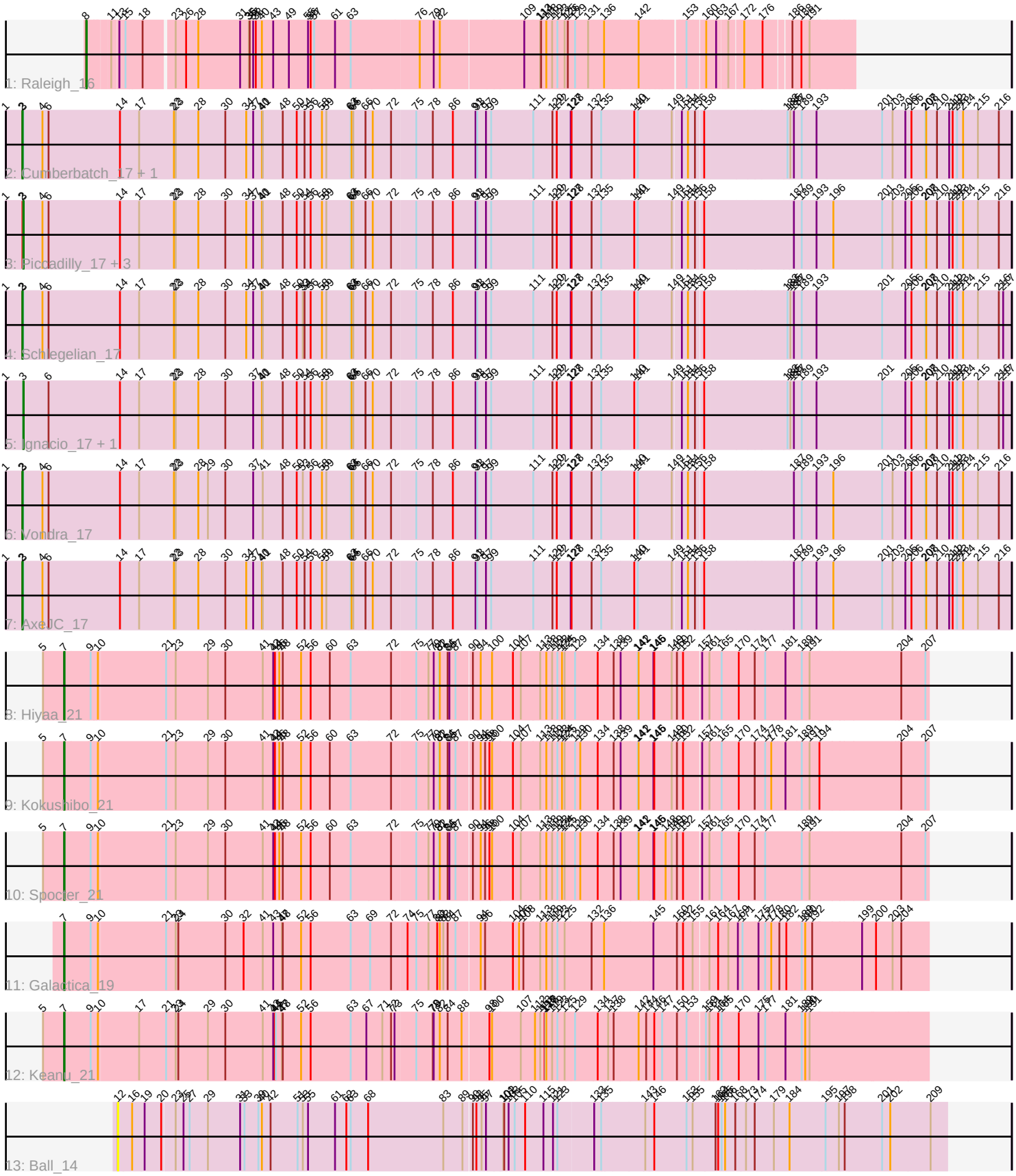
Pham 348097


1: Raleigh_16
2: Cumberbatch_17 + 1
3: Piccadilly_17 + 3
4: Schlegelian_17
5: Ignacio_17 + 1
6: Vondra_17
7: AxelJC_17
8: Hiyaa_21
9: Kokushibo_21
10: Specter_21
11: Galactica_19
12: Keanu_21
13: Ball_14

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 348097 Report

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

Pham number 348097 has 18 members, 1 are drafts.

