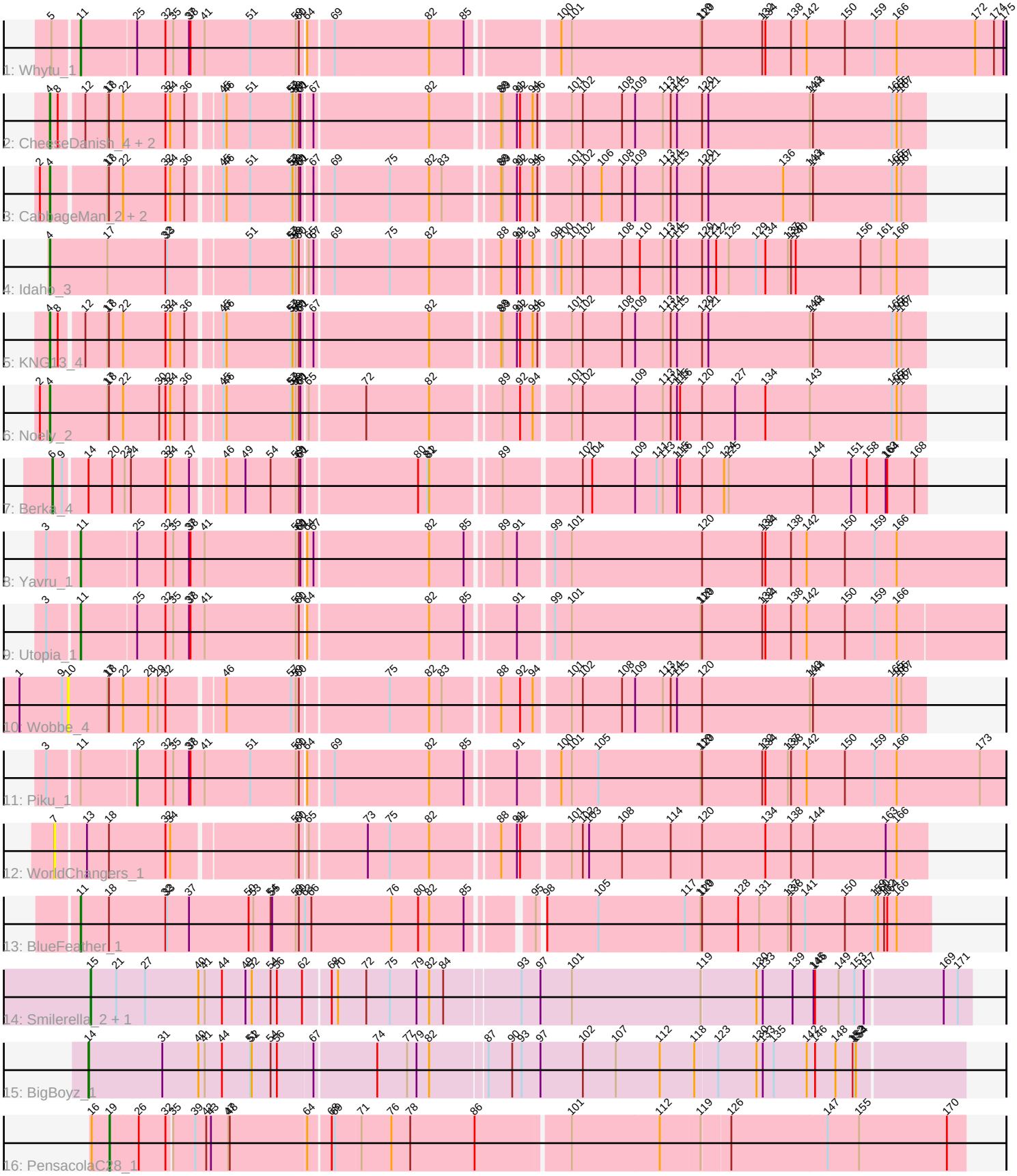
Pham 331240


1: Whytu_1
2: CheeseDanish_4 + 2
3: CabbageMan_2 + 2
4: Idaho_3
5: KNG13_4
6: Noely_2
7: Berka_4
8: Yavru_1
9: Utopia_1
10: Wobbe_4
11: Piku_1
12: WorldChangers_1
13: BlueFeather_1
14: Smilerella_2 + 1
15: BigBoyz_1
16: PensacolaC28_1

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 331240 Report

This analysis was run 09/05/26 on database version 662.

