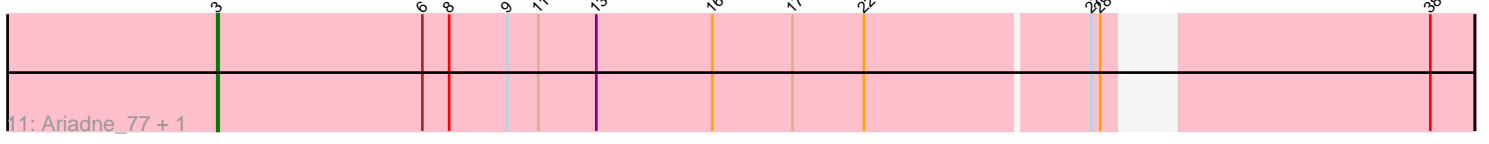
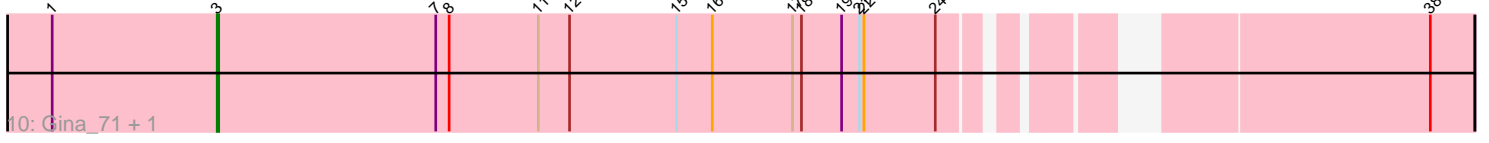
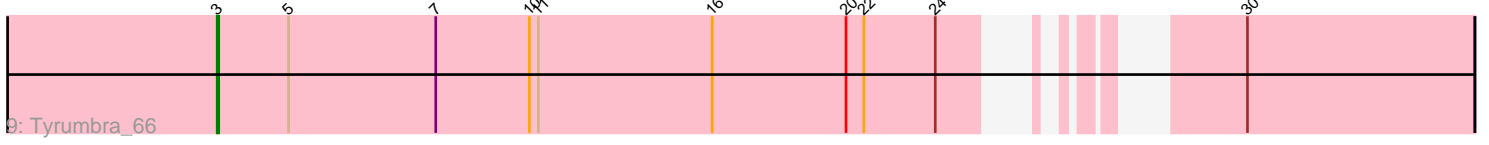
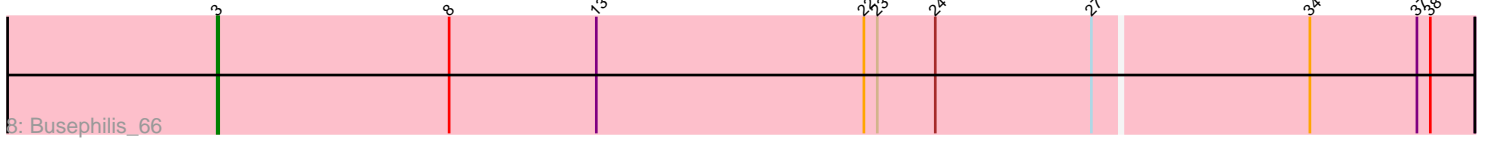
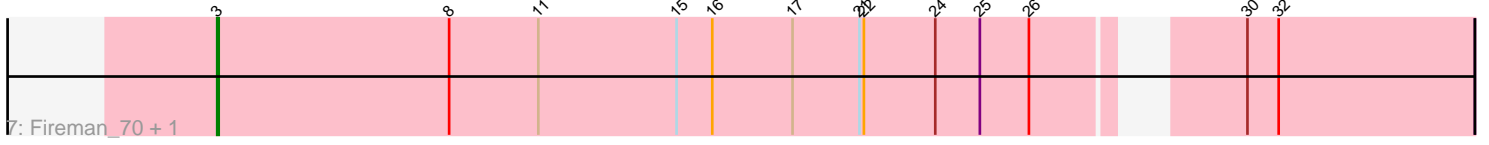
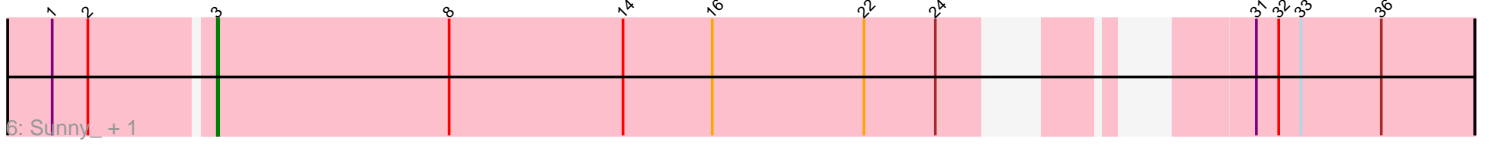
