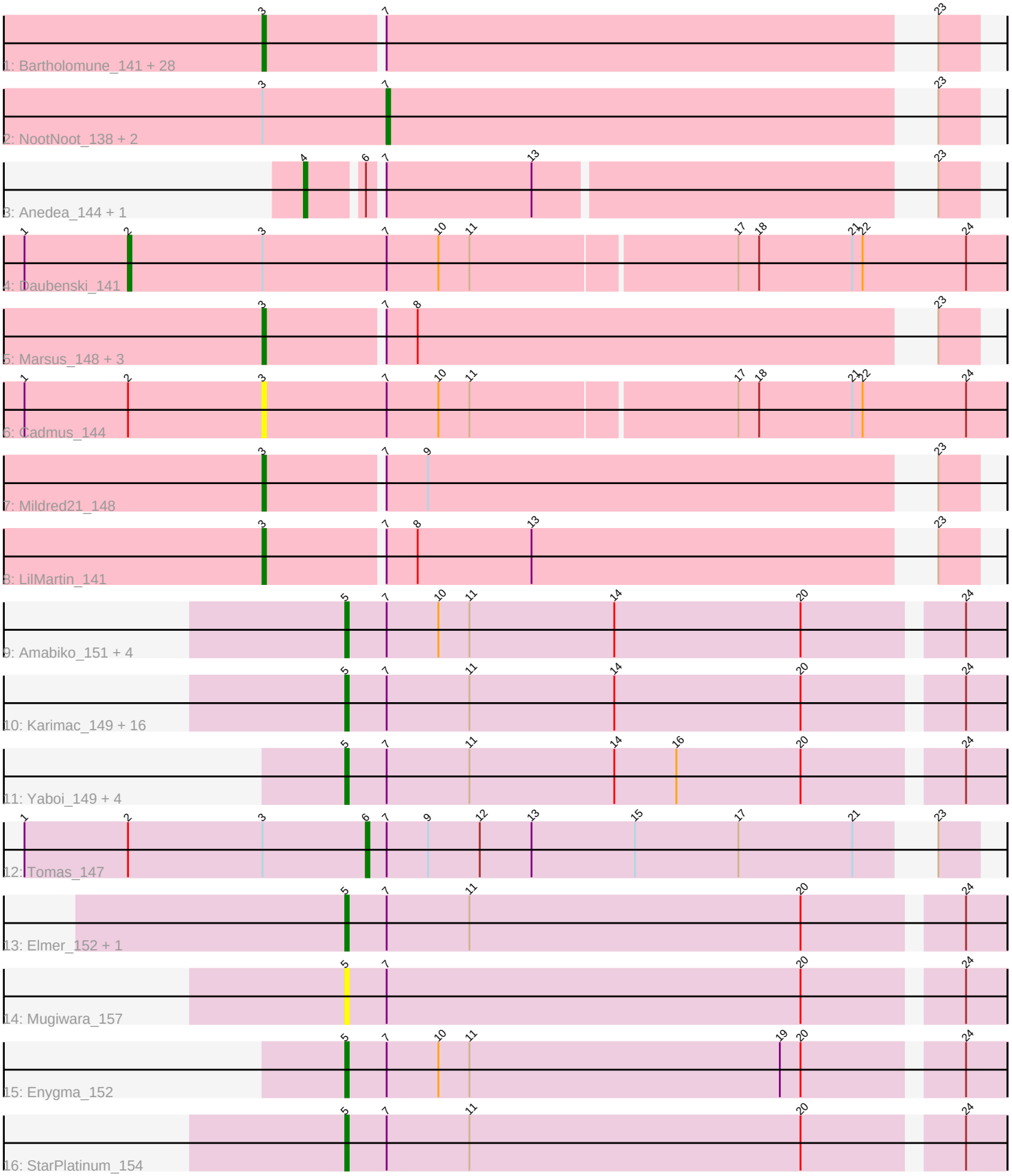
Pham 221384


1: Bartholomune_141 + 28
2: NootNoot_138 + 2
3: Anedea_144 + 1
4: Daubenski_141
5: Marsus_148 + 3
6: Cadmus_144
7: Mildred21_148
8: LilMartin_141
9: Amabiko_151 + 4
10: Karimac_149 + 16
11: Yaboi_149 + 4
12: Tomas_147
13: Elmer_152 + 1
14: Mugiwara_157
15: Enygma_152
16: StarPlatinum_154

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 221384 Report

This analysis was run 03/28/25 on database version 593.

