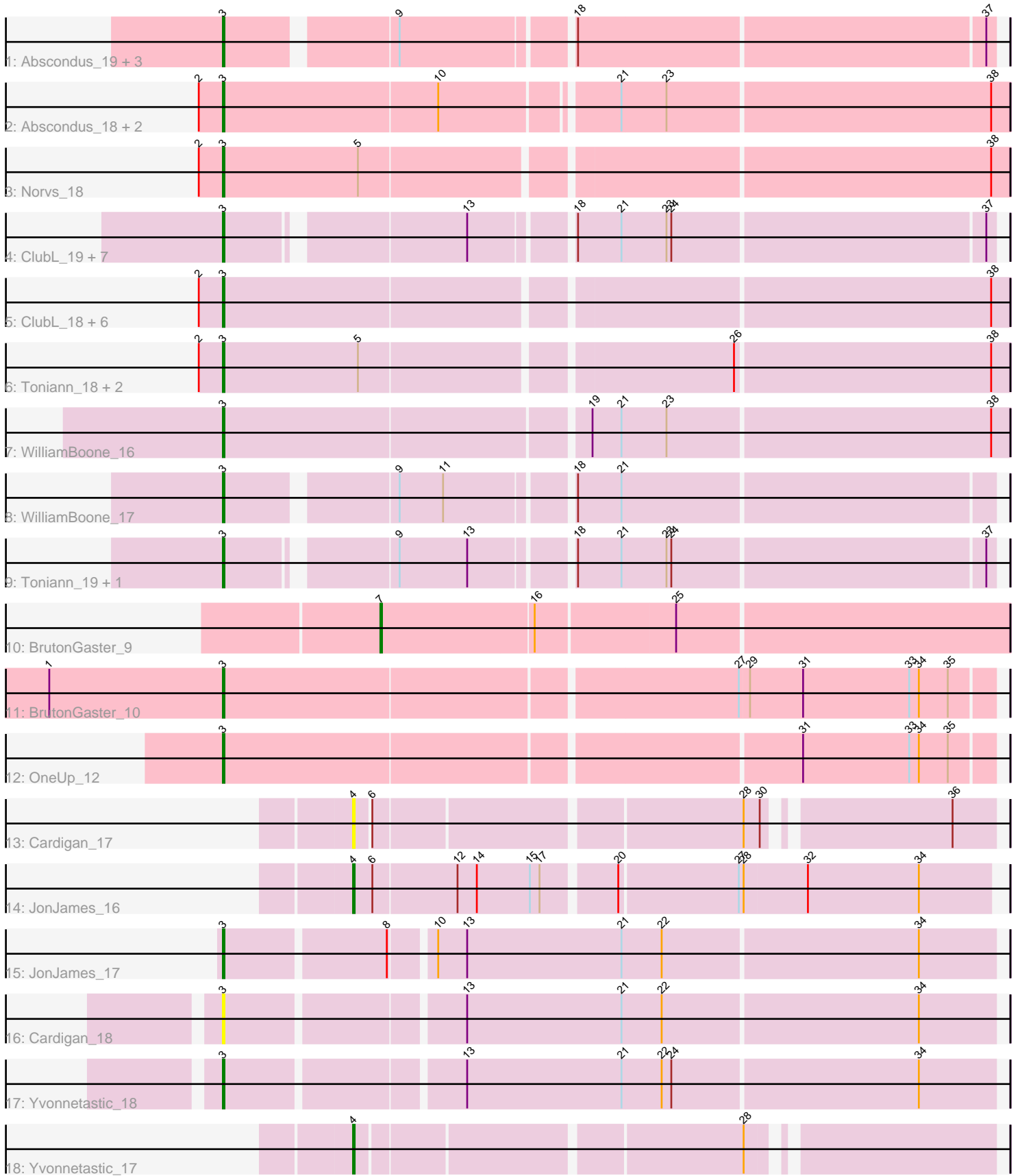


Pham 163742



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 163742 Report

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

Pham number 163742 has 39 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Abscondus\_19, PhinkBoden\_20, Dusty\_18, Culver\_18
- Track 2 : Abscondus\_18, Dusty\_17, Culver\_17
- Track 3 : Norvs\_18
- Track 4 : ClubL\_19, Aphelion\_19, Miskis\_21, Norvs\_19, Smoothie\_19, Bachita\_20, Cucurbita\_18, Lozinak\_19
- Track 5 : ClubL\_18, Aphelion\_18, Bachita\_19, Miskis\_20, Smoothie\_18, Cucurbita\_17, Lozinak\_18
- Track 6 : Toniann\_18, Engineer\_18, PhinkBoden\_19
- Track 7 : WilliamBoone\_16
- Track 8 : WilliamBoone\_17
- Track 9 : Toniann\_19, Engineer\_19
- Track 10 : BrutonGaster\_9
- Track 11 : BrutonGaster\_10
- Track 12 : OneUp\_12
- Track 13 : Cardigan\_17
- Track 14 : JonJames\_16
- Track 15 : JonJames\_17
- Track 16 : Cardigan\_18
- Track 17 : Yvonnetastic\_18
- Track 18 : Yvonnetastic\_17

