Pham 291203

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 291203 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291203 has 57 members, 11 are drafts.

Phages represented in each track:
• Track 1 : Steamy_73
• Track 2 : Refuge_78
• Track 3 : Pharaoh_76
• Track 4 : Jeeves_82
• Track 5 : Sunhee_81
• Track 6 : Gail_82
• Track 7 : SororFago_80
• Track 8 : Luchador_81
• Track 9 : IronMan_78
• Track 10 : Bactobuster_73, Landor_79, Tristan_77
• Track 11 : Pukovnik_76
• Track 12 : GaugeLDP_75
• Track 13 : NothingSpecial_76
• Track 14 : Trooper_81
• Track 15 : BabyBack_76
• Track 16 : Phaded_75
• Track 17 : Jaan_79
• Track 18 : TarsusIV_81
• Track 19 : Kinmap_85
• Track 20 : Conquerage_80, Alma_80, Ayanochan_80, Eidsmoe_80, ExplosioNervosa_80
• Track 21 : PackMan_81, Myxus_82, Tubs_82, Phaeder_82, Catalina_84
• Track 22 : LoneWolf_82
• Track 23 : Holex_80, Pioneer_82, Scherzo_80, Onglai_80
• Track 24 : Fayely_80, RyeScarlet_83, Hanray_80, Beemo_82, Phonnegut_82, Jiawan_79
• Track 25 : Lilleskat_79
• Track 26 : Spouty_80, Priya_80, Qobbit_80, EmyBug_79
• Track 27 : BogosyJay_81, Maminiaina_81
• Track 28 : Sachima_78, EdogawaKiddo_80
• Track 29 : HortumSL17_83
• Track 30 : Yecey3_83
• Track 31 : Arissanae_77
• Track 32 : Darrell_80
• Track 33 : Elephantoon_82
• Track 34 : Vanisoa_77

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

The start number called the most often in the published annotations is 25, it was called in 30 of the 46 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Arissanae_77, BabyBack_76, Bactobuster_73, Beemo_82, Darrell_80, EdogawaKiddo_80, Elephantoon_82, EmyBug_79, Fayely_80, Gail_82, GaugeLDP_75, Hanray_80, HortumSL17_83, IronMan_78, Jeeves_82, Jiawan_79, Kinmap_85, Landor_79, LoneWolf_82, Luchador_81, NothingSpecial_76, Phaded_75, Phonnegut_82, Priya_80, Pukovnik_76, Qobbit_80, Refuge_78, RyeScarlet_83, Sachima_78, SororFago_80, Spouty_80, Steamy_73, Tristan_77, Trooper_81, Vanisoa_77, Yecey3_83,

Genes that have the "Most Annotated" start but do not call it:
• Alma_80, Ayanochan_80, Catalina_84, Conquerage_80, Eidsmoe_80, ExplosioNervosa_80, Holex_80, Jaan_79, Lilleskat_79, Myxus_82, Onglai_80, PackMan_81, Phaeder_82, Pharaoh_76, Pioneer_82, Scherzo_80, Sunhee_81, TarsusIV_81, Tubs_82,

Genes that do not have the "Most Annotated" start:
• BogosyJay_81, Maminiaina_81,

Summary by start number:

Start 22:
• Found in 5 of 57 (8.8%) of genes in pham
• Manual Annotations of this start: 1 of 46
• Called 20.0% of time when present
• Phage (with cluster) where this start called: TarsusIV_81 (A2),

Start 23:
• Found in 1 of 57 (1.8%) of genes in pham
• Manual Annotations of this start: 1 of 46
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Pharaoh_76 (A12),

