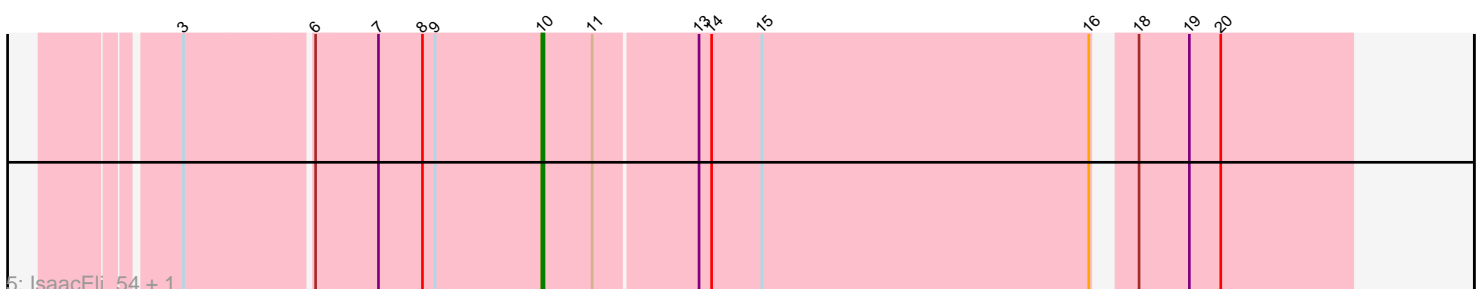
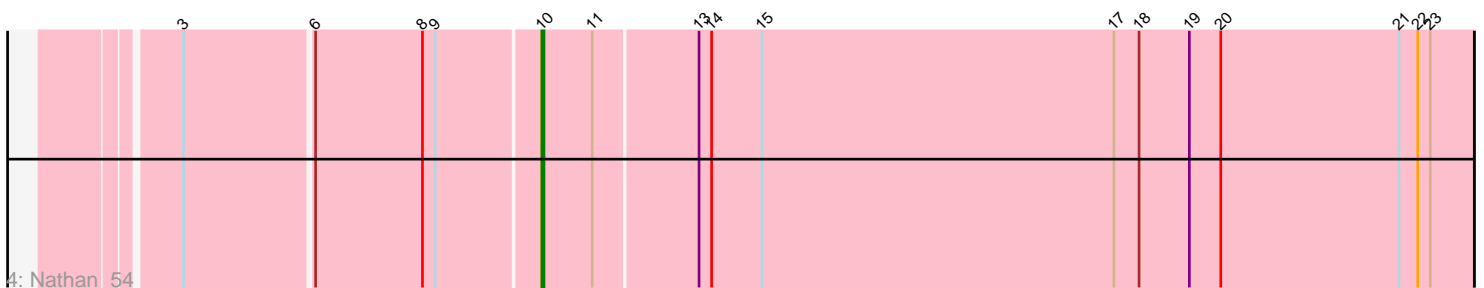
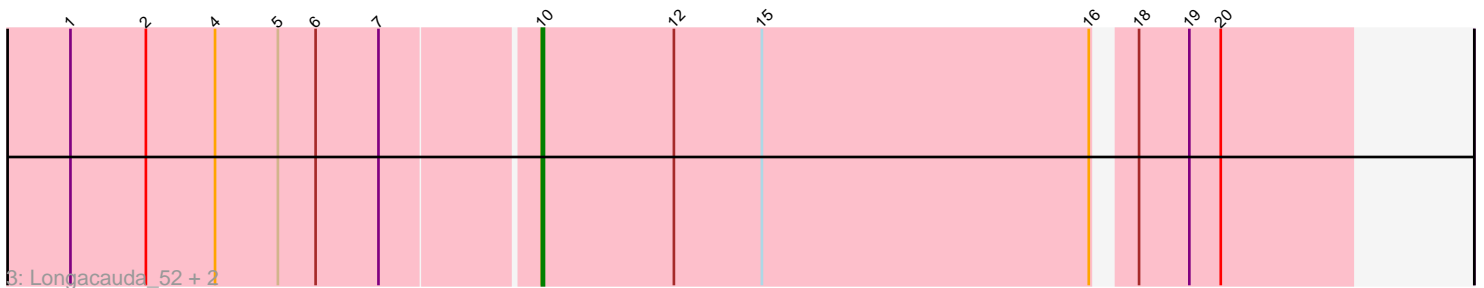