Phages represented in each track:
• Track 1 : Raleigh_16
• Track 2 : Cumberbatch_17, ArizonaGT_17
• Track 3 : Piccadilly_17, Eastland_17, FrumpyGal_17, Eklok_17
• Track 4 : Schlegelian_17
• Track 5 : Ignacio_17, HFrancette_17
• Track 6 : Vondra_17
• Track 7 : AxeJC_17
• Track 8 : Hiyaa_21
• Track 9 : Kokushibo_21
• Track 10 : Spocter_21
• Track 11 : Galactica_19
• Track 12 : Keanu_21
• Track 13 : Ball_14

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 6 of the 17 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Eastland_17, Eklok_17, FrumpyGal_17, HFrancette_17, Ignacio_17, Piccadilly_17,

Genes that have the "Most Annotated" start but do not call it:
• ArizonaGT_17, AxeJC_17, Cumberbatch_17, Schlegelian_17, Vondra_17,

Genes that do not have the "Most Annotated" start:
• Ball_14, Galactica_19, Hiyaa_21, Keanu_21, Kokushibo_21, Raleigh_16, Spocter_21,

Summary by start number:

Start 2:
• Found in 9 of 18 (50.0%) of genes in pham
• Manual Annotations of this start: 5 of 17

• Called 55.6% of time when present
• Phage (with cluster) where this start called: ArizonaGT_17 (BP), AxeJC_17 (BP), Cumberbatch_17 (BP), Schlegelian_17 (BP), Vondra_17 (BP),

Start 3:
• Found in 11 of 18 (61.1%) of genes in pham
• Manual Annotations of this start: 6 of 17
• Called 54.5% of time when present
• Phage (with cluster) where this start called: Eastland_17 (BP), Eklok_17 (BP), FrumpyGal_17 (BP), HFrancette_17 (BP), Ignacio_17 (BP), Piccadilly_17 (BP),

Start 7:
• Found in 5 of 18 (27.8%) of genes in pham
• Manual Annotations of this start: 5 of 17
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Galactica_19 (BQ), Hiyaa_21 (BQ), Keanu_21 (BQ), Kokushibo_21 (BQ), Spocter_21 (BQ),

Start 8:
• Found in 1 of 18 (5.6%) of genes in pham
• Manual Annotations of this start: 1 of 17
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Raleigh_16 (BC2),

Start 12:
• Found in 1 of 18 (5.6%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ball_14 (singleton),

Summary by clusters:

There are 4 clusters represented in this pham: singleton, BP, BQ, BC2,

Info for manual annotations of cluster BC2:
•Start number 8 was manually annotated 1 time for cluster BC2.

Info for manual annotations of cluster BP:
•Start number 2 was manually annotated 5 times for cluster BP.
•Start number 3 was manually annotated 6 times for cluster BP.

Info for manual annotations of cluster BQ:
•Start number 7 was manually annotated 5 times for cluster BQ.

Gene Information:

Gene: ArizonaGT_17 Start: 9962, Stop: 13312, Start Num: 2
Candidate Starts for ArizonaGT_17:
(1, 9905), (Start: 2 @9962 has 5 MA's), (Start: 3 @9965 has 6 MA's), (4, 10031), (6, 10052), (14, 10298), (17, 10364), (22, 10484), (23, 10490), (28, 10568), (30, 10661), (34, 10733), (37, 10757), (40, 10787), (41, 10790), (48, 10856), (50, 10904), (54, 10931), (56, 10952), (58, 10991), (59, 11006), (63,

11090), (64, 11093), (65, 11099), (66, 11141), (70, 11165), (72, 11228), (75, 11306), (78, 11363), (86, 11432), (91, 11510), (93, 11516), (97, 11546), (99, 11564), (111, 11708), (120, 11774), (122, 11789), (127, 11837), (128, 11840), (132, 11909), (135, 11942), (140, 12053), (141, 12065), (149, 12182), (151, 12209), (154, 12230), (156, 12254), (158, 12278), (183, 12548), (185, 12557), (187, 12569), (189, 12596), (193, 12647), (201, 12869), (203, 12905), (205, 12947), (206, 12968), (207, 13016), (208, 13019), (210, 13055), (211, 13097), (212, 13109), (213, 13124), (214, 13145), (215, 13196), (216, 13268),

