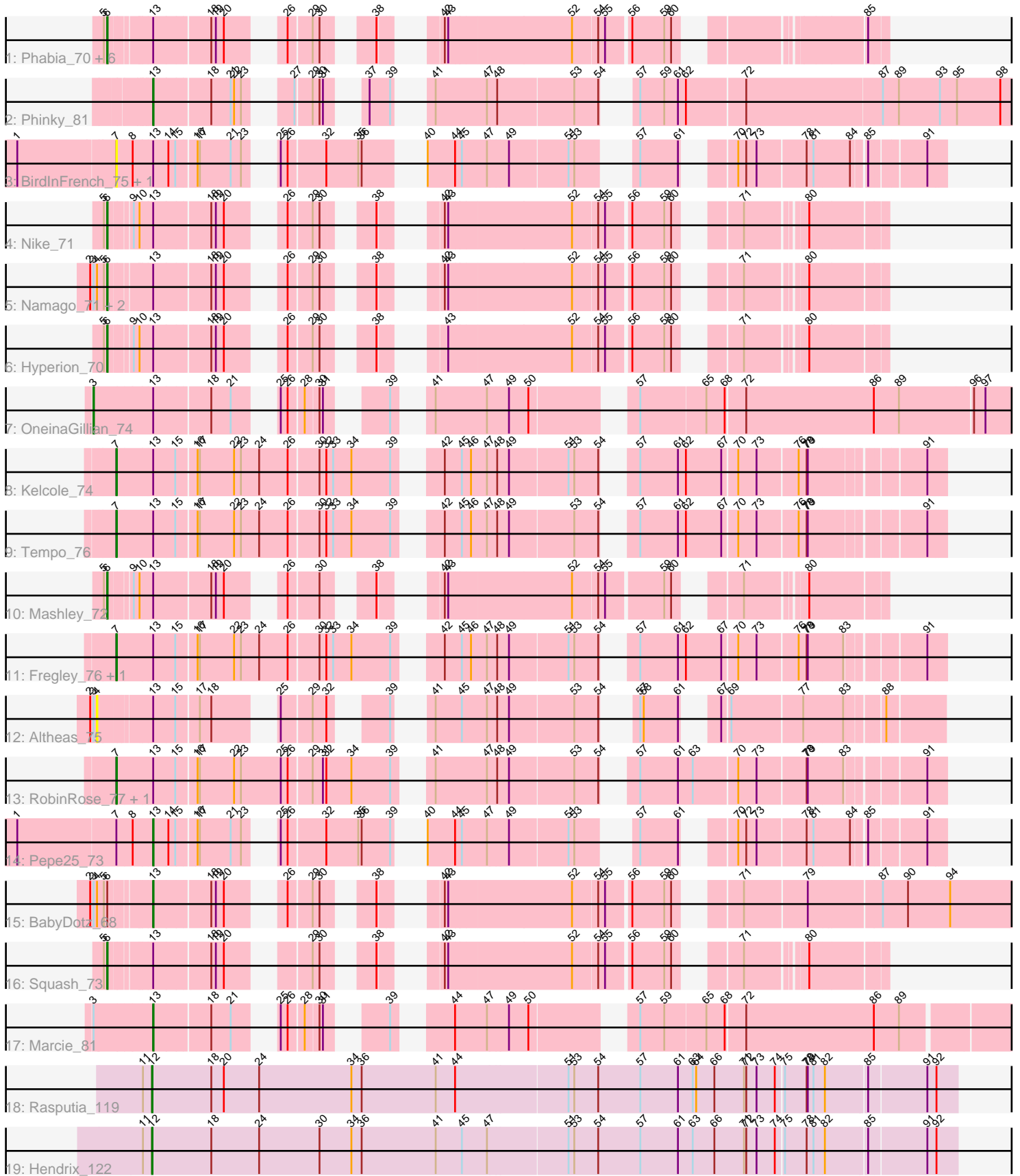


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 203188 Report

This analysis was run 01/18/25 on database version 583.

