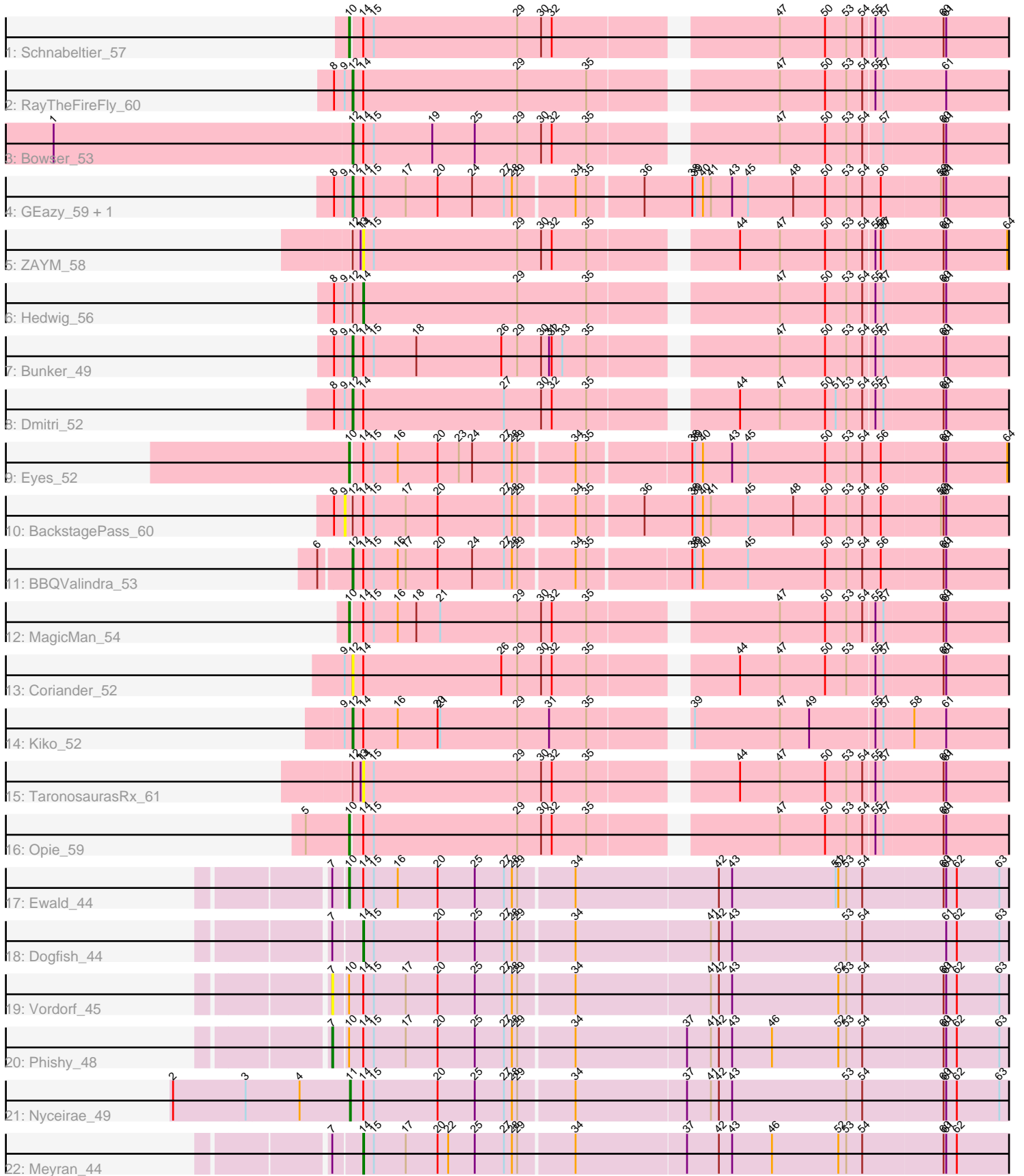


# Zoomed Pham 191515



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 191515 Report

This analysis was run 11/02/24 on database version 579.

