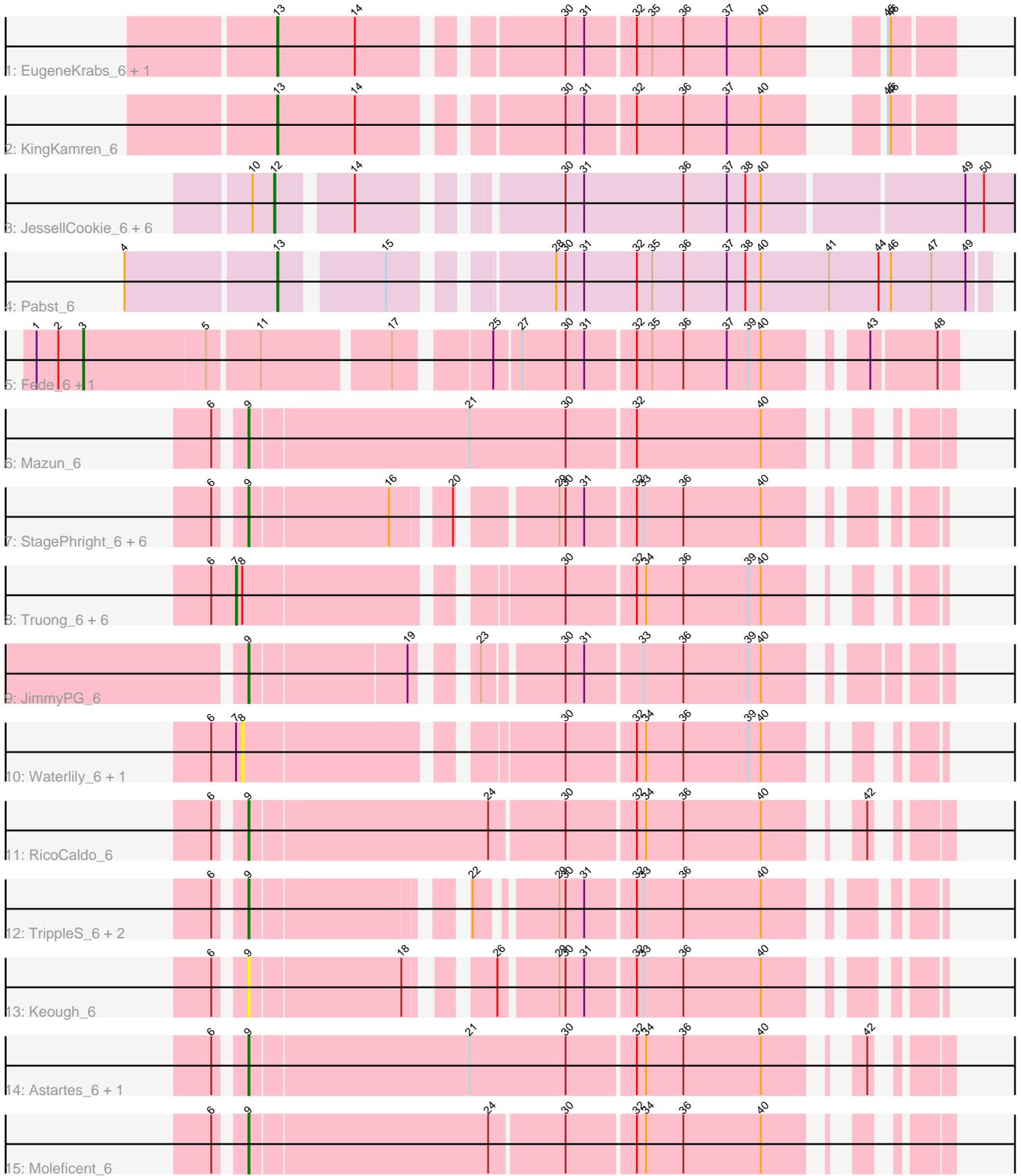# Pham 291331

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 291331 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291331 has 39 members, 7 are drafts.

