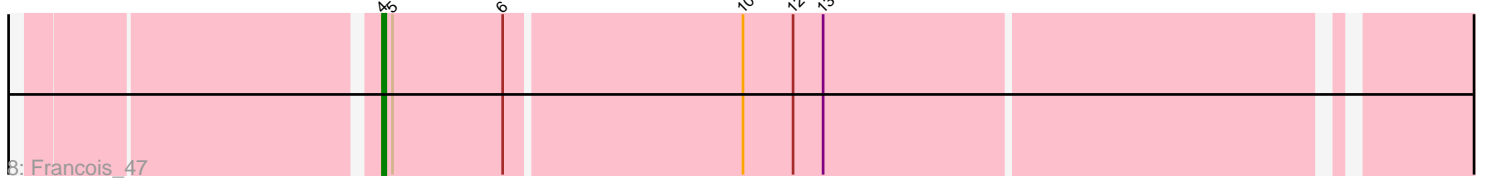
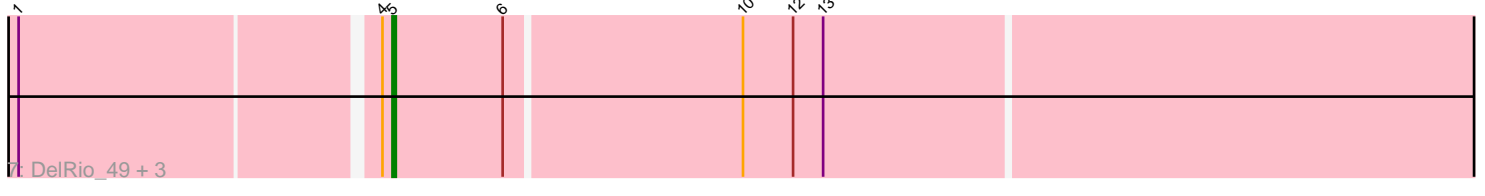
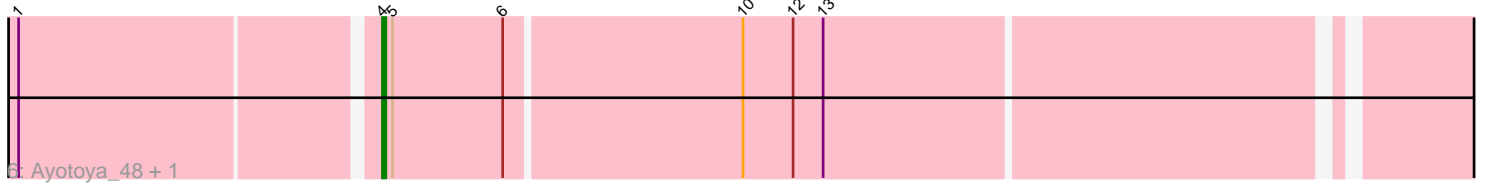
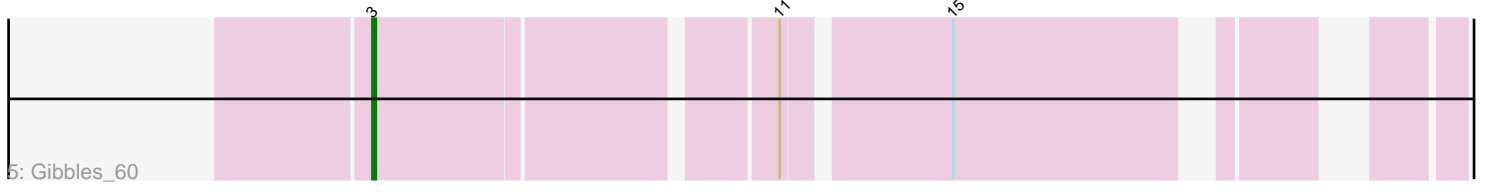
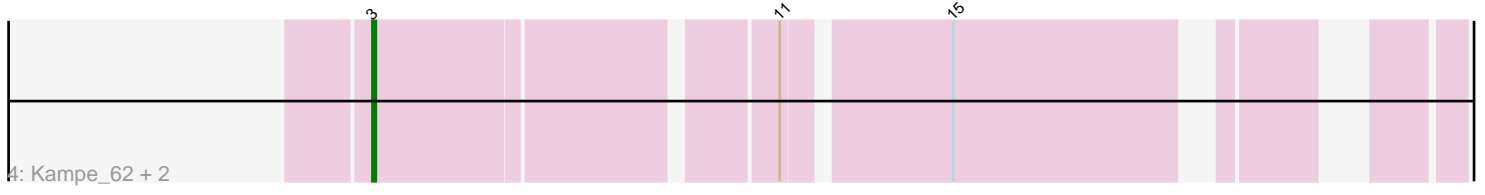
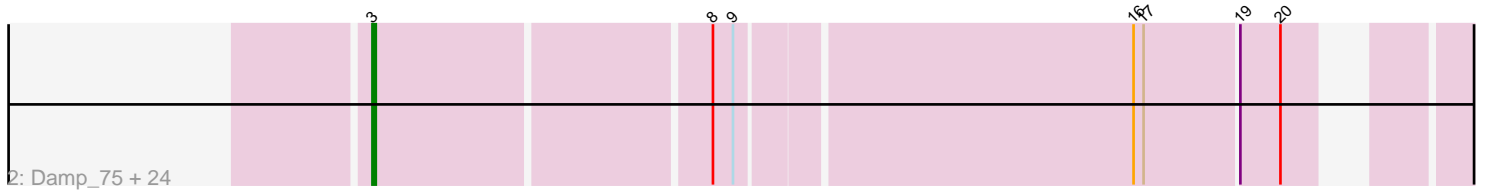
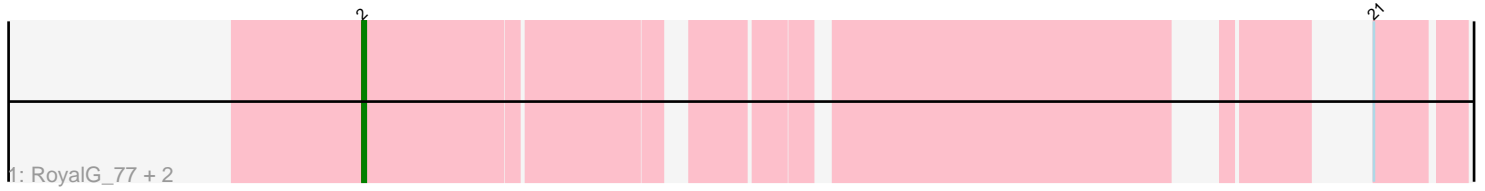


