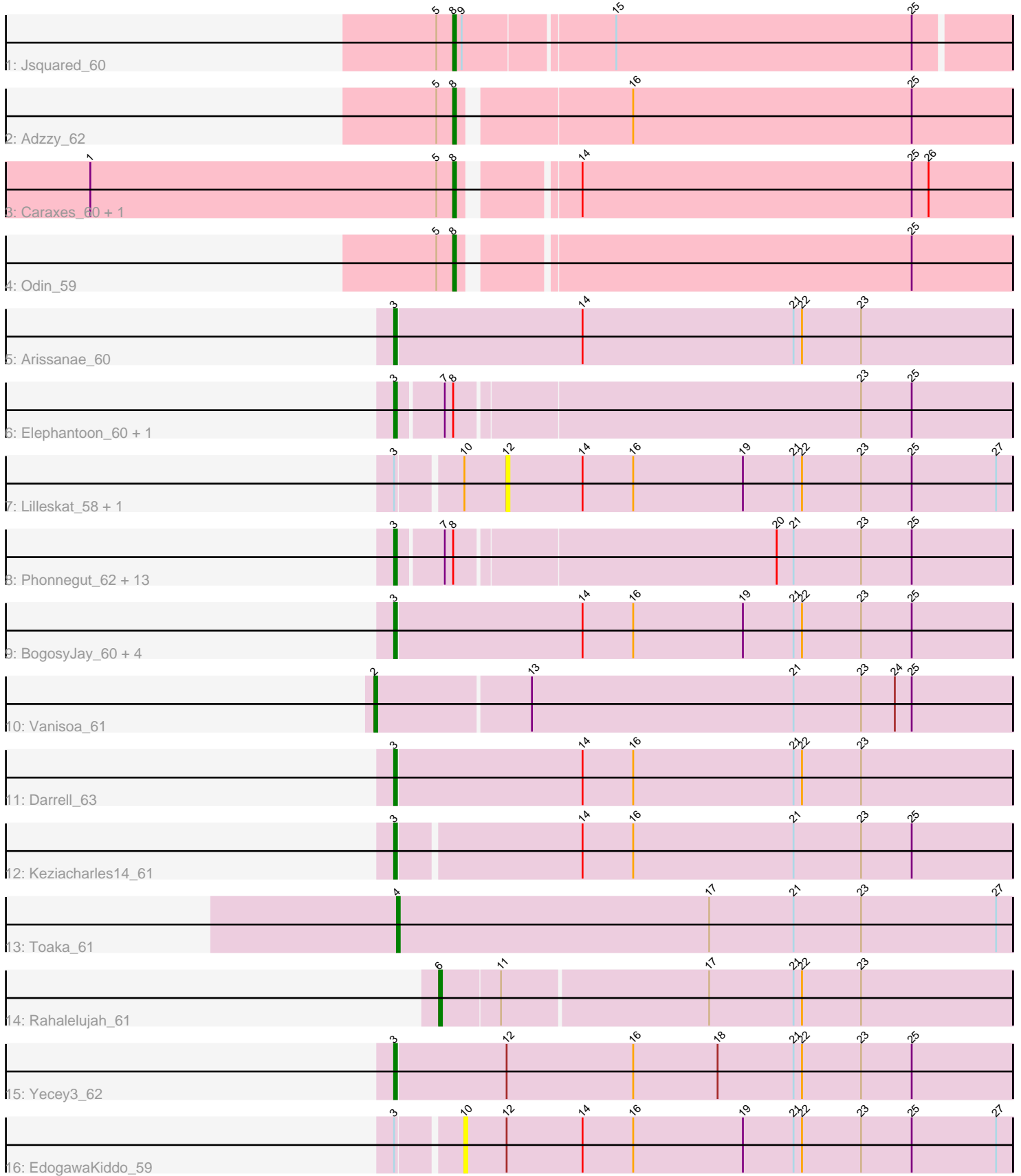


Pham 194193



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 194193 Report

This analysis was run 11/02/24 on database version 579.