Phages represented in each track:
• Track 1 : EugeneKrabs_6, Zhengyi_6
• Track 2 : KingKamren_6
• Track 3 : JessellCookie_6, Salvatore2000_6, Sorvannah_6, MiamiPanther_6, YellowPanda_6, TinyTimothy_6, Wesak_6
• Track 4 : Pabst_6
• Track 5 : Fede_6, Kosier_6
• Track 6 : Mazun_6
• Track 7 : StagePhright_6, Pharky_6, Phractured_6, Phedro_6, Atraxi_6, PhriedRice_6, Yafa_6
• Track 8 : Truong_6, JordanFarm_6, Barroma_6, AloeVera_6, Akoni_6, ShyRosie_6, Ashton_6
• Track 9 : JimmyPG_6
• Track 10 : Waterlily_6, SoilSleuth_6
• Track 11 : RicoCaldo_6
• Track 12 : TrippleS_6, ThirteenKH_6, Morrill_6
• Track 13 : Keough_6
• Track 14 : Astartes_6, Fullmetal_6
• Track 15 : Moleficent_6

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

The start number called the most often in the published annotations is 9, it was called in 14 of the 32 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Astartes_6, Atraxi_6, Fullmetal_6, JimmyPG_6, Keough_6, Mazun_6, Moleficent_6, Morrill_6, Pharky_6, Phedro_6, Phractured_6, PhriedRice_6, RicoCaldo_6, StagePhright_6, ThirteenKH_6, TrippleS_6, Yafa_6,

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

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

• Akoni_6, AloeVera_6, Ashton_6, Barroma_6, EugeneKrabs_6, Fede_6, JessellCookie_6, JordanFarm_6, KingKamren_6, Kosier_6, MiamiPanther_6, Pabst_6, Salvatore2000_6, ShyRosie_6, SoilSleuth_6, Sorvannah_6, TinyTimothy_6, Truong_6, Waterlily_6, Wesak_6, YellowPanda_6, Zhengyi_6,

Summary by start number:

Start 3:
• Found in 2 of 39 (5.1%) of genes in pham
• Manual Annotations of this start: 2 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Fede_6 (EK2), Kosier_6 (EK2),

Start 7:
• Found in 9 of 39 (23.1%) of genes in pham
• Manual Annotations of this start: 7 of 32
• Called 77.8% of time when present
• Phage (with cluster) where this start called: Akoni_6 (EK2), AloeVera_6 (EK2), Ashton_6 (EK2), Barroma_6 (EK2), JordanFarm_6 (EK2), ShyRosie_6 (EK2), Truong_6 (EK2),

Start 8:
• Found in 9 of 39 (23.1%) of genes in pham
• No Manual Annotations of this start.
• Called 22.2% of time when present
• Phage (with cluster) where this start called: SoilSleuth_6 (EK2), Waterlily_6 (EK2),

Start 9:
• Found in 17 of 39 (43.6%) of genes in pham
• Manual Annotations of this start: 14 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Astartes_6 (EK2), Atraxi_6 (EK2), Fullmetal_6 (EK2), JimmyPG_6 (EK2), Keough_6 (EK2), Mazun_6 (EK2), Moleficent_6 (EK2), Morrill_6 (EK2), Pharky_6 (EK2), Phedro_6 (EK2), Phractured_6 (EK2), PhriedRice_6 (EK2), RicoCaldo_6 (EK2), StagePhright_6 (EK2), ThirteenKH_6 (EK2), TrippleS_6 (EK2), Yafa_6 (EK2),

Start 12:
• Found in 7 of 39 (17.9%) of genes in pham
• Manual Annotations of this start: 5 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: JessellCookie_6 (EK1), MiamiPanther_6 (EK1), Salvatore2000_6 (EK1), Sorvannah_6 (EK1), TinyTimothy_6 (EK1), Wesak_6 (EK1), YellowPanda_6 (EK1),

Start 13:
• Found in 4 of 39 (10.3%) of genes in pham
• Manual Annotations of this start: 4 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: EugeneKrabs_6 (EK), KingKamren_6 (EK), Pabst_6 (EK1), Zhengyi_6 (EK),

Summary by clusters:

There are 3 clusters represented in this pham: EK, EK2, EK1,

Info for manual annotations of cluster EK:
•Start number 13 was manually annotated 3 times for cluster EK.

Info for manual annotations of cluster EK1:
•Start number 12 was manually annotated 5 times for cluster EK1.
•Start number 13 was manually annotated 1 time for cluster EK1.

Info for manual annotations of cluster EK2:
•Start number 3 was manually annotated 2 times for cluster EK2.
•Start number 7 was manually annotated 7 times for cluster EK2.
•Start number 9 was manually annotated 14 times for cluster EK2.

