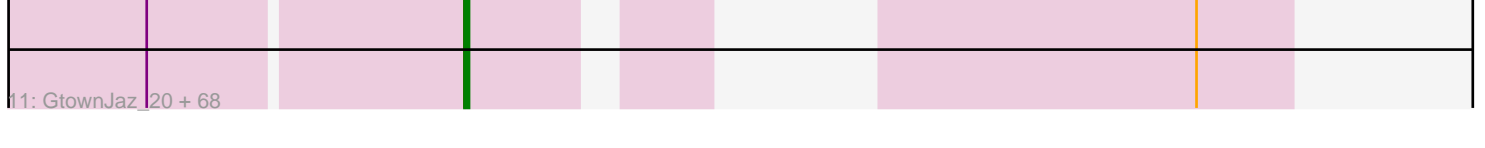
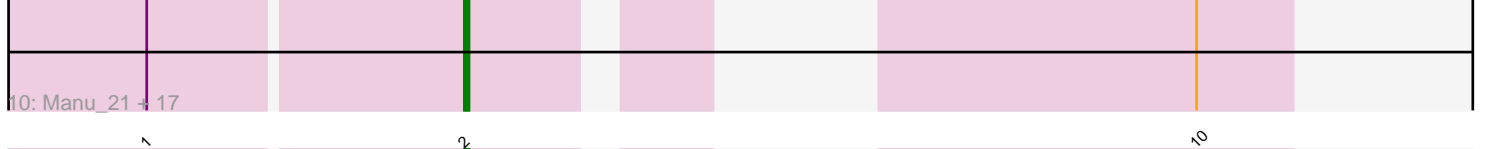
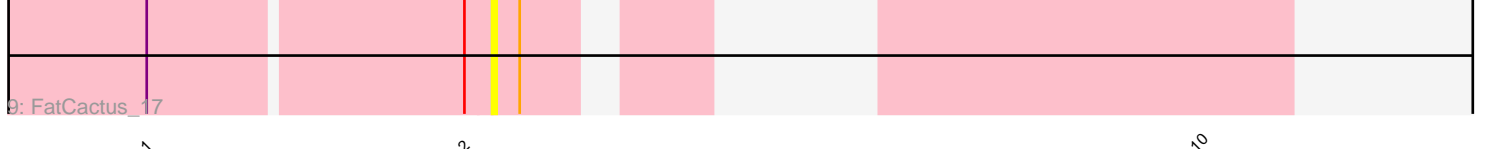
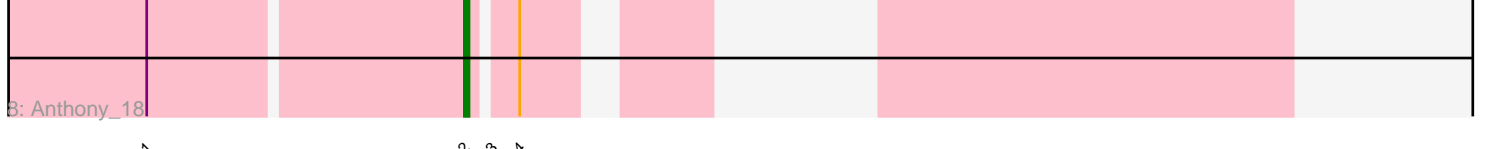
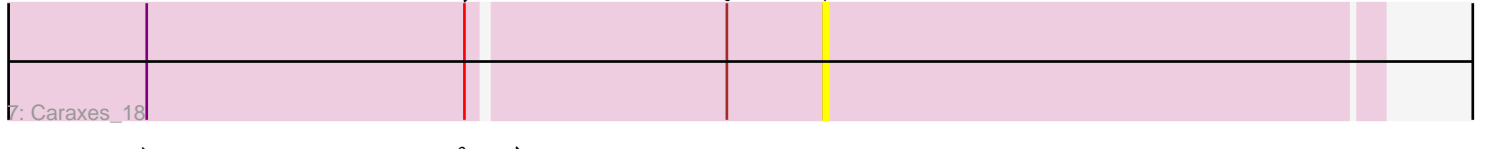
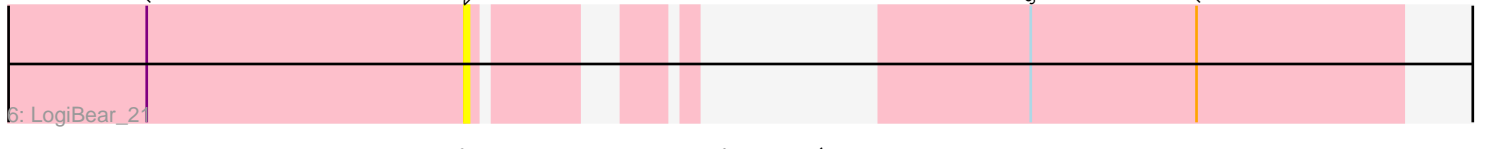
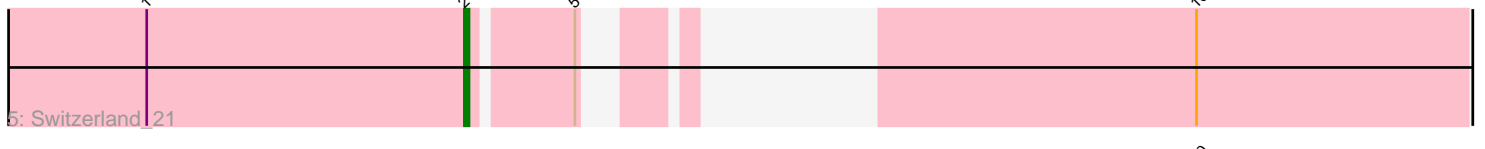
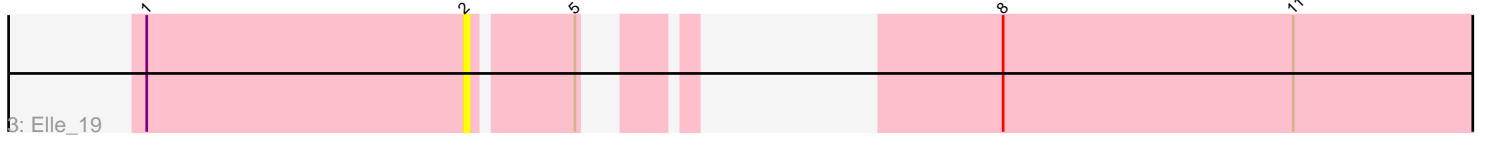
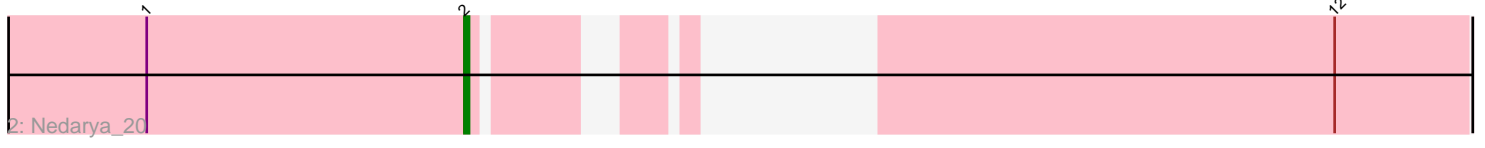
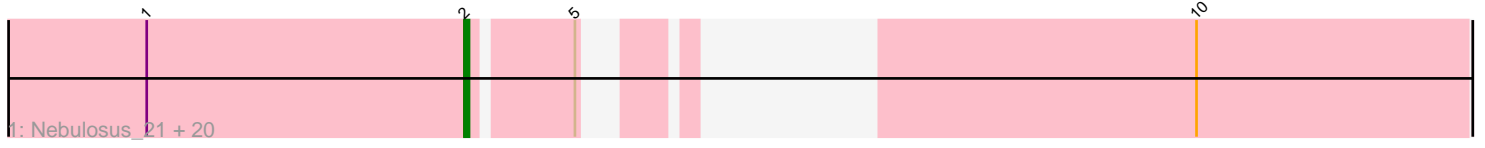


