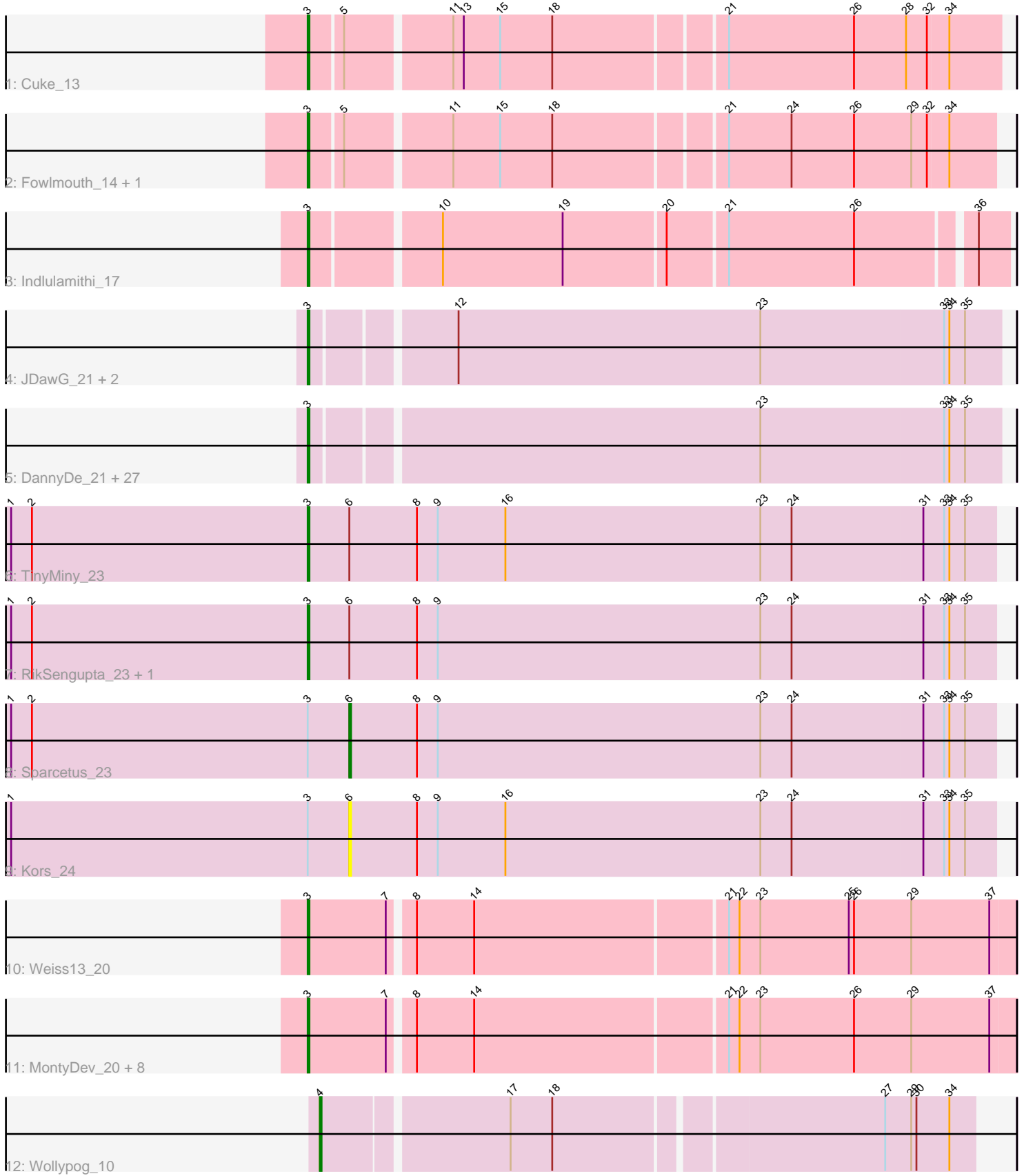


Pham 171520



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 171520 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171520 has 51 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Cuke\_13
- Track 2 : Fowlmouth\_14, MrMiyagi\_14
- Track 3 : Indlulamithi\_17
- Track 4 : JDawG\_21, Rie18\_22, Hager\_23
- Track 5 : DannyDe\_21, Krampus\_22, Anakin\_22, Karate\_21, Aesir\_21, Hiddenleaf\_21, Potty\_22, Rachella\_22, Dauntless\_22, Chivey\_21, Poultruss\_21, Haunter\_22, MortySmith\_20, Tedro\_22, JingleBells\_21, Neptune\_22, PhunaPhoke\_22, Cybele\_22, Kate\_22, AnnaSerena\_22, CoolCookie\_26, OverHedge\_22, Erudite\_21, Snakehole\_23, Pharpay\_22, NarutoRun\_22, FreddieHg\_21, Gilda\_22
- Track 6 : TinyMiny\_23
- Track 7 : RikSengupta\_23, Ajin\_23
- Track 8 : Sparcetus\_23
- Track 9 : Kors\_24
- Track 10 : Weiss13\_20
- Track 11 : MontyDev\_20, Riparian\_20, Candle\_20, Nilo\_21, Zenon\_21, Send513\_20, Papyrus\_20, Rope\_20, Yelo\_20
- Track 12 : Wollypog\_10

### ***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 42 of the 44 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aesir\_21, Ajin\_23, Anakin\_22, AnnaSerena\_22, Candle\_20, Chivey\_21, CoolCookie\_26, Cuke\_13, Cybele\_22, DannyDe\_21, Dauntless\_22, Erudite\_21, Fowlmouth\_14, FreddieHg\_21, Gilda\_22, Hager\_23, Haunter\_22, Hiddenleaf\_21, Indlulamithi\_17, JDawG\_21, JingleBells\_21, Karate\_21, Kate\_22, Krampus\_22, MontyDev\_20, MortySmith\_20, MrMiyagi\