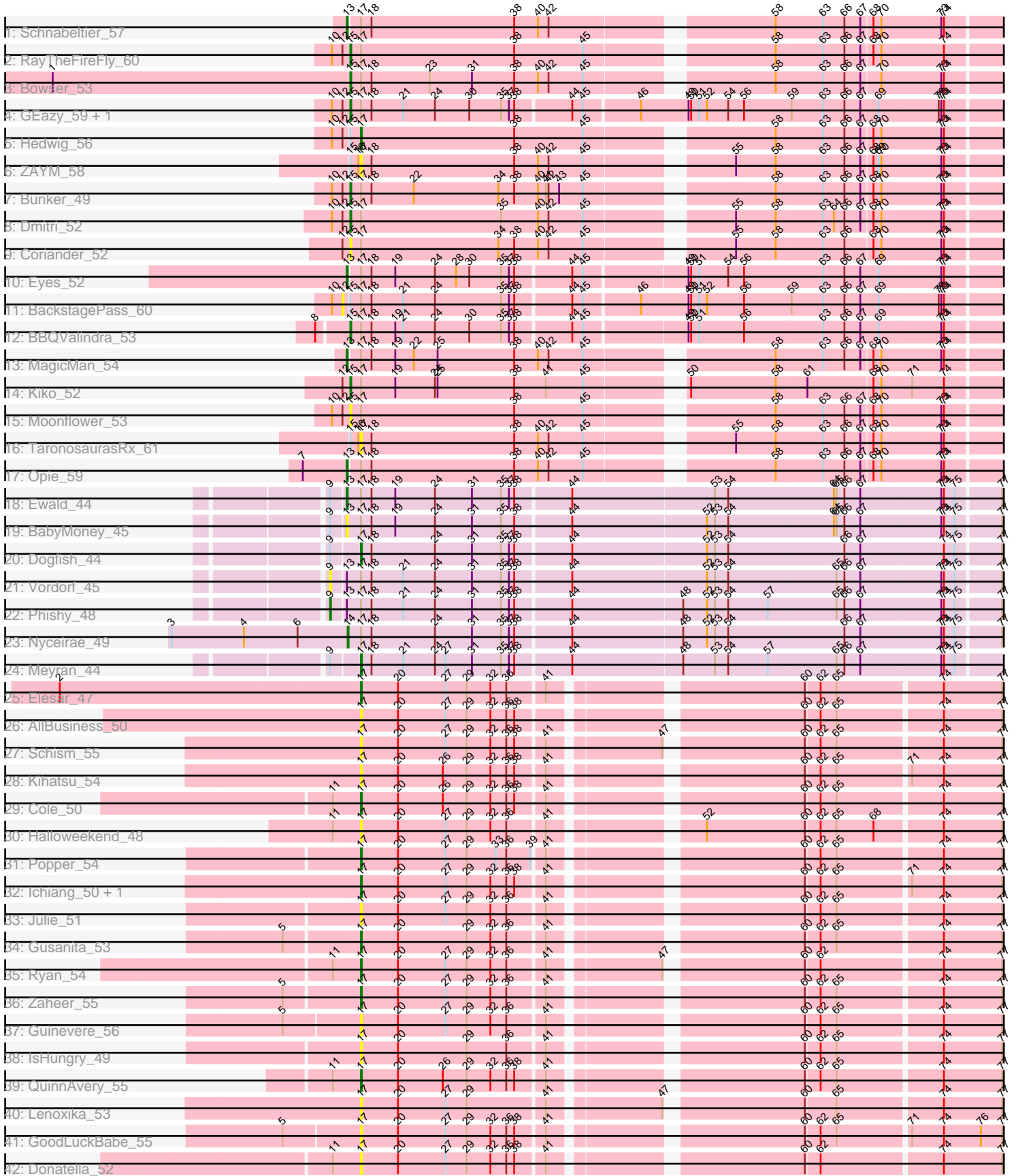


Zoomed Pham 206973



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 206973 Report

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

Pham number 206973 has 44 members, 18 are drafts.

