_42, SirHarley\_41, Thoth\_42, Troll4\_42, Visconti\_42, WaldoWhy\_43,

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

- 

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

- Aikoy\_55, Hawkeye\_45, Leopard\_54, Onyinye\_55, TPA2\_53,

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

Start 1:

- Found in 21 of 26 ( 80.8% ) of genes in pham
- Manual Annotations of this start: 20 of 24

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adjutor\_42 (D1), BigMama\_40 (D1), Butterscotch\_41 (D1), Chill\_43 (D1), Delton\_42 (D1), Erk16\_41 (D1), Giuseppe\_42 (D1), Gumball\_40 (D1), Helpful\_43 (D1), KandZ\_42 (D1), Mopey\_42 (D1), Nova\_41 (D1), PBI1\_41 (D1), PLOT\_42 (D1), Penelope2018\_42 (D1), Prager\_42 (D1), SirHarley\_41 (D1), Thoth\_42 (D1), Troll4\_42 (D1), Visconti\_42 (D1), WaldoWhy\_43 (D1),

#### Start 2:

- Found in 1 of 26 ( 3.8% ) 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: Hawkeye\_45 (D2),

#### Start 3:

- Found in 1 of 26 ( 3.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TPA2\_53 (singleton),

#### Start 9:

- Found in 3 of 26 ( 11.5% ) of genes in pham
- Manual Annotations of this start: 3 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aikoy\_55 (AE), Leopard\_54 (AE), Onyinye\_55 (AE),

### **Summary by clusters:**

There are 4 clusters represented in this pham: AE, singleton, D2, D1,

Info for manual annotations of cluster AE:

- Start number 9 was manually annotated 3 times for cluster AE.

Info for manual annotations of cluster D1:

- Start number 1 was manually annotated 20 times for cluster D1.

Info for manual annotations of cluster D2:

- Start number 2 was manually annotated 1 time for cluster D2.

### **Gene Information:**

Gene: Adjutor\_42 Start: 35432, Stop: 34551, Start Num: 1

Candidate Starts for Adjutor\_42:

(Start: 1 @35432 has 20 MA's), (8, 35300), (11, 35264), (13, 35243), (17, 35222), (22, 35078), (25, 35036), (28, 34946), (36, 34874), (41, 34766), (43, 34751), (45, 34700),

Gene: Aikoy\_55 Start: 40551, Stop: 41255, Start Num: 9

Candidate Starts for Aikoy\_55:

(Start: 9 @40551 has 3 MA's), (12, 40599), (15, 40608), (16, 40611), (18, 40677), (20, 40734), (23, 40779), (31, 40938), (33, 40950), (37, 40956), (40, 41052), (42, 41073), (46, 41145), (47, 41166), (48,

41181), (49, 41205),

Gene: BigMama\_40 Start: 35508, Stop: 34627, Start Num: 1

Candidate Starts for BigMama\_40:

(Start: 1 @35508 has 20 MA's), (8, 35376), (11, 35340), (13, 35319), (17, 35298), (22, 35154), (25, 35112), (28, 35022), (36, 34950), (41, 34842), (43, 34827), (45, 34776),

Gene: Butterscotch\_41 Start: 35492, Stop: 34611, Start Num: 1

Candidate Starts for Butterscotch\_41:

(Start: 1 @35492 has 20 MA's), (8, 35360), (11, 35324), (13, 35303), (17, 35282), (22, 35138), (25, 35096), (28, 35006), (36, 34934), (41, 34826), (43, 34811), (45, 34760),

Gene: Chill\_43 Start: 35498, Stop: 34617, Start Num: 1

Candidate Starts for Chill\_43:

(Start: 1 @35498 has 20 MA's), (8, 35366), (11, 35330), (17, 35288), (22, 35144), (25, 35102), (28, 35012), (41, 34832), (43, 34817), (45, 34766),

