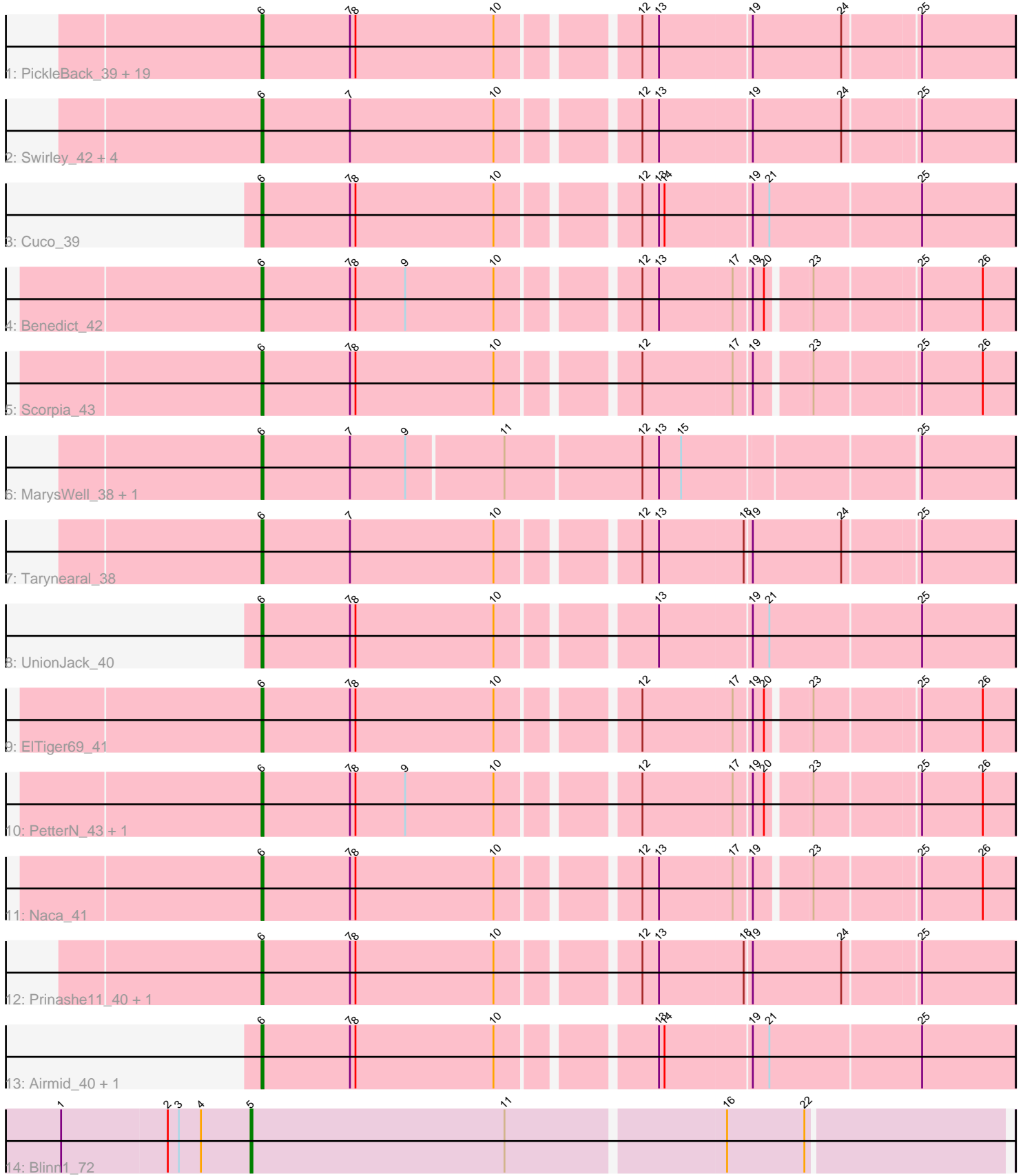


Pham 210304



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 210304 Report

This analysis was run 02/22/25 on database version 588.

Pham number 210304 has 41 members, 2 are drafts.