Pham number 191515 has 23 members, 5 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 : ZAYM\_58
- Track 6 : Hedwig\_56
- Track 7 : Bunker\_49
- Track 8 : Dmitri\_52
- Track 9 : Eyes\_52
- Track 10 : BackstagePass\_60
- Track 11 : BBQValindra\_53
- Track 12 : MagicMan\_54
- Track 13 : Coriander\_52
- Track 14 : Kiko\_52
- Track 15 : TaronosaurusRx\_61
- Track 16 : Opie\_59
- Track 17 : Ewald\_44
- Track 18 : Dogfish\_44
- Track 19 : Vordorf\_45
- Track 20 : Phishy\_48
- Track 21 : Nyceirae\_49
- Track 22 : Meyran\_44

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

The start number called the most often in the published annotations is 12, it was called in 8 of the 18 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BBQValindra\_53, Bowser\_53, Bunker\_49, Coriander\_52, Dmitri\_52, GEazy\_59, HannahD\_56, Kiko\_52, RayTheFireFly\_60,

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

- BackstagePass\_60, Hedwig\_56, TaronosaurusRx\_61, ZAYM\_58,

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

- Dogfish\_44, Ewald\_44, Eyes\_52, MagicMan\_54, Meyran\_44, Nyceirae\_49, Opie\_59, Phishy\_48, Schnabeltier\_57, Vordorf\_45,

### Summary by start number:

Start 7:

- Found in 5 of 23 ( 21.7% ) of genes in pham
- Manual Annotations of this start: 1 of 18
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Phishy\_48 (DT), Vordorf\_45 (DT),

Start 9:

- Found in 9 of 23 ( 39.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 11.1% of time when present
- Phage (with cluster) where this start called: BackstagePass\_60 (DB),

Start 10:

- Found in 7 of 23 ( 30.4% ) of genes in pham
- Manual Annotations of this start: 5 of 18
- Called 71.4% of time when present
- Phage (with cluster) where this start called: Ewald\_44 (DT), Eyes\_52 (DB), MagicMan\_54 (DB), Opie\_59 (DB), Schnabeltier\_57 (DB),

Start 11:

- Found in 1 of 23 ( 4.3% ) of genes in pham
- Manual Annotations of this start: 1 of 18
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nyceirae\_49 (DT),

Start 12:

- Found in 13 of 23 ( 56.5% ) of genes in pham
- Manual Annotations of this start: 8 of 18
- Called 69.2% 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), RayTheFireFly\_60 (DB),

Start 14:

- Found in 23 of 23 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 3 of 18
- Called 21.7% of time when present
- Phage (with cluster) where this start called: Dogfish\_44 (DT), Hedwig\_56 (DB), Meyran\_44 (DT), TaronosaurusRx\_61 (DB), ZAYM\_58 (DB),

### Summary by clusters:

There are 2 clusters represented in this pham: DT, DB,

Info for manual annotations of cluster DB:

- Start number 10 was manually annotated 4 times for cluster DB.

- Start number 12 was manually annotated 8 times for cluster DB.
- Start number 14 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster DT:

- Start number 7 was manually annotated 1 time for cluster DT.
- Start number 10 was manually annotated 1 time for cluster DT.
- Start number 11 was manually annotated 1 time for cluster DT.
- Start number 14 was manually annotated 2 times for cluster DT.

### **Gene Information:**

Gene: BBQValindra\_53 Start: 38494, Stop: 39543, Start Num: 12

Candidate Starts for BBQValindra\_53:

(6, 38461), (Start: 12 @38494 has 8 MA's), (Start: 14 @38506 has 3 MA's), (15, 38518), (16, 38545), (17, 38554), (20, 38590), (24, 38629), (27, 38665), (28, 38674), (29, 38680), (34, 38740), (35, 38752), (38, 38863), (39, 38866), (40, 38875), (45, 38926), (50, 39013), (53, 39037), (54, 39055), (56, 39076), (60, 39145), (61, 39148), (66, 39232), (69, 39259), (71, 39268), (75, 39349),

Gene: BackstagePass\_60 Start: 37854, Stop: 38912, Start Num: 9

Candidate Starts for BackstagePass\_60:

(8, 37842), (9, 37854), (Start: 12 @37860 has 8 MA's), (Start: 14 @37872 has 3 MA's), (15, 37884), (17, 37920), (20, 37956), (27, 38031), (28, 38040), (29, 38046), (34, 38106), (35, 38118), (36, 38178), (38, 38232), (39, 38235), (40, 38244), (41, 38253), (45, 38295), (48, 38346), (50, 38382), (53, 38406), (54, 38424), (56, 38445), (59, 38511), (60, 38514), (61, 38517), (65, 38592), (69, 38628), (71, 38637), (75, 38718), (79, 38835), (82, 38865),

