Pham 347766


1: Marge_44 + 16
2: ProMouse_45
3: Pepe_41
4: Ringer_45 + 1
5: ILeeKay_48 + 9
6: Puppet_45 + 1
7: Aeneas_46
8: Fajerzeel_46 + 2
9: Beatrix_43
10: Alvin_43
11: PascalRango_68
12: BillKnuckles_44
13: STLscum_45
14: Ciao_44
15: Pupper_168

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 347766 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347766 has 44 members, 1 are drafts.

Phages represented in each track:
• Track 1 : Marge_44, Niza_46, Eyeball_45, TheloniousMonk_45, Fenn_45, Slagathor_46, Bexan_42, Bones_44, Naira_45, StrongArm_43, Smairt_46, Licorice_47, Ruotula_47, Rajelicia_45, Sagefire_47, Dexes_44, Arcanine_45
• Track 2 : ProMouse_45
• Track 3 : Pepe_41
• Track 4 : Ringer_45, Teodoridan_42
• Track 5 : ILeeKay_48, IgnatiusPatJac_43, Seanderson_46, Marco3_46, Fushigi_42, Petruchio_44, Kykar_44, BluSpix_41, Ajay_44, Trouble_45
• Track 6 : Puppet_45, BigPaolini_44
• Track 7 : Aeneas_46
• Track 8 : Fajezeel_46, Greg_46, Pippin_46
• Track 9 : Beatrix_43
• Track 10 : Alvin_43
• Track 11 : PascalRango_68
• Track 12 : BillKnuckles_44
• Track 13 : STLscum_45
• Track 14 : Ciao_44
• Track 15 : Pupper_168

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 22 of the 43 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aeneas_46, Arcanine_45, Beatrix_43, Bexan_42, Bones_44, Dexes_44, Eyeball_45, Fajezeel_46, Fenn_45, Greg_46, Licorice_47, Marge_44, Naira_45, Niza_46, Pippin_46, Rajelicia_45, Ruotula_47, Sagefire_47, Slagathor_46, Smairt_46, StrongArm_43, TheloniousMonk_45,

Genes that have the "Most Annotated" start but do not call it:
• BigPaolini_44, Ciao_44, Pepe_41, Puppet_45, Ringer_45, Teodoridan_42,

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

• Ajay_44, Alvin_43, BillKnuckles_44, BluSpix_41, Fushigi_42, ILeeKay_48, IgnatiusPatJac_43, Kykar_44, Marco3_46, PascalRango_68, Petruchio_44, ProMouse_45, Pupper_168, STLscum_45, Seanderson_46, Trouble_45,

Summary by start number:

Start 8:
• Found in 1 of 44 (2.3%) of genes in pham
• Manual Annotations of this start: 1 of 43
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ProMouse_45 (A1),

Start 9:
• Found in 28 of 44 (63.6%) of genes in pham
• Manual Annotations of this start: 22 of 43
• Called 78.6% of time when present
• Phage (with cluster) where this start called: Aeneas_46 (A1), Arcanine_45 (A1), Beatrix_43 (A1), Bexan_42 (A1), Bones_44 (A1), Dexes_44 (A1), Eyeball_45 (A1), Fajezeel_46 (A1), Fenn_45 (A1), Greg_46 (A1), Licorice_47 (A1), Marge_44 (A1), Naira_45 (A1), Niza_46 (A1), Pippin_46 (A1), Rajelicia_45 (A1), Ruotula_47 (A1), Sagefire_47 (A1), Slagathor_46 (A1), Smairt_46 (A1), StrongArm_43 (A1), TheloniousMonk_45 (A1),

Start 10:
• Found in 12 of 44 (27.3%) of genes in pham
• Manual Annotations of this start: 12 of 43
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ajay_44 (A1), Alvin_43 (A1), BillKnuckles_44 (A1), BluSpix_41 (A1), Fushigi_42 (A1), ILeeKay_48 (A1), IgnatiusPatJac_43 (A1), Kykar_44 (A1), Marco3_46 (A1), Petruchio_44 (A1), Seanderson_46 (A1), Trouble_45 (A1),

