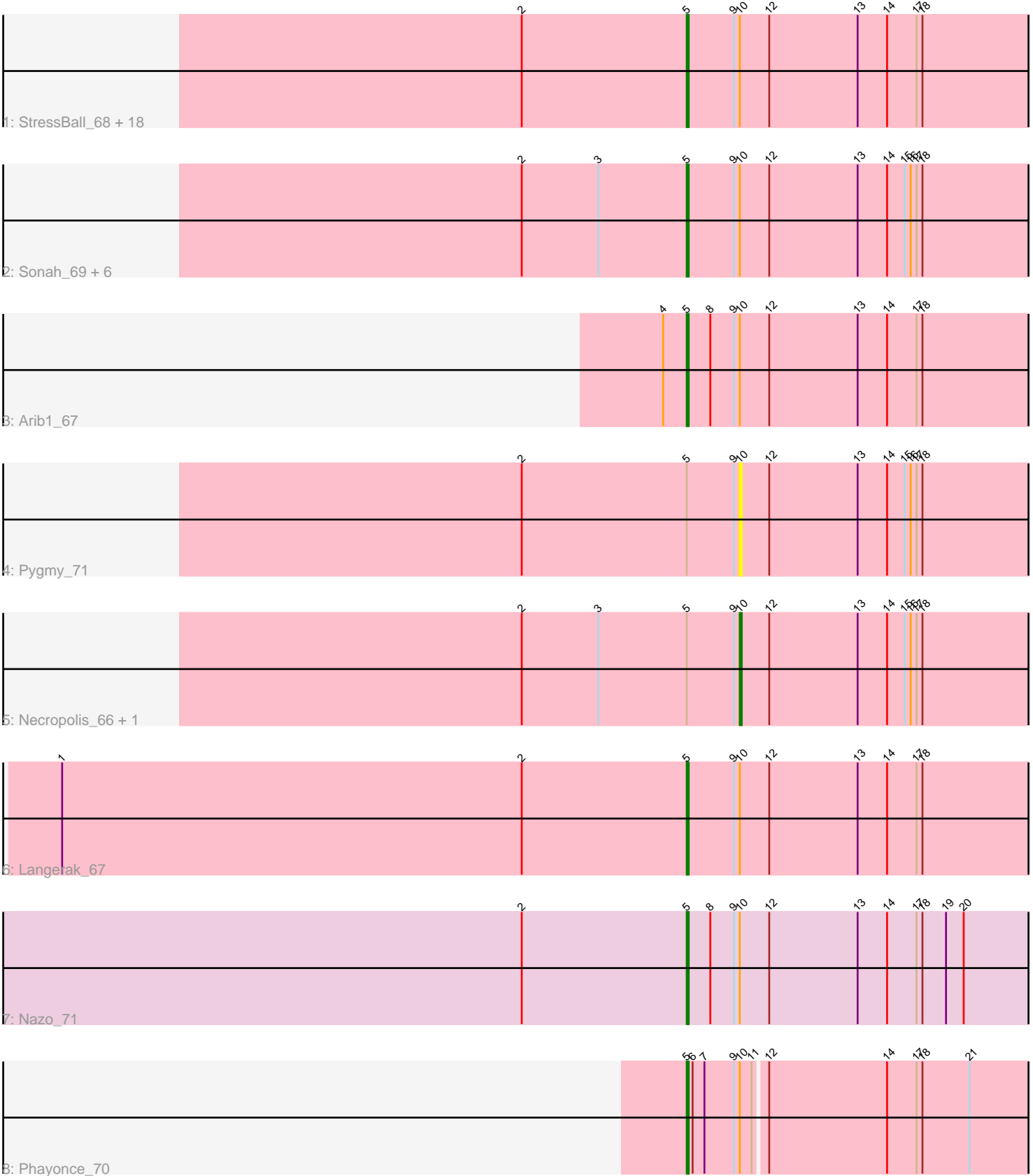


Pham 2788



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 2788 Report

This analysis was run 04/28/24 on database version 559.

