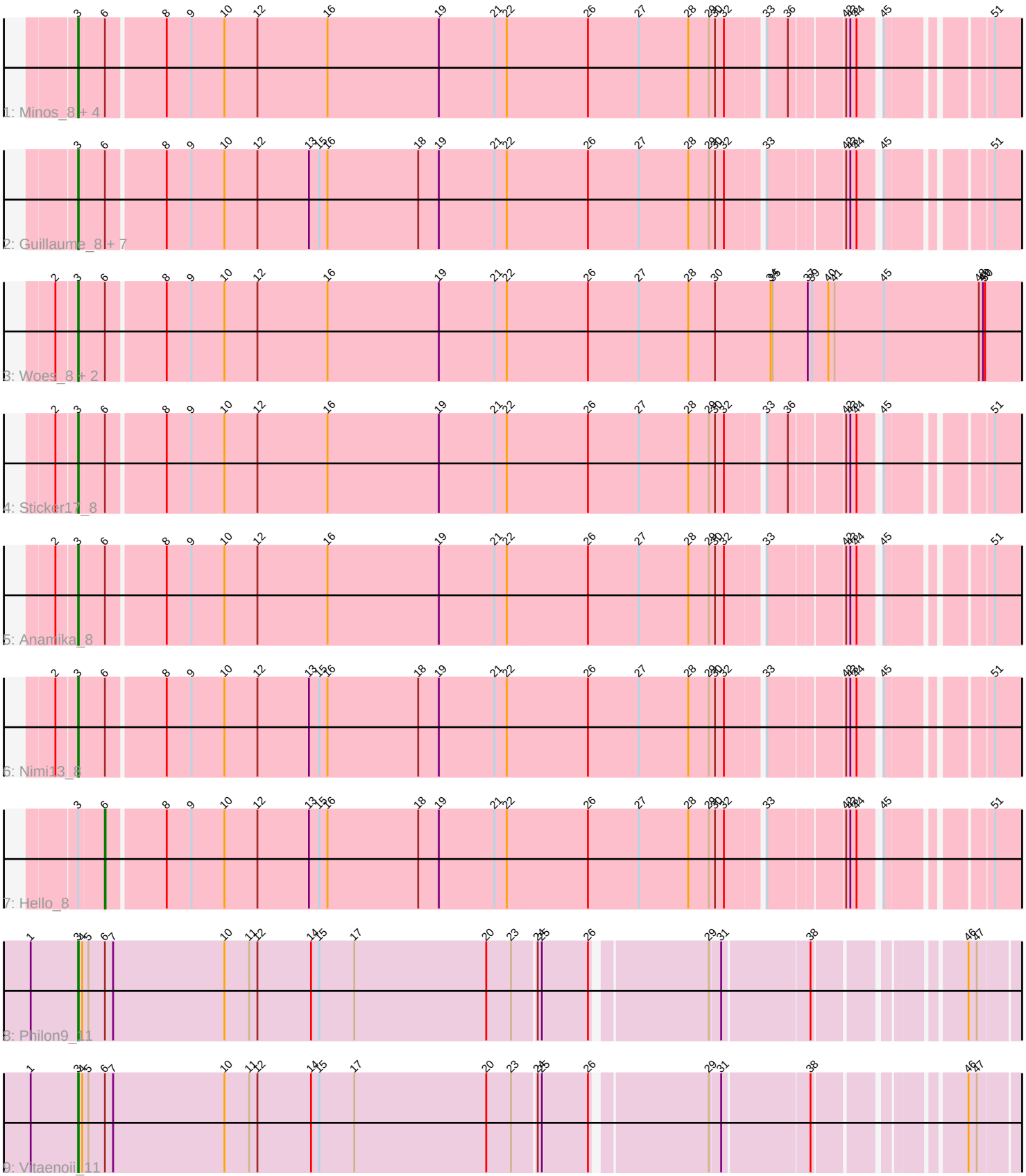
Zoomed Pham 346141



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 346141 Report

This analysis was run 11/14/26 on database version 672.

Pham number 346141 has 22 members, 0 are drafts.