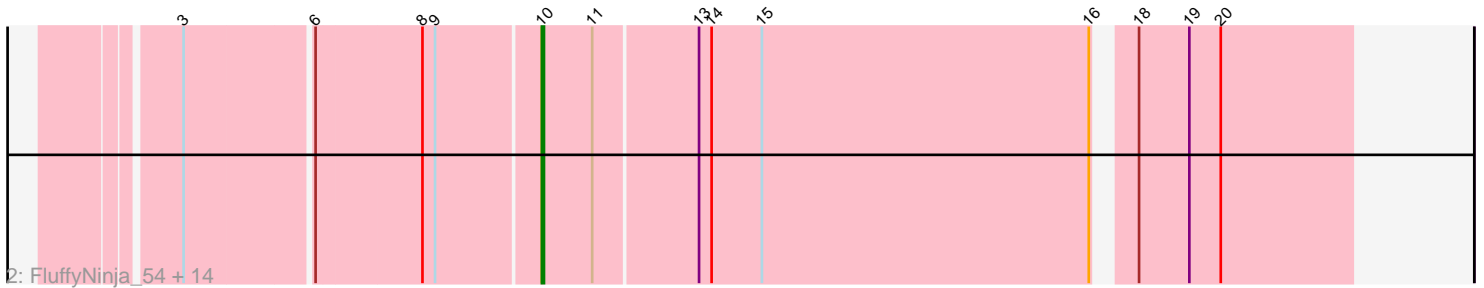
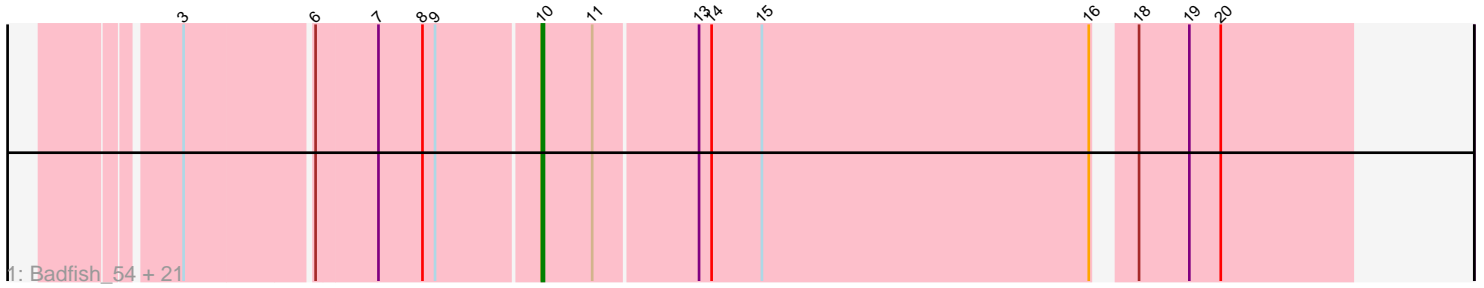