Gene: AxeJC_17 Start: 9978, Stop: 13328, Start Num: 2
Candidate Starts for AxeJC_17:
(1, 9921), (Start: 2 @9978 has 5 MA's), (Start: 3 @9981 has 6 MA's), (4, 10047), (6, 10068), (14, 10314), (17, 10380), (22, 10500), (23, 10506), (28, 10584), (30, 10677), (34, 10749), (37, 10773), (40, 10803), (41, 10806), (48, 10872), (50, 10920), (54, 10947), (56, 10968), (58, 11007), (59, 11022), (63, 11106), (64, 11109), (65, 11115), (66, 11157), (70, 11181), (72, 11244), (75, 11322), (78, 11379), (86, 11448), (91, 11526), (93, 11532), (97, 11562), (99, 11580), (111, 11724), (120, 11790), (122, 11805), (127, 11853), (128, 11856), (132, 11925), (135, 11958), (140, 12069), (141, 12081), (149, 12198), (151, 12225), (154, 12246), (156, 12270), (158, 12294), (187, 12585), (189, 12612), (193, 12663), (196, 12717), (201, 12885), (203, 12921), (205, 12963), (206, 12984), (207, 13032), (208, 13035), (210, 13071), (211, 13113), (212, 13125), (213, 13140), (214, 13161), (215, 13212), (216, 13284),

Gene: Ball_14 Start: 9578, Stop: 12361, Start Num: 12
Candidate Starts for Ball_14:
(12, 9578), (16, 9626), (19, 9668), (20, 9725), (23, 9767), (25, 9794), (27, 9815), (29, 9878), (31, 9989), (33, 10004), (39, 10052), (40, 10064), (42, 10094), (51, 10187), (53, 10205), (55, 10223), (61, 10316), (62, 10355), (63, 10370), (68, 10430), (83, 10685), (89, 10751), (90, 10778), (92, 10790), (95, 10802), (97, 10817), (101, 10871), (102, 10874), (103, 10889), (105, 10910), (110, 10946), (115, 11009), (121, 11042), (123, 11057), (133, 11177), (135, 11201), (143, 11342), (146, 11372), (153, 11483), (155, 11504), (162, 11582), (164, 11591), (165, 11603), (166, 11615), (168, 11648), (173, 11684), (174, 11714), (179, 11780), (184, 11834), (195, 11957), (197, 11999), (198, 12017), (201, 12143), (202, 12170), (209, 12305),

Gene: Cumberbatch_17 Start: 9962, Stop: 13312, Start Num: 2
Candidate Starts for Cumberbatch_17:
(1, 9905), (Start: 2 @9962 has 5 MA's), (Start: 3 @9965 has 6 MA's), (4, 10031), (6, 10052), (14, 10298), (17, 10364), (22, 10484), (23, 10490), (28, 10568), (30, 10661), (34, 10733), (37, 10757), (40, 10787), (41, 10790), (48, 10856), (50, 10904), (54, 10931), (56, 10952), (58, 10991), (59, 11006), (63, 11090), (64, 11093), (65, 11099), (66, 11141), (70, 11165), (72, 11228), (75, 11306), (78, 11363), (86, 11432), (91, 11510), (93, 11516), (97, 11546), (99, 11564), (111, 11708), (120, 11774), (122, 11789), (127, 11837), (128, 11840), (132, 11909), (135, 11942), (140, 12053), (141, 12065), (149, 12182), (151, 12209), (154, 12230), (156, 12254), (158, 12278), (183, 12548), (185, 12557), (187, 12569), (189, 12596), (193, 12647), (201, 12869), (203, 12905), (205, 12947), (206, 12968), (207, 13016), (208, 13019), (210, 13055), (211, 13097), (212, 13109), (213, 13124), (214, 13145), (215, 13196), (216, 13268),

