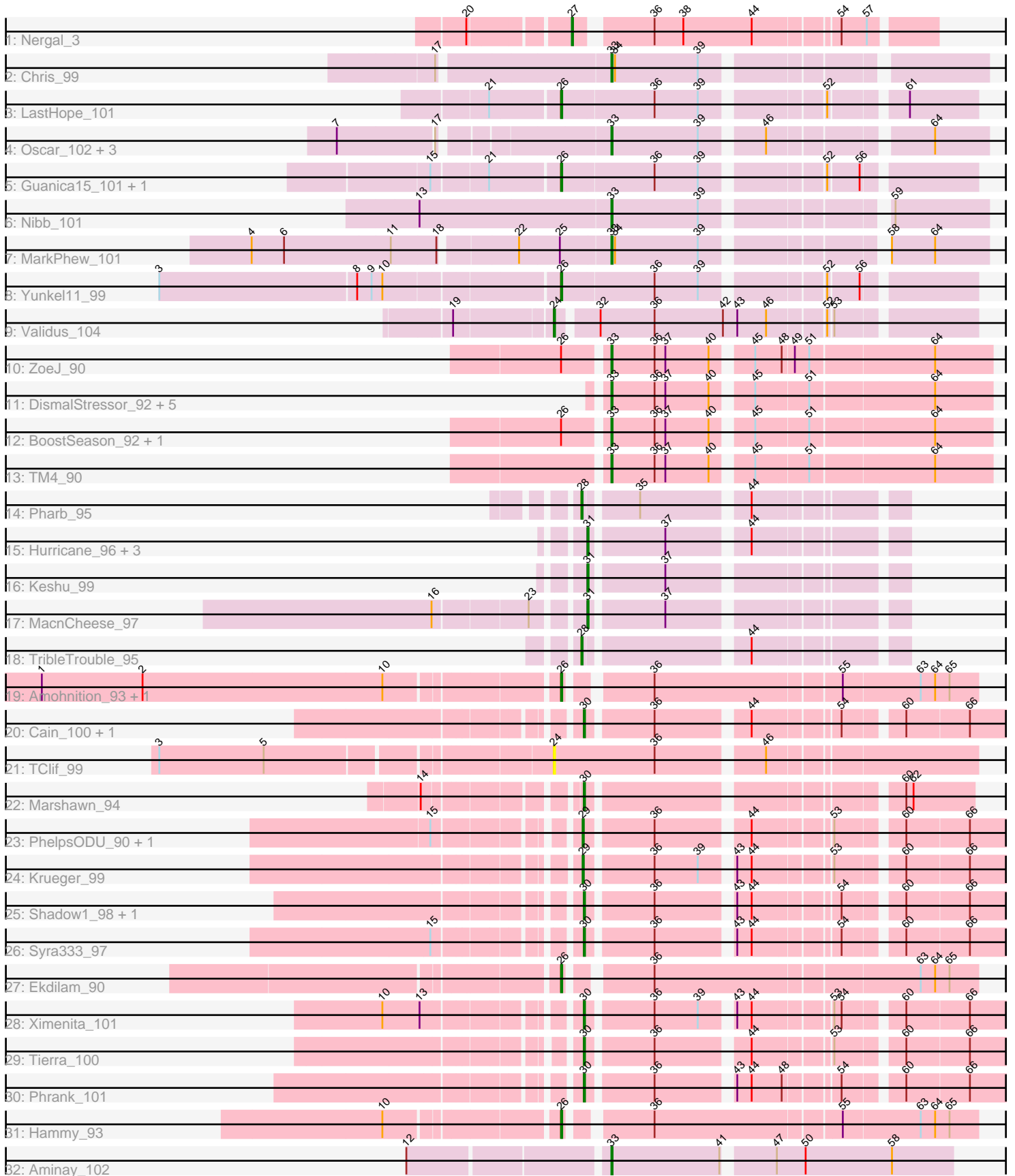


Pham 163671



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 163671 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163671 has 49 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Nergal\_3
- Track 2 : Chris\_99
- Track 3 : LastHope\_101
- Track 4 : Oscar\_102, LeMond\_101, KiSi\_102, Scarlett\_101
- Track 5 : Guanica15\_101, Efra2\_102
- Track 6 : Nibb\_101
- Track 7 : MarkPhew\_101
- Track 8 : Yunkel11\_99
- Track 9 : Validus\_104
- Track 10 : ZoeJ\_90
- Track 11 : DismalStressor\_92, DismalFunk\_92, Milly\_92, Strobilo\_98, Marcoliusprime\_90, Findley\_92
- Track 12 : BoostSeason\_92, Mufasa\_92
- Track 13 : TM4\_90
- Track 14 : Pharb\_95
- Track 15 : Hurricane\_96, ShedlockHolmes\_98, TBond007\_95, Pixie\_98
- Track 16 : Keshu\_99
- Track 17 : MacnCheese\_97
- Track 18 : TribbleTrouble\_95
- Track 19 : Amohnition\_93, DARTH\_P\_93
- Track 20 : Cain\_100, Bryler\_92
- Track 21 : TClif\_99
- Track 22 : Marshawn\_94
- Track 23 : PhelpsODU\_90, Unicorn\_100
- Track 24 : Krueger\_99
- Track 25 : Shadow1\_98, Sunflower1121\_98
- Track 26 : Syra333\_97
- Track 27 : Ekdilam\_90
- Track 28 : Ximenita\_101
- Track 29 : Tierra\_100
- Track 30 : Phrank\_101
- Track 31 : Hammy\_93
- Track 32 : Aminay\_102

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

The start number called the most often in the published annotations is 33, it was called in 17 of the 47 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aminay\_102, BoostSeason\_92, Chris\_99, DismalFunk\_92, DismalStressor\_92, Findley\_92, KiSi\_102, LeMond\_101, Marcoliusprime\_90, MarkPhew\_101, Milly\_92, Mufasa\_92, Nibb\_101, Oscar\_102, Scarlett\_101, Strobilo\_98, TM4\_90, ZoeJ\_90,