Start 24:
• Found in 31 of 57 (54.4%) of genes in pham
• Manual Annotations of this start: 13 of 46
• Called 54.8% of time when present
• Phage (with cluster) where this start called: Alma_80 (A9), Ayanochan_80 (A9), BogosyJay_81 (A9), Catalina_84 (A9), Conquerage_80 (A9), Eidsmoe_80 (A9), ExplosioNervosa_80 (A9), Holex_80 (A9), Lilleskat_79 (A9), Maminiaina_81 (A9), Myxus_82 (A9), Onglai_80 (A9), PackMan_81 (A9), Phaeder_82 (A9), Pioneer_82 (A9), Scherzo_80 (A9), Tubs_82 (A9),

Start 25:
• Found in 55 of 57 (96.5%) of genes in pham
• Manual Annotations of this start: 30 of 46

• Called 65.5% of time when present
• Phage (with cluster) where this start called: Arissanae_77 (A9), BabyBack_76 (A2), Bactobuster_73 (A2), Beemo_82 (A9), Darrell_80 (A9), EdogawaKiddo_80 (A9), Elephantoon_82 (A9), EmyBug_79 (A9), Fayely_80 (A9), Gail_82 (A14), GaugeLDP_75 (A2), Hanray_80 (A9), HortumSL17_83 (A9), IronMan_78 (A2), Jeeves_82 (A14), Jiawan_79 (A9), Kinmap_85 (A21), Landor_79 (A2), LoneWolf_82 (A9), Luchador_81 (A14), NothingSpecial_76 (A2), Phaded_75 (A2), Phonnegut_82 (A9), Priya_80 (A9), Pukovnik_76 (A2), Qobbit_80 (A9), Refuge_78 (A12), RyeScarlet_83 (A9), Sachima_78 (A9), SororFago_80 (A14), Spouty_80 (A9), Steamy_73 (A12), Tristan_77 (A2), Trooper_81 (A2), Vanisoa_77 (A9), Yecey3_83 (A9),

Start 28:
• Found in 42 of 57 (73.7%) of genes in pham
• Manual Annotations of this start: 1 of 46
• Called 4.8% of time when present
• Phage (with cluster) where this start called: Jaan_79 (A2), Sunhee_81 (A14),

Summary by clusters:

There are 5 clusters represented in this pham: A9, A14, A2, A21, A12,

Info for manual annotations of cluster A12:
•Start number 23 was manually annotated 1 time for cluster A12.
•Start number 25 was manually annotated 2 times for cluster A12.

Info for manual annotations of cluster A14:
•Start number 25 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A2:
•Start number 22 was manually annotated 1 time for cluster A2.
•Start number 25 was manually annotated 10 times for cluster A2.
•Start number 28 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A9:
•Start number 24 was manually annotated 13 times for cluster A9.
•Start number 25 was manually annotated 14 times for cluster A9.

Gene Information:
Gene: Alma_80 Start: 46038, Stop: 45799, Start Num: 24
Candidate Starts for Alma_80:
(Start: 24 @46038 has 13 MA's), (Start: 25 @46035 has 30 MA's), (Start: 28 @46017 has 1 MA's), (31, 45996),

Gene: Arissanae_77 Start: 45927, Stop: 45697, Start Num: 25
Candidate Starts for Arissanae_77:
(18, 45990), (Start: 25 @45927 has 30 MA's), (29, 45909),

Gene: Ayanochan_80 Start: 45821, Stop: 45582, Start Num: 24

Candidate Starts for Ayanochan_80:
(Start: 24 @45821 has 13 MA's), (Start: 25 @45818 has 30 MA's), (Start: 28 @45800 has 1 MA's), (31, 45779),

Gene: BabyBack_76 Start: 46538, Stop: 46311, Start Num: 25
Candidate Starts for BabyBack_76:
(Start: 25 @46538 has 30 MA's), (29, 46514), (32, 46481), (38, 46439),

Gene: Bactobuster_73 Start: 46271, Stop: 46044, Start Num: 25
Candidate Starts for Bactobuster_73:
(Start: 25 @46271 has 30 MA's), (27, 46253), (Start: 28 @46250 has 1 MA's),

