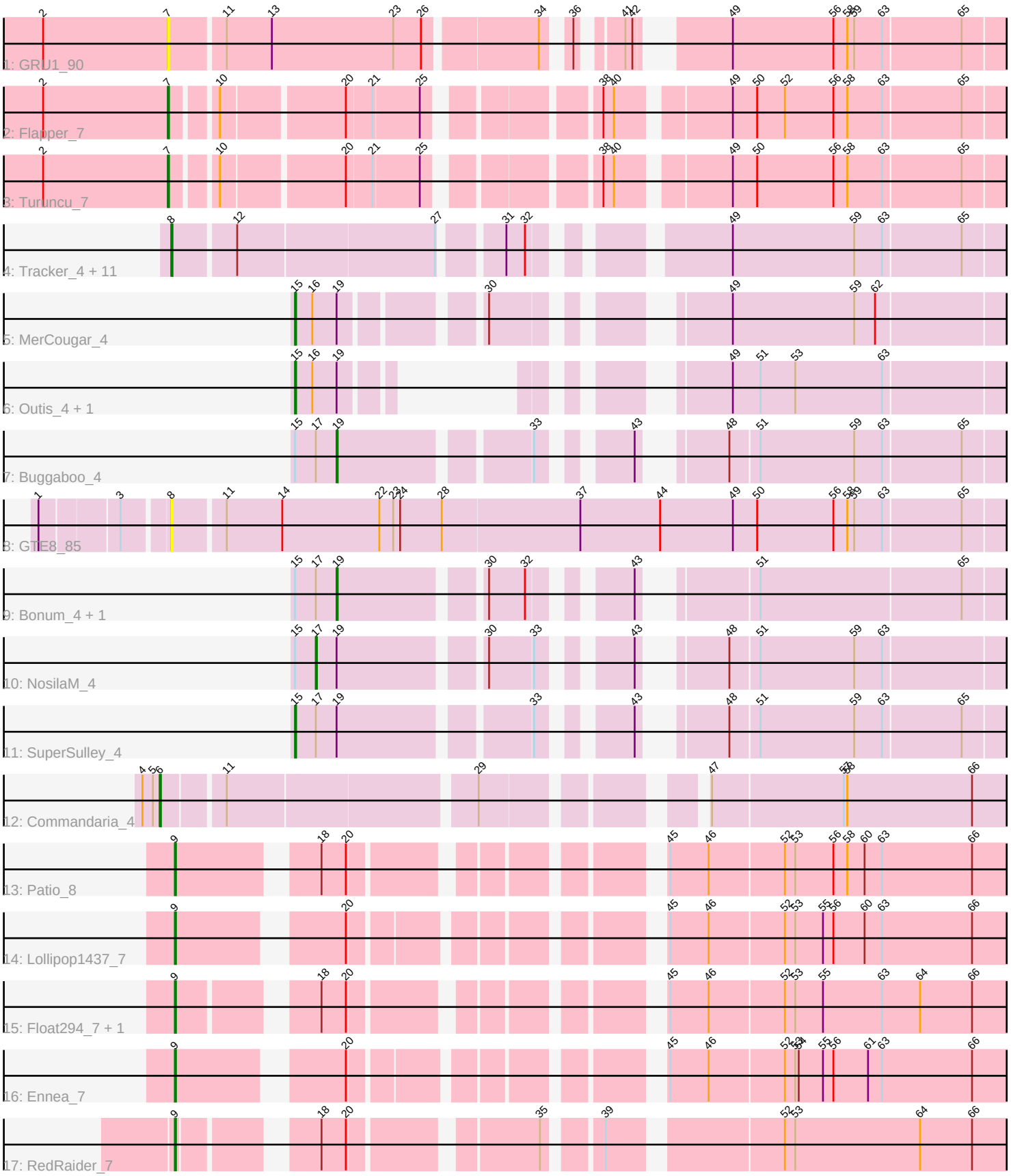
Pham 294970


1: GRU1_90
2: Flapper_7
3: Turuncu_7
4: Tracker_4 + 11
5: MerCougar_4
6: Outis_4 + 1
7: Buggaboo_4
8: GTE8_85
9: Bonum_4 + 1
10: NosilaM_4
11: SuperSulley_4
12: Commandaria_4
13: Patio_8
14: Lollipop1437_7
15: Float294_7 + 1
16: Ennea_7
17: RedRaider_7

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 294970 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294970 has 31 members, 2 are drafts.

