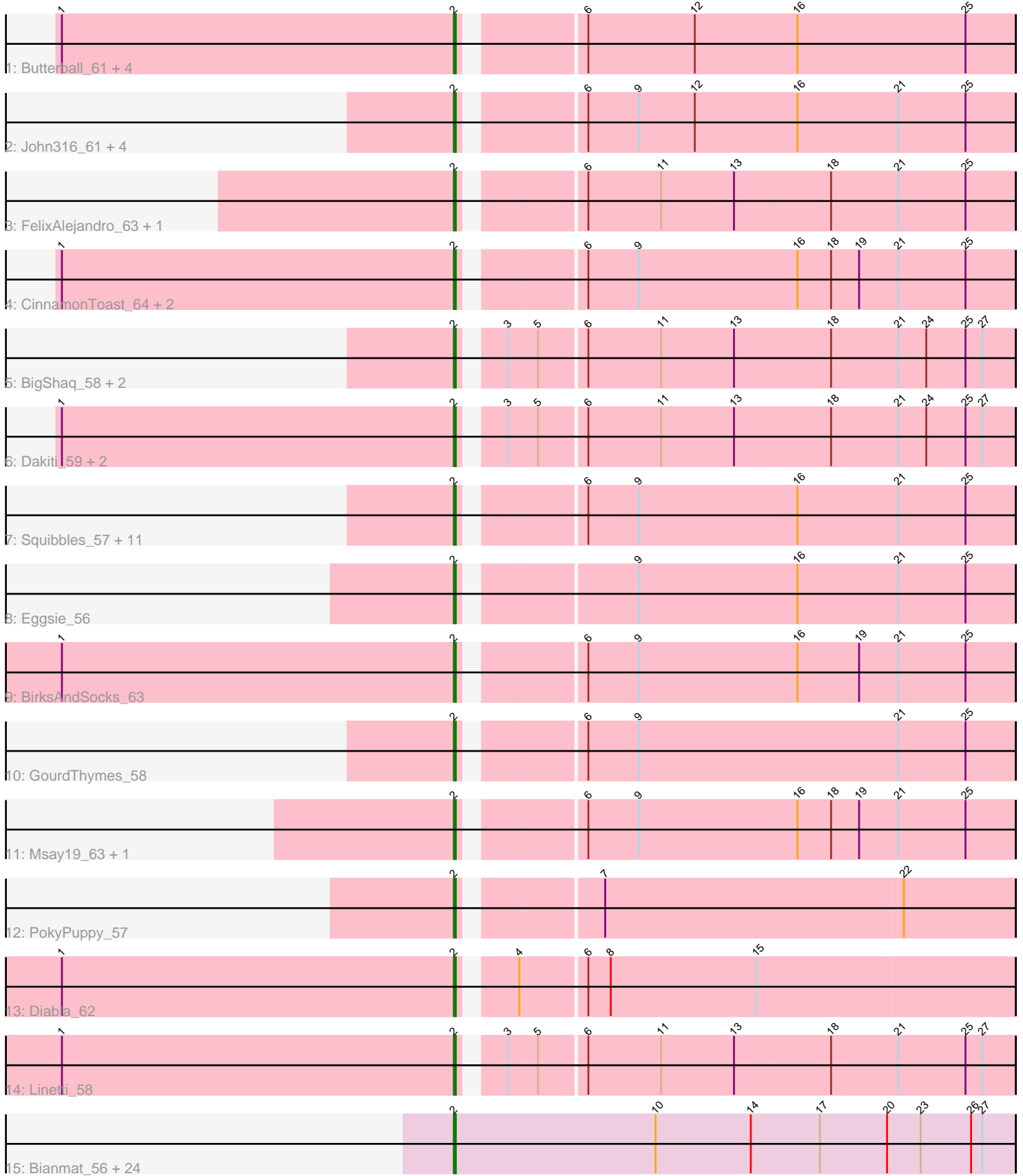


Pham 305002



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 305002 Report

This analysis was run 06/08/26 on database version 649.