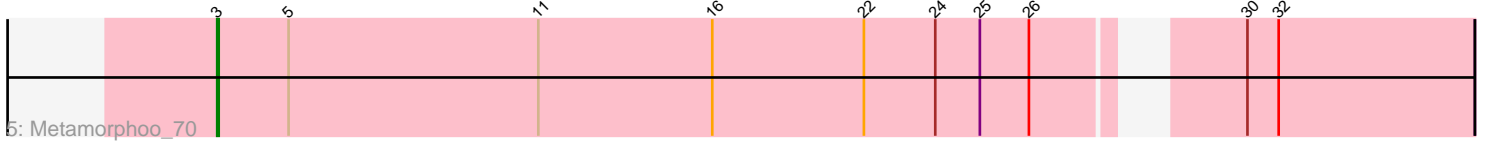
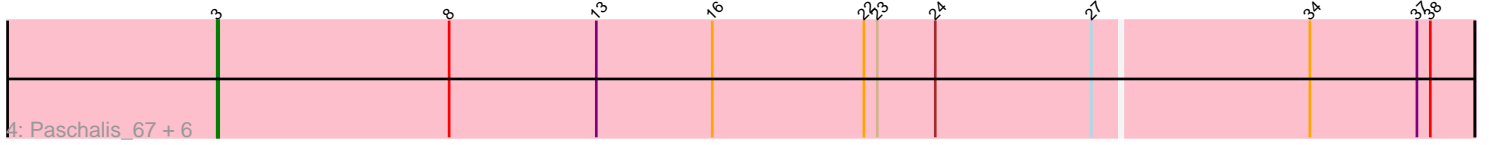
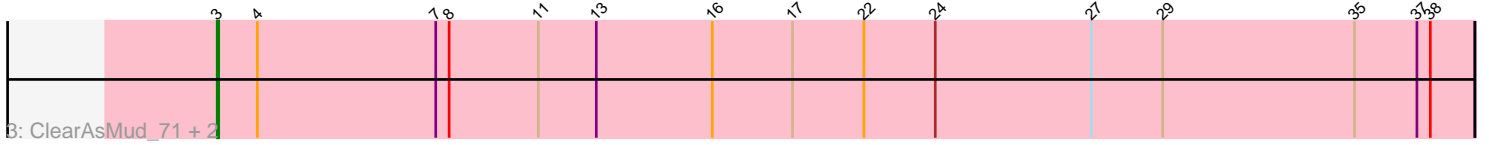
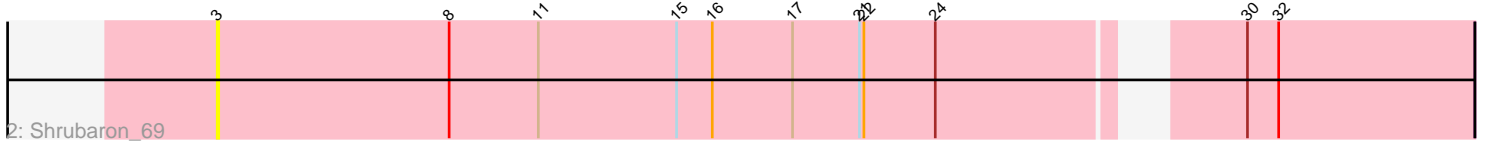
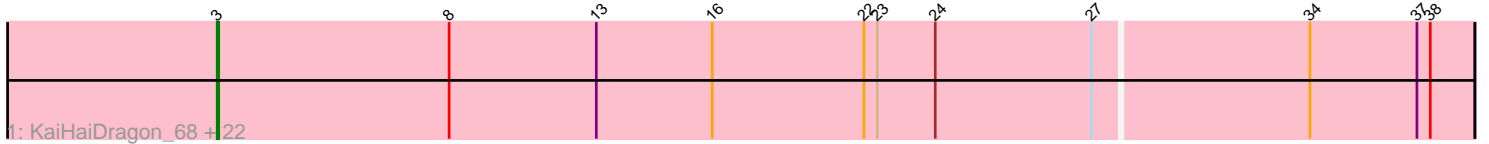


