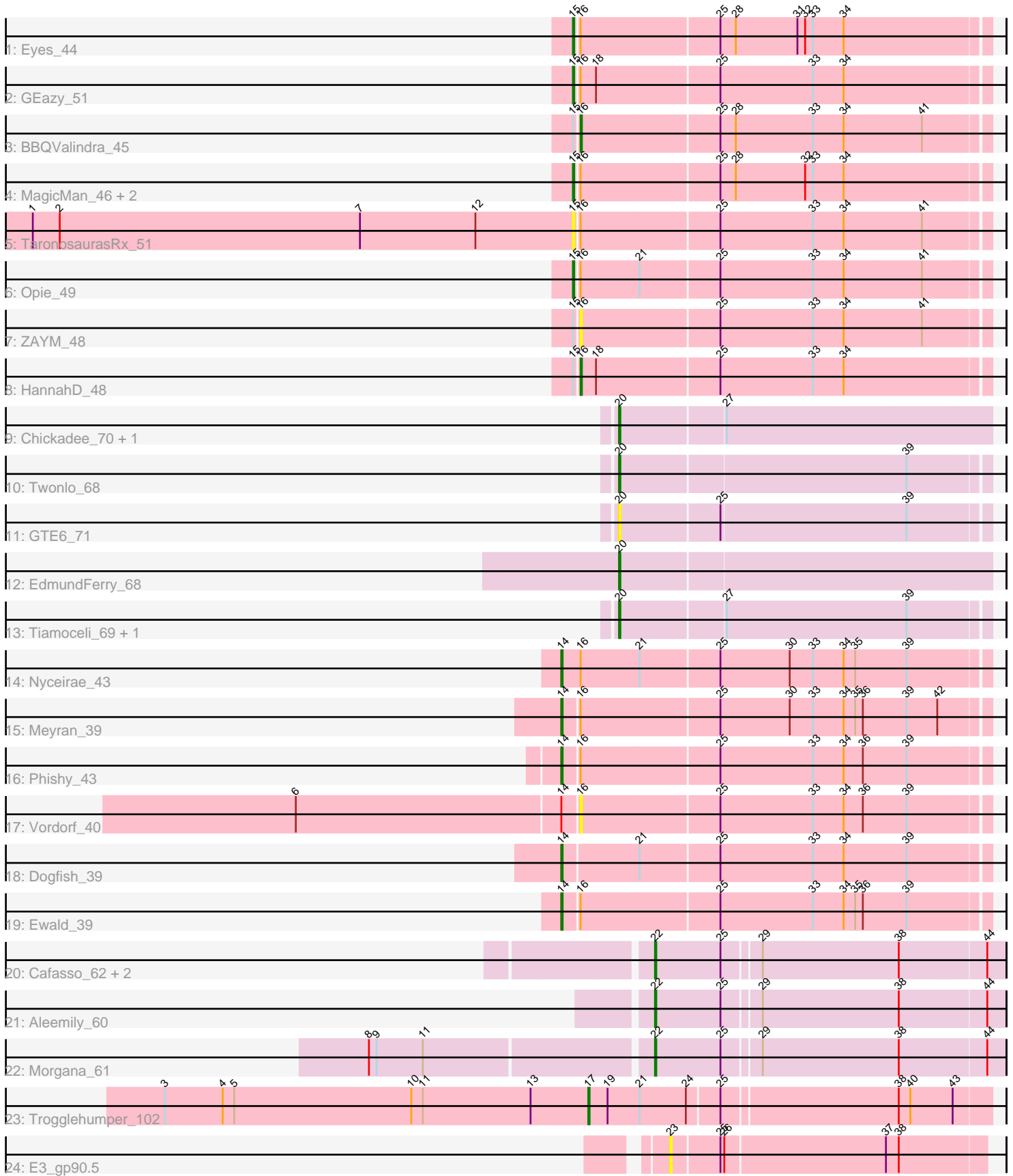


Pham 171685



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 171685 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171685 has 30 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Eyes\_44
- Track 2 : GEazy\_51
- Track 3 : BBQValindra\_45
- Track 4 : MagicMan\_46, Bowser\_46, Schnabeltier\_47
- Track 5 : TaronosaurusRx\_51
- Track 6 : Opie\_49
- Track 7 : ZAYM\_48
- Track 8 : HannahD\_48
- Track 9 : Chickadee\_70, Kwekel\_70
- Track 10 : Twonlo\_68
- Track 11 : GTE6\_71
- Track 12 : EdmundFerry\_68
- Track 13 : Tiamoceli\_69, RoadKill\_67
- Track 14 : Nyceirae\_43
- Track 15 : Meyran\_39
- Track 16 : Phishy\_43
- Track 17 : Vordorf\_40
- Track 18 : Dogfish\_39
- Track 19 : Ewald\_39
- Track 20 : Cafasso\_62, ObLaDi\_61, ModicumRichard\_61
- Track 21 : Aleemily\_60
- Track 22 : Morgana\_61
- Track 23 : Trogglehumper\_102
- Track 24 : E3\_gp90.5

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

The start number called the most often in the published annotations is 15, it was called in 6 of the 24 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Bowser\_46, Eyes\_44, GEazy\_51, MagicMan\_46, Opie\_49, Schnabeltier\_47, TaronosaurusRx\_51,

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

- BBQValindra\_45, HannahD\_48, ZAYM\_48,

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

- Aleemily\_60, Cafasso\_62, Chickadee\_70, Dogfish\_39, E3\_gp90.5, EdmundFerry\_68, Ewald\_39, GTE6\_71, Kwekel\_70, Meyran\_39, ModicumRichard\_61, Morgana\_61, Nyceirae\_43, ObLaDi\_61, Phishy\_43, RoadKill\_67, Tiamoceli\_69, Trogglehumper\_102, Twonlo\_68, Vordorf\_40,

### Summary by start number:

Start 14:

- Found in 6 of 30 ( 20.0% ) of genes in pham
- Manual Annotations of this start: 5 of 24
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Dogfish\_39 (DT), Ewald\_39 (DT), Meyran\_39 (DT), Nyceirae\_43 (DT), Phishy\_43 (DT),

Start 15:

- Found in 10 of 30 ( 33.3% ) of genes in pham