Gene: Beemo_82 Start: 46028, Stop: 45795, Start Num: 25
Candidate Starts for Beemo_82:
(Start: 24 @46031 has 13 MA's), (Start: 25 @46028 has 30 MA's), (Start: 28 @46010 has 1 MA's), (29, 46007), (35, 45944), (41, 45800),

Gene: BogosyJay_81 Start: 46083, Stop: 45850, Start Num: 24
Candidate Starts for BogosyJay_81:
(Start: 24 @46083 has 13 MA's), (26, 46071), (29, 46062), (35, 45999), (41, 45855),

Gene: Catalina_84 Start: 46141, Stop: 45905, Start Num: 24
Candidate Starts for Catalina_84:
(Start: 24 @46141 has 13 MA's), (Start: 25 @46138 has 30 MA's), (27, 46123), (Start: 28 @46120 has 1 MA's), (29, 46117), (35, 46054), (41, 45910),

Gene: Conquerage_80 Start: 45807, Stop: 45568, Start Num: 24
Candidate Starts for Conquerage_80:
(Start: 24 @45807 has 13 MA's), (Start: 25 @45804 has 30 MA's), (Start: 28 @45786 has 1 MA's), (31, 45765),

Gene: Darrell_80 Start: 45238, Stop: 45002, Start Num: 25
Candidate Starts for Darrell_80:
(16, 45388), (18, 45301), (Start: 25 @45238 has 30 MA's), (Start: 28 @45223 has 1 MA's), (29, 45220), (31, 45202), (32, 45187), (36, 45148),

Gene: EdogawaKiddo_80 Start: 46106, Stop: 45873, Start Num: 25
Candidate Starts for EdogawaKiddo_80:
(Start: 24 @46109 has 13 MA's), (Start: 25 @46106 has 30 MA's), (Start: 28 @46088 has 1 MA's), (29, 46085), (35, 46022), (36, 46013), (41, 45878),

Gene: Eidsmoe_80 Start: 45799, Stop: 45560, Start Num: 24
Candidate Starts for Eidsmoe_80:
(Start: 24 @45799 has 13 MA's), (Start: 25 @45796 has 30 MA's), (Start: 28 @45778 has 1 MA's), (31, 45757),

Gene: Elephantoon_82 Start: 45955, Stop: 45725, Start Num: 25
Candidate Starts for Elephantoon_82:
(3, 46366), (4, 46342), (9, 46249), (18, 46018), (Start: 25 @45955 has 30 MA's), (32, 45904),

Gene: EmyBug_79 Start: 45798, Stop: 45562, Start Num: 25
Candidate Starts for EmyBug_79:

(Start: 24 @45801 has 13 MA's), (Start: 25 @45798 has 30 MA's), (Start: 28 @45780 has 1 MA's), (31, 45759),

Gene: ExplosioNervosa_80 Start: 45867, Stop: 45628, Start Num: 24
Candidate Starts for ExplosioNervosa_80:
(Start: 24 @45867 has 13 MA's), (Start: 25 @45864 has 30 MA's), (Start: 28 @45846 has 1 MA's), (31, 45825),

Gene: Fayely_80 Start: 45771, Stop: 45538, Start Num: 25
Candidate Starts for Fayely_80:
(Start: 24 @45774 has 13 MA's), (Start: 25 @45771 has 30 MA's), (Start: 28 @45753 has 1 MA's), (29, 45750), (35, 45687), (41, 45543),

Gene: Gail_82 Start: 46891, Stop: 46658, Start Num: 25
Candidate Starts for Gail_82:
(1, 47350), (12, 47110), (17, 46993), (18, 46948), (Start: 25 @46891 has 30 MA's),

Gene: GaugeLDP_75 Start: 46123, Stop: 45896, Start Num: 25
Candidate Starts for GaugeLDP_75:
(18, 46186), (Start: 25 @46123 has 30 MA's), (27, 46105), (Start: 28 @46102 has 1 MA's), (31, 46081),

