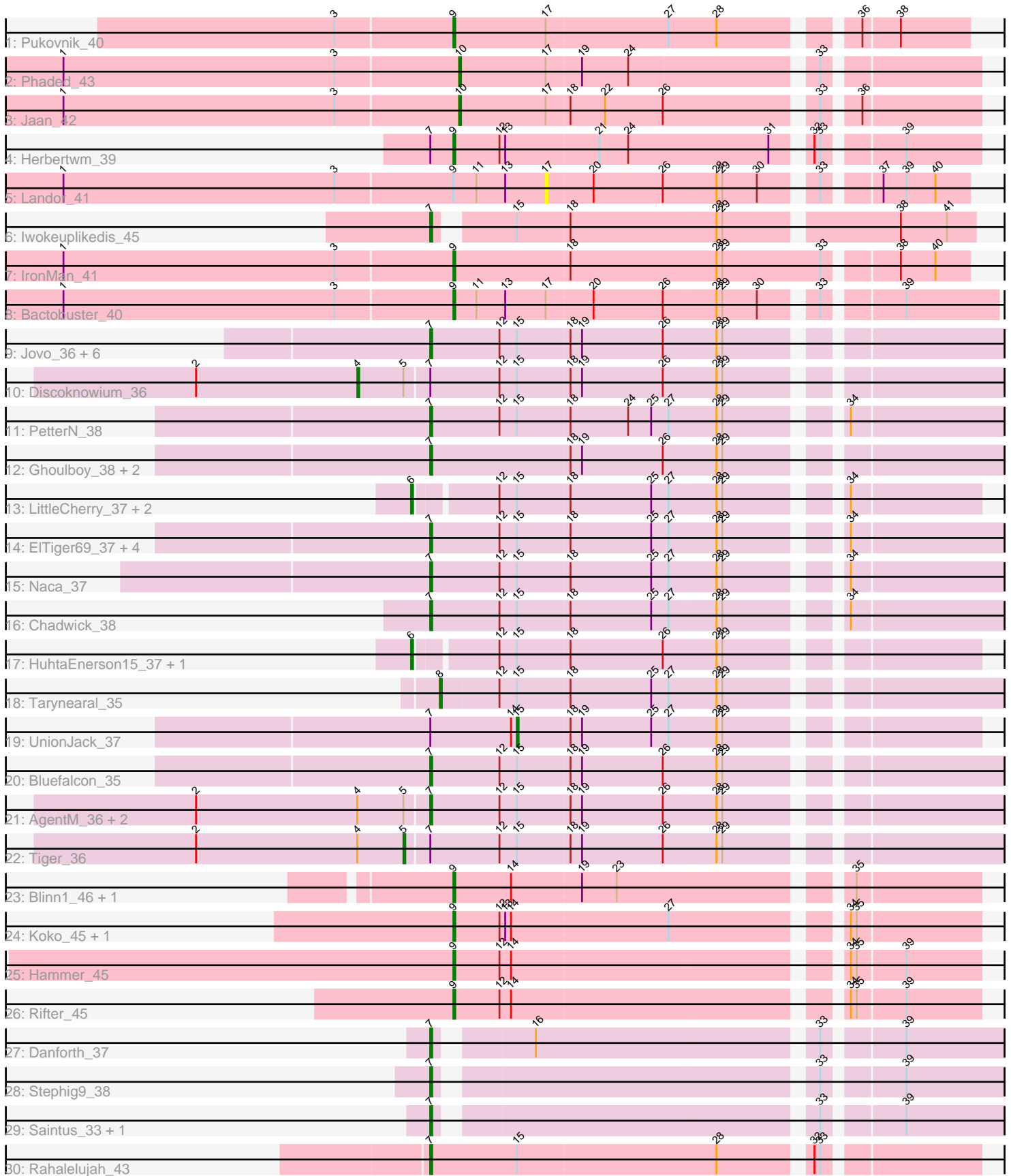


Pham 1840



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 1840 Report

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

Pham number 1840 has 50 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Pukovnik_40
- Track 2 : Phaded_43
- Track 3 : Jaan_42
- Track 4 : Herbertwm_39
- Track 5 : Landor_41
- Track 6 : Iwokeuplikedis_45
- Track 7 : IronMan_41
- Track 8 : Bactobuster_40
- Track 9 : Jovo_36, Conspiracy_36, Archetta_36, PickleBack_36, Lev2_36, ForGetIt_36, Bonamassa_37
- Track 10 : Discoknowium_36
- Track 11 : PetterN_38
- Track 12 : Ghoulboy_38, SydNat_38, Zolita_37
- Track 13 : LittleCherry_37, Swirley_39, Milcery_37
- Track 14 : ElTiger69_37, Benedict_37, Jabiru_37, Airmid_37, Scorpia_38
- Track 15 : Naca_37
- Track 16 : Chadwick_38
- Track 17 : HuhtaEnerson15_37, George_36
- Track 18 : Tarynearal_35
- Track 19 : UnionJack_37
- Track 20 : Bluefalcon_35
- Track 21 : AgentM_36, Aragog_36, Phlorence_36
- Track 22 : Tiger_36
- Track 23 : Blinn1_46, Priamo_45
- Track 24 : Koko_45, Blue7_46
- Track 25 : Hammer_45
- Track 26 : Rifter_45
- Track 27 : Danforth_37
- Track 28 : Stephig9_38
- Track 29 : Saintus_33, Roary_38
- Track 30 : Rahalelujah_43

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

The start number called the most often in the published annotations is 7, it was called in 28 of the 49 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AgentM_36, Airmid_37, Aragog_36, Archetta_36, Benedict_37, Bluefalcon_35, Bonamassa_37, Chadwick_38, Conspiracy_36, Danforth_37, EITiger69_37, ForGetIt_36, Ghoulboy_38, Iwokeuplikedis_45, Jabiru_37, Jovo_36, Lev2_36, Naca_37, PetterN_38, Phlorence_36, PickleBack_36, Rahalelujah_43, Roary_38, Saintus_33, Scorpia_38, Stephig9_38, SydNat_38, Zolita_37,

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

- Discoknowium_36, Herbertwm_39, Tiger_36, UnionJack_37,

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

