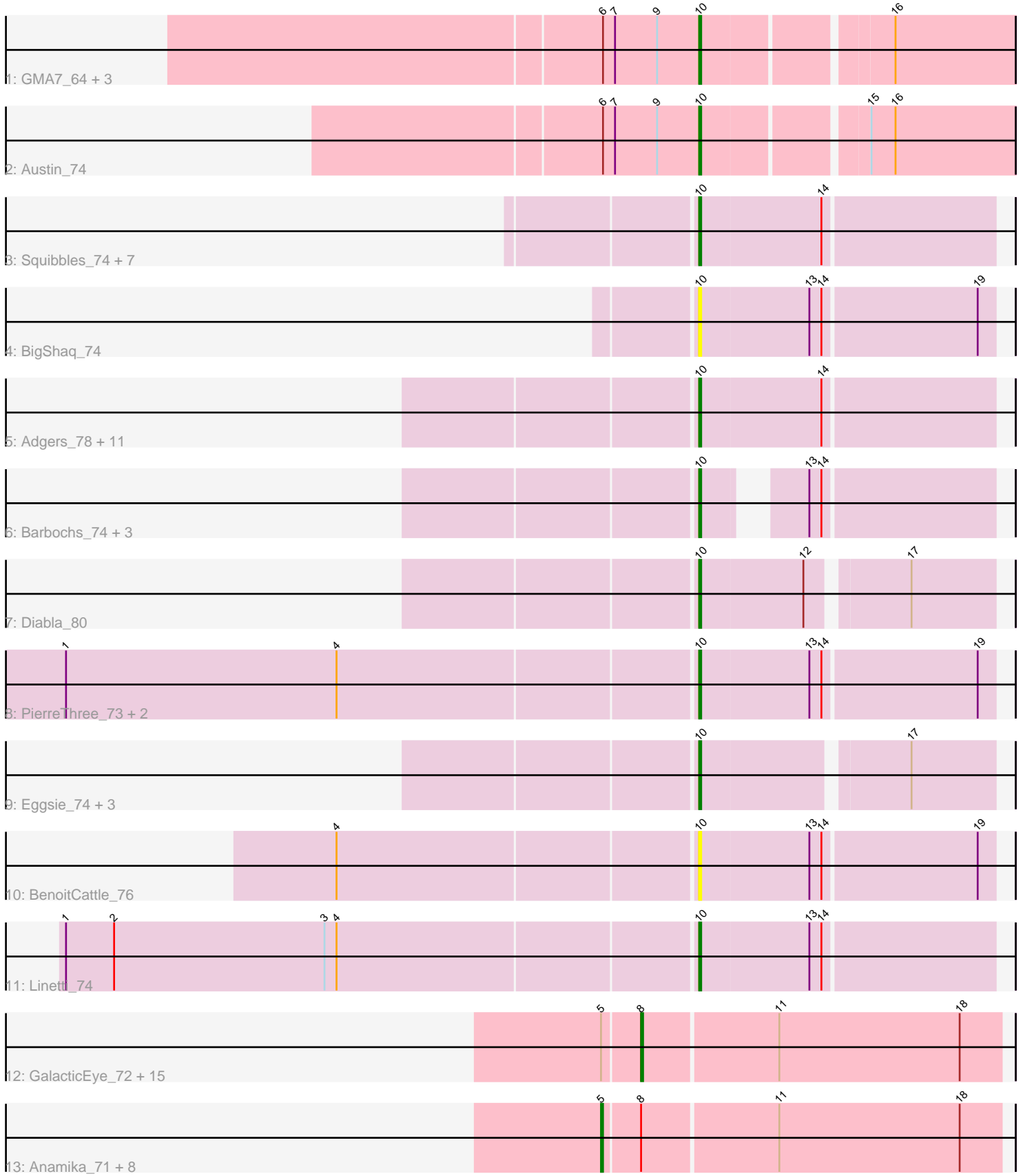


Pham 166712



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 166712 Report

This analysis was run 07/09/24 on database version 566.

Pham number 166712 has 65 members, 11 are drafts.