_14, NarutoRun\_22, Neptune\_22, Nilo\_21, OverHedge\_22, Papyrus\_20, Pharpay\_22, PhunaPhoke\_22, Potty\_22, Poultruss\_21, Rachella\_22, Rie18\_22, RikSengupta\_23, Riparian\_20, Rope\_20, Send513\_20, Snakehole\_23, Tedro\_22, TinyMiny\_23, Weiss13\_20, Yelo\_20, Zenon\_21,

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

- Kors\_24, Sparcetus\_23,

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

- Wollypog\_10,

### Summary by start number:

Start 3:

- Found in 50 of 51 ( 98.0% ) of genes in pham
- Manual Annotations of this start: 42 of 44
- Called 96.0% of time when present
- Phage (with cluster) where this start called: Aesir\_21 (EF), Ajin\_23 (EF), Anakin\_22 (EF), AnnaSerena\_22 (EF), Candle\_20 (R), Chivey\_21 (EF), CoolCookie\_26 (EF), Cuke\_13 (AC), Cybele\_22 (EF), DannyDe\_21 (EF), Dauntless\_22 (EF), Erudite\_21 (EF), Fowlmouth\_14 (AC), FreddieHg\_21 (EF), Gilda\_22 (EF), Hager\_23 (EF), Haunter\_22 (EF), Hiddenleaf\_21 (EF), Indlulamithi\_17 (AC), JDawG\_21 (EF), JingleBells\_21 (EF), Karate\_21 (EF), Kate\_22 (EF), Krampus\_22 (EF), MontyDev\_20 (R), MortySmith\_20 (EF), MrMiyagi\_14 (AC), NarutoRun\_22 (EF), Neptune\_22 (EF), Nilo\_21 (R), OverHedge\_22 (EF), Papyrus\_20 (R), Pharpay\_22 (EF), PhunaPhoke\_22 (EF), Potty\_22 (EF), Poultruss\_21 (EF), Rachella\_22 (EF), Rie18\_22 (EF), RikSengupta\_23 (EF), Riparian\_20 (R), Rope\_20 (R), Send513\_20 (R), Snakehole\_23 (EF), Tedro\_22 (EF), TinyMiny\_23 (EF), Weiss13\_20 (R), Yelo\_20 (R), Zenon\_21 (R),