Pham number 221384 has 75 members, 8 are drafts.

Phages represented in each track:
• Track 1 : Bartholomune_141, Samisti12_143, Teutsch_141, Watermoore_141, Cursive_140, Larnav_142, Scheme_143, Navo_140, HangryHippo_141, Braelyn_143, Pepperwood_141, WhereRU_141, PinkiePie_138, Warpy_145, Liandry_141, Paradiddles_137, BlueOtter_141, Tribute_141, Jay2Jay_146, Evy_138, EGole_144, Persimmon_142, Lululemon_141, PacManQ_141, Sushi23_142, Shuckle_143, Squillium_141, Targaryen_142, Leo04_143
• Track 2 : NootNoot_138, Cross_142, Peebs_139
• Track 3 : Anedea_144, Riptide_139
• Track 4 : Daubenski_141
• Track 5 : Marsus_148, Bmoc_145, Angela_143, MulchMansion_142
• Track 6 : Cadmus_144
• Track 7 : Mildred21_148
• Track 8 : LilMartin_141
• Track 9 : Amabiko_151, IchabodCrane_145, KentuckyRacer_153, MindFlayer_146, SaltySpitoon_150
• Track 10 : Karimac_149, PumpkinSpice_153, CeilingFan_151, Wipeout_145, Quaran19_150, Rikishi_155, Bordeaux_149, Spilled_154, Spelly_152, LukeCage_150, Gibbi_157, JimJam_155, Battuta_149, Birchlyn_149, Jollison_150, Starbow_148, TomSawyer_153
• Track 11 : Yaboi_149, Stanimal_147, BoomerJR_149, Genie2_149, Sollertia_148
• Track 12 : Tomas_147
• Track 13 : Elmer_152, Wofford_146
• Track 14 : Mugiwara_157
• Track 15 : Enygma_152
• Track 16 : StarPlatinum_154

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 32 of the 67 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Angela_143, Bartholomune_141, BlueOtter_141, Bmoc_145, Braelyn_143, Cadmus_144, Cursive_140, EGole_144, Evy_138, HangryHippo_141, Jay2Jay_146,

Larnav_142, Leo04_143, Liandry_141, LilMartin_141, Lululemon_141, Marsus_148, Mildred21_148, MulchMansion_142, Navo_140, PacManQ_141, Paradiddles_137, Pepperwood_141, Persimmon_142, PinkiePie_138, Samisti12_143, Scheme_143, Shuckle_143, Squillium_141, Sushi23_142, Targaryen_142, Teutsch_141, Tribute_141, Warpy_145, Watermoore_141, WhereRU_141,

Genes that have the "Most Annotated" start but do not call it:
• Cross_142, Daubenski_141, NootNoot_138, Peebs_139, Tomas_147,

Genes that do not have the "Most Annotated" start:
• Amabiko_151, Anedea_144, Battuta_149, Birchlyn_149, BoomerJR_149, Bordeaux_149, CeilingFan_151, Elmer_152, Enygma_152, Genie2_149, Gibbi_157, IchabodCrane_145, JimJam_155, Jollison_150, Karimac_149, KentuckyRacer_153, LukeCage_150, MindFlayer_146, Mugiwara_157, PumpkinSpice_153, Quaran19_150, Rikishi_155, Riptide_139, SaltySpitoon_150, Sollertia_148, Spelly_152, Spilled_154, Stanimal_147, StarPlatinum_154, Starbow_148, TomSawyer_153, Wipeout_145, Wofford_146, Yaboi_149,

Summary by start number:

Start 2:
• Found in 3 of 75 (4.0%) of genes in pham
• Manual Annotations of this start: 1 of 67
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Daubenski_141 (BE1),

