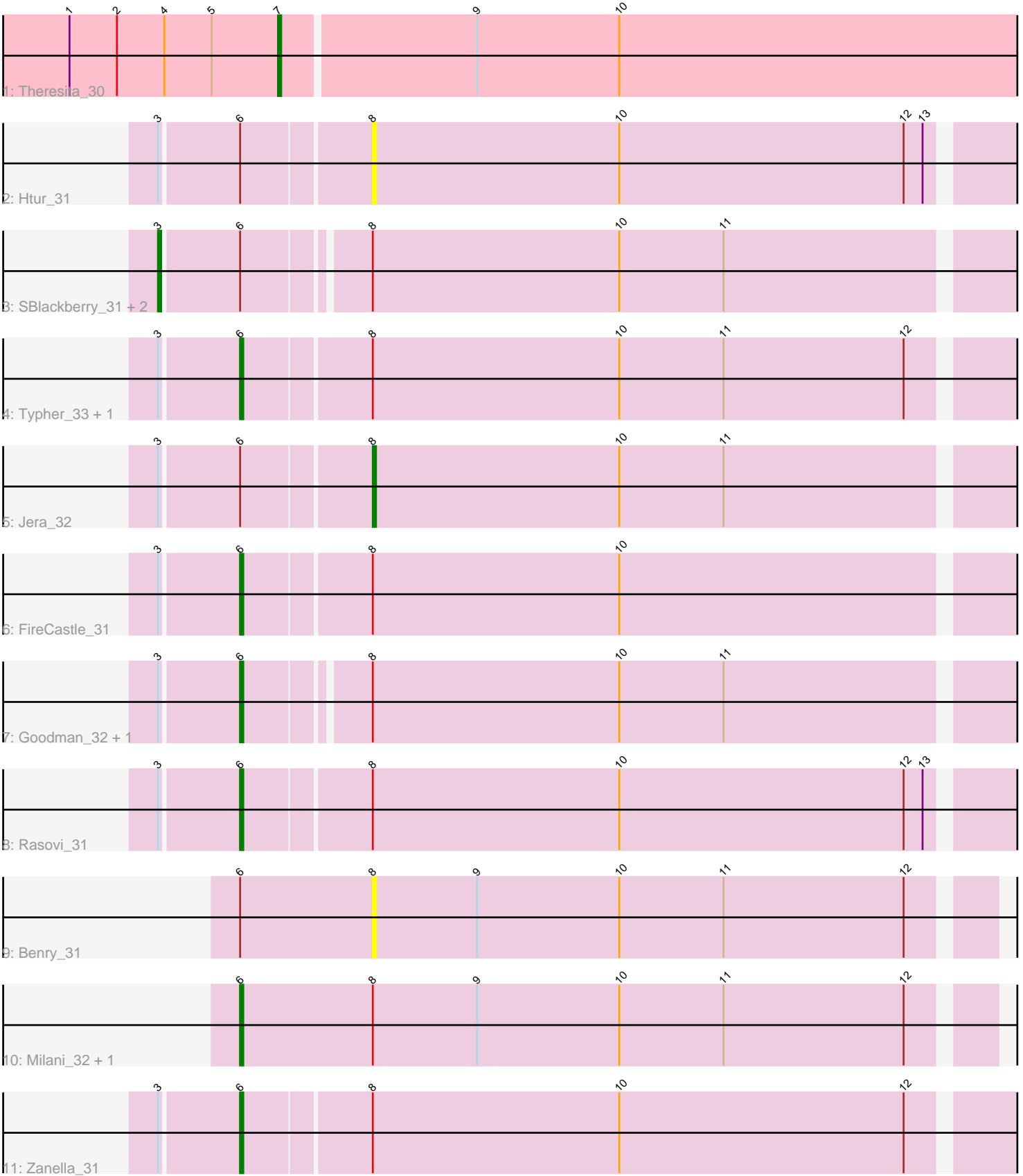# Pham 87096

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 87096 Report

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

Pham number 87096 has 16 members, 2 are drafts.

Phages represented in each track:
• Track 1 : Theresita_30
• Track 2 : Htur_31
• Track 3 : SBlackberry_31, TurboVicky_31, Cicada_33
• Track 4 : Typher_33, PermaG_32
• Track 5 : Jera_32
• Track 6 : FireCastle_31
• Track 7 : Goodman_32, Johann_32
• Track 8 : Rasovi_31
• Track 9 : Benry_31
• Track 10 : Milani_32, Sucha_28
• Track 11 : Zanella_31


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

The start number called the most often in the published annotations is 6, it was called in 9 of the 14 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• FireCastle_31, Goodman_32, Johann_32, Milani_32, PermaG_32, Rasovi_31, Sucha_28, Typher_33, Zanella_31,

Genes that have the "Most Annotated" start but do not call it:
• Benry_31, Cicada_33, Htur_31, Jera_32, SBlackberry_31, TurboVicky_31,

Genes that do not have the "Most Annotated" start:
• Theresita_30,

**Summary by start number:**

Start 3:
• Found in 12 of 16 ( 75.0% ) of genes in pham
• Manual Annotations of this start: 3 of 14
• Called 25.0% of time when present

• Phage (with cluster) where this start called: Cicada_33 (EJ), SBlackberry_31 (EJ), TurboVicky_31 (EJ),

Start 6:
• Found in 15 of 16 ( 93.8% ) of genes in pham
• Manual Annotations of this start: 9 of 14
• Called 60.0% of time when present
• Phage (with cluster) where this start called: FireCastle_31 (EJ), Goodman_32 (EJ), Johann_32 (EJ), Milani_32 (EJ), PermaG_32 (EJ), Rasovi_31 (EJ), Sucha_28 (EJ), Typher_33 (EJ), Zanella_31 (EJ),

Start 7:
• Found in 1 of 16 ( 6.2% ) of genes in pham
• Manual Annotations of this start: 1 of 14
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Theresita_30 (EA7),

Start 8:
• Found in 15 of 16 ( 93.8% ) of genes in pham
• Manual Annotations of this start: 1 of 14
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Benry_31 (EJ), Htur_31 (EJ), Jera_32 (EJ),

**Summary by clusters:**

There are 2 clusters represented in this pham: EA7, EJ,

Info for manual annotations of cluster EA7:
•Start number 7 was manually annotated 1 time for cluster EA7.