Phages represented in each track:

- Track 1 : PickleBack\_39, Theia\_37, Conspiracy\_39, Jovo\_39, Discoknowium\_38, Lev2\_39, Zolita\_40, ForGetIt\_39, Twigg\_40, Coog\_39, Midas2\_39, Archetta\_39, Ghoulboy\_41, AgentM\_38, Tiger\_38, Aragog\_38, Dublin\_38, Milcery\_40, Phlorence\_38, SydNat\_41
- Track 2 : Swirley\_42, Micasa\_41, LittleCherry\_40, HuhtaEnerson15\_40, Bonamassa\_40
- Track 3 : Cuco\_39
- Track 4 : Benedict\_42
- Track 5 : Scorpia\_43
- Track 6 : MarysWell\_38, Bluefalcon\_38
- Track 7 : Tarynearal\_38
- Track 8 : UnionJack\_40
- Track 9 : EITiger69\_41
- Track 10 : PetterN\_43, Chadwick\_43
- Track 11 : Naca\_41
- Track 12 : Prinash11\_40, George\_39
- Track 13 : Airmid\_40, Jabiru\_40
- Track 14 : Blinn1\_72

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

The start number called the most often in the published annotations is 6, it was called in 38 of the 39 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AgentM\_38, Airmid\_40, Aragog\_38, Archetta\_39, Benedict\_42, Bluefalcon\_38, Bonamassa\_40, Chadwick\_43, Conspiracy\_39, Coog\_39, Cuco\_39, Discoknowium\_38, Dublin\_38, EITiger69\_41, ForGetIt\_39, George\_39, Ghoulboy\_41, HuhtaEnerson15\_40, Jabiru\_40, Jovo\_39, Lev2\_39, LittleCherry\_40, MarysWell\_38, Micasa\_41, Midas2\_39, Milcery\_40, Naca\_41, PetterN\_43, Phlorence\_38, PickleBack\_39, Prinash11\_40, Scorpia\_43, Swirley\_42, SydNat\_41, Tarynearal\_38, Theia\_37, Tiger\_38, Twigg\_40, UnionJack\_40, Zolita\_40,

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

- 

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

- Blinn1\_72,

**Summary by start number:**

Start 5:

- Found in 1 of 41 ( 2.4% ) of genes in pham
- Manual Annotations of this start: 1 of 39
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Blinn1\_72 (A6),

Start 6:

- Found in 40 of 41 ( 97.6% ) of genes in pham
- Manual Annotations of this start: 38 of 39
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AgentM\_38 (A5), Airmid\_40 (A5), Aragog\_38 (A5), Archetta\_39 (A5), Benedict\_42 (A5), Bluefalcon\_38 (A5), Bonamassa\_40 (A5), Chadwick\_43 (A5), Conspiracy\_39 (A5), Coog\_39 (A5), Cuco\_39 (A5), Discoknowium\_38 (A5), Dublin\_38 (A5), EITiger69\_41 (A5), ForGetIt\_39 (A5), George\_39 (A5), Ghouboy\_41 (A5), HuhtaEnerson15\_40 (A5), Jabiru\_40 (A5), Jovo\_39 (A5), Lev2\_39 (A5), LittleCherry\_40 (A5), MarysWell\_38 (A5), Micasa\_41 (A5), Midas2\_39 (A5), Milcery\_40 (A5), Naca\_41 (A5), PetterN\_43 (A5), Phlorence\_38 (A5), PickleBack\_39 (A5), Prinash11\_40 (A5), Scorpia\_43 (A5), Swirley\_42 (A5), SydNat\_41 (A5), Tarynearl\_38 (A5), Theia\_37 (A5), Tiger\_38 (A5), Twigg\_40 (A5), UnionJack\_40 (A5), Zolita\_40 (A5),

**Summary by clusters:**

There are 2 clusters represented in this pham: A5, A6,

Info for manual annotations of cluster A5:

- Start number 6 was manually annotated 38 times for cluster A5.

Info for manual annotations of cluster A6:

- Start number 5 was manually annotated 1 time for cluster A6.

