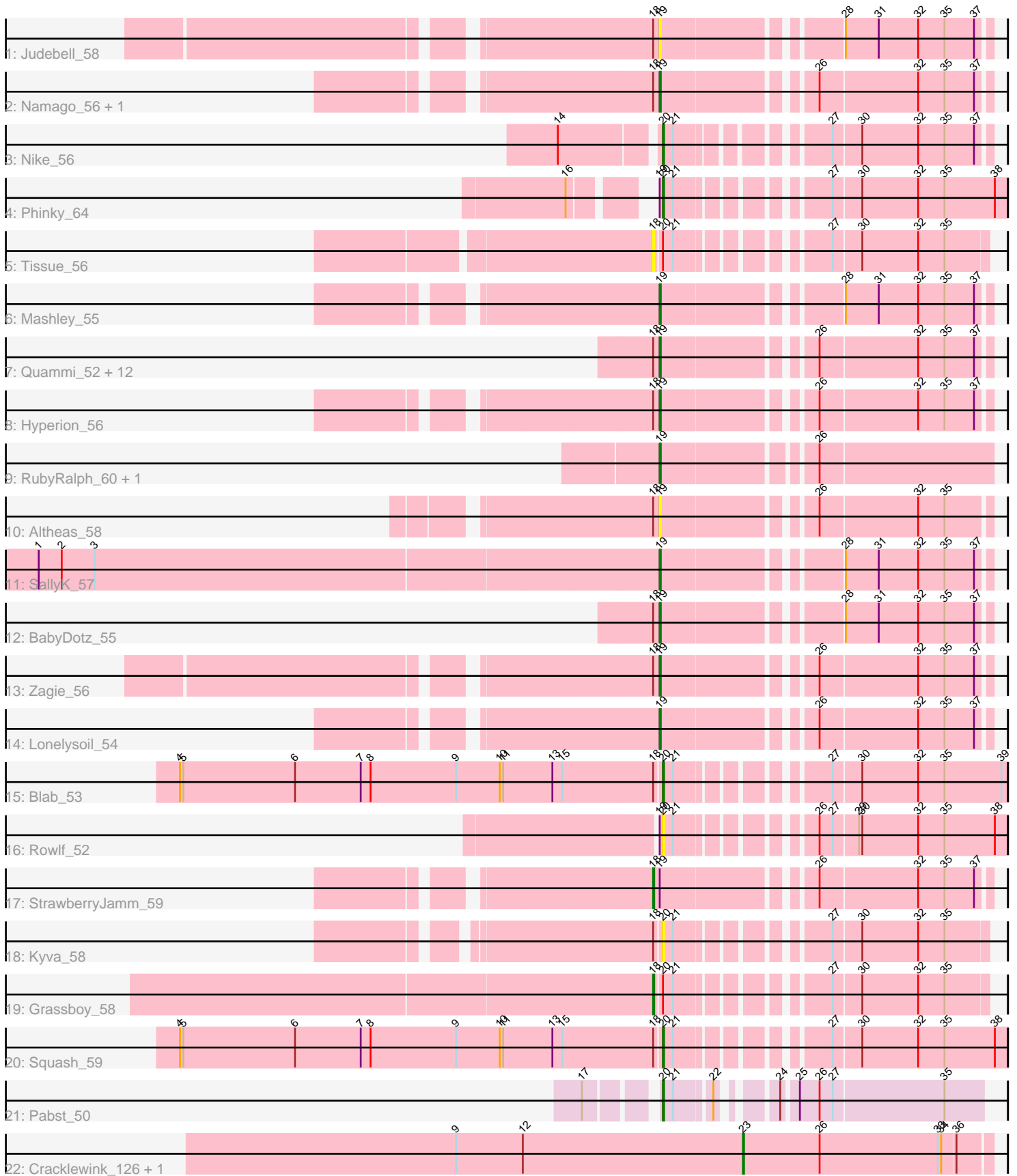


Pham 158035



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 158035 Report

This analysis was run 04/13/24 on database version 558.