### ***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 31 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abscondus\_18, Abscondus\_19, Aphelion\_18, Aphelion\_19, Bachita\_19, Bachita\_20, BrutonGaster\_10, Cardigan\_18, ClubL\_18, ClubL\_19, Cucurbita\_17, Cucurbita\_18, Culver\_17, Culver\_18, Dusty\_17, Dusty\_18, Engineer\_18, Engineer\_19, JonJames\_17, Lozinak\_18, Lozinak\_19, Miskis\_20, Miskis\_21, Norvs\_18, Norvs\_19, OneUp\_12, PhinkBoden\_19, PhinkBoden\_20, Smoothie\_18, Smoothie\_19, Toniann\_18, Toniann\_19, WilliamBoone\_16, WilliamBoone\_17, Yvonnetastic\_18,

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

- 

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

- BrutonGaster\_9, Cardigan\_17, JonJames\_16, Yvonnetastic\_17,

### Summary by start number:

Start 3:

- Found in 35 of 39 ( 89.7% ) of genes in pham
- Manual Annotations of this start: 28 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abscondus\_18 (CQ), Abscondus\_19 (CQ), Aphelion\_18 (CQ1), Aphelion\_19 (CQ1), Bachita\_19 (CQ1), Bachita\_20 (CQ1), BrutonGaster\_10 (CQ2), Cardigan\_18 (DD), ClubL\_18 (CQ1), ClubL\_19 (CQ1), Cucurbita\_17 (CQ1), Cucurbita\_18 (CQ1), Culver\_17 (CQ1), Culver\_18 (CQ1), Dusty\_17 (CQ), Dusty\_18 (CQ), Engineer\_18 (CQ1), Engineer\_19 (CQ1), JonJames\_17 (DD), Lozinak\_18 (CQ1), Lozinak\_19 (CQ1), Miskis\_20 (CQ), Miskis\_21 (CQ), Norvs\_18 (CQ), Norvs\_19 (CQ), OneUp\_12 (CQ2), PhinkBoden\_19 (CQ1), PhinkBoden\_20 (CQ1), Smoothie\_18 (CQ1), Smoothie\_19 (CQ1), Toniann\_18 (CQ1), Toniann\_19 (CQ1), WilliamBoone\_16 (CQ1), WilliamBoone\_17 (CQ1), Yvonnetastic\_18 (DD),

Start 4:

- Found in 3 of 39 ( 7.7% ) of genes in pham
- Manual Annotations of this start: 2 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cardigan\_17 (DD), JonJames\_16 (DD), Yvonnetastic\_17 (DD),

Start 7:

- Found in 1 of 39 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BrutonGaster\_9 (CQ2),

### Summary by clusters:

There are 4 clusters represented in this pham: CQ2, DD, CQ1, CQ,

Info for manual annotations of cluster CQ:

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

Info for manual annotations of cluster CQ1:

- Start number 3 was manually annotated 22 times for cluster CQ1.

Info for manual annotations of cluster CQ2:

- Start number 3 was manually annotated 2 times for cluster CQ2.
- Start number 7 was manually annotated 1 time for cluster CQ2.

Info for manual annotations of cluster DD:

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

- Start number 4 was manually annotated 2 times for cluster DD.

**Gene Information:**

Gene: Abscondus\_19 Start: 5211, Stop: 5657, Start Num: 3

Candidate Starts for Abscondus\_19:

(Start: 3 @5211 has 28 MA's), (9, 5307), (18, 5406), (37, 5652),

Gene: Abscondus\_18 Start: 4744, Stop: 5214, Start Num: 3

Candidate Starts for Abscondus\_18:

(2, 4729), (Start: 3 @4744 has 28 MA's), (10, 4876), (21, 4978), (23, 5005), (38, 5203),

Gene: Aphelion\_18 Start: 4905, Stop: 5375, Start Num: 3

Candidate Starts for Aphelion\_18:

(2, 4890), (Start: 3 @4905 has 28 MA's), (38, 5364),

Gene: Aphelion\_19 Start: 5372, Stop: 5815, Start Num: 3

Candidate Starts for Aphelion\_19:

(Start: 3 @5372 has 28 MA's), (13, 5507), (18, 5564), (21, 5591), (23, 5618), (24, 5621), (37, 5810),

Gene: Bachita\_19 Start: 5417, Stop: 5887, Start Num: 3

Candidate Starts for Bachita\_19:

(2, 5402), (Start: 3 @5417 has 28 MA's), (38, 5876),

Gene: Bachita\_20 Start: 5884, Stop: 6327, Start Num: 3

Candidate Starts for Bachita\_20:

(Start: 3 @5884 has 28 MA's), (13, 6019), (18, 6076), (21, 6103), (23, 6130), (24, 6133), (37, 6322),

Gene: BrutonGaster\_9 Start: 2765, Stop: 3145, Start Num: 7

Candidate Starts for BrutonGaster\_9:

(Start: 7 @2765 has 1 MA's), (16, 2858), (25, 2942),

Gene: BrutonGaster\_10 Start: 3142, Stop: 3606, Start Num: 3

Candidate Starts for BrutonGaster\_10:

(1, 3034), (Start: 3 @3142 has 28 MA's), (27, 3451), (29, 3457), (31, 3490), (33, 3556), (34, 3562), (35, 3580),

Gene: Cardigan\_17 Start: 5117, Stop: 5479, Start Num: 4

Candidate Starts for Cardigan\_17:

(Start: 4 @5117 has 2 MA's), (6, 5126), (28, 5342), (30, 5351), (36, 5453),

Gene: Cardigan\_18 Start: 5476, Stop: 5937, Start Num: 3

Candidate Starts for Cardigan\_18:

(Start: 3 @5476 has 28 MA's), (13, 5614), (21, 5710), (22, 5734), (34, 5890),

Gene: ClubL\_19 Start: 5384, Stop: 5827, Start Num: 3

Candidate Starts for ClubL\_19:

(Start: 3 @5384 has 28 MA's), (13, 5519), (18, 5576), (21, 5603), (23, 5630), (24, 5633), (37, 5822),

Gene: ClubL\_18 Start: 4917, Stop: 5387, Start Num: 3

Candidate Starts for ClubL\_18:

(2, 4902), (Start: 3 @4917 has 28 MA's), (38, 5376),

Gene: Cucurbita\_17 Start: 4917, Stop: 5387, Start Num: 3

Candidate Starts for Cucurbita\_17:

(2, 4902), (Start: 3 @4917 has 28 MA's), (38, 5376),

Gene: Cucurbita\_18 Start: 5384, Stop: 5827, Start Num: 3

Candidate Starts for Cucurbita\_18:

(Start: 3 @5384 has 28 MA's), (13, 5519), (18, 5576), (21, 5603), (23, 5630), (24, 5633), (37, 5822),

Gene: Culver\_18 Start: 5211, Stop: 5657, Start Num: 3

Candidate Starts for Culver\_18:

(Start: 3 @5211 has 28 MA's), (9, 5307), (18, 5406), (37, 5652),

Gene: Culver\_17 Start: 4744, Stop: 5214, Start Num: 3

Candidate Starts for Culver\_17:

(2, 4729), (Start: 3 @4744 has 28 MA's), (10, 4876), (21, 4978), (23, 5005), (38, 5203),

Gene: Dusty\_18 Start: 5211, Stop: 5657, Start Num: 3

Candidate Starts for Dusty\_18:

(Start: 3 @5211 has 28 MA's), (9, 5307), (18, 5406), (37, 5652),

Gene: Dusty\_17 Start: 4744, Stop: 5214, Start Num: 3

Candidate Starts for Dusty\_17:

(2, 4729), (Start: 3 @4744 has 28 MA's), (10, 4876), (21, 4978), (23, 5005), (38, 5203),

Gene: Engineer\_19 Start: 5375, Stop: 5818, Start Num: 3

Candidate Starts for Engineer\_19:

(Start: 3 @5375 has 28 MA's), (9, 5468), (13, 5510), (18, 5567), (21, 5594), (23, 5621), (24, 5624), (37, 5813),

Gene: Engineer\_18 Start: 4908, Stop: 5378, Start Num: 3

Candidate Starts for Engineer\_18:

(2, 4893), (Start: 3 @4908 has 28 MA's), (5, 4992), (26, 5211), (38, 5367),

Gene: JonJames\_16 Start: 5226, Stop: 5609, Start Num: 4

Candidate Starts for JonJames\_16:

(Start: 4 @5226 has 2 MA's), (6, 5238), (12, 5289), (14, 5301), (15, 5334), (17, 5340), (20, 5382), (27, 5454), (28, 5457), (32, 5496), (34, 5565),

