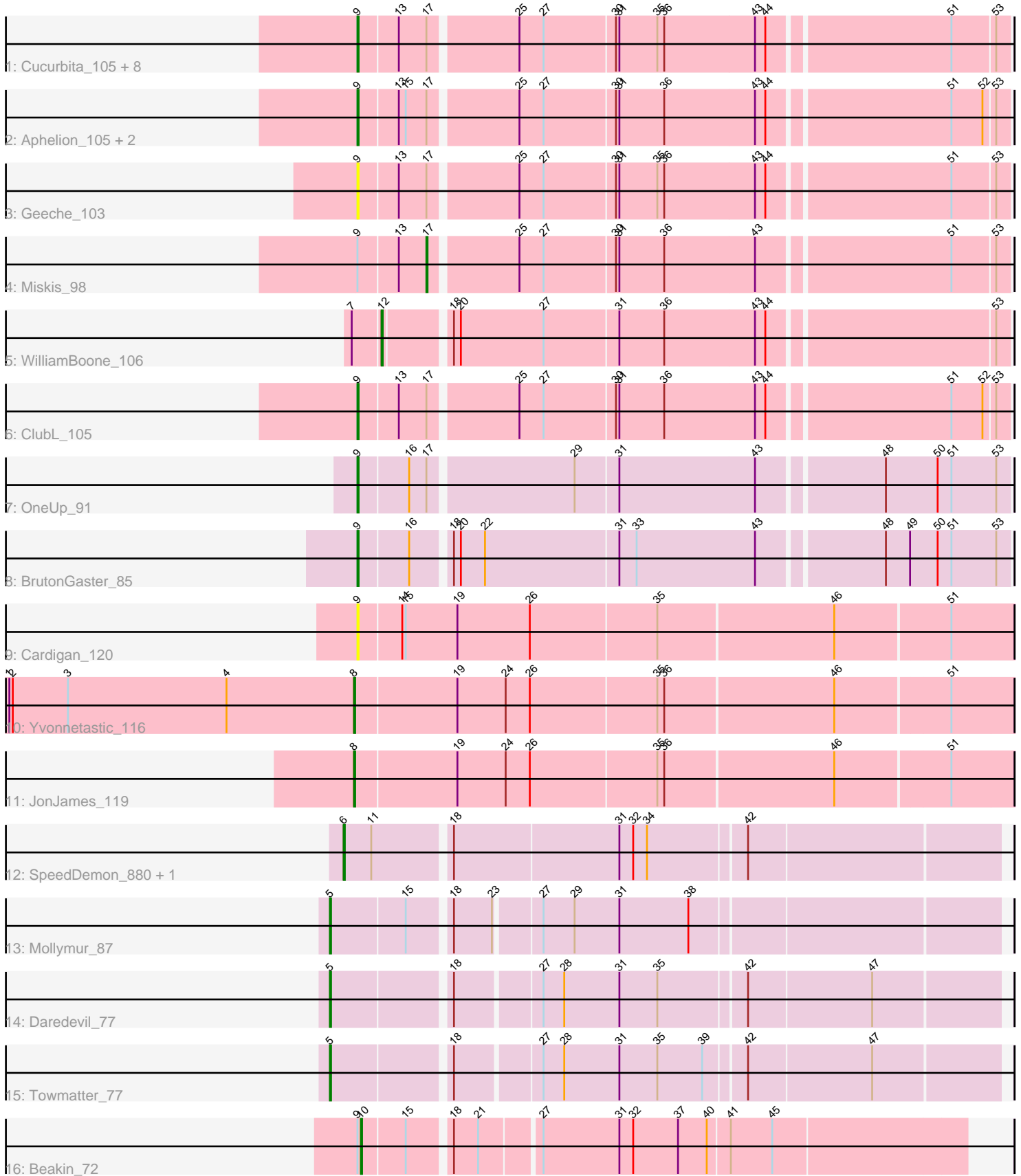


# Pham 296854



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 296854 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296854 has 27 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Cucurbita\_105, Toniann\_106, Dusty\_102, Bachita\_106, PhinkBoden\_103, Culver\_106, Engineer\_105, Smoothie\_105, Lozinak\_104
- Track 2 : Aphelion\_105, Abscondus\_103, Norvs\_106
- Track 3 : Geeche\_103
- Track 4 : Miskis\_98
- Track 5 : WilliamBoone\_106
- Track 6 : ClubL\_105
- Track 7 : OneUp\_91
- Track 8 : BrutonGaster\_85
- Track 9 : Cardigan\_120
- Track 10 : Yvonnetastic\_116
- Track 11 : JonJames\_119
- Track 12 : SpeedDemon\_880, Bantam\_87
- Track 13 : Mollymur\_87
- Track 14 : Daredevil\_77
- Track 15 : Towmatter\_77
- Track 16 : Beakin\_72