Pham 216292



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 216292 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216292 has 45 members, 4 are drafts.

Phages represented in each track:

- Track 1 : KaiHaiDragon\_68, EarickHC\_68, Hermeonysus\_67, Shotgun\_67, Quhwah\_71, Cranjis\_68, PhedwardCullen\_65, Honeyfin\_68, Jefe\_67, Phorgeous\_67, Savannah\_66, Ganandorf\_66, Piperis\_68, Selwyn23\_68, Scumberland\_69, Yeti\_69, Crisis\_68, Pulchra\_69, CrazyRich\_66, Glorp\_68, Phrancesco\_67, LittleFortune\_69, Antares\_67
- Track 2 : Shrubaron\_69
- Track 3 : ClearAsMud\_71, NoodlelyBoi\_68, SirFrank\_68
- Track 4 : Paschalis\_67, BrazzalePHS\_66, Onika\_66, Jollipop\_68, Ramiel05\_66, Kowalski\_66, PiperSansNom\_68
- Track 5 : Metamorphoo\_70
- Track 6 : Sunny\_, Merry\_
- Track 7 : Fireman\_70, RobsFeet\_71
- Track 8 : Busephilis\_66
- Track 9 : Tyumbra\_66
- Track 10 : Gina\_71, Teamocil\_71
- Track 11 : Ariadne\_77, Smarties\_77

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

The start number called the most often in the published annotations is 3, it was called in 41 of the 41 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Antares\_67, Ariadne\_77, BrazzalePHS\_66, Busephilis\_66, ClearAsMud\_71, Cranjis\_68, CrazyRich\_66, Crisis\_68, EarickHC\_68, Fireman\_70, Ganandorf\_66, Gina\_71, Glorp\_68, Hermeonysus\_67, Honeyfin\_68, Jefe\_67, Jollipop\_68, KaiHaiDragon\_68, Kowalski\_66, LittleFortune\_69, Merry\_, Metamorphoo\_70, NoodlelyBoi\_68, Onika\_66, Paschalis\_67, PhedwardCullen\_65, Phorgeous\_67, Phrancesco\_67, PiperSansNom\_68, Piperis\_68, Pulchra\_69, Quhwah\_71, Ramiel05\_66, RobsFeet\_71, Savannah\_66, Scumberland\_69, Selwyn23\_68, Shotgun\_67, Shrubaron\_69, SirFrank\_68, Smarties\_77, Sunny\_, Teamocil\_71, Tyumbra\_66, Yeti\_69,

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 3:

- Found in 45 of 45 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 41 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antares\_67 (EC), Ariadne\_77 (EC), BrazzalePHS\_66 (EC), Busephilis\_66 (EC), ClearAsMud\_71 (EC), Cranjis\_68 (EC), CrazyRich\_66 (EC), Crisis\_68 (EC), EarickHC\_68 (EC), Fireman\_70 (EC), Ganandorf\_66 (EC), Gina\_71 (EC), Glorp\_68 (EC), Hermeonysus\_67 (EC), Honeyfin\_68 (EC), Jefe\_67 (EC), Jollipop\_68 (EC), KaiHaiDragon\_68 (EC), Kowalski\_66 (EC), LittleFortune\_69 (EC), Merry\_ (EC), Metamorphoo\_70 (EC), NoodlelyBoi\_68 (EC), Onika\_66 (EC), Paschalis\_67 (EC), PhedwardCullen\_65 (EC), Phorgeous\_67 (EC), Phrancesco\_67 (EC), PiperSansNom\_68 (EC), Piperis\_68 (EC), Pulchra\_69 (EC), Quhwah\_71 (EC), Ramiel05\_66 (EC), RobsFeet\_71 (EC), Savannah\_66 (EC), Scumberland\_69 (EC), Selwyn23\_68 (EC), Shotgun\_67 (EC), Shrubaron\_69 (EC), SirFrank\_68 (EC), Smarties\_77 (EC), Sunny\_ (EC), Teamocil\_71 (EC), Tyumbra\_66 (EC), Yeti\_69 (EC),

### Summary by clusters:

There is one cluster represented in this pham: EC

Info for manual annotations of cluster EC:

- Start number 3 was manually annotated 41 times for cluster EC.

