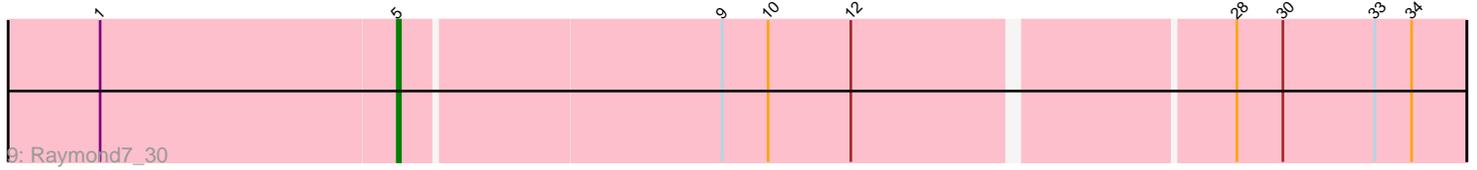
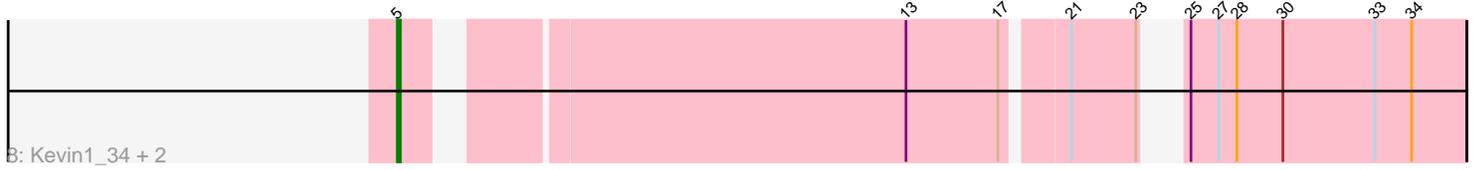
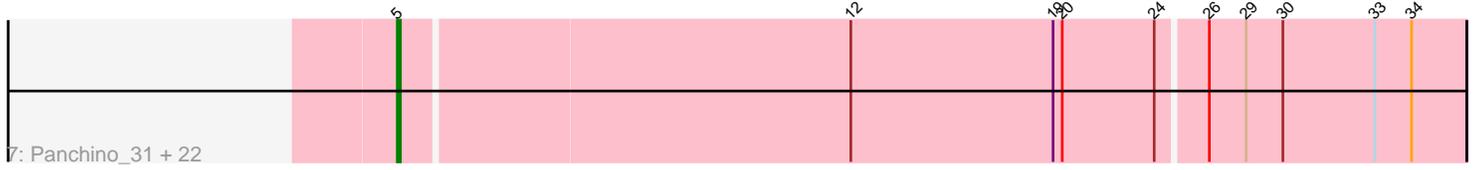
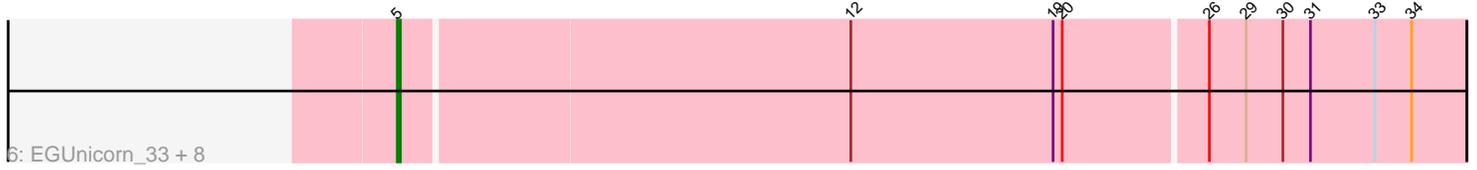
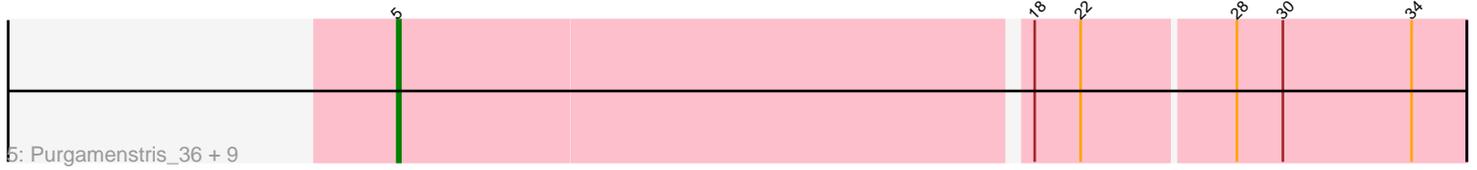