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

- 

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

- Amohnition\_93, Bryler\_92, Cain\_100, DarthP\_93, Efra2\_102, Ekdilam\_90, Guanica15\_101, Hammy\_93, Hurricane\_96, Keshu\_99, Krueger\_99, LastHope\_101, MacnCheese\_97, Marshawn\_94, Nergal\_3, Pharb\_95, PhelpsODU\_90, Phrank\_101, Pixie\_98, Shadow1\_98, ShedlockHolmes\_98, Sunflower1121\_98, Syra333\_97, TBond007\_95, TClif\_99, Tierra\_100, TripleTrouble\_95, Unicorn\_100, Validus\_104, Ximenita\_101, Yunkel11\_99,

### Summary by start number:

Start 24:

- Found in 2 of 49 ( 4.1% ) of genes in pham
- Manual Annotations of this start: 1 of 47
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TClif\_99 (K6), Validus\_104 (K1),

Start 26:

- Found in 11 of 49 ( 22.4% ) of genes in pham
- Manual Annotations of this start: 8 of 47
- Called 72.7% of time when present
- Phage (with cluster) where this start called: Amohnition\_93 (K6), DarthP\_93 (K6), Efra2\_102 (K1), Ekdilam\_90 (K6), Guanica15\_101 (K1), Hammy\_93 (K6), LastHope\_101 (K1), Yunkel11\_99 (K1),

Start 27:

- Found in 1 of 49 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 1 of 47
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nergal\_3 (AG),

Start 28:

- Found in 2 of 49 ( 4.1% ) of genes in pham
- Manual Annotations of this start: 2 of 47
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pharb\_95 (K3), TripleTrouble\_95 (K3),

Start 29:

- Found in 3 of 49 ( 6.1% ) of genes in pham
- Manual Annotations of this start: 3 of 47
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Krueger\_99 (K6), PhelpsODU\_90 (K6), Unicorn\_100 (K6),

Start 30:

- Found in 9 of 49 ( 18.4% ) of genes in pham
- Manual Annotations of this start: 9 of 47
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bryler\_92 (K6), Cain\_100 (K6), Marshawn\_94 (K6), Phrank\_101 (K6), Shadow1\_98 (K6), Sunflower1121\_98 (K6), Syra333\_97 (K6), Tierra\_100 (K6), Ximenita\_101 (K6),

Start 31:

- Found in 6 of 49 ( 12.2% ) of genes in pham
- Manual Annotations of this start: 6 of 47
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hurricane\_96 (K3), Keshu\_99 (K3), MacnCheese\_97 (K3), Pixie\_98 (K3), ShedlockHolmes\_98 (K3), TBond007\_95 (K3),

Start 33:

- Found in 18 of 49 ( 36.7% ) of genes in pham
- Manual Annotations of this start: 17 of 47
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aminay\_102 (K7), BoostSeason\_92 (K2), Chris\_99 (K1), DismalFunk\_92 (K2), DismalStressor\_92 (K2), Findley\_92 (K2), KiSi\_102 (K1), LeMond\_101 (K1), Marcoliusprime\_90 (K2), MarkPheW\_101 (K1), Milly\_92 (K2), Mufasa\_92 (K2), Nibb\_101 (K1), Oscar\_102 (K1), Scarlett\_101 (K1), Strobilo\_98 (K2), TM4\_90 (K2), ZoeJ\_90 (K2),

### Summary by clusters:

There are 6 clusters represented in this pham: AG, K3, K2, K1, K7, K6,

Info for manual annotations of cluster AG:

- Start number 27 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster K1:

- Start number 24 was manually annotated 1 time for cluster K1.
- Start number 26 was manually annotated 4 times for cluster K1.
- Start number 33 was manually annotated 7 times for cluster K1.

Info for manual annotations of cluster K2:

- Start number 33 was manually annotated 9 times for cluster K2.

Info for manual annotations of cluster K3:

- Start number 28 was manually annotated 2 times for cluster K3.
- Start number 31 was manually annotated 6 times for cluster K3.

Info for manual annotations of cluster K6:

- Start number 26 was manually annotated 4 times for cluster K6.
- Start number 29 was manually annotated 3 times for cluster K6.
- Start number 30 was manually annotated 9 times for cluster K6.

Info for manual annotations of cluster K7:

- Start number 33 was manually annotated 1 time for cluster K7.

**Gene Information:**

Gene: Aminay\_102 Start: 58711, Stop: 58983, Start Num: 33

Candidate Starts for Aminay\_102:

(12, 58558), (Start: 33 @58711 has 17 MA's), (41, 58801), (47, 58837), (50, 58861), (58, 58933),

Gene: Amohnition\_93 Start: 60821, Stop: 61135, Start Num: 26

Candidate Starts for Amohnition\_93:

(1, 60410), (2, 60494), (10, 60692), (Start: 26 @60821 has 8 MA's), (36, 60878), (55, 61025), (63, 61088), (64, 61100), (65, 61112),

Gene: BoostSeason\_92 Start: 57164, Stop: 57460, Start Num: 33

Candidate Starts for BoostSeason\_92:

(Start: 26 @57131 has 8 MA's), (Start: 33 @57164 has 17 MA's), (36, 57200), (37, 57209), (40, 57245), (45, 57272), (51, 57314), (64, 57413),

Gene: Bryler\_92 Start: 56696, Stop: 57031, Start Num: 30

Candidate Starts for Bryler\_92:

(Start: 30 @56696 has 9 MA's), (36, 56747), (44, 56816), (54, 56879), (60, 56921), (66, 56972),

Gene: Cain\_100 Start: 59843, Stop: 60178, Start Num: 30

Candidate Starts for Cain\_100:

(Start: 30 @59843 has 9 MA's), (36, 59894), (44, 59963), (54, 60026), (60, 60068), (66, 60119),

Gene: Chris\_99 Start: 61172, Stop: 61450, Start Num: 33

Candidate Starts for Chris\_99:

(17, 61040), (Start: 33 @61172 has 17 MA's), (34, 61175), (39, 61244),

Gene: DARTH\_P\_93 Start: 60654, Stop: 60968, Start Num: 26

Candidate Starts for DARTH\_P\_93:

(1, 60243), (2, 60327), (10, 60525), (Start: 26 @60654 has 8 MA's), (36, 60711), (55, 60858), (63, 60921), (64, 60933), (65, 60945),

Gene: DismalFunk\_92 Start: 57214, Stop: 57510, Start Num: 33

Candidate Starts for DismalFunk\_92:

(Start: 33 @57214 has 17 MA's), (36, 57250), (37, 57259), (40, 57295), (45, 57322), (51, 57364), (64, 57463),

Gene: DismalStressor\_92 Start: 57214, Stop: 57510, Start Num: 33

Candidate Starts for DismalStressor\_92:

(Start: 33 @57214 has 17 MA's), (36, 57250), (37, 57259), (40, 57295), (45, 57322), (51, 57364), (64, 57463),

Gene: Efra2\_102 Start: 60360, Stop: 60668, Start Num: 26

Candidate Starts for Efra2\_102:

(15, 60264), (21, 60306), (Start: 26 @60360 has 8 MA's), (36, 60435), (39, 60471), (52, 60558), (56, 60582),

Gene: Ekdilam\_90 Start: 60833, Stop: 61147, Start Num: 26

Candidate Starts for Ekdilam\_90:

(Start: 26 @60833 has 8 MA's), (36, 60890), (63, 61100), (64, 61112), (65, 61124),

Gene: Findley\_92 Start: 57233, Stop: 57529, Start Num: 33

Candidate Starts for Findley\_92:

(Start: 33 @57233 has 17 MA's), (36, 57269), (37, 57278), (40, 57314), (45, 57341), (51, 57383), (64, 57482),

Gene: Guanica15\_101 Start: 60049, Stop: 60357, Start Num: 26

Candidate Starts for Guanica15\_101:

(15, 59953), (21, 59995), (Start: 26 @60049 has 8 MA's), (36, 60124), (39, 60160), (52, 60247), (56, 60271),

Gene: Hammy\_93 Start: 60872, Stop: 61186, Start Num: 26

Candidate Starts for Hammy\_93:

(10, 60743), (Start: 26 @60872 has 8 MA's), (36, 60929), (55, 61076), (63, 61139), (64, 61151), (65, 61163),

Gene: Hurricane\_96 Start: 60266, Stop: 60493, Start Num: 31

Candidate Starts for Hurricane\_96:

(Start: 31 @60266 has 6 MA's), (37, 60323), (44, 60383),

Gene: Keshu\_99 Start: 60197, Stop: 60424, Start Num: 31

Candidate Starts for Keshu\_99:

(Start: 31 @60197 has 6 MA's), (37, 60254),

Gene: KiSi\_102 Start: 61643, Stop: 61921, Start Num: 33

Candidate Starts for KiSi\_102:

(7, 61439), (17, 61517), (Start: 33 @61643 has 17 MA's), (39, 61715), (46, 61760), (64, 61877),

Gene: Krueger\_99 Start: 59350, Stop: 59685, Start Num: 29

Candidate Starts for Krueger\_99:

(Start: 29 @59350 has 3 MA's), (36, 59401), (39, 59437), (43, 59458), (44, 59470), (53, 59527), (60, 59575), (66, 59626),

Gene: LastHope\_101 Start: 60006, Stop: 60314, Start Num: 26

Candidate Starts for LastHope\_101:

(21, 59952), (Start: 26 @60006 has 8 MA's), (36, 60081), (39, 60117), (52, 60204), (61, 60258),

Gene: LeMond\_101 Start: 61600, Stop: 61878, Start Num: 33

Candidate Starts for LeMond\_101:

(7, 61396), (17, 61474), (Start: 33 @61600 has 17 MA's), (39, 61672), (46, 61717), (64, 61834),

Gene: MacnCheese\_97 Start: 60456, Stop: 60683, Start Num: 31

Candidate Starts for MacnCheese\_97:

(16, 60351), (23, 60423), (Start: 31 @60456 has 6 MA's), (37, 60513),

Gene: Marcoliusprime\_90 Start: 57214, Stop: 57510, Start Num: 33

Candidate Starts for Marcoliusprime\_90:

(Start: 33 @57214 has 17 MA's), (36, 57250), (37, 57259), (40, 57295), (45, 57322), (51, 57364), (64, 57463),

Gene: MarkPhew\_101 Start: 61243, Stop: 61521, Start Num: 33

Candidate Starts for MarkPhew\_101:

(4, 60964), (6, 60991), (11, 61078), (18, 61114), (22, 61171), (25, 61204), (Start: 33 @61243 has 17 MA's), (34, 61246), (39, 61315), (58, 61441), (64, 61477),

Gene: Marshawn\_94 Start: 60534, Stop: 60815, Start Num: 30

Candidate Starts for Marshawn\_94:

(14, 60429), (Start: 30 @60534 has 9 MA's), (60, 60759), (62, 60765),

Gene: Milly\_92 Start: 57296, Stop: 57592, Start Num: 33

Candidate Starts for Milly\_92:

(Start: 33 @57296 has 17 MA's), (36, 57332), (37, 57341), (40, 57377), (45, 57404), (51, 57446), (64, 57545),

Gene: Mufasa\_92 Start: 57151, Stop: 57447, Start Num: 33

Candidate Starts for Mufasa\_92:

(Start: 26 @57118 has 8 MA's), (Start: 33 @57151 has 17 MA's), (36, 57187), (37, 57196), (40, 57232), (45, 57259), (51, 57301), (64, 57400),

Gene: Nergal\_3 Start: 1079, Stop: 1348, Start Num: 27

Candidate Starts for Nergal\_3:

(20, 1004), (Start: 27 @1079 has 1 MA's), (36, 1133), (38, 1157), (44, 1214), (54, 1277), (57, 1298),

Gene: Nibb\_101 Start: 61386, Stop: 61664, Start Num: 33

Candidate Starts for Nibb\_101:

(13, 61233), (Start: 33 @61386 has 17 MA's), (39, 61458), (59, 61587),

Gene: Oscar\_102 Start: 61522, Stop: 61800, Start Num: 33

Candidate Starts for Oscar\_102:

(7, 61318), (17, 61396), (Start: 33 @61522 has 17 MA's), (39, 61594), (46, 61639), (64, 61756),

Gene: Pharb\_95 Start: 59832, Stop: 60062, Start Num: 28

Candidate Starts for Pharb\_95:

(Start: 28 @59832 has 2 MA's), (35, 59871), (44, 59952),

Gene: PhelpsODU\_90 Start: 55597, Stop: 55932, Start Num: 29

Candidate Starts for PhelpsODU\_90:

(15, 55504), (Start: 29 @55597 has 3 MA's), (36, 55648), (44, 55717), (53, 55774), (60, 55822), (66, 55873),

Gene: Phrank\_101 Start: 60141, Stop: 60476, Start Num: 30

Candidate Starts for Phrank\_101:

(Start: 30 @60141 has 9 MA's), (36, 60192), (43, 60249), (44, 60261), (48, 60285), (54, 60324), (60, 60366), (66, 60417),

Gene: Pixie\_98 Start: 60107, Stop: 60334, Start Num: 31

Candidate Starts for Pixie\_98:

(Start: 31 @60107 has 6 MA's), (37, 60164), (44, 60224),

Gene: Scarlett\_101 Start: 61391, Stop: 61669, Start Num: 33

Candidate Starts for Scarlett\_101:

(7, 61187), (17, 61265), (Start: 33 @61391 has 17 MA's), (39, 61463), (46, 61508), (64, 61625),

Gene: Shadow1\_98 Start: 59487, Stop: 59822, Start Num: 30

Candidate Starts for Shadow1\_98:

(Start: 30 @59487 has 9 MA's), (36, 59538), (43, 59595), (44, 59607), (54, 59670), (60, 59712), (66, 59763),