Gene: Delton\_42 Start: 35504, Stop: 34623, Start Num: 1

Candidate Starts for Delton\_42:

(Start: 1 @35504 has 20 MA's), (8, 35372), (11, 35336), (13, 35315), (17, 35294), (22, 35150), (25, 35108), (28, 35018), (41, 34838), (43, 34823), (44, 34775),

Gene: Erk16\_41 Start: 35489, Stop: 34620, Start Num: 1

Candidate Starts for Erk16\_41:

(Start: 1 @35489 has 20 MA's), (8, 35357), (11, 35321), (17, 35279), (22, 35135), (25, 35093), (28, 35003), (41, 34823), (43, 34808), (44, 34760),

Gene: Giuseppe\_42 Start: 35481, Stop: 34612, Start Num: 1

Candidate Starts for Giuseppe\_42:

(Start: 1 @35481 has 20 MA's), (8, 35349), (11, 35313), (13, 35292), (17, 35271), (22, 35127), (25, 35085), (28, 34995), (41, 34815), (43, 34800), (44, 34752),

Gene: Gumball\_40 Start: 35445, Stop: 34561, Start Num: 1

Candidate Starts for Gumball\_40:

(Start: 1 @35445 has 20 MA's), (6, 35340), (8, 35313), (11, 35277), (13, 35256), (17, 35235), (22, 35091), (25, 35049), (28, 34959), (36, 34887), (41, 34776), (43, 34761), (45, 34710),

Gene: Hawkeye\_45 Start: 35438, Stop: 34584, Start Num: 2

Candidate Starts for Hawkeye\_45:

(Start: 2 @35438 has 1 MA's), (8, 35315), (10, 35300), (12, 35264), (14, 35258), (17, 35240), (22, 35096), (24, 35066), (26, 35045), (28, 34976), (29, 34946), (30, 34934), (32, 34916), (38, 34865),

Gene: Helpful\_43 Start: 35480, Stop: 34611, Start Num: 1

Candidate Starts for Helpful\_43:

(Start: 1 @35480 has 20 MA's), (8, 35348), (11, 35312), (13, 35291), (17, 35270), (22, 35126), (25, 35084), (28, 34994), (41, 34814), (43, 34799), (44, 34751),

Gene: KandZ\_42 Start: 35592, Stop: 34711, Start Num: 1

Candidate Starts for KandZ\_42:

(Start: 1 @35592 has 20 MA's), (8, 35460), (11, 35424), (13, 35403), (17, 35382), (22, 35238), (25, 35196), (28, 35106), (36, 35034), (41, 34926), (43, 34911), (45, 34860),

Gene: Leopard\_54 Start: 40836, Stop: 41540, Start Num: 9

Candidate Starts for Leopard\_54:

(Start: 9 @40836 has 3 MA's), (12, 40884), (15, 40893), (16, 40896), (18, 40962), (20, 41019), (23, 41064), (31, 41223), (33, 41235), (37, 41241), (40, 41337), (42, 41358), (46, 41430), (48, 41466), (49, 41490),

Gene: Mopey\_42 Start: 35492, Stop: 34611, Start Num: 1

Candidate Starts for Mopey\_42:

(Start: 1 @35492 has 20 MA's), (8, 35360), (11, 35324), (13, 35303), (17, 35282), (22, 35138), (25, 35096), (28, 35006), (36, 34934), (41, 34826), (43, 34811), (44, 34763),

Gene: Nova\_41 Start: 35918, Stop: 35037, Start Num: 1

Candidate Starts for Nova\_41:

(Start: 1 @35918 has 20 MA's), (8, 35786), (11, 35750), (13, 35729), (17, 35708), (22, 35564), (25, 35522), (28, 35432), (36, 35360), (41, 35252), (43, 35237), (45, 35186),

Gene: Onyinye\_55 Start: 40718, Stop: 41422, Start Num: 9

Candidate Starts for Onyinye\_55:

(Start: 9 @40718 has 3 MA's), (12, 40766), (15, 40775), (16, 40778), (18, 40844), (20, 40901), (23, 40946), (31, 41105), (33, 41117), (37, 41123), (40, 41219), (42, 41240), (46, 41312), (47, 41333), (48, 41348), (49, 41372),

Gene: PBI1\_41 Start: 35423, Stop: 34542, Start Num: 1

Candidate Starts for PBI1\_41:

(Start: 1 @35423 has 20 MA's), (8, 35291), (11, 35255), (13, 35234), (17, 35213), (22, 35069), (25, 35027), (28, 34937), (36, 34865), (41, 34757), (43, 34742), (45, 34691),

Gene: PLOT\_42 Start: 35483, Stop: 34614, Start Num: 1

Candidate Starts for PLOT\_42:

(Start: 1 @35483 has 20 MA's), (8, 35351), (11, 35315), (17, 35273), (22, 35129), (25, 35087), (28, 34997), (41, 34817), (43, 34802), (44, 34754),

Gene: Penelope2018\_42 Start: 35492, Stop: 34611, Start Num: 1

Candidate Starts for Penelope2018\_42:

(Start: 1 @35492 has 20 MA's), (8, 35360), (11, 35324), (13, 35303), (17, 35282), (22, 35138), (25, 35096), (28, 35006), (36, 34934), (41, 34826), (43, 34811), (45, 34760),

Gene: Prager\_42 Start: 35504, Stop: 34623, Start Num: 1

Candidate Starts for Prager\_42:

(Start: 1 @35504 has 20 MA's), (8, 35372), (11, 35336), (13, 35315), (17, 35294), (22, 35150), (25, 35108), (28, 35018), (36, 34946), (41, 34838), (43, 34823), (45, 34772),

Gene: SirHarley\_41 Start: 35427, Stop: 34543, Start Num: 1

Candidate Starts for SirHarley\_41:

(Start: 1 @35427 has 20 MA's), (6, 35322), (8, 35295), (11, 35259), (13, 35238), (17, 35217), (22, 35073), (25, 35031), (28, 34941), (36, 34869), (41, 34758), (43, 34743), (45, 34692),

Gene: TPA2\_53 Start: 40141, Stop: 39410, Start Num: 3

Candidate Starts for TPA2\_53:

(3, 40141), (4, 40132), (5, 40096), (7, 40087), (19, 39925), (21, 39859), (27, 39742), (28, 39727), (34, 39652), (35, 39649), (39, 39556),

Gene: Thoth\_42 Start: 35489, Stop: 34608, Start Num: 1

Candidate Starts for Thoth\_42:

(Start: 1 @35489 has 20 MA's), (8, 35357), (11, 35321), (13, 35300), (17, 35279), (22, 35135), (25, 35093), (28, 35003), (36, 34931), (41, 34823), (43, 34808), (45, 34757),

Gene: Troll4\_42 Start: 35493, Stop: 34612, Start Num: 1

Candidate Starts for Troll4\_42:

(Start: 1 @35493 has 20 MA's), (8, 35361), (11, 35325), (13, 35304), (17, 35283), (22, 35139), (25, 35097), (28, 35007), (41, 34827), (43, 34812), (44, 34764),

Gene: Visconti\_42 Start: 35502, Stop: 34621, Start Num: 1

Candidate Starts for Visconti\_42:

(Start: 1 @35502 has 20 MA's), (8, 35370), (11, 35334), (13, 35313), (17, 35292), (22, 35148), (25, 35106), (28, 35016), (41, 34836), (43, 34821), (44, 34773),

Gene: WaldoWhy\_43 Start: 35498, Stop: 34617, Start Num: 1

Candidate Starts for WaldoWhy\_43:

(Start: 1 @35498 has 20 MA's), (8, 35366), (11, 35330), (17, 35288), (22, 35144), (25, 35102), (28, 35012), (41, 34832), (43, 34817), (45, 34766),