Pham number 2788 has 33 members, 3 are drafts.

Phages represented in each track:

- Track 1 : StressBall\_68, Juniormint\_65, CactusJack\_69, Kari\_65, Glaske\_68, Polkaroo\_69, Mangethe\_71, Bartholomew\_64, Phalm\_69, Megiddo\_68, Venti\_66, KilKor\_69, Zilizebeth\_73, Majeke\_71, Fishburne\_67, Techage\_69, Pegasus\_71, Donovan\_68, Willsammy\_70
- Track 2 : Sonah\_69, Malithi\_68, Bogie\_71, HUHilltop\_71, Dynamo\_68, Camster\_69, Phineas\_69
- Track 3 : Arib1\_67
- Track 4 : Pygmy\_71
- Track 5 : Necropolis\_66, Shipwreck\_71
- Track 6 : Langerak\_67
- Track 7 : Nazo\_71
- Track 8 : Phayonce\_70

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

The start number called the most often in the published annotations is 5, it was called in 28 of the 30 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arib1\_67, Bartholomew\_64, Bogie\_71, CactusJack\_69, Camster\_69, Donovan\_68, Dynamo\_68, Fishburne\_67, Glaske\_68, HUHilltop\_71, Juniormint\_65, Kari\_65, KilKor\_69, Langerak\_67, Majeke\_71, Malithi\_68, Mangethe\_71, Megiddo\_68, Nazo\_71, Phalm\_69, Phayonce\_70, Pegasus\_71, Phineas\_69, Polkaroo\_69, Sonah\_69, StressBall\_68, Techage\_69, Venti\_66, Willsammy\_70, Zilizebeth\_73,

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

- Necropolis\_66, Pygmy\_71, Shipwreck\_71,

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

- 

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

Start 5:

- Found in 33 of 33 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 28 of 30
- Called 90.9% of time when present
- Phage (with cluster) where this start called: Arib1\_67 (P1), Bartholomew\_64 (P1), Bogie\_71 (P1), CactusJack\_69 (P1), Camster\_69 (P1), Donovan\_68 (P1), Dynamo\_68 (P1), Fishburne\_67 (P1), Glaske\_68 (P1), HUHilltop\_71 (P1), Juniormint\_65 (P1), Kari\_65 (P1), KilKor\_69 (P1), Langerak\_67 (P1), Majeke\_71 (P1), Malithi\_68 (P1), Mangethe\_71 (P1), Megiddo\_68 (P1), Nazo\_71 (P4), Phalm\_69 (P1), Phayonce\_70 (P5), Phegasus\_71 (P1), Phineas\_69 (P1), Polkaroo\_69 (P1), Sonah\_69 (P1), StressBall\_68 (P1), Techage\_69 (P1), Venti\_66 (P1), Willsammy\_70 (P1), Zilizebeth\_73 (P1),

Start 10:

- Found in 33 of 33 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 2 of 30
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Necropolis\_66 (P1), Pygmy\_71 (P1), Shipwreck\_71 (P1),

### **Summary by clusters:**

There are 3 clusters represented in this pham: P1, P4, P5,

Info for manual annotations of cluster P1:

- Start number 5 was manually annotated 26 times for cluster P1.
- Start number 10 was manually annotated 2 times for cluster P1.

Info for manual annotations of cluster P4:

- Start number 5 was manually annotated 1 time for cluster P4.

Info for manual annotations of cluster P5:

- Start number 5 was manually annotated 1 time for cluster P5.