Pham number 305002 has 66 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Butterball_61, SteveFrench_57, RoyalG_58, Adgers_61, Boneham_62
- Track 2 : John316_61, Monty_57, Hotorobo_58, Gorko_57, Worcestershire_58
- Track 3 : FelixAlejandro_63, Sombrero_59
- Track 4 : CinnamonToast_64, Jellybones_60, BillyBobJr_64
- Track 5 : BigShaq_58, BenoitCattle_58, Crete_59
- Track 6 : Dakiti_59, PierreThree_57, Chelms_58
- Track 7 : Squibbles_57, Beaver_61, Barbochs_56, Exiguo_57, Flakey_57, Sam12_57, Breezic_58, RemRem_59, Kelzog_60, CathyBurgh_58, Ekhein_58, Lizzo_58
- Track 8 : Eggsie_56
- Track 9 : BirksAndSocks_63
- Track 10 : GourdThymes_58
- Track 11 : Msay19_63, Poland_63
- Track 12 : PokyPuppy_57
- Track 13 : Diabla_62
- Track 14 : Linetti_58
- Track 15 : Bianmat_56, Jormungandr_56, GalacticEye_56, MrWormie_56, Berries_56, Kaseim_56, Hello_56, Jams_56, Harambe_56, Guillaume_56, Charianelly_56, Anamika_56, Luker_57, Nimi13_56, Lahirium_56, Newt_57, Teal_56, Woes_56, Shelley_56, Hail2Pitt_55, Neoevie_56, Sticker17_56, Minos_57, Damp_56, Lidong_56

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

The start number called the most often in the published annotations is 2, it was called in 61 of the 61 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adgers_61, Anamika_56, Barbochs_56, Beaver_61, BenoitCattle_58, Berries_56, Bianmat_56, BigShaq_58, BillyBobJr_64, BirksAndSocks_63, Boneham_62, Breezic_58, Butterball_61, CathyBurgh_58, Charianelly_56, Chelms_58, CinnamonToast_64, Crete_59, Dakiti_59, Damp_56, Diabla_62, Eggsie_56, Ekhein_58, Exiguo_57, FelixAlejandro_63, Flakey_57, GalacticEye_56, Gorko_57, GourdThymes_58, Guillaume_56, Hail2Pitt_55, Harambe_56, Hello_56,

Hotorobo_58, Jams_56, Jellybones_60, John316_61, Jormungandr_56, Kaseim_56, Kelzog_60, Lahirium_56, Lidong_56, Linetti_58, Lizzo_58, Luker_57, Minos_57, Monty_57, MrWormie_56, Msay19_63, Neoevie_56, Newt_57, Nimi13_56, PierreThree_57, PokyPuppy_57, Poland_63, RemRem_59, RoyalG_58, Sam12_57, Shelley_56, Sombrero_59, Squibbles_57, SteveFrench_57, Sticker17_56, Teal_56, Woes_56, Worcestershire_58,

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 2:

- Found in 66 of 66 (100.0%) of genes in pham
- Manual Annotations of this start: 61 of 61
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adgers_61 (CS2), Anamika_56 (CS3), Barbochs_56 (CS2), Beaver_61 (CS2), BenoitCattle_58 (CS2), Berries_56 (CS3), Bianmat_56 (CS3), BigShaq_58 (CS2), BillyBobJr_64 (CS2), BirksAndSocks_63 (CS2), Boneham_62 (CS2), Breezic_58 (CS2), Butterball_61 (CS2), CathyBurgh_58 (CS2), Charianelly_56 (CS3), Chelms_58 (CS2), CinnamonToast_64 (CS2), Crete_59 (CS2), Dakiti_59 (CS2), Damp_56 (CS3), Diabla_62 (CS2), Eggsie_56 (CS2), Ekhein_58 (CS2), Exiguo_57 (CS2), FelixAlejandro_63 (CS2), Flakey_57 (CS2), GalacticEye_56 (CS3), Gorko_57 (CS2), GourdThymes_58 (CS2), Guillaume_56 (CS3), Hail2Pitt_55 (CS3), Harambe_56 (CS3), Hello_56 (CS3), Hotorobo_58 (CS2), Jams_56 (CS3), Jellybones_60 (CS2), John316_61 (CS2), Jormungandr_56 (CS3), Kaseim_56 (CS3), Kelzog_60 (CS2), Lahirium_56 (CS3), Lidong_56 (CS3), Linetti_58 (CS2), Lizzo_58 (CS2), Luker_57 (CS3), Minos_57 (CS3), Monty_57 (CS2), MrWormie_56 (CS3), Msay19_63 (CS2), Neoevie_56 (CS3), Newt_57 (CS3), Nimi13_56 (CS3), PierreThree_57 (CS2), PokyPuppy_57 (CS2), Poland_63 (CS2), RemRem_59 (CS2), RoyalG_58 (CS2), Sam12_57 (CS2), Shelley_56 (CS3), Sombrero_59 (CS2), Squibbles_57 (CS2), SteveFrench_57 (CS2), Sticker17_56 (CS3), Teal_56 (CS3), Woes_56 (CS3), Worcestershire_58 (CS2),

