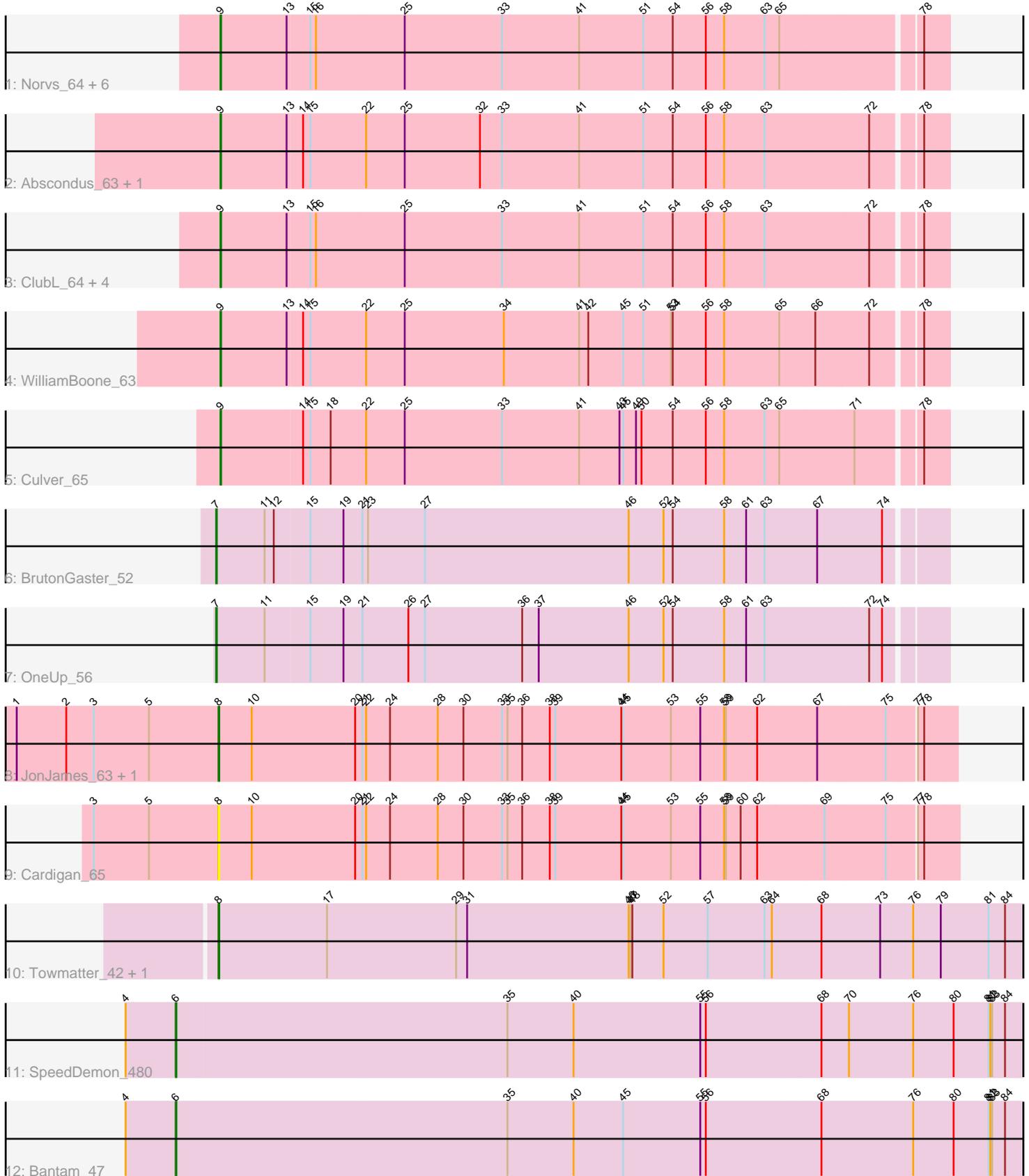


# Pham 284134



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 284134 Report

This analysis was run 02/23/26 on database version 636.

