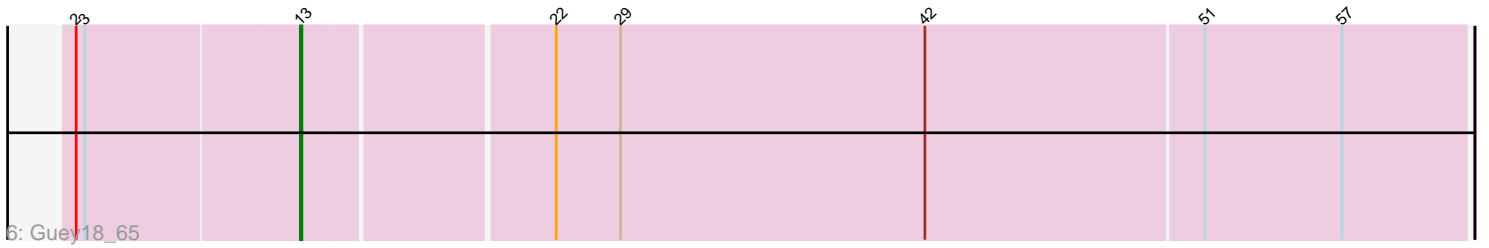
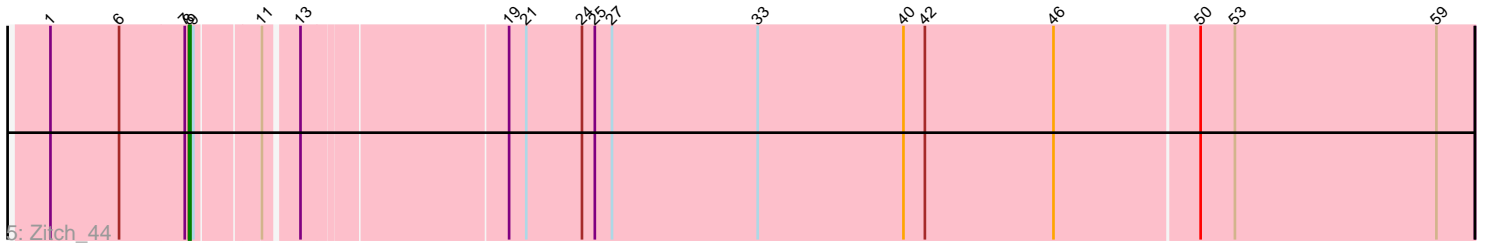
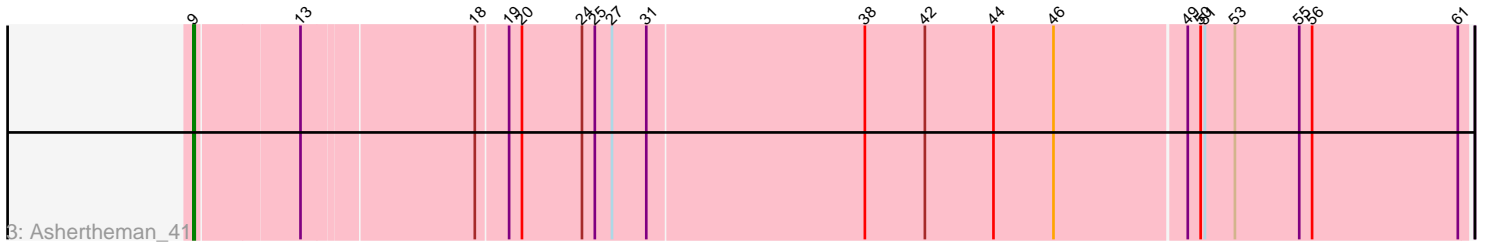
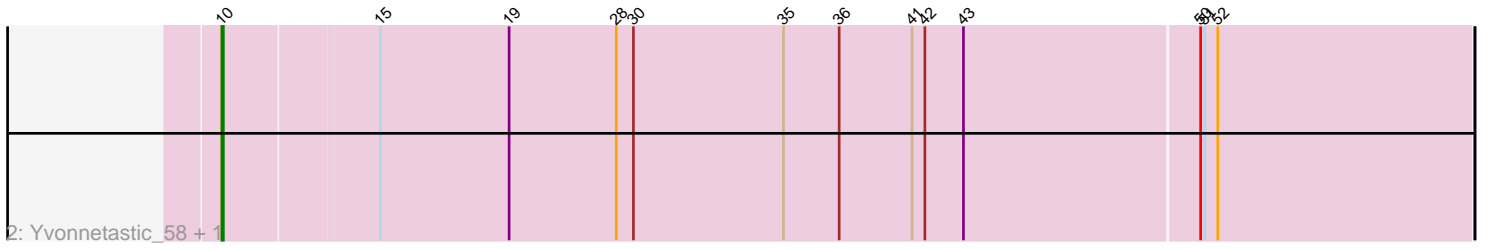
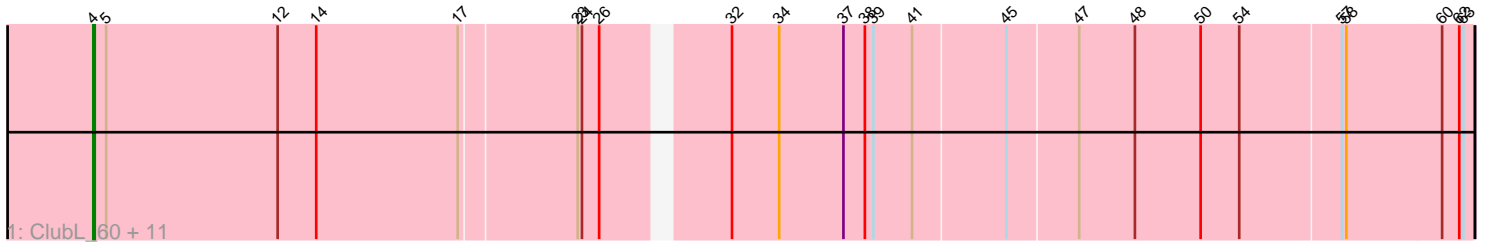