Pham number 203188 has 30 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Phabia\_70, Wayne3\_72, Casend\_71, Quammi\_69, Teehee\_71, Jehoshaphat\_72, Rudy\_68
- Track 2 : Phinky\_81
- Track 3 : BirdInFrench\_75, Wilca\_75
- Track 4 : Nike\_71
- Track 5 : Namago\_71, Blab\_68, StrawberryJamm\_75
- Track 6 : Hyperion\_70
- Track 7 : OneinaGillian\_74
- Track 8 : Kelcole\_74
- Track 9 : Tempo\_76
- Track 10 : Mashley\_72
- Track 11 : Fregley\_76, CandC\_73
- Track 12 : Altheas\_75
- Track 13 : RobinRose\_77, Romm\_77
- Track 14 : Pepe25\_73
- Track 15 : BabyDotz\_68
- Track 16 : Squash\_73
- Track 17 : Marcie\_81
- Track 18 : Rasputia\_119
- Track 19 : Hendrix\_122

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

The start number called the most often in the published annotations is 6, it was called in 14 of the 26 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Blab\_68, Casend\_71, Hyperion\_70, Jehoshaphat\_72, Mashley\_72, Namago\_71, Nike\_71, Phabia\_70, Quammi\_69, Rudy\_68, Squash\_73, StrawberryJamm\_75, Teehee\_71, Wayne3\_72,

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

- BabyDotz\_68,

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

- Altheas\_75, BirdInFrench\_75, CandC\_73, Fregley\_76, Hendrix\_122, Kelcole\_74, Marcie\_81, OneinaGillian\_74, Pepe25\_73, Phinky\_81, Rasputia\_119, RobinRose\_77, Romm\_77, Tempo\_76, Wilca\_75,

### Summary by start number:

Start 3:

- Found in 7 of 30 ( 23.3% ) of genes in pham
- Manual Annotations of this start: 1 of 26
- Called 14.3% of time when present
- Phage (with cluster) where this start called: OneinaGillian\_74 (EG),

Start 4:

- Found in 5 of 30 ( 16.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Altheas\_75 (EG),

Start 6:

- Found in 15 of 30 ( 50.0% ) of genes in pham
- Manual Annotations of this start: 14 of 26
- Called 93.3% of time when present
- Phage (with cluster) where this start called: Blab\_68 (EG), Casend\_71 (EG), Hyperion\_70 (EG), Jehoshaphat\_72 (EG), Mashley\_72 (EG), Namago\_71 (EG), Nike\_71 (EG), Phabia\_70 (EG), Quammi\_69 (EG), Rudy\_68 (EG), Squash\_73 (EG), StrawberryJamm\_75 (EG), Teehee\_71 (EG), Wayne3\_72 (EG),

Start 7:

- Found in 9 of 30 ( 30.0% ) of genes in pham
- Manual Annotations of this start: 5 of 26
- Called 88.9% of time when present
- Phage (with cluster) where this start called: BirdInFrench\_75 (EG), CandC\_73 (EG), Fregley\_76 (EG), Kelcole\_74 (EG), RobinRose\_77 (EG), Romm\_77 (EG), Tempo\_76 (EG), Wilca\_75 (EG),

Start 12:

- Found in 2 of 30 ( 6.7% ) of genes in pham
- Manual Annotations of this start: 2 of 26
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hendrix\_122 (GC), Rasputia\_119 (GC),

Start 13:

- Found in 28 of 30 ( 93.3% ) of genes in pham
- Manual Annotations of this start: 4 of 26
- Called 14.3% of time when present
- Phage (with cluster) where this start called: BabyDotz\_68 (EG), Marcie\_81 (EG), Pepe25\_73 (EG), Phinky\_81 (EG),

### Summary by clusters:

There are 2 clusters represented in this pham: EG, GC,

Info for manual annotations of cluster EG:

- Start number 3 was manually annotated 1 time for cluster EG.
- Start number 6 was manually annotated 14 times for cluster EG.
- Start number 7 was manually annotated 5 times for cluster EG.
- Start number 13 was manually annotated 4 times for cluster EG.