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

The start number called the most often in the published annotations is 9, it was called in 15 of the 25 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abscondus\_103, Aphelion\_105, Bachita\_106, BrutonGaster\_85, Cardigan\_120, ClubL\_105, Cucurbita\_105, Culver\_106, Dusty\_102, Engineer\_105, Geeche\_103, Lozinak\_104, Norvs\_106, OneUp\_91, PhinkBoden\_103, Smoothie\_105, Toniann\_106,

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

- Beakin\_72, Miskis\_98,

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

- Bantam\_87, Daredevil\_77, JonJames\_119, Mollymur\_87, SpeedDemon\_880, Towmatter\_77, WilliamBoone\_106, Yvonnestic\_116,

### Summary by start number:

#### Start 5:

- Found in 3 of 27 ( 11.1% ) of genes in pham
- Manual Annotations of this start: 3 of 25
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Daredevil\_77 (DL), Mollymur\_87 (DL), Towmatter\_77 (DL),

#### Start 6:

- Found in 2 of 27 ( 7.4% ) of genes in pham
- Manual Annotations of this start: 2 of 25
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bantam\_87 (DL), SpeedDemon\_880 (DL),

#### Start 8:

- Found in 2 of 27 ( 7.4% ) of genes in pham
- Manual Annotations of this start: 2 of 25
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JonJames\_119 (DD), Yvonnestic\_116 (DD),

#### Start 9:

- Found in 19 of 27 ( 70.4% ) of genes in pham
- Manual Annotations of this start: 15 of 25
- Called 89.5% of time when present
- Phage (with cluster) where this start called: Abscondus\_103 (CQ1), Aphelion\_105 (CQ1), Bachita\_106 (CQ1), BrutonGaster\_85 (CQ2), Cardigan\_120 (DD), ClubL\_105 (CQ1), Cucurbita\_105 (CQ1), Culver\_106 (CQ1), Dusty\_102 (CQ1), Engineer\_105 (CQ1), Geeche\_103 (CQ1), Lozinak\_104 (CQ1), Norvs\_106 (CQ1), OneUp\_91 (CQ2), PhinkBoden\_103 (CQ1), Smoothie\_105 (CQ1), Toniann\_106 (CQ1),

#### Start 10:

- Found in 1 of 27 ( 3.7% ) of genes in pham
- Manual Annotations of this start: 1 of 25
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beakin\_72 (F1),

#### Start 12:

- Found in 1 of 27 ( 3.7% ) of genes in pham
- Manual Annotations of this start: 1 of 25
- Called 100.0% of time when present
- Phage (with cluster) where this start called: WilliamBoone\_106 (CQ1),

#### Start 17:

- Found in 16 of 27 ( 59.3% ) of genes in pham
- Manual Annotations of this start: 1 of 25
- Called 6.2% of time when present
- Phage (with cluster) where this start called: Miskis\_98 (CQ1),

## Summary by clusters:

There are 5 clusters represented in this pham: CQ2, CQ1, DD, DL, F1,

Info for manual annotations of cluster CQ1:

- Start number 9 was manually annotated 13 times for cluster CQ1.
- Start number 12 was manually annotated 1 time for cluster CQ1.
- Start number 17 was manually annotated 1 time for cluster CQ1.

Info for manual annotations of cluster CQ2:

- Start number 9 was manually annotated 2 times for cluster CQ2.

Info for manual annotations of cluster DD:

- Start number 8 was manually annotated 2 times for cluster DD.

Info for manual annotations of cluster DL:

- Start number 5 was manually annotated 3 times for cluster DL.
- Start number 6 was manually annotated 2 times for cluster DL.

Info for manual annotations of cluster F1:

- Start number 10 was manually annotated 1 time for cluster F1.

## Gene Information:

Gene: Abscondus\_103 Start: 62014, Stop: 62550, Start Num: 9

Candidate Starts for Abscondus\_103:

(Start: 9 @62014 has 15 MA's), (13, 62047), (15, 62053), (Start: 17 @62071 has 1 MA's), (25, 62143), (27, 62164), (30, 62224), (31, 62227), (36, 62266), (43, 62344), (44, 62353), (51, 62503), (52, 62530), (53, 62539),

Gene: Aphelion\_105 Start: 63567, Stop: 64103, Start Num: 9

Candidate Starts for Aphelion\_105:

(Start: 9 @63567 has 15 MA's), (13, 63600), (15, 63606), (Start: 17 @63624 has 1 MA's), (25, 63696), (27, 63717), (30, 63777), (31, 63780), (36, 63819), (43, 63897), (44, 63906), (51, 64056), (52, 64083), (53, 64092),