Gene: Hanray_80 Start: 46082, Stop: 45849, Start Num: 25
Candidate Starts for Hanray_80:
(Start: 24 @46085 has 13 MA's), (Start: 25 @46082 has 30 MA's), (Start: 28 @46064 has 1 MA's), (29, 46061), (35, 45998), (41, 45854),

Gene: Holex_80 Start: 46101, Stop: 45865, Start Num: 24
Candidate Starts for Holex_80:
(Start: 24 @46101 has 13 MA's), (Start: 25 @46098 has 30 MA's), (Start: 28 @46080 has 1 MA's), (29, 46077), (35, 46014), (41, 45870),

Gene: HortumSL17_83 Start: 46136, Stop: 45903, Start Num: 25
Candidate Starts for HortumSL17_83:
(Start: 24 @46139 has 13 MA's), (Start: 25 @46136 has 30 MA's), (27, 46121), (Start: 28 @46118 has 1 MA's), (29, 46115), (35, 46052), (41, 45908),

Gene: IronMan_78 Start: 47804, Stop: 47577, Start Num: 25
Candidate Starts for IronMan_78:
(Start: 22 @47816 has 1 MA's), (Start: 25 @47804 has 30 MA's), (27, 47786), (Start: 28 @47783 has 1 MA's), (40, 47603),

Gene: Jaan_79 Start: 47882, Stop: 47676, Start Num: 28
Candidate Starts for Jaan_79:
(Start: 25 @47903 has 30 MA's), (27, 47885), (Start: 28 @47882 has 1 MA's),

Gene: Jeeves_82 Start: 45602, Stop: 45381, Start Num: 25
Candidate Starts for Jeeves_82:
(12, 45830), (17, 45710), (18, 45665), (20, 45632), (Start: 25 @45602 has 30 MA's), (29, 45584), (34, 45527), (40, 45407),

Gene: Jiawan_79 Start: 46114, Stop: 45881, Start Num: 25
Candidate Starts for Jiawan_79:

(Start: 24 @46117 has 13 MA's), (Start: 25 @46114 has 30 MA's), (Start: 28 @46096 has 1 MA's), (29, 46093), (35, 46030), (41, 45886),

Gene: Kinmap_85 Start: 45889, Stop: 45665, Start Num: 25
Candidate Starts for Kinmap_85:
(19, 45937), (Start: 25 @45889 has 30 MA's), (29, 45868), (33, 45832), (36, 45799),

Gene: Landor_79 Start: 47828, Stop: 47601, Start Num: 25
Candidate Starts for Landor_79:
(Start: 25 @47828 has 30 MA's), (27, 47810), (Start: 28 @47807 has 1 MA's),

Gene: Lilleskat_79 Start: 46098, Stop: 45862, Start Num: 24
Candidate Starts for Lilleskat_79:
(Start: 24 @46098 has 13 MA's), (Start: 25 @46095 has 30 MA's), (Start: 28 @46077 has 1 MA's), (29, 46074), (35, 46011), (36, 46002), (41, 45867),

Gene: LoneWolf_82 Start: 46148, Stop: 45915, Start Num: 25
Candidate Starts for LoneWolf_82:
(Start: 24 @46151 has 13 MA's), (Start: 25 @46148 has 30 MA's), (Start: 28 @46130 has 1 MA's), (29, 46127), (35, 46064), (41, 45920),

Gene: Luchador_81 Start: 47087, Stop: 46866, Start Num: 25
Candidate Starts for Luchador_81:
(Start: 25 @47087 has 30 MA's), (29, 47069), (34, 47012), (39, 46937),

Gene: Maminiaina_81 Start: 46065, Stop: 45832, Start Num: 24
Candidate Starts for Maminiaina_81:
(Start: 24 @46065 has 13 MA's), (26, 46053), (29, 46044), (35, 45981), (41, 45837),

