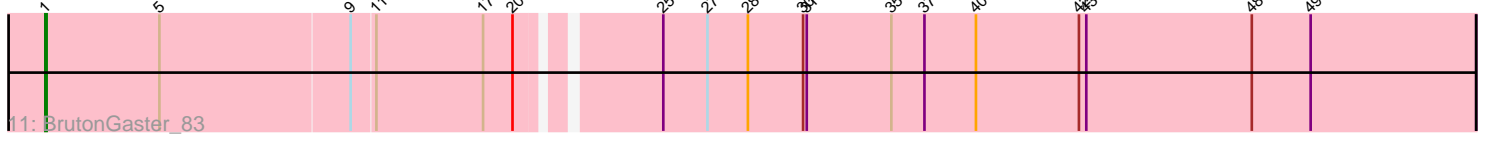
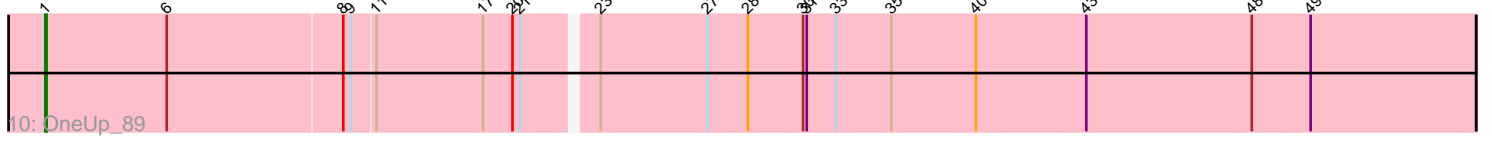
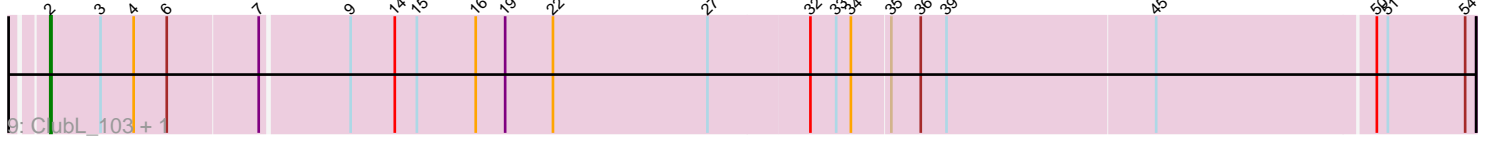
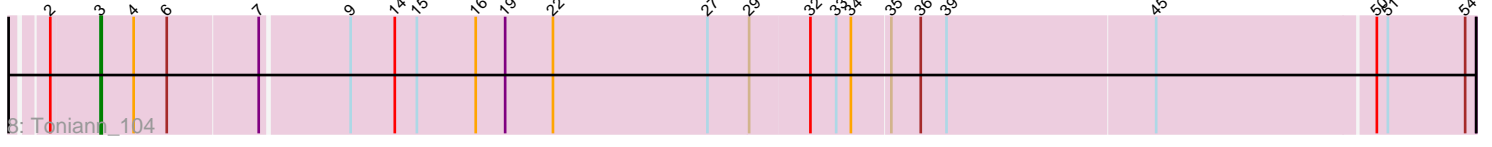
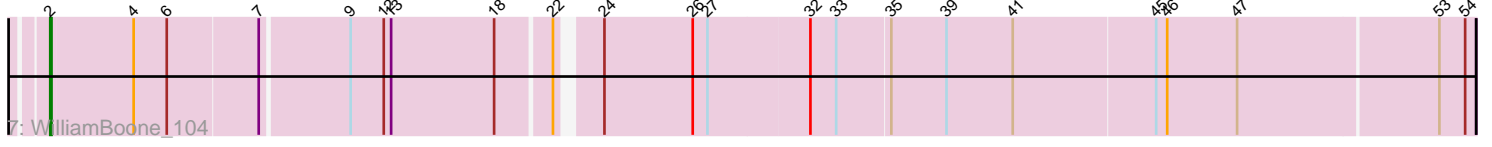
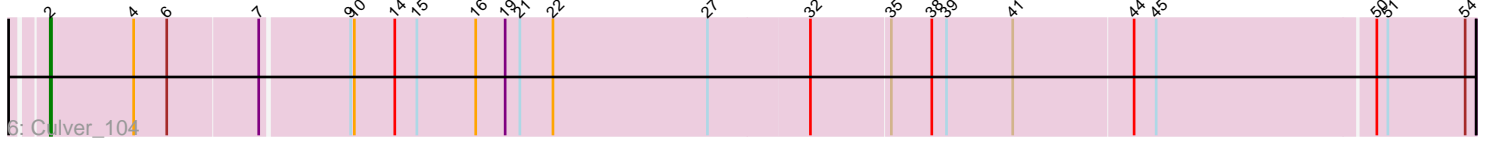
