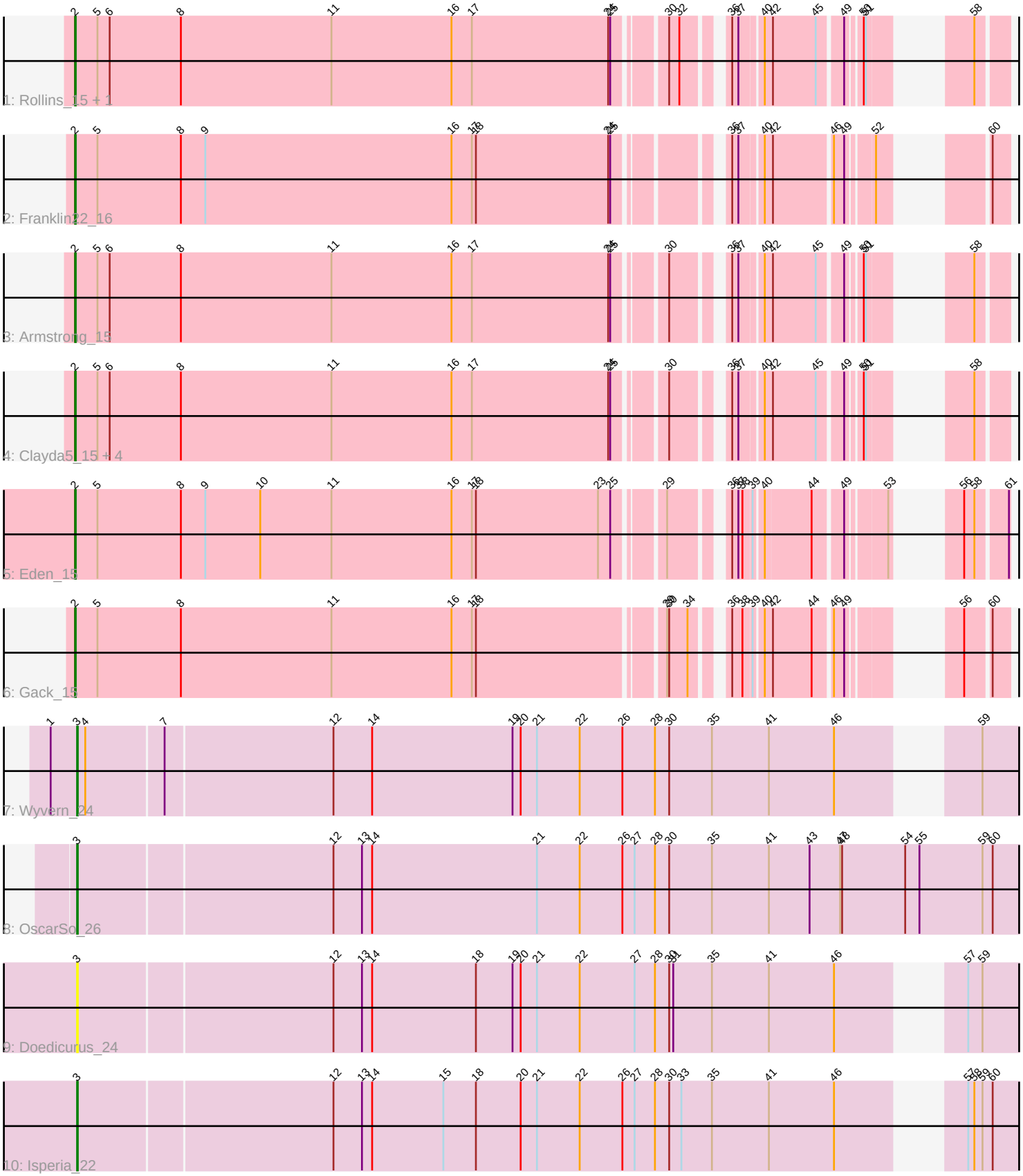
Zoomed Pham 293246



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 293246 Report

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

Pham number 293246 has 15 members, 1 are drafts.