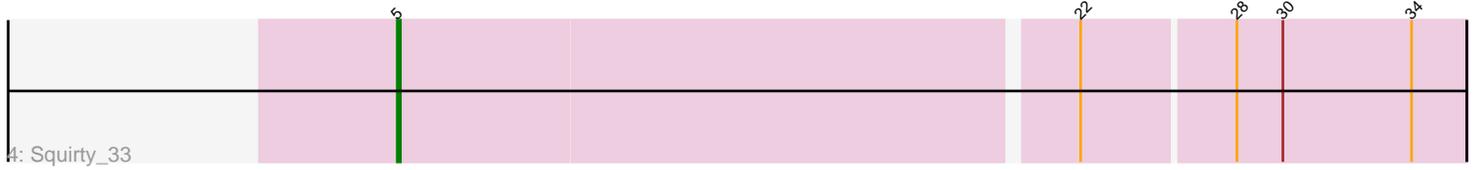
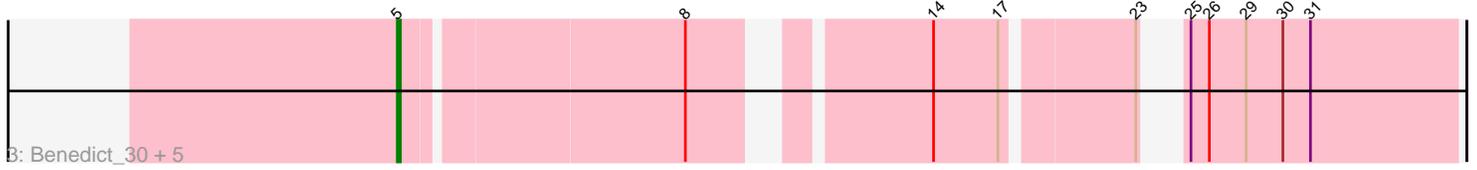
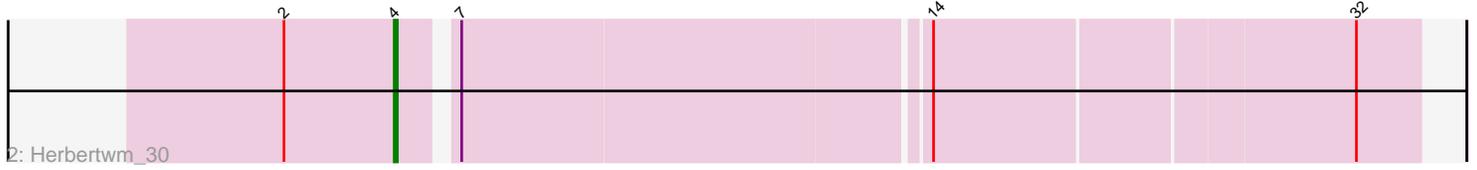
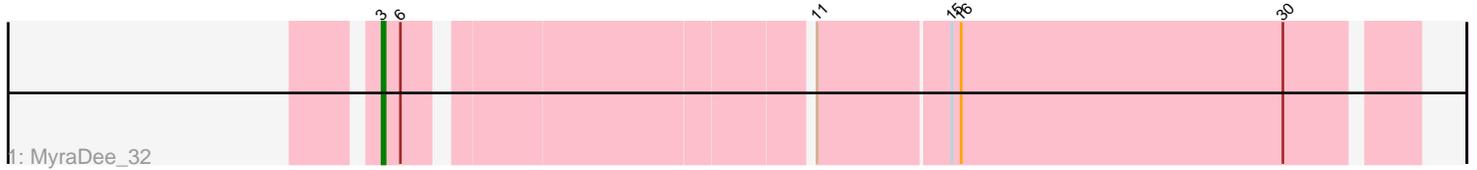