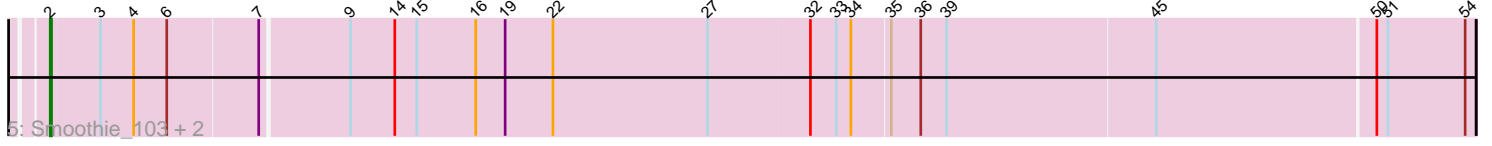
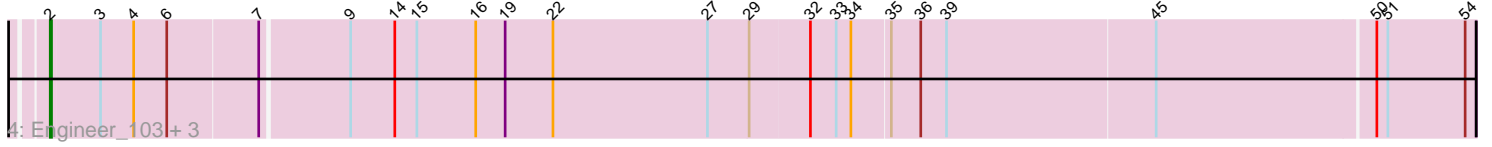
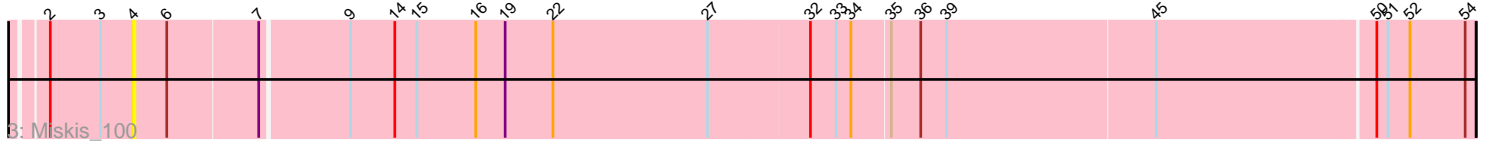
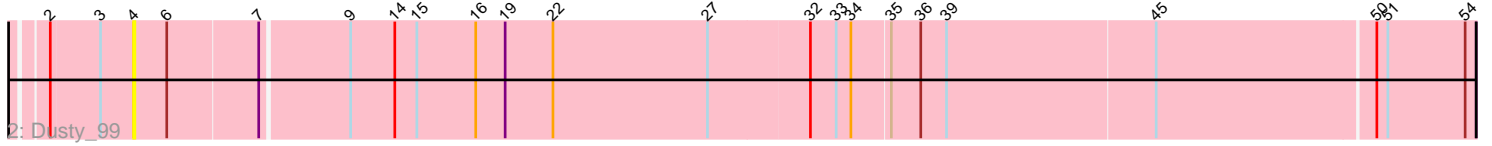
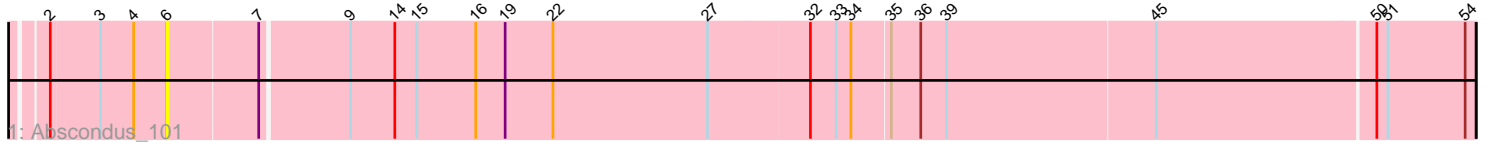