Pham 303144



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 303144 Report

This analysis was run 06/08/26 on database version 649.

Pham number 303144 has 116 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Nebulosus\_21, Epsocamisio\_21, ReMo\_21, Remus\_21, Ravana\_21, KatherineG\_21, DekHockey33\_21, MinecraftSteve\_22, Looper\_22, Battleship\_22, LastResort\_21, Oofda\_21, JSwag\_21, Waits\_21, Boohoo\_21, ShayRa\_22, Strosahl\_21, Anaysia\_21, Warrior24\_21, Rosalind\_21, Soups\_21
- Track 2 : Nedarya\_20
- Track 3 : Elle\_19
- Track 4 : Anon\_19
- Track 5 : Switzerland\_21
- Track 6 : LogiBear\_21
- Track 7 : Caraxes\_18
- Track 8 : Anthony\_18
- Track 9 : FatCactus\_17
- Track 10 : Manu\_21, Phranny\_21, Calvinny\_21, PhishRPhriends\_19, Pawn\_20, PurpleHaze\_20, ClownCar\_21, Kalb97\_21, JeppNRM\_21, ACFishhook\_20, Kalnoky\_21, OlanP\_20, Heliosoles\_20, Marius\_21, HaveUMetTed\_21, Gemma\_20, Reba\_21, Groupthink\_21
- Track 11 : GtownJaz\_20, MoneyMay\_20, BuzzBuzz\_19, Tiffany\_20, Marie\_20, HashRod\_21, Anubis\_22, Colbster\_20, DaHudson\_20, SoYo\_20, Stagni\_20, Sabinator\_20, Bxz2\_191, Beauxregard13\_20, LugYA\_22, Penny1\_20, EpicPhail\_20, Louie6\_20, KADY\_21, JenCasNa\_20, LarryKay\_20, Grif\_20, Misomonster\_22, Lowa\_20, Montavir\_19, Mainiac\_20, Snickers\_20, Croquant\_21, Daishi\_19, MadMarie\_20, Pembroke\_20, Ollie\_20, PotatoSplit\_21, Cullens\_20, SoilDragon\_20, Farber\_20, Aglet\_20, Phoxy\_20, Malinsilva\_22, Wooldri\_22, PGHhamlin\_22, MarQuardt\_20, Gwennie\_19, Watson\_20, Spike509\_20, Phoebe\_20, AugsMagnumOpus\_22, Microwolf\_20, Fernando\_20, Hercules11\_20, P28Green\_20, Grum1\_20, Sabia\_20, Jobu08\_20, Bigflo\_20, Lilith\_20, AgronaGT15\_20, Zetzy\_19, Vix\_20, GingkoMaracino\_20, Taurus\_20, Dieselweasel\_20, LBerry\_20, Rummer\_20, Grub\_20, TinyPebbles\_20, MuchMore\_22, BreSam8\_20, JHC117\_20