Info for manual annotations of cluster GC:

- Start number 12 was manually annotated 2 times for cluster GC.

### **Gene Information:**

Gene: Altheas\_75 Start: 50727, Stop: 49027, Start Num: 4

Candidate Starts for Altheas\_75:

(2, 50745), (Start: 3 @50736 has 1 MA's), (4, 50727), (Start: 13 @50604 has 4 MA's), (15, 50547), (17, 50496), (18, 50466), (25, 50358), (29, 50283), (32, 50247), (39, 50154), (41, 50124), (45, 50055), (47, 49989), (48, 49965), (49, 49935), (53, 49770), (54, 49707), (57, 49686), (58, 49677), (61, 49587), (67, 49548), (69, 49530), (77, 49350), (83, 49251), (88, 49167),

Gene: BabyDotz\_68 Start: 50440, Stop: 48572, Start Num: 13

Candidate Starts for BabyDotz\_68:

(2, 50581), (Start: 3 @50572 has 1 MA's), (4, 50563), (5, 50545), (Start: 6 @50536 has 14 MA's), (Start: 13 @50440 has 4 MA's), (18, 50302), (19, 50290), (20, 50269), (26, 50176), (29, 50119), (30, 50101), (38, 50017), (42, 49942), (43, 49933), (52, 49618), (54, 49555), (55, 49537), (56, 49480), (59, 49396), (60, 49378), (71, 49270), (79, 49111), (87, 48934), (90, 48868), (94, 48757),

Gene: BirdInFrench\_75 Start: 50055, Stop: 48313, Start Num: 7

Candidate Starts for BirdInFrench\_75:

(1, 50307), (Start: 7 @50055 has 5 MA's), (8, 50016), (Start: 13 @49965 has 4 MA's), (14, 49926), (15, 49908), (16, 49866), (17, 49860), (21, 49779), (23, 49752), (25, 49722), (26, 49704), (32, 49611), (35, 49527), (36, 49518), (40, 49434), (44, 49362), (45, 49344), (47, 49278), (49, 49224), (51, 49074), (53, 49059), (57, 48975), (61, 48876), (70, 48801), (72, 48780), (73, 48753), (78, 48630), (81, 48612), (84, 48519), (85, 48489), (91, 48360),

Gene: Blab\_68 Start: 49597, Stop: 48008, Start Num: 6

Candidate Starts for Blab\_68:

(2, 49642), (Start: 3 @49633 has 1 MA's), (4, 49624), (5, 49606), (Start: 6 @49597 has 14 MA's), (Start: 13 @49501 has 4 MA's), (18, 49363), (19, 49351), (20, 49330), (26, 49237), (29, 49180), (30, 49162), (38, 49078), (42, 49003), (43, 48994), (52, 48679), (54, 48616), (55, 48598), (56, 48541), (59, 48457), (60, 48439), (71, 48331), (80, 48193),

Gene: CandC\_73 Start: 49420, Stop: 47504, Start Num: 7

Candidate Starts for CandC\_73:

(Start: 7 @49420 has 5 MA's), (Start: 13 @49330 has 4 MA's), (15, 49273), (16, 49231), (17, 49225), (22, 49135), (23, 49117), (24, 49069), (26, 48994), (30, 48919), (32, 48901), (33, 48883), (34, 48835), (39, 48733), (42, 48664), (45, 48619), (46, 48595), (47, 48553), (48, 48529), (49, 48499), (51, 48349), (53, 48334), (54, 48271), (57, 48235), (61, 48136), (62, 48115), (67, 48022), (70, 47986), (73, 47938), (76, 47836), (78, 47815), (79, 47812), (83, 47722), (91, 47551),