Phages represented in each track:

- Track 1 : GMA7\_64, GTE7\_63, HayZem\_75, Amore2\_75
- Track 2 : Austin\_74
- Track 3 : Squibbles\_74, CathyBurgh\_74, Flakey\_74, Lizzo\_75, GourdThymes\_75, Ekhein\_75, Breezic\_75, Hotorobo\_75
- Track 4 : BigShaq\_74
- Track 5 : Adgers\_78, Boneham\_78, Monty\_74, Msay19\_79, Beaver\_78, Poland\_80, FelixAlejandro\_79, BirksAndSocks\_79, Gorko\_74, Butterball\_77, Jellybones\_76, Sombrero\_76
- Track 6 : Barbochs\_74, RemRem\_76, Sam12\_74, Exiguo\_74
- Track 7 : Diabla\_80
- Track 8 : PierreThree\_73, Chelms\_74, Dakiti\_75
- Track 9 : Eggsie\_74, RoyalG\_75, PokyPuppy\_73, SteveFrench\_74
- Track 10 : BenoitCattle\_76
- Track 11 : Linetti\_74
- Track 12 : GalacticEye\_72, Teal\_71, Berries\_72, Hail2Pitt\_70, Luker\_73, Jams\_72, Damp\_69, Newt\_73, Kaseim\_71, Shelley\_72, MrWormie\_72, Bianmat\_72, Charianelly\_72, Sticker17\_72, Lidong\_72, Minos\_73
- Track 13 : Anamika\_71, Nimi13\_71, Hello\_71, Harambe\_71, Guillaume\_71, Lahirium\_71, Woes\_71, Neoevie\_71, Jormungandr\_71

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

The start number called the most often in the published annotations is 10, it was called in 31 of the 54 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adgers\_78, Amore2\_75, Austin\_74, Barbochs\_74, Beaver\_78, BenoitCattle\_76, BigShaq\_74, BirksAndSocks\_79, Boneham\_78, Breezic\_75, Butterball\_77, CathyBurgh\_74, Chelms\_74, Dakiti\_75, Diabla\_80, Eggsie\_74, Ekhein\_75, Exiguo\_74, FelixAlejandro\_79, Flakey\_74, GMA7\_64, GTE7\_63, Gorko\_74, GourdThymes\_75, HayZem\_75, Hotorobo\_75, Jellybones\_76, Linetti\_74, Lizzo\_75, Monty\_74, Msay19\_79, PierreThree\_73, PokyPuppy\_73, Poland\_80, RemRem\_76, RoyalG\_75, Sam12\_74, Sombrero\_76, Squibbles\_74, SteveFrench\_74,

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

- 

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

- Anamika\_71, Berries\_72, Bianmat\_72, Charianelly\_72, Damp\_69, GalacticEye\_72, Guillaume\_71, Hail2Pitt\_70, Harambe\_71, Hello\_71, Jams\_72, Jormungandr\_71, Kaseim\_71, Lahirium\_71, Lidong\_72, Luker\_73, Minos\_73, MrWormie\_72, Neevie\_71, Newt\_73, Nimi13\_71, Shelley\_72, Sticker17\_72, Teal\_71, Woes\_71,

### Summary by start number:

Start 5:

- Found in 25 of 65 ( 38.5% ) of genes in pham
- Manual Annotations of this start: 9 of 54
- Called 36.0% of time when present
- Phage (with cluster) where this start called: Anamika\_71 (CS3), Guillaume\_71 (CS3), Harambe\_71 (CS3), Hello\_71 (CS3), Jormungandr\_71 (CS3), Lahirium\_71 (CS3), Neevie\_71 (CS3), Nimi13\_71 (CS3), Woes\_71 (CS3),

Start 8:

- Found in 25 of 65 ( 38.5% ) of genes in pham
- Manual Annotations of this start: 14 of 54
- Called 64.0% of time when present
- Phage (with cluster) where this start called: Berries\_72 (CS3), Bianmat\_72 (CS3), Charianelly\_72 (CS3), Damp\_69 (CS3), GalacticEye\_72 (CS3), Hail2Pitt\_70 (CS3), Jams\_72 (CS3), Kaseim\_71 (CS3), Lidong\_72 (CS3), Luker\_73 (CS3), Minos\_73 (CS3), MrWormie\_72 (CS3), Newt\_73 (CS3), Shelley\_72 (CS3), Sticker17\_72 (CS3), Teal\_71 (CS3),

Start 10:

- Found in 40 of 65 ( 61.5% ) of genes in pham
- Manual Annotations of this start: 31 of 54
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adgers\_78 (CS2), Amore2\_75 (CS1), Austin\_74 (CS1), Barbochs\_74 (CS2), Beaver\_78 (CS2), BenoitCattle\_76 (CS2), BigShaq\_74 (CS2), BirksAndSocks\_79 (CS2), Boneham\_78 (CS2), Breezic\_75 (CS2), Butterball\_77 (CS2), CathyBurgh\_74 (CS2), Chelms\_74 (CS2), Dakiti\_75 (CS2), Diabla\_80 (CS2), Eggsie\_74 (CS2), Ekhein\_75 (CS2), Exiguo\_74 (CS2), FelixAlejandro\_79 (CS2), Flakey\_74 (CS2), GMA7\_64 (CS1), GTE7\_63 (CS1), Gorko\_74 (CS2), GourdThymes\_75 (CS2), HayZem\_75 (CS1), Hotorobo\_75 (CS2), Jellybones\_76 (CS2), Linetti\_74 (CS2), Lizzo\_75 (CS2), Monty\_74 (CS2), Msay19\_79 (CS2), PierreThree\_73 (CS2), PokyPuppy\_73 (CS2), Poland\_80 (CS2), RemRem\_76 (CS2), RoyalG\_75 (CS2), Sam12\_74 (CS2), Sombrero\_76 (CS2), Squibbles\_74 (CS2), SteveFrench\_74 (CS2),

### Summary by clusters:

There are 3 clusters represented in this pham: CS1, CS3, CS2,

Info for manual annotations of cluster CS1:

- Start number 10 was manually annotated 3 times for cluster CS1.

Info for manual annotations of cluster CS2:

- Start number 10 was manually annotated 28 times for cluster CS2.

Info for manual annotations of cluster CS3:

- Start number 5 was manually annotated 9 times for cluster CS3.
- Start number 8 was manually annotated 14 times for cluster CS3.

**Gene Information:**

Gene: Adgers\_78 Start: 59804, Stop: 59661, Start Num: 10

Candidate Starts for Adgers\_78:

(Start: 10 @59804 has 31 MA's), (14, 59744),

Gene: Amore2\_75 Start: 59331, Stop: 59185, Start Num: 10

Candidate Starts for Amore2\_75:

(6, 59379), (7, 59373), (9, 59352), (Start: 10 @59331 has 31 MA's), (16, 59244),

Gene: Anamika\_71 Start: 59896, Stop: 59702, Start Num: 5

Candidate Starts for Anamika\_71:

(Start: 5 @59896 has 9 MA's), (Start: 8 @59878 has 14 MA's), (11, 59812), (18, 59722),

Gene: Austin\_74 Start: 59329, Stop: 59183, Start Num: 10

Candidate Starts for Austin\_74:

(6, 59377), (7, 59371), (9, 59350), (Start: 10 @59329 has 31 MA's), (15, 59254), (16, 59242),

Gene: Barbochs\_74 Start: 59160, Stop: 59035, Start Num: 10

Candidate Starts for Barbochs\_74:

(Start: 10 @59160 has 31 MA's), (13, 59124), (14, 59118),

Gene: Beaver\_78 Start: 61116, Stop: 60973, Start Num: 10

Candidate Starts for Beaver\_78:

(Start: 10 @61116 has 31 MA's), (14, 61056),

Gene: BenoitCattle\_76 Start: 59779, Stop: 59636, Start Num: 10

Candidate Starts for BenoitCattle\_76:

(4, 59953), (Start: 10 @59779 has 31 MA's), (13, 59725), (14, 59719), (19, 59644),

Gene: Berries\_72 Start: 59850, Stop: 59674, Start Num: 8

Candidate Starts for Berries\_72:

(Start: 5 @59868 has 9 MA's), (Start: 8 @59850 has 14 MA's), (11, 59784), (18, 59694),

Gene: Bianmat\_72 Start: 59890, Stop: 59714, Start Num: 8

Candidate Starts for Bianmat\_72:

(Start: 5 @59908 has 9 MA's), (Start: 8 @59890 has 14 MA's), (11, 59824), (18, 59734),

Gene: BigShaq\_74 Start: 59783, Stop: 59640, Start Num: 10

Candidate Starts for BigShaq\_74:

(Start: 10 @59783 has 31 MA's), (13, 59729), (14, 59723), (19, 59648),

Gene: BirksAndSocks\_79 Start: 61262, Stop: 61119, Start Num: 10

Candidate Starts for BirksAndSocks\_79:

(Start: 10 @61262 has 31 MA's), (14, 61202),

Gene: Boneham\_78 Start: 61187, Stop: 61044, Start Num: 10  
Candidate Starts for Boneham\_78:  
(Start: 10 @61187 has 31 MA's), (14, 61127),

Gene: Breezic\_75 Start: 59359, Stop: 59216, Start Num: 10  
Candidate Starts for Breezic\_75:  
(Start: 10 @59359 has 31 MA's), (14, 59299),

Gene: Butterball\_77 Start: 61192, Stop: 61049, Start Num: 10  
Candidate Starts for Butterball\_77:  
(Start: 10 @61192 has 31 MA's), (14, 61132),

Gene: CathyBurgh\_74 Start: 59867, Stop: 59724, Start Num: 10  
Candidate Starts for CathyBurgh\_74:  
(Start: 10 @59867 has 31 MA's), (14, 59807),

Gene: Charianelly\_72 Start: 59600, Stop: 59424, Start Num: 8  
Candidate Starts for Charianelly\_72:  
(Start: 5 @59618 has 9 MA's), (Start: 8 @59600 has 14 MA's), (11, 59534), (18, 59444),

Gene: Chelms\_74 Start: 59722, Stop: 59579, Start Num: 10  
Candidate Starts for Chelms\_74:  
(1, 60031), (4, 59896), (Start: 10 @59722 has 31 MA's), (13, 59668), (14, 59662), (19, 59587),

Gene: Dakiti\_75 Start: 60590, Stop: 60447, Start Num: 10  
Candidate Starts for Dakiti\_75:  
(1, 60899), (4, 60764), (Start: 10 @60590 has 31 MA's), (13, 60536), (14, 60530), (19, 60455),

Gene: Damp\_69 Start: 58764, Stop: 58588, Start Num: 8  
Candidate Starts for Damp\_69:  
(Start: 5 @58782 has 9 MA's), (Start: 8 @58764 has 14 MA's), (11, 58698), (18, 58608),

Gene: Diabla\_80 Start: 61279, Stop: 61142, Start Num: 10  
Candidate Starts for Diabla\_80:  
(Start: 10 @61279 has 31 MA's), (12, 61228), (17, 61183),

Gene: Eggsie\_74 Start: 59080, Stop: 58943, Start Num: 10  
Candidate Starts for Eggsie\_74:  
(Start: 10 @59080 has 31 MA's), (17, 58984),

Gene: Ekhein\_75 Start: 59058, Stop: 58915, Start Num: 10  
Candidate Starts for Ekhein\_75:  
(Start: 10 @59058 has 31 MA's), (14, 58998),

Gene: Exiguo\_74 Start: 59076, Stop: 58951, Start Num: 10  
Candidate Starts for Exiguo\_74:  
(Start: 10 @59076 has 31 MA's), (13, 59040), (14, 59034),

Gene: FelixAlejandro\_79 Start: 61590, Stop: 61447, Start Num: 10  
Candidate Starts for FelixAlejandro\_79:  
(Start: 10 @61590 has 31 MA's), (14, 61530),

Gene: Flakey\_74 Start: 59853, Stop: 59710, Start Num: 10

Candidate Starts for Flakey\_74:

(Start: 10 @59853 has 31 MA's), (14, 59793),

Gene: GMA7\_64 Start: 53545, Stop: 53399, Start Num: 10

Candidate Starts for GMA7\_64:

(6, 53593), (7, 53587), (9, 53566), (Start: 10 @53545 has 31 MA's), (16, 53458),

Gene: GTE7\_63 Start: 53576, Stop: 53430, Start Num: 10

Candidate Starts for GTE7\_63:

(6, 53624), (7, 53618), (9, 53597), (Start: 10 @53576 has 31 MA's), (16, 53489),

Gene: GalacticEye\_72 Start: 59561, Stop: 59385, Start Num: 8

Candidate Starts for GalacticEye\_72:

(Start: 5 @59579 has 9 MA's), (Start: 8 @59561 has 14 MA's), (11, 59495), (18, 59405),

Gene: Gorko\_74 Start: 58999, Stop: 58856, Start Num: 10

Candidate Starts for Gorko\_74:

(Start: 10 @58999 has 31 MA's), (14, 58939),

Gene: GourdThymes\_75 Start: 59954, Stop: 59811, Start Num: 10

Candidate Starts for GourdThymes\_75:

(Start: 10 @59954 has 31 MA's), (14, 59894),

Gene: Guillaume\_71 Start: 59629, Stop: 59435, Start Num: 5

Candidate Starts for Guillaume\_71:

(Start: 5 @59629 has 9 MA's), (Start: 8 @59611 has 14 MA's), (11, 59545), (18, 59455),

Gene: Hail2Pitt\_70 Start: 60087, Stop: 59911, Start Num: 8

Candidate Starts for Hail2Pitt\_70:

(Start: 5 @60105 has 9 MA's), (Start: 8 @60087 has 14 MA's), (11, 60021), (18, 59931),

Gene: Harambe\_71 Start: 59896, Stop: 59702, Start Num: 5

Candidate Starts for Harambe\_71:

(Start: 5 @59896 has 9 MA's), (Start: 8 @59878 has 14 MA's), (11, 59812), (18, 59722),

Gene: HayZem\_75 Start: 59328, Stop: 59182, Start Num: 10

Candidate Starts for HayZem\_75:

(6, 59376), (7, 59370), (9, 59349), (Start: 10 @59328 has 31 MA's), (16, 59241),

Gene: Hello\_71 Start: 59858, Stop: 59664, Start Num: 5

Candidate Starts for Hello\_71:

(Start: 5 @59858 has 9 MA's), (Start: 8 @59840 has 14 MA's), (11, 59774), (18, 59684),

Gene: Hotorobo\_75 Start: 59941, Stop: 59798, Start Num: 10

Candidate Starts for Hotorobo\_75:

(Start: 10 @59941 has 31 MA's), (14, 59881),

Gene: Jams\_72 Start: 59050, Stop: 58874, Start Num: 8

Candidate Starts for Jams\_72:

(Start: 5 @59068 has 9 MA's), (Start: 8 @59050 has 14 MA's), (11, 58984), (18, 58894),

Gene: Jellybones\_76 Start: 60874, Stop: 60731, Start Num: 10

Candidate Starts for Jellybones\_76:  
(Start: 10 @60874 has 31 MA's), (14, 60814),

Gene: Jormungandr\_71 Start: 59611, Stop: 59417, Start Num: 5  
Candidate Starts for Jormungandr\_71:  
(Start: 5 @59611 has 9 MA's), (Start: 8 @59593 has 14 MA's), (11, 59527), (18, 59437),

Gene: Kaseim\_71 Start: 59035, Stop: 58859, Start Num: 8  
Candidate Starts for Kaseim\_71:  
(Start: 5 @59053 has 9 MA's), (Start: 8 @59035 has 14 MA's), (11, 58969), (18, 58879),

Gene: Lahirium\_71 Start: 60133, Stop: 59939, Start Num: 5  
Candidate Starts for Lahirium\_71:  
(Start: 5 @60133 has 9 MA's), (Start: 8 @60115 has 14 MA's), (11, 60049), (18, 59959),

Gene: Lidong\_72 Start: 59850, Stop: 59674, Start Num: 8  
Candidate Starts for Lidong\_72:  
(Start: 5 @59868 has 9 MA's), (Start: 8 @59850 has 14 MA's), (11, 59784), (18, 59694),

Gene: Linetti\_74 Start: 60744, Stop: 60601, Start Num: 10  
Candidate Starts for Linetti\_74:  
(1, 61053), (2, 61029), (3, 60924), (4, 60918), (Start: 10 @60744 has 31 MA's), (13, 60690), (14, 60684),

Gene: Lizzo\_75 Start: 59867, Stop: 59724, Start Num: 10  
Candidate Starts for Lizzo\_75:  
(Start: 10 @59867 has 31 MA's), (14, 59807),

Gene: Luker\_73 Start: 60068, Stop: 59892, Start Num: 8  
Candidate Starts for Luker\_73:  
(Start: 5 @60086 has 9 MA's), (Start: 8 @60068 has 14 MA's), (11, 60002), (18, 59912),

Gene: Minos\_73 Start: 59592, Stop: 59416, Start Num: 8  
Candidate Starts for Minos\_73:  
(Start: 5 @59610 has 9 MA's), (Start: 8 @59592 has 14 MA's), (11, 59526), (18, 59436),

Gene: Monty\_74 Start: 59080, Stop: 58937, Start Num: 10  
Candidate Starts for Monty\_74:  
(Start: 10 @59080 has 31 MA's), (14, 59020),