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 36 times for cluster CS2.

Info for manual annotations of cluster CS3:

- Start number 2 was manually annotated 25 times for cluster CS3.

Gene Information:

Gene: Adgers_61 Start: 50663, Stop: 50379, Start Num: 2

Candidate Starts for Adgers_61:

(1, 50873), (Start: 2 @50663 has 61 MA's), (6, 50606), (12, 50549), (16, 50495), (25, 50405),

Gene: Anamika_56 Start: 51478, Stop: 51179, Start Num: 2

Candidate Starts for Anamika_56:

(Start: 2 @51478 has 61 MA's), (10, 51370), (14, 51319), (17, 51283), (20, 51247), (23, 51229), (26, 51202), (27, 51196),

Gene: Barbochs_56 Start: 50207, Stop: 49923, Start Num: 2

Candidate Starts for Barbochs_56:

(Start: 2 @50207 has 61 MA's), (6, 50150), (9, 50123), (16, 50039), (21, 49985), (25, 49949),

Gene: Beaver_61 Start: 51977, Stop: 51693, Start Num: 2

Candidate Starts for Beaver_61:

(Start: 2 @51977 has 61 MA's), (6, 51920), (9, 51893), (16, 51809), (21, 51755), (25, 51719),

Gene: BenoitCattle_58 Start: 50614, Stop: 50330, Start Num: 2

Candidate Starts for BenoitCattle_58:

(Start: 2 @50614 has 61 MA's), (3, 50596), (5, 50581), (6, 50557), (11, 50518), (13, 50479), (18, 50428), (21, 50392), (24, 50377), (25, 50356), (27, 50347),

Gene: Berries_56 Start: 51450, Stop: 51151, Start Num: 2

Candidate Starts for Berries_56:

(Start: 2 @51450 has 61 MA's), (10, 51342), (14, 51291), (17, 51255), (20, 51219), (23, 51201), (26, 51174), (27, 51168),

Gene: Bianmat_56 Start: 51490, Stop: 51191, Start Num: 2

Candidate Starts for Bianmat_56:

(Start: 2 @51490 has 61 MA's), (10, 51382), (14, 51331), (17, 51295), (20, 51259), (23, 51241), (26, 51214), (27, 51208),

Gene: BigShaq_58 Start: 50619, Stop: 50335, Start Num: 2

Candidate Starts for BigShaq_58:

(Start: 2 @50619 has 61 MA's), (3, 50601), (5, 50586), (6, 50562), (11, 50523), (13, 50484), (18, 50433), (21, 50397), (24, 50382), (25, 50361), (27, 50352),

Gene: BillyBobJr_64 Start: 52287, Stop: 52003, Start Num: 2

Candidate Starts for BillyBobJr_64:

(1, 52497), (Start: 2 @52287 has 61 MA's), (6, 52230), (9, 52203), (16, 52119), (18, 52101), (19, 52086), (21, 52065), (25, 52029),

Gene: BirksAndSocks_63 Start: 52327, Stop: 52043, Start Num: 2

Candidate Starts for BirksAndSocks_63:

(1, 52537), (Start: 2 @52327 has 61 MA's), (6, 52270), (9, 52243), (16, 52159), (19, 52126), (21, 52105), (25, 52069),

