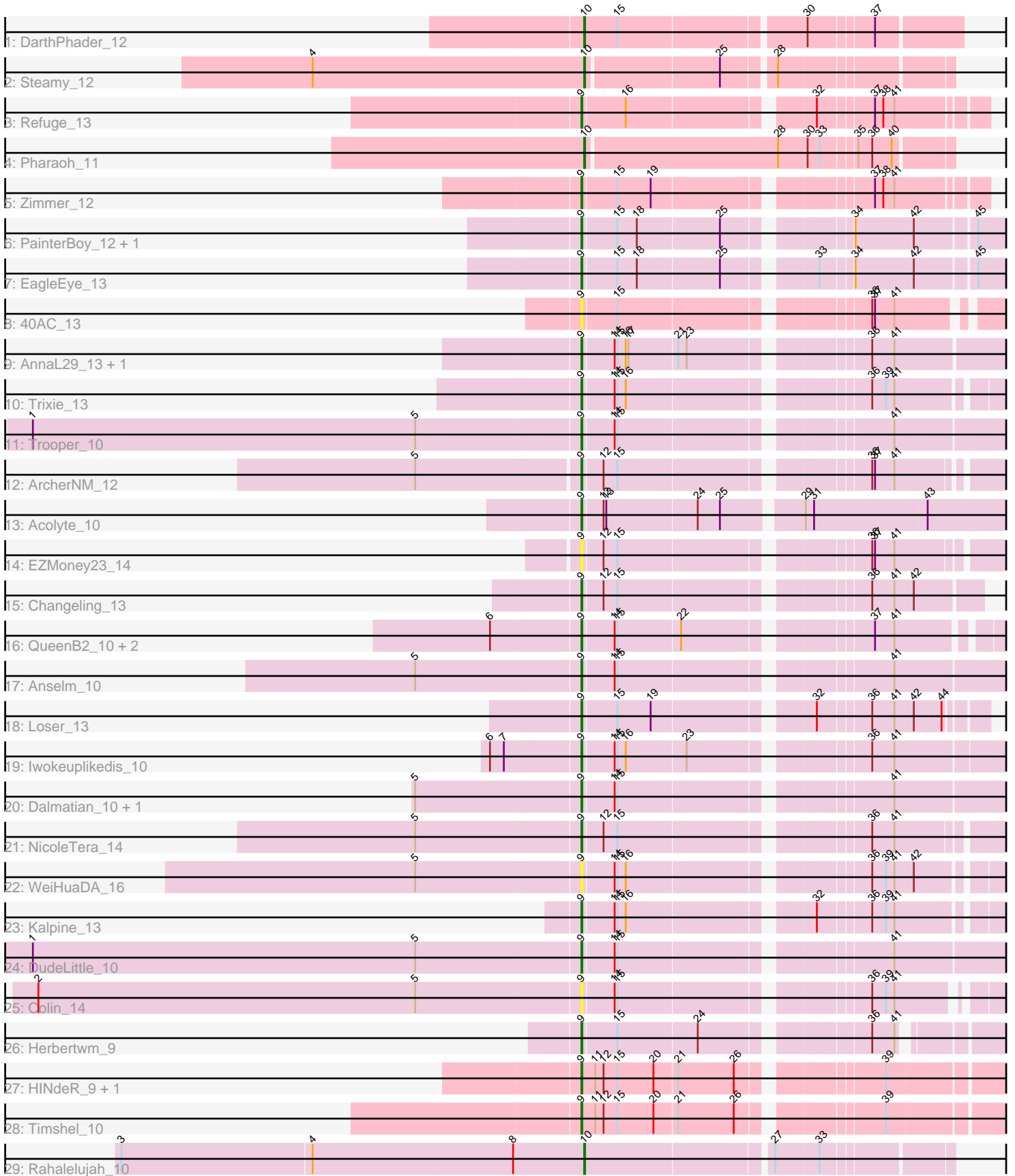


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 168391 Report

This analysis was run 07/09/24 on database version 566.

Pham number 168391 has 35 members, 4 are drafts.

