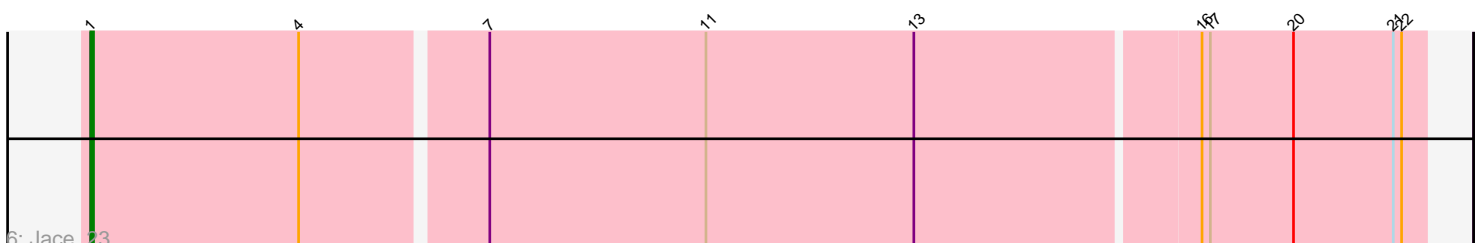
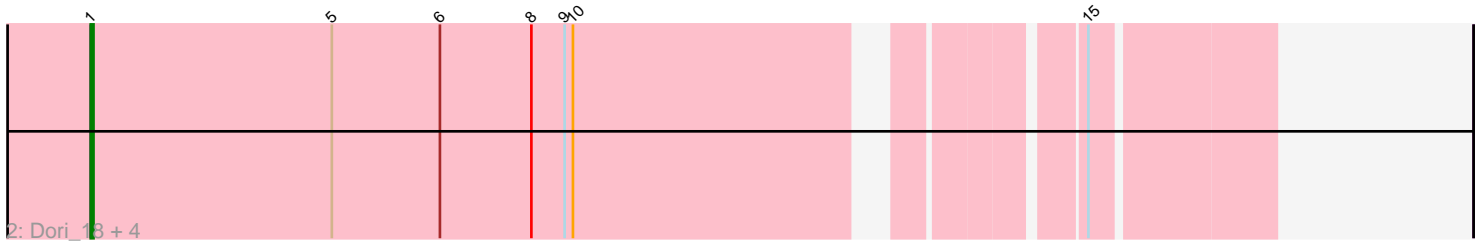
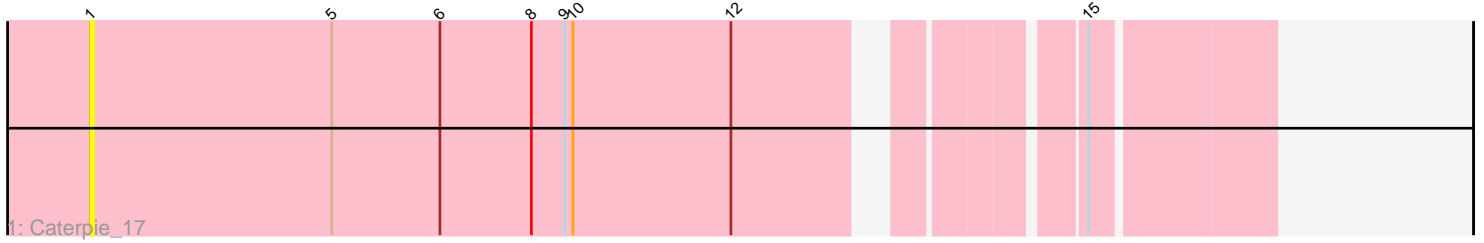


