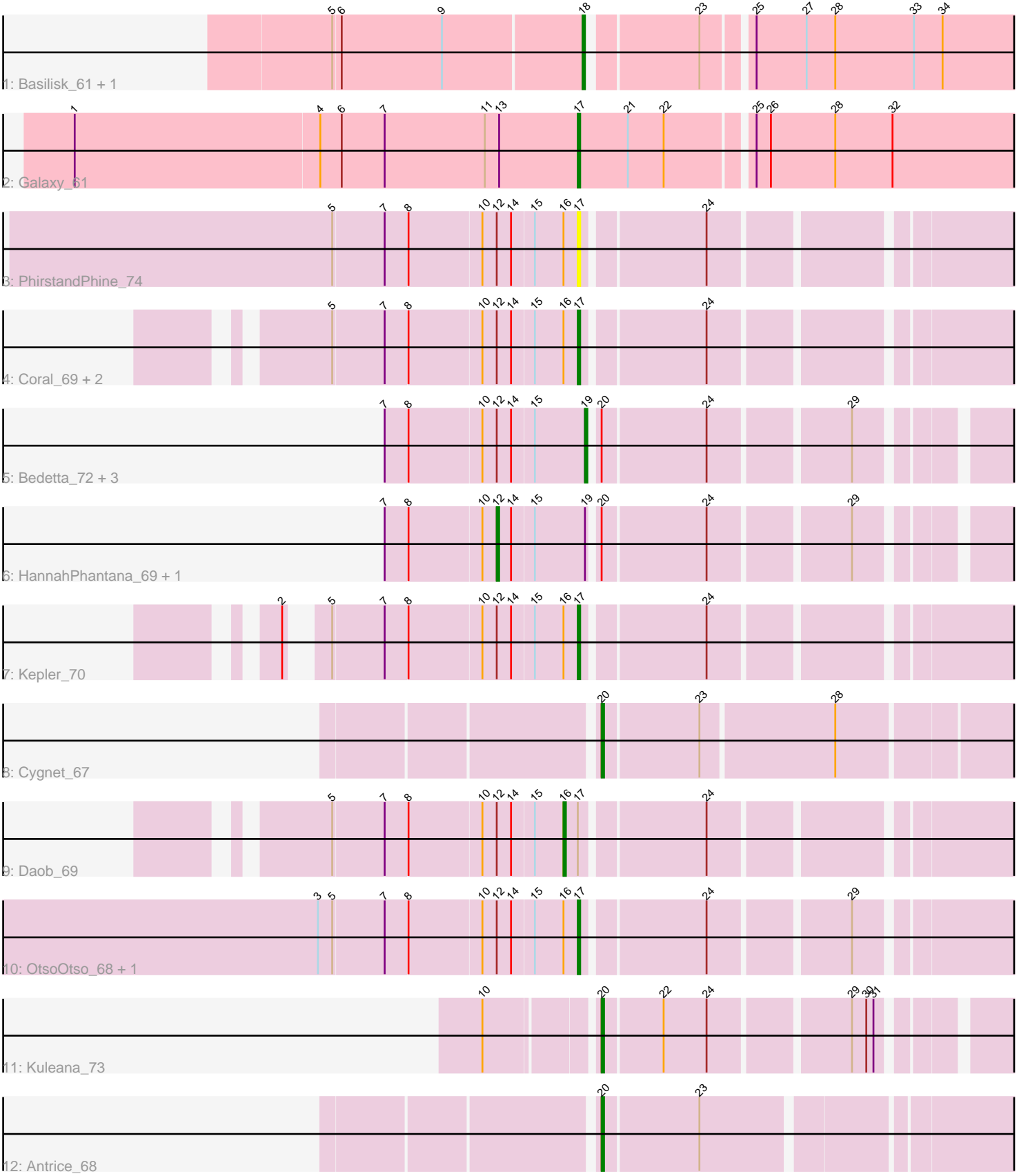


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 280892 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280892 has 20 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Basilisk\_61, Ruchi\_60
- Track 2 : Galaxy\_61
- Track 3 : PhirstandPhine\_74
- Track 4 : Coral\_69, Bibble12\_71, Cote\_71
- Track 5 : Bedetta\_72, Amelia\_68, Pineda\_70, Colusalem\_68
- Track 6 : HannahPhantana\_69, Jerole\_67
- Track 7 : Kepler\_70
- Track 8 : Cygnet\_67
- Track 9 : Daob\_69
- Track 10 : OtsoOtso\_68, Polka\_67
- Track 11 : Kuleana\_73
- Track 12 : Antrice\_68

### ***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 6 of the 16 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Bibble12\_71, Coral\_69, Cote\_71, Galaxy\_61, Kepler\_70, OtsoOtso\_68, PhirstandPhine\_74, Polka\_67,

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

- Daob\_69,

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

- Amelia\_68, Antrice\_68, Basilisk\_61, Bedetta\_72, Colusalem\_68, Cygnet\_67, HannahPhantana\_69, Jerole\_67, Kuleana\_73, Pineda\_70, Ruchi\_60,