Start 3:
• Found in 41 of 75 (54.7%) of genes in pham
• Manual Annotations of this start: 32 of 67
• Called 87.8% of time when present
• Phage (with cluster) where this start called: Angela_143 (BE1), Bartholomune_141 (BE1), BlueOtter_141 (BE1), Bmoc_145 (BE1), Braelyn_143 (BE1), Cadmus_144 (BE1), Cursive_140 (BE1), EGole_144 (BE1), Evy_138 (BE1), HangryHippo_141 (BE1), Jay2Jay_146 (BE1), Larnav_142 (BE1), Leo04_143 (BE1), Liandry_141 (BE1), LilMartin_141 (BE1), Lululemon_141 (BE1), Marsus_148 (BE1), Mildred21_148 (BE1), MulchMansion_142 (BE1), Navo_140 (BE1), PacManQ_141 (BE1), Paradiddles_137 (BE1), Pepperwood_141 (BE1), Persimmon_142 (BE1), PinkiePie_138 (BE1), Samisti12_143 (BE1), Scheme_143 (BE1), Shuckle_143 (BE1), Squillium_141 (BE1), Sushi23_142 (BE1), Targaryen_142 (BE1), Teutsch_141 (BE1), Tribute_141 (BE1), Warpy_145 (BE1), Watermoore_141 (BE1), WhereRU_141 (BE1),

Start 4:
• Found in 2 of 75 (2.7%) of genes in pham
• Manual Annotations of this start: 1 of 67
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Anedea_144 (BE1), Riptide_139 (BE1),

Start 5:
• Found in 32 of 75 (42.7%) of genes in pham
• Manual Annotations of this start: 29 of 67
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Amabiko_151 (BE2), Battuta_149 (BE2), Birchlyn_149 (BE2), BoomerJR_149 (BE2), Bordeaux_149 (BE2), CeilingFan_151

(BE2), Elmer_152 (BE2), Enygma_152 (BE2), Genie2_149 (BE2), Gibbi_157 (BE2), IchabodCrane_145 (BE2), JimJam_155 (BE2), Jollison_150 (BE2), Karimac_149 (BE2), KentuckyRacer_153 (BE2), LukeCage_150 (BE2), MindFlayer_146 (BE2), Mugiwara_157 (BE2), PumpkinSpice_153 (BE2), Quaran19_150 (BE2), Rikishi_155 (BE2), SaltySpitoon_150 (BE2), Sollertia_148 (BE2), Spelly_152 (BE2), Spilled_154 (BE2), Stanimal_147 (BE2), StarPlatinum_154 (BE2), Starbow_148 (BE2), TomSawyer_153 (BE2), Wipeout_145 (BE2), Wofford_146 (BE2), Yaboi_149 (BE2),

Start 6:
• Found in 3 of 75 (4.0%) of genes in pham
• Manual Annotations of this start: 1 of 67
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Tomas_147 (BE2),

Start 7:
• Found in 75 of 75 (100.0%) of genes in pham
• Manual Annotations of this start: 3 of 67
• Called 4.0% of time when present
• Phage (with cluster) where this start called: Cross_142 (BE1), NootNoot_138 (BE1), Peebs_139 (BE1),

Summary by clusters:

There are 2 clusters represented in this pham: BE2, BE1,

Info for manual annotations of cluster BE1:
•Start number 2 was manually annotated 1 time for cluster BE1.
•Start number 3 was manually annotated 32 times for cluster BE1.
•Start number 4 was manually annotated 1 time for cluster BE1.
•Start number 7 was manually annotated 3 times for cluster BE1.

Info for manual annotations of cluster BE2:
•Start number 5 was manually annotated 29 times for cluster BE2.
•Start number 6 was manually annotated 1 time for cluster BE2.