### ***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 105 of the 105 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ACFishhook\_20, Aglet\_20, AgronaGT15\_20, Anaysia\_21, Anon\_19, Anthony\_18, Anubis\_22, AugsMagnumOpus\_22, Battleship\_22, Beauxregard13\_20, Bigflo\_20, Boohoo\_21, BreSam8\_20, BuzzBuzz\_19, Bxz2\_191, Calvinny\_21, ClownCar\_21, Colbster\_20, Croquant\_21, Cullens\_20, DaHudson\_20, Daishi\_19, DekHockey33\_21, Dieselweasel\_20, Elle\_19, EpicPhail\_20, Epsocamisio\_21, Farber\_20, Fernando\_20, Gemma\_20, GingkoMaracino\_20, Grif\_20, Groupthink\_21, Grub\_20, Grum1\_20, GtownJaz\_20, Gwennie\_19, HashRod\_21, HaveUMetTed\_21, Heliosoles\_20, Hercules11\_20, JHC117\_20, JSwag\_21, JenCasNa\_20, JeppNRM\_21, Jobu08\_20, KADY\_21, Kalb97\_21, Kalnoky\_21, KatherineG\_21, LBerry\_20, LarryKay\_20, LastResort\_21, Lilith\_20, LogiBear\_21, Looper\_22, Louie6\_20, Lowa\_20, LugYA\_22, MadMarie\_20, Mainiac\_20, Malinsilva\_22, Manu\_21, MarQuardt\_20, Marie\_20, Marius\_21, Microwolf\_20, MinecraftSteve\_22, Misomonster\_22, MoneyMay\_20, Montavir\_19, MuchMore\_22, Nebulosus\_21, Nedarya\_20, OlanP\_20, Ollie\_20, Oofda\_21, P28Green\_20, PGHhamlin\_22, Pawn\_20, Pembroke\_20, Penny1\_20, PhishRPhriends\_19, Phoebe\_20, Phoxy\_20, Phranny\_21, PotatoSplit\_21, PurpleHaze\_20, Ravana\_21, ReMo\_21, Reba\_21, Remus\_21, Rosalind\_21, Rummer\_20, Sabia\_20, Sabinator\_20, ShayRa\_22, Snickers\_20, SoYo\_20, SoilDragon\_20, Soups\_21, Spike509\_20, Stagni\_20, Strosahl\_21, Switzerland\_21, Taurus\_20, Tiffany\_20, TinyPebbles\_20, Vix\_20, Waits\_21, Warrior24\_21, Watson\_20, Wooldri\_22, Zetzy\_19,

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

- Caraxes\_18, FatCactus\_17,

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

- 

### Summary by start number:

Start 2:

- Found in 116 of 116 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 105 of 105
- Called 98.3% of time when present
- Phage (with cluster) where this start called: ACFishhook\_20 (A3), Aglet\_20 (A3), AgronaGT15\_20 (A3), Anaysia\_21 (A15), Anon\_19 (A15), Anthony\_18 (A20), Anubis\_22 (A3), AugsMagnumOpus\_22 (A3), Battleship\_22 (A15), Beauxregard13\_20 (A3), Bigflo\_20 (A3), Boohoo\_21 (A15), BreSam8\_20 (A3), BuzzBuzz\_19 (A3), Bxz2\_191 (A3), Calvinny\_21 (A3), ClownCar\_21 (A3), Colbster\_20 (A3), Croquant\_21 (A3), Cullens\_20 (A3), DaHudson\_20 (A3), Daishi\_19 (A3), DekHockey33\_21 (A15), Dieselweasel\_20 (A3), Elle\_19 (A15), EpicPhail\_20 (A3), Epsocamisio\_21 (A15), Farber\_20 (A3), Fernando\_20 (A3), Gemma\_20 (A3), GingkoMaracino\_20 (A3), Grif\_20 (A3), Groupthink\_21 (A3), Grub\_20 (A3), Grum1\_20 (A3), GtownJaz\_20 (A3), Gwennie\_19 (A3), HashRod\_21 (A3), HaveUMetTed\_21 (A3), Heliosoles\_20 (A3), Hercules11\_20 (A3), JHC117\_20 (A3), JSwag\_21 (A15), JenCasNa\_20 (A3), JeppNRM\_21 (A3), Jobu08\_20 (A3), KADY\_21 (A3), Kalb97\_21 (A3), Kalnoky\_21 (A3), KatherineG\_21 (A15), LBerry\_20 (A3), LarryKay\_20 (A3), LastResort\_21 (A15), Lilith\_20 (A3), LogiBear\_21 (A15), Looper\_22 (A15), Louie6\_20 (A3), Lowa\_20 (A3), LugYA\_22 (A3), MadMarie\_20 (A3), Mainiac\_20 (A3), Malinsilva\_22 (A3), Manu\_21 (A3), MarQuardt\_20 (A3), Marie\_20 (A3), Marius\_21 (A3), Microwolf\_20 (A3), MinecraftSteve\_22 (A15), Misomonster\_22 (A3), MoneyMay\_20 (A3), Montavir\_19 (A3), MuchMore\_22 (A3), Nebulosus\_21 (A15), Nedarya\_20 (A15), OlanP\_20 (A3), Ollie\_20 (A3), Oofda\_21

