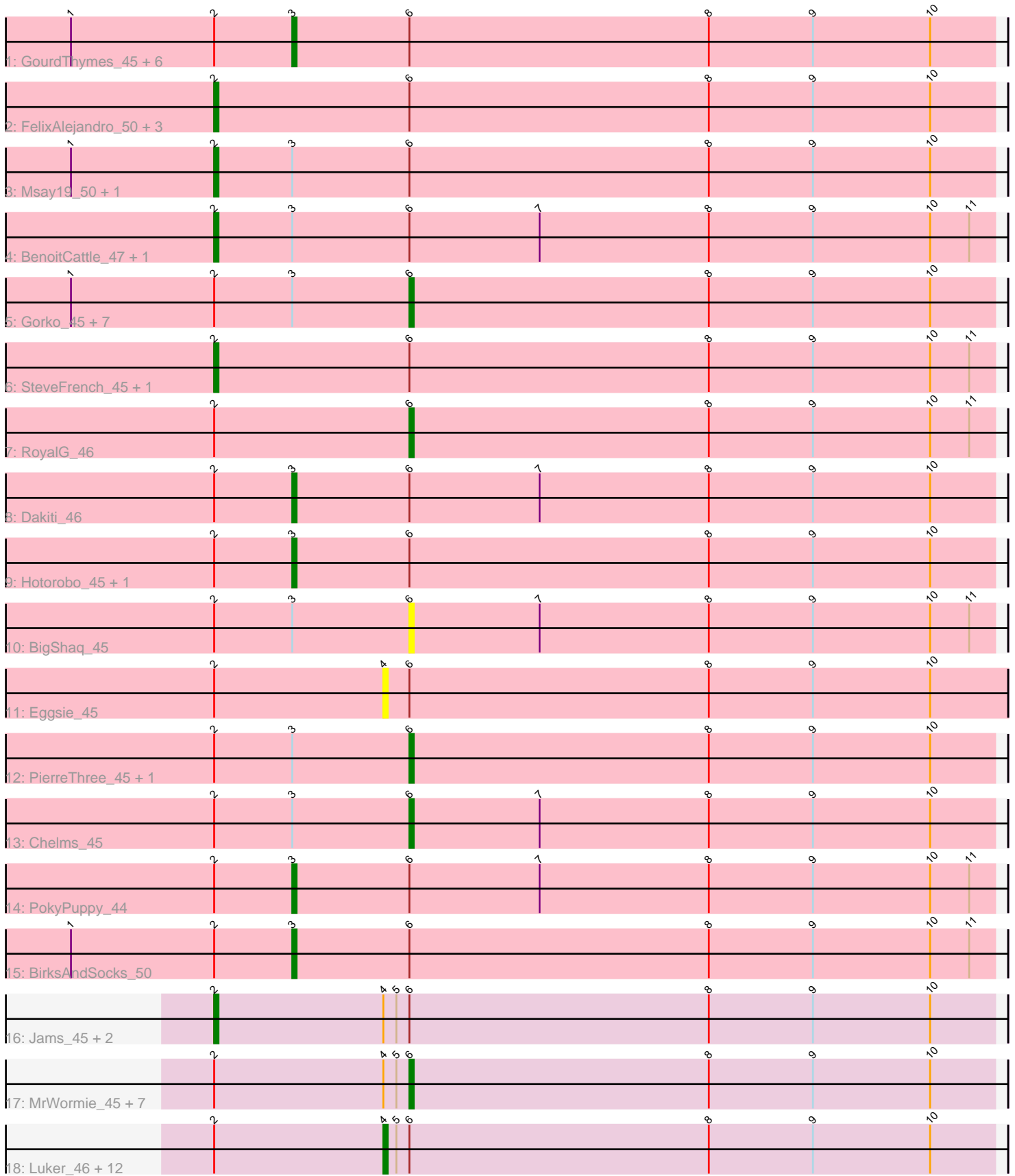


Pham 1733



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 1733 Report

This analysis was run 04/28/24 on database version 559.

Pham number 1733 has 60 members, 10 are drafts.