Pham 283862



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 283862 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283862 has 55 members, 1 are drafts.

Phages represented in each track:

- Track 1 : MyraDee\_32
- Track 2 : Herbertwm\_30
- Track 3 : Benedict\_30, Airmid\_30, Jabiru\_30, Scorpia\_31, EITiger69\_30, Naca\_30
- Track 4 : Squirty\_33
- Track 5 : Purgamenstris\_36, Hanako\_36, Impisi\_38, Phrann\_36, PhancyPhin\_36, Spinach\_36, Nenae\_36, BabeRuth\_37, ShrimpFriedEgg\_36, Redi\_36
- Track 6 : EGUnicorn\_33, SkinnyPete\_30, Bosection6\_33, Aggie\_33, Journey\_33, Silvy\_33, Charlie\_33, Philonius\_33, Tortoise12\_33
- Track 7 : Panchino\_31, Jamie19\_32, Duplicity\_35, Tapioca\_36, Phloss\_33, Parmesanjohn\_35, Gex\_35, Carcharodon\_35, Fulbright\_34, Silvafighter\_36, Xerxes\_35, MichelleMyBell\_33, Magsby\_35, Melville\_37, Shweta\_32, Xeno\_32, Andies\_32, Snekmaggedon\_32, Smurph\_35, Chewbacca\_36, Schnauzer\_35, Pipsqueaks\_35, SpongeBob\_32
- Track 8 : Kevin1\_34, Butters\_36, Rubeelu\_36
- Track 9 : Raymond7\_30

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

The start number called the most often in the published annotations is 5, it was called in 52 of the 54 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aggie\_33, Airmid\_30, Andies\_32, BabeRuth\_37, Benedict\_30, Bosection6\_33, Butters\_36, Carcharodon\_35, Charlie\_33, Chewbacca\_36, Duplicity\_35, EGUnicorn\_33, EITiger69\_30, Fulbright\_34, Gex\_35, Hanako\_36, Impisi\_38, Jabiru\_30, Jamie19\_32, Journey\_33, Kevin1\_34, Magsby\_35, Melville\_37, MichelleMyBell\_33, Naca\_30, Nenae\_36, Panchino\_31, Parmesanjohn\_35, PhancyPhin\_36, Philonius\_33, Phloss\_33, Phrann\_36, Pipsqueaks\_35, Purgamenstris\_36, Raymond7\_30, Redi\_36, Rubeelu\_36, Schnauzer\_35, Scorpia\_31, ShrimpFriedEgg\_36, Shweta\_32, Silvafighter\_36, Silvy\_33, SkinnyPete\_30, Smurph\_35, Snekmaggedon\_32, Spinach\_36, SpongeBob\_32, Squirty\_33, Tapioca\_36, Tortoise12\_33, Xeno\_32, Xerxes\_35,

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

- 

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

- Herbertwm\_30, MyraDee\_32,

### Summary by start number:

Start 3:

- Found in 1 of 55 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 1 of 54
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MyraDee\_32 (A18),

Start 4:

- Found in 1 of 55 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 1 of 54
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Herbertwm\_30 (A2),

Start 5:

- Found in 53 of 55 ( 96.4% ) of genes in pham
- Manual Annotations of this start: 52 of 54
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aggie\_33 (N), Airmid\_30 (A5), Andies\_32 (N), BabeRuth\_37 (N), Benedict\_30 (A5), Bosection6\_33 (N), Butters\_36 (N), Carcharodon\_35 (N), Charlie\_33 (N), Chewbacca\_36 (N), Duplicity\_35 (N), EGUnicorn\_33 (N), EITiger69\_30 (A5), Fulbright\_34 (N), Gex\_35 (N), Hanako\_36 (N), Impisi\_38 (N), Jabiru\_30 (A5), Jamie19\_32 (N), Journey\_33 (N), Kevin1\_34 (N), Magsby\_35 (N), Melville\_37 (N), MichelleMyBell\_33 (N), Naca\_30 (A5), Nенаe\_36 (N), Panchino\_31 (N), Parmesanjohn\_35 (N), PhancyPhin\_36 (N), Philonius\_33 (N), Phloss\_33 (N), Phrann\_36 (N), Pipsqueaks\_35 (N), Purgamenstris\_36 (N), Raymond7\_30 (N), Redi\_36 (N), Rubeelu\_36 (N), Schnauzer\_35 (N), Scorpia\_31 (A5), ShrimpFriedEgg\_36 (N), Shweta\_32 (N), Silvafighter\_36 (N), Silvy\_33 (N), SkinnyPete\_30 (N), Smurph\_35 (N), Snekmaggedon\_32 (N), Spinach\_36 (N), SpongeBob\_32 (N), Squirty\_33 (F3), Tapioca\_36 (N), Tortoise12\_33 (N), Xeno\_32 (N), Xerxes\_35 (N),

### Summary by clusters:

There are 5 clusters represented in this pham: A18, F3, A5, A2, N,

Info for manual annotations of cluster A18:

- Start number 3 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A2:

- Start number 4 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A5:

- Start number 5 was manually annotated 6 times for cluster A5.

Info for manual annotations of cluster F3:

- Start number 5 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster N:

•Start number 5 was manually annotated 45 times for cluster N.

**Gene Information:**

Gene: Aggie\_33 Start: 26384, Stop: 26043, Start Num: 5

Candidate Starts for Aggie\_33:

(Start: 5 @26384 has 52 MA's), (12, 26240), (19, 26174), (20, 26171), (26, 26126), (29, 26114), (30, 26102), (31, 26093), (33, 26072), (34, 26060),

Gene: Airmid\_30 Start: 23936, Stop: 23637, Start Num: 5

Candidate Starts for Airmid\_30:

(Start: 5 @23936 has 52 MA's), (8, 23849), (14, 23786), (17, 23765), (23, 23726), (25, 23723), (26, 23717), (29, 23705), (30, 23693), (31, 23684),

Gene: Andies\_32 Start: 26902, Stop: 26561, Start Num: 5

Candidate Starts for Andies\_32:

(Start: 5 @26902 has 52 MA's), (12, 26758), (19, 26692), (20, 26689), (24, 26659), (26, 26644), (29, 26632), (30, 26620), (33, 26590), (34, 26578),

Gene: BabeRuth\_37 Start: 28019, Stop: 27681, Start Num: 5

Candidate Starts for BabeRuth\_37:

(Start: 5 @28019 has 52 MA's), (18, 27818), (22, 27803), (28, 27755), (30, 27740), (34, 27698),

Gene: Benedict\_30 Start: 23939, Stop: 23640, Start Num: 5

Candidate Starts for Benedict\_30:

(Start: 5 @23939 has 52 MA's), (8, 23852), (14, 23789), (17, 23768), (23, 23729), (25, 23726), (26, 23720), (29, 23708), (30, 23696), (31, 23687),

Gene: Bosection6\_33 Start: 26405, Stop: 26064, Start Num: 5

Candidate Starts for Bosection6\_33:

(Start: 5 @26405 has 52 MA's), (12, 26261), (19, 26195), (20, 26192), (26, 26147), (29, 26135), (30, 26123), (31, 26114), (33, 26093), (34, 26081),

Gene: Butters\_36 Start: 28446, Stop: 28135, Start Num: 5

Candidate Starts for Butters\_36:

(Start: 5 @28446 has 52 MA's), (13, 28296), (17, 28266), (21, 28248), (23, 28227), (25, 28224), (27, 28215), (28, 28209), (30, 28194), (33, 28164), (34, 28152),

Gene: Carcharodon\_35 Start: 27713, Stop: 27372, Start Num: 5

Candidate Starts for Carcharodon\_35:

(Start: 5 @27713 has 52 MA's), (12, 27569), (19, 27503), (20, 27500), (24, 27470), (26, 27455), (29, 27443), (30, 27431), (33, 27401), (34, 27389),

Gene: Charlie\_33 Start: 26404, Stop: 26063, Start Num: 5

Candidate Starts for Charlie\_33:

(Start: 5 @26404 has 52 MA's), (12, 26260), (19, 26194), (20, 26191), (26, 26146), (29, 26134), (30, 26122), (31, 26113), (33, 26092), (34, 26080),

Gene: Chewbacca\_36 Start: 27713, Stop: 27372, Start Num: 5

Candidate Starts for Chewbacca\_36:

(Start: 5 @27713 has 52 MA's), (12, 27569), (19, 27503), (20, 27500), (24, 27470), (26, 27455), (29, 27443), (30, 27431), (33, 27401), (34, 27389),

Gene: Duplicity\_35 Start: 27722, Stop: 27381, Start Num: 5

Candidate Starts for Duplicity\_35:

(Start: 5 @27722 has 52 MA's), (12, 27578), (19, 27512), (20, 27509), (24, 27479), (26, 27464), (29, 27452), (30, 27440), (33, 27410), (34, 27398),

Gene: EGUunicorn\_33 Start: 26404, Stop: 26063, Start Num: 5

Candidate Starts for EGUunicorn\_33:

(Start: 5 @26404 has 52 MA's), (12, 26260), (19, 26194), (20, 26191), (26, 26146), (29, 26134), (30, 26122), (31, 26113), (33, 26092), (34, 26080),

Gene: EITiger69\_30 Start: 23937, Stop: 23638, Start Num: 5

Candidate Starts for EITiger69\_30:

(Start: 5 @23937 has 52 MA's), (8, 23850), (14, 23787), (17, 23766), (23, 23727), (25, 23724), (26, 23718), (29, 23706), (30, 23694), (31, 23685),

Gene: Fulbright\_34 Start: 26802, Stop: 26461, Start Num: 5

Candidate Starts for Fulbright\_34:

(Start: 5 @26802 has 52 MA's), (12, 26658), (19, 26592), (20, 26589), (24, 26559), (26, 26544), (29, 26532), (30, 26520), (33, 26490), (34, 26478),

Gene: Gex\_35 Start: 27729, Stop: 27388, Start Num: 5

Candidate Starts for Gex\_35:

(Start: 5 @27729 has 52 MA's), (12, 27585), (19, 27519), (20, 27516), (24, 27486), (26, 27471), (29, 27459), (30, 27447), (33, 27417), (34, 27405),

Gene: Hanako\_36 Start: 28018, Stop: 27680, Start Num: 5

Candidate Starts for Hanako\_36:

(Start: 5 @28018 has 52 MA's), (18, 27817), (22, 27802), (28, 27754), (30, 27739), (34, 27697),

Gene: Herbertwm\_30 Start: 24275, Stop: 23961, Start Num: 4

Candidate Starts for Herbertwm\_30:

(2, 24311), (Start: 4 @24275 has 1 MA's), (7, 24260), (14, 24113), (32, 23981),

Gene: Impisi\_38 Start: 28574, Stop: 28236, Start Num: 5

Candidate Starts for Impisi\_38:

(Start: 5 @28574 has 52 MA's), (18, 28373), (22, 28358), (28, 28310), (30, 28295), (34, 28253),

Gene: Jabiru\_30 Start: 23986, Stop: 23687, Start Num: 5

Candidate Starts for Jabiru\_30:

(Start: 5 @23986 has 52 MA's), (8, 23899), (14, 23836), (17, 23815), (23, 23776), (25, 23773), (26, 23767), (29, 23755), (30, 23743), (31, 23734),