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

Start 12:

- Found in 14 of 20 ( 70.0% ) of genes in pham
- Manual Annotations of this start: 2 of 16

- Called 14.3% of time when present
- Phage (with cluster) where this start called: HannahPhantana\_69 (AS2), Jerole\_67 (AS2),

Start 16:

- Found in 8 of 20 ( 40.0% ) of genes in pham
- Manual Annotations of this start: 1 of 16
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Daob\_69 (AS2),

Start 17:

- Found in 9 of 20 ( 45.0% ) of genes in pham
- Manual Annotations of this start: 6 of 16
- Called 88.9% of time when present
- Phage (with cluster) where this start called: Bibble12\_71 (AS2), Coral\_69 (AS2), Cote\_71 (AS2), Galaxy\_61 (AS1), Kepler\_70 (AS2), OtsoOtso\_68 (AS2), PhirstandPhine\_74 (AS2), Polka\_67 (AS2),

Start 18:

- Found in 2 of 20 ( 10.0% ) of genes in pham
- Manual Annotations of this start: 2 of 16
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Basilisk\_61 (AS1), Ruchi\_60 (AS1),

Start 19:

- Found in 6 of 20 ( 30.0% ) of genes in pham
- Manual Annotations of this start: 2 of 16
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Amelia\_68 (AS2), Bedetta\_72 (AS2), Colusalem\_68 (AS2), Pineda\_70 (AS2),

Start 20:

- Found in 9 of 20 ( 45.0% ) of genes in pham
- Manual Annotations of this start: 3 of 16
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Antrice\_68 (AS2), Cygnet\_67 (AS2), Kuleana\_73 (AS2),

### **Summary by clusters:**

There are 2 clusters represented in this pham: AS2, AS1,

Info for manual annotations of cluster AS1:

- Start number 17 was manually annotated 1 time for cluster AS1.
- Start number 18 was manually annotated 2 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 12 was manually annotated 2 times for cluster AS2.
- Start number 16 was manually annotated 1 time for cluster AS2.
- Start number 17 was manually annotated 5 times for cluster AS2.
- Start number 19 was manually annotated 2 times for cluster AS2.
- Start number 20 was manually annotated 3 times for cluster AS2.

**Gene Information:**

Gene: Amelia\_68 Start: 36968, Stop: 37153, Start Num: 19

Candidate Starts for Amelia\_68:

(7, 36887), (8, 36896), (10, 36926), (Start: 12 @36932 has 2 MA's), (14, 36938), (15, 36947), (Start: 19 @36968 has 2 MA's), (Start: 20 @36971 has 3 MA's), (24, 37013), (29, 37067),

Gene: Antrice\_68 Start: 37239, Stop: 37424, Start Num: 20

Candidate Starts for Antrice\_68:

(Start: 20 @37239 has 3 MA's), (23, 37278),

Gene: Basilisk\_61 Start: 37058, Stop: 37255, Start Num: 18

Candidate Starts for Basilisk\_61:

(5, 36956), (6, 36959), (9, 37001), (Start: 18 @37058 has 2 MA's), (23, 37100), (25, 37118), (27, 37139), (28, 37151), (33, 37184), (34, 37196),

Gene: Bedetta\_72 Start: 37131, Stop: 37316, Start Num: 19

Candidate Starts for Bedetta\_72:

(7, 37050), (8, 37059), (10, 37089), (Start: 12 @37095 has 2 MA's), (14, 37101), (15, 37110), (Start: 19 @37131 has 2 MA's), (Start: 20 @37134 has 3 MA's), (24, 37176), (29, 37230),

Gene: Bibble12\_71 Start: 37260, Stop: 37454, Start Num: 17

Candidate Starts for Bibble12\_71:

(5, 37161), (7, 37182), (8, 37191), (10, 37221), (Start: 12 @37227 has 2 MA's), (14, 37233), (15, 37242), (Start: 16 @37254 has 1 MA's), (Start: 17 @37260 has 6 MA's), (24, 37308),

Gene: Colusalem\_68 Start: 36945, Stop: 37130, Start Num: 19

Candidate Starts for Colusalem\_68:

(7, 36864), (8, 36873), (10, 36903), (Start: 12 @36909 has 2 MA's), (14, 36915), (15, 36924), (Start: 19 @36945 has 2 MA's), (Start: 20 @36948 has 3 MA's), (24, 36990), (29, 37044),

Gene: Coral\_69 Start: 37151, Stop: 37345, Start Num: 17

Candidate Starts for Coral\_69:

(5, 37052), (7, 37073), (8, 37082), (10, 37112), (Start: 12 @37118 has 2 MA's), (14, 37124), (15, 37133), (Start: 16 @37145 has 1 MA's), (Start: 17 @37151 has 6 MA's), (24, 37199),