Gene: Bachita\_106 Start: 63225, Stop: 63761, Start Num: 9

Candidate Starts for Bachita\_106:

(Start: 9 @63225 has 15 MA's), (13, 63258), (Start: 17 @63282 has 1 MA's), (25, 63354), (27, 63375), (30, 63435), (31, 63438), (35, 63471), (36, 63477), (43, 63555), (44, 63564), (51, 63714), (53, 63750),

Gene: Bantam\_87 Start: 59627, Stop: 59082, Start Num: 6

Candidate Starts for Bantam\_87:

(Start: 6 @59627 has 2 MA's), (11, 59603), (18, 59540), (31, 59399), (32, 59387), (34, 59375), (42, 59294),

Gene: Beakin\_72 Start: 43119, Stop: 43616, Start Num: 10

Candidate Starts for Beakin\_72:

(Start: 9 @43116 has 15 MA's), (Start: 10 @43119 has 1 MA's), (15, 43155), (18, 43188), (21, 43209), (27, 43257), (31, 43323), (32, 43335), (37, 43374), (40, 43398), (41, 43416), (45, 43452),

Gene: BrutonGaster\_85 Start: 57332, Stop: 57871, Start Num: 9

Candidate Starts for BrutonGaster\_85:

(Start: 9 @57332 has 15 MA's), (16, 57374), (18, 57404), (20, 57410), (22, 57431), (31, 57545), (33, 57560), (43, 57662), (48, 57764), (49, 57785), (50, 57809), (51, 57821), (53, 57860),

Gene: Cardigan\_120 Start: 68409, Stop: 68963, Start Num: 9

Candidate Starts for Cardigan\_120:

(Start: 9 @68409 has 15 MA's), (14, 68445), (15, 68448), (19, 68493), (26, 68556), (35, 68664), (46, 68814), (51, 68910),

Gene: ClubL\_105 Start: 62155, Stop: 62691, Start Num: 9

Candidate Starts for ClubL\_105:

(Start: 9 @62155 has 15 MA's), (13, 62188), (Start: 17 @62212 has 1 MA's), (25, 62284), (27, 62305), (30, 62365), (31, 62368), (36, 62407), (43, 62485), (44, 62494), (51, 62644), (52, 62671), (53, 62680),

Gene: Cucurbita\_105 Start: 63732, Stop: 64268, Start Num: 9

Candidate Starts for Cucurbita\_105:

(Start: 9 @63732 has 15 MA's), (13, 63765), (Start: 17 @63789 has 1 MA's), (25, 63861), (27, 63882), (30, 63942), (31, 63945), (35, 63978), (36, 63984), (43, 64062), (44, 64071), (51, 64221), (53, 64257),

Gene: Culver\_106 Start: 62054, Stop: 62590, Start Num: 9

Candidate Starts for Culver\_106:

(Start: 9 @62054 has 15 MA's), (13, 62087), (Start: 17 @62111 has 1 MA's), (25, 62183), (27, 62204), (30, 62264), (31, 62267), (35, 62300), (36, 62306), (43, 62384), (44, 62393), (51, 62543), (53, 62579),

Gene: Daredevil\_77 Start: 55211, Stop: 54663, Start Num: 5

Candidate Starts for Daredevil\_77:

(Start: 5 @55211 has 3 MA's), (18, 55115), (27, 55046), (28, 55028), (31, 54980), (35, 54947), (42, 54875), (47, 54770),

Gene: Dusty\_102 Start: 62073, Stop: 62609, Start Num: 9

Candidate Starts for Dusty\_102:

(Start: 9 @62073 has 15 MA's), (13, 62106), (Start: 17 @62130 has 1 MA's), (25, 62202), (27, 62223), (30, 62283), (31, 62286), (35, 62319), (36, 62325), (43, 62403), (44, 62412), (51, 62562), (53, 62598),

Gene: Engineer\_105 Start: 63198, Stop: 63734, Start Num: 9

Candidate Starts for Engineer\_105:

(Start: 9 @63198 has 15 MA's), (13, 63231), (Start: 17 @63255 has 1 MA's), (25, 63327), (27, 63348), (30, 63408), (31, 63411), (35, 63444), (36, 63450), (43, 63528), (44, 63537), (51, 63687), (53, 63723),

Gene: Geeche\_103 Start: 62296, Stop: 62832, Start Num: 9

Candidate Starts for Geeche\_103:

(Start: 9 @62296 has 15 MA's), (13, 62329), (Start: 17 @62353 has 1 MA's), (25, 62425), (27, 62446), (30, 62506), (31, 62509), (35, 62542), (36, 62548), (43, 62626), (44, 62635), (51, 62785), (53, 62821),

Gene: JonJames\_119 Start: 69097, Stop: 69654, Start Num: 8

Candidate Starts for JonJames\_119:

(Start: 8 @69097 has 2 MA's), (19, 69184), (24, 69226), (26, 69247), (35, 69355), (36, 69361), (46, 69505), (51, 69601),

Gene: Lozinak\_104 Start: 63036, Stop: 63572, Start Num: 9

Candidate Starts for Lozinak\_104:

(Start: 9 @63036 has 15 MA's), (13, 63069), (Start: 17 @63093 has 1 MA's), (25, 63165), (27, 63186), (30, 63246), (31, 63249), (35, 63282), (36, 63288), (43, 63366), (44, 63375), (51, 63525), (53, 63561),

Gene: Miskis\_98 Start: 61793, Stop: 62272, Start Num: 17

Candidate Starts for Miskis\_98:

(Start: 9 @61736 has 15 MA's), (13, 61769), (Start: 17 @61793 has 1 MA's), (25, 61865), (27, 61886), (30, 61946), (31, 61949), (36, 61988), (43, 62066), (51, 62225), (53, 62261),

Gene: Mollymur\_87 Start: 60351, Stop: 59803, Start Num: 5

Candidate Starts for Mollymur\_87:

(Start: 5 @60351 has 3 MA's), (15, 60288), (18, 60255), (23, 60222), (27, 60186), (29, 60159), (31, 60120), (38, 60060),

Gene: Norvs\_106 Start: 63063, Stop: 63599, Start Num: 9

Candidate Starts for Norvs\_106:

(Start: 9 @63063 has 15 MA's), (13, 63096), (15, 63102), (Start: 17 @63120 has 1 MA's), (25, 63192), (27, 63213), (30, 63273), (31, 63276), (36, 63315), (43, 63393), (44, 63402), (51, 63552), (52, 63579), (53, 63588),

Gene: OneUp\_91 Start: 59239, Stop: 59778, Start Num: 9

Candidate Starts for OneUp\_91:

(Start: 9 @59239 has 15 MA's), (16, 59281), (Start: 17 @59296 has 1 MA's), (29, 59416), (31, 59452), (43, 59569), (48, 59671), (50, 59716), (51, 59728), (53, 59767),

Gene: PhinkBoden\_103 Start: 62826, Stop: 63362, Start Num: 9

Candidate Starts for PhinkBoden\_103:

(Start: 9 @62826 has 15 MA's), (13, 62859), (Start: 17 @62883 has 1 MA's), (25, 62955), (27, 62976), (30, 63036), (31, 63039), (35, 63072), (36, 63078), (43, 63156), (44, 63165), (51, 63315), (53, 63351),

Gene: Smoothie\_105 Start: 63036, Stop: 63572, Start Num: 9

Candidate Starts for Smoothie\_105:

(Start: 9 @63036 has 15 MA's), (13, 63069), (Start: 17 @63093 has 1 MA's), (25, 63165), (27, 63186), (30, 63246), (31, 63249), (35, 63282), (36, 63288), (43, 63366), (44, 63375), (51, 63525), (53, 63561),

Gene: SpeedDemon\_880 Start: 61548, Stop: 61003, Start Num: 6

Candidate Starts for SpeedDemon\_880:

(Start: 6 @61548 has 2 MA's), (11, 61524), (18, 61461), (31, 61320), (32, 61308), (34, 61296), (42, 61215),

Gene: Toniann\_106 Start: 63006, Stop: 63542, Start Num: 9

Candidate Starts for Toniann\_106:

(Start: 9 @63006 has 15 MA's), (13, 63039), (Start: 17 @63063 has 1 MA's), (25, 63135), (27, 63156), (30, 63216), (31, 63219), (35, 63252), (36, 63258), (43, 63336), (44, 63345), (51, 63495), (53, 63531),

Gene: Towmatter\_77 Start: 55290, Stop: 54742, Start Num: 5

Candidate Starts for Towmatter\_77:

(Start: 5 @55290 has 3 MA's), (18, 55194), (27, 55125), (28, 55107), (31, 55059), (35, 55026), (39, 54987), (42, 54954), (47, 54849),

Gene: WilliamBoone\_106 Start: 61643, Stop: 62158, Start Num: 12

Candidate Starts for WilliamBoone\_106:

(7, 61622), (Start: 12 @61643 has 1 MA's), (18, 61694), (20, 61700), (27, 61772), (31, 61835), (36, 61874), (43, 61952), (44, 61961), (53, 62147),

Gene: Yvonnetastic\_116 Start: 65875, Stop: 66432, Start Num: 8

Candidate Starts for Yvonnetastic\_116:

(1, 65575), (2, 65578), (3, 65626), (4, 65764), (Start: 8 @65875 has 2 MA's), (19, 65962), (24, 66004),  
(26, 66025), (35, 66133), (36, 66139), (46, 66283), (51, 66379),