**Gene Information:**

Gene: AgentM\_38 Start: 30504, Stop: 30118, Start Num: 6

Candidate Starts for AgentM\_38:

(Start: 6 @30504 has 38 MA's), (7, 30456), (8, 30453), (10, 30378), (12, 30312), (13, 30303), (19, 30255), (24, 30207), (25, 30168),

Gene: Airmid\_40 Start: 30562, Stop: 30173, Start Num: 6

Candidate Starts for Airmid\_40:

(Start: 6 @30562 has 38 MA's), (7, 30514), (8, 30511), (10, 30436), (13, 30361), (14, 30358), (19, 30313), (21, 30304), (25, 30223),

Gene: Aragog\_38 Start: 30534, Stop: 30148, Start Num: 6

Candidate Starts for Aragog\_38:

(Start: 6 @30534 has 38 MA's), (7, 30486), (8, 30483), (10, 30408), (12, 30342), (13, 30333), (19, 30285), (24, 30237), (25, 30198),

Gene: Archetta\_39 Start: 31064, Stop: 30678, Start Num: 6

Candidate Starts for Archetta\_39:

(Start: 6 @31064 has 38 MA's), (7, 31016), (8, 31013), (10, 30938), (12, 30872), (13, 30863), (19, 30815), (24, 30767), (25, 30728),

Gene: Benedict\_42 Start: 30735, Stop: 30355, Start Num: 6

Candidate Starts for Benedict\_42:

(Start: 6 @30735 has 38 MA's), (7, 30687), (8, 30684), (9, 30657), (10, 30609), (12, 30543), (13, 30534), (17, 30495), (19, 30486), (20, 30480), (23, 30459), (25, 30405), (26, 30372),

Gene: Blinn1\_72 Start: 40389, Stop: 39991, Start Num: 5

Candidate Starts for Blinn1\_72:

(1, 40491), (2, 40434), (3, 40428), (4, 40416), (Start: 5 @40389 has 1 MA's), (11, 40251), (16, 40137), (22, 40095),

Gene: Bluefalcon\_38 Start: 31022, Stop: 30636, Start Num: 6

Candidate Starts for Bluefalcon\_38:

(Start: 6 @31022 has 38 MA's), (7, 30974), (9, 30944), (11, 30893), (12, 30821), (13, 30812), (15, 30800), (25, 30686),

Gene: Bonamassa\_40 Start: 31053, Stop: 30667, Start Num: 6

Candidate Starts for Bonamassa\_40:

(Start: 6 @31053 has 38 MA's), (7, 31005), (10, 30927), (12, 30861), (13, 30852), (19, 30804), (24, 30756), (25, 30717),

Gene: Chadwick\_43 Start: 30715, Stop: 30335, Start Num: 6

Candidate Starts for Chadwick\_43:

(Start: 6 @30715 has 38 MA's), (7, 30667), (8, 30664), (9, 30637), (10, 30589), (12, 30523), (17, 30475), (19, 30466), (20, 30460), (23, 30439), (25, 30385), (26, 30352),

Gene: Conspiracy\_39 Start: 30746, Stop: 30360, Start Num: 6

Candidate Starts for Conspiracy\_39:

(Start: 6 @30746 has 38 MA's), (7, 30698), (8, 30695), (10, 30620), (12, 30554), (13, 30545), (19, 30497), (24, 30449), (25, 30410),

Gene: Coog\_39 Start: 30844, Stop: 30458, Start Num: 6

Candidate Starts for Coog\_39:

(Start: 6 @30844 has 38 MA's), (7, 30796), (8, 30793), (10, 30718), (12, 30652), (13, 30643), (19, 30595), (24, 30547), (25, 30508),

Gene: Cuco\_39 Start: 30800, Stop: 30411, Start Num: 6

Candidate Starts for Cuco\_39:

(Start: 6 @30800 has 38 MA's), (7, 30752), (8, 30749), (10, 30674), (12, 30608), (13, 30599), (14, 30596), (19, 30551), (21, 30542), (25, 30461),

Gene: Discoknowium\_38 Start: 30543, Stop: 30157, Start Num: 6

Candidate Starts for Discoknowium\_38:

(Start: 6 @30543 has 38 MA's), (7, 30495), (8, 30492), (10, 30417), (12, 30351), (13, 30342), (19, 30294), (24, 30246), (25, 30207),

Gene: Dublin\_38 Start: 30565, Stop: 30179, Start Num: 6

Candidate Starts for Dublin\_38:

(Start: 6 @30565 has 38 MA's), (7, 30517), (8, 30514), (10, 30439), (12, 30373), (13, 30364), (19, 30316), (24, 30268), (25, 30229),

Gene: EITiger69\_41 Start: 30732, Stop: 30352, Start Num: 6

Candidate Starts for EITiger69\_41:

(Start: 6 @30732 has 38 MA's), (7, 30684), (8, 30681), (10, 30606), (12, 30540), (17, 30492), (19, 30483), (20, 30477), (23, 30456), (25, 30402), (26, 30369),

Gene: ForGetIt\_39 Start: 30771, Stop: 30385, Start Num: 6

Candidate Starts for ForGetIt\_39:

(Start: 6 @30771 has 38 MA's), (7, 30723), (8, 30720), (10, 30645), (12, 30579), (13, 30570), (19, 30522), (24, 30474), (25, 30435),

Gene: George\_39 Start: 30995, Stop: 30609, Start Num: 6

Candidate Starts for George\_39:

(Start: 6 @30995 has 38 MA's), (7, 30947), (8, 30944), (10, 30869), (12, 30803), (13, 30794), (18, 30749), (19, 30746), (24, 30698), (25, 30659),

Gene: Ghoulboy\_41 Start: 31508, Stop: 31122, Start Num: 6

Candidate Starts for Ghoulboy\_41:

(Start: 6 @31508 has 38 MA's), (7, 31460), (8, 31457), (10, 31382), (12, 31316), (13, 31307), (19, 31259), (24, 31211), (25, 31172),

Gene: HuhtaEnerson15\_40 Start: 30986, Stop: 30600, Start Num: 6

Candidate Starts for HuhtaEnerson15\_40:

(Start: 6 @30986 has 38 MA's), (7, 30938), (10, 30860), (12, 30794), (13, 30785), (19, 30737), (24, 30689), (25, 30650),

Gene: Jabiru\_40 Start: 30604, Stop: 30215, Start Num: 6

Candidate Starts for Jabiru\_40:

(Start: 6 @30604 has 38 MA's), (7, 30556), (8, 30553), (10, 30478), (13, 30403), (14, 30400), (19, 30355), (21, 30346), (25, 30265),

Gene: Jovo\_39 Start: 31027, Stop: 30641, Start Num: 6

Candidate Starts for Jovo\_39:

(Start: 6 @31027 has 38 MA's), (7, 30979), (8, 30976), (10, 30901), (12, 30835), (13, 30826), (19, 30778), (24, 30730), (25, 30691),

Gene: Lev2\_39 Start: 30659, Stop: 30273, Start Num: 6

Candidate Starts for Lev2\_39:

(Start: 6 @30659 has 38 MA's), (7, 30611), (8, 30608), (10, 30533), (12, 30467), (13, 30458), (19, 30410), (24, 30362), (25, 30323),

Gene: LittleCherry\_40 Start: 30996, Stop: 30610, Start Num: 6

Candidate Starts for LittleCherry\_40:

(Start: 6 @30996 has 38 MA's), (7, 30948), (10, 30870), (12, 30804), (13, 30795), (19, 30747), (24, 30699), (25, 30660),

Gene: MarysWell\_38 Start: 30859, Stop: 30467, Start Num: 6

Candidate Starts for MarysWell\_38:

(Start: 6 @30859 has 38 MA's), (7, 30811), (9, 30781), (11, 30730), (12, 30658), (13, 30649), (15, 30637), (25, 30517),

Gene: Micasa\_41 Start: 31126, Stop: 30740, Start Num: 6

Candidate Starts for Micasa\_41:

(Start: 6 @31126 has 38 MA's), (7, 31078), (10, 31000), (12, 30934), (13, 30925), (19, 30877), (24, 30829), (25, 30790),

Gene: Midas2\_39 Start: 30844, Stop: 30458, Start Num: 6

Candidate Starts for Midas2\_39:

(Start: 6 @30844 has 38 MA's), (7, 30796), (8, 30793), (10, 30718), (12, 30652), (13, 30643), (19, 30595), (24, 30547), (25, 30508),

Gene: Milcery\_40 Start: 30963, Stop: 30577, Start Num: 6

Candidate Starts for Milcery\_40:

(Start: 6 @30963 has 38 MA's), (7, 30915), (8, 30912), (10, 30837), (12, 30771), (13, 30762), (19, 30714), (24, 30666), (25, 30627),

Gene: Naca\_41 Start: 31274, Stop: 30894, Start Num: 6

Candidate Starts for Naca\_41:

(Start: 6 @31274 has 38 MA's), (7, 31226), (8, 31223), (10, 31148), (12, 31082), (13, 31073), (17, 31034), (19, 31025), (23, 30998), (25, 30944), (26, 30911),