- Manual Annotations of this start: 6 of 24
- Called 70.0% of time when present
- Phage (with cluster) where this start called: Bowser\_46 (DB), Eyes\_44 (DB), GEazy\_51 (DB), MagicMan\_46 (DB), Opie\_49 (DB), Schnabeltier\_47 (DB), TaronosaurusRx\_51 (DB),

Start 16:

- Found in 15 of 30 ( 50.0% ) of genes in pham
- Manual Annotations of this start: 2 of 24
- Called 26.7% of time when present
- Phage (with cluster) where this start called: BBQValindra\_45 (DB), HannahD\_48 (DB), Vordorf\_40 (DT), ZAYM\_48 (DB),

Start 17:

- Found in 1 of 30 ( 3.3% ) of genes in pham
- Manual Annotations of this start: 1 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Trogglehumper\_102 (singleton),

Start 20:

- Found in 7 of 30 ( 23.3% ) of genes in pham
- Manual Annotations of this start: 6 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chickadee\_70 (DE3), EdmundFerry\_68 (DE3), GTE6\_71 (DE3), Kwekel\_70 (DE3), RoadKill\_67 (DE3), Tiamoceli\_69 (DE3), Twonlo\_68 (DE3),

Start 22:

- Found in 5 of 30 ( 16.7% ) of genes in pham
- Manual Annotations of this start: 4 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aleemily\_60 (DZ), Cafasso\_62 (DZ), ModicumRichard\_61 (DZ), Morgana\_61 (DZ), ObLaDi\_61 (DZ),

Start 23:

- Found in 1 of 30 ( 3.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: E3\_gp90.5 (singleton),

**Summary by clusters:**

There are 5 clusters represented in this pham: DB, singleton, DE3, DZ, DT,

Info for manual annotations of cluster DB:

- Start number 15 was manually annotated 6 times for cluster DB.
- Start number 16 was manually annotated 2 times for cluster DB.

Info for manual annotations of cluster DE3:

- Start number 20 was manually annotated 6 times for cluster DE3.

Info for manual annotations of cluster DT:

- Start number 14 was manually annotated 5 times for cluster DT.

Info for manual annotations of cluster DZ:

- Start number 22 was manually annotated 4 times for cluster DZ.

