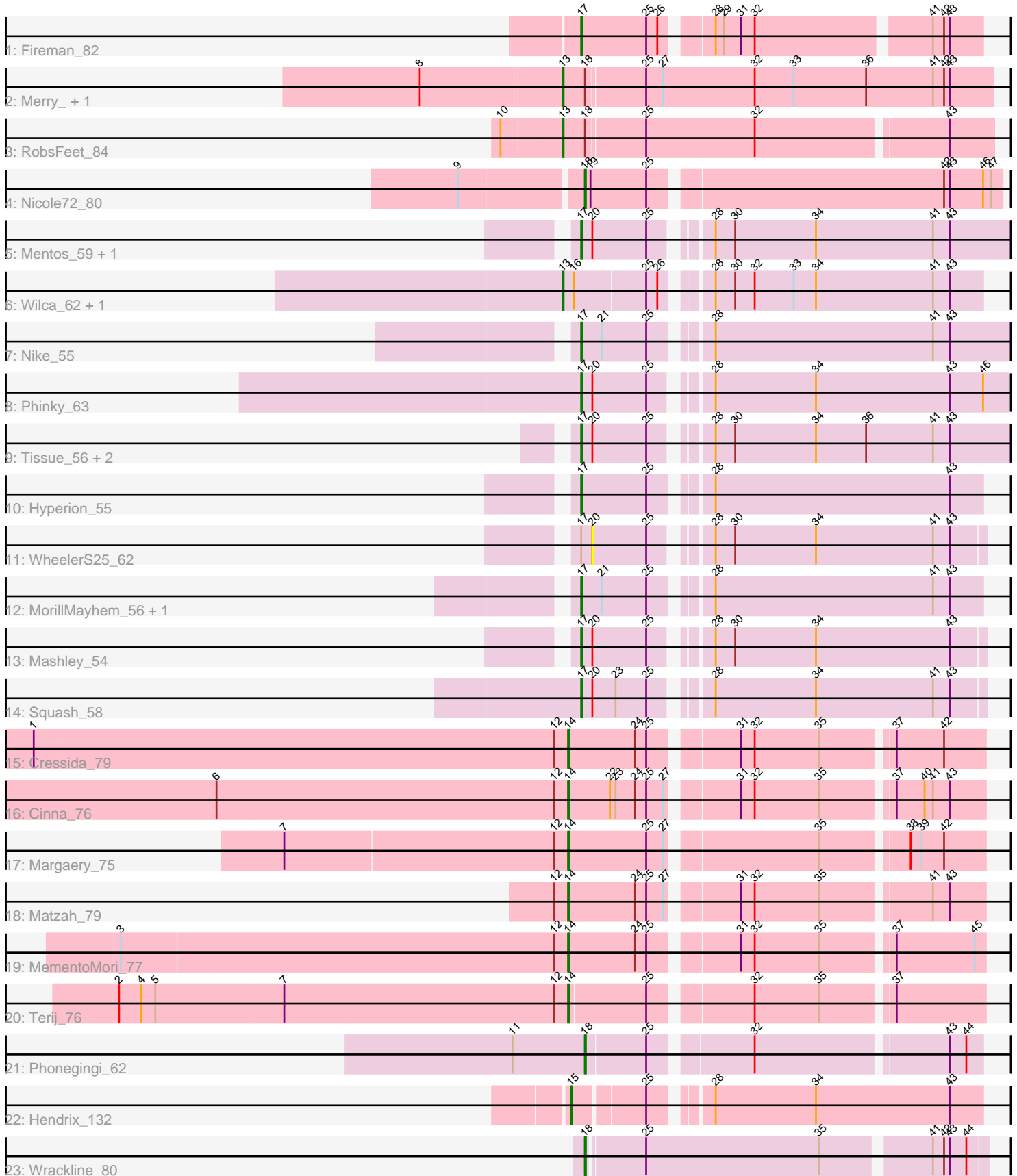


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 300263 Report

This analysis was run 06/08/26 on database version 649.