Phages represented in each track:
• Track 1 : Minos_8, GalacticEye_8, Lidong_8, Charianelly_8, Berries_8
• Track 2 : Guillaume_8, Bianmat_8, Newt_8, Jormungandr_8, Harambe_8, Neoevie_8, Luker_8, Teal_8
• Track 3 : Woes_8, Lahirium_8, Hail2Pitt_8
• Track 4 : Sticker17_8
• Track 5 : Anamika_8
• Track 6 : Nimi13_8
• Track 7 : Hello_8
• Track 8 : Philon9_11
• Track 9 : Vitaenoii_11

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 21 of the 22 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Anamika_8, Berries_8, Bianmat_8, Charianelly_8, GalacticEye_8, Guillaume_8, Hail2Pitt_8, Harambe_8, Jormungandr_8, Lahirium_8, Lidong_8, Luker_8, Minos_8, Neoevie_8, Newt_8, Nimi13_8, Philon9_11, Sticker17_8, Teal_8, Vitaenoii_11, Woes_8,

Genes that have the "Most Annotated" start but do not call it:
• Hello_8,

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

Summary by start number:

Start 3:
• Found in 22 of 22 (100.0%) of genes in pham
• Manual Annotations of this start: 21 of 22
• Called 95.5% of time when present

• Phage (with cluster) where this start called: Anamika_8 (CS3), Berries_8 (CS3), Bianmat_8 (CS3), Charianelly_8 (CS3), GalacticEye_8 (CS3), Guillaume_8 (CS3), Hail2Pitt_8 (CS3), Harambe_8 (CS3), Jormungandr_8 (CS3), Lahirium_8 (CS3), Lidong_8 (CS3), Luker_8 (CS3), Minos_8 (CS3), Neoevie_8 (CS3), Newt_8 (CS3), Nimi13_8 (CS3), Philon9_11 (CS4), Sticker17_8 (CS3), Teal_8 (CS3), Vitaenoii_11 (CS4), Woes_8 (CS3),

Start 6:
• Found in 22 of 22 (100.0%) of genes in pham
• Manual Annotations of this start: 1 of 22
• Called 4.5% of time when present
• Phage (with cluster) where this start called: Hello_8 (CS3),

Summary by clusters:

There are 2 clusters represented in this pham: CS4, CS3,

Info for manual annotations of cluster CS3:
•Start number 3 was manually annotated 19 times for cluster CS3.
•Start number 6 was manually annotated 1 time for cluster CS3.

Info for manual annotations of cluster CS4:
•Start number 3 was manually annotated 2 times for cluster CS4.

Gene Information:

Gene: Anamika_8 Start: 8400, Stop: 10952, Start Num: 3
Candidate Starts for Anamika_8:
(2, 8373), (Start: 3 @8400 has 21 MA's), (Start: 6 @8436 has 1 MA's), (8, 8517), (9, 8553), (10, 8601), (12, 8649), (16, 8751), (19, 8913), (21, 8991), (22, 9009), (26, 9126), (27, 9198), (28, 9270), (29, 9300), (30, 9309), (32, 9321), (33, 9369), (42, 9468), (43, 9474), (44, 9483), (45, 9510), (51, 9633), (52, 9690), (53, 9693), (54, 9705), (56, 9726), (62, 9900), (66, 9945), (69, 9978), (70, 9996), (71, 10035), (82, 10188), (88, 10290), (89, 10302), (90, 10314), (91, 10350), (94, 10452), (97, 10632), (98, 10728), (99, 10767), (100, 10788), (101, 10797), (102, 10821), (103, 10836), (104, 10845), (106, 10866),

Gene: Berries_8 Start: 8384, Stop: 10936, Start Num: 3
Candidate Starts for Berries_8:
(Start: 3 @8384 has 21 MA's), (Start: 6 @8420 has 1 MA's), (8, 8501), (9, 8537), (10, 8585), (12, 8633), (16, 8735), (19, 8897), (21, 8975), (22, 8993), (26, 9110), (27, 9182), (28, 9254), (29, 9284), (30, 9293), (32, 9305), (33, 9353), (36, 9383), (42, 9452), (43, 9458), (44, 9467), (45, 9494), (51, 9617), (52, 9674), (53, 9677), (54, 9689), (56, 9710), (62, 9884), (66, 9929), (69, 9962), (70, 9980), (71, 10019), (82, 10172), (88, 10274), (89, 10286), (90, 10298), (91, 10334), (94, 10436), (97, 10616), (98, 10712), (99, 10751), (100, 10772), (101, 10781), (102, 10805), (103, 10820), (104, 10829), (106, 10850),