Phages represented in each track:

- Track 1 : Schnabeltier_57
- Track 2 : RayTheFireFly_60
- Track 3 : Bowser_53
- Track 4 : GEazy_59, HannahD_56
- Track 5 : Hedwig_56
- Track 6 : ZAYM_58
- Track 7 : Bunker_49
- Track 8 : Dmitri_52
- Track 9 : Coriander_52
- Track 10 : Eyes_52
- Track 11 : BackstagePass_60
- Track 12 : BBQValindra_53
- Track 13 : MagicMan_54
- Track 14 : Kiko_52
- Track 15 : Moonflower_53
- Track 16 : TaronosaurusRx_61
- Track 17 : Opie_59
- Track 18 : Ewald_44
- Track 19 : BabyMoney_45
- Track 20 : Dogfish_44
- Track 21 : Vordorf_45
- Track 22 : Phishy_48
- Track 23 : Nyceirae_49
- Track 24 : Meyran_44
- Track 25 : Elesar_47
- Track 26 : AllBusiness_50
- Track 27 : Schism_55
- Track 28 : Kihatsu_54
- Track 29 : Cole_50
- Track 30 : Halloween_48
- Track 31 : Popper_54
- Track 32 : Ichiang_50, Nandita_54
- Track 33 : Julie_51
- Track 34 : Gusanita_53
- Track 35 : Ryan_54
- Track 36 : Zaheer_55
- Track 37 : Guinevere_56

- Track 38 : IsHungry_49
- Track 39 : QuinnAvery_55
- Track 40 : Lenoxika_53
- Track 41 : GoodLuckBabe_55
- Track 42 : Donatella_52

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

The start number called the most often in the published annotations is 17, it was called in 11 of the 26 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AllBusiness_50, Cole_50, Dogfish_44, Donatella_52, Elesar_47, GoodLuckBabe_55, Guinevere_56, Gusanita_53, Halloweekend_48, Hedwig_56, Ichiang_50, IsHungry_49, Julie_51, Kihatsu_54, Lenoxika_53, Meyran_44, Nandita_54, Popper_54, QuinnAvery_55, Ryan_54, Schism_55, TaronosaurusRx_61, ZAYM_58, Zaheer_55,

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

- BBQValindra_53, BabyMoney_45, BackstagePass_60, Bowser_53, Bunker_49, Coriander_52, Dmitri_52, Ewald_44, Eyes_52, GEazy_59, HannahD_56, Kiko_52, MagicMan_54, Moonflower_53, Nyceirae_49, Opie_59, Phishy_48, RayTheFireFly_60, Schnabeltier_57, Vordorf_45,

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

-

Summary by start number:

Start 9:

- Found in 6 of 44 (13.6%) of genes in pham
- Manual Annotations of this start: 1 of 26
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Phishy_48 (DT), Vordorf_45 (DT),

Start 12:

- Found in 10 of 44 (22.7%) of genes in pham
- No Manual Annotations of this start.
- Called 10.0% of time when present
- Phage (with cluster) where this start called: BackstagePass_60 (DB),

Start 13:

- Found in 8 of 44 (18.2%) of genes in pham
- Manual Annotations of this start: 5 of 26
- Called 75.0% of time when present
- Phage (with cluster) where this start called: BabyMoney_45 (DT), Ewald_44 (DT), Eyes_52 (DB), MagicMan_54 (DB), Opie_59 (DB), Schnabeltier_57 (DB),

Start 14:

- Found in 1 of 44 (2.3%) of genes in pham

- Manual Annotations of this start: 1 of 26
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nyceirae_49 (DT),

Start 15:

- Found in 14 of 44 (31.8%) of genes in pham
- Manual Annotations of this start: 8 of 26
- Called 71.4% of time when present
- Phage (with cluster) where this start called: BBQValindra_53 (DB), Bowser_53 (DB), Bunker_49 (DB), Coriander_52 (DB), Dmitri_52 (DB), GEazy_59 (DB), HannahD_56 (DB), Kiko_52 (DB), Moonflower_53 (DB), RayTheFireFly_60 (DB),

Start 17:

- Found in 44 of 44 (100.0%) of genes in pham
- Manual Annotations of this start: 11 of 26
- Called 54.5% of time when present
- Phage (with cluster) where this start called: AllBusiness_50 (FF), Cole_50 (FF), Dogfish_44 (DT), Donatella_52 (FF), Elesar_47 (FF), GoodLuckBabe_55 (FF), Guinevere_56 (FF), Gusanita_53 (FF), Halloween_48 (FF), Hedwig_56 (DB), Ichiang_50 (FF), IsHungry_49 (FF), Julie_51 (FF), Kihatsu_54 (FF), Lenoxika_53 (FF), Meyran_44 (DT), Nandita_54 (FF), Popper_54 (FF), QuinnAvery_55 (FF), Ryan_54 (FF), Schism_55 (FF), TaronosaurusRx_61 (DB), ZAYM_58 (DB), Zaheer_55 (FF),

Summary by clusters:

There are 3 clusters represented in this pham: DT, DB, FF,

Info for manual annotations of cluster DB:

- Start number 13 was manually annotated 4 times for cluster DB.
- Start number 15 was manually annotated 8 times for cluster DB.
- Start number 17 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster DT:

- Start number 9 was manually annotated 1 time for cluster DT.
- Start number 13 was manually annotated 1 time for cluster DT.
- Start number 14 was manually annotated 1 time for cluster DT.
- Start number 17 was manually annotated 2 times for cluster DT.

Info for manual annotations of cluster FF:

- Start number 17 was manually annotated 8 times for cluster FF.

Gene Information:

Gene: AllBusiness_50 Start: 36975, Stop: 37850, Start Num: 17

Candidate Starts for AllBusiness_50:

(Start: 17 @36975 has 11 MA's), (20, 37017), (27, 37071), (29, 37095), (32, 37122), (36, 37140), (38, 37149), (60, 37434), (62, 37449), (65, 37467), (74, 37581), (77, 37647), (93, 37809), (94, 37833),

Gene: BBQValindra_53 Start: 38494, Stop: 39543, Start Num: 15

Candidate Starts for BBQValindra_53:

(8, 38461), (Start: 15 @38494 has 8 MA's), (Start: 17 @38506 has 11 MA's), (18, 38518), (19, 38545), (21, 38554), (24, 38590), (30, 38629), (35, 38665), (37, 38674), (38, 38680), (44, 38740), (45, 38752), (49, 38863), (50, 38866), (51, 38875), (56, 38926), (63, 39013), (66, 39037), (67, 39055), (69, 39076), (73, 39145), (74, 39148), (80, 39232), (83, 39259), (85, 39268), (89, 39349),

Gene: BabyMoney_45 Start: 34624, Stop: 35673, Start Num: 13

Candidate Starts for BabyMoney_45:

(Start: 9 @34609 has 1 MA's), (Start: 13 @34624 has 5 MA's), (Start: 17 @34639 has 11 MA's), (18, 34651), (19, 34678), (24, 34723), (31, 34765), (35, 34798), (38, 34813), (44, 34873), (52, 35023), (53, 35032), (54, 35047), (64, 35164), (65, 35167), (66, 35176), (67, 35194), (73, 35284), (74, 35287), (75, 35299), (77, 35347), (81, 35380), (89, 35488),

Gene: BackstagePass_60 Start: 37854, Stop: 38912, Start Num: 12

Candidate Starts for BackstagePass_60:

(10, 37842), (12, 37854), (Start: 15 @37860 has 8 MA's), (Start: 17 @37872 has 11 MA's), (18, 37884), (21, 37920), (24, 37956), (35, 38031), (37, 38040), (38, 38046), (44, 38106), (45, 38118), (46, 38178), (49, 38232), (50, 38235), (51, 38244), (52, 38253), (56, 38295), (59, 38346), (63, 38382), (66, 38406), (67, 38424), (69, 38445), (72, 38511), (73, 38514), (74, 38517), (79, 38592), (83, 38628), (85, 38637), (89, 38718), (98, 38835), (102, 38865),

Gene: Bowser_53 Start: 38207, Stop: 39253, Start Num: 15

Candidate Starts for Bowser_53:

(1, 37874), (Start: 15 @38207 has 8 MA's), (Start: 17 @38219 has 11 MA's), (18, 38231), (23, 38297), (31, 38345), (38, 38393), (40, 38420), (42, 38432), (45, 38471), (58, 38657), (63, 38708), (66, 38732), (67, 38750), (70, 38771), (73, 38837), (74, 38840), (81, 38945), (84, 38972), (87, 39023), (88, 39047), (89, 39077), (98, 39185),

Gene: Bunker_49 Start: 36812, Stop: 37852, Start Num: 15

Candidate Starts for Bunker_49:

(10, 36794), (12, 36806), (Start: 15 @36812 has 8 MA's), (Start: 17 @36824 has 11 MA's), (18, 36836), (22, 36884), (34, 36980), (38, 36998), (40, 37025), (41, 37034), (42, 37037), (43, 37049), (45, 37076), (58, 37262), (63, 37313), (66, 37337), (67, 37355), (68, 37367), (70, 37376), (73, 37442), (74, 37445), (81, 37550), (84, 37577), (89, 37676), (98, 37784),

Gene: Cole_50 Start: 35347, Stop: 36225, Start Num: 17

Candidate Starts for Cole_50:

(11, 35317), (Start: 17 @35347 has 11 MA's), (20, 35389), (26, 35440), (29, 35467), (32, 35494), (36, 35512), (38, 35521), (41, 35551), (60, 35806), (62, 35821), (65, 35839), (74, 35953), (77, 36019), (94, 36208),

Gene: Coriander_52 Start: 36887, Stop: 37936, Start Num: 15

Candidate Starts for Coriander_52:

(12, 36881), (Start: 15 @36887 has 8 MA's), (Start: 17 @36899 has 11 MA's), (34, 37055), (38, 37073), (40, 37100), (42, 37112), (45, 37151), (55, 37292), (58, 37337), (63, 37388), (66, 37412), (68, 37442), (70, 37451), (73, 37517), (74, 37520), (81, 37625), (84, 37652), (88, 37721), (89, 37751),

Gene: Dmitri_52 Start: 38304, Stop: 39338, Start Num: 15

Candidate Starts for Dmitri_52:

(10, 38286), (12, 38298), (Start: 15 @38304 has 8 MA's), (Start: 17 @38316 has 11 MA's), (35, 38475), (40, 38517), (42, 38529), (45, 38568), (55, 38709), (58, 38754), (63, 38805), (64, 38817), (66, 38829), (67, 38847), (68, 38859), (70, 38868), (73, 38934), (74, 38937), (81, 39042), (88, 39141), (89, 39171), (98, 39279), (99, 39285),

Gene: Dogfish_44 Start: 34063, Stop: 35097, Start Num: 17

Candidate Starts for Dogfish_44:

(Start: 9 @34033 has 1 MA's), (Start: 17 @34063 has 11 MA's), (18, 34075), (24, 34147), (31, 34189), (35, 34222), (37, 34231), (38, 34237), (44, 34297), (52, 34447), (53, 34456), (54, 34471), (66, 34600), (67, 34618), (74, 34711), (75, 34723), (77, 34771), (81, 34804), (89, 34912),

Gene: Donatella_52 Start: 35809, Stop: 36684, Start Num: 17

Candidate Starts for Donatella_52:

(11, 35779), (Start: 17 @35809 has 11 MA's), (20, 35851), (27, 35905), (29, 35929), (32, 35956), (36, 35974), (38, 35983), (41, 36013), (60, 36268), (62, 36283), (74, 36415), (77, 36481), (94, 36667),

Gene: Elesar_47 Start: 36095, Stop: 36970, Start Num: 17

Candidate Starts for Elesar_47:

(2, 35762), (Start: 17 @36095 has 11 MA's), (20, 36137), (27, 36191), (29, 36215), (32, 36242), (36, 36260), (41, 36299), (60, 36554), (62, 36569), (65, 36587), (74, 36701), (77, 36767), (93, 36929), (94, 36953),

Gene: Ewald_44 Start: 33857, Stop: 34906, Start Num: 13

Candidate Starts for Ewald_44:

(Start: 9 @33842 has 1 MA's), (Start: 13 @33857 has 5 MA's), (Start: 17 @33872 has 11 MA's), (18, 33884), (19, 33911), (24, 33956), (31, 33998), (35, 34031), (37, 34040), (38, 34046), (44, 34106), (53, 34265), (54, 34280), (64, 34397), (65, 34400), (66, 34409), (67, 34427), (73, 34517), (74, 34520), (75, 34532), (77, 34580), (79, 34595), (81, 34613), (88, 34691), (89, 34721), (90, 34724),

Gene: Eyes_52 Start: 38224, Stop: 39273, Start Num: 13

Candidate Starts for Eyes_52:

(Start: 13 @38224 has 5 MA's), (Start: 17 @38236 has 11 MA's), (18, 38248), (19, 38275), (24, 38320), (28, 38344), (30, 38359), (35, 38395), (37, 38404), (38, 38410), (44, 38470), (45, 38482), (49, 38593), (50, 38596), (51, 38605), (54, 38638), (56, 38656), (63, 38743), (66, 38767), (67, 38785), (69, 38806), (73, 38875), (74, 38878), (78, 38947), (79, 38953), (82, 38974), (83, 38989), (85, 38998), (89, 39079), (98, 39196), (102, 39226),

Gene: GEazy_59 Start: 38403, Stop: 39455, Start Num: 15

Candidate Starts for GEazy_59:

(10, 38385), (12, 38397), (Start: 15 @38403 has 8 MA's), (Start: 17 @38415 has 11 MA's), (18, 38427), (21, 38463), (24, 38499), (30, 38538), (35, 38574), (37, 38583), (38, 38589), (44, 38649), (45, 38661), (46, 38721), (49, 38775), (50, 38778), (51, 38787), (52, 38796), (54, 38820), (56, 38838), (59, 38889), (63, 38925), (66, 38949), (67, 38967), (69, 38988), (72, 39054), (73, 39057), (74, 39060), (79, 39135), (83, 39171), (85, 39180), (89, 39261), (92, 39276), (98, 39378),

Gene: GoodLuckBabe_55 Start: 35858, Stop: 36922, Start Num: 17

Candidate Starts for GoodLuckBabe_55:

(5, 35777), (Start: 17 @35858 has 11 MA's), (20, 35900), (27, 35954), (29, 35978), (32, 36005), (36, 36023), (38, 36032), (41, 36062), (60, 36317), (62, 36332), (65, 36350), (71, 36428), (74, 36464), (76, 36506), (77, 36530), (91, 36686), (96, 36728), (97, 36755), (100, 36803),

Gene: Guinevere_56 Start: 35835, Stop: 36899, Start Num: 17

Candidate Starts for Guinevere_56:

(5, 35754), (Start: 17 @35835 has 11 MA's), (20, 35877), (27, 35931), (29, 35955), (32, 35982), (36, 36000), (41, 36039), (60, 36294), (62, 36309), (65, 36327), (74, 36441), (77, 36507), (91, 36663), (96, 36705), (97, 36732), (100, 36780),

Gene: Gusanita_53 Start: 35989, Stop: 36867, Start Num: 17

Candidate Starts for Gusanita_53:

(5, 35908), (Start: 17 @35989 has 11 MA's), (20, 36031), (29, 36109), (32, 36136), (36, 36154), (41, 36193), (60, 36448), (62, 36463), (65, 36481), (74, 36595), (77, 36661), (94, 36850),

Gene: Halloweekend_48 Start: 34988, Stop: 35854, Start Num: 17

Candidate Starts for Halloweekend_48:

(11, 34958), (Start: 17 @34988 has 11 MA's), (20, 35030), (27, 35084), (29, 35108), (32, 35135), (36, 35153), (41, 35192), (52, 35336), (60, 35447), (62, 35462), (65, 35480), (68, 35522), (74, 35594), (77, 35660), (94, 35837),

Gene: HannahD_56 Start: 37770, Stop: 38822, Start Num: 15

Candidate Starts for HannahD_56:

(10, 37752), (12, 37764), (Start: 15 @37770 has 8 MA's), (Start: 17 @37782 has 11 MA's), (18, 37794), (21, 37830), (24, 37866), (30, 37905), (35, 37941), (37, 37950), (38, 37956), (44, 38016), (45, 38028), (46, 38088), (49, 38142), (50, 38145), (51, 38154), (52, 38163), (54, 38187), (56, 38205), (59, 38256), (63, 38292), (66, 38316), (67, 38334), (69, 38355), (72, 38421), (73, 38424), (74, 38427), (79, 38502), (83, 38538), (85, 38547), (89, 38628), (92, 38643), (98, 38745),

Gene: Hedwig_56 Start: 37493, Stop: 38512, Start Num: 17

Candidate Starts for Hedwig_56:

(10, 37463), (12, 37475), (Start: 15 @37481 has 8 MA's), (Start: 17 @37493 has 11 MA's), (38, 37667), (45, 37745), (58, 37931), (63, 37982), (66, 38006), (67, 38024), (68, 38036), (70, 38045), (73, 38111), (74, 38114), (81, 38219), (88, 38315), (89, 38345), (99, 38459),

Gene: Ichiang_50 Start: 35043, Stop: 35918, Start Num: 17

Candidate Starts for Ichiang_50:

(Start: 17 @35043 has 11 MA's), (20, 35085), (27, 35139), (29, 35163), (32, 35190), (36, 35208), (38, 35217), (41, 35247), (60, 35502), (62, 35517), (65, 35535), (71, 35613), (74, 35649), (77, 35715), (94, 35901),

Gene: IsHungry_49 Start: 34162, Stop: 35040, Start Num: 17

Candidate Starts for IsHungry_49:

(Start: 17 @34162 has 11 MA's), (20, 34204), (29, 34282), (36, 34327), (41, 34366), (60, 34621), (62, 34636), (65, 34654), (74, 34768), (77, 34834), (94, 35023),

Gene: Julie_51 Start: 35949, Stop: 36824, Start Num: 17

Candidate Starts for Julie_51:

(Start: 17 @35949 has 11 MA's), (20, 35991), (27, 36045), (29, 36069), (32, 36096), (36, 36114), (41, 36153), (60, 36408), (62, 36423), (65, 36441), (74, 36555), (77, 36621), (93, 36783), (94, 36807),

Gene: Kihatsu_54 Start: 36591, Stop: 37466, Start Num: 17

Candidate Starts for Kihatsu_54:

(Start: 17 @36591 has 11 MA's), (20, 36633), (26, 36684), (29, 36711), (32, 36738), (36, 36756), (38, 36765), (41, 36795), (60, 37050), (62, 37065), (65, 37083), (71, 37161), (74, 37197), (77, 37263), (94, 37449),

Gene: Kiko_52 Start: 37114, Stop: 38151, Start Num: 15

Candidate Starts for Kiko_52:

(12, 37108), (Start: 15 @37114 has 8 MA's), (Start: 17 @37126 has 11 MA's), (19, 37165), (24, 37210), (25, 37213), (38, 37300), (41, 37336), (45, 37378), (50, 37468), (58, 37564), (61, 37597), (68, 37669), (70, 37678), (71, 37711), (74, 37747), (80, 37834), (86, 37891), (89, 37978), (101, 38107),

Gene: Lenoxika_53 Start: 35435, Stop: 36514, Start Num: 17

Candidate Starts for Lenoxika_53:

(Start: 17 @35435 has 11 MA's), (20, 35477), (27, 35531), (29, 35555), (41, 35639), (47, 35753), (60, 35894), (65, 35927), (74, 36041), (77, 36107), (97, 36347), (100, 36395), (103, 36455), (104, 36482),

Gene: MagicMan_54 Start: 38270, Stop: 39310, Start Num: 13

Candidate Starts for MagicMan_54:

(Start: 13 @38270 has 5 MA's), (Start: 17 @38282 has 11 MA's), (18, 38294), (19, 38321), (22, 38342), (25, 38369), (38, 38456), (40, 38483), (42, 38495), (45, 38534), (58, 38720), (63, 38771), (66, 38795), (67, 38813), (68, 38825), (70, 38834), (73, 38900), (74, 38903), (81, 39008), (84, 39035), (89, 39134), (98, 39242),

Gene: Meyran_44 Start: 34979, Stop: 36013, Start Num: 17

Candidate Starts for Meyran_44:

(Start: 9 @34949 has 1 MA's), (Start: 17 @34979 has 11 MA's), (18, 34991), (21, 35027), (24, 35063), (27, 35075), (31, 35105), (35, 35138), (37, 35147), (38, 35153), (44, 35213), (48, 35336), (53, 35372), (54, 35387), (57, 35432), (65, 35507), (66, 35516), (67, 35534), (73, 35624), (74, 35627), (75, 35639), (89, 35828),

Gene: Moonflower_53 Start: 38454, Stop: 39485, Start Num: 15

Candidate Starts for Moonflower_53:

(10, 38436), (12, 38448), (Start: 15 @38454 has 8 MA's), (Start: 17 @38466 has 11 MA's), (38, 38640), (45, 38718), (58, 38904), (63, 38955), (66, 38979), (67, 38997), (68, 39009), (70, 39018), (73, 39084), (74, 39087), (81, 39192), (88, 39288), (89, 39318), (95, 39363), (98, 39426), (99, 39432), (101, 39447),

Gene: Nandita_54 Start: 35605, Stop: 36480, Start Num: 17

Candidate Starts for Nandita_54:

(Start: 17 @35605 has 11 MA's), (20, 35647), (27, 35701), (29, 35725), (32, 35752), (36, 35770), (38, 35779), (41, 35809), (60, 36064), (62, 36079), (65, 36097), (71, 36175), (74, 36211), (77, 36277), (94, 36463),

Gene: Nyceirae_49 Start: 34957, Stop: 36006, Start Num: 14

Candidate Starts for Nyceirae_49:

(3, 34759), (4, 34840), (6, 34900), (Start: 14 @34957 has 1 MA's), (Start: 17 @34972 has 11 MA's), (18, 34984), (24, 35056), (31, 35098), (35, 35131), (37, 35140), (38, 35146), (44, 35206), (48, 35329), (52, 35356), (53, 35365), (54, 35380), (66, 35509), (67, 35527), (73, 35617), (74, 35620), (75, 35632), (77, 35680), (89, 35821), (90, 35824),

Gene: Opie_59 Start: 39550, Stop: 40590, Start Num: 13

Candidate Starts for Opie_59:

(7, 39502), (Start: 13 @39550 has 5 MA's), (Start: 17 @39562 has 11 MA's), (18, 39574), (38, 39736), (40, 39763), (42, 39775), (45, 39814), (58, 40000), (63, 40051), (66, 40075), (67, 40093), (68, 40105), (70, 40114), (73, 40180), (74, 40183), (81, 40288), (84, 40315), (89, 40414), (98, 40522),

Gene: Phishy_48 Start: 35916, Stop: 36980, Start Num: 9

Candidate Starts for Phishy_48:

(Start: 9 @35916 has 1 MA's), (Start: 13 @35931 has 5 MA's), (Start: 17 @35946 has 11 MA's), (18, 35958), (21, 35994), (24, 36030), (31, 36072), (35, 36105), (37, 36114), (38, 36120), (44, 36180), (48, 36303), (52, 36330), (53, 36339), (54, 36354), (57, 36399), (65, 36474), (66, 36483), (67, 36501), (73, 36591), (74, 36594), (75, 36606), (77, 36654), (89, 36795),

Gene: Popper_54 Start: 35360, Stop: 36235, Start Num: 17

Candidate Starts for Popper_54:

(Start: 17 @35360 has 11 MA's), (20, 35402), (27, 35456), (29, 35480), (33, 35513), (36, 35525), (39, 35552), (41, 35564), (60, 35819), (62, 35834), (65, 35852), (74, 35966), (77, 36032), (93, 36194), (94, 36218),

Gene: QuinnAvery_55 Start: 36429, Stop: 37286, Start Num: 17

Candidate Starts for QuinnAvery_55:

(11, 36399), (Start: 17 @36429 has 11 MA's), (20, 36471), (26, 36522), (29, 36549), (32, 36576), (36, 36594), (38, 36603), (41, 36633), (60, 36888), (62, 36903), (65, 36921), (74, 37035), (77, 37101), (93, 37245), (94, 37269),

