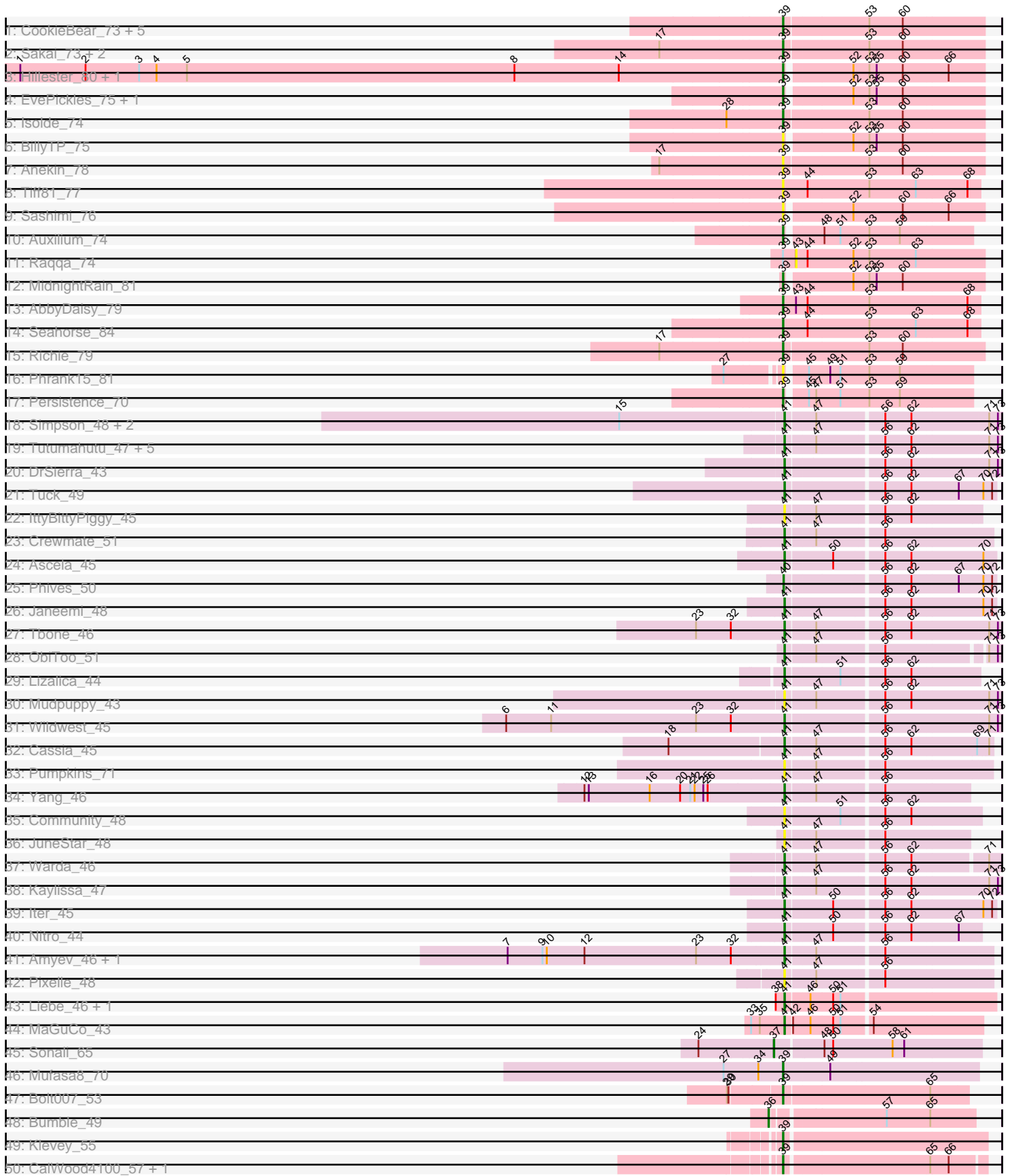