Gene: Bianmat_8 Start: 8407, Stop: 10959, Start Num: 3
Candidate Starts for Bianmat_8:
(Start: 3 @8407 has 21 MA's), (Start: 6 @8443 has 1 MA's), (8, 8524), (9, 8560), (10, 8608), (12, 8656), (13, 8731), (15, 8746), (16, 8758), (18, 8890), (19, 8920), (21, 8998), (22, 9016), (26, 9133), (27, 9205), (28, 9277), (29, 9307), (30, 9316), (32, 9328), (33, 9376), (42, 9475), (43, 9481), (44, 9490), (45, 9517), (51, 9640), (52, 9697), (53, 9700), (54, 9712), (56, 9733), (62, 9907), (66, 9952), (69, 9985), (70, 10003), (71, 10042), (82, 10195), (88, 10297), (89, 10309), (90, 10321), (91, 10357), (94, 10459), (97,

10639), (98, 10735), (99, 10774), (100, 10795), (101, 10804), (102, 10828), (103, 10843), (104, 10852), (106, 10873),

Gene: Charianelly_8 Start: 8395, Stop: 10947, Start Num: 3
Candidate Starts for Charianelly_8:
(Start: 3 @8395 has 21 MA's), (Start: 6 @8431 has 1 MA's), (8, 8512), (9, 8548), (10, 8596), (12, 8644), (16, 8746), (19, 8908), (21, 8986), (22, 9004), (26, 9121), (27, 9193), (28, 9265), (29, 9295), (30, 9304), (32, 9316), (33, 9364), (36, 9394), (42, 9463), (43, 9469), (44, 9478), (45, 9505), (51, 9628), (52, 9685), (53, 9688), (54, 9700), (56, 9721), (62, 9895), (66, 9940), (69, 9973), (70, 9991), (71, 10030), (82, 10183), (88, 10285), (89, 10297), (90, 10309), (91, 10345), (94, 10447), (97, 10627), (98, 10723), (99, 10762), (100, 10783), (101, 10792), (102, 10816), (103, 10831), (104, 10840), (106, 10861),

Gene: GalacticEye_8 Start: 8384, Stop: 10936, Start Num: 3
Candidate Starts for GalacticEye_8:
(Start: 3 @8384 has 21 MA's), (Start: 6 @8420 has 1 MA's), (8, 8501), (9, 8537), (10, 8585), (12, 8633), (16, 8735), (19, 8897), (21, 8975), (22, 8993), (26, 9110), (27, 9182), (28, 9254), (29, 9284), (30, 9293), (32, 9305), (33, 9353), (36, 9383), (42, 9452), (43, 9458), (44, 9467), (45, 9494), (51, 9617), (52, 9674), (53, 9677), (54, 9689), (56, 9710), (62, 9884), (66, 9929), (69, 9962), (70, 9980), (71, 10019), (82, 10172), (88, 10274), (89, 10286), (90, 10298), (91, 10334), (94, 10436), (97, 10616), (98, 10712), (99, 10751), (100, 10772), (101, 10781), (102, 10805), (103, 10820), (104, 10829), (106, 10850),

Gene: Guillaume_8 Start: 8395, Stop: 10947, Start Num: 3
Candidate Starts for Guillaume_8:
(Start: 3 @8395 has 21 MA's), (Start: 6 @8431 has 1 MA's), (8, 8512), (9, 8548), (10, 8596), (12, 8644), (13, 8719), (15, 8734), (16, 8746), (18, 8878), (19, 8908), (21, 8986), (22, 9004), (26, 9121), (27, 9193), (28, 9265), (29, 9295), (30, 9304), (32, 9316), (33, 9364), (42, 9463), (43, 9469), (44, 9478), (45, 9505), (51, 9628), (52, 9685), (53, 9688), (54, 9700), (56, 9721), (62, 9895), (66, 9940), (69, 9973), (70, 9991), (71, 10030), (82, 10183), (88, 10285), (89, 10297), (90, 10309), (91, 10345), (94, 10447), (97, 10627), (98, 10723), (99, 10762), (100, 10783), (101, 10792), (102, 10816), (103, 10831), (104, 10840), (106, 10861),