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 300398 Report

This analysis was run 06/08/26 on database version 649.

Pham number 300398 has 18 members, 1 are drafts.

Phages represented in each track:

- Track 1 : ClubL\_60, Toniann\_60, Dusty\_59, Norvs\_60, Geeche\_58, PhinkBoden\_59, Bachita\_61, Aphelion\_59, Engineer\_61, Abscondus\_59, Cucurbita\_61, Miskis\_57
- Track 2 : Yvonnetastic\_58, JonJames\_60
- Track 3 : Ashertheman\_41
- Track 4 : Phauci\_32
- Track 5 : Zitch\_44
- Track 6 : Guey18\_65

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

The start number called the most often in the published annotations is 4, it was called in 11 of the 17 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abscondus\_59, Aphelion\_59, Bachita\_61, ClubL\_60, Cucurbita\_61, Dusty\_59, Engineer\_61, Geeche\_58, Miskis\_57, Norvs\_60, PhinkBoden\_59, Toniann\_60,

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

- 

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

- Ashertheman\_41, Guey18\_65, JonJames\_60, Phauci\_32, Yvonnetastic\_58, Zitch\_44,

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

Start 4:

- Found in 12 of 18 ( 66.7% ) of genes in pham
- Manual Annotations of this start: 11 of 17
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abscondus\_59 (CQ1), Aphelion\_59 (CQ1), Bachita\_61 (CQ1), ClubL\_60 (CQ1), Cucurbita\_61 (CQ1), Dusty\_59 (CQ1), Engineer\_61 (CQ1), Geeche\_58 (CQ1), Miskis\_57 (CQ1), Norvs\_60 (CQ1),

PhinkBoden\_59 (CQ1), Toniann\_60 (CQ1),

Start 8:

- Found in 2 of 18 ( 11.1% ) of genes in pham
- Manual Annotations of this start: 2 of 17
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phauci\_32 (DE2), Zitch\_44 (DE4),

Start 9:

- Found in 3 of 18 ( 16.7% ) of genes in pham
- Manual Annotations of this start: 1 of 17
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Ashertheman\_41 (DE1),

Start 10:

- Found in 2 of 18 ( 11.1% ) of genes in pham
- Manual Annotations of this start: 2 of 17
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JonJames\_60 (DD), Yvonnetastic\_58 (DD),

Start 13:

- Found in 4 of 18 ( 22.2% ) of genes in pham
- Manual Annotations of this start: 1 of 17
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Guey18\_65 (DP),

### **Summary by clusters:**

There are 6 clusters represented in this pham: DE1, DE2, DE4, CQ1, DD, DP,

Info for manual annotations of cluster CQ1:

- Start number 4 was manually annotated 11 times for cluster CQ1.

Info for manual annotations of cluster DD:

- Start number 10 was manually annotated 2 times for cluster DD.

Info for manual annotations of cluster DE1:

- Start number 9 was manually annotated 1 time for cluster DE1.

Info for manual annotations of cluster DE2:

- Start number 8 was manually annotated 1 time for cluster DE2.

Info for manual annotations of cluster DE4:

- Start number 8 was manually annotated 1 time for cluster DE4.

Info for manual annotations of cluster DP:

- Start number 13 was manually annotated 1 time for cluster DP.

