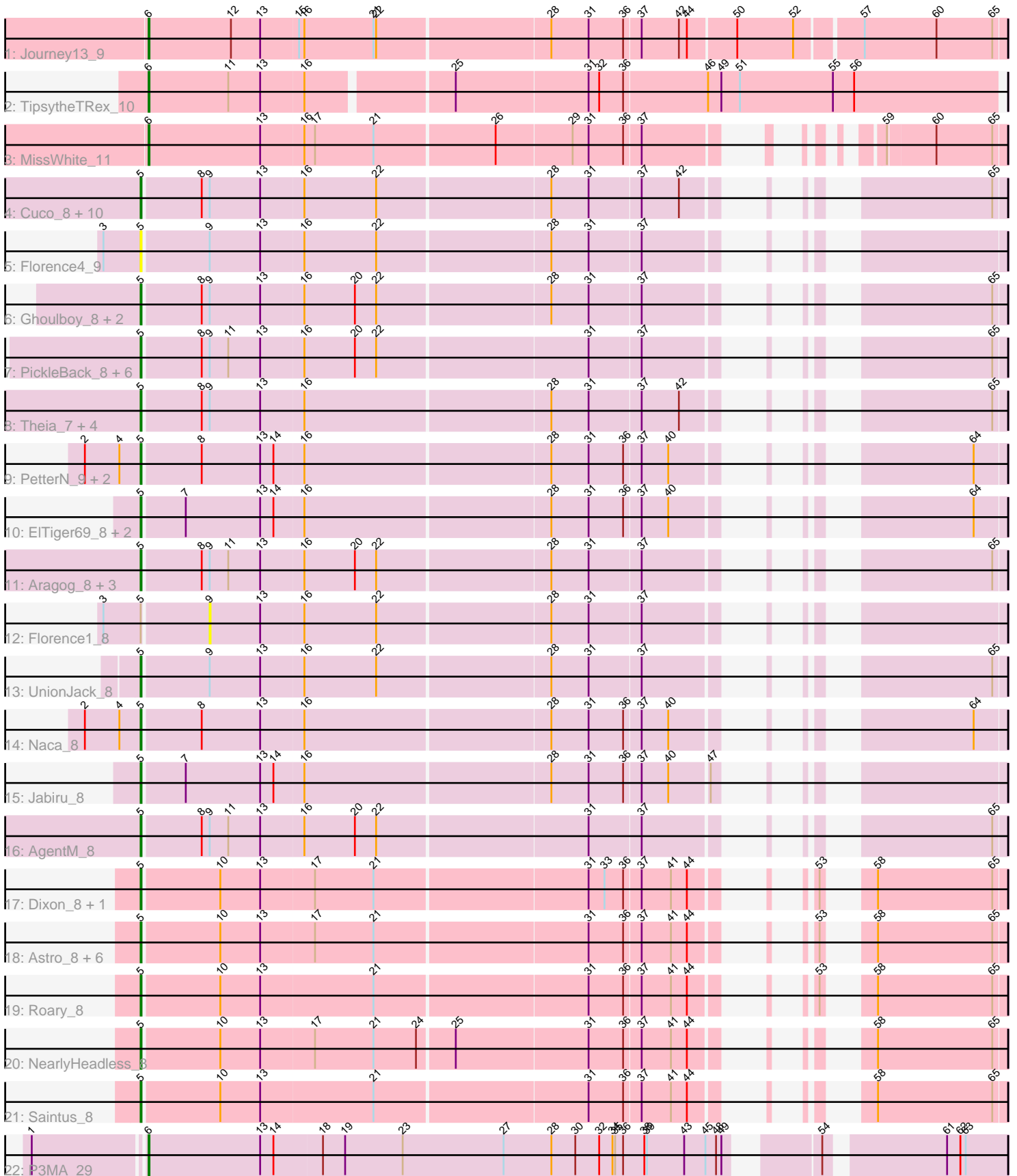


# Pham 305036



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 305036 Report

This analysis was run 06/08/26 on database version 649.