Gene: Cote\_71 Start: 37603, Stop: 37797, Start Num: 17

Candidate Starts for Cote\_71:

(5, 37504), (7, 37525), (8, 37534), (10, 37564), (Start: 12 @37570 has 2 MA's), (14, 37576), (15, 37585), (Start: 16 @37597 has 1 MA's), (Start: 17 @37603 has 6 MA's), (24, 37651),

Gene: Cygnet\_67 Start: 37729, Stop: 37917, Start Num: 20

Candidate Starts for Cygnet\_67:

(Start: 20 @37729 has 3 MA's), (23, 37768), (28, 37822),

Gene: Daob\_69 Start: 36940, Stop: 37140, Start Num: 16

Candidate Starts for Daob\_69:

(5, 36847), (7, 36868), (8, 36877), (10, 36907), (Start: 12 @36913 has 2 MA's), (14, 36919), (15, 36928), (Start: 16 @36940 has 1 MA's), (Start: 17 @36946 has 6 MA's), (24, 36994),

Gene: Galaxy\_61 Start: 36357, Stop: 36563, Start Num: 17

Candidate Starts for Galaxy\_61:

(1, 36147), (4, 36249), (6, 36258), (7, 36276), (11, 36318), (13, 36324), (Start: 17 @36357 has 6 MA's), (21, 36378), (22, 36393), (25, 36426), (26, 36432), (28, 36459), (32, 36483),

Gene: HannahPhantana\_69 Start: 36927, Stop: 37148, Start Num: 12

Candidate Starts for HannahPhantana\_69:

(7, 36882), (8, 36891), (10, 36921), (Start: 12 @36927 has 2 MA's), (14, 36933), (15, 36942), (Start: 19 @36963 has 2 MA's), (Start: 20 @36966 has 3 MA's), (24, 37008), (29, 37062),

Gene: Jerole\_67 Start: 37051, Stop: 37272, Start Num: 12

Candidate Starts for Jerole\_67:

(7, 37006), (8, 37015), (10, 37045), (Start: 12 @37051 has 2 MA's), (14, 37057), (15, 37066), (Start: 19 @37087 has 2 MA's), (Start: 20 @37090 has 3 MA's), (24, 37132), (29, 37186),

Gene: Kepler\_70 Start: 36934, Stop: 37122, Start Num: 17

Candidate Starts for Kepler\_70:

(2, 36826), (5, 36835), (7, 36856), (8, 36865), (10, 36895), (Start: 12 @36901 has 2 MA's), (14, 36907), (15, 36916), (Start: 16 @36928 has 1 MA's), (Start: 17 @36934 has 6 MA's), (24, 36982),

Gene: Kuleana\_73 Start: 37808, Stop: 37984, Start Num: 20

Candidate Starts for Kuleana\_73:

(10, 37766), (Start: 20 @37808 has 3 MA's), (22, 37832), (24, 37850), (29, 37904), (30, 37910), (31, 37913),

Gene: OtsoOtso\_68 Start: 36693, Stop: 36881, Start Num: 17

Candidate Starts for OtsoOtso\_68:

(3, 36588), (5, 36594), (7, 36615), (8, 36624), (10, 36654), (Start: 12 @36660 has 2 MA's), (14, 36666), (15, 36675), (Start: 16 @36687 has 1 MA's), (Start: 17 @36693 has 6 MA's), (24, 36741), (29, 36795),

Gene: PhirstandPhine\_74 Start: 36879, Stop: 37073, Start Num: 17

Candidate Starts for PhirstandPhine\_74:

(5, 36780), (7, 36801), (8, 36810), (10, 36840), (Start: 12 @36846 has 2 MA's), (14, 36852), (15, 36861), (Start: 16 @36873 has 1 MA's), (Start: 17 @36879 has 6 MA's), (24, 36927),

Gene: Pineda\_70 Start: 37128, Stop: 37310, Start Num: 19

Candidate Starts for Pineda\_70:

(7, 37047), (8, 37056), (10, 37086), (Start: 12 @37092 has 2 MA's), (14, 37098), (15, 37107), (Start: 19 @37128 has 2 MA's), (Start: 20 @37131 has 3 MA's), (24, 37173), (29, 37227),

Gene: Polka\_67 Start: 36693, Stop: 36881, Start Num: 17

Candidate Starts for Polka\_67:

(3, 36588), (5, 36594), (7, 36615), (8, 36624), (10, 36654), (Start: 12 @36660 has 2 MA's), (14, 36666), (15, 36675), (Start: 16 @36687 has 1 MA's), (Start: 17 @36693 has 6 MA's), (24, 36741), (29, 36795),

Gene: Ruchi\_60 Start: 36980, Stop: 37177, Start Num: 18

Candidate Starts for Ruchi\_60:

(5, 36878), (6, 36881), (9, 36923), (Start: 18 @36980 has 2 MA's), (23, 37022), (25, 37040), (27, 37061), (28, 37073), (33, 37106), (34, 37118),