### **Gene Information:**

Gene: Arib1\_67 Start: 42516, Stop: 42698, Start Num: 5

Candidate Starts for Arib1\_67:

(4, 42504), (Start: 5 @42516 has 28 MA's), (8, 42528), (9, 42540), (Start: 10 @42543 has 2 MA's), (12, 42558), (13, 42603), (14, 42618), (17, 42633), (18, 42636),

Gene: Bartholomew\_64 Start: 41796, Stop: 41978, Start Num: 5

Candidate Starts for Bartholomew\_64:

(2, 41712), (Start: 5 @41796 has 28 MA's), (9, 41820), (Start: 10 @41823 has 2 MA's), (12, 41838), (13, 41883), (14, 41898), (17, 41913), (18, 41916),

Gene: Bogie\_71 Start: 44866, Stop: 45048, Start Num: 5

Candidate Starts for Bogie\_71:

(2, 44782), (3, 44821), (Start: 5 @44866 has 28 MA's), (9, 44890), (Start: 10 @44893 has 2 MA's), (12, 44908), (13, 44953), (14, 44968), (15, 44977), (16, 44980), (17, 44983), (18, 44986),

Gene: CactusJack\_69 Start: 44494, Stop: 44676, Start Num: 5

Candidate Starts for CactusJack\_69:

(2, 44410), (Start: 5 @44494 has 28 MA's), (9, 44518), (Start: 10 @44521 has 2 MA's), (12, 44536), (13, 44581), (14, 44596), (17, 44611), (18, 44614),

Gene: Camster\_69 Start: 43327, Stop: 43509, Start Num: 5

Candidate Starts for Camster\_69:

(2, 43243), (3, 43282), (Start: 5 @43327 has 28 MA's), (9, 43351), (Start: 10 @43354 has 2 MA's), (12, 43369), (13, 43414), (14, 43429), (15, 43438), (16, 43441), (17, 43444), (18, 43447),

Gene: Donovan\_68 Start: 43456, Stop: 43638, Start Num: 5

Candidate Starts for Donovan\_68:

(2, 43372), (Start: 5 @43456 has 28 MA's), (9, 43480), (Start: 10 @43483 has 2 MA's), (12, 43498), (13, 43543), (14, 43558), (17, 43573), (18, 43576),

Gene: Dynamo\_68 Start: 42900, Stop: 43082, Start Num: 5

Candidate Starts for Dynamo\_68:

(2, 42816), (3, 42855), (Start: 5 @42900 has 28 MA's), (9, 42924), (Start: 10 @42927 has 2 MA's), (12, 42942), (13, 42987), (14, 43002), (15, 43011), (16, 43014), (17, 43017), (18, 43020),

Gene: Fishburne\_67 Start: 43282, Stop: 43464, Start Num: 5

Candidate Starts for Fishburne\_67:

(2, 43198), (Start: 5 @43282 has 28 MA's), (9, 43306), (Start: 10 @43309 has 2 MA's), (12, 43324), (13, 43369), (14, 43384), (17, 43399), (18, 43402),

Gene: Glaske\_68 Start: 44494, Stop: 44676, Start Num: 5

Candidate Starts for Glaske\_68:

(2, 44410), (Start: 5 @44494 has 28 MA's), (9, 44518), (Start: 10 @44521 has 2 MA's), (12, 44536), (13, 44581), (14, 44596), (17, 44611), (18, 44614),

Gene: HUHilltop\_71 Start: 43123, Stop: 43305, Start Num: 5

Candidate Starts for HUHilltop\_71:

(2, 43039), (3, 43078), (Start: 5 @43123 has 28 MA's), (9, 43147), (Start: 10 @43150 has 2 MA's), (12, 43165), (13, 43210), (14, 43225), (15, 43234), (16, 43237), (17, 43240), (18, 43243),

Gene: Juniormint\_65 Start: 41869, Stop: 42051, Start Num: 5

Candidate Starts for Juniormint\_65:

(2, 41785), (Start: 5 @41869 has 28 MA's), (9, 41893), (Start: 10 @41896 has 2 MA's), (12, 41911), (13, 41956), (14, 41971), (17, 41986), (18, 41989),

Gene: Kari\_65 Start: 43279, Stop: 43461, Start Num: 5

Candidate Starts for Kari\_65:

(2, 43195), (Start: 5 @43279 has 28 MA's), (9, 43303), (Start: 10 @43306 has 2 MA's), (12, 43321), (13, 43366), (14, 43381), (17, 43396), (18, 43399),