Start 13:
• Found in 29 of 44 (65.9%) of genes in pham
• Manual Annotations of this start: 3 of 43
• Called 10.3% of time when present
• Phage (with cluster) where this start called: BigPaolini_44 (A1), Ciao_44 (A1), Puppet_45 (A1),

Start 15:
• Found in 28 of 44 (63.6%) of genes in pham
• Manual Annotations of this start: 2 of 43
• Called 10.7% of time when present
• Phage (with cluster) where this start called: Pepe_41 (A1), Ringer_45 (A1), Teodoridan_42 (A1),

Start 19:
• Found in 1 of 44 (2.3%) of genes in pham
• Manual Annotations of this start: 1 of 43
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Pupper_168 (DO),

Start 22:

• Found in 1 of 44 (2.3%) of genes in pham
• Manual Annotations of this start: 1 of 43
• Called 100.0% of time when present
• Phage (with cluster) where this start called: PascalRango_68 (A1),

Start 23:
• Found in 29 of 44 (65.9%) of genes in pham
• Manual Annotations of this start: 1 of 43
• Called 3.4% of time when present
• Phage (with cluster) where this start called: STLscum_45 (A1),

Summary by clusters:

There are 2 clusters represented in this pham: A1, DO,

Info for manual annotations of cluster A1:
•Start number 8 was manually annotated 1 time for cluster A1.
•Start number 9 was manually annotated 22 times for cluster A1.
•Start number 10 was manually annotated 12 times for cluster A1.
•Start number 13 was manually annotated 3 times for cluster A1.
•Start number 15 was manually annotated 2 times for cluster A1.
•Start number 22 was manually annotated 1 time for cluster A1.
•Start number 23 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster DO:
•Start number 19 was manually annotated 1 time for cluster DO.

Gene Information:

Gene: Aeneas_46 Start: 33206, Stop: 32721, Start Num: 9
Candidate Starts for Aeneas_46:
(6, 33245), (Start: 9 @33206 has 22 MA's), (Start: 13 @33164 has 3 MA's), (Start: 15 @33110 has 2 MA's), (Start: 23 @33035 has 1 MA's), (25, 33011), (26, 32999), (27, 32993), (28, 32990), (33, 32807), (38, 32750),

Gene: Ajay_44 Start: 32810, Stop: 32334, Start Num: 10
Candidate Starts for Ajay_44:
(Start: 10 @32810 has 12 MA's), (11, 32792), (12, 32771), (16, 32708), (18, 32687), (30, 32534), (32, 32456), (34, 32399), (35, 32390), (36, 32387), (38, 32363),

Gene: Alvin_43 Start: 33331, Stop: 32855, Start Num: 10
Candidate Starts for Alvin_43:
(Start: 10 @33331 has 12 MA's), (11, 33313), (12, 33292), (16, 33229), (18, 33208), (30, 33055), (32, 32977), (34, 32920), (35, 32911), (36, 32908), (38, 32884),

Gene: Arcanine_45 Start: 32773, Stop: 32288, Start Num: 9
Candidate Starts for Arcanine_45:
(6, 32812), (Start: 9 @32773 has 22 MA's), (Start: 13 @32731 has 3 MA's), (Start: 15 @32677 has 2 MA's), (Start: 23 @32602 has 1 MA's), (25, 32578), (26, 32566), (27, 32560), (28, 32557), (32, 32410), (33, 32374), (38, 32317),

Gene: Beatrix_43 Start: 34176, Stop: 33691, Start Num: 9
Candidate Starts for Beatrix_43:
(6, 34215), (Start: 9 @34176 has 22 MA's), (Start: 13 @34134 has 3 MA's), (Start: 15 @34080 has 2 MA's), (Start: 23 @34005 has 1 MA's), (25, 33981), (26, 33969), (27, 33963), (28, 33960), (29, 33927), (31, 33846), (32, 33813), (35, 33747), (36, 33744), (37, 33735), (38, 33720),