Gene Information:

Gene: Amabiko_151 Start: 86830, Stop: 87015, Start Num: 5
Candidate Starts for Amabiko_151:
(Start: 5 @86830 has 29 MA's), (Start: 7 @86842 has 3 MA's), (10, 86857), (11, 86866), (14, 86908), (20, 86962), (24, 87004),

Gene: Anedea_144 Start: 85975, Stop: 86148, Start Num: 4
Candidate Starts for Anedea_144:
(Start: 4 @85975 has 1 MA's), (Start: 6 @85990 has 1 MA's), (Start: 7 @85993 has 3 MA's), (13, 86035), (23, 86137),

Gene: Angela_143 Start: 86190, Stop: 86381, Start Num: 3
Candidate Starts for Angela_143:
(Start: 3 @86190 has 32 MA's), (Start: 7 @86223 has 3 MA's), (8, 86232), (23, 86370),

Gene: Bartholomune_141 Start: 85828, Stop: 86019, Start Num: 3
Candidate Starts for Bartholomune_141:
(Start: 3 @85828 has 32 MA's), (Start: 7 @85861 has 3 MA's), (23, 86008),

Gene: Battuta_149 Start: 86804, Stop: 86989, Start Num: 5
Candidate Starts for Battuta_149:
(Start: 5 @86804 has 29 MA's), (Start: 7 @86816 has 3 MA's), (11, 86840), (14, 86882), (20, 86936), (24, 86978),

Gene: Birchlyn_149 Start: 84690, Stop: 84875, Start Num: 5
Candidate Starts for Birchlyn_149:
(Start: 5 @84690 has 29 MA's), (Start: 7 @84702 has 3 MA's), (11, 84726), (14, 84768), (20, 84822), (24, 84864),

Gene: BlueOtter_141 Start: 87782, Stop: 87973, Start Num: 3
Candidate Starts for BlueOtter_141:
(Start: 3 @87782 has 32 MA's), (Start: 7 @87815 has 3 MA's), (23, 87962),

Gene: Bmoc_145 Start: 86466, Stop: 86657, Start Num: 3
Candidate Starts for Bmoc_145:
(Start: 3 @86466 has 32 MA's), (Start: 7 @86499 has 3 MA's), (8, 86508), (23, 86646),

Gene: BoomerJR_149 Start: 87208, Stop: 87393, Start Num: 5
Candidate Starts for BoomerJR_149:
(Start: 5 @87208 has 29 MA's), (Start: 7 @87220 has 3 MA's), (11, 87244), (14, 87286), (16, 87304), (20, 87340), (24, 87382),

Gene: Bordeaux_149 Start: 86959, Stop: 87144, Start Num: 5
Candidate Starts for Bordeaux_149:
(Start: 5 @86959 has 29 MA's), (Start: 7 @86971 has 3 MA's), (11, 86995), (14, 87037), (20, 87091), (24, 87133),

Gene: Braelyn_143 Start: 86851, Stop: 87042, Start Num: 3
Candidate Starts for Braelyn_143:
(Start: 3 @86851 has 32 MA's), (Start: 7 @86884 has 3 MA's), (23, 87031),

Gene: Cadmus_144 Start: 86246, Stop: 86458, Start Num: 3
Candidate Starts for Cadmus_144:
(1, 86177), (Start: 2 @86207 has 1 MA's), (Start: 3 @86246 has 32 MA's), (Start: 7 @86282 has 3 MA's), (10, 86297), (11, 86306), (17, 86381), (18, 86387), (21, 86414), (22, 86417), (24, 86447),

Gene: CeilingFan_151 Start: 87336, Stop: 87521, Start Num: 5
Candidate Starts for CeilingFan_151:
(Start: 5 @87336 has 29 MA's), (Start: 7 @87348 has 3 MA's), (11, 87372), (14, 87414), (20, 87468), (24, 87510),

Gene: Cross_142 Start: 87816, Stop: 87974, Start Num: 7
Candidate Starts for Cross_142:
(Start: 3 @87783 has 32 MA's), (Start: 7 @87816 has 3 MA's), (23, 87963),

Gene: Cursive_140 Start: 85992, Stop: 86183, Start Num: 3
Candidate Starts for Cursive_140:
(Start: 3 @85992 has 32 MA's), (Start: 7 @86025 has 3 MA's), (23, 86172),

Gene: Daubenski_141 Start: 87444, Stop: 87695, Start Num: 2
Candidate Starts for Daubenski_141:
(1, 87414), (Start: 2 @87444 has 1 MA's), (Start: 3 @87483 has 32 MA's), (Start: 7 @87519 has 3 MA's), (10, 87534), (11, 87543), (17, 87618), (18, 87624), (21, 87651), (22, 87654), (24, 87684),

