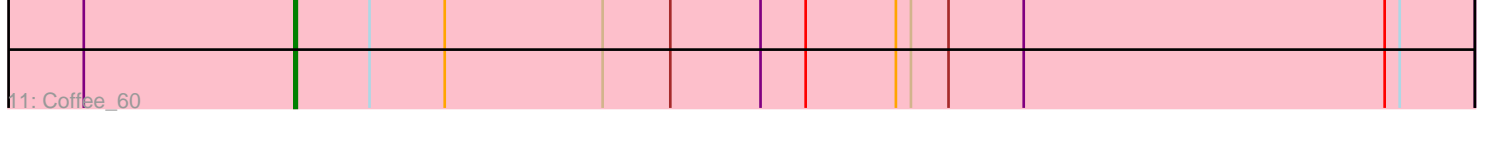
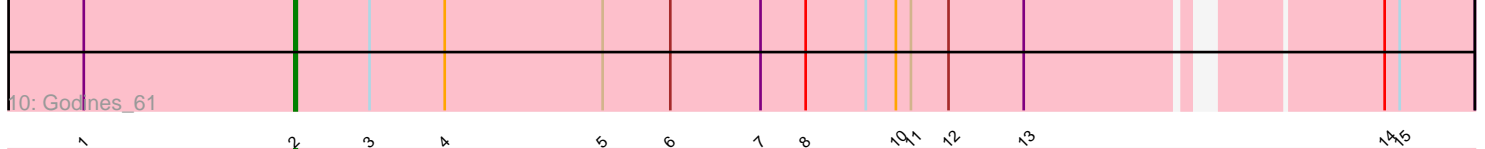
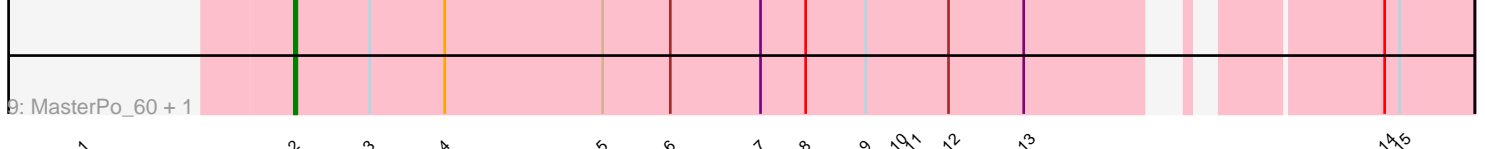
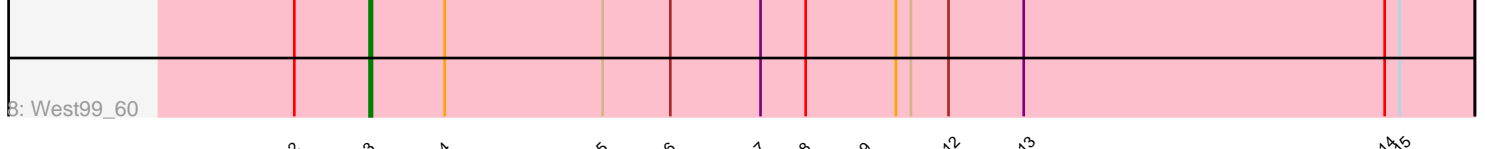
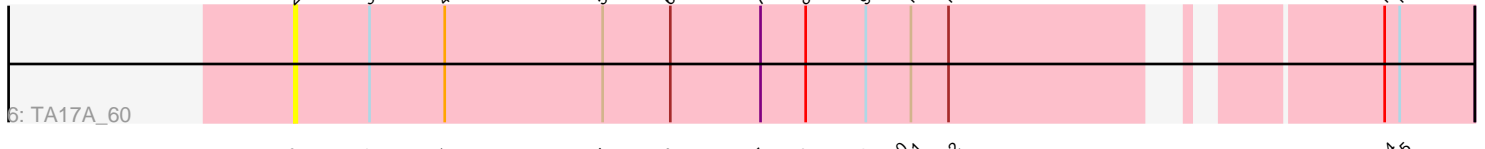