Gene: Jamie19\_32 Start: 26783, Stop: 26442, Start Num: 5

Candidate Starts for Jamie19\_32:

(Start: 5 @26783 has 52 MA's), (12, 26639), (19, 26573), (20, 26570), (24, 26540), (26, 26525), (29, 26513), (30, 26501), (33, 26471), (34, 26459),

Gene: Journey\_33 Start: 26404, Stop: 26063, Start Num: 5

Candidate Starts for Journey\_33:

(Start: 5 @26404 has 52 MA's), (12, 26260), (19, 26194), (20, 26191), (26, 26146), (29, 26134), (30, 26122), (31, 26113), (33, 26092), (34, 26080),

Gene: Kevin1\_34 Start: 27625, Stop: 27314, Start Num: 5

Candidate Starts for Kevin1\_34:

(Start: 5 @27625 has 52 MA's), (13, 27475), (17, 27445), (21, 27427), (23, 27406), (25, 27403), (27, 27394), (28, 27388), (30, 27373), (33, 27343), (34, 27331),

Gene: Magsby\_35 Start: 27730, Stop: 27389, Start Num: 5

Candidate Starts for Magsby\_35:

(Start: 5 @27730 has 52 MA's), (12, 27586), (19, 27520), (20, 27517), (24, 27487), (26, 27472), (29, 27460), (30, 27448), (33, 27418), (34, 27406),

Gene: Melville\_37 Start: 27714, Stop: 27373, Start Num: 5

Candidate Starts for Melville\_37:

(Start: 5 @27714 has 52 MA's), (12, 27570), (19, 27504), (20, 27501), (24, 27471), (26, 27456), (29, 27444), (30, 27432), (33, 27402), (34, 27390),

Gene: MichelleMyBell\_33 Start: 26721, Stop: 26380, Start Num: 5

Candidate Starts for MichelleMyBell\_33:

(Start: 5 @26721 has 52 MA's), (12, 26577), (19, 26511), (20, 26508), (24, 26478), (26, 26463), (29, 26451), (30, 26439), (33, 26409), (34, 26397),

Gene: MyraDee\_32 Start: 25082, Stop: 24768, Start Num: 3

Candidate Starts for MyraDee\_32:

(Start: 3 @25082 has 1 MA's), (6, 25076), (11, 24956), (15, 24914), (16, 24911), (30, 24806),

Gene: Naca\_30 Start: 24473, Stop: 24174, Start Num: 5

Candidate Starts for Naca\_30:

(Start: 5 @24473 has 52 MA's), (8, 24386), (14, 24323), (17, 24302), (23, 24263), (25, 24260), (26, 24254), (29, 24242), (30, 24230), (31, 24221),

Gene: Nenae\_36 Start: 28021, Stop: 27683, Start Num: 5

Candidate Starts for Nenae\_36:

(Start: 5 @28021 has 52 MA's), (18, 27820), (22, 27805), (28, 27757), (30, 27742), (34, 27700),

Gene: Panchino\_31 Start: 28129, Stop: 27788, Start Num: 5

Candidate Starts for Panchino\_31:

(Start: 5 @28129 has 52 MA's), (12, 27985), (19, 27919), (20, 27916), (24, 27886), (26, 27871), (29, 27859), (30, 27847), (33, 27817), (34, 27805),

Gene: Parmesanjohn\_35 Start: 27733, Stop: 27392, Start Num: 5

Candidate Starts for Parmesanjohn\_35:

(Start: 5 @27733 has 52 MA's), (12, 27589), (19, 27523), (20, 27520), (24, 27490), (26, 27475), (29, 27463), (30, 27451), (33, 27421), (34, 27409),

Gene: PhancyPhin\_36 Start: 28015, Stop: 27677, Start Num: 5

Candidate Starts for PhancyPhin\_36:

(Start: 5 @28015 has 52 MA's), (18, 27814), (22, 27799), (28, 27751), (30, 27736), (34, 27694),

