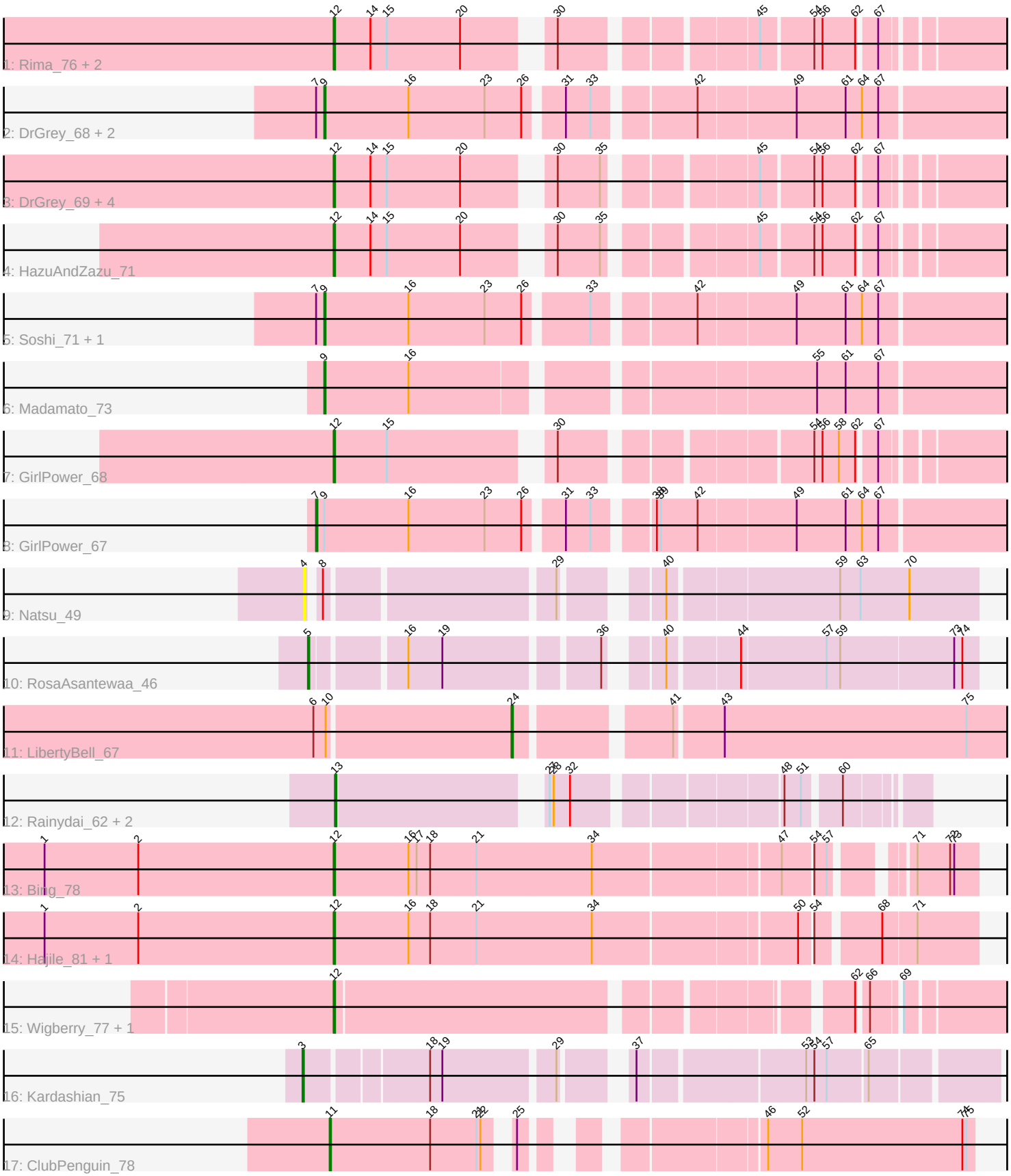
# Pham 347905


1: Rima_76 + 2
2: DrGrey_68 + 2
3: DrGrey_69 + 4
4: HazuAndZazu_71
5: Soshi_71 + 1
6: Madamato_73
7: GirlPower_68
8: GirlPower_67
9: Natsu_49
10: RosaAsantewaa_46
11: LibertyBell_67
12: Rainydai_62 + 2
13: Bing_78
14: Hajile_81 + 1
15: Wigberry_77 + 1
16: Kardashian_75
17: ClubPenguin_78

