



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 191379 Report

This analysis was run 11/02/24 on database version 579.

Pham number 191379 has 43 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Jollipop\_84, Hermeonysus\_83
- Track 2 : LittleFortune\_84
- Track 3 : Fireman\_87, RobsFeet\_90
- Track 4 : BrazzalePHS\_82, Paschalis\_83, PierreOrion\_82, Kowalski\_82, Phrancesco\_83, KaiHaiDragon\_84, Jefe\_83, Onika\_82, Quhwah\_87, Ramiel05\_82, EarickHC\_84, Shotgun\_82, Antares\_83
- Track 5 : Merry\_82, Sunny\_82
- Track 6 : Gina\_88, Teamocil\_88
- Track 7 : Ganandorf\_81, Piperis\_84, Crisis\_84, Cranjis\_84, Scumberland\_85, Pulchra\_85
- Track 8 : Ariadne\_92, Smarties\_92
- Track 9 : Yeti\_84
- Track 10 : Jayden\_83
- Track 11 : ClearAsMud\_86, NoodlelyBoi\_83
- Track 12 : Busephilis\_82
- Track 13 : Savannah\_82
- Track 14 : Metamorphoo\_84
- Track 15 : Tyumbra\_83
- Track 16 : Phorgeous\_83
- Track 17 : Honeyfin\_83
- Track 18 : PiperSansNom\_84, CrazyRich\_81
- Track 19 : Selwyn23\_84

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

The start number called the most often in the published annotations is 3, it was called in 40 of the 40 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Antares\_83, Ariadne\_92, BrazzalePHS\_82, Busephilis\_82, ClearAsMud\_86, Cranjis\_84, CrazyRich\_81, Crisis\_84, EarickHC\_84, Fireman\_87, Ganandorf\_81, Gina\_88, Hermeonysus\_83, Honeyfin\_83, Jayden\_83, Jefe\_83, Jollipop\_84, KaiHaiDragon\_84, Kowalski\_82, LittleFortune\_84, Merry\_82, Metamorphoo\_84, NoodlelyBoi\_83, Onika\_82, Paschalis\_83, Phorgeous\_83, Phrancesco\_83,

PierreOrion\_82, PiperSansNom\_84, Piperis\_84, Pulchra\_85, Quhwah\_87, Ramiel05\_82, RobsFeet\_90, Savannah\_82, Scumberland\_85, Selwyn23\_84, Shotgun\_82, Smarties\_92, Sunny\_82, Teamocil\_88, Tyrumbra\_83, Yeti\_84,

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

- 

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

- 

### Summary by start number:

Start 3:

- Found in 43 of 43 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 40 of 40
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antares\_83 (EC), Ariadne\_92 (EC), BrazzalePHS\_82 (EC), Busephilis\_82 (EC), ClearAsMud\_86 (EC), Cranjjs\_84 (EC), CrazyRich\_81 (EC), Crisis\_84 (EC), EarickHC\_84 (EC), Fireman\_87 (EC), Ganandorf\_81 (EC), Gina\_88 (EC), Hermeonysus\_83 (EC), Honeyfin\_83 (EC), Jayden\_83 (EC), Jefe\_83 (EC), Jollipop\_84 (EC), KaiHaiDragon\_84 (EC), Kowalski\_82 (EC), LittleFortune\_84 (EC), Merry\_82 (EC), Metamorphoo\_84 (EC), NoodlelyBoi\_83 (EC), Onika\_82 (EC), Paschalis\_83 (EC), Phorgeous\_83 (EC), Phrancesco\_83 (EC), PierreOrion\_82 (EC), PiperSansNom\_84 (EC), Piperis\_84 (EC), Pulchra\_85 (EC), Quhwah\_87 (EC), Ramiel05\_82 (EC), RobsFeet\_90 (EC), Savannah\_82 (EC), Scumberland\_85 (EC), Selwyn23\_84 (EC), Shotgun\_82 (EC), Smarties\_92 (EC), Sunny\_82 (EC), Teamocil\_88 (EC), Tyrumbra\_83 (EC), Yeti\_84 (EC),

### Summary by clusters:

There is one cluster represented in this pham: EC

Info for manual annotations of cluster EC:

- Start number 3 was manually annotated 40 times for cluster EC.