Pham number 158035 has 37 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Judebell\_58
- Track 2 : Namago\_56, Gazebo\_55
- Track 3 : Nike\_56
- Track 4 : Phinky\_64
- Track 5 : Tissue\_56
- Track 6 : Mashley\_55
- Track 7 : Quammi\_52, DonaldDuck\_54, Wheelie\_54, Viceroy\_53, Rudy\_52, Casend\_55, Wayne3\_56, Phabia\_54, Jehoshaphat\_56, Lemily\_54, Sillytadpoles\_55, Zhafia\_57, Teehee\_55
- Track 8 : Hyperion\_56
- Track 9 : RubyRalph\_60, Fransoyer\_58
- Track 10 : Altheas\_58
- Track 11 : SallyK\_57
- Track 12 : BabyDotz\_55
- Track 13 : Zagie\_56
- Track 14 : Lonelysoil\_54
- Track 15 : Blab\_53
- Track 16 : Rowlf\_52
- Track 17 : StrawberryJamm\_59
- Track 18 : Kyva\_58
- Track 19 : Grassboy\_58
- Track 20 : Squash\_59
- Track 21 : Pabst\_50
- Track 22 : Cracklewink\_126, Bipper\_125

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

The start number called the most often in the published annotations is 19, it was called in 19 of the 28 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Altheas\_58, BabyDotz\_55, Casend\_55, DonaldDuck\_54, Fransoyer\_58, Gazebo\_55, Hyperion\_56, Jehoshaphat\_56, Judebell\_58, Lemily\_54, Lonelysoil\_54, Mashley\_55, Namago\_56, Phabia\_54, Quammi\_52, RubyRalph\_60, Rudy\_52,

SallyK\_57, Sillytadpoles\_55, Teehee\_55, Viceroy\_53, Wayne3\_56, Wheelie\_54, Zagie\_56, Zhafia\_57,

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

- Phinky\_64, Rowlf\_52, StrawberryJamm\_59,

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

- Bipper\_125, Blab\_53, Cracklewink\_126, Grassboy\_58, Kyva\_58, Nike\_56, Pabst\_50, Squash\_59, Tissue\_56,

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

Start 18:

- Found in 26 of 37 ( 70.3% ) of genes in pham
- Manual Annotations of this start: 2 of 28
- Called 11.5% of time when present
- Phage (with cluster) where this start called: Grassboy\_58 (EG), StrawberryJamm\_59 (EG), Tissue\_56 (EG),

Start 19:

- Found in 28 of 37 ( 75.7% ) of genes in pham
- Manual Annotations of this start: 19 of 28
- Called 89.3% of time when present
- Phage (with cluster) where this start called: Altheas\_58 (EG), BabyDotz\_55 (EG), Casend\_55 (EG), DonaldDuck\_54 (EG), Fransoyer\_58 (EG), Gazebo\_55 (EG), Hyperion\_56 (EG), Jehoshaphat\_56 (EG), Judebell\_58 (EG), Llemily\_54 (EG), Lonelysoil\_54 (EG), Mashley\_55 (EG), Namago\_56 (EG), Phabia\_54 (EG), Quammi\_52 (EG), RubyRalph\_60 (EG), Rudy\_52 (EG), SallyK\_57 (EG), Sillytadpoles\_55 (EG), Teehee\_55 (EG), Viceroy\_53 (EG), Wayne3\_56 (EG), Wheelie\_54 (EG), Zagie\_56 (EG), Zhafia\_57 (EG),

Start 20:

- Found in 9 of 37 ( 24.3% ) of genes in pham
- Manual Annotations of this start: 5 of 28
- Called 77.8% of time when present
- Phage (with cluster) where this start called: Blab\_53 (EG), Kyva\_58 (EG), Nike\_56 (EG), Pabst\_50 (EK1), Phinky\_64 (EG), Rowlf\_52 (EG), Squash\_59 (EG),

Start 23:

- Found in 2 of 37 ( 5.4% ) of genes in pham
- Manual Annotations of this start: 2 of 28
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bipper\_125 (Y), Cracklewink\_126 (Y),

### **Summary by clusters:**

There are 3 clusters represented in this pham: Y, EG, EK1,

Info for manual annotations of cluster EG:

- Start number 18 was manually annotated 2 times for cluster EG.
- Start number 19 was manually annotated 19 times for cluster EG.
- Start number 20 was manually annotated 4 times for cluster EG.