- Bactobuster_40, Blinn1_46, Blue7_46, George_36, Hammer_45, HuhtaEnerson15_37, IronMan_41, Jaan_42, Koko_45, Lander_41, LittleCherry_37, Milcery_37, Phaded_43, Priamo_45, Pukovnik_40, Rifter_45, Swirley_39, Tarynearal_35,

Summary by start number:

Start 4:

- Found in 5 of 50 (10.0%) of genes in pham
- Manual Annotations of this start: 1 of 49
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Discoknowium_36 (A5),

Start 5:

- Found in 5 of 50 (10.0%) of genes in pham
- Manual Annotations of this start: 1 of 49
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Tiger_36 (A5),

Start 6:

- Found in 5 of 50 (10.0%) of genes in pham
- Manual Annotations of this start: 5 of 49
- Called 100.0% of time when present
- Phage (with cluster) where this start called: George_36 (A5), HuhtaEnerson15_37 (A5), LittleCherry_37 (A5), Milcery_37 (A5), Swirley_39 (A5),

Start 7:

- Found in 32 of 50 (64.0%) of genes in pham
- Manual Annotations of this start: 28 of 49
- Called 87.5% of time when present
- Phage (with cluster) where this start called: AgentM_36 (A5), Airmid_37 (A5), Aragog_36 (A5), Archetta_36 (A5), Benedict_37 (A5), Bluefalcon_35 (A5), Bonamassa_37 (A5), Chadwick_38 (A5), Conspiracy_36 (A5), Danforth_37 (A8), EITiger69_37 (A5), ForGetIt_36 (A5), Ghoulboy_38 (A5), Iwokeuplikedis_45 (A2), Jabiru_37 (A5), Jovo_36 (A5), Lev2_36 (A5), Naca_37 (A5), PetterN_38 (A5), Phlorence_36 (A5), PickleBack_36 (A5), Rahalelujah_43 (A9), Roary_38 (A8), Saintus_33 (A8), Scorpia_38 (A5), Stephig9_38 (A8), SydNat_38 (A5), Zolita_37 (A5),

Start 8:

- Found in 1 of 50 (2.0%) of genes in pham
- Manual Annotations of this start: 1 of 49
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tarynearal_35 (A5),

Start 9:

- Found in 11 of 50 (22.0%) of genes in pham
- Manual Annotations of this start: 10 of 49
- Called 90.9% of time when present
- Phage (with cluster) where this start called: Bactobuster_40 (A2), Blinn1_46 (A6), Blue7_46 (A6), Hammer_45 (A6), Herbertwm_39 (A2), IronMan_41 (A2), Koko_45 (A6), Priamo_45 (A6), Pukovnik_40 (A2), Rifter_45 (A6),

Start 10:

- Found in 2 of 50 (4.0%) of genes in pham
- Manual Annotations of this start: 2 of 49
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jaan_42 (A2), Phaded_43 (A2),

Start 15:

- Found in 30 of 50 (60.0%) of genes in pham
- Manual Annotations of this start: 1 of 49
- Called 3.3% of time when present
- Phage (with cluster) where this start called: UnionJack_37 (A5),

Start 17:

- Found in 5 of 50 (10.0%) of genes in pham
- No Manual Annotations of this start.
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Landor_41 (A2),

Summary by clusters:

There are 5 clusters represented in this pham: A9, A8, A2, A5, A6,

Info for manual annotations of cluster A2:

- Start number 7 was manually annotated 1 time for cluster A2.
- Start number 9 was manually annotated 4 times for cluster A2.
- Start number 10 was manually annotated 2 times for cluster A2.

Info for manual annotations of cluster A5:

- Start number 4 was manually annotated 1 time for cluster A5.
- Start number 5 was manually annotated 1 time for cluster A5.
- Start number 6 was manually annotated 5 times for cluster A5.
- Start number 7 was manually annotated 22 times for cluster A5.
- Start number 8 was manually annotated 1 time for cluster A5.
- Start number 15 was manually annotated 1 time for cluster A5.

Info for manual annotations of cluster A6:

- Start number 9 was manually annotated 6 times for cluster A6.

Info for manual annotations of cluster A8:

- Start number 7 was manually annotated 4 times for cluster A8.

Info for manual annotations of cluster A9:

- Start number 7 was manually annotated 1 time for cluster A9.

Gene Information:

Gene: AgentM_36 Start: 28212, Stop: 27928, Start Num: 7

Candidate Starts for AgentM_36:

(2, 28332), (Start: 4 @28248 has 1 MA's), (Start: 5 @28224 has 1 MA's), (Start: 7 @28212 has 28 MA's), (12, 28176), (Start: 15 @28167 has 1 MA's), (18, 28140), (19, 28134), (26, 28092), (28, 28065), (29, 28062),

Gene: Airmid_37 Start: 27806, Stop: 27516, Start Num: 7

Candidate Starts for Airmid_37:

(Start: 7 @27806 has 28 MA's), (12, 27770), (Start: 15 @27761 has 1 MA's), (18, 27734), (25, 27692), (27, 27683), (28, 27659), (29, 27656), (34, 27599),

Gene: Aragog_36 Start: 28242, Stop: 27958, Start Num: 7

Candidate Starts for Aragog_36:

(2, 28362), (Start: 4 @28278 has 1 MA's), (Start: 5 @28254 has 1 MA's), (Start: 7 @28242 has 28 MA's), (12, 28206), (Start: 15 @28197 has 1 MA's), (18, 28170), (19, 28164), (26, 28122), (28, 28095), (29, 28092),

Gene: Archetta_36 Start: 28360, Stop: 28094, Start Num: 7

Candidate Starts for Archetta_36:

(Start: 7 @28360 has 28 MA's), (12, 28324), (Start: 15 @28315 has 1 MA's), (18, 28288), (19, 28282), (26, 28240), (28, 28213), (29, 28210),

Gene: Bactobuster_40 Start: 30011, Stop: 29748, Start Num: 9

Candidate Starts for Bactobuster_40:

(1, 30212), (3, 30071), (Start: 9 @30011 has 10 MA's), (11, 29999), (13, 29984), (17, 29963), (20, 29939), (26, 29903), (28, 29876), (29, 29873), (30, 29855), (33, 29831), (39, 29795),

Gene: Benedict_37 Start: 27800, Stop: 27516, Start Num: 7

Candidate Starts for Benedict_37:

(Start: 7 @27800 has 28 MA's), (12, 27764), (Start: 15 @27755 has 1 MA's), (18, 27728), (25, 27686), (27, 27677), (28, 27653), (29, 27650), (34, 27599),

Gene: Blinn1_46 Start: 28065, Stop: 27811, Start Num: 9

Candidate Starts for Blinn1_46:

(Start: 9 @28065 has 10 MA's), (14, 28035), (19, 27999), (23, 27981), (35, 27873),

Gene: Blue7_46 Start: 27956, Stop: 27702, Start Num: 9

Candidate Starts for Blue7_46:

(Start: 9 @27956 has 10 MA's), (12, 27932), (13, 27929), (14, 27926), (27, 27845), (34, 27767), (35, 27764),

Gene: Bluefalcon_35 Start: 28308, Stop: 28024, Start Num: 7

Candidate Starts for Bluefalcon_35:

(Start: 7 @28308 has 28 MA's), (12, 28272), (Start: 15 @28263 has 1 MA's), (18, 28236), (19, 28230), (26, 28188), (28, 28161), (29, 28158),

Gene: Bonamassa_37 Start: 28349, Stop: 28083, Start Num: 7

Candidate Starts for Bonamassa_37:

(Start: 7 @28349 has 28 MA's), (12, 28313), (Start: 15 @28304 has 1 MA's), (18, 28277), (19, 28271), (26, 28229), (28, 28202), (29, 28199),

Gene: Chadwick_38 Start: 27703, Stop: 27419, Start Num: 7

Candidate Starts for Chadwick_38:

(Start: 7 @27703 has 28 MA's), (12, 27667), (Start: 15 @27658 has 1 MA's), (18, 27631), (25, 27589), (27, 27580), (28, 27556), (29, 27553), (34, 27502),

Gene: Conspiracy_36 Start: 28042, Stop: 27758, Start Num: 7

Candidate Starts for Conspiracy_36:

(Start: 7 @28042 has 28 MA's), (12, 28006), (Start: 15 @27997 has 1 MA's), (18, 27970), (19, 27964), (26, 27922), (28, 27895), (29, 27892),

Gene: Danforth_37 Start: 27743, Stop: 27468, Start Num: 7

Candidate Starts for Danforth_37:

(Start: 7 @27743 has 28 MA's), (16, 27701), (33, 27563), (39, 27527),

Gene: Discoknowium_36 Start: 28287, Stop: 27967, Start Num: 4

Candidate Starts for Discoknowium_36:

(2, 28371), (Start: 4 @28287 has 1 MA's), (Start: 5 @28263 has 1 MA's), (Start: 7 @28251 has 28 MA's), (12, 28215), (Start: 15 @28206 has 1 MA's), (18, 28179), (19, 28173), (26, 28131), (28, 28104), (29, 28101),

Gene: ElTiger69_37 Start: 27798, Stop: 27514, Start Num: 7

Candidate Starts for ElTiger69_37:

(Start: 7 @27798 has 28 MA's), (12, 27762), (Start: 15 @27753 has 1 MA's), (18, 27726), (25, 27684), (27, 27675), (28, 27651), (29, 27648), (34, 27597),

Gene: ForGetIt_36 Start: 28067, Stop: 27783, Start Num: 7

Candidate Starts for ForGetIt_36:

(Start: 7 @28067 has 28 MA's), (12, 28031), (Start: 15 @28022 has 1 MA's), (18, 27995), (19, 27989), (26, 27947), (28, 27920), (29, 27917),

Gene: George_36 Start: 28352, Stop: 28083, Start Num: 6

Candidate Starts for George_36:

(Start: 6 @28352 has 5 MA's), (12, 28313), (Start: 15 @28304 has 1 MA's), (18, 28277), (26, 28229), (28, 28202), (29, 28199),

Gene: Ghoulboy_38 Start: 28754, Stop: 28470, Start Num: 7

Candidate Starts for Ghoulboy_38:

(Start: 7 @28754 has 28 MA's), (18, 28682), (19, 28676), (26, 28634), (28, 28607), (29, 28604),

Gene: Hammer_45 Start: 27766, Stop: 27512, Start Num: 9

Candidate Starts for Hammer_45:

(Start: 9 @27766 has 10 MA's), (12, 27742), (14, 27736), (34, 27577), (35, 27574), (39, 27550),

Gene: Herbertwm_39 Start: 27998, Stop: 27744, Start Num: 9

Candidate Starts for Herbertwm_39:

(Start: 7 @28010 has 28 MA's), (Start: 9 @27998 has 10 MA's), (12, 27974), (13, 27971), (21, 27923), (24, 27908), (31, 27836), (32, 27821), (33, 27818), (39, 27782),

Gene: HuhtaEnerson15_37 Start: 28343, Stop: 28074, Start Num: 6

Candidate Starts for HuhtaEnerson15_37:

(Start: 6 @28343 has 5 MA's), (12, 28304), (Start: 15 @28295 has 1 MA's), (18, 28268), (26, 28220), (28, 28193), (29, 28190),

Gene: IronMan_41 Start: 30194, Stop: 29937, Start Num: 9

Candidate Starts for IronMan_41:

(1, 30395), (3, 30254), (Start: 9 @30194 has 10 MA's), (18, 30134), (28, 30059), (29, 30056), (33, 30005), (38, 29972), (40, 29954),