Phages represented in each track:

- Track 1 : DarthPhader\_12
- Track 2 : Steamy\_12
- Track 3 : Refuge\_13
- Track 4 : Pharaoh\_11
- Track 5 : Zimmer\_12
- Track 6 : PainterBoy\_12, Lucyedi\_12
- Track 7 : EagleEye\_13
- Track 8 : 40AC\_13
- Track 9 : AnnaL29\_13, RedRock\_13
- Track 10 : Trixie\_13
- Track 11 : Trooper\_10
- Track 12 : ArcherNM\_12
- Track 13 : Acolyte\_10
- Track 14 : EZMoney23\_14
- Track 15 : Changeling\_13
- Track 16 : QueenB2\_10, Heffalump\_12, Fameo\_10
- Track 17 : Anselm\_10
- Track 18 : Loser\_13
- Track 19 : Iwokeuplikedis\_10
- Track 20 : Dalmatian\_10, Retro23\_10
- Track 21 : NicoleTera\_14
- Track 22 : WeiHuaDA\_16
- Track 23 : Kalpine\_13
- Track 24 : DudeLittle\_10
- Track 25 : Colin\_14
- Track 26 : Herbertwm\_9
- Track 27 : HINdeR\_9, DroogsArmy\_10
- Track 28 : Timshel\_10
- Track 29 : Rahalelujah\_10

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

Genes that call this "Most Annotated" start:

- 40AC\_13, Acolyte\_10, AnnaL29\_13, Anselm\_10, ArcherNM\_12, Changeling\_13, Colin\_14, Dalmatian\_10, DroogsArmy\_10, DudeLittle\_10, EZMoney23\_14, EagleEye\_13, Fameo\_10, HINdeR\_9, Heffalump\_12, Herbertwm\_9, Iwokeuplikedis\_10, Kalpine\_13, Loser\_13, Lucyedi\_12, NicoleTera\_14, PainterBoy\_12, QueenB2\_10, RedRock\_13, Refuge\_13, Retro23\_10, Timshel\_10, Trixie\_13, Trooper\_10, WeiHuaDA\_16, Zimmer\_12,

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

- 

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

- DarthPhader\_12, Pharaoh\_11, Rahalelujah\_10, Steamy\_12,

### Summary by start number:

Start 9:

- Found in 31 of 35 ( 88.6% ) of genes in pham
- Manual Annotations of this start: 27 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 40AC\_13 (A17), Acolyte\_10 (A2), AnnaL29\_13 (A2), Anselm\_10 (A2), ArcherNM\_12 (A2), Changeling\_13 (A2), Colin\_14 (A2), Dalmatian\_10 (A2), DroogsArmy\_10 (A7), DudeLittle\_10 (A2), EZMoney23\_14 (A2), EagleEye\_13 (A16), Fameo\_10 (A2), HINdeR\_9 (A7), Heffalump\_12 (A2), Herbertwm\_9 (A2), Iwokeuplikedis\_10 (A2), Kalpine\_13 (A2), Loser\_13 (A2), Lucyedi\_12 (A16), NicoleTera\_14 (A2), PainterBoy\_12 (A16), QueenB2\_10 (A2), RedRock\_13 (A2), Refuge\_13 (A12), Retro23\_10 (A2), Timshel\_10 (A7), Trixie\_13 (A2), Trooper\_10 (A2), WeiHuaDA\_16 (A2), Zimmer\_12 (A12),

Start 10:

- Found in 4 of 35 ( 11.4% ) of genes in pham
- Manual Annotations of this start: 4 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DarthPhader\_12 (A12), Pharaoh\_11 (A12), Rahalelujah\_10 (A9), Steamy\_12 (A12),

### Summary by clusters:

There are 6 clusters represented in this pham: A17, A16, A12, A2, A7, A9,

Info for manual annotations of cluster A12:

- Start number 9 was manually annotated 2 times for cluster A12.
- Start number 10 was manually annotated 3 times for cluster A12.

Info for manual annotations of cluster A16:

- Start number 9 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A2:

- Start number 9 was manually annotated 19 times for cluster A2.

Info for manual annotations of cluster A7:

- Start number 9 was manually annotated 3 times for cluster A7.

Info for manual annotations of cluster A9:

- Start number 10 was manually annotated 1 time for cluster A9.

### **Gene Information:**

Gene: 40AC\_13 Start: 8077, Stop: 8496, Start Num: 9

Candidate Starts for 40AC\_13:

(Start: 9 @8077 has 27 MA's), (15, 8113), (36, 8353), (37, 8356), (41, 8377),

Gene: Acolyte\_10 Start: 6056, Stop: 6523, Start Num: 9

Candidate Starts for Acolyte\_10:

(Start: 9 @6056 has 27 MA's), (12, 6077), (13, 6080), (24, 6176), (25, 6200), (29, 6278), (31, 6287), (43, 6407),

Gene: AnnaL29\_13 Start: 7888, Stop: 8322, Start Num: 9

Candidate Starts for AnnaL29\_13:

(Start: 9 @7888 has 27 MA's), (14, 7921), (15, 7924), (16, 7933), (17, 7936), (21, 7987), (23, 7996), (36, 8164), (41, 8188),