Start 4:

- Found in 1 of 51 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 1 of 44
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Wollypog\_10 (singleton),

Start 6:

- Found in 5 of 51 ( 9.8% ) of genes in pham
- Manual Annotations of this start: 1 of 44
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Kors\_24 (EF), Sparcetus\_23 (EF),

### Summary by clusters:

There are 4 clusters represented in this pham: AC, R, singleton, EF,

Info for manual annotations of cluster AC:

- Start number 3 was manually annotated 4 times for cluster AC.

Info for manual annotations of cluster EF:

- Start number 3 was manually annotated 29 times for cluster EF.
- Start number 6 was manually annotated 1 time for cluster EF.

Info for manual annotations of cluster R:

- Start number 3 was manually annotated 9 times for cluster R.

**Gene Information:**

Gene: Aesir\_21 Start: 11798, Stop: 12184, Start Num: 3

Candidate Starts for Aesir\_21:

(Start: 3 @11798 has 42 MA's), (23, 12047), (33, 12152), (34, 12155), (35, 12164),

Gene: Ajin\_23 Start: 11984, Stop: 12379, Start Num: 3

Candidate Starts for Ajin\_23:

(1, 11813), (2, 11825), (Start: 3 @11984 has 42 MA's), (Start: 6 @12008 has 1 MA's), (8, 12047), (9, 12059), (23, 12245), (24, 12263), (31, 12338), (33, 12350), (34, 12353), (35, 12362),

Gene: Anakin\_22 Start: 12008, Stop: 12394, Start Num: 3

Candidate Starts for Anakin\_22:

(Start: 3 @12008 has 42 MA's), (23, 12257), (33, 12362), (34, 12365), (35, 12374),

Gene: AnnaSerena\_22 Start: 12017, Stop: 12403, Start Num: 3

Candidate Starts for AnnaSerena\_22:

(Start: 3 @12017 has 42 MA's), (23, 12266), (33, 12371), (34, 12374), (35, 12383),

Gene: Candle\_20 Start: 13524, Stop: 13919, Start Num: 3

Candidate Starts for Candle\_20:

(Start: 3 @13524 has 42 MA's), (7, 13569), (8, 13581), (14, 13614), (21, 13755), (22, 13761), (23, 13773), (26, 13827), (29, 13860), (37, 13905),

Gene: Chivey\_21 Start: 11210, Stop: 11596, Start Num: 3

Candidate Starts for Chivey\_21:

(Start: 3 @11210 has 42 MA's), (23, 11459), (33, 11564), (34, 11567), (35, 11576),

Gene: CoolCookie\_26 Start: 12015, Stop: 12401, Start Num: 3

Candidate Starts for CoolCookie\_26:

(Start: 3 @12015 has 42 MA's), (23, 12264), (33, 12369), (34, 12372), (35, 12381),

Gene: Cuke\_13 Start: 8734, Stop: 9114, Start Num: 3

Candidate Starts for Cuke\_13:

(Start: 3 @8734 has 42 MA's), (5, 8752), (11, 8809), (13, 8815), (15, 8836), (18, 8866), (21, 8959), (26, 9031), (28, 9061), (32, 9073), (34, 9085),

Gene: Cybele\_22 Start: 11985, Stop: 12371, Start Num: 3

Candidate Starts for Cybele\_22:

(Start: 3 @11985 has 42 MA's), (23, 12234), (33, 12339), (34, 12342), (35, 12351),

Gene: DannyDe\_21 Start: 11202, Stop: 11588, Start Num: 3

Candidate Starts for DannyDe\_21:

(Start: 3 @11202 has 42 MA's), (23, 11451), (33, 11556), (34, 11559), (35, 11568),

Gene: Dauntless\_22 Start: 11727, Stop: 12113, Start Num: 3

Candidate Starts for Dauntless\_22:

(Start: 3 @11727 has 42 MA's), (23, 11976), (33, 12081), (34, 12084), (35, 12093),

