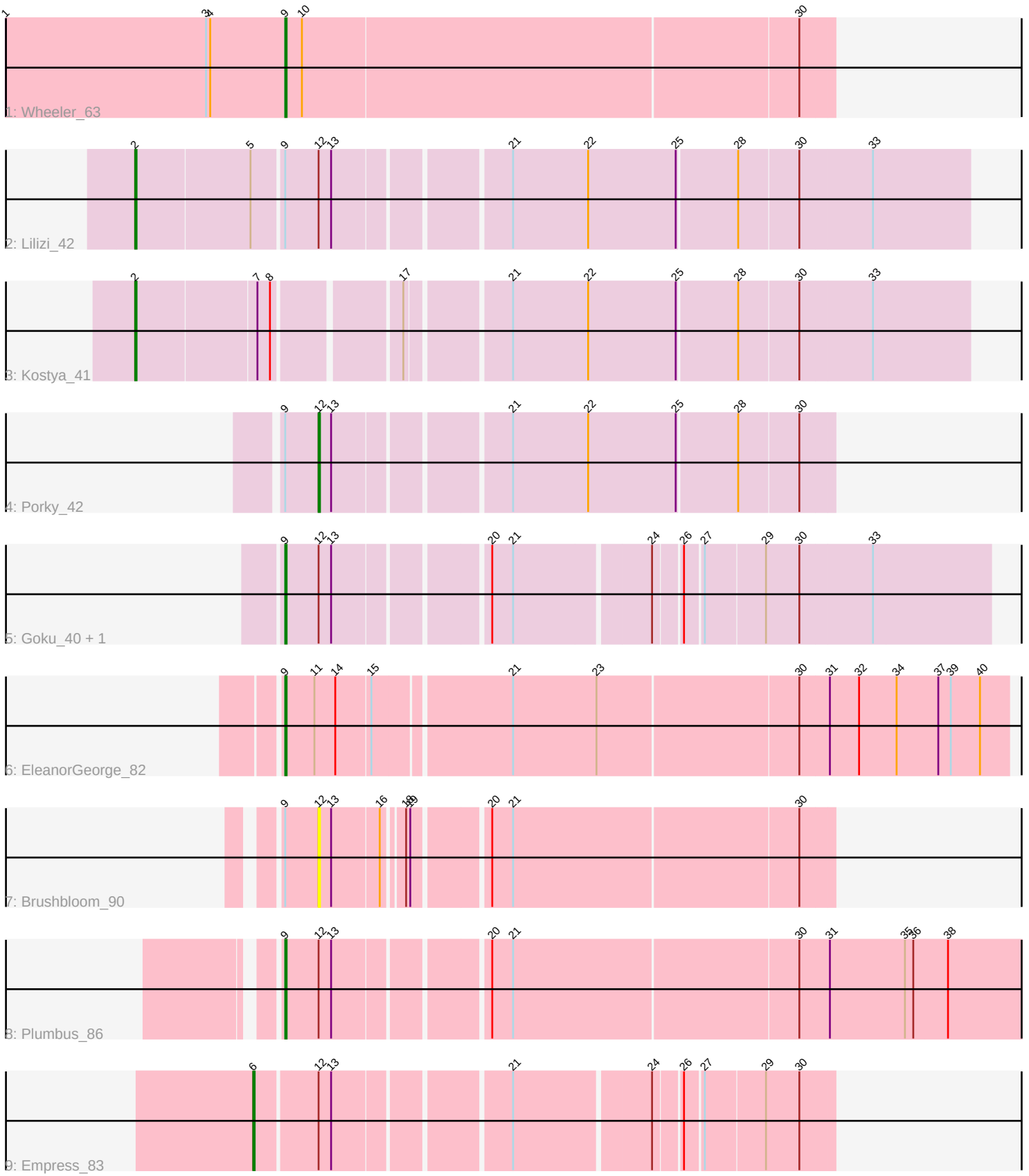
# Pham 223623


1: Wheeler_63
2: Lilizi_42
3: Kostya_41
4: Porky_42
5: Goku_40 + 1
6: EleanorGeorge_82
7: Brushbloom_90
8: Plumbus_86
9: Empress_83

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 223623 Report

This analysis was run 03/28/25 on database version 593.

Pham number 223623 has 10 members, 1 are drafts.

Phages represented in each track:
• Track 1 : Wheeler_63
• Track 2 : Lilizi_42
• Track 3 : Kostya_41
• Track 4 : Porky_42
• Track 5 : Goku_40, Eureka_40
• Track 6 : EleanorGeorge_82
• Track 7 : Brushbloom_90
• Track 8 : Plumbus_86
• Track 9 : Empress_83

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

The start number called the most often in the published annotations is 9, it was called in 5 of the 9 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• EleanorGeorge_82, Eureka_40, Goku_40, Plumbus_86, Wheeler_63,

Genes that have the "Most Annotated" start but do not call it:
• Brushbloom_90, Lilizi_42, Porky_42,