Gene: Eastland_17 Start: 9966, Stop: 13313, Start Num: 3
Candidate Starts for Eastland_17:
(1, 9906), (Start: 2 @9963 has 5 MA's), (Start: 3 @9966 has 6 MA's), (4, 10032), (6, 10053), (14, 10299), (17, 10365), (22, 10485), (23, 10491), (28, 10569), (30, 10662), (34, 10734), (37, 10758), (40, 10788), (41, 10791), (48, 10857), (50, 10905), (54, 10932), (56, 10953), (58, 10992), (59, 11007), (63, 11091), (64, 11094), (65, 11100), (66, 11142), (70, 11166), (72, 11229), (75, 11307), (78, 11364), (86, 11433), (91, 11511), (93, 11517), (97, 11547), (99, 11565), (111, 11709), (120, 11775), (122, 11790), (127, 11838), (128, 11841), (132, 11910), (135, 11943), (140, 12054), (141, 12066), (149, 12183), (151, 12210), (154, 12231), (156, 12255), (158, 12279), (187, 12570), (189, 12597), (193, 12648),

(196, 12702), (201, 12870), (203, 12906), (205, 12948), (206, 12969), (207, 13017), (208, 13020), (210, 13056), (211, 13098), (212, 13110), (213, 13125), (214, 13146), (215, 13197), (216, 13269),

Gene: Eklok_17 Start: 9981, Stop: 13328, Start Num: 3
Candidate Starts for Eklok_17:
(1, 9921), (Start: 2 @9978 has 5 MA's), (Start: 3 @9981 has 6 MA's), (4, 10047), (6, 10068), (14, 10314), (17, 10380), (22, 10500), (23, 10506), (28, 10584), (30, 10677), (34, 10749), (37, 10773), (40, 10803), (41, 10806), (48, 10872), (50, 10920), (54, 10947), (56, 10968), (58, 11007), (59, 11022), (63, 11106), (64, 11109), (65, 11115), (66, 11157), (70, 11181), (72, 11244), (75, 11322), (78, 11379), (86, 11448), (91, 11526), (93, 11532), (97, 11562), (99, 11580), (111, 11724), (120, 11790), (122, 11805), (127, 11853), (128, 11856), (132, 11925), (135, 11958), (140, 12069), (141, 12081), (149, 12198), (151, 12225), (154, 12246), (156, 12270), (158, 12294), (187, 12585), (189, 12612), (193, 12663), (196, 12717), (201, 12885), (203, 12921), (205, 12963), (206, 12984), (207, 13032), (208, 13035), (210, 13071), (211, 13113), (212, 13125), (213, 13140), (214, 13161), (215, 13212), (216, 13284),

Gene: FrumpyGal_17 Start: 9966, Stop: 13313, Start Num: 3
Candidate Starts for FrumpyGal_17:
(1, 9906), (Start: 2 @9963 has 5 MA's), (Start: 3 @9966 has 6 MA's), (4, 10032), (6, 10053), (14, 10299), (17, 10365), (22, 10485), (23, 10491), (28, 10569), (30, 10662), (34, 10734), (37, 10758), (40, 10788), (41, 10791), (48, 10857), (50, 10905), (54, 10932), (56, 10953), (58, 10992), (59, 11007), (63, 11091), (64, 11094), (65, 11100), (66, 11142), (70, 11166), (72, 11229), (75, 11307), (78, 11364), (86, 11433), (91, 11511), (93, 11517), (97, 11547), (99, 11565), (111, 11709), (120, 11775), (122, 11790), (127, 11838), (128, 11841), (132, 11910), (135, 11943), (140, 12054), (141, 12066), (149, 12183), (151, 12210), (154, 12231), (156, 12255), (158, 12279), (187, 12570), (189, 12597), (193, 12648), (196, 12702), (201, 12870), (203, 12906), (205, 12948), (206, 12969), (207, 13017), (208, 13020), (210, 13056), (211, 13098), (212, 13110), (213, 13125), (214, 13146), (215, 13197), (216, 13269),

Gene: Galactica_19 Start: 14849, Stop: 17671, Start Num: 7
Candidate Starts for Galactica_19:
(Start: 7 @14849 has 5 MA's), (9, 14936), (10, 14957), (21, 15179), (23, 15212), (24, 15221), (30, 15383), (32, 15446), (41, 15512), (43, 15548), (47, 15575), (48, 15578), (52, 15641), (56, 15674), (63, 15812), (69, 15878), (72, 15950), (74, 15998), (75, 16028), (77, 16070), (80, 16100), (82, 16109), (83, 16121), (84, 16136), (87, 16163), (94, 16235), (96, 16250), (104, 16340), (106, 16361), (108, 16376), (113, 16433), (118, 16454), (119, 16469), (123, 16487), (125, 16511), (132, 16598), (136, 16637), (145, 16787), (150, 16862), (152, 16883), (155, 16916), (161, 16961), (164, 16982), (167, 17015), (169, 17048), (171, 17063), (175, 17117), (177, 17138), (178, 17159), (180, 17183), (182, 17207), (189, 17258), (190, 17270), (192, 17291), (199, 17453), (200, 17498), (203, 17555), (204, 17579),