Pham 224709



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 224709 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224709 has 41 members, 3 are drafts.

Phages represented in each track:

- Track 1 : RoyalG\_77, Diabla\_82, SteveFrench\_76
- Track 2 : Damp\_75, Anamika\_74, Bianmat\_75, GalacticEye\_75, Teal\_74, Berries\_75, Hello\_74, MrWormie\_75, Kaseim\_74, Harambe\_74, Guillaume\_74, Luker\_76, Jams\_75, Lahirium\_74, Hail2Pitt\_73, Newt\_76, Charianelly\_75, Woes\_74, Neoevie\_74, Jormungandr\_74, Nimi13\_74, Minos\_76, Lidong\_75, Sticker17\_75, Shelley\_75
- Track 3 : Vitaenoi\_69, Philon9\_69
- Track 4 : Kampe\_62, PatrickStar\_62, Orchid\_61
- Track 5 : Gibbles\_60
- Track 6 : Ayotoya\_48, Nadeem\_48
- Track 7 : DelRio\_49, GrandSlam\_48, Chop\_48, Hamood\_48
- Track 8 : Francois\_47

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

The start number called the most often in the published annotations is 3, it was called in 28 of the 38 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Anamika\_74, Berries\_75, Bianmat\_75, Charianelly\_75, Damp\_75, GalacticEye\_75, Gibbles\_60, Guillaume\_74, Hail2Pitt\_73, Harambe\_74, Hello\_74, Jams\_75, Jormungandr\_74, Kampe\_62, Kaseim\_74, Lahirium\_74, Lidong\_75, Luker\_76, Minos\_76, MrWormie\_75, Neoevie\_74, Newt\_76, Nimi13\_74, Orchid\_61, PatrickStar\_62, Philon9\_69, Shelley\_75, Sticker17\_75, Teal\_74, Vitaenoi\_69, Woes\_74,

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

- 

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

- Ayotoya\_48, Chop\_48, DelRio\_49, Diabla\_82, Francois\_47, GrandSlam\_48, Hamood\_48, Nadeem\_48, RoyalG\_77, SteveFrench\_76,

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

Start 2:

- Found in 3 of 41 ( 7.3% ) of genes in pham
- Manual Annotations of this start: 3 of 38
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Diabla\_82 (CS2), RoyalG\_77 (CS2), SteveFrench\_76 (CS2),

Start 3:

- Found in 31 of 41 ( 75.6% ) of genes in pham
- Manual Annotations of this start: 28 of 38
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anamika\_74 (CS3), Berries\_75 (CS3), Bianmat\_75 (CS3), Charianelly\_75 (CS3), Damp\_75 (CS3), GalacticEye\_75 (CS3), Gibbles\_60 (CX), Guillaume\_74 (CS3), Hail2Pitt\_73 (CS3), Harambe\_74 (CS3), Hello\_74 (CS3), Jams\_75 (CS3), Jormungandr\_74 (CS3), Kampe\_62 (CX), Kaseim\_74 (CS3), Lahirium\_74 (CS3), Lidong\_75 (CS3), Luker\_76 (CS3), Minos\_76 (CS3), MrWormie\_75 (CS3), Neoevie\_74 (CS3), Newt\_76 (CS3), Nimi13\_74 (CS3), Orchid\_61 (CX), PatrickStar\_62 (CX), Philon9\_69 (CS4), Shelley\_75 (CS3), Sticker17\_75 (CS3), Teal\_74 (CS3), Vitaenoi\_69 (CS4), Woes\_74 (CS3),

Start 4:

- Found in 7 of 41 ( 17.1% ) of genes in pham
- Manual Annotations of this start: 3 of 38
- Called 42.9% of time when present
- Phage (with cluster) where this start called: Ayotoya\_48 (DI), Francois\_47 (DI), Nadeem\_48 (DI),

Start 5:

- Found in 7 of 41 ( 17.1% ) of genes in pham
- Manual Annotations of this start: 4 of 38
- Called 57.1% of time when present
- Phage (with cluster) where this start called: Chop\_48 (DI), DelRio\_49 (DI), GrandSlam\_48 (DI), Hamood\_48 (DI),

**Summary by clusters:**

There are 5 clusters represented in this pham: CS4, CX, DI, CS3, CS2,

Info for manual annotations of cluster CS2:

- Start number 2 was manually annotated 3 times for cluster CS2.

Info for manual annotations of cluster CS3:

- Start number 3 was manually annotated 24 times for cluster CS3.

Info for manual annotations of cluster CX:

- Start number 3 was manually annotated 4 times for cluster CX.

Info for manual annotations of cluster DI:

- Start number 4 was manually annotated 3 times for cluster DI.
- Start number 5 was manually annotated 4 times for cluster DI.

**Gene Information:**

Gene: Anamika\_74 Start: 60867, Stop: 60544, Start Num: 3

Candidate Starts for Anamika\_74:

(Start: 3 @60867 has 28 MA's), (8, 60771), (9, 60765), (16, 60651), (17, 60648), (19, 60621), (20, 60609),

Gene: Ayotoya\_48 Start: 35650, Stop: 35985, Start Num: 4

Candidate Starts for Ayotoya\_48:

(1, 35548), (Start: 4 @35650 has 3 MA's), (Start: 5 @35653 has 4 MA's), (6, 35686), (10, 35755), (12, 35770), (13, 35779),

Gene: Berries\_75 Start: 60839, Stop: 60516, Start Num: 3

Candidate Starts for Berries\_75:

(Start: 3 @60839 has 28 MA's), (8, 60743), (9, 60737), (16, 60623), (17, 60620), (19, 60593), (20, 60581),

Gene: Bianmat\_75 Start: 60879, Stop: 60556, Start Num: 3

Candidate Starts for Bianmat\_75:

(Start: 3 @60879 has 28 MA's), (8, 60783), (9, 60777), (16, 60663), (17, 60660), (19, 60633), (20, 60621),

Gene: Charianelly\_75 Start: 60589, Stop: 60266, Start Num: 3

Candidate Starts for Charianelly\_75:

(Start: 3 @60589 has 28 MA's), (8, 60493), (9, 60487), (16, 60373), (17, 60370), (19, 60343), (20, 60331),

Gene: Chop\_48 Start: 35400, Stop: 35738, Start Num: 5

Candidate Starts for Chop\_48:

(1, 35295), (Start: 4 @35397 has 3 MA's), (Start: 5 @35400 has 4 MA's), (6, 35433), (10, 35502), (12, 35517), (13, 35526),

Gene: Damp\_75 Start: 59753, Stop: 59430, Start Num: 3

Candidate Starts for Damp\_75:

(Start: 3 @59753 has 28 MA's), (8, 59657), (9, 59651), (16, 59537), (17, 59534), (19, 59507), (20, 59495),

Gene: DelRio\_49 Start: 36105, Stop: 36449, Start Num: 5

Candidate Starts for DelRio\_49:

(1, 36000), (Start: 4 @36102 has 3 MA's), (Start: 5 @36105 has 4 MA's), (6, 36138), (10, 36207), (12, 36222), (13, 36231),