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 311758 Report

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

Pham number 311758 has 43 members, 0 are drafts.

Phages represented in each track:

- Track 1 : Badfish\_54, Telesworld\_52, Adriana\_54, ThreeOh3D2\_54, PG1\_54, Morty\_54, Piglet\_0053, Lego3393\_52, RedMaple\_53, Waterdiva\_53, Fang\_54, ABU\_54, Eugenia\_53, Cornobble\_52, OSmaximus\_54, Serpentine\_0053, MRabcd\_52, Megatron\_54, Mulan\_53, Usavi\_53, Beaglebox\_52, Nacho\_0054
- Track 2 : FluffyNinja\_54, Chah\_55, Yoshand\_54, Swish\_54, BlackStallion\_54, PhatCats2014\_54, FriarPreacher\_52, Katniss\_54, JacAttac\_54, Orion\_54, Pherdinand\_54, Sigman\_54, Scoot17C\_54, Phamished\_54, Phipps\_53
- Track 3 : Longacauda\_52, HighStump\_53, Legolas\_53
- Track 4 : Nathan\_54
- Track 5 : IsaacEli\_54, Kikipoo\_54

### ***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 43 of the 43 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ABU\_54, Adriana\_54, Badfish\_54, Beaglebox\_52, BlackStallion\_54, Chah\_55, Cornobble\_52, Eugenia\_53, Fang\_54, FluffyNinja\_54, FriarPreacher\_52, HighStump\_53, IsaacEli\_54, JacAttac\_54, Katniss\_54, Kikipoo\_54, Lego3393\_52, Legolas\_53, Longacauda\_52, MRabcd\_52, Megatron\_54, Morty\_54, Mulan\_53, Nacho\_0054, Nathan\_54, OSmaximus\_54, Orion\_54, PG1\_54, Phamished\_54, PhatCats2014\_54, Pherdinand\_54, Phipps\_53, Piglet\_0053, RedMaple\_53, Scoot17C\_54, Serpentine\_0053, Sigman\_54, Swish\_54, Telesworld\_52, ThreeOh3D2\_54, Usavi\_53, Waterdiva\_53, Yoshand\_54,

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

- 

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

- 

**Summary by start number:**

Start 10:

- Found in 43 of 43 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 43 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ABU\_54 (B1), Adriana\_54 (B1), Badfish\_54 (B1), Beaglebox\_52 (B1), BlackStallion\_54 (B1), Chah\_55 (B1), Cornobble\_52 (B1), Eugenia\_53 (B1), Fang\_54 (B1), FluffyNinja\_54 (B1), FriarPreacher\_52 (B1), HighStump\_53 (B1), IsaacEli\_54 (B1), JacAttac\_54 (B1), Katniss\_54 (B1), Kikipoo\_54 (B1), Lego3393\_52 (B1), Legolas\_53 (B1), Longacauda\_52 (B1), MRabcd\_52 (B1), Megatron\_54 (B1), Morty\_54 (B1), Mulan\_53 (B1), Nacho\_0054 (B1), Nathan\_54 (B1), OSmaximus\_54 (B1), Orion\_54 (B1), PG1\_54 (B1), Phamished\_54 (B1), PhatCats2014\_54 (B1), Pherdinand\_54 (B1), Phipps\_53 (B1), Piglet\_0053 (B1), RedMaple\_53 (B1), Scoot17C\_54 (B1), Serpentine\_0053 (B1), Sigman\_54 (B1), Swish\_54 (B1), Telesworld\_52 (B1), ThreeOh3D2\_54 (B1), Usavi\_53 (B1), Waterdiva\_53 (B1), Yoshand\_54 (B1),

### Summary by clusters:

There is one cluster represented in this pham: B1

Info for manual annotations of cluster B1:

- Start number 10 was manually annotated 43 times for cluster B1.

### Gene Information:

Gene: ABU\_54 Start: 47593, Stop: 47222, Start Num: 10

Candidate Starts for ABU\_54:

(3, 47752), (6, 47695), (7, 47668), (8, 47647), (9, 47641), (Start: 10 @47593 has 43 MA's), (11, 47569), (13, 47521), (14, 47515), (15, 47491), (16, 47335), (18, 47323), (19, 47299), (20, 47284),

Gene: Adriana\_54 Start: 47590, Stop: 47219, Start Num: 10

Candidate Starts for Adriana\_54:

(3, 47749), (6, 47692), (7, 47665), (8, 47644), (9, 47638), (Start: 10 @47590 has 43 MA's), (11, 47566), (13, 47518), (14, 47512), (15, 47488), (16, 47332), (18, 47320), (19, 47296), (20, 47281),

Gene: Badfish\_54 Start: 47615, Stop: 47244, Start Num: 10

Candidate Starts for Badfish\_54:

(3, 47774), (6, 47717), (7, 47690), (8, 47669), (9, 47663), (Start: 10 @47615 has 43 MA's), (11, 47591), (13, 47543), (14, 47537), (15, 47513), (16, 47357), (18, 47345), (19, 47321), (20, 47306),