Pham 311530



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 311530 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311530 has 75 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Caterpie\_17
- Track 2 : Dori\_18, Mask\_18, JohnLord\_18, Sejanus\_18, Mao1\_17
- Track 3 : RiverMonster\_19, Filch\_20, Moldemort\_20, AmericanBeauty\_21, Easy2Say\_20, Tarkin\_21, Lilpickle\_18, StolenFromERC\_21, Paperbeatsrock\_21, DrDrey\_20, Simpliphy\_20, JeTaime\_21, Elph10\_20, Phrux\_19, BigBubba\_19, GoldenSpark\_21, Bench\_21, Ukulele\_19, Gage\_21, Cjw1\_19, Pumpkin\_20, Dumbo\_19, Czyszczonek\_20, Becksu\_19, Highbury\_20, Saints25\_20, Kimchi\_21, Emmina\_19, Youngblood\_19, Misfit\_19, Nimrod\_19, HanKaySha\_20, Kanye\_21, ShereKhan\_21, NoSleep\_20, Stank\_21, Greep\_20, Petra64142\_20, PaddyBaddy\_20, Hoonter\_21, Stark\_20, Ptowny\_19, Gemini\_21, 244\_20, Elite2014\_18, Adnama\_21, ChotaBhai\_19, Teaspoon\_19, Hopey\_20, Pharsalus\_20, Brewer\_19, Lilac\_21, Murphy\_19, Argent26\_21, Xandras\_21, ChosenOne\_18, MadamMonkfish\_19, Porky\_18, Wiggin\_21, Thresher\_20, TBrady12\_21, Lilizi\_21, Maxxinista\_20, OrionPax\_20, GooberAzure\_21, NonchalantPear\_19
- Track 4 : Terminus\_19
- Track 5 : Gallia\_32
- Track 6 : Jace\_23

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

The start number called the most often in the published annotations is 1, it was called in 67 of the 67 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 244\_20, Adnama\_21, AmericanBeauty\_21, Argent26\_21, Becksu\_19, Bench\_21, BigBubba\_19, Brewer\_19, Caterpie\_17, ChosenOne\_18, ChotaBhai\_19, Cjw1\_19, Czyszczonek\_20, Dori\_18, DrDrey\_20, Dumbo\_19, Easy2Say\_20, Elite2014\_18, Elph10\_20, Emmina\_19, Filch\_20, Gage\_21, Gemini\_21, GoldenSpark\_21, GooberAzure\_21, Greep\_20, HanKaySha\_20, Highbury\_20, Hoonter\_21, Hopey\_20, Jace\_23, JeTaime\_21, JohnLord\_18, Kanye\_21, Kimchi\_21, Lilac\_21, Lilizi\_21, Lilpickle\_18, MadamMonkfish\_19, Mao1\_17, Mask\_18, Maxxinista\_20, Misfit\_19, Moldemort\_20, Murphy\_19, Nimrod\_19, NoSleep\_20, NonchalantPear\_19, OrionPax\_20, PaddyBaddy\_20, Paperbeatsrock\_21, Petra64142\_20, Pharsalus\_20, Phrux\_19, Porky\_18, Ptowny\_19, Pumpkin\_20, RiverMonster\_19, Saints25\_20,

Sejanus\_18, ShereKhan\_21, Simpliphy\_20, Stank\_21, Stark\_20, StolenFromERC\_21, TBrady12\_21, Tarkin\_21, Teaspoon\_19, Terminus\_19, Thresher\_20, Ukulele\_19, Wiggin\_21, Xandras\_21, Youngblood\_19,

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

- 

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

- Gallia\_32,

### Summary by start number:

Start 1:

- Found in 74 of 75 ( 98.7% ) of genes in pham
- Manual Annotations of this start: 67 of 67
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 244\_20 (E), Adnama\_21 (E), AmericanBeauty\_21 (E), Argent26\_21 (E), Becksu\_19 (E), Bench\_21 (E), BigBubba\_19 (E), Brewer\_19 (E), Caterpie\_17 (AD), ChosenOne\_18 (E), ChotaBhai\_19 (E), Cjw1\_19 (E), Czyszczonek\_20 (E), Dori\_18 (AD), DrDrey\_20 (E), Dumbo\_19 (E), Easy2Say\_20 (E), Elite2014\_18 (E), Elph10\_20 (E), Emmina\_19 (E), Filch\_20 (E), Gage\_21 (E), Gemini\_21 (E), GoldenSpark\_21 (E), GooberAzure\_21 (E), Greep\_20 (E), HanKaySha\_20 (E), Highbury\_20 (E), Hoonter\_21 (E), Hopey\_20 (E), Jace\_23 (singleton), JeTaime\_21 (E), JohnLord\_18 (AD), Kanye\_21 (E), Kimchi\_21 (E), Lilac\_21 (E), Lilizi\_21 (E), Lilpickle\_18 (E), MadamMonkfish\_19 (E), Mao1\_17 (AD), Mask\_18 (AD), Maxxinista\_20 (E), Misfit\_19 (E), Moldemort\_20 (E), Murphy\_19 (E), Nimrod\_19 (E), NoSleep\_20 (E), NonchalantPear\_19 (E), OrionPax\_20 (E), PaddyBaddy\_20 (E), Paperbeatsrock\_21 (E), Petra64142\_20 (E), Pharsalus\_20 (E), Phrux\_19 (E), Porky\_18 (E), Ptowny\_19 (E), Pumpkin\_20 (E), RiverMonster\_19 (E), Saints25\_20 (E), Sejanus\_18 (AD), ShereKhan\_21 (E), Simpliphy\_20 (E), Stank\_21 (E), Stark\_20 (E), StolenFromERC\_21 (E), TBrady12\_21 (E), Tarkin\_21 (E), Teaspoon\_19 (E), Terminus\_19 (E), Thresher\_20 (E), Ukulele\_19 (E), Wiggin\_21 (E), Xandras\_21 (E), Youngblood\_19 (E),