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 347905 Report

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

Pham number 347905 has 30 members, 3 are drafts.

Phages represented in each track:
• Track 1 : Rima_76, Namo_77, IceWarrior_75
• Track 2 : DrGrey_68, FrodoSwaggins_70, Popy_70
• Track 3 : DrGrey_69, Soshi_72, FrodoSwaggins_71, Espio_71, Popy_71
• Track 4 : HazuAndZazu_71
• Track 5 : Soshi_71, Espio_70
• Track 6 : Madamato_73
• Track 7 : GirlPower_68
• Track 8 : GirlPower_67
• Track 9 : Natsu_49
• Track 10 : RosaAsantewaa_46
• Track 11 : LibertyBell_67
• Track 12 : Rainydai_62, CricKo_64, Thiqqums_64
• Track 13 : Bing_78
• Track 14 : Hajile_81, Wigberry_79
• Track 15 : Wigberry_77, Hajile_79
• Track 16 : Kardashian_75
• Track 17 : ClubPenguin_78

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

The start number called the most often in the published annotations is 12, it was called in 13 of the 27 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Bing_78, DrGrey_69, Espio_71, FrodoSwaggins_71, GirlPower_68, Hajile_79, Hajile_81, HazuAndZazu_71, IceWarrior_75, Namo_77, Popy_71, Rima_76, Soshi_72, Wigberry_77, Wigberry_79,

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

Genes that do not have the "Most Annotated" start:
• ClubPenguin_78, CricKo_64, DrGrey_68, Espio_70, FrodoSwaggins_70, GirlPower_67, Kardashian_75, LibertyBell_67, Madamato_73, Natsu_49, Popy_70,

Rainydai_62, RosaAsantewaa_46, Soshi_71, Thiqqums_64,

**Summary by start number:**

Start 3:
• Found in 1 of 30 ( 3.3% ) 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: Kardashian_75 (BI6),

Start 4:
• Found in 1 of 30 ( 3.3% ) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Natsu_49 (BI2),

Start 5:
• Found in 1 of 30 ( 3.3% ) 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: RosaAsantewaa_46 (BI2),

Start 7:
• Found in 6 of 30 ( 20.0% ) of genes in pham
• Manual Annotations of this start: 1 of 27
• Called 16.7% of time when present
• Phage (with cluster) where this start called: GirlPower_67 (BI1),

Start 9:
• Found in 7 of 30 ( 23.3% ) of genes in pham
• Manual Annotations of this start: 6 of 27
• Called 85.7% of time when present
• Phage (with cluster) where this start called: DrGrey_68 (BI1), Espio_70 (BI1), FrodoSwaggins_70 (BI1), Madamato_73 (BI1), Popy_70 (BI1), Soshi_71 (BI1),

Start 11:
• Found in 1 of 30 ( 3.3% ) 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: ClubPenguin_78 (BI7),

Start 12:
• Found in 15 of 30 ( 50.0% ) of genes in pham
• Manual Annotations of this start: 13 of 27
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bing_78 (BI5), DrGrey_69 (BI1), Espio_71 (BI1), FrodoSwaggins_71 (BI1), GirlPower_68 (BI1), Hajile_79 (BI5), Hajile_81 (BI5), HazuAndZazu_71 (BI1), IceWarrior_75 (BI1), Namo_77 (BI1), Popy_71 (BI1), Rima_76 (BI1), Soshi_72 (BI1), Wigberry_77 (BI5), Wigberry_79 (BI5),