Gene: Beaglebox\_52 Start: 47167, Stop: 46796, Start Num: 10

Candidate Starts for Beaglebox\_52:

(3, 47326), (6, 47269), (7, 47242), (8, 47221), (9, 47215), (Start: 10 @47167 has 43 MA's), (11, 47143), (13, 47095), (14, 47089), (15, 47065), (16, 46909), (18, 46897), (19, 46873), (20, 46858),

Gene: BlackStallion\_54 Start: 47621, Stop: 47250, Start Num: 10

Candidate Starts for BlackStallion\_54:

(3, 47780), (6, 47723), (8, 47675), (9, 47669), (Start: 10 @47621 has 43 MA's), (11, 47597), (13, 47549), (14, 47543), (15, 47519), (16, 47363), (18, 47351), (19, 47327), (20, 47312),

Gene: Chah\_55 Start: 47614, Stop: 47243, Start Num: 10

Candidate Starts for Chah\_55:

(3, 47773), (6, 47716), (8, 47668), (9, 47662), (Start: 10 @47614 has 43 MA's), (11, 47590), (13, 47542), (14, 47536), (15, 47512), (16, 47356), (18, 47344), (19, 47320), (20, 47305),

Gene: Cornobble\_52 Start: 47022, Stop: 46651, Start Num: 10

Candidate Starts for Cornobble\_52:

(3, 47181), (6, 47124), (7, 47097), (8, 47076), (9, 47070), (Start: 10 @47022 has 43 MA's), (11, 46998), (13, 46950), (14, 46944), (15, 46920), (16, 46764), (18, 46752), (19, 46728), (20, 46713),

Gene: Eugenia\_53 Start: 47460, Stop: 47089, Start Num: 10

Candidate Starts for Eugenia\_53:

(3, 47619), (6, 47562), (7, 47535), (8, 47514), (9, 47508), (Start: 10 @47460 has 43 MA's), (11, 47436), (13, 47388), (14, 47382), (15, 47358), (16, 47202), (18, 47190), (19, 47166), (20, 47151),

Gene: Fang\_54 Start: 47608, Stop: 47237, Start Num: 10

Candidate Starts for Fang\_54:

(3, 47767), (6, 47710), (7, 47683), (8, 47662), (9, 47656), (Start: 10 @47608 has 43 MA's), (11, 47584), (13, 47536), (14, 47530), (15, 47506), (16, 47350), (18, 47338), (19, 47314), (20, 47299),

Gene: FluffyNinja\_54 Start: 47622, Stop: 47251, Start Num: 10

Candidate Starts for FluffyNinja\_54:

(3, 47781), (6, 47724), (8, 47676), (9, 47670), (Start: 10 @47622 has 43 MA's), (11, 47598), (13, 47550), (14, 47544), (15, 47520), (16, 47364), (18, 47352), (19, 47328), (20, 47313),

Gene: FriarPreacher\_52 Start: 47499, Stop: 47128, Start Num: 10

Candidate Starts for FriarPreacher\_52:

(3, 47658), (6, 47601), (8, 47553), (9, 47547), (Start: 10 @47499 has 43 MA's), (11, 47475), (13, 47427), (14, 47421), (15, 47397), (16, 47241), (18, 47229), (19, 47205), (20, 47190),

Gene: HighStump\_53 Start: 47304, Stop: 46930, Start Num: 10

Candidate Starts for HighStump\_53:

(1, 47523), (2, 47487), (4, 47454), (5, 47424), (6, 47406), (7, 47376), (Start: 10 @47304 has 43 MA's), (12, 47241), (15, 47199), (16, 47043), (18, 47031), (19, 47007), (20, 46992),

Gene: IsaacEli\_54 Start: 47605, Stop: 47234, Start Num: 10

Candidate Starts for IsaacEli\_54:

(3, 47767), (6, 47710), (7, 47683), (8, 47662), (9, 47656), (Start: 10 @47605 has 43 MA's), (11, 47581), (13, 47533), (14, 47527), (15, 47503), (16, 47347), (18, 47335), (19, 47311), (20, 47296),

