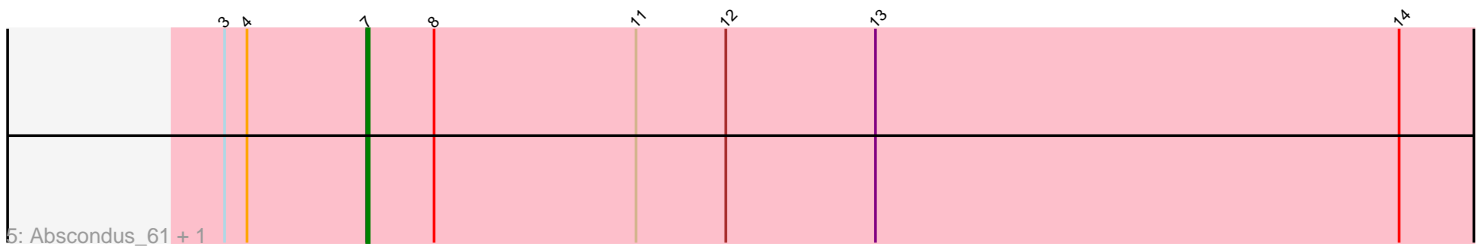
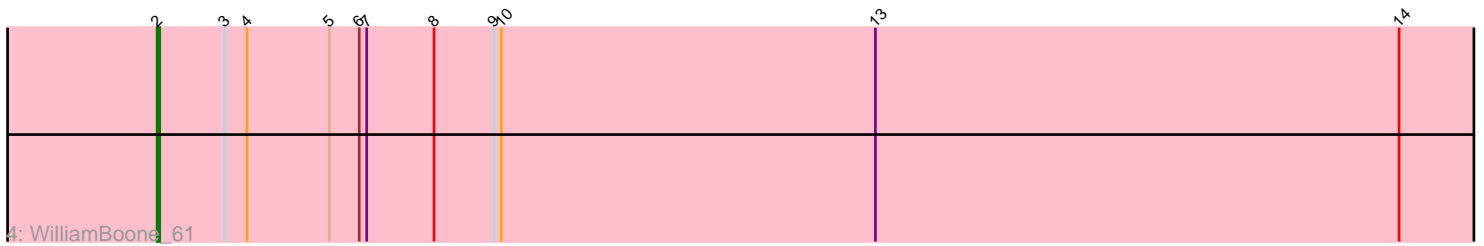
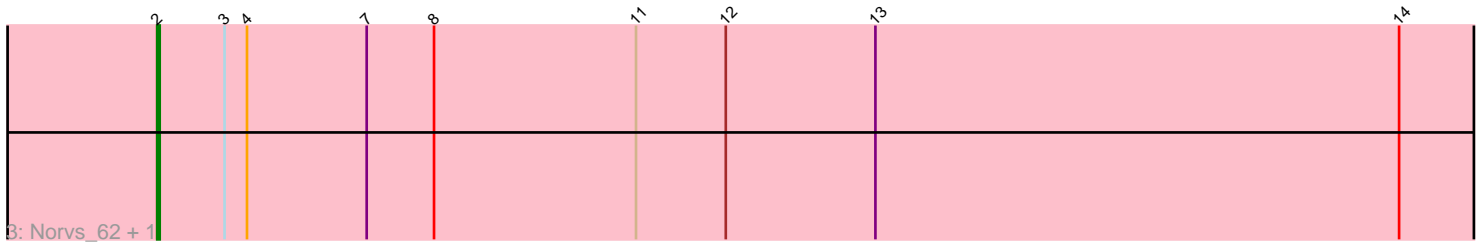
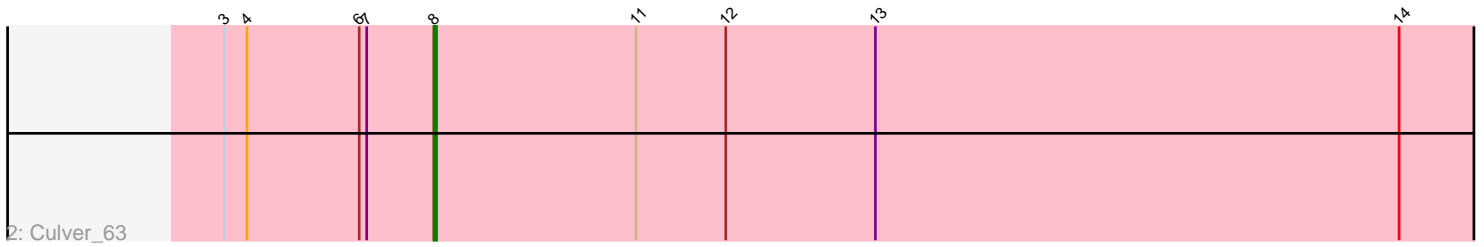
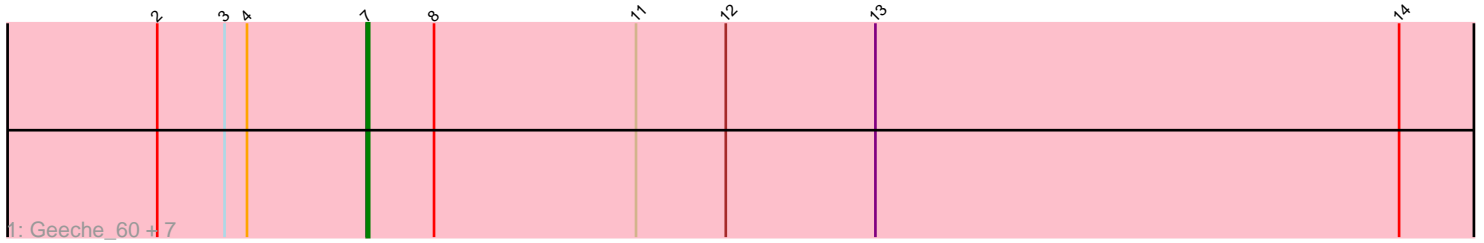