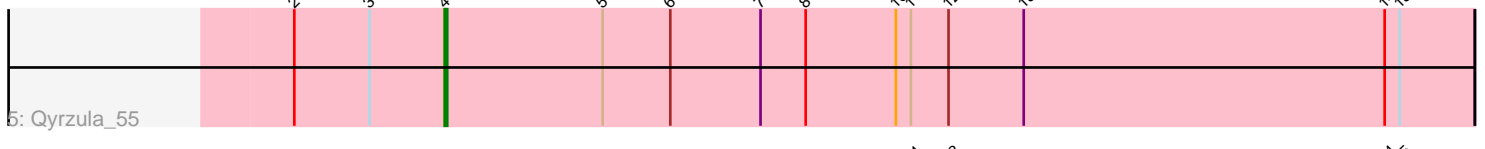
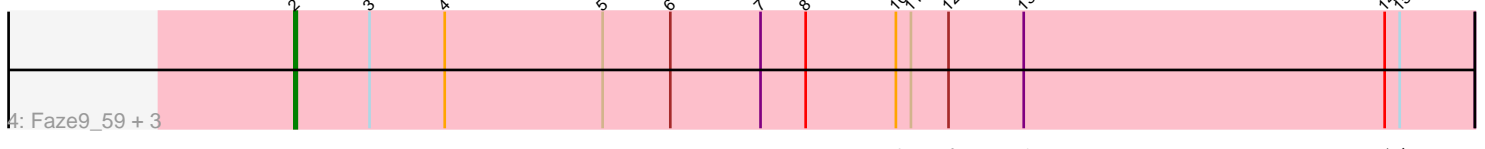
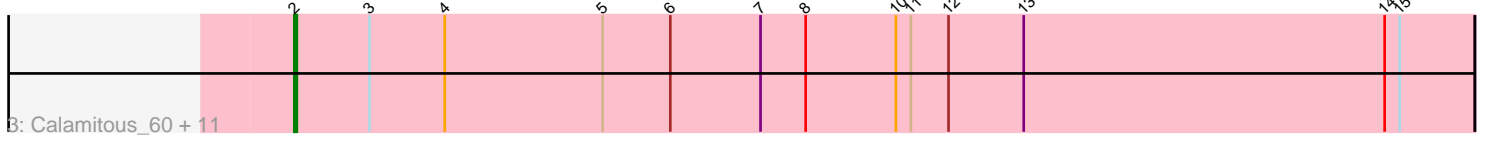
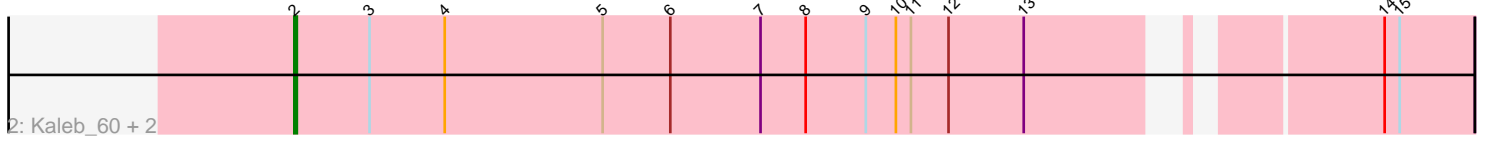
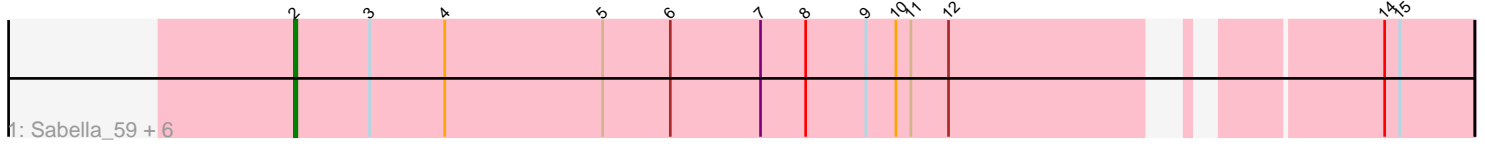