Start 13:
• Found in 3 of 30 ( 10.0% ) of genes in pham

• Manual Annotations of this start: 3 of 27
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CricKo_64 (BI4), Rainydai_62 (BI4), Thiqqums_64 (BI4),

Start 24:
• Found in 1 of 30 ( 3.3% ) 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: LibertyBell_67 (BI3),

**Summary by clusters:**

There are 7 clusters represented in this pham: BI6, BI7, BI4, BI5, BI2, BI3, BI1,

Info for manual annotations of cluster BI1:
•Start number 7 was manually annotated 1 time for cluster BI1.
•Start number 9 was manually annotated 6 times for cluster BI1.
•Start number 12 was manually annotated 10 times for cluster BI1.

Info for manual annotations of cluster BI2:
•Start number 5 was manually annotated 1 time for cluster BI2.

Info for manual annotations of cluster BI3:
•Start number 24 was manually annotated 1 time for cluster BI3.

Info for manual annotations of cluster BI4:
•Start number 13 was manually annotated 3 times for cluster BI4.

Info for manual annotations of cluster BI5:
•Start number 12 was manually annotated 3 times for cluster BI5.

Info for manual annotations of cluster BI6:
•Start number 3 was manually annotated 1 time for cluster BI6.

Info for manual annotations of cluster BI7:
•Start number 11 was manually annotated 1 time for cluster BI7.

***Gene Information:***

Gene: Bing_78 Start: 47851, Stop: 48282, Start Num: 12
Candidate Starts for Bing_78:
(1, 47638), (2, 47707), (Start: 12 @47851 has 13 MA's), (16, 47905), (17, 47911), (18, 47920), (21, 47953), (34, 48037), (47, 48166), (54, 48187), (57, 48196), (71, 48238), (72, 48262), (73, 48265),

Gene: ClubPenguin_78 Start: 46389, Stop: 46793, Start Num: 11
Candidate Starts for ClubPenguin_78:
(Start: 11 @46389 has 1 MA's), (18, 46461), (21, 46494), (22, 46497), (25, 46509), (46, 46644), (52, 46668), (74, 46785), (75, 46788),

Gene: CricKo_64 Start: 42071, Stop: 42442, Start Num: 13

Candidate Starts for CricKo_64:
(Start: 13 @42071 has 3 MA's), (27, 42203), (28, 42206), (32, 42218), (48, 42353), (51, 42365), (60, 42389),

Gene: DrGrey_68 Start: 45889, Stop: 46368, Start Num: 9
Candidate Starts for DrGrey_68:
(Start: 7 @45883 has 1 MA's), (Start: 9 @45889 has 6 MA's), (16, 45949), (23, 46003), (26, 46030), (31, 46054), (33, 46072), (42, 46138), (49, 46207), (61, 46243), (64, 46255), (67, 46267),

Gene: DrGrey_69 Start: 46443, Stop: 46874, Start Num: 12
Candidate Starts for DrGrey_69:
(Start: 12 @46443 has 13 MA's), (14, 46470), (15, 46482), (20, 46533), (30, 46584), (35, 46614), (45, 46707), (54, 46743), (56, 46749), (62, 46773), (67, 46785),

Gene: Espio_71 Start: 46838, Stop: 47269, Start Num: 12
Candidate Starts for Espio_71:
(Start: 12 @46838 has 13 MA's), (14, 46865), (15, 46877), (20, 46928), (30, 46979), (35, 47009), (45, 47102), (54, 47138), (56, 47144), (62, 47168), (67, 47180),

Gene: Espio_70 Start: 46284, Stop: 46763, Start Num: 9
Candidate Starts for Espio_70:
(Start: 7 @46278 has 1 MA's), (Start: 9 @46284 has 6 MA's), (16, 46344), (23, 46398), (26, 46425), (33, 46467), (42, 46533), (49, 46602), (61, 46638), (64, 46650), (67, 46662),