Pham number 331240 has 21 members, 3 are drafts.

Phages represented in each track:
• Track 1 : Whytu_1
• Track 2 : CheeseDanish_4, Nebulanyx_4, Corgi_4
• Track 3 : CabbageMan_2, LauKoruNamu_3, Pauu_3
• Track 4 : Idaho_3
• Track 5 : KNG13_4
• Track 6 : Noely_2
• Track 7 : Berka_4
• Track 8 : Yavru_1
• Track 9 : Utopia_1
• Track 10 : Wobbe_4
• Track 11 : Piku_1
• Track 12 : WorldChangers_1
• Track 13 : BlueFeather_1
• Track 14 : Smilerella_2, MoRicky_2
• Track 15 : BigBoyz_1
• Track 16 : PensacolaC28_1

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

The start number called the most often in the published annotations is 4, it was called in 8 of the 18 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• CabbageMan_2, CheeseDanish_4, Corgi_4, Idaho_3, KNG13_4, LauKoruNamu_3, Nebulanyx_4, Noely_2, Pauu_3,

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

Genes that do not have the "Most Annotated" start:
• Berka_4, BigBoyz_1, BlueFeather_1, MoRicky_2, PensacolaC28_1, Piku_1, Smilerella_2, Utopia_1, Whytu_1, Wobbe_4, WorldChangers_1, Yavru_1,

Summary by start number:

Start 4:
• Found in 9 of 21 (42.9%) of genes in pham
• Manual Annotations of this start: 8 of 18
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CabbageMan_2 (FE), CheeseDanish_4 (FE), Corgi_4 (FE), Idaho_3 (FE), KNG13_4 (FE), LauKoruNamu_3 (FE), Nebulanyx_4 (FE), Noely_2 (FE), Pauu_3 (FE),

Start 6:
• Found in 1 of 21 (4.8%) 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: Berka_4 (FE),

Start 7:
• Found in 1 of 21 (4.8%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: WorldChangers_1 (FE),

Start 10:
• Found in 1 of 21 (4.8%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Wobbe_4 (FE),

Start 11:
• Found in 5 of 21 (23.8%) of genes in pham
• Manual Annotations of this start: 4 of 18
• Called 80.0% of time when present
• Phage (with cluster) where this start called: BlueFeather_1 (FE), Utopia_1 (FE), Whytu_1 (FE), Yavru_1 (FE),

Start 14:
• Found in 2 of 21 (9.5%) of genes in pham
• Manual Annotations of this start: 1 of 18
• Called 50.0% of time when present
• Phage (with cluster) where this start called: BigBoyz_1 (GH),

Start 15:
• Found in 2 of 21 (9.5%) of genes in pham
• Manual Annotations of this start: 2 of 18
• Called 100.0% of time when present
• Phage (with cluster) where this start called: MoRicky_2 (GH), Smilerella_2 (GH),

Start 19:
• Found in 1 of 21 (4.8%) 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: PensacolaC28_1 (singleton),

Start 25:

• Found in 4 of 21 (19.0%) of genes in pham
• Manual Annotations of this start: 1 of 18
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Piku_1 (FE),

Summary by clusters:

There are 3 clusters represented in this pham: singleton, FE, GH,

Info for manual annotations of cluster FE:
•Start number 4 was manually annotated 8 times for cluster FE.
•Start number 6 was manually annotated 1 time for cluster FE.
•Start number 11 was manually annotated 4 times for cluster FE.
•Start number 25 was manually annotated 1 time for cluster FE.