(A15), P28Green\_20 (A3), PGHhamlin\_22 (A3), Pawn\_20 (A3), Pembroke\_20 (A3), Penny1\_20 (A3), PhishRPhriends\_19 (A3), Phoebe\_20 (A3), Phoxy\_20 (A3), Phranny\_21 (A3), PotatoSplit\_21 (A3), PurpleHaze\_20 (A3), Ravana\_21 (A15), ReMo\_21 (A15), Reba\_21 (A3), Remus\_21 (A15), Rosalind\_21 (A15), Rummer\_20 (A3), Sabia\_20 (A3), Sabinator\_20 (A3), ShayRa\_22 (A15), Snickers\_20 (A3), SoYo\_20 (A3), SoilDragon\_20 (A3), Soups\_21 (A15), Spike509\_20 (A3), Stagni\_20 (A3), Strosahl\_21 (A15), Switzerland\_21 (A15), Taurus\_20 (A3), Tiffany\_20 (A3), TinyPebbles\_20 (A3), Vix\_20 (A3), Waits\_21 (A15), Warrior24\_21 (A15), Watson\_20 (A3), Wooldri\_22 (A3), Zetzy\_19 (A3),

#### Start 3:

- Found in 1 of 116 ( 0.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: FatCactus\_17 (A20),

#### Start 7:

- Found in 1 of 116 ( 0.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Caraxes\_18 (A2),

### **Summary by clusters:**

There are 4 clusters represented in this pham: A15, A20, A3, A2,

Info for manual annotations of cluster A15:

- Start number 2 was manually annotated 24 times for cluster A15.

Info for manual annotations of cluster A20:

- Start number 2 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A3:

- Start number 2 was manually annotated 80 times for cluster A3.

### **Gene Information:**

Gene: ACFishhook\_20 Start: 13319, Stop: 13453, Start Num: 2

Candidate Starts for ACFishhook\_20:

(1, 13253), (Start: 2 @13319 has 105 MA's), (10, 13433),

Gene: Aglet\_20 Start: 13165, Stop: 13299, Start Num: 2

Candidate Starts for Aglet\_20:

(1, 13099), (Start: 2 @13165 has 105 MA's), (10, 13279),

Gene: AgronaGT15\_20 Start: 13072, Stop: 13206, Start Num: 2

Candidate Starts for AgronaGT15\_20:

(1, 13006), (Start: 2 @13072 has 105 MA's), (10, 13186),

Gene: Anaysia\_21 Start: 12864, Stop: 13061, Start Num: 2

Candidate Starts for Anaysia\_21:  
(1, 12795), (Start: 2 @12864 has 105 MA's), (5, 12885), (10, 12969),

Gene: Anon\_19 Start: 13210, Stop: 13380, Start Num: 2  
Candidate Starts for Anon\_19:  
(1, 13141), (Start: 2 @13210 has 105 MA's), (5, 13231), (11, 13336),

Gene: Anthony\_18 Start: 11969, Stop: 12100, Start Num: 2  
Candidate Starts for Anthony\_18:  
(1, 11903), (Start: 2 @11969 has 105 MA's), (4, 11978),

Gene: Anubis\_22 Start: 13050, Stop: 13184, Start Num: 2  
Candidate Starts for Anubis\_22:  
(1, 12984), (Start: 2 @13050 has 105 MA's), (10, 13164),

Gene: AugsMagnumOpus\_22 Start: 13156, Stop: 13290, Start Num: 2  
Candidate Starts for AugsMagnumOpus\_22:  
(1, 13090), (Start: 2 @13156 has 105 MA's), (10, 13270),

Gene: Battleship\_22 Start: 12979, Stop: 13176, Start Num: 2  
Candidate Starts for Battleship\_22:  
(1, 12910), (Start: 2 @12979 has 105 MA's), (5, 13000), (10, 13084),

Gene: Beauxregard13\_20 Start: 13164, Stop: 13298, Start Num: 2  
Candidate Starts for Beauxregard13\_20:  
(1, 13098), (Start: 2 @13164 has 105 MA's), (10, 13278),

Gene: Bigflo\_20 Start: 13162, Stop: 13296, Start Num: 2  
Candidate Starts for Bigflo\_20:  
(1, 13096), (Start: 2 @13162 has 105 MA's), (10, 13276),

Gene: Boohoo\_21 Start: 12864, Stop: 13061, Start Num: 2  
Candidate Starts for Boohoo\_21:  
(1, 12795), (Start: 2 @12864 has 105 MA's), (5, 12885), (10, 12969),

Gene: BreSam8\_20 Start: 13157, Stop: 13291, Start Num: 2  
Candidate Starts for BreSam8\_20:  
(1, 13091), (Start: 2 @13157 has 105 MA's), (10, 13271),

Gene: BuzzBuzz\_19 Start: 13248, Stop: 13382, Start Num: 2  
Candidate Starts for BuzzBuzz\_19:  
(1, 13182), (Start: 2 @13248 has 105 MA's), (10, 13362),

Gene: Bxz2\_191 Start: 13258, Stop: 13392, Start Num: 2  
Candidate Starts for Bxz2\_191:  
(1, 13192), (Start: 2 @13258 has 105 MA's), (10, 13372),

Gene: Calvinny\_21 Start: 13238, Stop: 13372, Start Num: 2  
Candidate Starts for Calvinny\_21:  
(1, 13172), (Start: 2 @13238 has 105 MA's), (10, 13352),

Gene: Caraxes\_18 Start: 12468, Stop: 12587, Start Num: 7  
Candidate Starts for Caraxes\_18:

(1, 12324), (Start: 2 @12393 has 105 MA's), (6, 12447), (7, 12468),

Gene: ClownCar\_21 Start: 13230, Stop: 13364, Start Num: 2

Candidate Starts for ClownCar\_21:

(1, 13164), (Start: 2 @13230 has 105 MA's), (10, 13344),

Gene: Colbster\_20 Start: 13164, Stop: 13298, Start Num: 2

Candidate Starts for Colbster\_20:

(1, 13098), (Start: 2 @13164 has 105 MA's), (10, 13278),

Gene: Croquant\_21 Start: 13162, Stop: 13296, Start Num: 2

Candidate Starts for Croquant\_21:

(1, 13096), (Start: 2 @13162 has 105 MA's), (10, 13276),

Gene: Cullens\_20 Start: 13162, Stop: 13296, Start Num: 2

Candidate Starts for Cullens\_20:

(1, 13096), (Start: 2 @13162 has 105 MA's), (10, 13276),

Gene: DaHudson\_20 Start: 13156, Stop: 13290, Start Num: 2

Candidate Starts for DaHudson\_20:

(1, 13090), (Start: 2 @13156 has 105 MA's), (10, 13270),

Gene: Daishi\_19 Start: 12089, Stop: 12223, Start Num: 2

Candidate Starts for Daishi\_19:

(1, 12023), (Start: 2 @12089 has 105 MA's), (10, 12203),

Gene: DekHockey33\_21 Start: 12986, Stop: 13183, Start Num: 2

Candidate Starts for DekHockey33\_21:

(1, 12917), (Start: 2 @12986 has 105 MA's), (5, 13007), (10, 13091),

Gene: Dieselweasel\_20 Start: 13165, Stop: 13299, Start Num: 2

Candidate Starts for Dieselweasel\_20:

(1, 13099), (Start: 2 @13165 has 105 MA's), (10, 13279),

Gene: Elle\_19 Start: 12578, Stop: 12748, Start Num: 2

Candidate Starts for Elle\_19:

(1, 12509), (Start: 2 @12578 has 105 MA's), (5, 12599), (8, 12641), (11, 12704),

Gene: EpicPhail\_20 Start: 13164, Stop: 13298, Start Num: 2

Candidate Starts for EpicPhail\_20:

(1, 13098), (Start: 2 @13164 has 105 MA's), (10, 13278),

Gene: Epsocamisio\_21 Start: 12864, Stop: 13061, Start Num: 2

Candidate Starts for Epsocamisio\_21:

(1, 12795), (Start: 2 @12864 has 105 MA's), (5, 12885), (10, 12969),

Gene: Farber\_20 Start: 13157, Stop: 13291, Start Num: 2

Candidate Starts for Farber\_20:

(1, 13091), (Start: 2 @13157 has 105 MA's), (10, 13271),

Gene: FatCactus\_17 Start: 11903, Stop: 12031, Start Num: 3

Candidate Starts for FatCactus\_17:

(1, 11834), (Start: 2 @11900 has 105 MA's), (3, 11903), (4, 11909),

Gene: Fernando\_20 Start: 13162, Stop: 13296, Start Num: 2  
Candidate Starts for Fernando\_20:  
(1, 13096), (Start: 2 @13162 has 105 MA's), (10, 13276),

Gene: Gemma\_20 Start: 13238, Stop: 13372, Start Num: 2  
Candidate Starts for Gemma\_20:  
(1, 13172), (Start: 2 @13238 has 105 MA's), (10, 13352),

Gene: GingkoMaracino\_20 Start: 13050, Stop: 13184, Start Num: 2  
Candidate Starts for GingkoMaracino\_20:  
(1, 12984), (Start: 2 @13050 has 105 MA's), (10, 13164),

Gene: Grif\_20 Start: 13247, Stop: 13381, Start Num: 2  
Candidate Starts for Grif\_20:  
(1, 13181), (Start: 2 @13247 has 105 MA's), (10, 13361),

Gene: Groupthink\_21 Start: 13238, Stop: 13372, Start Num: 2  
Candidate Starts for Groupthink\_21:  
(1, 13172), (Start: 2 @13238 has 105 MA's), (10, 13352),

Gene: Grub\_20 Start: 13156, Stop: 13290, Start Num: 2  
Candidate Starts for Grub\_20:  
(1, 13090), (Start: 2 @13156 has 105 MA's), (10, 13270),

Gene: Grum1\_20 Start: 13157, Stop: 13291, Start Num: 2  
Candidate Starts for Grum1\_20:  
(1, 13091), (Start: 2 @13157 has 105 MA's), (10, 13271),

Gene: GtownJaz\_20 Start: 13165, Stop: 13299, Start Num: 2  
Candidate Starts for GtownJaz\_20:  
(1, 13099), (Start: 2 @13165 has 105 MA's), (10, 13279),

Gene: Gwennie\_19 Start: 13164, Stop: 13298, Start Num: 2  
Candidate Starts for Gwennie\_19:  
(1, 13098), (Start: 2 @13164 has 105 MA's), (10, 13278),

Gene: HashRod\_21 Start: 13248, Stop: 13382, Start Num: 2  
Candidate Starts for HashRod\_21:  
(1, 13182), (Start: 2 @13248 has 105 MA's), (10, 13362),

Gene: HaveUMetTed\_21 Start: 13232, Stop: 13366, Start Num: 2  
Candidate Starts for HaveUMetTed\_21:  
(1, 13166), (Start: 2 @13232 has 105 MA's), (10, 13346),

Gene: Heliosoles\_20 Start: 13238, Stop: 13372, Start Num: 2  
Candidate Starts for Heliosoles\_20:  
(1, 13172), (Start: 2 @13238 has 105 MA's), (10, 13352),