Gene: Myxus_82 Start: 46139, Stop: 45903, Start Num: 24
Candidate Starts for Myxus_82:
(Start: 24 @46139 has 13 MA's), (Start: 25 @46136 has 30 MA's), (27, 46121), (Start: 28 @46118 has 1 MA's), (29, 46115), (35, 46052), (41, 45908),

Gene: NothingSpecial_76 Start: 46807, Stop: 46580, Start Num: 25
Candidate Starts for NothingSpecial_76:
(5, 47143), (8, 47104), (18, 46870), (Start: 25 @46807 has 30 MA's), (Start: 28 @46786 has 1 MA's), (36, 46714), (40, 46606),

Gene: Onglai_80 Start: 44289, Stop: 44053, Start Num: 24
Candidate Starts for Onglai_80:
(Start: 24 @44289 has 13 MA's), (Start: 25 @44286 has 30 MA's), (Start: 28 @44268 has 1 MA's), (29, 44265), (35, 44202), (41, 44058),

Gene: PackMan_81 Start: 46014, Stop: 45778, Start Num: 24
Candidate Starts for PackMan_81:
(Start: 24 @46014 has 13 MA's), (Start: 25 @46011 has 30 MA's), (27, 45996), (Start: 28 @45993 has 1 MA's), (29, 45990), (35, 45927), (41, 45783),

Gene: Phaded_75 Start: 47787, Stop: 47560, Start Num: 25
Candidate Starts for Phaded_75:
(Start: 22 @47799 has 1 MA's), (Start: 25 @47787 has 30 MA's), (27, 47769), (Start: 28 @47766 has 1 MA's),

Gene: Phaeder_82 Start: 46014, Stop: 45778, Start Num: 24
Candidate Starts for Phaeder_82:
(Start: 24 @46014 has 13 MA's), (Start: 25 @46011 has 30 MA's), (27, 45996), (Start: 28 @45993 has 1 MA's), (29, 45990), (35, 45927), (41, 45783),

Gene: Pharaoh_76 Start: 46938, Stop: 46705, Start Num: 23
Candidate Starts for Pharaoh_76:
(Start: 23 @46938 has 1 MA's), (Start: 25 @46926 has 30 MA's), (36, 46839), (37, 46836),

Gene: Phonnegut_82 Start: 46027, Stop: 45794, Start Num: 25
Candidate Starts for Phonnegut_82:
(Start: 24 @46030 has 13 MA's), (Start: 25 @46027 has 30 MA's), (Start: 28 @46009 has 1 MA's), (29, 46006), (35, 45943), (41, 45799),

Gene: Pioneer_82 Start: 46030, Stop: 45794, Start Num: 24
Candidate Starts for Pioneer_82:
(Start: 24 @46030 has 13 MA's), (Start: 25 @46027 has 30 MA's), (Start: 28 @46009 has 1 MA's), (29, 46006), (35, 45943), (41, 45799),

Gene: Priya_80 Start: 45799, Stop: 45563, Start Num: 25
Candidate Starts for Priya_80:
(Start: 24 @45802 has 13 MA's), (Start: 25 @45799 has 30 MA's), (Start: 28 @45781 has 1 MA's), (31, 45760),

Gene: Pukovnik_76 Start: 47252, Stop: 47025, Start Num: 25
Candidate Starts for Pukovnik_76:
(2, 47663), (6, 47573), (13, 47468), (14, 47465), (Start: 22 @47264 has 1 MA's), (Start: 25 @47252 has 30 MA's), (27, 47234), (Start: 28 @47231 has 1 MA's),

Gene: Qobbit_80 Start: 45761, Stop: 45525, Start Num: 25
Candidate Starts for Qobbit_80:
(Start: 24 @45764 has 13 MA's), (Start: 25 @45761 has 30 MA's), (Start: 28 @45743 has 1 MA's), (31, 45722),

Gene: Refuge_78 Start: 47331, Stop: 47110, Start Num: 25
Candidate Starts for Refuge_78:
(15, 47484), (21, 47358), (Start: 25 @47331 has 30 MA's), (30, 47307), (31, 47295), (36, 47244),