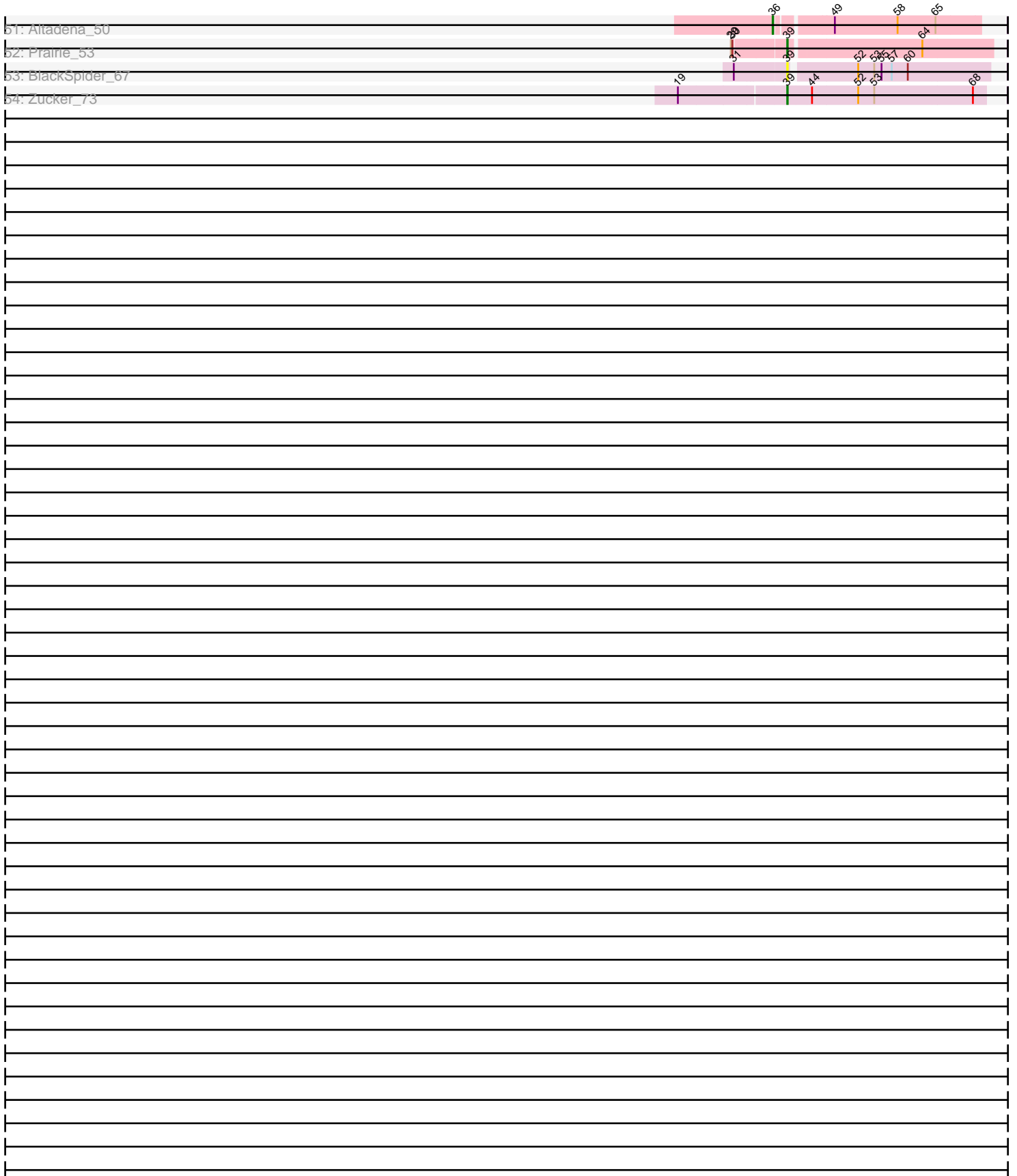