Phages represented in each track:
• Track 1 : GRU1_90
• Track 2 : Flapper_7
• Track 3 : Turuncu_7
• Track 4 : Tracker_4, Wheezy_4, GrootJr_6, Kurt_4, NatB6_5, Arti_4, Foxboro_4, NovumRegina_5, Phomeo_4, KidneyBean_4, Emianna_4, Jifall16_4
• Track 5 : MerCougar_4
• Track 6 : Outis_4, StarStruck_4
• Track 7 : Buggaboo_4
• Track 8 : GTE8_85
• Track 9 : Bonum_4, Kabluna_4
• Track 10 : NosilaM_4
• Track 11 : SuperSulley_4
• Track 12 : Commandaria_4
• Track 13 : Patio_8
• Track 14 : Lollipop1437_7
• Track 15 : Float294_7, Skysand_7
• Track 16 : Ennea_7
• Track 17 : RedRaider_7

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

The start number called the most often in the published annotations is 8, it was called in 12 of the 29 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Arti_4, Emianna_4, Foxboro_4, GTE8_85, GrootJr_6, Jifall16_4, KidneyBean_4, Kurt_4, NatB6_5, NovumRegina_5, Phomeo_4, Tracker_4, Wheezy_4,

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

Genes that do not have the "Most Annotated" start:
• Bonum_4, Buggaboo_4, Commandaria_4, Ennea_7, Flapper_7, Float294_7, GRU1_90, Kabluna_4, Lollipop1437_7, MerCougar_4, NosilaM_4, Outis_4, Patio_8,

RedRaider_7, Skysand_7, StarStruck_4, SuperSulley_4, Turuncu_7,

Summary by start number:

Start 6:
• Found in 1 of 31 (3.2%) of genes in pham
• Manual Annotations of this start: 1 of 29
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Commandaria_4 (CR2),

Start 7:
• Found in 3 of 31 (9.7%) of genes in pham
• Manual Annotations of this start: 2 of 29
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Flapper_7 (CR1), GRU1_90 (CR1), Turuncu_7 (CR1),

Start 8:
• Found in 13 of 31 (41.9%) of genes in pham
• Manual Annotations of this start: 12 of 29
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Arti_4 (CR2), Emianna_4 (CR2), Foxboro_4 (CR2), GTE8_85 (CR2), GrootJr_6 (CR2), Jifall16_4 (CR2), KidneyBean_4 (CR2), Kurt_4 (CR2), NatB6_5 (CR2), NovumRegina_5 (CR2), Phomeo_4 (CR2), Tracker_4 (CR2), Wheezy_4 (CR2),

Start 9:
• Found in 6 of 31 (19.4%) of genes in pham
• Manual Annotations of this start: 6 of 29
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ennea_7 (CR3), Float294_7 (CR3), Lollipop1437_7 (CR3), Patio_8 (CR3), RedRaider_7 (CR3), Skysand_7 (CR3),

Start 15:
• Found in 8 of 31 (25.8%) of genes in pham
• Manual Annotations of this start: 4 of 29
• Called 50.0% of time when present
• Phage (with cluster) where this start called: MerCougar_4 (CR2), Outis_4 (CR2), StarStruck_4 (CR2), SuperSulley_4 (CR2),

Start 17:
• Found in 5 of 31 (16.1%) of genes in pham
• Manual Annotations of this start: 1 of 29
• Called 20.0% of time when present
• Phage (with cluster) where this start called: NosilaM_4 (CR2),

Start 19:
• Found in 8 of 31 (25.8%) of genes in pham
• Manual Annotations of this start: 3 of 29
• Called 37.5% of time when present
• Phage (with cluster) where this start called: Bonum_4 (CR2), Buggaboo_4 (CR2), Kabluna_4 (CR2),

Summary by clusters:

There are 3 clusters represented in this pham: CR2, CR3, CR1,

Info for manual annotations of cluster CR1:
•Start number 7 was manually annotated 2 times for cluster CR1.