Gene: EGole_144 Start: 89055, Stop: 89246, Start Num: 3
Candidate Starts for EGole_144:
(Start: 3 @89055 has 32 MA's), (Start: 7 @89088 has 3 MA's), (23, 89235),

Gene: Elmer_152 Start: 89832, Stop: 90017, Start Num: 5
Candidate Starts for Elmer_152:
(Start: 5 @89832 has 29 MA's), (Start: 7 @89844 has 3 MA's), (11, 89868), (20, 89964), (24, 90006),

Gene: Enygma_152 Start: 89082, Stop: 89267, Start Num: 5
Candidate Starts for Enygma_152:
(Start: 5 @89082 has 29 MA's), (Start: 7 @89094 has 3 MA's), (10, 89109), (11, 89118), (19, 89208), (20, 89214), (24, 89256),

Gene: Evy_138 Start: 87688, Stop: 87879, Start Num: 3
Candidate Starts for Evy_138:
(Start: 3 @87688 has 32 MA's), (Start: 7 @87721 has 3 MA's), (23, 87868),

Gene: Genie2_149 Start: 87322, Stop: 87507, Start Num: 5
Candidate Starts for Genie2_149:
(Start: 5 @87322 has 29 MA's), (Start: 7 @87334 has 3 MA's), (11, 87358), (14, 87400), (16, 87418), (20, 87454), (24, 87496),

Gene: Gibbi_157 Start: 87400, Stop: 87585, Start Num: 5
Candidate Starts for Gibbi_157:
(Start: 5 @87400 has 29 MA's), (Start: 7 @87412 has 3 MA's), (11, 87436), (14, 87478), (20, 87532), (24, 87574),

Gene: HangryHippo_141 Start: 87782, Stop: 87973, Start Num: 3
Candidate Starts for HangryHippo_141:
(Start: 3 @87782 has 32 MA's), (Start: 7 @87815 has 3 MA's), (23, 87962),

Gene: IchabodCrane_145 Start: 86531, Stop: 86716, Start Num: 5
Candidate Starts for IchabodCrane_145:
(Start: 5 @86531 has 29 MA's), (Start: 7 @86543 has 3 MA's), (10, 86558), (11, 86567), (14, 86609), (20, 86663), (24, 86705),

Gene: Jay2Jay_146 Start: 88683, Stop: 88874, Start Num: 3
Candidate Starts for Jay2Jay_146:
(Start: 3 @88683 has 32 MA's), (Start: 7 @88716 has 3 MA's), (23, 88863),

Gene: JimJam_155 Start: 88166, Stop: 88351, Start Num: 5
Candidate Starts for JimJam_155:
(Start: 5 @88166 has 29 MA's), (Start: 7 @88178 has 3 MA's), (11, 88202), (14, 88244), (20, 88298), (24, 88340),

Gene: Jollison_150 Start: 87244, Stop: 87429, Start Num: 5
Candidate Starts for Jollison_150:

(Start: 5 @87244 has 29 MA's), (Start: 7 @87256 has 3 MA's), (11, 87280), (14, 87322), (20, 87376), (24, 87418),

Gene: Karimac_149 Start: 87070, Stop: 87255, Start Num: 5
Candidate Starts for Karimac_149:
(Start: 5 @87070 has 29 MA's), (Start: 7 @87082 has 3 MA's), (11, 87106), (14, 87148), (20, 87202), (24, 87244),

Gene: KentuckyRacer_153 Start: 87832, Stop: 88017, Start Num: 5
Candidate Starts for KentuckyRacer_153:
(Start: 5 @87832 has 29 MA's), (Start: 7 @87844 has 3 MA's), (10, 87859), (11, 87868), (14, 87910), (20, 87964), (24, 88006),

Gene: Larnav_142 Start: 87766, Stop: 87957, Start Num: 3
Candidate Starts for Larnav_142:
(Start: 3 @87766 has 32 MA's), (Start: 7 @87799 has 3 MA's), (23, 87946),