Info for manual annotations of cluster GH:
•Start number 14 was manually annotated 1 time for cluster GH.
•Start number 15 was manually annotated 2 times for cluster GH.

Gene Information:

Gene: Berka_4 Start: 780, Stop: 2345, Start Num: 6
Candidate Starts for Berka_4:
(Start: 6 @780 has 1 MA's), (9, 798), (Start: 14 @840 has 1 MA's), (20, 885), (23, 909), (24, 921), (32, 987), (34, 996), (37, 1032), (46, 1083), (49, 1119), (54, 1167), (59, 1212), (60, 1218), (61, 1221), (80, 1428), (81, 1446), (82, 1449), (89, 1566), (102, 1701), (104, 1719), (109, 1797), (111, 1836), (113, 1848), (115, 1875), (116, 1881), (120, 1923), (124, 1965), (125, 1974), (144, 2133), (151, 2205), (158, 2235), (163, 2268), (164, 2271), (168, 2322),

Gene: BigBoyz_1 Start: 31, Stop: 1653, Start Num: 14
Candidate Starts for BigBoyz_1:
(Start: 14 @31 has 1 MA's), (31, 169), (40, 238), (41, 247), (44, 280), (51, 334), (52, 337), (54, 373), (56, 385), (67, 451), (74, 565), (77, 622), (79, 640), (82, 664), (87, 766), (90, 811), (93, 829), (97, 865), (102, 946), (107, 1009), (112, 1090), (118, 1150), (123, 1192), (130, 1264), (133, 1276), (135, 1297), (142, 1360), (146, 1375), (148, 1414), (152, 1447), (153, 1450), (154, 1453),

Gene: BlueFeather_1 Start: 75, Stop: 1616, Start Num: 11
Candidate Starts for BlueFeather_1:
(Start: 11 @75 has 4 MA's), (18, 129), (32, 237), (33, 240), (37, 282), (50, 396), (53, 405), (54, 438), (55, 441), (59, 483), (60, 489), (63, 501), (66, 513), (76, 663), (80, 714), (82, 735), (85, 798), (95, 897), (98, 906), (105, 1002), (117, 1158), (119, 1188), (120, 1191), (128, 1260), (131, 1299), (137, 1353), (138, 1359), (141, 1386), (150, 1461), (159, 1515), (160, 1521), (162, 1533), (164, 1539), (166, 1557),

Gene: CabbageMan_2 Start: 437, Stop: 1996, Start Num: 4
Candidate Starts for CabbageMan_2:
(2, 419), (Start: 4 @437 has 8 MA's), (17, 533), (18, 536), (22, 563), (32, 644), (34, 653), (36, 680), (45, 734), (46, 740), (51, 785), (57, 860), (58, 863), (59, 869), (60, 875), (61, 878), (67, 896), (69, 929), (75, 1031), (82, 1106), (83, 1130), (88, 1220), (89, 1223), (91, 1250), (92, 1253), (94, 1277), (96, 1286), (101, 1337), (102, 1358), (106, 1394), (108, 1430), (109, 1454), (113, 1505), (114, 1520), (115, 1532), (120, 1577), (121, 1589), (136, 1730), (143, 1781), (144, 1787), (165, 1934), (166, 1943), (167, 1952),

Gene: CheeseDanish_4 Start: 607, Stop: 2163, Start Num: 4
Candidate Starts for CheeseDanish_4:
(Start: 4 @607 has 8 MA's), (8, 619), (12, 658), (17, 700), (18, 703), (22, 730), (32, 811), (34, 820), (36, 847), (45, 901), (46, 907), (51, 952), (57, 1027), (58, 1030), (59, 1036), (60, 1042), (61, 1045), (67, 1063), (82, 1273), (88, 1387), (89, 1390), (91, 1417), (92, 1420), (94, 1444), (96, 1453), (101, 1504), (102, 1525), (108, 1597), (109, 1621), (113, 1672), (114, 1687), (115, 1699), (120, 1744), (121, 1756), (143, 1948), (144, 1954), (165, 2101), (166, 2110), (167, 2119),