Gene: KilKor\_69 Start: 45187, Stop: 45369, Start Num: 5

Candidate Starts for KilKor\_69:

(2, 45103), (Start: 5 @45187 has 28 MA's), (9, 45211), (Start: 10 @45214 has 2 MA's), (12, 45229), (13, 45274), (14, 45289), (17, 45304), (18, 45307),

Gene: Langerak\_67 Start: 43260, Stop: 43442, Start Num: 5

Candidate Starts for Langerak\_67:

(1, 42942), (2, 43176), (Start: 5 @43260 has 28 MA's), (9, 43284), (Start: 10 @43287 has 2 MA's), (12, 43302), (13, 43347), (14, 43362), (17, 43377), (18, 43380),

Gene: Majeke\_71 Start: 43905, Stop: 44087, Start Num: 5

Candidate Starts for Majeke\_71:

(2, 43821), (Start: 5 @43905 has 28 MA's), (9, 43929), (Start: 10 @43932 has 2 MA's), (12, 43947), (13, 43992), (14, 44007), (17, 44022), (18, 44025),

Gene: Malithi\_68 Start: 43049, Stop: 43231, Start Num: 5

Candidate Starts for Malithi\_68:

(2, 42965), (3, 43004), (Start: 5 @43049 has 28 MA's), (9, 43073), (Start: 10 @43076 has 2 MA's), (12, 43091), (13, 43136), (14, 43151), (15, 43160), (16, 43163), (17, 43166), (18, 43169),

Gene: Mangethe\_71 Start: 43905, Stop: 44087, Start Num: 5

Candidate Starts for Mangethe\_71:

(2, 43821), (Start: 5 @43905 has 28 MA's), (9, 43929), (Start: 10 @43932 has 2 MA's), (12, 43947), (13, 43992), (14, 44007), (17, 44022), (18, 44025),

Gene: Megiddo\_68 Start: 45055, Stop: 45237, Start Num: 5

Candidate Starts for Megiddo\_68:

(2, 44971), (Start: 5 @45055 has 28 MA's), (9, 45079), (Start: 10 @45082 has 2 MA's), (12, 45097), (13, 45142), (14, 45157), (17, 45172), (18, 45175),

Gene: Nazo\_71 Start: 44897, Stop: 45079, Start Num: 5

Candidate Starts for Nazo\_71:

(2, 44813), (Start: 5 @44897 has 28 MA's), (8, 44909), (9, 44921), (Start: 10 @44924 has 2 MA's), (12, 44939), (13, 44984), (14, 44999), (17, 45014), (18, 45017), (19, 45029), (20, 45038),

Gene: Necropolis\_66 Start: 42516, Stop: 42671, Start Num: 10

Candidate Starts for Necropolis\_66:

(2, 42405), (3, 42444), (Start: 5 @42489 has 28 MA's), (9, 42513), (Start: 10 @42516 has 2 MA's), (12, 42531), (13, 42576), (14, 42591), (15, 42600), (16, 42603), (17, 42606), (18, 42609),

Gene: Phalm\_69 Start: 44485, Stop: 44667, Start Num: 5

Candidate Starts for Phalm\_69:

(2, 44401), (Start: 5 @44485 has 28 MA's), (9, 44509), (Start: 10 @44512 has 2 MA's), (12, 44527), (13, 44572), (14, 44587), (17, 44602), (18, 44605),

Gene: Phayonce\_70 Start: 46510, Stop: 46692, Start Num: 5

Candidate Starts for Phayonce\_70:

(Start: 5 @46510 has 28 MA's), (6, 46513), (7, 46519), (9, 46534), (Start: 10 @46537 has 2 MA's), (11, 46543), (12, 46549), (14, 46609), (17, 46624), (18, 46627), (21, 46651),

Gene: Phegasus\_71 Start: 43872, Stop: 44054, Start Num: 5

Candidate Starts for Phegasus\_71:

(2, 43788), (Start: 5 @43872 has 28 MA's), (9, 43896), (Start: 10 @43899 has 2 MA's), (12, 43914), (13, 43959), (14, 43974), (17, 43989), (18, 43992),

Gene: Phineas\_69 Start: 43457, Stop: 43639, Start Num: 5

Candidate Starts for Phineas\_69:

(2, 43373), (3, 43412), (Start: 5 @43457 has 28 MA's), (9, 43481), (Start: 10 @43484 has 2 MA's), (12, 43499), (13, 43544), (14, 43559), (15, 43568), (16, 43571), (17, 43574), (18, 43577),

Gene: Polkaroo\_69 Start: 45197, Stop: 45379, Start Num: 5

Candidate Starts for Polkaroo\_69:

(2, 45113), (Start: 5 @45197 has 28 MA's), (9, 45221), (Start: 10 @45224 has 2 MA's), (12, 45239), (13, 45284), (14, 45299), (17, 45314), (18, 45317),

Gene: Pygmy\_71 Start: 44866, Stop: 45021, Start Num: 10

Candidate Starts for Pygmy\_71:

(2, 44755), (Start: 5 @44839 has 28 MA's), (9, 44863), (Start: 10 @44866 has 2 MA's), (12, 44881), (13, 44926), (14, 44941), (15, 44950), (16, 44953), (17, 44956), (18, 44959),

Gene: Shipwreck\_71 Start: 44924, Stop: 45079, Start Num: 10

Candidate Starts for Shipwreck\_71:

(2, 44813), (3, 44852), (Start: 5 @44897 has 28 MA's), (9, 44921), (Start: 10 @44924 has 2 MA's), (12, 44939), (13, 44984), (14, 44999), (15, 45008), (16, 45011), (17, 45014), (18, 45017),

Gene: Sonah\_69 Start: 42594, Stop: 42776, Start Num: 5

Candidate Starts for Sonah\_69:

(2, 42510), (3, 42549), (Start: 5 @42594 has 28 MA's), (9, 42618), (Start: 10 @42621 has 2 MA's), (12, 42636), (13, 42681), (14, 42696), (15, 42705), (16, 42708), (17, 42711), (18, 42714),

Gene: StressBall\_68 Start: 44187, Stop: 44369, Start Num: 5

Candidate Starts for StressBall\_68:

(2, 44103), (Start: 5 @44187 has 28 MA's), (9, 44211), (Start: 10 @44214 has 2 MA's), (12, 44229), (13, 44274), (14, 44289), (17, 44304), (18, 44307),

Gene: Techage\_69 Start: 43388, Stop: 43570, Start Num: 5

Candidate Starts for Techage\_69:

(2, 43304), (Start: 5 @43388 has 28 MA's), (9, 43412), (Start: 10 @43415 has 2 MA's), (12, 43430), (13, 43475), (14, 43490), (17, 43505), (18, 43508),

Gene: Venti\_66 Start: 41796, Stop: 41978, Start Num: 5

Candidate Starts for Venti\_66:

(2, 41712), (Start: 5 @41796 has 28 MA's), (9, 41820), (Start: 10 @41823 has 2 MA's), (12, 41838), (13, 41883), (14, 41898), (17, 41913), (18, 41916),

Gene: Willsammy\_70 Start: 44671, Stop: 44853, Start Num: 5

Candidate Starts for Willsammy\_70:

(2, 44587), (Start: 5 @44671 has 28 MA's), (9, 44695), (Start: 10 @44698 has 2 MA's), (12, 44713), (13, 44758), (14, 44773), (17, 44788), (18, 44791),

Gene: Zilizebeth\_73 Start: 44229, Stop: 44411, Start Num: 5

Candidate Starts for Zilizebeth\_73:

(2, 44145), (Start: 5 @44229 has 28 MA's), (9, 44253), (Start: 10 @44256 has 2 MA's), (12, 44271), (13, 44316), (14, 44331), (17, 44346), (18, 44349),