Gene: MrWormie\_72 Start: 58753, Stop: 58577, Start Num: 8  
Candidate Starts for MrWormie\_72:  
(Start: 5 @58771 has 9 MA's), (Start: 8 @58753 has 14 MA's), (11, 58687), (18, 58597),

Gene: Msay19\_79 Start: 61476, Stop: 61333, Start Num: 10  
Candidate Starts for Msay19\_79:  
(Start: 10 @61476 has 31 MA's), (14, 61416),

Gene: Neoevie\_71 Start: 59872, Stop: 59678, Start Num: 5  
Candidate Starts for Neoevie\_71:  
(Start: 5 @59872 has 9 MA's), (Start: 8 @59854 has 14 MA's), (11, 59788), (18, 59698),

Gene: Newt\_73 Start: 60082, Stop: 59906, Start Num: 8

Candidate Starts for Newt\_73:

(Start: 5 @60100 has 9 MA's), (Start: 8 @60082 has 14 MA's), (11, 60016), (18, 59926),

Gene: Nimi13\_71 Start: 59619, Stop: 59425, Start Num: 5

Candidate Starts for Nimi13\_71:

(Start: 5 @59619 has 9 MA's), (Start: 8 @59601 has 14 MA's), (11, 59535), (18, 59445),

Gene: PierreThree\_73 Start: 60221, Stop: 60078, Start Num: 10

Candidate Starts for PierreThree\_73:

(1, 60530), (4, 60395), (Start: 10 @60221 has 31 MA's), (13, 60167), (14, 60161), (19, 60086),

Gene: PokyPuppy\_73 Start: 60048, Stop: 59911, Start Num: 10

Candidate Starts for PokyPuppy\_73:

(Start: 10 @60048 has 31 MA's), (17, 59952),

Gene: Poland\_80 Start: 61455, Stop: 61312, Start Num: 10

Candidate Starts for Poland\_80:

(Start: 10 @61455 has 31 MA's), (14, 61395),

Gene: RemRem\_76 Start: 59052, Stop: 58927, Start Num: 10

Candidate Starts for RemRem\_76:

(Start: 10 @59052 has 31 MA's), (13, 59016), (14, 59010),

Gene: RoyalG\_75 Start: 59719, Stop: 59582, Start Num: 10

Candidate Starts for RoyalG\_75:

(Start: 10 @59719 has 31 MA's), (17, 59623),

Gene: Sam12\_74 Start: 59076, Stop: 58951, Start Num: 10

Candidate Starts for Sam12\_74:

(Start: 10 @59076 has 31 MA's), (13, 59040), (14, 59034),

Gene: Shelley\_72 Start: 59077, Stop: 58901, Start Num: 8

Candidate Starts for Shelley\_72:

(Start: 5 @59095 has 9 MA's), (Start: 8 @59077 has 14 MA's), (11, 59011), (18, 58921),

Gene: Sombrero\_76 Start: 59667, Stop: 59524, Start Num: 10

Candidate Starts for Sombrero\_76:

(Start: 10 @59667 has 31 MA's), (14, 59607),

Gene: Squibbles\_74 Start: 59933, Stop: 59790, Start Num: 10

Candidate Starts for Squibbles\_74:

(Start: 10 @59933 has 31 MA's), (14, 59873),

Gene: SteveFrench\_74 Start: 59959, Stop: 59822, Start Num: 10

Candidate Starts for SteveFrench\_74:

(Start: 10 @59959 has 31 MA's), (17, 59863),

Gene: Sticker17\_72 Start: 59565, Stop: 59389, Start Num: 8

Candidate Starts for Sticker17\_72:

(Start: 5 @59583 has 9 MA's), (Start: 8 @59565 has 14 MA's), (11, 59499), (18, 59409),

Gene: Teal\_71 Start: 60059, Stop: 59883, Start Num: 8

Candidate Starts for Teal\_71:



(Start: 5 @60077 has 9 MA's), (Start: 8 @60059 has 14 MA's), (11, 59993), (18, 59903),

Gene: Woes\_71 Start: 60128, Stop: 59934, Start Num: 5

Candidate Starts for Woes\_71:

(Start: 5 @60128 has 9 MA's), (Start: 8 @60110 has 14 MA's), (11, 60044), (18, 59954),