Pham number 305036 has 58 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Journey13\_9
- Track 2 : TopsytheTRex\_10
- Track 3 : MissWhite\_11
- Track 4 : Cuco\_8, LittleCherry\_8, Twigg\_8, Milcery\_8, Micasa\_8, HuhtaEnerson15\_8, Tarynearal\_7, George\_7, Swirley\_8, Prin Ashe11\_9, Bonamassa\_8
- Track 5 : Florence4\_9
- Track 6 : Ghoulboy\_8, Zolita\_7, SydNat\_8
- Track 7 : PickleBack\_8, Phlorence\_8, Archetta\_8, Conspiracy\_8, ForGetIt\_8, Lev2\_8, Tiger\_8
- Track 8 : Theia\_7, Midas2\_8, MarysWell\_7, Coog\_8, Dublin\_7
- Track 9 : PetterN\_9, Chadwick\_9, Scorpio\_9
- Track 10 : EITiger69\_8, Benedict\_8, Airmid\_8
- Track 11 : Aragog\_8, Bluefalcon\_7, Discoknowium\_8, Jovo\_8
- Track 12 : Florence1\_8
- Track 13 : UnionJack\_8
- Track 14 : Naca\_8
- Track 15 : Jabiru\_8
- Track 16 : AgentM\_8
- Track 17 : Dixon\_8, Stephig9\_8
- Track 18 : Astro\_8, Smeadley\_8, Expelliarmus\_7, Danforth\_7, Groundhog\_7, Caitlin\_7, Phillis\_8
- Track 19 : Roary\_8
- Track 20 : NearlyHeadless\_8
- Track 21 : Saintus\_8
- Track 22 : P3MA\_29

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

The start number called the most often in the published annotations is 5, it was called in 50 of the 54 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AgentM\_8, Airmid\_8, Aragog\_8, Archetta\_8, Astro\_8, Benedict\_8, Bluefalcon\_7, Bonamassa\_8, Caitlin\_7, Chadwick\_9, Conspiracy\_8, Coog\_8, Cuco\_8, Danforth\_7, Discoknowium\_8, Dixon\_8, Dublin\_7, EITiger69\_8, Expelliarmus\_7, Florence4\_9, ForGetIt\_8, George\_7, Ghoulboy\_8, Groundhog\_7, HuhtaEnerson15\_8, Jabiru\_8, Jovo\_8, Lev2\_8, LittleCherry\_8, MarysWell\_7, Micasa\_8, Midas2\_8, Milcery\_8, Naca\_8, NearlyHeadless\_8, PetterN\_9, Phillis\_8, Phlorence\_8, PickleBack\_8, Prinash11\_9, Roary\_8, Saintus\_8, Scorpia\_9, Smeadley\_8, Stephig9\_8, Swirley\_8, SydNat\_8, Tarynearal\_7, Theia\_7, Tiger\_8, Twigg\_8, UnionJack\_8, Zolita\_7,

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

- Florence1\_8,

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

- Journey13\_9, MissWhite\_11, P3MA\_29, TipsytheTRex\_10,

### Summary by start number:

Start 5:

- Found in 54 of 58 ( 93.1% ) of genes in pham
- Manual Annotations of this start: 50 of 54
- Called 98.1% of time when present
- Phage (with cluster) where this start called: AgentM\_8 (A5), Airmid\_8 (A5), Aragog\_8 (A5), Archetta\_8 (A5), Astro\_8 (A8), Benedict\_8 (A5), Bluefalcon\_7 (A5), Bonamassa\_8 (A5), Caitlin\_7 (A8), Chadwick\_9 (A5), Conspiracy\_8 (A5), Coog\_8 (A5), Cuco\_8 (A5), Danforth\_7 (A8), Discoknowium\_8 (A5), Dixon\_8 (A8), Dublin\_7 (A5), EITiger69\_8 (A5), Expelliarmus\_7 (A8), Florence4\_9 (A5), ForGetIt\_8 (A5), George\_7 (A5), Ghoulboy\_8 (A5), Groundhog\_7 (A8), HuhtaEnerson15\_8 (A5), Jabiru\_8 (A5), Jovo\_8 (A5), Lev2\_8 (A5), LittleCherry\_8 (A5), MarysWell\_7 (A5), Micasa\_8 (A5), Midas2\_8 (A5), Milcery\_8 (A5), Naca\_8 (A5), NearlyHeadless\_8 (A8), PetterN\_9 (A5), Phillis\_8 (A8), Phlorence\_8 (A5), PickleBack\_8 (A5), Prinash11\_9 (A5), Roary\_8 (A8), Saintus\_8 (A8), Scorpia\_9 (A5), Smeadley\_8 (A8), Stephig9\_8 (A8), Swirley\_8 (A5), SydNat\_8 (A5), Tarynearal\_7 (A5), Theia\_7 (A5), Tiger\_8 (A5), Twigg\_8 (A5), UnionJack\_8 (A5), Zolita\_7 (A5),

Start 6:

- Found in 4 of 58 ( 6.9% ) of genes in pham
- Manual Annotations of this start: 4 of 54
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Journey13\_9 (A2), MissWhite\_11 (A2), P3MA\_29 (singleton), TipsytheTRex\_10 (A2),

Start 9:

- Found in 34 of 58 ( 58.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 2.9% of time when present
- Phage (with cluster) where this start called: Florence1\_8 (A5),

### Summary by clusters:

There are 4 clusters represented in this pham: A8, singleton, A2, A5,

Info for manual annotations of cluster A2:

- Start number 6 was manually annotated 3 times for cluster A2.

Info for manual annotations of cluster A5:

•Start number 5 was manually annotated 39 times for cluster A5.

Info for manual annotations of cluster A8:

•Start number 5 was manually annotated 11 times for cluster A8.

### **Gene Information:**

Gene: AgentM\_8 Start: 5433, Stop: 6242, Start Num: 5

Candidate Starts for AgentM\_8:

(Start: 5 @5433 has 50 MA's), (8, 5496), (9, 5505), (11, 5526), (13, 5562), (16, 5610), (20, 5667), (22, 5691), (31, 5922), (37, 5979), (65, 6228),

Gene: Airmid\_8 Start: 5180, Stop: 5989, Start Num: 5

Candidate Starts for Airmid\_8:

(Start: 5 @5180 has 50 MA's), (7, 5225), (13, 5309), (14, 5324), (16, 5357), (28, 5627), (31, 5669), (36, 5708), (37, 5726), (40, 5756), (64, 5954),

Gene: Aragog\_8 Start: 5463, Stop: 6272, Start Num: 5

Candidate Starts for Aragog\_8:

(Start: 5 @5463 has 50 MA's), (8, 5526), (9, 5535), (11, 5556), (13, 5592), (16, 5640), (20, 5697), (22, 5721), (28, 5910), (31, 5952), (37, 6009), (65, 6258),

Gene: Archetta\_8 Start: 5172, Stop: 5981, Start Num: 5

Candidate Starts for Archetta\_8:

(Start: 5 @5172 has 50 MA's), (8, 5235), (9, 5244), (11, 5265), (13, 5301), (16, 5349), (20, 5406), (22, 5430), (31, 5661), (37, 5718), (65, 5967),

Gene: Astro\_8 Start: 4873, Stop: 5682, Start Num: 5

Candidate Starts for Astro\_8:

(Start: 5 @4873 has 50 MA's), (10, 4957), (13, 5002), (17, 5062), (21, 5128), (31, 5362), (36, 5401), (37, 5419), (41, 5452), (44, 5470), (53, 5515), (58, 5539), (65, 5668),

Gene: Benedict\_8 Start: 5182, Stop: 5991, Start Num: 5

Candidate Starts for Benedict\_8:

(Start: 5 @5182 has 50 MA's), (7, 5227), (13, 5311), (14, 5326), (16, 5359), (28, 5629), (31, 5671), (36, 5710), (37, 5728), (40, 5758), (64, 5956),

Gene: Bluefalcon\_7 Start: 5433, Stop: 6242, Start Num: 5

Candidate Starts for Bluefalcon\_7:

(Start: 5 @5433 has 50 MA's), (8, 5496), (9, 5505), (11, 5526), (13, 5562), (16, 5610), (20, 5667), (22, 5691), (28, 5880), (31, 5922), (37, 5979), (65, 6228),

Gene: Bonamassa\_8 Start: 5355, Stop: 6164, Start Num: 5

Candidate Starts for Bonamassa\_8:

(Start: 5 @5355 has 50 MA's), (8, 5418), (9, 5427), (13, 5484), (16, 5532), (22, 5613), (28, 5802), (31, 5844), (37, 5901), (42, 5943), (65, 6150),

Gene: Caitlin\_7 Start: 4870, Stop: 5679, Start Num: 5

Candidate Starts for Caitlin\_7:

(Start: 5 @4870 has 50 MA's), (10, 4954), (13, 4999), (17, 5059), (21, 5125), (31, 5359), (36, 5398), (37, 5416), (41, 5449), (44, 5467), (53, 5512), (58, 5536), (65, 5665),

Gene: Chadwick\_9 Start: 5150, Stop: 5959, Start Num: 5

Candidate Starts for Chadwick\_9:

(2, 5087), (4, 5126), (Start: 5 @5150 has 50 MA's), (8, 5213), (13, 5279), (14, 5294), (16, 5327), (28, 5597), (31, 5639), (36, 5678), (37, 5696), (40, 5726), (64, 5924),

Gene: Conspiracy\_8 Start: 5173, Stop: 5982, Start Num: 5

Candidate Starts for Conspiracy\_8:

(Start: 5 @5173 has 50 MA's), (8, 5236), (9, 5245), (11, 5266), (13, 5302), (16, 5350), (20, 5407), (22, 5431), (31, 5662), (37, 5719), (65, 5968),

Gene: Coog\_8 Start: 5323, Stop: 6132, Start Num: 5

Candidate Starts for Coog\_8:

(Start: 5 @5323 has 50 MA's), (8, 5386), (9, 5395), (13, 5452), (16, 5500), (28, 5770), (31, 5812), (37, 5869), (42, 5911), (65, 6118),

Gene: Cuco\_8 Start: 5354, Stop: 6163, Start Num: 5

Candidate Starts for Cuco\_8:

(Start: 5 @5354 has 50 MA's), (8, 5417), (9, 5426), (13, 5483), (16, 5531), (22, 5612), (28, 5801), (31, 5843), (37, 5900), (42, 5942), (65, 6149),

Gene: Danforth\_7 Start: 4852, Stop: 5661, Start Num: 5

Candidate Starts for Danforth\_7:

(Start: 5 @4852 has 50 MA's), (10, 4936), (13, 4981), (17, 5041), (21, 5107), (31, 5341), (36, 5380), (37, 5398), (41, 5431), (44, 5449), (53, 5494), (58, 5518), (65, 5647),

Gene: Discoknowium\_8 Start: 5463, Stop: 6272, Start Num: 5

Candidate Starts for Discoknowium\_8:

(Start: 5 @5463 has 50 MA's), (8, 5526), (9, 5535), (11, 5556), (13, 5592), (16, 5640), (20, 5697), (22, 5721), (28, 5910), (31, 5952), (37, 6009), (65, 6258),

Gene: Dixon\_8 Start: 4871, Stop: 5680, Start Num: 5

Candidate Starts for Dixon\_8:

(Start: 5 @4871 has 50 MA's), (10, 4955), (13, 5000), (17, 5060), (21, 5126), (31, 5360), (33, 5378), (36, 5399), (37, 5417), (41, 5450), (44, 5468), (53, 5513), (58, 5537), (65, 5666),