Info for manual annotations of cluster EK1:

- Start number 20 was manually annotated 1 time for cluster EK1.

Info for manual annotations of cluster Y:

- Start number 23 was manually annotated 2 times for cluster Y.

**Gene Information:**

Gene: Altheas\_58 Start: 42617, Stop: 42345, Start Num: 19

Candidate Starts for Altheas\_58:

(Start: 18 @42623 has 2 MA's), (Start: 19 @42617 has 19 MA's), (26, 42494), (32, 42407), (35, 42383),

Gene: BabyDotz\_55 Start: 42840, Stop: 42568, Start Num: 19

Candidate Starts for BabyDotz\_55:

(Start: 18 @42843 has 2 MA's), (Start: 19 @42840 has 19 MA's), (28, 42696), (31, 42666), (32, 42630), (35, 42606), (37, 42579),

Gene: Bipper\_125 Start: 73005, Stop: 73226, Start Num: 23

Candidate Starts for Bipper\_125:

(9, 72744), (12, 72804), (Start: 23 @73005 has 2 MA's), (26, 73074), (33, 73182), (34, 73185), (36, 73197),

Gene: Blab\_53 Start: 41667, Stop: 41395, Start Num: 20

Candidate Starts for Blab\_53:

(4, 42102), (5, 42099), (6, 41997), (7, 41937), (8, 41928), (9, 41850), (10, 41811), (11, 41808), (13, 41763), (15, 41754), (Start: 18 @41673 has 2 MA's), (Start: 20 @41667 has 5 MA's), (21, 41658), (27, 41550), (30, 41526), (32, 41475), (35, 41451), (39, 41400),

Gene: Casend\_55 Start: 42251, Stop: 41979, Start Num: 19

Candidate Starts for Casend\_55:

(Start: 18 @42254 has 2 MA's), (Start: 19 @42251 has 19 MA's), (26, 42128), (32, 42041), (35, 42017), (37, 41990),

Gene: Cracklewink\_126 Start: 72157, Stop: 72378, Start Num: 23

Candidate Starts for Cracklewink\_126:

(9, 71896), (12, 71956), (Start: 23 @72157 has 2 MA's), (26, 72226), (33, 72334), (34, 72337), (36, 72349),

Gene: DonaldDuck\_54 Start: 41600, Stop: 41328, Start Num: 19

Candidate Starts for DonaldDuck\_54:

(Start: 18 @41603 has 2 MA's), (Start: 19 @41600 has 19 MA's), (26, 41477), (32, 41390), (35, 41366), (37, 41339),

Gene: Fransoyer\_58 Start: 44153, Stop: 43872, Start Num: 19

Candidate Starts for Fransoyer\_58:

(Start: 19 @44153 has 19 MA's), (26, 44027),

Gene: Gazebo\_55 Start: 42275, Stop: 42003, Start Num: 19

Candidate Starts for Gazebo\_55:

(Start: 18 @42281 has 2 MA's), (Start: 19 @42275 has 19 MA's), (26, 42152), (32, 42065), (35, 42041), (37, 42014),

Gene: Grassboy\_58 Start: 42646, Stop: 42386, Start Num: 18

Candidate Starts for Grassboy\_58:

(Start: 18 @42646 has 2 MA's), (Start: 20 @42640 has 5 MA's), (21, 42631), (27, 42523), (30, 42499), (32, 42448), (35, 42424),

Gene: Hyperion\_56 Start: 42456, Stop: 42184, Start Num: 19

Candidate Starts for Hyperion\_56:

(Start: 18 @42459 has 2 MA's), (Start: 19 @42456 has 19 MA's), (26, 42333), (32, 42246), (35, 42222), (37, 42195),