Pham number 284134 has 25 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Norvs\_64, Cucurbita\_65, Toniann\_64, Aphelion\_63, Geeche\_62, PhinkBoden\_63, Miskis\_61
- Track 2 : Abscondus\_63, Dusty\_63
- Track 3 : ClubL\_64, Bachita\_65, Smoothie\_65, Lozinak\_64, Engineer\_65
- Track 4 : WilliamBoone\_63
- Track 5 : Culver\_65
- Track 6 : BrutonGaster\_52
- Track 7 : OneUp\_56
- Track 8 : JonJames\_63, Yvonnetastic\_61
- Track 9 : Cardigan\_65
- Track 10 : Towmatter\_42, Daredevil\_43
- Track 11 : SpeedDemon\_480
- Track 12 : Bantam\_47

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

Genes that call this "Most Annotated" start:

- Abscondus\_63, Aphelion\_63, Bachita\_65, ClubL\_64, Cucurbita\_65, Culver\_65, Dusty\_63, Engineer\_65, Geeche\_62, Lozinak\_64, Miskis\_61, Norvs\_64, PhinkBoden\_63, Smoothie\_65, Toniann\_64, WilliamBoone\_63,

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

- 

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

- Bantam\_47, BrutonGaster\_52, Cardigan\_65, Daredevil\_43, JonJames\_63, OneUp\_56, SpeedDemon\_480, Towmatter\_42, Yvonnetastic\_61,

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

Start 6:

- Found in 2 of 25 ( 8.0% ) of genes in pham
- Manual Annotations of this start: 2 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bantam\_47 (DL), SpeedDemon\_480 (DL),

Start 7:

- Found in 2 of 25 ( 8.0% ) of genes in pham
- Manual Annotations of this start: 2 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BrutonGaster\_52 (CQ2), OneUp\_56 (CQ2),

Start 8:

- Found in 5 of 25 ( 20.0% ) of genes in pham
- Manual Annotations of this start: 4 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cardigan\_65 (DD), Daredevil\_43 (DL), JonJames\_63 (DD), Towmatter\_42 (DL), Yvonnetastic\_61 (DD),

Start 9:

- Found in 16 of 25 ( 64.0% ) of genes in pham
- Manual Annotations of this start: 15 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abscondus\_63 (CQ1), Aphelion\_63 (CQ1), Bachita\_65 (CQ1), ClubL\_64 (CQ1), Cucurbita\_65 (CQ1), Culver\_65 (CQ1), Dusty\_63 (CQ1), Engineer\_65 (CQ1), Geeche\_62 (CQ1), Lozinak\_64 (CQ1), Miskis\_61 (CQ1), Norvs\_64 (CQ1), PhinkBoden\_63 (CQ1), Smoothie\_65 (CQ1), Toniann\_64 (CQ1), WilliamBoone\_63 (CQ1),

### **Summary by clusters:**

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

Info for manual annotations of cluster CQ1:

- Start number 9 was manually annotated 15 times for cluster CQ1.

Info for manual annotations of cluster CQ2:

- Start number 7 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 6 was manually annotated 2 times for cluster DL.
- Start number 8 was manually annotated 2 times for cluster DL.

### **Gene Information:**

Gene: Abscondus\_63 Start: 41992, Stop: 43158, Start Num: 9

Candidate Starts for Abscondus\_63:

(Start: 9 @41992 has 15 MA's), (13, 42100), (14, 42124), (15, 42136), (22, 42226), (25, 42289), (32, 42412), (33, 42448), (41, 42574), (51, 42679), (54, 42727), (56, 42781), (58, 42811), (63, 42877), (72, 43045), (78, 43117),

Gene: Aphelion\_63 Start: 42261, Stop: 43427, Start Num: 9

Candidate Starts for Aphelion\_63:

(Start: 9 @42261 has 15 MA's), (13, 42369), (15, 42405), (16, 42414), (25, 42558), (33, 42717), (41, 42843), (51, 42948), (54, 42996), (56, 43050), (58, 43080), (63, 43146), (65, 43170), (78, 43386),

Gene: Bachita\_65 Start: 42694, Stop: 43860, Start Num: 9

Candidate Starts for Bachita\_65:

(Start: 9 @42694 has 15 MA's), (13, 42802), (15, 42838), (16, 42847), (25, 42991), (33, 43150), (41, 43276), (51, 43381), (54, 43429), (56, 43483), (58, 43513), (63, 43579), (72, 43747), (78, 43819),

Gene: Bantam\_47 Start: 41103, Stop: 42488, Start Num: 6

Candidate Starts for Bantam\_47:

(4, 41025), (Start: 6 @41103 has 2 MA's), (35, 41643), (40, 41751), (45, 41832), (55, 41958), (56, 41967), (68, 42153), (76, 42303), (80, 42369), (81, 42426), (82, 42429), (83, 42432), (84, 42453),

Gene: BrutonGaster\_52 Start: 39981, Stop: 41153, Start Num: 7

Candidate Starts for BrutonGaster\_52:

(Start: 7 @39981 has 2 MA's), (11, 40059), (12, 40074), (15, 40131), (19, 40185), (21, 40215), (23, 40224), (27, 40317), (46, 40650), (52, 40707), (54, 40722), (58, 40806), (61, 40842), (63, 40872), (67, 40956), (74, 41061),