Gene: HFrancette_17 Start: 9980, Stop: 13327, Start Num: 3
Candidate Starts for HFrancette_17:
(1, 9920), (Start: 3 @9980 has 6 MA's), (6, 10067), (14, 10313), (17, 10379), (22, 10499), (23, 10505), (28, 10583), (30, 10676), (37, 10772), (40, 10802), (41, 10805), (48, 10871), (50, 10919), (54, 10946), (56, 10967), (58, 11006), (59, 11021), (63, 11105), (64, 11108), (65, 11114), (66, 11156), (70, 11180), (72, 11243), (75, 11321), (78, 11378), (86, 11447), (91, 11525), (93, 11531), (97, 11561), (99, 11579), (111, 11723), (120, 11789), (122, 11804), (127, 11852), (128, 11855), (132, 11924), (135, 11957), (140, 12068), (141, 12080), (149, 12197), (151, 12224), (154, 12245), (156, 12269), (158, 12293), (183, 12563), (185, 12572), (187, 12584), (189, 12611), (193, 12662), (201, 12884), (205, 12962), (206, 12983), (207, 13031), (208, 13034), (210, 13070), (211, 13112), (212, 13124), (213, 13139), (214, 13160), (215, 13211), (216, 13283), (217, 13298),

Gene: Hiyaa_21 Start: 15882, Stop: 18707, Start Num: 7
Candidate Starts for Hiyaa_21:

(5, 15810), (Start: 7 @15882 has 5 MA's), (9, 15969), (10, 15990), (21, 16212), (23, 16245), (29, 16356), (30, 16416), (41, 16545), (43, 16581), (44, 16587), (46, 16602), (48, 16611), (52, 16674), (56, 16707), (60, 16773), (63, 16845), (72, 16983), (75, 17061), (77, 17103), (79, 17121), (81, 17139), (82, 17142), (84, 17169), (85, 17175), (87, 17196), (90, 17247), (94, 17268), (100, 17304), (104, 17373), (107, 17400), (113, 17466), (118, 17487), (119, 17502), (123, 17520), (124, 17535), (125, 17544), (129, 17574), (134, 17649), (138, 17697), (139, 17718), (141, 17775), (142, 17778), (145, 17820), (146, 17823), (149, 17883), (150, 17895), (152, 17916), (157, 17973), (161, 17994), (165, 18027), (170, 18084), (174, 18138), (177, 18171), (181, 18237), (189, 18291), (191, 18315), (204, 18615), (207, 18696),

Gene: Ignacio_17 Start: 9980, Stop: 13327, Start Num: 3
Candidate Starts for Ignacio_17:
(1, 9920), (Start: 3 @9980 has 6 MA's), (6, 10067), (14, 10313), (17, 10379), (22, 10499), (23, 10505), (28, 10583), (30, 10676), (37, 10772), (40, 10802), (41, 10805), (48, 10871), (50, 10919), (54, 10946), (56, 10967), (58, 11006), (59, 11021), (63, 11105), (64, 11108), (65, 11114), (66, 11156), (70, 11180), (72, 11243), (75, 11321), (78, 11378), (86, 11447), (91, 11525), (93, 11531), (97, 11561), (99, 11579), (111, 11723), (120, 11789), (122, 11804), (127, 11852), (128, 11855), (132, 11924), (135, 11957), (140, 12068), (141, 12080), (149, 12197), (151, 12224), (154, 12245), (156, 12269), (158, 12293), (183, 12563), (185, 12572), (187, 12584), (189, 12611), (193, 12662), (201, 12884), (205, 12962), (206, 12983), (207, 13031), (208, 13034), (210, 13070), (211, 13112), (212, 13124), (213, 13139), (214, 13160), (215, 13211), (216, 13283), (217, 13298),