Gene: Dublin\_7 Start: 5322, Stop: 6131, Start Num: 5

Candidate Starts for Dublin\_7:

(Start: 5 @5322 has 50 MA's), (8, 5385), (9, 5394), (13, 5451), (16, 5499), (28, 5769), (31, 5811), (37, 5868), (42, 5910), (65, 6117),

Gene: EITiger69\_8 Start: 5180, Stop: 5989, Start Num: 5

Candidate Starts for EITiger69\_8:

(Start: 5 @5180 has 50 MA's), (7, 5225), (13, 5309), (14, 5324), (16, 5357), (28, 5627), (31, 5669), (36, 5708), (37, 5726), (40, 5756), (64, 5954),

Gene: Expelliarmus\_7 Start: 4838, Stop: 5647, Start Num: 5

Candidate Starts for Expelliarmus\_7:

(Start: 5 @4838 has 50 MA's), (10, 4922), (13, 4967), (17, 5027), (21, 5093), (31, 5327), (36, 5366), (37, 5384), (41, 5417), (44, 5435), (53, 5480), (58, 5504), (65, 5633),

Gene: Florence1\_8 Start: 5215, Stop: 5952, Start Num: 9

Candidate Starts for Florence1\_8:

(3, 5101), (Start: 5 @5143 has 50 MA's), (9, 5215), (13, 5272), (16, 5320), (22, 5401), (28, 5590), (31, 5632), (37, 5689),

Gene: Florence4\_9 Start: 5143, Stop: 5952, Start Num: 5

Candidate Starts for Florence4\_9:

(3, 5101), (Start: 5 @5143 has 50 MA's), (9, 5215), (13, 5272), (16, 5320), (22, 5401), (28, 5590), (31, 5632), (37, 5689),

Gene: ForGetIt\_8 Start: 5199, Stop: 6008, Start Num: 5

Candidate Starts for ForGetIt\_8:

(Start: 5 @5199 has 50 MA's), (8, 5262), (9, 5271), (11, 5292), (13, 5328), (16, 5376), (20, 5433), (22, 5457), (31, 5688), (37, 5745), (65, 5994),

Gene: George\_7 Start: 5355, Stop: 6164, Start Num: 5

Candidate Starts for George\_7:

(Start: 5 @5355 has 50 MA's), (8, 5418), (9, 5427), (13, 5484), (16, 5532), (22, 5613), (28, 5802), (31, 5844), (37, 5901), (42, 5943), (65, 6150),

Gene: Ghoulboy\_8 Start: 5432, Stop: 6241, Start Num: 5

Candidate Starts for Ghoulboy\_8:

(Start: 5 @5432 has 50 MA's), (8, 5495), (9, 5504), (13, 5561), (16, 5609), (20, 5666), (22, 5690), (28, 5879), (31, 5921), (37, 5978), (65, 6227),

Gene: Groundhog\_7 Start: 4839, Stop: 5648, Start Num: 5

Candidate Starts for Groundhog\_7:

(Start: 5 @4839 has 50 MA's), (10, 4923), (13, 4968), (17, 5028), (21, 5094), (31, 5328), (36, 5367), (37, 5385), (41, 5418), (44, 5436), (53, 5481), (58, 5505), (65, 5634),

Gene: HuhtaEnerson15\_8 Start: 5355, Stop: 6164, Start Num: 5

Candidate Starts for HuhtaEnerson15\_8:

(Start: 5 @5355 has 50 MA's), (8, 5418), (9, 5427), (13, 5484), (16, 5532), (22, 5613), (28, 5802), (31, 5844), (37, 5901), (42, 5943), (65, 6150),

Gene: Jabiru\_8 Start: 5180, Stop: 5989, Start Num: 5

Candidate Starts for Jabiru\_8:

(Start: 5 @5180 has 50 MA's), (7, 5225), (13, 5309), (14, 5324), (16, 5357), (28, 5627), (31, 5669), (36, 5708), (37, 5726), (40, 5756), (47, 5798),