Gene: Bexan_42 Start: 33854, Stop: 33369, Start Num: 9
Candidate Starts for Bexan_42:
(6, 33893), (Start: 9 @33854 has 22 MA's), (Start: 13 @33812 has 3 MA's), (Start: 15 @33758 has 2 MA's), (Start: 23 @33683 has 1 MA's), (25, 33659), (26, 33647), (27, 33641), (28, 33638), (32, 33491), (33, 33455), (38, 33398),

Gene: BigPaolini_44 Start: 31801, Stop: 31358, Start Num: 13
Candidate Starts for BigPaolini_44:
(6, 31882), (Start: 9 @31843 has 22 MA's), (Start: 13 @31801 has 3 MA's), (Start: 15 @31747 has 2 MA's), (Start: 23 @31672 has 1 MA's), (25, 31648), (26, 31636), (27, 31630), (28, 31627), (32, 31480), (33, 31444), (38, 31387),

Gene: BillKnuckles_44 Start: 33515, Stop: 33039, Start Num: 10
Candidate Starts for BillKnuckles_44:
(Start: 10 @33515 has 12 MA's), (11, 33497), (12, 33476), (16, 33413), (30, 33239), (32, 33161), (34, 33104), (35, 33095), (36, 33092), (38, 33068),

Gene: BluSpix_41 Start: 28937, Stop: 28461, Start Num: 10
Candidate Starts for BluSpix_41:
(Start: 10 @28937 has 12 MA's), (11, 28919), (12, 28898), (16, 28835), (18, 28814), (30, 28661), (32, 28583), (34, 28526), (35, 28517), (36, 28514), (38, 28490),

Gene: Bones_44 Start: 33339, Stop: 32854, Start Num: 9
Candidate Starts for Bones_44:
(6, 33378), (Start: 9 @33339 has 22 MA's), (Start: 13 @33297 has 3 MA's), (Start: 15 @33243 has 2 MA's), (Start: 23 @33168 has 1 MA's), (25, 33144), (26, 33132), (27, 33126), (28, 33123), (32, 32976), (33, 32940), (38, 32883),

Gene: Ciao_44 Start: 32944, Stop: 32501, Start Num: 13
Candidate Starts for Ciao_44:
(1, 33121), (6, 33025), (Start: 9 @32986 has 22 MA's), (Start: 13 @32944 has 3 MA's), (Start: 15 @32890 has 2 MA's), (Start: 23 @32815 has 1 MA's), (25, 32791), (26, 32779), (27, 32773), (28, 32770), (32, 32623), (33, 32587), (38, 32530),

Gene: Dexes_44 Start: 33602, Stop: 33117, Start Num: 9
Candidate Starts for Dexes_44:
(6, 33641), (Start: 9 @33602 has 22 MA's), (Start: 13 @33560 has 3 MA's), (Start: 15 @33506 has 2 MA's), (Start: 23 @33431 has 1 MA's), (25, 33407), (26, 33395), (27, 33389), (28, 33386), (32, 33239), (33, 33203), (38, 33146),

Gene: Eyeball_45 Start: 33249, Stop: 32764, Start Num: 9
Candidate Starts for Eyeball_45:
(6, 33288), (Start: 9 @33249 has 22 MA's), (Start: 13 @33207 has 3 MA's), (Start: 15 @33153 has 2 MA's), (Start: 23 @33078 has 1 MA's), (25, 33054), (26, 33042), (27, 33036), (28, 33033), (32, 32886), (33, 32850), (38, 32793),

Gene: Fajezeel_46 Start: 33359, Stop: 32874, Start Num: 9

Candidate Starts for Fajezeel_46:
(1, 33494), (6, 33398), (Start: 9 @33359 has 22 MA's), (Start: 13 @33317 has 3 MA's), (Start: 15 @33263 has 2 MA's), (Start: 23 @33188 has 1 MA's), (25, 33164), (26, 33152), (27, 33146), (28, 33143), (32, 32996), (33, 32960), (38, 32903),

Gene: Fenn_45 Start: 34680, Stop: 34195, Start Num: 9
Candidate Starts for Fenn_45:
(6, 34719), (Start: 9 @34680 has 22 MA's), (Start: 13 @34638 has 3 MA's), (Start: 15 @34584 has 2 MA's), (Start: 23 @34509 has 1 MA's), (25, 34485), (26, 34473), (27, 34467), (28, 34464), (32, 34317), (33, 34281), (38, 34224),