Gene Information:

Gene: Akoni_6 Start: 4942, Stop: 4379, Start Num: 7
Candidate Starts for Akoni_6:
(6, 4966), (Start: 7 @4942 has 7 MA's), (8, 4936), (30, 4666), (32, 4603), (34, 4594), (36, 4558), (39, 4495), (40, 4483),

Gene: AloeVera_6 Start: 4942, Stop: 4379, Start Num: 7
Candidate Starts for AloeVera_6:
(6, 4966), (Start: 7 @4942 has 7 MA's), (8, 4936), (30, 4666), (32, 4603), (34, 4594), (36, 4558), (39, 4495), (40, 4483),

Gene: Ashton_6 Start: 4946, Stop: 4383, Start Num: 7
Candidate Starts for Ashton_6:
(6, 4970), (Start: 7 @4946 has 7 MA's), (8, 4940), (30, 4670), (32, 4607), (34, 4598), (36, 4562), (39, 4499), (40, 4487),

Gene: Astartes_6 Start: 4969, Stop: 4373, Start Num: 9
Candidate Starts for Astartes_6:
(6, 4990), (Start: 9 @4969 has 14 MA's), (21, 4762), (30, 4669), (32, 4606), (34, 4597), (36, 4561), (40, 4486), (42, 4426),

Gene: Atraxi_6 Start: 4934, Stop: 4374, Start Num: 9
Candidate Starts for Atraxi_6:
(6, 4955), (Start: 9 @4934 has 14 MA's), (16, 4805), (20, 4760), (29, 4682), (30, 4676), (31, 4658), (32, 4613), (33, 4607), (36, 4568), (40, 4493),

Gene: Barroma_6 Start: 4942, Stop: 4379, Start Num: 7
Candidate Starts for Barroma_6:
(6, 4966), (Start: 7 @4942 has 7 MA's), (8, 4936), (30, 4666), (32, 4603), (34, 4594), (36, 4558), (39, 4495), (40, 4483),

Gene: EugeneKrabs_6 Start: 4962, Stop: 4408, Start Num: 13
Candidate Starts for EugeneKrabs_6:
(Start: 13 @4962 has 4 MA's), (14, 4887), (30, 4719), (31, 4701), (32, 4656), (35, 4641), (36, 4611), (37, 4569), (40, 4536), (45, 4467), (46, 4464),

Gene: Fede_6 Start: 5153, Stop: 4401, Start Num: 3
Candidate Starts for Fede_6:
(1, 5198), (2, 5177), (Start: 3 @5153 has 2 MA's), (5, 5036), (11, 4991), (17, 4877), (25, 4799), (27, 4775), (30, 4733), (31, 4715), (32, 4670), (35, 4655), (36, 4625), (37, 4583), (39, 4562), (40, 4550), (43, 4478), (48, 4418),

Gene: Fullmetal_6 Start: 4966, Stop: 4370, Start Num: 9
Candidate Starts for Fullmetal_6:
(6, 4987), (Start: 9 @4966 has 14 MA's), (21, 4759), (30, 4666), (32, 4603), (34, 4594), (36, 4558), (40, 4483), (42, 4423),

Gene: JessellCookie_6 Start: 5051, Stop: 4404, Start Num: 12
Candidate Starts for JessellCookie_6:
(10, 5072), (Start: 12 @5051 has 5 MA's), (14, 4988), (30, 4826), (31, 4808), (36, 4712), (37, 4670), (38, 4652), (40, 4637), (49, 4454), (50, 4436),

Gene: JimmyPG_6 Start: 4946, Stop: 4380, Start Num: 9
Candidate Starts for JimmyPG_6:
(Start: 9 @4946 has 14 MA's), (19, 4802), (23, 4766), (30, 4697), (31, 4679), (33, 4628), (36, 4589), (39, 4526), (40, 4514),

Gene: JordanFarm_6 Start: 4942, Stop: 4379, Start Num: 7
Candidate Starts for JordanFarm_6:
(6, 4966), (Start: 7 @4942 has 7 MA's), (8, 4936), (30, 4666), (32, 4603), (34, 4594), (36, 4558), (39, 4495), (40, 4483),

Gene: Keough_6 Start: 4930, Stop: 4373, Start Num: 9
Candidate Starts for Keough_6:
(6, 4951), (Start: 9 @4930 has 14 MA's), (18, 4789), (26, 4732), (29, 4681), (30, 4675), (31, 4657), (32, 4612), (33, 4606), (36, 4567), (40, 4492),

Gene: KingKamren_6 Start: 4962, Stop: 4408, Start Num: 13
Candidate Starts for KingKamren_6:
(Start: 13 @4962 has 4 MA's), (14, 4887), (30, 4719), (31, 4701), (32, 4656), (36, 4611), (37, 4569), (40, 4536), (45, 4467), (46, 4464),