Gene: Jehoshaphat\_56 Start: 42519, Stop: 42247, Start Num: 19

Candidate Starts for Jehoshaphat\_56:

(Start: 18 @42522 has 2 MA's), (Start: 19 @42519 has 19 MA's), (26, 42396), (32, 42309), (35, 42285), (37, 42258),

Gene: Judebell\_58 Start: 42165, Stop: 41893, Start Num: 19

Candidate Starts for Judebell\_58:

(Start: 18 @42168 has 2 MA's), (Start: 19 @42165 has 19 MA's), (28, 42021), (31, 41991), (32, 41955), (35, 41931), (37, 41904),

Gene: Kyva\_58 Start: 42697, Stop: 42443, Start Num: 20

Candidate Starts for Kyva\_58:

(Start: 18 @42703 has 2 MA's), (Start: 20 @42697 has 5 MA's), (21, 42688), (27, 42580), (30, 42556), (32, 42505), (35, 42481),

Gene: Llemily\_54 Start: 41295, Stop: 41023, Start Num: 19

Candidate Starts for Llemily\_54:

(Start: 18 @41298 has 2 MA's), (Start: 19 @41295 has 19 MA's), (26, 41172), (32, 41085), (35, 41061), (37, 41034),

Gene: Lonelysoil\_54 Start: 41648, Stop: 41376, Start Num: 19

Candidate Starts for Lonelysoil\_54:

(Start: 19 @41648 has 19 MA's), (26, 41525), (32, 41438), (35, 41414), (37, 41387),

Gene: Mashley\_55 Start: 42232, Stop: 41960, Start Num: 19

Candidate Starts for Mashley\_55:

(Start: 19 @42232 has 19 MA's), (28, 42088), (31, 42058), (32, 42022), (35, 41998), (37, 41971),

Gene: Namago\_56 Start: 41635, Stop: 41363, Start Num: 19

Candidate Starts for Namago\_56:

(Start: 18 @41641 has 2 MA's), (Start: 19 @41635 has 19 MA's), (26, 41512), (32, 41425), (35, 41401), (37, 41374),

Gene: Nike\_56 Start: 42603, Stop: 42349, Start Num: 20

Candidate Starts for Nike\_56:

(14, 42684), (Start: 20 @42603 has 5 MA's), (21, 42594), (27, 42486), (30, 42462), (32, 42411), (35, 42387), (37, 42360),

Gene: Pabst\_50 Start: 50450, Stop: 50701, Start Num: 20

Candidate Starts for Pabst\_50:

(17, 50399), (Start: 20 @50450 has 5 MA's), (21, 50459), (22, 50489), (24, 50525), (25, 50537), (26, 50555), (27, 50567), (35, 50666),

Gene: Phabia\_54 Start: 41710, Stop: 41438, Start Num: 19

Candidate Starts for Phabia\_54:

(Start: 18 @41713 has 2 MA's), (Start: 19 @41710 has 19 MA's), (26, 41587), (32, 41500), (35, 41476), (37, 41449),

Gene: Phinky\_64 Start: 44342, Stop: 44070, Start Num: 20

Candidate Starts for Phinky\_64:

(16, 44396), (Start: 19 @44345 has 19 MA's), (Start: 20 @44342 has 5 MA's), (21, 44333), (27, 44225), (30, 44201), (32, 44150), (35, 44126), (38, 44081),

Gene: Quammi\_52 Start: 41410, Stop: 41138, Start Num: 19

Candidate Starts for Quammi\_52:

(Start: 18 @41413 has 2 MA's), (Start: 19 @41410 has 19 MA's), (26, 41287), (32, 41200), (35, 41176), (37, 41149),

Gene: Rowlf\_52 Start: 41508, Stop: 41236, Start Num: 20

Candidate Starts for Rowlf\_52:

(Start: 19 @41511 has 19 MA's), (Start: 20 @41508 has 5 MA's), (21, 41499), (26, 41403), (27, 41391), (29, 41370), (30, 41367), (32, 41316), (35, 41292), (38, 41247),