Gene: Anselm\_10 Start: 6094, Stop: 6534, Start Num: 9

Candidate Starts for Anselm\_10:

(5, 5920), (Start: 9 @6094 has 27 MA's), (14, 6127), (15, 6130), (41, 6394),

Gene: ArcherNM\_12 Start: 7805, Stop: 8230, Start Num: 9

Candidate Starts for ArcherNM\_12:

(5, 7634), (Start: 9 @7805 has 27 MA's), (12, 7826), (15, 7841), (36, 8081), (37, 8084), (41, 8105),

Gene: Changeling\_13 Start: 7898, Stop: 8287, Start Num: 9

Candidate Starts for Changeling\_13:

(Start: 9 @7898 has 27 MA's), (12, 7919), (15, 7934), (36, 8174), (41, 8198), (42, 8219),

Gene: Colin\_14 Start: 7692, Stop: 8105, Start Num: 9

Candidate Starts for Colin\_14:

(2, 7110), (5, 7518), (Start: 9 @7692 has 27 MA's), (14, 7725), (15, 7728), (36, 7968), (39, 7983), (41, 7992),

Gene: Dalmatian\_10 Start: 6085, Stop: 6525, Start Num: 9

Candidate Starts for Dalmatian\_10:

(5, 5911), (Start: 9 @6085 has 27 MA's), (14, 6118), (15, 6121), (41, 6385),

Gene: DarthPhader\_12 Start: 7926, Stop: 8303, Start Num: 10

Candidate Starts for DarthPhader\_12:

(Start: 10 @7926 has 4 MA's), (15, 7962), (30, 8151), (37, 8214),

Gene: DroogsArmy\_10 Start: 6654, Stop: 7067, Start Num: 9

Candidate Starts for DroogsArmy\_10:

(Start: 9 @6654 has 27 MA's), (11, 6669), (12, 6678), (15, 6693), (20, 6732), (21, 6756), (26, 6816), (39, 6948),

Gene: DudeLittle\_10 Start: 6087, Stop: 6527, Start Num: 9

Candidate Starts for DudeLittle\_10:

(1, 5499), (5, 5913), (Start: 9 @6087 has 27 MA's), (14, 6120), (15, 6123), (41, 6387),

Gene: EZMoney23\_14 Start: 7982, Stop: 8410, Start Num: 9

Candidate Starts for EZMoney23\_14:

(Start: 9 @7982 has 27 MA's), (12, 8003), (15, 8018), (36, 8258), (37, 8261), (41, 8282),

Gene: EagleEye\_13 Start: 7139, Stop: 7555, Start Num: 9

Candidate Starts for EagleEye\_13:

(Start: 9 @7139 has 27 MA's), (15, 7175), (18, 7196), (25, 7283), (33, 7367), (34, 7397), (42, 7460), (45, 7520),

Gene: Fameo\_10 Start: 6032, Stop: 6451, Start Num: 9

Candidate Starts for Fameo\_10:

(6, 5939), (Start: 9 @6032 has 27 MA's), (14, 6065), (15, 6068), (22, 6134), (37, 6311), (41, 6332),

Gene: HINdeR\_9 Start: 6752, Stop: 7165, Start Num: 9

Candidate Starts for HINdeR\_9:

(Start: 9 @6752 has 27 MA's), (11, 6767), (12, 6776), (15, 6791), (20, 6830), (21, 6854), (26, 6914), (39, 7046),

Gene: Heffalump\_12 Start: 7831, Stop: 8250, Start Num: 9

Candidate Starts for Heffalump\_12:

(6, 7738), (Start: 9 @7831 has 27 MA's), (14, 7864), (15, 7867), (22, 7933), (37, 8110), (41, 8131),

Gene: Herbertwm\_9 Start: 5886, Stop: 6293, Start Num: 9

Candidate Starts for Herbertwm\_9:

(Start: 9 @5886 has 27 MA's), (15, 5922), (24, 6006), (36, 6162), (41, 6186),

Gene: Iwokeuplikedis\_10 Start: 5757, Stop: 6194, Start Num: 9

Candidate Starts for Iwokeuplikedis\_10:

(6, 5664), (7, 5679), (Start: 9 @5757 has 27 MA's), (14, 5790), (15, 5793), (16, 5802), (23, 5865), (36, 6033), (41, 6057),

Gene: Kalpine\_13 Start: 7796, Stop: 8218, Start Num: 9

Candidate Starts for Kalpine\_13:

(Start: 9 @7796 has 27 MA's), (14, 7829), (15, 7832), (16, 7841), (32, 8021), (36, 8072), (39, 8087), (41, 8096),