Gene: Bowser\_53 Start: 38207, Stop: 39253, Start Num: 12

Candidate Starts for Bowser\_53:

(1, 37874), (Start: 12 @38207 has 8 MA's), (Start: 14 @38219 has 3 MA's), (15, 38231), (19, 38297), (25, 38345), (29, 38393), (30, 38420), (32, 38432), (35, 38471), (47, 38657), (50, 38708), (53, 38732), (54, 38750), (57, 38771), (60, 38837), (61, 38840), (67, 38945), (70, 38972), (73, 39023), (74, 39047), (75, 39077), (79, 39185),

Gene: Bunker\_49 Start: 36812, Stop: 37852, Start Num: 12

Candidate Starts for Bunker\_49:

(8, 36794), (9, 36806), (Start: 12 @36812 has 8 MA's), (Start: 14 @36824 has 3 MA's), (15, 36836), (18, 36884), (26, 36980), (29, 36998), (30, 37025), (31, 37034), (32, 37037), (33, 37049), (35, 37076), (47, 37262), (50, 37313), (53, 37337), (54, 37355), (55, 37367), (57, 37376), (60, 37442), (61, 37445), (67, 37550), (70, 37577), (75, 37676), (79, 37784),

Gene: Coriander\_52 Start: 36887, Stop: 37936, Start Num: 12

Candidate Starts for Coriander\_52:

(9, 36881), (Start: 12 @36887 has 8 MA's), (Start: 14 @36899 has 3 MA's), (26, 37055), (29, 37073), (30, 37100), (32, 37112), (35, 37151), (44, 37292), (47, 37337), (50, 37388), (53, 37412), (55, 37442), (57, 37451), (60, 37517), (61, 37520), (67, 37625), (70, 37652), (74, 37721), (75, 37751),

Gene: Dmitri\_52 Start: 38304, Stop: 39338, Start Num: 12

Candidate Starts for Dmitri\_52:

(8, 38286), (9, 38298), (Start: 12 @38304 has 8 MA's), (Start: 14 @38316 has 3 MA's), (27, 38475), (30, 38517), (32, 38529), (35, 38568), (44, 38709), (47, 38754), (50, 38805), (51, 38817), (53, 38829), (54, 38847), (55, 38859), (57, 38868), (60, 38934), (61, 38937), (67, 39042), (74, 39141), (75, 39171),

(79, 39279), (80, 39285),

Gene: Dogfish\_44 Start: 34063, Stop: 35097, Start Num: 14

Candidate Starts for Dogfish\_44:

(Start: 7 @34033 has 1 MA's), (Start: 14 @34063 has 3 MA's), (15, 34075), (20, 34147), (25, 34189), (27, 34222), (28, 34231), (29, 34237), (34, 34297), (41, 34447), (42, 34456), (43, 34471), (53, 34600), (54, 34618), (61, 34711), (62, 34723), (63, 34771), (67, 34804), (75, 34912),

Gene: Ewald\_44 Start: 33857, Stop: 34906, Start Num: 10

Candidate Starts for Ewald\_44:

(Start: 7 @33842 has 1 MA's), (Start: 10 @33857 has 5 MA's), (Start: 14 @33872 has 3 MA's), (15, 33884), (16, 33911), (20, 33956), (25, 33998), (27, 34031), (28, 34040), (29, 34046), (34, 34106), (42, 34265), (43, 34280), (51, 34397), (52, 34400), (53, 34409), (54, 34427), (60, 34517), (61, 34520), (62, 34532), (63, 34580), (65, 34595), (67, 34613), (74, 34691), (75, 34721), (76, 34724),

Gene: Eyes\_52 Start: 38224, Stop: 39273, Start Num: 10

Candidate Starts for Eyes\_52:

(Start: 10 @38224 has 5 MA's), (Start: 14 @38236 has 3 MA's), (15, 38248), (16, 38275), (20, 38320), (23, 38344), (24, 38359), (27, 38395), (28, 38404), (29, 38410), (34, 38470), (35, 38482), (38, 38593), (39, 38596), (40, 38605), (43, 38638), (45, 38656), (50, 38743), (53, 38767), (54, 38785), (56, 38806), (60, 38875), (61, 38878), (64, 38947), (65, 38953), (68, 38974), (69, 38989), (71, 38998), (75, 39079), (79, 39196), (82, 39226),

