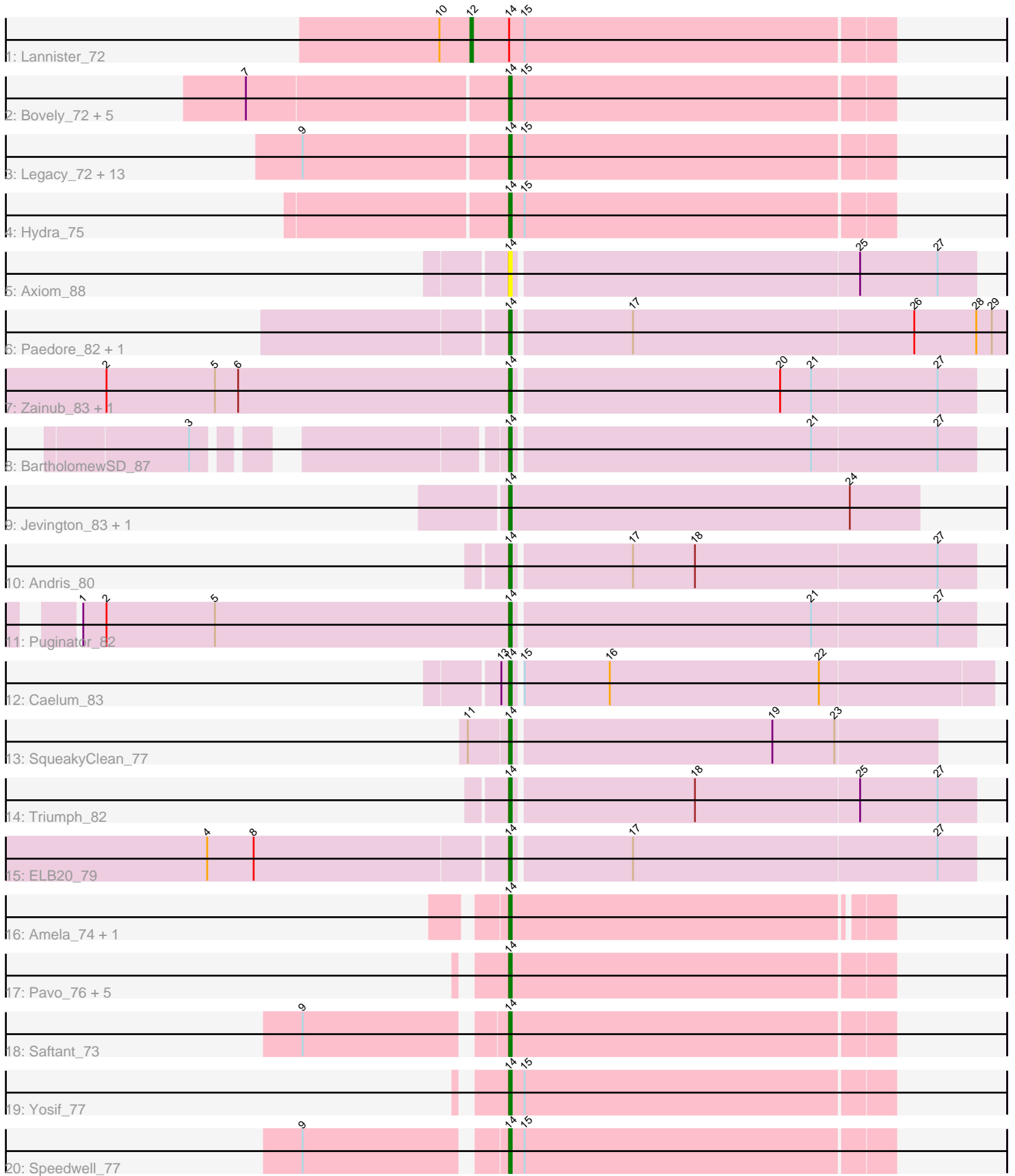


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 216274 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216274 has 47 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Lannister\_72
- Track 2 : Bovely\_72, Rusticus\_74, BryanRecycles\_74, Jash\_74, Eddasa\_75, Izzy\_74
- Track 3 : Legacy\_72, Unstoppable\_72, Esperer\_73, Nerdos\_71, Leviticus\_73, SunsetPointe\_72, Ozzie\_72, Aaronocolus\_72, BeardedLady\_73, Caliburn\_71, Phettuccine\_72, Indigo\_71, EnochSoames\_76, Oliynyk\_74
- Track 4 : Hydra\_75
- Track 5 : Axiom\_88
- Track 6 : Paedore\_82, Loofah\_85
- Track 7 : Zainub\_83, Paolo\_82
- Track 8 : BartholomewSD\_87
- Track 9 : Jevington\_83, Marav\_83
- Track 10 : Andris\_80
- Track 11 : Puginator\_82
- Track 12 : Caelum\_83
- Track 13 : SqueakyClean\_77
- Track 14 : Triumph\_82
- Track 15 : ELB20\_79
- Track 16 : Amela\_74, Verse\_75
- Track 17 : Pavo\_76, Kaine\_75, Conan\_76, Provolone\_76, Dexers\_73, Alsaber\_75
- Track 18 : Saftant\_73
- Track 19 : Yosif\_77
- Track 20 : Speedwell\_77