Pham number 300263 has 29 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Fireman\_82
- Track 2 : Merry\_, Sunny\_
- Track 3 : RobsFeet\_84
- Track 4 : Nicole72\_80
- Track 5 : Mentos\_59, BabyDotz\_54
- Track 6 : Wilca\_62, BirdInFrench\_62
- Track 7 : Nike\_55
- Track 8 : Phinky\_63
- Track 9 : Tissue\_56, Kyva\_57, Grassboy\_57
- Track 10 : Hyperion\_55
- Track 11 : WheelerS25\_62
- Track 12 : MorillMayhem\_56, Mila11\_58
- Track 13 : Mashley\_54
- Track 14 : Squash\_58
- Track 15 : Cressida\_79
- Track 16 : Cinna\_76
- Track 17 : Margaery\_75
- Track 18 : Matzah\_79
- Track 19 : MementoMori\_77
- Track 20 : Terij\_76
- Track 21 : Phonegingi\_62
- Track 22 : Hendrix\_132
- Track 23 : Wrackline\_80

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

The start number called the most often in the published annotations is 17, it was called in 11 of the 26 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BabyDotz\_54, Fireman\_82, Grassboy\_57, Hyperion\_55, Kyva\_57, Mashley\_54, Mentos\_59, Mila11\_58, MorillMayhem\_56, Nike\_55, Phinky\_63, Squash\_58, Tissue\_56,

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

- WheelerS25\_62,

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

- BirdInFrench\_62, Cinna\_76, Cressida\_79, Hendrix\_132, Margaery\_75, Matzah\_79, MementoMori\_77, Merry\_, Nicole72\_80, Phonegingi\_62, RobsFeet\_84, Sunny\_, Terij\_76, Wilca\_62, Wrackline\_80,

### Summary by start number:

Start 13:

- Found in 5 of 29 ( 17.2% ) of genes in pham
- Manual Annotations of this start: 5 of 26
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BirdInFrench\_62 (EG), Merry\_ (EC), RobsFeet\_84 (EC), Sunny\_ (EC), Wilca\_62 (EG),

Start 14:

- Found in 6 of 29 ( 20.7% ) of genes in pham
- Manual Annotations of this start: 6 of 26
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cinna\_76 (EI), Cressida\_79 (EI), Margaery\_75 (EI), Matzah\_79 (EI), MementoMori\_77 (EI), Terij\_76 (EI),

Start 15:

- Found in 1 of 29 ( 3.4% ) of genes in pham
- Manual Annotations of this start: 1 of 26
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hendrix\_132 (GC),

Start 17:

- Found in 14 of 29 ( 48.3% ) of genes in pham
- Manual Annotations of this start: 11 of 26
- Called 92.9% of time when present
- Phage (with cluster) where this start called: BabyDotz\_54 (EG), Fireman\_82 (EC), Grassboy\_57 (EG), Hyperion\_55 (EG), Kyva\_57 (EG), Mashley\_54 (EG), Mentos\_59 (EG), Mila11\_58 (EG), MorillMayhem\_56 (EG), Nike\_55 (EG), Phinky\_63 (EG), Squash\_58 (EG), Tissue\_56 (EG),

Start 18:

- Found in 6 of 29 ( 20.7% ) of genes in pham
- Manual Annotations of this start: 3 of 26
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Nicole72\_80 (EC), Phonegingi\_62 (GA), Wrackline\_80 (GF),

Start 20:

- Found in 9 of 29 ( 31.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 11.1% of time when present
- Phage (with cluster) where this start called: WheelerS25\_62 (EG),

### Summary by clusters:

There are 6 clusters represented in this pham: EI, EG, EC, GF, GC, GA,

Info for manual annotations of cluster EC:

- Start number 13 was manually annotated 3 times for cluster EC.
- Start number 17 was manually annotated 1 time for cluster EC.
- Start number 18 was manually annotated 1 time for cluster EC.

Info for manual annotations of cluster EG:

- Start number 13 was manually annotated 2 times for cluster EG.
- Start number 17 was manually annotated 10 times for cluster EG.

Info for manual annotations of cluster EI:

- Start number 14 was manually annotated 6 times for cluster EI.

Info for manual annotations of cluster GA:

- Start number 18 was manually annotated 1 time for cluster GA.

Info for manual annotations of cluster GC:

- Start number 15 was manually annotated 1 time for cluster GC.

Info for manual annotations of cluster GF:

- Start number 18 was manually annotated 1 time for cluster GF.