Gene: ShedlockHolmes\_98 Start: 60030, Stop: 60257, Start Num: 31

Candidate Starts for ShedlockHolmes\_98:

(Start: 31 @60030 has 6 MA's), (37, 60087), (44, 60147),

Gene: Strobilo\_98 Start: 57212, Stop: 57508, Start Num: 33

Candidate Starts for Strobilo\_98:

(Start: 33 @57212 has 17 MA's), (36, 57248), (37, 57257), (40, 57293), (45, 57320), (51, 57362), (64, 57461),

Gene: Sunflower1121\_98 Start: 59245, Stop: 59580, Start Num: 30

Candidate Starts for Sunflower1121\_98:

(Start: 30 @59245 has 9 MA's), (36, 59296), (43, 59353), (44, 59365), (54, 59428), (60, 59470), (66, 59521),

Gene: Syra333\_97 Start: 59326, Stop: 59661, Start Num: 30

Candidate Starts for Syra333\_97:

(15, 59233), (Start: 30 @59326 has 9 MA's), (36, 59377), (43, 59434), (44, 59446), (54, 59509), (60, 59551), (66, 59602),

Gene: TBond007\_95 Start: 60105, Stop: 60332, Start Num: 31

Candidate Starts for TBond007\_95:

(Start: 31 @60105 has 6 MA's), (37, 60162), (44, 60222),

Gene: TClif\_99 Start: 60473, Stop: 60799, Start Num: 24

Candidate Starts for TClif\_99:

(3, 60170), (5, 60257), (Start: 24 @60473 has 1 MA's), (36, 60557), (46, 60638),

Gene: TM4\_90 Start: 51883, Stop: 52179, Start Num: 33

Candidate Starts for TM4\_90:

(Start: 33 @51883 has 17 MA's), (36, 51919), (37, 51928), (40, 51964), (45, 51991), (51, 52033), (64, 52132),

Gene: Tierra\_100 Start: 60448, Stop: 60783, Start Num: 30

Candidate Starts for Tierra\_100:

(Start: 30 @60448 has 9 MA's), (36, 60499), (44, 60568), (53, 60625), (60, 60673), (66, 60724),

Gene: TribbleTrouble\_95 Start: 60595, Stop: 60825, Start Num: 28

Candidate Starts for TribbleTrouble\_95:

(Start: 28 @60595 has 2 MA's), (44, 60715),

Gene: Unicorn\_100 Start: 60225, Stop: 60560, Start Num: 29

Candidate Starts for Unicorn\_100:

(15, 60132), (Start: 29 @60225 has 3 MA's), (36, 60276), (44, 60345), (53, 60402), (60, 60450), (66, 60501),

Gene: Validus\_104 Start: 61559, Stop: 61879, Start Num: 24

Candidate Starts for Validus\_104:

(19, 61484), (Start: 24 @61559 has 1 MA's), (32, 61589), (36, 61634), (42, 61691), (43, 61703), (46, 61727), (52, 61769), (53, 61772),



Gene: Ximenita\_101 Start: 60060, Stop: 60395, Start Num: 30

Candidate Starts for Ximenita\_101:

(10, 59928), (13, 59958), (Start: 30 @60060 has 9 MA's), (36, 60111), (39, 60147), (43, 60168), (44, 60180), (53, 60237), (54, 60243), (60, 60285), (66, 60336),

Gene: Yunkel11\_99 Start: 59832, Stop: 60140, Start Num: 26

Candidate Starts for Yunkel11\_99:

(3, 59514), (8, 59676), (9, 59688), (10, 59697), (Start: 26 @59832 has 8 MA's), (36, 59907), (39, 59943), (52, 60030), (56, 60054),

Gene: ZoeJ\_90 Start: 56403, Stop: 56699, Start Num: 33

Candidate Starts for ZoeJ\_90:

(Start: 26 @56370 has 8 MA's), (Start: 33 @56403 has 17 MA's), (36, 56439), (37, 56448), (40, 56484), (45, 56511), (48, 56532), (49, 56541), (51, 56553), (64, 56652),