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

The start number called the most often in the published annotations is 14, it was called in 44 of the 45 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aaronocolus\_72, Alsaber\_75, Amela\_74, Andris\_80, Axiom\_88, BartholomewSD\_87, BeardedLady\_73, Bovely\_72, BryanRecycles\_74, Caelum\_83, Caliburn\_71, Conan\_76, Dexers\_73, ELB20\_79, Eddasa\_75, EnochSoames\_76, Esperer\_73, Hydra\_75, Indigo\_71, Izzy\_74, Jash\_74, Jevington\_83, Kaine\_75,

Legacy\_72, Leviticus\_73, Loofah\_85, Marav\_83, Nerdos\_71, Oliynyk\_74, Ozzie\_72, Paedore\_82, Paolo\_82, Pavo\_76, Phettuccine\_72, Provolone\_76, Puginator\_82, Rusticus\_74, Saftant\_73, Speedwell\_77, SqueakyClean\_77, SunsetPointe\_72, Triumph\_82, Unstoppable\_72, Verse\_75, Yosif\_77, Zainub\_83,

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

- Lannister\_72,

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

- 

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

Start 12:

- Found in 1 of 47 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 1 of 45
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lannister\_72 (BD1),

Start 14:

- Found in 47 of 47 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 44 of 45
- Called 97.9% of time when present
- Phage (with cluster) where this start called: Aaronocolus\_72 (BD1), Alsaber\_75 (BD3), Amela\_74 (BD3), Andris\_80 (BD2), Axiom\_88 (BD2), BartholomewSD\_87 (BD2), BeardedLady\_73 (BD1), Bovely\_72 (BD1), BryanRecycles\_74 (BD1), Caelum\_83 (BD2), Caliburn\_71 (BD1), Conan\_76 (BD3), Dexas\_73 (BD3), ELB20\_79 (BD2), Eddasa\_75 (BD1), EnochSoames\_76 (BD1), Esperer\_73 (BD1), Hydra\_75 (BD1), Indigo\_71 (BD1), Izzy\_74 (BD1), Jash\_74 (BD1), Jevington\_83 (BD2), Kaine\_75 (BD3), Legacy\_72 (BD1), Leviticus\_73 (BD1), Loofah\_85 (BD2), Marav\_83 (BD2), Nerdos\_71 (BD1), Oliynyk\_74 (BD1), Ozzie\_72 (BD1), Paedore\_82 (BD2), Paolo\_82 (BD2), Pavo\_76 (BD3), Phettuccine\_72 (BD1), Provolone\_76 (BD3), Puginator\_82 (BD2), Rusticus\_74 (BD1), Saftant\_73 (BD3), Speedwell\_77 (BD3), SqueakyClean\_77 (BD2), SunsetPointe\_72 (BD1), Triumph\_82 (BD2), Unstoppable\_72 (BD1), Verse\_75 (BD3), Yosif\_77 (BD3), Zainub\_83 (BD2),

### **Summary by clusters:**

There are 3 clusters represented in this pham: BD1, BD3, BD2,

Info for manual annotations of cluster BD1:

- Start number 12 was manually annotated 1 time for cluster BD1.
- Start number 14 was manually annotated 20 times for cluster BD1.

Info for manual annotations of cluster BD2:

- Start number 14 was manually annotated 13 times for cluster BD2.

Info for manual annotations of cluster BD3:

- Start number 14 was manually annotated 11 times for cluster BD3.

### **Gene Information:**

Gene: Aaronocolus\_72 Start: 48130, Stop: 47984, Start Num: 14  
Candidate Starts for Aaronocolus\_72:  
(9, 48208), (Start: 14 @48130 has 44 MA's), (15, 48124),

Gene: Alsaber\_75 Start: 47405, Stop: 47259, Start Num: 14  
Candidate Starts for Alsaber\_75:  
(Start: 14 @47405 has 44 MA's),

Gene: Amela\_74 Start: 48160, Stop: 48017, Start Num: 14  
Candidate Starts for Amela\_74:  
(Start: 14 @48160 has 44 MA's),

Gene: Andris\_80 Start: 48874, Stop: 48698, Start Num: 14  
Candidate Starts for Andris\_80:  
(Start: 14 @48874 has 44 MA's), (17, 48829), (18, 48805), (27, 48712),