# Pham 4709



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 4709 Report

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

Pham number 4709 has 17 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Abscondus\_101
- Track 2 : Dusty\_99
- Track 3 : Miskis\_100
- Track 4 : Engineer\_103, PhinkBoden\_101, Cucurbita\_103, Bachita\_104
- Track 5 : Smoothie\_103, Aphelion\_103, Lozinak\_102
- Track 6 : Culver\_104
- Track 7 : WilliamBoone\_104
- Track 8 : Toniann\_104
- Track 9 : ClubL\_103, Norvs\_104
- Track 10 : OneUp\_89
- Track 11 : BrutonGaster\_83

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

The start number called the most often in the published annotations is 2, it was called in 11 of the 14 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aphelion\_103, Bachita\_104, ClubL\_103, Cucurbita\_103, Culver\_104, Engineer\_103, Lozinak\_102, Norvs\_104, PhinkBoden\_101, Smoothie\_103, WilliamBoone\_104,

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

- Abscondus\_101, Dusty\_99, Miskis\_100, Toniann\_104,

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

- BrutonGaster\_83, OneUp\_89,

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

Start 1:

- Found in 2 of 17 ( 11.8% ) of genes in pham
- Manual Annotations of this start: 2 of 14
- Called 100.0% of time when present

- Phage (with cluster) where this start called: BrutonGaster\_83 (CQ2), OneUp\_89 (CQ2),

#### Start 2:

- Found in 15 of 17 ( 88.2% ) of genes in pham
- Manual Annotations of this start: 11 of 14
- Called 73.3% of time when present
- Phage (with cluster) where this start called: Aphelion\_103 (CQ1), Bachita\_104 (CQ1), ClubL\_103 (CQ1), Cucurbita\_103 (CQ1), Culver\_104 (CQ1), Engineer\_103 (CQ1), Lozinak\_102 (CQ1), Norvs\_104 (CQ), PhinkBoden\_101 (CQ1), Smoothie\_103 (CQ1), WilliamBoone\_104 (CQ1),

#### Start 3:

- Found in 13 of 17 ( 76.5% ) of genes in pham
- Manual Annotations of this start: 1 of 14
- Called 7.7% of time when present
- Phage (with cluster) where this start called: Toniann\_104 (CQ1),

#### Start 4:

- Found in 15 of 17 ( 88.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 13.3% of time when present
- Phage (with cluster) where this start called: Dusty\_99 (CQ), Miskis\_100 (CQ),

#### Start 6:

- Found in 16 of 17 ( 94.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 6.2% of time when present
- Phage (with cluster) where this start called: Abscondus\_101 (CQ),

### Summary by clusters:

There are 3 clusters represented in this pham: CQ2, CQ1, CQ,

Info for manual annotations of cluster CQ:

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

Info for manual annotations of cluster CQ1:

- Start number 2 was manually annotated 10 times for cluster CQ1.
- Start number 3 was manually annotated 1 time for cluster CQ1.

Info for manual annotations of cluster CQ2:

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

### Gene Information:

Gene: Abscondus\_101 Start: 59984, Stop: 61027, Start Num: 6

Candidate Starts for Abscondus\_101:

(Start: 2 @59891 has 11 MA's), (Start: 3 @59930 has 1 MA's), (4, 59957), (6, 59984), (7, 60056), (9, 60125), (14, 60161), (15, 60179), (16, 60227), (19, 60251), (22, 60290), (27, 60416), (32, 60497), (33, 60518), (34, 60530), (35, 60560), (36, 60584), (39, 60605), (45, 60773), (50, 60947), (51, 60956), (54,

61019),

Gene: Aphelion\_103 Start: 61444, Stop: 62580, Start Num: 2

Candidate Starts for Aphelion\_103:

(Start: 2 @61444 has 11 MA's), (Start: 3 @61483 has 1 MA's), (4, 61510), (6, 61537), (7, 61609), (9, 61678), (14, 61714), (15, 61732), (16, 61780), (19, 61804), (22, 61843), (27, 61969), (32, 62050), (33, 62071), (34, 62083), (35, 62113), (36, 62137), (39, 62158), (45, 62326), (50, 62500), (51, 62509), (54, 62572),