Gene: PetterN\_43 Start: 30715, Stop: 30335, Start Num: 6

Candidate Starts for PetterN\_43:

(Start: 6 @30715 has 38 MA's), (7, 30667), (8, 30664), (9, 30637), (10, 30589), (12, 30523), (17, 30475), (19, 30466), (20, 30460), (23, 30439), (25, 30385), (26, 30352),

Gene: Phlorence\_38 Start: 30534, Stop: 30148, Start Num: 6

Candidate Starts for Phlorence\_38:

(Start: 6 @30534 has 38 MA's), (7, 30486), (8, 30483), (10, 30408), (12, 30342), (13, 30333), (19, 30285), (24, 30237), (25, 30198),

Gene: PickleBack\_39 Start: 30660, Stop: 30274, Start Num: 6

Candidate Starts for PickleBack\_39:

(Start: 6 @30660 has 38 MA's), (7, 30612), (8, 30609), (10, 30534), (12, 30468), (13, 30459), (19, 30411), (24, 30363), (25, 30324),

Gene: Prin Ashe11\_40 Start: 30826, Stop: 30440, Start Num: 6

Candidate Starts for Prin Ashe11\_40:

(Start: 6 @30826 has 38 MA's), (7, 30778), (8, 30775), (10, 30700), (12, 30634), (13, 30625), (18, 30580), (19, 30577), (24, 30529), (25, 30490),

Gene: Scorpia\_43 Start: 30792, Stop: 30412, Start Num: 6

Candidate Starts for Scorpia\_43:

(Start: 6 @30792 has 38 MA's), (7, 30744), (8, 30741), (10, 30666), (12, 30600), (17, 30552), (19, 30543), (23, 30516), (25, 30462), (26, 30429),

Gene: Swirley\_42 Start: 31327, Stop: 30941, Start Num: 6

Candidate Starts for Swirley\_42:

(Start: 6 @31327 has 38 MA's), (7, 31279), (10, 31201), (12, 31135), (13, 31126), (19, 31078), (24, 31030), (25, 30991),

Gene: SydNat\_41 Start: 31517, Stop: 31131, Start Num: 6

Candidate Starts for SydNat\_41:

(Start: 6 @31517 has 38 MA's), (7, 31469), (8, 31466), (10, 31391), (12, 31325), (13, 31316), (19, 31268), (24, 31220), (25, 31181),

Gene: Tarynearal\_38 Start: 30769, Stop: 30383, Start Num: 6

Candidate Starts for Tarynearal\_38:

(Start: 6 @30769 has 38 MA's), (7, 30721), (10, 30643), (12, 30577), (13, 30568), (18, 30523), (19, 30520), (24, 30472), (25, 30433),

Gene: Theia\_37 Start: 30792, Stop: 30406, Start Num: 6

Candidate Starts for Theia\_37:

(Start: 6 @30792 has 38 MA's), (7, 30744), (8, 30741), (10, 30666), (12, 30600), (13, 30591), (19, 30543), (24, 30495), (25, 30456),

Gene: Tiger\_38 Start: 30325, Stop: 29939, Start Num: 6

Candidate Starts for Tiger\_38:

(Start: 6 @30325 has 38 MA's), (7, 30277), (8, 30274), (10, 30199), (12, 30133), (13, 30124), (19, 30076), (24, 30028), (25, 29989),

Gene: Twigg\_40 Start: 30966, Stop: 30580, Start Num: 6

Candidate Starts for Twigg\_40:

(Start: 6 @30966 has 38 MA's), (7, 30918), (8, 30915), (10, 30840), (12, 30774), (13, 30765), (19, 30717), (24, 30669), (25, 30630),

Gene: UnionJack\_40 Start: 30292, Stop: 29903, Start Num: 6

Candidate Starts for UnionJack\_40:

(Start: 6 @30292 has 38 MA's), (7, 30244), (8, 30241), (10, 30166), (13, 30091), (19, 30043), (21, 30034), (25, 29953),

Gene: Zolita\_40 Start: 31521, Stop: 31135, Start Num: 6

Candidate Starts for Zolita\_40:

(Start: 6 @31521 has 38 MA's), (7, 31473), (8, 31470), (10, 31395), (12, 31329), (13, 31320), (19, 31272), (24, 31224), (25, 31185),