Phages represented in each track:
• Track 1 : Rollins_15, Bernstein_15
• Track 2 : Franklin22_16
• Track 3 : Armstrong_15
• Track 4 : Clayda5_15, Coltrane_15, Vitas_15, Skylord_15, Brahms_15
• Track 5 : Eden_15
• Track 6 : Gack_15
• Track 7 : Wyvern_24
• Track 8 : OscarSo_26
• Track 9 : Doedicurus_24
• Track 10 : Isperia_22

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

The start number called the most often in the published annotations is 2, it was called in 11 of the 14 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Armstrong_15, Bernstein_15, Brahms_15, Clayda5_15, Coltrane_15, Eden_15, Franklin22_16, Gack_15, Rollins_15, Skylord_15, Vitas_15,

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

Genes that do not have the "Most Annotated" start:
• Doedicurus_24, Isperia_22, OscarSo_26, Wyvern_24,

Summary by start number:

Start 2:
• Found in 11 of 15 (73.3%) of genes in pham
• Manual Annotations of this start: 11 of 14
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Armstrong_15 (EB), Bernstein_15 (EB), Brahms_15 (EB), Clayda5_15 (EB), Coltrane_15 (EB), Eden_15 (EB), Franklin22_16

(EB), Gack_15 (EB), Rollins_15 (EB), Skylord_15 (EB), Vitas_15 (EB),

Start 3:
• Found in 4 of 15 (26.7%) of genes in pham
• Manual Annotations of this start: 3 of 14
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Doedicurus_24 (GJ), Isperia_22 (GJ), OscarSo_26 (GJ), Wyvern_24 (GJ),

Summary by clusters:

There are 2 clusters represented in this pham: GJ, EB,

Info for manual annotations of cluster EB:
•Start number 2 was manually annotated 11 times for cluster EB.

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

Gene Information:

Gene: Armstrong_15 Start: 9789, Stop: 11612, Start Num: 2
Candidate Starts for Armstrong_15:
(Start: 2 @9789 has 11 MA's), (5, 9822), (6, 9840), (8, 9945), (11, 10167), (16, 10344), (17, 10374), (24, 10575), (25, 10578), (30, 10641), (36, 10704), (37, 10713), (40, 10743), (42, 10752), (45, 10815), (49, 10848), (50, 10866), (51, 10869), (58, 10947), (70, 11079), (74, 11121), (76, 11130), (79, 11196), (80, 11208), (81, 11229), (88, 11391), (93, 11523), (95, 11601),

Gene: Bernstein_15 Start: 9849, Stop: 11672, Start Num: 2
Candidate Starts for Bernstein_15:
(Start: 2 @9849 has 11 MA's), (5, 9882), (6, 9900), (8, 10005), (11, 10227), (16, 10404), (17, 10434), (24, 10635), (25, 10638), (30, 10701), (32, 10716), (36, 10764), (37, 10773), (40, 10803), (42, 10812), (45, 10875), (49, 10908), (50, 10926), (51, 10929), (58, 11007), (70, 11139), (74, 11181), (76, 11190), (79, 11256), (80, 11268), (81, 11289), (88, 11451), (91, 11544), (93, 11583), (95, 11661),

Gene: Brahms_15 Start: 9789, Stop: 11612, Start Num: 2
Candidate Starts for Brahms_15:
(Start: 2 @9789 has 11 MA's), (5, 9822), (6, 9840), (8, 9945), (11, 10167), (16, 10344), (17, 10374), (24, 10575), (25, 10578), (30, 10641), (36, 10704), (37, 10713), (40, 10743), (42, 10752), (45, 10815), (49, 10848), (50, 10866), (51, 10869), (58, 10947), (70, 11079), (74, 11121), (76, 11130), (79, 11196), (80, 11208), (81, 11229), (88, 11391), (91, 11484), (93, 11523), (95, 11601),