Gene: Cardigan\_65 Start: 45511, Stop: 46707, Start Num: 8

Candidate Starts for Cardigan\_65:

(3, 45307), (5, 45397), (Start: 8 @45511 has 4 MA's), (10, 45565), (20, 45733), (21, 45745), (22, 45751), (24, 45790), (28, 45868), (30, 45910), (33, 45973), (35, 45982), (36, 46006), (38, 46051), (39, 46060), (44, 46168), (45, 46171), (53, 46249), (55, 46297), (58, 46336), (59, 46339), (60, 46363), (62, 46390), (69, 46498), (75, 46597), (77, 46642), (78, 46651),

Gene: ClubL\_64 Start: 42184, Stop: 43350, Start Num: 9

Candidate Starts for ClubL\_64:

(Start: 9 @42184 has 15 MA's), (13, 42292), (15, 42328), (16, 42337), (25, 42481), (33, 42640), (41, 42766), (51, 42871), (54, 42919), (56, 42973), (58, 43003), (63, 43069), (72, 43237), (78, 43309),

Gene: Cucurbita\_65 Start: 43553, Stop: 44719, Start Num: 9

Candidate Starts for Cucurbita\_65:

(Start: 9 @43553 has 15 MA's), (13, 43661), (15, 43697), (16, 43706), (25, 43850), (33, 44009), (41, 44135), (51, 44240), (54, 44288), (56, 44342), (58, 44372), (63, 44438), (65, 44462), (78, 44678),

Gene: Culver\_65 Start: 41864, Stop: 43030, Start Num: 9

Candidate Starts for Culver\_65:

(Start: 9 @41864 has 15 MA's), (14, 41996), (15, 42008), (18, 42041), (22, 42098), (25, 42161), (33, 42320), (41, 42446), (43, 42512), (45, 42518), (49, 42539), (50, 42548), (54, 42599), (56, 42653), (58, 42683), (63, 42749), (65, 42773), (71, 42893), (78, 42989),

Gene: Daredevil\_43 Start: 37880, Stop: 39199, Start Num: 8

Candidate Starts for Daredevil\_43:

(Start: 8 @37880 has 4 MA's), (17, 38057), (29, 38267), (31, 38285), (46, 38549), (47, 38552), (48, 38555), (52, 38606), (57, 38678), (63, 38771), (64, 38783), (68, 38861), (73, 38957), (76, 39011), (79, 39056), (81, 39134), (84, 39161),

Gene: Dusty\_63 Start: 41999, Stop: 43165, Start Num: 9

Candidate Starts for Dusty\_63:

(Start: 9 @41999 has 15 MA's), (13, 42107), (14, 42131), (15, 42143), (22, 42233), (25, 42296), (32, 42419), (33, 42455), (41, 42581), (51, 42686), (54, 42734), (56, 42788), (58, 42818), (63, 42884), (72, 43052), (78, 43124),

Gene: Engineer\_65 Start: 42667, Stop: 43833, Start Num: 9

Candidate Starts for Engineer\_65:

(Start: 9 @42667 has 15 MA's), (13, 42775), (15, 42811), (16, 42820), (25, 42964), (33, 43123), (41, 43249), (51, 43354), (54, 43402), (56, 43456), (58, 43486), (63, 43552), (72, 43720), (78, 43792),

Gene: Geeche\_62 Start: 42083, Stop: 43249, Start Num: 9

Candidate Starts for Geeche\_62:

(Start: 9 @42083 has 15 MA's), (13, 42191), (15, 42227), (16, 42236), (25, 42380), (33, 42539), (41, 42665), (51, 42770), (54, 42818), (56, 42872), (58, 42902), (63, 42968), (65, 42992), (78, 43208),

Gene: JonJames\_63 Start: 45458, Stop: 46651, Start Num: 8

Candidate Starts for JonJames\_63:

(1, 45128), (2, 45209), (3, 45254), (5, 45344), (Start: 8 @45458 has 4 MA's), (10, 45512), (20, 45680), (21, 45692), (22, 45698), (24, 45737), (28, 45815), (30, 45857), (33, 45920), (35, 45929), (36, 45953), (38, 45998), (39, 46007), (44, 46115), (45, 46118), (53, 46196), (55, 46244), (58, 46283), (59, 46286), (62, 46337), (67, 46433), (75, 46544), (77, 46589), (78, 46598),

Gene: Lozinak\_64 Start: 42493, Stop: 43659, Start Num: 9

Candidate Starts for Lozinak\_64:

(Start: 9 @42493 has 15 MA's), (13, 42601), (15, 42637), (16, 42646), (25, 42790), (33, 42949), (41, 43075), (51, 43180), (54, 43228), (56, 43282), (58, 43312), (63, 43378), (72, 43546), (78, 43618),