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 301863 Report

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

Pham number 301863 has 16 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Geeche\_60, Toniann\_62, Engineer\_63, Bachita\_63, PhinkBoden\_61, ClubL\_62, Cucurbita\_63, Miskis\_59
- Track 2 : Culver\_63
- Track 3 : Norvs\_62, Aphelion\_61
- Track 4 : WilliamBoone\_61
- Track 5 : Abscondus\_61, Dusty\_61
- Track 6 : Smoothie\_63, Lozinak\_62

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

The start number called the most often in the published annotations is 7, it was called in 9 of the 15 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abscondus\_61, Bachita\_63, ClubL\_62, Cucurbita\_63, Dusty\_61, Engineer\_63, Geeche\_60, Miskis\_59, PhinkBoden\_61, Toniann\_62,

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

- Aphelion\_61, Culver\_63, Lozinak\_62, Norvs\_62, Smoothie\_63, WilliamBoone\_61,

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

- 

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

Start 1:

- Found in 2 of 16 ( 12.5% ) of genes in pham
- Manual Annotations of this start: 2 of 15
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lozinak\_62 (CQ1), Smoothie\_63 (CQ1),

Start 2:

- Found in 13 of 16 ( 81.2% ) of genes in pham
- Manual Annotations of this start: 3 of 15

- Called 23.1% of time when present
- Phage (with cluster) where this start called: Aphelion\_61 (CQ1), Norvs\_62 (CQ1), WilliamBoone\_61 (CQ1),

#### Start 7:

- Found in 16 of 16 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 9 of 15
- Called 62.5% of time when present
- Phage (with cluster) where this start called: Abscondus\_61 (CQ1), Bachita\_63 (CQ1), ClubL\_62 (CQ1), Cucurbita\_63 (CQ1), Dusty\_61 (CQ1), Engineer\_63 (CQ1), Geeche\_60 (CQ1), Miskis\_59 (CQ1), PhinkBoden\_61 (CQ1), Toniann\_62 (CQ1),

#### Start 8:

- Found in 16 of 16 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 1 of 15
- Called 6.2% of time when present
- Phage (with cluster) where this start called: Culver\_63 (CQ1),

### Summary by clusters:

There is one cluster represented in this pham: CQ1

Info for manual annotations of cluster CQ1:

- Start number 1 was manually annotated 2 times for cluster CQ1.
- Start number 2 was manually annotated 3 times for cluster CQ1.
- Start number 7 was manually annotated 9 times for cluster CQ1.
- Start number 8 was manually annotated 1 time for cluster CQ1.

### **Gene Information:**

Gene: Abscondus\_61 Start: 41423, Stop: 40977, Start Num: 7

Candidate Starts for Abscondus\_61:

(3, 41480), (4, 41471), (Start: 7 @41423 has 9 MA's), (Start: 8 @41396 has 1 MA's), (11, 41315), (12, 41279), (13, 41219), (14, 41009),

Gene: Aphelion\_61 Start: 41776, Stop: 41246, Start Num: 2

Candidate Starts for Aphelion\_61:

(Start: 2 @41776 has 3 MA's), (3, 41749), (4, 41740), (Start: 7 @41692 has 9 MA's), (Start: 8 @41665 has 1 MA's), (11, 41584), (12, 41548), (13, 41488), (14, 41278),

Gene: Bachita\_63 Start: 42125, Stop: 41679, Start Num: 7

Candidate Starts for Bachita\_63:

(Start: 2 @42209 has 3 MA's), (3, 42182), (4, 42173), (Start: 7 @42125 has 9 MA's), (Start: 8 @42098 has 1 MA's), (11, 42017), (12, 41981), (13, 41921), (14, 41711),

Gene: ClubL\_62 Start: 41615, Stop: 41169, Start Num: 7

Candidate Starts for ClubL\_62:

(Start: 2 @41699 has 3 MA's), (3, 41672), (4, 41663), (Start: 7 @41615 has 9 MA's), (Start: 8 @41588 has 1 MA's), (11, 41507), (12, 41471), (13, 41411), (14, 41201),

Gene: Cucurbita\_63 Start: 42984, Stop: 42538, Start Num: 7

Candidate Starts for Cucurbita\_63:

(Start: 2 @43068 has 3 MA's), (3, 43041), (4, 43032), (Start: 7 @42984 has 9 MA's), (Start: 8 @42957 has 1 MA's), (11, 42876), (12, 42840), (13, 42780), (14, 42570),

Gene: Culver\_63 Start: 41268, Stop: 40849, Start Num: 8

Candidate Starts for Culver\_63:

(3, 41352), (4, 41343), (6, 41298), (Start: 7 @41295 has 9 MA's), (Start: 8 @41268 has 1 MA's), (11, 41187), (12, 41151), (13, 41091), (14, 40881),

Gene: Dusty\_61 Start: 41430, Stop: 40984, Start Num: 7

Candidate Starts for Dusty\_61:

(3, 41487), (4, 41478), (Start: 7 @41430 has 9 MA's), (Start: 8 @41403 has 1 MA's), (11, 41322), (12, 41286), (13, 41226), (14, 41016),

Gene: Engineer\_63 Start: 42098, Stop: 41652, Start Num: 7

Candidate Starts for Engineer\_63:

(Start: 2 @42182 has 3 MA's), (3, 42155), (4, 42146), (Start: 7 @42098 has 9 MA's), (Start: 8 @42071 has 1 MA's), (11, 41990), (12, 41954), (13, 41894), (14, 41684),

Gene: Geeche\_60 Start: 41514, Stop: 41068, Start Num: 7

Candidate Starts for Geeche\_60:

(Start: 2 @41598 has 3 MA's), (3, 41571), (4, 41562), (Start: 7 @41514 has 9 MA's), (Start: 8 @41487 has 1 MA's), (11, 41406), (12, 41370), (13, 41310), (14, 41100),

Gene: Lozinak\_62 Start: 42068, Stop: 41478, Start Num: 1

Candidate Starts for Lozinak\_62:

(Start: 1 @42068 has 2 MA's), (Start: 2 @42008 has 3 MA's), (3, 41981), (4, 41972), (Start: 7 @41924 has 9 MA's), (Start: 8 @41897 has 1 MA's), (11, 41816), (13, 41720), (14, 41510),

Gene: Miskis\_59 Start: 41458, Stop: 41012, Start Num: 7

Candidate Starts for Miskis\_59:

(Start: 2 @41542 has 3 MA's), (3, 41515), (4, 41506), (Start: 7 @41458 has 9 MA's), (Start: 8 @41431 has 1 MA's), (11, 41350), (12, 41314), (13, 41254), (14, 41044),

Gene: Norvs\_62 Start: 41781, Stop: 41251, Start Num: 2

Candidate Starts for Norvs\_62:

(Start: 2 @41781 has 3 MA's), (3, 41754), (4, 41745), (Start: 7 @41697 has 9 MA's), (Start: 8 @41670 has 1 MA's), (11, 41589), (12, 41553), (13, 41493), (14, 41283),

Gene: PhinkBoden\_61 Start: 42078, Stop: 41632, Start Num: 7

Candidate Starts for PhinkBoden\_61:

(Start: 2 @42162 has 3 MA's), (3, 42135), (4, 42126), (Start: 7 @42078 has 9 MA's), (Start: 8 @42051 has 1 MA's), (11, 41970), (12, 41934), (13, 41874), (14, 41664),

Gene: Smoothie\_63 Start: 42068, Stop: 41478, Start Num: 1

Candidate Starts for Smoothie\_63:

(Start: 1 @42068 has 2 MA's), (Start: 2 @42008 has 3 MA's), (3, 41981), (4, 41972), (Start: 7 @41924 has 9 MA's), (Start: 8 @41897 has 1 MA's), (11, 41816), (13, 41720), (14, 41510),

Gene: Toniann\_62 Start: 41640, Stop: 41194, Start Num: 7

Candidate Starts for Toniann\_62:

(Start: 2 @41724 has 3 MA's), (3, 41697), (4, 41688), (Start: 7 @41640 has 9 MA's), (Start: 8 @41613 has 1 MA's), (11, 41532), (12, 41496), (13, 41436), (14, 41226),

Gene: WilliamBoone\_61 Start: 40676, Stop: 40146, Start Num: 2

Candidate Starts for WilliamBoone\_61:

(Start: 2 @40676 has 3 MA's), (3, 40649), (4, 40640), (5, 40607), (6, 40595), (Start: 7 @40592 has 9 MA's), (Start: 8 @40565 has 1 MA's), (9, 40541), (10, 40538), (13, 40388), (14, 40178),