Gene: RayTheFireFly_60 Start: 38657, Stop: 39691, Start Num: 15

Candidate Starts for RayTheFireFly_60:

(10, 38639), (12, 38651), (Start: 15 @38657 has 8 MA's), (Start: 17 @38669 has 11 MA's), (38, 38843), (45, 38921), (58, 39107), (63, 39158), (66, 39182), (67, 39200), (68, 39212), (70, 39221), (74, 39290), (81, 39395), (88, 39494), (89, 39524), (95, 39569), (98, 39632), (99, 39638),

Gene: Ryan_54 Start: 36114, Stop: 36989, Start Num: 17

Candidate Starts for Ryan_54:

(11, 36084), (Start: 17 @36114 has 11 MA's), (20, 36156), (27, 36210), (29, 36234), (32, 36261), (36, 36279), (41, 36318), (47, 36432), (60, 36573), (62, 36588), (74, 36720), (77, 36786), (94, 36972),

Gene: Schism_55 Start: 36674, Stop: 37738, Start Num: 17

Candidate Starts for Schism_55:

(Start: 17 @36674 has 11 MA's), (20, 36716), (27, 36770), (29, 36794), (32, 36821), (36, 36839), (38, 36848), (41, 36878), (47, 36992), (60, 37133), (62, 37148), (65, 37166), (74, 37280), (77, 37346), (91, 37502), (96, 37544), (97, 37571), (100, 37619),

Gene: Schnabeltier_57 Start: 38818, Stop: 39858, Start Num: 13

Candidate Starts for Schnabeltier_57:

(Start: 13 @38818 has 5 MA's), (Start: 17 @38830 has 11 MA's), (18, 38842), (38, 39004), (40, 39031), (42, 39043), (58, 39268), (63, 39319), (66, 39343), (67, 39361), (68, 39373), (70, 39382), (73, 39448), (74, 39451), (81, 39556), (84, 39583), (89, 39682),

Gene: TaronosaurusRx_61 Start: 38827, Stop: 39855, Start Num: 17

Candidate Starts for TaronosaurusRx_61:

(Start: 15 @38815 has 8 MA's), (16, 38824), (Start: 17 @38827 has 11 MA's), (18, 38839), (38, 39001), (40, 39028), (42, 39040), (45, 39079), (55, 39220), (58, 39265), (63, 39316), (66, 39340), (67, 39358), (68, 39370), (70, 39379), (73, 39445), (74, 39448), (81, 39553), (84, 39580), (87, 39625), (88, 39649), (89, 39679), (98, 39787),

Gene: Vordorf_45 Start: 34209, Stop: 35273, Start Num: 9

Candidate Starts for Vordorf_45:

(Start: 9 @34209 has 1 MA's), (Start: 13 @34224 has 5 MA's), (Start: 17 @34239 has 11 MA's), (18, 34251), (21, 34287), (24, 34323), (31, 34365), (35, 34398), (37, 34407), (38, 34413), (44, 34473), (52, 34623), (53, 34632), (54, 34647), (65, 34767), (66, 34776), (67, 34794), (73, 34884), (74, 34887), (75, 34899), (77, 34947), (89, 35088), (90, 35091),

Gene: ZAYM_58 Start: 38576, Stop: 39604, Start Num: 17

Candidate Starts for ZAYM_58:

(Start: 15 @38564 has 8 MA's), (16, 38573), (Start: 17 @38576 has 11 MA's), (18, 38588), (38, 38750), (40, 38777), (42, 38789), (45, 38828), (55, 38969), (58, 39014), (63, 39065), (66, 39089), (67, 39107), (68, 39119), (69, 39125), (70, 39128), (73, 39194), (74, 39197), (78, 39266), (81, 39302), (84, 39329), (87, 39374), (88, 39398), (89, 39428), (90, 39431), (98, 39536),

Gene: Zaheer_55 Start: 36673, Stop: 37548, Start Num: 17

Candidate Starts for Zaheer_55:

(5, 36592), (Start: 17 @36673 has 11 MA's), (20, 36715), (27, 36769), (29, 36793), (32, 36820), (36, 36838), (41, 36877), (60, 37132), (62, 37147), (65, 37165), (74, 37279), (77, 37345), (94, 37531),