### **Gene Information:**

Gene: Abscondus\_59 Start: 39718, Stop: 40647, Start Num: 4

Candidate Starts for Abscondus\_59:

(Start: 4 @39718 has 11 MA's), (5, 39727), (12, 39847), (14, 39874), (17, 39973), (23, 40051), (24, 40054), (26, 40066), (32, 40141), (34, 40174), (37, 40219), (38, 40234), (39, 40240), (41, 40267), (45, 40330), (47, 40378), (48, 40417), (50, 40462), (54, 40489), (57, 40558), (58, 40561), (60, 40627), (62, 40639), (63, 40642),

Gene: Aphelion\_59 Start: 39987, Stop: 40916, Start Num: 4

Candidate Starts for Aphelion\_59:

(Start: 4 @39987 has 11 MA's), (5, 39996), (12, 40116), (14, 40143), (17, 40242), (23, 40320), (24, 40323), (26, 40335), (32, 40410), (34, 40443), (37, 40488), (38, 40503), (39, 40509), (41, 40536), (45, 40599), (47, 40647), (48, 40686), (50, 40731), (54, 40758), (57, 40827), (58, 40830), (60, 40896), (62, 40908), (63, 40911),

Gene: Ashertheman\_41 Start: 35740, Stop: 36606, Start Num: 9

Candidate Starts for Ashertheman\_41:

(Start: 9 @35740 has 1 MA's), (Start: 13 @35809 has 1 MA's), (18, 35923), (19, 35944), (20, 35953), (24, 35995), (25, 36004), (27, 36016), (31, 36040), (38, 36190), (42, 36232), (44, 36280), (46, 36322), (49, 36412), (50, 36421), (51, 36424), (53, 36445), (55, 36490), (56, 36499), (61, 36601),

Gene: Bachita\_61 Start: 40420, Stop: 41349, Start Num: 4

Candidate Starts for Bachita\_61:

(Start: 4 @40420 has 11 MA's), (5, 40429), (12, 40549), (14, 40576), (17, 40675), (23, 40753), (24, 40756), (26, 40768), (32, 40843), (34, 40876), (37, 40921), (38, 40936), (39, 40942), (41, 40969), (45, 41032), (47, 41080), (48, 41119), (50, 41164), (54, 41191), (57, 41260), (58, 41263), (60, 41329), (62, 41341), (63, 41344),

Gene: ClubL\_60 Start: 39910, Stop: 40839, Start Num: 4

Candidate Starts for ClubL\_60:

(Start: 4 @39910 has 11 MA's), (5, 39919), (12, 40039), (14, 40066), (17, 40165), (23, 40243), (24, 40246), (26, 40258), (32, 40333), (34, 40366), (37, 40411), (38, 40426), (39, 40432), (41, 40459), (45, 40522), (47, 40570), (48, 40609), (50, 40654), (54, 40681), (57, 40750), (58, 40753), (60, 40819), (62, 40831), (63, 40834),

Gene: Cucurbita\_61 Start: 41279, Stop: 42208, Start Num: 4

Candidate Starts for Cucurbita\_61:

(Start: 4 @41279 has 11 MA's), (5, 41288), (12, 41408), (14, 41435), (17, 41534), (23, 41612), (24, 41615), (26, 41627), (32, 41702), (34, 41735), (37, 41780), (38, 41795), (39, 41801), (41, 41828), (45, 41891), (47, 41939), (48, 41978), (50, 42023), (54, 42050), (57, 42119), (58, 42122), (60, 42188), (62, 42200), (63, 42203),

Gene: Dusty\_59 Start: 39725, Stop: 40654, Start Num: 4

Candidate Starts for Dusty\_59:

(Start: 4 @39725 has 11 MA's), (5, 39734), (12, 39854), (14, 39881), (17, 39980), (23, 40058), (24, 40061), (26, 40073), (32, 40148), (34, 40181), (37, 40226), (38, 40241), (39, 40247), (41, 40274), (45, 40337), (47, 40385), (48, 40424), (50, 40469), (54, 40496), (57, 40565), (58, 40568), (60, 40634), (62, 40646), (63, 40649),

Gene: Engineer\_61 Start: 40393, Stop: 41322, Start Num: 4

Candidate Starts for Engineer\_61:

(Start: 4 @40393 has 11 MA's), (5, 40402), (12, 40522), (14, 40549), (17, 40648), (23, 40726), (24, 40729), (26, 40741), (32, 40816), (34, 40849), (37, 40894), (38, 40909), (39, 40915), (41, 40942), (45, 41005), (47, 41053), (48, 41092), (50, 41137), (54, 41164), (57, 41233), (58, 41236), (60, 41302), (62,

41314), (63, 41317),

Gene: Geeche\_58 Start: 39809, Stop: 40738, Start Num: 4

Candidate Starts for Geeche\_58:

(Start: 4 @39809 has 11 MA's), (5, 39818), (12, 39938), (14, 39965), (17, 40064), (23, 40142), (24, 40145), (26, 40157), (32, 40232), (34, 40265), (37, 40310), (38, 40325), (39, 40331), (41, 40358), (45, 40421), (47, 40469), (48, 40508), (50, 40553), (54, 40580), (57, 40649), (58, 40652), (60, 40718), (62, 40730), (63, 40733),