Phages represented in each track:

- Track 1 : GourdThymes_45, Lizzo_45, Monty_44, Breezic_45, Flakey_45, Jellybones_48, John316_49
- Track 2 : FelixAlejandro_50, Sombrero_46, Butterball_49, Boneham_49
- Track 3 : Msay19_50, Beaver_49
- Track 4 : BenoitCattle_47, Linetti_46
- Track 5 : Gorko_45, Ekhein_46, Squibbles_45, CathyBurgh_45, Poland_52, Barbochs_46, RemRem_46, Adgers_47
- Track 6 : SteveFrench_45, Diabla_49
- Track 7 : RoyalG_46
- Track 8 : Dakiti_46
- Track 9 : Hotorobo_45, Sam12_45
- Track 10 : BigShaq_45
- Track 11 : Eggsie_45
- Track 12 : PierreThree_45, Exiguo_45
- Track 13 : Chelms_45
- Track 14 : PokyPuppy_44
- Track 15 : BirksAndSocks_50
- Track 16 : Jams_45, Bianmat_45, Minos_46
- Track 17 : MrWormie_45, Hail2Pitt_44, Kaseim_45, Lidong_45, Shelley_45, Woes_45, Teal_45, Newt_46
- Track 18 : Luker_46, Lahirium_45, Charianelly_44, Sticker17_45, Jormungandr_45, Nimi13_45, Hello_45, Anamika_45, GalacticEye_45, Berries_45, Neoevie_45, Guillaume_45, Harambe_45

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 15 of the 50 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adgers_47, Barbochs_46, BigShaq_45, CathyBurgh_45, Chelms_45, Ekhein_46, Exiguo_45, Gorko_45, Hail2Pitt_44, Kaseim_45, Lidong_45, MrWormie_45, Newt_46, PierreThree_45, Poland_52, RemRem_46, RoyalG_46, Shelley_45, Squibbles_45, Teal_45, Woes_45,

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

- Anamika_45, Beaver_49, BenoitCattle_47, Berries_45, Bianmat_45, BirksAndSocks_50, Boneham_49, Breezic_45, Butterball_49, Charianelly_44, Dakiti_46, Diabla_49, Eggsie_45, FelixAlejandro_50, Flakey_45, GalacticEye_45, GourdThymes_45, Guillaume_45, Harambe_45, Hello_45, Hotorobo_45, Jams_45, Jellybones_48, John316_49, Jormungandr_45, Lahirium_45, Linetti_46, Lizzo_45, Luker_46, Minos_46, Monty_44, Msay19_50, Neoevie_45, Nimi13_45, PokyPuppy_44, Sam12_45, Sombrero_46, SteveFrench_45, Sticker17_45,

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

-

Summary by start number:

Start 2:

- Found in 60 of 60 (100.0%) of genes in pham
- Manual Annotations of this start: 12 of 50
- Called 21.7% of time when present
- Phage (with cluster) where this start called: Beaver_49 (CS2), BenoitCattle_47 (CS2), Bianmat_45 (CS3), Boneham_49 (CS2), Butterball_49 (CS2), Diabla_49 (CS2), FelixAlejandro_50 (CS2), Jams_45 (CS3), Linetti_46 (CS2), Minos_46 (CS3), Msay19_50 (CS2), Sombrero_46 (CS2), SteveFrench_45 (CS2),

Start 3:

- Found in 28 of 60 (46.7%) of genes in pham
- Manual Annotations of this start: 12 of 50
- Called 42.9% of time when present
- Phage (with cluster) where this start called: BirksAndSocks_50 (CS2), Breezic_45 (CS2), Dakiti_46 (CS2), Flakey_45 (CS2), GourdThymes_45 (CS2), Hotorobo_45 (CS2), Jellybones_48 (CS2), John316_49 (CS2), Lizzo_45 (CS2), Monty_44 (CS2), PokyPuppy_44 (CS2), Sam12_45 (CS2),

Start 4:

- Found in 25 of 60 (41.7%) of genes in pham
- Manual Annotations of this start: 11 of 50
- Called 56.0% of time when present
- Phage (with cluster) where this start called: Anamika_45 (CS3), Berries_45 (CS3), Charianelly_44 (CS3), Eggsie_45 (CS2), GalacticEye_45 (CS3), Guillaume_45 (CS3), Harambe_45 (CS3), Hello_45 (CS3), Jormungandr_45 (CS3), Lahirium_45 (CS3), Luker_46 (CS3), Neoevie_45 (CS3), Nimi13_45 (CS3), Sticker17_45 (CS3),

Start 6:

- Found in 60 of 60 (100.0%) of genes in pham
- Manual Annotations of this start: 15 of 50
- Called 35.0% of time when present
- Phage (with cluster) where this start called: Adgers_47 (CS2), Barbochs_46 (CS2), BigShaq_45 (CS2), CathyBurgh_45 (CS2), Chelms_45 (CS2), Ekhein_46 (CS2), Exiguo_45 (CS2), Gorko_45 (CS2), Hail2Pitt_44 (CS3), Kaseim_45 (CS3), Lidong_45 (CS3), MrWormie_45 (CS3), Newt_46 (CS3), PierreThree_45 (CS2), Poland_52 (CS2), RemRem_46 (CS2), RoyalG_46 (CS2), Shelley_45 (CS3), Squibbles_45 (CS2), Teal_45 (CS3), Woes_45 (CS3),

Summary by clusters:

There are 2 clusters represented in this pham: CS3, CS2,

Info for manual annotations of cluster CS2:

- Start number 2 was manually annotated 9 times for cluster CS2.
- Start number 3 was manually annotated 12 times for cluster CS2.
- Start number 6 was manually annotated 8 times for cluster CS2.

Info for manual annotations of cluster CS3:

- Start number 2 was manually annotated 3 times for cluster CS3.
- Start number 4 was manually annotated 11 times for cluster CS3.
- Start number 6 was manually annotated 7 times for cluster CS3.

Gene Information:

Gene: Adgers_47 Start: 44052, Stop: 43918, Start Num: 6

Candidate Starts for Adgers_47:

(1, 44130), (Start: 2 @44097 has 12 MA's), (Start: 3 @44079 has 12 MA's), (Start: 6 @44052 has 15 MA's), (8, 43983), (9, 43959), (10, 43932),

Gene: Anamika_45 Start: 45963, Stop: 45823, Start Num: 4

Candidate Starts for Anamika_45:

(Start: 2 @46002 has 12 MA's), (Start: 4 @45963 has 11 MA's), (5, 45960), (Start: 6 @45957 has 15 MA's), (8, 45888), (9, 45864), (10, 45837),

Gene: Barbochs_46 Start: 43796, Stop: 43662, Start Num: 6

Candidate Starts for Barbochs_46:

(1, 43874), (Start: 2 @43841 has 12 MA's), (Start: 3 @43823 has 12 MA's), (Start: 6 @43796 has 15 MA's), (8, 43727), (9, 43703), (10, 43676),

Gene: Beaver_49 Start: 45611, Stop: 45432, Start Num: 2

Candidate Starts for Beaver_49:

(1, 45644), (Start: 2 @45611 has 12 MA's), (Start: 3 @45593 has 12 MA's), (Start: 6 @45566 has 15 MA's), (8, 45497), (9, 45473), (10, 45446),

Gene: BenoitCattle_47 Start: 44041, Stop: 43862, Start Num: 2

Candidate Starts for BenoitCattle_47:

(Start: 2 @44041 has 12 MA's), (Start: 3 @44023 has 12 MA's), (Start: 6 @43996 has 15 MA's), (7, 43966), (8, 43927), (9, 43903), (10, 43876), (11, 43867),

Gene: Berries_45 Start: 45934, Stop: 45794, Start Num: 4

Candidate Starts for Berries_45:

(Start: 2 @45973 has 12 MA's), (Start: 4 @45934 has 11 MA's), (5, 45931), (Start: 6 @45928 has 15 MA's), (8, 45859), (9, 45835), (10, 45808),

Gene: Bianmat_45 Start: 46013, Stop: 45834, Start Num: 2

Candidate Starts for Bianmat_45:

(Start: 2 @46013 has 12 MA's), (Start: 4 @45974 has 11 MA's), (5, 45971), (Start: 6 @45968 has 15 MA's), (8, 45899), (9, 45875), (10, 45848),

Gene: BigShaq_45 Start: 44001, Stop: 43867, Start Num: 6

Candidate Starts for BigShaq_45:

(Start: 2 @44046 has 12 MA's), (Start: 3 @44028 has 12 MA's), (Start: 6 @44001 has 15 MA's), (7, 43971), (8, 43932), (9, 43908), (10, 43881), (11, 43872),

Gene: BirksAndSocks_50 Start: 45943, Stop: 45782, Start Num: 3

Candidate Starts for BirksAndSocks_50:

(1, 45994), (Start: 2 @45961 has 12 MA's), (Start: 3 @45943 has 12 MA's), (Start: 6 @45916 has 15 MA's), (8, 45847), (9, 45823), (10, 45796), (11, 45787),

Gene: Boneham_49 Start: 45865, Stop: 45686, Start Num: 2

Candidate Starts for Boneham_49:

(Start: 2 @45865 has 12 MA's), (Start: 6 @45820 has 15 MA's), (8, 45751), (9, 45727), (10, 45700),

Gene: Breezic_45 Start: 43836, Stop: 43675, Start Num: 3

Candidate Starts for Breezic_45:

(1, 43887), (Start: 2 @43854 has 12 MA's), (Start: 3 @43836 has 12 MA's), (Start: 6 @43809 has 15 MA's), (8, 43740), (9, 43716), (10, 43689),

Gene: Butterball_49 Start: 45865, Stop: 45686, Start Num: 2

Candidate Starts for Butterball_49:

(Start: 2 @45865 has 12 MA's), (Start: 6 @45820 has 15 MA's), (8, 45751), (9, 45727), (10, 45700),

Gene: CathyBurgh_45 Start: 44386, Stop: 44252, Start Num: 6

Candidate Starts for CathyBurgh_45:

(1, 44464), (Start: 2 @44431 has 12 MA's), (Start: 3 @44413 has 12 MA's), (Start: 6 @44386 has 15 MA's), (8, 44317), (9, 44293), (10, 44266),

Gene: Charianelly_44 Start: 45684, Stop: 45544, Start Num: 4

Candidate Starts for Charianelly_44:

(Start: 2 @45723 has 12 MA's), (Start: 4 @45684 has 11 MA's), (5, 45681), (Start: 6 @45678 has 15 MA's), (8, 45609), (9, 45585), (10, 45558),

Gene: Chelms_45 Start: 44001, Stop: 43867, Start Num: 6

Candidate Starts for Chelms_45:

(Start: 2 @44046 has 12 MA's), (Start: 3 @44028 has 12 MA's), (Start: 6 @44001 has 15 MA's), (7, 43971), (8, 43932), (9, 43908), (10, 43881),

Gene: Dakiti_46 Start: 44896, Stop: 44735, Start Num: 3

Candidate Starts for Dakiti_46:

(Start: 2 @44914 has 12 MA's), (Start: 3 @44896 has 12 MA's), (Start: 6 @44869 has 15 MA's), (7, 44839), (8, 44800), (9, 44776), (10, 44749),

Gene: Diabla_49 Start: 45795, Stop: 45616, Start Num: 2

Candidate Starts for Diabla_49:

(Start: 2 @45795 has 12 MA's), (Start: 6 @45750 has 15 MA's), (8, 45681), (9, 45657), (10, 45630), (11, 45621),

Gene: Eggsie_45 Start: 43717, Stop: 43574, Start Num: 4

Candidate Starts for Eggsie_45:

(Start: 2 @43756 has 12 MA's), (Start: 4 @43717 has 11 MA's), (Start: 6 @43711 has 15 MA's), (8, 43642), (9, 43618), (10, 43591),

Gene: Ekhein_46 Start: 43514, Stop: 43380, Start Num: 6

Candidate Starts for Ekhein_46:

(1, 43592), (Start: 2 @43559 has 12 MA's), (Start: 3 @43541 has 12 MA's), (Start: 6 @43514 has 15 MA's), (8, 43445), (9, 43421), (10, 43394),

Gene: Exiguo_45 Start: 43526, Stop: 43392, Start Num: 6

Candidate Starts for Exiguo_45:

(Start: 2 @43571 has 12 MA's), (Start: 3 @43553 has 12 MA's), (Start: 6 @43526 has 15 MA's), (8, 43457), (9, 43433), (10, 43406),

Gene: FelixAlejandro_50 Start: 46063, Stop: 45884, Start Num: 2

Candidate Starts for FelixAlejandro_50:

(Start: 2 @46063 has 12 MA's), (Start: 6 @46018 has 15 MA's), (8, 45949), (9, 45925), (10, 45898),

Gene: Flakey_45 Start: 44417, Stop: 44256, Start Num: 3

Candidate Starts for Flakey_45:

(1, 44468), (Start: 2 @44435 has 12 MA's), (Start: 3 @44417 has 12 MA's), (Start: 6 @44390 has 15 MA's), (8, 44321), (9, 44297), (10, 44270),