Gene: Iwokeuplikedis_45 Start: 29340, Stop: 29080, Start Num: 7

Candidate Starts for Iwokeuplikedis_45:

(Start: 7 @29340 has 28 MA's), (Start: 15 @29307 has 1 MA's), (18, 29280), (28, 29205), (29, 29202), (38, 29118), (41, 29094),

Gene: Jaan_42 Start: 30480, Stop: 30229, Start Num: 10

Candidate Starts for Jaan_42:

(1, 30684), (3, 30543), (Start: 10 @30480 has 2 MA's), (17, 30435), (18, 30423), (22, 30405), (26, 30375), (33, 30303), (36, 30288),

Gene: Jabiru_37 Start: 27847, Stop: 27563, Start Num: 7

Candidate Starts for Jabiru_37:

(Start: 7 @27847 has 28 MA's), (12, 27811), (Start: 15 @27802 has 1 MA's), (18, 27775), (25, 27733), (27, 27724), (28, 27700), (29, 27697), (34, 27646),

Gene: Jovo_36 Start: 28323, Stop: 28039, Start Num: 7

Candidate Starts for Jovo_36:

(Start: 7 @28323 has 28 MA's), (12, 28287), (Start: 15 @28278 has 1 MA's), (18, 28251), (19, 28245), (26, 28203), (28, 28176), (29, 28173),

Gene: Koko_45 Start: 28305, Stop: 28051, Start Num: 9

Candidate Starts for Koko_45:

(Start: 9 @28305 has 10 MA's), (12, 28281), (13, 28278), (14, 28275), (27, 28194), (34, 28116), (35, 28113),

Gene: Landor_41 Start: 30224, Stop: 30024, Start Num: 17

Candidate Starts for Landor_41:

(1, 30473), (3, 30332), (Start: 9 @30272 has 10 MA's), (11, 30260), (13, 30245), (17, 30224), (20, 30200), (26, 30164), (28, 30137), (29, 30134), (30, 30116), (33, 30092), (37, 30068), (39, 30056), (40, 30041),

Gene: Lev2_36 Start: 27955, Stop: 27671, Start Num: 7

Candidate Starts for Lev2_36:

(Start: 7 @27955 has 28 MA's), (12, 27919), (Start: 15 @27910 has 1 MA's), (18, 27883), (19, 27877), (26, 27835), (28, 27808), (29, 27805),

Gene: LittleCherry_37 Start: 28353, Stop: 28084, Start Num: 6

Candidate Starts for LittleCherry_37:

(Start: 6 @28353 has 5 MA's), (12, 28314), (Start: 15 @28305 has 1 MA's), (18, 28278), (25, 28236), (27, 28227), (28, 28203), (29, 28200), (34, 28149),

Gene: Milcery_37 Start: 28354, Stop: 28094, Start Num: 6

Candidate Starts for Milcery_37:

(Start: 6 @28354 has 5 MA's), (12, 28324), (Start: 15 @28315 has 1 MA's), (18, 28288), (25, 28246), (27, 28237), (28, 28213), (29, 28210), (34, 28159),

Gene: Naca_37 Start: 28340, Stop: 28056, Start Num: 7

Candidate Starts for Naca_37:

(Start: 7 @28340 has 28 MA's), (12, 28304), (Start: 15 @28295 has 1 MA's), (18, 28268), (25, 28226), (27, 28217), (28, 28193), (29, 28190), (34, 28139),

Gene: PetterN_38 Start: 27703, Stop: 27419, Start Num: 7

Candidate Starts for PetterN_38:

(Start: 7 @27703 has 28 MA's), (12, 27667), (Start: 15 @27658 has 1 MA's), (18, 27631), (24, 27601), (25, 27589), (27, 27580), (28, 27556), (29, 27553), (34, 27502),

Gene: Phaded_43 Start: 30356, Stop: 30105, Start Num: 10

Candidate Starts for Phaded_43:

(1, 30560), (3, 30419), (Start: 10 @30356 has 2 MA's), (17, 30311), (19, 30293), (24, 30269), (33, 30179),

Gene: Phlorence_36 Start: 28242, Stop: 27958, Start Num: 7

Candidate Starts for Phlorence_36:

(2, 28362), (Start: 4 @28278 has 1 MA's), (Start: 5 @28254 has 1 MA's), (Start: 7 @28242 has 28 MA's), (12, 28206), (Start: 15 @28197 has 1 MA's), (18, 28170), (19, 28164), (26, 28122), (28, 28095), (29, 28092),