Gene: Hail2Pitt_8 Start: 8378, Stop: 11167, Start Num: 3
Candidate Starts for Hail2Pitt_8:
(2, 8351), (Start: 3 @8378 has 21 MA's), (Start: 6 @8414 has 1 MA's), (8, 8495), (9, 8531), (10, 8579), (12, 8627), (16, 8729), (19, 8891), (21, 8969), (22, 8987), (26, 9104), (27, 9176), (28, 9248), (30, 9287), (34, 9368), (35, 9371), (37, 9422), (39, 9428), (40, 9452), (41, 9461), (45, 9533), (48, 9668), (49, 9674), (50, 9677), (52, 9758), (58, 9914), (59, 9935), (60, 9953), (64, 10019), (66, 10043), (68, 10061), (72, 10175), (74, 10184), (83, 10337), (84, 10361), (85, 10409), (87, 10493), (88, 10505), (89, 10517), (90, 10529), (91, 10565), (94, 10667), (97, 10847), (98, 10943), (99, 10982), (100, 11003), (101, 11012), (102, 11036), (103, 11051), (104, 11060), (106, 11081),

Gene: Harambe_8 Start: 8399, Stop: 10951, Start Num: 3
Candidate Starts for Harambe_8:
(Start: 3 @8399 has 21 MA's), (Start: 6 @8435 has 1 MA's), (8, 8516), (9, 8552), (10, 8600), (12, 8648), (13, 8723), (15, 8738), (16, 8750), (18, 8882), (19, 8912), (21, 8990), (22, 9008), (26, 9125), (27, 9197), (28, 9269), (29, 9299), (30, 9308), (32, 9320), (33, 9368), (42, 9467), (43, 9473), (44, 9482), (45, 9509), (51, 9632), (52, 9689), (53, 9692), (54, 9704), (56, 9725), (62, 9899), (66, 9944), (69, 9977), (70, 9995), (71, 10034), (82, 10187), (88, 10289), (89, 10301), (90, 10313), (91, 10349), (94, 10451), (97, 10631), (98, 10727), (99, 10766), (100, 10787), (101, 10796), (102, 10820), (103, 10835), (104, 10844), (106, 10865),

Gene: Hello_8 Start: 8421, Stop: 10937, Start Num: 6
Candidate Starts for Hello_8:

(Start: 3 @8385 has 21 MA's), (Start: 6 @8421 has 1 MA's), (8, 8502), (9, 8538), (10, 8586), (12, 8634), (13, 8709), (15, 8724), (16, 8736), (18, 8868), (19, 8898), (21, 8976), (22, 8994), (26, 9111), (27, 9183), (28, 9255), (29, 9285), (30, 9294), (32, 9306), (33, 9354), (42, 9453), (43, 9459), (44, 9468), (45, 9495), (51, 9618), (52, 9675), (53, 9678), (54, 9690), (56, 9711), (62, 9885), (66, 9930), (69, 9963), (70, 9981), (71, 10020), (82, 10173), (88, 10275), (89, 10287), (90, 10299), (91, 10335), (94, 10437), (97, 10617), (98, 10713), (99, 10752), (100, 10773), (101, 10782), (102, 10806), (103, 10821), (104, 10830), (106, 10851),

Gene: Jormungandr_8 Start: 8398, Stop: 10950, Start Num: 3
Candidate Starts for Jormungandr_8:
(Start: 3 @8398 has 21 MA's), (Start: 6 @8434 has 1 MA's), (8, 8515), (9, 8551), (10, 8599), (12, 8647), (13, 8722), (15, 8737), (16, 8749), (18, 8881), (19, 8911), (21, 8989), (22, 9007), (26, 9124), (27, 9196), (28, 9268), (29, 9298), (30, 9307), (32, 9319), (33, 9367), (42, 9466), (43, 9472), (44, 9481), (45, 9508), (51, 9631), (52, 9688), (53, 9691), (54, 9703), (56, 9724), (62, 9898), (66, 9943), (69, 9976), (70, 9994), (71, 10033), (82, 10186), (88, 10288), (89, 10300), (90, 10312), (91, 10348), (94, 10450), (97, 10630), (98, 10726), (99, 10765), (100, 10786), (101, 10795), (102, 10819), (103, 10834), (104, 10843), (106, 10864),