Gene: Journey13\_9 Start: 5628, Stop: 6563, Start Num: 6

Candidate Starts for Journey13\_9:

(Start: 6 @5628 has 4 MA's), (12, 5721), (13, 5754), (15, 5796), (16, 5802), (21, 5880), (22, 5883), (28, 6072), (31, 6114), (36, 6153), (37, 6171), (42, 6213), (44, 6222), (50, 6273), (52, 6336), (57, 6405), (60, 6486), (65, 6549),

Gene: Jovo\_8 Start: 5464, Stop: 6273, Start Num: 5

Candidate Starts for Jovo\_8:

(Start: 5 @5464 has 50 MA's), (8, 5527), (9, 5536), (11, 5557), (13, 5593), (16, 5641), (20, 5698), (22, 5722), (28, 5911), (31, 5953), (37, 6010), (65, 6259),

Gene: Lev2\_8 Start: 5172, Stop: 5981, Start Num: 5

Candidate Starts for Lev2\_8:

(Start: 5 @5172 has 50 MA's), (8, 5235), (9, 5244), (11, 5265), (13, 5301), (16, 5349), (20, 5406), (22, 5430), (31, 5661), (37, 5718), (65, 5967),

Gene: LittleCherry\_8 Start: 5356, Stop: 6165, Start Num: 5

Candidate Starts for LittleCherry\_8:

(Start: 5 @5356 has 50 MA's), (8, 5419), (9, 5428), (13, 5485), (16, 5533), (22, 5614), (28, 5803), (31, 5845), (37, 5902), (42, 5944), (65, 6151),

Gene: MarysWell\_7 Start: 5323, Stop: 6132, Start Num: 5

Candidate Starts for MarysWell\_7:

(Start: 5 @5323 has 50 MA's), (8, 5386), (9, 5395), (13, 5452), (16, 5500), (28, 5770), (31, 5812), (37, 5869), (42, 5911), (65, 6118),

Gene: Micasa\_8 Start: 5324, Stop: 6133, Start Num: 5

Candidate Starts for Micasa\_8:

(Start: 5 @5324 has 50 MA's), (8, 5387), (9, 5396), (13, 5453), (16, 5501), (22, 5582), (28, 5771), (31, 5813), (37, 5870), (42, 5912), (65, 6119),

Gene: Midas2\_8 Start: 5323, Stop: 6132, Start Num: 5

Candidate Starts for Midas2\_8:

(Start: 5 @5323 has 50 MA's), (8, 5386), (9, 5395), (13, 5452), (16, 5500), (28, 5770), (31, 5812), (37, 5869), (42, 5911), (65, 6118),

Gene: Milcery\_8 Start: 5360, Stop: 6169, Start Num: 5

Candidate Starts for Milcery\_8:

(Start: 5 @5360 has 50 MA's), (8, 5423), (9, 5432), (13, 5489), (16, 5537), (22, 5618), (28, 5807), (31, 5849), (37, 5906), (42, 5948), (65, 6155),

Gene: MissWhite\_11 Start: 5672, Stop: 6478, Start Num: 6

Candidate Starts for MissWhite\_11:

(Start: 6 @5672 has 4 MA's), (13, 5798), (16, 5846), (17, 5858), (21, 5924), (26, 6056), (29, 6140), (31, 6158), (36, 6197), (37, 6215), (59, 6350), (60, 6401), (65, 6464),

Gene: Naca\_8 Start: 5264, Stop: 6073, Start Num: 5

Candidate Starts for Naca\_8:

(2, 5201), (4, 5240), (Start: 5 @5264 has 50 MA's), (8, 5327), (13, 5393), (16, 5441), (28, 5711), (31, 5753), (36, 5792), (37, 5810), (40, 5840), (64, 6038),

Gene: NearlyHeadless\_8 Start: 4875, Stop: 5684, Start Num: 5

Candidate Starts for NearlyHeadless\_8:

(Start: 5 @4875 has 50 MA's), (10, 4959), (13, 5004), (17, 5064), (21, 5130), (24, 5178), (25, 5217), (31, 5364), (36, 5403), (37, 5421), (41, 5454), (44, 5472), (58, 5541), (65, 5670),

Gene: P3MA\_29 Start: 23924, Stop: 24829, Start Num: 6

Candidate Starts for P3MA\_29:

(1, 23804), (Start: 6 @23924 has 4 MA's), (13, 24050), (14, 24065), (18, 24119), (19, 24143), (23, 24206), (27, 24320), (28, 24374), (30, 24401), (32, 24428), (34, 24443), (35, 24446), (36, 24455), (38, 24479), (39, 24482), (43, 24524), (45, 24548), (48, 24560), (49, 24566), (54, 24641), (61, 24761), (62, 24776), (63, 24782),

Gene: PetterN\_9 Start: 5151, Stop: 5960, Start Num: 5

Candidate Starts for PetterN\_9:

(2, 5088), (4, 5127), (Start: 5 @5151 has 50 MA's), (8, 5214), (13, 5280), (14, 5295), (16, 5328), (28, 5598), (31, 5640), (36, 5679), (37, 5697), (40, 5727), (64, 5925),

Gene: Phillis\_8 Start: 4833, Stop: 5642, Start Num: 5

Candidate Starts for Phillis\_8:

(Start: 5 @4833 has 50 MA's), (10, 4917), (13, 4962), (17, 5022), (21, 5088), (31, 5322), (36, 5361), (37, 5379), (41, 5412), (44, 5430), (53, 5475), (58, 5499), (65, 5628),

Gene: Phlorence\_8 Start: 5463, Stop: 6272, Start Num: 5

Candidate Starts for Phlorence\_8:

(Start: 5 @5463 has 50 MA's), (8, 5526), (9, 5535), (11, 5556), (13, 5592), (16, 5640), (20, 5697), (22, 5721), (31, 5952), (37, 6009), (65, 6258),

Gene: PickleBack\_8 Start: 5173, Stop: 5982, Start Num: 5

Candidate Starts for PickleBack\_8:

(Start: 5 @5173 has 50 MA's), (8, 5236), (9, 5245), (11, 5266), (13, 5302), (16, 5350), (20, 5407), (22, 5431), (31, 5662), (37, 5719), (65, 5968),

Gene: Prin Ashe11\_9 Start: 5323, Stop: 6132, Start Num: 5

Candidate Starts for Prin Ashe11\_9:

(Start: 5 @5323 has 50 MA's), (8, 5386), (9, 5395), (13, 5452), (16, 5500), (22, 5581), (28, 5770), (31, 5812), (37, 5869), (42, 5911), (65, 6118),

Gene: Roary\_8 Start: 4837, Stop: 5646, Start Num: 5

Candidate Starts for Roary\_8:

(Start: 5 @4837 has 50 MA's), (10, 4921), (13, 4966), (21, 5092), (31, 5326), (36, 5365), (37, 5383), (41, 5416), (44, 5434), (53, 5479), (58, 5503), (65, 5632),

Gene: Saintus\_8 Start: 4850, Stop: 5659, Start Num: 5

Candidate Starts for Saintus\_8:

(Start: 5 @4850 has 50 MA's), (10, 4934), (13, 4979), (21, 5105), (31, 5339), (36, 5378), (37, 5396), (41, 5429), (44, 5447), (58, 5516), (65, 5645),

Gene: Scorpio\_9 Start: 5152, Stop: 5961, Start Num: 5

Candidate Starts for Scorpio\_9:

(2, 5089), (4, 5128), (Start: 5 @5152 has 50 MA's), (8, 5215), (13, 5281), (14, 5296), (16, 5329), (28, 5599), (31, 5641), (36, 5680), (37, 5698), (40, 5728), (64, 5926),

Gene: Smeadley\_8 Start: 4870, Stop: 5679, Start Num: 5

Candidate Starts for Smeadley\_8:

(Start: 5 @4870 has 50 MA's), (10, 4954), (13, 4999), (17, 5059), (21, 5125), (31, 5359), (36, 5398), (37, 5416), (41, 5449), (44, 5467), (53, 5512), (58, 5536), (65, 5665),

Gene: Stephig9\_8 Start: 4838, Stop: 5647, Start Num: 5

Candidate Starts for Stephig9\_8:

(Start: 5 @4838 has 50 MA's), (10, 4922), (13, 4967), (17, 5027), (21, 5093), (31, 5327), (33, 5345), (36, 5366), (37, 5384), (41, 5417), (44, 5435), (53, 5480), (58, 5504), (65, 5633),

Gene: Swirley\_8 Start: 5325, Stop: 6134, Start Num: 5

Candidate Starts for Swirley\_8:

(Start: 5 @5325 has 50 MA's), (8, 5388), (9, 5397), (13, 5454), (16, 5502), (22, 5583), (28, 5772), (31, 5814), (37, 5871), (42, 5913), (65, 6120),

Gene: SydNat\_8 Start: 5432, Stop: 6241, Start Num: 5

Candidate Starts for SydNat\_8:

(Start: 5 @5432 has 50 MA's), (8, 5495), (9, 5504), (13, 5561), (16, 5609), (20, 5666), (22, 5690), (28, 5879), (31, 5921), (37, 5978), (65, 6227),

Gene: Tarynearal\_7 Start: 5352, Stop: 6161, Start Num: 5

Candidate Starts for Tarynearal\_7:

(Start: 5 @5352 has 50 MA's), (8, 5415), (9, 5424), (13, 5481), (16, 5529), (22, 5610), (28, 5799), (31, 5841), (37, 5898), (42, 5940), (65, 6147),

Gene: Theia\_7 Start: 5291, Stop: 6100, Start Num: 5

Candidate Starts for Theia\_7:

(Start: 5 @5291 has 50 MA's), (8, 5354), (9, 5363), (13, 5420), (16, 5468), (28, 5738), (31, 5780), (37, 5837), (42, 5879), (65, 6086),

Gene: Tiger\_8 Start: 5172, Stop: 5981, Start Num: 5

Candidate Starts for Tiger\_8:

(Start: 5 @5172 has 50 MA's), (8, 5235), (9, 5244), (11, 5265), (13, 5301), (16, 5349), (20, 5406), (22, 5430), (31, 5661), (37, 5718), (65, 5967),

Gene: TipsytheTRex\_10 Start: 5561, Stop: 6493, Start Num: 6

Candidate Starts for TipsytheTRex\_10:

(Start: 6 @5561 has 4 MA's), (11, 5651), (13, 5687), (16, 5735), (25, 5888), (31, 6035), (32, 6047), (36, 6074), (46, 6167), (49, 6182), (51, 6203), (55, 6308), (56, 6332),

Gene: Twigg\_8 Start: 5324, Stop: 6133, Start Num: 5

Candidate Starts for Twigg\_8:

(Start: 5 @5324 has 50 MA's), (8, 5387), (9, 5396), (13, 5453), (16, 5501), (22, 5582), (28, 5771), (31, 5813), (37, 5870), (42, 5912), (65, 6119),

Gene: UnionJack\_8 Start: 4891, Stop: 5700, Start Num: 5

Candidate Starts for UnionJack\_8:

(Start: 5 @4891 has 50 MA's), (9, 4963), (13, 5020), (16, 5068), (22, 5149), (28, 5338), (31, 5380), (37, 5437), (65, 5686),

Gene: Zolita\_7 Start: 5433, Stop: 6242, Start Num: 5

Candidate Starts for Zolita\_7:

(Start: 5 @5433 has 50 MA's), (8, 5496), (9, 5505), (13, 5562), (16, 5610), (20, 5667), (22, 5691), (28, 5880), (31, 5922), (37, 5979), (65, 6228),