Gene: Axiom\_88 Start: 49884, Stop: 49708, Start Num: 14  
Candidate Starts for Axiom\_88:  
(Start: 14 @49884 has 44 MA's), (25, 49752), (27, 49722),

Gene: BartholomewSD\_87 Start: 50496, Stop: 50320, Start Num: 14  
Candidate Starts for BartholomewSD\_87:  
(3, 50595), (Start: 14 @50496 has 44 MA's), (21, 50382), (27, 50334),

Gene: BeardedLady\_73 Start: 48510, Stop: 48364, Start Num: 14  
Candidate Starts for BeardedLady\_73:  
(9, 48588), (Start: 14 @48510 has 44 MA's), (15, 48504),

Gene: Bovely\_72 Start: 48133, Stop: 47987, Start Num: 14  
Candidate Starts for Bovely\_72:  
(7, 48232), (Start: 14 @48133 has 44 MA's), (15, 48127),

Gene: BryanRecycles\_74 Start: 48636, Stop: 48490, Start Num: 14  
Candidate Starts for BryanRecycles\_74:  
(7, 48735), (Start: 14 @48636 has 44 MA's), (15, 48630),

Gene: Caelum\_83 Start: 48893, Stop: 48711, Start Num: 14  
Candidate Starts for Caelum\_83:  
(13, 48896), (Start: 14 @48893 has 44 MA's), (15, 48890), (16, 48857), (22, 48776),

Gene: Caliburn\_71 Start: 48518, Stop: 48372, Start Num: 14  
Candidate Starts for Caliburn\_71:  
(9, 48596), (Start: 14 @48518 has 44 MA's), (15, 48512),

Gene: Conan\_76 Start: 47657, Stop: 47511, Start Num: 14  
Candidate Starts for Conan\_76:  
(Start: 14 @47657 has 44 MA's),

Gene: Dexers\_73 Start: 47623, Stop: 47477, Start Num: 14  
Candidate Starts for Dexers\_73:  
(Start: 14 @47623 has 44 MA's),

Gene: ELB20\_79 Start: 49457, Stop: 49281, Start Num: 14

Candidate Starts for ELB20\_79:

(4, 49571), (8, 49553), (Start: 14 @49457 has 44 MA's), (17, 49412), (27, 49295),

Gene: Eddasa\_75 Start: 49175, Stop: 49029, Start Num: 14

Candidate Starts for Eddasa\_75:

(7, 49274), (Start: 14 @49175 has 44 MA's), (15, 49169),

Gene: EnochSoames\_76 Start: 48342, Stop: 48196, Start Num: 14

Candidate Starts for EnochSoames\_76:

(9, 48420), (Start: 14 @48342 has 44 MA's), (15, 48336),

Gene: Esperer\_73 Start: 48476, Stop: 48330, Start Num: 14

Candidate Starts for Esperer\_73:

(9, 48554), (Start: 14 @48476 has 44 MA's), (15, 48470),

Gene: Hydra\_75 Start: 49290, Stop: 49144, Start Num: 14

Candidate Starts for Hydra\_75:

(Start: 14 @49290 has 44 MA's), (15, 49284),

Gene: Indigo\_71 Start: 48126, Stop: 47980, Start Num: 14

Candidate Starts for Indigo\_71:

(9, 48204), (Start: 14 @48126 has 44 MA's), (15, 48120),

Gene: Izzy\_74 Start: 48683, Stop: 48537, Start Num: 14

Candidate Starts for Izzy\_74:

(7, 48782), (Start: 14 @48683 has 44 MA's), (15, 48677),

Gene: Jash\_74 Start: 48636, Stop: 48490, Start Num: 14

Candidate Starts for Jash\_74:

(7, 48735), (Start: 14 @48636 has 44 MA's), (15, 48630),

Gene: Jevington\_83 Start: 49837, Stop: 49679, Start Num: 14

Candidate Starts for Jevington\_83:

(Start: 14 @49837 has 44 MA's), (24, 49705),

Gene: Kaine\_75 Start: 47429, Stop: 47283, Start Num: 14

Candidate Starts for Kaine\_75:

(Start: 14 @47429 has 44 MA's),

Gene: Lannister\_72 Start: 48875, Stop: 48714, Start Num: 12

Candidate Starts for Lannister\_72:

(10, 48887), (Start: 12 @48875 has 1 MA's), (Start: 14 @48860 has 44 MA's), (15, 48854),

Gene: Legacy\_72 Start: 48509, Stop: 48363, Start Num: 14

Candidate Starts for Legacy\_72:

(9, 48587), (Start: 14 @48509 has 44 MA's), (15, 48503),

Gene: Leviticus\_73 Start: 48663, Stop: 48517, Start Num: 14

Candidate Starts for Leviticus\_73:

(9, 48741), (Start: 14 @48663 has 44 MA's), (15, 48657),

Gene: Loofah\_85 Start: 50694, Stop: 50506, Start Num: 14

Candidate Starts for Loofah\_85:

(Start: 14 @50694 has 44 MA's), (17, 50649), (26, 50541), (28, 50517), (29, 50511),

Gene: Marav\_83 Start: 49863, Stop: 49705, Start Num: 14

Candidate Starts for Marav\_83:

(Start: 14 @49863 has 44 MA's), (24, 49731),

Gene: Nerdos\_71 Start: 48125, Stop: 47979, Start Num: 14

Candidate Starts for Nerdos\_71:

(9, 48203), (Start: 14 @48125 has 44 MA's), (15, 48119),

Gene: Oliynyk\_74 Start: 48545, Stop: 48399, Start Num: 14

Candidate Starts for Oliynyk\_74:

(9, 48623), (Start: 14 @48545 has 44 MA's), (15, 48539),

Gene: Ozzie\_72 Start: 48518, Stop: 48372, Start Num: 14

Candidate Starts for Ozzie\_72:

(9, 48596), (Start: 14 @48518 has 44 MA's), (15, 48512),

Gene: Paedore\_82 Start: 50863, Stop: 50675, Start Num: 14

Candidate Starts for Paedore\_82:

(Start: 14 @50863 has 44 MA's), (17, 50818), (26, 50710), (28, 50686), (29, 50680),

Gene: Paolo\_82 Start: 49702, Stop: 49526, Start Num: 14

Candidate Starts for Paolo\_82:

(2, 49858), (5, 49816), (6, 49807), (Start: 14 @49702 has 44 MA's), (20, 49600), (21, 49588), (27, 49540),

Gene: Pavo\_76 Start: 47605, Stop: 47459, Start Num: 14

Candidate Starts for Pavo\_76:

(Start: 14 @47605 has 44 MA's),

Gene: Phettuccine\_72 Start: 48096, Stop: 47950, Start Num: 14

Candidate Starts for Phettuccine\_72:

(9, 48174), (Start: 14 @48096 has 44 MA's), (15, 48090),

Gene: Provolone\_76 Start: 47746, Stop: 47600, Start Num: 14

Candidate Starts for Provolone\_76:

(Start: 14 @47746 has 44 MA's),

Gene: Puginator\_82 Start: 49772, Stop: 49596, Start Num: 14

Candidate Starts for Puginator\_82:

(1, 49937), (2, 49928), (5, 49886), (Start: 14 @49772 has 44 MA's), (21, 49658), (27, 49610),

Gene: Rusticus\_74 Start: 48636, Stop: 48490, Start Num: 14

Candidate Starts for Rusticus\_74:

(7, 48735), (Start: 14 @48636 has 44 MA's), (15, 48630),

Gene: Saftant\_73 Start: 47439, Stop: 47293, Start Num: 14

Candidate Starts for Saftant\_73:

(9, 47511), (Start: 14 @47439 has 44 MA's),

Gene: Speedwell\_77 Start: 48345, Stop: 48199, Start Num: 14

Candidate Starts for Speedwell\_77:

(9, 48417), (Start: 14 @48345 has 44 MA's), (15, 48339),

Gene: SqueakyClean\_77 Start: 49262, Stop: 49101, Start Num: 14

Candidate Starts for SqueakyClean\_77:

(11, 49277), (Start: 14 @49262 has 44 MA's), (19, 49163), (23, 49139),

Gene: SunsetPointe\_72 Start: 48525, Stop: 48379, Start Num: 14

Candidate Starts for SunsetPointe\_72:

(9, 48603), (Start: 14 @48525 has 44 MA's), (15, 48519),

Gene: Triumph\_82 Start: 49644, Stop: 49468, Start Num: 14

Candidate Starts for Triumph\_82:

(Start: 14 @49644 has 44 MA's), (18, 49575), (25, 49512), (27, 49482),

Gene: Unstoppable\_72 Start: 48124, Stop: 47978, Start Num: 14

Candidate Starts for Unstoppable\_72:

(9, 48202), (Start: 14 @48124 has 44 MA's), (15, 48118),

Gene: Verse\_75 Start: 48198, Stop: 48055, Start Num: 14

Candidate Starts for Verse\_75:

(Start: 14 @48198 has 44 MA's),

Gene: Yosif\_77 Start: 48741, Stop: 48595, Start Num: 14

Candidate Starts for Yosif\_77:

(Start: 14 @48741 has 44 MA's), (15, 48735),

Gene: Zainub\_83 Start: 49882, Stop: 49706, Start Num: 14

Candidate Starts for Zainub\_83:

(2, 50038), (5, 49996), (6, 49987), (Start: 14 @49882 has 44 MA's), (20, 49780), (21, 49768), (27, 49720),