Gene: JonJames\_17 Start: 5613, Stop: 6074, Start Num: 3

Candidate Starts for JonJames\_17:

(Start: 3 @5613 has 28 MA's), (8, 5709), (10, 5733), (13, 5751), (21, 5847), (22, 5871), (34, 6027),

Gene: Lozinak\_18 Start: 4908, Stop: 5378, Start Num: 3

Candidate Starts for Lozinak\_18:

(2, 4893), (Start: 3 @4908 has 28 MA's), (38, 5367),

Gene: Lozinak\_19 Start: 5375, Stop: 5818, Start Num: 3

Candidate Starts for Lozinak\_19:

(Start: 3 @5375 has 28 MA's), (13, 5510), (18, 5567), (21, 5594), (23, 5621), (24, 5624), (37, 5813),

Gene: Miskis\_21 Start: 5372, Stop: 5815, Start Num: 3

Candidate Starts for Miskis\_21:

(Start: 3 @5372 has 28 MA's), (13, 5507), (18, 5564), (21, 5591), (23, 5618), (24, 5621), (37, 5810),

Gene: Miskis\_20 Start: 4905, Stop: 5375, Start Num: 3

Candidate Starts for Miskis\_20:

(2, 4890), (Start: 3 @4905 has 28 MA's), (38, 5364),

Gene: Norvs\_19 Start: 5375, Stop: 5818, Start Num: 3

Candidate Starts for Norvs\_19:

(Start: 3 @5375 has 28 MA's), (13, 5510), (18, 5567), (21, 5594), (23, 5621), (24, 5624), (37, 5813),

Gene: Norvs\_18 Start: 4908, Stop: 5378, Start Num: 3

Candidate Starts for Norvs\_18:

(2, 4893), (Start: 3 @4908 has 28 MA's), (5, 4992), (38, 5367),

Gene: OneUp\_12 Start: 3597, Stop: 4058, Start Num: 3

Candidate Starts for OneUp\_12:

(Start: 3 @3597 has 28 MA's), (31, 3942), (33, 4008), (34, 4014), (35, 4032),

Gene: PhinkBoden\_20 Start: 5870, Stop: 6316, Start Num: 3

Candidate Starts for PhinkBoden\_20:

(Start: 3 @5870 has 28 MA's), (9, 5966), (18, 6065), (37, 6311),

Gene: PhinkBoden\_19 Start: 5403, Stop: 5873, Start Num: 3

Candidate Starts for PhinkBoden\_19:

(2, 5388), (Start: 3 @5403 has 28 MA's), (5, 5487), (26, 5706), (38, 5862),

Gene: Smoothie\_18 Start: 4908, Stop: 5378, Start Num: 3

Candidate Starts for Smoothie\_18:

(2, 4893), (Start: 3 @4908 has 28 MA's), (38, 5367),

Gene: Smoothie\_19 Start: 5375, Stop: 5818, Start Num: 3

Candidate Starts for Smoothie\_19:

(Start: 3 @5375 has 28 MA's), (13, 5510), (18, 5567), (21, 5594), (23, 5621), (24, 5624), (37, 5813),

Gene: Toniann\_18 Start: 4908, Stop: 5378, Start Num: 3

Candidate Starts for Toniann\_18:

(2, 4893), (Start: 3 @4908 has 28 MA's), (5, 4992), (26, 5211), (38, 5367),

Gene: Toniann\_19 Start: 5375, Stop: 5818, Start Num: 3

Candidate Starts for Toniann\_19:

(Start: 3 @5375 has 28 MA's), (9, 5468), (13, 5510), (18, 5567), (21, 5594), (23, 5621), (24, 5624), (37, 5813),

Gene: WilliamBoone\_16 Start: 4437, Stop: 4910, Start Num: 3

Candidate Starts for WilliamBoone\_16:

(Start: 3 @4437 has 28 MA's), (19, 4656), (21, 4674), (23, 4701), (38, 4899),

Gene: WilliamBoone\_17 Start: 4907, Stop: 5353, Start Num: 3

Candidate Starts for WilliamBoone\_17:

(Start: 3 @4907 has 28 MA's), (9, 5003), (11, 5030), (18, 5102), (21, 5129),

Gene: Yvonnetastic\_18 Start: 5218, Stop: 5679, Start Num: 3

Candidate Starts for Yvonnetastic\_18:

(Start: 3 @5218 has 28 MA's), (13, 5356), (21, 5452), (22, 5476), (24, 5482), (34, 5632),

Gene: Yvonnetastic\_17 Start: 4859, Stop: 5221, Start Num: 4

Candidate Starts for Yvonnetastic\_17:

(Start: 4 @4859 has 2 MA's), (28, 5084),