Gene: GalacticEye_45 Start: 45646, Stop: 45506, Start Num: 4

Candidate Starts for GalacticEye_45:

(Start: 2 @45685 has 12 MA's), (Start: 4 @45646 has 11 MA's), (5, 45643), (Start: 6 @45640 has 15 MA's), (8, 45571), (9, 45547), (10, 45520),

Gene: Gorko_45 Start: 43518, Stop: 43384, Start Num: 6

Candidate Starts for Gorko_45:

(1, 43596), (Start: 2 @43563 has 12 MA's), (Start: 3 @43545 has 12 MA's), (Start: 6 @43518 has 15 MA's), (8, 43449), (9, 43425), (10, 43398),

Gene: GourdThymes_45 Start: 44419, Stop: 44258, Start Num: 3

Candidate Starts for GourdThymes_45:

(1, 44470), (Start: 2 @44437 has 12 MA's), (Start: 3 @44419 has 12 MA's), (Start: 6 @44392 has 15 MA's), (8, 44323), (9, 44299), (10, 44272),

Gene: Guillaume_45 Start: 45696, Stop: 45556, Start Num: 4

Candidate Starts for Guillaume_45:

(Start: 2 @45735 has 12 MA's), (Start: 4 @45696 has 11 MA's), (5, 45693), (Start: 6 @45690 has 15 MA's), (8, 45621), (9, 45597), (10, 45570),

Gene: Hail2Pitt_44 Start: 46166, Stop: 46032, Start Num: 6

Candidate Starts for Hail2Pitt_44:

(Start: 2 @46211 has 12 MA's), (Start: 4 @46172 has 11 MA's), (5, 46169), (Start: 6 @46166 has 15 MA's), (8, 46097), (9, 46073), (10, 46046),

Gene: Harambe_45 Start: 45963, Stop: 45823, Start Num: 4

Candidate Starts for Harambe_45:

(Start: 2 @46002 has 12 MA's), (Start: 4 @45963 has 11 MA's), (5, 45960), (Start: 6 @45957 has 15 MA's), (8, 45888), (9, 45864), (10, 45837),

Gene: Hello_45 Start: 45925, Stop: 45785, Start Num: 4

Candidate Starts for Hello_45:

(Start: 2 @45964 has 12 MA's), (Start: 4 @45925 has 11 MA's), (5, 45922), (Start: 6 @45919 has 15 MA's), (8, 45850), (9, 45826), (10, 45799),

Gene: Hotorobo_45 Start: 44424, Stop: 44263, Start Num: 3

Candidate Starts for Hotorobo_45:

(Start: 2 @44442 has 12 MA's), (Start: 3 @44424 has 12 MA's), (Start: 6 @44397 has 15 MA's), (8, 44328), (9, 44304), (10, 44277),

Gene: Jams_45 Start: 45173, Stop: 44994, Start Num: 2

Candidate Starts for Jams_45:

(Start: 2 @45173 has 12 MA's), (Start: 4 @45134 has 11 MA's), (5, 45131), (Start: 6 @45128 has 15 MA's), (8, 45059), (9, 45035), (10, 45008),

Gene: Jellybones_48 Start: 45526, Stop: 45362, Start Num: 3

Candidate Starts for Jellybones_48:

(1, 45577), (Start: 2 @45544 has 12 MA's), (Start: 3 @45526 has 12 MA's), (Start: 6 @45499 has 15 MA's), (8, 45430), (9, 45406), (10, 45379),

Gene: John316_49 Start: 45582, Stop: 45421, Start Num: 3

Candidate Starts for John316_49:

(1, 45633), (Start: 2 @45600 has 12 MA's), (Start: 3 @45582 has 12 MA's), (Start: 6 @45555 has 15 MA's), (8, 45486), (9, 45462), (10, 45435),

Gene: Jormungandr_45 Start: 45678, Stop: 45538, Start Num: 4

Candidate Starts for Jormungandr_45:

(Start: 2 @45717 has 12 MA's), (Start: 4 @45678 has 11 MA's), (5, 45675), (Start: 6 @45672 has 15 MA's), (8, 45603), (9, 45579), (10, 45552),

Gene: Kaseim_45 Start: 45113, Stop: 44979, Start Num: 6

Candidate Starts for Kaseim_45:

(Start: 2 @45158 has 12 MA's), (Start: 4 @45119 has 11 MA's), (5, 45116), (Start: 6 @45113 has 15 MA's), (8, 45044), (9, 45020), (10, 44993),

Gene: Lahirium_45 Start: 46200, Stop: 46060, Start Num: 4

Candidate Starts for Lahirium_45:

(Start: 2 @46239 has 12 MA's), (Start: 4 @46200 has 11 MA's), (5, 46197), (Start: 6 @46194 has 15 MA's), (8, 46125), (9, 46101), (10, 46074),

Gene: Lidong_45 Start: 45928, Stop: 45794, Start Num: 6

Candidate Starts for Lidong_45:

(Start: 2 @45973 has 12 MA's), (Start: 4 @45934 has 11 MA's), (5, 45931), (Start: 6 @45928 has 15 MA's), (8, 45859), (9, 45835), (10, 45808),

Gene: Linetti_46 Start: 45055, Stop: 44876, Start Num: 2

Candidate Starts for Linetti_46:

(Start: 2 @45055 has 12 MA's), (Start: 3 @45037 has 12 MA's), (Start: 6 @45010 has 15 MA's), (7, 44980), (8, 44941), (9, 44917), (10, 44890), (11, 44881),

Gene: Lizzo_45 Start: 44413, Stop: 44252, Start Num: 3

Candidate Starts for Lizzo_45:

(1, 44464), (Start: 2 @44431 has 12 MA's), (Start: 3 @44413 has 12 MA's), (Start: 6 @44386 has 15 MA's), (8, 44317), (9, 44293), (10, 44266),

Gene: Luker_46 Start: 46153, Stop: 46013, Start Num: 4

Candidate Starts for Luker_46:

(Start: 2 @46192 has 12 MA's), (Start: 4 @46153 has 11 MA's), (5, 46150), (Start: 6 @46147 has 15 MA's), (8, 46078), (9, 46054), (10, 46027),

Gene: Minos_46 Start: 45715, Stop: 45536, Start Num: 2

Candidate Starts for Minos_46:

(Start: 2 @45715 has 12 MA's), (Start: 4 @45676 has 11 MA's), (5, 45673), (Start: 6 @45670 has 15 MA's), (8, 45601), (9, 45577), (10, 45550),

Gene: Monty_44 Start: 43563, Stop: 43402, Start Num: 3

Candidate Starts for Monty_44:

(1, 43614), (Start: 2 @43581 has 12 MA's), (Start: 3 @43563 has 12 MA's), (Start: 6 @43536 has 15 MA's), (8, 43467), (9, 43443), (10, 43416),

Gene: MrWormie_45 Start: 44831, Stop: 44697, Start Num: 6

Candidate Starts for MrWormie_45:

(Start: 2 @44876 has 12 MA's), (Start: 4 @44837 has 11 MA's), (5, 44834), (Start: 6 @44831 has 15 MA's), (8, 44762), (9, 44738), (10, 44711),

Gene: Msay19_50 Start: 46054, Stop: 45875, Start Num: 2

Candidate Starts for Msay19_50:

(1, 46087), (Start: 2 @46054 has 12 MA's), (Start: 3 @46036 has 12 MA's), (Start: 6 @46009 has 15 MA's), (8, 45940), (9, 45916), (10, 45889),

Gene: Neoevie_45 Start: 45939, Stop: 45799, Start Num: 4

Candidate Starts for Neoevie_45:

(Start: 2 @45978 has 12 MA's), (Start: 4 @45939 has 11 MA's), (5, 45936), (Start: 6 @45933 has 15 MA's), (8, 45864), (9, 45840), (10, 45813),

Gene: Newt_46 Start: 46161, Stop: 46027, Start Num: 6

Candidate Starts for Newt_46:

(Start: 2 @46206 has 12 MA's), (Start: 4 @46167 has 11 MA's), (5, 46164), (Start: 6 @46161 has 15 MA's), (8, 46092), (9, 46068), (10, 46041),

Gene: Nimi13_45 Start: 45685, Stop: 45545, Start Num: 4

Candidate Starts for Nimi13_45:

(Start: 2 @45724 has 12 MA's), (Start: 4 @45685 has 11 MA's), (5, 45682), (Start: 6 @45679 has 15 MA's), (8, 45610), (9, 45586), (10, 45559),