Gene: RyeScarlet_83 Start: 46002, Stop: 45769, Start Num: 25
Candidate Starts for RyeScarlet_83:
(Start: 24 @46005 has 13 MA's), (Start: 25 @46002 has 30 MA's), (Start: 28 @45984 has 1 MA's), (29, 45981), (35, 45918), (41, 45774),

Gene: Sachima_78 Start: 46039, Stop: 45806, Start Num: 25
Candidate Starts for Sachima_78:
(Start: 24 @46042 has 13 MA's), (Start: 25 @46039 has 30 MA's), (Start: 28 @46021 has 1 MA's), (29, 46018), (35, 45955), (36, 45946), (41, 45811),

Gene: Scherzo_80 Start: 46062, Stop: 45826, Start Num: 24
Candidate Starts for Scherzo_80:
(Start: 24 @46062 has 13 MA's), (Start: 25 @46059 has 30 MA's), (Start: 28 @46041 has 1 MA's), (29, 46038), (35, 45975), (41, 45831),

Gene: SororFago_80 Start: 46801, Stop: 46574, Start Num: 25
Candidate Starts for SororFago_80:
(5, 47134), (7, 47113), (10, 47068), (11, 47056), (12, 47029), (18, 46864), (20, 46831), (Start: 25 @46801 has 30 MA's), (29, 46777), (34, 46720), (40, 46600),

Gene: Spouty_80 Start: 45798, Stop: 45562, Start Num: 25
Candidate Starts for Spouty_80:
(Start: 24 @45801 has 13 MA's), (Start: 25 @45798 has 30 MA's), (Start: 28 @45780 has 1 MA's), (31, 45759),

Gene: Steamy_73 Start: 45875, Stop: 45654, Start Num: 25
Candidate Starts for Steamy_73:
(Start: 25 @45875 has 30 MA's), (36, 45788), (37, 45785),

Gene: Sunhee_81 Start: 45067, Stop: 44861, Start Num: 28
Candidate Starts for Sunhee_81:
(18, 45151), (20, 45118), (Start: 25 @45088 has 30 MA's), (Start: 28 @45067 has 1 MA's),

Gene: TarsusIV_81 Start: 47345, Stop: 47106, Start Num: 22
Candidate Starts for TarsusIV_81:
(Start: 22 @47345 has 1 MA's), (Start: 25 @47333 has 30 MA's), (Start: 28 @47312 has 1 MA's), (36, 47240), (40, 47132),

Gene: Tristan_77 Start: 47640, Stop: 47413, Start Num: 25
Candidate Starts for Tristan_77:
(Start: 25 @47640 has 30 MA's), (27, 47622), (Start: 28 @47619 has 1 MA's),

Gene: Trooper_81 Start: 46895, Stop: 46668, Start Num: 25
Candidate Starts for Trooper_81:
(Start: 22 @46907 has 1 MA's), (Start: 25 @46895 has 30 MA's), (Start: 28 @46874 has 1 MA's), (36, 46802), (40, 46694),

Gene: Tubs_82 Start: 46014, Stop: 45778, Start Num: 24
Candidate Starts for Tubs_82:
(Start: 24 @46014 has 13 MA's), (Start: 25 @46011 has 30 MA's), (27, 45996), (Start: 28 @45993 has 1 MA's), (29, 45990), (35, 45927), (41, 45783),

Gene: Vanisoa_77 Start: 46249, Stop: 46019, Start Num: 25
Candidate Starts for Vanisoa_77:
(17, 46357), (18, 46312), (Start: 25 @46249 has 30 MA's),

Gene: Yecey3_83 Start: 45815, Stop: 45585, Start Num: 25
Candidate Starts for Yecey3_83:
(18, 45878), (Start: 25 @45815 has 30 MA's), (29, 45797), (31, 45779), (32, 45764), (39, 45665),