Gene: Lahirium_8 Start: 8399, Stop: 11188, Start Num: 3
Candidate Starts for Lahirium_8:
(2, 8372), (Start: 3 @8399 has 21 MA's), (Start: 6 @8435 has 1 MA's), (8, 8516), (9, 8552), (10, 8600), (12, 8648), (16, 8750), (19, 8912), (21, 8990), (22, 9008), (26, 9125), (27, 9197), (28, 9269), (30, 9308), (34, 9389), (35, 9392), (37, 9443), (39, 9449), (40, 9473), (41, 9482), (45, 9554), (48, 9689), (49, 9695), (50, 9698), (52, 9779), (58, 9935), (59, 9956), (60, 9974), (64, 10040), (66, 10064), (68, 10082), (72, 10196), (74, 10205), (83, 10358), (84, 10382), (85, 10430), (87, 10514), (88, 10526), (89, 10538), (90, 10550), (91, 10586), (94, 10688), (97, 10868), (98, 10964), (99, 11003), (100, 11024), (101, 11033), (102, 11057), (103, 11072), (104, 11081), (106, 11102),

Gene: Lidong_8 Start: 8384, Stop: 10936, Start Num: 3
Candidate Starts for Lidong_8:
(Start: 3 @8384 has 21 MA's), (Start: 6 @8420 has 1 MA's), (8, 8501), (9, 8537), (10, 8585), (12, 8633), (16, 8735), (19, 8897), (21, 8975), (22, 8993), (26, 9110), (27, 9182), (28, 9254), (29, 9284), (30, 9293), (32, 9305), (33, 9353), (36, 9383), (42, 9452), (43, 9458), (44, 9467), (45, 9494), (51, 9617), (52, 9674), (53, 9677), (54, 9689), (56, 9710), (62, 9884), (66, 9929), (69, 9962), (70, 9980), (71, 10019), (82, 10172), (88, 10274), (89, 10286), (90, 10298), (91, 10334), (94, 10436), (97, 10616), (98, 10712), (99, 10751), (100, 10772), (101, 10781), (102, 10805), (103, 10820), (104, 10829), (106, 10850),

Gene: Luker_8 Start: 8378, Stop: 10930, Start Num: 3
Candidate Starts for Luker_8:
(Start: 3 @8378 has 21 MA's), (Start: 6 @8414 has 1 MA's), (8, 8495), (9, 8531), (10, 8579), (12, 8627), (13, 8702), (15, 8717), (16, 8729), (18, 8861), (19, 8891), (21, 8969), (22, 8987), (26, 9104), (27, 9176), (28, 9248), (29, 9278), (30, 9287), (32, 9299), (33, 9347), (42, 9446), (43, 9452), (44, 9461), (45, 9488), (51, 9611), (52, 9668), (53, 9671), (54, 9683), (56, 9704), (62, 9878), (66, 9923), (69, 9956), (70, 9974), (71, 10013), (82, 10166), (88, 10268), (89, 10280), (90, 10292), (91, 10328), (94, 10430), (97, 10610), (98, 10706), (99, 10745), (100, 10766), (101, 10775), (102, 10799), (103, 10814), (104, 10823), (106, 10844),

Gene: Minos_8 Start: 8384, Stop: 10936, Start Num: 3
Candidate Starts for Minos_8:
(Start: 3 @8384 has 21 MA's), (Start: 6 @8420 has 1 MA's), (8, 8501), (9, 8537), (10, 8585), (12, 8633), (16, 8735), (19, 8897), (21, 8975), (22, 8993), (26, 9110), (27, 9182), (28, 9254), (29, 9284), (30, 9293), (32, 9305), (33, 9353), (36, 9383), (42, 9452), (43, 9458), (44, 9467), (45, 9494), (51, 9617), (52, 9674), (53, 9677), (54, 9689), (56, 9710), (62, 9884), (66, 9929), (69, 9962), (70, 9980), (71, 10019),

(82, 10172), (88, 10274), (89, 10286), (90, 10298), (91, 10334), (94, 10436), (97, 10616), (98, 10712), (99, 10751), (100, 10772), (101, 10781), (102, 10805), (103, 10820), (104, 10829), (106, 10850),