### Gene Information:

Gene: Antares\_83 Start: 49113, Stop: 49772, Start Num: 3

Candidate Starts for Antares\_83:

(2, 49029), (Start: 3 @49113 has 40 MA's), (5, 49158), (6, 49161), (7, 49203), (8, 49227), (10, 49260), (11, 49323), (13, 49344), (16, 49458), (19, 49512), (20, 49608), (26, 49689), (28, 49728), (30, 49758),

Gene: Ariadne\_92 Start: 49948, Stop: 50610, Start Num: 3

Candidate Starts for Ariadne\_92:

(1, 49711), (2, 49864), (Start: 3 @49948 has 40 MA's), (4, 49975), (5, 49996), (6, 49999), (7, 50041), (8, 50065), (10, 50098), (11, 50161), (13, 50182), (15, 50293), (16, 50296), (20, 50446), (24, 50491), (26, 50527), (27, 50539), (28, 50566), (30, 50596),

Gene: BrazzalePHS\_82 Start: 48913, Stop: 49572, Start Num: 3

Candidate Starts for BrazzalePHS\_82:

(2, 48829), (Start: 3 @48913 has 40 MA's), (5, 48958), (6, 48961), (7, 49003), (8, 49027), (10, 49060), (11, 49123), (13, 49144), (16, 49258), (19, 49312), (20, 49408), (26, 49489), (28, 49528), (30, 49558),

Gene: Busephilis\_82 Start: 48820, Stop: 49479, Start Num: 3

Candidate Starts for Busephilis\_82:

(2, 48736), (Start: 3 @48820 has 40 MA's), (5, 48865), (6, 48868), (7, 48910), (8, 48934), (10, 48967), (11, 49030), (13, 49051), (16, 49165), (19, 49219), (20, 49315), (21, 49318), (26, 49396), (28, 49435), (30, 49465),

Gene: ClearAsMud\_86 Start: 49132, Stop: 49797, Start Num: 3

Candidate Starts for ClearAsMud\_86:

(2, 49054), (Start: 3 @49132 has 40 MA's), (4, 49162), (5, 49183), (7, 49228), (8, 49252), (10, 49285), (11, 49348), (13, 49369), (16, 49483), (20, 49633), (21, 49636), (26, 49714),

Gene: Cranjjs\_84 Start: 49100, Stop: 49759, Start Num: 3

Candidate Starts for Cranjjs\_84:

(2, 49016), (Start: 3 @49100 has 40 MA's), (5, 49145), (6, 49148), (7, 49190), (8, 49214), (10, 49247), (11, 49310), (13, 49331), (16, 49445), (19, 49499), (20, 49595), (21, 49598), (26, 49676), (28, 49715), (29, 49718), (30, 49745),

Gene: CrazyRich\_81 Start: 48604, Stop: 49263, Start Num: 3

Candidate Starts for CrazyRich\_81:

(2, 48526), (Start: 3 @48604 has 40 MA's), (5, 48649), (6, 48652), (7, 48694), (8, 48718), (10, 48751), (11, 48814), (13, 48835), (16, 48949), (19, 49003), (20, 49099), (26, 49180), (30, 49249),

Gene: Crisis\_84 Start: 49056, Stop: 49715, Start Num: 3

Candidate Starts for Crisis\_84:

(2, 48972), (Start: 3 @49056 has 40 MA's), (5, 49101), (6, 49104), (7, 49146), (8, 49170), (10, 49203), (11, 49266), (13, 49287), (16, 49401), (19, 49455), (20, 49551), (21, 49554), (26, 49632), (28, 49671), (29, 49674), (30, 49701),