### ***Gene Information:***

Gene: BabyDotz\_54 Start: 42571, Stop: 42137, Start Num: 17

Candidate Starts for BabyDotz\_54:

(Start: 17 @42571 has 11 MA's), (20, 42559), (25, 42502), (28, 42454), (30, 42433), (34, 42346), (41, 42220), (43, 42202),

Gene: BirdInFrench\_62 Start: 42664, Stop: 42239, Start Num: 13

Candidate Starts for BirdInFrench\_62:

(Start: 13 @42664 has 5 MA's), (16, 42652), (25, 42577), (26, 42565), (28, 42526), (30, 42505), (32, 42484), (33, 42442), (34, 42418), (41, 42292), (43, 42274),

Gene: Cinna\_76 Start: 47553, Stop: 47969, Start Num: 14

Candidate Starts for Cinna\_76:

(6, 47175), (12, 47538), (Start: 14 @47553 has 6 MA's), (22, 47598), (23, 47604), (24, 47625), (25, 47637), (27, 47655), (31, 47721), (32, 47736), (35, 47805), (37, 47874), (40, 47904), (41, 47913), (43, 47931),

Gene: Cressida\_79 Start: 47166, Stop: 47582, Start Num: 14

Candidate Starts for Cressida\_79:

(1, 46593), (12, 47151), (Start: 14 @47166 has 6 MA's), (24, 47238), (25, 47250), (31, 47334), (32, 47349), (35, 47418), (37, 47487), (42, 47538),

Gene: Fireman\_82 Start: 48211, Stop: 48606, Start Num: 17

Candidate Starts for Fireman\_82:

(Start: 17 @48211 has 11 MA's), (25, 48280), (26, 48292), (28, 48334), (29, 48343), (31, 48361), (32, 48376), (41, 48553), (42, 48565), (43, 48571),

Gene: Grassboy\_57 Start: 42389, Stop: 41955, Start Num: 17

Candidate Starts for Grassboy\_57:

(Start: 17 @42389 has 11 MA's), (20, 42377), (25, 42320), (28, 42272), (30, 42251), (34, 42164), (36, 42110), (41, 42038), (43, 42020),

Gene: Hendrix\_132 Start: 83851, Stop: 84261, Start Num: 15

Candidate Starts for Hendrix\_132:

(Start: 15 @83851 has 1 MA's), (25, 83923), (28, 83974), (34, 84082), (43, 84226),

Gene: Hyperion\_55 Start: 42187, Stop: 41780, Start Num: 17

Candidate Starts for Hyperion\_55:

(Start: 17 @42187 has 11 MA's), (25, 42118), (28, 42067), (43, 41815),

Gene: Kyva\_57 Start: 42446, Stop: 42012, Start Num: 17

Candidate Starts for Kyva\_57:

(Start: 17 @42446 has 11 MA's), (20, 42434), (25, 42377), (28, 42329), (30, 42308), (34, 42221), (36, 42167), (41, 42095), (43, 42077),

Gene: Margaery\_75 Start: 46873, Stop: 47289, Start Num: 14

Candidate Starts for Margaery\_75:

(7, 46570), (12, 46858), (Start: 14 @46873 has 6 MA's), (25, 46957), (27, 46975), (35, 47125), (38, 47209), (39, 47221), (42, 47245),

Gene: Mashley\_54 Start: 41963, Stop: 41559, Start Num: 17

Candidate Starts for Mashley\_54:

(Start: 17 @41963 has 11 MA's), (20, 41951), (25, 41894), (28, 41846), (30, 41825), (34, 41738), (43, 41594),

Gene: Matzah\_79 Start: 47966, Stop: 48382, Start Num: 14

Candidate Starts for Matzah\_79:

(12, 47951), (Start: 14 @47966 has 6 MA's), (24, 48038), (25, 48050), (27, 48068), (31, 48134), (32, 48149), (35, 48218), (41, 48326), (43, 48344),

Gene: MementoMori\_77 Start: 47301, Stop: 47717, Start Num: 14

Candidate Starts for MementoMori\_77:

(3, 46824), (12, 47286), (Start: 14 @47301 has 6 MA's), (24, 47373), (25, 47385), (31, 47469), (32, 47484), (35, 47553), (37, 47622), (45, 47706),

Gene: Mentos\_59 Start: 43197, Stop: 42763, Start Num: 17

Candidate Starts for Mentos\_59:

(Start: 17 @43197 has 11 MA's), (20, 43185), (25, 43128), (28, 43080), (30, 43059), (34, 42972), (41, 42846), (43, 42828),

Gene: Merry\_ Start: 47073, Stop: 47528, Start Num: 13

Candidate Starts for Merry\_:

(8, 46923), (Start: 13 @47073 has 5 MA's), (Start: 18 @47097 has 3 MA's), (25, 47157), (27, 47175), (32, 47274), (33, 47316), (36, 47394), (41, 47466), (42, 47478), (43, 47484),