Gene: Leo04_143 Start: 88282, Stop: 88473, Start Num: 3
Candidate Starts for Leo04_143:
(Start: 3 @88282 has 32 MA's), (Start: 7 @88315 has 3 MA's), (23, 88462),

Gene: Liandry_141 Start: 86571, Stop: 86762, Start Num: 3
Candidate Starts for Liandry_141:
(Start: 3 @86571 has 32 MA's), (Start: 7 @86604 has 3 MA's), (23, 86751),

Gene: LilMartin_141 Start: 85840, Stop: 86031, Start Num: 3
Candidate Starts for LilMartin_141:
(Start: 3 @85840 has 32 MA's), (Start: 7 @85873 has 3 MA's), (8, 85882), (13, 85915), (23, 86020),

Gene: LukeCage_150 Start: 88192, Stop: 88377, Start Num: 5
Candidate Starts for LukeCage_150:
(Start: 5 @88192 has 29 MA's), (Start: 7 @88204 has 3 MA's), (11, 88228), (14, 88270), (20, 88324), (24, 88366),

Gene: Lululemon_141 Start: 87163, Stop: 87354, Start Num: 3
Candidate Starts for Lululemon_141:
(Start: 3 @87163 has 32 MA's), (Start: 7 @87196 has 3 MA's), (23, 87343),

Gene: Marsus_148 Start: 86115, Stop: 86306, Start Num: 3
Candidate Starts for Marsus_148:
(Start: 3 @86115 has 32 MA's), (Start: 7 @86148 has 3 MA's), (8, 86157), (23, 86295),

Gene: Mildred21_148 Start: 86537, Stop: 86728, Start Num: 3
Candidate Starts for Mildred21_148:
(Start: 3 @86537 has 32 MA's), (Start: 7 @86570 has 3 MA's), (9, 86582), (23, 86717),

Gene: MindFlayer_146 Start: 86438, Stop: 86623, Start Num: 5
Candidate Starts for MindFlayer_146:
(Start: 5 @86438 has 29 MA's), (Start: 7 @86450 has 3 MA's), (10, 86465), (11, 86474), (14, 86516), (20, 86570), (24, 86612),

Gene: Mugiwara_157 Start: 87969, Stop: 88154, Start Num: 5
Candidate Starts for Mugiwara_157:

(Start: 5 @87969 has 29 MA's), (Start: 7 @87981 has 3 MA's), (20, 88101), (24, 88143),

Gene: MulchMansion_142 Start: 86138, Stop: 86329, Start Num: 3
Candidate Starts for MulchMansion_142:
(Start: 3 @86138 has 32 MA's), (Start: 7 @86171 has 3 MA's), (8, 86180), (23, 86318),

Gene: Navo_140 Start: 86361, Stop: 86552, Start Num: 3
Candidate Starts for Navo_140:
(Start: 3 @86361 has 32 MA's), (Start: 7 @86394 has 3 MA's), (23, 86541),

Gene: NootNoot_138 Start: 85503, Stop: 85661, Start Num: 7
Candidate Starts for NootNoot_138:
(Start: 3 @85470 has 32 MA's), (Start: 7 @85503 has 3 MA's), (23, 85650),

Gene: PacManQ_141 Start: 87163, Stop: 87354, Start Num: 3
Candidate Starts for PacManQ_141:
(Start: 3 @87163 has 32 MA's), (Start: 7 @87196 has 3 MA's), (23, 87343),

Gene: Paradiddles_137 Start: 87768, Stop: 87959, Start Num: 3
Candidate Starts for Paradiddles_137:
(Start: 3 @87768 has 32 MA's), (Start: 7 @87801 has 3 MA's), (23, 87948),

Gene: Peebs_139 Start: 87503, Stop: 87661, Start Num: 7
Candidate Starts for Peebs_139:
(Start: 3 @87470 has 32 MA's), (Start: 7 @87503 has 3 MA's), (23, 87650),

Gene: Pepperwood_141 Start: 87602, Stop: 87793, Start Num: 3
Candidate Starts for Pepperwood_141:
(Start: 3 @87602 has 32 MA's), (Start: 7 @87635 has 3 MA's), (23, 87782),