Genes that do not have the "Most Annotated" start:
• Empress_83, Kostya_41,

**Summary by start number:**

Start 2:
• Found in 2 of 10 ( 20.0% ) of genes in pham
• Manual Annotations of this start: 2 of 9
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Kostya_41 (E), Lilizi_42 (E),

Start 6:
• Found in 1 of 10 ( 10.0% ) of genes in pham

• Manual Annotations of this start: 1 of 9
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Empress_83 (F1),

Start 9:
• Found in 8 of 10 ( 80.0% ) of genes in pham
• Manual Annotations of this start: 5 of 9
• Called 62.5% of time when present
• Phage (with cluster) where this start called: EleanorGeorge_82 (F1), Eureka_40 (E), Goku_40 (E), Plumbus_86 (F1), Wheeler_63 (A1),

Start 12:
• Found in 7 of 10 ( 70.0% ) of genes in pham
• Manual Annotations of this start: 1 of 9
• Called 28.6% of time when present
• Phage (with cluster) where this start called: Brushbloom_90 (F1), Porky_42 (E),

**Summary by clusters:**

There are 3 clusters represented in this pham: A1, F1, E,

Info for manual annotations of cluster A1:
•Start number 9 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster E:
•Start number 2 was manually annotated 2 times for cluster E.
•Start number 9 was manually annotated 2 times for cluster E.
•Start number 12 was manually annotated 1 time for cluster E.

Info for manual annotations of cluster F1:
•Start number 6 was manually annotated 1 time for cluster F1.
•Start number 9 was manually annotated 2 times for cluster F1.

***Gene Information:***

Gene: Brushbloom_90 Start: 50532, Stop: 50876, Start Num: 12
Candidate Starts for Brushbloom_90:
(Start: 9 @50508 has 5 MA's), (Start: 12 @50532 has 1 MA's), (13, 50541), (16, 50574), (18, 50586), (19, 50589), (20, 50637), (21, 50652), (30, 50853),

Gene: EleanorGeorge_82 Start: 49312, Stop: 49815, Start Num: 9
Candidate Starts for EleanorGeorge_82:
(Start: 9 @49312 has 5 MA's), (11, 49333), (14, 49348), (15, 49372), (21, 49465), (23, 49525), (30, 49666), (31, 49687), (32, 49708), (34, 49735), (37, 49765), (39, 49774), (40, 49795),

Gene: Empress_83 Start: 49521, Stop: 49898, Start Num: 6
Candidate Starts for Empress_83:
(Start: 6 @49521 has 1 MA's), (Start: 12 @49563 has 1 MA's), (13, 49572), (21, 49686), (24, 49779), (26, 49797), (27, 49809), (29, 49851), (30, 49875),

Gene: Eureka_40 Start: 34965, Stop: 34495, Start Num: 9

Candidate Starts for Eureka_40:
(Start: 9 @34965 has 5 MA's), (Start: 12 @34941 has 1 MA's), (13, 34932), (20, 34833), (21, 34818), (24, 34725), (26, 34707), (27, 34695), (29, 34653), (30, 34629), (33, 34578),

Gene: Goku_40 Start: 34694, Stop: 34224, Start Num: 9
Candidate Starts for Goku_40:
(Start: 9 @34694 has 5 MA's), (Start: 12 @34670 has 1 MA's), (13, 34661), (20, 34562), (21, 34547), (24, 34454), (26, 34436), (27, 34424), (29, 34382), (30, 34358), (33, 34307),

Gene: Kostya_41 Start: 34766, Stop: 34206, Start Num: 2
Candidate Starts for Kostya_41:
(Start: 2 @34766 has 2 MA's), (7, 34682), (8, 34673), (17, 34592), (21, 34526), (22, 34472), (25, 34409), (28, 34367), (30, 34325), (33, 34274),

Gene: Lilizi_42 Start: 34462, Stop: 33893, Start Num: 2
Candidate Starts for Lilizi_42:
(Start: 2 @34462 has 2 MA's), (5, 34381), (Start: 9 @34360 has 5 MA's), (Start: 12 @34336 has 1 MA's), (13, 34327), (21, 34213), (22, 34159), (25, 34096), (28, 34054), (30, 34012), (33, 33961),

Gene: Plumbus_86 Start: 47486, Stop: 48037, Start Num: 9
Candidate Starts for Plumbus_86:
(Start: 9 @47486 has 5 MA's), (Start: 12 @47510 has 1 MA's), (13, 47519), (20, 47618), (21, 47633), (30, 47834), (31, 47855), (35, 47909), (36, 47915), (38, 47939),

Gene: Porky_42 Start: 34896, Stop: 34549, Start Num: 12
Candidate Starts for Porky_42:
(Start: 9 @34920 has 5 MA's), (Start: 12 @34896 has 1 MA's), (13, 34887), (21, 34773), (22, 34719), (25, 34656), (28, 34614), (30, 34572),

Gene: Wheeler_63 Start: 41547, Stop: 41161, Start Num: 9
Candidate Starts for Wheeler_63:
(1, 41748), (3, 41604), (4, 41601), (Start: 9 @41547 has 5 MA's), (10, 41535), (30, 41184),