Pham number 194193 has 36 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Jsquared\_60
- Track 2 : Adzzy\_62
- Track 3 : Caraxes\_60, Superchunk\_59
- Track 4 : Odin\_59
- Track 5 : Arissanae\_60
- Track 6 : Elephantoon\_60, LoneWolf\_62
- Track 7 : Lilleskat\_58, Sachima\_57
- Track 8 : Phonnegut\_62, Ugenie5\_58, Onglai\_60, HortumSL17\_62, Scherzo\_62, Jiawan\_59, Aliter\_62, Hanray\_60, Pioneer\_62, RyeScarlet\_63, Myxus\_61, Horex\_60, Catalina\_63, Beemo\_62
- Track 9 : BogosyJay\_60, Tubs\_61, Maminiaina\_60, Phaeder\_61, PackMan\_60
- Track 10 : Vanisoa\_61
- Track 11 : Darrell\_63
- Track 12 : Keziacharles14\_61
- Track 13 : Toaka\_61
- Track 14 : Rahalelujah\_61
- Track 15 : Yecey3\_62
- Track 16 : EdogawaKiddo\_59

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

The start number called the most often in the published annotations is 3, it was called in 20 of the 27 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aliter\_62, Arissanae\_60, Beemo\_62, BogosyJay\_60, Catalina\_63, Darrell\_63, Elephantoon\_60, Hanray\_60, Horex\_60, HortumSL17\_62, Jiawan\_59, Keziacharles14\_61, LoneWolf\_62, Maminiaina\_60, Myxus\_61, Onglai\_60, PackMan\_60, Phaeder\_61, Phonnegut\_62, Pioneer\_62, RyeScarlet\_63, Scherzo\_62, Tubs\_61, Ugenie5\_58, Yecey3\_62,

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

- EdogawaKiddo\_59, Lilleskat\_58, Sachima\_57,

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

- Adzzy\_62, Caraxes\_60, Jsquared\_60, Odin\_59, Rahalelujah\_61, Superchunk\_59, Toaka\_61, Vanisoa\_61,

### Summary by start number:

Start 2:

- Found in 1 of 36 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Vanisoa\_61 (A9),

Start 3:

- Found in 28 of 36 ( 77.8% ) of genes in pham
- Manual Annotations of this start: 20 of 27
- Called 89.3% of time when present
- Phage (with cluster) where this start called: Aliter\_62 (A9), Arissanae\_60 (A9), Beemo\_62 (A9), BogosyJay\_60 (A9), Catalina\_63 (A9), Darrell\_63 (A9), Elephantoon\_60 (A9), Hanray\_60 (A9), Holes\_60 (A9), HortumSL17\_62 (A9), Jiawan\_59 (A9), Keziacharles14\_61 (A9), LoneWolf\_62 (A9), Maminina\_60 (A9), Myxus\_61 (A9), Onglai\_60 (A9), PackMan\_60 (A9), Phaeder\_61 (A9), Phonnegut\_62 (A9), Pioneer\_62 (A9), RyeScarlet\_63 (A9), Scherzo\_62 (A9), Tubs\_61 (A9), Ugenie5\_58 (A9), Yecey3\_62 (A9),

Start 4:

- Found in 1 of 36 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Toaka\_61 (A9),

Start 6:

- Found in 1 of 36 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rahalelujah\_61 (A9),

Start 8:

- Found in 21 of 36 ( 58.3% ) of genes in pham
- Manual Annotations of this start: 4 of 27
- Called 23.8% of time when present
- Phage (with cluster) where this start called: Adzzy\_62 (A2), Caraxes\_60 (A2), Jsquared\_60 (A2), Odin\_59 (A2), Superchunk\_59 (A2),

Start 10:

- Found in 3 of 36 ( 8.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: EdogawaKiddo\_59 (A9),

Start 12:

- Found in 4 of 36 ( 11.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present

- Phage (with cluster) where this start called: Lilleskat\_58 (A9), Sachima\_57 (A9),

### **Summary by clusters:**

There are 2 clusters represented in this pham: A9, A2,

Info for manual annotations of cluster A2:

- Start number 8 was manually annotated 4 times for cluster A2.