Gene: Neoevie_8 Start: 8376, Stop: 10928, Start Num: 3
Candidate Starts for Neoevie_8:
(Start: 3 @8376 has 21 MA's), (Start: 6 @8412 has 1 MA's), (8, 8493), (9, 8529), (10, 8577), (12, 8625), (13, 8700), (15, 8715), (16, 8727), (18, 8859), (19, 8889), (21, 8967), (22, 8985), (26, 9102), (27, 9174), (28, 9246), (29, 9276), (30, 9285), (32, 9297), (33, 9345), (42, 9444), (43, 9450), (44, 9459), (45, 9486), (51, 9609), (52, 9666), (53, 9669), (54, 9681), (56, 9702), (62, 9876), (66, 9921), (69, 9954), (70, 9972), (71, 10011), (82, 10164), (88, 10266), (89, 10278), (90, 10290), (91, 10326), (94, 10428), (97, 10608), (98, 10704), (99, 10743), (100, 10764), (101, 10773), (102, 10797), (103, 10812), (104, 10821), (106, 10842),

Gene: Newt_8 Start: 8395, Stop: 10947, Start Num: 3
Candidate Starts for Newt_8:
(Start: 3 @8395 has 21 MA's), (Start: 6 @8431 has 1 MA's), (8, 8512), (9, 8548), (10, 8596), (12, 8644), (13, 8719), (15, 8734), (16, 8746), (18, 8878), (19, 8908), (21, 8986), (22, 9004), (26, 9121), (27, 9193), (28, 9265), (29, 9295), (30, 9304), (32, 9316), (33, 9364), (42, 9463), (43, 9469), (44, 9478), (45, 9505), (51, 9628), (52, 9685), (53, 9688), (54, 9700), (56, 9721), (62, 9895), (66, 9940), (69, 9973), (70, 9991), (71, 10030), (82, 10183), (88, 10285), (89, 10297), (90, 10309), (91, 10345), (94, 10447), (97, 10627), (98, 10723), (99, 10762), (100, 10783), (101, 10792), (102, 10816), (103, 10831), (104, 10840), (106, 10861),

Gene: Nimi13_8 Start: 8396, Stop: 10948, Start Num: 3
Candidate Starts for Nimi13_8:
(2, 8369), (Start: 3 @8396 has 21 MA's), (Start: 6 @8432 has 1 MA's), (8, 8513), (9, 8549), (10, 8597), (12, 8645), (13, 8720), (15, 8735), (16, 8747), (18, 8879), (19, 8909), (21, 8987), (22, 9005), (26, 9122), (27, 9194), (28, 9266), (29, 9296), (30, 9305), (32, 9317), (33, 9365), (42, 9464), (43, 9470), (44, 9479), (45, 9506), (51, 9629), (52, 9686), (53, 9689), (54, 9701), (56, 9722), (62, 9896), (66, 9941), (69, 9974), (70, 9992), (71, 10031), (82, 10184), (88, 10286), (89, 10298), (90, 10310), (91, 10346), (94, 10448), (97, 10628), (98, 10724), (99, 10763), (100, 10784), (101, 10793), (102, 10817), (103, 10832), (104, 10841), (106, 10862),

Gene: Philon9_11 Start: 10358, Stop: 13012, Start Num: 3
Candidate Starts for Philon9_11:
(1, 10289), (Start: 3 @10358 has 21 MA's), (4, 10364), (5, 10373), (Start: 6 @10397 has 1 MA's), (7, 10409), (10, 10571), (11, 10607), (12, 10619), (14, 10697), (15, 10709), (17, 10760), (20, 10952), (23, 10988), (24, 11021), (25, 11027), (26, 11090), (29, 11243), (31, 11258), (38, 11378), (46, 11555), (47, 11567), (55, 11675), (57, 11720), (61, 11852), (63, 11867), (65, 11885), (67, 11915), (71, 12002), (73, 12035), (75, 12056), (76, 12074), (77, 12095), (79, 12116), (80, 12119), (81, 12146), (84, 12197), (85, 12245), (86, 12275), (87, 12329), (88, 12341), (89, 12353), (91, 12401), (92, 12491), (93, 12494), (94, 12503), (95, 12524), (96, 12587), (98, 12770), (105, 12893), (107, 12944), (108, 12989),