Gene: JacAttac\_54 Start: 47587, Stop: 47216, Start Num: 10

Candidate Starts for JacAttac\_54:

(3, 47746), (6, 47689), (8, 47641), (9, 47635), (Start: 10 @47587 has 43 MA's), (11, 47563), (13, 47515), (14, 47509), (15, 47485), (16, 47329), (18, 47317), (19, 47293), (20, 47278),

Gene: Katniss\_54 Start: 47614, Stop: 47243, Start Num: 10

Candidate Starts for Katniss\_54:

(3, 47773), (6, 47716), (8, 47668), (9, 47662), (Start: 10 @47614 has 43 MA's), (11, 47590), (13, 47542), (14, 47536), (15, 47512), (16, 47356), (18, 47344), (19, 47320), (20, 47305),

Gene: Kikipoo\_54 Start: 47605, Stop: 47234, Start Num: 10

Candidate Starts for Kikipoo\_54:

(3, 47767), (6, 47710), (7, 47683), (8, 47662), (9, 47656), (Start: 10 @47605 has 43 MA's), (11, 47581), (13, 47533), (14, 47527), (15, 47503), (16, 47347), (18, 47335), (19, 47311), (20, 47296),

Gene: Lego3393\_52 Start: 47608, Stop: 47237, Start Num: 10

Candidate Starts for Lego3393\_52:

(3, 47767), (6, 47710), (7, 47683), (8, 47662), (9, 47656), (Start: 10 @47608 has 43 MA's), (11, 47584), (13, 47536), (14, 47530), (15, 47506), (16, 47350), (18, 47338), (19, 47314), (20, 47299),

Gene: Legolas\_53 Start: 47201, Stop: 46827, Start Num: 10

Candidate Starts for Legolas\_53:

(1, 47420), (2, 47384), (4, 47351), (5, 47321), (6, 47303), (7, 47273), (Start: 10 @47201 has 43 MA's), (12, 47138), (15, 47096), (16, 46940), (18, 46928), (19, 46904), (20, 46889),

Gene: Longacauda\_52 Start: 47164, Stop: 46790, Start Num: 10

Candidate Starts for Longacauda\_52:

(1, 47383), (2, 47347), (4, 47314), (5, 47284), (6, 47266), (7, 47236), (Start: 10 @47164 has 43 MA's), (12, 47101), (15, 47059), (16, 46903), (18, 46891), (19, 46867), (20, 46852),

Gene: MRabcd\_52 Start: 47159, Stop: 46788, Start Num: 10

Candidate Starts for MRabcd\_52:

(3, 47318), (6, 47261), (7, 47234), (8, 47213), (9, 47207), (Start: 10 @47159 has 43 MA's), (11, 47135), (13, 47087), (14, 47081), (15, 47057), (16, 46901), (18, 46889), (19, 46865), (20, 46850),

Gene: Megatron\_54 Start: 47596, Stop: 47225, Start Num: 10

Candidate Starts for Megatron\_54:

(3, 47755), (6, 47698), (7, 47671), (8, 47650), (9, 47644), (Start: 10 @47596 has 43 MA's), (11, 47572), (13, 47524), (14, 47518), (15, 47494), (16, 47338), (18, 47326), (19, 47302), (20, 47287),

Gene: Morty\_54 Start: 47605, Stop: 47234, Start Num: 10

Candidate Starts for Morty\_54:

(3, 47764), (6, 47707), (7, 47680), (8, 47659), (9, 47653), (Start: 10 @47605 has 43 MA's), (11, 47581), (13, 47533), (14, 47527), (15, 47503), (16, 47347), (18, 47335), (19, 47311), (20, 47296),

Gene: Mulan\_53 Start: 47322, Stop: 46951, Start Num: 10

Candidate Starts for Mulan\_53:

(3, 47481), (6, 47424), (7, 47397), (8, 47376), (9, 47370), (Start: 10 @47322 has 43 MA's), (11, 47298), (13, 47250), (14, 47244), (15, 47220), (16, 47064), (18, 47052), (19, 47028), (20, 47013),