Gene: Loser\_13 Start: 7855, Stop: 8244, Start Num: 9

Candidate Starts for Loser\_13:

(Start: 9 @7855 has 27 MA's), (15, 7891), (19, 7927), (32, 8080), (36, 8131), (41, 8155), (42, 8176), (44, 8206),

Gene: Lucyedi\_12 Start: 7076, Stop: 7492, Start Num: 9

Candidate Starts for Lucyedi\_12:

(Start: 9 @7076 has 27 MA's), (15, 7112), (18, 7133), (25, 7220), (34, 7334), (42, 7397), (45, 7457),

Gene: NicoleTera\_14 Start: 7753, Stop: 8181, Start Num: 9

Candidate Starts for NicoleTera\_14:

(5, 7579), (Start: 9 @7753 has 27 MA's), (12, 7774), (15, 7789), (36, 8029), (41, 8053),

Gene: PainterBoy\_12 Start: 7076, Stop: 7492, Start Num: 9  
Candidate Starts for PainterBoy\_12:  
(Start: 9 @7076 has 27 MA's), (15, 7112), (18, 7133), (25, 7220), (34, 7334), (42, 7397), (45, 7457),

Gene: Pharaoh\_11 Start: 7518, Stop: 7892, Start Num: 10  
Candidate Starts for Pharaoh\_11:  
(Start: 10 @7518 has 4 MA's), (28, 7722), (30, 7752), (33, 7764), (35, 7797), (36, 7812), (40, 7833),

Gene: QueenB2\_10 Start: 6032, Stop: 6451, Start Num: 9  
Candidate Starts for QueenB2\_10:  
(6, 5939), (Start: 9 @6032 has 27 MA's), (14, 6065), (15, 6068), (22, 6134), (37, 6311), (41, 6332),

Gene: Rahalelujah\_10 Start: 5820, Stop: 6185, Start Num: 10  
Candidate Starts for Rahalelujah\_10:  
(3, 5325), (4, 5529), (8, 5745), (Start: 10 @5820 has 4 MA's), (27, 6012), (33, 6057),

Gene: RedRock\_13 Start: 7965, Stop: 8399, Start Num: 9  
Candidate Starts for RedRock\_13:  
(Start: 9 @7965 has 27 MA's), (14, 7998), (15, 8001), (16, 8010), (17, 8013), (21, 8064), (23, 8073),  
(36, 8241), (41, 8265),

Gene: Refuge\_13 Start: 8359, Stop: 8748, Start Num: 9  
Candidate Starts for Refuge\_13:  
(Start: 9 @8359 has 27 MA's), (16, 8404), (32, 8584), (37, 8638), (38, 8647), (41, 8659),

Gene: Retro23\_10 Start: 6086, Stop: 6526, Start Num: 9  
Candidate Starts for Retro23\_10:  
(5, 5912), (Start: 9 @6086 has 27 MA's), (14, 6119), (15, 6122), (41, 6386),

Gene: Steamy\_12 Start: 7580, Stop: 7939, Start Num: 10  
Candidate Starts for Steamy\_12:  
(4, 7289), (Start: 10 @7580 has 4 MA's), (25, 7718), (28, 7769),

Gene: Timshel\_10 Start: 6896, Stop: 7309, Start Num: 9  
Candidate Starts for Timshel\_10:  
(Start: 9 @6896 has 27 MA's), (11, 6911), (12, 6920), (15, 6935), (20, 6974), (21, 6998), (26, 7058),  
(39, 7190),

Gene: Trixie\_13 Start: 7668, Stop: 8090, Start Num: 9  
Candidate Starts for Trixie\_13:  
(Start: 9 @7668 has 27 MA's), (14, 7701), (15, 7704), (16, 7713), (36, 7944), (39, 7959), (41, 7968),

Gene: Trooper\_10 Start: 5793, Stop: 6233, Start Num: 9  
Candidate Starts for Trooper\_10:  
(1, 5205), (5, 5619), (Start: 9 @5793 has 27 MA's), (14, 5826), (15, 5829), (41, 6093),

Gene: WeiHuaDA\_16 Start: 8278, Stop: 8700, Start Num: 9  
Candidate Starts for WeiHuaDA\_16:  
(5, 8104), (Start: 9 @8278 has 27 MA's), (14, 8311), (15, 8314), (16, 8323), (36, 8554), (39, 8569), (41,  
8578), (42, 8599),

Gene: Zimmer\_12 Start: 7633, Stop: 8022, Start Num: 9

Candidate Starts for Zimmer\_12:

(Start: 9 @ 7633 has 27 MA's), (15, 7669), (19, 7705), (37, 7912), (38, 7921), (41, 7933),