Info for manual annotations of cluster CR2:
•Start number 6 was manually annotated 1 time for cluster CR2.
•Start number 8 was manually annotated 12 times for cluster CR2.
•Start number 15 was manually annotated 4 times for cluster CR2.
•Start number 17 was manually annotated 1 time for cluster CR2.
•Start number 19 was manually annotated 3 times for cluster CR2.

Info for manual annotations of cluster CR3:
•Start number 9 was manually annotated 6 times for cluster CR3.

Gene Information:

Gene: Arti_4 Start: 3769, Stop: 4416, Start Num: 8
Candidate Starts for Arti_4:
(Start: 8 @3769 has 12 MA's), (12, 3820), (27, 3985), (31, 4030), (32, 4045), (49, 4177), (59, 4282), (63, 4306), (65, 4372),

Gene: Bonum_4 Start: 3830, Stop: 4321, Start Num: 19
Candidate Starts for Bonum_4:
(Start: 15 @3794 has 4 MA's), (Start: 17 @3812 has 1 MA's), (Start: 19 @3830 has 3 MA's), (30, 3941), (32, 3971), (43, 4034), (51, 4106), (65, 4277),

Gene: Buggaboo_4 Start: 3485, Stop: 3976, Start Num: 19
Candidate Starts for Buggaboo_4:
(Start: 15 @3449 has 4 MA's), (Start: 17 @3467 has 1 MA's), (Start: 19 @3485 has 3 MA's), (33, 3632), (43, 3689), (48, 3737), (51, 3761), (59, 3842), (63, 3866), (65, 3932),

Gene: Commandaria_4 Start: 2892, Stop: 3551, Start Num: 6
Candidate Starts for Commandaria_4:
(4, 2877), (5, 2886), (Start: 6 @2892 has 1 MA's), (11, 2940), (29, 3141), (47, 3291), (57, 3402), (58, 3405), (66, 3513),

Gene: Emianna_4 Start: 3551, Stop: 4198, Start Num: 8
Candidate Starts for Emianna_4:
(Start: 8 @3551 has 12 MA's), (12, 3602), (27, 3767), (31, 3812), (32, 3827), (49, 3959), (59, 4064), (63, 4088), (65, 4154),

Gene: Ennea_7 Start: 4584, Stop: 5213, Start Num: 9
Candidate Starts for Ennea_7:
(Start: 9 @4584 has 6 MA's), (20, 4704), (45, 4914), (46, 4947), (52, 5010), (53, 5019), (54, 5022), (55, 5043), (56, 5052), (61, 5082), (63, 5094), (66, 5172),

Gene: Flapper_7 Start: 4082, Stop: 4723, Start Num: 7
Candidate Starts for Flapper_7:

(2, 3974), (Start: 7 @4082 has 2 MA's), (10, 4115), (20, 4211), (21, 4232), (25, 4271), (38, 4391), (40, 4400), (49, 4484), (50, 4505), (52, 4529), (56, 4571), (58, 4583), (63, 4613), (65, 4679),

Gene: Float294_7 Start: 4570, Stop: 5193, Start Num: 9
Candidate Starts for Float294_7:
(Start: 9 @4570 has 6 MA's), (18, 4666), (20, 4687), (45, 4894), (46, 4927), (52, 4990), (53, 4999), (55, 5023), (63, 5074), (64, 5107), (66, 5152),