Gene: Bachita\_104 Start: 61102, Stop: 62238, Start Num: 2

Candidate Starts for Bachita\_104:

(Start: 2 @61102 has 11 MA's), (Start: 3 @61141 has 1 MA's), (4, 61168), (6, 61195), (7, 61267), (9, 61336), (14, 61372), (15, 61390), (16, 61438), (19, 61462), (22, 61501), (27, 61627), (29, 61660), (32, 61708), (33, 61729), (34, 61741), (35, 61771), (36, 61795), (39, 61816), (45, 61984), (50, 62158), (51, 62167), (54, 62230),

Gene: BrutonGaster\_83 Start: 55228, Stop: 56364, Start Num: 1

Candidate Starts for BrutonGaster\_83:

(Start: 1 @55228 has 2 MA's), (5, 55321), (9, 55474), (11, 55492), (17, 55579), (20, 55603), (25, 55702), (27, 55738), (28, 55771), (30, 55816), (31, 55819), (35, 55888), (37, 55915), (40, 55957), (42, 56041), (43, 56047), (48, 56182), (49, 56230),

Gene: ClubL\_103 Start: 60032, Stop: 61168, Start Num: 2

Candidate Starts for ClubL\_103:

(Start: 2 @60032 has 11 MA's), (Start: 3 @60071 has 1 MA's), (4, 60098), (6, 60125), (7, 60197), (9, 60266), (14, 60302), (15, 60320), (16, 60368), (19, 60392), (22, 60431), (27, 60557), (32, 60638), (33, 60659), (34, 60671), (35, 60701), (36, 60725), (39, 60746), (45, 60914), (50, 61088), (51, 61097), (54, 61160),

Gene: Cucurbita\_103 Start: 61609, Stop: 62745, Start Num: 2

Candidate Starts for Cucurbita\_103:

(Start: 2 @61609 has 11 MA's), (Start: 3 @61648 has 1 MA's), (4, 61675), (6, 61702), (7, 61774), (9, 61843), (14, 61879), (15, 61897), (16, 61945), (19, 61969), (22, 62008), (27, 62134), (29, 62167), (32, 62215), (33, 62236), (34, 62248), (35, 62278), (36, 62302), (39, 62323), (45, 62491), (50, 62665), (51, 62674), (54, 62737),

Gene: Culver\_104 Start: 59931, Stop: 61067, Start Num: 2

Candidate Starts for Culver\_104:

(Start: 2 @59931 has 11 MA's), (4, 59997), (6, 60024), (7, 60096), (9, 60165), (10, 60168), (14, 60201), (15, 60219), (16, 60267), (19, 60291), (21, 60303), (22, 60330), (27, 60456), (32, 60537), (35, 60600), (38, 60633), (39, 60645), (41, 60699), (44, 60795), (45, 60813), (50, 60987), (51, 60996), (54, 61059),

Gene: Dusty\_99 Start: 60016, Stop: 61086, Start Num: 4

Candidate Starts for Dusty\_99:

(Start: 2 @59950 has 11 MA's), (Start: 3 @59989 has 1 MA's), (4, 60016), (6, 60043), (7, 60115), (9, 60184), (14, 60220), (15, 60238), (16, 60286), (19, 60310), (22, 60349), (27, 60475), (32, 60556), (33, 60577), (34, 60589), (35, 60619), (36, 60643), (39, 60664), (45, 60832), (50, 61006), (51, 61015), (54, 61078),

Gene: Engineer\_103 Start: 61075, Stop: 62211, Start Num: 2

Candidate Starts for Engineer\_103:

(Start: 2 @61075 has 11 MA's), (Start: 3 @61114 has 1 MA's), (4, 61141), (6, 61168), (7, 61240), (9, 61309), (14, 61345), (15, 61363), (16, 61411), (19, 61435), (22, 61474), (27, 61600), (29, 61633), (32, 61681), (33, 61702), (34, 61714), (35, 61744), (36, 61768), (39, 61789), (45, 61957), (50, 62131), (51, 62140), (54, 62203),

Gene: Lozinak\_102 Start: 60913, Stop: 62049, Start Num: 2

Candidate Starts for Lozinak\_102:

(Start: 2 @60913 has 11 MA's), (Start: 3 @60952 has 1 MA's), (4, 60979), (6, 61006), (7, 61078), (9, 61147), (14, 61183), (15, 61201), (16, 61249), (19, 61273), (22, 61312), (27, 61438), (32, 61519), (33, 61540), (34, 61552), (35, 61582), (36, 61606), (39, 61627), (45, 61795), (50, 61969), (51, 61978), (54, 62041),

Gene: Miskis\_100 Start: 59679, Stop: 60749, Start Num: 4

Candidate Starts for Miskis\_100:

(Start: 2 @59613 has 11 MA's), (Start: 3 @59652 has 1 MA's), (4, 59679), (6, 59706), (7, 59778), (9, 59847), (14, 59883), (15, 59901), (16, 59949), (19, 59973), (22, 60012), (27, 60138), (32, 60219), (33, 60240), (34, 60252), (35, 60282), (36, 60306), (39, 60327), (45, 60495), (50, 60669), (51, 60678), (52, 60696), (54, 60741),

Gene: Norvs\_104 Start: 60940, Stop: 62076, Start Num: 2

Candidate Starts for Norvs\_104:

(Start: 2 @60940 has 11 MA's), (Start: 3 @60979 has 1 MA's), (4, 61006), (6, 61033), (7, 61105), (9, 61174), (14, 61210), (15, 61228), (16, 61276), (19, 61300), (22, 61339), (27, 61465), (32, 61546), (33, 61567), (34, 61579), (35, 61609), (36, 61633), (39, 61654), (45, 61822), (50, 61996), (51, 62005), (54, 62068),

Gene: OneUp\_89 Start: 57102, Stop: 58247, Start Num: 1

Candidate Starts for OneUp\_89:

(Start: 1 @57102 has 2 MA's), (6, 57201), (8, 57342), (9, 57348), (11, 57366), (17, 57453), (20, 57477), (21, 57483), (23, 57534), (27, 57621), (28, 57654), (30, 57699), (31, 57702), (33, 57726), (35, 57771), (40, 57840), (43, 57930), (48, 58065), (49, 58113),

Gene: PhinkBoden\_101 Start: 60703, Stop: 61839, Start Num: 2

Candidate Starts for PhinkBoden\_101:

(Start: 2 @60703 has 11 MA's), (Start: 3 @60742 has 1 MA's), (4, 60769), (6, 60796), (7, 60868), (9, 60937), (14, 60973), (15, 60991), (16, 61039), (19, 61063), (22, 61102), (27, 61228), (29, 61261), (32, 61309), (33, 61330), (34, 61342), (35, 61372), (36, 61396), (39, 61417), (45, 61585), (50, 61759), (51, 61768), (54, 61831),

Gene: Smoothie\_103 Start: 60913, Stop: 62049, Start Num: 2

Candidate Starts for Smoothie\_103:

(Start: 2 @60913 has 11 MA's), (Start: 3 @60952 has 1 MA's), (4, 60979), (6, 61006), (7, 61078), (9, 61147), (14, 61183), (15, 61201), (16, 61249), (19, 61273), (22, 61312), (27, 61438), (32, 61519), (33, 61540), (34, 61552), (35, 61582), (36, 61606), (39, 61627), (45, 61795), (50, 61969), (51, 61978), (54, 62041),

Gene: Toniann\_104 Start: 60922, Stop: 62019, Start Num: 3

Candidate Starts for Toniann\_104:

(Start: 2 @60883 has 11 MA's), (Start: 3 @60922 has 1 MA's), (4, 60949), (6, 60976), (7, 61048), (9, 61117), (14, 61153), (15, 61171), (16, 61219), (19, 61243), (22, 61282), (27, 61408), (29, 61441), (32, 61489), (33, 61510), (34, 61522), (35, 61552), (36, 61576), (39, 61597), (45, 61765), (50, 61939), (51, 61948), (54, 62011),

Gene: WilliamBoone\_104 Start: 59651, Stop: 60766, Start Num: 2

Candidate Starts for WilliamBoone\_104:

(Start: 2 @59651 has 11 MA's), (4, 59717), (6, 59744), (7, 59816), (9, 59885), (12, 59912), (13, 59918), (18, 60002), (22, 60044), (24, 60071), (26, 60143), (27, 60155), (32, 60236), (33, 60257), (35, 60299), (39, 60344), (41, 60398), (45, 60512), (46, 60521), (47, 60578), (53, 60737), (54, 60758),