Gene: Corgi_4 Start: 607, Stop: 2163, Start Num: 4
Candidate Starts for Corgi_4:
(Start: 4 @607 has 8 MA's), (8, 619), (12, 658), (17, 700), (18, 703), (22, 730), (32, 811), (34, 820), (36, 847), (45, 901), (46, 907), (51, 952), (57, 1027), (58, 1030), (59, 1036), (60, 1042), (61, 1045), (67, 1063), (82, 1273), (88, 1387), (89, 1390), (91, 1417), (92, 1420), (94, 1444), (96, 1453), (101, 1504), (102, 1525), (108, 1597), (109, 1621), (113, 1672), (114, 1687), (115, 1699), (120, 1744), (121, 1756), (143, 1948), (144, 1954), (165, 2101), (166, 2110), (167, 2119),

Gene: Idaho_3 Start: 471, Stop: 2039, Start Num: 4
Candidate Starts for Idaho_3:
(Start: 4 @471 has 8 MA's), (17, 576), (32, 684), (33, 687), (51, 825), (57, 900), (58, 903), (59, 909), (60, 915), (65, 927), (67, 936), (69, 969), (75, 1071), (82, 1146), (88, 1260), (91, 1290), (92, 1293), (94, 1317), (99, 1347), (100, 1359), (101, 1377), (102, 1398), (108, 1470), (110, 1503), (113, 1545), (114, 1560), (115, 1572), (120, 1617), (121, 1629), (122, 1644), (125, 1668), (129, 1719), (134, 1737), (137, 1779), (138, 1785), (140, 1794), (156, 1917), (161, 1953), (166, 1983),

Gene: KNG13_4 Start: 607, Stop: 2163, Start Num: 4
Candidate Starts for KNG13_4:
(Start: 4 @607 has 8 MA's), (8, 619), (12, 658), (17, 700), (18, 703), (22, 730), (32, 811), (34, 820), (36, 847), (45, 901), (46, 907), (57, 1027), (58, 1030), (59, 1036), (60, 1042), (61, 1045), (67, 1063), (82, 1273), (88, 1387), (89, 1390), (91, 1417), (92, 1420), (94, 1444), (96, 1453), (101, 1504), (102, 1525), (108, 1597), (109, 1621), (113, 1672), (114, 1687), (115, 1699), (120, 1744), (121, 1756), (143, 1948), (144, 1954), (165, 2101), (166, 2110), (167, 2119),

Gene: LauKoruNamu_3 Start: 437, Stop: 1996, Start Num: 4
Candidate Starts for LauKoruNamu_3:
(2, 419), (Start: 4 @437 has 8 MA's), (17, 533), (18, 536), (22, 563), (32, 644), (34, 653), (36, 680), (45, 734), (46, 740), (51, 785), (57, 860), (58, 863), (59, 869), (60, 875), (61, 878), (67, 896), (69, 929), (75, 1031), (82, 1106), (83, 1130), (88, 1220), (89, 1223), (91, 1250), (92, 1253), (94, 1277), (96, 1286), (101, 1337), (102, 1358), (106, 1394), (108, 1430), (109, 1454), (113, 1505), (114, 1520), (115, 1532), (120, 1577), (121, 1589), (136, 1730), (143, 1781), (144, 1787), (165, 1934), (166, 1943), (167, 1952),