Gene: GEazy\_59 Start: 38403, Stop: 39455, Start Num: 12

Candidate Starts for GEazy\_59:

(8, 38385), (9, 38397), (Start: 12 @38403 has 8 MA's), (Start: 14 @38415 has 3 MA's), (15, 38427), (17, 38463), (20, 38499), (24, 38538), (27, 38574), (28, 38583), (29, 38589), (34, 38649), (35, 38661), (36, 38721), (38, 38775), (39, 38778), (40, 38787), (41, 38796), (43, 38820), (45, 38838), (48, 38889), (50, 38925), (53, 38949), (54, 38967), (56, 38988), (59, 39054), (60, 39057), (61, 39060), (65, 39135), (69, 39171), (71, 39180), (75, 39261), (77, 39276), (79, 39378),

Gene: HannahD\_56 Start: 37770, Stop: 38822, Start Num: 12

Candidate Starts for HannahD\_56:

(8, 37752), (9, 37764), (Start: 12 @37770 has 8 MA's), (Start: 14 @37782 has 3 MA's), (15, 37794), (17, 37830), (20, 37866), (24, 37905), (27, 37941), (28, 37950), (29, 37956), (34, 38016), (35, 38028), (36, 38088), (38, 38142), (39, 38145), (40, 38154), (41, 38163), (43, 38187), (45, 38205), (48, 38256), (50, 38292), (53, 38316), (54, 38334), (56, 38355), (59, 38421), (60, 38424), (61, 38427), (65, 38502), (69, 38538), (71, 38547), (75, 38628), (77, 38643), (79, 38745),

Gene: Hedwig\_56 Start: 37493, Stop: 38512, Start Num: 14

Candidate Starts for Hedwig\_56:

(8, 37463), (9, 37475), (Start: 12 @37481 has 8 MA's), (Start: 14 @37493 has 3 MA's), (29, 37667), (35, 37745), (47, 37931), (50, 37982), (53, 38006), (54, 38024), (55, 38036), (57, 38045), (60, 38111), (61, 38114), (67, 38219), (74, 38315), (75, 38345), (80, 38459),

Gene: Kiko\_52 Start: 37114, Stop: 38151, Start Num: 12

Candidate Starts for Kiko\_52:

(9, 37108), (Start: 12 @37114 has 8 MA's), (Start: 14 @37126 has 3 MA's), (16, 37165), (20, 37210), (21, 37213), (29, 37300), (31, 37336), (35, 37378), (39, 37468), (47, 37564), (49, 37597), (55, 37669), (57, 37678), (58, 37711), (61, 37747), (66, 37834), (72, 37891), (75, 37978), (81, 38107),

Gene: MagicMan\_54 Start: 38270, Stop: 39310, Start Num: 10

Candidate Starts for MagicMan\_54:

(Start: 10 @38270 has 5 MA's), (Start: 14 @38282 has 3 MA's), (15, 38294), (16, 38321), (18, 38342), (21, 38369), (29, 38456), (30, 38483), (32, 38495), (35, 38534), (47, 38720), (50, 38771), (53, 38795), (54, 38813), (55, 38825), (57, 38834), (60, 38900), (61, 38903), (67, 39008), (70, 39035), (75, 39134), (79, 39242),

Gene: Meyran\_44 Start: 34979, Stop: 36013, Start Num: 14

Candidate Starts for Meyran\_44:

(Start: 7 @34949 has 1 MA's), (Start: 14 @34979 has 3 MA's), (15, 34991), (17, 35027), (20, 35063), (22, 35075), (25, 35105), (27, 35138), (28, 35147), (29, 35153), (34, 35213), (37, 35336), (42, 35372), (43, 35387), (46, 35432), (52, 35507), (53, 35516), (54, 35534), (60, 35624), (61, 35627), (62, 35639), (75, 35828),

Gene: Nyceirae\_49 Start: 34957, Stop: 36006, Start Num: 11

Candidate Starts for Nyceirae\_49:

(2, 34759), (3, 34840), (4, 34900), (Start: 11 @34957 has 1 MA's), (Start: 14 @34972 has 3 MA's), (15, 34984), (20, 35056), (25, 35098), (27, 35131), (28, 35140), (29, 35146), (34, 35206), (37, 35329), (41, 35356), (42, 35365), (43, 35380), (53, 35509), (54, 35527), (60, 35617), (61, 35620), (62, 35632), (63, 35680), (75, 35821), (76, 35824),