Gene: Persimmon_142 Start: 85751, Stop: 85942, Start Num: 3
Candidate Starts for Persimmon_142:
(Start: 3 @85751 has 32 MA's), (Start: 7 @85784 has 3 MA's), (23, 85931),

Gene: PinkiePie_138 Start: 86571, Stop: 86762, Start Num: 3
Candidate Starts for PinkiePie_138:
(Start: 3 @86571 has 32 MA's), (Start: 7 @86604 has 3 MA's), (23, 86751),

Gene: PumpkinSpice_153 Start: 87852, Stop: 88037, Start Num: 5
Candidate Starts for PumpkinSpice_153:
(Start: 5 @87852 has 29 MA's), (Start: 7 @87864 has 3 MA's), (11, 87888), (14, 87930), (20, 87984), (24, 88026),

Gene: Quaran19_150 Start: 86820, Stop: 87005, Start Num: 5
Candidate Starts for Quaran19_150:
(Start: 5 @86820 has 29 MA's), (Start: 7 @86832 has 3 MA's), (11, 86856), (14, 86898), (20, 86952), (24, 86994),

Gene: Rikishi_155 Start: 87194, Stop: 87379, Start Num: 5
Candidate Starts for Rikishi_155:
(Start: 5 @87194 has 29 MA's), (Start: 7 @87206 has 3 MA's), (11, 87230), (14, 87272), (20, 87326), (24, 87368),

Gene: Riptide_139 Start: 84607, Stop: 84780, Start Num: 4
Candidate Starts for Riptide_139:
(Start: 4 @84607 has 1 MA's), (Start: 6 @84622 has 1 MA's), (Start: 7 @84625 has 3 MA's), (13, 84667), (23, 84769),

Gene: SaltySpitoon_150 Start: 86833, Stop: 87018, Start Num: 5
Candidate Starts for SaltySpitoon_150:
(Start: 5 @86833 has 29 MA's), (Start: 7 @86845 has 3 MA's), (10, 86860), (11, 86869), (14, 86911), (20, 86965), (24, 87007),

Gene: Samisti12_143 Start: 88854, Stop: 89045, Start Num: 3
Candidate Starts for Samisti12_143:
(Start: 3 @88854 has 32 MA's), (Start: 7 @88887 has 3 MA's), (23, 89034),

Gene: Scheme_143 Start: 88364, Stop: 88555, Start Num: 3
Candidate Starts for Scheme_143:
(Start: 3 @88364 has 32 MA's), (Start: 7 @88397 has 3 MA's), (23, 88544),

Gene: Shuckle_143 Start: 86990, Stop: 87181, Start Num: 3
Candidate Starts for Shuckle_143:
(Start: 3 @86990 has 32 MA's), (Start: 7 @87023 has 3 MA's), (23, 87170),

Gene: Sollertia_148 Start: 87322, Stop: 87507, Start Num: 5
Candidate Starts for Sollertia_148:
(Start: 5 @87322 has 29 MA's), (Start: 7 @87334 has 3 MA's), (11, 87358), (14, 87400), (16, 87418), (20, 87454), (24, 87496),

Gene: Spelly_152 Start: 86785, Stop: 86970, Start Num: 5
Candidate Starts for Spelly_152:
(Start: 5 @86785 has 29 MA's), (Start: 7 @86797 has 3 MA's), (11, 86821), (14, 86863), (20, 86917), (24, 86959),

Gene: Spilled_154 Start: 87361, Stop: 87546, Start Num: 5
Candidate Starts for Spilled_154:
(Start: 5 @87361 has 29 MA's), (Start: 7 @87373 has 3 MA's), (11, 87397), (14, 87439), (20, 87493), (24, 87535),

Gene: Squillium_141 Start: 86573, Stop: 86764, Start Num: 3
Candidate Starts for Squillium_141:
(Start: 3 @86573 has 32 MA's), (Start: 7 @86606 has 3 MA's), (23, 86753),