Gene: Diabla\_82 Start: 62036, Stop: 61740, Start Num: 2

Candidate Starts for Diabla\_82:

(Start: 2 @62036 has 3 MA's), (21, 61790),

Gene: Francois\_47 Start: 34916, Stop: 35251, Start Num: 4

Candidate Starts for Francois\_47:

(Start: 4 @34916 has 3 MA's), (Start: 5 @34919 has 4 MA's), (6, 34952), (10, 35021), (12, 35036), (13, 35045),

Gene: GalacticEye\_75 Start: 60550, Stop: 60227, Start Num: 3

Candidate Starts for GalacticEye\_75:

(Start: 3 @60550 has 28 MA's), (8, 60454), (9, 60448), (16, 60334), (17, 60331), (19, 60304), (20, 60292),

Gene: Gibbles\_60 Start: 52361, Stop: 52059, Start Num: 3

Candidate Starts for Gibbles\_60:

(Start: 3 @52361 has 28 MA's), (11, 52250), (15, 52205),

Gene: GrandSlam\_48 Start: 35400, Stop: 35738, Start Num: 5

Candidate Starts for GrandSlam\_48:

(1, 35295), (Start: 4 @35397 has 3 MA's), (Start: 5 @35400 has 4 MA's), (6, 35433), (10, 35502), (12, 35517), (13, 35526),

Gene: Guillaume\_74 Start: 60600, Stop: 60277, Start Num: 3

Candidate Starts for Guillaume\_74:

(Start: 3 @60600 has 28 MA's), (8, 60504), (9, 60498), (16, 60384), (17, 60381), (19, 60354), (20, 60342),

Gene: Hail2Pitt\_73 Start: 61076, Stop: 60753, Start Num: 3

Candidate Starts for Hail2Pitt\_73:

(Start: 3 @61076 has 28 MA's), (8, 60980), (9, 60974), (16, 60860), (17, 60857), (19, 60830), (20, 60818),

Gene: Hamood\_48 Start: 35400, Stop: 35738, Start Num: 5

Candidate Starts for Hamood\_48:

(1, 35295), (Start: 4 @35397 has 3 MA's), (Start: 5 @35400 has 4 MA's), (6, 35433), (10, 35502), (12, 35517), (13, 35526),

Gene: Harambe\_74 Start: 60867, Stop: 60544, Start Num: 3

Candidate Starts for Harambe\_74:

(Start: 3 @60867 has 28 MA's), (8, 60771), (9, 60765), (16, 60651), (17, 60648), (19, 60621), (20, 60609),

Gene: Hello\_74 Start: 60829, Stop: 60506, Start Num: 3

Candidate Starts for Hello\_74:

(Start: 3 @60829 has 28 MA's), (8, 60733), (9, 60727), (16, 60613), (17, 60610), (19, 60583), (20, 60571),

Gene: Jams\_75 Start: 60039, Stop: 59716, Start Num: 3

Candidate Starts for Jams\_75:

(Start: 3 @60039 has 28 MA's), (8, 59943), (9, 59937), (16, 59823), (17, 59820), (19, 59793), (20, 59781),

Gene: Jormungandr\_74 Start: 60582, Stop: 60259, Start Num: 3

Candidate Starts for Jormungandr\_74:

(Start: 3 @60582 has 28 MA's), (8, 60486), (9, 60480), (16, 60366), (17, 60363), (19, 60336), (20, 60324),

Gene: Kampe\_62 Start: 52344, Stop: 52042, Start Num: 3

Candidate Starts for Kampe\_62:

(Start: 3 @52344 has 28 MA's), (11, 52233), (15, 52188),

Gene: Kaseim\_74 Start: 60024, Stop: 59701, Start Num: 3  
Candidate Starts for Kaseim\_74:  
(Start: 3 @60024 has 28 MA's), (8, 59928), (9, 59922), (16, 59808), (17, 59805), (19, 59778), (20, 59766),

Gene: Lahirium\_74 Start: 61104, Stop: 60781, Start Num: 3  
Candidate Starts for Lahirium\_74:  
(Start: 3 @61104 has 28 MA's), (8, 61008), (9, 61002), (16, 60888), (17, 60885), (19, 60858), (20, 60846),

Gene: Lidong\_75 Start: 60839, Stop: 60516, Start Num: 3  
Candidate Starts for Lidong\_75:  
(Start: 3 @60839 has 28 MA's), (8, 60743), (9, 60737), (16, 60623), (17, 60620), (19, 60593), (20, 60581),