Gene: Nacho\_0054 Start: 47599, Stop: 47228, Start Num: 10

Candidate Starts for Nacho\_0054:

(3, 47758), (6, 47701), (7, 47674), (8, 47653), (9, 47647), (Start: 10 @47599 has 43 MA's), (11, 47575), (13, 47527), (14, 47521), (15, 47497), (16, 47341), (18, 47329), (19, 47305), (20, 47290),

Gene: Nathan\_54 Start: 47733, Stop: 47293, Start Num: 10

Candidate Starts for Nathan\_54:

(3, 47892), (6, 47835), (8, 47787), (9, 47781), (Start: 10 @47733 has 43 MA's), (11, 47709), (13, 47661), (14, 47655), (15, 47631), (17, 47463), (18, 47451), (19, 47427), (20, 47412), (21, 47328), (22, 47319), (23, 47313),

Gene: OSmaximus\_54 Start: 47638, Stop: 47267, Start Num: 10

Candidate Starts for OSmaximus\_54:

(3, 47797), (6, 47740), (7, 47713), (8, 47692), (9, 47686), (Start: 10 @47638 has 43 MA's), (11, 47614), (13, 47566), (14, 47560), (15, 47536), (16, 47380), (18, 47368), (19, 47344), (20, 47329),

Gene: Orion\_54 Start: 47594, Stop: 47223, Start Num: 10

Candidate Starts for Orion\_54:

(3, 47753), (6, 47696), (8, 47648), (9, 47642), (Start: 10 @47594 has 43 MA's), (11, 47570), (13, 47522), (14, 47516), (15, 47492), (16, 47336), (18, 47324), (19, 47300), (20, 47285),

Gene: PG1\_54 Start: 47607, Stop: 47236, Start Num: 10

Candidate Starts for PG1\_54:

(3, 47766), (6, 47709), (7, 47682), (8, 47661), (9, 47655), (Start: 10 @47607 has 43 MA's), (11, 47583), (13, 47535), (14, 47529), (15, 47505), (16, 47349), (18, 47337), (19, 47313), (20, 47298),

Gene: Phamished\_54 Start: 47614, Stop: 47243, Start Num: 10

Candidate Starts for Phamished\_54:

(3, 47773), (6, 47716), (8, 47668), (9, 47662), (Start: 10 @47614 has 43 MA's), (11, 47590), (13, 47542), (14, 47536), (15, 47512), (16, 47356), (18, 47344), (19, 47320), (20, 47305),

Gene: PhatCats2014\_54 Start: 47611, Stop: 47240, Start Num: 10

Candidate Starts for PhatCats2014\_54:

(3, 47770), (6, 47713), (8, 47665), (9, 47659), (Start: 10 @47611 has 43 MA's), (11, 47587), (13, 47539), (14, 47533), (15, 47509), (16, 47353), (18, 47341), (19, 47317), (20, 47302),

Gene: Pherdinand\_54 Start: 47624, Stop: 47253, Start Num: 10

Candidate Starts for Pherdinand\_54:

(3, 47783), (6, 47726), (8, 47678), (9, 47672), (Start: 10 @47624 has 43 MA's), (11, 47600), (13, 47552), (14, 47546), (15, 47522), (16, 47366), (18, 47354), (19, 47330), (20, 47315),

Gene: Phipps\_53 Start: 47442, Stop: 47071, Start Num: 10

Candidate Starts for Phipps\_53:

(3, 47601), (6, 47544), (8, 47496), (9, 47490), (Start: 10 @47442 has 43 MA's), (11, 47418), (13, 47370), (14, 47364), (15, 47340), (16, 47184), (18, 47172), (19, 47148), (20, 47133),

Gene: Piglet\_0053 Start: 47584, Stop: 47213, Start Num: 10

Candidate Starts for Piglet\_0053:

(3, 47743), (6, 47686), (7, 47659), (8, 47638), (9, 47632), (Start: 10 @47584 has 43 MA's), (11, 47560), (13, 47512), (14, 47506), (15, 47482), (16, 47326), (18, 47314), (19, 47290), (20, 47275),