Gene: Foxboro_4 Start: 3562, Stop: 4209, Start Num: 8
Candidate Starts for Foxboro_4:
(Start: 8 @3562 has 12 MA's), (12, 3613), (27, 3778), (31, 3823), (32, 3838), (49, 3970), (59, 4075), (63, 4099), (65, 4165),

Gene: GRU1_90 Start: 63100, Stop: 63744, Start Num: 7
Candidate Starts for GRU1_90:
(2, 62992), (Start: 7 @63100 has 2 MA's), (11, 63145), (13, 63184), (23, 63289), (26, 63313), (34, 63403), (36, 63418), (41, 63445), (42, 63451), (49, 63505), (56, 63592), (58, 63604), (59, 63610), (63, 63634), (65, 63700),

Gene: GTE8_85 Start: 63971, Stop: 64687, Start Num: 8
Candidate Starts for GTE8_85:
(1, 63872), (3, 63935), (Start: 8 @63971 has 12 MA's), (11, 64013), (14, 64061), (22, 64145), (23, 64157), (24, 64163), (28, 64199), (37, 64316), (44, 64385), (49, 64448), (50, 64469), (56, 64535), (58, 64547), (59, 64553), (63, 64577), (65, 64643),

Gene: GrootJr_6 Start: 4164, Stop: 4811, Start Num: 8
Candidate Starts for GrootJr_6:
(Start: 8 @4164 has 12 MA's), (12, 4215), (27, 4380), (31, 4425), (32, 4440), (49, 4572), (59, 4677), (63, 4701), (65, 4767),

Gene: Jifall16_4 Start: 3562, Stop: 4209, Start Num: 8
Candidate Starts for Jifall16_4:
(Start: 8 @3562 has 12 MA's), (12, 3613), (27, 3778), (31, 3823), (32, 3838), (49, 3970), (59, 4075), (63, 4099), (65, 4165),

Gene: Kabluna_4 Start: 3221, Stop: 3712, Start Num: 19
Candidate Starts for Kabluna_4:
(Start: 15 @3185 has 4 MA's), (Start: 17 @3203 has 1 MA's), (Start: 19 @3221 has 3 MA's), (30, 3332), (32, 3362), (43, 3425), (51, 3497), (65, 3668),

Gene: KidneyBean_4 Start: 3560, Stop: 4207, Start Num: 8
Candidate Starts for KidneyBean_4:
(Start: 8 @3560 has 12 MA's), (12, 3611), (27, 3776), (31, 3821), (32, 3836), (49, 3968), (59, 4073), (63, 4097), (65, 4163),

Gene: Kurt_4 Start: 3551, Stop: 4198, Start Num: 8
Candidate Starts for Kurt_4:
(Start: 8 @3551 has 12 MA's), (12, 3602), (27, 3767), (31, 3812), (32, 3827), (49, 3959), (59, 4064), (63, 4088), (65, 4154),

Gene: Lollipop1437_7 Start: 4572, Stop: 5201, Start Num: 9
Candidate Starts for Lollipop1437_7:

(Start: 9 @4572 has 6 MA's), (20, 4692), (45, 4902), (46, 4935), (52, 4998), (53, 5007), (55, 5031), (56, 5040), (60, 5067), (63, 5082), (66, 5160),

Gene: MerCougar_4 Start: 3823, Stop: 4344, Start Num: 15
Candidate Starts for MerCougar_4:
(Start: 15 @3823 has 4 MA's), (16, 3838), (Start: 19 @3859 has 3 MA's), (30, 3958), (49, 4105), (59, 4210), (62, 4228),

Gene: NatB6_5 Start: 4169, Stop: 4816, Start Num: 8
Candidate Starts for NatB6_5:
(Start: 8 @4169 has 12 MA's), (12, 4220), (27, 4385), (31, 4430), (32, 4445), (49, 4577), (59, 4682), (63, 4706), (65, 4772),

Gene: NosilaM_4 Start: 4091, Stop: 4600, Start Num: 17
Candidate Starts for NosilaM_4:
(Start: 15 @4073 has 4 MA's), (Start: 17 @4091 has 1 MA's), (Start: 19 @4109 has 3 MA's), (30, 4220), (33, 4256), (43, 4313), (48, 4361), (51, 4385), (59, 4466), (63, 4490),