Pham 166858



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 166858 Report

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

Pham number 166858 has 34 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Sabella\_59, Brownie5\_60, Rosebush\_59, Rhinoforte\_60, Tres\_60, Tinciduntolum\_61, Hedgerow\_60
- Track 2 : Kaleb\_60, Eaglehorse\_60, ItsyBitsy1\_60
- Track 3 : Calamitous\_60, Kheth\_60, LizLemon\_60, Lars\_60, Bananafish\_60, Lephleur\_60, Ares\_60, Opia\_60, Arbiter\_59, Glass\_60, FrenchFry\_60, Holeinone\_60
- Track 4 : Faze9\_59, Allegro\_60, Phantasmagoria\_60, Blocker23\_60
- Track 5 : Qyrzula\_55
- Track 6 : TA17A\_60
- Track 7 : Boyle\_60
- Track 8 : West99\_60
- Track 9 : MasterPo\_60, Laurie\_60
- Track 10 : Godines\_61
- Track 11 : Coffee\_60

### ***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 30 of the 32 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Allegro\_60, Arbiter\_59, Ares\_60, Bananafish\_60, Blocker23\_60, Boyle\_60, Brownie5\_60, Calamitous\_60, Coffee\_60, Eaglehorse\_60, Faze9\_59, FrenchFry\_60, Glass\_60, Godines\_61, Hedgerow\_60, Holeinone\_60, ItsyBitsy1\_60, Kaleb\_60, Kheth\_60, Lars\_60, Laurie\_60, Lephleur\_60, LizLemon\_60, MasterPo\_60, Opia\_60, Phantasmagoria\_60, Rhinoforte\_60, Rosebush\_59, Sabella\_59, TA17A\_60, Tinciduntolum\_61, Tres\_60,

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

- Qyrzula\_55, West99\_60,

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

- 

### **Summary by start number:**

Start 2:

- Found in 34 of 34 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 30 of 32
- Called 94.1% of time when present
- Phage (with cluster) where this start called: Allegro\_60 (B2), Arbiter\_59 (B2), Ares\_60 (B2), Bananafish\_60 (B2), Blocker23\_60 (B2), Boyle\_60 (B2), Brownie5\_60 (B2), Calamitous\_60 (B2), Coffee\_60 (B2), Eaglehorse\_60 (B2), Faze9\_59 (B2), FrenchFry\_60 (B2), Glass\_60 (B2), Godines\_61 (B2), Hedgerow\_60 (B2), Holeinone\_60 (B2), ItsyBitsy1\_60 (B2), Kaleb\_60 (B2), Kheth\_60 (B2), Lars\_60 (B2), Laurie\_60 (B2), Lephleur\_60 (B2), LizLemon\_60 (B2), MasterPo\_60 (B2), Opia\_60 (B2), Phantasmagoria\_60 (B2), Rhinoforte\_60 (B2), Rosebush\_59 (B2), Sabella\_59 (B2), TA17A\_60 (B2), Tinciduntolum\_61 (B2), Tres\_60 (B2),

Start 3:

- Found in 34 of 34 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 1 of 32
- Called 2.9% of time when present
- Phage (with cluster) where this start called: West99\_60 (B2),

Start 4:

- Found in 34 of 34 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 1 of 32
- Called 2.9% of time when present
- Phage (with cluster) where this start called: Qyrzula\_55 (B2),

**Summary by clusters:**

There is one cluster represented in this pham: B2

Info for manual annotations of cluster B2:

- Start number 2 was manually annotated 30 times for cluster B2.
- Start number 3 was manually annotated 1 time for cluster B2.
- Start number 4 was manually annotated 1 time for cluster B2.