Gene: FrodoSwaggins_70 Start: 46283, Stop: 46762, Start Num: 9
Candidate Starts for FrodoSwaggins_70:
(Start: 7 @46277 has 1 MA's), (Start: 9 @46283 has 6 MA's), (16, 46343), (23, 46397), (26, 46424), (31, 46448), (33, 46466), (42, 46532), (49, 46601), (61, 46637), (64, 46649), (67, 46661),

Gene: FrodoSwaggins_71 Start: 46837, Stop: 47268, Start Num: 12
Candidate Starts for FrodoSwaggins_71:
(Start: 12 @46837 has 13 MA's), (14, 46864), (15, 46876), (20, 46927), (30, 46978), (35, 47008), (45, 47101), (54, 47137), (56, 47143), (62, 47167), (67, 47179),

Gene: GirlPower_68 Start: 46386, Stop: 46817, Start Num: 12
Candidate Starts for GirlPower_68:
(Start: 12 @46386 has 13 MA's), (15, 46425), (30, 46527), (54, 46686), (56, 46692), (58, 46704), (62, 46716), (67, 46728),

Gene: GirlPower_67 Start: 45827, Stop: 46312, Start Num: 7
Candidate Starts for GirlPower_67:
(Start: 7 @45827 has 1 MA's), (Start: 9 @45833 has 6 MA's), (16, 45893), (23, 45947), (26, 45974), (31, 45998), (33, 46016), (38, 46052), (39, 46055), (42, 46082), (49, 46151), (61, 46187), (64, 46199), (67, 46211),

Gene: Hajile_81 Start: 47803, Stop: 48249, Start Num: 12
Candidate Starts for Hajile_81:
(1, 47590), (2, 47659), (Start: 12 @47803 has 13 MA's), (16, 47857), (18, 47872), (21, 47905), (34, 47989), (50, 48130), (54, 48139), (68, 48181), (71, 48205),

Gene: Hajile_79 Start: 47017, Stop: 47454, Start Num: 12
Candidate Starts for Hajile_79:
(Start: 12 @47017 has 13 MA's), (62, 47353), (66, 47359), (69, 47377),

Gene: HazuAndZazu_71 Start: 46504, Stop: 46935, Start Num: 12
Candidate Starts for HazuAndZazu_71:
(Start: 12 @46504 has 13 MA's), (14, 46531), (15, 46543), (20, 46594), (30, 46645), (35, 46675), (45, 46768), (54, 46804), (56, 46810), (62, 46834), (67, 46846),

Gene: IceWarrior_75 Start: 46335, Stop: 46766, Start Num: 12
Candidate Starts for IceWarrior_75:
(Start: 12 @46335 has 13 MA's), (14, 46362), (15, 46374), (20, 46425), (30, 46476), (45, 46599), (54, 46635), (56, 46641), (62, 46665), (67, 46677),

Gene: Kardashian_75 Start: 48276, Stop: 48716, Start Num: 3
Candidate Starts for Kardashian_75:
(Start: 3 @48276 has 1 MA's), (18, 48357), (19, 48366), (29, 48441), (37, 48477), (53, 48588), (54, 48594), (57, 48603), (65, 48630),

Gene: LibertyBell_67 Start: 43991, Stop: 44365, Start Num: 24
Candidate Starts for LibertyBell_67:
(6, 43850), (10, 43859), (Start: 24 @43991 has 1 MA's), (41, 44090), (43, 44123), (75, 44300),

Gene: Madamato_73 Start: 45668, Stop: 46138, Start Num: 9
Candidate Starts for Madamato_73:
(Start: 9 @45668 has 6 MA's), (16, 45728), (55, 45995), (61, 46016), (67, 46040),