Gene: MoRicky_2 Start: 176, Stop: 1804, Start Num: 15
Candidate Starts for MoRicky_2:
(Start: 15 @176 has 2 MA's), (21, 224), (27, 278), (40, 380), (41, 389), (44, 422), (49, 467), (52, 479), (54, 515), (56, 527), (62, 575), (68, 620), (70, 632), (72, 686), (75, 731), (79, 782), (82, 806), (84, 833), (93, 971), (97, 1007), (101, 1067), (119, 1307), (130, 1409), (133, 1421), (139, 1475), (145, 1511), (146, 1514), (149, 1559), (153, 1589), (157, 1607), (169, 1751), (171, 1778),

Gene: Nebulanyx_4 Start: 607, Stop: 2163, Start Num: 4
Candidate Starts for Nebulanyx_4:
(Start: 4 @607 has 8 MA's), (8, 619), (12, 658), (17, 700), (18, 703), (22, 730), (32, 811), (34, 820), (36, 847), (45, 901), (46, 907), (51, 952), (57, 1027), (58, 1030), (59, 1036), (60, 1042), (61, 1045), (67, 1063), (82, 1273), (88, 1387), (89, 1390), (91, 1417), (92, 1420), (94, 1444), (96, 1453), (101, 1504), (102, 1525), (108, 1597), (109, 1621), (113, 1672), (114, 1687), (115, 1699), (120, 1744), (121, 1756),

(143, 1948), (144, 1954), (165, 2101), (166, 2110), (167, 2119),

Gene: Noely_2 Start: 539, Stop: 2110, Start Num: 4
Candidate Starts for Noely_2:
(2, 521), (Start: 4 @539 has 8 MA's), (17, 644), (18, 647), (22, 674), (30, 743), (32, 755), (34, 764), (36, 791), (45, 845), (46, 851), (57, 971), (58, 974), (59, 980), (60, 986), (61, 989), (65, 998), (72, 1097), (82, 1217), (89, 1334), (92, 1364), (94, 1388), (101, 1448), (102, 1469), (109, 1565), (113, 1616), (114, 1631), (115, 1643), (116, 1649), (120, 1691), (127, 1754), (134, 1811), (143, 1895), (165, 2048), (166, 2057), (167, 2066),

Gene: Pauu_3 Start: 437, Stop: 1996, Start Num: 4
Candidate Starts for Pauu_3:
(2, 419), (Start: 4 @437 has 8 MA's), (17, 533), (18, 536), (22, 563), (32, 644), (34, 653), (36, 680), (45, 734), (46, 740), (51, 785), (57, 860), (58, 863), (59, 869), (60, 875), (61, 878), (67, 896), (69, 929), (75, 1031), (82, 1106), (83, 1130), (88, 1220), (89, 1223), (91, 1250), (92, 1253), (94, 1277), (96, 1286), (101, 1337), (102, 1358), (106, 1394), (108, 1430), (109, 1454), (113, 1505), (114, 1520), (115, 1532), (120, 1577), (121, 1589), (136, 1730), (143, 1781), (144, 1787), (165, 1934), (166, 1943), (167, 1952),

Gene: PensacolaC28_1 Start: 37, Stop: 1611, Start Num: 19
Candidate Starts for PensacolaC28_1:
(16, 4), (Start: 19 @37 has 1 MA's), (26, 91), (32, 142), (35, 151), (39, 193), (42, 211), (43, 220), (47, 253), (48, 256), (64, 400), (68, 439), (69, 445), (71, 493), (76, 550), (78, 586), (86, 706), (101, 877), (112, 1042), (119, 1117), (126, 1168), (147, 1348), (155, 1408), (170, 1576),

Gene: Piku_1 Start: 175, Stop: 1761, Start Num: 25
Candidate Starts for Piku_1:
(3, 22), (Start: 11 @76 has 4 MA's), (Start: 25 @175 has 1 MA's), (32, 229), (35, 244), (37, 274), (38, 277), (41, 304), (51, 391), (59, 475), (60, 481), (64, 490), (69, 535), (82, 712), (85, 775), (91, 856), (100, 928), (101, 946), (105, 997), (119, 1183), (120, 1186), (132, 1300), (134, 1306), (137, 1348), (138, 1354), (142, 1384), (150, 1456), (159, 1510), (166, 1552), (173, 1711),