Info for manual annotations of cluster EJ:
•Start number 3 was manually annotated 3 times for cluster EJ.
•Start number 6 was manually annotated 9 times for cluster EJ.
•Start number 8 was manually annotated 1 time for cluster EJ.


*Gene Information:*
Gene: Benry_31 Start: 21307, Stop: 21498, Start Num: 8
Candidate Starts for Benry_31:
(Start: 6 @21265 has 9 MA's), (Start: 8 @21307 has 1 MA's), (9, 21340), (10, 21385), (11, 21418), (12, 21475),

Gene: Cicada_33 Start: 23071, Stop: 23334, Start Num: 3
Candidate Starts for Cicada_33:
(Start: 3 @23071 has 3 MA's), (Start: 6 @23095 has 9 MA's), (Start: 8 @23131 has 1 MA's), (10, 23209), (11, 23242),

Gene: FireCastle_31 Start: 22849, Stop: 23091, Start Num: 6
Candidate Starts for FireCastle_31:

(Start: 3 @22825 has 3 MA's), (Start: 6 @22849 has 9 MA's), (Start: 8 @22888 has 1 MA's), (10, 22966),

Gene: Goodman_32 Start: 23008, Stop: 23247, Start Num: 6
Candidate Starts for Goodman_32:
(Start: 3 @22984 has 3 MA's), (Start: 6 @23008 has 9 MA's), (Start: 8 @23044 has 1 MA's), (10, 23122), (11, 23155),

Gene: Htur_31 Start: 23147, Stop: 23350, Start Num: 8
Candidate Starts for Htur_31:
(Start: 3 @23084 has 3 MA's), (Start: 6 @23108 has 9 MA's), (Start: 8 @23147 has 1 MA's), (10, 23225), (12, 23315), (13, 23321),

Gene: Jera_32 Start: 22177, Stop: 22380, Start Num: 8
Candidate Starts for Jera_32:
(Start: 3 @22114 has 3 MA's), (Start: 6 @22138 has 9 MA's), (Start: 8 @22177 has 1 MA's), (10, 22255), (11, 22288),

Gene: Johann_32 Start: 23008, Stop: 23247, Start Num: 6
Candidate Starts for Johann_32:
(Start: 3 @22984 has 3 MA's), (Start: 6 @23008 has 9 MA's), (Start: 8 @23044 has 1 MA's), (10, 23122), (11, 23155),

Gene: Milani_32 Start: 21943, Stop: 22176, Start Num: 6
Candidate Starts for Milani_32:
(Start: 6 @21943 has 9 MA's), (Start: 8 @21985 has 1 MA's), (9, 22018), (10, 22063), (11, 22096), (12, 22153),

Gene: PermaG_32 Start: 23044, Stop: 23286, Start Num: 6
Candidate Starts for PermaG_32:
(Start: 3 @23020 has 3 MA's), (Start: 6 @23044 has 9 MA's), (Start: 8 @23083 has 1 MA's), (10, 23161), (11, 23194), (12, 23251),

Gene: Rasovi_31 Start: 23108, Stop: 23350, Start Num: 6
Candidate Starts for Rasovi_31:
(Start: 3 @23084 has 3 MA's), (Start: 6 @23108 has 9 MA's), (Start: 8 @23147 has 1 MA's), (10, 23225), (12, 23315), (13, 23321),

Gene: SBlackberry_31 Start: 22849, Stop: 23112, Start Num: 3
Candidate Starts for SBlackberry_31:
(Start: 3 @22849 has 3 MA's), (Start: 6 @22873 has 9 MA's), (Start: 8 @22909 has 1 MA's), (10, 22987), (11, 23020),

Gene: Sucha_28 Start: 20262, Stop: 20495, Start Num: 6
Candidate Starts for Sucha_28:
(Start: 6 @20262 has 9 MA's), (Start: 8 @20304 has 1 MA's), (9, 20337), (10, 20382), (11, 20415), (12, 20472),

Gene: Theresita_30 Start: 20999, Stop: 21250, Start Num: 7
Candidate Starts for Theresita_30:
(1, 20933), (2, 20948), (4, 20963), (5, 20978), (Start: 7 @20999 has 1 MA's), (9, 21059), (10, 21104),

Gene: TurboVicky_31 Start: 22862, Stop: 23128, Start Num: 3

Candidate Starts for TurboVicky_31:
(Start: 3 @22862 has 3 MA's), (Start: 6 @22886 has 9 MA's), (Start: 8 @22925 has 1 MA's), (10, 23003), (11, 23036),

Gene: Typher_33 Start: 23015, Stop: 23257, Start Num: 6
Candidate Starts for Typher_33:
(Start: 3 @22991 has 3 MA's), (Start: 6 @23015 has 9 MA's), (Start: 8 @23054 has 1 MA's), (10, 23132), (11, 23165), (12, 23222),

Gene: Zanella_31 Start: 22894, Stop: 23136, Start Num: 6
Candidate Starts for Zanella_31:
(Start: 3 @22870 has 3 MA's), (Start: 6 @22894 has 9 MA's), (Start: 8 @22933 has 1 MA's), (10, 23011), (12, 23101),