Gene: Boneham_62 Start: 52228, Stop: 51944, Start Num: 2

Candidate Starts for Boneham_62:

(1, 52438), (Start: 2 @52228 has 61 MA's), (6, 52171), (12, 52114), (16, 52060), (25, 51970),

Gene: Breezic_58 Start: 50220, Stop: 49936, Start Num: 2

Candidate Starts for Breezic_58:

(Start: 2 @50220 has 61 MA's), (6, 50163), (9, 50136), (16, 50052), (21, 49998), (25, 49962),

Gene: Butterball_61 Start: 52233, Stop: 51949, Start Num: 2
Candidate Starts for Butterball_61:
(1, 52443), (Start: 2 @52233 has 61 MA's), (6, 52176), (12, 52119), (16, 52065), (25, 51975),

Gene: CathyBurgh_58 Start: 50797, Stop: 50513, Start Num: 2
Candidate Starts for CathyBurgh_58:
(Start: 2 @50797 has 61 MA's), (6, 50740), (9, 50713), (16, 50629), (21, 50575), (25, 50539),

Gene: Charianelly_56 Start: 51200, Stop: 50901, Start Num: 2
Candidate Starts for Charianelly_56:
(Start: 2 @51200 has 61 MA's), (10, 51092), (14, 51041), (17, 51005), (20, 50969), (23, 50951), (26, 50924), (27, 50918),

Gene: Chelms_58 Start: 50763, Stop: 50479, Start Num: 2
Candidate Starts for Chelms_58:
(1, 50973), (Start: 2 @50763 has 61 MA's), (3, 50745), (5, 50730), (6, 50706), (11, 50667), (13, 50628), (18, 50577), (21, 50541), (24, 50526), (25, 50505), (27, 50496),

Gene: CinnamonToast_64 Start: 52287, Stop: 52003, Start Num: 2
Candidate Starts for CinnamonToast_64:
(1, 52497), (Start: 2 @52287 has 61 MA's), (6, 52230), (9, 52203), (16, 52119), (18, 52101), (19, 52086), (21, 52065), (25, 52029),

Gene: Crete_59 Start: 50885, Stop: 50601, Start Num: 2
Candidate Starts for Crete_59:
(Start: 2 @50885 has 61 MA's), (3, 50867), (5, 50852), (6, 50828), (11, 50789), (13, 50750), (18, 50699), (21, 50663), (24, 50648), (25, 50627), (27, 50618),

Gene: Dakiti_59 Start: 51631, Stop: 51347, Start Num: 2
Candidate Starts for Dakiti_59:
(1, 51841), (Start: 2 @51631 has 61 MA's), (3, 51613), (5, 51598), (6, 51574), (11, 51535), (13, 51496), (18, 51445), (21, 51409), (24, 51394), (25, 51373), (27, 51364),

Gene: Damp_56 Start: 50364, Stop: 50065, Start Num: 2
Candidate Starts for Damp_56:
(Start: 2 @50364 has 61 MA's), (10, 50256), (14, 50205), (17, 50169), (20, 50133), (23, 50115), (26, 50088), (27, 50082),

Gene: Diabla_62 Start: 52286, Stop: 52002, Start Num: 2
Candidate Starts for Diabla_62:
(1, 52496), (Start: 2 @52286 has 61 MA's), (4, 52262), (6, 52229), (8, 52217), (15, 52139),

Gene: Eggsie_56 Start: 50063, Stop: 49779, Start Num: 2
Candidate Starts for Eggsie_56:
(Start: 2 @50063 has 61 MA's), (9, 49979), (16, 49895), (21, 49841), (25, 49805),

Gene: Ekhein_58 Start: 49925, Stop: 49641, Start Num: 2
Candidate Starts for Ekhein_58:
(Start: 2 @49925 has 61 MA's), (6, 49868), (9, 49841), (16, 49757), (21, 49703), (25, 49667),

Gene: Exiguo_57 Start: 49937, Stop: 49653, Start Num: 2
Candidate Starts for Exiguo_57:
(Start: 2 @49937 has 61 MA's), (6, 49880), (9, 49853), (16, 49769), (21, 49715), (25, 49679),