Gene: Guey18\_65 Start: 34417, Stop: 35214, Start Num: 13

Candidate Starts for Guey18\_65:

(2, 34264), (3, 34270), (Start: 13 @34417 has 1 MA's), (22, 34582), (29, 34627), (42, 34840), (51, 35032), (57, 35128),

Gene: JonJames\_60 Start: 43428, Stop: 44288, Start Num: 10

Candidate Starts for JonJames\_60:

(Start: 10 @43428 has 2 MA's), (15, 43530), (19, 43620), (28, 43695), (30, 43707), (35, 43812), (36, 43851), (41, 43902), (42, 43911), (43, 43938), (50, 44100), (51, 44103), (52, 44112),

Gene: Miskis\_57 Start: 39753, Stop: 40682, Start Num: 4

Candidate Starts for Miskis\_57:

(Start: 4 @39753 has 11 MA's), (5, 39762), (12, 39882), (14, 39909), (17, 40008), (23, 40086), (24, 40089), (26, 40101), (32, 40176), (34, 40209), (37, 40254), (38, 40269), (39, 40275), (41, 40302), (45, 40365), (47, 40413), (48, 40452), (50, 40497), (54, 40524), (57, 40593), (58, 40596), (60, 40662), (62, 40674), (63, 40677),

Gene: Norvs\_60 Start: 39992, Stop: 40921, Start Num: 4

Candidate Starts for Norvs\_60:

(Start: 4 @39992 has 11 MA's), (5, 40001), (12, 40121), (14, 40148), (17, 40247), (23, 40325), (24, 40328), (26, 40340), (32, 40415), (34, 40448), (37, 40493), (38, 40508), (39, 40514), (41, 40541), (45, 40604), (47, 40652), (48, 40691), (50, 40736), (54, 40763), (57, 40832), (58, 40835), (60, 40901), (62, 40913), (63, 40916),

Gene: Phauci\_32 Start: 32033, Stop: 32902, Start Num: 8

Candidate Starts for Phauci\_32:

(7, 32030), (Start: 8 @32033 has 2 MA's), (Start: 9 @32036 has 1 MA's), (11, 32075), (Start: 13 @32096 has 1 MA's), (15, 32144), (16, 32156), (19, 32231), (21, 32243), (24, 32282), (25, 32291), (27, 32303), (40, 32507), (42, 32522), (46, 32612), (50, 32711), (51, 32714), (53, 32735), (56, 32789), (59, 32876),

Gene: PhinkBoden\_59 Start: 40373, Stop: 41302, Start Num: 4

Candidate Starts for PhinkBoden\_59:

(Start: 4 @40373 has 11 MA's), (5, 40382), (12, 40502), (14, 40529), (17, 40628), (23, 40706), (24, 40709), (26, 40721), (32, 40796), (34, 40829), (37, 40874), (38, 40889), (39, 40895), (41, 40922), (45, 40985), (47, 41033), (48, 41072), (50, 41117), (54, 41144), (57, 41213), (58, 41216), (60, 41282), (62, 41294), (63, 41297),

Gene: Toniann\_60 Start: 39935, Stop: 40864, Start Num: 4

Candidate Starts for Toniann\_60:

(Start: 4 @39935 has 11 MA's), (5, 39944), (12, 40064), (14, 40091), (17, 40190), (23, 40268), (24, 40271), (26, 40283), (32, 40358), (34, 40391), (37, 40436), (38, 40451), (39, 40457), (41, 40484), (45, 40547), (47, 40595), (48, 40634), (50, 40679), (54, 40706), (57, 40775), (58, 40778), (60, 40844), (62, 40856), (63, 40859),

Gene: Yvonnetastic\_58 Start: 40963, Stop: 41823, Start Num: 10

Candidate Starts for Yvonnetastic\_58:

(Start: 10 @40963 has 2 MA's), (15, 41065), (19, 41155), (28, 41230), (30, 41242), (35, 41347), (36, 41386), (41, 41437), (42, 41446), (43, 41473), (50, 41635), (51, 41638), (52, 41647),

Gene: Zitch\_44 Start: 35522, Stop: 36391, Start Num: 8

Candidate Starts for Zitch\_44:

(1, 35426), (6, 35474), (7, 35519), (Start: 8 @35522 has 2 MA's), (Start: 9 @35525 has 1 MA's), (11, 35564), (Start: 13 @35585 has 1 MA's), (19, 35720), (21, 35732), (24, 35771), (25, 35780), (27, 35792), (33, 35894), (40, 35996), (42, 36011), (46, 36101), (50, 36200), (53, 36224), (59, 36365),