Start 2:

- Found in 1 of 75 ( 1.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gallia\_32 (singleton),

### Summary by clusters:

There are 3 clusters represented in this pham: singleton, E, AD,

Info for manual annotations of cluster AD:

- Start number 1 was manually annotated 4 times for cluster AD.

Info for manual annotations of cluster E:

- Start number 1 was manually annotated 62 times for cluster E.

### Gene Information:

Gene: 244\_20 Start: 11637, Stop: 12110, Start Num: 1

Candidate Starts for 244\_20:

(Start: 1 @11637 has 67 MA's), (3, 11670), (4, 11712), (8, 11793), (14, 11925), (19, 12030),

Gene: Adnama\_21 Start: 11869, Stop: 12342, Start Num: 1

Candidate Starts for Adnama\_21:

(Start: 1 @11869 has 67 MA's), (3, 11902), (4, 11944), (8, 12025), (14, 12157), (19, 12262),

Gene: AmericanBeauty\_21 Start: 11866, Stop: 12339, Start Num: 1

Candidate Starts for AmericanBeauty\_21:

(Start: 1 @11866 has 67 MA's), (3, 11899), (4, 11941), (8, 12022), (14, 12154), (19, 12259),

Gene: Argent26\_21 Start: 11869, Stop: 12342, Start Num: 1

Candidate Starts for Argent26\_21:

(Start: 1 @11869 has 67 MA's), (3, 11902), (4, 11944), (8, 12025), (14, 12157), (19, 12262),

Gene: Becksu\_19 Start: 12056, Stop: 12529, Start Num: 1

Candidate Starts for Becksu\_19:

(Start: 1 @12056 has 67 MA's), (3, 12089), (4, 12131), (8, 12212), (14, 12344), (19, 12449),

Gene: Bench\_21 Start: 11742, Stop: 12215, Start Num: 1

Candidate Starts for Bench\_21:

(Start: 1 @11742 has 67 MA's), (3, 11775), (4, 11817), (8, 11898), (14, 12030), (19, 12135),

Gene: BigBubba\_19 Start: 11125, Stop: 11598, Start Num: 1

Candidate Starts for BigBubba\_19:

(Start: 1 @11125 has 67 MA's), (3, 11158), (4, 11200), (8, 11281), (14, 11413), (19, 11518),

Gene: Brewer\_19 Start: 12124, Stop: 12597, Start Num: 1

Candidate Starts for Brewer\_19:

(Start: 1 @12124 has 67 MA's), (3, 12157), (4, 12199), (8, 12280), (14, 12412), (19, 12517),

Gene: Caterpie\_17 Start: 14376, Stop: 14771, Start Num: 1

Candidate Starts for Caterpie\_17:

(Start: 1 @14376 has 67 MA's), (5, 14463), (6, 14502), (8, 14535), (9, 14547), (10, 14550), (12, 14607), (15, 14709),

Gene: ChosenOne\_18 Start: 11089, Stop: 11562, Start Num: 1

Candidate Starts for ChosenOne\_18:

(Start: 1 @11089 has 67 MA's), (3, 11122), (4, 11164), (8, 11245), (14, 11377), (19, 11482),

Gene: ChotaBhai\_19 Start: 11125, Stop: 11598, Start Num: 1

Candidate Starts for ChotaBhai\_19:

(Start: 1 @11125 has 67 MA's), (3, 11158), (4, 11200), (8, 11281), (14, 11413), (19, 11518),

Gene: Cjw1\_19 Start: 12639, Stop: 13112, Start Num: 1

Candidate Starts for Cjw1\_19:

(Start: 1 @12639 has 67 MA's), (3, 12672), (4, 12714), (8, 12795), (14, 12927), (19, 13032),

Gene: Czyszczone1\_20 Start: 11624, Stop: 12097, Start Num: 1

Candidate Starts for Czyszczone1\_20:

(Start: 1 @11624 has 67 MA's), (3, 11657), (4, 11699), (8, 11780), (14, 11912), (19, 12017),

Gene: Dori\_18 Start: 14192, Stop: 14587, Start Num: 1  
Candidate Starts for Dori\_18:  
(Start: 1 @14192 has 67 MA's), (5, 14279), (6, 14318), (8, 14351), (9, 14363), (10, 14366), (15, 14525),

Gene: DrDrey\_20 Start: 12365, Stop: 12838, Start Num: 1  
Candidate Starts for DrDrey\_20:  
(Start: 1 @12365 has 67 MA's), (3, 12398), (4, 12440), (8, 12521), (14, 12653), (19, 12758),

Gene: Dumbo\_19 Start: 11346, Stop: 11819, Start Num: 1  
Candidate Starts for Dumbo\_19:  
(Start: 1 @11346 has 67 MA's), (3, 11379), (4, 11421), (8, 11502), (14, 11634), (19, 11739),

Gene: Easy2Say\_20 Start: 12612, Stop: 13085, Start Num: 1  
Candidate Starts for Easy2Say\_20:  
(Start: 1 @12612 has 67 MA's), (3, 12645), (4, 12687), (8, 12768), (14, 12900), (19, 13005),

Gene: Elite2014\_18 Start: 11089, Stop: 11562, Start Num: 1  
Candidate Starts for Elite2014\_18:  
(Start: 1 @11089 has 67 MA's), (3, 11122), (4, 11164), (8, 11245), (14, 11377), (19, 11482),

Gene: Elph10\_20 Start: 11349, Stop: 11822, Start Num: 1  
Candidate Starts for Elph10\_20:  
(Start: 1 @11349 has 67 MA's), (3, 11382), (4, 11424), (8, 11505), (14, 11637), (19, 11742),

Gene: Emmina\_19 Start: 11194, Stop: 11667, Start Num: 1  
Candidate Starts for Emmina\_19:  
(Start: 1 @11194 has 67 MA's), (3, 11227), (4, 11269), (8, 11350), (14, 11482), (19, 11587),

Gene: Filch\_20 Start: 11634, Stop: 12107, Start Num: 1  
Candidate Starts for Filch\_20:  
(Start: 1 @11634 has 67 MA's), (3, 11667), (4, 11709), (8, 11790), (14, 11922), (19, 12027),

Gene: Gage\_21 Start: 11869, Stop: 12342, Start Num: 1  
Candidate Starts for Gage\_21:  
(Start: 1 @11869 has 67 MA's), (3, 11902), (4, 11944), (8, 12025), (14, 12157), (19, 12262),

Gene: Gallia\_32 Start: 20363, Stop: 20758, Start Num: 2  
Candidate Starts for Gallia\_32:  
(2, 20363), (18, 20744),

Gene: Gemini\_21 Start: 11869, Stop: 12342, Start Num: 1  
Candidate Starts for Gemini\_21:  
(Start: 1 @11869 has 67 MA's), (3, 11902), (4, 11944), (8, 12025), (14, 12157), (19, 12262),

Gene: GoldenSpark\_21 Start: 11869, Stop: 12342, Start Num: 1  
Candidate Starts for GoldenSpark\_21:  
(Start: 1 @11869 has 67 MA's), (3, 11902), (4, 11944), (8, 12025), (14, 12157), (19, 12262),

Gene: GooberAzure\_21 Start: 11869, Stop: 12342, Start Num: 1  
Candidate Starts for GooberAzure\_21:  
(Start: 1 @11869 has 67 MA's), (3, 11902), (4, 11944), (8, 12025), (14, 12157), (19, 12262),

Gene: Greep\_20 Start: 12199, Stop: 12672, Start Num: 1

Candidate Starts for Greep\_20:

(Start: 1 @12199 has 67 MA's), (3, 12232), (4, 12274), (8, 12355), (14, 12487), (19, 12592),

Gene: HanKaySha\_20 Start: 11624, Stop: 12097, Start Num: 1

Candidate Starts for HanKaySha\_20:

(Start: 1 @11624 has 67 MA's), (3, 11657), (4, 11699), (8, 11780), (14, 11912), (19, 12017),

Gene: Highbury\_20 Start: 11543, Stop: 12016, Start Num: 1

Candidate Starts for Highbury\_20:

(Start: 1 @11543 has 67 MA's), (3, 11576), (4, 11618), (8, 11699), (14, 11831), (19, 11936),

Gene: Hoonter\_21 Start: 11869, Stop: 12342, Start Num: 1

Candidate Starts for Hoonter\_21:

(Start: 1 @11869 has 67 MA's), (3, 11902), (4, 11944), (8, 12025), (14, 12157), (19, 12262),

Gene: Hokey\_20 Start: 11634, Stop: 12107, Start Num: 1

Candidate Starts for Hokey\_20:

(Start: 1 @11634 has 67 MA's), (3, 11667), (4, 11709), (8, 11790), (14, 11922), (19, 12027),

Gene: Jace\_23 Start: 20120, Stop: 20590, Start Num: 1

Candidate Starts for Jace\_23:

(Start: 1 @20120 has 67 MA's), (4, 20195), (7, 20258), (11, 20336), (13, 20411), (16, 20510), (17, 20513), (20, 20543), (21, 20579), (22, 20582),

Gene: JeTaime\_21 Start: 12674, Stop: 13147, Start Num: 1

Candidate Starts for JeTaime\_21:

(Start: 1 @12674 has 67 MA's), (3, 12707), (4, 12749), (8, 12830), (14, 12962), (19, 13067),

Gene: JohnLord\_18 Start: 13895, Stop: 14290, Start Num: 1

Candidate Starts for JohnLord\_18:

(Start: 1 @13895 has 67 MA's), (5, 13982), (6, 14021), (8, 14054), (9, 14066), (10, 14069), (15, 14228),

Gene: Kanye\_21 Start: 12862, Stop: 13335, Start Num: 1

Candidate Starts for Kanye\_21:

(Start: 1 @12862 has 67 MA's), (3, 12895), (4, 12937), (8, 13018), (14, 13150), (19, 13255),

Gene: Kimchi\_21 Start: 11869, Stop: 12342, Start Num: 1

Candidate Starts for Kimchi\_21:

(Start: 1 @11869 has 67 MA's), (3, 11902), (4, 11944), (8, 12025), (14, 12157), (19, 12262),

Gene: Lilac\_21 Start: 11370, Stop: 11843, Start Num: 1

Candidate Starts for Lilac\_21:

(Start: 1 @11370 has 67 MA's), (3, 11403), (4, 11445), (8, 11526), (14, 11658), (19, 11763),

Gene: Lilizi\_21 Start: 11581, Stop: 12054, Start Num: 1

Candidate Starts for Lilizi\_21:

(Start: 1 @11581 has 67 MA's), (3, 11614), (4, 11656), (8, 11737), (14, 11869), (19, 11974),

Gene: Lilpickle\_18 Start: 11089, Stop: 11562, Start Num: 1

Candidate Starts for Lilpickle\_18:

(Start: 1 @11089 has 67 MA's), (3, 11122), (4, 11164), (8, 11245), (14, 11377), (19, 11482),

Gene: MadamMonkfish\_19 Start: 11300, Stop: 11773, Start Num: 1

Candidate Starts for MadamMonkfish\_19:

(Start: 1 @11300 has 67 MA's), (3, 11333), (4, 11375), (8, 11456), (14, 11588), (19, 11693),

Gene: Mao1\_17 Start: 14588, Stop: 14983, Start Num: 1

Candidate Starts for Mao1\_17:

(Start: 1 @14588 has 67 MA's), (5, 14675), (6, 14714), (8, 14747), (9, 14759), (10, 14762), (15, 14921),

Gene: Mask\_18 Start: 14589, Stop: 14984, Start Num: 1

Candidate Starts for Mask\_18:

(Start: 1 @14589 has 67 MA's), (5, 14676), (6, 14715), (8, 14748), (9, 14760), (10, 14763), (15, 14922),

Gene: Maxxinista\_20 Start: 11349, Stop: 11822, Start Num: 1

Candidate Starts for Maxxinista\_20:

(Start: 1 @11349 has 67 MA's), (3, 11382), (4, 11424), (8, 11505), (14, 11637), (19, 11742),