Gene: FelixAlejandro_63 Start: 52631, Stop: 52347, Start Num: 2
Candidate Starts for FelixAlejandro_63:
(Start: 2 @52631 has 61 MA's), (6, 52574), (11, 52535), (13, 52496), (18, 52445), (21, 52409), (25, 52373),

Gene: Flakey_57 Start: 50801, Stop: 50517, Start Num: 2
Candidate Starts for Flakey_57:
(Start: 2 @50801 has 61 MA's), (6, 50744), (9, 50717), (16, 50633), (21, 50579), (25, 50543),

Gene: GalacticEye_56 Start: 51161, Stop: 50862, Start Num: 2
Candidate Starts for GalacticEye_56:
(Start: 2 @51161 has 61 MA's), (10, 51053), (14, 51002), (17, 50966), (20, 50930), (23, 50912), (26, 50885), (27, 50879),

Gene: Gorko_57 Start: 49929, Stop: 49645, Start Num: 2
Candidate Starts for Gorko_57:
(Start: 2 @49929 has 61 MA's), (6, 49872), (9, 49845), (12, 49815), (16, 49761), (21, 49707), (25, 49671),

Gene: GourdThymes_58 Start: 50803, Stop: 50519, Start Num: 2
Candidate Starts for GourdThymes_58:
(Start: 2 @50803 has 61 MA's), (6, 50746), (9, 50719), (21, 50581), (25, 50545),

Gene: Guillaume_56 Start: 51211, Stop: 50912, Start Num: 2
Candidate Starts for Guillaume_56:
(Start: 2 @51211 has 61 MA's), (10, 51103), (14, 51052), (17, 51016), (20, 50980), (23, 50962), (26, 50935), (27, 50929),

Gene: Hail2Pitt_55 Start: 51687, Stop: 51388, Start Num: 2
Candidate Starts for Hail2Pitt_55:
(Start: 2 @51687 has 61 MA's), (10, 51579), (14, 51528), (17, 51492), (20, 51456), (23, 51438), (26, 51411), (27, 51405),

Gene: Harambe_56 Start: 51478, Stop: 51179, Start Num: 2
Candidate Starts for Harambe_56:
(Start: 2 @51478 has 61 MA's), (10, 51370), (14, 51319), (17, 51283), (20, 51247), (23, 51229), (26, 51202), (27, 51196),

Gene: Hello_56 Start: 51440, Stop: 51141, Start Num: 2
Candidate Starts for Hello_56:
(Start: 2 @51440 has 61 MA's), (10, 51332), (14, 51281), (17, 51245), (20, 51209), (23, 51191), (26, 51164), (27, 51158),

Gene: Hotorobo_58 Start: 50808, Stop: 50524, Start Num: 2
Candidate Starts for Hotorobo_58:
(Start: 2 @50808 has 61 MA's), (6, 50751), (9, 50724), (12, 50694), (16, 50640), (21, 50586), (25, 50550),

Gene: Jams_56 Start: 50650, Stop: 50351, Start Num: 2
Candidate Starts for Jams_56:
(Start: 2 @50650 has 61 MA's), (10, 50542), (14, 50491), (17, 50455), (20, 50419), (23, 50401), (26, 50374), (27, 50368),

Gene: Jellybones_60 Start: 51903, Stop: 51619, Start Num: 2

Candidate Starts for Jellybones_60:

(1, 52113), (Start: 2 @51903 has 61 MA's), (6, 51846), (9, 51819), (16, 51735), (18, 51717), (19, 51702), (21, 51681), (25, 51645),

Gene: John316_61 Start: 51966, Stop: 51682, Start Num: 2

Candidate Starts for John316_61:

(Start: 2 @51966 has 61 MA's), (6, 51909), (9, 51882), (12, 51852), (16, 51798), (21, 51744), (25, 51708),

Gene: Jormungandr_56 Start: 51193, Stop: 50894, Start Num: 2

Candidate Starts for Jormungandr_56:

(Start: 2 @51193 has 61 MA's), (10, 51085), (14, 51034), (17, 50998), (20, 50962), (23, 50944), (26, 50917), (27, 50911),