Gene: Smilerella_2 Start: 176, Stop: 1804, Start Num: 15
Candidate Starts for Smilerella_2:
(Start: 15 @176 has 2 MA's), (21, 224), (27, 278), (40, 380), (41, 389), (44, 422), (49, 467), (52, 479), (54, 515), (56, 527), (62, 575), (68, 620), (70, 632), (72, 686), (75, 731), (79, 782), (82, 806), (84, 833), (93, 971), (97, 1007), (101, 1067), (119, 1307), (130, 1409), (133, 1421), (139, 1475), (145, 1511), (146, 1514), (149, 1559), (153, 1589), (157, 1607), (169, 1751), (171, 1778),

Gene: Utopia_1 Start: 76, Stop: 1755, Start Num: 11
Candidate Starts for Utopia_1:
(3, 22), (Start: 11 @76 has 4 MA's), (Start: 25 @175 has 1 MA's), (32, 229), (35, 244), (37, 274), (38, 277), (41, 304), (59, 475), (60, 481), (64, 490), (82, 712), (85, 775), (91, 856), (99, 916), (101, 946), (119, 1183), (120, 1186), (132, 1300), (134, 1306), (138, 1354), (142, 1384), (150, 1456), (159, 1510), (166, 1552),

Gene: Whytu_1 Start: 77, Stop: 1762, Start Num: 11
Candidate Starts for Whytu_1:
(5, 32), (Start: 11 @77 has 4 MA's), (Start: 25 @176 has 1 MA's), (32, 230), (35, 245), (37, 275), (38, 278), (41, 305), (51, 392), (59, 476), (60, 482), (64, 491), (69, 536), (82, 713), (85, 776), (100, 929), (101, 947), (119, 1184), (120, 1187), (132, 1301), (134, 1307), (138, 1355), (142, 1385), (150, 1457), (159, 1511), (166, 1553), (172, 1703), (174, 1739), (175, 1757),

Gene: Wobbe_4 Start: 568, Stop: 2109, Start Num: 10

Candidate Starts for Wobbe_4:
(1, 475), (9, 556), (10, 568), (17, 643), (18, 646), (22, 673), (28, 721), (29, 739), (32, 754), (46, 850), (57, 970), (59, 979), (60, 985), (75, 1141), (82, 1216), (83, 1240), (88, 1330), (92, 1363), (94, 1387), (101, 1447), (102, 1468), (108, 1540), (109, 1564), (113, 1615), (114, 1630), (115, 1642), (120, 1690), (143, 1894), (144, 1900), (165, 2047), (166, 2056), (167, 2065),

Gene: WorldChangers_1 Start: 166, Stop: 1725, Start Num: 7
Candidate Starts for WorldChangers_1:
(7, 166), (13, 220), (18, 262), (32, 370), (34, 379), (59, 595), (60, 601), (65, 613), (73, 715), (75, 757), (82, 832), (88, 946), (91, 976), (92, 979), (101, 1063), (102, 1084), (103, 1096), (108, 1156), (114, 1246), (120, 1303), (134, 1423), (138, 1471), (144, 1513), (163, 1648), (166, 1669),

Gene: Yavru_1 Start: 76, Stop: 1761, Start Num: 11
Candidate Starts for Yavru_1:
(3, 22), (Start: 11 @76 has 4 MA's), (Start: 25 @175 has 1 MA's), (32, 229), (35, 244), (37, 274), (38, 277), (41, 304), (59, 475), (60, 481), (61, 484), (64, 490), (67, 502), (82, 712), (85, 775), (89, 829), (91, 856), (99, 916), (101, 946), (120, 1186), (132, 1300), (134, 1306), (138, 1354), (142, 1384), (150, 1456), (159, 1510), (166, 1552),