**Gene Information:**

Gene: Aleemily\_60 Start: 42108, Stop: 42371, Start Num: 22

Candidate Starts for Aleemily\_60:

(Start: 22 @42108 has 4 MA's), (25, 42159), (29, 42186), (38, 42291), (44, 42357),

Gene: BBQValindra\_45 Start: 34573, Stop: 34881, Start Num: 16

Candidate Starts for BBQValindra\_45:

(Start: 15 @34570 has 6 MA's), (Start: 16 @34573 has 2 MA's), (25, 34678), (28, 34690), (33, 34750), (34, 34774), (41, 34834),

Gene: Bowser\_46 Start: 34379, Stop: 34690, Start Num: 15

Candidate Starts for Bowser\_46:

(Start: 15 @34379 has 6 MA's), (Start: 16 @34382 has 2 MA's), (25, 34487), (28, 34499), (32, 34553), (33, 34559), (34, 34583),

Gene: Cafasso\_62 Start: 42732, Stop: 42995, Start Num: 22

Candidate Starts for Cafasso\_62:

(Start: 22 @42732 has 4 MA's), (25, 42783), (29, 42810), (38, 42915), (44, 42981),

Gene: Chickadee\_70 Start: 50218, Stop: 50499, Start Num: 20

Candidate Starts for Chickadee\_70:

(Start: 20 @50218 has 6 MA's), (27, 50296),

Gene: Dogfish\_39 Start: 31289, Stop: 31609, Start Num: 14

Candidate Starts for Dogfish\_39:

(Start: 14 @31289 has 5 MA's), (21, 31346), (25, 31406), (33, 31478), (34, 31502), (39, 31550),

Gene: E3\_gp90.5 Start: 52452, Stop: 52688, Start Num: 23  
Candidate Starts for E3\_gp90.5:  
(23, 52452), (25, 52488), (26, 52491), (37, 52614), (38, 52623),

Gene: EdmundFerry\_68 Start: 49770, Stop: 50051, Start Num: 20  
Candidate Starts for EdmundFerry\_68:  
(Start: 20 @49770 has 6 MA's),

Gene: Ewald\_39 Start: 31107, Stop: 31427, Start Num: 14  
Candidate Starts for Ewald\_39:  
(Start: 14 @31107 has 5 MA's), (Start: 16 @31119 has 2 MA's), (25, 31224), (33, 31296), (34, 31320),  
(35, 31329), (36, 31335), (39, 31368),

Gene: Eyes\_44 Start: 34423, Stop: 34734, Start Num: 15  
Candidate Starts for Eyes\_44:  
(Start: 15 @34423 has 6 MA's), (Start: 16 @34426 has 2 MA's), (25, 34531), (28, 34543), (31, 34591),  
(32, 34597), (33, 34603), (34, 34627),

Gene: GEazy\_51 Start: 34698, Stop: 35009, Start Num: 15  
Candidate Starts for GEazy\_51:  
(Start: 15 @34698 has 6 MA's), (Start: 16 @34701 has 2 MA's), (18, 34713), (25, 34806), (33, 34878),  
(34, 34902),

Gene: GTE6\_71 Start: 51011, Stop: 51286, Start Num: 20  
Candidate Starts for GTE6\_71:  
(Start: 20 @51011 has 6 MA's), (25, 51086), (39, 51227),

Gene: HannahD\_48 Start: 34068, Stop: 34376, Start Num: 16  
Candidate Starts for HannahD\_48:  
(Start: 15 @34065 has 6 MA's), (Start: 16 @34068 has 2 MA's), (18, 34080), (25, 34173), (33, 34245),  
(34, 34269),

Gene: Kwekel\_70 Start: 50131, Stop: 50412, Start Num: 20  
Candidate Starts for Kwekel\_70:  
(Start: 20 @50131 has 6 MA's), (27, 50209),

Gene: MagicMan\_46 Start: 34305, Stop: 34616, Start Num: 15  
Candidate Starts for MagicMan\_46:  
(Start: 15 @34305 has 6 MA's), (Start: 16 @34308 has 2 MA's), (25, 34413), (28, 34425), (32, 34479),  
(33, 34485), (34, 34509),

Gene: Meyran\_39 Start: 32181, Stop: 32501, Start Num: 14  
Candidate Starts for Meyran\_39:  
(Start: 14 @32181 has 5 MA's), (Start: 16 @32193 has 2 MA's), (25, 32298), (30, 32352), (33, 32370),  
(34, 32394), (35, 32403), (36, 32409), (39, 32442), (42, 32466),