Gene: RubyRalph\_60 Start: 44491, Stop: 44210, Start Num: 19

Candidate Starts for RubyRalph\_60:

(Start: 19 @44491 has 19 MA's), (26, 44365),

Gene: Rudy\_52 Start: 41446, Stop: 41174, Start Num: 19

Candidate Starts for Rudy\_52:

(Start: 18 @41449 has 2 MA's), (Start: 19 @41446 has 19 MA's), (26, 41323), (32, 41236), (35, 41212), (37, 41185),

Gene: SallyK\_57 Start: 42760, Stop: 42488, Start Num: 19

Candidate Starts for SallyK\_57:

(1, 43315), (2, 43294), (3, 43264), (Start: 19 @42760 has 19 MA's), (28, 42616), (31, 42586), (32, 42550), (35, 42526), (37, 42499),

Gene: Sillytadpoles\_55 Start: 41283, Stop: 41011, Start Num: 19

Candidate Starts for Sillytadpoles\_55:

(Start: 18 @41286 has 2 MA's), (Start: 19 @41283 has 19 MA's), (26, 41160), (32, 41073), (35, 41049), (37, 41022),

Gene: Squash\_59 Start: 42626, Stop: 42354, Start Num: 20

Candidate Starts for Squash\_59:

(4, 43061), (5, 43058), (6, 42956), (7, 42896), (8, 42887), (9, 42809), (10, 42770), (11, 42767), (13, 42722), (15, 42713), (Start: 18 @42632 has 2 MA's), (Start: 20 @42626 has 5 MA's), (21, 42617), (27, 42509), (30, 42485), (32, 42434), (35, 42410), (38, 42365),

Gene: StrawberryJamm\_59 Start: 41944, Stop: 41666, Start Num: 18

Candidate Starts for StrawberryJamm\_59:

(Start: 18 @41944 has 2 MA's), (Start: 19 @41938 has 19 MA's), (26, 41815), (32, 41728), (35, 41704), (37, 41677),

Gene: Teehee\_55 Start: 42516, Stop: 42244, Start Num: 19

Candidate Starts for Teehee\_55:

(Start: 18 @42519 has 2 MA's), (Start: 19 @42516 has 19 MA's), (26, 42393), (32, 42306), (35, 42282), (37, 42255),

Gene: Tissue\_56 Start: 42542, Stop: 42282, Start Num: 18

Candidate Starts for Tissue\_56:

(Start: 18 @42542 has 2 MA's), (Start: 20 @42536 has 5 MA's), (21, 42527), (27, 42419), (30, 42395), (32, 42344), (35, 42320),

Gene: Viceroy\_53 Start: 41416, Stop: 41144, Start Num: 19

Candidate Starts for Viceroy\_53:

(Start: 18 @41419 has 2 MA's), (Start: 19 @41416 has 19 MA's), (26, 41293), (32, 41206), (35, 41182), (37, 41155),

Gene: Wayne3\_56 Start: 42279, Stop: 42007, Start Num: 19

Candidate Starts for Wayne3\_56:

(Start: 18 @42282 has 2 MA's), (Start: 19 @42279 has 19 MA's), (26, 42156), (32, 42069), (35, 42045), (37, 42018),

Gene: Wheelie\_54 Start: 41600, Stop: 41328, Start Num: 19

Candidate Starts for Wheelie\_54:

(Start: 18 @41603 has 2 MA's), (Start: 19 @41600 has 19 MA's), (26, 41477), (32, 41390), (35, 41366), (37, 41339),

Gene: Zagie\_56 Start: 42135, Stop: 41863, Start Num: 19

Candidate Starts for Zagie\_56:

(Start: 18 @42141 has 2 MA's), (Start: 19 @42135 has 19 MA's), (26, 42012), (32, 41925), (35, 41901), (37, 41874),

Gene: Zhafia\_57 Start: 42080, Stop: 41808, Start Num: 19

Candidate Starts for Zhafia\_57:

(Start: 18 @42083 has 2 MA's), (Start: 19 @42080 has 19 MA's), (26, 41957), (32, 41870), (35, 41846), (37, 41819),