Pham 163572



Pham 163572



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 163572 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163572 has 73 members, 27 are drafts.

Phages represented in each track:

- Track 1 : CookieBear_73, BenchScraper_73, Faja_79, Raphaella_75, Hestia_70, YoungHarleezy_74
- Track 2 : Sakai_73, Aikyam_75, Gorpy_74
- Track 3 : Hillester_80, RadFad_81
- Track 4 : EvePickles_75, Globfish_75
- Track 5 : Isolde_74
- Track 6 : BillyTP_75
- Track 7 : Anekin_78
- Track 8 : Tiff81_77
- Track 9 : Sashimi_76
- Track 10 : Auxilium_74
- Track 11 : Raqqa_74
- Track 12 : MidnightRain_81
- Track 13 : AbbyDaisy_79
- Track 14 : Seahorse_84
- Track 15 : Richie_79
- Track 16 : Phrank15_81
- Track 17 : Persistence_70
- Track 18 : Simpson_48, Joemato_48, JohnDoe_46
- Track 19 : Tutumahutu_47, AGrandiflora_48, Powerpuff_48, YesChef_46, Lego_45, Cyan_45
- Track 20 : DrSierra_43
- Track 21 : Tuck_49
- Track 22 : IttyBittyPiggy_45
- Track 23 : Crewmate_51
- Track 24 : Ascela_45
- Track 25 : Phives_50
- Track 26 : Janeemi_48
- Track 27 : Tbone_46
- Track 28 : ObiToo_51
- Track 29 : Lizalica_44
- Track 30 : Mudpuppy_43
- Track 31 : Wildwest_45
- Track 32 : Cassia_45
- Track 33 : Pumpkins_71
- Track 34 : Yang_46
- Track 35 : Community_48

- Track 36 : JuneStar_48
- Track 37 : Warda_46
- Track 38 : Kaylissa_47
- Track 39 : Iter_45
- Track 40 : Nitro_44
- Track 41 : Amyev_46, Tian_45
- Track 42 : Pixelle_48
- Track 43 : Liebe_46, Maureen_46
- Track 44 : MaGuCo_43
- Track 45 : Sonali_65
- Track 46 : Mufasa8_70
- Track 47 : Bolt007_53
- Track 48 : Bumble_49
- Track 49 : Klevey_55
- Track 50 : CalWood4100_57, Lilmac1015_57
- Track 51 : Altadena_50
- Track 52 : Prairie_53
- Track 53 : BlackSpider_67
- Track 54 : Zucker_73

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

The start number called the most often in the published annotations is 41, it was called in 23 of the 46 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AGrandiflora_48, Amyev_46, Ascela_45, Cassia_45, Community_48, Crewmate_51, Cyan_45, DrSierra_43, Iter_45, IttyBittyPiggy_45, Janeemi_48, Joemato_48, JohnDoe_46, JuneStar_48, Kaylissa_47, Lego_45, Liebe_46, Lizalica_44, MaGuCo_43, Maureen_46, Mudpuppy_43, Nitro_44, ObiToo_51, Pixelle_48, Powerpuff_48, Pumpkins_71, Simpson_48, Tbone_46, Tian_45, Tuck_49, Tutumahutu_47, Warda_46, Wildwest_45, Yang_46, YesChef_46,

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

-

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

- AbbyDaisy_79, Aikyam_75, Altadena_50, Anekin_78, Auxilium_74, BenchScraper_73, BillyTP_75, BlackSpider_67, Bolt007_53, Bumble_49, CalWood4100_57, CookieBear_73, EvePickles_75, Faja_79, Globfish_75, Gorpy_74, Hestia_70, Hillester_80, Isolde_74, Klevey_55, Lilmac1015_57, MidnightRain_81, Mufasa8_70, Persistence_70, Phives_50, Phrank15_81, Prairie_53, RadFad_81, Raphaella_75, Raqqa_74, Richie_79, Sakai_73, Sashimi_76, Seahorse_84, Sonali_65, Tiff81_77, YoungHarleezy_74, Zucker_73,

Summary by start number:

Start 36:

- Found in 2 of 73 (2.7%) of genes in pham
- Manual Annotations of this start: 2 of 46

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Altadena_50 (FH), Bumble_49 (FH),

Start 37:

- Found in 1 of 73 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sonali_65 (FG),

Start 39:

- Found in 34 of 73 (46.6%) of genes in pham
- Manual Annotations of this start: 19 of 46
- Called 97.1% of time when present
- Phage (with cluster) where this start called: AbbyDaisy_79 (AY), Aikyam_75 (AY), Anekin_78 (AY), Auxilium_74 (AY), BenchScraper_73 (AY), BillyTP_75 (AY), BlackSpider_67 (FN), Bolt007_53 (FH), CalWood4100_57 (FH), CookieBear_73 (AY), EvePickles_75 (AY), Faja_79 (AY), Globfish_75 (AY), Gorpy_74 (AY), Hestia_70 (AY), Hillester_80 (AY), Isolde_74 (AY), Klevey_55 (FH), Lilmac1015_57 (FH), MidnightRain_81 (AY), Mufasa8_70 (FG), Persistence_70 (AY), Phrank15_81 (AY), Prairie_53 (FH), RadFad_81 (AY), Raphaella_75 (AY), Richie_79 (AY), Sakai_73 (AY), Sashimi_76 (AY), Seahorse_84 (AY), Tiff81_77 (AY), YoungHarleezy_74 (AY), Zucker_73 (FN),