### Gene Information:

Gene: Antares\_67 Start: 41921, Stop: 42760, Start Num: 3

Candidate Starts for Antares\_67:

(Start: 3 @41921 has 41 MA's), (8, 42077), (13, 42176), (16, 42254), (22, 42356), (23, 42365), (24, 42404), (27, 42509), (34, 42650), (37, 42722), (38, 42731),

Gene: Ariadne\_77 Start: 43541, Stop: 44338, Start Num: 3

Candidate Starts for Ariadne\_77:

(Start: 3 @43541 has 41 MA's), (6, 43679), (8, 43697), (9, 43736), (11, 43757), (13, 43796), (16, 43874), (17, 43928), (22, 43976), (27, 44123), (28, 44129), (38, 44309),

Gene: BrazzalePHS\_66 Start: 41689, Stop: 42528, Start Num: 3

Candidate Starts for BrazzalePHS\_66:

(Start: 3 @41689 has 41 MA's), (8, 41845), (13, 41944), (16, 42022), (22, 42124), (23, 42133), (24, 42172), (27, 42277), (34, 42418), (37, 42490), (38, 42499),

Gene: Busephilis\_66 Start: 41628, Stop: 42467, Start Num: 3

Candidate Starts for Busephilis\_66:

(Start: 3 @41628 has 41 MA's), (8, 41784), (13, 41883), (22, 42063), (23, 42072), (24, 42111), (27, 42216), (34, 42357), (37, 42429), (38, 42438),

Gene: ClearAsMud\_71 Start: 42203, Stop: 43048, Start Num: 3

Candidate Starts for ClearAsMud\_71:

(Start: 3 @42203 has 41 MA's), (4, 42230), (7, 42350), (8, 42359), (11, 42419), (13, 42458), (16, 42536), (17, 42590), (22, 42638), (24, 42686), (27, 42791), (29, 42839), (35, 42968), (37, 43010), (38, 43019),

Gene: Cranjjs\_68 Start: 41876, Stop: 42715, Start Num: 3

Candidate Starts for Cranjjs\_68:

(Start: 3 @41876 has 41 MA's), (8, 42032), (13, 42131), (16, 42209), (22, 42311), (23, 42320), (24, 42359), (27, 42464), (34, 42605), (37, 42677), (38, 42686),

Gene: CrazyRich\_66 Start: 41682, Stop: 42521, Start Num: 3

Candidate Starts for CrazyRich\_66:

(Start: 3 @41682 has 41 MA's), (8, 41838), (13, 41937), (16, 42015), (22, 42117), (23, 42126), (24, 42165), (27, 42270), (34, 42411), (37, 42483), (38, 42492),

Gene: Crisis\_68 Start: 41691, Stop: 42530, Start Num: 3

Candidate Starts for Crisis\_68:

(Start: 3 @41691 has 41 MA's), (8, 41847), (13, 41946), (16, 42024), (22, 42126), (23, 42135), (24, 42174), (27, 42279), (34, 42420), (37, 42492), (38, 42501),

Gene: EarickHC\_68 Start: 41613, Stop: 42452, Start Num: 3

Candidate Starts for EarickHC\_68:

(Start: 3 @41613 has 41 MA's), (8, 41769), (13, 41868), (16, 41946), (22, 42048), (23, 42057), (24, 42096), (27, 42201), (34, 42342), (37, 42414), (38, 42423),

Gene: Fireman\_70 Start: 43653, Stop: 44456, Start Num: 3

Candidate Starts for Fireman\_70:

(Start: 3 @43653 has 41 MA's), (8, 43809), (11, 43869), (15, 43962), (16, 43986), (17, 44040), (21, 44085), (22, 44088), (24, 44136), (25, 44166), (26, 44199), (30, 44304), (32, 44325),

Gene: Ganandorf\_66 Start: 41709, Stop: 42548, Start Num: 3

Candidate Starts for Ganandorf\_66:

(Start: 3 @41709 has 41 MA's), (8, 41865), (13, 41964), (16, 42042), (22, 42144), (23, 42153), (24, 42192), (27, 42297), (34, 42438), (37, 42510), (38, 42519),

Gene: Gina\_71 Start: 41770, Stop: 42552, Start Num: 3

Candidate Starts for Gina\_71:

(1, 41659), (Start: 3 @41770 has 41 MA's), (7, 41917), (8, 41926), (11, 41986), (12, 42007), (15, 42079), (16, 42103), (17, 42157), (18, 42163), (19, 42190), (21, 42202), (22, 42205), (24, 42253), (38, 42523),

Gene: Glorp\_68 Start: 41673, Stop: 42512, Start Num: 3

Candidate Starts for Glorp\_68:

(Start: 3 @41673 has 41 MA's), (8, 41829), (13, 41928), (16, 42006), (22, 42108), (23, 42117), (24, 42156), (27, 42261), (34, 42402), (37, 42474), (38, 42483),

Gene: Hermeonysus\_67 Start: 41604, Stop: 42437, Start Num: 3

Candidate Starts for Hermeonysus\_67:

(Start: 3 @41604 has 41 MA's), (8, 41760), (13, 41859), (16, 41937), (22, 42039), (23, 42048), (24, 42087), (27, 42186), (34, 42327), (37, 42399), (38, 42408),

Gene: Honeyfin\_68 Start: 41864, Stop: 42697, Start Num: 3

Candidate Starts for Honeyfin\_68:

(Start: 3 @41864 has 41 MA's), (8, 42020), (13, 42119), (16, 42197), (22, 42299), (23, 42308), (24, 42347), (27, 42446), (34, 42587), (37, 42659), (38, 42668),

Gene: Jefe\_67 Start: 41659, Stop: 42498, Start Num: 3

Candidate Starts for Jefe\_67:

(Start: 3 @41659 has 41 MA's), (8, 41815), (13, 41914), (16, 41992), (22, 42094), (23, 42103), (24, 42142), (27, 42247), (34, 42388), (37, 42460), (38, 42469),

Gene: Jollipop\_68 Start: 42047, Stop: 42886, Start Num: 3

Candidate Starts for Jollipop\_68:

(Start: 3 @42047 has 41 MA's), (8, 42203), (13, 42302), (16, 42380), (22, 42482), (23, 42491), (24, 42530), (27, 42635), (34, 42776), (37, 42848), (38, 42857),

Gene: KaiHaiDragon\_68 Start: 41613, Stop: 42452, Start Num: 3

Candidate Starts for KaiHaiDragon\_68:

(Start: 3 @41613 has 41 MA's), (8, 41769), (13, 41868), (16, 41946), (22, 42048), (23, 42057), (24, 42096), (27, 42201), (34, 42342), (37, 42414), (38, 42423),

Gene: Kowalski\_66 Start: 41684, Stop: 42523, Start Num: 3

Candidate Starts for Kowalski\_66:

(Start: 3 @41684 has 41 MA's), (8, 41840), (13, 41939), (16, 42017), (22, 42119), (23, 42128), (24, 42167), (27, 42272), (34, 42413), (37, 42485), (38, 42494),

Gene: LittleFortune\_69 Start: 41969, Stop: 42808, Start Num: 3

Candidate Starts for LittleFortune\_69:

(Start: 3 @41969 has 41 MA's), (8, 42125), (13, 42224), (16, 42302), (22, 42404), (23, 42413), (24, 42452), (27, 42557), (34, 42698), (37, 42770), (38, 42779),

Gene: Merry\_ Start: 43851, Stop: 44606, Start Num: 3

Candidate Starts for Merry\_:

(1, 43749), (2, 43773), (Start: 3 @43851 has 41 MA's), (8, 44007), (14, 44124), (16, 44184), (22, 44286), (24, 44334), (31, 44460), (32, 44475), (33, 44490), (36, 44544),

Gene: Metamorphoo\_70 Start: 42947, Stop: 43750, Start Num: 3

Candidate Starts for Metamorphoo\_70:

(Start: 3 @42947 has 41 MA's), (5, 42995), (11, 43163), (16, 43280), (22, 43382), (24, 43430), (25, 43460), (26, 43493), (30, 43598), (32, 43619),