Gene: Erudite\_21 Start: 11727, Stop: 12113, Start Num: 3

Candidate Starts for Erudite\_21:

(Start: 3 @11727 has 42 MA's), (23, 11976), (33, 12081), (34, 12084), (35, 12093),

Gene: Fowlmouth\_14 Start: 8905, Stop: 9282, Start Num: 3  
Candidate Starts for Fowlmouth\_14:  
(Start: 3 @8905 has 42 MA's), (5, 8923), (11, 8980), (15, 9007), (18, 9037), (21, 9130), (24, 9166), (26, 9202), (29, 9235), (32, 9244), (34, 9256),

Gene: FreddieHg\_21 Start: 11226, Stop: 11612, Start Num: 3  
Candidate Starts for FreddieHg\_21:  
(Start: 3 @11226 has 42 MA's), (23, 11475), (33, 11580), (34, 11583), (35, 11592),

Gene: Gilda\_22 Start: 12009, Stop: 12395, Start Num: 3  
Candidate Starts for Gilda\_22:  
(Start: 3 @12009 has 42 MA's), (23, 12258), (33, 12363), (34, 12366), (35, 12375),

Gene: Hager\_23 Start: 11580, Stop: 11966, Start Num: 3  
Candidate Starts for Hager\_23:  
(Start: 3 @11580 has 42 MA's), (12, 11655), (23, 11829), (33, 11934), (34, 11937), (35, 11946),

Gene: Haunter\_22 Start: 11422, Stop: 11808, Start Num: 3  
Candidate Starts for Haunter\_22:  
(Start: 3 @11422 has 42 MA's), (23, 11671), (33, 11776), (34, 11779), (35, 11788),

Gene: Hiddenleaf\_21 Start: 11210, Stop: 11596, Start Num: 3  
Candidate Starts for Hiddenleaf\_21:  
(Start: 3 @11210 has 42 MA's), (23, 11459), (33, 11564), (34, 11567), (35, 11576),

Gene: Indlulamithi\_17 Start: 10995, Stop: 11375, Start Num: 3  
Candidate Starts for Indlulamithi\_17:  
(Start: 3 @10995 has 42 MA's), (10, 11064), (19, 11133), (20, 11190), (21, 11223), (26, 11295), (36, 11358),

Gene: JDawG\_21 Start: 11792, Stop: 12178, Start Num: 3  
Candidate Starts for JDawG\_21:  
(Start: 3 @11792 has 42 MA's), (12, 11867), (23, 12041), (33, 12146), (34, 12149), (35, 12158),

Gene: JingleBells\_21 Start: 11291, Stop: 11677, Start Num: 3  
Candidate Starts for JingleBells\_21:  
(Start: 3 @11291 has 42 MA's), (23, 11540), (33, 11645), (34, 11648), (35, 11657),

Gene: Karate\_21 Start: 11430, Stop: 11816, Start Num: 3  
Candidate Starts for Karate\_21:  
(Start: 3 @11430 has 42 MA's), (23, 11679), (33, 11784), (34, 11787), (35, 11796),

Gene: Kate\_22 Start: 12017, Stop: 12403, Start Num: 3  
Candidate Starts for Kate\_22:  
(Start: 3 @12017 has 42 MA's), (23, 12266), (33, 12371), (34, 12374), (35, 12383),

Gene: Kors\_24 Start: 12054, Stop: 12425, Start Num: 6  
Candidate Starts for Kors\_24:  
(1, 11859), (Start: 3 @12030 has 42 MA's), (Start: 6 @12054 has 1 MA's), (8, 12093), (9, 12105), (16, 12144), (23, 12291), (24, 12309), (31, 12384), (33, 12396), (34, 12399), (35, 12408),

Gene: Krampus\_22 Start: 12015, Stop: 12401, Start Num: 3  
Candidate Starts for Krampus\_22:

(Start: 3 @12015 has 42 MA's), (23, 12264), (33, 12369), (34, 12372), (35, 12381),