Gene: Miskis\_61 Start: 42027, Stop: 43193, Start Num: 9

Candidate Starts for Miskis\_61:

(Start: 9 @42027 has 15 MA's), (13, 42135), (15, 42171), (16, 42180), (25, 42324), (33, 42483), (41, 42609), (51, 42714), (54, 42762), (56, 42816), (58, 42846), (63, 42912), (65, 42936), (78, 43152),

Gene: Norvs\_64 Start: 42266, Stop: 43432, Start Num: 9

Candidate Starts for Norvs\_64:

(Start: 9 @42266 has 15 MA's), (13, 42374), (15, 42410), (16, 42419), (25, 42563), (33, 42722), (41, 42848), (51, 42953), (54, 43001), (56, 43055), (58, 43085), (63, 43151), (65, 43175), (78, 43391),

Gene: OneUp\_56 Start: 41681, Stop: 42853, Start Num: 7

Candidate Starts for OneUp\_56:

(Start: 7 @41681 has 2 MA's), (11, 41759), (15, 41831), (19, 41885), (21, 41915), (26, 41990), (27, 42017), (36, 42176), (37, 42203), (46, 42350), (52, 42407), (54, 42422), (58, 42506), (61, 42542), (63, 42572), (72, 42740), (74, 42761),

Gene: PhinkBoden\_63 Start: 42647, Stop: 43813, Start Num: 9

Candidate Starts for PhinkBoden\_63:

(Start: 9 @42647 has 15 MA's), (13, 42755), (15, 42791), (16, 42800), (25, 42944), (33, 43103), (41, 43229), (51, 43334), (54, 43382), (56, 43436), (58, 43466), (63, 43532), (65, 43556), (78, 43772),

Gene: Smoothie\_65 Start: 42493, Stop: 43659, Start Num: 9

Candidate Starts for Smoothie\_65:

(Start: 9 @42493 has 15 MA's), (13, 42601), (15, 42637), (16, 42646), (25, 42790), (33, 42949), (41, 43075), (51, 43180), (54, 43228), (56, 43282), (58, 43312), (63, 43378), (72, 43546), (78, 43618),

Gene: SpeedDemon\_480 Start: 42806, Stop: 44188, Start Num: 6

Candidate Starts for SpeedDemon\_480:

(4, 42728), (Start: 6 @42806 has 2 MA's), (35, 43343), (40, 43451), (55, 43658), (56, 43667), (68, 43853), (70, 43898), (76, 44003), (80, 44069), (81, 44126), (82, 44129), (83, 44132), (84, 44153),

Gene: Toniann\_64 Start: 42209, Stop: 43375, Start Num: 9

Candidate Starts for Toniann\_64:

(Start: 9 @42209 has 15 MA's), (13, 42317), (15, 42353), (16, 42362), (25, 42506), (33, 42665), (41, 42791), (51, 42896), (54, 42944), (56, 42998), (58, 43028), (63, 43094), (65, 43118), (78, 43334),

Gene: Towmatter\_42 Start: 37717, Stop: 39036, Start Num: 8

Candidate Starts for Towmatter\_42:

(Start: 8 @37717 has 4 MA's), (17, 37894), (29, 38104), (31, 38122), (46, 38386), (47, 38389), (48, 38392), (52, 38443), (57, 38515), (63, 38608), (64, 38620), (68, 38698), (73, 38794), (76, 38848), (79, 38893), (81, 38971), (84, 38998),

Gene: WilliamBoone\_63 Start: 41161, Stop: 42327, Start Num: 9

Candidate Starts for WilliamBoone\_63:

(Start: 9 @41161 has 15 MA's), (13, 41269), (14, 41293), (15, 41305), (22, 41395), (25, 41458), (34, 41620), (41, 41743), (42, 41758), (45, 41815), (51, 41848), (53, 41893), (54, 41896), (56, 41950), (58, 41980), (65, 42070), (66, 42127), (72, 42214), (78, 42286),

Gene: Yvonnetastic\_61 Start: 42993, Stop: 44186, Start Num: 8

Candidate Starts for Yvonnetastic\_61:

(1, 42663), (2, 42744), (3, 42789), (5, 42879), (Start: 8 @42993 has 4 MA's), (10, 43047), (20, 43215), (21, 43227), (22, 43233), (24, 43272), (28, 43350), (30, 43392), (33, 43455), (35, 43464), (36, 43488), (38, 43533), (39, 43542), (44, 43650), (45, 43653), (53, 43731), (55, 43779), (58, 43818), (59, 43821), (62, 43872), (67, 43968), (75, 44079), (77, 44124), (78, 44133),