Gene: Fushigi_42 Start: 30914, Stop: 30438, Start Num: 10
Candidate Starts for Fushigi_42:
(Start: 10 @30914 has 12 MA's), (11, 30896), (12, 30875), (16, 30812), (18, 30791), (30, 30638), (32, 30560), (34, 30503), (35, 30494), (36, 30491), (38, 30467),

Gene: Greg_46 Start: 33359, Stop: 32874, Start Num: 9
Candidate Starts for Greg_46:
(1, 33494), (6, 33398), (Start: 9 @33359 has 22 MA's), (Start: 13 @33317 has 3 MA's), (Start: 15 @33263 has 2 MA's), (Start: 23 @33188 has 1 MA's), (25, 33164), (26, 33152), (27, 33146), (28, 33143), (32, 32996), (33, 32960), (38, 32903),

Gene: ILeeKay_48 Start: 33858, Stop: 33382, Start Num: 10
Candidate Starts for ILeeKay_48:
(Start: 10 @33858 has 12 MA's), (11, 33840), (12, 33819), (16, 33756), (18, 33735), (30, 33582), (32, 33504), (34, 33447), (35, 33438), (36, 33435), (38, 33411),

Gene: IgnatiusPatJac_43 Start: 32882, Stop: 32406, Start Num: 10
Candidate Starts for IgnatiusPatJac_43:
(Start: 10 @32882 has 12 MA's), (11, 32864), (12, 32843), (16, 32780), (18, 32759), (30, 32606), (32, 32528), (34, 32471), (35, 32462), (36, 32459), (38, 32435),

Gene: Kykar_44 Start: 32934, Stop: 32458, Start Num: 10
Candidate Starts for Kykar_44:
(Start: 10 @32934 has 12 MA's), (11, 32916), (12, 32895), (16, 32832), (18, 32811), (30, 32658), (32, 32580), (34, 32523), (35, 32514), (36, 32511), (38, 32487),

Gene: Licorice_47 Start: 34445, Stop: 33960, Start Num: 9
Candidate Starts for Licorice_47:
(6, 34484), (Start: 9 @34445 has 22 MA's), (Start: 13 @34403 has 3 MA's), (Start: 15 @34349 has 2 MA's), (Start: 23 @34274 has 1 MA's), (25, 34250), (26, 34238), (27, 34232), (28, 34229), (32, 34082), (33, 34046), (38, 33989),

Gene: Marco3_46 Start: 33679, Stop: 33203, Start Num: 10
Candidate Starts for Marco3_46:
(Start: 10 @33679 has 12 MA's), (11, 33661), (12, 33640), (16, 33577), (18, 33556), (30, 33403), (32, 33325), (34, 33268), (35, 33259), (36, 33256), (38, 33232),

Gene: Marge_44 Start: 33477, Stop: 32992, Start Num: 9
Candidate Starts for Marge_44:
(6, 33516), (Start: 9 @33477 has 22 MA's), (Start: 13 @33435 has 3 MA's), (Start: 15 @33381 has 2 MA's), (Start: 23 @33306 has 1 MA's), (25, 33282), (26, 33270), (27, 33264), (28, 33261), (32, 33114), (33, 33078), (38, 33021),

Gene: Naira_45 Start: 34727, Stop: 34242, Start Num: 9
Candidate Starts for Naira_45:
(6, 34766), (Start: 9 @34727 has 22 MA's), (Start: 13 @34685 has 3 MA's), (Start: 15 @34631 has 2 MA's), (Start: 23 @34556 has 1 MA's), (25, 34532), (26, 34520), (27, 34514), (28, 34511), (32, 34364), (33, 34328), (38, 34271),

Gene: Niza_46 Start: 34104, Stop: 33619, Start Num: 9
Candidate Starts for Niza_46:
(6, 34143), (Start: 9 @34104 has 22 MA's), (Start: 13 @34062 has 3 MA's), (Start: 15 @34008 has 2 MA's), (Start: 23 @33933 has 1 MA's), (25, 33909), (26, 33897), (27, 33891), (28, 33888), (32, 33741), (33, 33705), (38, 33648),