Gene: Clayda5_15 Start: 9789, Stop: 11612, Start Num: 2
Candidate Starts for Clayda5_15:
(Start: 2 @9789 has 11 MA's), (5, 9822), (6, 9840), (8, 9945), (11, 10167), (16, 10344), (17, 10374), (24, 10575), (25, 10578), (30, 10641), (36, 10704), (37, 10713), (40, 10743), (42, 10752), (45, 10815), (49, 10848), (50, 10866), (51, 10869), (58, 10947), (70, 11079), (74, 11121), (76, 11130), (79, 11196), (80, 11208), (81, 11229), (88, 11391), (91, 11484), (93, 11523), (95, 11601),

Gene: Coltrane_15 Start: 9789, Stop: 11612, Start Num: 2
Candidate Starts for Coltrane_15:

(Start: 2 @9789 has 11 MA's), (5, 9822), (6, 9840), (8, 9945), (11, 10167), (16, 10344), (17, 10374), (24, 10575), (25, 10578), (30, 10641), (36, 10704), (37, 10713), (40, 10743), (42, 10752), (45, 10815), (49, 10848), (50, 10866), (51, 10869), (58, 10947), (70, 11079), (74, 11121), (76, 11130), (79, 11196), (80, 11208), (81, 11229), (88, 11391), (91, 11484), (93, 11523), (95, 11601),

Gene: Doedicurus_24 Start: 13965, Stop: 15959, Start Num: 3
Candidate Starts for Doedicurus_24:
(Start: 3 @13965 has 3 MA's), (12, 14331), (13, 14373), (14, 14388), (18, 14541), (19, 14595), (20, 14607), (21, 14631), (22, 14694), (27, 14775), (28, 14805), (30, 14826), (31, 14832), (35, 14889), (41, 14973), (46, 15069), (57, 15189), (59, 15210), (62, 15264), (78, 15465), (79, 15510), (87, 15663), (88, 15714),

Gene: Eden_15 Start: 9928, Stop: 11736, Start Num: 2
Candidate Starts for Eden_15:
(Start: 2 @9928 has 11 MA's), (5, 9961), (8, 10084), (9, 10120), (10, 10201), (11, 10306), (16, 10483), (17, 10513), (18, 10519), (23, 10699), (25, 10717), (29, 10777), (36, 10843), (37, 10852), (38, 10858), (39, 10870), (40, 10882), (44, 10948), (49, 10987), (53, 11038), (56, 11071), (58, 11086), (61, 11128), (64, 11137), (65, 11140), (69, 11203), (70, 11218), (75, 11263), (88, 11512), (89, 11533), (90, 11551), (91, 11605),

Gene: Franklin22_16 Start: 10101, Stop: 11915, Start Num: 2
Candidate Starts for Franklin22_16:
(Start: 2 @10101 has 11 MA's), (5, 10134), (8, 10257), (9, 10293), (16, 10656), (17, 10686), (18, 10692), (24, 10887), (25, 10890), (36, 11016), (37, 11025), (40, 11055), (42, 11064), (46, 11145), (49, 11160), (52, 11193), (60, 11277), (65, 11313), (66, 11325), (69, 11376), (71, 11400), (72, 11424), (79, 11508), (83, 11577), (84, 11598), (88, 11685), (90, 11724), (91, 11778),

Gene: Gack_15 Start: 9990, Stop: 11804, Start Num: 2
Candidate Starts for Gack_15:
(Start: 2 @9990 has 11 MA's), (5, 10023), (8, 10146), (11, 10368), (16, 10545), (17, 10575), (18, 10581), (29, 10839), (30, 10842), (34, 10869), (36, 10905), (38, 10920), (39, 10932), (40, 10944), (42, 10953), (44, 11010), (46, 11034), (49, 11049), (56, 11133), (60, 11166), (63, 11193), (64, 11199), (69, 11265), (70, 11280), (75, 11325), (77, 11346), (79, 11397), (83, 11466), (85, 11508), (88, 11574), (90, 11613), (91, 11667),