Gene: ModicumRichard\_61 Start: 42735, Stop: 42998, Start Num: 22  
Candidate Starts for ModicumRichard\_61:  
(Start: 22 @42735 has 4 MA's), (25, 42786), (29, 42813), (38, 42918), (44, 42984),

Gene: Morgana\_61 Start: 42693, Stop: 42956, Start Num: 22  
Candidate Starts for Morgana\_61:

(8, 42483), (9, 42489), (11, 42525), (Start: 22 @42693 has 4 MA's), (25, 42744), (29, 42771), (38, 42876), (44, 42942),

Gene: Nyceirae\_43 Start: 31992, Stop: 32315, Start Num: 14

Candidate Starts for Nyceirae\_43:

(Start: 14 @31992 has 5 MA's), (Start: 16 @32007 has 2 MA's), (21, 32052), (25, 32112), (30, 32166), (33, 32184), (34, 32208), (35, 32217), (39, 32256),

Gene: ObLaDi\_61 Start: 42680, Stop: 42943, Start Num: 22

Candidate Starts for ObLaDi\_61:

(Start: 22 @42680 has 4 MA's), (25, 42731), (29, 42758), (38, 42863), (44, 42929),

Gene: Opie\_49 Start: 35250, Stop: 35561, Start Num: 15

Candidate Starts for Opie\_49:

(Start: 15 @35250 has 6 MA's), (Start: 16 @35253 has 2 MA's), (21, 35298), (25, 35358), (33, 35430), (34, 35454), (41, 35514),

Gene: Phishy\_43 Start: 33178, Stop: 33498, Start Num: 14

Candidate Starts for Phishy\_43:

(Start: 14 @33178 has 5 MA's), (Start: 16 @33190 has 2 MA's), (25, 33295), (33, 33367), (34, 33391), (36, 33406), (39, 33439),

Gene: RoadKill\_67 Start: 49636, Stop: 49911, Start Num: 20

Candidate Starts for RoadKill\_67:

(Start: 20 @49636 has 6 MA's), (27, 49714), (39, 49852),

Gene: Schnabeltier\_47 Start: 34498, Stop: 34809, Start Num: 15

Candidate Starts for Schnabeltier\_47:

(Start: 15 @34498 has 6 MA's), (Start: 16 @34501 has 2 MA's), (25, 34606), (28, 34618), (32, 34672), (33, 34678), (34, 34702),

Gene: TaronosaurusRx\_51 Start: 33823, Stop: 34134, Start Num: 15

Candidate Starts for TaronosaurusRx\_51:

(1, 33403), (2, 33424), (7, 33658), (12, 33748), (Start: 15 @33823 has 6 MA's), (Start: 16 @33826 has 2 MA's), (25, 33931), (33, 34003), (34, 34027), (41, 34087),

Gene: Tiamoceli\_69 Start: 51098, Stop: 51373, Start Num: 20

Candidate Starts for Tiamoceli\_69:

(Start: 20 @51098 has 6 MA's), (27, 51176), (39, 51314),

Gene: Trogglehumper\_102 Start: 71943, Stop: 71644, Start Num: 17

Candidate Starts for Trogglehumper\_102:

(3, 72273), (4, 72228), (5, 72219), (10, 72081), (11, 72072), (13, 71988), (Start: 17 @71943 has 1 MA's), (19, 71928), (21, 71904), (24, 71868), (25, 71844), (38, 71712), (40, 71703), (43, 71670),

Gene: Twonlo\_68 Start: 50190, Stop: 50465, Start Num: 20

Candidate Starts for Twonlo\_68:

(Start: 20 @50190 has 6 MA's), (39, 50406),

Gene: Vordorf\_40 Start: 31456, Stop: 31764, Start Num: 16

Candidate Starts for Vordorf\_40:

(6, 31240), (Start: 14 @31444 has 5 MA's), (Start: 16 @31456 has 2 MA's), (25, 31561), (33, 31633), (34, 31657), (36, 31672), (39, 31705),

Gene: ZAYM\_48 Start: 33574, Stop: 33882, Start Num: 16

Candidate Starts for ZAYM\_48:

(Start: 15 @33571 has 6 MA's), (Start: 16 @33574 has 2 MA's), (25, 33679), (33, 33751), (34, 33775),  
(41, 33835),