Gene: PierreThree_45 Start: 44878, Stop: 44744, Start Num: 6

Candidate Starts for PierreThree_45:

(Start: 2 @44923 has 12 MA's), (Start: 3 @44905 has 12 MA's), (Start: 6 @44878 has 15 MA's), (8, 44809), (9, 44785), (10, 44758),

Gene: PokyPuppy_44 Start: 44848, Stop: 44687, Start Num: 3

Candidate Starts for PokyPuppy_44:

(Start: 2 @44866 has 12 MA's), (Start: 3 @44848 has 12 MA's), (Start: 6 @44821 has 15 MA's), (7, 44791), (8, 44752), (9, 44728), (10, 44701), (11, 44692),

Gene: Poland_52 Start: 45988, Stop: 45854, Start Num: 6

Candidate Starts for Poland_52:

(1, 46066), (Start: 2 @46033 has 12 MA's), (Start: 3 @46015 has 12 MA's), (Start: 6 @45988 has 15 MA's), (8, 45919), (9, 45895), (10, 45868),

Gene: RemRem_46 Start: 43526, Stop: 43392, Start Num: 6

Candidate Starts for RemRem_46:

(1, 43604), (Start: 2 @43571 has 12 MA's), (Start: 3 @43553 has 12 MA's), (Start: 6 @43526 has 15 MA's), (8, 43457), (9, 43433), (10, 43406),

Gene: RoyalG_46 Start: 44362, Stop: 44228, Start Num: 6

Candidate Starts for RoyalG_46:

(Start: 2 @44407 has 12 MA's), (Start: 6 @44362 has 15 MA's), (8, 44293), (9, 44269), (10, 44242), (11, 44233),

Gene: Sam12_45 Start: 43553, Stop: 43392, Start Num: 3

Candidate Starts for Sam12_45:

(Start: 2 @43571 has 12 MA's), (Start: 3 @43553 has 12 MA's), (Start: 6 @43526 has 15 MA's), (8, 43457), (9, 43433), (10, 43406),

Gene: Shelley_45 Start: 45155, Stop: 45021, Start Num: 6

Candidate Starts for Shelley_45:

(Start: 2 @45200 has 12 MA's), (Start: 4 @45161 has 11 MA's), (5, 45158), (Start: 6 @45155 has 15 MA's), (8, 45086), (9, 45062), (10, 45035),

Gene: Sombrero_46 Start: 43942, Stop: 43763, Start Num: 2

Candidate Starts for Sombrero_46:

(Start: 2 @43942 has 12 MA's), (Start: 6 @43897 has 15 MA's), (8, 43828), (9, 43804), (10, 43777),

Gene: Squibbles_45 Start: 44389, Stop: 44255, Start Num: 6

Candidate Starts for Squibbles_45:

(1, 44467), (Start: 2 @44434 has 12 MA's), (Start: 3 @44416 has 12 MA's), (Start: 6 @44389 has 15 MA's), (8, 44320), (9, 44296), (10, 44269),

Gene: SteveFrench_45 Start: 44647, Stop: 44468, Start Num: 2

Candidate Starts for SteveFrench_45:

(Start: 2 @44647 has 12 MA's), (Start: 6 @44602 has 15 MA's), (8, 44533), (9, 44509), (10, 44482), (11, 44473),

Gene: Sticker17_45 Start: 45676, Stop: 45536, Start Num: 4

Candidate Starts for Sticker17_45:

(Start: 2 @45715 has 12 MA's), (Start: 4 @45676 has 11 MA's), (5, 45673), (Start: 6 @45670 has 15 MA's), (8, 45601), (9, 45577), (10, 45550),

Gene: Teal_45 Start: 46138, Stop: 46004, Start Num: 6

Candidate Starts for Teal_45:

(Start: 2 @46183 has 12 MA's), (Start: 4 @46144 has 11 MA's), (5, 46141), (Start: 6 @46138 has 15 MA's), (8, 46069), (9, 46045), (10, 46018),

Gene: Woes_45 Start: 46189, Stop: 46055, Start Num: 6

Candidate Starts for Woes_45:

(Start: 2 @46234 has 12 MA's), (Start: 4 @46195 has 11 MA's), (5, 46192), (Start: 6 @46189 has 15 MA's), (8, 46120), (9, 46096), (10, 46069),