Gene: Namo_77 Start: 46997, Stop: 47428, Start Num: 12
Candidate Starts for Namo_77:
(Start: 12 @46997 has 13 MA's), (14, 47024), (15, 47036), (20, 47087), (30, 47138), (45, 47261), (54, 47297), (56, 47303), (62, 47327), (67, 47339),

Gene: Natsu_49 Start: 35600, Stop: 36028, Start Num: 4
Candidate Starts for Natsu_49:
(4, 35600), (8, 35606), (29, 35756), (40, 35810), (59, 35927), (63, 35942), (70, 35978),

Gene: Popy_70 Start: 46283, Stop: 46762, Start Num: 9
Candidate Starts for Popy_70:
(Start: 7 @46277 has 1 MA's), (Start: 9 @46283 has 6 MA's), (16, 46343), (23, 46397), (26, 46424), (31, 46448), (33, 46466), (42, 46532), (49, 46601), (61, 46637), (64, 46649), (67, 46661),

Gene: Popy_71 Start: 46837, Stop: 47268, Start Num: 12
Candidate Starts for Popy_71:
(Start: 12 @46837 has 13 MA's), (14, 46864), (15, 46876), (20, 46927), (30, 46978), (35, 47008), (45, 47101), (54, 47137), (56, 47143), (62, 47167), (67, 47179),

Gene: Rainydai_62 Start: 42071, Stop: 42442, Start Num: 13
Candidate Starts for Rainydai_62:
(Start: 13 @42071 has 3 MA's), (27, 42203), (28, 42206), (32, 42218), (48, 42353), (51, 42365), (60, 42389),

Gene: Rima_76 Start: 46997, Stop: 47428, Start Num: 12
Candidate Starts for Rima_76:
(Start: 12 @46997 has 13 MA's), (14, 47024), (15, 47036), (20, 47087), (30, 47138), (45, 47261), (54, 47297), (56, 47303), (62, 47327), (67, 47339),

Gene: RosaAsantewaa_46 Start: 35392, Stop: 35820, Start Num: 5
Candidate Starts for RosaAsantewaa_46:
(Start: 5 @35392 has 1 MA's), (16, 35452), (19, 35476), (36, 35578), (40, 35605), (44, 35653), (57, 35713), (59, 35722), (73, 35803), (74, 35809),

Gene: Soshi_71 Start: 46148, Stop: 46627, Start Num: 9
Candidate Starts for Soshi_71:
(Start: 7 @46142 has 1 MA's), (Start: 9 @46148 has 6 MA's), (16, 46208), (23, 46262), (26, 46289), (33, 46331), (42, 46397), (49, 46466), (61, 46502), (64, 46514), (67, 46526),

Gene: Soshi_72 Start: 46702, Stop: 47133, Start Num: 12
Candidate Starts for Soshi_72:
(Start: 12 @46702 has 13 MA's), (14, 46729), (15, 46741), (20, 46792), (30, 46843), (35, 46873), (45, 46966), (54, 47002), (56, 47008), (62, 47032), (67, 47044),

Gene: Thiqqums_64 Start: 42071, Stop: 42442, Start Num: 13
Candidate Starts for Thiqqums_64:
(Start: 13 @42071 has 3 MA's), (27, 42203), (28, 42206), (32, 42218), (48, 42353), (51, 42365), (60, 42389),

Gene: Wigberry_77 Start: 47020, Stop: 47457, Start Num: 12
Candidate Starts for Wigberry_77:
(Start: 12 @47020 has 13 MA's), (62, 47356), (66, 47362), (69, 47380),

Gene: Wigberry_79 Start: 47806, Stop: 48252, Start Num: 12
Candidate Starts for Wigberry_79:
(1, 47593), (2, 47662), (Start: 12 @47806 has 13 MA's), (16, 47860), (18, 47875), (21, 47908), (34, 47992), (50, 48133), (54, 48142), (68, 48184), (71, 48208),