Gene: Sticker17_8 Start: 8395, Stop: 10947, Start Num: 3
Candidate Starts for Sticker17_8:
(2, 8368), (Start: 3 @8395 has 21 MA's), (Start: 6 @8431 has 1 MA's), (8, 8512), (9, 8548), (10, 8596), (12, 8644), (16, 8746), (19, 8908), (21, 8986), (22, 9004), (26, 9121), (27, 9193), (28, 9265), (29, 9295), (30, 9304), (32, 9316), (33, 9364), (36, 9394), (42, 9463), (43, 9469), (44, 9478), (45, 9505), (51, 9628), (52, 9685), (53, 9688), (54, 9700), (56, 9721), (62, 9895), (66, 9940), (69, 9973), (70, 9991), (71, 10030), (82, 10183), (88, 10285), (89, 10297), (90, 10309), (91, 10345), (94, 10447), (97, 10627), (98, 10723), (99, 10762), (100, 10783), (101, 10792), (102, 10816), (103, 10831), (104, 10840), (106, 10861),

Gene: Teal_8 Start: 8372, Stop: 10924, Start Num: 3
Candidate Starts for Teal_8:
(Start: 3 @8372 has 21 MA's), (Start: 6 @8408 has 1 MA's), (8, 8489), (9, 8525), (10, 8573), (12, 8621), (13, 8696), (15, 8711), (16, 8723), (18, 8855), (19, 8885), (21, 8963), (22, 8981), (26, 9098), (27, 9170), (28, 9242), (29, 9272), (30, 9281), (32, 9293), (33, 9341), (42, 9440), (43, 9446), (44, 9455), (45, 9482), (51, 9605), (52, 9662), (53, 9665), (54, 9677), (56, 9698), (62, 9872), (66, 9917), (69, 9950), (70, 9968), (71, 10007), (82, 10160), (88, 10262), (89, 10274), (90, 10286), (91, 10322), (94, 10424), (97, 10604), (98, 10700), (99, 10739), (100, 10760), (101, 10769), (102, 10793), (103, 10808), (104, 10817), (106, 10838),

Gene: Vitaenoii_11 Start: 10357, Stop: 13011, Start Num: 3
Candidate Starts for Vitaenoii_11:
(1, 10288), (Start: 3 @10357 has 21 MA's), (4, 10363), (5, 10372), (Start: 6 @10396 has 1 MA's), (7, 10408), (10, 10570), (11, 10606), (12, 10618), (14, 10696), (15, 10708), (17, 10759), (20, 10951), (23, 10987), (24, 11020), (25, 11026), (26, 11089), (29, 11242), (31, 11257), (38, 11377), (46, 11554), (47, 11566), (55, 11674), (57, 11719), (61, 11851), (63, 11866), (65, 11884), (67, 11914), (71, 12001), (73, 12034), (75, 12055), (76, 12073), (77, 12094), (78, 12112), (79, 12115), (81, 12145), (84, 12196), (85, 12244), (86, 12274), (87, 12328), (88, 12340), (89, 12352), (91, 12400), (92, 12490), (93, 12493), (94, 12502), (95, 12523), (98, 12769), (105, 12892), (107, 12943), (108, 12988),

Gene: Woes_8 Start: 8408, Stop: 11197, Start Num: 3
Candidate Starts for Woes_8:
(2, 8381), (Start: 3 @8408 has 21 MA's), (Start: 6 @8444 has 1 MA's), (8, 8525), (9, 8561), (10, 8609), (12, 8657), (16, 8759), (19, 8921), (21, 8999), (22, 9017), (26, 9134), (27, 9206), (28, 9278), (30, 9317), (34, 9398), (35, 9401), (37, 9452), (39, 9458), (40, 9482), (41, 9491), (45, 9563), (48, 9698), (49, 9704), (50, 9707), (52, 9788), (58, 9944), (59, 9965), (60, 9983), (64, 10049), (66, 10073), (68, 10091), (72, 10205), (74, 10214), (83, 10367), (84, 10391), (85, 10439), (87, 10523), (88, 10535), (89, 10547), (90, 10559), (91, 10595), (94, 10697), (97, 10877), (98, 10973), (99, 11012), (100, 11033), (101, 11042), (102, 11066), (103, 11081), (104, 11090), (106, 11111),