Gene: Hercules11\_20 Start: 13171, Stop: 13305, Start Num: 2  
Candidate Starts for Hercules11\_20:  
(1, 13105), (Start: 2 @13171 has 105 MA's), (10, 13285),

Gene: JHC117\_20 Start: 13162, Stop: 13296, Start Num: 2

Candidate Starts for JHC117\_20:

(1, 13096), (Start: 2 @13162 has 105 MA's), (10, 13276),

Gene: JSwag\_21 Start: 12850, Stop: 13047, Start Num: 2

Candidate Starts for JSwag\_21:

(1, 12781), (Start: 2 @12850 has 105 MA's), (5, 12871), (10, 12955),

Gene: JenCasNa\_20 Start: 13162, Stop: 13296, Start Num: 2

Candidate Starts for JenCasNa\_20:

(1, 13096), (Start: 2 @13162 has 105 MA's), (10, 13276),

Gene: JeppNRM\_21 Start: 13236, Stop: 13370, Start Num: 2

Candidate Starts for JeppNRM\_21:

(1, 13170), (Start: 2 @13236 has 105 MA's), (10, 13350),

Gene: Jobu08\_20 Start: 13231, Stop: 13365, Start Num: 2

Candidate Starts for Jobu08\_20:

(1, 13165), (Start: 2 @13231 has 105 MA's), (10, 13345),

Gene: KADY\_21 Start: 13248, Stop: 13382, Start Num: 2

Candidate Starts for KADY\_21:

(1, 13182), (Start: 2 @13248 has 105 MA's), (10, 13362),

Gene: Kalb97\_21 Start: 13236, Stop: 13370, Start Num: 2

Candidate Starts for Kalb97\_21:

(1, 13170), (Start: 2 @13236 has 105 MA's), (10, 13350),

Gene: Kalnoky\_21 Start: 13238, Stop: 13372, Start Num: 2

Candidate Starts for Kalnoky\_21:

(1, 13172), (Start: 2 @13238 has 105 MA's), (10, 13352),

Gene: KatherineG\_21 Start: 12986, Stop: 13183, Start Num: 2

Candidate Starts for KatherineG\_21:

(1, 12917), (Start: 2 @12986 has 105 MA's), (5, 13007), (10, 13091),

Gene: LBerry\_20 Start: 13164, Stop: 13298, Start Num: 2

Candidate Starts for LBerry\_20:

(1, 13098), (Start: 2 @13164 has 105 MA's), (10, 13278),

Gene: LarryKay\_20 Start: 13250, Stop: 13384, Start Num: 2

Candidate Starts for LarryKay\_20:

(1, 13184), (Start: 2 @13250 has 105 MA's), (10, 13364),

Gene: LastResort\_21 Start: 12864, Stop: 13061, Start Num: 2

Candidate Starts for LastResort\_21:

(1, 12795), (Start: 2 @12864 has 105 MA's), (5, 12885), (10, 12969),

Gene: Lilith\_20 Start: 13157, Stop: 13291, Start Num: 2

Candidate Starts for Lilith\_20:

(1, 13091), (Start: 2 @13157 has 105 MA's), (10, 13271),

Gene: LogiBear\_21 Start: 13629, Stop: 13778, Start Num: 2

Candidate Starts for LogiBear\_21:

(1, 13560), (Start: 2 @13629 has 105 MA's), (9, 13698), (10, 13734),

Gene: Looper\_22 Start: 12864, Stop: 13061, Start Num: 2

Candidate Starts for Looper\_22:

(1, 12795), (Start: 2 @12864 has 105 MA's), (5, 12885), (10, 12969),

Gene: Louie6\_20 Start: 13251, Stop: 13385, Start Num: 2

Candidate Starts for Louie6\_20:

(1, 13185), (Start: 2 @13251 has 105 MA's), (10, 13365),

Gene: Lowa\_20 Start: 13156, Stop: 13290, Start Num: 2

Candidate Starts for Lowa\_20:

(1, 13090), (Start: 2 @13156 has 105 MA's), (10, 13270),

Gene: LugYA\_22 Start: 13162, Stop: 13296, Start Num: 2

Candidate Starts for LugYA\_22:

(1, 13096), (Start: 2 @13162 has 105 MA's), (10, 13276),

Gene: MadMarie\_20 Start: 13166, Stop: 13300, Start Num: 2

Candidate Starts for MadMarie\_20:

(1, 13100), (Start: 2 @13166 has 105 MA's), (10, 13280),

Gene: Mainiac\_20 Start: 13157, Stop: 13291, Start Num: 2

Candidate Starts for Mainiac\_20:

(1, 13091), (Start: 2 @13157 has 105 MA's), (10, 13271),

Gene: Malinsilva\_22 Start: 13156, Stop: 13290, Start Num: 2

Candidate Starts for Malinsilva\_22:

(1, 13090), (Start: 2 @13156 has 105 MA's), (10, 13270),

Gene: Manu\_21 Start: 13238, Stop: 13372, Start Num: 2

Candidate Starts for Manu\_21:

(1, 13172), (Start: 2 @13238 has 105 MA's), (10, 13352),

Gene: MarQuardt\_20 Start: 13165, Stop: 13299, Start Num: 2

Candidate Starts for MarQuardt\_20:

(1, 13099), (Start: 2 @13165 has 105 MA's), (10, 13279),

Gene: Marie\_20 Start: 13162, Stop: 13296, Start Num: 2

Candidate Starts for Marie\_20:

(1, 13096), (Start: 2 @13162 has 105 MA's), (10, 13276),

Gene: Marius\_21 Start: 13238, Stop: 13372, Start Num: 2

Candidate Starts for Marius\_21:

(1, 13172), (Start: 2 @13238 has 105 MA's), (10, 13352),

Gene: Microwolf\_20 Start: 13165, Stop: 13299, Start Num: 2

Candidate Starts for Microwolf\_20:

(1, 13099), (Start: 2 @13165 has 105 MA's), (10, 13279),

Gene: MinecraftSteve\_22 Start: 12986, Stop: 13183, Start Num: 2

Candidate Starts for MinecraftSteve\_22:

(1, 12917), (Start: 2 @12986 has 105 MA's), (5, 13007), (10, 13091),

Gene: Misomonster\_22 Start: 13247, Stop: 13381, Start Num: 2

Candidate Starts for Misomonster\_22:

(1, 13181), (Start: 2 @13247 has 105 MA's), (10, 13361),

Gene: MoneyMay\_20 Start: 13162, Stop: 13296, Start Num: 2

Candidate Starts for MoneyMay\_20:

(1, 13096), (Start: 2 @13162 has 105 MA's), (10, 13276),

Gene: Montavir\_19 Start: 13164, Stop: 13298, Start Num: 2

Candidate Starts for Montavir\_19:

(1, 13098), (Start: 2 @13164 has 105 MA's), (10, 13278),

Gene: MuchMore\_22 Start: 13156, Stop: 13290, Start Num: 2

Candidate Starts for MuchMore\_22:

(1, 13090), (Start: 2 @13156 has 105 MA's), (10, 13270),

Gene: Nebulosus\_21 Start: 12864, Stop: 13061, Start Num: 2

Candidate Starts for Nebulosus\_21:

(1, 12795), (Start: 2 @12864 has 105 MA's), (5, 12885), (10, 12969),

Gene: Nedarya\_20 Start: 13453, Stop: 13650, Start Num: 2

Candidate Starts for Nedarya\_20:

(1, 13384), (Start: 2 @13453 has 105 MA's), (12, 13588),

Gene: OlanP\_20 Start: 13418, Stop: 13552, Start Num: 2

Candidate Starts for OlanP\_20:

(1, 13352), (Start: 2 @13418 has 105 MA's), (10, 13532),

Gene: Ollie\_20 Start: 13035, Stop: 13169, Start Num: 2

Candidate Starts for Ollie\_20:

(1, 12969), (Start: 2 @13035 has 105 MA's), (10, 13149),

Gene: Oofda\_21 Start: 12835, Stop: 13032, Start Num: 2

Candidate Starts for Oofda\_21:

(1, 12766), (Start: 2 @12835 has 105 MA's), (5, 12856), (10, 12940),

Gene: P28Green\_20 Start: 13163, Stop: 13297, Start Num: 2

Candidate Starts for P28Green\_20:

(1, 13097), (Start: 2 @13163 has 105 MA's), (10, 13277),

Gene: PGHhamlin\_22 Start: 13156, Stop: 13290, Start Num: 2

Candidate Starts for PGHhamlin\_22:

(1, 13090), (Start: 2 @13156 has 105 MA's), (10, 13270),

Gene: Pawn\_20 Start: 13238, Stop: 13372, Start Num: 2

Candidate Starts for Pawn\_20:

(1, 13172), (Start: 2 @13238 has 105 MA's), (10, 13352),

Gene: Pembroke\_20 Start: 13165, Stop: 13299, Start Num: 2

Candidate Starts for Pembroke\_20:

(1, 13099), (Start: 2 @13165 has 105 MA's), (10, 13279),

Gene: Penny1\_20 Start: 13164, Stop: 13298, Start Num: 2  
Candidate Starts for Penny1\_20:  
(1, 13098), (Start: 2 @13164 has 105 MA's), (10, 13278),

Gene: PhishRPhriends\_19 Start: 12423, Stop: 12557, Start Num: 2  
Candidate Starts for PhishRPhriends\_19:  
(1, 12357), (Start: 2 @12423 has 105 MA's), (10, 12537),

Gene: Phoebe\_20 Start: 13162, Stop: 13296, Start Num: 2  
Candidate Starts for Phoebe\_20:  
(1, 13096), (Start: 2 @13162 has 105 MA's), (10, 13276),

Gene: Phoxy\_20 Start: 13248, Stop: 13382, Start Num: 2  
Candidate Starts for Phoxy\_20:  
(1, 13182), (Start: 2 @13248 has 105 MA's), (10, 13362),

Gene: Phranny\_21 Start: 13230, Stop: 13364, Start Num: 2  
Candidate Starts for Phranny\_21:  
(1, 13164), (Start: 2 @13230 has 105 MA's), (10, 13344),

Gene: PotatoSplit\_21 Start: 13164, Stop: 13298, Start Num: 2  
Candidate Starts for PotatoSplit\_21:  
(1, 13098), (Start: 2 @13164 has 105 MA's), (10, 13278),

Gene: PurpleHaze\_20 Start: 13237, Stop: 13371, Start Num: 2  
Candidate Starts for PurpleHaze\_20:  
(1, 13171), (Start: 2 @13237 has 105 MA's), (10, 13351),

Gene: Ravana\_21 Start: 12825, Stop: 13022, Start Num: 2  
Candidate Starts for Ravana\_21:  
(1, 12756), (Start: 2 @12825 has 105 MA's), (5, 12846), (10, 12930),

Gene: ReMo\_21 Start: 12864, Stop: 13061, Start Num: 2  
Candidate Starts for ReMo\_21:  
(1, 12795), (Start: 2 @12864 has 105 MA's), (5, 12885), (10, 12969),