Gene: Casend\_71 Start: 50094, Stop: 48505, Start Num: 6

Candidate Starts for Casend\_71:

(5, 50103), (Start: 6 @50094 has 14 MA's), (Start: 13 @49998 has 4 MA's), (18, 49860), (19, 49848), (20, 49827), (26, 49734), (29, 49677), (30, 49659), (38, 49575), (42, 49500), (43, 49491), (52, 49176), (54, 49113), (55, 49095), (56, 49038), (59, 48954), (60, 48936), (85, 48552),

Gene: Fregley\_76 Start: 49769, Stop: 47853, Start Num: 7

Candidate Starts for Fregley\_76:

(Start: 7 @49769 has 5 MA's), (Start: 13 @49679 has 4 MA's), (15, 49622), (16, 49580), (17, 49574), (22, 49484), (23, 49466), (24, 49418), (26, 49343), (30, 49268), (32, 49250), (33, 49232), (34, 49184), (39, 49082), (42, 49013), (45, 48968), (46, 48944), (47, 48902), (48, 48878), (49, 48848), (51, 48698), (53, 48683), (54, 48620), (57, 48584), (61, 48485), (62, 48464), (67, 48371), (70, 48335), (73, 48287), (76, 48185), (78, 48164), (79, 48161), (83, 48071), (91, 47900),

Gene: Hendrix\_122 Start: 77168, Stop: 79243, Start Num: 12

Candidate Starts for Hendrix\_122:

(11, 77144), (Start: 12 @77168 has 2 MA's), (18, 77324), (24, 77450), (30, 77609), (34, 77693), (36, 77720), (41, 77915), (45, 77984), (47, 78050), (51, 78254), (53, 78269), (54, 78332), (57, 78443), (61, 78542), (63, 78581), (66, 78638), (71, 78716), (72, 78722), (73, 78749), (74, 78797), (75, 78815), (78, 78872), (81, 78890), (82, 78917), (85, 79022), (91, 79166), (92, 79190),

Gene: Hyperion\_70 Start: 49788, Stop: 48196, Start Num: 6

Candidate Starts for Hyperion\_70:

(5, 49797), (Start: 6 @49788 has 14 MA's), (9, 49737), (10, 49722), (Start: 13 @49689 has 4 MA's), (18, 49551), (19, 49539), (20, 49518), (26, 49425), (29, 49368), (30, 49350), (38, 49266), (43, 49182), (52, 48867), (54, 48804), (55, 48786), (56, 48729), (59, 48645), (60, 48627), (71, 48519), (80, 48381),

Gene: Jehoshaphat\_72 Start: 50362, Stop: 48773, Start Num: 6

Candidate Starts for Jehoshaphat\_72:

(5, 50371), (Start: 6 @50362 has 14 MA's), (Start: 13 @50266 has 4 MA's), (18, 50128), (19, 50116), (20, 50095), (26, 50002), (29, 49945), (30, 49927), (38, 49843), (42, 49768), (43, 49759), (52, 49444), (54, 49381), (55, 49363), (56, 49306), (59, 49222), (60, 49204), (85, 48820),

Gene: Kelcole\_74 Start: 49992, Stop: 48076, Start Num: 7

Candidate Starts for Kelcole\_74:

(Start: 7 @49992 has 5 MA's), (Start: 13 @49902 has 4 MA's), (15, 49845), (16, 49803), (17, 49797), (22, 49707), (23, 49689), (24, 49641), (26, 49566), (30, 49491), (32, 49473), (33, 49455), (34, 49407), (39, 49305), (42, 49236), (45, 49191), (46, 49167), (47, 49125), (48, 49101), (49, 49071), (51, 48921), (53, 48906), (54, 48843), (57, 48807), (61, 48708), (62, 48687), (67, 48594), (70, 48558), (73, 48510), (76, 48408), (78, 48387), (79, 48384), (91, 48123),