Gene: PascalRango_68 Start: 44439, Stop: 44059, Start Num: 22
Candidate Starts for PascalRango_68:
(4, 44637), (5, 44625), (7, 44607), (17, 44466), (Start: 22 @44439 has 1 MA's), (24, 44400), (26, 44370), (34, 44157),

Gene: Pepe_41 Start: 31155, Stop: 30766, Start Num: 15
Candidate Starts for Pepe_41:
(6, 31290), (Start: 9 @31251 has 22 MA's), (Start: 13 @31209 has 3 MA's), (Start: 15 @31155 has 2 MA's), (Start: 23 @31080 has 1 MA's), (25, 31056), (26, 31044), (27, 31038), (28, 31035), (29, 31002), (31, 30921), (32, 30888), (35, 30822), (36, 30819), (37, 30810), (38, 30795),

Gene: Petruchio_44 Start: 32947, Stop: 32471, Start Num: 10
Candidate Starts for Petruchio_44:
(Start: 10 @32947 has 12 MA's), (11, 32929), (12, 32908), (16, 32845), (18, 32824), (30, 32671), (32, 32593), (34, 32536), (35, 32527), (36, 32524), (38, 32500),

Gene: Pippin_46 Start: 33403, Stop: 32918, Start Num: 9
Candidate Starts for Pippin_46:
(1, 33538), (6, 33442), (Start: 9 @33403 has 22 MA's), (Start: 13 @33361 has 3 MA's), (Start: 15 @33307 has 2 MA's), (Start: 23 @33232 has 1 MA's), (25, 33208), (26, 33196), (27, 33190), (28, 33187), (32, 33040), (33, 33004), (38, 32947),

Gene: ProMouse_45 Start: 33305, Stop: 32802, Start Num: 8
Candidate Starts for ProMouse_45:
(5, 33329), (Start: 8 @33305 has 1 MA's), (12, 33236), (14, 33215), (18, 33164), (20, 33158), (30, 33011), (35, 32867), (38, 32840),

Gene: Pupper_168 Start: 123157, Stop: 122813, Start Num: 19
Candidate Starts for Pupper_168:
(2, 123403), (3, 123373), (Start: 13 @123241 has 3 MA's), (Start: 19 @123157 has 1 MA's), (21, 123151), (30, 123001),

Gene: Puppet_45 Start: 33477, Stop: 33034, Start Num: 13
Candidate Starts for Puppet_45:
(6, 33558), (Start: 9 @33519 has 22 MA's), (Start: 13 @33477 has 3 MA's), (Start: 15 @33423 has 2 MA's), (Start: 23 @33348 has 1 MA's), (25, 33324), (26, 33312), (27, 33306), (28, 33303), (32, 33156), (33, 33120), (38, 33063),

Gene: Rajelicia_45 Start: 33435, Stop: 32950, Start Num: 9
Candidate Starts for Rajelicia_45:

(6, 33474), (Start: 9 @33435 has 22 MA's), (Start: 13 @33393 has 3 MA's), (Start: 15 @33339 has 2 MA's), (Start: 23 @33264 has 1 MA's), (25, 33240), (26, 33228), (27, 33222), (28, 33219), (32, 33072), (33, 33036), (38, 32979),

Gene: Ringer_45 Start: 33671, Stop: 33282, Start Num: 15
Candidate Starts for Ringer_45:
(6, 33806), (Start: 9 @33767 has 22 MA's), (Start: 13 @33725 has 3 MA's), (Start: 15 @33671 has 2 MA's), (Start: 23 @33596 has 1 MA's), (25, 33572), (26, 33560), (27, 33554), (28, 33551), (32, 33404), (33, 33368), (38, 33311),

Gene: Ruotula_47 Start: 34572, Stop: 34078, Start Num: 9
Candidate Starts for Ruotula_47:
(6, 34611), (Start: 9 @34572 has 22 MA's), (Start: 13 @34530 has 3 MA's), (Start: 15 @34476 has 2 MA's), (Start: 23 @34401 has 1 MA's), (25, 34377), (26, 34365), (27, 34359), (28, 34356), (32, 34200), (33, 34164), (38, 34107),