Gene: Kosier_6 Start: 5153, Stop: 4401, Start Num: 3
Candidate Starts for Kosier_6:
(1, 5198), (2, 5177), (Start: 3 @5153 has 2 MA's), (5, 5036), (11, 4991), (17, 4877), (25, 4799), (27, 4775), (30, 4733), (31, 4715), (32, 4670), (35, 4655), (36, 4625), (37, 4583), (39, 4562), (40, 4550), (43, 4478), (48, 4418),

Gene: Mazun_6 Start: 4969, Stop: 4373, Start Num: 9
Candidate Starts for Mazun_6:
(6, 4990), (Start: 9 @4969 has 14 MA's), (21, 4762), (30, 4669), (32, 4606), (40, 4486),

Gene: MiamiPanther_6 Start: 5051, Stop: 4404, Start Num: 12
Candidate Starts for MiamiPanther_6:
(10, 5072), (Start: 12 @5051 has 5 MA's), (14, 4988), (30, 4826), (31, 4808), (36, 4712), (37, 4670), (38, 4652), (40, 4637), (49, 4454), (50, 4436),

Gene: Moleficent_6 Start: 4963, Stop: 4373, Start Num: 9

Candidate Starts for Moleficent_6:
(6, 4984), (Start: 9 @4963 has 14 MA's), (24, 4738), (30, 4669), (32, 4606), (34, 4597), (36, 4561), (40, 4486),

Gene: Morrill_6 Start: 4918, Stop: 4373, Start Num: 9
Candidate Starts for Morrill_6:
(6, 4939), (Start: 9 @4918 has 14 MA's), (22, 4744), (29, 4681), (30, 4675), (31, 4657), (32, 4612), (33, 4606), (36, 4567), (40, 4492),

Gene: Pabst_6 Start: 5012, Stop: 4383, Start Num: 13
Candidate Starts for Pabst_6:
(4, 5153), (Start: 13 @5012 has 4 MA's), (15, 4925), (28, 4799), (30, 4790), (31, 4772), (32, 4721), (35, 4706), (36, 4676), (37, 4634), (38, 4616), (40, 4601), (41, 4535), (44, 4487), (46, 4475), (47, 4436), (49, 4403),

Gene: Pharky_6 Start: 4930, Stop: 4370, Start Num: 9
Candidate Starts for Pharky_6:
(6, 4951), (Start: 9 @4930 has 14 MA's), (16, 4801), (20, 4756), (29, 4678), (30, 4672), (31, 4654), (32, 4609), (33, 4603), (36, 4564), (40, 4489),

Gene: Phedro_6 Start: 4930, Stop: 4370, Start Num: 9
Candidate Starts for Phedro_6:
(6, 4951), (Start: 9 @4930 has 14 MA's), (16, 4801), (20, 4756), (29, 4678), (30, 4672), (31, 4654), (32, 4609), (33, 4603), (36, 4564), (40, 4489),

Gene: Phractured_6 Start: 4930, Stop: 4370, Start Num: 9
Candidate Starts for Phractured_6:
(6, 4951), (Start: 9 @4930 has 14 MA's), (16, 4801), (20, 4756), (29, 4678), (30, 4672), (31, 4654), (32, 4609), (33, 4603), (36, 4564), (40, 4489),

Gene: PhriedRice_6 Start: 4930, Stop: 4370, Start Num: 9
Candidate Starts for PhriedRice_6:
(6, 4951), (Start: 9 @4930 has 14 MA's), (16, 4801), (20, 4756), (29, 4678), (30, 4672), (31, 4654), (32, 4609), (33, 4603), (36, 4564), (40, 4489),

Gene: RicoCaldo_6 Start: 4960, Stop: 4370, Start Num: 9
Candidate Starts for RicoCaldo_6:
(6, 4981), (Start: 9 @4960 has 14 MA's), (24, 4735), (30, 4666), (32, 4603), (34, 4594), (36, 4558), (40, 4483), (42, 4423),

Gene: Salvatore2000_6 Start: 5051, Stop: 4404, Start Num: 12
Candidate Starts for Salvatore2000_6:
(10, 5072), (Start: 12 @5051 has 5 MA's), (14, 4988), (30, 4826), (31, 4808), (36, 4712), (37, 4670), (38, 4652), (40, 4637), (49, 4454), (50, 4436),