Gene: Marcie\_81 Start: 50907, Stop: 48991, Start Num: 13

Candidate Starts for Marcie\_81:

(Start: 3 @51054 has 1 MA's), (Start: 13 @50907 has 4 MA's), (18, 50769), (21, 50718), (25, 50661), (26, 50643), (28, 50607), (30, 50574), (31, 50565), (39, 50463), (44, 50367), (47, 50283), (49, 50229), (50, 50178), (57, 49965), (59, 49902), (65, 49797), (68, 49749), (72, 49701), (86, 49365), (89, 49299),

Gene: Mashley\_72 Start: 50310, Stop: 48718, Start Num: 6

Candidate Starts for Mashley\_72:

(5, 50319), (Start: 6 @50310 has 14 MA's), (9, 50259), (10, 50244), (Start: 13 @50211 has 4 MA's), (18, 50073), (19, 50061), (20, 50040), (26, 49947), (30, 49872), (38, 49788), (42, 49713), (43, 49704), (52, 49389), (54, 49326), (55, 49308), (59, 49167), (60, 49149), (71, 49041), (80, 48903),

Gene: Namago\_71 Start: 49201, Stop: 47612, Start Num: 6

Candidate Starts for Namago\_71:

(2, 49246), (Start: 3 @49237 has 1 MA's), (4, 49228), (5, 49210), (Start: 6 @49201 has 14 MA's), (Start: 13 @49105 has 4 MA's), (18, 48967), (19, 48955), (20, 48934), (26, 48841), (29, 48784), (30, 48766), (38, 48682), (42, 48607), (43, 48598), (52, 48283), (54, 48220), (55, 48202), (56, 48145), (59, 48061), (60, 48043), (71, 47935), (80, 47797),

Gene: Nike\_71 Start: 50502, Stop: 48910, Start Num: 6

Candidate Starts for Nike\_71:

(5, 50511), (Start: 6 @50502 has 14 MA's), (9, 50451), (10, 50436), (Start: 13 @50403 has 4 MA's), (18, 50265), (19, 50253), (20, 50232), (26, 50139), (29, 50082), (30, 50064), (38, 49980), (42, 49905), (43, 49896), (52, 49581), (54, 49518), (55, 49500), (56, 49443), (59, 49359), (60, 49341), (71, 49233), (80, 49095),

Gene: OneinaGillian\_74 Start: 49692, Stop: 47611, Start Num: 3

Candidate Starts for OneinaGillian\_74:

(Start: 3 @49692 has 1 MA's), (Start: 13 @49545 has 4 MA's), (18, 49407), (21, 49356), (25, 49299), (26, 49281), (28, 49245), (30, 49212), (31, 49203), (39, 49101), (41, 49056), (47, 48921), (49, 48867), (50, 48816), (57, 48603), (65, 48435), (68, 48387), (72, 48339), (86, 48003), (89, 47937), (96, 47754), (97, 47724),

Gene: Pepe25\_73 Start: 48884, Stop: 47232, Start Num: 13

Candidate Starts for Pepe25\_73:

(1, 49226), (Start: 7 @48974 has 5 MA's), (8, 48935), (Start: 13 @48884 has 4 MA's), (14, 48845), (15, 48827), (16, 48785), (17, 48779), (21, 48698), (23, 48671), (25, 48641), (26, 48623), (32, 48530), (35, 48446), (36, 48437), (39, 48362), (40, 48353), (44, 48281), (45, 48263), (47, 48197), (49, 48143), (51, 47993), (53, 47978), (57, 47894), (61, 47795), (70, 47720), (72, 47699), (73, 47672), (78, 47549), (81, 47531), (84, 47438), (85, 47408), (91, 47279),

Gene: Phabia\_70 Start: 49553, Stop: 47964, Start Num: 6

Candidate Starts for Phabia\_70:

(5, 49562), (Start: 6 @49553 has 14 MA's), (Start: 13 @49457 has 4 MA's), (18, 49319), (19, 49307), (20, 49286), (26, 49193), (29, 49136), (30, 49118), (38, 49034), (42, 48959), (43, 48950), (52, 48635), (54, 48572), (55, 48554), (56, 48497), (59, 48413), (60, 48395), (85, 48011),

Gene: Phinky\_81 Start: 52756, Stop: 50837, Start Num: 13

Candidate Starts for Phinky\_81:

(Start: 13 @52756 has 4 MA's), (18, 52618), (21, 52567), (22, 52558), (23, 52540), (27, 52474), (29, 52435), (30, 52417), (31, 52408), (37, 52360), (39, 52306), (41, 52276), (47, 52141), (48, 52117), (53, 51922), (54, 51859), (57, 51838), (59, 51775), (61, 51739), (62, 51718), (72, 51568), (87, 51217), (89, 51175), (93, 51067), (95, 51022), (98, 50908),

Gene: Quammi\_69 Start: 49253, Stop: 47664, Start Num: 6

Candidate Starts for Quammi\_69:

(5, 49262), (Start: 6 @49253 has 14 MA's), (Start: 13 @49157 has 4 MA's), (18, 49019), (19, 49007), (20, 48986), (26, 48893), (29, 48836), (30, 48818), (38, 48734), (42, 48659), (43, 48650), (52, 48335), (54, 48272), (55, 48254), (56, 48197), (59, 48113), (60, 48095), (85, 47711),

Gene: Rasputia\_119 Start: 74845, Stop: 76920, Start Num: 12

Candidate Starts for Rasputia\_119:

(11, 74821), (Start: 12 @74845 has 2 MA's), (18, 75001), (20, 75034), (24, 75127), (34, 75370), (36, 75397), (41, 75592), (44, 75643), (51, 75931), (53, 75946), (54, 76009), (57, 76120), (61, 76219), (63, 76258), (64, 76267), (66, 76315), (71, 76393), (72, 76399), (73, 76426), (74, 76474), (75, 76492), (78, 76549), (79, 76552), (81, 76567), (82, 76594), (85, 76699), (91, 76843), (92, 76867),

Gene: RobinRose\_77 Start: 50176, Stop: 48260, Start Num: 7

Candidate Starts for RobinRose\_77:

(Start: 7 @50176 has 5 MA's), (Start: 13 @50086 has 4 MA's), (15, 50029), (16, 49987), (17, 49981), (22, 49891), (23, 49873), (25, 49768), (26, 49750), (29, 49693), (31, 49666), (32, 49657), (34, 49591), (39, 49489), (41, 49444), (47, 49309), (48, 49285), (49, 49255), (53, 49090), (54, 49027), (57, 48991), (61, 48892), (63, 48853), (70, 48742), (73, 48694), (78, 48571), (79, 48568), (83, 48478), (91, 48307),

Gene: Romm\_77 Start: 50173, Stop: 48257, Start Num: 7

Candidate Starts for Romm\_77:

(Start: 7 @50173 has 5 MA's), (Start: 13 @50083 has 4 MA's), (15, 50026), (16, 49984), (17, 49978), (22, 49888), (23, 49870), (25, 49765), (26, 49747), (29, 49690), (31, 49663), (32, 49654), (34, 49588), (39, 49486), (41, 49441), (47, 49306), (48, 49282), (49, 49252), (53, 49087), (54, 49024), (57, 48988), (61, 48889), (63, 48850), (70, 48739), (73, 48691), (78, 48568), (79, 48565), (83, 48475), (91, 48304),

Gene: Rudy\_68 Start: 49289, Stop: 47700, Start Num: 6

Candidate Starts for Rudy\_68:

(5, 49298), (Start: 6 @49289 has 14 MA's), (Start: 13 @49193 has 4 MA's), (18, 49055), (19, 49043), (20, 49022), (26, 48929), (29, 48872), (30, 48854), (38, 48770), (42, 48695), (43, 48686), (52, 48371), (54, 48308), (55, 48290), (56, 48233), (59, 48149), (60, 48131), (85, 47747),