Gene: Misfit\_19 Start: 11966, Stop: 12439, Start Num: 1

Candidate Starts for Misfit\_19:

(Start: 1 @11966 has 67 MA's), (3, 11999), (4, 12041), (8, 12122), (14, 12254), (19, 12359),

Gene: Moldemort\_20 Start: 11624, Stop: 12097, Start Num: 1

Candidate Starts for Moldemort\_20:

(Start: 1 @11624 has 67 MA's), (3, 11657), (4, 11699), (8, 11780), (14, 11912), (19, 12017),

Gene: Murphy\_19 Start: 11341, Stop: 11814, Start Num: 1

Candidate Starts for Murphy\_19:

(Start: 1 @11341 has 67 MA's), (3, 11374), (4, 11416), (8, 11497), (14, 11629), (19, 11734),

Gene: Nimrod\_19 Start: 12121, Stop: 12594, Start Num: 1

Candidate Starts for Nimrod\_19:

(Start: 1 @12121 has 67 MA's), (3, 12154), (4, 12196), (8, 12277), (14, 12409), (19, 12514),

Gene: NoSleep\_20 Start: 11621, Stop: 12094, Start Num: 1

Candidate Starts for NoSleep\_20:

(Start: 1 @11621 has 67 MA's), (3, 11654), (4, 11696), (8, 11777), (14, 11909), (19, 12014),

Gene: NonchalantPear\_19 Start: 11574, Stop: 12047, Start Num: 1

Candidate Starts for NonchalantPear\_19:

(Start: 1 @11574 has 67 MA's), (3, 11607), (4, 11649), (8, 11730), (14, 11862), (19, 11967),

Gene: OrionPax\_20 Start: 11624, Stop: 12097, Start Num: 1

Candidate Starts for OrionPax\_20:

(Start: 1 @11624 has 67 MA's), (3, 11657), (4, 11699), (8, 11780), (14, 11912), (19, 12017),

Gene: PaddyBaddy\_20 Start: 11634, Stop: 12107, Start Num: 1

Candidate Starts for PaddyBaddy\_20:

(Start: 1 @11634 has 67 MA's), (3, 11667), (4, 11709), (8, 11790), (14, 11922), (19, 12027),

Gene: Paperbeatsrock\_21 Start: 12856, Stop: 13329, Start Num: 1

Candidate Starts for Paperbeatsrock\_21:

(Start: 1 @12856 has 67 MA's), (3, 12889), (4, 12931), (8, 13012), (14, 13144), (19, 13249),

Gene: Petra64142\_20 Start: 12337, Stop: 12810, Start Num: 1

Candidate Starts for Petra64142\_20:

(Start: 1 @12337 has 67 MA's), (3, 12370), (4, 12412), (8, 12493), (14, 12625), (19, 12730),

Gene: Pharsalus\_20 Start: 12656, Stop: 13129, Start Num: 1

Candidate Starts for Pharsalus\_20:

(Start: 1 @12656 has 67 MA's), (3, 12689), (4, 12731), (8, 12812), (14, 12944), (19, 13049),

Gene: Phrux\_19 Start: 11620, Stop: 12093, Start Num: 1

Candidate Starts for Phrux\_19:

(Start: 1 @11620 has 67 MA's), (3, 11653), (4, 11695), (8, 11776), (14, 11908), (19, 12013),

Gene: Porky\_18 Start: 11194, Stop: 11667, Start Num: 1

Candidate Starts for Porky\_18:

(Start: 1 @11194 has 67 MA's), (3, 11227), (4, 11269), (8, 11350), (14, 11482), (19, 11587),

Gene: Ptowny\_19 Start: 11261, Stop: 11734, Start Num: 1

Candidate Starts for Ptowny\_19:

(Start: 1 @11261 has 67 MA's), (3, 11294), (4, 11336), (8, 11417), (14, 11549), (19, 11654),

Gene: Pumpkin\_20 Start: 11437, Stop: 11910, Start Num: 1

Candidate Starts for Pumpkin\_20:

(Start: 1 @11437 has 67 MA's), (3, 11470), (4, 11512), (8, 11593), (14, 11725), (19, 11830),

Gene: RiverMonster\_19 Start: 11634, Stop: 12107, Start Num: 1

Candidate Starts for RiverMonster\_19:

(Start: 1 @11634 has 67 MA's), (3, 11667), (4, 11709), (8, 11790), (14, 11922), (19, 12027),