Gene: MontyDev\_20 Start: 13182, Stop: 13577, Start Num: 3

Candidate Starts for MontyDev\_20:

(Start: 3 @13182 has 42 MA's), (7, 13227), (8, 13239), (14, 13272), (21, 13413), (22, 13419), (23, 13431), (26, 13485), (29, 13518), (37, 13563),

Gene: MortySmith\_20 Start: 11189, Stop: 11575, Start Num: 3

Candidate Starts for MortySmith\_20:

(Start: 3 @11189 has 42 MA's), (23, 11438), (33, 11543), (34, 11546), (35, 11555),

Gene: MrMiyagi\_14 Start: 8905, Stop: 9282, Start Num: 3

Candidate Starts for MrMiyagi\_14:

(Start: 3 @8905 has 42 MA's), (5, 8923), (11, 8980), (15, 9007), (18, 9037), (21, 9130), (24, 9166), (26, 9202), (29, 9235), (32, 9244), (34, 9256),

Gene: NarutoRun\_22 Start: 12008, Stop: 12394, Start Num: 3

Candidate Starts for NarutoRun\_22:

(Start: 3 @12008 has 42 MA's), (23, 12257), (33, 12362), (34, 12365), (35, 12374),

Gene: Neptune\_22 Start: 11985, Stop: 12371, Start Num: 3

Candidate Starts for Neptune\_22:

(Start: 3 @11985 has 42 MA's), (23, 12234), (33, 12339), (34, 12342), (35, 12351),

Gene: Nilo\_21 Start: 13521, Stop: 13916, Start Num: 3

Candidate Starts for Nilo\_21:

(Start: 3 @13521 has 42 MA's), (7, 13566), (8, 13578), (14, 13611), (21, 13752), (22, 13758), (23, 13770), (26, 13824), (29, 13857), (37, 13902),

Gene: OverHedge\_22 Start: 11982, Stop: 12368, Start Num: 3

Candidate Starts for OverHedge\_22:

(Start: 3 @11982 has 42 MA's), (23, 12231), (33, 12336), (34, 12339), (35, 12348),

Gene: Papyrus\_20 Start: 13183, Stop: 13578, Start Num: 3

Candidate Starts for Papyrus\_20:

(Start: 3 @13183 has 42 MA's), (7, 13228), (8, 13240), (14, 13273), (21, 13414), (22, 13420), (23, 13432), (26, 13486), (29, 13519), (37, 13564),

Gene: Pharpay\_22 Start: 12030, Stop: 12416, Start Num: 3

Candidate Starts for Pharpay\_22:

(Start: 3 @12030 has 42 MA's), (23, 12279), (33, 12384), (34, 12387), (35, 12396),

Gene: PhunaPhoke\_22 Start: 12003, Stop: 12389, Start Num: 3

Candidate Starts for PhunaPhoke\_22:

(Start: 3 @12003 has 42 MA's), (23, 12252), (33, 12357), (34, 12360), (35, 12369),

Gene: Potty\_22 Start: 12008, Stop: 12394, Start Num: 3

Candidate Starts for Potty\_22:

(Start: 3 @12008 has 42 MA's), (23, 12257), (33, 12362), (34, 12365), (35, 12374),

Gene: Poultruss\_21 Start: 11781, Stop: 12167, Start Num: 3

Candidate Starts for Poultruss\_21:

(Start: 3 @11781 has 42 MA's), (23, 12030), (33, 12135), (34, 12138), (35, 12147),

Gene: Rachella\_22 Start: 12011, Stop: 12397, Start Num: 3

Candidate Starts for Rachella\_22:

(Start: 3 @12011 has 42 MA's), (23, 12260), (33, 12365), (34, 12368), (35, 12377),

Gene: Rie18\_22 Start: 11362, Stop: 11748, Start Num: 3

Candidate Starts for Rie18\_22:

(Start: 3 @11362 has 42 MA's), (12, 11437), (23, 11611), (33, 11716), (34, 11719), (35, 11728),

Gene: RikSengupta\_23 Start: 12067, Stop: 12462, Start Num: 3

Candidate Starts for RikSengupta\_23:

(1, 11896), (2, 11908), (Start: 3 @12067 has 42 MA's), (Start: 6 @12091 has 1 MA's), (8, 12130), (9, 12142), (23, 12328), (24, 12346), (31, 12421), (33, 12433), (34, 12436), (35, 12445),

Gene: Riparian\_20 Start: 12982, Stop: 13377, Start Num: 3

Candidate Starts for Riparian\_20:

(Start: 3 @12982 has 42 MA's), (7, 13027), (8, 13039), (14, 13072), (21, 13213), (22, 13219), (23, 13231), (26, 13285), (29, 13318), (37, 13363),

Gene: Rope\_20 Start: 13174, Stop: 13569, Start Num: 3

Candidate Starts for Rope\_20:

(Start: 3 @13174 has 42 MA's), (7, 13219), (8, 13231), (14, 13264), (21, 13405), (22, 13411), (23, 13423), (26, 13477), (29, 13510), (37, 13555),

Gene: Send513\_20 Start: 13524, Stop: 13919, Start Num: 3

Candidate Starts for Send513\_20:

(Start: 3 @13524 has 42 MA's), (7, 13569), (8, 13581), (14, 13614), (21, 13755), (22, 13761), (23, 13773), (26, 13827), (29, 13860), (37, 13905),

Gene: Snakehole\_23 Start: 11307, Stop: 11693, Start Num: 3

Candidate Starts for Snakehole\_23:

(Start: 3 @11307 has 42 MA's), (23, 11556), (33, 11661), (34, 11664), (35, 11673),

Gene: Sparcetus\_23 Start: 11970, Stop: 12341, Start Num: 6

Candidate Starts for Sparcetus\_23:

(1, 11775), (2, 11787), (Start: 3 @11946 has 42 MA's), (Start: 6 @11970 has 1 MA's), (8, 12009), (9, 12021), (23, 12207), (24, 12225), (31, 12300), (33, 12312), (34, 12315), (35, 12324),

Gene: Tedro\_22 Start: 11481, Stop: 11867, Start Num: 3

Candidate Starts for Tedro\_22:

(Start: 3 @11481 has 42 MA's), (23, 11730), (33, 11835), (34, 11838), (35, 11847),

Gene: TinyMiny\_23 Start: 11965, Stop: 12360, Start Num: 3

Candidate Starts for TinyMiny\_23:

(1, 11794), (2, 11806), (Start: 3 @11965 has 42 MA's), (Start: 6 @11989 has 1 MA's), (8, 12028), (9, 12040), (16, 12079), (23, 12226), (24, 12244), (31, 12319), (33, 12331), (34, 12334), (35, 12343),

Gene: Weiss13\_20 Start: 13214, Stop: 13609, Start Num: 3

Candidate Starts for Weiss13\_20:

(Start: 3 @13214 has 42 MA's), (7, 13259), (8, 13271), (14, 13304), (21, 13445), (22, 13451), (23, 13463), (25, 13514), (26, 13517), (29, 13550), (37, 13595),

Gene: Wollypog\_10 Start: 8603, Stop: 8959, Start Num: 4

Candidate Starts for Wollypog\_10:

(Start: 4 @8603 has 1 MA's), (17, 8705), (18, 8729), (27, 8909), (29, 8924), (30, 8927), (34, 8945),

Gene: Yelo\_20 Start: 13524, Stop: 13919, Start Num: 3

Candidate Starts for Yelo\_20:

(Start: 3 @13524 has 42 MA's), (7, 13569), (8, 13581), (14, 13614), (21, 13755), (22, 13761), (23, 13773), (26, 13827), (29, 13860), (37, 13905),

Gene: Zenon\_21 Start: 13526, Stop: 13921, Start Num: 3

Candidate Starts for Zenon\_21:

(Start: 3 @13526 has 42 MA's), (7, 13571), (8, 13583), (14, 13616), (21, 13757), (22, 13763), (23, 13775), (26, 13829), (29, 13862), (37, 13907),