Gene: Mila11\_58 Start: 43434, Stop: 43027, Start Num: 17

Candidate Starts for Mila11\_58:

(Start: 17 @43434 has 11 MA's), (21, 43413), (25, 43365), (28, 43314), (41, 43080), (43, 43062),

Gene: MorillMayhem\_56 Start: 42311, Stop: 41904, Start Num: 17  
Candidate Starts for MorillMayhem\_56:  
(Start: 17 @42311 has 11 MA's), (21, 42290), (25, 42242), (28, 42191), (41, 41957), (43, 41939),

Gene: Nicole72\_80 Start: 51697, Stop: 52128, Start Num: 18  
Candidate Starts for Nicole72\_80:  
(9, 51571), (Start: 18 @51697 has 3 MA's), (19, 51703), (25, 51763), (42, 52066), (43, 52072), (46, 52108), (47, 52117),

Gene: Nike\_55 Start: 42352, Stop: 41915, Start Num: 17  
Candidate Starts for Nike\_55:  
(Start: 17 @42352 has 11 MA's), (21, 42331), (25, 42283), (28, 42232), (41, 41998), (43, 41980),

Gene: Phinky\_63 Start: 44073, Stop: 43642, Start Num: 17  
Candidate Starts for Phinky\_63:  
(Start: 17 @44073 has 11 MA's), (20, 44061), (25, 44004), (28, 43956), (34, 43848), (43, 43704), (46, 43668),

Gene: Phonegingi\_62 Start: 36530, Stop: 36922, Start Num: 18  
Candidate Starts for Phonegingi\_62:  
(11, 36452), (Start: 18 @36530 has 3 MA's), (25, 36593), (32, 36692), (43, 36887), (44, 36905),

Gene: RobsFeet\_84 Start: 47768, Stop: 48211, Start Num: 13  
Candidate Starts for RobsFeet\_84:  
(10, 47705), (Start: 13 @47768 has 5 MA's), (Start: 18 @47792 has 3 MA's), (25, 47852), (32, 47969), (43, 48164),

Gene: Squash\_58 Start: 42357, Stop: 41953, Start Num: 17  
Candidate Starts for Squash\_58:  
(Start: 17 @42357 has 11 MA's), (20, 42345), (23, 42321), (25, 42288), (28, 42240), (34, 42132), (41, 42006), (43, 41988),

Gene: Sunny\_ Start: 47075, Stop: 47530, Start Num: 13  
Candidate Starts for Sunny\_:  
(8, 46925), (Start: 13 @47075 has 5 MA's), (Start: 18 @47099 has 3 MA's), (25, 47159), (27, 47177), (32, 47276), (33, 47318), (36, 47396), (41, 47468), (42, 47480), (43, 47486),

Gene: Terij\_76 Start: 46236, Stop: 46649, Start Num: 14  
Candidate Starts for Terij\_76:  
(2, 45753), (4, 45777), (5, 45792), (7, 45930), (12, 46221), (Start: 14 @46236 has 6 MA's), (25, 46317), (32, 46416), (35, 46485), (37, 46554),

Gene: Tissue\_56 Start: 42285, Stop: 41851, Start Num: 17  
Candidate Starts for Tissue\_56:  
(Start: 17 @42285 has 11 MA's), (20, 42273), (25, 42216), (28, 42168), (30, 42147), (34, 42060), (36, 42006), (41, 41934), (43, 41916),

Gene: WheelerS25\_62 Start: 43354, Stop: 42962, Start Num: 20  
Candidate Starts for WheelerS25\_62:  
(Start: 17 @43366 has 11 MA's), (20, 43354), (25, 43297), (28, 43249), (30, 43228), (34, 43141), (41, 43015), (43, 42997),

Gene: Wilca\_62 Start: 42664, Stop: 42239, Start Num: 13

Candidate Starts for Wilca\_62:

(Start: 13 @42664 has 5 MA's), (16, 42652), (25, 42577), (26, 42565), (28, 42526), (30, 42505), (32, 42484), (33, 42442), (34, 42418), (41, 42292), (43, 42274),

Gene: Wrackline\_80 Start: 41739, Stop: 42146, Start Num: 18

Candidate Starts for Wrackline\_80:

(Start: 18 @41739 has 3 MA's), (25, 41796), (35, 41982), (41, 42090), (42, 42102), (43, 42108), (44, 42126),