**Gene Information:**

Gene: Allegro\_60 Start: 53809, Stop: 53339, Start Num: 2

Candidate Starts for Allegro\_60:

(Start: 2 @53809 has 30 MA's), (Start: 3 @53779 has 1 MA's), (Start: 4 @53749 has 1 MA's), (5, 53686), (6, 53659), (7, 53623), (8, 53605), (10, 53569), (11, 53563), (12, 53548), (13, 53518), (14, 53374), (15, 53368),

Gene: Arbiter\_59 Start: 53921, Stop: 53451, Start Num: 2

Candidate Starts for Arbiter\_59:

(Start: 2 @53921 has 30 MA's), (Start: 3 @53891 has 1 MA's), (Start: 4 @53861 has 1 MA's), (5, 53798), (6, 53771), (7, 53735), (8, 53717), (10, 53681), (11, 53675), (12, 53660), (13, 53630), (14, 53486), (15, 53480),

Gene: Ares\_60 Start: 53890, Stop: 53420, Start Num: 2

Candidate Starts for Ares\_60:

(Start: 2 @53890 has 30 MA's), (Start: 3 @53860 has 1 MA's), (Start: 4 @53830 has 1 MA's), (5, 53767), (6, 53740), (7, 53704), (8, 53686), (10, 53650), (11, 53644), (12, 53629), (13, 53599), (14, 53455), (15, 53449),

Gene: Bananafish\_60 Start: 53821, Stop: 53351, Start Num: 2

Candidate Starts for Bananafish\_60:

(Start: 2 @53821 has 30 MA's), (Start: 3 @53791 has 1 MA's), (Start: 4 @53761 has 1 MA's), (5, 53698), (6, 53671), (7, 53635), (8, 53617), (10, 53581), (11, 53575), (12, 53560), (13, 53530), (14, 53386), (15, 53380),

Gene: Blocker23\_60 Start: 53931, Stop: 53461, Start Num: 2

Candidate Starts for Blocker23\_60:

(Start: 2 @53931 has 30 MA's), (Start: 3 @53901 has 1 MA's), (Start: 4 @53871 has 1 MA's), (5, 53808), (6, 53781), (7, 53745), (8, 53727), (10, 53691), (11, 53685), (12, 53670), (13, 53640), (14, 53496), (15, 53490),

Gene: Boyle\_60 Start: 53930, Stop: 53490, Start Num: 2

Candidate Starts for Boyle\_60:

(Start: 2 @53930 has 30 MA's), (Start: 3 @53900 has 1 MA's), (Start: 4 @53870 has 1 MA's), (5, 53807), (6, 53780), (7, 53744), (8, 53726), (9, 53702), (10, 53690), (11, 53684), (12, 53669), (14, 53525), (15, 53519),

Gene: Brownie5\_60 Start: 53940, Stop: 53500, Start Num: 2

Candidate Starts for Brownie5\_60:

(Start: 2 @53940 has 30 MA's), (Start: 3 @53910 has 1 MA's), (Start: 4 @53880 has 1 MA's), (5, 53817), (6, 53790), (7, 53754), (8, 53736), (9, 53712), (10, 53700), (11, 53694), (12, 53679), (14, 53535), (15, 53529),

Gene: Calamitous\_60 Start: 53820, Stop: 53350, Start Num: 2

Candidate Starts for Calamitous\_60:

(Start: 2 @53820 has 30 MA's), (Start: 3 @53790 has 1 MA's), (Start: 4 @53760 has 1 MA's), (5, 53697), (6, 53670), (7, 53634), (8, 53616), (10, 53580), (11, 53574), (12, 53559), (13, 53529), (14, 53385), (15, 53379),

Gene: Coffee\_60 Start: 53932, Stop: 53462, Start Num: 2

Candidate Starts for Coffee\_60:

(1, 54016), (Start: 2 @53932 has 30 MA's), (Start: 3 @53902 has 1 MA's), (Start: 4 @53872 has 1 MA's), (5, 53809), (6, 53782), (7, 53746), (8, 53728), (10, 53692), (11, 53686), (12, 53671), (13, 53641), (14, 53497), (15, 53491),

Gene: Eaglehorse\_60 Start: 53852, Stop: 53400, Start Num: 2

Candidate Starts for Eaglehorse\_60:

(Start: 2 @53852 has 30 MA's), (Start: 3 @53822 has 1 MA's), (Start: 4 @53792 has 1 MA's), (5, 53729), (6, 53702), (7, 53666), (8, 53648), (9, 53624), (10, 53612), (11, 53606), (12, 53591), (13, 53561), (14, 53435), (15, 53429),

Gene: Faze9\_59 Start: 53955, Stop: 53485, Start Num: 2

Candidate Starts for Faze9\_59:

(Start: 2 @53955 has 30 MA's), (Start: 3 @53925 has 1 MA's), (Start: 4 @53895 has 1 MA's), (5, 53832), (6, 53805), (7, 53769), (8, 53751), (10, 53715), (11, 53709), (12, 53694), (13, 53664), (14, 53520), (15, 53514),

Gene: FrenchFry\_60 Start: 53931, Stop: 53461, Start Num: 2

Candidate Starts for FrenchFry\_60:

(Start: 2 @53931 has 30 MA's), (Start: 3 @53901 has 1 MA's), (Start: 4 @53871 has 1 MA's), (5, 53808), (6, 53781), (7, 53745), (8, 53727), (10, 53691), (11, 53685), (12, 53670), (13, 53640), (14, 53496), (15, 53490),

Gene: Glass\_60 Start: 53933, Stop: 53463, Start Num: 2

Candidate Starts for Glass\_60:

(Start: 2 @53933 has 30 MA's), (Start: 3 @53903 has 1 MA's), (Start: 4 @53873 has 1 MA's), (5, 53810), (6, 53783), (7, 53747), (8, 53729), (10, 53693), (11, 53687), (12, 53672), (13, 53642), (14, 53498), (15, 53492),

Gene: Godines\_61 Start: 54198, Stop: 53746, Start Num: 2

Candidate Starts for Godines\_61:

(1, 54282), (Start: 2 @54198 has 30 MA's), (Start: 3 @54168 has 1 MA's), (Start: 4 @54138 has 1 MA's), (5, 54075), (6, 54048), (7, 54012), (8, 53994), (9, 53970), (10, 53958), (11, 53952), (12, 53937), (13, 53907), (14, 53781), (15, 53775),

Gene: Hedgerow\_60 Start: 53915, Stop: 53475, Start Num: 2

Candidate Starts for Hedgerow\_60:

(Start: 2 @53915 has 30 MA's), (Start: 3 @53885 has 1 MA's), (Start: 4 @53855 has 1 MA's), (5, 53792), (6, 53765), (7, 53729), (8, 53711), (9, 53687), (10, 53675), (11, 53669), (12, 53654), (14, 53510), (15, 53504),

Gene: Holeinone\_60 Start: 53787, Stop: 53317, Start Num: 2

Candidate Starts for Holeinone\_60:

(Start: 2 @53787 has 30 MA's), (Start: 3 @53757 has 1 MA's), (Start: 4 @53727 has 1 MA's), (5, 53664), (6, 53637), (7, 53601), (8, 53583), (10, 53547), (11, 53541), (12, 53526), (13, 53496), (14, 53352), (15, 53346),

Gene: ItsyBitsy1\_60 Start: 54065, Stop: 53613, Start Num: 2

Candidate Starts for ItsyBitsy1\_60:

(Start: 2 @54065 has 30 MA's), (Start: 3 @54035 has 1 MA's), (Start: 4 @54005 has 1 MA's), (5, 53942), (6, 53915), (7, 53879), (8, 53861), (9, 53837), (10, 53825), (11, 53819), (12, 53804), (13, 53774), (14, 53648), (15, 53642),