Gene: Stanimal_147 Start: 87211, Stop: 87396, Start Num: 5
Candidate Starts for Stanimal_147:
(Start: 5 @87211 has 29 MA's), (Start: 7 @87223 has 3 MA's), (11, 87247), (14, 87289), (16, 87307), (20, 87343), (24, 87385),

Gene: StarPlatinum_154 Start: 88732, Stop: 88917, Start Num: 5
Candidate Starts for StarPlatinum_154:
(Start: 5 @88732 has 29 MA's), (Start: 7 @88744 has 3 MA's), (11, 88768), (20, 88864), (24, 88906),

Gene: Starbow_148 Start: 86806, Stop: 86991, Start Num: 5
Candidate Starts for Starbow_148:

(Start: 5 @86806 has 29 MA's), (Start: 7 @86818 has 3 MA's), (11, 86842), (14, 86884), (20, 86938), (24, 86980),

Gene: Sushi23_142 Start: 87828, Stop: 88019, Start Num: 3
Candidate Starts for Sushi23_142:
(Start: 3 @87828 has 32 MA's), (Start: 7 @87861 has 3 MA's), (23, 88008),

Gene: Targaryen_142 Start: 88823, Stop: 89014, Start Num: 3
Candidate Starts for Targaryen_142:
(Start: 3 @88823 has 32 MA's), (Start: 7 @88856 has 3 MA's), (23, 89003),

Gene: Teutsch_141 Start: 88140, Stop: 88331, Start Num: 3
Candidate Starts for Teutsch_141:
(Start: 3 @88140 has 32 MA's), (Start: 7 @88173 has 3 MA's), (23, 88320),

Gene: TomSawyer_153 Start: 87826, Stop: 88011, Start Num: 5
Candidate Starts for TomSawyer_153:
(Start: 5 @87826 has 29 MA's), (Start: 7 @87838 has 3 MA's), (11, 87862), (14, 87904), (20, 87958), (24, 88000),

Gene: Tomas_147 Start: 88938, Stop: 89102, Start Num: 6
Candidate Starts for Tomas_147:
(1, 88839), (Start: 2 @88869 has 1 MA's), (Start: 3 @88908 has 32 MA's), (Start: 6 @88938 has 1 MA's), (Start: 7 @88944 has 3 MA's), (9, 88956), (12, 88971), (13, 88986), (15, 89016), (17, 89046), (21, 89079), (23, 89091),

Gene: Tribute_141 Start: 87986, Stop: 88177, Start Num: 3
Candidate Starts for Tribute_141:
(Start: 3 @87986 has 32 MA's), (Start: 7 @88019 has 3 MA's), (23, 88166),

Gene: Warpy_145 Start: 88340, Stop: 88531, Start Num: 3
Candidate Starts for Warpy_145:
(Start: 3 @88340 has 32 MA's), (Start: 7 @88373 has 3 MA's), (23, 88520),

Gene: Watermoore_141 Start: 88354, Stop: 88545, Start Num: 3
Candidate Starts for Watermoore_141:
(Start: 3 @88354 has 32 MA's), (Start: 7 @88387 has 3 MA's), (23, 88534),

Gene: WhereRU_141 Start: 86503, Stop: 86694, Start Num: 3
Candidate Starts for WhereRU_141:
(Start: 3 @86503 has 32 MA's), (Start: 7 @86536 has 3 MA's), (23, 86683),

Gene: Wipeout_145 Start: 87633, Stop: 87818, Start Num: 5
Candidate Starts for Wipeout_145:
(Start: 5 @87633 has 29 MA's), (Start: 7 @87645 has 3 MA's), (11, 87669), (14, 87711), (20, 87765), (24, 87807),

Gene: Wofford_146 Start: 89346, Stop: 89531, Start Num: 5
Candidate Starts for Wofford_146:
(Start: 5 @89346 has 29 MA's), (Start: 7 @89358 has 3 MA's), (11, 89382), (20, 89478), (24, 89520),

Gene: Yaboi_149 Start: 86784, Stop: 86969, Start Num: 5
Candidate Starts for Yaboi_149:

(Start: 5 @86784 has 29 MA's), (Start: 7 @86796 has 3 MA's), (11, 86820), (14, 86862), (16, 86880), (20, 86916), (24, 86958),