Gene: NovumRegina_5 Start: 4164, Stop: 4811, Start Num: 8
Candidate Starts for NovumRegina_5:
(Start: 8 @4164 has 12 MA's), (12, 4215), (27, 4380), (31, 4425), (32, 4440), (49, 4572), (59, 4677), (63, 4701), (65, 4767),

Gene: Outis_4 Start: 3598, Stop: 4035, Start Num: 15
Candidate Starts for Outis_4:
(Start: 15 @3598 has 4 MA's), (16, 3613), (Start: 19 @3634 has 3 MA's), (49, 3796), (51, 3820), (53, 3850), (63, 3925),

Gene: Patio_8 Start: 5240, Stop: 5869, Start Num: 9
Candidate Starts for Patio_8:
(Start: 9 @5240 has 6 MA's), (18, 5342), (20, 5363), (45, 5570), (46, 5603), (52, 5666), (53, 5675), (56, 5708), (58, 5720), (60, 5735), (63, 5750), (66, 5828),

Gene: Phomeo_4 Start: 3551, Stop: 4198, Start Num: 8
Candidate Starts for Phomeo_4:
(Start: 8 @3551 has 12 MA's), (12, 3602), (27, 3767), (31, 3812), (32, 3827), (49, 3959), (59, 4064), (63, 4088), (65, 4154),

Gene: RedRaider_7 Start: 4511, Stop: 5137, Start Num: 9
Candidate Starts for RedRaider_7:
(Start: 9 @4511 has 6 MA's), (18, 4604), (20, 4625), (35, 4763), (39, 4802), (52, 4934), (53, 4943), (64, 5051), (66, 5096),

Gene: Skysand_7 Start: 4572, Stop: 5195, Start Num: 9
Candidate Starts for Skysand_7:
(Start: 9 @4572 has 6 MA's), (18, 4668), (20, 4689), (45, 4896), (46, 4929), (52, 4992), (53, 5001), (55, 5025), (63, 5076), (64, 5109), (66, 5154),

Gene: StarStruck_4 Start: 3598, Stop: 4035, Start Num: 15
Candidate Starts for StarStruck_4:
(Start: 15 @3598 has 4 MA's), (16, 3613), (Start: 19 @3634 has 3 MA's), (49, 3796), (51, 3820), (53, 3850), (63, 3925),

Gene: SuperSulley_4 Start: 3449, Stop: 3976, Start Num: 15
Candidate Starts for SuperSulley_4:
(Start: 15 @3449 has 4 MA's), (Start: 17 @3467 has 1 MA's), (Start: 19 @3485 has 3 MA's), (33, 3632), (43, 3689), (48, 3737), (51, 3761), (59, 3842), (63, 3866), (65, 3932),

Gene: Tracker_4 Start: 3535, Stop: 4182, Start Num: 8
Candidate Starts for Tracker_4:
(Start: 8 @3535 has 12 MA's), (12, 3586), (27, 3751), (31, 3796), (32, 3811), (49, 3943), (59, 4048), (63, 4072), (65, 4138),

Gene: Turuncu_7 Start: 3978, Stop: 4619, Start Num: 7
Candidate Starts for Turuncu_7:
(2, 3870), (Start: 7 @3978 has 2 MA's), (10, 4011), (20, 4107), (21, 4128), (25, 4167), (38, 4287), (40, 4296), (49, 4380), (50, 4401), (56, 4467), (58, 4479), (63, 4509), (65, 4575),

Gene: Wheezy_4 Start: 3781, Stop: 4428, Start Num: 8
Candidate Starts for Wheezy_4:
(Start: 8 @3781 has 12 MA's), (12, 3832), (27, 3997), (31, 4042), (32, 4057), (49, 4189), (59, 4294), (63, 4318), (65, 4384),