Gene: Keanu_21 Start: 15925, Stop: 18747, Start Num: 7
Candidate Starts for Keanu_21:
(5, 15853), (Start: 7 @15925 has 5 MA's), (9, 16012), (10, 16033), (17, 16168), (21, 16255), (23, 16288), (24, 16297), (29, 16399), (30, 16459), (41, 16588), (43, 16624), (44, 16630), (45, 16633), (47, 16651), (48, 16654), (52, 16717), (56, 16750), (63, 16888), (67, 16942), (71, 16996), (72, 17026), (73, 17038), (75, 17104), (78, 17161), (79, 17164), (82, 17185), (84, 17212), (88, 17260), (98, 17338), (100, 17347), (107, 17443), (112, 17491), (113, 17509), (116, 17524), (117, 17527), (118, 17530), (119, 17545), (123, 17563), (125, 17587), (129, 17617), (134, 17692), (137, 17725), (138, 17740), (142, 17821), (144, 17839), (146, 17866), (147, 17893), (150, 17938), (153, 17971), (159, 18025), (161, 18037), (164, 18058), (165, 18070), (170, 18127), (175, 18193), (177, 18214), (181, 18280), (189, 18334), (190, 18346), (191, 18358),

Gene: Kokushibo_21 Start: 15897, Stop: 18722, Start Num: 7
Candidate Starts for Kokushibo_21:
(5, 15825), (Start: 7 @15897 has 5 MA's), (9, 15984), (10, 16005), (21, 16227), (23, 16260), (29, 16371), (30, 16431), (41, 16560), (43, 16596), (44, 16602), (46, 16617), (48, 16626), (52, 16689), (56, 16722), (60, 16788), (63, 16860), (72, 16998), (75, 17076), (77, 17118), (79, 17136), (81, 17154), (82, 17157), (84, 17184), (85, 17190), (87, 17211), (90, 17262), (94, 17283), (96, 17298), (98, 17310), (100, 17319), (104, 17388), (107, 17415), (113, 17481), (118, 17502), (119, 17517), (123, 17535), (124, 17550), (125, 17559), (129, 17589), (130, 17607), (134, 17664), (138, 17712), (139, 17733), (141, 17790), (142, 17793), (145, 17835), (146, 17838), (149, 17898), (150, 17910), (152, 17931), (157, 17988), (161, 18009), (165, 18042), (170, 18099), (174, 18153), (177, 18186), (178, 18207), (181, 18252), (189, 18306), (191, 18330), (194, 18363), (204, 18630), (207, 18711),

Gene: Piccadilly_17 Start: 9965, Stop: 13312, Start Num: 3
Candidate Starts for Piccadilly_17:
(1, 9905), (Start: 2 @9962 has 5 MA's), (Start: 3 @9965 has 6 MA's), (4, 10031), (6, 10052), (14, 10298), (17, 10364), (22, 10484), (23, 10490), (28, 10568), (30, 10661), (34, 10733), (37, 10757), (40, 10787), (41, 10790), (48, 10856), (50, 10904), (54, 10931), (56, 10952), (58, 10991), (59, 11006), (63, 11090), (64, 11093), (65, 11099), (66, 11141), (70, 11165), (72, 11228), (75, 11306), (78, 11363), (86, 11432), (91, 11510), (93, 11516), (97, 11546), (99, 11564), (111, 11708), (120, 11774), (122, 11789),

(127, 11837), (128, 11840), (132, 11909), (135, 11942), (140, 12053), (141, 12065), (149, 12182), (151, 12209), (154, 12230), (156, 12254), (158, 12278), (187, 12569), (189, 12596), (193, 12647), (196, 12701), (201, 12869), (203, 12905), (205, 12947), (206, 12968), (207, 13016), (208, 13019), (210, 13055), (211, 13097), (212, 13109), (213, 13124), (214, 13145), (215, 13196), (216, 13268),

Gene: Raleigh_16 Start: 10247, Stop: 12655, Start Num: 8
Candidate Starts for Raleigh_16:
(Start: 8 @10247 has 1 MA's), (11, 10313), (13, 10334), (15, 10355), (18, 10412), (23, 10508), (26, 10544), (28, 10586), (31, 10730), (35, 10760), (36, 10763), (37, 10775), (38, 10784), (40, 10805), (43, 10844), (49, 10895), (55, 10961), (56, 10970), (57, 10982), (61, 11054), (63, 11108), (76, 11336), (79, 11384), (82, 11405), (109, 11675), (113, 11729), (114, 11732), (118, 11750), (119, 11765), (123, 11783), (125, 11807), (126, 11816), (129, 11837), (131, 11882), (136, 11933), (142, 12041), (153, 12176), (160, 12230), (163, 12251), (167, 12284), (172, 12329), (176, 12383), (186, 12464), (188, 12491), (191, 12515),