Gene: RedMaple\_53 Start: 47604, Stop: 47233, Start Num: 10

Candidate Starts for RedMaple\_53:

(3, 47763), (6, 47706), (7, 47679), (8, 47658), (9, 47652), (Start: 10 @47604 has 43 MA's), (11, 47580), (13, 47532), (14, 47526), (15, 47502), (16, 47346), (18, 47334), (19, 47310), (20, 47295),

Gene: Scoot17C\_54 Start: 47596, Stop: 47225, Start Num: 10

Candidate Starts for Scoot17C\_54:

(3, 47755), (6, 47698), (8, 47650), (9, 47644), (Start: 10 @47596 has 43 MA's), (11, 47572), (13, 47524), (14, 47518), (15, 47494), (16, 47338), (18, 47326), (19, 47302), (20, 47287),

Gene: Serpentine\_0053 Start: 47476, Stop: 47105, Start Num: 10

Candidate Starts for Serpentine\_0053:

(3, 47635), (6, 47578), (7, 47551), (8, 47530), (9, 47524), (Start: 10 @47476 has 43 MA's), (11, 47452), (13, 47404), (14, 47398), (15, 47374), (16, 47218), (18, 47206), (19, 47182), (20, 47167),

Gene: Sigman\_54 Start: 47587, Stop: 47216, Start Num: 10

Candidate Starts for Sigman\_54:

(3, 47746), (6, 47689), (8, 47641), (9, 47635), (Start: 10 @47587 has 43 MA's), (11, 47563), (13, 47515), (14, 47509), (15, 47485), (16, 47329), (18, 47317), (19, 47293), (20, 47278),

Gene: Swish\_54 Start: 47609, Stop: 47238, Start Num: 10

Candidate Starts for Swish\_54:

(3, 47768), (6, 47711), (8, 47663), (9, 47657), (Start: 10 @47609 has 43 MA's), (11, 47585), (13, 47537), (14, 47531), (15, 47507), (16, 47351), (18, 47339), (19, 47315), (20, 47300),

Gene: Telesworld\_52 Start: 47162, Stop: 46791, Start Num: 10

Candidate Starts for Telesworld\_52:

(3, 47321), (6, 47264), (7, 47237), (8, 47216), (9, 47210), (Start: 10 @47162 has 43 MA's), (11, 47138), (13, 47090), (14, 47084), (15, 47060), (16, 46904), (18, 46892), (19, 46868), (20, 46853),

Gene: ThreeOh3D2\_54 Start: 47602, Stop: 47231, Start Num: 10

Candidate Starts for ThreeOh3D2\_54:

(3, 47761), (6, 47704), (7, 47677), (8, 47656), (9, 47650), (Start: 10 @47602 has 43 MA's), (11, 47578), (13, 47530), (14, 47524), (15, 47500), (16, 47344), (18, 47332), (19, 47308), (20, 47293),

Gene: Usavi\_53 Start: 47465, Stop: 47094, Start Num: 10

Candidate Starts for Usavi\_53:

(3, 47624), (6, 47567), (7, 47540), (8, 47519), (9, 47513), (Start: 10 @47465 has 43 MA's), (11, 47441), (13, 47393), (14, 47387), (15, 47363), (16, 47207), (18, 47195), (19, 47171), (20, 47156),

Gene: Waterdiva\_53 Start: 47459, Stop: 47088, Start Num: 10

Candidate Starts for Waterdiva\_53:

(3, 47618), (6, 47561), (7, 47534), (8, 47513), (9, 47507), (Start: 10 @47459 has 43 MA's), (11, 47435), (13, 47387), (14, 47381), (15, 47357), (16, 47201), (18, 47189), (19, 47165), (20, 47150),

Gene: Yoshand\_54 Start: 47622, Stop: 47251, Start Num: 10

Candidate Starts for Yoshand\_54:

(3, 47781), (6, 47724), (8, 47676), (9, 47670), (Start: 10 @47622 has 43 MA's), (11, 47598), (13, 47550), (14, 47544), (15, 47520), (16, 47364), (18, 47352), (19, 47328), (20, 47313),