Gene: Philonius\_33 Start: 26395, Stop: 26054, Start Num: 5

Candidate Starts for Philonius\_33:

(Start: 5 @26395 has 52 MA's), (12, 26251), (19, 26185), (20, 26182), (26, 26137), (29, 26125), (30, 26113), (31, 26104), (33, 26083), (34, 26071),

Gene: Phloss\_33 Start: 27140, Stop: 26799, Start Num: 5

Candidate Starts for Phloss\_33:

(Start: 5 @27140 has 52 MA's), (12, 26996), (19, 26930), (20, 26927), (24, 26897), (26, 26882), (29, 26870), (30, 26858), (33, 26828), (34, 26816),

Gene: Phrann\_36 Start: 28799, Stop: 28461, Start Num: 5

Candidate Starts for Phrann\_36:

(Start: 5 @28799 has 52 MA's), (18, 28598), (22, 28583), (28, 28535), (30, 28520), (34, 28478),

Gene: Pipsqueaks\_35 Start: 27710, Stop: 27369, Start Num: 5

Candidate Starts for Pipsqueaks\_35:

(Start: 5 @27710 has 52 MA's), (12, 27566), (19, 27500), (20, 27497), (24, 27467), (26, 27452), (29, 27440), (30, 27428), (33, 27398), (34, 27386),

Gene: Purgamenstris\_36 Start: 28019, Stop: 27681, Start Num: 5

Candidate Starts for Purgamenstris\_36:

(Start: 5 @28019 has 52 MA's), (18, 27818), (22, 27803), (28, 27755), (30, 27740), (34, 27698),

Gene: Raymond7\_30 Start: 27839, Stop: 27504, Start Num: 5

Candidate Starts for Raymond7\_30:

(1, 27935), (Start: 5 @27839 has 52 MA's), (9, 27737), (10, 27722), (12, 27695), (28, 27578), (30, 27563), (33, 27533), (34, 27521),

Gene: Redi\_36 Start: 28018, Stop: 27680, Start Num: 5

Candidate Starts for Redi\_36:

(Start: 5 @28018 has 52 MA's), (18, 27817), (22, 27802), (28, 27754), (30, 27739), (34, 27697),

Gene: Rubeelu\_36 Start: 28446, Stop: 28135, Start Num: 5

Candidate Starts for Rubeelu\_36:

(Start: 5 @28446 has 52 MA's), (13, 28296), (17, 28266), (21, 28248), (23, 28227), (25, 28224), (27, 28215), (28, 28209), (30, 28194), (33, 28164), (34, 28152),

Gene: Schnauzer\_35 Start: 27733, Stop: 27392, Start Num: 5

Candidate Starts for Schnauzer\_35:

(Start: 5 @27733 has 52 MA's), (12, 27589), (19, 27523), (20, 27520), (24, 27490), (26, 27475), (29, 27463), (30, 27451), (33, 27421), (34, 27409),

Gene: Scorpia\_31 Start: 23910, Stop: 23611, Start Num: 5

Candidate Starts for Scorpia\_31:

(Start: 5 @23910 has 52 MA's), (8, 23823), (14, 23760), (17, 23739), (23, 23700), (25, 23697), (26, 23691), (29, 23679), (30, 23667), (31, 23658),

Gene: ShrimpFriedEgg\_36 Start: 28018, Stop: 27680, Start Num: 5

Candidate Starts for ShrimpFriedEgg\_36:

(Start: 5 @28018 has 52 MA's), (18, 27817), (22, 27802), (28, 27754), (30, 27739), (34, 27697),

Gene: Shweta\_32 Start: 26913, Stop: 26572, Start Num: 5

Candidate Starts for Shweta\_32:

(Start: 5 @26913 has 52 MA's), (12, 26769), (19, 26703), (20, 26700), (24, 26670), (26, 26655), (29, 26643), (30, 26631), (33, 26601), (34, 26589),