Gene: STLscum_45 Start: 33801, Stop: 33487, Start Num: 23
Candidate Starts for STLscum_45:
(Start: 23 @33801 has 1 MA's), (25, 33777), (26, 33765), (27, 33759), (28, 33756), (29, 33723), (31, 33642), (32, 33609), (35, 33543), (36, 33540), (37, 33531), (38, 33516),

Gene: Sagefire_47 Start: 34321, Stop: 33836, Start Num: 9
Candidate Starts for Sagefire_47:
(6, 34360), (Start: 9 @34321 has 22 MA's), (Start: 13 @34279 has 3 MA's), (Start: 15 @34225 has 2 MA's), (Start: 23 @34150 has 1 MA's), (25, 34126), (26, 34114), (27, 34108), (28, 34105), (32, 33958), (33, 33922), (38, 33865),

Gene: Seanderson_46 Start: 33923, Stop: 33447, Start Num: 10
Candidate Starts for Seanderson_46:
(Start: 10 @33923 has 12 MA's), (11, 33905), (12, 33884), (16, 33821), (18, 33800), (30, 33647), (32, 33569), (34, 33512), (35, 33503), (36, 33500), (38, 33476),

Gene: Slagathor_46 Start: 33360, Stop: 32875, Start Num: 9
Candidate Starts for Slagathor_46:
(6, 33399), (Start: 9 @33360 has 22 MA's), (Start: 13 @33318 has 3 MA's), (Start: 15 @33264 has 2 MA's), (Start: 23 @33189 has 1 MA's), (25, 33165), (26, 33153), (27, 33147), (28, 33144), (32, 32997), (33, 32961), (38, 32904),

Gene: Smairt_46 Start: 33659, Stop: 33174, Start Num: 9
Candidate Starts for Smairt_46:
(6, 33698), (Start: 9 @33659 has 22 MA's), (Start: 13 @33617 has 3 MA's), (Start: 15 @33563 has 2 MA's), (Start: 23 @33488 has 1 MA's), (25, 33464), (26, 33452), (27, 33446), (28, 33443), (32, 33296), (33, 33260), (38, 33203),

Gene: StrongArm_43 Start: 33982, Stop: 33497, Start Num: 9
Candidate Starts for StrongArm_43:
(6, 34021), (Start: 9 @33982 has 22 MA's), (Start: 13 @33940 has 3 MA's), (Start: 15 @33886 has 2 MA's), (Start: 23 @33811 has 1 MA's), (25, 33787), (26, 33775), (27, 33769), (28, 33766), (32, 33619), (33, 33583), (38, 33526),

Gene: Teodoridan_42 Start: 32338, Stop: 31949, Start Num: 15
Candidate Starts for Teodoridan_42:

(6, 32473), (Start: 9 @32434 has 22 MA's), (Start: 13 @32392 has 3 MA's), (Start: 15 @32338 has 2 MA's), (Start: 23 @32263 has 1 MA's), (25, 32239), (26, 32227), (27, 32221), (28, 32218), (32, 32071), (33, 32035), (38, 31978),

Gene: TheloniousMonk_45 Start: 34368, Stop: 33883, Start Num: 9
Candidate Starts for TheloniousMonk_45:
(6, 34407), (Start: 9 @34368 has 22 MA's), (Start: 13 @34326 has 3 MA's), (Start: 15 @34272 has 2 MA's), (Start: 23 @34197 has 1 MA's), (25, 34173), (26, 34161), (27, 34155), (28, 34152), (32, 34005), (33, 33969), (38, 33912),

Gene: Trouble_45 Start: 34048, Stop: 33572, Start Num: 10
Candidate Starts for Trouble_45:
(Start: 10 @34048 has 12 MA's), (11, 34030), (12, 34009), (16, 33946), (18, 33925), (30, 33772), (32, 33694), (34, 33637), (35, 33628), (36, 33625), (38, 33601),