Gene: NoodlelyBoi\_68 Start: 42452, Stop: 43297, Start Num: 3

Candidate Starts for NoodlelyBoi\_68:

(Start: 3 @42452 has 41 MA's), (4, 42479), (7, 42599), (8, 42608), (11, 42668), (13, 42707), (16, 42785), (17, 42839), (22, 42887), (24, 42935), (27, 43040), (29, 43088), (35, 43217), (37, 43259), (38, 43268),

Gene: Onika\_66 Start: 41693, Stop: 42526, Start Num: 3

Candidate Starts for Onika\_66:

(Start: 3 @41693 has 41 MA's), (8, 41849), (13, 41948), (16, 42026), (22, 42128), (23, 42137), (24, 42176), (27, 42275), (34, 42416), (37, 42488), (38, 42497),

Gene: Paschalis\_67 Start: 41712, Stop: 42551, Start Num: 3

Candidate Starts for Paschalis\_67:

(Start: 3 @41712 has 41 MA's), (8, 41868), (13, 41967), (16, 42045), (22, 42147), (23, 42156), (24, 42195), (27, 42300), (34, 42441), (37, 42513), (38, 42522),

Gene: PhedwardCullen\_65 Start: 41429, Stop: 42268, Start Num: 3

Candidate Starts for PhedwardCullen\_65:

(Start: 3 @41429 has 41 MA's), (8, 41585), (13, 41684), (16, 41762), (22, 41864), (23, 41873), (24, 41912), (27, 42017), (34, 42158), (37, 42230), (38, 42239),

Gene: Phorgeous\_67 Start: 41495, Stop: 42334, Start Num: 3

Candidate Starts for Phorgeous\_67:

(Start: 3 @41495 has 41 MA's), (8, 41651), (13, 41750), (16, 41828), (22, 41930), (23, 41939), (24, 41978), (27, 42083), (34, 42224), (37, 42296), (38, 42305),

Gene: Phrancesco\_67 Start: 41818, Stop: 42657, Start Num: 3

Candidate Starts for Phrancesco\_67:

(Start: 3 @41818 has 41 MA's), (8, 41974), (13, 42073), (16, 42151), (22, 42253), (23, 42262), (24, 42301), (27, 42406), (34, 42547), (37, 42619), (38, 42628),

Gene: PiperSansNom\_68 Start: 42003, Stop: 42836, Start Num: 3

Candidate Starts for PiperSansNom\_68:

(Start: 3 @42003 has 41 MA's), (8, 42159), (13, 42258), (16, 42336), (22, 42438), (23, 42447), (24, 42486), (27, 42585), (34, 42726), (37, 42798), (38, 42807),

Gene: Piperis\_68 Start: 41620, Stop: 42459, Start Num: 3

Candidate Starts for Piperis\_68:

(Start: 3 @41620 has 41 MA's), (8, 41776), (13, 41875), (16, 41953), (22, 42055), (23, 42064), (24, 42103), (27, 42208), (34, 42349), (37, 42421), (38, 42430),

Gene: Pulchra\_69 Start: 42016, Stop: 42855, Start Num: 3

Candidate Starts for Pulchra\_69:

(Start: 3 @42016 has 41 MA's), (8, 42172), (13, 42271), (16, 42349), (22, 42451), (23, 42460), (24, 42499), (27, 42604), (34, 42745), (37, 42817), (38, 42826),

Gene: Quhwah\_71 Start: 42305, Stop: 43144, Start Num: 3

Candidate Starts for Quhwah\_71:

(Start: 3 @42305 has 41 MA's), (8, 42461), (13, 42560), (16, 42638), (22, 42740), (23, 42749), (24, 42788), (27, 42893), (34, 43034), (37, 43106), (38, 43115),

Gene: Ramiel05\_66 Start: 41684, Stop: 42523, Start Num: 3

Candidate Starts for Ramiel05\_66:

(Start: 3 @41684 has 41 MA's), (8, 41840), (13, 41939), (16, 42017), (22, 42119), (23, 42128), (24, 42167), (27, 42272), (34, 42413), (37, 42485), (38, 42494),

Gene: RobsFeet\_71 Start: 43233, Stop: 44036, Start Num: 3

Candidate Starts for RobsFeet\_71:

(Start: 3 @43233 has 41 MA's), (8, 43389), (11, 43449), (15, 43542), (16, 43566), (17, 43620), (21, 43665), (22, 43668), (24, 43716), (25, 43746), (26, 43779), (30, 43884), (32, 43905),

Gene: Savannah\_66 Start: 41735, Stop: 42574, Start Num: 3

Candidate Starts for Savannah\_66:

(Start: 3 @41735 has 41 MA's), (8, 41891), (13, 41990), (16, 42068), (22, 42170), (23, 42179), (24, 42218), (27, 42323), (34, 42464), (37, 42536), (38, 42545),

Gene: Scumberland\_69 Start: 41930, Stop: 42769, Start Num: 3

Candidate Starts for Scumberland\_69:

(Start: 3 @41930 has 41 MA's), (8, 42086), (13, 42185), (16, 42263), (22, 42365), (23, 42374), (24, 42413), (27, 42518), (34, 42659), (37, 42731), (38, 42740),

Gene: Selwyn23\_68 Start: 41847, Stop: 42686, Start Num: 3

Candidate Starts for Selwyn23\_68:

(Start: 3 @41847 has 41 MA's), (8, 42003), (13, 42102), (16, 42180), (22, 42282), (23, 42291), (24, 42330), (27, 42435), (34, 42576), (37, 42648), (38, 42657),

Gene: Shotgun\_67 Start: 41614, Stop: 42453, Start Num: 3

Candidate Starts for Shotgun\_67:

(Start: 3 @41614 has 41 MA's), (8, 41770), (13, 41869), (16, 41947), (22, 42049), (23, 42058), (24, 42097), (27, 42202), (34, 42343), (37, 42415), (38, 42424),

Gene: Shrubaron\_69 Start: 42828, Stop: 43631, Start Num: 3

Candidate Starts for Shrubaron\_69:

(Start: 3 @42828 has 41 MA's), (8, 42984), (11, 43044), (15, 43137), (16, 43161), (17, 43215), (21, 43260), (22, 43263), (24, 43311), (30, 43479), (32, 43500),

Gene: SirFrank\_68 Start: 41898, Stop: 42743, Start Num: 3

Candidate Starts for SirFrank\_68:

(Start: 3 @41898 has 41 MA's), (4, 41925), (7, 42045), (8, 42054), (11, 42114), (13, 42153), (16, 42231), (17, 42285), (22, 42333), (24, 42381), (27, 42486), (29, 42534), (35, 42663), (37, 42705), (38, 42714),

Gene: Smarties\_77 Start: 43541, Stop: 44338, Start Num: 3

Candidate Starts for Smarties\_77:

(Start: 3 @43541 has 41 MA's), (6, 43679), (8, 43697), (9, 43736), (11, 43757), (13, 43796), (16, 43874), (17, 43928), (22, 43976), (27, 44123), (28, 44129), (38, 44309),

Gene: Sunny\_ Start: 43853, Stop: 44608, Start Num: 3

Candidate Starts for Sunny\_:

(1, 43751), (2, 43775), (Start: 3 @43853 has 41 MA's), (8, 44009), (14, 44126), (16, 44186), (22, 44288), (24, 44336), (31, 44462), (32, 44477), (33, 44492), (36, 44546),

Gene: Teamocil\_71 Start: 41863, Stop: 42645, Start Num: 3

Candidate Starts for Teamocil\_71:

(1, 41752), (Start: 3 @41863 has 41 MA's), (7, 42010), (8, 42019), (11, 42079), (12, 42100), (15, 42172), (16, 42196), (17, 42250), (18, 42256), (19, 42283), (21, 42295), (22, 42298), (24, 42346), (38, 42616),

Gene: Tyrumbra\_66 Start: 42515, Stop: 43261, Start Num: 3

Candidate Starts for Tyrumbra\_66:

(Start: 3 @42515 has 41 MA's), (5, 42563), (7, 42662), (10, 42725), (11, 42731), (16, 42848), (20, 42938), (22, 42950), (24, 42998), (30, 43109),

Gene: Yeti\_69 Start: 41652, Stop: 42485, Start Num: 3

Candidate Starts for Yeti\_69:

(Start: 3 @41652 has 41 MA's), (8, 41808), (13, 41907), (16, 41985), (22, 42087), (23, 42096), (24, 42135), (27, 42234), (34, 42375), (37, 42447), (38, 42456),