Gene: Isperia_22 Start: 13262, Stop: 15256, Start Num: 3
Candidate Starts for Isperia_22:
(Start: 3 @13262 has 3 MA's), (12, 13628), (13, 13670), (14, 13685), (15, 13790), (18, 13838), (20, 13904), (21, 13928), (22, 13991), (26, 14054), (27, 14072), (28, 14102), (30, 14123), (33, 14141), (35, 14186), (41, 14270), (46, 14366), (57, 14486), (58, 14495), (59, 14507), (60, 14522), (62, 14561), (78, 14762), (79, 14807), (82, 14873), (87, 14960), (88, 15011),

Gene: OscarSo_26 Start: 15660, Stop: 17801, Start Num: 3
Candidate Starts for OscarSo_26:
(Start: 3 @15660 has 3 MA's), (12, 16026), (13, 16068), (14, 16083), (21, 16326), (22, 16389), (26, 16452), (27, 16470), (28, 16500), (30, 16521), (35, 16584), (41, 16668), (43, 16728), (47, 16773), (48, 16776), (54, 16869), (55, 16890), (59, 16983), (60, 16998), (73, 17271), (79, 17361), (82, 17427), (85, 17490), (86, 17496), (87, 17514), (88, 17565), (91, 17655), (92, 17682),

Gene: Rollins_15 Start: 9849, Stop: 11672, Start Num: 2
Candidate Starts for Rollins_15:
(Start: 2 @9849 has 11 MA's), (5, 9882), (6, 9900), (8, 10005), (11, 10227), (16, 10404), (17, 10434), (24, 10635), (25, 10638), (30, 10701), (32, 10716), (36, 10764), (37, 10773), (40, 10803), (42, 10812),

(45, 10875), (49, 10908), (50, 10926), (51, 10929), (58, 11007), (70, 11139), (74, 11181), (76, 11190), (79, 11256), (80, 11268), (81, 11289), (88, 11451), (91, 11544), (93, 11583), (95, 11661),

Gene: Skylord_15 Start: 9789, Stop: 11612, Start Num: 2
Candidate Starts for Skylord_15:
(Start: 2 @9789 has 11 MA's), (5, 9822), (6, 9840), (8, 9945), (11, 10167), (16, 10344), (17, 10374), (24, 10575), (25, 10578), (30, 10641), (36, 10704), (37, 10713), (40, 10743), (42, 10752), (45, 10815), (49, 10848), (50, 10866), (51, 10869), (58, 10947), (70, 11079), (74, 11121), (76, 11130), (79, 11196), (80, 11208), (81, 11229), (88, 11391), (91, 11484), (93, 11523), (95, 11601),

Gene: Vitas_15 Start: 9789, Stop: 11612, Start Num: 2
Candidate Starts for Vitas_15:
(Start: 2 @9789 has 11 MA's), (5, 9822), (6, 9840), (8, 9945), (11, 10167), (16, 10344), (17, 10374), (24, 10575), (25, 10578), (30, 10641), (36, 10704), (37, 10713), (40, 10743), (42, 10752), (45, 10815), (49, 10848), (50, 10866), (51, 10869), (58, 10947), (70, 11079), (74, 11121), (76, 11130), (79, 11196), (80, 11208), (81, 11229), (88, 11391), (91, 11484), (93, 11523), (95, 11601),

Gene: Wyvern_24 Start: 14072, Stop: 16066, Start Num: 3
Candidate Starts for Wyvern_24:
(1, 14033), (Start: 3 @14072 has 3 MA's), (4, 14084), (7, 14195), (12, 14438), (14, 14495), (19, 14702), (20, 14714), (21, 14738), (22, 14801), (26, 14864), (28, 14912), (30, 14933), (35, 14996), (41, 15080), (46, 15176), (59, 15317), (67, 15413), (68, 15461), (76, 15548), (78, 15572), (82, 15683), (84, 15716), (87, 15770), (88, 15821), (94, 15974),