Gene: Opie\_59 Start: 39550, Stop: 40590, Start Num: 10

Candidate Starts for Opie\_59:

(5, 39502), (Start: 10 @39550 has 5 MA's), (Start: 14 @39562 has 3 MA's), (15, 39574), (29, 39736), (30, 39763), (32, 39775), (35, 39814), (47, 40000), (50, 40051), (53, 40075), (54, 40093), (55, 40105), (57, 40114), (60, 40180), (61, 40183), (67, 40288), (70, 40315), (75, 40414), (79, 40522),

Gene: Phishy\_48 Start: 35916, Stop: 36980, Start Num: 7

Candidate Starts for Phishy\_48:

(Start: 7 @35916 has 1 MA's), (Start: 10 @35931 has 5 MA's), (Start: 14 @35946 has 3 MA's), (15, 35958), (17, 35994), (20, 36030), (25, 36072), (27, 36105), (28, 36114), (29, 36120), (34, 36180), (37, 36303), (41, 36330), (42, 36339), (43, 36354), (46, 36399), (52, 36474), (53, 36483), (54, 36501), (60, 36591), (61, 36594), (62, 36606), (63, 36654), (75, 36795),

Gene: RayTheFireFly\_60 Start: 38657, Stop: 39691, Start Num: 12

Candidate Starts for RayTheFireFly\_60:

(8, 38639), (9, 38651), (Start: 12 @38657 has 8 MA's), (Start: 14 @38669 has 3 MA's), (29, 38843), (35, 38921), (47, 39107), (50, 39158), (53, 39182), (54, 39200), (55, 39212), (57, 39221), (61, 39290), (67, 39395), (74, 39494), (75, 39524), (78, 39569), (79, 39632), (80, 39638),

Gene: Schnabeltier\_57 Start: 38818, Stop: 39858, Start Num: 10

Candidate Starts for Schnabeltier\_57:

(Start: 10 @38818 has 5 MA's), (Start: 14 @38830 has 3 MA's), (15, 38842), (29, 39004), (30, 39031), (32, 39043), (47, 39268), (50, 39319), (53, 39343), (54, 39361), (55, 39373), (57, 39382), (60, 39448), (61, 39451), (67, 39556), (70, 39583), (75, 39682),

Gene: TaronosaurusRx\_61 Start: 38827, Stop: 39855, Start Num: 14

Candidate Starts for TaronosaurusRx\_61:

(Start: 12 @38815 has 8 MA's), (13, 38824), (Start: 14 @38827 has 3 MA's), (15, 38839), (29, 39001), (30, 39028), (32, 39040), (35, 39079), (44, 39220), (47, 39265), (50, 39316), (53, 39340), (54, 39358), (55, 39370), (57, 39379), (60, 39445), (61, 39448), (67, 39553), (70, 39580), (73, 39625), (74, 39649), (75, 39679), (79, 39787),

Gene: Vordorf\_45 Start: 34209, Stop: 35273, Start Num: 7

Candidate Starts for Vordorf\_45:

(Start: 7 @34209 has 1 MA's), (Start: 10 @34224 has 5 MA's), (Start: 14 @34239 has 3 MA's), (15, 34251), (17, 34287), (20, 34323), (25, 34365), (27, 34398), (28, 34407), (29, 34413), (34, 34473), (41, 34623), (42, 34632), (43, 34647), (52, 34767), (53, 34776), (54, 34794), (60, 34884), (61, 34887), (62, 34899), (63, 34947), (75, 35088), (76, 35091),

Gene: ZAYM\_58 Start: 38576, Stop: 39604, Start Num: 14

Candidate Starts for ZAYM\_58:

(Start: 12 @38564 has 8 MA's), (13, 38573), (Start: 14 @38576 has 3 MA's), (15, 38588), (29, 38750), (30, 38777), (32, 38789), (35, 38828), (44, 38969), (47, 39014), (50, 39065), (53, 39089), (54, 39107), (55, 39119), (56, 39125), (57, 39128), (60, 39194), (61, 39197), (64, 39266), (67, 39302), (70, 39329), (73, 39374), (74, 39398), (75, 39428), (76, 39431), (79, 39536),