Gene: EarickHC\_84 Start: 48978, Stop: 49637, Start Num: 3

Candidate Starts for EarickHC\_84:

(2, 48894), (Start: 3 @48978 has 40 MA's), (5, 49023), (6, 49026), (7, 49068), (8, 49092), (10, 49125), (11, 49188), (13, 49209), (16, 49323), (19, 49377), (20, 49473), (26, 49554), (28, 49593), (30, 49623),

Gene: Fireman\_87 Start: 50364, Stop: 51029, Start Num: 3

Candidate Starts for Fireman\_87:

(2, 50286), (Start: 3 @50364 has 40 MA's), (5, 50415), (7, 50460), (10, 50517), (13, 50601), (14, 50703), (15, 50712), (17, 50718), (20, 50865), (21, 50868), (26, 50946), (28, 50985), (30, 51015),

Gene: Ganandorf\_81 Start: 48464, Stop: 49123, Start Num: 3

Candidate Starts for Ganandorf\_81:

(2, 48380), (Start: 3 @48464 has 40 MA's), (5, 48509), (6, 48512), (7, 48554), (8, 48578), (10, 48611), (11, 48674), (13, 48695), (16, 48809), (19, 48863), (20, 48959), (21, 48962), (26, 49040), (28, 49079), (29, 49082), (30, 49109),

Gene: Gina\_88 Start: 48970, Stop: 49635, Start Num: 3

Candidate Starts for Gina\_88:

(2, 48892), (Start: 3 @48970 has 40 MA's), (4, 49000), (5, 49021), (6, 49024), (7, 49066), (8, 49090), (10, 49123), (11, 49186), (13, 49207), (17, 49324), (20, 49471), (21, 49474), (26, 49552), (27, 49564), (28, 49591), (30, 49621),

Gene: Hermeonysus\_83 Start: 48821, Stop: 49480, Start Num: 3

Candidate Starts for Hermeonysus\_83:

(2, 48737), (Start: 3 @48821 has 40 MA's), (5, 48866), (6, 48869), (7, 48911), (8, 48935), (10, 48968), (11, 49031), (13, 49052), (16, 49166), (19, 49220), (20, 49316), (26, 49397), (28, 49436), (29, 49439), (30, 49466),

Gene: Honeyfin\_83 Start: 48654, Stop: 49313, Start Num: 3

Candidate Starts for Honeyfin\_83:

(2, 48570), (Start: 3 @48654 has 40 MA's), (5, 48699), (6, 48702), (7, 48744), (10, 48801), (11, 48864), (13, 48885), (16, 48999), (19, 49053), (20, 49149), (26, 49230), (30, 49299),

Gene: Jayden\_83 Start: 48575, Stop: 49243, Start Num: 3

Candidate Starts for Jayden\_83:

(2, 48497), (Start: 3 @48575 has 40 MA's), (4, 48608), (5, 48629), (6, 48632), (7, 48674), (8, 48698), (10, 48731), (11, 48794), (12, 48800), (20, 49079), (21, 49082), (24, 49124), (26, 49160), (27, 49172), (28, 49199), (30, 49229),

Gene: Jefe\_83 Start: 48876, Stop: 49535, Start Num: 3

Candidate Starts for Jefe\_83:

(2, 48792), (Start: 3 @48876 has 40 MA's), (5, 48921), (6, 48924), (7, 48966), (8, 48990), (10, 49023), (11, 49086), (13, 49107), (16, 49221), (19, 49275), (20, 49371), (26, 49452), (28, 49491), (30, 49521),

Gene: Jollipop\_84 Start: 49241, Stop: 49900, Start Num: 3

Candidate Starts for Jollipop\_84:

(2, 49157), (Start: 3 @49241 has 40 MA's), (5, 49286), (6, 49289), (7, 49331), (8, 49355), (10, 49388), (11, 49451), (13, 49472), (16, 49586), (19, 49640), (20, 49736), (26, 49817), (28, 49856), (29, 49859), (30, 49886),

Gene: KaiHaiDragon\_84 Start: 48978, Stop: 49637, Start Num: 3

Candidate Starts for KaiHaiDragon\_84:

(2, 48894), (Start: 3 @48978 has 40 MA's), (5, 49023), (6, 49026), (7, 49068), (8, 49092), (10, 49125), (11, 49188), (13, 49209), (16, 49323), (19, 49377), (20, 49473), (26, 49554), (28, 49593), (30, 49623),

Gene: Kowalski\_82 Start: 48908, Stop: 49567, Start Num: 3

Candidate Starts for Kowalski\_82:

(2, 48824), (Start: 3 @48908 has 40 MA's), (5, 48953), (6, 48956), (7, 48998), (8, 49022), (10, 49055), (11, 49118), (13, 49139), (16, 49253), (19, 49307), (20, 49403), (26, 49484), (28, 49523), (30, 49553),

Gene: LittleFortune\_84 Start: 48891, Stop: 49550, Start Num: 3

Candidate Starts for LittleFortune\_84:

(2, 48813), (Start: 3 @48891 has 40 MA's), (5, 48936), (6, 48939), (7, 48981), (8, 49005), (10, 49038), (11, 49101), (13, 49122), (16, 49236), (19, 49290), (20, 49386), (26, 49467), (28, 49506), (30, 49536),

Gene: Merry\_82 Start: 49061, Stop: 49729, Start Num: 3

Candidate Starts for Merry\_82:

(Start: 3 @49061 has 40 MA's), (5, 49109), (7, 49154), (9, 49181), (10, 49211), (11, 49274), (18, 49460), (20, 49559), (21, 49562), (22, 49565), (25, 49625), (26, 49640), (28, 49679), (30, 49709),

Gene: Metamorphoo\_84 Start: 49657, Stop: 50322, Start Num: 3

Candidate Starts for Metamorphoo\_84:

(2, 49579), (Start: 3 @49657 has 40 MA's), (5, 49708), (7, 49753), (10, 49810), (13, 49894), (14, 49996), (15, 50005), (17, 50011), (20, 50158), (21, 50161), (26, 50239),

Gene: NoodlelyBoi\_83 Start: 49237, Stop: 49902, Start Num: 3

Candidate Starts for NoodlelyBoi\_83:

(2, 49159), (Start: 3 @49237 has 40 MA's), (4, 49267), (5, 49288), (7, 49333), (8, 49357), (10, 49390), (11, 49453), (13, 49474), (16, 49588), (20, 49738), (21, 49741), (26, 49819),

Gene: Onika\_82 Start: 48879, Stop: 49538, Start Num: 3

Candidate Starts for Onika\_82:

(2, 48795), (Start: 3 @48879 has 40 MA's), (5, 48924), (6, 48927), (7, 48969), (8, 48993), (10, 49026), (11, 49089), (13, 49110), (16, 49224), (19, 49278), (20, 49374), (26, 49455), (28, 49494), (30, 49524),

Gene: Paschalis\_83 Start: 48906, Stop: 49565, Start Num: 3

Candidate Starts for Paschalis\_83:

(2, 48822), (Start: 3 @48906 has 40 MA's), (5, 48951), (6, 48954), (7, 48996), (8, 49020), (10, 49053), (11, 49116), (13, 49137), (16, 49251), (19, 49305), (20, 49401), (26, 49482), (28, 49521), (30, 49551),

Gene: Phorgeous\_83 Start: 48695, Stop: 49354, Start Num: 3

Candidate Starts for Phorgeous\_83:

(2, 48611), (Start: 3 @48695 has 40 MA's), (5, 48740), (6, 48743), (7, 48785), (8, 48809), (10, 48842), (11, 48905), (13, 48926), (16, 49040), (19, 49094), (20, 49190), (26, 49271), (30, 49340),

Gene: Phrancesco\_83 Start: 49006, Stop: 49665, Start Num: 3

Candidate Starts for Phrancesco\_83:

(2, 48922), (Start: 3 @49006 has 40 MA's), (5, 49051), (6, 49054), (7, 49096), (8, 49120), (10, 49153), (11, 49216), (13, 49237), (16, 49351), (19, 49405), (20, 49501), (26, 49582), (28, 49621), (30, 49651),

Gene: PierreOrion\_82 Start: 48715, Stop: 49374, Start Num: 3

Candidate Starts for PierreOrion\_82:

(2, 48631), (Start: 3 @48715 has 40 MA's), (5, 48760), (6, 48763), (7, 48805), (8, 48829), (10, 48862), (11, 48925), (13, 48946), (16, 49060), (19, 49114), (20, 49210), (26, 49291), (28, 49330), (30, 49360),

Gene: PiperSansNom\_84 Start: 49209, Stop: 49868, Start Num: 3

Candidate Starts for PiperSansNom\_84:

(2, 49131), (Start: 3 @49209 has 40 MA's), (5, 49254), (6, 49257), (7, 49299), (8, 49323), (10, 49356), (11, 49419), (13, 49440), (16, 49554), (19, 49608), (20, 49704), (26, 49785), (30, 49854),

Gene: Piperis\_84 Start: 48814, Stop: 49473, Start Num: 3

Candidate Starts for Piperis\_84:

(2, 48730), (Start: 3 @48814 has 40 MA's), (5, 48859), (6, 48862), (7, 48904), (8, 48928), (10, 48961), (11, 49024), (13, 49045), (16, 49159), (19, 49213), (20, 49309), (21, 49312), (26, 49390), (28, 49429), (29, 49432), (30, 49459),

Gene: Pulchra\_85 Start: 49381, Stop: 50040, Start Num: 3

Candidate Starts for Pulchra\_85:

(2, 49297), (Start: 3 @49381 has 40 MA's), (5, 49426), (6, 49429), (7, 49471), (8, 49495), (10, 49528), (11, 49591), (13, 49612), (16, 49726), (19, 49780), (20, 49876), (21, 49879), (26, 49957), (28, 49996), (29, 49999), (30, 50026),

Gene: Quhwah\_87 Start: 49535, Stop: 50194, Start Num: 3

Candidate Starts for Quhwah\_87:

(2, 49451), (Start: 3 @49535 has 40 MA's), (5, 49580), (6, 49583), (7, 49625), (8, 49649), (10, 49682), (11, 49745), (13, 49766), (16, 49880), (19, 49934), (20, 50030), (26, 50111), (28, 50150), (30, 50180),

Gene: Ramiel05\_82 Start: 48908, Stop: 49567, Start Num: 3

Candidate Starts for Ramiel05\_82:

(2, 48824), (Start: 3 @48908 has 40 MA's), (5, 48953), (6, 48956), (7, 48998), (8, 49022), (10, 49055), (11, 49118), (13, 49139), (16, 49253), (19, 49307), (20, 49403), (26, 49484), (28, 49523), (30, 49553),

Gene: RobsFeet\_90 Start: 49974, Stop: 50639, Start Num: 3

Candidate Starts for RobsFeet\_90:

(2, 49896), (Start: 3 @49974 has 40 MA's), (5, 50025), (7, 50070), (10, 50127), (13, 50211), (14, 50313), (15, 50322), (17, 50328), (20, 50475), (21, 50478), (26, 50556), (28, 50595), (30, 50625),

Gene: Savannah\_82 Start: 49100, Stop: 49759, Start Num: 3

Candidate Starts for Savannah\_82:

(2, 49016), (Start: 3 @49100 has 40 MA's), (5, 49145), (6, 49148), (7, 49190), (10, 49247), (11, 49310), (13, 49331), (16, 49445), (19, 49499), (20, 49595), (21, 49598), (26, 49676), (28, 49715), (29, 49718), (30, 49745),

Gene: Scumberland\_85 Start: 49154, Stop: 49813, Start Num: 3

Candidate Starts for Scumberland\_85:

(2, 49070), (Start: 3 @49154 has 40 MA's), (5, 49199), (6, 49202), (7, 49244), (8, 49268), (10, 49301), (11, 49364), (13, 49385), (16, 49499), (19, 49553), (20, 49649), (21, 49652), (26, 49730), (28, 49769), (29, 49772), (30, 49799),

Gene: Selwyn23\_84 Start: 49039, Stop: 49698, Start Num: 3

Candidate Starts for Selwyn23\_84:

(2, 48955), (Start: 3 @49039 has 40 MA's), (5, 49084), (6, 49087), (7, 49129), (8, 49153), (10, 49186), (11, 49249), (13, 49270), (16, 49384), (20, 49534), (21, 49537), (26, 49615), (28, 49654), (29, 49657), (30, 49684),

Gene: Shotgun\_82 Start: 48410, Stop: 49069, Start Num: 3

Candidate Starts for Shotgun\_82:

(2, 48326), (Start: 3 @48410 has 40 MA's), (5, 48455), (6, 48458), (7, 48500), (8, 48524), (10, 48557), (11, 48620), (13, 48641), (16, 48755), (19, 48809), (20, 48905), (26, 48986), (28, 49025), (30, 49055),

Gene: Smarties\_92 Start: 49945, Stop: 50607, Start Num: 3

Candidate Starts for Smarties\_92:

(1, 49708), (2, 49861), (Start: 3 @49945 has 40 MA's), (4, 49972), (5, 49993), (6, 49996), (7, 50038), (8, 50062), (10, 50095), (11, 50158), (13, 50179), (15, 50290), (16, 50293), (20, 50443), (24, 50488), (26, 50524), (27, 50536), (28, 50563), (30, 50593),

Gene: Sunny\_82 Start: 49063, Stop: 49731, Start Num: 3

Candidate Starts for Sunny\_82:

(Start: 3 @49063 has 40 MA's), (5, 49111), (7, 49156), (9, 49183), (10, 49213), (11, 49276), (18, 49462), (20, 49561), (21, 49564), (22, 49567), (25, 49627), (26, 49642), (28, 49681), (30, 49711),

Gene: Teamocil\_88 Start: 49063, Stop: 49728, Start Num: 3

Candidate Starts for Teamocil\_88:

(2, 48985), (Start: 3 @49063 has 40 MA's), (4, 49093), (5, 49114), (6, 49117), (7, 49159), (8, 49183), (10, 49216), (11, 49279), (13, 49300), (17, 49417), (20, 49564), (21, 49567), (26, 49645), (27, 49657), (28, 49684), (30, 49714),

Gene: Tyrumbra\_83 Start: 49578, Stop: 50243, Start Num: 3

Candidate Starts for Tyrumbra\_83:

(2, 49500), (Start: 3 @49578 has 40 MA's), (5, 49629), (6, 49632), (7, 49674), (10, 49731), (11, 49794), (13, 49815), (14, 49917), (15, 49926), (17, 49932), (20, 50079), (21, 50082), (22, 50085), (26,

50160), (28, 50199), (30, 50229),

Gene: Yeti\_84 Start: 48436, Stop: 49095, Start Num: 3

Candidate Starts for Yeti\_84:

(2, 48352), (Start: 3 @48436 has 40 MA's), (5, 48481), (6, 48484), (7, 48526), (8, 48550), (10, 48583), (11, 48646), (13, 48667), (16, 48781), (19, 48835), (20, 48931), (23, 48940), (26, 49012), (30, 49081),