Gene: Squash\_73 Start: 50224, Stop: 48638, Start Num: 6

Candidate Starts for Squash\_73:

(5, 50233), (Start: 6 @50224 has 14 MA's), (Start: 13 @50128 has 4 MA's), (18, 49993), (19, 49981), (20, 49960), (29, 49810), (30, 49792), (38, 49708), (42, 49633), (43, 49624), (52, 49309), (54, 49246), (55, 49228), (56, 49171), (59, 49087), (60, 49069), (71, 48961), (80, 48823),

Gene: StrawberryJamm\_75 Start: 49393, Stop: 47804, Start Num: 6

Candidate Starts for StrawberryJamm\_75:

(2, 49438), (Start: 3 @49429 has 1 MA's), (4, 49420), (5, 49402), (Start: 6 @49393 has 14 MA's), (Start: 13 @49297 has 4 MA's), (18, 49159), (19, 49147), (20, 49126), (26, 49033), (29, 48976), (30, 48958), (38, 48874), (42, 48799), (43, 48790), (52, 48475), (54, 48412), (55, 48394), (56, 48337), (59, 48253), (60, 48235), (71, 48127), (80, 47989),

Gene: Teehee\_71 Start: 50359, Stop: 48770, Start Num: 6

Candidate Starts for Teehee\_71:

(5, 50368), (Start: 6 @50359 has 14 MA's), (Start: 13 @50263 has 4 MA's), (18, 50125), (19, 50113), (20, 50092), (26, 49999), (29, 49942), (30, 49924), (38, 49840), (42, 49765), (43, 49756), (52, 49441), (54, 49378), (55, 49360), (56, 49303), (59, 49219), (60, 49201), (85, 48817),

Gene: Tempo\_76 Start: 50116, Stop: 48200, Start Num: 7

Candidate Starts for Tempo\_76:

(Start: 7 @50116 has 5 MA's), (Start: 13 @50026 has 4 MA's), (15, 49969), (16, 49927), (17, 49921), (22, 49831), (23, 49813), (24, 49765), (26, 49690), (30, 49615), (32, 49597), (33, 49579), (34, 49531), (39, 49429), (42, 49360), (45, 49315), (46, 49291), (47, 49249), (48, 49225), (49, 49195), (53, 49030), (54, 48967), (57, 48931), (61, 48832), (62, 48811), (67, 48718), (70, 48682), (73, 48634), (76, 48532), (78, 48511), (79, 48508), (91, 48247),

Gene: Wayne3\_72 Start: 50122, Stop: 48533, Start Num: 6

Candidate Starts for Wayne3\_72:

(5, 50131), (Start: 6 @50122 has 14 MA's), (Start: 13 @50026 has 4 MA's), (18, 49888), (19, 49876), (20, 49855), (26, 49762), (29, 49705), (30, 49687), (38, 49603), (42, 49528), (43, 49519), (52, 49204), (54, 49141), (55, 49123), (56, 49066), (59, 48982), (60, 48964), (85, 48580),

Gene: Wilca\_75 Start: 50055, Stop: 48313, Start Num: 7

Candidate Starts for Wilca\_75:

(1, 50307), (Start: 7 @50055 has 5 MA's), (8, 50016), (Start: 13 @49965 has 4 MA's), (14, 49926), (15, 49908), (16, 49866), (17, 49860), (21, 49779), (23, 49752), (25, 49722), (26, 49704), (32, 49611), (35, 49527), (36, 49518), (40, 49434), (44, 49362), (45, 49344), (47, 49278), (49, 49224), (51, 49074), (53, 49059), (57, 48975), (61, 48876), (70, 48801), (72, 48780), (73, 48753), (78, 48630), (81, 48612), (84, 48519), (85, 48489), (91, 48360),