Gene: Kaseim_56 Start: 50635, Stop: 50336, Start Num: 2

Candidate Starts for Kaseim_56:

(Start: 2 @50635 has 61 MA's), (10, 50527), (14, 50476), (17, 50440), (20, 50404), (23, 50386), (26, 50359), (27, 50353),

Gene: Kelzog_60 Start: 50815, Stop: 50531, Start Num: 2

Candidate Starts for Kelzog_60:

(Start: 2 @50815 has 61 MA's), (6, 50758), (9, 50731), (16, 50647), (21, 50593), (25, 50557),

Gene: Lahirium_56 Start: 51715, Stop: 51416, Start Num: 2

Candidate Starts for Lahirium_56:

(Start: 2 @51715 has 61 MA's), (10, 51607), (14, 51556), (17, 51520), (20, 51484), (23, 51466), (26, 51439), (27, 51433),

Gene: Lidong_56 Start: 51450, Stop: 51151, Start Num: 2

Candidate Starts for Lidong_56:

(Start: 2 @51450 has 61 MA's), (10, 51342), (14, 51291), (17, 51255), (20, 51219), (23, 51201), (26, 51174), (27, 51168),

Gene: Linetti_58 Start: 51616, Stop: 51332, Start Num: 2

Candidate Starts for Linetti_58:

(1, 51826), (Start: 2 @51616 has 61 MA's), (3, 51598), (5, 51583), (6, 51559), (11, 51520), (13, 51481), (18, 51430), (21, 51394), (25, 51358), (27, 51349),

Gene: Lizzo_58 Start: 50797, Stop: 50513, Start Num: 2

Candidate Starts for Lizzo_58:

(Start: 2 @50797 has 61 MA's), (6, 50740), (9, 50713), (16, 50629), (21, 50575), (25, 50539),

Gene: Luker_57 Start: 51668, Stop: 51369, Start Num: 2

Candidate Starts for Luker_57:

(Start: 2 @51668 has 61 MA's), (10, 51560), (14, 51509), (17, 51473), (20, 51437), (23, 51419), (26, 51392), (27, 51386),

Gene: Minos_57 Start: 51192, Stop: 50893, Start Num: 2

Candidate Starts for Minos_57:

(Start: 2 @51192 has 61 MA's), (10, 51084), (14, 51033), (17, 50997), (20, 50961), (23, 50943), (26, 50916), (27, 50910),

Gene: Monty_57 Start: 49947, Stop: 49663, Start Num: 2

Candidate Starts for Monty_57:

(Start: 2 @49947 has 61 MA's), (6, 49890), (9, 49863), (12, 49833), (16, 49779), (21, 49725), (25, 49689),

Gene: MrWormie_56 Start: 50353, Stop: 50054, Start Num: 2

Candidate Starts for MrWormie_56:

(Start: 2 @50353 has 61 MA's), (10, 50245), (14, 50194), (17, 50158), (20, 50122), (23, 50104), (26, 50077), (27, 50071),

Gene: Msay19_63 Start: 52517, Stop: 52233, Start Num: 2

Candidate Starts for Msay19_63:

(Start: 2 @52517 has 61 MA's), (6, 52460), (9, 52433), (16, 52349), (18, 52331), (19, 52316), (21, 52295), (25, 52259),

Gene: Neoevie_56 Start: 51454, Stop: 51155, Start Num: 2

Candidate Starts for Neoevie_56:

(Start: 2 @51454 has 61 MA's), (10, 51346), (14, 51295), (17, 51259), (20, 51223), (23, 51205), (26, 51178), (27, 51172),

Gene: Newt_57 Start: 51682, Stop: 51383, Start Num: 2

Candidate Starts for Newt_57:

(Start: 2 @51682 has 61 MA's), (10, 51574), (14, 51523), (17, 51487), (20, 51451), (23, 51433), (26, 51406), (27, 51400),

Gene: Nimi13_56 Start: 51201, Stop: 50902, Start Num: 2

Candidate Starts for Nimi13_56:

(Start: 2 @51201 has 61 MA's), (10, 51093), (14, 51042), (17, 51006), (20, 50970), (23, 50952), (26, 50925), (27, 50919),

Gene: PierreThree_57 Start: 51262, Stop: 50978, Start Num: 2

Candidate Starts for PierreThree_57:

(1, 51472), (Start: 2 @51262 has 61 MA's), (3, 51244), (5, 51229), (6, 51205), (11, 51166), (13, 51127), (18, 51076), (21, 51040), (24, 51025), (25, 51004), (27, 50995),

Gene: PokyPuppy_57 Start: 51259, Stop: 50975, Start Num: 2

Candidate Starts for PokyPuppy_57:

(Start: 2 @51259 has 61 MA's), (7, 51193), (22, 51034),

Gene: Poland_63 Start: 52496, Stop: 52212, Start Num: 2

Candidate Starts for Poland_63:

(Start: 2 @52496 has 61 MA's), (6, 52439), (9, 52412), (16, 52328), (18, 52310), (19, 52295), (21, 52274), (25, 52238),

Gene: RemRem_59 Start: 49937, Stop: 49653, Start Num: 2

Candidate Starts for RemRem_59:

(Start: 2 @49937 has 61 MA's), (6, 49880), (9, 49853), (16, 49769), (21, 49715), (25, 49679),

Gene: RoyalG_58 Start: 50712, Stop: 50428, Start Num: 2

Candidate Starts for RoyalG_58:

(1, 50922), (Start: 2 @50712 has 61 MA's), (6, 50655), (12, 50598), (16, 50544), (25, 50454),

Gene: Sam12_57 Start: 49937, Stop: 49653, Start Num: 2

Candidate Starts for Sam12_57:

(Start: 2 @49937 has 61 MA's), (6, 49880), (9, 49853), (16, 49769), (21, 49715), (25, 49679),

Gene: Shelley_56 Start: 50677, Stop: 50378, Start Num: 2

Candidate Starts for Shelley_56:

(Start: 2 @50677 has 61 MA's), (10, 50569), (14, 50518), (17, 50482), (20, 50446), (23, 50428), (26, 50401), (27, 50395),

Gene: Sombrero_59 Start: 50504, Stop: 50220, Start Num: 2

Candidate Starts for Sombrero_59:

(Start: 2 @50504 has 61 MA's), (6, 50447), (11, 50408), (13, 50369), (18, 50318), (21, 50282), (25, 50246),

Gene: Squibbles_57 Start: 50800, Stop: 50516, Start Num: 2

Candidate Starts for Squibbles_57:

(Start: 2 @50800 has 61 MA's), (6, 50743), (9, 50716), (16, 50632), (21, 50578), (25, 50542),

Gene: SteveFrench_57 Start: 50952, Stop: 50668, Start Num: 2

Candidate Starts for SteveFrench_57:

(1, 51162), (Start: 2 @50952 has 61 MA's), (6, 50895), (12, 50838), (16, 50784), (25, 50694),

Gene: Sticker17_56 Start: 51192, Stop: 50893, Start Num: 2

Candidate Starts for Sticker17_56:

(Start: 2 @51192 has 61 MA's), (10, 51084), (14, 51033), (17, 50997), (20, 50961), (23, 50943), (26, 50916), (27, 50910),

Gene: Teal_56 Start: 51659, Stop: 51360, Start Num: 2

Candidate Starts for Teal_56:

(Start: 2 @51659 has 61 MA's), (10, 51551), (14, 51500), (17, 51464), (20, 51428), (23, 51410), (26, 51383), (27, 51377),

Gene: Woes_56 Start: 51710, Stop: 51411, Start Num: 2

Candidate Starts for Woes_56:

(Start: 2 @51710 has 61 MA's), (10, 51602), (14, 51551), (17, 51515), (20, 51479), (23, 51461), (26, 51434), (27, 51428),

Gene: Worcestershire_58 Start: 49939, Stop: 49655, Start Num: 2

Candidate Starts for Worcestershire_58:

(Start: 2 @49939 has 61 MA's), (6, 49882), (9, 49855), (12, 49825), (16, 49771), (21, 49717), (25, 49681),