Info for manual annotations of cluster A9:

- Start number 2 was manually annotated 1 time for cluster A9.
- Start number 3 was manually annotated 20 times for cluster A9.
- Start number 4 was manually annotated 1 time for cluster A9.
- Start number 6 was manually annotated 1 time for cluster A9.

### **Gene Information:**

Gene: Adzzy\_62 Start: 38280, Stop: 38089, Start Num: 8

Candidate Starts for Adzzy\_62:

(5, 38286), (Start: 8 @38280 has 4 MA's), (16, 38223), (25, 38124),

Gene: Aliter\_62 Start: 39332, Stop: 39120, Start Num: 3

Candidate Starts for Aliter\_62:

(Start: 3 @39332 has 20 MA's), (7, 39317), (Start: 8 @39314 has 4 MA's), (20, 39203), (21, 39197), (23, 39173), (25, 39155),

Gene: Arissanae\_60 Start: 39898, Stop: 39680, Start Num: 3

Candidate Starts for Arissanae\_60:

(Start: 3 @39898 has 20 MA's), (14, 39832), (21, 39757), (22, 39754), (23, 39733),

Gene: Beemo\_62 Start: 39502, Stop: 39290, Start Num: 3

Candidate Starts for Beemo\_62:

(Start: 3 @39502 has 20 MA's), (7, 39487), (Start: 8 @39484 has 4 MA's), (20, 39373), (21, 39367), (23, 39343), (25, 39325),

Gene: BogosyJay\_60 Start: 39299, Stop: 39081, Start Num: 3

Candidate Starts for BogosyJay\_60:

(Start: 3 @39299 has 20 MA's), (14, 39233), (16, 39215), (19, 39176), (21, 39158), (22, 39155), (23, 39134), (25, 39116),

Gene: Caraxes\_60 Start: 37974, Stop: 37786, Start Num: 8

Candidate Starts for Caraxes\_60:

(1, 38103), (5, 37980), (Start: 8 @37974 has 4 MA's), (14, 37938), (25, 37821), (26, 37815),

Gene: Catalina\_63 Start: 39405, Stop: 39193, Start Num: 3

Candidate Starts for Catalina\_63:

(Start: 3 @39405 has 20 MA's), (7, 39390), (Start: 8 @39387 has 4 MA's), (20, 39276), (21, 39270), (23, 39246), (25, 39228),

Gene: Darrell\_63 Start: 39973, Stop: 39755, Start Num: 3

Candidate Starts for Darrell\_63:

(Start: 3 @39973 has 20 MA's), (14, 39907), (16, 39889), (21, 39832), (22, 39829), (23, 39808),

Gene: EdogawaKiddo\_59 Start: 39348, Stop: 39154, Start Num: 10

Candidate Starts for EdogawaKiddo\_59:

(Start: 3 @39369 has 20 MA's), (10, 39348), (12, 39333), (14, 39306), (16, 39288), (19, 39249), (21, 39231), (22, 39228), (23, 39207), (25, 39189), (27, 39159),

Gene: Elephantoon\_60 Start: 38712, Stop: 38500, Start Num: 3

Candidate Starts for Elephantoon\_60:

(Start: 3 @38712 has 20 MA's), (7, 38697), (Start: 8 @38694 has 4 MA's), (23, 38553), (25, 38535),

Gene: Hanray\_60 Start: 39457, Stop: 39245, Start Num: 3

Candidate Starts for Hanray\_60:

(Start: 3 @39457 has 20 MA's), (7, 39442), (Start: 8 @39439 has 4 MA's), (20, 39328), (21, 39322), (23, 39298), (25, 39280),

Gene: Horex\_60 Start: 39473, Stop: 39261, Start Num: 3

Candidate Starts for Horex\_60:

(Start: 3 @39473 has 20 MA's), (7, 39458), (Start: 8 @39455 has 4 MA's), (20, 39344), (21, 39338), (23, 39314), (25, 39296),

Gene: HortumSL17\_62 Start: 39404, Stop: 39192, Start Num: 3

Candidate Starts for HortumSL17\_62:

(Start: 3 @39404 has 20 MA's), (7, 39389), (Start: 8 @39386 has 4 MA's), (20, 39275), (21, 39269), (23, 39245), (25, 39227),

Gene: Jiawan\_59 Start: 39489, Stop: 39277, Start Num: 3

Candidate Starts for Jiawan\_59:

(Start: 3 @39489 has 20 MA's), (7, 39474), (Start: 8 @39471 has 4 MA's), (20, 39360), (21, 39354), (23, 39330), (25, 39312),

Gene: Jsquared\_60 Start: 38644, Stop: 38453, Start Num: 8

Candidate Starts for Jsquared\_60:

(5, 38650), (Start: 8 @38644 has 4 MA's), (9, 38641), (15, 38590), (25, 38485),

Gene: Keziacharles14\_61 Start: 40467, Stop: 40252, Start Num: 3

Candidate Starts for Keziacharles14\_61:

(Start: 3 @40467 has 20 MA's), (14, 40404), (16, 40386), (21, 40329), (23, 40305), (25, 40287),

Gene: Lilleskat\_58 Start: 39286, Stop: 39107, Start Num: 12

Candidate Starts for Lilleskat\_58:

(Start: 3 @39322 has 20 MA's), (10, 39301), (12, 39286), (14, 39259), (16, 39241), (19, 39202), (21, 39184), (22, 39181), (23, 39160), (25, 39142), (27, 39112),

Gene: LoneWolf\_62 Start: 39434, Stop: 39222, Start Num: 3

Candidate Starts for LoneWolf\_62:

(Start: 3 @39434 has 20 MA's), (7, 39419), (Start: 8 @39416 has 4 MA's), (23, 39275), (25, 39257),

Gene: Maminiaina\_60 Start: 39281, Stop: 39063, Start Num: 3

Candidate Starts for Maminiaina\_60:

(Start: 3 @39281 has 20 MA's), (14, 39215), (16, 39197), (19, 39158), (21, 39140), (22, 39137), (23, 39116), (25, 39098),

Gene: Myxus\_61 Start: 39404, Stop: 39192, Start Num: 3

Candidate Starts for Myxus\_61:

(Start: 3 @39404 has 20 MA's), (7, 39389), (Start: 8 @39386 has 4 MA's), (20, 39275), (21, 39269), (23, 39245), (25, 39227),

Gene: Odin\_59 Start: 38358, Stop: 38170, Start Num: 8

Candidate Starts for Odin\_59:

(5, 38364), (Start: 8 @38358 has 4 MA's), (25, 38205),

Gene: Onglai\_60 Start: 37745, Stop: 37533, Start Num: 3

Candidate Starts for Onglai\_60:

(Start: 3 @37745 has 20 MA's), (7, 37730), (Start: 8 @37727 has 4 MA's), (20, 37616), (21, 37610), (23, 37586), (25, 37568),

Gene: PackMan\_60 Start: 39279, Stop: 39061, Start Num: 3

Candidate Starts for PackMan\_60:

(Start: 3 @39279 has 20 MA's), (14, 39213), (16, 39195), (19, 39156), (21, 39138), (22, 39135), (23, 39114), (25, 39096),

Gene: Phaeder\_61 Start: 39279, Stop: 39061, Start Num: 3

Candidate Starts for Phaeder\_61:

(Start: 3 @39279 has 20 MA's), (14, 39213), (16, 39195), (19, 39156), (21, 39138), (22, 39135), (23, 39114), (25, 39096),

Gene: Phonnegut\_62 Start: 39501, Stop: 39289, Start Num: 3

Candidate Starts for Phonnegut\_62:

(Start: 3 @39501 has 20 MA's), (7, 39486), (Start: 8 @39483 has 4 MA's), (20, 39372), (21, 39366), (23, 39342), (25, 39324),

Gene: Pioneer\_62 Start: 39501, Stop: 39289, Start Num: 3

Candidate Starts for Pioneer\_62:

(Start: 3 @39501 has 20 MA's), (7, 39486), (Start: 8 @39483 has 4 MA's), (20, 39372), (21, 39366), (23, 39342), (25, 39324),

Gene: Rahalelujah\_61 Start: 39034, Stop: 38834, Start Num: 6

Candidate Starts for Rahalelujah\_61:

(Start: 6 @39034 has 1 MA's), (11, 39013), (17, 38941), (21, 38911), (22, 38908), (23, 38887),

Gene: RyeScarlet\_63 Start: 39476, Stop: 39264, Start Num: 3

Candidate Starts for RyeScarlet\_63:

(Start: 3 @39476 has 20 MA's), (7, 39461), (Start: 8 @39458 has 4 MA's), (20, 39347), (21, 39341), (23, 39317), (25, 39299),

Gene: Sachima\_57 Start: 39266, Stop: 39087, Start Num: 12

Candidate Starts for Sachima\_57:

(Start: 3 @39302 has 20 MA's), (10, 39281), (12, 39266), (14, 39239), (16, 39221), (19, 39182), (21, 39164), (22, 39161), (23, 39140), (25, 39122), (27, 39092),

Gene: Scherzo\_62 Start: 39690, Stop: 39478, Start Num: 3

Candidate Starts for Scherzo\_62:

(Start: 3 @39690 has 20 MA's), (7, 39675), (Start: 8 @39672 has 4 MA's), (20, 39561), (21, 39555), (23, 39531), (25, 39513),

Gene: Superchunk\_59 Start: 37974, Stop: 37786, Start Num: 8

Candidate Starts for Superchunk\_59:

(1, 38103), (5, 37980), (Start: 8 @37974 has 4 MA's), (14, 37938), (25, 37821), (26, 37815),

Gene: Toaka\_61 Start: 39301, Stop: 39083, Start Num: 4

Candidate Starts for Toaka\_61:

(Start: 4 @39301 has 1 MA's), (17, 39190), (21, 39160), (23, 39136), (27, 39088),

Gene: Tubs\_61 Start: 39279, Stop: 39061, Start Num: 3

Candidate Starts for Tubs\_61:

(Start: 3 @39279 has 20 MA's), (14, 39213), (16, 39195), (19, 39156), (21, 39138), (22, 39135), (23, 39114), (25, 39096),

Gene: Ugenie5\_58 Start: 39689, Stop: 39477, Start Num: 3

Candidate Starts for Ugenie5\_58:

(Start: 3 @39689 has 20 MA's), (7, 39674), (Start: 8 @39671 has 4 MA's), (20, 39560), (21, 39554), (23, 39530), (25, 39512),

Gene: Vanisoa\_61 Start: 40386, Stop: 40162, Start Num: 2

Candidate Starts for Vanisoa\_61:

(Start: 2 @40386 has 1 MA's), (13, 40332), (21, 40239), (23, 40215), (24, 40203), (25, 40197),

Gene: Yecey3\_62 Start: 39278, Stop: 39060, Start Num: 3

Candidate Starts for Yecey3\_62:

(Start: 3 @39278 has 20 MA's), (12, 39239), (16, 39194), (18, 39164), (21, 39137), (22, 39134), (23, 39113), (25, 39095),