Gene: Kaleb\_60 Start: 53939, Stop: 53499, Start Num: 2

Candidate Starts for Kaleb\_60:

(Start: 2 @53939 has 30 MA's), (Start: 3 @53909 has 1 MA's), (Start: 4 @53879 has 1 MA's), (5, 53816), (6, 53789), (7, 53753), (8, 53735), (9, 53711), (10, 53699), (11, 53693), (12, 53678), (13, 53648), (14, 53534), (15, 53528),

Gene: Kheth\_60 Start: 53852, Stop: 53382, Start Num: 2

Candidate Starts for Kheth\_60:

(Start: 2 @53852 has 30 MA's), (Start: 3 @53822 has 1 MA's), (Start: 4 @53792 has 1 MA's), (5, 53729), (6, 53702), (7, 53666), (8, 53648), (10, 53612), (11, 53606), (12, 53591), (13, 53561), (14, 53417), (15, 53411),

Gene: Lars\_60 Start: 53917, Stop: 53447, Start Num: 2

Candidate Starts for Lars\_60:

(Start: 2 @53917 has 30 MA's), (Start: 3 @53887 has 1 MA's), (Start: 4 @53857 has 1 MA's), (5, 53794), (6, 53767), (7, 53731), (8, 53713), (10, 53677), (11, 53671), (12, 53656), (13, 53626), (14, 53482), (15, 53476),

Gene: Laurie\_60 Start: 53614, Stop: 53174, Start Num: 2

Candidate Starts for Laurie\_60:

(Start: 2 @53614 has 30 MA's), (Start: 3 @53584 has 1 MA's), (Start: 4 @53554 has 1 MA's), (5, 53491), (6, 53464), (7, 53428), (8, 53410), (9, 53386), (12, 53353), (13, 53323), (14, 53209), (15, 53203),

Gene: Lephleur\_60 Start: 53826, Stop: 53356, Start Num: 2

Candidate Starts for Lephleur\_60:

(Start: 2 @53826 has 30 MA's), (Start: 3 @53796 has 1 MA's), (Start: 4 @53766 has 1 MA's), (5, 53703), (6, 53676), (7, 53640), (8, 53622), (10, 53586), (11, 53580), (12, 53565), (13, 53535), (14, 53391), (15, 53385),

Gene: LizLemon\_60 Start: 53942, Stop: 53472, Start Num: 2

Candidate Starts for LizLemon\_60:

(Start: 2 @53942 has 30 MA's), (Start: 3 @53912 has 1 MA's), (Start: 4 @53882 has 1 MA's), (5, 53819), (6, 53792), (7, 53756), (8, 53738), (10, 53702), (11, 53696), (12, 53681), (13, 53651), (14, 53507), (15, 53501),

Gene: MasterPo\_60 Start: 53808, Stop: 53368, Start Num: 2

Candidate Starts for MasterPo\_60:

(Start: 2 @53808 has 30 MA's), (Start: 3 @53778 has 1 MA's), (Start: 4 @53748 has 1 MA's), (5, 53685), (6, 53658), (7, 53622), (8, 53604), (9, 53580), (12, 53547), (13, 53517), (14, 53403), (15, 53397),

Gene: Opia\_60 Start: 53832, Stop: 53362, Start Num: 2

Candidate Starts for Opia\_60:

(Start: 2 @53832 has 30 MA's), (Start: 3 @53802 has 1 MA's), (Start: 4 @53772 has 1 MA's), (5, 53709), (6, 53682), (7, 53646), (8, 53628), (10, 53592), (11, 53586), (12, 53571), (13, 53541), (14, 53397), (15, 53391),

Gene: Phantasmagoria\_60 Start: 53830, Stop: 53360, Start Num: 2

Candidate Starts for Phantasmagoria\_60:

(Start: 2 @53830 has 30 MA's), (Start: 3 @53800 has 1 MA's), (Start: 4 @53770 has 1 MA's), (5, 53707), (6, 53680), (7, 53644), (8, 53626), (10, 53590), (11, 53584), (12, 53569), (13, 53539), (14, 53395), (15, 53389),

Gene: Qyrzula\_55 Start: 53883, Stop: 53473, Start Num: 4

Candidate Starts for Qyrzula\_55:

(Start: 2 @53943 has 30 MA's), (Start: 3 @53913 has 1 MA's), (Start: 4 @53883 has 1 MA's), (5, 53820), (6, 53793), (7, 53757), (8, 53739), (10, 53703), (11, 53697), (12, 53682), (13, 53652), (14, 53508), (15, 53502),

Gene: Rhinoforte\_60 Start: 53909, Stop: 53469, Start Num: 2

Candidate Starts for Rhinoforte\_60:

(Start: 2 @53909 has 30 MA's), (Start: 3 @53879 has 1 MA's), (Start: 4 @53849 has 1 MA's), (5, 53786), (6, 53759), (7, 53723), (8, 53705), (9, 53681), (10, 53669), (11, 53663), (12, 53648), (14, 53504), (15, 53498),

Gene: Rosebush\_59 Start: 53936, Stop: 53496, Start Num: 2

Candidate Starts for Rosebush\_59:

(Start: 2 @53936 has 30 MA's), (Start: 3 @53906 has 1 MA's), (Start: 4 @53876 has 1 MA's), (5, 53813), (6, 53786), (7, 53750), (8, 53732), (9, 53708), (10, 53696), (11, 53690), (12, 53675), (14, 53531), (15, 53525),

Gene: Sabella\_59 Start: 53772, Stop: 53332, Start Num: 2

Candidate Starts for Sabella\_59:

(Start: 2 @53772 has 30 MA's), (Start: 3 @53742 has 1 MA's), (Start: 4 @53712 has 1 MA's), (5, 53649), (6, 53622), (7, 53586), (8, 53568), (9, 53544), (10, 53532), (11, 53526), (12, 53511), (14, 53367), (15, 53361),

Gene: TA17A\_60 Start: 53777, Stop: 53337, Start Num: 2

Candidate Starts for TA17A\_60:

(Start: 2 @53777 has 30 MA's), (Start: 3 @53747 has 1 MA's), (Start: 4 @53717 has 1 MA's), (5, 53654), (6, 53627), (7, 53591), (8, 53573), (9, 53549), (11, 53531), (12, 53516), (14, 53372), (15, 53366),

Gene: Tinciduntolum\_61 Start: 53939, Stop: 53499, Start Num: 2

Candidate Starts for Tinciduntolum\_61:

(Start: 2 @53939 has 30 MA's), (Start: 3 @53909 has 1 MA's), (Start: 4 @53879 has 1 MA's), (5, 53816), (6, 53789), (7, 53753), (8, 53735), (9, 53711), (10, 53699), (11, 53693), (12, 53678), (14, 53534), (15, 53528),

Gene: Tres\_60 Start: 53793, Stop: 53353, Start Num: 2

Candidate Starts for Tres\_60:

(Start: 2 @53793 has 30 MA's), (Start: 3 @53763 has 1 MA's), (Start: 4 @53733 has 1 MA's), (5, 53670), (6, 53643), (7, 53607), (8, 53589), (9, 53565), (10, 53553), (11, 53547), (12, 53532), (14, 53388), (15, 53382),

Gene: West99\_60 Start: 53936, Stop: 53496, Start Num: 3

Candidate Starts for West99\_60:

(Start: 2 @53966 has 30 MA's), (Start: 3 @53936 has 1 MA's), (Start: 4 @53906 has 1 MA's), (5, 53843), (6, 53816), (7, 53780), (8, 53762), (10, 53726), (11, 53720), (12, 53705), (13, 53675), (14, 53531), (15, 53525),