Gene: Silvafighter\_36 Start: 27706, Stop: 27365, Start Num: 5

Candidate Starts for Silvafighter\_36:

(Start: 5 @27706 has 52 MA's), (12, 27562), (19, 27496), (20, 27493), (24, 27463), (26, 27448), (29, 27436), (30, 27424), (33, 27394), (34, 27382),

Gene: Silvy\_33 Start: 26384, Stop: 26043, Start Num: 5

Candidate Starts for Silvy\_33:

(Start: 5 @26384 has 52 MA's), (12, 26240), (19, 26174), (20, 26171), (26, 26126), (29, 26114), (30, 26102), (31, 26093), (33, 26072), (34, 26060),

Gene: SkinnyPete\_30 Start: 25444, Stop: 25103, Start Num: 5

Candidate Starts for SkinnyPete\_30:

(Start: 5 @25444 has 52 MA's), (12, 25300), (19, 25234), (20, 25231), (26, 25186), (29, 25174), (30, 25162), (31, 25153), (33, 25132), (34, 25120),

Gene: Smurph\_35 Start: 27733, Stop: 27392, Start Num: 5

Candidate Starts for Smurph\_35:

(Start: 5 @27733 has 52 MA's), (12, 27589), (19, 27523), (20, 27520), (24, 27490), (26, 27475), (29, 27463), (30, 27451), (33, 27421), (34, 27409),

Gene: Snekmaggedon\_32 Start: 26783, Stop: 26442, Start Num: 5

Candidate Starts for Snekmaggedon\_32:

(Start: 5 @26783 has 52 MA's), (12, 26639), (19, 26573), (20, 26570), (24, 26540), (26, 26525), (29, 26513), (30, 26501), (33, 26471), (34, 26459),

Gene: Spinach\_36 Start: 28018, Stop: 27680, Start Num: 5

Candidate Starts for Spinach\_36:

(Start: 5 @28018 has 52 MA's), (18, 27817), (22, 27802), (28, 27754), (30, 27739), (34, 27697),

Gene: SpongeBob\_32 Start: 26783, Stop: 26442, Start Num: 5

Candidate Starts for SpongeBob\_32:

(Start: 5 @26783 has 52 MA's), (12, 26639), (19, 26573), (20, 26570), (24, 26540), (26, 26525), (29, 26513), (30, 26501), (33, 26471), (34, 26459),

Gene: Squirty\_33 Start: 28243, Stop: 27905, Start Num: 5

Candidate Starts for Squirty\_33:

(Start: 5 @28243 has 52 MA's), (22, 28027), (28, 27979), (30, 27964), (34, 27922),

Gene: Tapioca\_36 Start: 27699, Stop: 27358, Start Num: 5

Candidate Starts for Tapioca\_36:

(Start: 5 @27699 has 52 MA's), (12, 27555), (19, 27489), (20, 27486), (24, 27456), (26, 27441), (29, 27429), (30, 27417), (33, 27387), (34, 27375),

Gene: Tortoise12\_33 Start: 26416, Stop: 26075, Start Num: 5

Candidate Starts for Tortoise12\_33:

(Start: 5 @26416 has 52 MA's), (12, 26272), (19, 26206), (20, 26203), (26, 26158), (29, 26146), (30, 26134), (31, 26125), (33, 26104), (34, 26092),

Gene: Xeno\_32 Start: 26170, Stop: 25829, Start Num: 5

Candidate Starts for Xeno\_32:

(Start: 5 @26170 has 52 MA's), (12, 26026), (19, 25960), (20, 25957), (24, 25927), (26, 25912), (29, 25900), (30, 25888), (33, 25858), (34, 25846),

Gene: Xerxes\_35 Start: 27730, Stop: 27389, Start Num: 5

Candidate Starts for Xerxes\_35:

(Start: 5 @27730 has 52 MA's), (12, 27586), (19, 27520), (20, 27517), (24, 27487), (26, 27472), (29, 27460), (30, 27448), (33, 27418), (34, 27406),