Gene: ShyRosie_6 Start: 4942, Stop: 4379, Start Num: 7
Candidate Starts for ShyRosie_6:
(6, 4966), (Start: 7 @4942 has 7 MA's), (8, 4936), (30, 4666), (32, 4603), (34, 4594), (36, 4558), (39, 4495), (40, 4483),

Gene: SoilSleuth_6 Start: 4936, Stop: 4379, Start Num: 8
Candidate Starts for SoilSleuth_6:

(6, 4966), (Start: 7 @4942 has 7 MA's), (8, 4936), (30, 4666), (32, 4603), (34, 4594), (36, 4558), (39, 4495), (40, 4483),

Gene: Sorvannah_6 Start: 5051, Stop: 4404, Start Num: 12
Candidate Starts for Sorvannah_6:
(10, 5072), (Start: 12 @5051 has 5 MA's), (14, 4988), (30, 4826), (31, 4808), (36, 4712), (37, 4670), (38, 4652), (40, 4637), (49, 4454), (50, 4436),

Gene: StagePhright_6 Start: 4930, Stop: 4370, Start Num: 9
Candidate Starts for StagePhright_6:
(6, 4951), (Start: 9 @4930 has 14 MA's), (16, 4801), (20, 4756), (29, 4678), (30, 4672), (31, 4654), (32, 4609), (33, 4603), (36, 4564), (40, 4489),

Gene: ThirteenKH_6 Start: 4918, Stop: 4373, Start Num: 9
Candidate Starts for ThirteenKH_6:
(6, 4939), (Start: 9 @4918 has 14 MA's), (22, 4744), (29, 4681), (30, 4675), (31, 4657), (32, 4612), (33, 4606), (36, 4567), (40, 4492),

Gene: TinyTimothy_6 Start: 5051, Stop: 4404, Start Num: 12
Candidate Starts for TinyTimothy_6:
(10, 5072), (Start: 12 @5051 has 5 MA's), (14, 4988), (30, 4826), (31, 4808), (36, 4712), (37, 4670), (38, 4652), (40, 4637), (49, 4454), (50, 4436),

Gene: TrippleS_6 Start: 4918, Stop: 4373, Start Num: 9
Candidate Starts for TrippleS_6:
(6, 4939), (Start: 9 @4918 has 14 MA's), (22, 4744), (29, 4681), (30, 4675), (31, 4657), (32, 4612), (33, 4606), (36, 4567), (40, 4492),

Gene: Truong_6 Start: 4942, Stop: 4379, Start Num: 7
Candidate Starts for Truong_6:
(6, 4966), (Start: 7 @4942 has 7 MA's), (8, 4936), (30, 4666), (32, 4603), (34, 4594), (36, 4558), (39, 4495), (40, 4483),

Gene: Waterlily_6 Start: 4936, Stop: 4379, Start Num: 8
Candidate Starts for Waterlily_6:
(6, 4966), (Start: 7 @4942 has 7 MA's), (8, 4936), (30, 4666), (32, 4603), (34, 4594), (36, 4558), (39, 4495), (40, 4483),

Gene: Wesak_6 Start: 5051, Stop: 4404, Start Num: 12
Candidate Starts for Wesak_6:
(10, 5072), (Start: 12 @5051 has 5 MA's), (14, 4988), (30, 4826), (31, 4808), (36, 4712), (37, 4670), (38, 4652), (40, 4637), (49, 4454), (50, 4436),

Gene: Yafa_6 Start: 4933, Stop: 4373, Start Num: 9
Candidate Starts for Yafa_6:
(6, 4954), (Start: 9 @4933 has 14 MA's), (16, 4804), (20, 4759), (29, 4681), (30, 4675), (31, 4657), (32, 4612), (33, 4606), (36, 4567), (40, 4492),

Gene: YellowPanda_6 Start: 5051, Stop: 4404, Start Num: 12
Candidate Starts for YellowPanda_6:
(10, 5072), (Start: 12 @5051 has 5 MA's), (14, 4988), (30, 4826), (31, 4808), (36, 4712), (37, 4670), (38, 4652), (40, 4637), (49, 4454), (50, 4436),

Gene: Zhengyi_6 Start: 4962, Stop: 4408, Start Num: 13
Candidate Starts for Zhengyi_6:
(Start: 13 @4962 has 4 MA's), (14, 4887), (30, 4719), (31, 4701), (32, 4656), (35, 4641), (36, 4611), (37, 4569), (40, 4536), (45, 4467), (46, 4464),