Gene: PickleBack_36 Start: 27956, Stop: 27672, Start Num: 7

Candidate Starts for PickleBack_36:

(Start: 7 @27956 has 28 MA's), (12, 27920), (Start: 15 @27911 has 1 MA's), (18, 27884), (19, 27878), (26, 27836), (28, 27809), (29, 27806),

Gene: Priamo_45 Start: 27860, Stop: 27606, Start Num: 9

Candidate Starts for Priamo_45:

(Start: 9 @27860 has 10 MA's), (14, 27830), (19, 27794), (23, 27776), (35, 27668),

Gene: Pukovnik_40 Start: 29847, Stop: 29599, Start Num: 9

Candidate Starts for Pukovnik_40:

(3, 29907), (Start: 9 @29847 has 10 MA's), (17, 29799), (27, 29736), (28, 29712), (36, 29652), (38, 29634),

Gene: Rahalelujah_43 Start: 28927, Stop: 28661, Start Num: 7

Candidate Starts for Rahalelujah_43:

(Start: 7 @28927 has 28 MA's), (Start: 15 @28882 has 1 MA's), (28, 28780), (32, 28738), (33, 28735),

Gene: Rifter_45 Start: 27729, Stop: 27475, Start Num: 9

Candidate Starts for Rifter_45:

(Start: 9 @27729 has 10 MA's), (12, 27705), (14, 27699), (34, 27540), (35, 27537), (39, 27513),

Gene: Roary_38 Start: 27728, Stop: 27453, Start Num: 7

Candidate Starts for Roary_38:

(Start: 7 @27728 has 28 MA's), (33, 27548), (39, 27512),

Gene: Saintus_33 Start: 24756, Stop: 24481, Start Num: 7

Candidate Starts for Saintus_33:

(Start: 7 @24756 has 28 MA's), (33, 24576), (39, 24540),

Gene: Scorpia_38 Start: 27780, Stop: 27496, Start Num: 7

Candidate Starts for Scorpia_38:

(Start: 7 @27780 has 28 MA's), (12, 27744), (Start: 15 @27735 has 1 MA's), (18, 27708), (25, 27666), (27, 27657), (28, 27633), (29, 27630), (34, 27579),

Gene: Stephig9_38 Start: 27756, Stop: 27481, Start Num: 7

Candidate Starts for Stephig9_38:

(Start: 7 @27756 has 28 MA's), (33, 27576), (39, 27540),

Gene: Swirley_39 Start: 28684, Stop: 28415, Start Num: 6

Candidate Starts for Swirley_39:

(Start: 6 @28684 has 5 MA's), (12, 28645), (Start: 15 @28636 has 1 MA's), (18, 28609), (25, 28567), (27, 28558), (28, 28534), (29, 28531), (34, 28480),

Gene: SydNat_38 Start: 28763, Stop: 28479, Start Num: 7

Candidate Starts for SydNat_38:

(Start: 7 @28763 has 28 MA's), (18, 28691), (19, 28685), (26, 28643), (28, 28616), (29, 28613),

Gene: Tarynearal_35 Start: 28126, Stop: 27848, Start Num: 8

Candidate Starts for Tarynearal_35:

(Start: 8 @28126 has 1 MA's), (12, 28096), (Start: 15 @28087 has 1 MA's), (18, 28060), (25, 28018), (27, 28009), (28, 27985), (29, 27982),

Gene: Tiger_36 Start: 28045, Stop: 27749, Start Num: 5

Candidate Starts for Tiger_36:

(2, 28153), (Start: 4 @28069 has 1 MA's), (Start: 5 @28045 has 1 MA's), (Start: 7 @28033 has 28 MA's), (12, 27997), (Start: 15 @27988 has 1 MA's), (18, 27961), (19, 27955), (26, 27913), (28, 27886), (29, 27883),

Gene: UnionJack_37 Start: 27490, Stop: 27269, Start Num: 15

Candidate Starts for UnionJack_37:

(Start: 7 @27535 has 28 MA's), (14, 27493), (Start: 15 @27490 has 1 MA's), (18, 27463), (19, 27457), (25, 27421), (27, 27412), (28, 27388), (29, 27385),

Gene: Zolita_37 Start: 28767, Stop: 28483, Start Num: 7

Candidate Starts for Zolita_37:

(Start: 7 @28767 has 28 MA's), (18, 28695), (19, 28689), (26, 28647), (28, 28620), (29, 28617),