Gene: Luker\_76 Start: 61057, Stop: 60734, Start Num: 3  
Candidate Starts for Luker\_76:  
(Start: 3 @61057 has 28 MA's), (8, 60961), (9, 60955), (16, 60841), (17, 60838), (19, 60811), (20, 60799),

Gene: Minos\_76 Start: 60581, Stop: 60258, Start Num: 3  
Candidate Starts for Minos\_76:  
(Start: 3 @60581 has 28 MA's), (8, 60485), (9, 60479), (16, 60365), (17, 60362), (19, 60335), (20, 60323),

Gene: MrWormie\_75 Start: 59742, Stop: 59419, Start Num: 3  
Candidate Starts for MrWormie\_75:  
(Start: 3 @59742 has 28 MA's), (8, 59646), (9, 59640), (16, 59526), (17, 59523), (19, 59496), (20, 59484),

Gene: Nadeem\_48 Start: 34920, Stop: 35255, Start Num: 4  
Candidate Starts for Nadeem\_48:  
(1, 34818), (Start: 4 @34920 has 3 MA's), (Start: 5 @34923 has 4 MA's), (6, 34956), (10, 35025), (12, 35040), (13, 35049),

Gene: Neoevie\_74 Start: 60843, Stop: 60520, Start Num: 3  
Candidate Starts for Neoevie\_74:  
(Start: 3 @60843 has 28 MA's), (8, 60747), (9, 60741), (16, 60627), (17, 60624), (19, 60597), (20, 60585),

Gene: Newt\_76 Start: 61071, Stop: 60748, Start Num: 3  
Candidate Starts for Newt\_76:  
(Start: 3 @61071 has 28 MA's), (8, 60975), (9, 60969), (16, 60855), (17, 60852), (19, 60825), (20, 60813),

Gene: Nimi13\_74 Start: 60590, Stop: 60267, Start Num: 3  
Candidate Starts for Nimi13\_74:  
(Start: 3 @60590 has 28 MA's), (8, 60494), (9, 60488), (16, 60374), (17, 60371), (19, 60344), (20, 60332),

Gene: Orchid\_61 Start: 52345, Stop: 52043, Start Num: 3  
Candidate Starts for Orchid\_61:  
(Start: 3 @52345 has 28 MA's), (11, 52234), (15, 52189),

Gene: PatrickStar\_62 Start: 52344, Stop: 52042, Start Num: 3  
Candidate Starts for PatrickStar\_62:  
(Start: 3 @52344 has 28 MA's), (11, 52233), (15, 52188),

Gene: Philon9\_69 Start: 61064, Stop: 60738, Start Num: 3  
Candidate Starts for Philon9\_69:  
(Start: 3 @61064 has 28 MA's), (7, 61022), (14, 60905), (15, 60899), (16, 60845), (18, 60821),

Gene: RoyalG\_77 Start: 60476, Stop: 60180, Start Num: 2  
Candidate Starts for RoyalG\_77:  
(Start: 2 @60476 has 3 MA's), (21, 60230),

Gene: Shelley\_75 Start: 60066, Stop: 59743, Start Num: 3  
Candidate Starts for Shelley\_75:  
(Start: 3 @60066 has 28 MA's), (8, 59970), (9, 59964), (16, 59850), (17, 59847), (19, 59820), (20, 59808),

Gene: SteveFrench\_76 Start: 60716, Stop: 60420, Start Num: 2  
Candidate Starts for SteveFrench\_76:  
(Start: 2 @60716 has 3 MA's), (21, 60470),

Gene: Sticker17\_75 Start: 60554, Stop: 60231, Start Num: 3  
Candidate Starts for Sticker17\_75:  
(Start: 3 @60554 has 28 MA's), (8, 60458), (9, 60452), (16, 60338), (17, 60335), (19, 60308), (20, 60296),

Gene: Teal\_74 Start: 61048, Stop: 60725, Start Num: 3  
Candidate Starts for Teal\_74:  
(Start: 3 @61048 has 28 MA's), (8, 60952), (9, 60946), (16, 60832), (17, 60829), (19, 60802), (20, 60790),

Gene: Vitaenoi\_69 Start: 61048, Stop: 60722, Start Num: 3  
Candidate Starts for Vitaenoi\_69:  
(Start: 3 @61048 has 28 MA's), (7, 61006), (14, 60889), (15, 60883), (16, 60829), (18, 60805),

Gene: Woes\_74 Start: 61099, Stop: 60776, Start Num: 3  
Candidate Starts for Woes\_74:  
(Start: 3 @61099 has 28 MA's), (8, 61003), (9, 60997), (16, 60883), (17, 60880), (19, 60853), (20, 60841),