Start 40:

- Found in 1 of 73 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phives_50 (AZ1),

Start 41:

- Found in 35 of 73 (47.9%) of genes in pham
- Manual Annotations of this start: 23 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AGrandiflora_48 (AZ1), Amyev_46 (AZ1), Ascela_45 (AZ1), Cassia_45 (AZ1), Community_48 (AZ1), Crewmate_51 (AZ1), Cyan_45 (AZ1), DrSierra_43 (AZ1), Iter_45 (AZ1), IttyBittyPiggy_45 (AZ1), Janeemi_48 (AZ1), Joemato_48 (AZ1), JohnDoe_46 (AZ1), JuneStar_48 (AZ1), Kaylissa_47 (AZ1), Lego_45 (AZ1), Liebe_46 (AZ2), Lizalica_44 (AZ1), MaGuCo_43 (AZ2), Maureen_46 (AZ2), Mudpuppy_43 (AZ1), Nitro_44 (AZ1), ObiToo_51 (AZ1), Pixelle_48 (AZ1), Powerpuff_48 (AZ1), Pumpkins_71 (AZ1), Simpson_48 (AZ1), Tbone_46 (AZ1), Tian_45 (AZ1), Tuck_49 (AZ1), Tutumahutu_47 (AZ1), Warda_46 (AZ1), Wildwest_45 (AZ1), Yang_46 (AZ1), YesChef_46 (AZ1),

Start 43:

- Found in 2 of 73 (2.7%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Raqqa_74 (AY),

Summary by clusters:

There are 6 clusters represented in this pham: AY, FG, FH, AZ1, AZ2, FN,

Info for manual annotations of cluster AY:

- Start number 39 was manually annotated 13 times for cluster AY.

Info for manual annotations of cluster AZ1:

- Start number 40 was manually annotated 1 time for cluster AZ1.
- Start number 41 was manually annotated 20 times for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 41 was manually annotated 3 times for cluster AZ2.

Info for manual annotations of cluster FG:

- Start number 37 was manually annotated 1 time for cluster FG.
- Start number 39 was manually annotated 1 time for cluster FG.

Info for manual annotations of cluster FH:

- Start number 36 was manually annotated 2 times for cluster FH.
- Start number 39 was manually annotated 4 times for cluster FH.

Info for manual annotations of cluster FN:

- Start number 39 was manually annotated 1 time for cluster FN.

Gene Information:

Gene: AGrandiflora_48 Start: 33790, Stop: 34203, Start Num: 41

Candidate Starts for AGrandiflora_48:

(Start: 41 @33790 has 23 MA's), (47, 33844), (56, 33970), (62, 34024), (71, 34177), (73, 34195),

Gene: AbbyDaisy_79 Start: 44094, Stop: 44489, Start Num: 39

Candidate Starts for AbbyDaisy_79:

(Start: 39 @44094 has 19 MA's), (43, 44118), (44, 44139), (53, 44265), (68, 44463),

Gene: Aikyam_75 Start: 40510, Stop: 40911, Start Num: 39

Candidate Starts for Aikyam_75:

(17, 40264), (Start: 39 @40510 has 19 MA's), (53, 40678), (60, 40747),

Gene: Altadena_50 Start: 34978, Stop: 35370, Start Num: 36

Candidate Starts for Altadena_50:

(Start: 36 @34978 has 2 MA's), (49, 35077), (58, 35206), (65, 35281),

Gene: Amyev_46 Start: 34828, Stop: 35223, Start Num: 41

Candidate Starts for Amyev_46:

(7, 34264), (9, 34336), (10, 34345), (12, 34423), (23, 34654), (32, 34726), (Start: 41 @34828 has 23 MA's), (47, 34882), (56, 35008),

Gene: Anekin_78 Start: 43082, Stop: 43483, Start Num: 39

Candidate Starts for Anekin_78:

(17, 42836), (Start: 39 @43082 has 19 MA's), (53, 43250), (60, 43319),

Gene: Ascela_45 Start: 33111, Stop: 33515, Start Num: 41

Candidate Starts for Ascela_45:

(Start: 41 @33111 has 23 MA's), (50, 33198), (56, 33291), (62, 33345), (70, 33489),

Gene: Auxilium_74 Start: 40053, Stop: 40418, Start Num: 39
Candidate Starts for Auxilium_74:
(Start: 39 @40053 has 19 MA's), (48, 40116), (51, 40149), (53, 40209), (59, 40272),

Gene: BenchScraper_73 Start: 41215, Stop: 41616, Start Num: 39
Candidate Starts for BenchScraper_73:
(Start: 39 @41215 has 19 MA's), (53, 41383), (60, 41452),

Gene: BillyTP_75 Start: 43046, Stop: 43435, Start Num: 39
Candidate Starts for BillyTP_75:
(Start: 39 @43046 has 19 MA's), (52, 43169), (53, 43202), (55, 43217), (60, 43271),

Gene: BlackSpider_67 Start: 39612, Stop: 40001, Start Num: 39
Candidate Starts for BlackSpider_67:
(31, 39510), (Start: 39 @39612 has 19 MA's), (52, 39735), (53, 39768), (55, 39783), (57, 39804), (60, 39837),

Gene: Bolt007_53 Start: 38007, Stop: 38369, Start Num: 39
Candidate Starts for Bolt007_53:
(29, 37902), (30, 37905), (Start: 39 @38007 has 19 MA's), (65, 38295),

Gene: Bumble_49 Start: 35709, Stop: 36101, Start Num: 36
Candidate Starts for Bumble_49:
(Start: 36 @35709 has 2 MA's), (57, 35925), (65, 36012),

Gene: CalWood4100_57 Start: 38014, Stop: 38406, Start Num: 39
Candidate Starts for CalWood4100_57:
(Start: 39 @38014 has 19 MA's), (65, 38299), (66, 38335),

Gene: Cassia_45 Start: 33045, Stop: 33434, Start Num: 41
Candidate Starts for Cassia_45:
(18, 32820), (Start: 41 @33045 has 23 MA's), (47, 33099), (56, 33225), (62, 33279), (69, 33408), (71, 33426),

Gene: Community_48 Start: 35107, Stop: 35478, Start Num: 41
Candidate Starts for Community_48:
(Start: 41 @35107 has 23 MA's), (51, 35209), (56, 35287), (62, 35341),

Gene: CookieBear_73 Start: 41689, Stop: 42090, Start Num: 39
Candidate Starts for CookieBear_73:
(Start: 39 @41689 has 19 MA's), (53, 41857), (60, 41926),

Gene: Crewmate_51 Start: 33740, Stop: 34135, Start Num: 41
Candidate Starts for Crewmate_51:
(Start: 41 @33740 has 23 MA's), (47, 33794), (56, 33920),

Gene: Cyan_45 Start: 33389, Stop: 33802, Start Num: 41
Candidate Starts for Cyan_45:
(Start: 41 @33389 has 23 MA's), (47, 33443), (56, 33569), (62, 33623), (71, 33776), (73, 33794),

Gene: DrSierra_43 Start: 31383, Stop: 31799, Start Num: 41
Candidate Starts for DrSierra_43:

(Start: 41 @31383 has 23 MA's), (56, 31566), (62, 31620), (71, 31773), (73, 31791),

Gene: EvePickles_75 Start: 42959, Stop: 43348, Start Num: 39

Candidate Starts for EvePickles_75:

(Start: 39 @42959 has 19 MA's), (52, 43082), (53, 43115), (55, 43130), (60, 43184),

Gene: Faja_79 Start: 43731, Stop: 44132, Start Num: 39

Candidate Starts for Faja_79:

(Start: 39 @43731 has 19 MA's), (53, 43899), (60, 43968),

Gene: Globfish_75 Start: 41426, Stop: 41815, Start Num: 39

Candidate Starts for Globfish_75:

(Start: 39 @41426 has 19 MA's), (52, 41549), (53, 41582), (55, 41597), (60, 41651),

Gene: Gorpy_74 Start: 42930, Stop: 43331, Start Num: 39

Candidate Starts for Gorpy_74:

(17, 42684), (Start: 39 @42930 has 19 MA's), (53, 43098), (60, 43167),

Gene: Hestia_70 Start: 39954, Stop: 40355, Start Num: 39

Candidate Starts for Hestia_70:

(Start: 39 @39954 has 19 MA's), (53, 40122), (60, 40191),

Gene: Hillester_80 Start: 42975, Stop: 43364, Start Num: 39

Candidate Starts for Hillester_80:

(1, 41406), (2, 41541), (3, 41652), (4, 41688), (5, 41751), (8, 42429), (14, 42645), (Start: 39 @42975 has 19 MA's), (52, 43098), (53, 43131), (55, 43146), (60, 43200), (66, 43290),

Gene: Isolde_74 Start: 41800, Stop: 42201, Start Num: 39

Candidate Starts for Isolde_74:

(28, 41689), (Start: 39 @41800 has 19 MA's), (53, 41968), (60, 42037),

Gene: Iter_45 Start: 33105, Stop: 33509, Start Num: 41

Candidate Starts for Iter_45:

(Start: 41 @33105 has 23 MA's), (50, 33192), (56, 33285), (62, 33339), (70, 33483), (72, 33501),

Gene: IttyBittyPiggy_45 Start: 32844, Stop: 33215, Start Num: 41

Candidate Starts for IttyBittyPiggy_45:

(Start: 41 @32844 has 23 MA's), (47, 32898), (56, 33024), (62, 33078),

Gene: Janeemi_48 Start: 35112, Stop: 35516, Start Num: 41

Candidate Starts for Janeemi_48:

(Start: 41 @35112 has 23 MA's), (56, 35292), (62, 35346), (70, 35490), (72, 35508),

Gene: Joemato_48 Start: 33415, Stop: 33828, Start Num: 41

Candidate Starts for Joemato_48:

(15, 33085), (Start: 41 @33415 has 23 MA's), (47, 33469), (56, 33595), (62, 33649), (71, 33802), (73, 33820),

Gene: JohnDoe_46 Start: 33411, Stop: 33824, Start Num: 41

Candidate Starts for JohnDoe_46:

(15, 33081), (Start: 41 @33411 has 23 MA's), (47, 33465), (56, 33591), (62, 33645), (71, 33798), (73, 33816),

Gene: JuneStar_48 Start: 35661, Stop: 36011, Start Num: 41

Candidate Starts for JuneStar_48:

(Start: 41 @35661 has 23 MA's), (47, 35715), (56, 35841),

Gene: Kaylissa_47 Start: 33807, Stop: 34220, Start Num: 41

Candidate Starts for Kaylissa_47:

(Start: 41 @33807 has 23 MA's), (47, 33861), (56, 33987), (62, 34041), (71, 34194), (73, 34212),

Gene: Klevey_55 Start: 37550, Stop: 37951, Start Num: 39

Candidate Starts for Klevey_55:

(Start: 39 @37550 has 19 MA's),

Gene: Lego_45 Start: 33126, Stop: 33539, Start Num: 41

Candidate Starts for Lego_45:

(Start: 41 @33126 has 23 MA's), (47, 33180), (56, 33306), (62, 33360), (71, 33513), (73, 33531),

Gene: Liebe_46 Start: 34755, Stop: 35162, Start Num: 41

Candidate Starts for Liebe_46:

(38, 34737), (Start: 41 @34755 has 23 MA's), (46, 34800), (50, 34845), (51, 34860),

Gene: Lilmac1015_57 Start: 38014, Stop: 38406, Start Num: 39

Candidate Starts for Lilmac1015_57:

(Start: 39 @38014 has 19 MA's), (65, 38299), (66, 38335),

Gene: Lizalica_44 Start: 32567, Stop: 32941, Start Num: 41

Candidate Starts for Lizalica_44:

(Start: 41 @32567 has 23 MA's), (51, 32672), (56, 32750), (62, 32804),

Gene: MaGuCo_43 Start: 33237, Stop: 33617, Start Num: 41

Candidate Starts for MaGuCo_43:

(33, 33171), (35, 33189), (Start: 41 @33237 has 23 MA's), (42, 33249), (46, 33282), (50, 33327), (51, 33342), (54, 33396),

Gene: Maureen_46 Start: 34755, Stop: 35162, Start Num: 41

Candidate Starts for Maureen_46:

(38, 34737), (Start: 41 @34755 has 23 MA's), (46, 34800), (50, 34845), (51, 34860),

Gene: MidnightRain_81 Start: 43270, Stop: 43659, Start Num: 39

Candidate Starts for MidnightRain_81:

(Start: 39 @43270 has 19 MA's), (52, 43393), (53, 43426), (55, 43441), (60, 43495),

Gene: Mudpuppy_43 Start: 33064, Stop: 33480, Start Num: 41

Candidate Starts for Mudpuppy_43:

(Start: 41 @33064 has 23 MA's), (47, 33118), (56, 33244), (62, 33298), (71, 33454), (73, 33472),

Gene: Mufasa8_70 Start: 44952, Stop: 45344, Start Num: 39

Candidate Starts for Mufasa8_70:

(27, 44829), (34, 44901), (Start: 39 @44952 has 19 MA's), (49, 45045),

Gene: Nitro_44 Start: 33699, Stop: 34070, Start Num: 41

Candidate Starts for Nitro_44:

(Start: 41 @33699 has 23 MA's), (50, 33786), (56, 33879), (62, 33933), (67, 34026),

Gene: ObiToo_51 Start: 34185, Stop: 34577, Start Num: 41

Candidate Starts for ObiToo_51:

(Start: 41 @34185 has 23 MA's), (47, 34239), (56, 34365), (71, 34551), (73, 34569),

Gene: Persistence_70 Start: 40343, Stop: 40708, Start Num: 39

Candidate Starts for Persistence_70:

(Start: 39 @40343 has 19 MA's), (45, 40376), (47, 40391), (51, 40439), (53, 40499), (59, 40562),

Gene: Phives_50 Start: 35604, Stop: 36011, Start Num: 40

Candidate Starts for Phives_50:

(Start: 40 @35604 has 1 MA's), (56, 35787), (62, 35841), (67, 35934), (70, 35985), (72, 36003),

Gene: Phrank15_81 Start: 42781, Stop: 43146, Start Num: 39

Candidate Starts for Phrank15_81:

(27, 42679), (Start: 39 @42781 has 19 MA's), (45, 42814), (49, 42856), (51, 42877), (53, 42937), (59, 43000),

Gene: Pixelle_48 Start: 35172, Stop: 35567, Start Num: 41

Candidate Starts for Pixelle_48:

(Start: 41 @35172 has 23 MA's), (47, 35226), (56, 35352),

Gene: Powerpuff_48 Start: 34514, Stop: 34927, Start Num: 41

Candidate Starts for Powerpuff_48:

(Start: 41 @34514 has 23 MA's), (47, 34568), (56, 34694), (62, 34748), (71, 34901), (73, 34919),

Gene: Prairie_53 Start: 36909, Stop: 37310, Start Num: 39

Candidate Starts for Prairie_53:

(29, 36807), (30, 36810), (Start: 39 @36909 has 19 MA's), (64, 37170),

Gene: Pumpkins_71 Start: 33566, Stop: 33961, Start Num: 41

Candidate Starts for Pumpkins_71:

(Start: 41 @33566 has 23 MA's), (47, 33620), (56, 33749),

Gene: RadFad_81 Start: 42975, Stop: 43364, Start Num: 39

Candidate Starts for RadFad_81:

(1, 41406), (2, 41541), (3, 41652), (4, 41688), (5, 41751), (8, 42429), (14, 42645), (Start: 39 @42975 has 19 MA's), (52, 43098), (53, 43131), (55, 43146), (60, 43200), (66, 43290),

Gene: Raphaella_75 Start: 41746, Stop: 42147, Start Num: 39

Candidate Starts for Raphaella_75:

(Start: 39 @41746 has 19 MA's), (53, 41914), (60, 41983),

Gene: Raqqa_74 Start: 42460, Stop: 42840, Start Num: 43

Candidate Starts for Raqqa_74:

(Start: 39 @42436 has 19 MA's), (43, 42460), (44, 42481), (52, 42574), (53, 42607), (63, 42703),

Gene: Richie_79 Start: 43614, Stop: 44015, Start Num: 39

Candidate Starts for Richie_79:

(17, 43368), (Start: 39 @43614 has 19 MA's), (53, 43782), (60, 43851),

Gene: Sakai_73 Start: 41641, Stop: 42042, Start Num: 39

Candidate Starts for Sakai_73:

(17, 41395), (Start: 39 @41641 has 19 MA's), (53, 41809), (60, 41878),

Gene: Sashimi_76 Start: 42326, Stop: 42715, Start Num: 39
Candidate Starts for Sashimi_76:
(Start: 39 @42326 has 19 MA's), (52, 42449), (60, 42551), (66, 42641),

Gene: Seahorse_84 Start: 47304, Stop: 47699, Start Num: 39
Candidate Starts for Seahorse_84:
(Start: 39 @47304 has 19 MA's), (44, 47349), (53, 47475), (63, 47571), (68, 47673),

Gene: Simpson_48 Start: 33419, Stop: 33832, Start Num: 41
Candidate Starts for Simpson_48:
(15, 33089), (Start: 41 @33419 has 23 MA's), (47, 33473), (56, 33599), (62, 33653), (71, 33806), (73, 33824),

Gene: Sonali_65 Start: 45108, Stop: 45521, Start Num: 37
Candidate Starts for Sonali_65:
(24, 44958), (Start: 37 @45108 has 1 MA's), (48, 45198), (50, 45216), (58, 45339), (61, 45363),

Gene: Tbone_46 Start: 33975, Stop: 34388, Start Num: 41
Candidate Starts for Tbone_46:
(23, 33801), (32, 33873), (Start: 41 @33975 has 23 MA's), (47, 34029), (56, 34155), (62, 34209), (71, 34362), (73, 34380),

Gene: Tian_45 Start: 34828, Stop: 35223, Start Num: 41
Candidate Starts for Tian_45:
(7, 34264), (9, 34336), (10, 34345), (12, 34423), (23, 34654), (32, 34726), (Start: 41 @34828 has 23 MA's), (47, 34882), (56, 35008),

Gene: Tiff81_77 Start: 40921, Stop: 41316, Start Num: 39
Candidate Starts for Tiff81_77:
(Start: 39 @40921 has 19 MA's), (44, 40966), (53, 41092), (63, 41188), (68, 41290),

Gene: Tuck_49 Start: 35489, Stop: 35893, Start Num: 41
Candidate Starts for Tuck_49:
(Start: 41 @35489 has 23 MA's), (56, 35669), (62, 35723), (67, 35816), (70, 35867), (72, 35885),

Gene: Tutumahutu_47 Start: 33397, Stop: 33810, Start Num: 41
Candidate Starts for Tutumahutu_47:
(Start: 41 @33397 has 23 MA's), (47, 33451), (56, 33577), (62, 33631), (71, 33784), (73, 33802),

Gene: Warda_46 Start: 33470, Stop: 33874, Start Num: 41
Candidate Starts for Warda_46:
(Start: 41 @33470 has 23 MA's), (47, 33524), (56, 33650), (62, 33704), (71, 33848),

Gene: Wildwest_45 Start: 33392, Stop: 33811, Start Num: 41
Candidate Starts for Wildwest_45:
(6, 32825), (11, 32918), (23, 33218), (32, 33290), (Start: 41 @33392 has 23 MA's), (56, 33578), (71, 33785), (73, 33803),

Gene: Yang_46 Start: 33276, Stop: 33626, Start Num: 41
Candidate Starts for Yang_46:
(12, 32868), (13, 32877), (16, 33003), (20, 33066), (21, 33087), (22, 33096), (25, 33114), (26, 33123), (Start: 41 @33276 has 23 MA's), (47, 33330), (56, 33456),

Gene: YesChef_46 Start: 33373, Stop: 33786, Start Num: 41

Candidate Starts for YesChef_46:

(Start: 41 @33373 has 23 MA's), (47, 33427), (56, 33553), (62, 33607), (71, 33760), (73, 33778),

Gene: YoungHarleezy_74 Start: 42016, Stop: 42417, Start Num: 39

Candidate Starts for YoungHarleezy_74:

(Start: 39 @42016 has 19 MA's), (53, 42184), (60, 42253),

Gene: Zucker_73 Start: 43088, Stop: 43483, Start Num: 39

Candidate Starts for Zucker_73:

(19, 42881), (Start: 39 @43088 has 19 MA's), (44, 43133), (52, 43226), (53, 43259), (68, 43457),