Gene: Reba\_21 Start: 12903, Stop: 13037, Start Num: 2  
Candidate Starts for Reba\_21:  
(1, 12837), (Start: 2 @12903 has 105 MA's), (10, 13017),

Gene: Remus\_21 Start: 12825, Stop: 13022, Start Num: 2  
Candidate Starts for Remus\_21:  
(1, 12756), (Start: 2 @12825 has 105 MA's), (5, 12846), (10, 12930),

Gene: Rosalind\_21 Start: 12986, Stop: 13183, Start Num: 2  
Candidate Starts for Rosalind\_21:  
(1, 12917), (Start: 2 @12986 has 105 MA's), (5, 13007), (10, 13091),

Gene: Rummer\_20 Start: 13248, Stop: 13382, Start Num: 2  
Candidate Starts for Rummer\_20:  
(1, 13182), (Start: 2 @13248 has 105 MA's), (10, 13362),

Gene: Sabia\_20 Start: 13157, Stop: 13291, Start Num: 2  
Candidate Starts for Sabia\_20:  
(1, 13091), (Start: 2 @13157 has 105 MA's), (10, 13271),

Gene: Sabinator\_20 Start: 13162, Stop: 13296, Start Num: 2  
Candidate Starts for Sabinator\_20:  
(1, 13096), (Start: 2 @13162 has 105 MA's), (10, 13276),

Gene: ShayRa\_22 Start: 12986, Stop: 13183, Start Num: 2  
Candidate Starts for ShayRa\_22:  
(1, 12917), (Start: 2 @12986 has 105 MA's), (5, 13007), (10, 13091),

Gene: Snickers\_20 Start: 13138, Stop: 13272, Start Num: 2  
Candidate Starts for Snickers\_20:  
(1, 13072), (Start: 2 @13138 has 105 MA's), (10, 13252),

Gene: SoYo\_20 Start: 13075, Stop: 13209, Start Num: 2  
Candidate Starts for SoYo\_20:  
(1, 13009), (Start: 2 @13075 has 105 MA's), (10, 13189),

Gene: SoilDragon\_20 Start: 12847, Stop: 12981, Start Num: 2  
Candidate Starts for SoilDragon\_20:  
(1, 12781), (Start: 2 @12847 has 105 MA's), (10, 12961),

Gene: Soups\_21 Start: 12986, Stop: 13183, Start Num: 2  
Candidate Starts for Soups\_21:  
(1, 12917), (Start: 2 @12986 has 105 MA's), (5, 13007), (10, 13091),

Gene: Spike509\_20 Start: 13248, Stop: 13382, Start Num: 2  
Candidate Starts for Spike509\_20:  
(1, 13182), (Start: 2 @13248 has 105 MA's), (10, 13362),

Gene: Stagni\_20 Start: 13166, Stop: 13300, Start Num: 2  
Candidate Starts for Stagni\_20:  
(1, 13100), (Start: 2 @13166 has 105 MA's), (10, 13280),

Gene: Strosahl\_21 Start: 12825, Stop: 13022, Start Num: 2  
Candidate Starts for Strosahl\_21:  
(1, 12756), (Start: 2 @12825 has 105 MA's), (5, 12846), (10, 12930),

Gene: Switzerland\_21 Start: 12979, Stop: 13176, Start Num: 2  
Candidate Starts for Switzerland\_21:  
(1, 12910), (Start: 2 @12979 has 105 MA's), (5, 13000), (10, 13084),

Gene: Taurus\_20 Start: 13162, Stop: 13296, Start Num: 2  
Candidate Starts for Taurus\_20:  
(1, 13096), (Start: 2 @13162 has 105 MA's), (10, 13276),

Gene: Tiffany\_20 Start: 13058, Stop: 13192, Start Num: 2  
Candidate Starts for Tiffany\_20:  
(1, 12992), (Start: 2 @13058 has 105 MA's), (10, 13172),

Gene: TinyPebbles\_20 Start: 13247, Stop: 13381, Start Num: 2

Candidate Starts for TinyPebbles\_20:  
(1, 13181), (Start: 2 @13247 has 105 MA's), (10, 13361),

Gene: Vix\_20 Start: 13246, Stop: 13380, Start Num: 2  
Candidate Starts for Vix\_20:  
(1, 13180), (Start: 2 @13246 has 105 MA's), (10, 13360),

Gene: Waits\_21 Start: 12831, Stop: 13028, Start Num: 2  
Candidate Starts for Waits\_21:  
(1, 12762), (Start: 2 @12831 has 105 MA's), (5, 12852), (10, 12936),

Gene: Warrior24\_21 Start: 12835, Stop: 13032, Start Num: 2  
Candidate Starts for Warrior24\_21:  
(1, 12766), (Start: 2 @12835 has 105 MA's), (5, 12856), (10, 12940),

Gene: Watson\_20 Start: 13156, Stop: 13290, Start Num: 2  
Candidate Starts for Watson\_20:  
(1, 13090), (Start: 2 @13156 has 105 MA's), (10, 13270),

Gene: Wooldri\_22 Start: 13075, Stop: 13209, Start Num: 2  
Candidate Starts for Wooldri\_22:  
(1, 13009), (Start: 2 @13075 has 105 MA's), (10, 13189),

Gene: Zetzy\_19 Start: 12696, Stop: 12830, Start Num: 2  
Candidate Starts for Zetzy\_19:  
(1, 12630), (Start: 2 @12696 has 105 MA's), (10, 12810),