Gene: Schlegelian_17 Start: 9962, Stop: 13312, Start Num: 2
Candidate Starts for Schlegelian_17:
(1, 9905), (Start: 2 @9962 has 5 MA's), (Start: 3 @9965 has 6 MA's), (4, 10031), (6, 10052), (14, 10298), (17, 10364), (22, 10484), (23, 10490), (28, 10568), (30, 10661), (34, 10733), (37, 10757), (40, 10787), (41, 10790), (48, 10856), (50, 10904), (53, 10925), (54, 10931), (56, 10952), (58, 10991), (59, 11006), (63, 11090), (64, 11093), (65, 11099), (66, 11141), (70, 11165), (72, 11228), (75, 11306), (78, 11363), (86, 11432), (91, 11510), (93, 11516), (97, 11546), (99, 11564), (111, 11708), (120, 11774), (122, 11789), (127, 11837), (128, 11840), (132, 11909), (135, 11942), (140, 12053), (141, 12065), (149, 12182), (151, 12209), (154, 12230), (156, 12254), (158, 12278), (183, 12548), (185, 12557), (187, 12569), (189, 12596), (193, 12647), (201, 12869), (205, 12947), (206, 12968), (207, 13016), (208, 13019), (210, 13055), (211, 13097), (212, 13109), (213, 13124), (214, 13145), (215, 13196), (216, 13268), (217, 13283),

Gene: Spocter_21 Start: 15870, Stop: 18695, Start Num: 7
Candidate Starts for Spocter_21:
(5, 15798), (Start: 7 @15870 has 5 MA's), (9, 15957), (10, 15978), (21, 16200), (23, 16233), (29, 16344), (30, 16404), (41, 16533), (43, 16569), (44, 16575), (46, 16590), (48, 16599), (52, 16662), (56, 16695), (60, 16761), (63, 16833), (72, 16971), (75, 17049), (77, 17091), (79, 17109), (81, 17127), (82, 17130), (84, 17157), (85, 17163), (87, 17184), (90, 17235), (94, 17256), (96, 17271), (98, 17283), (100, 17292), (104, 17361), (107, 17388), (113, 17454), (118, 17475), (119, 17490), (123, 17508), (124, 17523), (125, 17532), (129, 17562), (130, 17580), (134, 17637), (138, 17685), (139, 17706), (141, 17763), (142, 17766), (145, 17808), (146, 17811), (148, 17850), (149, 17871), (150, 17883), (152, 17904), (157, 17961), (161, 17982), (165, 18015), (170, 18072), (174, 18126), (177, 18159), (189, 18279), (191, 18303), (204, 18603), (207, 18684),

Gene: Vondra_17 Start: 9974, Stop: 13324, Start Num: 2
Candidate Starts for Vondra_17:
(1, 9917), (Start: 2 @9974 has 5 MA's), (Start: 3 @9977 has 6 MA's), (4, 10043), (6, 10064), (14, 10310), (17, 10376), (22, 10496), (23, 10502), (28, 10580), (29, 10613), (30, 10673), (37, 10769), (41, 10802), (48, 10868), (50, 10916), (53, 10937), (56, 10964), (58, 11003), (59, 11018), (63, 11102), (64, 11105), (65, 11111), (66, 11153), (70, 11177), (72, 11240), (75, 11318), (78, 11375), (86, 11444), (91, 11522), (93, 11528), (97, 11558), (99, 11576), (111, 11720), (120, 11786), (122, 11801), (127, 11849), (128, 11852), (132, 11921), (135, 11954), (140, 12065), (141, 12077), (149, 12194), (151, 12221), (154, 12242), (156, 12266), (158, 12290), (187, 12581), (189, 12608), (193, 12659), (196, 12713), (201, 12881), (203, 12917), (205, 12959), (206, 12980), (207, 13028), (208, 13031), (210, 13067), (211, 13109), (212, 13121), (213, 13136), (214, 13157), (215, 13208), (216, 13280),