Gene: Saints25\_20 Start: 11543, Stop: 12016, Start Num: 1

Candidate Starts for Saints25\_20:

(Start: 1 @11543 has 67 MA's), (3, 11576), (4, 11618), (8, 11699), (14, 11831), (19, 11936),

Gene: Sejanus\_18 Start: 15522, Stop: 15917, Start Num: 1

Candidate Starts for Sejanus\_18:

(Start: 1 @15522 has 67 MA's), (5, 15609), (6, 15648), (8, 15681), (9, 15693), (10, 15696), (15, 15855),

Gene: ShereKhan\_21 Start: 12862, Stop: 13335, Start Num: 1

Candidate Starts for ShereKhan\_21:

(Start: 1 @12862 has 67 MA's), (3, 12895), (4, 12937), (8, 13018), (14, 13150), (19, 13255),

Gene: Simpliphy\_20 Start: 11624, Stop: 12097, Start Num: 1

Candidate Starts for Simpliphy\_20:

(Start: 1 @11624 has 67 MA's), (3, 11657), (4, 11699), (8, 11780), (14, 11912), (19, 12017),

Gene: Stank\_21 Start: 11869, Stop: 12342, Start Num: 1

Candidate Starts for Stank\_21:

(Start: 1 @11869 has 67 MA's), (3, 11902), (4, 11944), (8, 12025), (14, 12157), (19, 12262),

Gene: Stark\_20 Start: 11637, Stop: 12110, Start Num: 1

Candidate Starts for Stark\_20:

(Start: 1 @11637 has 67 MA's), (3, 11670), (4, 11712), (8, 11793), (14, 11925), (19, 12030),

Gene: StolenFromERC\_21 Start: 11869, Stop: 12342, Start Num: 1

Candidate Starts for StolenFromERC\_21:

(Start: 1 @11869 has 67 MA's), (3, 11902), (4, 11944), (8, 12025), (14, 12157), (19, 12262),

Gene: TBrady12\_21 Start: 11866, Stop: 12339, Start Num: 1

Candidate Starts for TBrady12\_21:

(Start: 1 @11866 has 67 MA's), (3, 11899), (4, 11941), (8, 12022), (14, 12154), (19, 12259),

Gene: Tarkin\_21 Start: 12865, Stop: 13338, Start Num: 1

Candidate Starts for Tarkin\_21:

(Start: 1 @12865 has 67 MA's), (3, 12898), (4, 12940), (8, 13021), (14, 13153), (19, 13258),

Gene: Teaspoon\_19 Start: 11319, Stop: 11792, Start Num: 1

Candidate Starts for Teaspoon\_19:

(Start: 1 @11319 has 67 MA's), (3, 11352), (4, 11394), (8, 11475), (14, 11607), (19, 11712),

Gene: Terminus\_19 Start: 11966, Stop: 12439, Start Num: 1

Candidate Starts for Terminus\_19:

(Start: 1 @11966 has 67 MA's), (3, 11999), (4, 12041), (14, 12254), (19, 12359),

Gene: Thresher\_20 Start: 12627, Stop: 13100, Start Num: 1

Candidate Starts for Thresher\_20:

(Start: 1 @12627 has 67 MA's), (3, 12660), (4, 12702), (8, 12783), (14, 12915), (19, 13020),

Gene: Ukulele\_19 Start: 11637, Stop: 12110, Start Num: 1

Candidate Starts for Ukulele\_19:

(Start: 1 @11637 has 67 MA's), (3, 11670), (4, 11712), (8, 11793), (14, 11925), (19, 12030),

Gene: Wiggin\_21 Start: 11869, Stop: 12342, Start Num: 1

Candidate Starts for Wiggin\_21:

(Start: 1 @11869 has 67 MA's), (3, 11902), (4, 11944), (8, 12025), (14, 12157), (19, 12262),

Gene: Xandras\_21 Start: 11869, Stop: 12342, Start Num: 1

Candidate Starts for Xandras\_21:

(Start: 1 @11869 has 67 MA's), (3, 11902), (4, 11944), (8, 12025), (14, 12157), (19, 12262),

Gene: Youngblood\_19 Start: 12047, Stop: 12520, Start Num: 1

Candidate Starts for Youngblood\_19:

(Start: 1 @12047 has 67 MA's), (3, 12080), (4, 12122), (8, 12203), (14, 12335), (19, 12440),